June 30, 2006

Robert M. Boggs, Jr. P.E.
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Subject: Baker Beach 1, 2 Landfill Removal Project
Field Investigation Report

Dear Bob:

As promised in our meeting with you and Ram Ramanujam on May 24, 2006, the Presidio Trust (Trust) is transmitting the *Field Investigation Report, Baker Beach Disturbed Areas 1, 1A, 2 and 2A, Presidio of San Francisco, California*. This report was prepared by MACTEC Engineering and Consulting, Inc. (MACTEC) with contributions by URS Corporation (URS), National Park Service (NPS) staff, and SOHA Engineers, Inc. (SOHA). The report includes the following important components:

1. Geotechnical sampling, laboratory testing and engineering analysis evaluating the material strengths and stability of the coastal bluffs and landfill deposits now, during landfill removal operations and post-remediation.
2. An extensive Cultural Resource Baseline and Impact Assessment prepared by URS with assistance from NPS personnel. This assessment documents the historic features in the landfill area that contribute to the Presidio's National Historic Landmark designation, and includes recommendations for avoiding and/or mitigating construction impacts on the historic resources.
3. A baseline structural inspection of the historic coastal batteries prepared by SOHA documenting the current conditions of the coastal fortifications and providing recommendations for monitoring the fortifications during the remediation work.

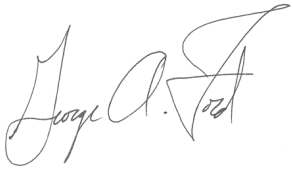
This work shows that the Baker Beach 1 and 2 project can protect human and ecological receptors from waste effects and preserve and enhance the important historical resources located in the work area.

We have also attached two additional items:

1. A searchable PDF file of the report on CD, and
2. Preliminary drawings showing the expected excavation limits and waste quantities. These drawings will be finalized and included in the Remedial Action Plan (RAP) that is now in preparation.

We look forward to meeting with you to discuss your comments and thoughts on this work. We will contact you shortly to set a convenient date for this meeting. In the meantime, please call if you have any questions.

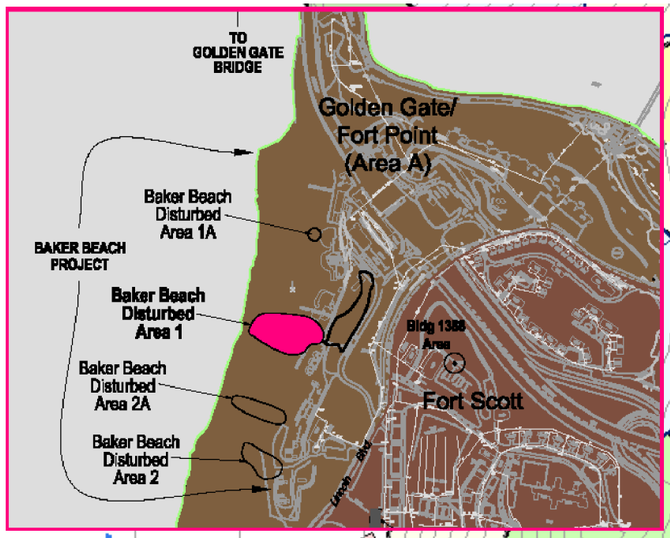
Sincerely,



George Ford
The Presidio Trust

Enclosure: 1) *Field Investigation Report, Baker Beach Disturbed Areas 1 and 2, Presidio of San Francisco, California*
2) Searchable PDF on CD, *Field Investigation Report, Baker Beach Disturbed Areas 1 and 2, Presidio of San Francisco, California*
3) Preliminary excavation drawings from the RAP

CC: Ram Ramanujam, DTSC Sacramento
Devender Narala, RWQCB
Doug Kern, RAB



MACTEC

Explanation

- Geologic Contact
- afh — Historic Fill
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentine
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- KJm — Beach Deposit
- Seep
- Boring (Pre-2005)
- Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- Test Pit
- Estimated Excavation Area
- Former Incinerator and Mortar Pit Excavation

Notes:
1. See Geologic Exploration Map (Plate 2) for Location
2. All previous boring locations are approximate
3. Basemap was provided by Presidio Trust
4. COC = Chemical of Concern
5. "RES, ECO-SS = Residential And Ecological - Special Status
6. These excavation areas are estimated and subject to change during the construction design
7. Total estimated excavation area = 74,000 sq. ft. / 26,000 cu. yds.

All locations are approximate

Proposed Excavation Area for BBDA-1
Field Investigation Report
Baker Beach Disturbed Areas
BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

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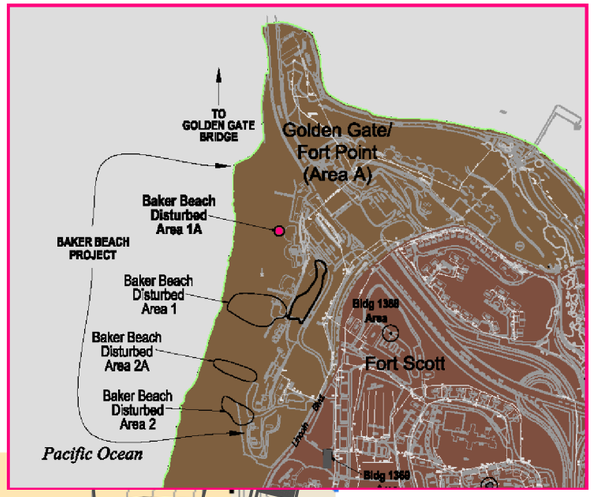
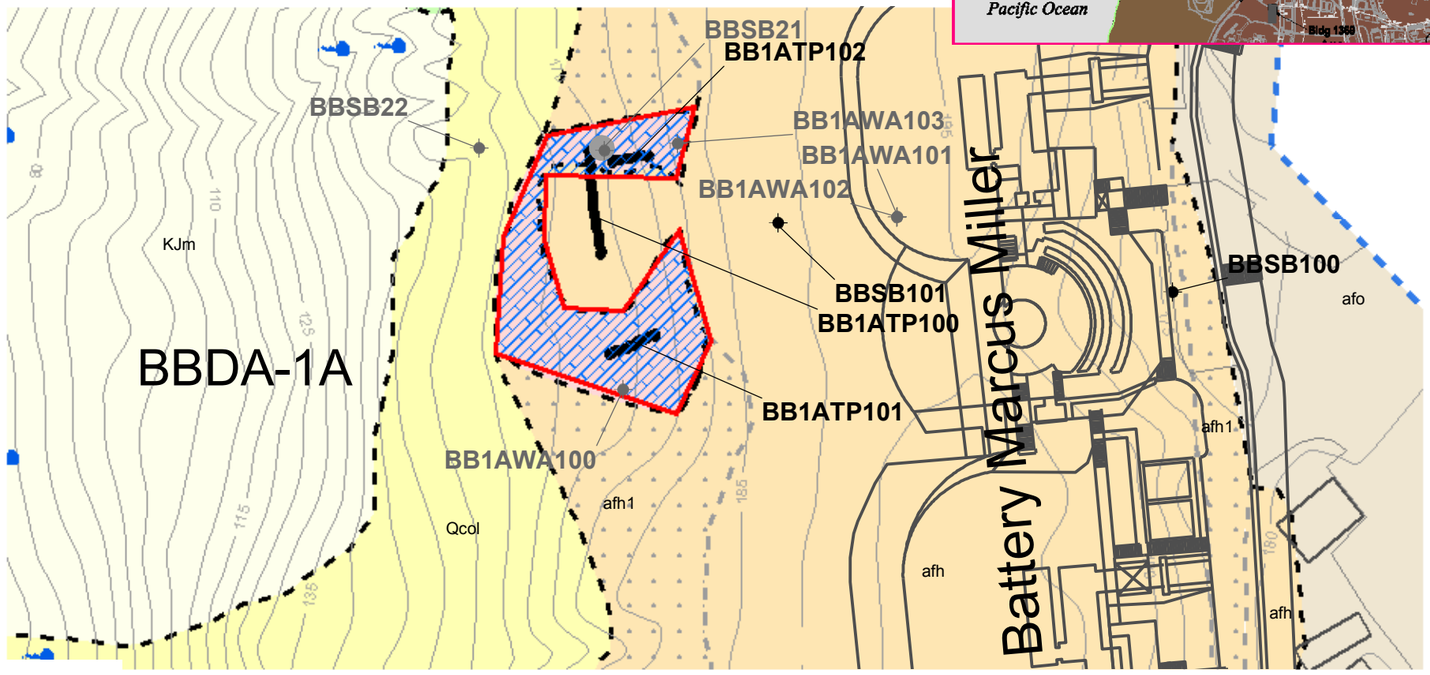
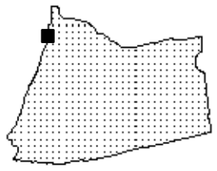
APPROVED BY	JH		
DATE	5/30/2006		
PROJECT NUMBER	57255 005105	- DRAFT -	







0 15 120

Feet

MACTEC

Explanation

- Geologic Contact, dashed where approximate, queried where uncertain
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentine
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- KJm — Beach Deposit
- Seep
- Boring (Pre-2005)
- Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- Test Pit
- Estimated Excavation Area

Notes:
1. See Geologic Exploration Map (Plate 2) for Location
2. All previous boring locations are approximate
3. Basemap was provided by Presidio Trust
4. COC = Chemical of Concern
5. "RES, ECO-SS = Residential And Ecological - Special Status
6. These excavation areas are estimated and subject to change during the construction design
7. Total estimated excavation area = 3,300 sq. ft. / 370 cu. yds.

All locations are approximate

Proposed Excavation Area for BBDA-1A
Field Investigation Report
Baker Beach Disturbed Areas
BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

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APPROVED BY	JH		
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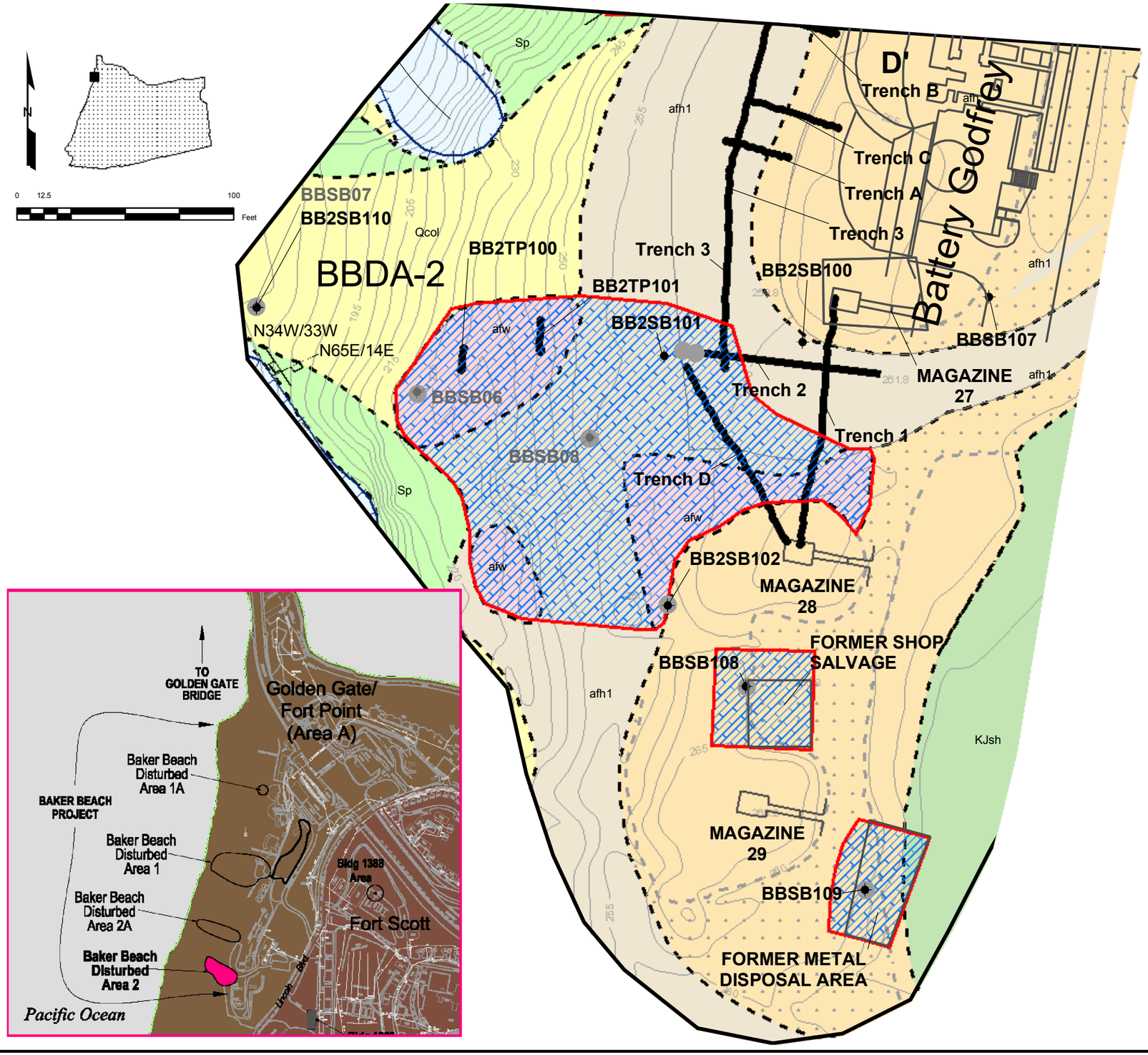

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Explanation

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- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (afh2)
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- KJss/KJsh — Sandstone Shale
- KJm — Beach Deposit
- Seep
- Boring (Pre-2005)
- Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- Test Pit
- Estimated Excavation Area

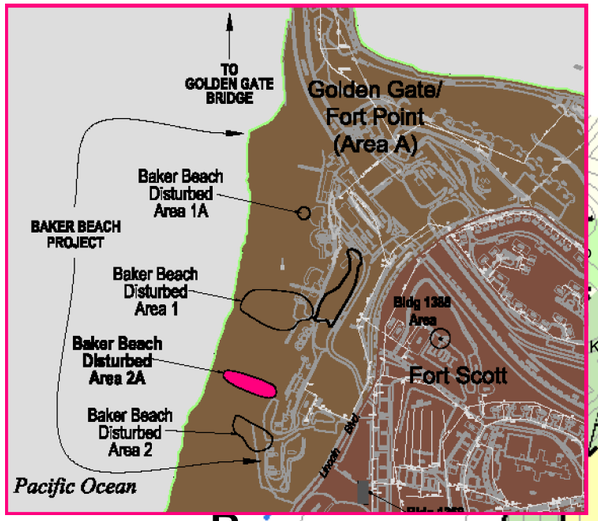
Notes:
1. See Geologic Exploration Map (Plate 2) for Location
2. All previous boring locations are approximate
3. Basemap was provided by Presidio Trust
4. COC = Chemical of Concern
5. "RES, ECO-SS = Residential And Ecological - Special Status
6. These excavation areas are estimated and subject to change during the construction design
7. Total estimated excavation area = 25,000 sq. ft. / 4,600 cu. yds.

All locations are approximate

THE PRESIDIO TRUST

Proposed Excavation Areas for BBDA-2
Field Investigation Report
Baker Beach Disturbed Areas
BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED BY	JHD	FIGURE 3
APPROVED BY	JH	
DATE	5/30/2006	
PROJECT NUMBER	57255 005125	- DRAFT -



MACTEC

Explanation

- Geologic Contact, dashed where approximate, queried where uncertain
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentine
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- KJm — Beach Deposit
- Seep
- Boring (Pre-2005)
- Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- Test Pit
- Estimated Excavation Area

Notes:
1. See Geologic Exploration Map (Plate 2) for Location
2. All previous boring locations are approximate
3. Basemap was provided by Presidio Trust
4. COC = Chemical of Concern
5. "RES, ECO-SS = Residential And Ecological - Special Status
6. These excavation areas are estimated and subject to change during the construction design.
7. Excavation Area "8" actual excavation configuration will be determined in the field with adjustments as directed by confirmation sampling results. Rectangular dig area used to develop approximate volume estimate.
8. Total estimated excavation area = 30,600 sq. ft. / 6,000 cu. yds.

All locations are approximate

Proposed Excavation Areas for BBDA-2A
Field Investigation Report
Baker Beach Disturbed Areas
BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED BY	JHD	FIGURE	4
APPROVED BY	JH		
DATE	5/30/2006		
PROJECT NUMBER	57255 005135	- DRAFT -	

MACTEC

Explanation

- Geologic Contact, dashed where approximate, queried where uncertain
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentine
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- KJm — Beach Deposit
- Seep
- Boring (Pre-2005)
- Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- Test Pit
- Estimated Excavation Area
- Limits of other fill area (afo) from May 1967 Aerial Photo (Martini, 2005)

Notes:
1. See Geologic Exploration Map (Plate 2) for Location
2. All previous boring locations are approximate
3. Basemap was provided by Presidio Trust
4. COC = Chemical of Concern
5. "RES, ECO-SS = Residential And Ecological - Special Status
6. These excavation areas are estimated and subject to change during the construction design
7. Total estimated excavation area = 2,000 sq. ft. / 400 cu. yds.

All locations are approximate

Proposed Excavation Area for Undesignated Fill Area
Field Investigation Report
Baker Beach Disturbed Area
Presidio of San Francisco, California

CHECKED BY	JHD
APPROVED BY	JH
DATE	5/30/2006
FIGURE	5
PROJECT NUMBER	57255 005115

Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Prepared for

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MACTEC Project No. 57255 005105, 005115, 005125, 005135

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June 9, 2006

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Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

MACTEC Project No. 57255 005105; 005115; 005125; 005135

This document was prepared by MACTEC Engineering and Consulting, Inc. (MACTEC) at the direction of the Presidio Trust (Trust) for the sole use of the Trust, the National Park Service, and regulatory agencies, the only intended beneficiaries of this work. No other party should rely on the information contained herein without the prior written consent of the Trust and MACTEC. This report and the interpretations, conclusions, and recommendations contained within are based in part on information presented in other documents that are cited in the text and listed in the references. Therefore, this report is subject to the limitations and qualifications presented in the referenced documents.

CONTENTS

ACRONYM LIST vii

1.0 INTRODUCTION 1

1.1 Report Organization 1

2.0 BACKGROUND 3

2.1 Previous Investigations 3
2.2 Field Sampling Plans, Other Studies, and Interim Data Transmittals 3
2.2.1 Cultural Resource Investigation Field Sampling Plan 4
2.2.2 Geotechnical Field Sampling Plan and Technical Memorandum 4
2.2.3 Environmental Field Sampling Plan 5
2.3 Baseline Structural Evaluation 6
2.4 Beach Debris Surveys 6

3.0 METHODS OF INVESTIGATION 8

3.1 Geologic Literature Review 8
3.2 Geologic Mapping 9
3.3 Beach Survey 9
3.4 Test Pit Excavations 9
3.4.1 BBDA Test Pits 10
3.4.2 Merchant Road Test Pits 10
3.4.3 Additional Investigation Test Pits 10
3.4.4 Test Pit and Boring Location Survey 11
3.5 Cultural Resource Investigation 11
3.6 Soil Borings 11
3.6.1 Hollow Stem Auger Borings 11
3.6.2 Hand Auger Borings 12
3.6.3 Direct Push Borings 12
3.6.4 Boring Abandonment 12
3.6.5 Piezometer Installation, Development, Monitoring, Sampling, and Seep Sampling 12
3.6.6 Sampling Methodology and Sample Identification Scheme 13
3.6.6.1 Soil Sampling Methodology 13
3.6.6.2 Groundwater/Surface Water Sampling Methodology 14
3.6.6.3 Sample Identification Scheme 14
3.7 Laboratory Testing 14
3.7.1 Geotechnical Testing 14
3.7.2 Analytical Testing 15
3.8 Baseline Structural Evaluation and Inspection of Batteries 15
3.9 Water-side Waste Removal Assessment 16

4.0 REGIONAL GEOLOGY 17

4.1 Geologic Setting 17
4.2 Faulting and Seismicity 17
4.3 Regional Groundwater Hydrogeology 18

5.0 POTENTIAL GEOLOGIC HAZARDS 20

5.1 Seismic Groundshaking 20

5.2 Liquefaction and Lateral Spreading 20
5.3 Tsunamis, Seiches, and Flooding 21
5.4 Fault Rupture Hazard 21
5.5 Landslides and Slope Instability 21

6.0 SITE CONDITIONS 22

6.1 General Site Conditions 22
6.1.1 Surface Conditions 22
6.1.2 General Lithologic Descriptions 22
6.1.3 Cultural Resources Investigation 24
6.1.4 Geophysical Mapping 26
6.1.5 Battery Structural Evaluation 26
6.2 Area-Specific Site Conditions 27
6.2.1 Baker Beach Disturbed Area-1 28
6.2.2 Baker Beach Disturbed Area-1A 33
6.2.3 Baker Beach Disturbed Area-2 35
6.2.4 Baker Beach Disturbed Area-2A 38
6.2.5 Merchant Road Area and Undesignated Disturbed Area 42

7.0 SLOPE STABILITY ANALYSES 46

7.1 Stability Study Methodologies 46
7.2 Slope Stability Analyses of BBDAs 46
7.2.1 Baker Beach Disturbed Area 1 46
7.2.2 Baker Beach Disturbed Area 1A 48
7.2.3 Baker Beach Disturbed Area 2 48
7.2.4 Baker Beach Disturbed Area 2A 48
7.3 Other Considerations for Slope Stability during Construction 49
7.4 Considerations for Long-Term Slope Stability 49

8.0 CONCLUSIONS AND RECOMMENDATIONS 51

8.1 Environmental Investigation Results 51
8.1.1 Area-Specific Conditions 51
8.1.2 Data Gap Results 53
8.1.2.1 Historic Fill Contamination (Data Gap 1) 53
8.1.2.2 Bluff Top Fill Contamination (Data Gap 2) 54
8.1.2.3 Incinerator Contaminants (Data Gap 3) 54
8.1.2.4 Southeast BBDA-2 Contamination (Data Gap 4) 56
8.1.2.5 Salvage/Recycling Facility Contaminants (Data Gap 5) 56
8.1.2.6 BBDA-1, and 2A Seep Water Contaminants (Data Gap 6) 56
8.1.2.7 Beach Waste Debris Contaminants (Data Gap 7) 57
8.1.2.8 Confirmation Non-Waste Fill Soil Sample Contaminants (Additional Samples) 57
8.1.2.9 Magazine 21 Sampling 58
8.2 Geotechnical/Structural Evaluation Results 58
8.2.1 Battery Stability 59
8.2.2 Stockpiles and Staging of Heavy Equipment 60
8.2.3 Debris (Disturbed) Area Stability 60
8.2.4 Stability Mitigation Measures During and Post Construction 61
8.2.4.1 Sequencing Waste Removal 61
8.2.4.2 Engineered Structures 61
8.2.4.3 Dewatering 61

8.2.4.4 Retention Basins 62
8.2.4.5 Removal Methods 62
8.2.4.6 Temporary Slopes 63
8.2.4.7 Permanent Slopes 64
8.2.4.8 Earthwork 64
8.2.4.9 Surface Drainage and Erosion Control 65
8.2.4.10 Site Restoration 65
8.3 Cultural Resources Mitigation Plan 66
9.0 REFERENCES 68

TABLES

1 Summary of Surface and Subsurface Field Investigations
2 Regional Faults and Seismicity
3 Abridged Modified Mercalli Intensity Scale
4 Piezometer Water Level Measurements
5 Proposed Cleanup Level Summary
6 Definition of Qualifiers
7A Detected Inorganic Results for Soil Samples – BBDA-1
7B Detected Organic Results for Soil Samples – BBDA-1
8A Detected Inorganic Results for Beach Soil Samples – BBDA-1
8B Detected Organic Results for Beach Soil Samples – BBDA-1
9A Detected Inorganic Results for Groundwater and Seep Samples – BBDA-1 and 2A
9B Detected Organic Results for Groundwater and Seep Samples – BBDA-1 and 2A
9C Detected General Minerals Results for Groundwater and Seep Samples – BBDA-1 and 2A
10A Detected Inorganic Results for Soil Samples – BBDA-1A
10B Detected Organic Results for Soil Samples – BBDA-1A
11A Detected Inorganic Results for Soil Samples – BBDA-2
11B Detected Organic Results for Soil Samples – BBDA-2
12A Detected Inorganic Results for Soil Samples – BBDA-2A
12B Detected Organic Results for Soil Samples – BBDA-2A
13A Detected Inorganic Results for Beach Soil Samples – BBDA-2A
13B Detected Organic Results for Beach Soil Samples – BBDA-2A
14A Detected Inorganic Results for Soil Samples – Baker Beach Undesignated Area / Merchant Road
14B Detected Organic Results for Soil Samples – Baker Beach Undesignated Area / Merchant Road
15 Summary of Material Properties Used in Analysis
16 Summary of Slope Stability Analysis
17 Sampling and Analytical Summary
18 2,3,7,8 – TCDD Toxic Equivalent Calculations for Sample BB1TP108(5.0)

FIGURES

1 Site Location Map
2 Geologic Exploration Map
3 Aerial Geologic Exploration Map
3B Regional Fault and Seismicity Map
4A Planned Ecological Land Uses
4B Groundwater Basins and Areas of the Presidio
5 BBDA-1 Exploration Map and Geologic Cross-section
6 BBDA-1A Exploration Map and Geologic Cross-section
7 BBDA-2 Exploration Map and Geologic Cross-section
8 BBDA-2A Exploration Map and Geologic Cross-section
9 Undesignated Fill Area
10 BBDA-1 and 2A Seep Exploration Map

APPENDICES

A EXPLORATORY LOGS
- A1 EXPLORATORY TRENCH LOGS
- A2 TEST PIT LOGS
- A3 BORING LOGS

B CULTURAL RESOURCE BASELINE AND IMPACT ASSESSMENT AND WEST BATTERY AND FORT SCOTT ENDICOTT BATTERIES – CONSTRUCTION, EVOLUTION, AND MODIFICATIONS

C LABORATORY TEST RESULTS
- C1 GEOTECHNICAL LABORATORY TEST RESULTS
- C2 ANALYTICAL LABORATORY TEST RESULTS
- C3 DATA VALIDATION

D GEOTECHNICTGAL SLOPE STABILITY ANALYSIS
E DRAFT GEOTECHNICAL MEMORANDUM MATERIAL PROPERTIES
F BASELINE STRUCTURAL INSPECTION (SOHA REPORT)
G GEOPHYSICAL MAPPING
H BEACH DEBRIS SURVEY
I SELECTED PHOTOGRAPHS
J GROUNDWATER SAMPLE FORMS AND SEEP CALCULATIONS
K MERCHANT ROAD REALIGNMENT GEOTECHNICAL INVESTIGATIONS
L SCATTER PLOTS
M DISK WITH PDF OF LABORATORY ANALYTICAL REPORTS

DISTRIBUTION

ACRONYM LIST

ADMP	Asbestos Dust Mitigation Plan
Afh1	historic fill
Afh2	historic fill
Afo	other fill
Afw	waste fill
AHPA	Archeological and Historic Preservation Act
AIS	AIS Construction
APE	Area of potential effect
ARARs	Applicable or Relevant and Appropriate Requirements
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BAAQMD	Bay Area Air Quality Management District
BBDA	Baker Beach Disturbed Area(s)
BTEX	benzene, toluene, ethylbenzene, and xylenes
bgs	below ground surface
BRAC	base realignment and closure
Cal-Mod	California-Modified split barrel
CAP	Corrective Action Plan
CCR	California Code of Regulations
CDHS	California Department of Health Services
CEG	Certified Engineering Geologist
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CLSM	controlled low strength material
CMP	corrugated metal pipe
COC	chemical of concern
COPC	chemicals of potential concern
CRI	Cultural Resource Investigation/Cultural Resource Baseline and Impact Assessment
cy	cubic yard(s)
DDT	Dichlorodiphenyldichloroethylene
DI	Deionized Water
DTSC	Department of Toxic Substances Control
EKI	Erler & Kalinowski, Inc.

EM	electromagnetic
EPA	Environmental Protection Agency
EPC	exposure point concentration
ERRG	Engineering/Remediation Resources Group, Inc.
ESA	Endangered Species Act
ESL	environmental screening level
FS	Feasibility Study
FSP	Field Sampling Plans
ft	feet
g	percent acceleration due to gravity
GGBHTD	Golden Gate Bridge, Highway, and Transportation District
GGNRA	Golden Gate National Recreational Area
GIS	Geographic Information System
GMPA	General Management Plan Amendment
Gpm	gallons per minute
GPS	global positioning system
GSA	General Services Agency
HSC	California Health and Safety Code
ID	Identification
ISRM	International Society of Rock Mechanics
kg	kilogram(s)
KJm	Mélange
KJsh	Shale
KJss	Sandstone
km	kilometer(s)
L	liter(s)
LTTD	low temperature thermal desorption
LUC	land use control
MACTEC	MACTEC Engineering and Consulting, Inc.
MBTA	Migratory Bird Treaty Act
MCL	Maximum contaminant level
µg	microgram(s)
µg/L	micrograms per liter
mg	milligram(s)
mg/kg	milligrams per kilogram
MOA	Memorandum of Agreement
mS/m	milliseimens per meter
Mw	moment magnitude

NAGPRA	Native American Graves Protection and Repatriation Act
NBAR	non-binding allocation of responsibility
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDMA	N-nitrosodimethylamine
NEPA	National Environmental Policy Act
NFA	no further action
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
O&M	operation and maintenance
OCP	organochlorine pesticide
OSHA	Occupational Safety Health Administration
OSWER	Office of Solid Waste and Emergency Response
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PHSH	Public Health Service Hospital
PLLW	Presidio lower low water
PRG	preliminary remediation goal
PRP	potentially responsible party
PTMP	Presidio Trust Management Plan
PX	Post Exchange
QA	quality assurance
QAPP	Quality Assurance Project Plan
Qb	beach deposits
QC	quality control
Qcol	native soils
Qls	landslides
RAB	Presidio Restoration Advisory Board
RAO	Remedial Action Objective
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region
SCR	Site Cleanup Requirement
SI	Site Investigation
SOHA	SOHA Engineers
Sp	serpentinite

SPT	Standard penetration testing
sq	square
sq ft	square feet
STLC	Soluble Threshold Limit Concentration(s)
SVOC	semi-volatile organic compound(s)
TBCs	To-Be-Considered advisories
TCDD	2,3,7,8-Tetrachlorodibenzo-p-dioxin
TCLP	Toxic Characteristic Leaching Procedure
TCP	1,2,3-trichloropropane
TDS	total dissolved solids
TEQ	Toxic equivalency value
TPH	total petroleum hydrocarbons
Trust	Presidio Trust
TSCA	Toxic Substances Control Act
TTLC	Total threshold limit concentration
UBE	upper bound earthquake
UCL	upper confidence limit
URS	URS Corporation
USCS	Unified Soil Classification System
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UST	underground storage tank
VMP	Vegetation Management Plan
VOC	volatile organic compound
WET	Waste extraction test
XRF	X-ray fluorescence

1.0 INTRODUCTION

This Field Investigation Report has been prepared by MACTEC Engineering and Consulting, Inc. (MACTEC) on behalf of the Presidio Trust (Trust) to present the results of field investigation activities at four Baker Beach Disturbed Areas (BBDAs; BBDA-1, BBDA-1A, BBDA-2, and BBDA-2A) located along the coastal area of the Presidio of San Francisco, California (Presidio; Figure 1). This work was performed under the direction of the Trust, in collaboration with the National Park Service (NPS) environmental, cultural resources, natural resources personnel, and other Trust contractors, and under the regulatory oversight of the Department of Toxic Substances Control (DTSC).

One remedy being considered in the Remedial Action Plan (RAP; *MACTEC, 2004b* [final RAP in preparation]) for BBDAs is excavation and clean closure. Although the Army labeled the BBDAs as "disturbed areas" when the sites were initially investigated (*Dames and Moore, 1997)*, they are actually soil and debris deposits (landfills) created by dumping truckloads of debris on top of and over the edge of coastal bluff above the Pacific Ocean. Historically-significant coastal artillery batteries and associated earthworks occupy the top of these coastal bluffs along most of the area where the landfills occur. Implementation of an excavation remedy is complicated not only by batteries and various roads and trails located on the bluff top that limit construction access but also by the inherent slope instability that is part of the natural coastal erosion processes. The goal of the remedy is to remove landfill debris from the bluff-top and cliff-side to restore the area to its native condition without further destabilizing materials in these areas, accelerating erosion, or adversely impacting historically significant features.

The purpose of the current field investigation program described herein is to address site characterization data gaps identified during preparation of the RAP, provide geotechnical recommendations for the remedial design to mitigate possible adverse effects during construction and after the debris has been removed, and delineate significant historic resources and assess their structural condition to avoid adverse impacts to these resources during and after construction.

Work plans for proposed field activities were prepared late 2004 and early 2005, in collaboration with DTSC, Trust, and NPS, and field work was performed February 2005 through February 2006. This Field Investigation Report presents and evaluates the results of this and previous field investigations and provides recommendations for preparation of an excavation remedial design to mitigate adverse effects during and after implementation of the remedy to historical features and slope stability.

1.1 Report Organization

This Field Investigation Report is organized as follows:

- **Section 2 – Background**: Discusses previous investigations, and the sampling plans for the current investigations.
- **Section 3 – Methods of Investigation:** Discusses the general field methods, sampling techniques, and laboratory analyses used for the BBDA sites.
- **Section 4 – Regional Geology:** Presents an overview of the regional geologic, seismic, and hydrogeologic setting of the project sites.
- **Section 5 – Potential Geologic Hazards:** Discusses the potential geologic hazards at the study area.
- **Section 6 – Site Conditions:** Discusses surface and subsurface conditions, including site specific geology, soils, and groundwater.

- **Section 7 – Slope Stability Analyses:** Presents the input parameters, methodologies, and results of the slope stability analyses.
- **Section 8 – Conclusions and Recommendations:** Provides a discussion of geotechnical, environmental, and remediation issues; presents recommendations for construction planning, earthwork, and other pertinent inputs to remedial design.
- **Section 9 – References:** References listed in the main body of the text.
- **Tables:** Provide summaries of exploration points, chemical data, groundwater measurements, and geologic and seismic sources.
- **Figures:** Shows site locations, regional geology and the study area geologic map, and presents analytical results.
- **Appendices:**
  - Appendix A: Exploratory trench logs, test pit logs, and boring logs
  - Appendix B: Cultural Baseline and Impact Assessment and West Battery & Fort Scott Endicott Batteries – Construction, Evolution, and Modifications
  - Appendix C: Analytical and Geotechnical Laboratory Test Results, and Data Validation Reports
  - Appendix D: Geotechnical Slope Stability Analysis
  - Appendix E: Draft Geotechnical Memorandum Material Properties
  - Appendix F: Baseline Structural Inspection (SOHA Report)
  - Appendix G: Geophysical Mapping
  - Appendix H: Beach Debris Survey
  - Appendix I: Selected Photographs
  - Appendix J: Groundwater Sample Forms and Seep Calculations
  - Appendix K: Merchant Road Realignment Geotechnical Investigations
  - Appendix L: Scatter Plots
  - Appendix M: Disk with PDF of Laboratory Analytical Results.

2.0 BACKGROUND

2.1 Previous Investigations

A previous remedial investigation (RI) by Dames & Moore in 1997, which included an examination of aerial photographs dating from 1946 to 1986 and on-site visual inspections, identified three "disturbed areas" where buried refuse is present in the vicinity of Baker Beach. Fill material, including artificial fill, debris fill, and landfill material, was reported to be deposited at the three areas intermittently from 1946 to 1973. At the time of the RI report, it was unknown if fill was deposited earlier than 1946 (*Dames & Moore, 1997*). Artificial fill at the sites was characterized by random mixtures of soil, chert, and serpentinite fragments. Debris fill consists of building debris, such as brick, concrete, glass, and wood. Glass, ceramics, automotive parts, and metal containers are typically observed landfill material.

Subsequent to the RI, a fourth debris area, BBDA-2A was discovered in August 2000 on the basis of visual observation of mounded soil and a change in vegetation relative to surrounding areas. In 2003, topographic and geophysical surveys were conducted to delineate the areal and vertical extent of debris, and a bathymetric study was performed to evaluate the feasibility of water-side remedial operations. Using electromagnetic (EM) and global positioning system (GPS) survey tools, the purpose of the geophysical survey was to determine the maximum lateral extent of observed and shallow debris for planning purposes of the investigation.

Waste characterization of BBDA-2A, as well as further soil and waste sampling of BBDA-1A, were also conducted in 2003 and late 2004. Using surface and shallow hand auger sampling methods, the investigations evaluated roofing material and asbestos-containing soil and bedrock at these areas, and options for disposal and work safety mitigation. The results of the 2003 characterizations are presented in the *Interim Data Report, Baker Beach Disturbed Areas 1, 1A, 2, and 2A* (*MACTEC, 2003b*). Table 1 provides a summary of surface and subsurface field exploration for these previous investigations. The analytical results from previous investigations conducted in 2004 are included in this report. Appendix G presents geophysical mapping results.

2.2 Field Sampling Plans, Other Studies, and Interim Data Transmittals

The scope of work and methods for the 2005 field investigation was developed in the following Field Sampling Plans (FSPs) for the cultural, geotechnical, and environmental investigations:

- *Cultural Resource Investigation Field Sampling Plan* (Cultural Resource FSP), submitted January 2005 (*URS, 2005*)
- The *Geotechnical Field Sampling Plan* (Geotechnical FSP), submitted on May 2, 2005, including a previous addendum of March 2, and comments by DTSC on April 5, 2005 (*MACTEC, 2005e*)
- *Environmental Field Sampling Plan* (Environmental FSP), submitted on May 2, 2005, incorporating an earlier addendum of March 14, 2005, and comments by DTSC on April 5, 2005 (*MACTEC, 2005f*)
- *Additional Sampling to Fill Data Gaps, Baker Beach 1 and 2 Field Investigation, Presidio of San Francisco* (*Trust, 2006*)

DTSC reviewed and approved these FSPs. The Trust submitted an additional FSP, *Baker Beach Disturbed Areas 1 and 2, Additional Sampling West of Merchant Road* (*MACTEC, 2005g)*, to DTSC on

September 8, 2005 after review of information contained in a historical research report prepared by John Martini, *West Batteries and Fort Scott Endicott Batteries Construction, Evolution, and Modification (Martini, 2005; Appendix B)*. This report contained a photograph taken in 1967 that showed fill placed west of Merchant Road.

In conjunction with the above plans, the following two additional studies were performed. SOHA Engineers, San Francisco, California (SOHA) performed a structural evaluation of selected fortification structures (Battery Godfrey, Battery Boutelle, Battery Marcus Miller, and brick magazines 21, 22, 27, 28, and 29) to assess their structural integrity. MACTEC also performed a beach debris survey to assess debris material downslope of the landfill areas on the beach to assess the extent of debris that might have fallen from debris areas.

During implementation of the field investigation, several interim data transmittals were sent to DTSC that contained laboratory analytical and geotechnical test results *(MACTEC, 2005a, b, c, and d)*. A geotechnical technical memorandum was also prepared and sent to DTSC that presented the field sampling, evaluation of laboratory test results, and proposed input parameters for a geotechnical model *(MACTEC, 2005i)*. Information from this technical memorandum has been incorporated into this report and a copy can be found in Appendix E.

An overview of each FSP as well as the geotechnical memorandum, SOHA structural evaluation, and beach debris survey are further described below.

2.2.1 Cultural Resource Investigation Field Sampling Plan

The purpose of the Cultural Resource Investigation/Cultural Resource Baseline and Impact Assessment (CRI) FSP was to describe field exploration and sampling necessary to evaluate and develop plans to protect the cultural resources at the BBDAs during landfill removal operations (*URS, 2005*). The project area for the CRI was defined by the Area of Potential Effect (APE) shown on Figure 2 of the Cultural Resource Baseline and Impact Assessment Report presented in Appendix B.

These cultural resources include Batteries Marcus Miller, Godfrey, and Boutelle, as well as the structural elements of Battery West. Some of the features of these resources were partly obscured by vegetation and debris or were buried. As such, they could be vulnerable to impact from remediation activities including truck traffic, excavations and filling, and heavy equipment. Therefore, identification and characterization efforts were proposed to better delineate resources. Part of the scope of work included vegetation removal to expose landforms and historic features, which was performed from February 14 to 23, 2005, prior to the start of bird nesting. Figure 3 is an aerial photograph that was taken in March 2005 one month after vegetation was removed from the site. The CRI FSP was reviewed and approved by DTSC during a meeting held on February 28, 2005.

The CRI FSP proposed field activities included trenching and mapping concurrent with the geotechnical and environmental tasks as well as artifact identification, cataloging, and supplemental research of the four BBDAs. The result of these activities is documented in a CRI, prepared jointly by URS Corporation (URS), NPS personnel, and John Martini. The CRI provides specific information regarding cultural resources present in the study area and also provides an impact assessment and treatment recommendations to protect cultural resources during remediation.

2.2.2 Geotechnical Field Sampling Plan and Technical Memorandum

The goals of the Geotechnical FSP were to perform an evaluation of the slope stability in their current configuration, during construction, and following remediation, and to provide geotechnical

recommendations and design parameters to mitigate possible adverse effects during construction and after the waste has been removed. Specific Geotechnical FSP objectives were to obtain data to: (1) assess how the selected remedial action could affect the stability of historical gun battery emplacements at the site; (2) evaluate the stability of areas identified for use and staging of heavy equipment required to perform the remedial work; and (3) evaluate the stability of the debris areas that will be removed as part of the selected remedial action.

The geotechnical evaluation was designed to evaluate only short-term effects of the proposed remedial action on slope stability, i.e., until the native vegetation has been re-established as a natural form of slope protection, and did not include evaluation of the long-term effects of natural processes on the stability of the slopes and cultural resources at the site after the waste fill materials had been removed.

The geotechnical evaluation focused on the stability of the batteries, the stability of potential equipment and stockpile staging areas, and the stability of the remediated debris areas. Additional data and information to be evaluated as part of the study included:

- Construction details of the batteries;
- Configuration and stratigraphy of soil and rock units;
- Bedrock structural features and discontinuities;
- Geotechnical engineering properties of soil and bedrock;
- Seeps and groundwater conditions; and
- Equipment dimensions and loads.

The Geotechnical FSP proposed sampling locations (test pits and borings), the rationale for laboratory test frequency, and the approach taken for the slope stability analysis. DTSC approved the Geotechnical FSP during a meeting held on February 28, 2005, and requested that interim data transmittals be sent during data collection. In addition, prior to performing the slope stability modeling, DTSC requested that the Trust submit proposed input parameters for the model as well as an explanation as to how these parameters were derived.

Interim data transmittals were sent on April 25, May 24, June 1, and October 24 (*MACTEC, 2005a, b, c, and d*). The Trust submitted a Geotechnical Technical Memorandum to DTSC on September 21 that summarized and evaluated geotechnical laboratory test results and proposed input parameters for material properties of rock and soil in the study area (*MACTEC, 2005i*). The Geotechnical Technical Memorandum described the field sampling methods and geotechnical laboratory analyses, and detailed the statistical evaluation of published, observational, and laboratory data provided information for the slope stability analyses. The DTSC approved the proposed parameters in October 2005. The draft geotechnical material properties memorandum is presented with the laboratory information in Appendix E of this report.

2.2.3 Environmental Field Sampling Plan

Previous environmental sampling of the BBDAs was conducted by the Army as part of their RI work (*Dames & Moore, 1997*), and by MACTEC *(2003b*). The investigations performed by MACTEC in 2003 were conducted following procedures provided in environmental field sampling plans (*MACTEC, 2003a*) to characterize surface and relatively shallow soil and sediment. The Environmental and Additional Environmental FSPs (*MACTEC, 2005f and g*) were developed to address site characterization data gaps

identified by DTSC from their preliminary review of selected RAP chapters. The FSP also had the objective of better understanding the lateral and vertical extent of waste fill to assist in estimating quantities for costing remedial alternatives in the RAP.

DTSC had identified the following site characterization data gaps after reviewing MACTEC's Interim Data Report (*MACTEC, 2003b*):

- The presence and concentrations of contaminants present in both historic fill and waste fill around the batteries on the bluff top;
- The presence of ash and contaminants around a former incinerator facility at BBDA-1 (shown on Figure 2);
- The presence of contaminants around a former salvage/recycling facility south of BBDA-2;
- Depth of waste materials;
- The presence and concentration of contaminants in debris on portions of BBDA-2, Baker Beach, and Magazine 21;
- Confirmation of analytical results from previous surface water sampling of the seep at BBDA-1 and 2A; and
- Confirmation of analytical results from previous soil sampling of historic fill, native soils, and bedrock at BBDA-1, -2 and -2A.

A meeting was held on April 4, 2005 with DTSC to discuss how the above data gaps would be addressed, and DTSC approved the proposed work during this meeting.

2.3 Baseline Structural Evaluation

As part of the geotechnical study to evaluate potential adverse impacts to batteries on the coastal bluffs, SOHA performed a baseline structural evaluation to:

- Provide a baseline condition survey of the fortifications before landfill removal and as a basis for monitoring during construction.
- Assess the cause of existing cracks in Battery Boutelle (e.g., are they present as a result of slope instability).
- Assess whether it would be possible to transport waste from BBDA-1A over the top of Battery Marcus Miller.
- Recommend mitigation measures during construction, if required.

The scope of work for this evaluation was included in the Geotechnical FSP. Appendix F presents SOHA's report.

2.4 Beach Debris Surveys

MACTEC performed beach survey transects and GPS locations in 2005 to assess the location of selected and partially buried debris, and to collect information on sand burial records. Appendix H presents the

results of this study. In addition, as part of collecting additional environmental information to fill data gaps, MACTEC collected three samples of beach sand that were submitted for analysis. These samples were collected near large pieces of debris that had fallen onto the beach.

3.0 METHODS OF INVESTIGATION

Geotechnical, environmental, cultural resource, and structural studies were performed between February 2005 and February 2006 by:

- MACTEC (geotechnical and environmental investigations);
- URS (cultural resources assessment study) and Martini (historic research study of the Baker Beach area); and
- SOHA (battery structural study).

Trust, NPS, and URS provided technical review and field support; DTSC reviewed work plans and interim data transmittals, and provided regulatory oversight prior to and during implementation of the field plans.

The methods of investigation included literature review and analysis, field surface geologic and geophysical mapping, installation of subsurface borings, test pits and trenches, and collection of environmental and geotechnical samples for laboratory testing and analysis.

The following sections describe the purpose and methods employed during the investigations. Table 1 presents a comprehensive list of exploration and sampling points both prior to and including the 2005 field investigations.

3.1 Geologic Literature Review

Prior to performing geologic mapping, MACTEC performed a literature review to obtain and consolidate previous mapping, research, photography, and reports to use as a baseline and guide for collecting new information. The results of the literature review provide the basis for discussions of regional geology discussed in Section 3.0, and geologic hazards as discussed in Section 4.0. The following sources of information were reviewed as part of the literature review for relevance to the objectives of the study:

- Regional geologic studies as recorded on maps and in papers by governmental agencies included reports prepared by the U. S. Geological Survey (USGS), California Geological Survey (CGS, formerly California Division of Mines and Geology [CDMG]), and the U. S. Department of Agriculture (USDA).
- Specific geologic work pertaining to the Presidio and vicinity, as conducted by Shlocker (*1974*), Wahrhaftig (*1984*), and Elder (*2001*) along with reports prepared by Treadwell and Rollo (*2004*), and Erler and Kalinowski (*EKI, 2003*).
- Stereo-paired and oblique black and white historical aerial photos, taken in 1935 through 2001, were reviewed at the offices of Pacific Aerial Surveys located in Oakland, California, on January 28, 2005 (see list of photos in Section 9.0). Available historical aerial photos from Presidio archives were also reviewed.
- The NPS archivist provided as-built drawings of historical structures in the study area. These drawings provided information pertaining to historical subgrade and surface elevations adjacent to the fortification structures.

3.2 Geologic Mapping

The purpose of the geologic mapping was to delineate geologic units and fill deposits in the study area and to correlate geologic units with cultural features such as historic fill. As part of the slope stability evaluation, it was necessary to delineate the different geologic materials and to identify the presence of seeps, drainages, landslides, and geologic structural features.

Although several types of fill materials are present, the goal of the remediation is to excavate only materials that have chemicals of concern (COCs) above action levels. Historic fill is considered an historical resource, and as such, it is important to protect it during remediation. In addition, planned restoration includes planting native plants on serpentinite soils. Some bedrock areas have a thin veneer of weathered soil that would be required for planting, and as a result, it is also necessary to leave as much of this weathered soil in place as possible during remediation.

MACTEC conducted geologic mapping from February 22 to 25, 2005. Two field geologists, under supervision of a Certified Engineering Geologist (CEG), mapped the surface geology using base orthophotographic maps at a scale of 1 inch equals 100 feet and topographic maps at a scale of 1 inch equals 20 feet. Surficial soil units, bedrock units, and structural attitude data (bedding, shearing, and jointing) were documented in field books and plotted onto field maps. Where possible, elongate contacts (i.e., erosional scarps or basal geologic contacts) were mapped using GPS instrumentation.

Using GPS, the field geologists staked and located proposed test pits, test trenches, and boring locations. Trust, URS, and NPS natural and cultural resource specialists reviewed the proposed locations. Minor adjustments were made to the proposed FSP locations due to limited access and proximity to sensitive resources. The resulting geologic map is presented on Figure 2.

3.3 Beach Survey

The purpose of this study was to map beach debris to assess whether it would need to be removed and to collect sand samples to assess potential contamination in the beach area from fallen materials.

The investigation included a survey of beach debris and beach sand elevation. The beach survey entailed GPS mapping and photographic documentation of debris materials. The sand survey entailed measuring ground (sand) surface elevations at 10-foot intervals along one transect in each survey area. MACTEC conducted the investigation over one year with four surveys performed on February 19, 2004; May 10, 2004; September 14, 2004; and January 28, 2005. Appendix H presents the results of the beach surveys.

On May 13, 2005, three beach sand samples were collected for laboratory analysis to assess whether contamination is present in the beach area where the debris materials are present. MACTEC collected samples by removing the top 6 inches of sand and pressing a tube directly into soil from 0.5 to 1 foot below ground surface (bgs). Analytical results are presented and discussed in Section 6.2.

3.4 Test Pit Excavations

MACTEC performed test pit excavations using equipment suitable for flat and sloping terrain. The purpose of the test pits was to evaluate remedial area boundaries, depth of waste fill, and to collect samples to assess geotechnical parameters and environmental conditions. Appendix A2 contains the test pit logs. Test pit excavations in selected areas are further described below.

3.4.1 BBDA Test Pits

Test pit excavations in the vicinity of the BBDAs were conducted from April 6 to 21, 2005. Figures 2 and 3 show their locations.

AIS Construction (AIS), Santa Barbara, California excavated the test pits on slopes too steep for conventional excavators using a "Spyder" excavator (Model No. 52 "Kaiser Kuick Foss,") that is adapted to work on steep slopes. It is designed and used primarily for hillside logging and repair work (Appendix I contains photographs of the Spyder excavator). The equipment is also capable of moving materials on steep slopes during remedial-type activities. The Spyder accessed the disposal area slopes from parking lots on the bluff above BBDA-1 and BBDA-2, the coastal trail above BBDA-2, and the beach below BBDA-1 and BBDA-2A. It was lowered down the slope by a winch attached to a bulldozer.

MACTEC obtained soil and waste samples from the sidewalls and bottom of the test pits for both analytical and geotechnical testing, and collected undisturbed samples by pushing thin-walled Shelby tubes, brass liners, and stainless steel liners into the target strata. Grab samples were placed in bags and later transferred into sealed containers. Both NPS and Trust natural and cultural resource monitors were present during equipment ingress/egress and during excavation to monitor potential ground disturbance and to collect artifacts where present.

Test pits were typically less than 10 feet deep, and were entered only by qualified personnel after sloping back the sides of the excavations in accordance with the Health and Safety Plan. The deeper excavation pits, which extended as deep as around 21 feet, were logged from the surface and samples were obtained from the excavator bucket.

MACTEC's field geologist logged the test pits using the Unified Soil Classification System (USCS) or the Rock Properties Description of the International Society of Rock Mechanics, as appropriate. Logs were prepared at a scale of 1 inch equals 5 feet.

Test pit excavations were backfilled with excavation spoils after logging and sampling. Weed-free loose straw was placed over each test pit location and surrounding disturbed areas to minimize run-off and erosion of bare soil.

3.4.2 Merchant Road Test Pits

Four test pits were excavated along the proposed area for Merchant Road realignment. Three pits were located in a wooded area between Merchant Road and Lincoln Boulevard; the fourth pit was located near Battery Marcus Miller as part of a percolation test in a future Golden Gate Bridge, Highway and Transportation District (GGBHTD) parking lot.

The test pits were excavated to depths up to 6 feet. Representative bulk samples were collected for geotechnical lab analysis to support pavement structural design. The test pits were backfilled with excavation spoils.

Figure 2 shows the location of infiltration testing on an adjacent test location. The results of the infiltration testing are located in Section 6.2.5 of this report, and in a technical memorandum on Merchant Road realignment (*MACTEC, 2005j*) which is provided as Appendix K of this report.

3.4.3 Additional Investigation Test Pits

Four additional test pits were excavated on October 3 and 4, 2005 in an area between the Covered Way and Merchant Road, as shown on Figures 2 and 3, based on a review of a report by John Martini, *Cultural*

Resource Baseline and Impact Assessment (Appendix B). An aerial photograph taken in May 1967 shows fill placed west of Merchant Road and east of Battery Marcus Miller. Engineering/Remediation Resources Group, Inc. (ERRG), Concord, California excavated these pits under supervision of MACTEC to a depth of 6 feet or less using rubber-tired backhoes.

MACTEC collected representative grab samples for analytical testing to determine concentrations of COCs. MACTEC's field geologist visually logged the test pits, and noted fill, native soil, and bedrock conditions. Test pits were backfilled with excavation spoils.

3.4.4 Test Pit and Boring Location Survey

Soil boring and test pit locations were surveyed using a GPS. Data from the GPS instrument were downloaded in the office and used to create geographic information system (GIS) files on which the figures in this report are based.

3.5 Cultural Resource Investigation

Trenching was performed as part of the CRI to assess cultural and historic resources present that need to be protected during remediation.

In February 2005, vegetation was cleared from areas around the bluff-top fortifications prior to the start of the bird nesting season. URS and NPS performed surface mapping of the exposed cultural and historic features, and updated existing NPS cultural resource maps.

In April and May of 2005, ERRG excavated trenches for the cultural resource assessment at two locations (Figures 2 and 3). Seven trenches (Trenches 1, 2, 3, A, B, C, and D) were excavated in the parking lot between Battery Godfrey and BBDA-2 and -2A using a John Deere model 710 rubber-tired excavator. Three trenches were excavated on a cleared area between Battery Boutelle and Battery Marcus Miller (Trenches 4, 5, and E). Figures 2 and 3 show the trench locations. MACTEC's field geologist logged subsurface materials, including historical and waste fill, native soils, and bedrock in collaboration with URS and NPS personnel. Appendix A shows details and position of exploratory trenches for the cultural resource assessment. The CRI also presents trench logs (Appendix B).

3.6 Soil Borings

Soil borings were drilled to collect soil samples to assess geotechnical properties and environmental conditions. Three types of soil borings (hollow stem auger, hand auger, and direct-push) were implemented during the field investigation. Appendix A3 contains soil boring logs.

3.6.1 Hollow Stem Auger Borings

Gregg Drilling, Martinez, California, drilled hollow stem auger borings at selected sites. The purpose of these borings was to obtain undisturbed soil samples and blow count data. Gregg Drilling used truck-mounted equipment to advance 11 borings to depths ranging from 10.4 to 23.7 feet bgs. Clearheart Drilling, Santa Rosa, California, provided limited-access drilling equipment at three locations where ground conditions were too soft or access routes too narrow to use truck-mounted equipment. The limited-access borings were advanced to depths ranging from 13.6 to 25.5 feet bgs.

MACTEC's geologist logged the borings and obtained soil samples for visual classification and laboratory testing. Samples were obtained continuously using a standard penetration testing (SPT) split barrel sampler (2.0-inch outside diameter, 1-3/8-inch inside diameter) without liners, or a Modified

California split-barrel sampler (3.0-inch outside diameter, 2.43-inch inside diameter) lined with 6-inch-long brass tubes. Samples were extruded and quartered along the length of the tube by the geotechnical soils testing laboratory. Undisturbed soil samples were obtained by pushing a 3-inch diameter, thin-walled Shelby Tube using the hydraulic draw works on the drill rig.

The SPT and Modified California samplers were driven by 30-inch drops of a 140-pound above ground automatic trip hammer. The blow counts were recorded from driving the SPT sampler for the final 12 inches of an 18-inch drive, or to refusal. These SPT blow counts were converted to approximate SPT N-values using 1.2 as the conversion factor to account for the higher energy efficiency of the automatic trip hammer compared to the conventional rope-and-cathead method. The blow counts recorded from driving the Modified California sampler the final 12 inches of an 18-inch drive, or to practical refusal, were converted to approximate SPT N-values[1] using 0.8 as the conversion factor to account for the larger sampler diameter and the automatic trip hammer.

3.6.2 Hand Auger Borings

Gregg Drilling and MACTEC staff advanced hand auger borings in locations that were inaccessible by motorized equipment or where depth of penetration was minimal. Five hand auger borings were advanced using a 3-inch diameter "spoon auger" with rod extensions, at locations shown on Figure 2. These borings ranged in depth from one to 13.2 feet. Discrete samples were obtained for analysis and logging.

3.6.3 Direct Push Borings

Precision Drilling advanced three direct push borings at locations in the GGBHTD parking area as part of the additional area investigation west of Merchant Road. MACTEC's field geologist logged and collected continuous core samples to depths ranging from 7 to 10 feet (ft) bgs. Discrete samples were retrieved for analytical testing.

3.6.4 Boring Abandonment

Most of the borings were abandoned by backfilling with borehole cuttings. However, hollow stem borings drilled in higher traffic areas on the bluff top and the GGBHTD yard (BBSB100, BBSB101, BBSB103, BBSB106, BBSB117, BBSB118, and BBSB119) were backfilled with bentonite cement grout or bentonite chips. The backfill method for these borings deviated from the draft sampling plan due to field conditions. Because the borings in the GGBHTD yard were in asphalt and in a high traffic area, it was necessary to use a mix of cement-bentonite grout to allow for quicker set up of the hole and to prevent future settlement of the borehole. The remaining borings that were backfilled with bentonite chips were done so due to logistical constraints (limited access) with mobilizing the bentonite mixer.

3.6.5 Piezometer Installation, Development, Monitoring, Sampling, and Seep Sampling

AIS installed two piezometers at BBDA-1 at the top of the seep (BB1PZ100) and near the midpoint of the seep zone (BB1PZ101) using hollow stem augers mounted on the Spyder excavator. Piezometer BB1PZ100 was screened in bedrock (12 to 15.2 ft bgs) and BB1PZ101 was screened in waste fill (4.2 to 9.2 ft bgs). Appendix A3 contains piezometer completion details. After their installation, the two

[1] The SPT N-value is defined as the number of blows of a 140-pound hammer, falling freely through the height of 30 inches, required to drive a standard split-barrel sampler (2-inch outside diameter and $1\frac{3}{8}$-inch inside diameter) the last 12 inches of an 18-inch drive. For SPT procedures, see ASTM D1586-84.

piezometers were developed by swabbing and bailing using 2-inch diameter PVC bailers. Approximately 3 to 11 well volumes were removed during development from BB1PZ100 and BB1PZ101, respectively. Water levels were measured in May, August, September, October 2005, and February 2006 using an electric water level indicator in accordance with Trust protocols (Trust SOP). Copies of field notes summarizing the water levels and calibration protocols are included in Appendix A3.

MACTEC collected three rounds of groundwater samples from BB1PZ101 and one from BB1PZ100. The first round of samples was collected from BB1PZ101 on May 27, 2005, using a dedicated bailer. The piezometer was purged of approximately four well volumes prior to sample collection. Samples collected from the piezometer were submitted for analytical testing for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), dioxins and furans, total petroleum hydrocarbons (TPH) as gasoline, diesel and motor/fuel oil, pesticides, polychlorinated biphenyls (PCBs), and dissolved metals. A trip blank was also collected and analyzed for VOCs and TPH as gasoline. The sample collected for metals analysis was field-filtered.

On August 1, 2005, a second sample was collected from BB1PZ101 after purging 4.3 well volumes. During this round of sampling, one field-filtered sample was collected and analyzed for dissolved Title 22 metals, and one sample was collected that was not filtered and was analyzed for total Title 22 metals. On February 1, 2006, a third round of groundwater samples were collected from BB1PZ101 after purging 4 well volumes of water from the piezometer. The groundwater sample was analyzed for VOCs, PAHs, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, dissolved metals (field filtered sample), total metals (unfiltered sample), and general minerals.

On February 1, 2006, a groundwater sample was also collected from BB1PZ100 after purging approximately 2 casing volumes of water. During this round of sampling, one primary sample and one duplicate sample were collected. A surface water sample (BB2ASW100) was collected from a newly identified seep located at the base of BBDA-2A. Samples were analyzed for VOCs, PAHs, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, dissolved metals (field filtered sample), and dissolved metals (unfiltered sample), and general minerals.

3.6.6 Sampling Methodology and Sample Identification Scheme

3.6.6.1 Soil Sampling Methodology

The following describes methodology used to collect samples from soil borings and trenches.

Soil Borings - Soil samples were collected from borings using Shelby tubes, a SPT split barrel sampler, or California-modified split barrel (Cal-Mod) sampler. The SPT and Cal-Mod samplers were lined with stainless steel tubes (for chemical testing) or brass tubes (for geotechnical testing).

Test Pits and Trenches - Soil samples were collected from trenches and test pits by (1) pushing a clean stainless steel tube into the sidewall of the trench/test pit or (2) in cases where the trenches/test pits were deeper than 4 feet, by retrieving soil using a backhoe bucket and pushing a stainless steel tube into soil within the bucket.

Surface or Shallow Soil Samples - Surface or shallow soil samples were collected using a hand auger or shovel and stainless steel tube.

Soil samples tubes collected for chemical analysis were capped with Teflon-lined caps and placed in a cooler with ice for transport to the laboratory.

3.6.6.2 Groundwater/Surface Water Sampling Methodology

The following describes methodology used to collect groundwater and surface water samples from piezometers and seeps at BBDA-1 and -2A.

Piezometer Sampling - Prior to collection of groundwater samples, the piezometers were purged approximately three casing volumes or bailed until dry. The wells were purged using a dedicated polyethylene bailer that was stored inside the well. While purging, the pH, conductivity, temperature, and turbidity of the purged water were measured and recorded on sample collection forms. After purging, samples were collected from the piezometers using the dedicated polyethylene bailer and decanted into laboratory-supplied containers.

Seep Sampling - Water samples were collected from the seep at BBDA 2A by immersing sample containers in water running at the surface of the fill until the sample containers were filled.

Samples were placed in a cooler with ice for transport to the analytical laboratory.

3.6.6.3 Sample Identification Scheme

Protocols from the Presidio Quality Assurance Project Plan (QAPP) were generally followed for sample identification. For this report, to distinguish multiple groundwater samples collected from a given sampling station on multiple dates, the station identification (ID) was appended with the sample date. In addition, because both filtered and unfiltered samples were collected for metals analysis, the sample that was not filtered was appended with the letters "UF" to distinguish the results from those for the filtered sample. These samples are distinguished in the Trust's database by the "metal DIS" in the ANALGROUP field for the filtered sample while the ANALGROUP for the unfiltered sample is designated as "metals". In cases where samples were collected from the same depth from a test pit for both geotechnical testing and chemical analysis, the samples for geotechnical testing are shown in a different color on the test pit log to distinguish them from samples collected for chemical analysis.

3.7 Laboratory Testing

Laboratory testing was performed on representative soil, rock, and water samples from the borings, test pits, and trenches. Testing was done in accordance with the appropriate Geotechnical and Environmental FSPs (*MACTEC, 2005e and f*), and under general protocol requirements of the Presidio QAPP (*Tetra Tech, 2001*). Appendix C presents laboratory test results.

3.7.1 Geotechnical Testing

MACTEC re-examined the soil samples from the borings to check field classifications and to select appropriate samples for geotechnical laboratory testing. Selected geotechnical samples were submitted under chain of custody to RGH Geotechnical, Inc. Santa Rosa, California. Geotechnical tests performed included moisture content, dry density, Atterberg limits, particle size analysis (including hydrometer and -200 sieve); and shear strength using Triaxial consolidated-undrained and unconsolidated-undrained techniques, and direct shear methods Laboratory test results are shown on the boring logs in accordance with the key in Appendix A3. Additional strength plots, Atterberg Limit plots, and Sieve Analysis plot results are shown in Appendix C1.

3.7.2 Analytical Testing

MACTEC collected environmental samples from soil borings and cultural resources trenches. In addition, analytical samples were collected from some of the deeper test pits to characterize deep soils, and water samples were collected from onsite piezometers for analysis. One sample was also collected from incinerator waste material that appeared to contain ash.

Samples were collected in stainless steel tubes and Encore™ samplers, and were transported under Chain of Custody to Curtis Tompkins Laboratory, Berkeley, California. Soil samples were analyzed for:

- Polyaromatic Hydrocarbons (PAHs; test method SW 8270SIM)
- California Code of Regulations (CCR) Title 22 metals (Test Method SW6010/6020-7000 series)
- Organic Pesticides (Test Method SW8081A)
- Polychlorinated Biphenyls (PCBs; Test Method SW8082)
- Total Petroleum Hydrocarbons (TPH; Test Method 8015m). Soil samples were analyzed for TPH quantified as diesel (C12-C24) and TPH quantified as fuel oil (C24-C36). Because the same carbon range is used for fuel oil and motor oil, the text refers to results in terms of TPH motor oil/fuel oil.
- Volatile Organic Compounds (VOCs; SW 82608)
- Moisture Content (American Society for Testing and Materials [ASTM Test Method D-2216]).

The sample collected from incinerator waste containing ash was analyzed for analytes listed above plus dioxins and furans using Test Method 8290. Water samples were analyzed for VOCs and Title 22 metals, and general water quality (major cations and anions); total non-filtered (SW 6010/6020-7000 series), and dissolved metals, field filtered (SW6010/6020-7000 series). Appendix C2 summarizes the laboratory analytical results for soil and water samples; and Appendix C3 presents data validation results. Results of the data validation indicate that the data are usable with the exception of the nondetect result for antimony for sample BB2SB110(0.5) which was qualified as rejected because the percent recoveries were less than 30 percent.

3.8 Baseline Structural Evaluation and Inspection of Batteries

The purpose of structural evaluation was to:

- Provide a baseline condition survey of the fortifications (Battery Godfrey, Battery Boutelle, Battery Marcus Miller, and brick magazines 21, 22, 27, 28, and 29) before landfill removal and as a basis for monitoring during construction;
- Assess the cause of existing cracks in Battery Boutelle (e.g., are they present as a result of slope instability); and
- Assess whether it would be possible to transport waste from BBDA-1A over the top of Battery Marcus Miller; and recommend mitigation measures during construction, if required.

This study did not assess the historic significance of any element of the fortifications. SOHA performed the structural evaluation in Spring 2005. Structural engineers and technicians inspected the interior and

exterior conditions of the batteries, and photographed selected elements of each fortification to identify hazardous or potentially hazardous conditions.

SOHA's report is presented in Appendix F, and includes their findings regarding the baseline condition and structural integrity of each battery. SOHA evaluated the source of cracks apparent at Battery Boutelle as part of this baseline condition assessment. The Trust plans to contract SOHA to perform additional evaluation and reporting prior to and during remediation.

3.9 Water-side Waste Removal Assessment

As part of the pre-design studies, MACTEC met with several potential contractors to assess the possibility of water-side removal of waste as an alternative to removal of the waste from the bluff top.

An approach to a water-side removal was discussed with two contractors familiar with marine salvage and dredging operations. A bathymetric survey was conducted north of BBDA-1 to investigate bringing a barge onto the beach and transporting debris offside via the beach. This approach was not deemed feasible because of offshore obstructions and limitations presented by the tide and beach steepness.

4.0 REGIONAL GEOLOGY

To understand geologic and geotechnical conditions in the Baker Beach area, it is important to understand the regional geology, natural geologic processes, and the debris placed along steep slopes (some of which contain natural seeps).

This section on regional geology provides a description of the geologic setting of the California borderland and the San Francisco Peninsula, a review of regional faulting and seismicity, and a summary of hydrogeologic conditions of the Presidio. These broad factors then form a basis for more detailed discussions of geologic hazards, presented in Section 5.0, and site-specific geologic units for each of the BBDAs discussed in Section 6.0.

4.1 Geologic Setting

The Presidio is located within the California Coastal Range Province, which is characterized by northwest-trending ridges, broad basins, and valleys, generally paralleling major geologic structures (*Shlocker, 1974*). Throughout most of this region, basement rocks lie at shallow depths and are composed of highly consolidated and tectonically deformed sedimentary, volcanic, and metamorphic rocks of the Franciscan complex. The regional geology of the area is shown on Figure 3B.

The Presidio is underlain by unconsolidated deposits consisting of the Colma Formation, dune sands, slope debris and ravine fill, beach deposits, and artificial fill (Figure 2). These unconsolidated deposits overlie late Jurassic to late Cretaceous-age Franciscan assemblage rocks. In the San Francisco Area, the Franciscan complex consists of greywacke sandstone, shale, siltstone, chert, and mafic volcanic rocks (basalt and diabase), and metamorphic rocks, including serpentinite (*Shlocker, 1974* in *Tetra Tech, 2001*).

The Pleistocene-age estuarine and marine Colma Formation is present in the southern and southeastern part of the Presidio, where the formation rests unconformably on Franciscan complex rocks. The Colma Formation consists of unconsolidated fine to medium-grained sand with moderate amounts of silt and clay. Within the Presidio, the thickness of the Colma Formation ranges from 75 feet to as much as 300 feet (*ANL, 1989* in *Tetra Tech, 2001*).

Dune sand, consisting of fine to medium-grained sand, forms surficial deposits in the southwestern and central portion of the Presidio. This unit is typically less than 100 ft thick, but reaches thickness of up to 150 ft in the southwestern corner of the Presidio (*TetraTech, 2001*).

Slope debris and ravine fill, consisting of sand silt and clay, form surficial deposits in upland areas north and east of the dune sand. The maximum thickness of this unit is estimated as 150 ft (*ANL, 1989* in *Tetra Tech, 2001*).

Beach deposits and artificial fill comprise surficial deposits along San Francisco Bay and along the Pacific Ocean at Baker Beach. The beach deposits consist of well-sorted, medium to coarse-grained sand, with minor gravel. Sands are interbedded with silts and clays comprising Bay Mud along the San Francisco Bay margin (*Tetra Tech, 2001*). Artificial fills also include those placed at landfill sites and engineered fill for roadways and buildings.

4.2 Faulting and Seismicity

The Presidio lies in a seismically active area between the San Andreas and Hayward/Rogers Creek fault systems. The San Andreas Fault System is located about 7 miles west of the center of the Presidio. The Presidio overlies the northwest trending Fort Point-Potrero Hill shear zone. This shear zone is considered

inactive because it does not dissect rocks that are younger than Cretaceous (*E.C. Jordan Company, 1990* in *Tetra Tech, 2001*).

Figure 3B shows significant active faults [2] in the region. Table 2 lists the distance from these faults to the site along with the maximum moment magnitudes for each fault based on fault length and historical seismic activity.

Numerous earthquakes have occurred in the San Francisco area, occasionally resulting in damage to structures. Most of these earthquakes have been attributed to either the San Andreas Fault to the west or the Hayward Fault to the east. Historical accounts of the San Francisco Bay Area note numerous damaging earthquakes since the early 1800s (*Tooker, 1959*). The great California earthquake occurred on April 18, 1906. As shown on Figure 3B, its epicenter was offshore, on the San Andreas Fault. The historic record of damage to the Baker Beach area is not complete. Ground failures in the immediate project vicinity were not noted following the 1906 earthquake (*Youd and House, 1978*). Other damaging earthquakes on the San Andreas Fault occurred in 1838 and 1865. In 1838, surface breakage extended from San Francisco to Santa Clara, and serious damage occurred to Mission Dolores and to the Presidio. The 1865 event was centered in the mountains near Santa Cruz, but caused damage in San Francisco to structures on filled ground. Earthquakes that occurred on the Hayward Fault in 1836 and 1868 also caused damage in San Francisco. The 1868 event caused considerable damage to buildings on filled ground (*Lawson, 1908*). A fissure was noted in the bank near Fort Point (*Youd and House, 1978*). An estimated Magnitude 7 earthquake on the Calaveras Fault was reported in 1861. The epicenter of the Loma Prieta earthquake, which occurred in October 1989, was located 96 kilometers (km; 60 miles) to the south of San Francisco in the Santa Cruz mountains. It caused damage in certain areas of San Francisco that are underlain by soft or otherwise unstable soils, but caused little damage to the area of the subject sites for this report.

4.3 Regional Groundwater Hydrogeology

Groundwater at the Presidio occurs in both unconsolidated and bedrock aquifers. Water-bearing units include the following:

- Beach sand deposits adjacent to Baker Beach and San Francisco Bay;
- Dune sands and the Colma Formation in the southwestern and central portions of the Presidio;
- Fill deposits; and
- The Franciscan Assemblage Bedrock, which underlies unconsolidated deposits. The water table occurs in fractured or sheared bedrock in upland areas where unconsolidated deposits are not saturated.

Groundwater recharge primarily occurs due to infiltration from irrigated areas and from precipitation. Groundwater discharge occurs as seepage to Mountain Lake and Lobos Creek, spring discharge at El Polin Spring and other springs at the Presidio, possibly the Palace of Fine Arts Lagoon, and seepage to San Francisco Bay and the Pacific Ocean (*Tetra Tech, 2001*). The permeable sands of the Colma Formation act as an aquifer, and springs are common at the interface of the Colma Formation and the underlying serpentinite (*Elder, 2001*).

[2] "Active faults" are defined as those exhibiting either surface ruptures, seismic activity, topographic features indicative of faulting, surface displacements of geologically recent or Holocene deposits (geologic deposits that are younger than 10,000 years old), tectonic creep along fault lines, and/or close proximity to linear concentrations or trends of earthquake epicenters.

The water table surface tends to follow topography where groundwater generally moves from upland areas towards San Francisco Bay and the Pacific Ocean. However, buried bedrock surfaces could locally control the direction of groundwater flow.

Three groundwater basins, the Lobos Creek Groundwater Basin, the Coastal Groundwater Basin, and the Marina Groundwater Basin, have been identified at the Presidio as shown on Figure 4B. Baker Beach is within the Coastal Groundwater Basin, based primarily on its position relative to the drainage divide east of Lincoln Boulevard and all areas that drain towards the Pacific Ocean.

Seeps have been identified along the coastal bluffs, both at Baker Beach 3, and at BBDA-1 and -2A. Perched water table conditions may exist at BBDA-2 during the wet season. These seeps are probably the result of groundwater flow through bedrock fracture zones based on observations at the Baker Beach 3, area and other Presidio coastal areas. Based on field observations to date, it appears that the seep at BBDA-1 may be perennial. It is not known if the seep at BBDA-2A seasonal or perennial. The seep at BBDA-2A was first discovered during the Spring of 2005 and also observed and sampled in February 2006. It is not known if the seep was flowing during the drier Summer months. It is planned to be monitored quarterly as part of the basewide groundwater monitoring program.

5.0 POTENTIAL GEOLOGIC HAZARDS

Due to the steepness of the topography of the project area and its location within an area of high seismicity, the principal geologic hazards for the project consist of the potential for strong groundshaking and landslides induced by earthquakes occurring along one or more of the regional active faults. Other geologic hazards considered for this investigation include earthquake-induced liquefaction, settlement and lateral spreading, expansive soils, tsunamis and fault rupture. A discussion of each geologic hazard follows.

5.1 Seismic Groundshaking

The intensity of groundshaking, in response to earthquakes on one or more of the regional faults, is a function of distance to the causative fault, the magnitude and duration of the earthquake, and the nature of the underlying soil and bedrock. The two closest, significant faults to the project are the San Andreas Fault, and the Hayward-Rodgers Creek Fault, as previously noted in Table 2 and shown on Figure 3B. The San Andreas Fault is capable of a 7.9 moment magnitude (Mw) event with an estimated bedrock acceleration of 0.55g. The Hayward-Rodgers Creek fault is capable of a 7.0 Mw and 0.20g respectively (*WG02, 2003*). Shaking intensity, as measured by the Modified Mercalli Intensity Scale (Table 3) has been estimated at IX for a modeled earthquake similar to the 1906 event on the San Andreas fault, and a VII for a combined event on the Northern Hayward and Rodgers Creek fault (*ABAG, 2003*).

The California Building Code requires estimation of peak horizontal accelerations for the upper bound earthquake (UBE). The UBE ground motion is defined as the motion having a 10 percent probability of being exceeded in a 50-year period or the maximum level of motion that could ever be expected at a site based on the known geologic framework. Based on this definition, a 7.9 Mw earthquake on the nearby San Andreas Fault is considered the UBE. For an earthquake of this magnitude, peak horizontal accelerations in bedrock at the project site would be expected to be approximately 0.55g (*CDMG, 2001*). A large earthquake on the Hayward and/or Rodgers Creek faults would be a more frequent occurrence, but the measured ground motions at the site would be less than the San Andreas Fault.

5.2 Liquefaction and Lateral Spreading

Liquefaction is the phenomenon in which loose, saturated, granular materials experience a sudden loss of shear strength due to seismic shaking. Soil liquefaction can induce sand boils, differential settlement, lateral spread, and ground failure. The California Geological Survey (CGS) has not included the project area with their liquefaction seismic hazard maps (*CDMG, 2001*). Elsewhere in San Francisco (e.g., the Marina District) liquefaction occurred as a result of the Loma Prieta earthquake, causing localized settlement and sand boils emanating from loose, saturated sand fill.

Liquefaction would be expected to occur at the project site under conditions where seeps are observable within waste fill areas, fill slopes are partially saturated, and the fill materials are loose. During excavation of test pit BB1TP106, a zone of saturated waste fill was mobilized as a slow moving debris flow downslope along the seepage swale towards the beach by either vibration from the Spyder excavator or by saturated, unsupported fill slope in the side of the excavation. It is possible that loose, saturated sandy fill is present at the base of BBDA-1 and 2A that could liquefy during similar construction operations.

Bluff top fill areas and areas underlain by shallow bedrock are not susceptible to liquefaction or settlement, and associated differential settlement and lateral spread within the area of existing batteries and other structures is considered very low.

Lateral spreading is caused by movement of steep, unsupported slopes toward the free face can be a secondary effect of liquefaction. Although the lower beach cliffs (below elevation 25 feet Presidio lower low water [PLLW]) are relatively steep, these bluffs are composed primarily of Franciscan mélange, or sandstone and shale bedrock, and therefore not considered susceptible to liquefaction and lateral spreading.

5.3 Tsunamis, Seiches, and Flooding

Given the high topography of the project area, flooding from tsunamis is unlikely except for the beach areas at the base of the lower beach cliffs. Inundations from tsunamis, seiches, or flooding are generally observed in low-lying, flat terrain. Tsunamis are typically caused when a large water body is displaced by normal or reverse fault movement. Most movement on the San Andreas Fault consists of a lateral (dextral) slip component, which would not include a large displacement of water to create a tsunami. However, a tsunami from a more distant source is possible. Following the 1964 Alaska Earthquake, a tsunami traveled southward to central California, and entered San Francisco Bay. Although wave amplitudes were measured at height of 1 meter at the Golden Gate, no measurements are known to have been taken at Baker Beach. Due to the height of the Presidio coastal bluffs, even with a 5-meter wave height the lower portions of BBDA-1 and -2A would not be flooded.

The relatively high elevation of the project site suggests that flooding is not a concern. Neither is the site adjacent to an enclosed or semi-enclosed body of water (i.e., San Francisco Bay) that might be vulnerable to enlarged wave runup caused by a seiche (sloshing of enclosed water due to earthquake shaking).

5.4 Fault Rupture Hazard

No known active faults cross through the project site (*Hart, 1999*). Fault ground rupture is normally associated with zones of active faulting and/or planes of weakness adjacent to active fault zones. The closest active fault is the offshore section of the San Andreas Fault, located 12.1 km (7.6 miles) to the west. Because recognized active faults neither cross through, nor are adjacent to the site, the fault rupture hazard at the site is considered to be negligible.

5.5 Landslides and Slope Instability

In general, landslides pose a hazard to cliff top structures and people located on or below steep slopes at Baker Beach. Pervasively weak bedrock materials, steep slopes, exposure to rainfall, and undercutting by wave action have all contributed to the inherent instability of slope materials. Less common causes of landslide in the area are adverse bedding, localized discharge of surface runoff, and dumping of waste fill. Since the 1960s, the growth of vegetation appears to have provided some stabilization of the fill slopes.

During geologic reconnaissance, MACTEC mapped active landslides along the slope face (Figure 2). MACTEC mapped debris on the beach during the beach survey, presumably from waste fill areas above. It would be expected that natural processes would periodically move rock and saturated soil from the bluff top and slope face onto the beach. MACTEC observed some translational sliding along adverse bedding of shale units. Earthflow-type landslides (Qls) were observed north and south of BBDA-1 and BBDA-2A. Farther up the slope just below the bluff-top cliffs, larger, slumping was observed, partially obscured and coalescing with debris and waste fill. The hard, more competent serpentinite cliffs occasionally shed variable size rock fragments due to jointing in the intact rock. These landslides are indicative of the overall slope instability in the area. The risks of additional movement of materials down the slope are greatest during winter rains and during earthquakes.

6.0 SITE CONDITIONS

This section presents a summary of site conditions with respect to the site geology and hydrogeology, the cultural landscape, the structural competence of existing historical batteries, and the nature and extent of contaminants in soil and groundwater at the site. An understanding of the nature and extent of contamination in and around the disturbed areas, the vertical and lateral extent of geologic units and their geotechnical properties, the location, nature and stability of cultural resources is important input to remedial design plans. Development of remedial options requires understanding of the nature and extent of contamination, slope stability, and the location, type, and integrity of nearby cultural resources.

The following sections describe general site conditions for the BBDAs, including surface and subsurface geology. The discussion is based on a comprehensive review of data collected previously and during the current investigation. The purpose of this section is to synthesize these data to formulate a conceptual model for site conditions at each of the BBDAs.

6.1 General Site Conditions

The following provides a description of the overall BBDA Area. Site conditions for each of the BBDAs are described in Sections 6.2.1 through 6.2.5.

6.1.1 Surface Conditions

Surface conditions at the BBDA site are characterized by sparse to thick vegetation, hummocky topography with coalescing deposits of soil and waste fill perched on slopes that range from near vertical to flat (Figure 2). In general, the steepest portions of the bluffs are found along landslide scarps and serpentinite cliffs. Elevations range from near sea level to 274 feet PLLW. Each of the four BBDAs and surrounding areas are discussed below.

6.1.2 General Lithologic Descriptions

Soil and Bedrock Units

The following sections provide generalized descriptions of the geologic units present at the site that correspond to the geologic units shown in plan view on the geologic map, Figure 2, and in the maps and cross-sections on Figures 5 through 8. More detailed site-specific descriptions follow by BBDA in Section 6.2.

Artificial Fill

Artificial fill covers much of the site and includes historical fill as well as waste fill. Historical fill is classified as human-placed fill that can contain minor amounts of waste material that was placed in conjunction with the historical batteries. In general, this fill consists of wood planks and bricks associated with demolition of the earlier fortifications. Historical fill has been divided into the following sub units:

- **afh** – Historic fill associated with the most recent construction of the batteries, which incorporated some buried sections of the Battery West era earthworks and are generally contiguous with the concrete structures. It is a culturally significant resource that generally does not contain contaminants above cleanup levels and will be protected during remediation.

- **afh1** – Historic fill associated with the removal of the previous battery structures. Much of this fill has been displaced during construction of the Endicott Batteries, and is significant as a cultural resource that generally does not contain contaminants above cleanup levels. It is anticipated that this material will be protected during remediation.

- **afh2** – Historic fill associated with the removal of the previous battery structures that has been disturbed and displaced downslope. Depending on the location the displaced fill relative to waste fill, the fill associated with waste fill may contain contaminants above cleanup levels and may be removed during remediation of the waste fill.

Waste Fill (**afw**) is human-placed waste debris associated with construction demolition, household waste, and vegetative (organic) waste. It is planned that this material be removed during the remedial action.

Other Fill (**afo**) is human-placed fill of uncertain origin, generally found outside the historic boundaries of the barbettes or more recent Endicott Period Batteries, and contains engineered and non-engineered fill. It is not anticipated that this fill will be removed during the remedial action. Where this fill contains construction debris it has been mapped as **afo1**.

Quaternary Deposits

Landslide deposits (**Qls**) occur throughout the study area, but are not broadly present at the ground surface in the debris areas. In some locations, artificial fill overlies and conceals landslide deposits and colluvium. The landslide deposits are considered to be of Quaternary Age.

Native Soils (**Qcol**) represent in-place soils and unconsolidated sediments of various origin, but are collectively mapped due to their similar geotechnical characteristics. These include Quaternary-age Colma formation soils, as well as colluvium and residual soils that represent residual weathered bedrock. In general, these materials consist of clays, sandy clays, and clayey sands, with varying amounts of gravels and occasional cobbles and boulders.

Beach Deposits

Beach Deposits (**Qb**) are found exclusively in the tidal zone at the base of the project area. They contain variable amounts of debris that are partially buried, as well as driftwood and trash. The beach deposits are very poorly consolidated and comprise poorly sorted sand, sand and gravel, and locally also include boulders. Deposition patterns and beach sand levels are directly related to wave and tidal action.

Bedrock

Mélange (**KJm**) occurs predominately on the lower portions of the slopes, and consists of shale, mudstone, and varying large blocks of sandstone and siltstone in a sheared matrix. Mélange materials are inherently unstable, and rest in shear contact with serpentinite.

Sandstone (**KJss**) and Shale (**KJsh**) are found as large, coherent blocks of greywacke sandstone and siliceous, thinly bedded shale. The blocks can be contained with the larger mélange unit, and are generally harder and stronger than the surrounding matrices. The sandstone and shale are usually bounded by shear zones, and are located on the lowermost project slopes.

Serpentinite (**sp**) is an ultramafic rock that dominates the upper portion of the slopes, ranging locally in slopes as steep as vertical or even slightly overhanging. The rock is massive, with random shear surfaces and joints, and weathers to a yellow brown silty or sandy clay. Large landslide scarps in serpentinite occur south and north of the debris areas.

Groundwater

Based upon hydrogeologic information from the Remedial Investigation (*Dames & Moore, 1997*) and MACTEC's field observations from lithologic logging and monitoring water levels in two piezometers installed for this investigation, groundwater occurs as a perched zone within landslide deposits or waste fill, or as bedrock seeps within weathered serpentinite bedrock. Two freshwater seeps originate approximately mid-slope of BBDA-1 (located within the seep zone shown on Figure 5). A seep was also observed in the lower portion of BBDA-2A (Figure 8). These seeps are thought to be the result of groundwater flow through bedrock fracture zones, similar to what has been observed elsewhere on coastal bluffs within the Presidio. As discussed in Section 3.6.5, two piezometers at the seep at BBDA-1 and the seep at BBDA-2A were sampled in May and August 2005 and in February 2006.

6.1.3 Cultural Resources Investigation

A CRI was performed by URS (Appendix B) to provide a description of the physical and historical setting and a comprehensive assessment of cultural resources located in the BBDA area. The assessment included historical research and a field investigation. The field investigation included exploratory trenches along the bluff top in the vicinity of the former West Battery; as well as visual surveys of existing West Battery fortifications.

A comprehensive historical narrative (*URS, 2005;* Appendix B) of the West Battery and Fort Scott Endicott Batteries was prepared to provide information in support of the Cultural Resource Evaluation and is included in the CRI report. The historical narrative details the construction, evolution, and modification of the fortifications. It describes the U.S. Army Corps of Engineers design and construction of the "works," as the fortifications were then called, and provides a historical timeline as well as a description of alterations to the slopes and structures. Of particular relevance to the remedial efforts at Baker Beach are historical records (maps and photos) of incinerators, which were present in the area from 1922 and 1934, as well as historical disposal and fill activities that occurred in areas adjacent to the Batteries in the middle of the twentieth century.

The results of the CRI, which describes the type of soils and their stratigraphic relationship, correlate well with mapped geology and the environmental investigation and provide important information as to how waste fill and historic fill were deposited. The historic sequence of events includes:

- Construction of the West Batteries between 1870 and 1876, which included construction of magazines and the covered way.
- Construction of the Endicott Period Batteries between 1891 and 1901.
- Disposal of waste fill began at an undetermined date probably sometime around World War I.
- Construction of two waste incinerators in 1922 and 1934 and overall dumping continuing until around 1967, with some possible fill placement associated with construction of the Golden Gate Bridge (1936 to 1937).
- Construction of the parking area on the south and west side of Battery Godfrey possible occurred after 1954 when access roads were built leading to the dump and recycling areas to the south.

Some significant findings from the report that are pertinent to an understanding of site conditions and development of remedial design strategies include:

- The West Battery fortifications required the use of granite blocks, masonry for gun platforms and magazines, and sod for slopes. The fortifications extended for a length of 1,324 feet and upon being finished required 29,586 cubic yards of imported soil of which 7,180 cubic yards was sod (22,406 cubic yards of soil that is not sod). This volume of soil is documented as being used for the West Battery Fortifications and thus provides an upper bound to the quantity of historic fill (afh1) potentially present downslope of the batteries that was displaced when Endicott Batteries were constructed.

- By 1901, five different Endicott Batteries had been built atop the West Battery fortifications. Battery Boutelle, the last Endicott Battery built (between 1898 and 1901) was nestled between the existing West Battery earthworks associated with Magazines 22 and 23.

  These new works covered or displaced nearly every trace of the 1870s emplacements. The most recent historic fill (afh) abuts against the Endicott Batteries and was essentially placed as backfill against the concrete walls comprising the batteries. Older historic fill (afh1) may be fill derived from the West Batteries that was likely removed and spread out to make room for the newer batteries. The adjacent grades corresponding with traverses and superior crests for the new Endicott Batteries were lower than the previous crest of the West Battery, implying that earthworks associated with the former West Battery were relocated. In fact, it appears from geologic mapping that this displaced historic fill (afh1) was pushed downslope and spread behind Batteries Godfrey and Marcus Miller.

  Waste fill in BBDA-2 was placed on a cut surface that removed some vestiges of West Battery earthworks and Endicott Period cultural resources, although substantial portions of the frontal slope remain buried in that area, presumably to create the parking lot located adjacent to Battery Godfrey. The presence of the cut surface in this area indicates that historic fill (afh2) downslope of the parking lot in BBDA-2A may have been pushed over the bluff top during on-going modifications subsequent to the West Battery era.

- There were several episodes of dumping at BBDA-1. Waste disposal activities began with direct downslope dumping of debris and refuse generated possibly from the barracks to the east. Later waste dumping that may have been contemporaneous to or after incineration was noted. The dump area reached its maximum lateral extent in 1967.

- Other significant filling events along the bluff top included:

  - The raising of the Covered Way by 8 feet adjacent to the entrance of Magazine 27;

  - The placement of between 12 to 15 feet of fill from battery demolition or Golden Gate Bridge earthwork sources on the rear slopes of the Covered Way; and

  - Fill piles noted in a 1967 photo near the GGBHTD offices that may have been generated from construction of the Presidio Letterman Hospital.

- The remnants of four mortar platforms and the adjacent opening to Magazine 21 were exposed in Trenches 4 and 5 during excavation and logging activities of the CRI. These platforms were identified as being of historic significance and represent the depth at which historic earthworks and the former Covered Way road surface would be encountered.

- Although waste fill was not observed in direct contact with the structural concrete or brick remains of fortifications in exploratory trenches logged as part of the CRI, it is quite likely that waste fill is in contact with undisturbed historic fill at BBDA-1 and -1A.

- A pervasive marker bed of chert fill was observed in cultural resource trenches at BBDA-1 and BBDA-2. Although it is unclear exactly what this layer represents, it is believed to be the surface of an access road and it may provide a marker for identifying the base of the waste fill during removal.

It is important to note that the historic fill on the bluff top generally does not contain contaminants above cleanup levels and, whether undisturbed or displaced, is considered an historic resource that needs protection during remediation, unlike the historic fill cast down the slope that may contain contaminants above cleanup levels and does not require protection. Excavations to remove waste fill may expose adjacent historic fill. The design should incorporate methods and requirements for protection of this resource, where appropriate.

6.1.4 Geophysical Mapping

In 2003, a geophysical field investigation was performed to further assess of the extent of refuse at BBDA-1, BBDA-1A, BBDA-2, and BBDA-2A. The geophysical field investigation included an electromagnetic (EM) terrain conductivity survey and a GPS survey. The EM31-D instrument consisted of transmitter and receiver coils mounted on each end of a 10-foot long PVC boom. Terrain conductivity data were collected by hand-carrying the EM survey system along survey transects covering an approximately 1,600 X 300 foot area. EM data were collected at 0.5-second intervals, which corresponded to an EM measurement for approximately every 2 feet of surveyed transect. An estimated 31,600 line-feet or nearly 6 miles were surveyed during the field investigation. GPS mapping of the exposed refuse was performed with a Trimble Pro-XRS GPS. The GPS was also used to provide positioning data for the EM survey.

In order to illustrate and quantify the data collected from the EM and GPS surveys, several computer programs were used. DAT31W, OASIS Montaj, and Trimble Pathfinder Office software were used to combine EM and GPS data into single files suitable for computer contouring and mapping. A color-filled terrain conductivity map and refuse location map were produced and then combined to facilitate assessment of refuse extents in the four disturbed areas; these Figures are presented in Appendix G. Figures 4 through 8 also show the extent of refuse as interpreted from the geophysical mapping. Results of the survey are presented and discussed in Appendix G.

6.1.5 Battery Structural Evaluation

A Baseline Structural Inspection (Appendix F) was conducted by SOHA Engineers (*SOHA, 2005*) to assess the current condition of the fortifications, and to anticipate potential problems that could arise during and after remedial activities. A narrative discussion of the construction and general condition of the fortifications is included, as are photographs, schematic plans, and a summary of potentially hazardous items. The assessment also provides a discussion regarding the cracks observed in Battery Boutelle, and of possible construction loading at Gun Pit #1 at Battery Marcus Miller.

Results from this report include:

- The general condition of Batteries Godfrey and Marcus Miller indicate wear commensurate with long-term exposure to harsh elements. However, no overall instability was observed.

- Battery Boutelle exhibits a wear pattern similar to that observed at Batteries Godfrey and Miller. However, large cracks, up to 3 inches in width, were noted around the parapet wall. This condition was not observed in the magazine rooms. An evaluation was performed by structural specialists to determine the cause of the cracking. It appears that the battery aprons were placed after the completion of the battery structure, and the area beneath the aprons contains fill of substantial depth.

Possible causes of cracking include settlement of backfill under the battery apron, or movement of the soil mass west of the parapet wall toward the coastal bluff. The report concludes that the proposed remediation and construction activities should not adversely affect the structural integrity of the fortifications, which are built on thick concrete foundations excavated up to 18 feet deep in the case of Battery Boutelle.

- Minor cracking and water intrusion was noted in Magazines 22, 27, 28, and 29. More extensive cracks were noted in Magazine 21 on the north wall, and extending to the east wall.

- Mitigation measures, including surveying, monitoring, crack gauges, and splinter-proofing are recommended prior to remediation. If needed, specific shoring measures are proposed for the roof of Battery Marcus Miller.

6.2 Area-Specific Site Conditions

This section presents a description of site conditions at each of the BBDAs.

Applicable Cleanup Levels

BBDAs 1, 1A, 2, and 2A are located in the Coastal Bluffs Planning Area within Area A of the Presidio, and therefore, are subject to land uses identified in the GMPA (*NPS, 1994*). Current and planned land use at BBDAs 1, 1A, 2, and 2A is recreational, with special-status ecological species potentially present on the slopes extending toward the beach.

Proposed applicable cleanup levels at BBDAs 1, 1A, 2, and 2A are based on the following criteria:

- **Protection of Human Health, Residential Use** – Although planned land use at the BBDAs 1, 1A, 2, and 2A is recreational, more stringent residential cleanup levels are used to eliminate the need for land use controls.

- **Bluff Slope - Protection of Ecological Receptors, Special-Status –** The portion of the site that lies along the bluff slope consists of an open space natural area. Both rare and federally-listed species are known or have potential to occur in this area. Accordingly, cleanup levels protective of special status species are considered applicable to this portion of the site. Figure 4A shows the areas where special status cleanup levels apply.

  Bluff Top/Merchant Road Area – Protection of Ecological Receptors, Ecological Buffer Zone – The portion of the site where there are parking areas, batteries, roads, and GGBHTD buildings are located in ecological buffer zone areas because that portion of the site is not planned to be restored to native plant habitat. Accordingly, along the bluff top and between the Covered Way and Merchant Road, ecological buffer zone cleanup levels apply (Figure 4A).

  Metals Background Concentrations for Serpentinite Soils – Lithologic units present in the area of the BBDAs primarily consist of waste fill, other fill, and historic fill that overlies native soils consisting of colluvium and residual soil on top of serpentinite. Colma formation soil may also overlie the serpentinite soil in certain areas of the site. Because the soil units were not easily distinguished in the field, they were mapped and logged as "Colma formation/native soils." Because of the predominance of serpentinite in the area and because bivariate scatter plots of concentrations of major elements in site soil samples performed as part of the Main Installation Sites FS confirmed a distribution of concentrations expected for serpentinite soils (*EKI, 2003*), background levels for serpentinite soil are used to evaluate metals concentrations at the site. For the Merchant Road Area,

where lithologic logs showed Colma overlying residual serpentinite soils, a combination of background levels for Colma and serpentinite soils were used to evaluate metal concentrations.

- **Protection of Groundwater at Drinking Water Levels** - For petroleum-related constituents, a depth to groundwater of greater than 5 ft was assumed in order to evaluate the leaching potential from soil to groundwater.

- The most stringent applicable cleanup level was selected as the cleanup level for each chemical or in the case of metals, the background metal concentration for serpentinite soil was selected as the cleanup level if it was greater than the other most stringent cleanup level for protection of human health or ecological receptors.

6.2.1 Baker Beach Disturbed Area-1

Surface Conditions

BBDA-1 is situated approximately at the center of the project area in a gap between Batteries Boutelle and Marcus Miller on the bluff top and is the largest debris area. It has a general concave topographic expression from debris stored on top of the bluff and deposited over the bluff downslope. Elevations range from 25 to 220 feet PLLW, with a significant vertical bedrock escarpment located directly below Battery Boutelle. The ground slopes are inclined at approximately 41 degrees at the top, 23 degrees midslope, and becoming more gentle (10 degrees) near the base. Debris which appeared to have fallen from the bluff top was mapped below a 25-foot high bluff above the beach. Debris is also buried in the beach sand, as discussed in Appendix H.

Vegetation has grown across the BBDA-1 area, and includes mature trees, tall shrubs, vines, bramble, and grasses. A perennial seep exists as a wetland midway down the waste fill slope, flowing to the beach (Figure 5). The spring supports water-dependent vegetative growth throughout the year. Much of the waste fill is super-saturated, as evidenced by depth to water measured in a piezometer installed within the waste fill down slope from the seep. Social trails cross the site, although the primary access trail to the beach skirts the northern edge of BBDA-1.

Artificial Fill

Fill at BBDA 1 generally consists of dark brown-grey clayey sand (sandy clay with concrete), with minor amounts of wood, metal, wire, slate, tile, plaster, brick, cobbles, asphalt, and glass (including bottles). In areas where the fill was substantially deeper, there was no obvious evidence of stratification of debris or soils. Although the fill consisted primarily of soils and construction materials, several test pits exhibited stratified debris where there was a higher incidence of household-type items (e.g., BB1TP103 and BB1TP102). Stratification of debris included household-type debris and metal trash mixed with burned material (Test Pit BB1TP106). Extensive areas of fill soil with limited construction debris were observed in trenches excavated in the central and south areas of BBDA-1. Stratified trash/incinerator layers were observed in trenches excavated in the northern portion of the site by the seep. The localized area of the incinerator and household debris indicates that the debris appeared to be consistently dumped from the same location on the cliff. Apparently, windblown lightweight debris items (paper, fiberglass, and plastic) are located near the ground surface at the bottom of the slope.

Quaternary Deposits

Native soils (Qcol) were encountered at test pits BB1TP104 and -103 on the slopes and in soil borings west of the Batteries (BB1SB102-104 and -105). Soil logged in the bluff top borings is interpreted to

represent Colma formation. The soils mapped on the slope of BBDA-1 may represent colluvium or mobilized residual soils derived from serpentinite bedrock.

Bedrock

Based on observations made of bedrock outcrops and bedrock encountered in test pit excavations on the BBDA-1 slopes, the upper portions of the slopes are underlain by serpentinite, while the lower portion is underlain by a combination of Franciscan Mélange and serpentinite. The nature of the contact between these two bedrock units is shown in cross-sections A-A' and C-C' (Figure 5) as near vertical and striking north. The following provides a description of the two rock units at BBDA-1:

- Serpentinite – In outcrop, the rock is hard, strong, and most competent near the top of the slope. East of Battery Boutelle, the rock is intensely fractured and deeply weathered, as indicated by Borings BBSB102, 104, and 105. In the sloping portion of the bluff, the serpentinite is also deeply weathered (Test Pits BB1TP103 and –TP105) but the depth of weathering is uncertain because of the limited penetrations made into rock.

- Mélange – Based on logging of test pits BB1TP102 and -106, this rock unit is black, intensely fractured, weak to friable, and of low hardness. It contains serpentinite rock fragments and is moderately to deeply weathered. Surface outcrops generally comprise mudstone and sheared sandstone with locally friable and crushed sandstone blocks.

Groundwater

Saturated conditions were observed in some test pits BB1TP103, -102, and -106 and in piezometers BB1PZ100 and BB1PZ101, and are attributed to seepage observed near the base of the slope. Water levels were measured in May, August, October of 2005, and February 2006, and are presented in Table 4. Water levels in BB1PZ100, which is screened in bedrock, have generally been consistent over the monitoring period, suggesting that the seep may be perennial. Water levels in BB1PZ101, which is screened in waste fill, have fluctuated over the monitoring period.

The seep is located in the thickest area of waste fill, and based on water level measurements in BB1PZ101, approximately 5 to 6 feet of saturated waste fill material present in this area during the dry (summer) months. Based on this observation as well as those made during excavation of test pit BB1TP102, it is expected that during remediation, this seep will produce approximately 18 to 20 gallons per minute (gpm) of water and excavation dewatering will be required in this area. Estimated seep rate calculations are provided in Appendix J.

Results of Analytical Testing – 2005 Field Investigation

During the 2005 field investigation, soil samples were collected and analyzed from two beach locations, one boring, one cultural resource trench, and two test pits in BBDA-1 (BB1SB113, BB1SB114, Trench 5, BB1SB110, BB1TP102, BB1TP109, and BB1TP106) at depths ranging from 0.5 to 7 ft bgs. In addition, a sample was collected from incinerator waste that appeared to contain ash (BB1TP108(5.0)). Borings, sample numbers, and sample depths are shown in Tables 1 and 17. The location of the trenches, test pits, and soil borings are shown on Figure 5. The results of chemical concentrations were compared with applicable clean-up levels, listed in Table 5. The detected results are presented in Tables 7A, 7B, 8A, and 8B.

Metals and PAHs were detected at concentrations exceeding applicable cleanup levels. Dioxins and furans were detected in the sample collected from incinerator waste [BB1TP108(5.0)]. The calculated toxic equivalency value (TEQ) for 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) of 0.0002638

mg/kg exceeded the RWQCB residential environmental screening level (ESL) of 0.0000045 milligrams per kilogram (mg/kg) and the Environmental Protection Agency (EPA) preliminary remediation goal (PRG) of 0.0000039 mg/kg for 2,3,7,8-TCDD (Table 18). Dichlorodiphenyltrichloroethane (DDT), dieldrin, endrin, endrin aldehyde, PCB 1254, PCB 1260, methylene chloride, arsenic, barium, cadmium, copper, lead, selenium, silver, and zinc were identified COCs for BBDA-1 in the RAP (*MACTEC, 2004b*). Based on the most recent sampling results, antimony, mercury, molybdenum, vanadium, chlordane, benzo(a)anthracene, benzo(a)pyrene, dibenzo(a,h)anthracene, TPH diesel and TPH motor/fuel oil, and dioxins and furans detected in the incinerator waste sample are also considered COCs for BBDA-1. Results for these COCs are shown on Figure 5.

As discussed in Section 3.6.4, in May and August 2005, groundwater samples were collected from BB1PZ101. Initially, only BB1PZ101 was sampled because BB1PZ101 is screened in waste fill and therefore was considered to be more likely to contain contaminants derived from debris disposed at the site than would water samples from BB1PZ100, which is screened in native soil. Samples collected in May 2005 were analyzed for VOCs, PAHs, dioxins and furans, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, and dissolved metals. Samples collected in August 2005 were analyzed for dissolved Title 22 metals (field filtered sample) and total Title 22 metals (unfiltered sample). Results are presented on Table 9; the unfiltered sample was assigned a 'UF' designation at the end of the sample ID.

Analytical results were compared to surface water, freshwater seep, and drinking water cleanup levels presented in EKI, 2002 and RWQCB, 2004. Only copper and lead concentrations (60 and 45 micrograms per liter [µg/L], respectively) in the unfiltered sample exceeded surface water cleanup levels. Review of the cleanup level document shows that these cleanup levels were based on dissolved metals concentrations and are therefore not applicable to unfiltered samples. Comparison of results to drinking water cleanup levels shows that only arsenic in the unfiltered groundwater sample (13 µg/L) exceeds the drinking water cleanup level of 10 µg/L, which is also only applicable to filtered water samples.

Results of Additional Analytical Testing – February 2006 Field Investigation

During the February 2006 field investigation, soil samples were collected at 0.5 and 1 ft bgs from BB1SB115 and analyzed for Title 22 metals to verify metals concentrations previously detected in RI boring BBSB05 (Figure 5). RI Boring BBSB05 was located in an area mapped as native soil downslope of BBDA-1 waste fill. Sample IDs and sample depths are listed in Tables 1 and 17. Analytical results were compared to applicable cleanup levels listed on Table 5. The detected results for BB1SB115(0.5) and BB1SB115(1.0) are presented in Tables 7A and 7B.

Metals (arsenic, copper, selenium, and zinc) were detected in the soil samples from BB1SB115 at concentrations exceeding applicable cleanup levels. Results of the February 2006 sampling confirm the presence of metals above cleanup levels at RI Boring BBSB05 and indicates that soil adjacent to and downslope of the waste fill has been impacted by past site disposal practices.

As discussed in Section 3.6.4, in February 2006, groundwater samples were collected from BB1PZ101 and BB1PZ100. Samples collected in February 2006 were analyzed for VOCs, PAHs, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, dissolved metals (field filtered sample), total metals (unfiltered sample), and general minerals. Results are presented on Tables 9A, 9B, and 9C.

Analytical results were compared to the most stringent of drinking water, freshwater seep, and surface water cleanup levels. Comparison of results to these cleanup levels shows that TPH motor/fuel oil (C24-C36), chrysene, antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc exceed cleanup levels. Only unfiltered samples exceeded cleanup levels for arsenic cadmium, chromium, lead, nickel, and zinc and those cleanup levels are values from RWQCB 2005, which are based on dissolved metals concentrations and are therefore not applicable to unfiltered samples. It is

noted that the sample collected from the piezometer screened in native soil contained the highest concentrations of TPH. Mercury was detected at concentrations above cleanup levels in all samples except for the primary sample from the deeper piezometer. Antimony results are suspect because the only samples showing antimony above cleanup levels were filtered water samples; the unfiltered samples collected from the same piezometers showed lower concentrations. Based on the results of the February 2006 sampling, there are elevated levels of contaminants (TPH, mercury, and selenium) in the seep water and the water will require containment during the remedial construction phase and cannot be discharged at the site (Tables 9A and 9B).

Results of the general minerals analyses shows that groundwater in the piezometer screened in fill (BB1PZ101) and in the piezometer screened in weathered bedrock/native soil (BB1PZ100) are both sodium bicarbonate groundwater types. Comparison of other general minerals shows that iron, calcium, magnesium, and manganese concentrations are higher and fluoride, total dissolved solids (TDS), and chlorine concentrations are lower in BB1PZ100 than in BB1PZ101. Sodium, nitrate, sulfate and bromide concentrations are similar between the two wells (Tables 9C and Figure 10).

The general minerals data (Table 9C) do not necessarily indicate that the surface water in the seep (represented by water samples from Piezometer BB1PZ101) is derived from groundwater (represented by water samples from BB1PZ100) because several metals including magnesium, iron, calcium, and manganese were detected at higher concentrations in BB1PZ100 than in BB1PZ101. The chloride:bromide ratios are different in samples from the two piezometers, supporting that water in the two piezometers are from different sources; e.g., surface water in BB1PZ101 and groundwater in BB1PZ100. Additional sampling should be performed to further evaluate groundwater chemistry conditions at the site.

Nature and Extent of Contamination

This section presents an evaluation of the nature and extent of contamination at BBDA-1 based on the results of investigations conducted at the site to date.

Previous investigations have primarily focused on characterizing waste fill. However, historic fill was also evaluated as part of the investigation described in this document. Review of geologic maps and boring and trench logs indicates that at the top of the bluff, waste fill overlies historic fill, which is underlain by native soil, which in turn is underlain by serpentinite. On the bluff slope, waste fill lies on top of serpentinite or Franciscan mélange. Waste fill ranges from 2 to 12 feet thick and historic fill is up to 15 feet thick at the bluff top. Lithologic logs show that waste fill contains household, construction, and incinerator waste. Based on the trench logs, incinerator waste appears to be present primarily in the northern portion of BBDA-1. The mapped extent of the waste fill and cross sections illustrating the relationship between the fill units and native soil and bedrock are provided on Figure 5.

Figure 5 posts COCs detected in soil above applicable cleanup levels. These COCs include metals, pesticides, PCBs, PAHs, and dioxins and furans which reflect the types of wastes disposed in the area. Review of these data shows that both historic fill and waste fill samples contain COCs above cleanup levels, and that the waste fill has differing chemical signatures than the historic fill. More COCs were detected above cleanup levels in the waste fill than in the historic fill and with the exception of dieldrin, COC concentrations were significantly higher in the waste fill. Four COCs were detected above cleanup levels in the historic fill whereas twenty-three COCs were detected above cleanup levels in the waste fill samples. It should be noted that the samples of historic fill containing COCs above cleanup levels were collected beneath the waste fill in the vicinity of the former incinerator and are likely affected by waste burning and disposal practices in that area. This includes samples collected from historic fill that contain pesticides and PAHs above cleanup levels.

Three samples were collected from native soil overlying material mapped as Franciscan mélange downslope of a mapped waste fill area (BBSB05, BB1SB115). Comparison to site cleanup levels, which are based on background concentrations for serpentinite, shows exceedances of cleanup levels for arsenic, antimony, copper, selenium, mercury, vanadium, and zinc. Because there are no background levels for this soil type, it is not known if these concentrations represent background concentrations or are related to contamination from past site disposal practices. Because the area is located immediately downslope of the waste fill area, soil in this area is considered to be impacted by contaminants from the waste fill.

One surface soil sample was collected from native soil at BBSB103 north of the waste fill area adjacent to Battery Marcus Miller. Benzo(a)pyrene (0.23 milligrams per kilogram [mg/kg]) and dibenzo(a,h)anthracene (0.082 mg/kg) were detected above cleanup levels in the sample collected from this boring. The PAHs detected in this sample may be derived from fragments of asphalt/tar roofing material that have shed off of the adjacent battery.

Methylene chloride was detected in 0.5-foot samples collected from borings BB1SB113 and BB1SB114 at (J) estimated values of 0.150 and 0.120 mg/kg. It should be noted that because methylene chloride was not detected in the laboratory blank sample, these results were not qualified as not detected. These were shallow soil samples that were collected from beach dune sand below debris. No other COCs were detected above cleanup levels. These estimated values exceed the cleanup level for methylene chloride. These methylene chloride results appear suspect for the following reasons:

- Methylene chloride is a common laboratory contaminant.
- No other COCs were detected above cleanup levels.
- It is highly unlikely that methylene chloride would be present at elevated concentrations in sand impacted by wave and tidal action.

The following table shows the maximum detected concentration of COCs detected above cleanup levels in the historic fill, waste fill, and native soil at BBDA-1.

Maximum Detected Concentration of COCs Detected Above Cleanup Levels in BBDA-1

	Historic fill		Waste Fill		Franciscan Melange		Cleanup Level
COC	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Arsenic	6.6	1/3	230	5/15	14	2/3	5.4
Antimony			123	6/14	100	1/3	5
Barium			2500	5/15			320
Cadmium			28	8/15			1.9
Copper			2200	4/15	130	1/3	85
Lead			6000	18/38			160
Silver			140	6/15	2.63	1/3	2
Selenium			2.2	7/14	2.37	1/3	0.5
Mercury			7.7	4/15			0.4
Molybdenum			84	2/6			12

COC	Historic fill		Waste Fill		Franciscan Melange		Cleanup Level
	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Vanadium			110	3/15	99.4	1/3	74
Zinc			73000	20/35	370	1/3	160
TPH Diesel			780	1/5			
TPH motor/ fuel oil			3500	1/5			980
Methylene chloride			0.23	4/13			0.076
DDT	0.052	1/3	0.39	7/12			0.0082
Dieldrin	0.073	1/3	0.06	5/12			0.03
Endrin			0.005	1/12			0.004
Total chlordane			0.0215	1/13			0.009****
PCBs			0.43	3/16			0.033
PAHs (benzo(a) pyrene)*	0.037	1/3	0.33	3/7			0.027
Dioxins and Furans (2,3,7,8-TCDD TEQ)	0.00026388	1/1					0.0000045** 0.0000039***

*Other PAHs were detected above cleanup levels. The maximum concentration of benzo(a)pyrene is shown to represent PAH contamination.

**RWQCB residential ESL.

*** EPA Region IX residential PRG.

****Cleanup level is for total chlordane; detected results for alpha and gamma chlordane are summed for comparison to cleanup level.

Based upon lithologic and chemical characterization data, it appears that the area mapped as waste fill contains COCs above cleanup levels and requires remediation. It also appears that historic fill underlying the waste fill in the vicinity of the former incinerator also contains COCs above cleanup levels and should be removed. The incinerator waste contains dioxins and furans and should be sampled and handled in accordance in accordance with DTSC guidance for investigation and characterization of Burn Dumps. The depth of contamination varies from 2 to 12 feet based on the thickness of the waste fill. It should be noted that no samples have been collected from perimeter areas to confirm that native soils do not contain COCs above cleanup levels. However, it is expected that based on the nature of the source material (solid waste) and contaminants that are not highly mobile, contamination is not expected to extend beyond the mapped limits of the waste fill.

6.2.2 Baker Beach Disturbed Area-1A

BBDA-1A is the smallest of the debris areas. It occupies a sloping area north of BBDA-1 and west of Battery Marcus Miller. Access is to the area is limited to the bluff-top trail. Elevations range from 165 to 180 ft, and the inclination of the slopes ranges from 24 to 30 degrees. Vegetative cover consists of a mix of mature trees and shrubs, with patches of groundcover.

Artificial Fill

BBDA-1A contains a thin (less than 2 feet) horizon of waste fill, consisting of asphalt pieces, brick fragments, and chunks of tar. Scattered asphalt (roof covering of Battery Marcus-Miller) was also observed within the debris area. Historical fill underlies the waste fill and consists of grey silty sand with occasional serpentinite cobbles. This material represents older historical fill (afh1) likely derived from pre-Endicott construction. Colma soils (native material) are present beneath the outer (westward) edge of the artificial fill.

Quaternary Deposits

Quaternary deposits were observed in test pit BB1A-TP100 only, beneath the historic fill and are 3 feet thick. The soils are slightly cemented silty sands of the Colma formation and are medium dense. A wedge of Colma sand extends further down the slope and beyond the limits of BBDA-1A.

Bedrock Material

Serpentinite bedrock was observed within test pit excavations on the BBDA-1A slopes at depths ranging from 5 to 7 feet. Surface exposures of mélange bedrock were generally poor. The nature of the contact between these two bedrock units is presented in cross-section G-G' (Figure 6). The rock is medium hard, weak to hard, and becomes intensely fractured, friable, and of low hardness to the east of Battery Marcus Miller (Boring SBSB100).

Groundwater

Saturated conditions were not noted in borings or test pits for BBDA-1A. It is possible that perched groundwater may occur during the wet season, as seepage was observed downslope at BBDA-1.

Results of Analytical Testing – 2005 Field Investigation

During the 2005 field investigation, two soil samples were collected and analyzed from one test pit at BBDA-1A (BB1ATP101) at depths ranging from 0 to 3 feet bgs. Sample numbers and sampling depths are shown in Tables 1 and 17, and the location of the test pit is shown on Figure 6. Analytical results are presented in Tables 10A and 10B. The *Remedial Action Plan (*RAP; *MACTEC, 2004b*) identified heptachlor epoxide, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-c,d)pyrene as COCs for BBDA-1A. Analytical results for these COCs are presented on Figure 6.

Nature and Extent of Contamination

This section presents an evaluation of the nature and extent of contamination at BBDA-1A based on the results of investigations conducted at the site to date. Geologic maps and trench logs indicate that at BBDA-1A, displaced historic fill overlies waste fill. The fill overlies native soil that in turn overlies serpentinite. Waste fill is approximately one to two feet thick and dominantly comprises asphalt, brick, and tar. It appears that the roofing material was scraped from Marcus Miller onto the battery apron, based on historical information. The mapped extent of the waste and historic fill and cross sections illustrating the relationship between the fill units, native soil, and bedrock are provided on Figure 6. Only six samples have been collected from four locations at the site for chemical analysis; one of these samples was collected from historic fill, the other five samples were collected from waste fill. Figure 6 posts COCs detected in soil above cleanup levels. Only two waste fill samples collected from one boring contain COCs (PAHs and pesticides) at concentrations exceeding cleanup levels. PAHs are expected based on the asphalt and tar debris found at the site. The following table shows the maximum detected concentration of COCs detected above cleanup levels at BBDA-1A.

Maximum Detected Concentration of COCs Detected Above Cleanup Levels at BBDA-1A

COC	Waste Fill		Cleanup Level
	Maximum Concentrations in mg/kg	No. of samples exceeding Cleanup level/ No. of Samples Analyzed	mg/kg
Benzo(a)anthracene	0.6	1/6	0.27
Benzo(b)fluoranthene	2	1/6	0.27
Benzo(a)pyrene	2	1/6	0.027
Indeno(1,2,3-cd)pyrene	2	1/6	0.27
Heptachlor epoxide	0.023	1/6	0.017

Based on material observed in test pits and on the ground surface at the site, it appears that waste fill mapped at the site contains COCs above cleanup levels and requires remediation. The contact between the waste and historic fill provides a boundary for the vertical extent of contamination because a sample collected from historic fill material does not contain COCs above cleanup levels. Although no samples have been collected for chemical analysis from areas outside the limits of the waste fill, based on the relative low mobility of contaminants found, contamination is not expected to extend beyond the mapped limits of the waste fill.

6.2.3 Baker Beach Disturbed Area-2

Surface Conditions

BBDA-2 is the southernmost of the BBDAs, and is located southwest of Battery Godfrey near the slope face. A gravel parking lot connects with BBDA-2 and the Covered Way around the southwest portion of Battery Godfrey. The terrain is relatively flat, with occasional hummocky areas south of the parking area. This area was graded for public access in the 1970s. Surface runoff is towards the edge of the bluff. The debris portion of BBDA-2 is predominately located down a steep slope to the west and in non-contiguous pockets to the south, surrounding former Magazines 27, 28, and 29, and metal salvage slabs. Elevations range from 185 to 255 feet over a lateral distance of 80 to 120 feet from the parking lot down to the top of a very steep escarpment. Below the escarpment are a series of vertical to near vertical slopes of bare bedrock. The bedrock slopes are generally devoid of any vegetation with the exception of scrub and perennial serpentine-type ground cover. Above the escarpment, mature trees, thick brush, and vines characterize the vegetative ground cover. Social trails extend from the parking lot down to the beach.

Artificial Fill

The exposures observed in the test pits and cultural resources trenches show a 3-dimensional image of wedges of waste fill, historic fill, and native soils that suggests successive dumping events. The fill is generally composed of very dark brown, organic-rich layers of coarse and fine grained soils. Construction debris (bricks, cobbles, concrete tile, waste rock), landscape debris (pockets of tree-trimmings), and a significant trash component (cans, bottles, chain-link fence, tire, wood box, glass) are present in the waste fill. The fill is generally less than 10 feet thick, and diminishes in thickness with distance from the cliff edge and a majority appears to rest upon native soils shown on Figure 7 (Geologic Cross section E-E).

Quaternary Deposits

Relatively thick deposits of yellow brown sandy clays and silts were observed in test pits, trenches, and borings. Between 3 and 6 feet of stiff to very stiff colluvium and Colma formation soils were logged in test pits excavated at BBDA-2. The Quaternary deposits are interpreted to thicken to the west and outcrop downslope of BBDA-2. They directly underlie waste fill, and overlie serpentinite bedrock and may represent residual serpentinite soil.

Bedrock Material

Bedrock was encountered between 6 and 20 feet bgs. Based on the surface exposures and test pit excavations on the BBDA-2 slopes, the upper portion of the slopes are underlain by serpentinite, as shown in cross-section E-E' (Figure 7). The rock variation is moderately hard and strong (Boring BB2SB100 and Test Pit BB2TP100) to more weathered and weaker (Borings BB2SB101, BBSB107, and Trench 1).

Groundwater

Groundwater was not observed in BBDA-2 test pits or trenches. Perched conditions may exist during the wet season if water were to collect on top of the bedrock surface.

Results of Analytical Testing – 2005 Field Investigation

Soil samples were collected and analyzed during the 2005 field investigation from three soil borings and two cultural resource trenches at BBDA-2 at depths ranging from 0 to 15 feet bgs. Boring, test pit, sample numbers, and sample depths are presented in Tables 1 and 17. Trench and soil boring locations are shown on Figure 7, and analytical results are presented in Tables 11A and 11B.

Metals were detected at concentrations exceeding applicable cleanup levels. Copper, lead, zinc, PAHs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene), Dichlorodiphenyldichloroethylene (DDT), and endrin were identified as COCs for BBDA-2 in the RAP (*MACTEC, 2004b)*. Based on results of the 2005 sampling, arsenic, barium, mercury, selenium, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene, are also considered COCs for BBDA-2. Results for these COCs are posted on Figure 7.

Results of Additional Analytical Testing – February 2006 Field Investigation

Soil samples were collected from BB2SB110 at 0.5 and 1 feet bgs and analyzed for Title 22 metals to confirm previously detected concentrations of cadmium and selenium in soil samples from RI boring BBSB07. These samples were collected from areas mapped as native soil/colluvium. Sample identification numbers, sample depths, and requested analyses are presented in Tables 1 and 17. Trench and soil boring locations are shown on Figure 7, and analytical results are presented in Tables 11A and 11B.

Arsenic was detected at 5.6 mg/kg in one of the three samples collected from the boring at concentrations exceeding the cleanup level of 5.4 mg/kg, which is based on the background level for serpentinite soil. It is noted that the detected concentration is less than the background level for Colma formation soil of 6.2 mg/kg; Colma formation is present at the site but was not separately mapped from colluvium and residual serpentinite soil. Selenium was also detected at concentrations ranging from 0.98 to 1.3 mg/kg which exceeded the cleanup level of 0.5 mg/kg. The cleanup level is based on the background level for serpentinite soil, which was set as the detection limit for selenium in the background dataset. These

results confirm previous result for selenium of 1.29 mg/kg in BBSB07, but do not confirm the previously detected concentration of cadmium at 2.2 mg/kg (Figure 7).

Nature and Extent of Contamination

This section presents an evaluation of the nature and extent of contamination at BBDA-2 based on the results of investigations conducted at the site to date. Geologic maps and boring and trench logs indicate that at the top of the bluff at BBDA-2, 5 to 15 feet of historical fill overlies native soil or native serpentinite rock. On the bluff slope, 1.5 to 8 feet of waste fill overlies a wedge of displaced historical fill. Where the underlying historical fill is absent, the waste fill overlies native soil. In the middle of the site, it appears that displaced historical fill lies upon the waste fill. At BBDA-2, the waste consists of bricks, cobble, concrete tile, and trash. The mapped extent of the waste and historic fill and cross sections illustration the relationship between the fill and native soil and bedrock units are provided on Figure 7.

Soil samples have been collected for chemical analysis from waste fill, historic fill, and native soil underlying the fill deposits. Four soil samples were also collected from borings BBSB108 and -109 located in the vicinity of the former metals recycling and disposal areas; these samples were collected from undisturbed historic fill and native serpentinite. In addition, two samples collected from native soil downslope of the debris area and one sample collected from weathered serpentinite that underlay historic fill were also chemically analyzed. Figure 7 posts COCs detected in these soil samples above cleanup levels; these COCs include metals, pesticides, and PAHs.

Detected contaminants are consistent with the type of waste disposed in the area, use of the site for metals recycling and disposal, as well as vehicle use associated with the metals recycling area. With the exception of the surface soil sample collected in the metals disposal area (BBSB109 at 0 feet), COC concentrations in the waste fill are higher than the historical fill.

Soil samples collected from native soil and weathered serpentinite [BBD2TP105(15), BBSB07(0.0), BB2SB110(0.5), BB2SB110(1.0), BBSB108(2)] contain arsenic, selenium, and/or cadmium concentrations above cleanup levels, which are based on background levels for serpentinite soils of 5.4, 0.5, and 1.9 mg/kg, respectively. BBD2TP105(15) and DUP020106 contained arsenic at 5.8 and 5.6 mg/kg which is below background for Colma formation (5.9 mg/kg) and therefore, arsenic at those locations are not believed to be the result of waste disposal practices at the site. The sample that contained arsenic at 10 mg/kg soil [BBD2TP105(15)] was collected in the vicinity of a former metals salvage shop and may be present in soil as a result of past site use for metals recycling. Only one sample BBSB07(0.0) contained cadmium at 2.2 mg/kg, which exceeded background of 1.9 mg/kg. The cadmium results were not confirmed by subsequent soil samples collected from adjacent boring BB2SB110. Selenium was detected above the background level in five of the native soil samples at a maximum concentration of 1.3 mg/kg, exceeding the cleanup level of 0.5 mg/kg. As previously discussed, the background value for selenium is based on the detection limit. Most of the exceedances of selenium were reported in samples from BBSB07 and BB2SB110 which are not apparently near waste debris. It is possible that these selenium levels do not represent site contamination because there may be local variations in native metals concentrations that are not captured by the background metals dataset.

The following table shows the maximum detected concentration of COCs detected above cleanup levels in the historic fill, waste fill, and native soil or serpentinite at BBDA-2.

Maximum Detected Concentration of COCs Detected Above Cleanup Levels in BBDA-2

	Historic fill		Waste Fill		Native Soil/Serpentinite		Cleanup Level
COC	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Arsenic	7.4	2/7			10	3/7	5.4
Barium			520	1/7			320
Cadmium					2.2	1/7	1.9
Selenium			0.541	1/7	1.3	5/7	0.5
Copper			118	1/7			85
Lead	1900	3	210	2/7			160
Mercury	1.1	2/7	0.49	1/7			0.4
Zinc	210	3/7	420	3/7			160
DDT			0.02	1/7			0.0082
Endrin			0.006	1/7			0.004
PAHs (benzo(a)pyrene)	0.082	2/6	.14	3/3			0.027

Based upon lithologic and chemical characterization data it appears that waste fill and displaced historic fill contain COCs above cleanup levels and requires remediation. The depth of contamination varies from 2 to 8 feet depending on the thickness of the waste and displaced historic fill. Of the two samples collected from native soil beneath the fill, only one sample contains COCs above cleanup levels - arsenic at 5.8 mg/kg, just above the cleanup level and background threshold level for arsenic in serpentinite of 5.4 mg/kg. The one perimeter sample collected at the site (BB2SB102) shows PAHs (benzo(a)pyrene) in surface, but not deeper soil (2 feet bgs) in this area.

Undisturbed historical fill in the vicinity of the former metals recycling and disposal area also contains metals and PAHs above cleanup levels and requires remediation. Analytical results from Boring BBSB108 indicates that contamination extends to at least 2 feet bgs in this area. However, comparison of results for the sample and duplicate sample collected at 2 feet bgs at BBSB109 suggests that the presence of lead at depth is not extensive (e.g., lead concentration was 1,900 mg/kg at the surface, and was 35 and 180 mg/kg in the sample and duplicate sample, respectively, at 2 feet bgs). No perimeter samples have been collected to characterize the areal extent of contamination in this area, but is expected that contamination will be in the general area where metals disposal and recycling operations were performed.

Selenium, cadmium, and arsenic have been detected above background in an area (BBSB07 and BB2SB110) where no waste fill or historic fill has been identified. Based on the magnitude of the metals exceedances at that location, it is not recommended that soil be removed from this area.

6.2.4 Baker Beach Disturbed Area-2A

Surface Conditions

BBDA-2A, located north of BBDA-2, is a large, elongated debris area that extends westward from the gravel parking lot located adjacent to BBDA-2. The debris area extends down the slope a lateral distance of approximately 300 feet towards the beach, and is situated in a concave bowl. Vegetation consists of

grasses, shrubs, brush, and a few trees. Elevations range from near sea level to 255 feet. The uppermost portion consists of a prominent bedrock cliff, approximately 25 feet high, decreasing to an average slope inclination of 44 degrees. Erosion scars on the southern border are evident where surface drainage has been allowed to run down the slope.

Artificial Fill

The fill material varies widely in thickness and type, with stratification evident in trenches excavated across the slope. The waste fill layer is greater than 14 feet thick in the southern portion of BBDA-2A, decreasing in thickness towards the northern portions of the site. Debris encountered includes metal (auto parts, cable, cable spools, I-beams, sheet metal, and rebar), household items (glass, bottles, porcelain, and charcoal), and construction debris (concrete, brick, slate, marble, lumber, large logs, cobbles, and metal fence posts). The debris is concentrated in the upper layers of soil in a matrix of dark brown-grey sandy silt, which is rich in organic matter, and appears to be topsoil. Based on these observations, the fill was placed here as debris, and not as a debris/soil mixture. Although test pits BB2ATP101 and -TP104 did not extend down to bedrock, layers of bricks were encountered beneath the layers of trash debris. This may be representative of episodic disposal of brick debris related to the periodic demolition of structures, or a single disposal episode followed by a movement/sliding of debris after it was placed on the slope. Light brown siltstone gravel fill is present beneath the brick debris.

Quaternary Deposits

Native soils indicative of weathered serpentinite, and to a lesser extent colluvium and Colma formation, were observed in relatively thin layers (2 feet) in most of the test pits excavated at BBDA-2A. Soft to very dense, these clayey soils are locally sandy. Native soil has been observed on the bluff top and on slopes.

Bedrock Material

- Serpentinite – Logs of test pits show that the rock is hard, strong, and most resistant near the top of the slope near Battery Godfrey; the rock is relatively weak and deeply weathered, and becomes intensely fractured, friable, and of low hardness further down the slope.

- Mélange – Based on logging of test pits BB2ATP105 and -TP106, this rock unit is black, intensively fractured, weak and of low hardness. Surface outcrops are generally mudstone and sheared sandstone, with locally friable and crushed sandstone blocks.

Excavations of waste fill from BBDA-2A will leave relatively uniform, yet steep slopes in the exposed serpentinite. The mélange is less stable and may exhibit localized sloughing and/or seepage on the lower portions of the slope.

Groundwater

Saturated conditions in BBDA-2A were noted in test pits at 8 to 10 feet bgs. During the 2005 field investigation, a natural seep, which was not identified during previous investigations, was encountered and mapped at a location near the toe of the slope. This seep was sampled during the February 2006 field investigations. Analytical results for the samples collected from this seep are discussed below and presented in Tables 9A, 9B and 9C.

Results of Analytical Testing – 2005 Field Investigation

Soil samples were collected and analyzed during the 2005 field investigation from one beach location, three soil borings, one cultural resource trench, and three test pits at BBDA-2A. Sampling depths ranged from 0.5 to 14 ft bgs. Test pits, soil borings, sample numbers, and sample depths are presented in Tables 1 and 17. Trench, test pit, and soil boring locations are shown on Figure 8, and analytical results are presented in Tables 12A and 12B.

Metals (copper, mercury, silver, and zinc), PAHs (benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene), and TPH motor/fuel oil were the only analytes detected at concentrations greater than applicable cleanup levels. PAHs (benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene), DDT, and metals (antimony, arsenic, barium, cadmium, copper, lead, mercury, selenium, and zinc) were previously identified in the RAP (*MACTEC, 2004b*) as COCs for BBDA-2A. Based on results of the 2005 sampling, silver and TPH motor/fuel oil are also considered a COC for this site. Figure 8 presents analytical results for BBDA-2A COCs.

Results of Additional Analytical Testing – February 2006 Field Investigation

In February 2006, a soil sample was collected at a depth of approximately 1 foot bgs from BB2SB120 and analyzed for PAHs and metals. The sample was collected adjacent to BBSB106 where PAHs and zinc had been detected above cleanup levels in a sample collected at 0.5 feet bgs. The two borings were drilled on the frontal slope of Battery Godfrey where fragments of asphalt roofing material were observed on the ground surface. The soil sample number, sample depth, and requested analyses are presented in Table 17. The sample location is shown on Figure 8, and analytical results are presented in Tables 12A and 12B.

Metals [selenium (0.58 mg/kg; cleanup level of 0.5 mg/kg) and vanadium (75 mg/kg; cleanup level of 74 mg/kg) were detected at concentrations just above applicable cleanup levels. PAH results were not detected or reported at concentrations below cleanup levels. It is noted that results for benzo(a)pyrene were qualified as not detected at a reporting limit of 0.064 mg/kg which exceeded the cleanup level of 0.027 mg/kg, therefore, the presence or absence of benzo(a)pyrene below cleanup levels at 1 ft bgs cannot be confirmed. During sampling, fragments of asphalt/tar roofing material were observed in the area. Based on results of the 2006 sampling, vanadium will also be considered a COC for this site. Figure 8 presents analytical results for BBDA-2A COCs.

As discussed in Section 3.6.4, in February 2006, surface samples were collected from a seep location at the base of BBDA-2A (BB2ASW100). Samples collected in February 2006 were analyzed for VOCs, PAHs, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, dissolved Title 22 metals (field filtered sample) and total Title 22 metals (unfiltered sample). Results are presented in Table 9.

Analytical results were compared to the most stringent of drinking water, freshwater seep, and surface water cleanup levels. Comparison of results to these cleanup levels shows that benzo(a)anthracene, benzo(b)fluoranthene, chrysene, 4, 4’ DDT, antimony, arsenic, cadmium, copper, chromium, lead, mercury, nickel, selenium, and zinc exceeded cleanup levels. Only unfiltered samples exceed cleanup levels for arsenic, cadmium, chromium, lead, nickel, and zinc. Cleanup levels for these metals were based on levels presented in the RWQCB Basin Plan, which are based on dissolved metals concentrations and are therefore, not applicable to unfiltered samples. Antimony results are suspect because antimony was detected in the filtered but not the unfiltered water sample. Based on the results of the February 2006 sampling, it appears that there are elevated levels of selenium, mercury, and PAHs in the seep water that will require containment during the remedial construction phase and cannot be discharged at the site.

Nature and Extent of Contamination

This section presents an evaluation of the nature and extent of contamination at BBDA-2A based on the results of investigations conducted at the site to date. These investigations have primarily focused on characterizing waste fill and historic fill. Only one sample has been collected for chemical analysis from what is characterized as native soil and one soil sample has been collected from beach sand underlying beach debris.

Review of geologic maps, boring and trench logs indicates that at the top of the bluff, historic fill is underlain by native soils that are in turn underlain by serpentinite. On the bluff slope, waste fill sits upon displaced historic fill that is underlain by serpentinite and/or landslide debris. Lithologic logs indicate that the waste fill contains metal, household, and construction debris that is generally concentrated in the upper portion of the fill deposit. Depths of the waste fill vary from 2 feet near the bluff top (BB2ATP100 and -102) to thicknesses greater than 14 feet (BB2ATP101). The mapped extent of the waste fill and cross sections illustrating the relationship between the fill units, native soil, and bedrock are provided on Figure 8.

Figure 8 posts COCs detected in soil above applicable cleanup levels. These COCs include metals, DDT, and PAHs. Review of these data show that both historic fill and waste fill samples contain COCs above cleanup levels. Concentrations of metals generally appear to be higher in the waste fill. However, similar PAH concentrations were seen in both types of fill, and based on limited sampling, higher DDT concentrations were detected in the historic fill compared to waste fill soil samples. With two exceptions (BBSB106 and BBSB120), the historic fill containing COCs above cleanup levels comprised displaced historic fill that underlay or was in close proximity to waste fill. The soil samples from BBSB106 and BBSB120 were collected at 0.5 and 1 foot bgs on the frontal slope west of Battery Godfrey. These samples contained PAHs, selenium, vanadium, and zinc at concentrations of 0.34 (for benzo(a)pyrene), 0.58, 75, and 190 mg/kg, respectively which exceeded cleanup levels of 0.027, 0.5, 74, and 160 mg/kg and likely reflected contamination related to asphalt/tar roofing material present on the ground surface. This material appeared to have been derived from Battery Godfrey.

One sample was collected at 2 feet bgs from native soil just north of the mapped waste fill. The only COC present above cleanup levels in this sample was cadmium, which was detected at 3.0 mg/kg, which exceeded the background level of 1.9 mg/kg for cadmium in serpentinite soil. Because this was the only COC detected above cleanup levels, it is not clear if this detection represents contamination related to past site disposal practices.

One sample was also collected from beach sand underlying debris and submitted for chemical analysis. Only one COC, arsenic, was detected at a concentration (6.4 mg/kg) exceeding the cleanup level of 5.9 mg/kg which represents background for Beach Dune sand. Because the background dataset may represent the range of metals concentrations present in recent beach deposits, this exceedance may not represent contamination from past site-disposal practices. The following table shows the maximum detected concentration of COCs detected above cleanup levels in the historic and waste fill at BBDA-2A.

Maximum Detected Concentration of COCs Detected Above Cleanup Levels in the Historic and Waste Fill at BBDA-2A

COC	Historic fill		Waste Fill		Cleanup Level
	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Arsenic	6.7	4/10			5.4
Barium			390	1/7	320
Cadmium			11	5/7	1.9
Selenium	1.2	2/10			0.5
Mercury	0.58	2/10			0.4
Silver	2.3	1/10			2
Copper	92	1/10	150	1/7	85
Lead	210	2/10	500	4/7	160
Vanadium	75	1/10			74
Zinc	270	4/10	720	3/7	160
DDT	0.12	4/8	0.06	3/5	0.0082
TPH Motor/Fuel oil		1/1			
PAHs (benzo(a)pyrene)	0.34	4/10	0.33	1/7	0.027

Based on lithologic and chemical analytical data, it appears that the area mapped as waste fill and the underlying and adjacent displaced historic fill contains COCs above cleanup levels and requires remediation. Based on trench logs, depending on the depth of the fill, it appears that contamination extends from 2 to over 14 feet bgs. It also appears that shallow soil in the frontal slope; west of Battery Godfrey also contains elevated levels of COCs. It is not expected that contamination in this area extends to depths greater than 2 feet in this area as the likely source of the contamination is asphalt/tar roofing material present on the ground surface in the area. It is noted that there are limited soil samples collected in perimeter areas to confirm that native soils do not contain COCs above cleanup levels. Based on the low mobility of the contaminants and the nature of the contamination source (debris fill), contamination is not expected to extend beyond the mapped limits of the waste fill or displaced artificial fill.

6.2.5 Merchant Road Area and Undesignated Disturbed Area

Surface Conditions

Merchant Road passes through the easternmost area of the project area. Most of this area consists of relatively flat to moderately sloping and wooded terrain. This area includes the land behind the bluff top, and is generally free of building structures with the exception of GGBHTD buildings east of Battery Marcus Miller (Figure 2). Merchant Road will be realigned prior to the remediation activities and will connect with Storey Road.

Existing, unpaved parking areas along the western shoulder of Merchant Road gently rise to a promontory at the eastern edges of a service road referred to as the Covered Way. This road was originally constructed in the early 1870s to serve gun emplacements at West Battery and is referred to as a "covered way," based on the assumption that it was constructed with high sides to protect it from enemy fire.

However, the road was not originally constructed as a feature below the surrounding ground level. When it was originally built, the road was at approximately the same elevation as the surrounding landscape. The area south of the "Covered Way" was raised as a result of grading activities associated with construction of the Endicott fortifications (i.e., West Battery materials that were pushed behind Batteries Godfrey and Marcus Miller.). The Covered Way represents the easternmost limits of the BBDAs, except where some waste fill was mapped near the GGBHTD offices (Figure 2). A bedrock knoll is located at the southernmost end of the Covered Way and represents the highest topographical point in the project area. The area is covered with trees, and contains the remnants of a concrete gunnery structure and a concrete building nestled in a depressed pit. An additional building is located to the northeast, adjacent to a parking lot.

An undesignated disturbed area is located east of the Covered Way and north of Battery Boutelle. This area has an irregular shape and is approximately 150 feet wide and 400 feet long. This area was identified based on a 1967 aerial photograph that showed piles of light colored fill in the area between the batteries and Merchant Road. The source of the fill is unknown; one potential source may have been excavations for the Letterman Hospital at the Presidio. Elevations range from 220 feet at the south to 190 feet at the north. The slopes are very gentle to the east towards Merchant Road, but are much more steep towards the Covered Way to the west. Brush, small trees, and grass cover most of the area. The GGBHTD offices are situated partly within and just north of the area. These buildings are shown on Figure 2.

Artificial Fill

The material encountered in test pits TP-110, -111, -112, and -113 indicates that the fill noted in the 1967 aerial photograph (discussed above) is between 2 and 6 feet thick, and ranges from a silty gravel with sand to a lean clay/silt with gravel. Debris found in the fill consists of concrete, bricks, tar cemented gravels, wood, automobile parts, charcoal, and metal and was limited to a small area on the western side of the disturbed area. Much of this debris is exposed along the back slope of The Covered Way. Other fill (afo) consisting of silty sand and lean clay without debris was observed between The Covered Way and Merchant Road.

Quaternary Deposits

The borings encountered yellowish brown sandy clays and silty sands, which are interpreted to be Colma formation and/or highly weathered bedrock or residual soil, based their gradational contact with the underlying serpentinite and the presence of faint relict foliation. These soils were between 4 and 6 feet thick.

Bedrock Material

Bedrock was not encountered in any of the test pits. However, soil borings were advanced to refusal in serpentinite bedrock at depths ranging from 7 to 10 feet bgs. This serpentinite bedrock appeared to be highly weathered and fractured.

Groundwater

Groundwater was not observed in any of the test pits or trenches.

Results of Analytical Testing – 2005 Field Investigation

During the 2005 field investigation, soil samples were collected and analyzed from 4 test pits and 3 borings (BBITP110, -111, -112, and -113) and BBSB117, -118, and -119 at depths ranging from 1.5 to 12 ft bgs. Test pits, borings, sample numbers, and sample depths are shown in Table 1. The location of

the trenches, test pits, and soil borings are shown on Figure 2. The results of chemical concentrations were compared with applicable cleanup levels, listed in Table 5. These cleanup levels are those considered applicable to portions of the BBDAs designated as ecological buffer zone areas (Figure 4A). The detected results are presented in Table 14A and 14B. TPH compounds, PCBs, PAHs, and pesticides did not exceed applicable cleanup levels for the site. VOCs were not detected. Arsenic was detected at concentrations exceeding applicable cleanup levels for serpentinite soil and have been identified as a COC. Results for this COC are shown on Figure 9.

Nature and Extent of Contamination

This section presents an evaluation of the nature and extent of contamination at the undesignated fill/Merchant Road area based on the results of the 2005 field investigation. Logs for test pit BB1TP113 indicate that just east of the Covered Way, approximately 3 to 4 feet of waste fill comprising silty gravel with sand, clayey sand, sandy silt containing tar-cemented gravels, concrete, wood, charcoal, and auto parts overlies native soil consisting of sandy lean clay. In the portion of the site that was designated as a fill area based on the 1967 aerial photograph, trench logs (BB1TP110, -111, and -112) show that approximately 2 to 7 feet of fill containing construction debris is present in the central and southern portions of the fill area. This fill appears to be dominantly composed of silt or clay with gravel, concrete, brick, asphalt, and wood. This fill overlies 1 to 7 feet of other fill, comprising sandy clay or silty sand with cobbles and serpentinite clasts. The fill overlies native soil consisting of sandy lean clay and silty sand.

Soil samples have been collected for chemical analysis from other fill and native soil underlying the fill deposits. Figure 9 posts chemicals detected in these soil samples above applicable cleanup levels (serpentinite soil/human health/ecological buffer zone). Based on this comparison, the only chemical detected above applicable cleanup levels is arsenic.

Arsenic was detected in several samples at concentrations ranging from 3.2 to 5.8 mg/kg. Three samples, two collected from native soil and one collected from waste fill, exceed the cleanup level of 5.4 mg/kg, which corresponds to the background concentration for arsenic in serpentinite soil. Review of lithologic logs indicate that the two native soil samples containing arsenic above 5.4 mg/kg were collected from soil which may represent Colma formation or soil that represents a combination of Colma and residual serpentinite soils. It should be noted that arsenic concentrations do not exceed the background concentration for Colma formation soils of 6.2 mg/kg. Scatter plots for the two samples collected from native soil BBTP111(6.0) and BB1TP110(12) show distribution of metals that are similar to Colma soils with possible contribution from the underlying serpentinite, supporting that these arsenic levels are likely naturally occurring concentrations. Scatter plots comparing site metals to data from the Presidio background dataset are presented in Appendix L.

The following table shows the maximum detected concentration of COCs detected above cleanup levels in the fill, waste fill, and native soil at the undesignated fill/Merchant Road Area.

Maximum Detected Concentration of COCs Detected Above Cleanup Levels in the Fill, Waste Fill, and Native Soil at the Undesignated Fill/Merchant Road Area

	Other fill		Waste Fill		Native Soil		Cleanup Level
COC	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	Maximum Concentration in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Arsenic			5.8	1/1	5.8	2/4	5.4

Only cleanup level exceedances are cited.

Because the arsenic concentrations are within background for Colma formation soils, arsenic concentrations between 5.4 and 5.8 mg/kg are not considered to pose risk to human or ecological receptors. Therefore, because the waste fill in the central and southern portions of the site contains only construction debris containing brick and concrete and does not contain chemicals above cleanup levels, no remediation is recommended for soil in the central portion of the site.

Because the area of waste fill east of the Covered Way contains material (tar-cemented gravels, auto parts), that likely contain chemicals of concern above cleanup levels, it is recommended that this waste soil be removed. The impacted area is expected to be limited to the area mapped as waste soil and is expected to extend to 4 feet bgs, where native soils were encountered.

7.0 SLOPE STABILITY ANALYSES

This section presents the methodologies used and results of slope stability analyses to evaluate the coastal bluffs in the vicinity of Baker Beach Disturbed Areas 1, 1A, 2, and 2A. The purpose of the analyses was to assess the stability of the steep bluff slopes under existing conditions, during removal of waste fills and long term after remedial actions at the site are complete. Of particular concern are the potential effects of the planned waste removal on the stability of the historic batteries and other cultural features at the top of the bluff slopes.

7.1 Stability Study Methodologies

The stability of the existing and planned slopes was evaluated using soil and rock profiles and material properties determined from field exploration, geologic evaluation, and laboratory testing as described in the Material Properties Technical Memorandum (*MACTEC, 2005i*) and presented on Table 15. Eight subsurface profiles (A-A' through H-H') were selected for the stability analyses. The profiles are located as shown on Figure 2 and are presented in the cross-sections on Figures 5 through 8. The locations of the cross-sections were selected to model the steepest sections of each BBDA and to utilize the maximum amount of available subsurface information. The locations of the cross sections were also selected for stability analyses of the batteries, potential equipment and staging areas, and debris areas present near the base of the slopes.

The computer program Slope/W (Version 2004) by Geoslope International (*2004*) was used for the evaluation of circular and non-circular failure surfaces (Spencer's Method). The Infinite Slope Method was used for evaluation of shallow failures of frictional materials parallel to a slope. Both methods calculate a factor of safety, which is the ratio of the available resistance to sliding divided by the sliding forces The higher the factor of safety, the more stable the slope. Typically, a slope with a static factor of safety greater than 1.5 indicates a relatively stable slope. For short-term conditions, such as during construction, smaller factors of safety such as 1.3 are usually acceptable. Calculated factors of safety near 1.0 indicate that the slope may be on the verge of failure. Factors of safety well below 1.0 indicate that the slope analyzed would likely be unstable. For large earthquake loads, slope stability methods often yield factors of safety less than 1.0, indicating slope "failure". However, the effects of earthquakes on slopes can often be downslope deformation, rather than gross slippage of the "failure" mass.

The engineering properties of the fill materials, landslide debris, native soils/Colma Formation, and Franciscan bedrock were based on the results of our field investigation, laboratory testing, and engineering judgment, as described in our Materials Properties Technical Memorandum. The engineering properties used in the stability analyses are presented in Table 15.

7.2 Slope Stability Analyses of BBDAs

The results of the stability analyses are presented in Appendix D, and in Table 16, and are discussed below for the various areas of the site.

7.2.1 Baker Beach Disturbed Area 1

Cross-sections A-A', C-C', F-F' and H-H' are located within or near BBDA-1 (Figure 2) and are shown on Figure 5. Stability analyses of these sections indicate the following:

Existing Conditions

- The underlying Franciscan bedrock (mélange and serpentinite) are relatively strong and can be considered stable under short- and mid-term static conditions and earthquake conditions based on laboratory tests of the material and observations of exposed outcrops on the slope.

- The existing waste fills, historic fills, and native soils exposed on the steep slopes below the top of the bluff in BBDA-1 are marginally stable under static conditions based on calculated factors of safety typically near 1.0. In some very steep slopes, the calculated factors of safety were about 0.6, indicating that the soil in these locations likely has some short-term cohesion to maintain the steep slopes. During large earthquakes, these materials can be expected to be displaced down-slope.

- At Cross-section C-C', where historic fill lies between Battery Boutelle and the top of the bluff, the face of the fill at the top of the bluff is marginally stable under static conditions based on a calculated factor of safety of 0.62, indicating some cohesion may be present in the soil. During a large earthquake, the face of the fill could move down-slope and away from the buried front wall of the Battery Boutelle. Battery Boutelle, although only about 40 feet from the top of the slope face (beyond the battery's frontal apron), is not likely to be significantly at risk because it is believed to be founded on serpentinite bedrock which is relatively strong at the bluff top.

- At Cross-section F-F', where historic fill lies between Battery Marcus Miller and the top of the bluff, the face of the fill at the top of the bluff is marginally stable under static conditions based on a calculated factor of safety of 1.04. During a large earthquake, the face of the fill could move down-slope. However, this movement would not likely affect Battery Marcus Miller because it is located about 100 feet from the top of the slope face (beyond the battery's frontal apron).

Conditions during and after Waste fill Removal

- Where removal of the waste fill will expose mélange or serpentinite (Cross-section A-A'), the exposed bedrock slopes should be stable under static conditions based on calculated factors of safety of at least 2. In the long-term, the risk of bedrock slope movements during a large earthquake based on these factors of safety calculations is small.

- Where removal of waste fill will expose sloping layers of historic fills, landslide deposits or native soils (Cross-sections C-C' and H-H'), these soils could be unstable and subject to sliding based on calculated factors of safety ranging from 0.53 to 1.1. In the long-term, the risk of slope movements in these exposed soils during a large earthquake is likely to be large based on these relatively low calculated factors of safety.

- Analyses of equipment and stockpile loads at the tops of the slopes indicate that setbacks on the order of 10 feet from the slope face will generally be sufficient based on calculated factors of safety greater than 1.3. Soils at the top of the bluff remaining after Phase 1 waste removal will be relatively thin (or absent) and underlain by relatively strong serpentinite bedrock.

- For the cross-sections analyzed, none of the areas of planned waste fill removal in BBDA-1 will affect the existing conditions at either Batteries Boutelle or Marcus Miller. In the area between the two Batteries, where waste fill will be removed during Phase 1, the waste fill is relatively shallow and should not impact the stability of the Batteries Boutelle and Marcus Miller, which are believed to be founded on serpentinite bedrock based on evaluation of borings drilled along the bluff top adjacent to the batteries.

7.2.2 Baker Beach Disturbed Area 1A

Cross-section G-G' is located within BBDA-1A (Figure 2) and is shown on Figure 6. Stability analyses of this section indicate the following:

Existing Conditions

- The existing relatively gentle slopes of the historic and waste fills in BBDA-1A at the top of the bluff near Battery Marcus Miller can be considered stable under static conditions based on calculated factors of safety equal to or greater than 1.43. During a strong earthquake, down-slope movements towards the bluff face could occur.

- Battery Marcus Miller lies approximately 90 feet from the top of the slope face (beyond the battery's frontal apron) at BBDA-1A. Battery Marcus Miller is believed to be founded on serpentinite, so it is not likely to move down slope.

Conditions during and after Waste Fill Removal

- Removal is not likely to cause stability problems for the exposed underlying native soils, which are relatively flat lying in BBDA-1A, because the waste fill is at the top of the bluff.

- Waste fill removal may require excavation of some historic fill that is adjacent to and partially surrounded by the waste fill (historic fill is considered an historic resource). However, it is not expected that enough historic fill would be removed on the battery apron that would result in steep excavation slopes.

7.2.3 Baker Beach Disturbed Area 2

Cross-section E-E' is located within BBDA-2 (Figure 2) and is shown on Figure 7. Stability analyses of this section indicate the following:

Existing Conditions

- The existing relatively gentle slopes of the historic and waste fills in BBDA-2 at the top of the bluff south of Battery Godfrey can be considered stable under static conditions based on calculated factors of safety equal to or greater than 1.46. During a strong earthquake, down-slope movements towards the bluff face could occur.

Conditions during and after Waste Fill Removal

- After removal of the waste fill and any overlying historic fill, the exposed slopes in the underlying historic fill and native soils should be stable under static conditions based on a calculated factor of safety equal to or greater than 1.40. During a strong earthquake, the steepest slope in the exposed historic fill could move laterally.

7.2.4 Baker Beach Disturbed Area 2A

Cross-sections B-B' and D'D' are located within BBDA-2A (Figure 2) and are shown on Figure 8. Stability analyses of these sections indicate the following:

Existing Conditions

- The waste fill and other fill on the steep bluff slopes at BBDA-2A can be considered unstable to marginally stable in their existing condition based on calculated factors of safety as low as 0.52. This low factor of safety indicates that the fill materials have some cohesion to maintain their relatively steep slopes. During a strong earthquake, large movements of these fills, could occur.

- The steep slope face of the thin layer of historic fill on top of the bluff is also marginally stable in its current condition. Historic fill near the slope could move laterally during a strong earthquake. However, this lateral movement of historic fill is not likely to affect Battery Godfrey because it is located at least 75 feet from the top of the slope face and is believed to be founded on serpentinite based on evaluation of borings drilled on the bluff top near the batteries.

Conditions during and after Waste Fill Removal

- Removal of the waste fill from the steep bluff slopes will expose sloping layers of disturbed historic fill and native soils. These exposed slopes could be unstable and subject to sliding based on low calculated factors of safety ranging from 0.62 to 0.83. Based on these calculations, there is a long-term risk of downslope movements in these exposed soils during a large earthquake.

- The waste fill on the steep bluff slopes is separated from the historic fill at the top of the bluff by outcropping serpentinite bedrock. Thus, the waste fill removal will not affect the stability of the historic fill at the top of the bluff, nor Battery Godfrey located at least 75 feet from the slope face.

- Analyses of equipment and stockpile loads at the tops of the bluff slopes (Cross-section D-D') indicate that setbacks on the order of 10 feet from the slope face will generally be sufficient based on calculated factors of safety greater than 1.3. The historic fill and native soils at the top of the bluff are relatively thin and underlain by serpentinite bedrock at this location.

7.3 Other Considerations for Slope Stability during Construction

The marginal stability of the fill, landslide deposits and native soils on the steep bluff slopes at BBDA-1 and BBDA-2A (based on observations and calculated factors of safety) indicate that excavation of waste fill could trigger movements of slopes above the excavation areas (unless the upper areas are exposed bedrock). Most soil layers are relatively thin, so the depth of slope movement is likely to be limited to top of the underlying bedrock. However, the lateral extent of soil movement from up the hill is difficult to quantify based on current methods of analyses of lateral movement.

In BBDA-1, groundwater seeps indicate that groundwater is relatively shallow or at the ground surface in portions of this waste fill area. With shallow groundwater and loose fill soils, there is a risk that construction excavations and equipment vibrations may induce liquefaction and localized soil debris flows – as occurred during the excavation of Test Pit BB1TP102 in this area.

7.4 Considerations for Long-Term Slope Stability

The stability analyses performed for this investigation do not specifically address the potential for long-term instability of the steep bluff slopes that could result from natural processes (other than earthquakes), such as weathering, rainfall runoff and erosion, burrowing by animals, and attack at the base of the bluffs by ocean storm or tsunami waves. After waste fill removal, the remaining fills, landslide deposits and native soils that thinly blanket portions of the bluff slopes will be most susceptible to down-slope movements over time. However, even the mélange and serpentinite bedrock will be at risk of erosion,

landslides and rockfalls, as evident from the existing condition of the bluff slopes near the waste fill areas. There will be increased risk of surface erosion of the slopes immediately following waste removal until native vegetation has been re-established.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This section summarizes results of the field investigation and proposes recommendations if excavation is selected as the remedy for the BBDAs; it is divided into three primary sections. Section 8.1 summarizes environmental investigation results with respect to evaluation of current and previous data and describes how the project objectives (previously referred to as "data gaps") were met. Section 8.2 summarizes geotechnical/structural evaluations and makes recommendations during implementation of an excavation remedy. Section 8.3 recommends treatment methods to protect historical and cultural resources during and after implementation of an excavation remedy.

8.1 Environmental Investigation Results

The field investigations have confirmed the presence of COCs in the four BBDAs. In general, evaluation of recent and previous analytical results suggests that the source of contamination is waste fill (afw), and contaminated soil is primarily located within the mapped footprint of the waste fill. Contamination found in other types of materials such as bedrock (KJm, KJss and KJsh, Sp), historic fill (afh, afh1, afh2), and native soils (Qls, Qcol, and Qb) was detected in cases where those materials were in close proximity to or in contact with waste fill. Although few samples have been collected for chemical analysis from areas outside of the limits of waste fill, based on the relative low mobility of contaminants found, contamination is not expected to extend far beyond the mapped limits of the waste fill.

Based on investigations conducted to date, it appears that waste fill and underlying and/or adjacent historic fill at BBDAs -1, -1A, -2, and -2A contain COCs above cleanup levels and require remediation. At BBDA-1, undisturbed historic fill associated with Batteries Boutelle and Marcus Miller and buried cultural resources may contain COCs above cleanup levels where in contact with waste fill. At BBDA-2, undisturbed historic fill contains COCs above cleanup levels in the vicinity of a former metals recycling and disposal area. In the frontal slopes of the batteries at BBDAs -1 and -2A, shallow, undisturbed historic fill is contaminated with PAHs probably from fragments of asphalt/tar roofing material derived from the adjacent batteries. The historic fill in these areas that were contaminated by waste fill and shallow soil on the frontal slopes containing asphalt/tar roofing material fragments will likely require remediation.

The following sections describe area-specific conditions with respect to evaluation of environmental and cultural resource studies, and present how data gaps identified by DTSC in their preliminary review of the RAP sections on the BBDAs were met.

8.1.1 Area-Specific Conditions

Although each BBDA contains waste fill with COCs above action levels, the landfills represent different episodes of waste disposal and have differing site conditions that are important to incorporate in their remedial design. The following describes each of the BBDAs and other significant fill areas and fill materials:

> **BBDA-1 –** Dumping of waste materials (refuse and construction debris) downslope may have began around World War I. Waste disposal activities began with direct downslope dumping of debris and refuse generated possibly from the barracks to the east. Two incinerators were constructed in 1922 and 1934, and dumping continued throughout the incinerator operation until around 1967. Foundation materials of what is believed to be the former incinerator was encountered during trenching. Waste disposal activities continued in the area between Batteries

Boutelle and Marcus Miller, eventually covering four former mortar platforms and the adjacent opening to Magazine 21 with refuse and construction debris.

Waste fill is thickest in the center of the slope face, estimated to be greater than 20 feet thick based on a test pit excavated to that depth. Test pits indicate that the waste fill is about 8 feet thick at the bottom of the slope face below the seep, and about 10 feet thick on the bluff top. Groundwater measurements in piezometers indicate that about 6 feet of the waste is saturated at the bottom of the slope.

Waste fill is in contact with historic fill that comprise Batteries Boutelle and Marcus Miller earthworks, and waste fill is above the chert fill that covers buried mortar platforms in the area. This layer of chert fill may serve as a marker unit for the location of the historic fill when the removal of waste in this area takes place. Based on sampling conducting as part of this investigation, it is likely that there will be some removal of historic fill that was contaminated by the waste fill in the area of the frontal slope where the incinerator was located. At locations on the frontal slopes where fragments of asphalt/tar roofing material are present at the ground surface, shallow soil will also need to be removed because sampling has shown that PAHs [e.g., benzo(a)pyrene at 0.037 mg/kg] exceed cleanup levels (0.027 mg/kg) in surface soil.

BBDA-1A – This waste is primarily roofing material, from the roof of Battery Marcus Miller (remnants of similar roofing material are visible on the battery roof). Waste fill is thin (less than 2 feet thick), is unsaturated, and is in contact with the battery's historic fill frontal slope. Waste removal will likely require removal of some of this historic fill that is in contact with waste fill.

BBDA- 2 – Waste fill was placed on a cut surface that removed portions of the earthworks related to West Battery and Endicott Period fortifications. This waste, primarily construction and landscaping debris with some household refuse, was probably dumped during and after construction of the Battery Godfrey parking lot in 1954. The waste is generally less than 10 feet thick, is unsaturated (though perched conditions may exist during the wet season), and diminishes in thickness with distance from the cliff edge. Bluff-top historic fill (afh1) displaced during battery construction that is in contact with waste fill will likely require removal.

BBDA-2A – Parking lot construction west of Battery Godfrey began in 1954, and it appears that part of the frontal slope of the battery (mapped as afh2) was pushed downslope. The parking area may have been used to provide better access to the former dump and recycling areas to the south. This displaced historic fill is overlain by waste debris (primarily metal and construction debris with some household refuse), dating the disposal of the waste fill after 1954. Layers of brick were encountered beneath the waste fill that may represent episodic disposal of battery materials related to demolition of structures.

The waste fill material varies widely in thickness, but is greater than 14 feet thick in the southern portion of BBDA-2A, decreasing in thickness to the north. Saturated conditions were noted in test pits at 8 to 10 feet bgs, and a natural seep exists near the toe of the slope. Removal of waste material will likely require removal of the displaced fill beneath it that is in contact with the waste fill. At locations on the frontal slopes where fragments of asphalt/tar roofing material are present at the ground surface, shallow soil will also need to be removed because sampling has shown that PAHs and selenium, vanadium, and zinc are present in shallow soil at concentrations (0.34 [for benzo(a)pyrene], 0.58, 75, and 190 mg/kg, respectively) that exceed cleanup levels of 0.027, 0.5, 74, and 160 mg/kg, respectively.

Fill Area West of Merchant Road – This fill material (afo1 and afw) may have had several sources. The area west of Merchant Road was used as a dumping location to relocate materials

from battery demolition or construction of the Golden Gate Bridge. Filling of this area was also noted in a 1967 photograph. This fill may be associated with the similar time period for construction of Presidio Letterman Hospital.

The fill is estimated to be between 2 and 7 feet thick. Borings encountered bedrock at 7 to 10 feet bgs. No saturated conditions were encountered. Geologic mapping and observations made when excavating test pits indicate that there is an area of waste fill (afw) just east of the Covered Way that contains tar-cemented gravels, concrete, wood, charcoal, and auto parts. Soil samples collected from a test pit excavated in this area shows only arsenic above cleanup levels for serpentinite soil, but not for Colma formation soil. Because this waste fill contains material (tar-cemented gravels, auto parts), that likely contain chemicals of concern above cleanup levels, it is recommended that this waste soil be removed.

Other fill (afo1) was encountered in trenches excavated in the central and southern portions of the site. Debris in the fill included concrete, brick, asphalt, and wood. Samples collected from trenches excavated in this area shows only arsenic concentrations (5.8 mg/kg) above cleanup levels for serpentinite soil (5.4 mg/kg), but not Colma formation soil (6.2 mg/kg). Because this waste fill contains only construction-type debris and does not contain chemicals above cleanup levels, no remediation is recommended for soil in the southern and central portions of the site.

Displaced Historic Fill – Historic fill was displaced downslope as a result of demolition of West Battery fortifications; this fill may have been used in the construction of Endicott Batteries. Historic fill (afh) was placed against Endicott Batteries to serve as an apron to protect the batteries during an assault. Older displaced historic fill (afh1) may have been derived from West Batteries and may have been pushed downslope to make room for the newer batteries (e.g., the presence of afh1 mapped downslope from Batteries Godfrey and Marcus Miller). Displaced historic fill (afh2) may have been originally part of the Endicott Batteries, but was pushed downslope during construction of Battery Godfrey parking lot.

It may be beneficial to salvage some of the displaced historic fill (afh2) during remedial activities for use to repair areas where historic fill is removed as part of the remediation.

8.1.2 Data Gap Results

As discussed in Section 2.2.3, the objectives of the Environmental FSP were to address several data gaps identified by DTSC in their preliminary review of the RAP. Table 17 presents a summary of sampling locations and frequency during this study. The following summarizes findings from the environmental sampling investigation and evaluates how the data objectives were met.

8.1.2.1 Historic Fill Contamination (Data Gap 1)

The presence and concentrations of contaminants in historic fill (earthworks) surrounding historic batteries was characterized by collecting 12 soil samples from historic fill encountered in the cultural resource trenches. Samples were collected near Battery Godfrey from Trench 2 at depths of 1, 11.5, and 15 feet; and from Trench 3 at 4, 7, and 10 feet. Between Batteries Boutelle and Marcus Miller, samples were obtained at depths of 2.5, 3.5, 5, 6, and 7 feet (includes a duplicate at 2.5 feet) from Trench 5. Geotechnical samples only were obtained from Trench 4. The sampling frequency met the FSP requirements.

Chemical analyses indicate that displaced historic fill that lies adjacent to or underlies waste fill in these areas contains COCs (arsenic at 6.6 mg/kg, benzo(a)pyrene at 0.037 mg/kg, 4,4’ DDT at 0.052 mg/kg,

dieldrin at 0.042 mg/kg) above cleanup levels of 5.4, 0.027, 0.0082, and 0.03 mg/kg, respectively, and requires remediation. Based on the relative low mobility of the contaminants found in the fill, contamination is not expected to extend beyond the mapped limits of the fill areas and is not expected to be present above cleanup levels in underlying native soils or bedrock.

8.1.2.2 Bluff Top Fill Contamination (Data Gap 2)

The presence and concentrations of contaminants in fill materials excluding historic fill on the bluff top were evaluated by collecting samples at 0.5 foot from BBSB103, located just west of Battery Marcus Miller and from BB2ASB100 (at 4 feet) located west of Battery Godfrey. Samples were also collected from a boring and test pits excavated in an "Undesignated Area," which was discovered after preparation of the Environmental FSP.

Analytical results show that COCs in soil samples from BB2ASB100 were below cleanup levels, indicating that in place historic fill adjacent to the batteries has not been significantly impacted and will not require remediation. Samples analyzed from BBSB103 (BBDA-1) and BBSB106 (BBDA-2A) show that where asphalt/tar material is present on the frontal slopes of the batteries, shallow soil contains PAHs [benzo(a)pyrene at a maximum concentration of 0.34 mg/kg, benzo(a)anthracene at a maximum concentration of 0.27 mg/kg, benzo(b)fluoranthene at a maximum concentration of 0.28 mg/kg, indeno(1,2,3-cd)pyrene at a maximum concentration of 0.27 mg/kg, and dibenzo(a,h)anthracene at a maximum concentration of 0.13 mg/kg] exceeding cleanup levels of 0.027, 0.27, 0.27, 0.27, and 0.078 mg/kg, respectively, and therefore, will require remediation.

In the Undesignated area, samples were obtained from Boring BBSB119 at 2.5 and 4.5 feet, and from Test Pits BB1TP110, -111, and -113. Sampling in this area shows that the only chemical exceeding cleanup levels for serpentinite soil was arsenic, which was detected at concentrations ranging from 3.2 to 5.8 mg/kg, which exceeded the cleanup level for serpentinite soil (5.4 mg/kg) but not Colma formation soil (6.2 mg/kg). Because the Colma formation is present in this area, these arsenic levels are not considered to represent contamination related to the fill.

8.1.2.3 Incinerator Contaminants (Data Gap 3)

Sampling was conducted to evaluate the presence of ash and contaminants around a former incinerator facility at BBDA-1. A sample was obtained in the southern end of Trench 5 at a depth of 5 feet [BB1TP108(5.0)] and analyzed for TPH, VOCs, PAHs, Title 22 metals, pesticides, PCBs, and dioxins and furans. Metals [arsenic (6.7 mg/kg; cleanup level of 5.4 mg/kg), barium (2,500 mg/kg; cleanup level of 320 mg/kg), cadmium (4.5 mg/kg; cleanup level of 1.9 mg/kg), lead (420 mg/kg; cleanup level of 160 mg/kg), mercury (0.56 mg/kg; cleanup level of 0.4 mg/kg), molybdenum (14 mg/kg; cleanup level of 12 mg/kg), silver (140 mg/kg; cleanup level of 2 mg/kg), zinc (930 mg/kg; cleanup level of 160 mg/kg)], benzo(a)pyrene (0.070 mg/kg; cleanup level of 0.027 mg/kg), TPH fuel oil/motor oil (3,500 mg/kg; cleanup level of 980 mg/kg), and TPH as diesel (780 mg/kg; cleanup level of 700 mg/kg) were detected above cleanup levels and the calculated 2,3,7,8-TCDD toxic equivalency value (TEQ) of 0.00026381 mg/kg for detected dioxins and furans exceeded the RWQCB ESL and EPA Region IX PRG for 2,3,7,8 TCDD. No evidence of incinerator waste was observed in Trench 4 as assumed in the FSP, so the sampling frequency met the minimum requirements stipulated in the FSP. Evidence of additional former incinerator debris was observed at three other locations: Trench E (western edge at 10 feet), Trench BB1TP106 (charcoal), and BB1TP102 (melted glass). Analytical testing of waste fill samples containing incinerator waste or waste soil located down slope and in the vicinity of the incinerator showed elevated levels of PAHs and metals, which would be expected from incinerator waste material as detailed in the table below.

COC	Waste Fill		Cleanup Level
	Maximum Concentrations in mg/kg	No of samples exceeding Cleanup level/No of Samples Analyzed	mg/kg
Arsenic	230	5/15	5.4
Antimony	123	6/14	5
Barium	2500	5/15	320
Cadmium	28	8/15	1.9
Copper	2200	4/15	85
Lead	6000	18/38	160
Silver	140	6/15	2
Selenium	2.2	7/14	0.5
Mercury	7.7	4/15	0.4
Molybdenum	84	2/6	12
Vanadium	110	3/15	74
Zinc	73000	20/35	160
TPH Diesel	780	1/5	
TPHmo	3500	1/5	980
Methylene chloride	0.23	4/13	0.076
DDT	0.39	7/12	0.0082
Dieldrin	0.06	5/12	0.03
Endrin	0.005	1/12	0.004
PCBs	0.43	3/16	0.033
PAHs (benzo(a) pyrene)*	0.33	3/7	0.027
Dioxins and Furans (2,3,7,8-TCDD TEQ)	0.00026388		0.0000045** 0.0000039***

*Other PAHs were detected above cleanup levels. The maximum concentration of benzo(a)pyrene is shown to represent PAH contamination

**RWQCB residential ESL
*** EPA Region IX residential PRG

During remediation, this material will require sampling and handling in accordance in accordance with DTSC guidance for investigation and characterization of Burn Dumps. This will include analyzing selected samples for pH, metals, PCBs, total recoverable hydrocarbons, semi-volatile organic compound (SVOCs), and dioxins and furans. Except for pH, these analytes are COCs for the site and therefore, these analyses will be included in the excavation confirmation and stockpile characterization sampling programs. In addition, to evaluate whether the excavated soil comprises hazardous waste, the following analytical protocols will be followed:

- Metals (former CAM 17 metals) results will be compared to Total Threshold Limit Concentration (TTLC) criteria to assess whether excavated soil represents California only hazardous waste

- Representative samples will be analyzed using the Waste Extraction Test (WET) and compared to Soluble Threshold Limit Concentrations (STLCs) to evaluate whether the excavated soil is California only hazardous waste. DTSC guidance indicates that the WET test be performed for cadmium, trivalent chromium, hexavalent chromium, nickel, lead, and zinc on three samples that exhibit the

highest lead concentrations. In addition to these analyses, any samples that have a total metal result that exceeds ten times the STLC criteria should also be analyzed using WET.

- Analyze samples from excavated soil that have the highest lead concentration for silver, arsenic, barium, cadmium, chromium, mercury, lead, and selenium using the Toxicity Characteristic Leaching Procedure (TCLP) and compare results to Resource Conservation and Recovery Act (RCRA) toxicity characteristic to assess whether the soil is a RCRA hazardous waste.

- Analyze selected samples that show the highest lead concentration using the Deionized Water (DI) WET for lead and compare results to DI WET criteria to evaluate if there is potential for leaching to groundwater.

8.1.2.4 Southeast BBDA-2 Contamination (Data Gap 4)

Samples were collected at the surface and at 2 feet bgs from Boring BB2SB102 to further evaluate the lateral extent of contamination at the southern limits of BBDA-2. Analytical results show that PAHs (benzo(a)pyrene) are present at concentrations exceeding cleanup levels in surface (0.14 mg/kg) and 2 ft (0.084 mg/kg) soil samples collected from this area (cleanup level is 0.027 mg/kg). No other COCs were detected above cleanup levels. The absence of metals contamination in the soil samples collected from this boring indicates that the samples were likely collected at the perimeter of the area impacted by waste fill.

8.1.2.5 Salvage/Recycling Facility Contaminants (Data Gap 5)

South of BBDA-2, sampling and analysis was performed to evaluate the presence of contaminants around a former salvage/recycling facility. Surface and shallow (2 feet bgs) samples were obtained from two hand augered soil borings located at the salvage shop (BBSB108) and dump area (BBSB109). This met the FSP required sampling frequency. Analytical results show that arsenic (maximum concentration of 10 mg/kg; cleanup level of 5.4 mg/kg), lead (maximum concentration of 1,900 mg/kg; cleanup level of 160 mg/kg), mercury (maximum concentration of 1.1 mg/kg; cleanup level of 0.4 mg/kg), and zinc (maximum concentration of 250 mg/kg; cleanup level of 160 mg/kg) indicate that past practices related to metals recycling and disposal have impacted shallow soil in this area. Undisturbed historical fill in the vicinity of the former metals recycling and disposal area contains metals and PAHs above cleanup levels and requires remediation. Analytical results for samples from BBSB108 and BBSB109 indicate that contamination may extend to at least 2 feet bgs in this area (arsenic at 6.8 mg/kg, lead at 180 mg/kg, mercury at 1.1 mg/kg, and zinc at 250 mg/kg). Although no perimeter samples have been collected to characterize the areal extent of contamination in this area, it is expected that contamination will be limited to the general area where metals disposal and recycling operations were performed.

8.1.2.6 BBDA-1, and 2A Seep Water Contaminants (Data Gap 6)

Several seep water samples were obtained from two piezometers constructed at BBDA-1 in the seep zone section as well as from a seep located at the base of BBDA-2A. Although the FSP indicated that surface water samples would be collected from the BBDA-1 seep, these samples were obtained from the casing of piezometers BB1PZ101 and BB1PZ100 after development. Three rounds of samples were collected from these two piezometers. The first two rounds of sampling included only BB1PZ101. The first round of samples from BB1PZ101 were analyzed for VOCs, PAHs, dioxins and furans, TPH as gasoline, diesel, and motor/fuel oil, pesticides, PCBs, and dissolved metals. The second round of samples from BB1PZ101 was analyzed for dissolved Title 22 metals (field filtered sample) and total Title 22 metals (unfiltered sample). The third round of samples collected from BB1PZ101, BB1PZ100, and BB2ASW100 (BBDA-2A) was analyzed for VOCs, PAHs, TPH as gasoline, diesel, and motor/fuel oil,

pesticides, PCBs, dissolved Title 22 metals (field filtered sample) and total Title 22 metals (unfiltered sample). Analytical results were compared to the most stringent of surface, fresh, and drinking water cleanup levels presented in RWQCB, 2004 and EKI, 2002. The only samples showing exceedances of cleanup levels are those that were collected in the second and third round of sampling. In the second round, the unfiltered sample contained arsenic, copper, and lead at concentrations exceeding cleanup levels in the unfiltered but not the filtered water samples. Because the cleanup levels for these metals are based on dissolved concentrations, these levels are not considered applicable to unfiltered samples. The results of the third round of sampling show TPH motor/fuel oil (C24-C36), chrysene, antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc at concentrations exceeding cleanup levels. Only unfiltered samples exceeded cleanup levels for arsenic, cadmium, chromium, lead, nickel, and zinc and those cleanup levels are based on dissolved metals concentrations and are therefore not applicable to unfiltered samples. The sample collected from the piezometer screened in native soil contained the highest concentrations of TPH. Based on the results of the February 2006 sampling, there are elevated levels of contaminants TPH motor/fuel oil (at a maximum concentration of 3,100 µg/L; cleanup level of 3,100 µg/L), mercury (at a maximum concentration of 11 µg/L; cleanup level of 0.025 µg/L), and selenium (maximum concentration of 5.5 µg/L; cleanup level of 5 µg/L) in the seep water. These results indicate that COC concentrations in the seep water may pose risks to human or ecological receptors. In addition, because several compounds exceed surface water cleanup levels, water drained from the slopes prior to remediation may need to be contained and pumped up the slope for proper disposal unless a National Pollutant Discharge Elimination System (NPDES) permit can be obtained to dispose of the water onto the beach.

8.1.2.7 Beach Waste Debris Contaminants (Data Gap 7)

Three selected samples of beach sand directed adjacent to waste debris were obtained at depths of 0.5 feet at BBDA-1 (BB1SB113 and -114) and BBDA-2A (BB2ASB112). This met the FSP required sampling frequency. Analyses of these samples show cleanup level exceedances for methylene chloride in samples collected at BBDA-1 (BB1SB114 contained methylene chlorine at 0.12 mg/kg, which exceeded the cleanup level of 0.076 mg/kg). These results are considered suspect because:

- Methylene chloride is a common laboratory contaminant.
- No other COCs were detected above cleanup levels.
- It is highly unlikely that methylene chloride would be present at elevated concentrations in sand impacted by wave and tidal action.

The sample collected from the beach at BBDA-2A contained only one COC, arsenic, at a concentration (6.4 mg/kg) exceeding the cleanup level of 5.9 mg/kg which represents background for Beach Dune sand. Because the background dataset may not represent the range of metals concentrations present in recent beach deposits, this exceedance may not represent contamination from past site-disposal practices. Because methylene chloride results are suspect and the arsenic is unlikely to represent contamination related to site disposal practices, remediation of the beach sand is not necessary. However, as part of the planned remediation, debris on the beach will be removed because it is related to the waste fill that will be removed on the slopes.

8.1.2.8 Confirmation Non-Waste Fill Soil Sample Contaminants (Additional Samples)

The presence and concentrations of contaminants in non-fill materials were further evaluated by collecting samples from three locations at BBDA 1, 2A, and 2 as described below:

- BBDA 1 - Samples were collected at BB1SB115 (0.5 and 1.0 ft) to verify metals concentrations previously detected in RI Boring BBSB05 (arsenic at 11.3 mg/kg compared to a cleanup level of 5.4 mg/kg, antimony at 100 mg/kg compared to a cleanup level of 5 mg/kg, selenium at 2.37 mg/kg compared to a cleanup level of 0.5 mg/kg, silver at 2.63 mg/kg compared to a cleanup level of 2 mg/kg, and vanadium at 99.4 mg/kg compared to a cleanup level of 74 mg/kg) which was mapped as native soil/colluvium in an area downslope of BBDA-1 waste fill. Analytical results from BB1SB115 confirmed the presence of metals (arsenic at a maximum concentration of 14 mg/kg compared to a cleanup level of 5.4 mg/kg, copper at a maximum concentration of 130 mg/kg compared to a cleanup level of 85 mg/kg, selenium at a maximum concentration of 1.2 mg/kg compared to a cleanup level of 0.5 mg/kg, and zinc at a maximum concentration of 370 mg/kg compared to a cleanup level of 160 mg/kg) in this area, indicating that native soil downslope of the waste fill has been impacted by past site disposal practices.

- BBDA 2A - One sample was collected from 1.0 foot bgs from BBSB120 which was located adjacent to BBSB106 where PAHs (e.g., benzo(a)pyrene at 0.34 mg/kg; cleanup level 0.027 mg/kg), and zinc (190 mg/kg; cleanup level of 160 mg/kg) had been detected above cleanup levels in a sample collected at 0.5 foot bgs. Analytical results for BBSB120 show selenium (0.58 mg/kg; cleanup level of 0.5 mg/kg) and vanadium (75 mg/kg; cleanup level of 74 mg/kg) just above cleanup levels. PAH results were not detected or reported at concentrations below cleanup levels. It is noted that results for benzo(a)pyrene were qualified as not detected at a reporting limit of 0.064 mg/kg which exceeded the cleanup level of 0.027 mg/kg. Therefore the presence or absence of benzo(a)pyrene below cleanup levels at 1 ft bgs cannot be confirmed. During sampling, fragments of asphalt/tar roofing material were observed in the area which were the likely source of the PAHs detected in the soil sample collected at BBSB106. Results of the sampling suggest that the contamination in this area is shallow as the zinc and PAHs were below cleanup levels in the 1.0 foot sample and zinc and selenium concentrations were close to cleanup levels.

- BBDA 2 - Samples were collected at depths of 0.5 and 1.0 ft from BB2SB110 to confirm previously detected concentrations of cadmium (2.2 mg/kg compared to a cleanup level of 1.9 mg/kg) and selenium (1.29 mg/kg compared to a cleanup level of 0.5 mg/kg) in RI boring BBSB07. These samples were collected from areas mapped as native soil/colluvium. Analytical results for the samples from BB2SB110 confirm that selenium (1.3 mg/kg) is present above cleanup levels in this area but do not confirm the previously reported cadmium concentrations (cadmium was detected at an estimated maximum concentration of 0.32 mg/kg) and therefore cadmium concentrations in this area are not considered to pose risk. Selenium concentrations are not believed to be related to site contaminants, because other metals (other than cadmium which was not confirmed) are not present above cleanup levels in this area. It is possible that the selenium levels do not represent site contamination because there may be local variations in native metals concentrations that are not captured by the background metals dataset.

8.1.2.9 Magazine 21 Sampling

As discussed in the FSP dated March 14, 2005, sampling of the interior of Magazine 21 for contaminants related to arms or ordnance formerly stored in the magazine is planned to be addressed under a separate FSP and investigation.

8.2 Geotechnical/Structural Evaluation Results

The geotechnical study evaluated information from borings, test pits, trenches, and surface geophysical and geologic mapping to assess slope stability conditions. It should be recognized that these data are

most accurate at the respective investigations points and that interpolation between the points results in a lesser degree of confidence for these intermediate areas.

A significant finding from the trenching investigation was the identification of a pervasive chert fill as observed in cultural resource trenches at BBDAs-1 and -2. This layer may be provide a marker for the base of the waste fill during removal.

The battery structural evaluation did not identify structural instability. Structural cracks at Battery Boutelle may be the result of consolidation of backfill material beneath the battery apron, or movement of the soil mass west of the parapet wall towards the coastal bluff top. Proposed remediation and construction activities should not adversely affect the structural integrity of the fortifications. However, it is recommended that a battery structural monitoring program be implemented during waste removal. This will provide data that can be used to determine the need for ground improvement (especially near Battery Boutelle) during construction or post remediation.

One significant finding of the structural evaluation was the determination that it is possible to remove material from BBDA-1A across the top of Battery Marcus Miller, provided that specific shoring measures are used.

Slope stability (both during and after remedial activities) was the primary geotechnical concern evaluated during the geotechnical study. Soil and bedrock materials in the Baker Beach bluff areas are susceptible to erosion, downslope movements, and landslides as a result of natural processes. Evaluation of short-term slope stability was performed based on collection and analyses of field samples from borings and test pits, mapping of geologic units and observations made regarding current site conditions, and performing slope stability modeling to calculate factors of safety. Based on slope stability analysis, the removal of the waste fill is feasible, provided that geotechnical recommendations presented below are incorporated into the remedial design.

Excavations required for the waste fill removal actions could increase the risk of slope instability affecting significant resources (such as historic fill and batteries). These increased risks can be reduced by dewatering of areas to be excavated, locating temporary stockpiles and equipment staging areas at least 10 back from the slope face, sequencing the waste removal from the top of slope to the bottom of the slope, selecting temporary fill and cut slope inclinations that are stable in the short term, and selecting finished slope inclinations that are at least as stable as the current natural bluff slopes.

As mentioned in Section 2.2.2, the specific Geotechnical FSP objectives were to obtain data to: (1) assess how the selected remedial action could affect the stability of historical gun battery emplacements at the site; (2) evaluate the stability of areas identified for use and staging of heavy equipment required to perform the remedial work; and (3) evaluate the stability of the debris areas that will be removed as part of the selected remedial action. The following sections discuss these three objectives with respect to short-term slope stability during and after waste fill removal as well as recommended mitigation measures during construction and post-remediation to reduce the risk of slope instability.

8.2.1 Battery Stability

The results of slope stability analyses described in Section 7.0 indicate that planned excavations of waste materials will not likely have adverse impacts on the stability of the batteries because it is believed that the battery foundations are underlain by serpentinite bedrock that is relatively strong at outcrops near the top of the bluffs and the batteries are setback between 40 and 90 feet from the slope face. The following discusses each disposal area with respect to waste disposal and battery stability:

BBDA-1 – Removal of waste fill in BBDA-1 will not likely affect the existing conditions at Batteries Boutelle and Marcus Miller. In the area between the two Batteries, the waste fill is relatively shallow and should not impact the stability of these batteries because they are believed to be founded on relatively strong serpentinite bedrock material that is relatively strong at the top of the bluffs. Where removal of waste fill will expose sloping layers of historic fill, it is not known whether these soils could be unstable and subject to sliding. In the long-term, the risk of slope movements in these exposed soils during a large earthquake is likely to be large.

BBDA-1A - Because the waste fill in BBDA-1A is located on a relatively flat-lying area at the top of the bluff, removal is not likely to cause stability problems for the exposed underlying native soils. Waste material is very shallow and of a relatively small quantity (200 to 400 cubic yards), but is located on the battery frontal apron. As a result waste fill removal may require the excavation of some historic fill that is adjacent to and partially surrounded by the waste fill. Historic fill is considered a protected resource, so this would need to be performed under the close supervision of cultural specialists. Removal of the waste and small quantity of historic fill is not expected to steepen excavation slopes to the point where they would become a stability problem.

BBDA-2 - After removal of the waste fill in BBDA-2 and any adjacent disturbed contaminated historic fill, the exposed slopes in the underlying historic fill and native soils should be stable under static conditions.

BBDA-2A – Waste fill in BBDA-2A is on a steep bluff slope that is separated from the historic fill at the top of the bluff by an outcrop of serpentinite bedrock, which is considered a relatively strong material based on factor of safety calculations and material property testing. As a result, waste fill removal below the serpentinite bedrock is not expected to affect either the stability of the historic fill at the top of the bluff or Battery Godfrey, which is located about 75 feet from the slope face.

8.2.2 Stockpiles and Staging of Heavy Equipment

Potential areas for stockpiling soil and staging heavy equipment include the area between Battery Boutelle and Marcus Miller (part of BBDA-1) and the parking lot west of Battery Godfrey (above BBDA-2A). Both of these locations are relatively flat but are near steep breaks along the slope face, requiring an evaluation of the effect on slope stability of temporary loading near the slope. The results of slope stability analyses described in Section 7.0 indicate that setbacks on the order of 10 feet from the slope face will generally be sufficient.

8.2.3 Debris (Disturbed) Area Stability

The stability of debris areas during and immediately after waste fill removal is contingent on how waste removal is sequenced, whether waste fill is dewatered prior to excavation, the inclination of temporary slopes and the properties of the materials being removed, and what soils and bedrock will remain in place after excavation activities have been completed. These issues will be discussed in detail in the following sections.

The following discusses slope stability after the waste fill has been removed:

BBDA-1 - Where removal of the waste fill will expose mélange or serpentinite (Cross-section A-A'), the exposed bedrock slopes should be stable under static conditions. The risk of bedrock slope movements during a large earthquake is considered small. Where removal of waste fill will expose sloping layers of historic fills, landslide deposits or native soils (Cross-sections C-C' and H-H'), these soils could be unstable and subject to sliding based on low calculated factors of safety. These steep

areas are considered to have a high and increased (compared to existing conditions) potential for downslope movement of the exposed soils during a large earthquake.

BBDA-1A - Because the waste fill is at the top of a relatively flat portion of the bluff removal is not likely to cause stability problems for the exposed underlying native soils, which are relatively flat lying. The risk of downslope movement to the exposed soils during a large earthquake is relatively low for both existing conditions and after waste fill removal.

BBDA-2 - After removal of the waste fill and any overlying historic fill, the exposed slopes in the underlying historic fill and native soils should be stable under static conditions. Because the waste fill is at the top of a relatively flat portion of the bluff, these exposed slopes are considered to have a relatively low risk of movement downslope during a large earthquake.

BBDA-2A - Removal of the waste fill from the steep bluff slopes will expose sloping layers of disturbed historic fill and native soils (Cross sections B-B' and D-D'). These exposed slopes could be unstable and subject to sliding based on low calculated factors of safety. These steep areas are considered to have a high and increased (compared to existing conditions) potential for downslope movement of the exposed soils during a large earthquake.

8.2.4 Stability Mitigation Measures During and Post Construction

8.2.4.1 Sequencing Waste Removal

It is recommended that removal of waste fill on the bluff slope face proceeds from the top down as a way to minimize the likelihood of slope instability during remediation. This is particularly pertinent in BBDA-1 and BBDA-2A, which contain very thick deposits of waste fill along the slope face.

8.2.4.2 Engineered Structures

It is recommended that installation and maintenance of rock fall restraint systems below waste fill removal areas on the slopes (i.e., berms, mesh, or fencing) be used until vegetation on the slopes can be reestablished to protect the public from localized rock falls. This would especially be necessary if waste fill is removed from steep slopes that are composed of serpentinite or mélange bedrock. Rock falls are part of a naturally occurring process that usually results in an accumulation of debris on relatively flat slopes, in areas of thick vegetation, or at the bottom of the slope on the beach. After removing waste fill down to a steep, hard substrate, subsequent rock fall debris could move further down the slope and come to rest on the beach and create a possible risk to people on the beach below the construction area.

8.2.4.3 Dewatering

Groundwater was observed near ground surface in BBDA-1 and BBDA-2A, with saturated soils to depths greater than 6 feet in some of the waste fill areas. Data from standpipe piezometers indicate that groundwater levels are well above the expected depths of excavation in the slope areas of BBDA-1. Because of the uncertainty in seepage rates and groundwater conditions, and the large impact they could have on components of the design, it is important that groundwater conditions be considered in the remedial design. It will be necessary to abandon existing groundwater piezometers that could interfere with the removal of waste fill from slope faces prior to the start of Phase I.

The groundwater flow regime at the BBDA-1 "Seep Area" is complex and characterized by a combination of fracture flow through the bedrock and seasonal flows through overlying fill soils. The seepage or flow rates into the remedial excavations will be governed by factors such as groundwater

levels, permeability of overburden soils, the nature and frequency of rock fractures, rock type, and degree of weathering. Water levels could be lower or higher than the historical levels measured in the piezometers. It is very possible that seepage flow will inhibit progress during the excavations, limit the haulage of fill materials if they are saturated, and could require control measures to limit turbid flows onto Baker Beach.

It is recommended that waste fill be dewatered at least one month prior to the start of excavation activities based on the low calculated factor of safety and the small slope failure that occurred during the field investigation below the seep area at BBDA-1.

In addition, the remedial design should require temporary dewatering systems to keep water out of the excavation during remediation. A properly designed, installed, and operated dewatering system should:

- Lower the water levels inside the excavation and intercept seepage from the sides or bottom of the excavation;
- Improve the stability of the excavation and prevent disturbance to the bottom of the excavation; and
- Provide for collection and removal of surface water and rainfall.

Possible methods to control seepage into the excavation include a system of trenches, piping, sumps, and pumps. Use of a flexible portable system is preferable as it allows for sumps to be moved to where seepage is greater than expected and relocated from drier portions of the excavation when they are not necessary.

Based on analytical results from samples collected of the seep water, it may be necessary obtain a NPDES permit to discharge water onto the beach. Retention basins at the base of BBDA-1 or BBDA-2A may be necessary to collect runoff and allow suspended solids to settle if water is discharged onto Baker Beach. If water cannot be directly discharged to the beach, collected water from dewatering wells, sumps, cutoff trenches, or retention basins would require storage and pumping to storage tanks on top of the bluff for eventual disposal.

Long-term water storage in unlined retention basins should be discouraged to reduce infiltration into weak mélange bedrock, which could lead to potential slope failures. Basins with temporary impervious liners could be constructed at the toe of the slope in BBDA-1 and BBDA-2A to increase storage capacity without significant risk of infiltration. If groundwater is encountered at the toe of the slope during basin construction, the lowest point of the basin should be at least 1 foot above groundwater elevation. If the groundwater level is high, it could be necessary to construct wider and shallower basins to achieve the required holding capacity.

8.2.4.4 Retention Basins

Retention basins below the waste fill removal areas may be required to collect sediment until vegetation on the slopes can be reestablished to reduce surface soil erosion from the slopes. This will depend on the material properties of the exposed soil or bedrock after waste debris has been removed.

8.2.4.5 Removal Methods

Remediation earthwork will require grading of various materials consisting fine and coarse-grained soils, rock fragments, refuse ranging in size from broken glass to telephone poles to concrete slabs. Grading operations will be on slopes ranging from near level to vertical. At BBDAs-1 and -2A, excavations for

waste fill will encounter weaker mélange bedrock much deeper with more landslide debris and soil than the other BBDAs.

Excavations to remove waste fill may expose adjacent historic fill. The excavation sidewalls may need to be laid back or partially buttressed to prevent sloughing. Erosion control material may need to be placed on the historic fill to prevent disturbance after remediation.

Several waste removal methods have been evaluated, including use of conventional track excavator and dozer operations to more elaborate schemes involving high-line cable waste fill retrieval, helicopter support, buggies and winch retrieval, or combinations of the above techniques.

Smaller equipment capable of being winched down the slope, or which can traverse steep slopes is most appropriate. The Spyder excavator used for the test pit excavations and piezometer installations was able to move in all directions on the slopes under its own power. It was also able to relocate from BBDA-1 to -2 via a beach route. Depth of excavation with the Spyder was only limited by the lack of shoring.

In certain areas, removal of bedrock may be required to improve site access or equipment anchoring. In general, it appears that if any of the bedrock requires removal, excavation of bedrock will be relatively difficult and expensive and will expose more ground to erosion by removal of vegetation. Consequently, bedrock removal should be limited wherever possible. In general, it appears that if any of the bedrock requires excavation it can likely be removed by large bulldozers such as a D9 with single-tooth ripper, or an excavator. Localized harder zones, such as those encountered along the bluffs at BBDA-1, could be encountered at shallow depths and may require the use of special equipment such as jackhammers, rock splitters or hoe rams.

Waste fill and associated native soils can be removed along the bluff top using conventional earthmoving equipment. This equipment may include rubber-tire or track mounted backhoes and excavators. Most debris can be loaded directly into trucks entering directly from Merchant Road.

At BBDA-1A, there is limited access along trails so that waste material cannot be removed using conventional earthmoving equipment. Instead, equipment may include light-duty rubber-tire or track mounted backhoes, buggies, and bobcat excavators that move waste across the roof of Battery Marcus Miller, down a chute to be loaded into trucks.

8.2.4.6 Temporary Slopes

Because of the sloping bedrock surface and variations in soil depths across the site, excavation of waste fill will expose variable thicknesses of soil and rock. In addition, the thickness of the waste fill and deep excavations (>10 feet) on existing slopes are moderately to very steep (>1:1) are anticipated in the Phase I work areas. It is not practical to begin excavations at the lower portions of the excavation due to the risk of slope movement from above into the lower excavations.

A significant stability concern is potentially adverse bedding (or other planes of weakness) and of the existing landslide and mélange bedrock present in Franciscan bedrock. Adverse bedding can cause rock wedges to fall into the excavation. This can be mitigated by careful observations of a CEG during construction to check exposed conditions and identify potentially adverse bedding, if present. In addition, the CEG would check for other features of concern, such as adversely dipping shear zones. Any safety concerns identified would be relayed to the project team and mitigation such as removal, or rock scaling would be implemented.

It is recommended that temporary cut slopes be limited to a 1:1 (horizontal:vertical) inclination or flatter in native, cohesive soils exhibiting no seepage. In situations with seepage or non-cohesive soils, slopes

should generally be no steeper than 2:1. Slopes greater than 10 feet in height could require intermediate benches of 6 feet in width.

For personnel entry into excavations, excavations should be shored or sloped per Occupational Safety Health Administration (OSHA) and other Health and Safety requirements.

8.2.4.7 Permanent Slopes

Permanent slopes inclinations should be no steeper than 2:1 (horizontal:vertical) for properly compacted fills. Permanent cut slopes in fills, native soils and weathered rock should also be no steeper than 2:1, if practical. Where steeper slopes are required to reduce excavation of materials other than waste fills, slope erosion and or instability over time will probably occur. Permanent cut slopes in sound rock, such as unweathered serpentinite, can be a steep as 1:1 with a lesser potential of instability.

8.2.4.8 Earthwork

Earthwork could include temporary fills for staging of equipment and stockpiles at the tops of the bluffs. This will include special grading (i.e., soil caps) required for protection of historical fill or batteries. Berms for sediment retention basins and permanent fills could also be needed to accomplish remediation objectives.

Temporary Fills

Compacted temporary fills could be used to achieve firm unyielding haul roads, sediment retention berms, crane pads, and protective caps over historical fills and existing roadways. Temporary fills should be constructed as follows:

- Efforts should be made to reduce the disturbance of native soil during construction because this soil is an important resource for restoration plans that include planting native plants in the area. However, it will be necessary to excavate and remove some native soil to complete the removal of waste fills. Native soil that has been removed should be used as much as possible where temporary fills are needed to reduce the use of import fills from offsite. This is especially relevant near the base of the bluffs, where it will be difficult to bring import fill materials to the work areas, such as retention basin berms created at the toe of BBDA-1 and BBDA-2.

- In areas of the site that are soft or that require protection during the remedial actions, appropriate geotextile, filter fabrics should be placed, and covered with compacted fill (an alternative would be to use rubber protection devices). This could include historic fill that is to be protected in the bluff top areas near Battery Marcus Miller and Magazine 21, Battery Boutelle, and Battery Godfrey.

- If imported fill is used for temporary fills, it should meet the requirements for permanent fill materials (non-expansive, preferably granular material) so that it can be reused for permanent fill if necessary.

- Temporary fill soils should be compacted to at least 85 percent relative compaction (based on a maximum dry density determined by the ASTM D 1557 test method). Moisture content should be adjusted to near optimum moisture content as required to achieve compaction.

Permanent Fills including Roads, Pathways, and Parking Areas

It is not anticipated that there will be need to import significant amounts of permanent fills in the bluff and slope areas after remediation. However, the quantity of required permanent fill and its placement will not be known until the waste fill has been removed and slope conditions evaluated.

Permanent fill will be required for improvements to Merchant Road. Design requirements for this are included in *Merchant Road Improvements from Lincoln Blvd. to Toll Plaza, Presidio San Francisco, California* (*MACTEC, 2005j).*

8.2.4.9 Surface Drainage and Erosion Control

It is important to avoid excavation and grading activity during wet weather. Loose soil should be stored outside of drainage pathways. Soil disturbance should be limited to work areas. It is important, even if working under dry conditions, that erosion control measures be in place at the beginning of work and should be maintained at all times, regardless of weather conditions.

There are several potential sources of surface water runoff from the remediation areas during and after the work is performed. Recommended mitigation measures include:

- **Exposed cut and fill slopes:** The design should include stabilization practices such as wattles, silt fences, berms, and temporary outlet protection, as appropriate. The method chosen should depend on the planned activities and erosion potential of the area in question.
- **Excavated soil:** Areas where soil has been excavated should be graded such that storm water runoff will be minimized from the area until the exposed soils are removed.
- **Wet season construction:** Downslope work should not be performed during the wet season due to slope instability and erosion.
- **Areas above slopes:** Where possible, the ground above remediated slopes should be graded to drain away from disturbed areas where vegetation is not fully re-established.

Measures to provide erosion control during site remediation should be in accordance with the following:

- Avoid excavation and grading activity during wet weather;
- Loose soil shall be stored outside of drainage pathways; and
- Soil disturbances should be limited to work areas.

Erosion control measures might include wattles and weed-free straw. Erosion control measures should be in place at the beginning of work and should be maintained at all times, regardless of weather conditions. Imminent rainfall could require the deployment of additional erosion control measures.

8.2.4.10 Site Restoration

After removal of waste fill, temporary erosion control structures, and materials, a permanent vegetative cover is planned for the disturbed slopes. The type of cover, density, and application will be performed under the direction of the NPS.

Placement of the vegetative cover should be in areas that have the required minimum amount of soil, but not on existing trails nor in areas of heavy potential runoff where foot traffic and water erosion would prevent vegetation from becoming re-established. In these areas, onsite rocks can be used to reduce

gullying of soil. Natural retention structures (basins) and rock barriers (berms) might be necessary as part of the post-remediation to reduce impacts from surface water runoff or possible rock falls down onto the beach.

8.3 Cultural Resources Mitigation Plan

As discussed in Section 8.1, there are several areas where historic fill, either displaced or in-place, is in contact with contaminated waste materials. As a result, it is likely that this fill will need to be removed and disposed offsite. The following presents excerpts from the CRI that discuss potential impacts to cultural resources during the planned remedial action and the proposed approach to mitigating potential impacts.

BBDA 1A

BBDA 1A – Located on coastal slope west of north end of Battery Marcus Miller.

The material that will be removed consists of a shallow layer of discarded roofing material that was removed from Battery Marcus Miller. The materials are located in the area that was historically the frontal slope of Battery Marcus Miller and the natural slope that extends westward from the battery complex. Following removal of the roofing material and related debris, the surface will be re-configured to conform to the existing gradient of the frontal slope of Battery Marcus Miller, or to the natural landform. The foot trail will be redefined through the areas of remediation. Monitoring by a qualified archaeologist is recommended to ensure preservation of any remnants of the former frontal slope.

BBDA 1

BBDA 1 – This disposal area is located between Batteries Marcus Miller and Boutelle in the area that was the former location of West Battery mortar pits XLV - XLII. The area is bound on the north by Magazine 21 and on the south by Magazine 22, the Covered Way to the east, and the shoreline to the west. The area of historical interest is located between the two magazines and westward from the Covered Way to the edge of the bluff.

Removal of the fill from the west-facing slope, poses no immediate adverse effect to the resources identified on the bluff above the fill area. Concerns regarding slope stability and related potential effects to Battery Boutelle are recognized, and instrumentation will be placed at Battery Boutelle during remediation activities to provide substantial and comprehensive data with respect to any changes in the existing condition.

On the bluff top in the historic location of the mortar platforms, parapet, and frontal slope, fill soils will be removed to a depth consistent with the chert layer that for the most part blankets the entire site. This layer is thought to be sufficiently thick and/or is located high enough above the resource, to act as a protective cap to the original construction and landforms that comprise this section of the fortification.

In the vicinity of the incinerators, on the western margin of the area adjacent the bluff, excavation to remove contaminated soils, where the chert layer was not encountered, may require removal of a portion of the earthworks related to Magazine 21 and the frontal slope. Monitoring will be required during all soil removal to ensure that no undue damage occurs to the earthworks.

The end condition will involve reconfiguring of the ground surface in a manner that conforms to, or reflects, the topography recorded in the 1902 plans of the “Battery Commander Station for Battery Cranston” (Figure 44 of the CRI Report; Appendix B). That plan appears to reflect the post-Endicott

modifications to the surrounding earthworks but retains the bench that was the location of the mortars, the parapet and the frontal slope characteristic of the West Battery period. Elevations provided by the drawing correspond relatively well to the existing condition, in that the upper most surface of Magazine 21 is shown as 222 feet, and the elevation of that feature was recorded during the 2005 field investigation as being 220 feet. Reconfiguration of the existing landform will look to restoring the parapet and frontal slope in the vicinity of the mortar platforms between Magazines 21 and 22.

Some in-field effort also will be required to create conformance of the grades in the vicinity of the granite threshold stone at the entrance of Magazine 21 and the four mortar pit locations to the south of the magazine.

It is recommended that trained archaeologists monitor the remediation and reconfiguration activities to ensure that the expected subsurface condition is consistent with the profiles revealed during the test phase and that no damage accrues to unanticipated resources.

BBDA 2A

BBDA 2A – This remediation area is located on the coastal slope toward the middle of Battery Godfrey. Remediation activities in this area are not anticipated to have any adverse effect on the resources located on the bluff top.

BBDA 2

BBDA 2 – This remediation area is located at the south end of Battery Godfrey, essentially between Magazines 28 and 29 and extends north into the existing parking lot, and west, to and over the bluff. Based on the profiles revealed during the testing conducted in mid-2005, the removal of the waste fill will have no impact to the remaining historic resources in the vicinity.

Evidence of the frontal slope (specific identification as to whether this is associated with the Battery West fortifications or the subsequent Endicott Period fortifications has not been established) has been identified in the parking lot area (see prior discussion and profile drawings). Pending resolution of the disposition of the parking lot and general planning issues, consideration should be given to re-configuring that area to conform to the historic gradient consistent with the frontal slope of the Endicott period fortifications.

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TABLES

Table 1. Summary of Surface and Subsurface Field Investigations
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Exploration Station	Exploration Type	Boring Elevation (1) (ground surface elevation, ft, PLLW Datum)	Depth (ft, bgs)	Debris Area	Date	Analytical Sampling	Geotechnical Sampling	Survey Method	Comments
BB1SB105	Hand-Auger Boring	220	8	1	7/30/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1SB106	Hand-Auger Boring	117	1.5	1	7/30/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1SB107	Hand-Auger Boring	89	4.5	1	7/30/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1SB108	Hand-Auger Boring	57	3.2	1	7/30/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1SB109	Hand-Auger Boring	48	2	1	7/30/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1SB110	Hollow-Stem Auger Boring	217	12.5	1	5/12/2005	x	x	GPS	
BB1SB111	Hollow-Stem Auger Boring	216	10.5	1	5/12/2005		x	GPS	
BB1SB113	Beach collection	11	1	1	5/13/2005	x		GPS	
BB1SB114	Beach collection	11	1	1	5/13/2005	x		GPS	
BB1TP100	Test Pit	195	6.5	1	4/11/2005		x	GPS	
BB1TP101	Test Pit	139	17	1	4/12/2005		x	GPS	
BB1TP102	Test Pit	62	12	1	4/15/2005	x	x	GPS	
BB1TP103	Test Pit	67	12	1	4/12/2005		x	GPS	
BB1TP104	Test Pit	107	10.5	1	4/12/2005		x	GPS	
BB1TP105	Test Pit	145	16	1	4/12/2005		x	GPS	
BB1TP106	Test Pit	104	13	1	4/21/2005	x	x	GPS	
BB1PZ100	Piezometer	104	17	1	2/1/2006	x		GPS	
BB1PZ101	Piezometer	64	10	1	2/1/2006	x		GPS	
BBSW01	Surface Water Sample	81	0	1	9/4/1992	x		GPS	Supplemental RI (D&M, 1997)
BB1SS107	Surface Soil Sample	87	0.5	1	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BBSD01	Surface Soil Sample	83	0.5	1	9/4/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB01	Hand Auger Boring	75	2.5	1	8/12/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB02	Hand Auger Boring	137	3	1	8/10/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB03	Hand Auger Boring	190	1.5	1	8/11/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB04	Hand Auger Boring	54	2	1	8/12/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB05	Hand Auger Boring	27	0.5	1	8/12/1992	x		GPS	Supplemental RI (D&M, 1997)
BBSB102	Hollow-Stem Auger Boring	188	9.5	1	5/12/2005		x	GPS	
BBSB103	Hollow-Stem Auger Boring	200	13.6	1	5/23/2005		x	GPS	
BBSB104	Hollow-Stem Auger Boring	221	10.5	1	5/10/2005		x	GPS	
BBSB105	Hollow-Stem Auger Boring	225	10.4	1	5/10/2005		x	GPS	
BBSB115	Hand Auger Boring	188	13	1	5/23/2005			GPS	For observation only, No samples taken
BBSB116	Hand Auger Boring	238	13.2	1	5/23/2005			GPS	For observation only, No samples taken
BBSB23	Hand Auger Boring	89	2.5	1	12/8/1994	x		GPS	Follow-on RI (D&M, 1997)
BBSB24	Hand Auger Boring	80	4.5	1	12/8/1994	x		GPS	Follow-on RI (D&M, 1997)
BBSB25	Hand Auger Boring	85	2	1	12/8/1994	x		GPS	Follow-on RI (D&M, 1997)
BBSB26	Hand Auger Boring	87	4.5	1	12/8/1994	x		GPS	Follow-on RI (D&M, 1997)
BBSB31	Hand Auger Boring	89	1.5	1	1/4/1995	x		GPS	Follow-on RI (D&M, 1997)
BBSB32	Hand Auger Boring	136	4	1	1/4/1995	x		GPS	Follow-on RI (D&M, 1997)
BBSB33	Hand Auger Boring	110	2	1	1/4/1995	x		GPS	Follow-on RI (D&M, 1997)
BBSB34	Hand Auger Boring	113	5.5	1	1/4/1995	x		GPS	Follow-on RI (D&M, 1997)
BBSB35	Hand Auger Boring	70	8.5	1	1/4/1995	x		GPS	Follow-on RI (D&M, 1997)
Trench 4	Cultural Resource trench	217	12	1	5/9/2005		x	GPS	
Trench 5	Cultural Resource trench	218	13	1	4/29/2005	x		GPS	
Trench E	Cultural Resource trench	218	14	1	4/29/2005			GPS	For observation only, No samples taken
BB1SB115	Surface Soil Sample	27	1	1	2/1/2006	x		GPS	
BB2SB100	Hollow-Stem Auger Boring	261	17	2	5/9/2005		x	GPS	
BB2SB101	Hollow-Stem Auger Boring	257	26	2	5/11/2005		x	GPS	
BB2SB102	Hand Auger Boring	253	2.5	2	5/12/2005	x		GPS	
BB2TP100	Test Pit	230	7	2	4/6/2005		x	GPS	
BB2TP101	Test Pit	242	11	2	4/6/2005		x	GPS	
BBSB06	Hand Auger Boring	218	2	2	8/13/1992	x		GPS	Previous Investigation (D&M, 1997)
BBSB07	Hand Auger Boring	155	0.5	2	8/13/1992	x		GPS	Previous Investigation (D&M, 1997)
BBSB08	Hand Auger Boring	265	2.5	2	8/12/1992	x		GPS	Previous Investigation (D&M, 1997)
BBSB107	Hollow-Stem Auger Boring	262	20	2	5/10/2005		x	GPS	
BBSB108	Hand Auger Boring	260	2.5	2	5/12/2005	x		GPS	
BBSB109	Hand Auger Boring	260	2.5	2	5/12/2005	x		GPS	
Trench 1	Cultural Resource trench	261	13	2	4/27/2005			GPS	For observation only, No samples taken
Trench 2	Cultural Resource trench	260	16	2	4/27/2005	x		GPS	
Trench 3	Cultural Resource trench	259	16	2	4/28/2005	x		GPS	
Trench D	Cultural Resource trench	260	11	2	4/28/2005			GPS	For observation only, No samples taken
BB2SB110	Surface Soil Sample	155	1	2	2/1/2006	x		GPS	

Table 1. Summary of Surface and Subsurface Field Investigations
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Presidio of San Francisco, California

Exploration Station	Exploration Type	Boring Elevation (1) (ground surface elevation, ft, PLLW Datum)	Depth (ft, bgs)	Debris Area	Date	Analytical Sampling	Geotechnical Sampling	Survey Method	Comments
BB1ATP100	Test Pit	168	7.5	1A	4/7/2005		x	GPS	
BB1ATP101	Test Pit	170	7	1A	4/7/2005	x	x	GPS	
BB1ATP100C	Test Pit	173	7	1A	4/7/2005			GPS	For observation only, No samples taken
BB1AWA100	Hand-Auger Boring	168	0.5	1A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1AWA101	Hand-Auger Boring	193	0.5	1A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1AWA102	Hand-Auger Boring	193	0.5	1A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB1AWA103	Hand-Auger Boring	181	0.5	1A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BBSB100	Hollow-Stem Auger Boring	174	11	1A	5/13/2005		x	GPS	
BBSB101	Hollow-Stem Auger Boring	189	19.54	1A	5/20/2005		x	GPS	
BBSB21	Hand Auger Boring	175	2.5	1A	9/14/1992	x		GPS	Previous Investigation (D&M, 1997)
BBSB22	Hand Auger Boring	163	2.5	1A	9/14/1992	x		GPS	Previous Investigation (D&M, 1997)
Trench 3	Cultural Resource trench	259	16	2A	4/28/2005	x		GPS	
BB2ASB100A	Hand-Auger Boring	195	2	2A	8/4/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASB100	Hollow-Stem Auger Boring	258	23.7	2A	5/9/2005	x	x	GPS	
BB2ASB101A	Hand-Auger Boring	118	2.5	2A	8/4/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASB101A	Hollow-Stem Auger Boring	256	14	2A	5/9/2005		x	GPS	
BB2ASB102	Hand-Auger Boring	120	3	2A	8/4/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASB103	Hand-Auger Boring	87	4	2A	8/4/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASB104	Hand-Auger Boring	48	2.5	2A	8/4/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASB108	Hand-Auger Boring	235	2	2A	12/2/2004	x		GPS	
BB2ASB112	Beach collection	10	1	2A	5/13/2005	x		GPS	
BB2ASS104	Surface Soil Sample	42	0.5	2A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASS100	Surface Soil Sample	207	0.5	2A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASS102	Surface Soil Sample	123	0.5	2A	7/29/2003	x		GPS	Previous Investigation (MACTEC, 2003)
BB2ASS105	Surface Soil Sample	209	0.5	2A	12/2/2004	x		GPS	Previous Investigation (MACTEC, 2005)
BB2ASS106	Surface Soil Sample	179	0.5	2A	12/2/2004	x		GPS	Previous Investigation (MACTEC, 2005)
BB2ASS107	Surface Soil Sample	182	0.5	2A	12/2/2004	x		GPS	Previous Investigation (MACTEC, 2005)
BB2ATP100	Test Pit	191	5	2A	4/14/2005	x	x	GPS	
BB2ATP101	Test Pit	96	14.5	2A	4/14/2005	x	x	GPS	
BB2ATP102	Test Pit	129	10	2A	4/15/2005		x	GPS	
BB2ATP103	Test Pit	160	7	2A	4/13/2005		x	GPS	
BB2ATP104	Test Pit	113	13	2A	4/13/2005	x	x	GPS	
BB2ATP105	Test Pit	53	3	2A	4/15/2005		x	GPS	
BB2ATP106	Test Pit	60	5	2A	4/15/2005		x	GPS	
BBSB106	Hollow-Stem Auger Boring	257	25.5	2A	5/23/2005	x	x	GPS	
Trench A	Cultural Resource trench	259	13.5	2A	4/28/2005			GPS	For observation only, No samples taken
Trench B	Cultural Resource trench	258	9	2A	4/28/2005			GPS	For observation only, No samples taken
Trench C	Cultural Resource trench	259	12.5	2A	4/28/2005			GPS	For observation only, No samples taken
BB2ASW100	Surface Water Sample	14	0	2A	2/1/2006	x		CB/FRP	
BBSB120	Surface Soil Sample	257	1	2A	2/1/2006	x		GPS	
BB1TP110	Test Pit	213	12	UA	10/3/2005	x		CB/FRP	
BB1TP111	Test Pit	201	6	UA	10/4/2005	x		CB/FRP	
BB1TP112	Test Pit	204	8.5	UA	10/4/2005			CB/FRP	For observation only, No samples taken
BB1TP113	Test Pit	190	5.5	UA	10/3/2005	x		CB/FRP	
BBSB117	Direct Push Boring	190	10	UA	10/10/2005			CB/FRP	For observation only, No samples taken
BBSB118	Direct Push Boring	190	8	UA	10/10/2005			CB/FRP	For observation only, No samples taken
BBSB119	Direct Push Boring	190	9	UA	10/10/2005	x		CB/FRP	

(1) = The GPS unit was used to locate soil borings on a surveyed topographic map, this map was used to obtain accurate boring elevations.
(GPS unit has a accuracy of + or - 5ft for vertical distances)
ft = feet
PLLW = Presidio Lower Low Water
bgs = below ground surface
UA = Undesignated Area
GPS = Global Positioning System
CB/FRP = Elevation measured from the closest building or a fixed reference point.

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Table 2. Regional Faults and Seismicity
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Fault Segment	Approximate Distance to Site (km)	Direction from Site	Maximum [1] Recorded Earthquake Magnitude
San Andreas – 1906 Rupture	12.1	SSW	7.9
San Andreas – Peninsula	12.1	SSW	7.2
San Andreas – North Coast South	8.1	WSW	7.5
San Gregorio – North	17	WSW	7.3
Hayward – Total	21	ENE	7.1
Northern Hayward	21	ENE	6.6
Southern Hayward	31	ESE	6.9
Rodgers Creek	40	N	7.1
Point Reyes	38	NW	6.8
Mount Diablo Thrust	45	E	6.7
Northern Calaveras	46	SE	7.0
Concord	42	ENE	6.5
Southern Green Valley	46	NE	6.5
Monte Vista	42	SSE	6.8
West Napa	56	NNE	6.5

NOTES:

[1] Richter Magnitude

km = kilometer
E = East
W = West
N = North
S = South

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Table 3. Abridged Modified Mercalli Intensity Scale
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

I.	Detected only by sensitive instruments.
II.	Felt by a few persons at rest, especially on upper floors; delicate suspended objects may swing.
III.	Felt noticeably indoors, but not always recognized as a quake; standing autos rock slightly, vibration like passing truck.
IV.	Felt indoors by many, outdoors by a few; at night some awaken; dishes, windows, doors disturbed; motor cars rock noticeably.
V.	Felt by most people; some breakage of dishes, windows, and plaster; disturbance of tall objects.
VI.	Felt by all; many are frightened and run outdoors; falling plaster and chimneys; damage small.
VII.	Everybody runs outdoors; damage to buildings varies, depending on quality of construction; noticed by drivers of autos.
VIII.	Panel walls thrown out of frames; fall of walls, monuments, chimneys; sand and mud ejected; drivers of autos disturbed.
IX.	Buildings shifted off foundations, cracked, thrown out of plumb; ground cracked, underground pipes broken.
X.	Most masonry and frame structures destroyed; ground cracked; rails bent; landslides.
XI.	New structures remain standing; bridges destroyed; fissures in ground; pipes broken; landslides; rails bent.
XII.	Damage total; waves seen on ground surface; lines sight and level distorted; objects thrown up into air.

Checked _____

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Table 4. Piezometer Water Level Measurements
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Piezometer No.	Total Depth (ft. TOC)	Depth to Water (ft. TOC)	Depth to Water (ft. bgs)	Date Measured	Comment
BB1PZ100	18.15	NA	NA	4/21/2005	Constructed, Screened in bedrock
		4.05	1.25	5/23/2005	Developed
		4.04	1.24	5/27/2005	
		4.02	1.22	8/1/2005	
		4.18	1.38	10/4/2005	
		3.48	0.68	2/1/2006	Sampled
BB1PZ101	12.5	NA	NA	4/22/2005	Constructed, screened in waste fill
		4.77	2.22	5/23/2005	Developed
		4.5	1.95	5/27/2005	Additional Development
		5.32	2.77	8/1/2005	
		5.03	2.48	10/4/2005	
		4.63	2.08	2/1/2006	Sampled

Key:
ft = feet
TOC = Top of Casing
bgs = below ground surface
NA = Not Applicable

Checked
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Notes:
1. The top of casing elevation for piezometer BB1PZ100 differs 40 ft from that of BB1PZ101.
2. TOC elevations for BB1PZ100 and BB1PZ101 are 104 ft and 64 ft respectively.

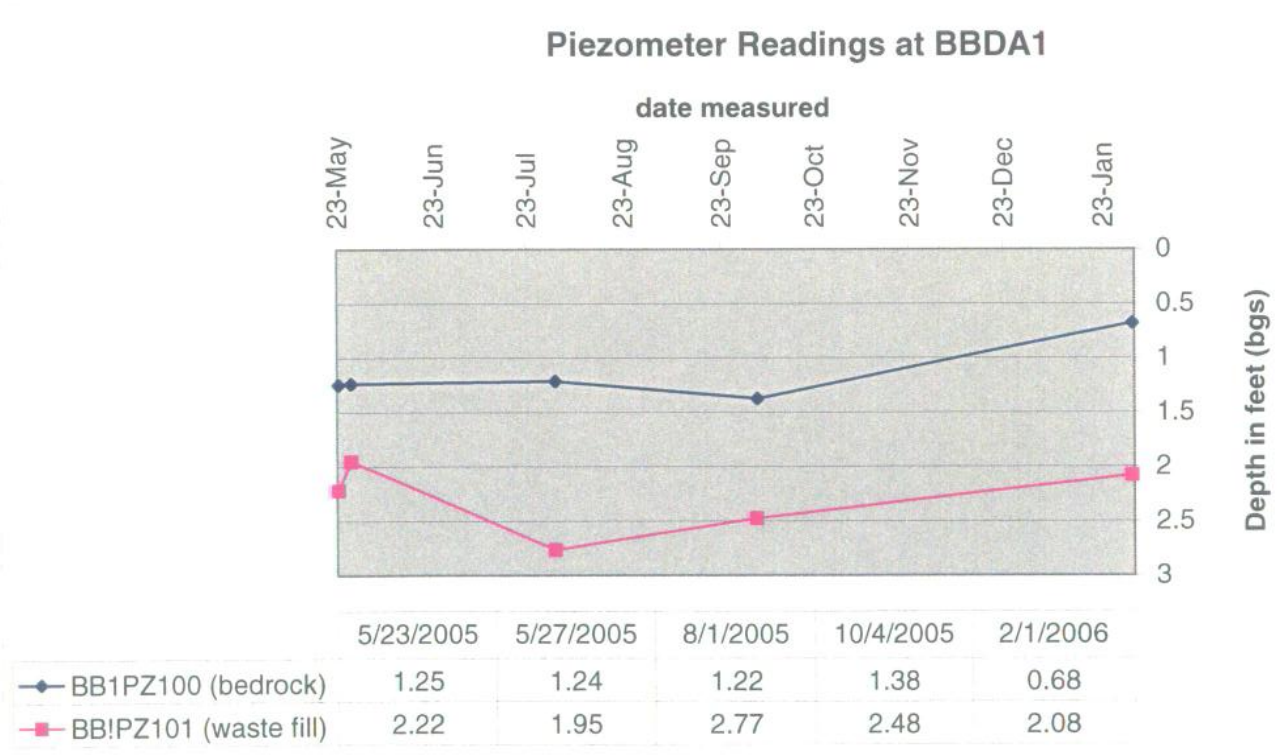

Table 5. Proposed Cleanup Level Summary
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Chemical	Beach/Dune Lithology Cleanup Level (mg/kg)	Residential/Ecological Special Status (2) Serpentinite Lithology Cleanup Level (mg/kg)	Residential/Ecological Buffer Zone Serpentinite Lithology Cleanup Level (mg/kg)	Groundwater/Seep/Surface Water Cleanup Level (F90)
Inorganics				
Antimony	5	5	5	6
Arsenic	5.9	5.4	5.4	10
Barium	320	320	500	1000
Beryllium	10	10	10	4
Cadmium	1.7	1.9	1.9	1.1
Chromium	120	1700	1700	50
Cobalt	20	170	170	
Copper	43	85	120	9
Cyanide	1000	1000	1000	
Lead	160	160	300	2.5
Mercury	0.4	0.4	1.6	0.025
Molybdenum	12	12	300	
Nickel	70	4500	4500	52
Selenium	0.75	0.5	1.1	5
Silver	2	2	2	4.1
Thallium	1.0	1	1	1.7
Vanadium	92	74	74	
Zinc	66	160	160	120
Volatile Organic Compounds (VOCs)				
Acetone	0.24	0.24	0.24	
Benzene	0.6	0.6	0.6	1
2-Butanone (MEK)	3.8	3.8	3.8	
Carbon disulfide	200	200	200	
1,4-dichlorobenzene	0.13	0.13	0.13	5
Ethylbenzene	125	125	125	700
p-isopropyltoluene (p-cymene)	130	130	130	
Methylene chloride	0.076	0.076	0.076	4.7
Toluene	270	270	270	150
1,2,3-trichlorobenzene	15	15	15	70
1,2,4-trichlorobenzene	15	15	15	70
Trichlorofluoromethane	40	40	40	150
1,1,1-trichloroethane	8	8	8	200
Xylenes (total)	55	55	55	318
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	30	30	40	1200
Acenaphthylene	30	30	40	
Anthracene	30	30	40	770
Benzo(a)anthracene	0.27	0.27	0.27	0.0044
Benzo(a)pyrene	0.027	0.027	0.027	0.0044
Benzo(b)fluoranthene	0.27	0.27	0.27	0.0044
Benzo(g,h,i)perylene	30	30	40	150

Table 5. Proposed Cleanup Level Summary
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Chemical	Beach/Dune Lithology Cleanup Level (mg/kg)	Residential/Ecological Special Status (2) Serpentinite Lithology Cleanup Level (mg/kg)	Residential/Ecological Buffer Zone Serpentinite Lithology Cleanup Level (mg/kg)	Groundwater/Seep/Surface Water Cleanup Level (µg/L)
Benzo(k)fluoranthene	0.27	0.27	0.27	0.0044
Chrysene	2.7	2.7	2.7	0.0044
Dibenzo(a,h)anthracene	0.078	0.078	0.078	0.0044
Fluoranthene	30	30	40	300
Fluorene	30	30	40	300
Indeno(1,2,3-cd)pyrene	0.27	0.27	0.27	0.0044
2-methylnaphthalene	30	30	40	
Naphthalene	30	30	40	300
Phenanthrene	30	30	40	230
Pyrene	30	30	40	230
Polychlorinated Biphenyls (PCBs), Organochlorine Pesticides (OCPs)				
PCBs (Aroclor 1254)	0.033	0.033	0.16	0.00017
Aldrin	0.0039	0.0039	0.029	0.00013
alpha-BHC	0.062	0.062	0.18	
beta-BHC	0.062	0.062	0.32	0.014
delta-BHC	0.062	0.062	0.18	
Chlordane	0.009	0.009	0.04	0.00057
2,4-D	0.025	0.025	5	70
Dicamba	0.01	0.01	5	
4,4'-DDD	0.049	0.049	0.53	0.00083
4,4'-DDE	0.098	0.098	0.61	0.00059
4,4'-DDT	0.0082	0.0082	0.53	0.00059
Dieldrin	0.030	0.03	0.03	0.00014
Endosulfan	1.1	1.1	3.3	0.056
Endosulfan sulfate	1.1	1.1	3.3	0.056
Endrin	0.004	0.004	0.11	0.036
Endrin aldehyde	0.004	0.004	0.11	0.036
Endrin ketone	0.004	0.004	0.11	0.036
gamma-BHC	0.010	0.01	0.37	0.019
Heptachlor	0.017	0.017	0.12	0.00021
Heptachlor epoxide	0.017	0.017	0.088	0.0001
Isodrin	0.0039	0.0039	0.029	0.00013
MCPP	5.0	5	--	
Methoxychlor	0.44	0.44	18	40
Total Petroleum Hydrocarbons (TPH)				
TPH-diesel	700	700	700	880
TPH-gasoline	610	610	610	443
TPH-fuel oil	980	980	980	1200

(1)Soil Cleanup Levels were determined by comparing COC cleanup levels for protection of human health, ecological receptors, and groundwater resources and using the most stringent of these three; unless the background concentration for the particular COC was higher and in that case we used the background level as the cleanup level. (EKI, 2002)

(2)Seep Water Cleanup Levels were determined by comparing drinking, freshwater, and surface water cleanup levels and choosing the most stringent. (EKI, 2002)(RWQCB Basin Plan, 11-17- 2004)

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mg/kg = milligrams per kilogram µg/L = micrograms per liter

Table 6. Definition of Qualifiers
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Summary of Analyte Qualifiers Used in this Report

Type	Qualifier	Qualifier Description — Qualifiers are listed as validation qualifier / lab qualifier where applicable (e.g. J/J+)
Inorganic/ Organic	J	Data are qualified as estimated. It is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	J-	Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	J+	Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	U	Data are qualified as nondetected, because the analyte was observed in an associated laboratory or field blank.
Inorganic/ Organic	A	Data has been validated and no qualifiers were applied.
Inorganic/ Organic	UJ	The analyte was not detected above the reported sample quantization limit. However, the reported quantization limit is approximate and may or may not represent the actual limit of quantization necessary to accurately and precisely measure the analyte in the sample.
Inorganic/ Organic	C	Presence confirmed, but RPD between columns exceeds 40%.
Inorganic/ Organic	b	Analytical problems were encountered. See the associated case narrative in data package from lab.
Inorganic/ Organic	H	Heavier hydrocarbons contributed to the quantification.
Inorganic/ Organic	L	Lighter hydrocarbons contributed to the quantification.
Inorganic/ Organic	Y	Sample exhibits chromatographic pattern that does not resemble standard.
Inorganic/ Organic	YZ	Indicates that quantization is based only on a single peak or peaks and that the chromatogram does not resemble a fuel pattern.
Inorganic/ Organic	Z	Indicates that the chromatogram resembles the requested standard, but includes a single peak that significantly biases the quantization.

Footnotes:

Results exceeding cleanup levels are outlined with a box.

Sample data is provided on a dry weight basis.

ND = Not Detected at the specific reporting level in parentheses.

NT = Not Tested

Analytical tables present results for compounds that were detected in any of the samples collected from the site.

Results for non-detect compounds are listed on tables in Appendix C2.

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Note: Where validation qualifiers are absent, data was used for screening purposes.

Table 7A. Detected Inorganic Results for Soil Samples - BBDA-1
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Antimony mg/kg		Arsenic mg/kg		Barium mg/kg		Beryllium mg/kg		Cadmium mg/kg		Chromium mg/kg		Cobalt mg/kg		Copper mg/kg		Lead mg/kg	
Cleanup Level (mg/kg)			**5**		**5.4**		**320**		**10**		**1.9**		**1700**		**170**		**85**		**160**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BBSB103	BBSB103(0.5)	20-May-05	0.52	J-	2.5		44.	J-	0.20	/J	0.18	/J	50.	/J	5.3		9.5		36.	
BB1SB110	BB1SB110(3.5)	12-May-05	ND(0.28)	UJ/J	6.4		65.		0.24	/J	0.19	/J	70.		9.9		12.		12.	
BB1TP102	BB1TP102(4.0)	15-Apr-05	8.3	J-	18.		550.	J-	0.35		2.9		380.		45.		260.	J-	3,200.	J-
BB1TP106	BB1TP106(5.0)	21-Apr-05	35.	J-	230.		610.	J-	0.51		28.		42.		74.		2,200.	J-	1,700.	J-
BB1TP107	BB1TP107(7.0)	04-May-05	0.097	J-/J	3.3		67.		0.31		0.078	/J	110.	J-	12.		11.		5.5	
BB1TP108	BB1TP108(5.0)	05-May-05	3.0	J-	6.7		2,500.		0.20	/J	4.5		64.	J-	12.		370.		420.	
BB1TP109	BB1TP109(2.5)	04-May-05	0.34	J-	2.0		54.		0.17	/J	0.17	/J	250.	J-	35.		14.		6.6	
	DUP050405	04-May-05	0.17	J-/J	2.6		120.		0.37		0.23	/J	37.	J-	11.		37.		45.	
	BB1TP109(3.5)	04-May-05	0.084	J-/J	1.1		39.		0.18	/J	0.068	/J	53.	J-	8.4		5.9		4.1	
	BB1TP109(6.0)	04-May-05	0.27	J-	6.6		150.		0.48		0.31		63.	J-	13.		31.		120.	
BB1SB115	BB1SB115(0.5)	01-Feb-06	1.4	J-/J	14.	J-	150.	J-	0.35		1.5		130.		18.	J+	130.		150.	J-
	BB1SB115(1.0)	01-Feb-06	0.54	/J	6.0		140.		0.36		0.66		330.		29.		68.		100.	

			Mercury mg/kg		Molybdenum mg/kg		Nickel mg/kg		Selenium mg/kg		Silver mg/kg		Thallium mg/kg		Vanadium mg/kg		Zinc mg/kg	
Cleanup Level (mg/kg)			**0.4**		**12**		**4500**		**0.5**		**2**		**1**		**74**		**160**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BBSB103	BBSB103(0.5)	20-May-05	0.06		0.4		34.	J+	0.17	/J	0.05	/J	0.27		37.	J+	50.	J+
BB1SB110	BB1SB110(3.5)	12-May-05	0.097		0.26	J/J	61.		0.19	/J	0.042	/J	ND(0.28)	U/J	50.	J-	42.	J+
BB1TP102	BB1TP102(4.0)	15-Apr-05	0.43		4.4		780.		0.42		12.		0.055	/J	72.	J-	2,700.	J-
BB1TP106	BB1TP106(5.0)	21-Apr-05	7.7		84.		240.		2.2		2.6		0.53		110.	J-	73,000.	J-
BB1TP107	BB1TP107(7.0)	04-May-05	0.26	J-	ND(0.41)	UJ	100.	J-	0.37		0.046	/J	0.062	/J	50.	J-	34.	J
BB1TP108	BB1TP108(5.0)	05-May-05	0.56	J-	14.	J	87.	J-	ND(3.4)		140.		0.036	/J	39.	J-	930.	J
BB1TP109	BB1TP109(2.5)	04-May-05	0.061	J-	ND(0.45)	UJ	300.	J-	0.25	/J	0.08	/J	0.05	/J	42.	J-	77.	J
	DUP050405	04-May-05	0.50	J-	ND(0.30)	UJ	38.	J-	0.24	/J	0.039	/J	0.059	/J	34.	J-	88.	J
	BB1TP109(3.5)	04-May-05	0.048	J-	ND(0.26)	UJ	51.	J-	0.11	/J	0.025	/J	0.044	/J	35.	J-	35.	J
	BB1TP109(6.0)	04-May-05	0.18	J-	ND(0.51)	UJ	64.	J-	0.35		0.084	/J	0.073	/J	51.	J-	140.	J
BB1SB115	BB1SB115(0.5)	01-Feb-06	0.077		1.1		150.		0.53		ND(0.27)	UJ	0.15	J-/J	70.	J-	370.	
	BB1SB115(1.0)	01-Feb-06	0.058		0.61	/J	470.		1.2		ND(0.34)		ND(0.34)		71.		240.	

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See Footnotes in Table 6. Definition of Qualifiers
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Table 7B. Detected Organic Results for Soil Samples - BBDA-1
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

	1,2,4-Trimethylbenzene mg/kg	2-Butanone mg/kg	4,4'-DDD mg/kg	4,4'-DDE mg/kg	4,4'-DDT mg/kg	Acenaphthene mg/kg	Acenaphthylene mg/kg	Acetone mg/kg	alpha-Chlordane (2) mg/kg	Anthracene mg/kg	Aroclor 1254 mg/kg	Benzene mg/kg	Benzo(a) anthracene mg/kg
Cleanup Levels (mg/kg)	**52 (1)**	**3.8**	**0.049**	**0.098**	**0.0082**	**30**	**30**	**0.24**	**0.009**	**30**	**0.033**	**0.6**	**0.27**
BBSB103 BBSB103(0.5) 20-May-05	ND(0.0068)	ND(0.014)	ND(0.019)	ND(0.019)	ND(0.019) UJ	/J	0.029	ND(0.027)	ND(0.01)	0.038	ND(0.011)	ND(0.0068)	0.13
BB1SB110 BB1SB110(3.5) 12-May-05	NT	NT	ND(0.019)	ND(0.019)	ND(0.019)	J+	0.064	NT	ND(0.0096)	0.1	ND(0.011)	NT	0.36
BB1TP102 BB1TP102(4.0) 15-Apr-05	NT	0.0023 J+/J	NT	NT	NT	ND(0.15)	ND(0.15)	0.016 J+/J	NT	ND(0.15)	ND(0.014)	ND(0.0071)	ND(0.15)
BB1TP106 BB1TP106(5.0) 21-Apr-05	ND(0.0063)	ND(0.013)	NT	NT	NT	ND(0.015)	ND(0.015)	ND(0.025)	NT	ND(0.015)	0.43	ND(0.0063)	ND(0.015)
BB1TP107 BB1TP107(7.0) 04-May-05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BB1TP108 BB1TP108(5.0) 05-May-05	0.0031 J+/J	ND(0.015)	ND(0.045)	0.012 /J	ND(0.045) UJ	ND(0.0068)	ND(0.0068)	ND(0.03)	ND(0.023)	ND(0.0068)	ND(0.016)	0.0017 J+/J	0.0065 /J
BB1TP109 BB1TP109(2.5) 04-May-05	ND(0.0045)	ND(0.009)	ND(0.0037)	ND(0.0037)	ND(0.0037) UJ	ND(0.0057)	ND(0.0057)	ND(0.018)	ND(0.0019)	ND(0.0057)	ND(0.014)	ND(0.0045)	ND(0.0057)
DUP050405 04-May-05	ND(0.0044)	ND(0.0088)	0.038 J+	0.068	0.39 J-/b	ND(0.0056)	0.0042 J+/J	ND(0.018)	0.014 /C	0.0049 J+/J	ND(0.014)	ND(0.0044)	0.019 J+
BB1TP109(3.5) 04-May-05	0.00081 /J	ND(0.0095)	ND(0.018)	ND(0.018)	ND(0.018) UJ	ND(0.0055)	ND(0.0055)	0.0036 /J	ND(0.0093)	ND(0.0055)	ND(0.013)	ND(0.0047)	0.0018 /J
BB1TP109(6.0) 04-May-05	ND(0.0043)	ND(0.0086)	ND(0.019)	0.012 /J	0.052 J-	ND(0.011)	0.0066 J+/J	ND(0.017)	ND(0.0096)	0.0051 J+/J	ND(0.014)	ND(0.0043)	0.024 J+

	Benzo(a) pyrene mg/kg	Benzo(b) fluoranthene mg/kg	Benzo(g,h,i) perylene mg/kg	Benzo(k) fluoranthene mg/kg	Chrysene mg/kg	Dibenzo(a,h) anthracene mg/kg	Dieldrin mg/kg	Fluoranthene mg/kg	Fluorene mg/kg	gamma-Chlordane (2) mg/kg	Indeno(1,2,3-cd)pyrene mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg
Cleanup Levels (mg/kg)	**0.027**	**0.27**	**30**	**0.27**	**2.7**	**0.078**	**0.03**	**30**	**30**	**0.009**	**0.27**	**30**	**30**
BBSB103 BBSB103(0.5) 20-May-05	0.23	0.16	0.20	0.12	0.17	0.082	ND(0.019)	0.27	0.0094 /J	ND(0.01)	0.17	0.0084 /J	0.23
BB1SB110 BB1SB110(3.5) 12-May-05	0.33	0.21	0.32	0.2	0.42	0.12	0.023 J+	0.72	0.042	ND(0.0096)	0.27	0.02	0.73
BB1TP102 BB1TP102(4.0) 15-Apr-05	ND(0.15)	ND(0.15) /Jb		ND(0.15)	0.053 /J	ND(0.15)	NT	0.096 /J	ND(0.15)	NT	ND(0.15)	ND(0.15)	0.077 /Jb
BB1TP106 BB1TP106(5.0) 21-Apr-05	ND(0.015)	ND(0.015)	ND(0.015)	ND(0.015)	ND(0.015)	ND(0.015)	NT	ND(0.015)	ND(0.015)	NT	ND(0.015)	ND(0.015)	ND(0.015)
BB1TP107 BB1TP107(7.0) 04-May-05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BB1TP108 BB1TP108(5.0) 05-May-05	0.07 J-	0.054 J-	0.015 J-	0.1 J-	0.073	0.0097 J-	ND(0.045)	0.0093	ND(0.0068)	ND(0.023)	J-	ND(0.0068)	0.0035 /J
BB1TP109 BB1TP109(2.5) 04-May-05	ND(0.0057)	ND(0.0057)	ND(0.0057)	0.00072 /J	ND(0.0057)	ND(0.0057)	ND(0.0037)	ND(0.0057)	ND(0.0057)	ND(0.0019)	ND(0.0057)	ND(0.0057)	ND(0.0057)
DUP050405 04-May-05	0.027 J+	0.023 J+	J+	0.022 J+	0.024 J+	J+/J	0.073	0.025 J+	ND(0.0056)	0.0075 /J	J+	0.0022 J+/J	0.015 J+
BB1TP109(3.5) 04-May-05	0.0017 /J	0.0014 /J	/Jb	0.00089 /J	0.002 /J	ND(0.0055)	ND(0.018)	0.0018 /J	ND(0.0055)	ND(0.0093)	/J	ND(0.0055)	0.0022 /J
BB1TP109(6.0) 04-May-05	0.037 J+	0.035 J+	J+	0.020 J+	0.038 J+	J+/J	0.042	0.024 J+	ND(0.011)	ND(0.0096)	J+	0.0028 J+/J	0.015 J+

	p-Isopropyltoluene mg/kg	Pyrene mg/kg	Toluene mg/kg	TPH Diesel (C12-C24) mg/kg	TPH Gasoline (C7-C12) mg/kg	TPH Fuel Oil (C24-C36) mg/kg	Xylenes (o-) mg/kg	Xylenes (total) mg/kg
Cleanup Levels (mg/kg)	**130**	**30**	**270**	**700**	**610**	**980**	**55**	**55**
BBSB103 BBSB103(0.5) 20-May-05	0.0029 /J	0.31	ND(0.0068)	NT	NT	NT	ND(0.0068)	ND(0.0068)
BB1SB110 BB1SB110(3.5) 12-May-05	NT	1	NT	NT	NT	NT	NT	NT
BB1TP102 BB1TP102(4.0) 15-Apr-05	NT	0.1 /J	ND(0.0071)	31. /HY	0.18 /J	180.	ND(0.0071)	ND(0.0071)
BB1TP106 BB1TP106(5.0) 21-Apr-05	ND(0.0063)	ND(0.015)	ND(0.0063)	32. /HY	ND(0.4)	120.	ND(0.0063)	ND(0.0063)
BB1TP107 BB1TP107(7.0) 04-May-05	NT	NT	NT	NT	NT	NT	NT	NT
BB1TP108 BB1TP108(5.0) 05-May-05	ND(0.0076)	0.039	J+/J	780. /HY	0.039 /J	3,500.	0.0013 J+/J	0.0028 J+/J
BB1TP109 BB1TP109(2.5) 04-May-05	ND(0.0045)	ND(0.0057)	ND(0.0045)	1.0. UJ/JY	ND(0.18)	/Y	ND(0.0045)	ND(0.0045)
DUP050405 04-May-05	ND(0.0044)	0.044 J+	ND(0.0044)	95. /HY	0.033 /J	440.	ND(0.0044)	ND(0.0044)
BB1TP109(3.5) 04-May-05	ND(0.0047)	0.0028 /J	0.00077 /J	240. /HY	0.057 /J	/HL	0.00058 /J	0.0014 /J
BB1TP109(6.0) 04-May-05	ND(0.0043)	0.045 J+	ND(0.0043)	40. /HY	ND(0.16)	100.	ND(0.0043)	ND(0.0043)

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Footnotes: (1) Cleanup level is EPA Region IX PRG, because there is no Presidio cleanup level for this compound.
(2) Results are compared to cleanup level for total chlordane; results are added to evaluate if there is an exceedance.

See Footnotes in Table 6. Definition of Qualifiers
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KB61762_Table_7B.xls-BB-May 8, 2006

Table 8A. Detected Inorganic Results for Beach Soil Samples - BBDA-1
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Arsenic		Barium		Beryllium		Cadmium		Chromium		Cobalt		Copper		Lead		Mercury	
			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
		Cleanup Level (mg/kg)	5.9		320		10		1.7		120		20		43		160		0.4	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1SB113	BB1SB113(0.5)	13-May-05	5.8		8.4		0.14	/J	0.093	/J-	48.		7.0		8.0		4.3		0.02	/J
BB1SB114	BB1SB114(0.5)	13-May-05	3.8		13.		0.097	/J	0.088	/J-	28.		4.5		5.4		5.7		0.017	/J

			Nickel		Silver		Vanadium		Zinc	
			mg/kg		mg/kg		mg/kg		mg/kg	
		Cleanup Level (mg/kg)	70		2		92		66	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1SB113	BB1SB113(0.5)	13-May-05	30.		0.0089	/J	32.	J-	22.	J+
BB1SB114	BB1SB114(0.5)	13-May-05	26.		0.025	/J	19.	J-	20.	J+

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See Footnotes in Table 6. Definition of Qualifiers
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Table 8B. Detected Organic Results for Beach Soil Samples - BBDA-1
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Aroclor 1254 mg/kg		Benzo(a)anthracene mg/kg		Benzo(a)pyrene mg/kg		Benzo(b)fluoranthene mg/kg		Benzo(g,h,i)perylene mg/kg		Benzo(k)fluoranthene mg/kg		Chrysene mg/kg		Fluoranthene mg/kg		Fluorene mg/kg		Methylene chloride mg/kg		Naphthalene mg/kg	
	Cleanup Level (mg/kg)		**0.033**		**0.27**		**0.027**		**0.27**		**30**		**0.27**		**2.7**		**30**		**30**		**0.076**		**30**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1SB113	BB1SB113(0.5)	13-May-05	ND(0.01)		0.0013	/J	0.0012	/J	0.0014	/J	0.0016	J+/Jb	0.00081	/J	0.002	/J	0.0022	/J	0.0025	/J	0.15	/J	0.00091	/J
BB1SB114	BB1SB114(0.5)	13-May-05	0.0083	/J	ND(0.0055)		ND(0.0055)		ND(0.0055)		ND(0.0055)		ND(0.0055)		ND(0.0055)		ND(0.0055)		ND(0.0055)		0.12	/J	0.0019	/J

			Phenanthrene mg/kg		Pyrene mg/kg		TPH Diesel (C12-C24) mg/kg		TPH Gasoline (C7-C12) mg/kg		TPH Fuel Oil (C24-C36) (mg/kg)	
	Cleanup Level (mg/kg)		**30**		**30**		**700**		**610**		**980**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1SB113	BB1SB113(0.5)	13-May-05	0.0038	/J	0.003	/J	1.3	/HY	ND(0.21)		ND(5.3)	
BB1SB114	BB1SB114(0.5)	13-May-05	0.0017	/J	ND(0.0055)		NT		0.029	/J	2.7	/J

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See Footnotes in Table 6. Definition of Qualifiers
SQLRpt 1.72-5
KB61762_Table_8B.xls-BB-May 8, 2006

Table 9A. Detected Inorganic Results for Groundwater and Seep Samples - BBDA-1 and 2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

			Antimony µg/l		Arsenic µg/l		Barium µg/l		Beryllium µg/l		Cadmium µg/l		Copper µg/l		Chromium µg/l		Cobalt µg/l		Lead µg/l	
	Cleanup Level		**6**		**10**		**1,000**		**4**		**1.1**		**9(b)**		**50**		**--**		**2.5(b)**	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ101	BB1PZ101_5/27	27-May-05	2.6	/J	6.8		63.	J+	ND(2)		ND(5)		1.6	/J	0.69	/J	2.1	/J	0.26	/J
	BB1PZ101_8/1	01-Aug-05	3.1		7.1		74.		ND(1)		ND(1)		1.2		0.69		1.9		0.25	
	BB1PZ101_8/1UF	01-Aug-05	1.3		13.	*	120.		0.33	/J	0.17	/J	60.	**	17.	/J	14.		45.	**
	BB1PZ101_2/06	01-Feb-06	1.9		3.4		110.	J+	ND(1)		ND(1)		0.56	J-/J	1.0		ND(0.17)	U/J	ND(0.62)	U/J
	BB1PZ101_2/06UF	01-Feb-06	3.8		18.	*	160.	J+	0.63	/J	0.42	/J	64.	**J-	37.	J-	20.		56.	**
BB1PZ100	BB1PZ100_2/06	01-Feb-06	4.9		3.4		99.	J+	ND(1)		ND(1)		1.4	J-	2.0	J-	0.32	/J	2.2	
	BB1PZ100_2/06UF	01-Feb-06	1.1		8.9		250.	J+	0.40	/J	3.1	**	74.	**J-	180.	**J-	16.		1,800.	**
	DUP020106-2_2/06	01-Feb-06	9.7		9.3		85.	J+	ND(1)		ND(1)		2.1	J-	1.3	J-	2.6		1.5	
	DUP020106-2_2/06UF	01-Feb-06	1.9		9.4		330.	J+	0.38	/J	3.3	**	190.	**J-	320.	**J-	26.		2,000.	**
BB2ASW100	BB2ASW100_2/06	01-Feb-06	7.3		7.5		88.	J+	ND(1)		ND(1)		13.	J-	5.0	J-	0.60	/J	ND(1.2)	U
	BB2ASW100_2/06UF	01-Feb-06	3.0		19.	*	290.	J+	2.0		2.6	**	320.	**J-	77.	** J-	190.		610.	**

			Mercury µg/l		Molybdenum µg/l		Nickel µg/l		Selenium µg/l		Silver µg/l		Thallium µg/l		Vanadium µg/l		Zinc µg/l	
	Cleanup Level		**0.025(b)**		**--**		**52(b)**		**5**		**4.1**		**1.7**		**--**		**120(b)**	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ101	BB1PZ101_5/27	27-May-05	ND(0.2)		6.7	/J	10.	/J	0.60	/J	ND(5)		ND(5)		3.0	/J	18.	/J
	BB1PZ101_8/1	01-Aug-05	ND(0.2)		5.9		9.4		0.80	/J	ND(1)		ND(1)		2.7		17.	J
	BB1PZ101_8/1UF	01-Aug-05	ND(0.2)		2.2		42.		1.9		ND(1)		0.94	/J	25.		75.	J
	BB1PZ101_2/06	01-Feb-06	ND(0.2)		33.		11.		1.3		ND(1)		ND(1)		3.8		14.	/b
	BB1PZ101_2/06UF	01-Feb-06	0.30		4.0		62.	**	1.7		0.054	/J	0.09	/Jb	49.		140.	**
BB1PZ100	BB1PZ100_2/06	01-Feb-06	8.5		32.		11.		0.63	/J	ND(1)		ND(1)		3.6		19.	
	BB1PZ100_2/06UF	01-Feb-06	7.5		3.3		230.	**	1.7		0.21	/J	ND(1)		55.		2,200.	**
	DUP020106-2_2/06	01-Feb-06	8.9		8.7		13.		1.1		ND(1)		ND(1)		8.6		23.	
	DUP020106-2_2/06UF	01-Feb-06	11.		6.9		360.	**	2.4		0.96	/J	ND(1)		62.		2,000.	**
BB2ASW100	BB2ASW100_2/06	01-Feb-06	1.3		12.		17.		2.1		ND(1)		ND(1)		5.2		24.	
	BB2ASW100_2/06UF	01-Feb-06	5.5		1.5		810.	**	5.5		0.097	/J	0.95	/Jb	65.		820.	**

Indicates analytical result exceeds cleanup level

Sample numbers have date sampled incorporated into the end of the identification number to create a unique sample identification for database management purposes

UF at the end of the sample number means the sample collected for metals analysis is unfiltered

Cleanup levels are the most stringent of drinking water, freshwater seep, and surface water cleanup levels from EKI, 2002 and the RWQCB Basin Plan (RWQCB, 2004)

* exceeds drinking water cleanup level; cleanup level is for dissolved metals and is therefore considered applicable to filtered samples only

**exceeds surface water cleanup level; cleanup level is for dissolved metals and is therefore considered applicable to filtered samples only

(b) from RWQCB Basin Plan dated 11-17-2004

Checked

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Table 9B. Detected Organic Results for Groundwater and Seep Samples - BBDA-1 and 2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

			Acetone µg/l		Benzene µg/l		Carbon disulfide µg/l		Methylene chloride µg/l		Acenaphthene µg/l		Anthracene µg/l		Benzo(a)anthracene µg/l		Benzo(b)fluoranthene µg/l		Chrysene µg/l	
Cleanup level			—		1		—		4.7		1,200		770		0.0044		0.0044		0.0044	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ101	BB1PZ101_5/27	27-May-05	0.90	/J	ND(0.5)		ND(0.5)		ND(10)		ND(0.09)		ND(0.09)		ND(0.09)		ND(0.09)		ND(0.09)	
	BB1PZ101_8/1	01-Aug-05	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ101_8/1UF	01-Aug-05	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ101_2/06UF	01-Feb-06	1.0	/J	ND(0.5)		ND(0.5)		ND(0.20)	U/J	ND(0.1)		ND(0.1)		ND(0.1)		ND(0.1)		ND(0.1)	
BB1PZ100	BB1PZ100_2/06UF	01-Feb-06	1.5	/J	0.20	/J	0.10	/J	ND(0.30)	U/J	ND(0.1)		ND(0.1)		ND(0.1)		ND(0.1)		0.02	/J
	DUP020106-2_2/06UF	01-Feb-06	0.90	/J	0.10	/J	0.10	/J	ND(0.20)	U/J	ND(0.1)		ND(0.1)		ND(0.1)		ND(0.1)		ND(0.1)	
BB2ASW100	BB2ASW100_2/06UF	01-Feb-06	2.6	/J	ND(0.5)		0.10	/J	ND(0.60)	U/J	0.03	/J	0.05	/J	0.01	/J	0.02	/J	0.03	/J

			Fluoranthene µg/l		Fluorene µg/l		Naphthalene µg/l		Phenanthrene µg/l		Pyrene µg/l		TPH Diesel (C12-C24) µg/l		TPH Fuel Oil (C24-C36) µg/l		TPH Gasoline (C7-C12) µg/l		4,4'-DDT µg/l	
Cleanup level			300		300		300		230		230		880		1200		443		0.00059	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ101	BB1PZ101_5/27	27-May-05	ND(0.09)		0.20		ND(0.09)		ND(0.09)		ND(0.09)		31.	/JY	58.	/JY	ND(50)	U/J	ND(0.09)	
	BB1PZ101_8/1	01-Aug-05	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ101_8/1UF	01-Aug-05	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ101_2/06UF	01-Feb-06	ND(0.1)		0.06	/J	ND(0.1)	UJ	0.01	/J	ND(0.01)	U/J	94.	/HY	140.	/J	ND(32.0)	U/J	ND(0.1)	
BB1PZ100	BB1PZ100_2/06UF	01-Feb-06	ND(0.1)		ND(0.1)		ND(0.06)	UJ/J	0.02	/J	0.02	/J	380.	/HY	1,600.		ND(33.0)	U/J	ND(0.1)	
	DUP020106-2_2/06UF	01-Feb-06	ND(0.1)		ND(0.1)		ND(0.02)	UJ/J	0.01	/J	ND(0.02)	U/J	830.	/HY	3,100.		ND(31.0)	U/J	ND(0.1)	
BB2ASW100	BB2ASW100_2/06UF	01-Feb-06	0.05	/J	0.10		ND(0.05)	UJ/J	0.09	/J	0.05	/J	47.	/JY	ND(300)		ND(27.0)	U/J	0.03	/CJ

Indicates reported result exceeds the cleanup level.

Sample numbers have date sampled incorporated into the end of the identification number to create a unique sample identification for database management purposes

UF at the end of the sample number means the sample collected for metals analysis is unfiltered

Cleanup levels were selected by selecting the most stringent of drinking water, freshwater seep, and surface water cleanup levels from EKI, 2002

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Table 9C. Detected General Minerals Results for Groundwater and Seep Samples - BBDA-1 and 2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

			Total Dissolved Solids mg/l		Alkalinity, Bicarbonate mg/l		Alkalinity, Total mg/l		Bromide mg/l		Chloride mg/l		Fluoride anion mg/l		Nitrate mg/l		Nitrate-Nitrite as N mg/l		Sulfate mg/l	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ100	BB1PZ100_2/06	01-Feb-06	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ100_2/06UF	01-Feb-06	990.		490.		490.		0.90		240.		0.13		ND(0.05)		0.14		140.	
	DUP020106-2_2/06	01-Feb-06	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	DUP020106-2_2/06UF	01-Feb-06	1,000.		550.		550.		0.85		230.		0.091	/J	ND(0.05)		0.11		110.	
BB1PZ101	BB1PZ101_2/06	01-Feb-06	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB1PZ101_2/06UF	01-Feb-06	1,340.		670.		670.		0.91		270.		0.25		ND(0.05)		ND(0.1)		110.	
BB2ASW100	BB2ASW100_2/06	01-Feb-06	NT		NT		NT		NT		NT		NT		NT		NT		NT	
	BB2ASW100_2/06UF	01-Feb-06	1,200.		530.		530.		0.27		250.		0.31		0.94		0.97		210.	

			Aluminum µg/l		Calcium µg/l		Iron µg/l		Magnesium µg/l		Manganese µg/l		Sodium µg/l	
Station Name	Sample Number	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1PZ100	BB1PZ100_2/06	01-Feb-06	51.		39,000.	J	250.		55,000.		110.		190,000.	
	BB1PZ100_2/06UF	01-Feb-06	NT		NT		NT		NT		NT		NT	
	DUP020106-2_2/06	01-Feb-06	34.	/J	74,000.	J	300.		110,000.		1,000.		180,000.	
	DUP020106-2_2/06UF	01-Feb-06	NT		NT		NT		NT		NT		NT	
BB1PZ101	BB1PZ101_2/06	01-Feb-06	22.	/J	36,000.	J	140.		61,000.		110.		200,000.	
	BB1PZ101_2/06UF	01-Feb-06	NT		NT		NT		NT		NT		NT	
BB2ASW100	BB2ASW100_2/06	01-Feb-06	36.	/J	53,000.		200.		120,000.		7.		180,000.	
	BB2ASW100_2/06UF	01-Feb-06	NT		NT		NT		NT		NT		NT	

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Table 10A. Detected Inorganic Results for Soil Samples - BBDA-1A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Antimony (mg/kg)		Arsenic (mg/kg)		Barium (mg/kg)		Beryllium (mg/kg)		Cadmium (mg/kg)		Chromium (mg/kg)		Cobalt (mg/kg)		Copper (mg/kg)		Lead (mg/kg)		Mercury (mg/kg)	
Cleanup Level (mg/kg)			**5**		**5.4**		**320**		**10**		**1.9**		**1700**		**170**		**85**		**160**		**0.4**	
Station Name	Sample Number (depth)	Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1ATP101-G1	BB1ATP101-G1(0)	04/07/05	0.61	J-	3.0		21.	J-	0.13		0.15		46.		4.7		6.7	J-	8.6	J-	0.021	
BB1ATP101-G2	BB1ATP101-G2 (3.0)	04/07/05	0.27	J-/J	2.6		28.	J-	0.13	/J	0.13	/J	100.		11.		28.	J-	8.1	J-	ND(0.024)	

			Molybdenum (mg/kg)		Nickel (mg/kg)		Selenium (mg/kg)		Silver (mg/kg)		Thallium (mg/kg)		Vanadium (mg/kg)		Zinc (mg/kg)	
Cleanup Level (mg/kg)			**12**		**4500**		**0.5**		**2**		**1**		**74**		**160**	
Station Name	Sample Number (depth)	Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1ATP101-G1	BB1ATP101-G1(0)	04/07/05	0.42		38.		0.26	/J	0.043	/J	0.12	/J	21.	J-	21.	J-
BB1ATP101-G2	BB1ATP101-G2 (3.0)	04/07/05	0.33		69.		0.26	/J	0.018	/J	0.13	/J	66.	J-	36.	J-

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See Footnotes in Table 6. Definition of Qualifiers
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Table 10B. Detected Organic Results for Soil Samples - BBDA-1A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio of San Francisco, California

			Benzo(b)fluoranthene mg/kg		Benzo(g,h,i)perylene mg/kg		Benzo(k)fluoranthene mg/kg		Chrysene mg/kg	
Cleanup Level (mg/kg)			**0.27**		**30**		**0.27**		**2.7**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1ATP101-G1	BB1ATP101-G1(0)	04/07/05	ND(1)		0.26		ND(1)		0.34	
BB1ATP101-G2	BB1ATP101-G2 (3.0)	04/07/05	0.0012	/J	0.0011	/J	0.00085	/J	ND(0.0055)	

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See Footnotes in Table 6. Definition of Qualifiers

Table 11A. Detected Inorganic Results for Soil Samples - BBDA-2
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

			Antimony mg/kg		Arsenic mg/kg		Barium mg/kg		Beryllium mg/kg		Cadmium mg/kg		Chromium mg/kg		Cobalt mg/kg		Copper mg/kg		Lead mg/kg	
Cleanup Level (mg/kg)			5		5.4		320		10		1.9		1700		170		85		160	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2SB102	BB2SB102(0.0)	12-May-05	0.57	J-	4.0		110.		0.33		0.32		57.		13.		36.		80.	
	BB2SB102(2.0)	12-May-05	ND(0.32)	UJ	4.4		120.		0.47		0.20	/J	49.		11.		29.		40.	
BBD2TP105	BB02TP105(11.5)	28-Apr-05	0.61	J-	7.4		95.	J-	0.34		0.16	/J	63.	J-	18.		20.		35.	J-
	BB02TP105(15.0)	28-Apr-05	0.29	J-	5.8		55.	J-	0.60		0.16	/J	57.	J-	16.		25.		7.7	J-
BBD2TP106	BB02TP106(2.0)	28-Apr-05	0.56	J-	4.2		520.	J-	0.33		0.50		77.	J-	11.		35.		200.	J-
BBD2TP108	BB02TP108(10.0)	25-Apr-05	0.13	J-	2.7		130.	J-	0.32		0.12		59.		12.		15.	J-	4.4	J-
	BB02TP108(4.0)	25-Apr-05	0.11	J-	2.8		96.	J-	0.30		0.099		75.		11.		13.	J-	5.6	J-
	BB02TP108(7.0)	25-Apr-05	0.18	J-	4.2		92.	J-	0.42		0.12		100.		16.		20.	J-	4.9	J-
BBSB108	BBSB108(0.0)	12-May-05	0.49	J-	3.1		110.		0.27	/J	0.70		43.		7.5		26.		160.	
	BBSB108(2.0)	12-May-05	ND(0.38)	UJ	10.		110.		0.59		0.095	/J	25.		5.4		35.		14.	
BBSB109	BBSB109(0.0)	12-May-05	0.92	J-	2.2		120.		0.22	/J	1.3		34.		7.3		33.		1,900.	
	BBSB109(2.0)	12-May-05	ND(0.38)	UJ	6.8		49.		0.97		0.24	/J	140.		23.		50.		35.	
	DUP050512	12-May-05	0.78	J-	3.2		150.		0.26	/J	1.1		60.		9.8		40.		180.	
BB2SB110	BB2SB110(0.5)	01-Feb-06	0.96	J-/J	4.7		72.		0.23		0.32	/J	740.		52.		16.		28.	
	BB2SB110(1.0)	01-Feb-06	0.33	J-/J	4.1		69.		0.21		0.25	/J	400.		39.	J-	15.		32.	
	DUP020106	01-Feb-06	ND(4.5)	R	5.6		78.		0.28		0.31	/J	370.		42.		18.		30.	

			Mercury mg/kg		Molybdenum mg/kg		Nickel mg/kg		Selenium mg/kg		Silver mg/kg		Thallium mg/kg		Vanadium mg/kg		Zinc mg/kg	
Cleanup Level (mg/kg)			0.4		12		4500		0.5		2		1		74		160	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2SB102	BB2SB102(0.0)	12-May-05	0.13		0.49		51.		0.24	/J	0.061	/J	ND(0.25)	U/J	50.	J-	110.	J+
	BB2SB102(2.0)	12-May-05	0.046		0.44		47.		0.37		0.034	/J	ND(0.26)	U/J	51.	J-	97.	J+
BBD2TP105	BB02TP105(11.5)	28-Apr-05	0.04		0.53	J	89.	J-	ND(0.33)	U/J	0.042	/J	0.28	/J	46.	J-	56.	J-
	BB02TP105(15.0)	28-Apr-05	ND(0.024)		0.63	J	62.	J-	ND(0.37)	U	0.043	/J	0.25	/J	49.	J-	52.	J-
BBD2TP106	BB02TP106(2.0)	28-Apr-05	0.49		0.53	J	88.	J-	ND(0.27)	U/J	0.19	/J	0.064	/J	46.	J-	420.	J-
BBD2TP108	BB02TP108(10.0)	25-Apr-05	ND(0.02)		0.38		50.		0.44		0.035		0.068		47.	J-	36.	J-
	BB02TP108(4.0)	25-Apr-05	0.045		0.38		61.		0.33		0.024		0.066		46.	J-	32.	J-
	BB02TP108(7.0)	25-Apr-05	0.057		0.40		100.		0.25		0.032		0.088		56.	J-	41.	J-
BBSB108	BBSB108(0.0)	12-May-05	0.13		0.37	/J	47.		0.26	/J	0.12	/J	ND(0.38)	U/J	35.	J-	170.	J+
	BBSB108(2.0)	12-May-05	0.069		0.38		37.		0.67		0.09	/J	ND(0.19)	U/J	33.	J-	74.	J+
BBSB109	BBSB109(0.0)	12-May-05	0.54		0.50		36.		ND(0.45)		0.16	/J	ND(0.45)	U/J	28.	J-	210.	J+
	BBSB109(2.0)	12-May-05	0.097		0.28	J	190.		0.21	/J	0.039	/J	ND(0.25)	U/J	63.	J-	96.	J+
	DUP050512	12-May-05	1.1		2.1		66.		0.24	/J	0.12	/J	ND(0.33)	U/J	41.	J-	250.	J+
BB2SB110	BB2SB110(0.5)	01-Feb-06	0.045		0.50	/J	910.		1.3		ND(0.38)	UJ	ND(0.32)		67.		52.	
	BB2SB110(1.0)	01-Feb-06	0.046	J-	0.40	/J	540.		0.98		ND(0.28)	UJ	ND(0.11)	U/J	51.		44.	
	DUP020106	01-Feb-06	0.049		0.52	/J	540.		1.2		ND(0.37)	UJ	ND(0.37)		62.		58.	

Checked

Approved MJH

See Footnotes in Table 6. Definition of Qualifiers
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KB61762_Table_11A .xls-BB - May 8, 2006

Table 11B. Detected Organic Results for Soil Samples - BBDA-2
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

			1,2,4-Trimethylbenzene mg/kg		2-Butanone mg/kg		Acenaphthene mg/kg		Acenaphthylene mg/kg		Acetone mg/kg		Anthracene mg/kg		Benzo(a) anthracene mg/kg		Benzo(a) pyrene mg/kg		Benzo(b) fluoranthene mg/kg		Benzo(g,h,i) perylene mg/kg		Benzo(k) fluoranthene mg/kg		Chrysene mg/kg		Dibenzo(a,h) anthracene mg/kg		Ethylbenzene mg/kg	
Cleanup Level (mg/kg)			**52[1]**		**3.8**		**30**		**30**		**0.24**		**30**		**0.27**		**0.027**		**0.27**		**30**		**0.27**		**2.7**		**0.078**		**125**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2SB102	BB2SB102(0.0)	12-May-05	NT		NT		0.0049	J+/J	0.014		NT		0.024		0.099		0.14		0.12		0.068		0.09		0.13		0.035		NT	
	BB2SB102(2.0)	12-May-05	NT		NT		0.0021	J+/J	0.011		NT		0.0087		0.052		0.084	J-	0.068	J-	0.038	J-	0.055	J-	0.069		0.019	J-	NT	
BBD2TP105	BB02TP105(11.5)	28-Apr-05	ND(0.0051)		0.011		ND(0.006)		ND(0.006)		0.063		ND(0.006)		0.0014	/J	0.0017	/J	0.0029	/J	0.0032	/J	0.003	/J	0.0029	/J	0.0016	/Jb	ND(0.0051)	
	BB02TP105(15.0)	28-Apr-05	ND(0.0049)		ND(0.0098)		ND(0.012)		ND(0.012)		ND(0.02)		ND(0.012)		0.0078	/J	0.0064	/J	0.008	/J	0.008	/J	0.0058	/J	0.0055	/J	0.0085	/Jb	ND(0.0049)	
BBD2TP106	BB02TP106(2.0)	28-Apr-05	0.013		ND(0.011)		0.022		0.22		ND(0.022)		0.12		0.54		0.8	J-	0.61	J-	0.26		0.54	J-	0.87		0.22	J-	0.013	
BBD2TP108	BB02TP108(10.0)	25-Apr-05	ND(0.0055)		ND(0.011)		NT		NT		ND(0.022)		NT		NT		NT		NT		NT		NT		NT		NT		ND(0.0055)	
	BB02TP108(4.0)	25-Apr-05	ND(0.0051)		ND(0.01)		NT		NT		ND(0.02)		NT		NT		NT		NT		NT		NT		NT		NT		ND(0.0051)	
	BB02TP108(7.0)	25-Apr-05	ND(0.0053)		ND(0.011)		ND(0.0058)		ND(0.0058)		ND(0.021)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.0053)	
BBSB108	BBSB108(0.0)	12-May-05	ND(0.0084)	/b	ND(0.017)	/b	ND(0.0069)		0.0068	/J	0.015	/Jb	0.0081		0.038		0.045		0.034		0.021	J-	0.028		0.058		0.014	J-	ND(0.0084)	/b
	BBSB108(2.0)	12-May-05	ND(0.0049)	/b	ND(0.0099)	/b	ND(0.006)		0.0036	/J	0.0023	/Jb	0.0035	/J	0.02		0.02		0.014		0.013		0.011		0.025		0.0057	/J	ND(0.0049)	/b
BBSB109	BBSB109(0.0)	12-May-05	ND(0.0083)	/b	ND(0.017)	/b	0.0035	J+/J	0.0088		ND(0.033)	/b	0.024		0.065		0.082	J-	0.093	J-	0.034	J-	0.055	J-	0.085		0.019	J-	ND(0.0083)	/b
	BBSB109(2.0)	12-May-05	ND(0.0053)	/b	ND(0.011)	/b	ND(0.0063)		ND(0.0063)		ND(0.021)	/b	ND(0.0063)		ND(0.0063)		ND(0.0063)		ND(0.0063)		0.0013	J+	ND(0.0063)		ND(0.0063)		ND(0.0063)		ND(0.0053)	/b
	DUP050512	12-May-05	ND(0.0073)	/b	0.0028	/Jb	0.0014	J+/J	0.0075		0.025	/Jb	0.011		0.021		0.024		0.028		0.016	J-	0.021		0.03		0.011	J-	ND(0.0073)	/b

			Fluoranthene mg/kg		Fluorene mg/kg		Indeno(1,2,3-cd) pyrene mg/kg		Methylene chloride mg/kg		Naphthalene mg/kg		Phenanthrene mg/kg		p-Isopropyltoluene mg/kg		Pyrene mg/kg		TPH Diesel (C12-C24) mg/kg		TPH Gasoline (C7-C12) mg/kg		TPH Fuel Oil (C24-C36) (mg/kg)		Xylenes (o-) mg/kg		Xylenes (total) mg/kg	
Cleanup Level (mg/kg)			**30**		**30**		**0.27**		**0.076**		**30**		**30**		**130**		**30**		**700**		**610**		**980**		**55**		**55**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2SB102	BB2SB102(0.0)	12-May-05	0.18		0.0067		0.072		NT		0.0051	/J	0.12		NT		0.22		NT		NT		NT		NT		NT	
	BB2SB102(2.0)	12-May-05	0.076		0.0038	/J	0.036	J-	NT		0.004	/J	0.051		NT		0.1		NT		NT		NT		NT		NT	
BBD2TP105	BB02TP105(11.5)	28-Apr-05	0.003	/J	ND(0.006)		0.0028	/J	ND(0.02)		ND(0.006)		0.0019	/J	ND(0.0051)		0.0028	/J	5.3	/HY	0.27		32.	/Y	ND(0.0051)		ND(0.0051)	
	BB02TP105(15.0)	28-Apr-05	0.0076	/J	ND(0.012)		0.0081	/J	ND(0.02)		ND(0.012)		0.0032	/J	ND(0.0049)		0.0074	/J	ND(1.2)		ND(0.28)		ND(5.8)	U/JY	ND(0.0049)		ND(0.0049)	
BBD2TP106	BB02TP106(2.0)	28-Apr-05	1.5		0.12		0.29		ND(0.022)		0.064		1.8		ND(0.0056)		1.8		180.	/HY	0.57		360.	/L	0.018		0.048	
BBD2TP108	BB02TP108(10.0)	25-Apr-05	NT		NT		NT		ND(0.022)		NT		NT		ND(0.0055)		NT		1.9		ND(0.31)		26.		ND(0.0055)		ND(0.0055)	
	BB02TP108(4.0)	25-Apr-05	NT		NT		NT		ND(0.02)		NT		NT		ND(0.0051)		NT		ND(1.1)		ND(0.24)		4.0		ND(0.0051)		0.0088	
	BB02TP108(7.0)	25-Apr-05	ND(0.0058)		ND(0.0058)		ND(0.0058)		ND(0.021)		ND(0.0058)		ND(0.0058)		ND(0.0053)		ND(0.0058)		0.38		ND(0.24)		2.1		ND(0.0053)		ND(0.0053)	
BBSB108	BBSB108(0.0)	12-May-05	0.053		0.002	/J	0.02	J-	0.011	/Jb	0.0021	/J	0.036		ND(0.0084)	/b	0.085		27.	/HY	ND(0.32)	UJ	120.	/L	ND(0.0084)	/b	ND(0.0084)	/b
	BBSB108(2.0)	12-May-05	0.026		ND(0.006)		0.011		0.029	/b	0.0015	/J	0.015		ND(0.0049)	/b	0.036		8.5.	/HY	ND(0.18)		51.	/L	ND(0.0049)	/b	ND(0.0049)	/b
BBSB109	BBSB109(0.0)	12-May-05	0.088		0.0041	/J	0.036	J-	0.0074	/Jb	0.013		0.059		ND(0.0083)	/b	0.11		43.	/HY	ND(0.3)	UJ	230.		ND(0.0083)	/b	ND(0.0083)	/b
	BBSB109(2.0)	12-May-05	ND(0.0063)		ND(0.0063)		ND(0.0063)		0.052	/b	ND(0.0063)		ND(0.0063)		0.0055	/b	ND(0.0063)		ND(1.3)		ND(0.2)		7.4		ND(0.0053)	/b	ND(0.0053)	/b
	DUP050512	12-May-05	0.031		0.0022	/J	0.019	J-	0.0091	/Jb	0.0068	/J	0.022		0.027	/b	0.042		62.	J+/HY	0.16	J-/J	270.	J+	ND(0.0073)	/b	ND(0.0073)	/b

Footnotes: (1) Cleanup level is EPA Region IX PRG, because there is no Presidio cleanup level for this compound.

Checked

Approved MJH

See Footnotes in Table 6. Definition of Qualifiers
SQLRpt 1.72 -
KB61762_Table_11B .xls-BB - May 8, 2006

Table 12A. Detected Inorganic Results for Soil Samples - BBDA-2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Antimony mg/kg		Arsenic mg/kg		Barium mg/kg		Beryllium mg/kg		Cadmium mg/kg		Chromium mg/kg		Cobalt mg/kg		Copper mg/kg		Lead mg/kg	
	Cleanup Level (mg/kg)		**5**		**5.4**		**320**		**10**		**1.9**		**1700**		**170**		**85**		**160**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2ASB100	BB2ASB100(4.0)	09-May-05	ND(0.43)	UJ	4.0		130.		0.38		0.064	/J	66.		26.		16.		5.8	
BB2ATP100	BB2ATP100(1.0)	14-Apr-05	0.50	J-	2.3		49.	J-	0.13	/J	0.071	/J	790.		73.		21.	J-	11.	J-
BB2ATP101	BB2ATP101(14.0)	14-Apr-05	0.63	J-	3.8		110.	J-	0.31		0.40		160.		24.		70.	J-	60.	J-
BB2ATP104	BB2ATP104(8.0)	13-Apr-05	1.1	J-	3.4		180.	J-	0.23	/J	0.67		100.		13.		92.	J-	110.	J-
BBSB106	BBSB106(0.5)	23-May-05	0.46		4.4		130.		0.43		0.28		74.	J-	14.		20.		31.	J-
BBSB120	BBSB120(1.0)	01-Feb-06	0.69	J-/J	4.2		67.		0.24		0.16	/J	130.		13.		11.		9.5	

			Mercury mg/kg		Molybdenum mg/kg		Nickel mg/kg		Selenium mg/kg		Silver mg/kg		Thallium mg/kg		Vanadium mg/kg		Zinc mg/kg	
	Cleanup Level (mg/kg)		**0.4**		**12**		**4500**		**0.5**		**2**		**1**		**74**		**160**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2ASB100	BB2ASB100(4.0)	09-May-05	ND(0.018)		0.54	J	68.		0.26	/J	0.017	/J	ND(0.27)	U/J	66.	J-	35.	J+
BB2ATP100	BB2ATP100(1.0)	14-Apr-05	0.33		0.30		1,600.		0.23	/J	0.033	/J	0.034	/J	14.	J-	36.	J-
BB2ATP101	BB2ATP101(14.0)	14-Apr-05	0.17		0.65		260.		0.37		0.68		0.06	/J	48.	J-	110.	J-
BB2ATP104	BB2ATP104(8.0)	13-Apr-05	0.57		0.58		140.		0.31		2.3		0.075	/J	43.	J-	270.	J-
BBSB106	BBSB106(0.5)	23-May-05	0.081		0.45	J	57.	J-	0.35		0.15		0.14		49.	J-	190.	
BBSB120	BBSB120(1.0)	01-Feb-06	0.047		0.30	/J	150.		0.58		ND(0.25)	UJ	0.73		75.		44.	

Checked

Approved MJH

See Footnotes in Table 6. Definition of Qualifiers
SQLRpt 1.72 -
KB61762_Table_12A.xls-BB - May 8, 2006

Table 12B. Detected Organic Results for Soil Samples - BBDA-2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Station Name	Sample Number (depth)	Sample Date	2-Methylnaphthalene mg/kg		Acenaphthene mg/kg		Acenaphthylene mg/kg		Acetone mg/kg		Anthracene mg/kg		Aroclor 1260 mg/kg		Benzo(a)anthracene mg/kg	Benzo(a)pyrene mg/kg	Benzo(b)fluoranthene mg/kg		Benzo(g,h,i) perylene mg/kg		Benzo(k)fluoranthene mg/kg		Chrysene mg/kg	
Cleanup Level (mg/kg)			**30**		**30**		**30**		**0.24**		**30**		**0.033**		**0.27**	**0.027**	**0.27**		**30**		**0.27**		**2.7**	
			Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Value	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2ASB100	BB2ASB100(4.0)	09-May-05	NT		ND(0.0057)		ND(0.0057)		NT		ND(0.0057)		ND(0.011)		ND(0.0057)	ND(0.0057)	ND(0.0057)		ND(0.0057)		ND(0.0057)		ND(0.0057)	
BB2ATP100	BB2ATP100(1.0)	14-Apr-05	NT		ND(0.14)		ND(0.14)		ND(0.026)		ND(0.14)		ND(0.013)		ND(0.14)	ND(0.14)	ND(0.14)		0.033	/Jb	ND(0.14)		0.035	/J
BB2ATP101	BB2ATP101(14.0)	14-Apr-05	NT		ND(0.0063)		0.0037	/J	ND(0.023)		0.0023	/J	0.011	/J	0.0086	0.013	0.011	/J	0.011		0.011		0.014	
BB2ATP104	BB2ATP104(8.0)	13-Apr-05	NT		ND(0.12)		ND(0.12)		0.0095	J+/J	ND(0.12)		0.011	/J	ND(0.12)	ND(0.12)	0.062		ND(0.12)		0.042	/J	ND(0.12)	
BBSB106	BBSB106(0.5)	23-May-05	NT		0.0058		0.1		ND(0.024)		0.067		ND(0.011)		0.27	0.34	0.28		0.23		0.25		0.37	
BBSB120	BBSB120(1.0)	01-Feb-06	0.0093		0.0022	J/J	0.031		NT		0.02		NT		NT	ND(0.064)	UJ	0.06	J	ND(0.035)	UJ	ND(0.059)	UJ	0.099	

Station Name	Sample Number (depth)	Sample Date	Dibenzo(a,h)anthracene mg/kg		Fluoranthene mg/kg		Fluorene mg/kg		gamma-Chlordane[2] mg/kg		Indeno(1,2,3-cd)pyrene mg/kg		Methylene chloride mg/kg		Naphthalene mg/kg	Phenanthrene mg/kg		Pyrene mg/kg		TPH Diesel (C12-C24) mg/kg		TPH Fuel Oil (C24-C36) (mg/kg)
Cleanup Level (mg/kg)			**0.078**		**30**		**30**		**0.009[1]**		**0.27**		**0.076**		**30**	**30**		**30**		**700**		**980**
			Value	Qual	Value	Qual	Value	Qual	Value		Value	Qual	Value	Qual	Value	Value	Qual	Value	Qual	Value	Qual	Value
BB2ASB100	BB2ASB100(4.0)	09-May-05	ND(0.0057)		ND(0.0057)		ND(0.0057)		ND(0.0019)		ND(0.0057)		NT		ND(0.0057)	ND(0.0057)	ND(0.0057)		NT		NT	
BB2ATP100	BB2ATP100(1.0)	14-Apr-05	ND(0.14)		0.038	/J	ND(0.14)		NT		ND(0.14)		0.11	J+	ND(0.14)	ND(0.14)	0.042	/J	47.	J+/HY	490.	
BB2ATP101	BB2ATP101(14.0)	14-Apr-05	0.0046	/J	0.018		0.0017	/J	NT		0.0092		0.064	J+	0.0014	0.0086	0.021		26.	/HY	140.	
BB2ATP104	BB2ATP104(8.0)	13-Apr-05	ND(0.12)		ND(0.12)		ND(0.12)		NT		ND(0.12)		ND(0.023)		0.041	ND(0.12)	ND(0.12)		150.	/HY	1,900.	
BBSB106	BBSB106(0.5)	23-May-05	0.13		0.64		0.028		0.0031		0.27		ND(0.024)		0.058	0.77	0.65		NT		NT	
BBSB120	BBSB120(1.0)	01-Feb-06	ND(0.012)	UJ	0.17		0.011		NT		ND(0.035)	UJ	NT		0.014	0.18	0.2		NT		NT	

Footnotes:
(1) Cleanup level is for total chlordane.
(2) Gamma-chlordane is the only chlordane coumpound detected;
as a result, the cleanup level for total chlordane may be applied to these samples.

Checked AM
Approved MJH

See Footnotes in Table 6. Definition of Qualifiers
SQLRpt 1.72 - DRAFT
KB61762_Table_12B.xls-BB - May 8, 2006

Table 13A. Detected Inorganic Results for Beach Soil Samples - BBDA-2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Arsenic mg/kg		Barium mg/kg		Beryllium mg/kg		Cadmium mg/kg		Chromium mg/kg		Cobalt mg/kg		Copper mg/kg		Lead mg/kg		Mercury mg/kg	
Cleanup Level (mg/kg)			**5.9**		**320**		**10**		**1.7**		**120**		**20**		**43**		**160**		**0.4**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2ASB112	BB2ASB112(0.5)	13-May-05	6.4		6.5		0.12	/J	0.057	/J	75.		6.9		6.5		3.5		0.017	/J

			Nickel mg/kg		Silver mg/kg		Vanadium mg/kg		Zinc mg/kg	
Cleanup Level (mg/kg)			**70**		**2**		**92**		**66**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB2ASB112	BB2ASB112(0.5)	13-May-05	42.		0.0029	/J	28.	J-	20.	J+

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See Footnotes in Table 6. Definition of Qualifiers
SQLRpt 1.72 - :
KB61762_Table_13A.xls-BB - May 8, 2006

Table 13B. Detected Organic Results for Beach Soil Samples - BBDA-2A
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Acetone mg/kg		Methylene chloride mg/kg		Phenanthrene mg/kg	
Cleanup Level (mg/kg)			**0.24**		**0.076**		**30**	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual
BB2ASB112	BB2ASB112(0.5)	13-May-05	0.0036	/Jb	0.041	/b	0.0014	/J

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See Footnotes in Table 6. Definition of Qualifiers

Table 14A. Detected Inorganic Results for Soil Samples - Baker Beach Undesignated Area / Merchant Road
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

			Antimony mg/kg		Arsenic mg/kg		Barium mg/kg		Beryllium mg/kg		Cadmium mg/kg		Chromium mg/kg		Cobalt mg/kg		Copper mg/kg		Lead mg/kg	
Cleanup Level (mg/kg)			5		5.4		500		10		1.9		1700		170		120		300	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1TP110	BB1TP110(12.0)	03-Oct-05	0.63	/J	5.5		92.		0.35		0.93		100.		11.		19.		4.8	
	BB1TP110(8.0)	03-Oct-05	0.59	/J	4.4		98.		0.37		0.82		66.		9.7		10.		5.4	
	BB1TP110(1.5)	04-Oct-05	ND(2.8)		5.3		150.		0.36		0.84		61.		12.		16.		11.	
BB1TP111	BB1TP111(1.5)	04-Oct-05	0.18	/J	4.3		100.		0.37		0.82		56.		12.		19.		49.	
	BB1TP111(3.0)	04-Oct-05	ND(3.4)		3.0		73.		0.21		0.58		66.		7.1		5.9		3.2	
	BB1TP111(6.0)	04-Oct-05	0.29	/J	5.8		100.		0.46		0.92		80.		16.		18.		5.8	
BB1TP113	BB1TP113(3.0)	03-Oct-05	0.12	/J	5.8		110.		0.33		0.96		78.		12.		17.		39.	
	BB1TP113(5.5)	03-Oct-05	ND(2.8)		3.1		52.		0.20		0.71		76.		5.3		5.0		3.1	
BBSB119	BBSB119(2.5)	10-Oct-05	0.52	J-/J	4.0		86.		0.25		0.89		97.		6.8		14.		150.	
	BBSB119(4.5)	10-Oct-05	0.71	J-/J	3.2		46.		0.22		0.74		74.		6.6		10.		3.2	

			Mercury mg/kg		Molybdenum mg/kg		Nickel mg/kg		Selenium mg/kg		Thallium mg/kg		Vanadium mg/kg		Zinc mg/kg	
Cleanup Level (mg/kg)			1.6		300		4500		1.1		1		74		160	
Station Name	Sample Number (depth)	Sample Date	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual
BB1TP110	BB1TP110(12.0)	03-Oct-05	0.053		0.63	/J	69.		ND(0.26)		0.20	/J	68.		38.	
	BB1TP110(8.0)	03-Oct-05	0.015	/J	0.72	/J	41.		ND(0.23)		0.15	/J	61.		34.	
	BB1TP110(1.5)	04-Oct-05	0.049		0.59	/J	49.		0.19	/J	0.11	/J	61.		41.	
BB1TP111	BB1TP111(1.5)	04-Oct-05	0.10		0.58	/J	32.		0.45		ND(0.26)		53.		64.	
	BB1TP111(3.0)	04-Oct-05	ND(0.023)		0.45	/J	31.		ND(0.28)		0.26	/J	56.		21.	
	BB1TP111(6.0)	04-Oct-05	0.063		0.62	/J	58.		ND(0.2)		0.054	/J	64.		33.	
BB1TP113	BB1TP113(3.0)	03-Oct-05	0.072		0.68	/J	59.		ND(0.23)		0.071	/J	68.		58.	
	BB1TP113(5.5)	03-Oct-05	0.015	/J	0.41	/J	28.		ND(0.23)		0.17	/J	70.		21.	
BBSB119	BBSB119(2.5)	10-Oct-05	0.026		0.63	/J	37.		ND(0.29)		0.14	/J	67.		57.	
	BBSB119(4.5)	10-Oct-05	0.021		0.45	/J	47.		ND(0.27)		ND(0.27)		47.		24.	

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See Footnotes in Table 6. Definition of Qualifiers
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MB61762_Table_14A .xls-BB - May 8, 2006

Table 14B. Detected Organic Results for Soil Samples - Baker Beach Undesignated Area / Merchant Road
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Station Name	Sample Number (depth)	Sample Date	2-Butanone mg/kg		4,4'-DDD mg/kg		4,4'-DDT mg/kg		Acetone mg/kg	Aldrin mg/kg		alpha-Chlordane mg/kg		Anthracene mg/kg		Aroclor 1260 mg/kg	Benzo(a)anthracene mg/kg		Benzo(a)pyrene mg/kg		Benzo(b)fluoranthene mg/kg	
Cleanup Level (mg/kg)			**3.8**		**0.61**		**0.53**		**0.24**	**0.029**		**0.04[1]**		**40**		**0.16**	**0.27**		**0.027**		**0.27**	
BB1TP110	BB1TP110(12.0)	03-Oct-05	ND(0.0099)		ND(0.004)		ND(0.004)		ND(0.02)	ND(0.0021)	UJ	ND(0.0021)		ND(0.006)		ND(0.012)	ND(0.006)		ND(0.006)		ND(0.006)	
	BB1TP110(8.0)	03-Oct-05	ND(0.01)		ND(0.0039)		ND(0.0039)		ND(0.021)	0.00059	J-/J	ND(0.002)		0.0016	/J	ND(0.011)	ND(0.0059)	U/J	ND(0.0059)	U/J	ND(0.0059)	U/J
	BB1TP110(1.5)	04-Oct-05	ND(0.0097)		ND(0.0037)		ND(0.0037)		ND(0.019)	ND(0.0019)		0.0094	/C	ND(0.0056)		ND(0.013)	ND(0.0056)	U/J	ND(0.0056)	U/J	ND(0.0056)	U/J
BB1TP111	BB1TP111(1.5)	04-Oct-05	ND(0.0099)		ND(0.0038)		ND(0.0038)		ND(0.02)	ND(0.0019)		ND(0.0019)		ND(0.0058)		ND(0.011)	ND(0.0058)	U/J	ND(0.0058)	U/J	ND(0.0058)	U/J
	BB1TP111(3.0)	04-Oct-05	ND(0.011)		0.00023	/CJ	0.00059	/J	ND(0.022)	ND(0.0018)		ND(0.0018)		ND(0.0054)		ND(0.013)	ND(0.0054)		ND(0.0054)	U/J	ND(0.0054)	U/J
	BB1TP111(6.0)	04-Oct-05	ND(0.009)		ND(0.0037)		ND(0.0037)		ND(0.018)	ND(0.0019)	UJ	ND(0.0019)		ND(0.0055)		ND(0.011)	ND(0.0055)		ND(0.0055)		ND(0.0055)	
BB1TP113	BB1TP113(3.0)	03-Oct-05	ND(0.01)		ND(0.019)		ND(0.019)		ND(0.02)	ND(0.0096)		ND(0.0096)		ND(0.0057)		0.014	ND(0.0067)	UJ	ND(0.0087)	UJ	ND(0.0085)	UJ
	BB1TP113(5.5)	03-Oct-05	ND(0.0088)		ND(0.0036)		ND(0.0036)		ND(0.018)	ND(0.0019)	UJ	ND(0.0019)		0.0017	/J	ND(0.011)	ND(0.0056)	U/J	ND(0.0056)	U/J	ND(0.0063)	U
BBSB119	BBSB119(2.5)	10-Oct-05	0.0047	/J	ND(0.037)		ND(0.037)		0.02	ND(0.019)		ND(0.019)		0.0016	/J	ND(0.013)	0.0058		0.0065		0.0054	/J
	BBSB119(4.5)	10-Oct-05	ND(0.0089)		ND(0.0037)		ND(0.0037)		ND(0.018)	ND(0.0019)		ND(0.0019)		ND(0.0056)		ND(0.013)	0.00076	/J	ND(0.0056)		ND(0.0056)	

Station Nar	Sample Number (depth)	Sample Date	Benzo(g,h,i)perylene mg/kg		Benzo(k)fluoranthene mg/kg		beta-BHC mg/kg		Chrysene mg/kg	delta-BHC mg/kg		Dibenzo(a,h)anthracene mg/kg		Dieldrin mg/kg		Endosulfan sulfate mg/kg	Endrin aldehyde mg/kg		Fluoranthene mg/kg		gamma-Chlordane mg/kg	
Cleanup Level (mg/kg)			**40**		**0.27**		**0.32**		**2.7**	**0.18**		**0.078**		**0.03**		**3.3**	**0.11**		**40**		**0.04[1]**	
BB1TP110	BB1TP110(12.0)	03-Oct-05	ND(0.006)		ND(0.006)		ND(0.0021)	UJ	ND(0.006)	0.00067	J-/CJ	ND(0.006)		ND(0.004)		ND(0.004)	ND(0.004)		ND(0.006)		ND(0.0021)	
	BB1TP110(8.0)	03-Oct-05	ND(0.0059)	U/J	ND(0.0059)	U/J	0.00052	J-/J	ND(0.0059)	0.0013	J-/CJ	ND(0.0059)	U/J	ND(0.0039)		ND(0.0039)	0.0044	/C	ND(0.0059)	U/J	ND(0.002)	
	BB1TP110(1.5)	04-Oct-05	ND(0.0056)	U/J	ND(0.0056)	U/J	ND(0.0019)		ND(0.0056)	ND(0.0019)	UJ	ND(0.0056)	U/J	0.0019	/CJ	0.0027	/CJ	ND(0.0037)	ND(0.0056)	U/J	0.0045	
BB1TP111	BB1TP111(1.5)	04-Oct-05	ND(0.0058)	U/J	ND(0.0058)	U/J	ND(0.0019)		ND(0.0058)	ND(0.0019)		ND(0.0058)		ND(0.0038)		0.0038	ND(0.0038)		ND(0.0058)	U/J	ND(0.0019)	
	BB1TP111(3.0)	04-Oct-05	ND(0.0054)		ND(0.0054)	U/J	ND(0.0018)		ND(0.0054)	ND(0.0018)	UJ	ND(0.0054)		ND(0.0035)		0.0008	ND(0.0035)		ND(0.0054)	U/J	0.00025	/J
	BB1TP111(6.0)	04-Oct-05	ND(0.0055)		ND(0.0055)		ND(0.0019)	UJ	ND(0.0055)	ND(0.0019)	UJ	ND(0.0055)		ND(0.0037)		ND(0.0037)	ND(0.0037)		ND(0.0055)		ND(0.0019)	
BB1TP113	BB1TP113(3.0)	03-Oct-05	ND(0.012)	UJ	ND(0.0072)	UJ	ND(0.0096)		ND(0.011)	ND(0.0096)		ND(0.0057)	UJ/J	ND(0.019)		ND(0.019)	ND(0.019)		ND(0.0081)	UJ	ND(0.0096)	
	BB1TP113(5.5)	03-Oct-05	ND(0.0056)	U/J	ND(0.0069)	U	ND(0.0019)	UJ	ND(0.0056)	ND(0.0019)	UJ	ND(0.0056)	U/J	ND(0.0036)		ND(0.0036)	ND(0.0036)		ND(0.0056)	U/J	ND(0.0019)	
BBSB119	BBSB119(2.5)	10-Oct-05	0.0059		0.0046	/J	ND(0.019)	UJ	0.011	ND(0.019)	UJ	0.0039	/J	ND(0.037)		ND(0.037)	ND(0.037)		0.0067		ND(0.019)	
	BBSB119(4.5)	10-Oct-05	ND(0.0056)		ND(0.0056)		ND(0.0019)	UJ	ND(0.0056)	ND(0.0019)	UJ	ND(0.0056)		ND(0.0037)		ND(0.0037)	ND(0.0037)		0.0013	/J	ND(0.0019)	

Station Nar	Sample Number (depth)	Sample Date	Heptachlor epoxide mg/kg		Indeno(1,2,3-cd)pyrene mg/kg		Naphthalene mg/kg		Phenanthrene mg/kg	Pyrene mg/kg		Toluene mg/kg		TPH Fuel Oil (C24-C36) mg/kg		TPH, Diesel (C10-C24) mg/kg			Chlordane[2] mg/kg
Cleanup Level (mg/kg)			**0.088**		**0.27**		**40**		**40**	**40**		**270**		**980**		**700**			**0.04[1]**
BB1TP110	BB1TP110(12.0)	03-Oct-05	ND(0.0021)	UJ	ND(0.006)		ND(0.006)		ND(0.006)	ND(0.006)		ND(0.005)		ND(5.9)		ND(1.2)			ND(0.0021)
	BB1TP110(8.0)	03-Oct-05	ND(0.002)	UJ	ND(0.0059)	U/J	0.0013	J+/Jb	0.002	ND(0.0059)	U/J	ND(0.0052)		ND(5.8)		ND(1.2)			ND(0.002)
	BB1TP110(1.5)	04-Oct-05	0.00099	/J	ND(0.0056)	U/J	0.018		0.0034	ND(0.0059)	U	ND(0.0048)		12.		1.7	/HY		0.0139[1]
BB1TP111	BB1TP111(1.5)	04-Oct-05	ND(0.0019)		ND(0.0058)		0.015		0.0022	ND(0.0058)	U/J	ND(0.005)		6.0		0.89	/HJY		ND(0.0019)
	BB1TP111(3.0)	04-Oct-05	ND(0.0018)		ND(0.0054)		0.023		ND(0.0054)	ND(0.0054)	U/J	ND(0.0054)		6.8		0.68	/HJY		0.00025
	BB1TP111(6.0)	04-Oct-05	ND(0.0019)	UJ	ND(0.0055)		0.001	J+/Jb	ND(0.0055)	ND(0.0055)		ND(0.0045)		3.9	/JYZ	ND(1.1)			ND(0.0019)
BB1TP113	BB1TP113(3.0)	03-Oct-05	ND(0.0096)		ND(0.0057)	UJ/J	0.0053	J+/Jb	0.0029	0.016	J	ND(0.005)		130.		35.	/HY		ND(0.0096)
	BB1TP113(5.5)	03-Oct-05	ND(0.0019)	UJ	ND(0.0056)	U/J	0.0052	/J	0.002	ND(0.0056)	U/J	0.0019	/J	ND(5.5)		ND(1.1)			ND(0.0019)
BBSB119	BBSB119(2.5)	10-Oct-05	ND(0.019)		0.0047	/J	ND(0.0056)		0.0065	0.013		ND(0.0046)		190.		23.	/HY		ND(0.019)
	BBSB119(4.5)	10-Oct-05	ND(0.0019)		0.00057	J+/Jb	ND(0.0056)		0.00085	0.00084	/J	ND(0.0045)		ND(5.6)		ND(1.1)			ND(0.0019)

Footnotes: (1) Cleanup level for total chlordane; (2)Results presented are the sum of reported concentrations of alpha and gamma-chlordane; presented for comparison to the cleanup level.

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See Footnotes in Table 6. Definition of Qualifiers

Table 15. Summary of Material Properties Used in Analysis
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Material Description	Designation for Slope Stability Analyses	Total Unit Weight (pcf)	Short Term Analysis (Total Strength Parameters)		Long Term (Effective Strength Parameters)	
			Cohesion or Undrained Strength (c, psf)	Internal Friction Angle (phi, deg)	Cohesion or Undrained Strength (c', psf)	Internal Friction Angle (phi, deg)
Waste Fill	**afw**	125	700	0	0	30
Waste Fill	**afw**	125	0	36-39[a]	0	36-39[a]
Historical Fill (clayey)	**afh, afh1, afh2**	125	1,000-2,000[b]	0	0	32
Historical Fill (sandy)	**afh, afh1, afh2**	125	200	22	0	35
Colma Fm/Native Soils (Qcol, clayey)	**Qcol1**, 0-10 ft	130	1,200	0	0	30
Landslide Deposits	**Qls**	120	0	39	0	39
Colma Fm/Native Soils (Qcol, clayey)	**Qcol2**, 10-20ft	130	1,200-2,500	0	0	30
Colma Fm/Native Soils (Qcol, clayey)	**Qcol3**, >20ft	130	2,500	0	0	30
Colma Fm/Native Soils (Qcol, sandy)	**Qcol1** to **Qcol3**	130	150	30	0	30-35[b]
Bedrock, Melange units (KJm)	**KJm**	131	3,000	0	3,000	0
Bedrock, including serpentinite	**sp**	120	10,000	0	10,000	0
Bedrock, including serpentinite	**sp1**, 0-5ft	120	500	0	500	0
Bedrock, including serpentinite	**sp2**, 5-12ft	120	500-750	0	500-750	0
Bedrock, including serpentinite	**sp3**, 12-25ft	120	750-2,000	0	750-2,000	0
Bedrock, including serpentinite	**sp4**, >25ft, and in prominent cliff faces	130	2,500	0	2,500	0
Historical Fill (clayey)	**afh, afh1, afh2**	125	800-2,000[b]	0	0	32

a Use higher strengths (friction angle = 36-39 degrees) where determined by slope geometry

[b] Varies by location

Notes:

psf - pounds per square foot

pcf - pounds per cubic foot

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Table 16. Summary of Slope Stability Analysis
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

						Factor of Safety			Additional Information		
Condition	Debris Area	Cross-Section	TYPE	Analysis #	Site Condition	Total Stress Analysis	Effective Stress Analysis	Comments	Graphical Output File Name	Figure #	pdf File Name
Existing condition of section	1	A-A'	Infinite slope	1A	Existing conditions of afw (upper slope)		0.90	Needs cohesion to be stable	Cross Section C-C' analysis 1	D-1	
Existing condition of section	1	A-A'	Infinite slope	1B	Existing conditions of Qls (upper slope)		1.00		Cross Section C-C' analysis 1	D-1	
Existing condition of section	1	A-A'	Infinite slope	1C	Existing conditions of afw (lower slope)		1.16		Cross Section C-C' analysis 1	D-1	
Waste Fill removed from section	1	A-A'	Circular	2	Stability analysis of Sp after waste fill is removed		56.00		Cross Section C-C' analysis 2	D-2	
Waste Fill removed from section	1	A-A'	Circular	3	Stability analysis of KJm after waste fill is removed		1.56		Cross Section C-C' analysis 3	D-3	
Existing condition of section	1	C-C'	Infinite slope	4A	Existing conditions of afw (lower slope)		0.66	Needs cohesion to be stable	Cross Section C-C' analysis 4	D-4	
Existing condition of section	1	C-C'	Infinite slope	4B	Existing conditions of ahf (near top of slope)		1.12		Cross Section C-C' analysis 4	D-4	
Existing condition of section	1	C-C'	Infinite slope	4C	Existing conditions of ahf1		0.62	Needs cohesion to be stable	Cross Section C-C' analysis 4	D-4	
Existing condition of section	1	C-C'	Infinite slope	4D	Existing conditions of afw (mid-slope)		1.35		Cross Section C-C' analysis 4	D-4	
Existing condition of section	1	C-C'	Infinite slope	5A	Waste Fill removed - ahf1 (upper slope)		0.62	Needs cohesion to be stable	Cross Section C-C' analysis 5	D-5	
Existing condition of section	1	C-C'	Infinite slope	5B	Waste Fill removed - ahf1 (mid- slope)		0.55	Locally unstable?	Cross Section C-C' analysis 5	D-5	
Existing condition of section	1	C-C'	Infinite slope	5C	Waste Fill removed - upper Qls		0.53	Locally unstable?	Cross Section C-C' analysis 5	D-5	
Existing condition of section	1	C-C'	Infinite slope	5D	Waste Fill removed - mid Qls		1.11	Locally unstable?	Cross Section C-C' analysis 5	D-5	
Existing condition of section	1	C-C'	Infinite slope	5E	Waste Fill removed - lower Qls		0.70	Locally unstable?	Cross Section C-C' analysis 5	D-5	
Existing condition of section	1	C-C'	Infinite slope	5F	Waste Fill removed - Qcol		1.03		Cross Section C-C' analysis 5	D-5	
Waste Fill removed from section	1	C-C'	Circular	6	Waste Fill removed stability of KJm at base of slope		6.31		Cross Section C-C' analysis 6	D-6	
Waste Fill removed from section	1	C-C'	Circular	7	Waste Fill removed short term stability of ahf at top of slope	2.06			Cross Section C-C' analysis 7	D-7	
Waste Fill replaced with compacted fill	1	C-C'	Infinite slope	8A	Waste Fill replaced with compacted granular fill - afr		1.12		Cross Section C-C' analysis 8	D-8	
Waste Fill replaced with compacted fill	1	C-C'	Infinite slope	8B	Waste Fill replaced with compacted granular fill - afr		1.46		Cross Section C-C' analysis 8	D-8	
Existing condition of section	1	F-F'	Infinite slope	9A	Existing conditions - afh1		1.04		Cross Section F-F' analysis 9	D-9	
Existing condition of section	1	F-F'	Infinite slope	9B	Existing conditions - Qcol		1.09		Cross Section F-F' analysis 9	D-9	
Existing condition of section	1	H-H'	Infinite slope	10A	Existing conditions - afw		1.04		Cross Section H-H' analysis 10	D-10	
Existing condition of section	1	H-H'	Infinite slope	10B	Existing conditions - Qcol		0.61	Needs cohesion to be stable	Cross Section H-H' analysis 10	D-10	
Waste Fill removed from section	1	H-H'	Infinite slope	11A	Waste Fill removed - Qcol		0.78	Locally unstable?	Cross Section H-H' analysis 11	D-11	
Waste Fill removed from section	1	H-H'	Infinite slope	11B	Waste Fill removed - afh1		1.08		Cross Section H-H' analysis 11	D-11	
Waste Fill removed from section	1	H-H'	Infinite slope	11C	Waste Fill removed - afh2		0.65	Locally unstable?	Cross Section H-H' analysis 11	D-11	
Waste Fill removed with Construction Loads	1	H-H'	Infinite slope	12	Waste Fill removed - 100 kip crane load	1.30			Cross Section H-H' analysis 12	D-12	
Waste Fill removed with Construction Loads	1	H-H'	Infinite slope	13	Waste Fill removed - 100 kip crane load & 136 kip 20' D X 10'H cone stockpile load	1.09			Cross Section H-H' analysis 13	D-13	
Existing condition of section	1A	G-G'	Infinite slope	14A	Existing conditions - afh1		1.72		Cross Section G-G' analysis 14	D-14	
Existing condition of section	1A	G-G'	Infinite slope	14B	Existing conditions - afh2		1.43		Cross Section G-G' analysis 14	D-14	
Existing condition of section	1A	G-G'	Infinite slope	14C	Existing conditions - Qcol		1.43		Cross Section G-G' analysis 14	D-14	
Waste Fill replaced with compacted fill	1A	G-G'	Infinite slope	15	Waste Fill replaced with compacted granular fill - afr		2.50		Cross Section G-G' analysis 15	D-15	
Waste Fill removed from section	1A	G-G'	Circular	16	Short term stability of afh1 after removal of Waste Fill	5.19			Cross Section G-G' analysis 16	D-16	
Existing condition of section	2	E-E'	Infinite slope	17A	Existing conditions - afh1		1.63		Cross Section E-E' analysis 17	D-17	
Existing condition of section	2	E-E'	Infinite slope	17B	Existing conditions - afw		1.46		Cross Section E-E' analysis 17	D-17	
Existing condition of section	2	E-E'	Infinite slope	17C	Existing conditions - Qcol		1.00		Cross Section E-E' analysis 17	D-17	
Waste Fill removed from section	2	E-E'	Infinite slope	18	Waste Fill removed - afh1		1.40		Cross Section E-E' analysis 18	D-18	

Table 16. Summary of Slope Stability Analysis
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Condition	Debris Area	Cross-Section	TYPE	Analysis #	Site Condition	Factor of Safety		Additional Information			
						Total Stress Analysis	Effective Stress Analysis	Comments	Graphical Output File Name	Figure #	pdf File Name
Existing condition of section	2A	D-D'	Infinite slope	19A	Existing conditions - afh1 at slope break		0.62	Needs cohesion to be stable	Cross Section D-D' analysis 19	D-19	
Existing condition of section	2A	D-D'	Infinite slope	19B	Existing conditions - afh2 at top of slope		0.52	Needs cohesion to be stable	Cross Section D-D' analysis 19	D-19	
Existing condition of section	2A	D-D'	Infinite slope	19C	Existing conditions - afh2 at mid slope		0.70	Needs cohesion to be stable	Cross Section D-D' analysis 19	D-19	
Existing condition of section	2A	D-D'	Infinite slope	19D	Existing conditions - afw at bottom of slope		1.00		Cross Section D-D' analysis 19	D-19	
Waste Fill removed from section	2A	D-D'	Infinite slope	20A	Waste Fill removed - afh2 at mid slope		0.52	Locally unstable?	Cross Section D-D' analysis 20	D-20	
Waste Fill removed from section	2A	D-D'	Infinite slope	20B	Waste Fill removed - afh2 at bottom of slope		0.74	Locally unstable?	Cross Section D-D' analysis 20	D-20	
Waste Fill removed from section	2A	D-D'	Circular	21	Waste Fill removed - afh2 short term stability	7.34			Cross Section D-D' analysis 21	D-21	
Waste Fill and afh2 removed from section	2A	D-D'	Circular	22	Waste Fill and afh2 removed - Qcol & Qls short term stability	2.98			Cross Section D-D' analysis 22	D-22	
Waste Fill and afh2 removed from section	2A	D-D'	Circular	23	Waste Fill and afh2 removed - stability of KJm at bottom of slope		2.79		Cross Section D-D' analysis 23	D-23	
Waste Fill and afh2 removed from section	2A	D-D'	Infinite slope	24	Waste Fill and afh2 removed - long term stability of Qcol & Qls		0.52	Locally unstable?	Cross Section D-D' analysis 24	D-24	
Waste Fill replaced with compacted fill	2A	D-D'	Infinite slope	25	Waste Fill removed and replaced with compacted granular fill at bottom of slope		1.11		Cross Section D-D' analysis 25	D-25	
Existing condition of section	2A	B-B'	Infinite slope	26A	Existing conditions - afh1 at slope break		1.00		Cross Section B-B' analysis 26	D-26	
Existing condition of section	2A	B-B'	Infinite slope	26B	Existing conditions - afh near top of slope		0.63	Needs cohesion to be stable	Cross Section B-B' analysis 26	D-26	
Existing condition of section	2A	B-B'	Infinite slope	26C	Existing conditions - afw at mid slope		0.87	Needs cohesion to be stable	Cross Section B-B' analysis 26	D-26	
Existing condition of section	2A	B-B'	Infinite slope	26D	Existing conditions - Qcol at bottom of slope		0.74	Needs cohesion to be stable	Cross Section B-B' analysis 26	D-26	
Waste Fill removed from section	2A	B-B'	Infinite slope	27A	Waste Fill removed - afh1		1.00		Cross Section B-B' analysis 27	D-27	
Waste Fill removed from section	2A	B-B'	Infinite slope	27B	Waste Fill removed - afh		0.53	Locally unstable?	Cross Section B-B' analysis 27	D-27	
Waste Fill removed from section	2A	B-B'	Infinite slope	27C	Waste Fill removed - Qcol (mid-slope)		0.61	Locally unstable?	Cross Section B-B' analysis 27	D-27	
Waste Fill removed from section	2A	B-B'	Infinite slope	27D	Waste Fill removed - Qcol (lower slope)		0.74	Locally unstable?	Cross Section B-B' analysis 27	D-27	
Waste Fill removed with Construction Loads	2A	B-B'	Circular	28	Waste Fill removed - 32 kip point load	11.7			Cross Section B-B' analysis 28	D-28	
Waste Fill removed with Construction Loads	2A	B-B'	Circular	29	Waste Fill removed - 100 kip crane load	2.03			Cross Section B-B' analysis 29	D-29	
Waste Fill removed with Construction Loads	2A	B-B'	Circular	30	Waste Fill removed - 100 kip crane load & 136 kip 20' D X 10'H cone stockpile load	1.10			Cross Section B-B' analysis 30	D-30	

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Table 17. Sampling and Analytical Summary
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Area	Sample Location	Station Identification	Matrix	Date Sampled	Sample Identification	Depth	Sample Type	Test Method	General Water Quality Parameters	TPHg 8015M	VOCs 8260B	TPHd, TPHmo 8015M w/silica gel	PAHs 8270SIM	Title 22 Metals 6010/6020-7000	Organochlorine Pesticides 8081A	PCBs 8082	Dioxins and Furans 8290	Percent Moisture	Comments
								Water Containers	0.5LPl	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1L Gl	2 x 1L Gl	0.5L Pl; Nitric Acid	2 x 1L Gl	2 x 1L Gl	2 x 1L Gl	NA	
								Soil Containers	NA	3 Encr	3 Encr	Stainless Steel Tube							
Data Gap 1 - Characterize the presence and concentrations of contaminants t in historical fill (earthworks) surrounding historical batteries at the site.																			
South of Battery Godfrey	Trench 2	BBD2TP105	soil	4/28/2005	BBD2TP105(11.5)	11.5	Primary			X	X	X	X	X	X	X		X	
		BBD2TP105	soil	4/28/2005	BBD2TP105(15.0)	15.0	Primary			X	X	X	X	X	X	X		X	
		BBD2TP106	soil	4/28/2005	BBD2TP106(2.0)	2.0	Primary			X	X	X	X	X	X	X		X	
	Trench 3	BBD2TP108	soil	4/25/2005	BBD2TP108(4.0)	4.0	Primary			X	X	X		X	X			X	
		BBD2TP108	soil	4/25/2005	BBD2TP108(7.0)	7.0	Primary			X	X	X	X	X	X			X	
		BBD2TP108	soil	4/25/2005	BBD2TP108(10.0)	10.0	Primary			X	X	X		X	X			X	
Between Batteries Godfrey and Marcus Miller	Trench 5	BB1TP107	soil	4/4/2005	BB1TP107(7.0)	7.0	Primary							X				X	
		BB1TP109	soil	4/4/2005	BB1TP109(2.5)	2.5	Primary			X	X	X	X	X	X	X		X	
		BB1TP109	soil	4/4/2005	BB1TP109(3.5)	3.5	Primary			X	X	X	X	X	X	X		X	
		BB1TP109	soil	4/4/2005	BB1TP109(6.0)	6.0	Primary			X	X	X	X	X	X	X		X	
		BB1TP109	soil	4/4/2005	DUP(050405)	2.5	Primary			X	X	X	X	X	X	X		X	
Data Gap 2 - Evaluate the presence and concentrations of contaminants in fill materials on the bluff top.																			
Bluff top		BBSB103	soil	5/20/2005	BBSB103(0.5)	0.5	Primary				X		X	X	X	X		X	
		BBSB106	soil	5/23/2005	BBSB106(0.5)	0.5	Primary				X		X	X	X	X		X	
		BB2ASB100	soil	5/9/2005	BB2ASB100(4.0)	4	Primary						X	X	X	X		X	
Data Gap 3 - Evaluate the presence of ash and the presence and concentrations of contaminants in the vicinity of a former incinerator.																			
Former Incinerator	Trench 5	BB1TP108	soil	4/5/2005	BB1TP108(5.0)	5.0	Primary			X	X	X	X	X	X	X	X	X	Ash found at location of sample
Data Gap 4 - Characterize the extent of contamination in the southeast portion of BBDA 2.																			
BBDA 2	South of BBSB08	BB2SB102	soil	5/12/2005	BB2SB102(0.0)	0	Primary						X	X	X			X	
		BB2SB102	soil	5/12/2005	BB2SB102(2.0)	2	Primary						X	X	X			X	
Data Gap 5 - Evaluate the presence and concentrations of contaminants in the vicinity of the former salvage/recycling yard south of Battery Godfrey.																			
Former salvage recycling yard	South of Battery Godfrey	BBSB108	soil	5/12/2005	BBSB108(0.0)	0	Primary			X	X	X	X	X		X		X	
		BBSB108	soil	5/12/2005	BBSB108(2.0)	2	Primary			X	X	X	X	X		X		X	
		BBSB109	soil	5/12/2005	BBSB109(0.0)	0	Primary			X	X	X	X	X		X		X	
		BBSB109	soil	5/12/2005	BBSB109(2.0)	2	Primary			X	X	X	X	X		X		X	
		BBSB109	soil	5/12/2005	DUP(050512)	2	Duplicate			X	X	X	X	X		X		X	
Data Gap 6 - Verify that concentrations of contaminants in the seep water are still at levels protective of human health and ecological receptors.																			
BBDA 1	Seep Area	BB1PZ101	water	5/27/2005	BB1PZ101_5/27	0	Primary			X	X	X	X	X[(c)]	X	X			
		BB1PZ101	water	5/27/2005	BB1PZ101_8/1	0	Primary							X[(c)]					
		BB1PZ101	water	5/27/2005	BB1PZ101_8/1UF	0	Primary							X[(c)]					
		BB1PZ100	water	2/1/2006	BB1PZ100	0	Primary			X	X	X	X	X[(c)]	X	X			
		BB1PZ100	water	2/1/2006	DUP(020106)	0	Duplicate			X	X	X	X	X[(c)]	X	X			
		BB1PZ101	water	2/1/2006	BB1PZ101	0	Primary			X	X	X	X	X[(c)]	X	X			
BBDA 2A	Seep Area	BB2ASW100	water	2/1/2006	BB2ASW100	0	Primary			X	X	X	X	X[(c)]	X	X			
Data Gap 7 - The presence of contaminated soil from waste debris that has fallen to the beach has not been evaluated.																			
BBDA 1	Beach Area	BB1SB113	soil	5/13/2005	BB1SB113(0.5)	0.5	Primary			X	X	X	X	X		X		X	
		BB1SB114	soil	5/13/2005	BB1SB114(0.5)	0.5	Primary			X	X	X	X	X		X		X	
BBDA 2A	Beach Area	BB2ASB112	soil	5/13/2005	BB2ASB112(0.5)	0.5	Primary			X	X	X	X	X		X		X	

Table 17. Sampling and Analytical Summary
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Area	Sample Location	Station Identification	Matrix	Date Sampled	Sample Identification	Actual Depth		Test Method	General Water Quality Parameters	TPHg 8015M	VOCs 8260B	TPHd, TPHmo 8015M w/silica gel	PAHs 8270SIM	Title 22 Metals 6010/6020-7000	Organochlorine Pesticides 8081A	PCBs 8082	Dioxins and Furans 8290	Percent Moisture	Comments
								Water Containers	0.5LPl	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1L Gl	2 x 1L Gl	0.5L Pl; Nitric Acid	2 x 1L Gl	2 x 1L Gl	2 x 1L Gl	NA	
								Soil Containers	NA	3 Encr	3 Encr	Stainless Steel Tube							
Other - Further evaluate the presence and concentrations of contaminants in waste fill materials on bluff slope.																			
BBDA 1	Bluff Slope	BB1TP102	soil	4/15/2005	BB1TP102(4.0)	4	Primary			X	X	X	X	X		X	X	X	
		BB1TP106	soil	4/21/2005	BB1TP106(5.0)	5	Primary			X	X	X	X	X		X	X	X	
		BB1SB110	soil	5/12/2005	BB1SB110(3.5)	3.5	Primary						X	X	X	X		X	
BBDA 1A	Bluff Slope	BB1ATP101	soil	4/7/2005	BB1ATP101-G1	0	Primary						X	X				X	
		BB1ATP101	soil	4/7/2005	BB1ATP101-G2	3	Primary						X	X				X	
BBDA 2A	Bluff Slope	BB2ATP104	soil	4/13/2005	BB2ATP104(8.0)	8	Primary			X	X	X	X	X		X		X	
		BB2ATP100	soil	4/14/2005	BB2ATP100(1.0)	1	Primary			X	X	X	X	X		X		X	
		BB2ATP101	soil	4/14/2005	BB2ATP101(14.0)	14	Primary			X	X	X	X	X		X		X	
Undesignated Fill Area - Evaluate the presence and concentrations of contaminants in other fill materials on east side of Battery Marcus Miller.																			
Undesignated Fill Area	East of Battery Marcus Miller	BB1TP110	soil	10/4/2005	BB1TP110(1.5)	1.5	Primary			X	X	X	X	X	X	X		X	
		BB1TP110	soil	10/3/2005	BB1TP110(8.0)	8	Primary			X	X	X	X	X	X	X		X	
		BB1TP110	soil	10/3/2005	BB1TP110(12.0)	12	Primary			X	X	X	X	X	X	X		X	
		BB1TP111	soil	10/4/2005	BB1TP111(1.5)	1.5	Primary			X	X	X	X	X	X	X		X	
		BB1TP111	soil	10/4/2005	BB1TP111(3.0)	3	Primary			X	X	X	X	X	X	X		X	
		BB1TP111	soil	10/4/2005	BB1TP111(6.0)	6	Primary			X	X	X	X	X	X	X		X	
		BB1TP113	soil	10/3/2005	BB1TP113(3.0)	3	Primary			X	X	X	X	X	X	X		X	
		BB1TP113	soil	10/3/2005	BB1TP113(5.5)	5.5	Primary			X	X	X	X	X	X	X		X	
		BBSB119	soil	10/10/2005	BBSB119(2.5)	2.5	Primary			X	X	X	X	X	X	X		X	
		BBSB119	soil	10/10/2005	BBSB119(4.5)	4.5	Primary			X	X	X	X	X	X	X		X	
Additional Samples- Confirm presence of contaminants in surface soil samples not mapped as waste fill.																			
BBDA 1	Base of Hill Side	BBS1SB115	soil	5/12/2005	BB1SB115(0.5)	0.5	Primary							X					
		BBS1SB115	soil	5/12/2005	BB1SB110(1.0)	1	Primary							X					
BBDA 2A	Hill Side	BBSB120	soil	2/1/2006	BBSB120(1.0)	1	Primary						X	X					
BBDA 2	Hill Side	BB2SB110	soil	2/1/2006	BB2SB110(0.5)	0.5	Primary							X					
		BB2SB110	soil	2/1/2006	DUP(020106)	0.5	Duplicate							X					
		BB2SB110	soil	2/1/2006	BB2SB110(1.0)	1	Primary							X					

[a] Sample ID will be dated that duplicate is collected.
[b] Number in parentheses corresponds to sample depth in feet.
[c] Both filtered (dissolved metals) and unfiltered (total metals) samples were collected and analyzed.
Dissolved metals include: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, thallium, vanadium, zinc, and total dissolved solids.
Total metals (unfiltered) also include the above analytes.

Checked
Approved MJH

Table 18.
2,3,7,8 - TCDD Toxic Equivalent Calculations for Sample BB1TP108(5.0)
Field Invastigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

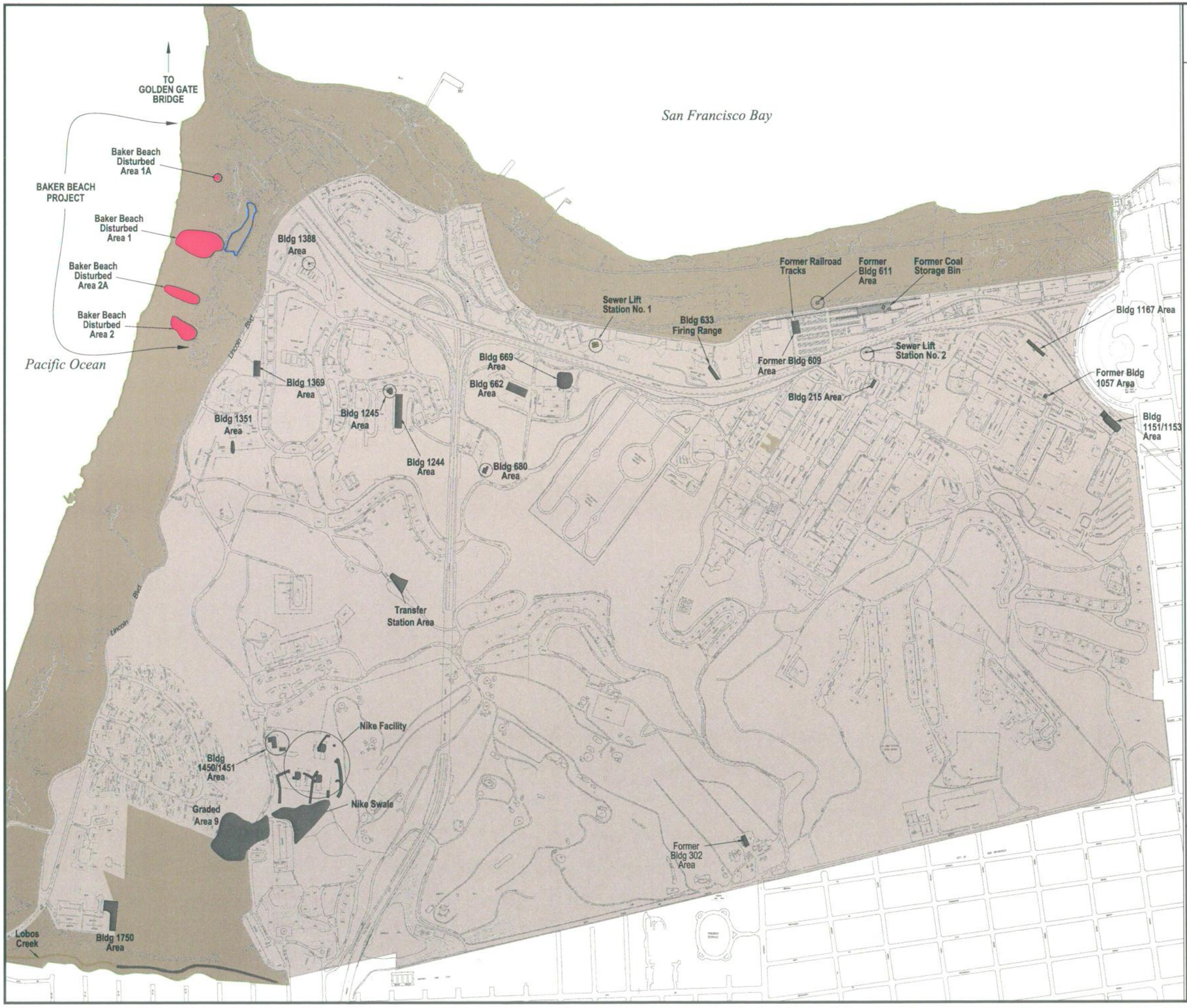
Analyte	Concentration (pg/g)	Factor	Result	units
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	2180	0.1	218	pg/g
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	11	0.1	1.1	pg/g
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	47.1	0.1	4.71	pg/g
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	27.1	0.1	2.71	pg/g
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	5.5	0.5	2.75	pg/g
2,3,7,8-Tetrachlorodibenzo-p-dioxin	4.2	1	4.2	pg/g
Octachlorodibenzo-p-dioxin	21390	0.001	21.39	pg/g
	Dioxins Sub-Total=		254.86	pg/g
Octachlorodibenzofuran	1190	0.001	1.19	pg/g
2,3,7,8-TCDF	4.1	0.1	0.41	pg/g
1,2,3,7,8-PeCDF	5.5	0.05	0.275	pg/g
2,3,4,7,8-PeCDF	1.5	0.5	0.75	pg/g
1,2,3,4,7,8-HxCDF	12.4	0.1	1.24	pg/g
1,2,3,6,7,8-HxCDF	6.9	0.1	0.69	pg/g
2,3,4,6,7,8-HxCDF	10.7	0.1	1.07	pg/g
1,2,3,7,8,9-HxCDF	8	0.1	0.8	pg/g
1,2,3,4,6,7,8-HpCDF	230	0.01	2.3	pg/g
1,2,3,4,7,8,9-HpCDF	22.4	0.01	0.224	pg/g
	Furans Sub-Total=		8.95	pg/g
	TEQ=		263.81	pg/g
	TEQ=		0.00026381	mg/kg

Residential ESL	0.0000045	mg/kg
TTLC	0.01	mg/kg
Residential PRG	0.0000039	mg/kg

Checked _____

Approved MJH

FIGURES



MACTEC

LEGEND

Designation of Areas A and B

- Area A - Stewardship by the National Park Service
- Area B - Stewardship by the Presidio Trust
- Project Investigation Areas
- Merchant Road Fill Site Area

Notes:

1. All locations are approximate.
2. Basemap developed from site plan provided by the Presidio Trust.

N

0 900 1800

APPROXIMATE SCALE IN FEET

57255110.DWG 0.0
20060605:1011

Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

Site Location Map
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

CHECKED APPROVED maf DATE 6-8-06	FIGURE 1
PROJECT NUMBER 57255 005105	

N
W E
S

PACIFIC

OCEAN

BBDA-1A

BBDA-1

BBDA-2A

BBDA-2

Battery Cranston

Battery Marcus Miller 1661

Battery Marcus Miller

Battery Boutelle

Battery Godfrey

Covered Way

Merchant Road

Storey Avenue

Lincoln Boulevard

CONCRETE BLOCKS

CONCRETE STRUCTURE

CONCRETE STRUCTURE

SCATTERED BRICK FRAGMENTS

SEEP ZONE

UNDESIGNATED FILL AREA

Infiltration Test Location

Infiltration Test Pit

MAGAZINE 21

MAGAZINE 21 EXCAVATION

FORMER INCINERATOR

BARBETTE EXCAVATION

MAGAZINE 22

MAGAZINE 23

MAGAZINE 27

MAGAZINE 28

MAGAZINE 29

FORMER SHOP SALVAGE

FORMER METAL DISPOSAL AREA

Concrete Structure

GGBTD OFFICES

Test Pit A

Test Pit B

Test Pit C

Boundary of Area of Potential Effect (APE)

Trench 1

Trench 2

Trench 3

Trench 4

Trench 5

Trench A

Trench B

Trench C

Trench D

Trench E

BB1ATP100C

BB1ATP100

BB1ATP101

BB1ATP102

BB1ATP103

BB1ATP104

BB1ATP105

BB1ATP106

BB1PZ100

BB1PZ101

BB1SB110

BB1SB111

BB1SB113

BB1SB114

BB1SB115

BB1TP100

BB1TP101

BB1TP102

BB1TP103

BB1TP104

BB1TP105

BB1TP106

BB1TP110

BB1TP111

BB1TP112

BB1TP113

BB2ASB100

BB2ASB101

BB2ASB112

BB2ASW100

BB2ATP100

BB2ATP101

BB2ATP102

BB2ATP103

BB2ATP104

BB2ATP105

BB2ATP106

BB2SB100

BB2SB101

BB2SB102

BB2SB110

BB2TP100

BB2TP101

BBSB100

BBSB101

BBSB102

BBSB103

BBSB104

BBSB105

BBSB106

BBSB107

BBSB108

BBSB109

BBSB110

BBSB111

BBSB116

BBSB117

BBSB118

BBSB119

BBSB120

N20W/55E

N10E/55W

N40E/55W

N90W/90

N15E/30E

N40W/12E

N80E/20W

N55E/25W

N30W/15E

DUE N/15E

DUE N/40E

N34W/33W

N65E/14E

N52W/12E

N18W/14E

N25W/10E

A A'

B B'

C C'

D D'

E E'

F F'

G G'

H H'

EXPLANATION

Artificially Deposited Fill

afh – Historic fill; human-placed fill associated with the construction of the Earthen Barbette Batteries or Endicott Period Batteries. Generally defined as including the areas of "superior slope" and "traverses" of the earlier Barbettes, as well as beneath the sod placed on the shoreside surface of the Endicott Batteries. For clarity, it also includes the concrete Endicott Period bunkers. May contain cultural artifacts and select earth materials of significance

afh1 – Historic fill; in place.

afh2 – Historic fill; disturbed.

afw – Waste fill; human-placed fill (landfill) associated with dumping of demolition debris and residential waste over the edge of the coastal bluff and limited areas of the Covered Way. Generally defined as including surface observations of concrete, metal, glass, brick, asphalt, roofing slate. May be mixed in a soil matrix of either native (colluvium or beach deposits) or non-native (chert road fill, bedding sand, etc.) May contain Chemicals of Concern (COC) above cleanup levels.

afo – Other fill; human-placed fill of uncertain origin. Generally found outside historic boundaries of the Earthen Barbette Batteries or Endicott Period Batteries boundaries. Also contains engineered fill placed for roads within the Area of Potential Effect (APE).

afo1 – Other fill; human placed fill with construction debris.

Quaternary Deposits

Qls – Landslides deposits; where exposed may contain rafts of afw and/or afo. Characterized as slump or rotational on the lower slopes; as talus or localized rockfall at base of Serpentinite cliffs.

Qcol – Native Soils, includes residual bedrock soils and Colma Formation, consisting of unconsolidated clean sand and clayey sand deposits. Also includes colluvium - native slope-wash materials consisting of clay, sandy clay and gravelly sand with some cobbles or boulders.

Qb – Beach Deposits; found exclusively in tidal zone, contains variable afw, as well as driftwood and trash.

Bedrock

Franciscan Assemblege

KJm – Melange; contains hetereogenous mixture of greenstone, greywacke sandstone and chert in a sheared soil-like matrix.

KJss and KJsh – sandstone and shale respectively; Large, coherent blocks of greywacke sandstone and silaceous, thinly bedded shale

Sp – Serpentinite; massive, with other ultamafic and metamorphic rocks included schist, amphibolite, and meta-greenstone.

Geologic Contact

Cross-section Locations

Seeps

Landslide Scarps

N40W/12E Bedding Attitude

N52W/12E Shear Attitude

N30W/15E Joint Attitude

BB2ATP101 Test Pit

BBSB101 Soil Boring

BB1PZ100 Piezometer location

Test Pit A Merchant Road Test Pits

Trench 1 Cultural Resource Trench

BBSB101 (2.5) Analytical Test Sample Descriptors, showing elevation at top of sample in parentheses

BBSB101 (8.0) Geotechnical Test Sample Descriptors, showing elevation at top of sample in parentheses

Notes Refer to Plates 5,6,7 and 8 for locations of pre-2005 exploration points

DRAWN:	RTT	PROJECT NUMBER:	57255 005115
ENGINEER:	WHG	SCALE:	1" : 50'
CHECKED:	JHD	APPROVED:	MJH
DATE:	03/2006	DATE:	

MACTEC

0 50 100 Feet

THE PRESIDIO TRUST

Geologic Exploration Map
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE 2

P:\50000\57255_BAKER Beach\GIS\Projects\Geologic_Exploration_Map.mxd 03/22/2006

N
W E
S

PACIFIC

OCEAN

BB1ATP100C
BBSB22
BBSB21
BB1ATP100
BBSB101
BBSB100
BB1ATP101
BBSB117
BBSB118
BBSB119
BB1TP113
BBSB115
BBSB103
BB1TP112
BBSB102
BB1TP111
BBSB33
BB1SB115
BBSB05
BBSB01
BBSB31
BBSB32
BB1SB114
BB1SS107
BBSB02
Infiltration Test Pit
Infiltration Test Location
Trench 5
BB1TP102
BB1TP106
BBSB24
BBSB26
BB1PZ101
BB1TP101
BB1TP110
BB1SB113
BBSB35
BBSB04
BBSW01
Trench E
BBSB25
BBSB23
BBSB34
Trench 4
BBSD01
BBSB03
BB1PZ100
BB1TP103
BB1SB110
BB1SB111
BB1TP100
BB1TP104
BB1TP105
BBSB116
BBSB104
Test Pit A
Test Pit B
BBSB105
Test Pit C
BB2ASS104
BB2ASB104
BB2ASB112
BB2ASB101A
BB2ASW100
BB2TP106
BB2ATP102
BB2ATP100
BB2ASB100A
BB2ASS100
BB2TP105
BBSB120
BBSB106
BB2ATP104
BB2ATP103
BB2ASS105
BB2ASB103
BB2ASS107
BB2TP101
BB2ASS106
BB2ASB101
BB2ASB102
BB2ASS102
BB2ASB100
BB2ASB108
Trench B
Trench 3
Trench C
Trench A
DUP(620106)
BB2SB110
BBSB07
BB2TP100
BB2TP101
BB2SB100
BBSB107
BB2SB101
Trench 2
Trench 1
BBSB06
BBSB08
Trench D
BB2SB102
BBSB108
BBSB109

EXPLANATION

Artificially Deposited Fill

afh2 – Historic fill; disturbed.

afw – Waste fill; human-placed fill (landfill) associated with dumping of demolition debris and residential waste over the edge of the coastal bluff and limited areas of the Covered Way. Generally defined as including surface observations of concrete, metal, glass, brick, asphalt, roofing slate. May be mixed in a soil matrix of either native (colluvium or beach deposits) or non-native (chert road fill, bedding sand, etc.) May contain Chemicals of Concern (COC) above cleanup levels.

BB2ATP101 — Test Pit

BBSB101 — Soil Boring

BB1PZ100 — Piezometer location

Trench 1 — Cultural Resource Trench

DRAWN:	RTT	PROJECT NUMBER:	57255 005115
ENGINEER:		SCALE:	1" : 50'
CHECKED:	JHD	APPROVED:	MJH
DATE:	3/2006	DATE:	

MACTEC

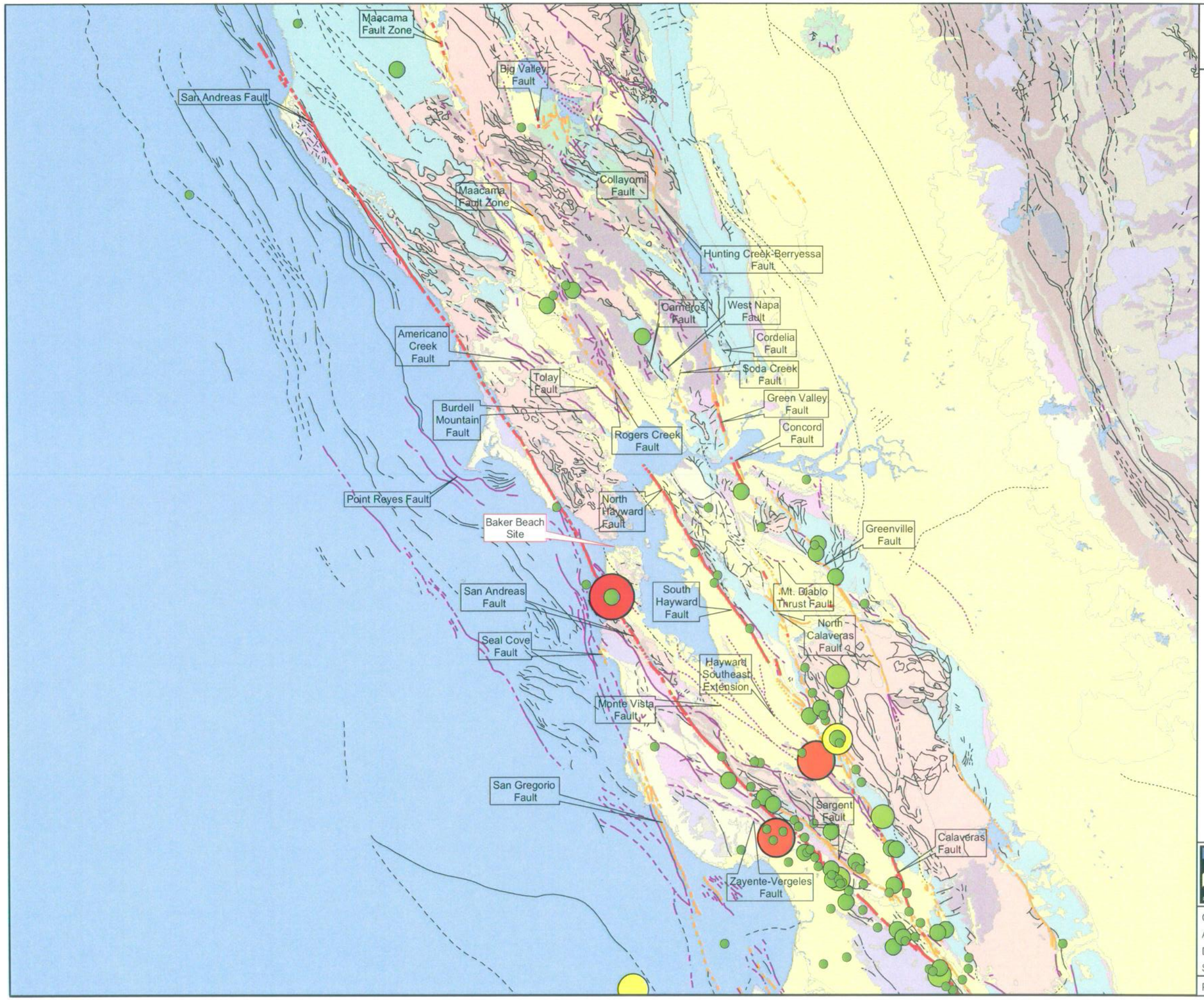
0 50 100 Feet

THE PRESIDIO TRUST

Aerial Geologic Exploration Map
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
3

P:\50000\57255_BAKER Beach\GIS\Projects\Aerial_Geologic_Exploration_Map.mxd 3/13/2006



MACTEC

N
W E
S

10 5 0 10
Miles

Earthquake Faults[2]
- Historic
- Holocene
- Quaternary
- Pre-Quaternary

Solid where certain, dashed where inferred, dotted where concealed.

Geologic Units[2]
- Holocene-Quaternary Volcanic Rocks
- Quaternary Sedimentary Rocks
- Pliocene-Miocene Sedimentary Rocks
- Oligocene-Eocene Sedimentary Rocks
- Tertiary Volcanic Rocks
- Tertiary-Cretaceous Sedimentary Rocks
- Cenzoic-Precambrian Volcanic Rocks
- Franciscan Formation
- Cenzoic-Precambrian Rocks
- Mesozoic Gabbroic Rocks
- Mesozoic-Paleozoic-Precambrian Sedimentary and Metasedimenary Rocks
- Paleozoic Metavolcanic Rocks

Earthquake Epicenters[1]
- 4.50 - 5.00 Magnitude
- 5.01 - 5.50
- 5.51 - 6.00
- 6.01 - 6.50
- 6.51 - 7.00
- 7.01 - 8.00

Sources:

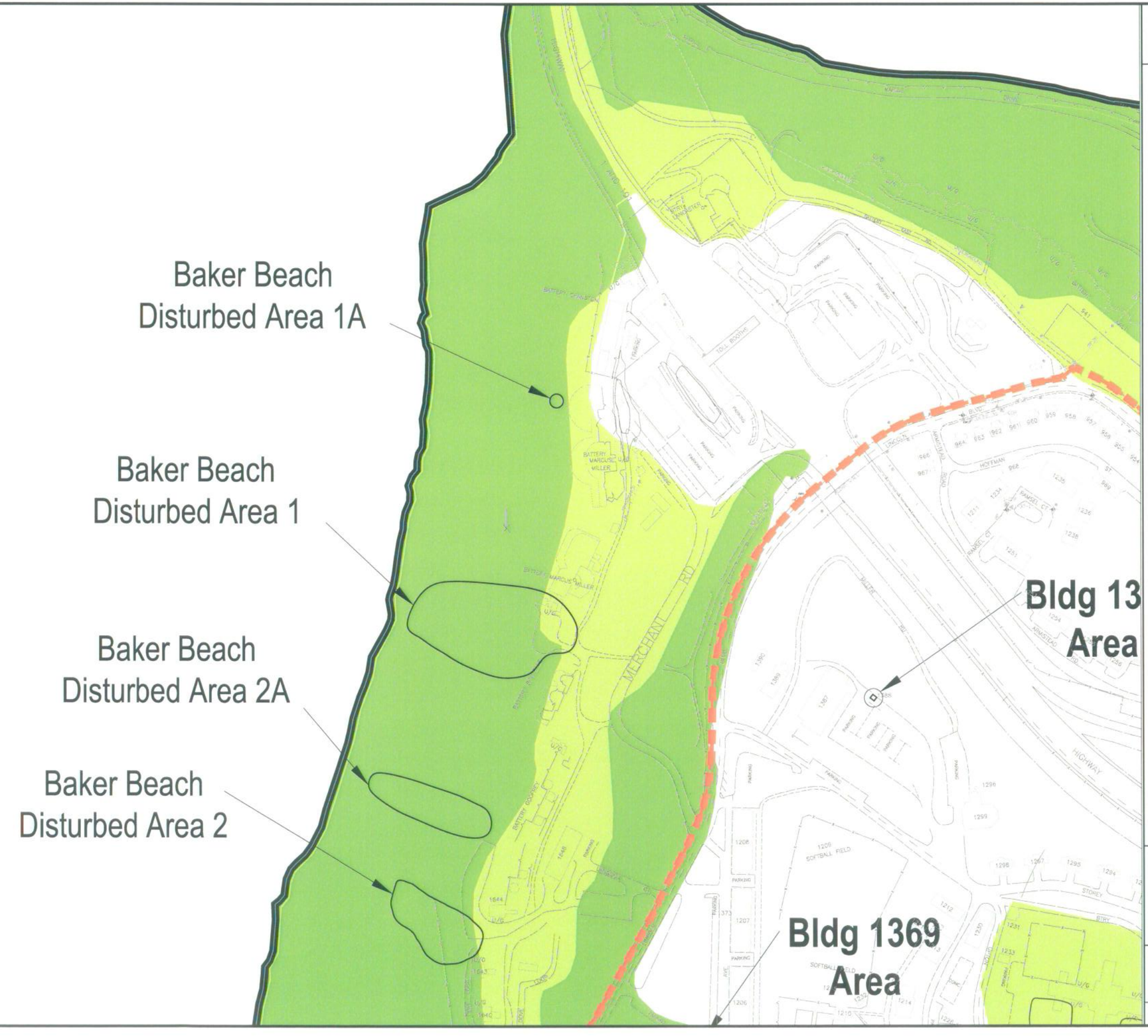
1. Northern California Seismic Network, U.S. Geological Survey, Menlo Park
2. California Geological Survey, DMG CD 2000-006 & DMG CD 2000-007

Regional Fault and Seismicity Map

Field Investigation Report
Baker Beach Disturbed Areas 1,1A, 2 and 2A
Presidio of San Francisco, California

CHECKED BY	JHD
APPROVED BY	MJH
DATE	11/8/2005
SCALE	1:1,150,000
FIGURE:	3B
PROJECT NUMBER	57255.005113

57255 Baker_Beach_Regional_Fault_and_Seismicity_Map2.mxd 5/5/2006



MACTEC

LEGEND

- PTMP Planning Area Boundary
- Human Health Cleanup Level (Developed Areas Outside Ecological Protection Zones)
- Buffer Zone Ecological Cleanup Level (Manicured Open Space Areas)
- Special Status Ecological Cleanup Level (See Note 4)

Notes:

1. All locations are approximate.
2. Basemap developed from site plan provided by the Presidio Trust.
3. Ecological Protection Zones are defined in California Regional Water Quality Control Board, Order No. R2-2003-0080.
4. Special Status Ecological Areas include Native Plant Community Zones, Historic Forest Zones, and Special Management Zones identified in the Vegetation Management Plan and Environmental Assessment, NPS and Presidio Trust, May 2001.

N

0 225 450

(Approximate Scale in Feet)

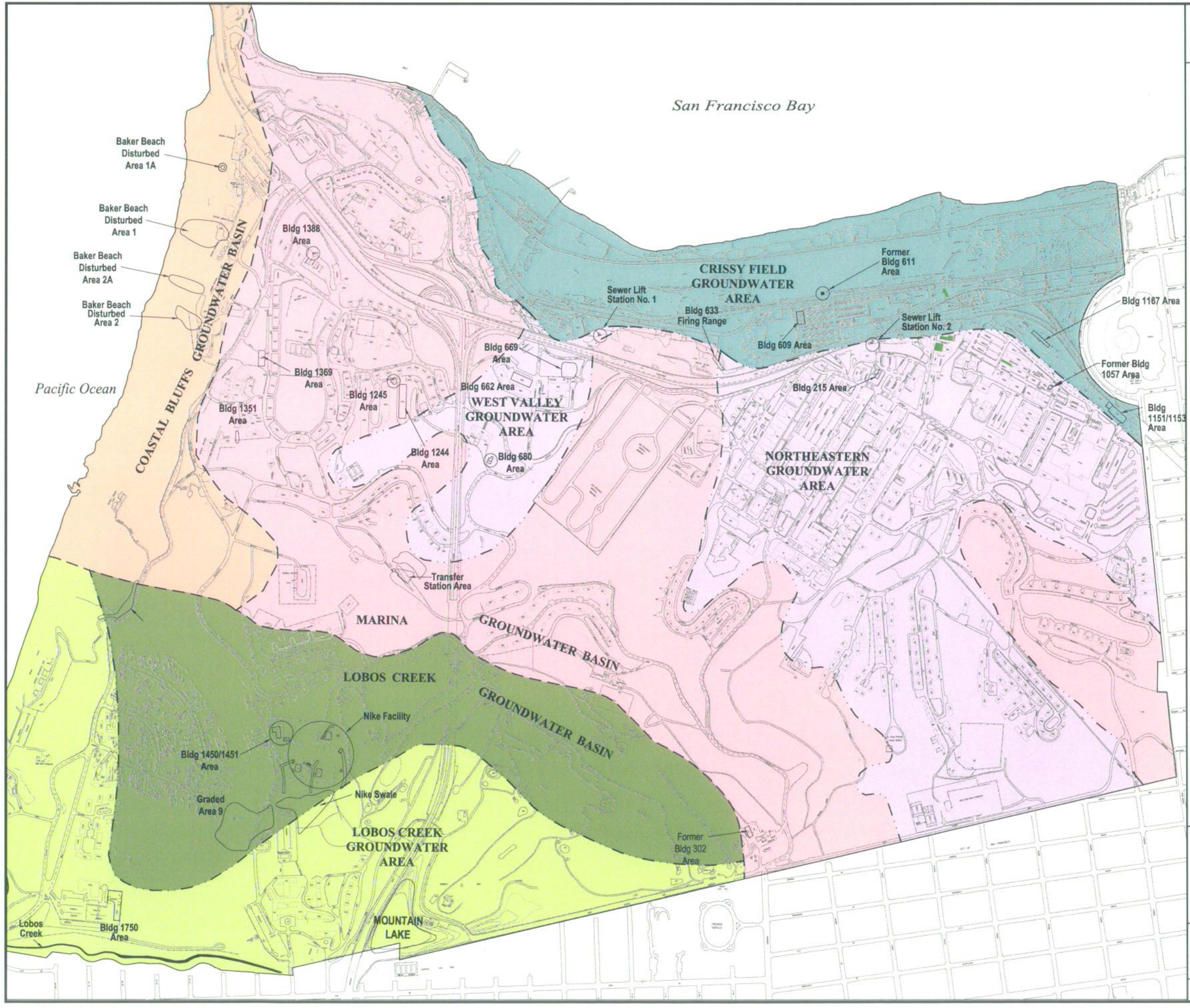
Figure modified from Vegetation Management Plan (NPS & Presidio Trust, 2001) (EKI, 2003 and 2004). All locations are approximate.

THE PRESIDIO TRUST

Planned Ecological Land Uses
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Field Investigation Report
Presidio of San Francisco, California

CHECKED	FIGURE **4-A**
APPROVED maf	
DATE 6-8-06	
PROJECT NUMBER 57255	

5/23/2006 JWJ
2006/06/13



MACTEC

LEGEND

- Groundwater Basin Boundaries
- Groundwater Area Boundaries
- Coastal Bluffs Groundwater Basin
- Lobos Creek Groundwater Basin
- Lobos Creek Groundwater Area
- Marina Groundwater Basin
- West Valley and Northwestern Groundwater Area
- Crissy Field Groundwater Area

Notes:

1. All locations are approximate.
2. Figure modified from Montgomery Watson, Draft Basewide Groundwater Monitoring Plan, July 1996.

0 900 1800

APPROXIMATE SCALE IN FEET

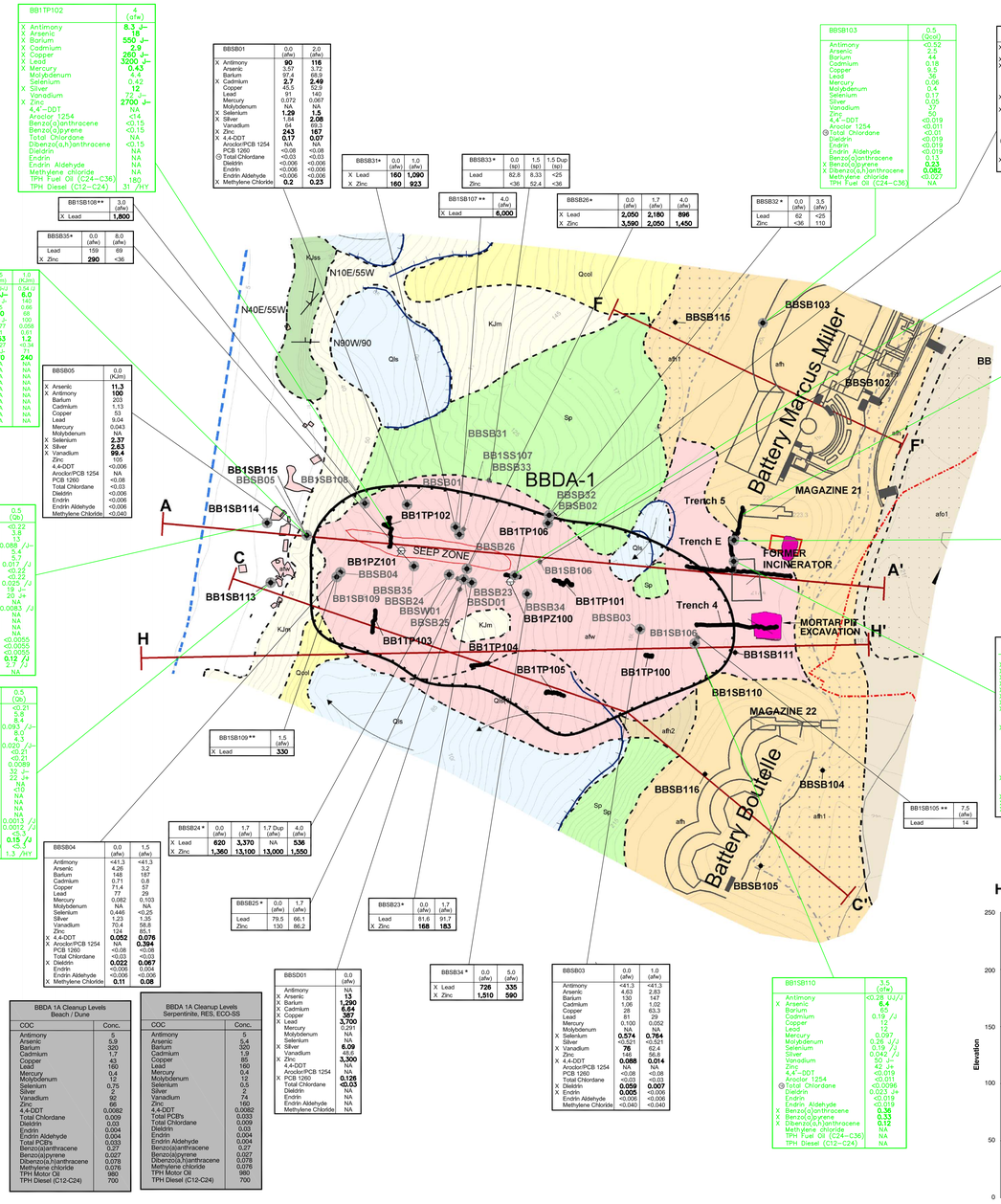
Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

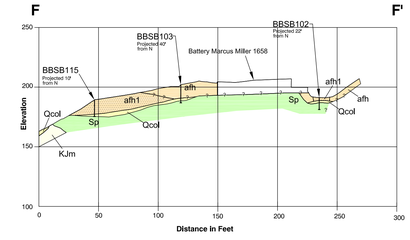
THE PRESIDIO TRUST

Groundwater Basins and Areas of the Presidio
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco, California

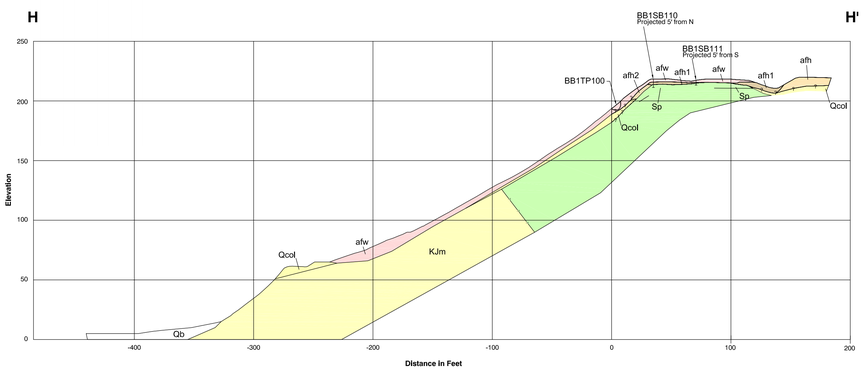
CHECKED	FIGURE **4-B**
APPROVED mgj	
DATE 6-8-08	
PROJECT NUMBER 57255 005125	

57255109.dwg 1:0
20060605:43

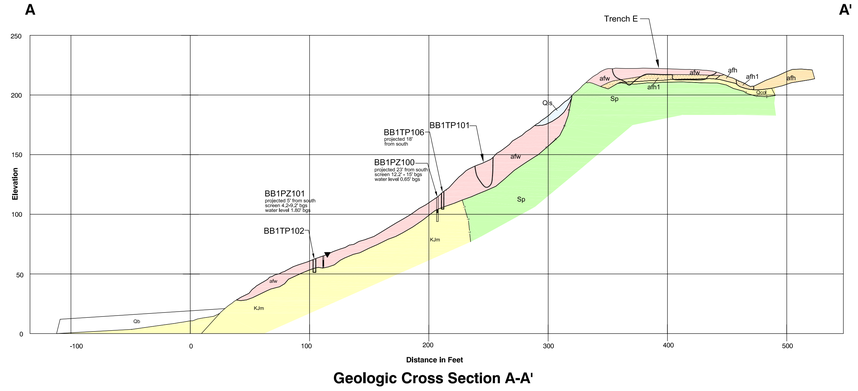




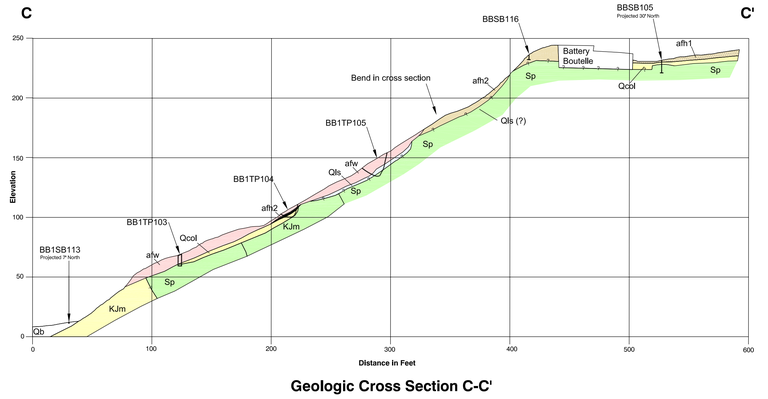
Geologic Cross Section F-F'



Geologic Cross Section H-H'



Geologic Cross Section A-A'

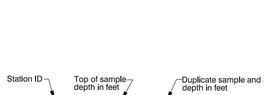


Geologic Cross Section C-C'

MACTEC

EXPLANATION

- Geologic Contact, dashed where approximate, queried where uncertain.
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentinite
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- Qb — Beach Deposit
- Interpreted Extent of refuse - from GPS and EM Survey Data (MACTEC, 2005d)
- E E' — Geologic Cross-Section (see inset map)
- Seep
- BBSB08 — Boring (Pre-2005)
- BB2SB102 — Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- BB2TP100 — Test Pit



Results for samples collected for this investigation are shown in green typeface. Results shown in **BOLD** type face exceed applicable cleanup levels.

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J-+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <0.0078 = not detected at indicated reporting limit.
13. "RES, ECO-SS" = Residential and Ecological - Special Status
14. "*" = Asterisk indicates sample was only analyzed for lead and/or zinc.
15. "**" = Double asterisk indicates sample was only analyzed for lead.
16. Groundwater samples are are not identified on this plate, but are described in the text and analytical results are located on Table 9.
17. There are no Presidio cleanup levels for dioxins and furans; the calculated toxic equivalency value (TEQ) for 2,3,7,8-TCDD exceeds the EPA preliminary remediation goal of 0.0000039 mg/kg and the RWQCB environmental screening level of 0.0000045 mg/kg.
18. Results for alpha- and gamma-chlordane are summed and presented as total chlordane.

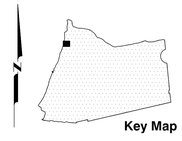


Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

THE PRESIDIO TRUST

BBDA-1 Exploration Map and Geologic Cross-Section
Field Investigation Report
Baker Beach Disturbed Area BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

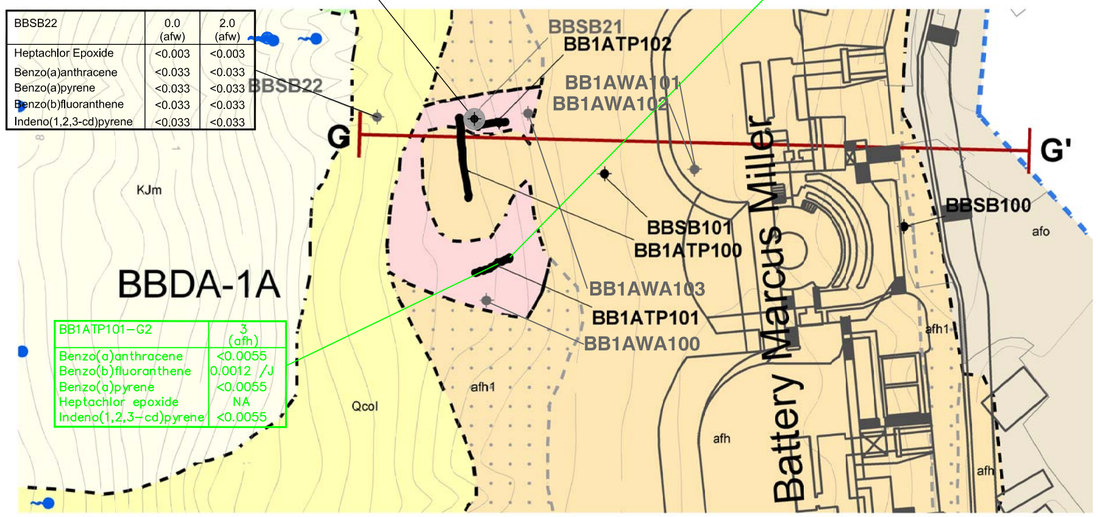
CHECKED	JHD	FIGURE	5
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005115		

57255113.DWG 40
20060622.1657

BBSB21	0.0 (afw)	2.0 (afw)
X Heptachlor Epoxide	<0.003	0.023
X Benzo(a)anthracene	0.6	<0.033
X Benzo(a)pyrene	2	<0.033
X Benzo(b)fluoranthene	2	0.15
X Indeno(1,2,3-cd)pyrene	2	<0.033

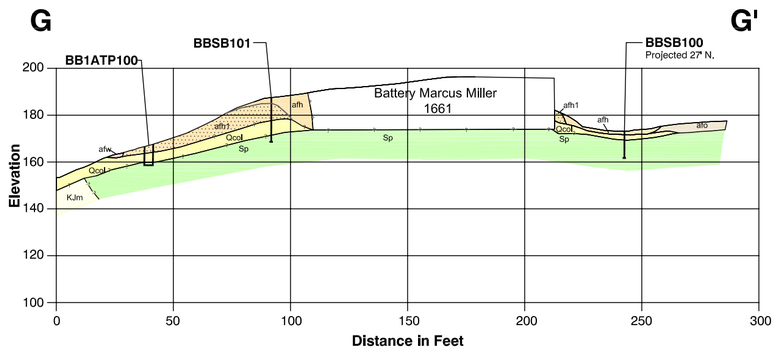
BB1ATP101-G1	0 (afw)
Benzo(a)anthracene	<1.0
Benzo(b)fluoranthene	<1.0
Benzo(a)pyrene	<1.0
Heptachlor epoxide	NA
Indeno(1,2,3-cd)pyrene	<1.0

BBSB22	0.0 (afw)	2.0 (afw)
Heptachlor Epoxide	<0.003	<0.003
Benzo(a)anthracene	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033



BB1ATP101-G2	3 (afh)
Benzo(a)anthracene	<0.0055
Benzo(b)fluoranthene	0.0012 /J
Benzo(a)pyrene	<0.0055
Heptachlor epoxide	NA
Indeno(1,2,3-cd)pyrene	<0.0055

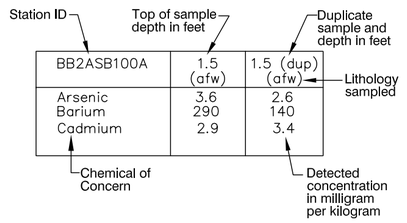
BBDA 1A Cleanup Levels Serpentinite, RES, ECO-SS	
COC	Conc.
Benzo(a)anthracene	0.27
Benzo(b)fluoranthene	0.27
Benzo(a)pyrene	0.027
Heptachlor epoxide	0.017
Indeno(1,2,3-cd)pyrene	0.27



Geologic Cross Section G-G'

EXPLANATION

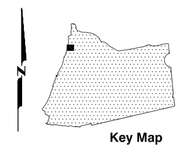
- Geologic Contact, dashed where approximate, queried where uncertain.
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentinite
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- Qb — Beach Deposit
- Interpreted Extent of refuse - from GPS and EM Survey Data (MACTEC, 2005d)
- E E' — Geologic Cross-Section (see inset map)
- Seep
- BBSB08 — Boring (Pre-2005)
- BB2SB102 — Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- BB2TP100 — Test Pit



Results for samples collected for this investigation are shown in green typeface. Results shown in **BOLD** type face exceed applicable cleanup levels.

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <1.0 = not detected at indicated reporting limit.
13. "RES, ECO-SS" = Residential and Ecological - Special Status



Key Map

0 50 100
APPROXIMATE SCALE IN FEET

57255114.DWG 1
20060605.1619

Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

BBDA-1A Exploration Map and Geologic Cross-Section
Field Investigation Report
Baker Beach Disturbed Area BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED	JHD	FIGURE	6
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005113		

BB2SB110	0.5 (Qcol)	1.0 (Qcol)	1.0 (Dup) (Qcol)
X Arsenic	4.7	4.1	5.6
Barium	72	69	78
Cadmium	0.32 /J	0.25 /J	0.31 /J
Copper	16	15	18
Lead	28	32	30
Mercury	0.045	0.046 J-	0.049
X Selenium	1.3	0.98	1.2
Zinc	52	44	58
4,4'-DDT	NA	NA	NA
Endrin	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA

BBSB07	0.0 (Qcol)
Arsenic	3.69
Barium	91.7
X Cadmium	2.2
Copper	41.1
Lead	29
Mercury	0.040
X Selenium	1.29
Zinc	101
4,4-DDT	<0.006
Endrin	<0.006
Benzo(a)pyrene	<0.033
Benzo(a)anthracene	<0.033
Benzo(b)fluoranthene	<0.033
Benzo(k)fluoranthene	<0.033
Dibenzo(a,h)anthracene	0.033

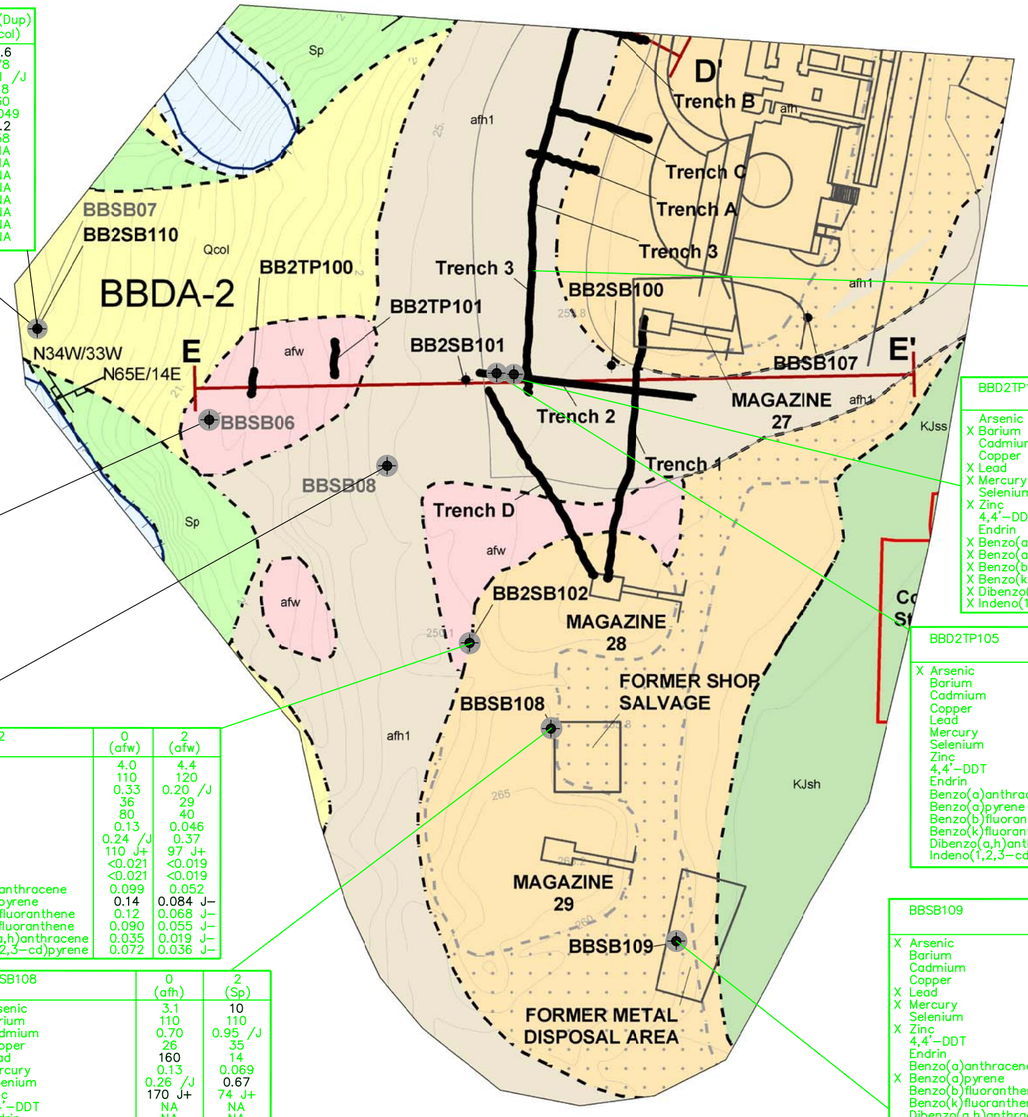
BBSB06	0.0 (afw)	1.5 (afw)
Arsenic	5.21	4.87
Barium	205	218
Cadmium	0.762	1.3
Copper	44.8	55.2
Lead	31	20
Mercury	0.046	0.032
Selenium	0.477	<0.25
X Zinc	307	292
X 4,4-DDT	<0.006	<0.006
Endrin	0.006	<0.006
X Benzo(a)pyrene	0.54	<0.033
X Benzo(a)anthracene	0.52	<0.033
X Benzo(b)fluoranthene	0.47	<0.033
X Benzo(k)fluoranthene	0.38	<0.033
Dibenzo(a,h)anthracene	0.033	0.033

BBSB08	0.0 (afw)	1.5 (afw)
Arsenic	3.67	1.9
Barium	138	224
Cadmium	0.900	0.978
X Copper	68.4	118
X Lead	210	110
Mercury	0.088	0.042
X Selenium	0.541	<0.25
Zinc	129	97.2
X 4,4-DDT	<0.06	0.02
Endrin	<0.06	<0.06
X Benzo(a)pyrene	0.11	0.11
Benzo(a)anthracene	0.22	0.08
Benzo(b)fluoranthene	0.14	0.13
Benzo(k)fluoranthene	0.18	0.14
Dibenzo(a,h)anthracene	0.033	0.033

BB2SB102	0 (afw)	2 (afw)
Arsenic	4.0	4.4
Barium	110	120
Cadmium	0.33	0.20 /J
Copper	36	29
Lead	80	40
Mercury	0.13	0.046
Selenium	0.24 /J	0.37
Zinc	110 J+	97 J+
4,4'-DDT	<0.021	<0.019
Endrin	<0.021	<0.019
Benzo(a)anthracene	0.099	0.052
X Benzo(a)pyrene	0.14	0.084 J-
Benzo(b)fluoranthene	0.12	0.068 J-
Benzo(k)fluoranthene	0.090	0.055 J-
Dibenzo(a,h)anthracene	0.035	0.019 J-
Indeno(1,2,3-cd)pyrene	0.072	0.036 J-

BBSB108	0 (afh)	2 (Sp)
X Arsenic	3.1	10
Barium	110	110
Cadmium	0.70	0.95 /J
Copper	26	35
X Lead	160	14
Mercury	0.13	0.069
X Selenium	0.26 /J	0.67
X Zinc	170 J+	74 J+
4,4'-DDT	NA	NA
Endrin	NA	NA
Benzo(a)anthracene	0.038	0.020
X Benzo(a)pyrene	0.045	0.020
Benzo(b)fluoranthene	0.034	0.014
Benzo(k)fluoranthene	0.028	0.011
Dibenzo(a,h)anthracene	0.014 J-	0.0057 /J
Indeno(1,2,3-cd)pyrene	0.020 J-	0.011

BBDA 2 Cleanup Levels Serpentinite, RES, ECO-SS	Conc.
Arsenic	5.4
Barium	320
Cadmium	1.9
Copper	85
Lead	160
Mercury	0.4
Selenium	0.5
Zinc	160
4,4'-DDT	0.0082
Benzo(a)anthracene	0.27
Benzo(a)pyrene	0.027
Benzo(b)fluoranthene	0.27
Benzo(k)fluoranthene	0.27
Dibenzo(a,h)anthracene	0.078
Endrin	0.004
Indeno(1,2,3-cd)pyrene	0.27

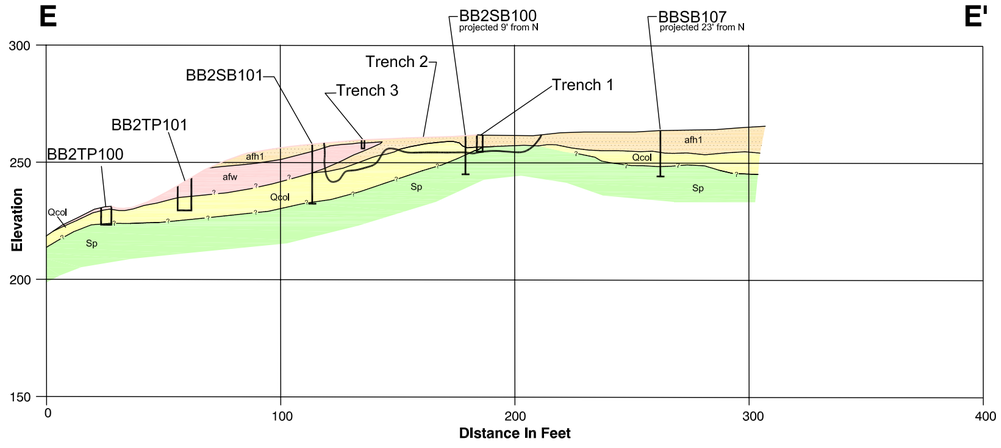


BBD2TP108	4 (afh)	7 (afh)	10 (Qcol)
Arsenic	2.8	4.2	2.7
Barium	96 J-	92 J-	130 J-
Cadmium	0.099	0.12	0.12
Copper	13 J-	20 J-	15 J-
Lead	5.6 J-	4.9 J-	4.4 J-
Mercury	0.045	0.057	<0.020
Selenium	0.33	0.25	0.44
Zinc	32 J-	41 J-	36 J-
4,4'-DDT	<0.0036	<0.0038	<0.004
Endrin	<0.0036	<0.0038	<0.004
Benzo(a)anthracene	NA	<0.0058	NA
Benzo(a)pyrene	NA	<0.0058	NA
Benzo(b)fluoranthene	NA	<0.0058	NA
Benzo(k)fluoranthene	NA	<0.0058	NA
Dibenzo(a,h)anthracene	NA	<0.0058	NA
Indeno(1,2,3-cd)pyrene	NA	<0.0058	NA

BBD2TP106	2 (afw)
Arsenic	4.2
X Barium	520 J-
Cadmium	0.50
Copper	35
X Lead	200 J-
X Mercury	0.49
Selenium	<0.27 U/J
X Zinc	420 J-
4,4'-DDT	<0.018
Endrin	<0.018
X Benzo(a)anthracene	0.54
X Benzo(a)pyrene	0.80 J-
X Benzo(b)fluoranthene	0.61 J-
X Benzo(k)fluoranthene	0.54 J-
X Dibenzo(a,h)anthracene	0.22 J-
X Indeno(1,2,3-cd)pyrene	0.29

BBD2TP105	11.5 (afh)	15 (Qcol)
X Arsenic	7.4	5.8
Barium	95 J-	55 J-
Cadmium	0.16 /J	0.16 /J
Copper	20	25
Lead	35 J-	7.7 J-
Mercury	0.040	<0.020
Selenium	<0.33 U/J	<0.37 U
Zinc	56 J-	52 J-
4,4'-DDT	<0.0039	<0.0039
Endrin	<0.0039	<0.0039
Benzo(a)anthracene	0.0014 /J	0.0078 /J
Benzo(a)pyrene	0.0017 /J	0.0064 /J
Benzo(b)fluoranthene	0.0029 /J	0.0080 /J
Benzo(k)fluoranthene	0.0030 /J	0.0058 /J
Dibenzo(a,h)anthracene	0.0016 /Jb	0.0085 /Jb
Indeno(1,2,3-cd)pyrene	0.0028 /J	0.0081 /J

BBSB109	0 (afh)	2 (afh)	2 (Dup) (afh)
X Arsenic	2.2	6.8	3.2
Barium	120	49	150
Cadmium	1.3	0.24 /J	1.1
Copper	33	50	40
X Lead	1900	35	180
X Mercury	0.54	0.097	1.1
Selenium	<0.45	0.21	0.24
X Zinc	210 J+	96 J+	250 J+
4,4'-DDT	NA	NA	NA
Endrin	NA	NA	NA
Benzo(a)anthracene	0.065	<0.0063	0.021
X Benzo(a)pyrene	0.082 J-	<0.0063	0.024
Benzo(b)fluoranthene	0.093 J-	<0.0063	0.028
Benzo(k)fluoranthene	0.055 J-	<0.0063	0.021
Dibenzo(a,h)anthracene	0.019 J-	<0.0063	0.011 J-
Indeno(1,2,3-cd)pyrene	0.036 J-	<0.0063	0.019 J-



Geologic Cross Section E-E'

MACTEC

EXPLANATION

- Geologic Contact, dashed where approximate, queried where uncertain.
- afh: Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw: Waste Fill
- afo: Other Fill; where stippled Other Fill with construction debris only (afo1)
- Qls: Landslide Deposits
- Qcol: Colma Fm/Native Soils
- Sp: Serpentinite
- KJm: Melange
- KJss/KJsh: Sandstone Shale
- Qb: Beach Deposit
- Interpreted Extent of refuse - from GPS and EM Survey Data (MACTEC, 2005d)
- E E': Geologic Cross-Section (see inset map)
- Seep
- BBSB08: Boring (Pre-2005)
- BB2SB102: Boring (2005)
- BB2TP100: Test Pit
- Location Identified to have COCs above Cleanup Levels in Soil

Station ID — Top of sample depth in feet — Duplicate sample and depth in feet — Lithology sampled

BB2ASB100A	1.5 (afw)	1.5 (dup) (afw)
Arsenic	3.6	2.6
Barium	290	140
Cadmium	2.9	3.4

Chemical of Concern — Detected concentration in milligram per kilogram

Results for samples collected for this investigation are shown in green typeface. Results shown in **BOLD** type face exceed applicable cleanup levels.

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <0.0078 = not detected at indicated reporting limit.
13. "RES, ECO-SS" = Residential and Ecological - Special Status

Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

BBDA-2 Exploration Map and Geologic Cross-Section Field Investigation Report Baker Beach Disturbed Area BBDA-1, 1A, 2, and 2A Presidio of San Francisco, California

CHECKED	JHD	FIGURE	7
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005115		

5725511.DWG 40
20060605.1525

BB2ASB112	0.5 (Qb)
X Arsenic	6.4
Antimony	0.057
Barium	6.5
Cadmium	0.057 /J
Copper	6.5
Lead	3.5
Mercury	0.017 /J
Selenium	<0.17
Silver	0.0023 /J
Zinc	20 J+
4,4'-DDT	NA
Benzo(a)pyrene	<0.0052
Benzo(b)fluoranthene	<0.0052
Benzo(k)fluoranthene	<0.0052
Dibenzo(a,h)anthracene	<0.0052
Indeno(1,2,3-cd)pyrene	<0.0052

BB2ATP104	8 (afh)
Antimony	1.1 J-
Arsenic	3.4
Barium	180 J-
Cadmium	0.67
X Copper	92 J-
Lead	110 J-
X Mercury	0.57
Selenium	0.31
X Silver	2.3
Vanadium	43 J-
X Zinc	270 J-
4,4'-DDT	NA
Benzo(a)pyrene	<0.12
Benzo(b)fluoranthene	0.062
Benzo(k)fluoranthene	0.042 /J
Dibenzo(a,h)anthracene	<0.12
Indeno(1,2,3-cd)pyrene	<0.12
X TPH Fuel Oil	1900

BB2ATP101	14 (afw)
Antimony	0.63 J-
Arsenic	3.8
Barium	110 J-
Cadmium	0.40
Copper	70 J-
Lead	60 J-
Mercury	0.17
Selenium	0.37
Silver	0.68
Vanadium	48 J-
Zinc	110 J-
4,4'-DDT	NA
Benzo(a)pyrene	0.013
Benzo(b)fluoranthene	0.011 /J
Benzo(k)fluoranthene	0.011
Dibenzo(a,h)anthracene	0.0046 /J
Indeno(1,2,3-cd)pyrene	0.0092
TPH Fuel Oil	140

BB2ASB103	3.5 (afw)
Arsenic	2.9
Barium	230
X Cadmium	2.7
Copper	74
X Lead	220
Mercury	0.18
Selenium	<0.28
Silver	0.65
X Zinc	250
X 4,4-DDT	0.05
Benzo(a)pyrene	0.044
Benzo(b)fluoranthene	<0.36
Benzo(k)fluoranthene	<0.36
Dibenzo(a,h)anthracene	<0.36
Indeno(1,2,3-cd)pyrene	<0.36

BB2ASB102	2.5 (afw)
Arsenic	3.4
Barium	110
X Cadmium	2.3
Copper	22
Lead	47
Mercury	0.14
Selenium	<0.27
Silver	<0.27
Zinc	54
4,4-DDT	0.0051
Benzo(a)pyrene	<0.37
Benzo(b)fluoranthene	<0.37
Benzo(k)fluoranthene	<0.37
Dibenzo(a,h)anthracene	<0.37
Indeno(1,2,3-cd)pyrene	<0.37

BB2ASS107	0.5 (afh)	0.5 DUP (afh)
X Arsenic	6.4	6.6
Barium	140	140
Cadmium	0.5	0.41
Copper	43	45
Lead	130	84
Mercury	0.26	0.29
Selenium	< 2.2	< 2.2
Silver	1.2	1.8
X Zinc	210	180
X 4-4'-DDT	0.021	0.013
X Benzo(a)pyrene	0.098	0.37
X Benzo(b)fluoranthene	0.11	0.34
X Benzo(k)fluoranthene	0.098	0.31
X Dibenzo(a,h)anthracene	< 0.073	0.097
X Indeno(1,2,3-cd)pyrene	0.087	0.42

BB2ASS106	0.5 (afh)
X Arsenic	6.4
Barium	15
Cadmium	<1.2
Copper	12
Lead	0.36
Mercury	0.049
X Selenium	1.2
Silver	<1.2
Zinc	16
4-4'-DDT	< 0.0024
Benzo(a)pyrene	< 0.079
Benzo(b)fluoranthene	0.094
Benzo(k)fluoranthene	< 0.079
Dibenzo(a,h)anthracene	< 0.079
Indeno(1,2,3-cd)pyrene	< 0.079

BB2ASB108	0.5 (afh)	1.5 (afh)
Arsenic	2.1	2.3
Barium	95	110
Cadmium	0.41	< 1.1
Copper	32	17
X Lead	170	29
X Mercury	0.58	0.35
Selenium	< 2.2	0.42
Silver	0.54	<1.1
Zinc	150	47
X 4-4'-DDT	0.12	0.094
Benzo(a)pyrene	< 0.15	< 0.15
Benzo(b)fluoranthene	< 0.15	< 0.15
Benzo(k)fluoranthene	< 0.15	< 0.15
Dibenzo(a,h)anthracene	< 0.15	< 0.15
Indeno(1,2,3-cd)pyrene	< 0.15	< 0.15

BB2ASS105	0.5 (afh)
X Arsenic	6.7
Barium	110
Cadmium	0.32
Copper	33
X Lead	210
Mercury	0.3
Selenium	<2.4
Silver	0.63
Zinc	110
4-4'-DDT	0.0046
Benzo(a)pyrene	<0.16
Benzo(b)fluoranthene	<0.16
Benzo(k)fluoranthene	<0.16
Dibenzo(a,h)anthracene	<0.16
Indeno(1,2,3-cd)pyrene	<0.16

BB2ASB104	2.0 (Qcol)
Arsenic	6.2
Barium	73
X Cadmium	3.0
Copper	33
Lead	8.5
Mercury	0.1
Selenium	<0.24
Silver	<0.24
Zinc	50
4,4-DDT	<0.0034
Benzo(a)pyrene	<0.35
Benzo(b)fluoranthene	<0.35
Benzo(k)fluoranthene	<0.35
Dibenzo(a,h)anthracene	<0.35
Indeno(1,2,3-cd)pyrene	<0.35

BB2ASB101A	2.0 (afw)
Arsenic	4.6
X Barium	390
X Cadmium	11
X Copper	150
X Lead	500
Mercury	0.18
Selenium	<0.26
Silver	1.2
X Zinc	720
X 4,4-DDT	0.06
Benzo(a)pyrene	0.026
Benzo(b)fluoranthene	<0.36
Benzo(k)fluoranthene	<0.36
Dibenzo(a,h)anthracene	<0.36
Indeno(1,2,3-cd)pyrene	<0.36

BB2ATP100	1 (afw)
Antimony	0.50 J-
Arsenic	2.3
Barium	49 J-
Cadmium	0.071 /J
Copper	21 J-
Lead	11 J-
Mercury	0.33
Selenium	0.23 /J
Silver	0.033 /J
Vanadium	14 J-
Zinc	36 J-
4,4'-DDT	NA
Benzo(a)pyrene	<0.14
Benzo(b)fluoranthene	<0.14
Benzo(k)fluoranthene	<0.14
Dibenzo(a,h)anthracene	<0.14
Indeno(1,2,3-cd)pyrene	<0.14
TPH Fuel Oil	490

BB2ASB100A	1.5 (afw)	1.5 (dup) (afw)
Arsenic	3.6	2.6
Barium	290	140
X Cadmium	2.9	3.4
Copper	75	23
X Lead	480	250
Mercury	0.11	0.16
Selenium	<0.25	<0.28
Silver	0.98	0.67
X Zinc	300	100
X 4,4-DDT	<0.035	0.043
X Benzo(a)pyrene	0.33	<3.8
X Benzo(b)fluoranthene	0.38	<3.8
X Benzo(k)fluoranthene	0.41	<3.8
Dibenzo(a,h)anthracene	<0.35	<3.8
Indeno(1,2,3-cd)pyrene	<0.35	<3.8

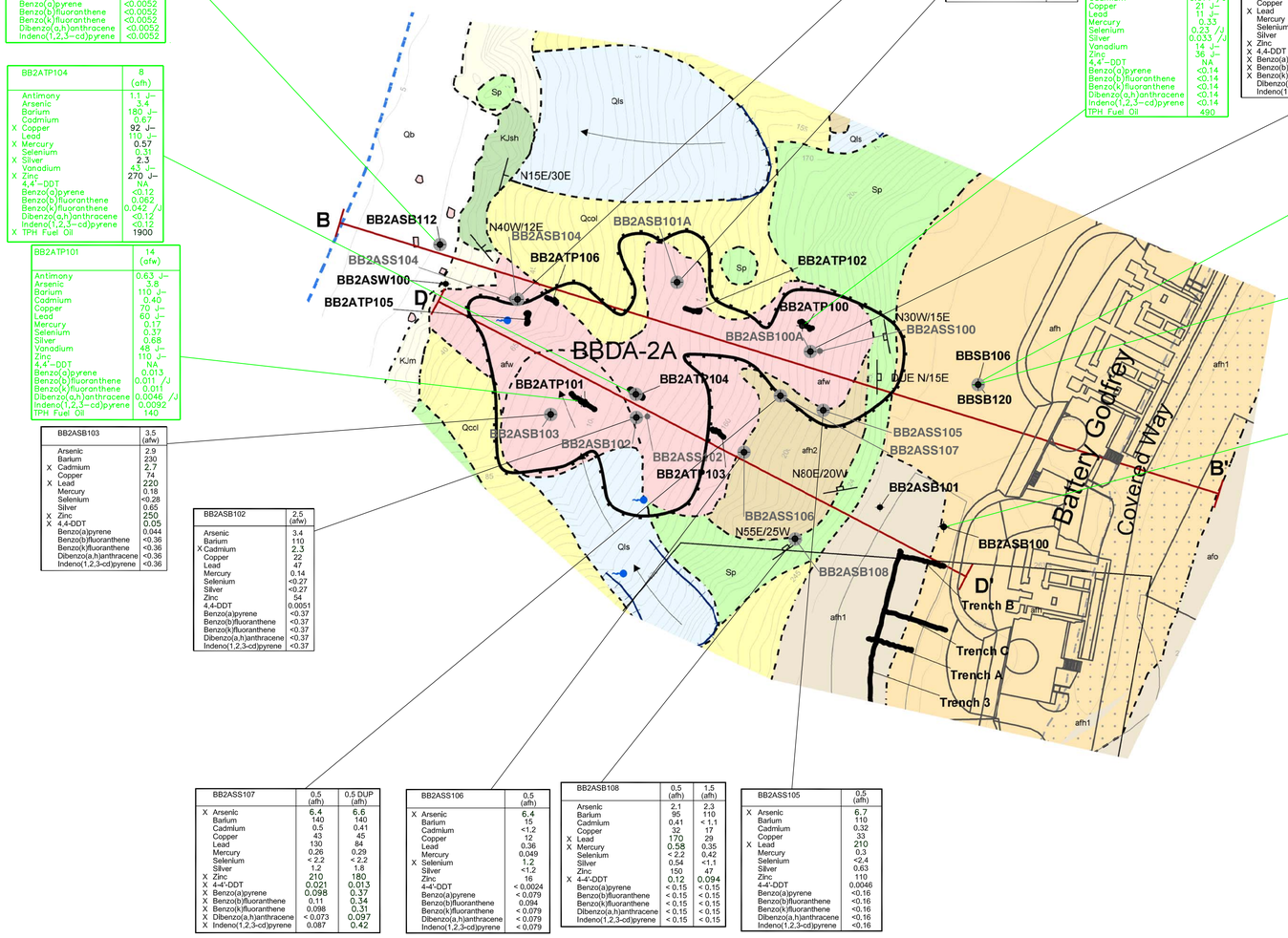
BBSB120	1.0 (afh)
Antimony	0.69 J-/J
Arsenic	4.2
Barium	67
Cadmium	0.16 /J
Copper	11
Lead	9.5
Mercury	0.047
X Selenium	0.58
Silver	<0.25 UJ
X Vanadium	75
Zinc	44
4,4'-DDT	NA
Benzo(a)pyrene	<0.064
Benzo(b)fluoranthene	0.06 J
Benzo(k)fluoranthene	<0.059 UJ
Dibenzo(a,h)anthracene	<0.012 UJ
Indeno(1,2,3-cd)pyrene	<0.035 UJ
TPH Fuel Oil	NA

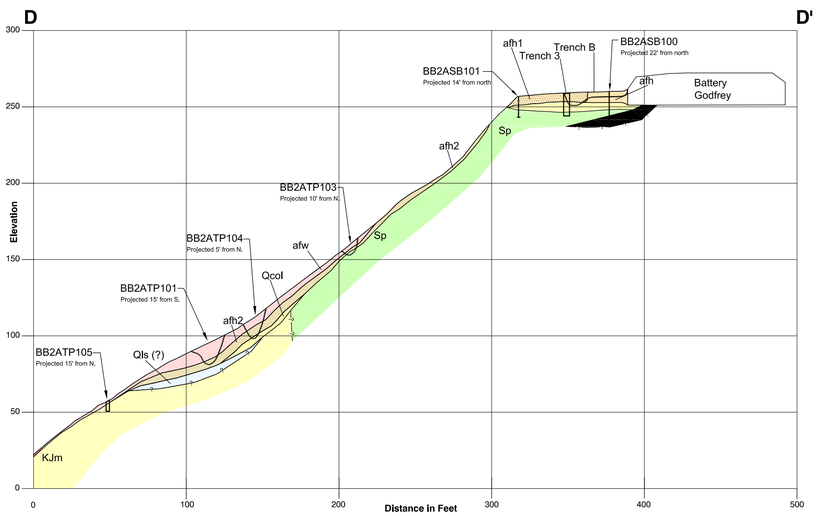
BBSB106	0.5 (afh)
Antimony	0.46
Arsenic	4.4
Barium	130
Cadmium	0.28
Copper	20
Lead	31 J-
Mercury	0.081
Selenium	0.35
Silver	0.15
Vanadium	49 J-
X Zinc	190
4,4'-DDT	<0.0078
X Benzo(a)pyrene	0.34
X Benzo(b)fluoranthene	0.28
Benzo(k)fluoranthene	0.25
X Dibenzo(a,h)anthracene	0.13
X Indeno(1,2,3-cd)pyrene	0.27
TPH Fuel Oil	NA

BB2ASB100	4 (afh)
Antimony	<0.43 UJ
Arsenic	4.0
Barium	130
Cadmium	0.064 /J
Copper	16
Lead	5.8
Mercury	<0.018
Selenium	0.28
Silver	0.017 /J
Vanadium	66 J-
Zinc	35 J+
4,4'-DDT	<0.0037
Benzo(a)pyrene	<0.0057
Benzo(b)fluoranthene	<0.0057
Benzo(k)fluoranthene	<0.0057
Dibenzo(a,h)anthracene	<0.0057
Indeno(1,2,3-cd)pyrene	<0.0057
TPH Fuel Oil	NA

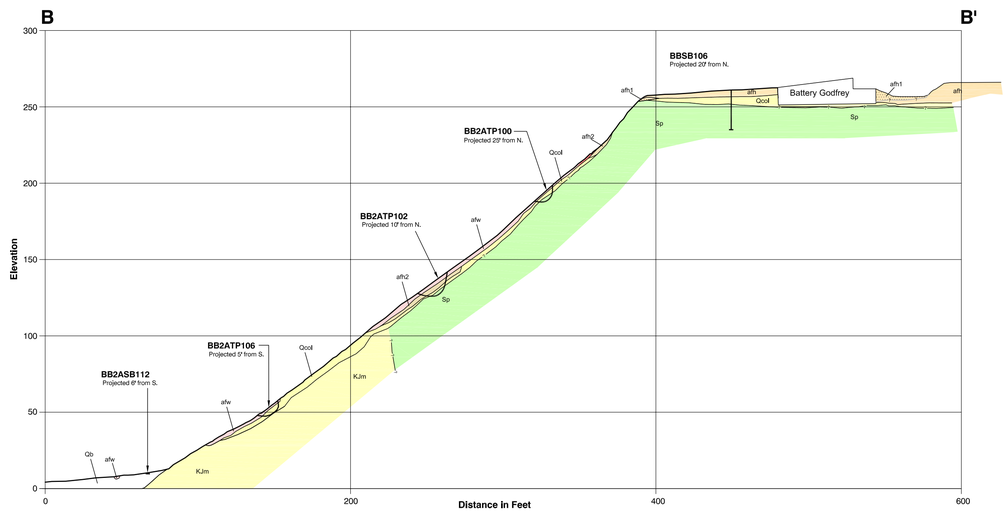
BBDA 2A Cleanup Levels Serpentinite, RES, ECO-SS	
COC	Conc.
Antimony	5
Arsenic	5.4
Barium	320
Cadmium	1.9
Copper	85
Lead	160
Mercury	0.4
Selenium	0.5
Silver	2
Vanadium	74
Zinc	160
4,4'-DDT	0.0082
Benzo(a)pyrene	0.027
Benzo(b)fluoranthene	0.27
Benzo(k)fluoranthene	0.27
Dibenzo(a,h)anthracene	0.078
Indeno(1,2,3-cd)pyrene	0.27
TPH Fuel Oil	980

BBDA 2A Cleanup Levels Beach / Dune	
COC	Conc.
Antimony	5
Arsenic	5.9
Barium	320
Cadmium	1.7
Copper	43
Lead	160
Mercury	0.4
Selenium	0.75
Silver	2
Vanadium	92
Zinc	66
4,4'-DDT	0.0082
Benzo(a)pyrene	0.027
Benzo(b)fluoranthene	0.27
Benzo(k)fluoranthene	0.27
Dibenzo(a,h)anthracene	0.078
Indeno(1,2,3-cd)pyrene	0.27
TPH Fuel Oil	980





Geologic Cross Section D-D'



Geologic Cross Section B-B'

MACTEC

EXPLANATION

- Geologic Contact, dashed where approximate, queried where uncertain.
- afh — Battery West Historic Fill: most recent construction and still in place (afh), disturbed on bluff top where stippled (afh1), and disturbed downslope where shaded (afh2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentinite
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- Qb — Beach Deposit
- Interpreted Extent of refuse - from GPS and EM Survey Data (MACTEC, 2005d)
- E E' — Geologic Cross-Section (see inset map)
- Seep
- BBSB08 — Boring (Pre-2005)
- BB2SB102 — Boring (2005)
- BB2TP100 — Test Pit
- Location Identified to have COCs above Cleanup Levels in Soil
- Bedding Attitude
- Joint Attitude

Station ID | Top of sample depth in feet | Duplicate sample and depth in feet | Lithology sampled

BB2ASB100A	1.5 (afw)	1.5 (dup) (afw)
Arsenic	3.6	2.6
Barium	290	140
Cadmium	2.9	3.4

Chemical of Concern | Detected concentration in milligram per kilogram

Results for samples collected for this investigation are shown in green typeface. Results shown in **BOLD** type face exceed applicable cleanup levels.

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <0.0078 = not detected at indicated reporting limit.
13. "RES, ECO-SS" = Residential and Ecological - Special Status
14. Seepwater samples are are not identified on this plate, but are described in the text, and analytical results are located on Table 9.

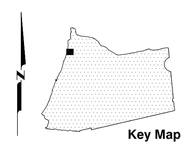


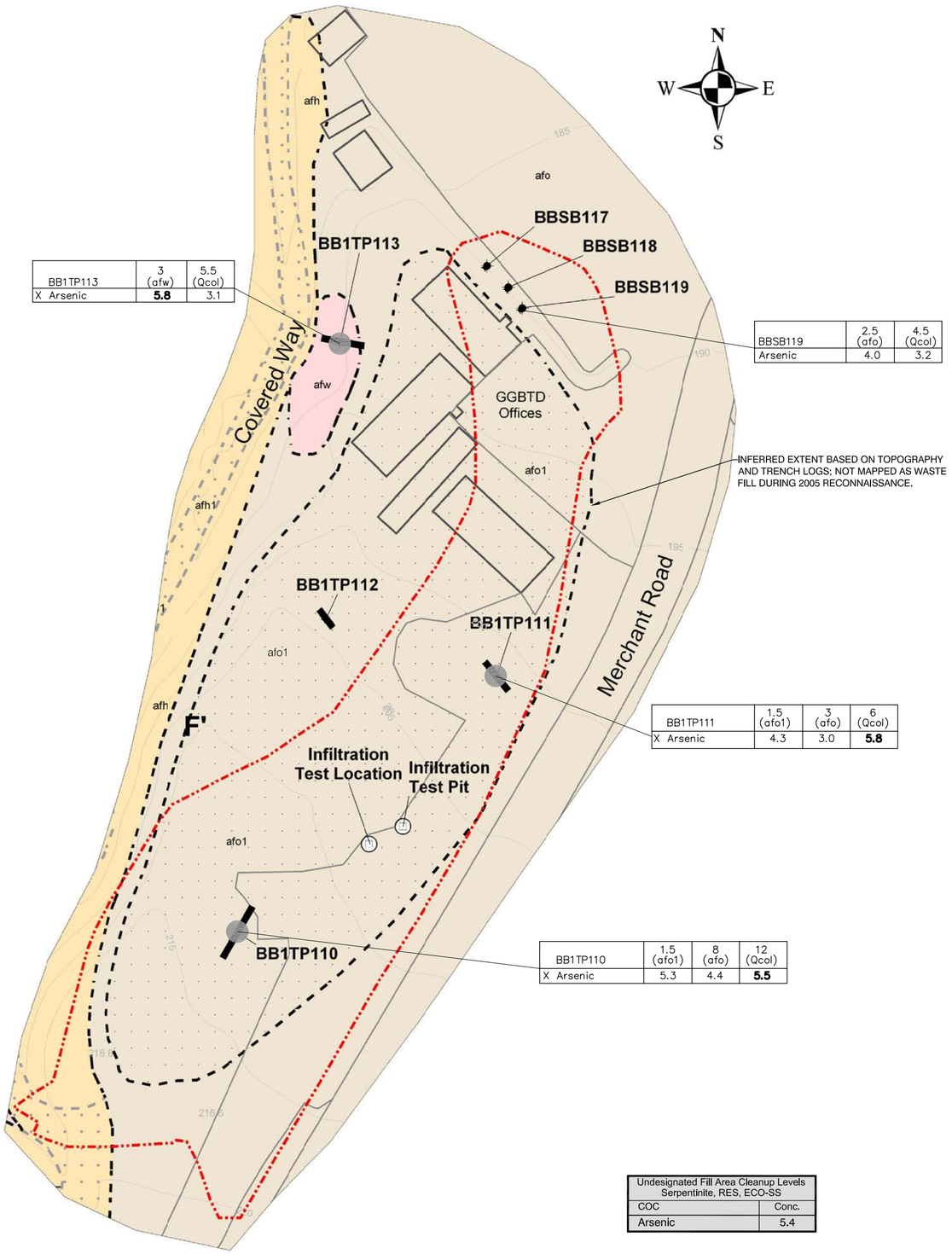
Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

BBDA-2A Exploration Map and Geologic Cross-Section
Field Investigation Report
Baker Beach Disturbed Area BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED	JHD	FIGURE	8
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005115		

57255112.DWG 0
20060605.1346

UNDESIGNATED FILL AREA



BB1TP113	3 (afw)	5.5 (Qcol)
X Arsenic	**5.8**	3.1

BBSB119	2.5 (afo)	4.5 (Qcol)
Arsenic	4.0	3.2

BB1TP111	1.5 (afo1)	3 (afo)	6 (Qcol)
X Arsenic	4.3	3.0	**5.8**

BB1TP110	1.5 (afo1)	8 (afo)	12 (Qcol)
X Arsenic	5.3	4.4	**5.5**

Undesignated Fill Area Cleanup Levels Serpentinite, RES, ECO-SS	
COC	Conc.
Arsenic	5.4

EXPLANATION

- Geologic Contact, dashed where approximate, queried where uncertain.
- afh — Battery West Historic Fill; where stippled disturbed on blufftop (afh1); where shaded disturbed downslope (ahf2)
- afw — Mixed Waste Fill
- afo — Other Fill; where stippled Other Fill with construction debris (afo1)
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentinite
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- Qb — Beach Deposit
- BB2SB102 — Boring (2005)
- BB2TP100 — Test Pit
- Location Identified to have COCs above Cleanup Levels in Soil
- Limits of Dump Fill from May 1967 Aerial Photo (Martini, 2005)

Station ID — Top of sample depth in feet — Duplicate sample and depth in feet — Lithology sampled

BB1TP110	1.5 (afw)	1.5 (dup) (afw)
Arsenic	5.3	5.3
Total Chlordane	0.0139	NA
Endrin aldehyde	<0.0037	<0.0037

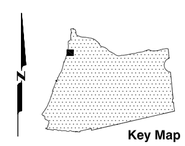
Chemical of Concern — Detected concentration in milligram per kilogram

a-chlordane = alpha-chlordane
g-chlordane = gamma-chlordane

Results for samples collected for this investigation are shown in green typeface. Results shown in **BOLD** type face exceed applicable cleanup levels.

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <0.0078 = not detected at indicated reporting limit.
13. "RES, ECO-BUFFER" = Residential and Ecological Buffer Zone Cleanup Levels
14. Total chlordane results are the sum of reported concentrations for alpha and gama chlordane.



0 50 100
APPROXIMATE SCALE IN FEET

57255115.DWG 40
20060606.0906

Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

MACTEC

THE PRESIDIO TRUST

Undesignated Fill Area
Field Investigation Report
Baker Beach Disturbed Area BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED	JHD	FIGURE	**9**
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005105		

BB1PZ101	5/27	8/1	8/1 UF	2/06	2/06 UF
Antimony	2.6 /J	3.1	1.3	1.9	3.8
X Arsenic	6.8	7.1	13 *	3.4	18 *
Cadmium	<5.0	<1.0	0.17 /J	<1.0	0.42 /J
X Copper	1.6 /J	1.2	60 **	0.56 J- /J	64 **J-
Chromium	0.69 /J	0.69	17 /J	1.0	37 J-
X Lead	0.26 /J	0.25	45 **	<0.62 U /J	56 **
X Mercury	<0.2	<0.2	<0.2	<0.2	0.30
X Nickel	10 /J	9.4	42	11	62 **
Selenium	0.60 /J	0.80 /J	1.9	1.3	1.7
X Zinc	18 /J	17 /J	75 J	14 /b	140 **
4,4'-DDT	<0.09	NA	NA	NA	<0.1
Benzo(a)anthracene	<0.09	NA	NA	NA	<0.1
Benzo(b)fluoranthene	<0.09	NA	NA	NA	<0.1
Chrysene	<0.09	NA	NA	NA	<0.1
TPH Fuel Oil (C24-C36)	58 /JY	NA	NA	NA	140 /J

BB1PZ101

Cations (meq/l) Anions (meq/l)

10 0.0 10

Na+K Cl

Ca HCO3+CO3

Mg SO4

−20.07

BB1PZ100

Cations (meq/l) Anions (meq/l)

10 0.0 10

Na+K Cl

Ca HCO3+CO3

Mg SO4

−13.87

BB1PZ100	2/06	2/06 UF	(DUP) 2/06	(DUP) 2/06 UF
Antimony	4.9	1.1	9.7	1.9
Arsenic	3.4	8.9	9.3	9.4
X Cadmium	<1.0	3.1 **	<1.0	3.3 **
X Copper	1.4 J-	74 **J-	2.1 J-	180 **J-
X Chromium	2.0 J-	180 **J-	1.3 J-	320 **J-
X Lead	2.2	1,800 **	1.5	2,000 **
X Mercury	8.5	7.5	8.9	11
X Nickel	11	230 **	13	360 **
Selenium	0.63 /J	1.8	1.1	2.4
X Zinc	19	2,200 **	23	2,000 **
4,4'-DDT	NA	<1.0	NA	<1.0
Benzo(a)anthracene	NA	<1.0	NA	<1.0
Benzo(b)fluoranthene	NA	<1.0	NA	<1.0
X Chrysene	NA	0.02 /J	NA	<1.0
X TPH Fuel Oil (C24-C36)	NA	1600	NA	3,100

BB2ASW100

Cations (meq/l) Anions (meq/l)

10 0.0 10

Na+K Cl

Ca HCO3+CO3

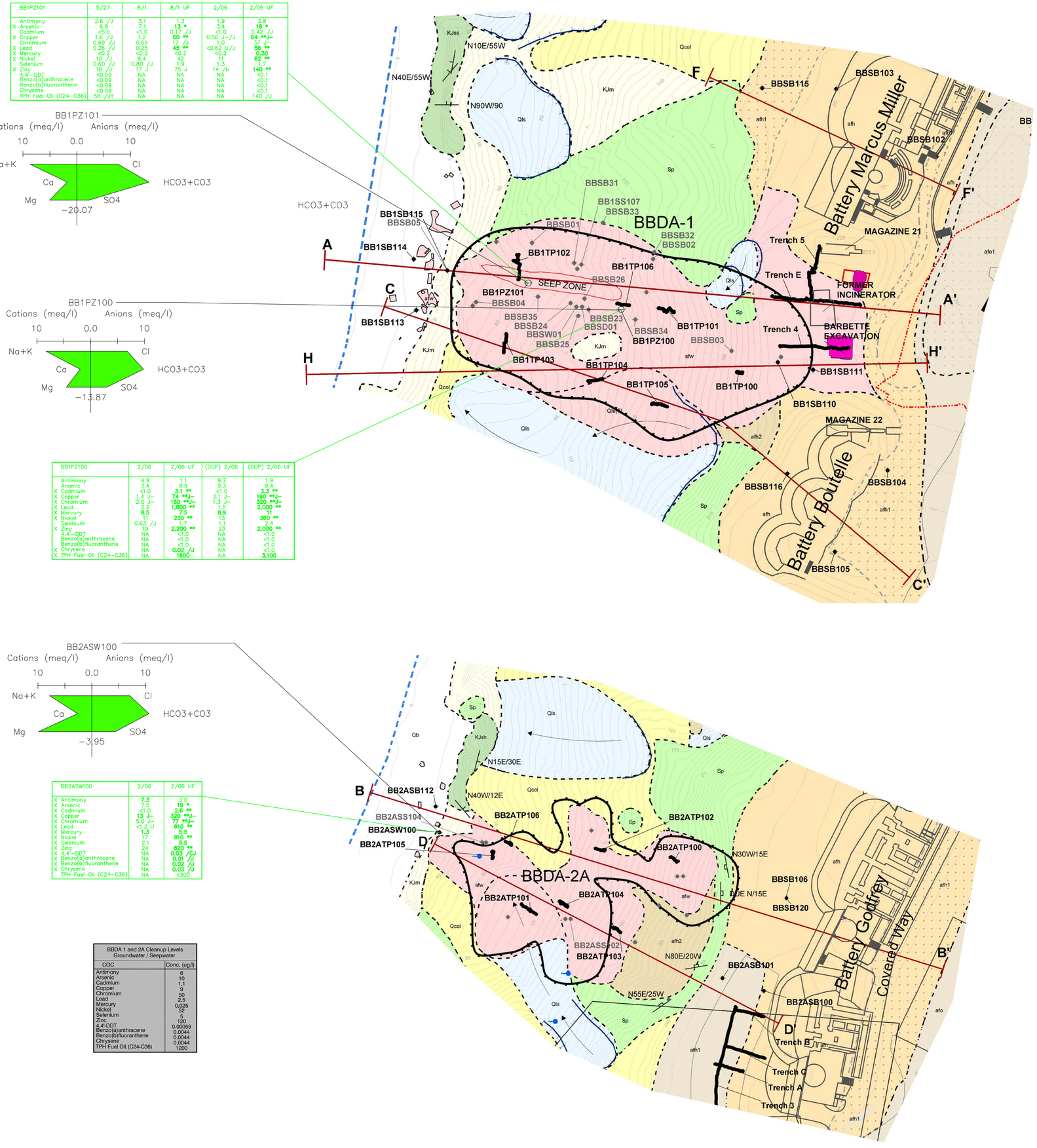
Mg SO4

−3.95

BB2ASW100	2/06	2/06 UF
X Antimony	7.3	3.0
X Arsenic	7.5	19 *
X Cadmium	<1.0	2.6 **
X Copper	13 J-	320 **J-
X Chromium	5.0 J-	77 **J-
X Lead	<1.2 U	610 **
X Mercury	1.3	5.5
X Nickel	17	810 **
X Selenium	2.1	5.5
X Zinc	24	820 **
X 4,4'-DDT	NA	0.03 /CJ
X Benzo(a)anthracene	NA	0.01 /J
X Benzo(b)fluoranthene	NA	0.02 /J
X Chrysene	NA	0.03 /J
TPH Fuel Oil (C24-C36)	NA	<300

BBDA 1 and 2A Cleanup Levels
Groundwater / Seepwater

COC	Conc. (ug/l)
Antimony	6
Arsenic	10
Cadmium	1.1
Copper	9
Chromium	50
Lead	2.5
Mercury	0.025
Nickel	52
Selenium	5
Zinc	120
4,4'-DDT	0.00059
Benzo(a)anthracene	0.0044
Benzo(b)fluoranthene	0.0044
Chrysene	0.0044
TPH Fuel Oil (C24-C36)	1200



EXPLANATION

- Geologic Contact, dashed where approximate, queried where uncertain.
- afh — Historic Fill: Endicott period fill that is still in place (afh), disturbed historic fill on bluff top where stippled (afh1), and disturbed historic fill downslope where shaded (ahf2)
- afw — Waste Fill
- afo — Other Fill
- Qls — Landslide Deposits
- Qcol — Colma Fm/Native Soils
- Sp — Serpentinite
- KJm — Melange
- KJss/KJsh — Sandstone Shale
- Qb — Beach Deposit
- Interpreted Extent of refuse - from GPS and EM Survey Data (MACTEC, 2005d)
- E E' — Geologic Cross-section (see inset map)
- Seep
- BBSB08 — Boring (Pre-2005)
- BB2SB102 — Boring (2005)
- Location Identified to have COCs above Cleanup Levels in Soil
- BB2TP100 — Test Pit

Station ID | Sample Date | Duplicate sample and date

BB1TP109	2/06	(Dup) 2/06
Arsenic	6.6	2.6
Barium	150	120
Cadmium	0.31	0.23

Detected concentration in microgram per liter

Chemical of Concern | Detected Concentration

Results for samples collected for this investigation are shown in green typeface.
Results shown in **BOLD** type face exceed applicable cleanup levels.

"X" = Indicates the chemical exceeds clean- up level at this location.

Cations (meq/l) Anions (meq/l)

50 0.0 50

Sodium&Potassium (Na+K) Chloride (Cl)

Calcium (Ca) Alkalinity (HCO3+CO3)

Magnesium (Mg) Sulfate (SO4)

−3.95

ALL CONCENTRATIONS IN MILLIEQUIVALENTS PER LITER

Notes:

1. See Geologic Exploration Map (Plate 2) for location.
2. All previous boring locations are approximate.
3. Basemap was provided by Presidio Trust.
4. "X" = Indicates the chemical exceeds clean-up level at this location.
5. ft bgs = feet below ground surface
6. COC = Chemical of Concern
7. All concentrations in mg/kg.
8. NA = Not Analyzed
9. "J+" = Estimated High Bias
10. "J-" = Estimated Low Bias
11. "U" = Qualified as No-Detection
12. <0.0078 = not detected at indicated reporting limit.
13. "RES, ECO-SS" = Residential and Ecological - Special Status
14. "*" = Exceeds drinking water cleanup level; cleanup level is for dissolved metals and is therefore considered applicable to filtered samples only.
15. "**" = Exceeds surface water cleanup level; cleanup level is for dissolved metals and is therefore considered applicable to filtered samples only.

0 50 100

APPROXIMATE SCALE IN FEET

Figure modified from Main Installation Sites Feasibility Study (EKI, 2003).
All locations are approximate.

BBDA-1 and 2A Seep Exploration Map
Field Investigation Report
Baker Beach Disturbed Area
BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

CHECKED	JHD	FIGURE	10
APPROVED	MJH		
DATE	6/8/06		
PROJECT NUMBER	57255 005115		

3225501 DWG 1
3225501.DWG

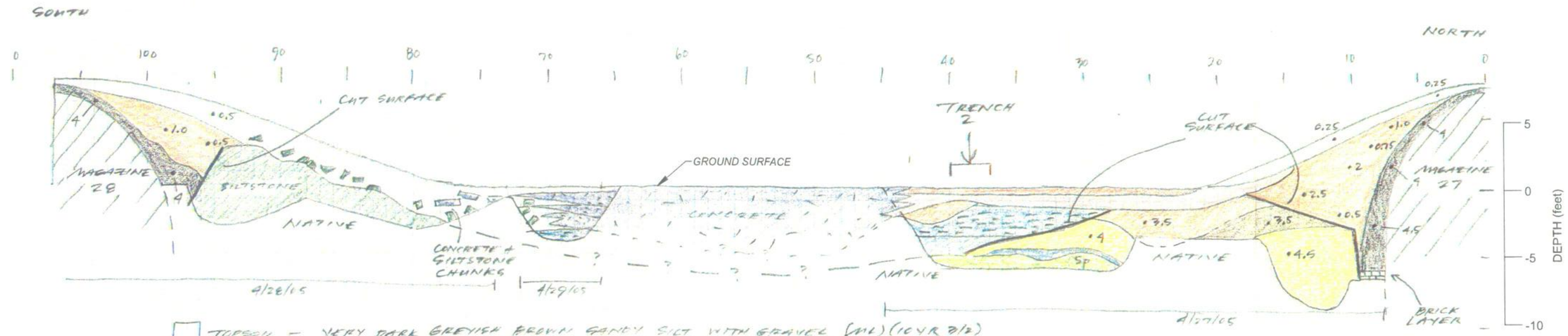
APPENDIX A

EXPLORATORY LOGS

APPENDIX A1

EXPLORATORY TRENCH LOGS

Trench 1



TOPSOIL – VERY DARK GREYISH BROWN SANDY SILT WITH GRAVEL (ML)(10YR 3/2) SOFT, DRY TO MOIST, GENERALLY 60% SILT 20% SAND 20% GRAVEL

MIXED CLAY FILL – MIXTURE OF YELLOWISH BROWN (10YR 5/6) AND VERY DARK BROWN (10YR 2/2) LEAN CLAY (CL) SOFT, MOIST., 80% CLAY 20% SILT, OCCASIONALLY SANDY.

CONSTRUCTION CLAY – BLACK LEAN CLAY (CL) (10YR 2/1) HARD TO VERY HARD, MOIST. 100% CLAY. COMPACTED ON SIDES OF STRUCTURES.

CONCRETE – MULTIPLE LAYERS OF CONCRETE AND CEMENT GROUT (SOME WITH COLOURING AGENTS ADDED) PRESUMED TO BE AN OLD WASH OUT AREA.

CHERT FILL (1) – DARK REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW)(5Y 3/2) DENSE, DRY. 70% GRAVEL (ANGULAR CHERT TO 1.5" Ø) 20% SAND <10% FINES

CHERT FILL (2) – AS ABOVE, BUT LIGHTER COLOUR - REDDISH GREY (5Y 5/2)

FILL SAND (1) – VERY DARK GREY POORLY GRADED SAND WITH CLAY INCLUSIONS (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE, DRY TO MOIST. 70% SAND. 30% YELLOWISH BROWN CLAY.

FILL SAND (2) – VERY DARK GREY POORLY GRADED SAND (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. MOIST. 100% SAND.

NATIVE MATERIALS

SILTSTONE – OLIVE GREY SILTSTONE (5Y 5/2)( ) MODERATELY CONSOLIDATED. CLOSELY FRACTURED LOW HARDNESS. WEAK, DEEPLY WEATHERED

CLAY (1) – VERY DARK GREYISH BROWN LEAN CLAY (CL) (10YR 3/2) HARD, MOIST. 80% CLAY 15% SILT 5% VERY FINE CHERT SAND.

CLAY (2) – YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/6) HARD, MOIST., 100% CLAY. WITH FeO_2 MOTTLE, AND BLACK OXIDATION ALONG FRACTURES. IN PLACES RESEMBLES WEATHERED ROCK.

SAND – DARK GREYISH BROWN SILTY SAND (SM) (2.5Y 4/2) DENSE, WET. 60% VERY FINE SAND 40% SILT/FINES. HAS BEDDING PLANES. THIN LAMINATIONS.

SERPENTINITE – LIGHT OLIVE BROWN (2.5Y 5/3) TO GREENISH GREY (5GY 5/1). MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW TO MODERATE HARDNESS. FRIABLE TO WEAK. DEEPLY WEATHERED.

• 4.5 – POCKET PENETROMETER

SECTIONS TRENCHED 4/27 THRU 4/29/05.
BACKFILLED 4/28 AND 4/29/05

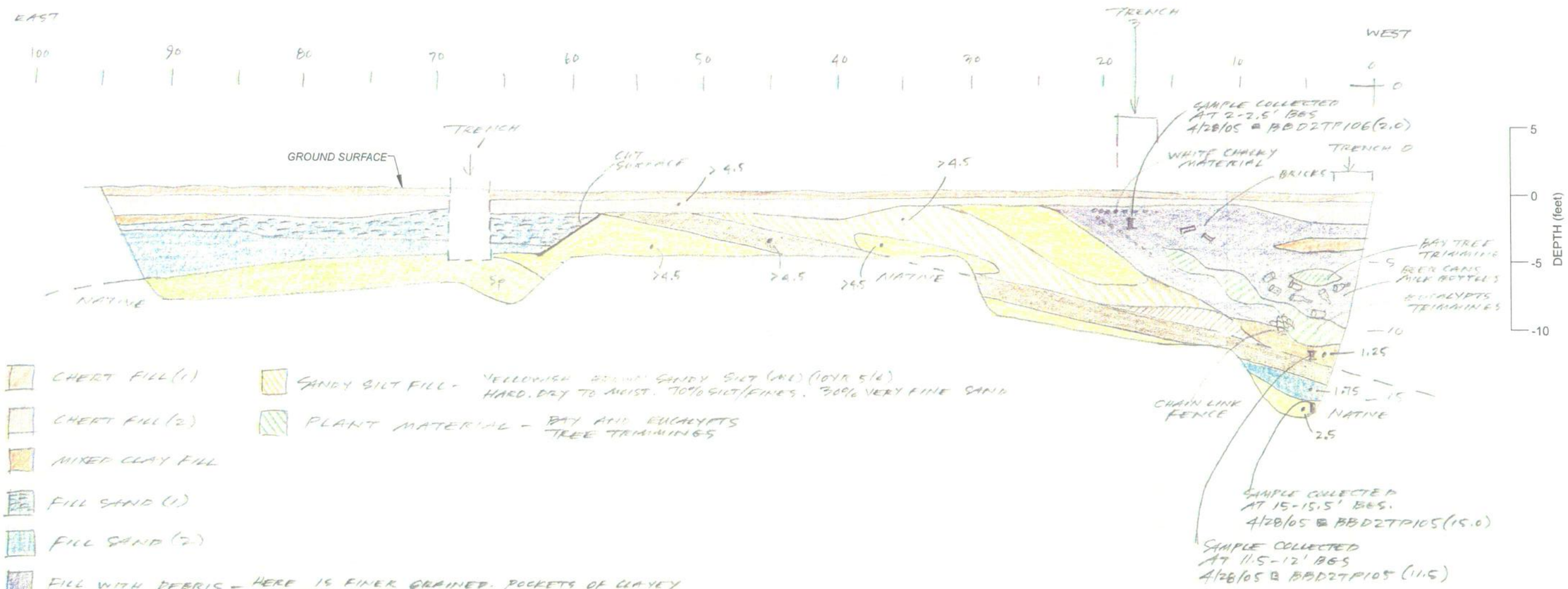
MACTEC

Field Log of Trench 1
Baker Beach
San Francisco, California

PLATE **A1**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 05125		07/05	May	6-8-06

Trench 2



CHERT FILL (1)

CHERT FILL (2)

MIXED CLAY FILL

FILL SAND (1)

FILL SAND (2)

FILL WITH DEBRIS – HERE IS FINER GRAINED. POCKETS OF CLAYEY AND GRAVELLY MATERIAL.

GRAVELLY FILL – HERE WITH SERPENTINITE AND SILTSTONE IN CLAY MATRIX

CLAY (3) – HERE WITH BRICK AND METAL DEBRIS.

SANDY SILT FILL – YELLOWISH BROWN SANDY SILT (ML) (10YR 5/2) HARD. DRY TO MOIST. 70% SILT/FINES. 30% VERY FINE SAND

PLANT MATERIAL – BAY AND EUCALYPTS TREE TRIMMINGS

NATIVE MATERIAL

CLAY (1)

CLAY (2)

CLAY (4) – VARIATION ON CLAY (1) WITH RED OXIDES ALONG RELICT ROOT FEATURES.

SILT – GREYISH GREEN SILT (ML) (5G 5/2) REAL. MOIST. 70% SILT 20% CLAY 10% VERY FINE SAND. LOOKS STAINED. ANOXIC ODOR.

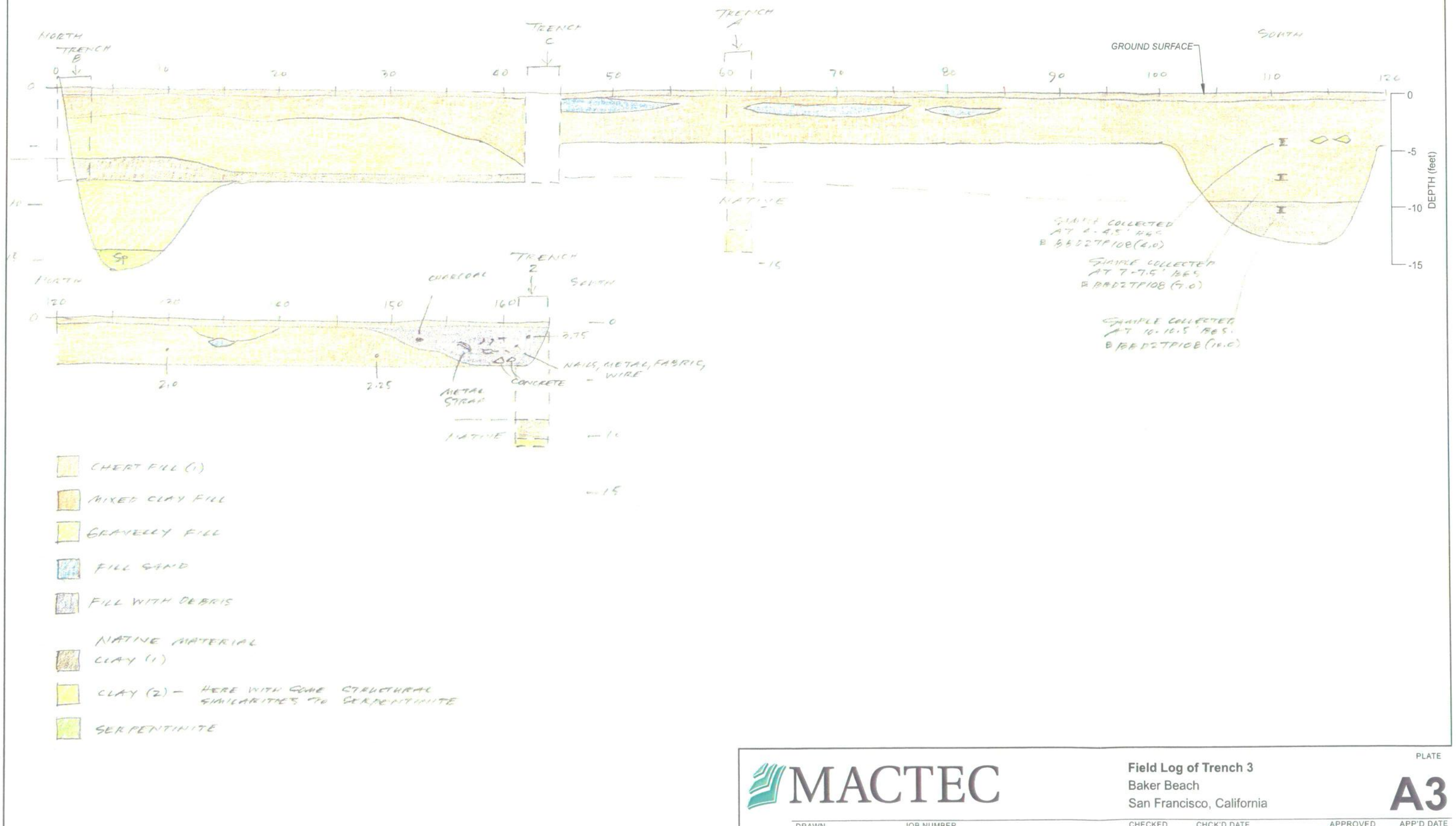
MACTEC

Field Log of Trench 2
Baker Beach
San Francisco, California

PLATE **A2**

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APP'D DATE
CN	57255.005125		07/05	Mad	6-8-06

Trench 3



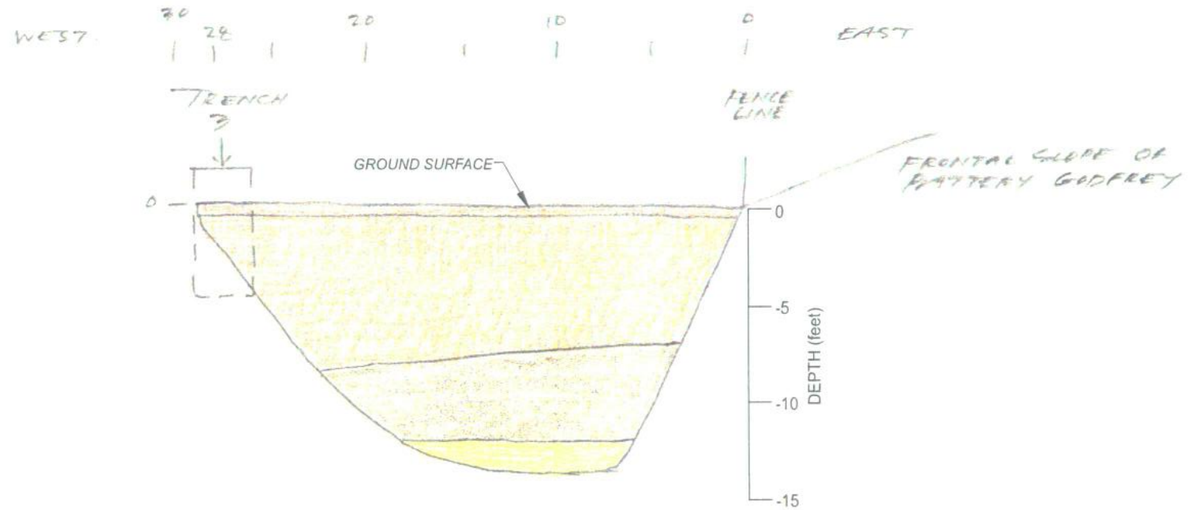
MACTEC

Field Log of Trench 3
Baker Beach
San Francisco, California

PLATE
A3

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05	Mal	6-8-06

Trench A



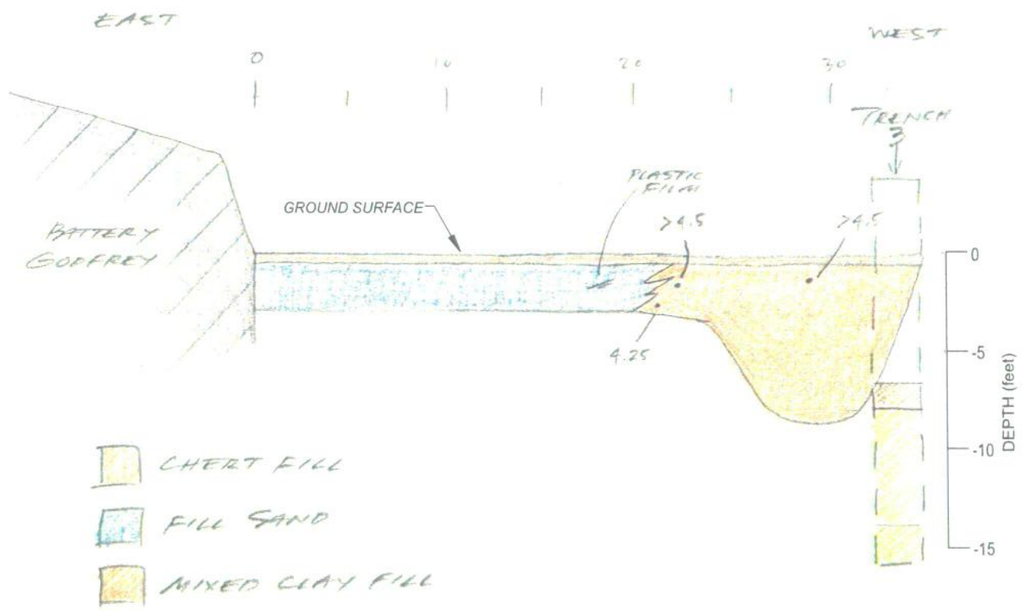
MACTEC

Field Log of Trench A
Baker Beach
San Francisco, California

PLATE
A4

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255.005125		07/05	MKL	6-8-06

Trench B



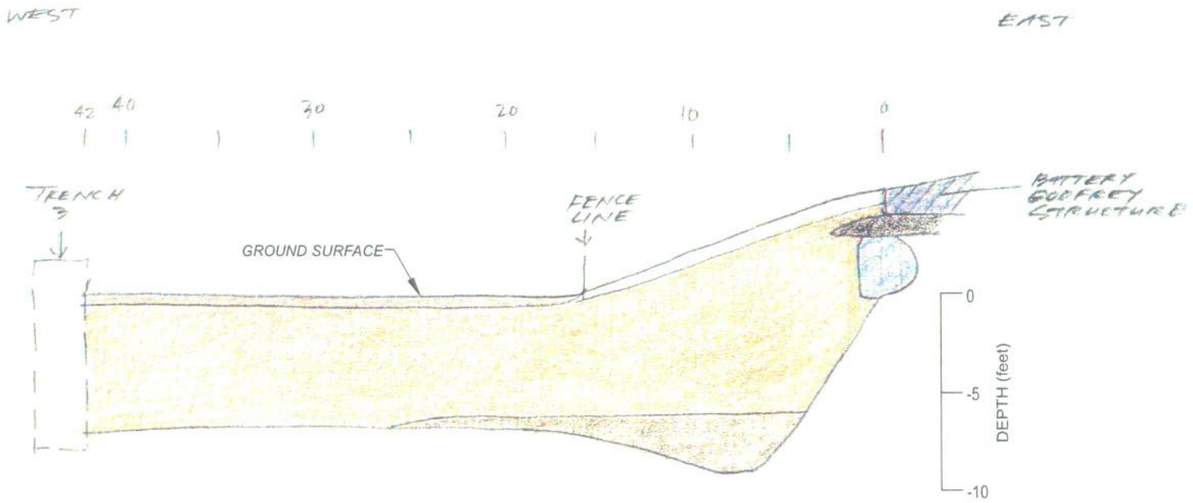
MACTEC

Field Log of Trench B
Baker Beach
San Francisco, California

PLATE
A5

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
GN	57255.005125		07/05	MM	6-8-06

Trench C



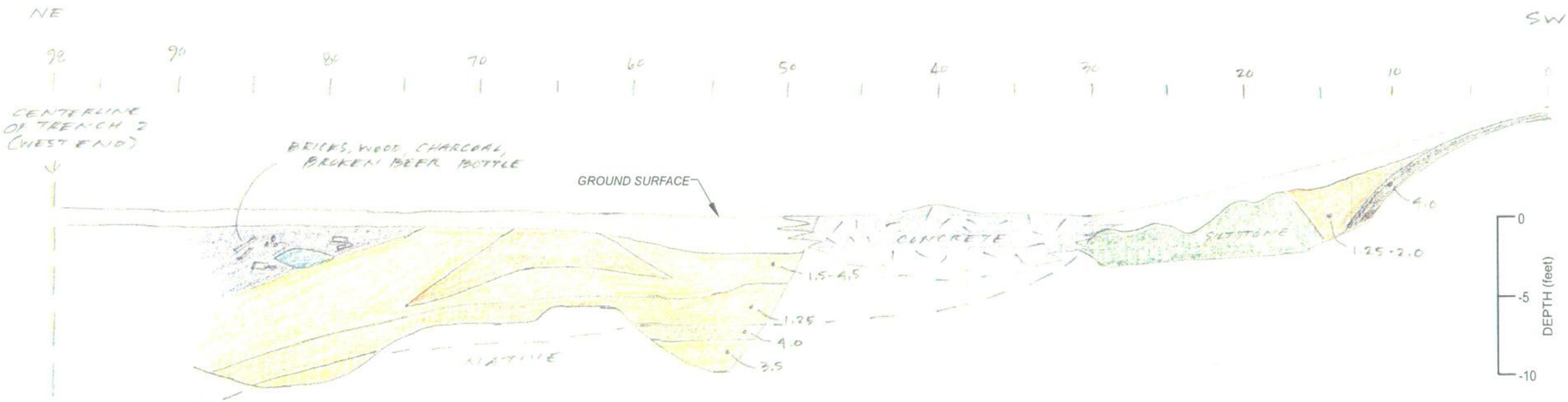
MACTEC

Field Log of Trench C
Baker Beach
San Francisco, California

PLATE
A6

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255.005125		07/05	MM	6-8-06

Trench D



FILL SAND (2)

TOPSOIL

CHERT FILL (2)

MIXED CLAY FILL

CONSTRUCTION CLAY

GRAVELLY FILL - LIGHT OLIVE BROWN CLAYEY GRAVEL (GC) (2.5Y 5/4) LOOSE TO MEDIUM DENSE, MOIST, 80% ANGULAR SILTSTONE TO 2" Ø, 20% CLAY/FINES, CLAY.

FILL WITH DEBRIS - VERY DARK GREY SILTY GRAVEL WITH SAND (GM) (2.5Y 3/2) LOOSE TO DENSE, DRY TO MOIST 50% GRAVEL 30% SILT 20% SAND, WITH DEBRIS.

CLAY (3) - VERY DARK GREY LEAN CLAY (CL) (10YR 3/1) FIRM, MOIST 80% CLAY 20% SILT, TEXTURALLY DISTURBED

NATIVE MATERIALS

SILTSTONE

CLAY (1) - HERE WITH RED OXIDES ALONG RELICT ROOT FEATURES

CLAY (2) - HERE WITH WEATHERED, DEGRADED SILTSTONE CLASTS.

TRENCHED & BACKFILLED 4/29/05

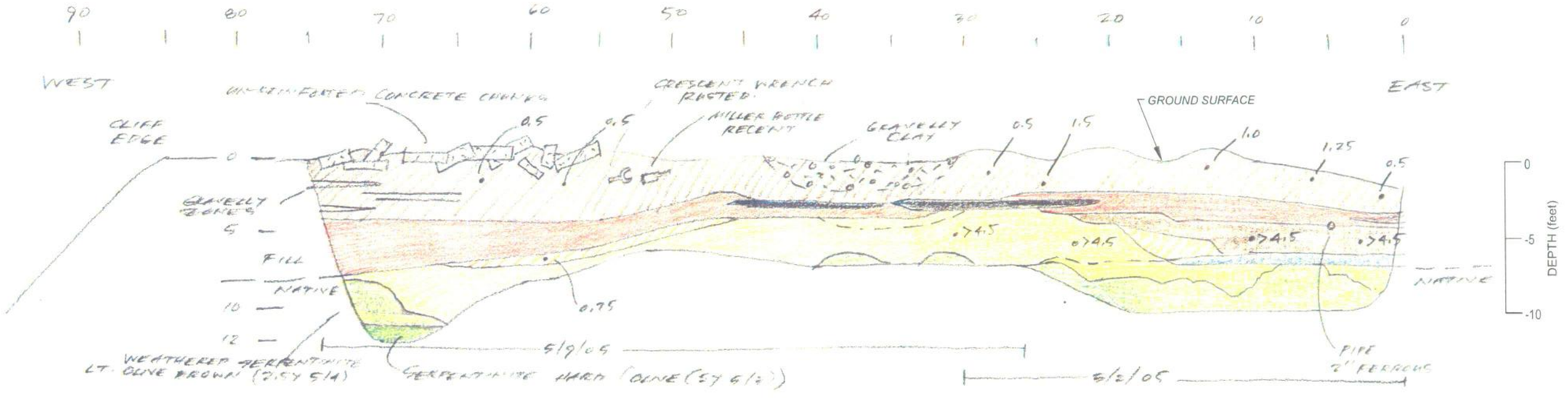
MACTEC

Field Log of Trench D
Baker Beach
San Francisco, California

PLATE **A7**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05	MGM	6-8-06

Trench 4



CLAY FILL – VERY DARK GREYISH BROWN SANDY CLAY (CL) (10YR3/2) SOFT TO FIRM, MOIST. 70% CLAY/FINES. 30% SAND. OCCASIONAL GRAVEL.

OLD ROAD BED – ASPHALT + GRAVEL/SAND, OCCASIONAL NAIL

CHERT FILL – HERE WITH A THIN LAYER OF VERY DARK GREYISH BROWN COARSE ANGULAR SAND

SILT – NOT NATIVE AT THIS LOCATION. INCLUSIONS OF YELLOWISH BROWN CLAY.

SAND – YELLOWISH BROWN

CLAY – YELLOWISH BROWN CLAY

CLAY FILL – MATERIAL AS ABOVE WITH 20-30% SERPENTINITE GRAVEL + COBBLES.

SERPENTINITE-DERIVED CLAY – SAME + APPEARANCE OF SERPENTINITE. HAS SLICKENSIDES. SOFT CLAY TEXTURE

SERPENTINITE

AM HENKE
MACTEC
5/2/05 – 5/9/05
PRESIDIO OF SF

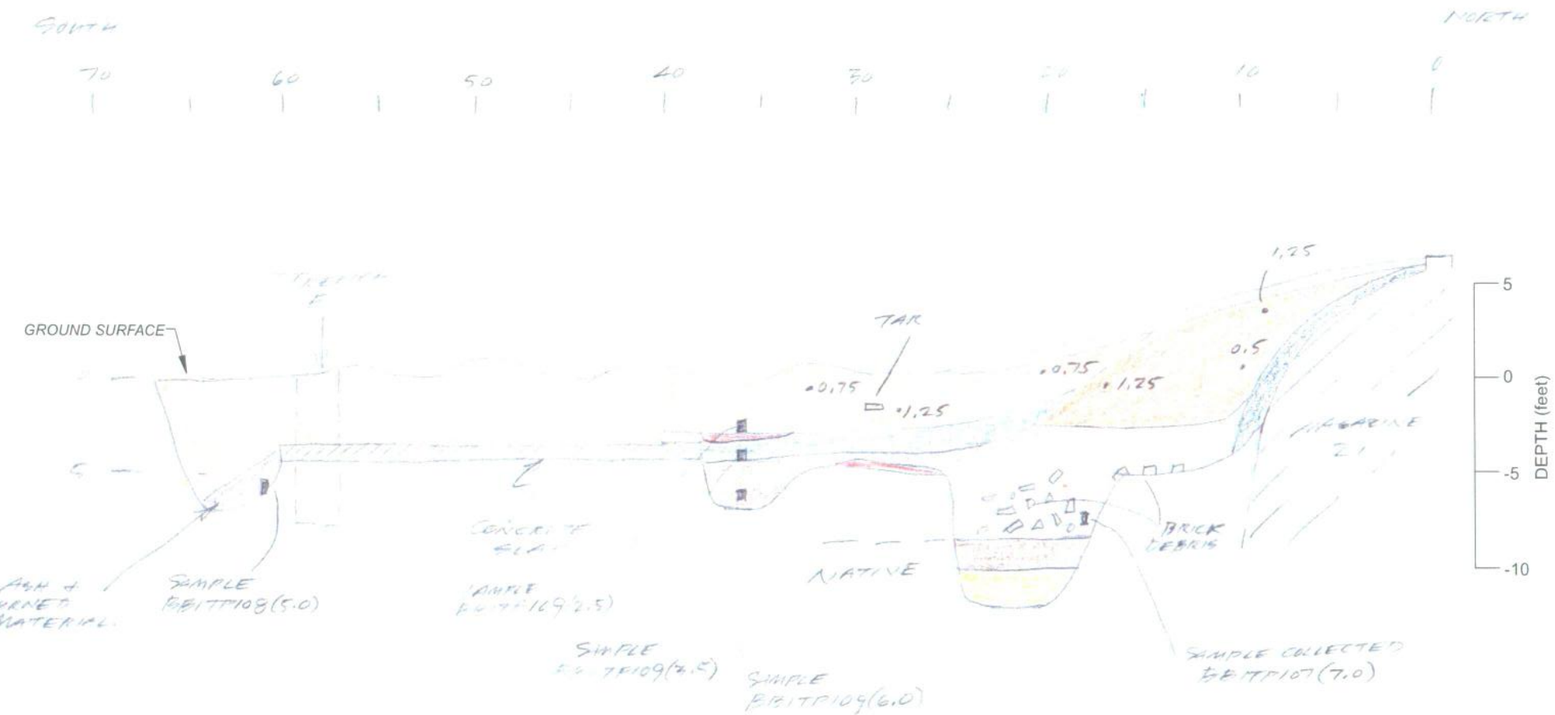
MACTEC

Field Log of Trench 4
Baker Beach
San Francisco, California

PLATE **A8**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255.005125		07/05	may	6-8-06

Trench 5



- MIXED CLAY FILL - HERE GRAVEL (20-30%) IS PRESENT IN SOUTHERN EXTENT
- SAND - YELLOWISH BROWN
- SILT - HERE IN BOTH NATIVE FORM, AND AS FILL WITH BRICK DEBRIS TO THE NORTH, AND OTHER MIXED SOIL FILL MATERIAL TO THE SOUTH.
- CLAY - YELLOWISH TAN CLAY
- CONSTRUCTION SAND - VERY DARK GREY SILTY SAND (SM) (2.5Y N3/0) DENSE, MOIST. 80% FINE - VERY FINE SAND 20% SILT.
- DEBRIS FILL - PRIMARILY ASH & BURNED METAL
- TOPSOIL

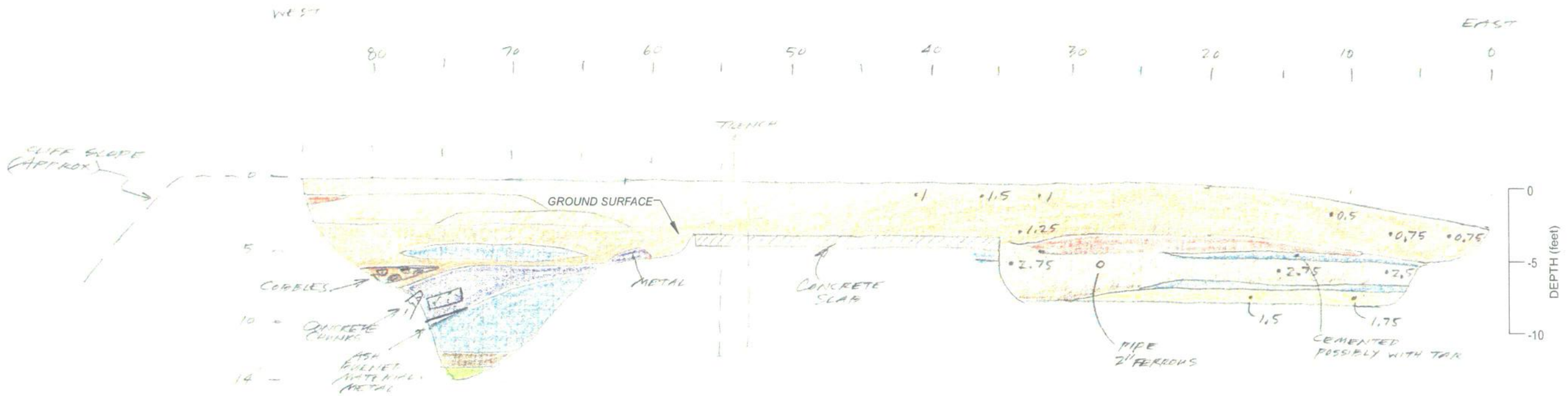
MACTEC

Field Log of Trench 5
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE **A9**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		10/05	MAL	6-8-06

Trench E



MIXED CLAY FILL – DARK BROWN LEAN CLAY WITH GRAVEL (CL) (10YR 3/3) SOFT TO FIRM. MOIST. CONTAINS INCLUSIONS OF YELLOWISH BROWN CLAY (10YR 5/4) 80% CLAY 20% GRAVEL.

CHERT FILL – REDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 4/3) DENSE. DRY. 80% GRAVEL (ANGULAR) 15% SAND 5% FINES

SAND – DARK YELLOWISH BROWN SILTY SAND (SM) (10YR 4/4) DENSE. MOIST. 80% VERY FINE SAND 20% SILT. SOME FeO_2 STAINING IN PATCHES

GRAVEL FILL – DARK GREY TO BROWN SILTY GRAVEL WITH SAND (GM) (10YR 4/1 – 10YR 5/2) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 60% ANGULAR GRAVEL 20% SAND 20% SILT/FINES. PLACED IN LIFTS DISTINGUISHED BY COLOUR CHANGE.

SILT – VERY DARK GREYISH BROWN (CLAYEY) SILT (ML) (10YR 3/2) HARD. DRY TO MOIST 70% SILT 30% CLAY. NATIVE OR DISTURBED NATIVE.

CLAY – YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/6) HARD-MOIST. 90-100% CLAY. SOME FINE SAND. FeO_2 MOTTLE AND BLACK OXIDES ALONG FRACTURES

DEBRIS FILL – GREY WELL-GRADED GRAVEL WITH SAND (GW) (2.5YN 5/0) LOOSE. DRY. 60% GRAVEL. 20% SAND. 20% DEBRIS - INCL. CONCRETE, METAL, ASH, GLASS.

SERPENTINITE

MACTEC

Field Log of Trench E
Baker Beach
San Francisco, California

PLATE
A10

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APP'D DATE
CN	57255.005125		07/05	JMH	6-8-06

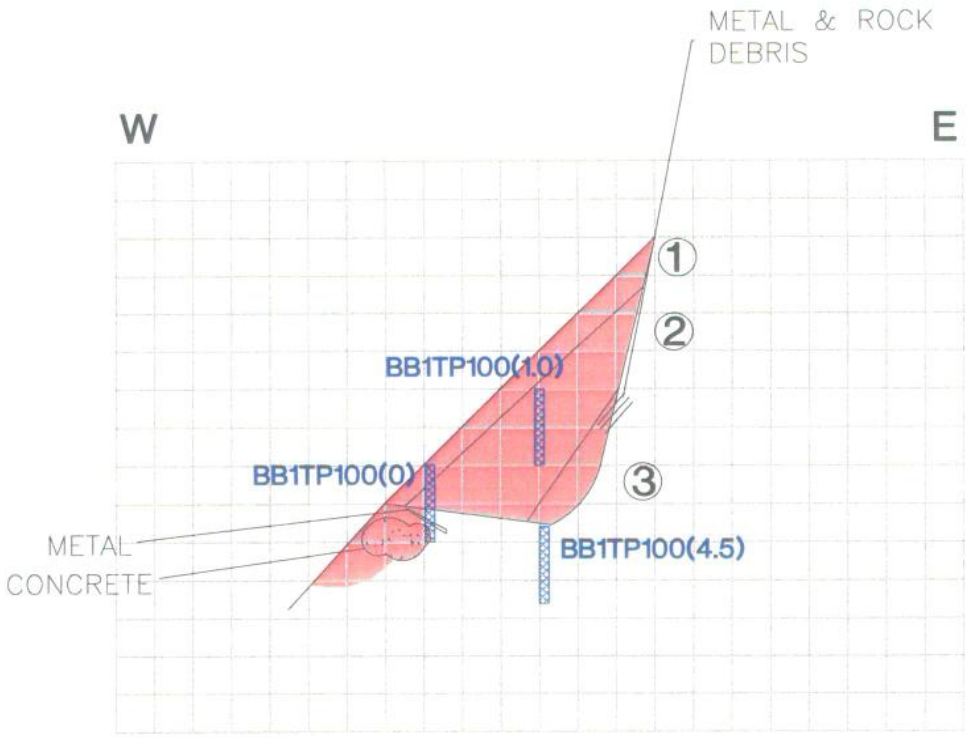
APPENDIX A2

TEST PIT LOGS

(1) Dark brown clayey sand (SC) (10YR 3/3) Soft, wet. 60. Clay/fines, 20% Gravel, 20% Sand. Little refuse, fill soil.

(2) Dark yellowish brown clayey sand (SC)(10YR 4/4) Loose, wet. 70% Fine sand, 30% Silt/Fines.

(3) Very dark greyish brown sandy fat clay (CH) (10YR 3/2) soft wet. 50% Clay, 30% Sand, 20% Silt. With debris in layers, metal, glass, asphalt, tar, wood, sweater/cloth fragments, spark plug.



BB1TP100

BB1TP100(4.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

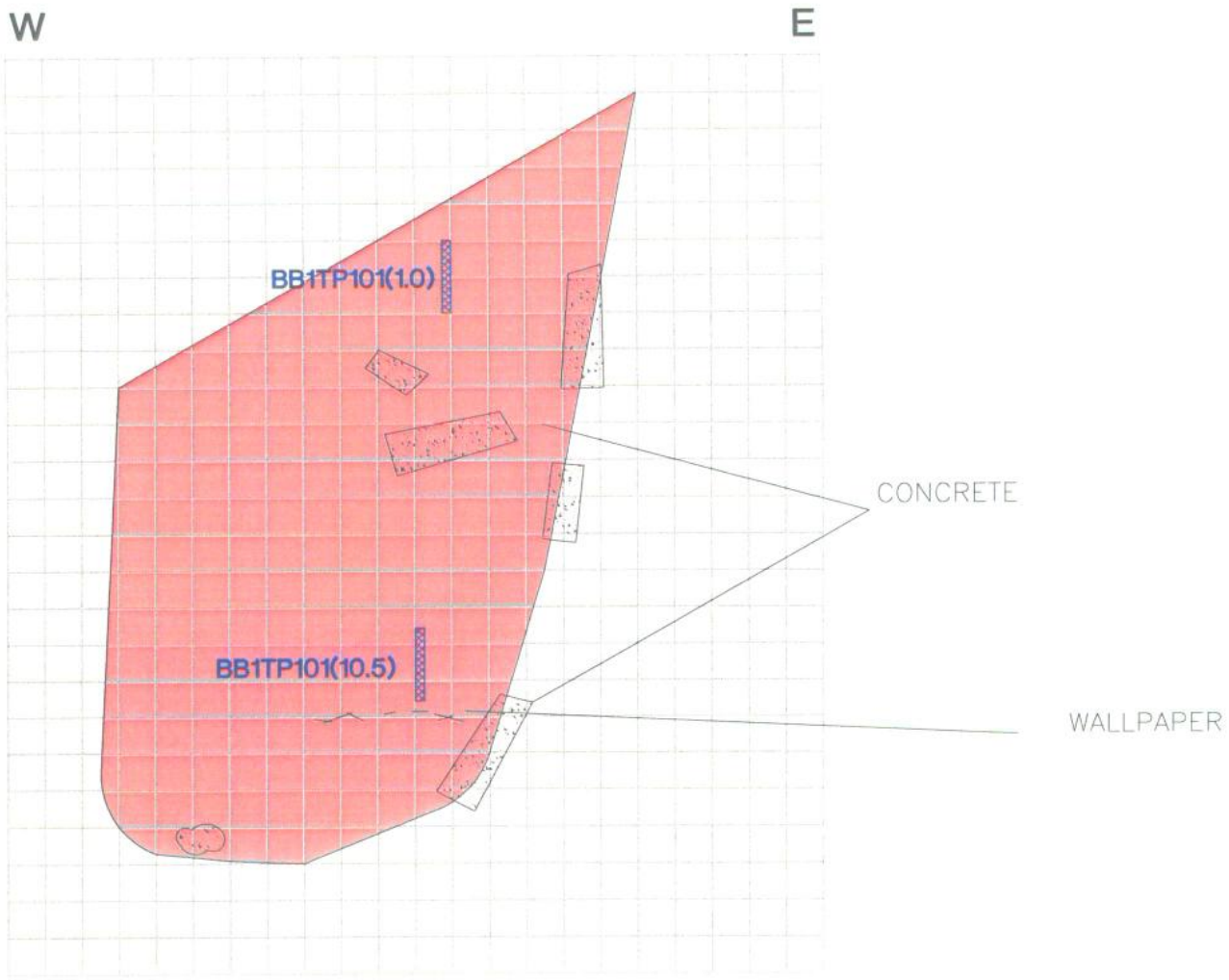
Test Pit Log BB1TP100
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-1

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mg	6-8-06

Dark brown sandy lean clay with gravel (CL)(10YR 3/3) medium dense moist. 60% Sand, 30% Clay/fines, 10% Gravel with concrete and some brick debris. Some small and discontinuous layers of colma fill within the material.

BB1TP101(10.5)
GEOTECHNICAL TEST SAMPLE



BB1TP101

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP101
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-2

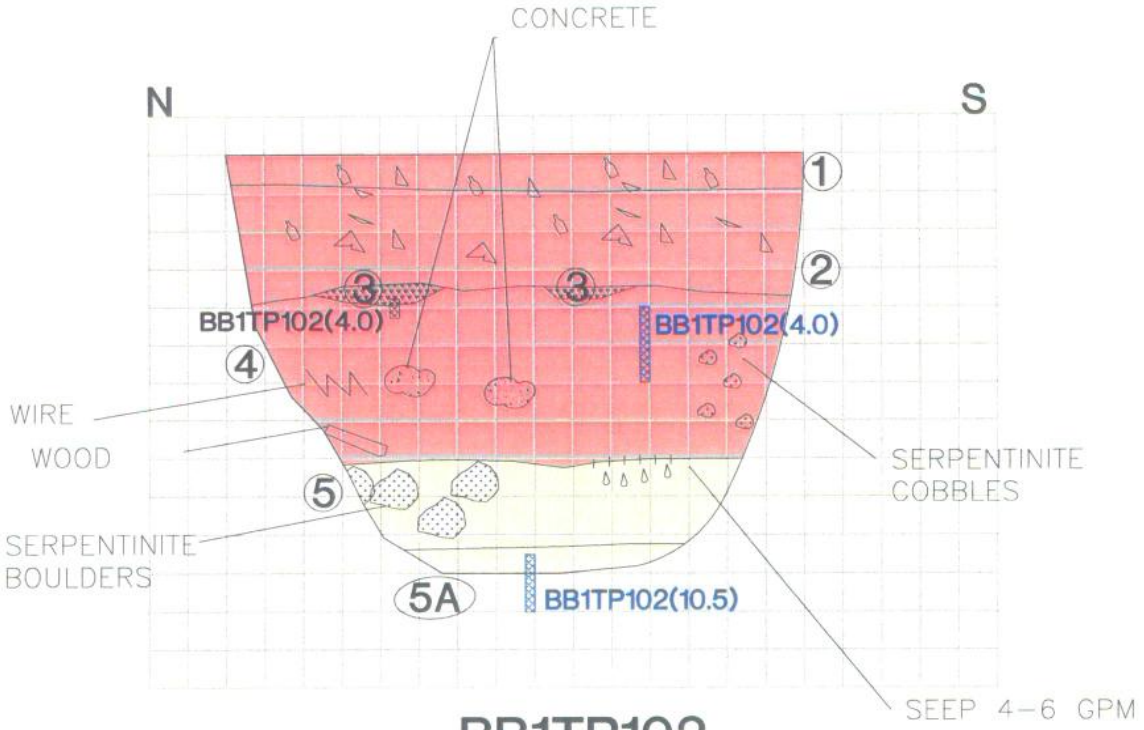
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	My	6-8-06

(1) Very dark greyish brown sandy silt (ML) (10YR 3/2) Soft, Moist. 60%, Silt 40%. Mostly household refuse: china, glass, bottles.

(2) Dark greyish brown gravelly lean clay (CL)(2.5YR 4/2) Soft, wet. 60% Clay/fines, 30% Angular Gravel, 10% Sand. Saturated. Filled with household waste some darkened zones.

(3) Some melted glass bottles.

(4) Very dark grey clayey gravel (GC)(2.5YR 3/0). Loose, wet. 70% Gravel/sand/debris, 30% fines.



BB1TP102

(5) Very dark grey Melange (KJm)(2.5Y 3/0) Moderately consolidated. Stiff. Moderately fractured. Low to moderate harness, weak to friable, moderate to deep weathering.

(5A) Melange with homogenous texture.

BB1TP102(10.5) GEOTECHNICAL TEST SAMPLE

BB1TP102(4.0) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP102
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-3

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mgj	6-8-06

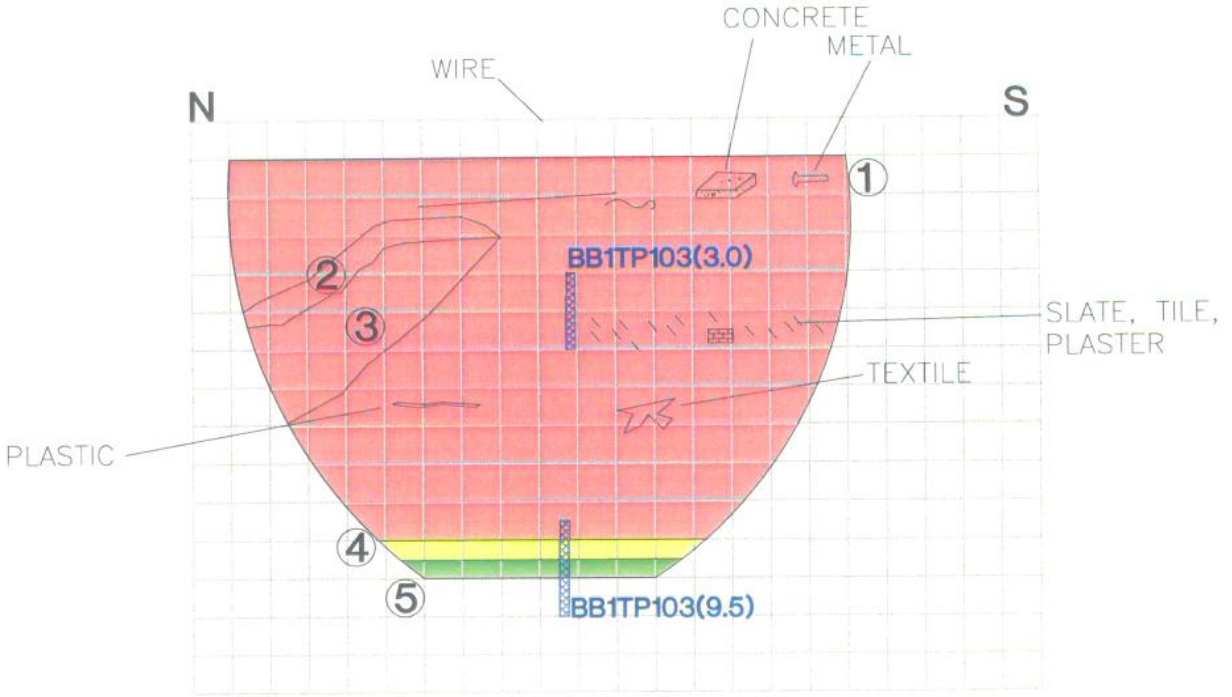
(1) Very dark brown sand w/ silt and gravel (SP–SM) (10YR 2/2) Loose to medium dense. Moist to wet. 60% Sand, 20% Gravel, 20% Clay. Concrete, metal, wire.

(2) Yellowish brown sandy lean clay (CL) (10YR 5/4) Firm. Moist.

(3) Black sandy clay (CH) (10YR 2/1) Firm. Moist.

(4) Olive grey lean clay w/ sand (CL)(5Y 5/2) Soft, wet. 90% Clay, 10% Serpentinite sand/gravel (Serpentinite derived Soil).

(5) Greenish grey serpentinite (SC)(5GY 5/1) Moderately consolidated. Intensely fractured. Low hardness, weak, deeply weathered.



BB1TP103

BB1TP103(9.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP103
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-4

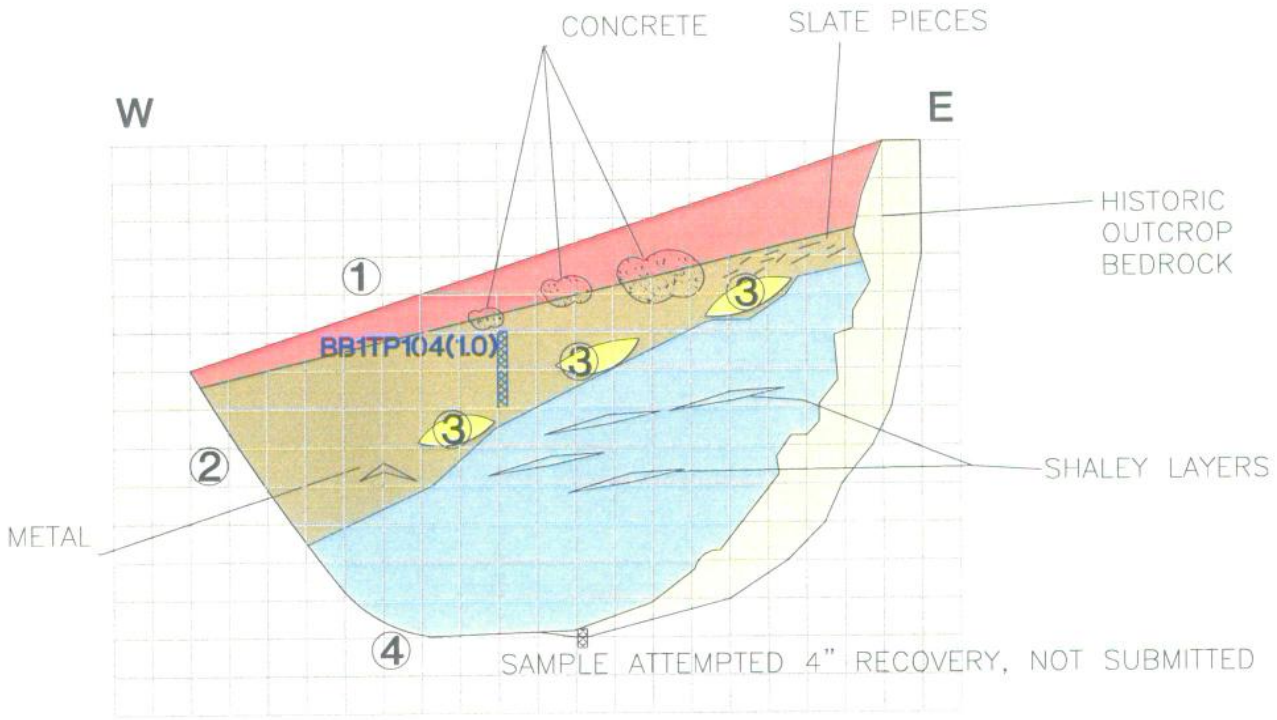
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	My	6-8-06

(1) Very dark greyish brown clayey sand with gravel (SC) (10YR 3/2) Soft, wet and moist. 50% Sand, 30% Clay/Fines, 20% Gravel. With Concrete pieces.

(2) Dark greyish brown well-graded gravel with sand (GW)(2.5Y 4/2) loose to medium dense. Dry to moist. 70% Gravel-cobbles grey wacke & shale, 25% sand, 5% Fines.

(3) With Zones of colma derived fill.

(4) Landslide debris, similar to (2), with no observed debris.



BB1TP104

BB1TP104(1.0) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP104
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-5

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	May	6-8-06

(1) Dark greyish brown clayey gravel with sand (GC)(10YR 3/2) loose wet. 60% Gravel, 30% Clay, 10% Sand. (Slope wash).

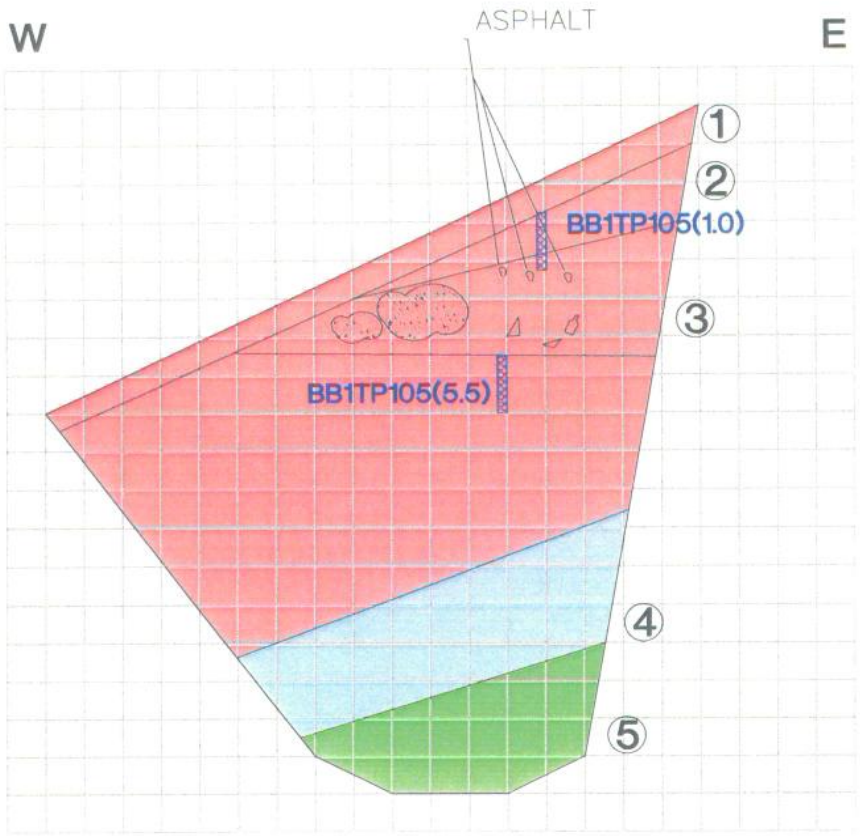
(2) Yellowish brown silty sand (SM)(10YR 5/4) 80% fine sand, 20% Silt/fines. With debris.

(3) Very dark greyish brown clayey gravel (GC)(10YR 3/2) medium dense moist, 60% gravel, 30% Clay, 10% Sand. With concrete, asphalt, glass, brick, slate, glass bottles.

(4) Yellowish brown sandy lean clay with gravel (CL)(10YR 5/4) Medium dense moist. 50% Gravel, 30% Clay, 20% Sand. Some metal brick, slate.

(5) Greyish brown silty gravel (GM)(2.5YR 5/2)medium dense moist. 60% Gravel–Cobbles, 20% Sand, 20% Silt. Some Metal. Serpentinite rubble fill, large cobbles.

(6) Olive grey serpentinite. (sp)(5Y 5/2) Monderately consolidated. Closely fractured. Low hardness weak to moderately strong. Deeply weathered.



BB1TP105

BB1TP105(5.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP105
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-6

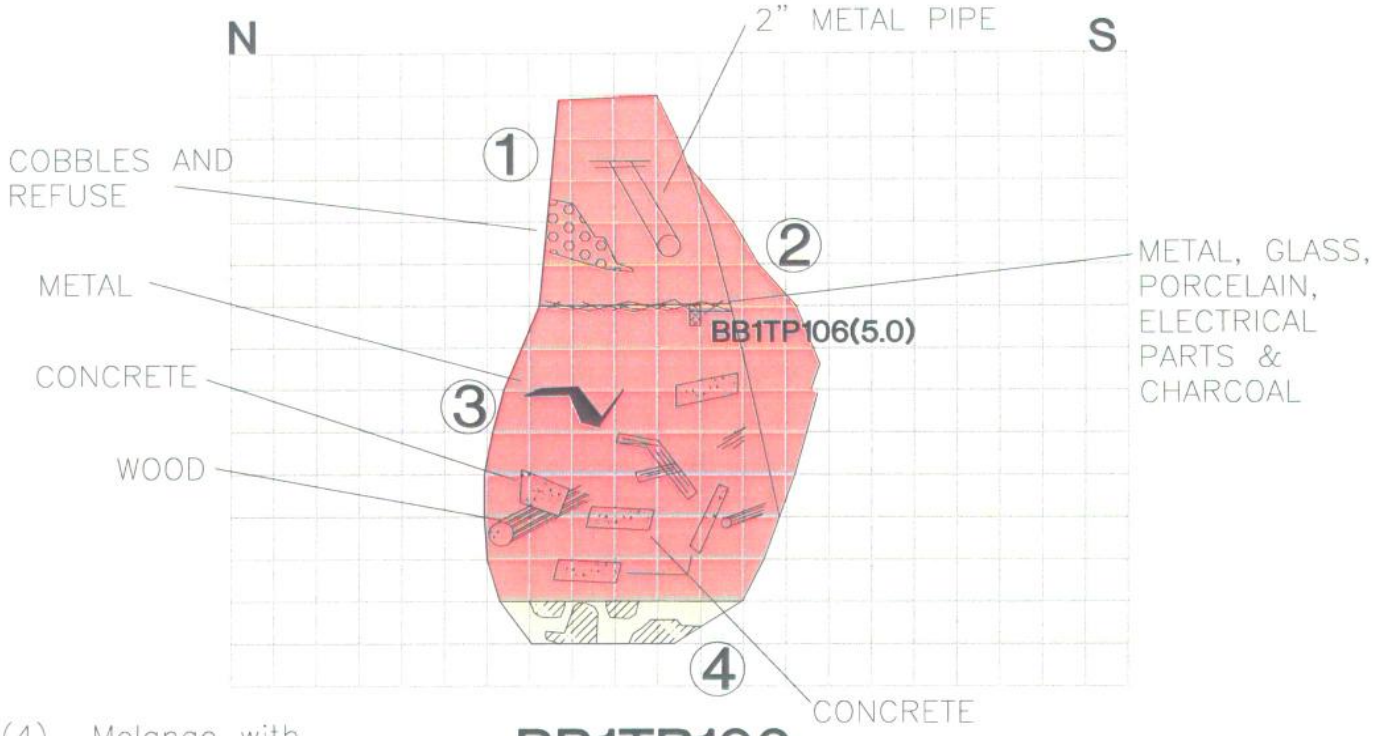
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	MG	6-8-06

(1) Very dark greyish brown brown clayey gravel (GC)(10YR 3/2) Loose, Moist to wet. 60% Gravel (angular), 30% Clay/Fines, 10% Sand. Refuse in layers minor amounts of glass shards throughout.

(2) Dark greyish brown sandy lean clay (CL)(10YR 4/2) Soft, Moist. To Wet. 70% Clay/fines, 30% Sand. Little to no refuse.

(3) Very dark greyish brown silty sand w/ gravel (SM)(10YR 3/2) Loose, wet. 70% Gravel (angular standstone), Cobbles (serpentinite), and Concrete chunks. With Wood and Metal.

(4) Melange with serpentinite. Dark olive grey melange (KJm)(5Y 3/2) Wet. Moderately consolidated, intensely fractured. Low hardness. Friable to weak, deeply weathered.



BB1TP106

BB1TP106(5.0) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP106
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, Ca

FIGURE
A2-7

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	Maj	6-8-06

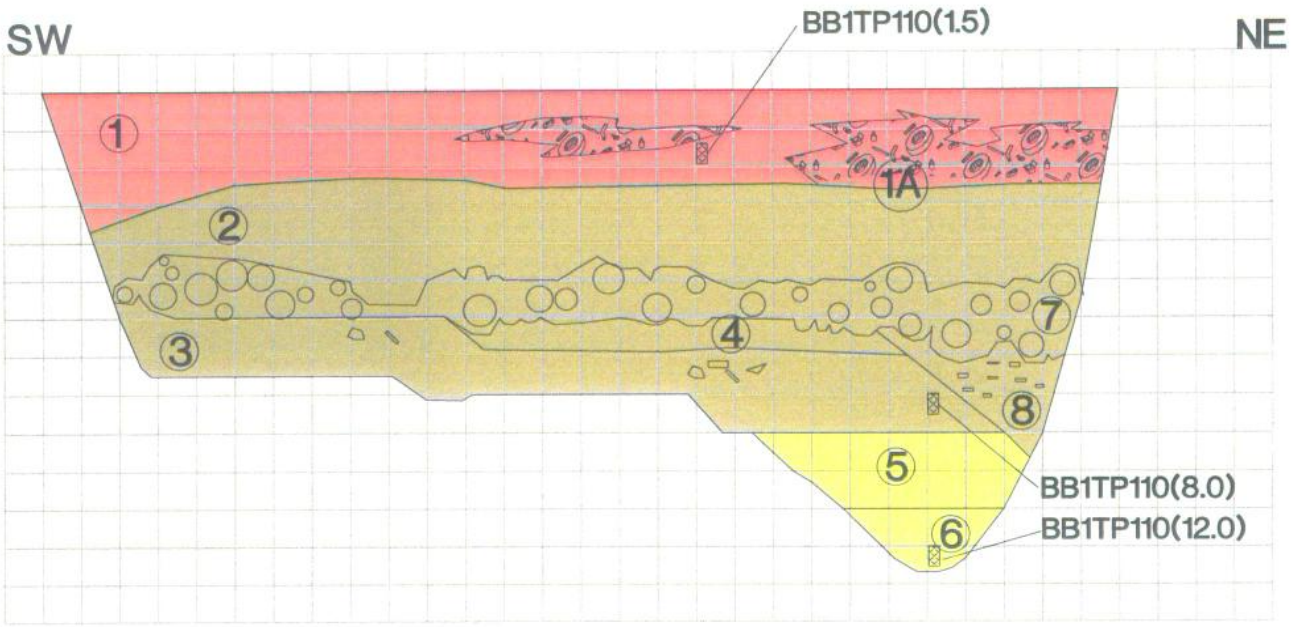
(1) Dark brown silt with gravel (Some to cobble size)(ML)(10YR 3/3) hard. Dry to Moist. 75% Silt/Fine Sand. 15% Sand, 10% Gravel.

(1A) Gravel and Concrete primarily same material as above(1) with 60–80% Debris.

(2,3) Brown sandy lean clay (CL)(10YR 5/3). Firm to hard. dry to moist.

(4) Black silty sand (SM)(10YR 2/2) Loose. Dry to moist. 65% Fine–very fine sand. 30% Silt/fines, 5% Fine Gravel including brick fragments.

(5) Yellowish brown sandy lean clay (CL)(10YR 5/6) Firm. Dry to moist. 70% Clay/Fines, 30% Very fine sand. Inclusions of dark soil layers.



(6) Yellowish brown sandy lean clay (CL)(10YR 5/6) Firm. Moist. Oxidized along relict fractures. Same soil proportions as (5), and higher moisture.

(7) Cobbles. Rounded cobbles 5" to 8" loosely packed with (4) soil as matrix.

BB1TP110

(8) Black silty sand with 25 % Serpentinite clasts.

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

BB1TP110(12.0) ANALYTICAL TEST SAMPLE

MACTEC

Test Pit Log BB1TP110
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-8

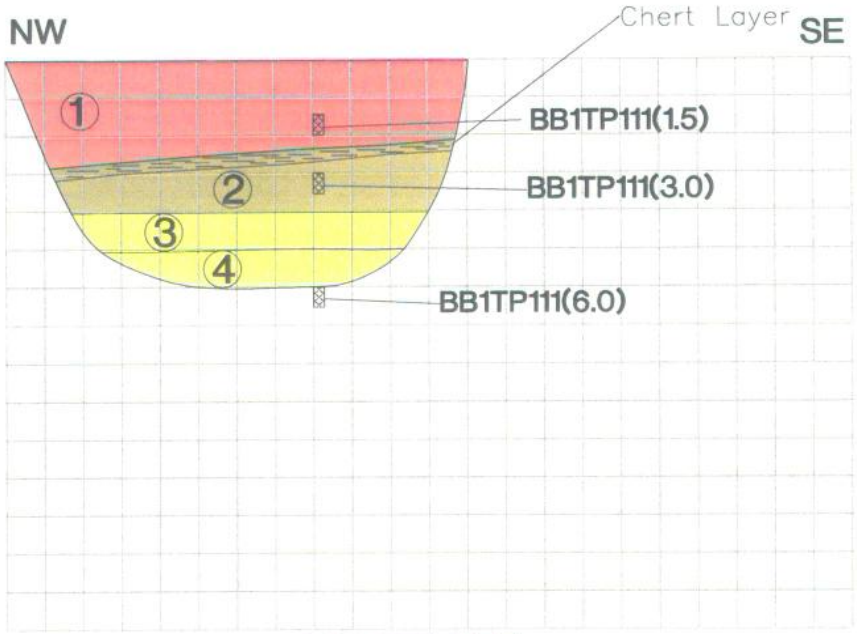
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mg	6-8-06

(1) Yellowish brown lean clay with gravel (CL)(10YR $\frac{5}{4}$) Hard, Dry to moist. Mottled 70% Clay, 20% gravel, 10% Sand. Some concrete and brick. Thin chert layer at base and base rock at the top.

(2) Very dark greyish brown, sandy lean clay (SC)(10YR $\frac{3}{2}$) Hard, Dry. 60–70% Clay, 30–40% sand. Occasional gravel.

(3) Very dark greyish brown silty sand (SM)(10YR $\frac{3}{2}$) Hard, Dry to Moist. 60% Fine Sand, 40% Silt.

(4) Dark yellowish brown sandy lean clay (CL)(10YR $\frac{4}{4}$) Hard, Moist. 60% Clay/Fines, 40% Fine Sand. Oxides along fractures.



BB1TP111

BB1TP111(6.0) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP111
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-9

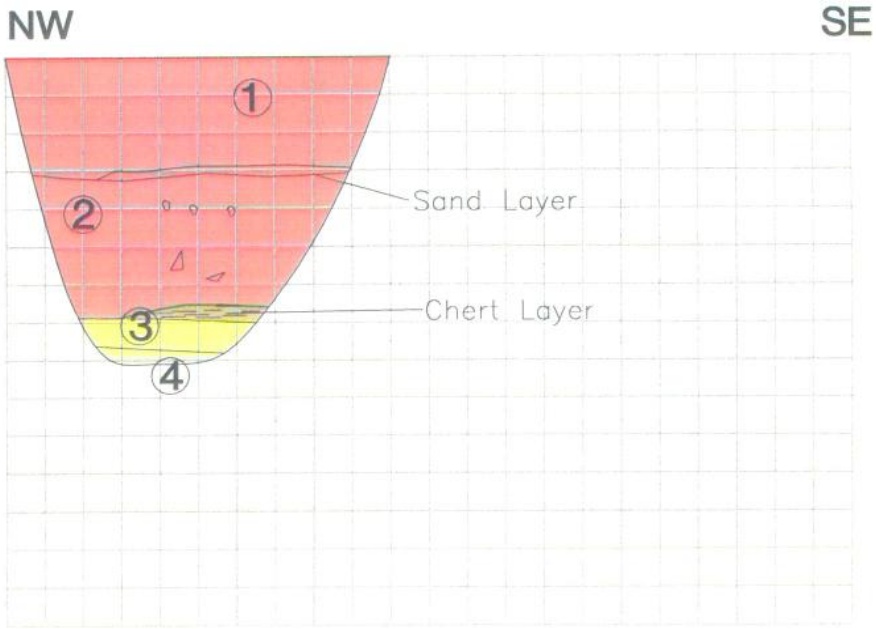
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	My	6-8-06

(1) Brown silty gravel with sand (GM)(10YR $\frac{5}{3}$) Medium dense, Dry. 60% Gravel (Incl. concrete, brick, asphalt), 20% Sand, 20% Silt.

(2) 1" sand layer on top. Dark yellowish brown clayey sand (SC)(10YR $\frac{4}{4}$) Hard, Moist. 60% Sand, 40% Clay. Isolated asphalt, concrete, wood(4%). Thin chert layer at base.

(3) Very dark greyish brown silty sand (SM)(10YR $\frac{3}{2}$) 70% Fine Sand, 30% Silt. Topsoil with some reddish oxide staining along relict fractures and roots.

(4) Dark yellowish brown sandy lean clay (CL)(10YR $\frac{4}{4}$) Hard, Moist. 60% Clay, 40% Sand.



BB1TP112

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP112
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-10

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mgj	6-8-06

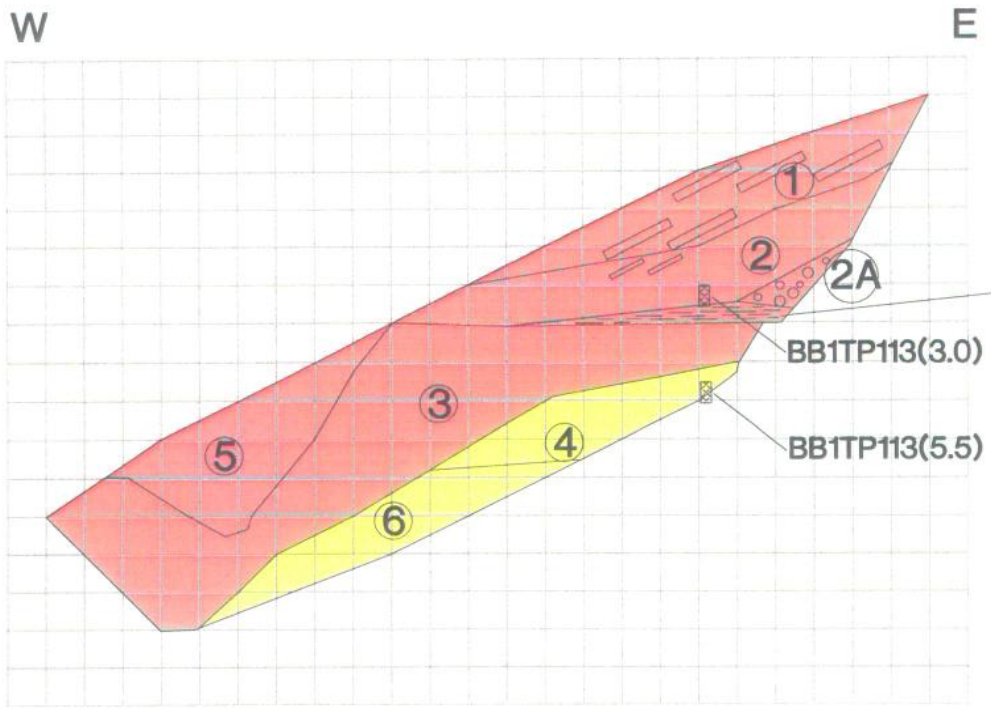
(1) Brown silty gravel with sand (GM)(10YR 5/3) Dry. Loose 60% Angular Gravel, 20% Sand, 20% Silt with layers of tar-cemented gravels. Thin chert layer at base.

(2) Yellowish brown clayey sand (SC)(10YR 5/4) Dense. Moist 60% Fine sand, 30% Clay/Fines, 10% Gravel. Some tar in thin layers.

(2A) Concrete and Serpentinite cobbles.

(3) Very dark greyish brown sandy silt (ML)(10YR 3/2) Firm to Hard. 60% Silt, 30% Sand, 10% Gravel. With wood, charcoal, and auto parts.

(4) Black silty sand (SM)(10YR 2/1) Firm. Moist. 70% Fine sand, 30% Silt. Top soil.



BB1TP113

(5) Grey silty gravel with sand (GM)(10YR 5/1) Loose. Dry. 55% Gravel/Concrete, 30% sand, 15% Silt. Gravel mostly 3/4" diameter.

(6) Yellowish brown sandy lean clay (CL)(10YR 5/6) Hard. Moist. 60% Clay/Fines, 40% Sand.

⊠ **BB1TP113(5.5)** ANALYTICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP113
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

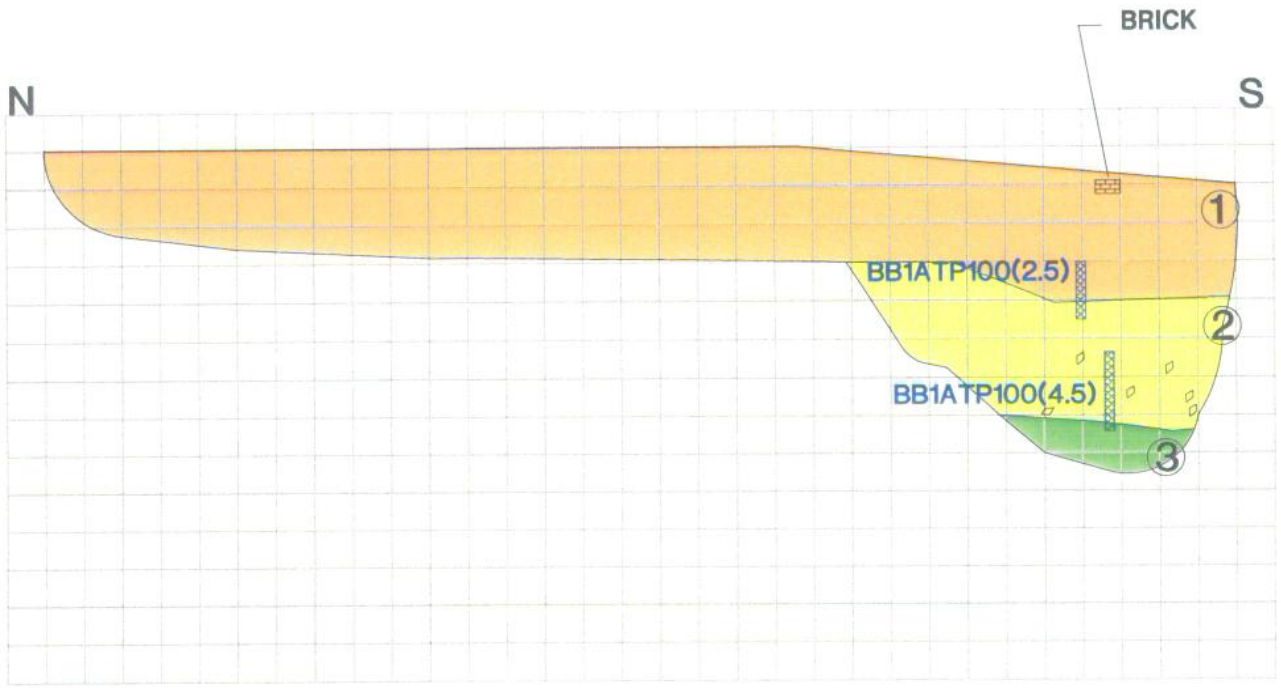
FIGURE
A2-11

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	Mgr	6-8-06

(1) Dark brown silty sand. No visible trash or debris. Medium brown sand w/silt (SP–SM), med–dense, contains Rootlets and one brick fragment.

(2) Mottled reddish, tan, and dark brown silty sand (SC) medium dense, wet to saturated contains reddish cemented sand fragments, zones of Iron, otherwise mostly fine grained.

(3) Blue–green Serpentinite, medium hard, friable to strong, clay seams along fractured surfaces, other surfaces are subrounded, closely fractured to crushed.



BB1ATP100

BB1ATP100(4.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1ATP100
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

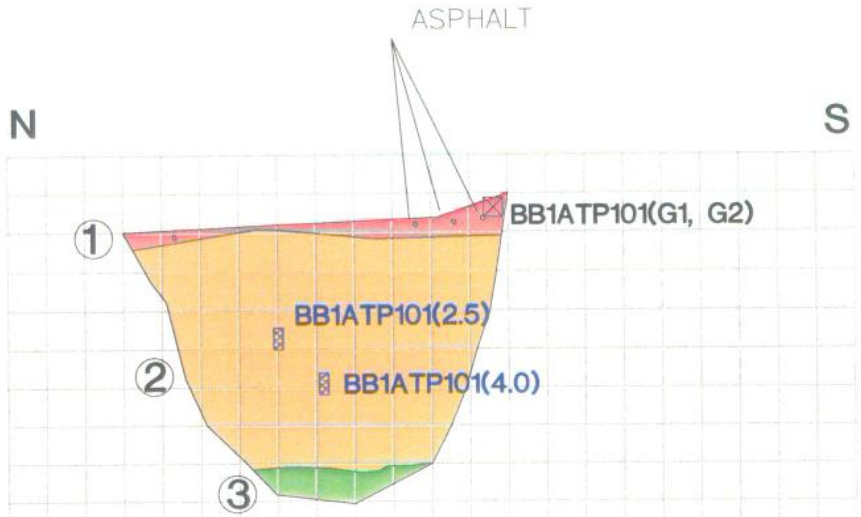
FIGURE
A2-12

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mgj	6-8-06

(1) Mottled grey to brown silty sand (SM) medium dense, damp with inclusions of yellowish brown clay. Abundant roots and deeply weathered serpentinite cobbles, contains asphalt fragments.

(2) Grey silty sand (SP) Medium dense uniformly fine grained, abundant 30% serpentinite boulders and cobbles. Contains asphalt pieces to 3" diameter.

(3) Serpentinite, (sp) hard, weak to friable, crushed, slightly weathered, fracture surfaces with clay.



BB1ATP101

BB1ATP101(4.0) GEOTECHNICAL TEST SAMPLE

BB1ATP101(G1, G2) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1ATP101
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE

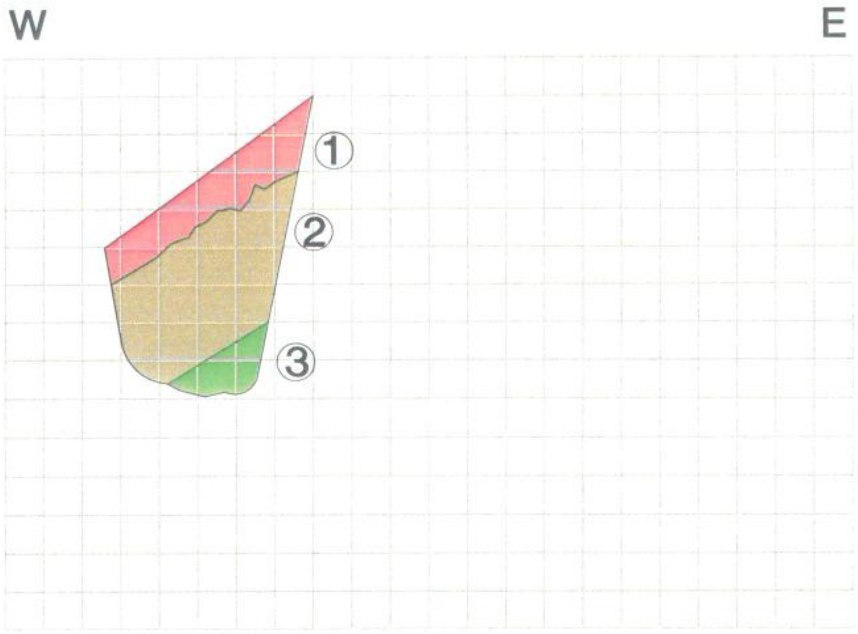
A2-13

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	may	6-8-06

(1) Chunks of tar mixed with sand. Very little to no soil (waste).

(2) Very dark brown silty sand (SM)(10YR 2/2) Loose, Moist. 70% Sand, 30% Silt. Has chunks of colma mixed in fill.

(3) Very dark greyish brown poorly graded sand (SP) (10YR 3/2). 90% Fine grained grey sand, 10% Silt.



BB1ATP102

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1ATP102
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

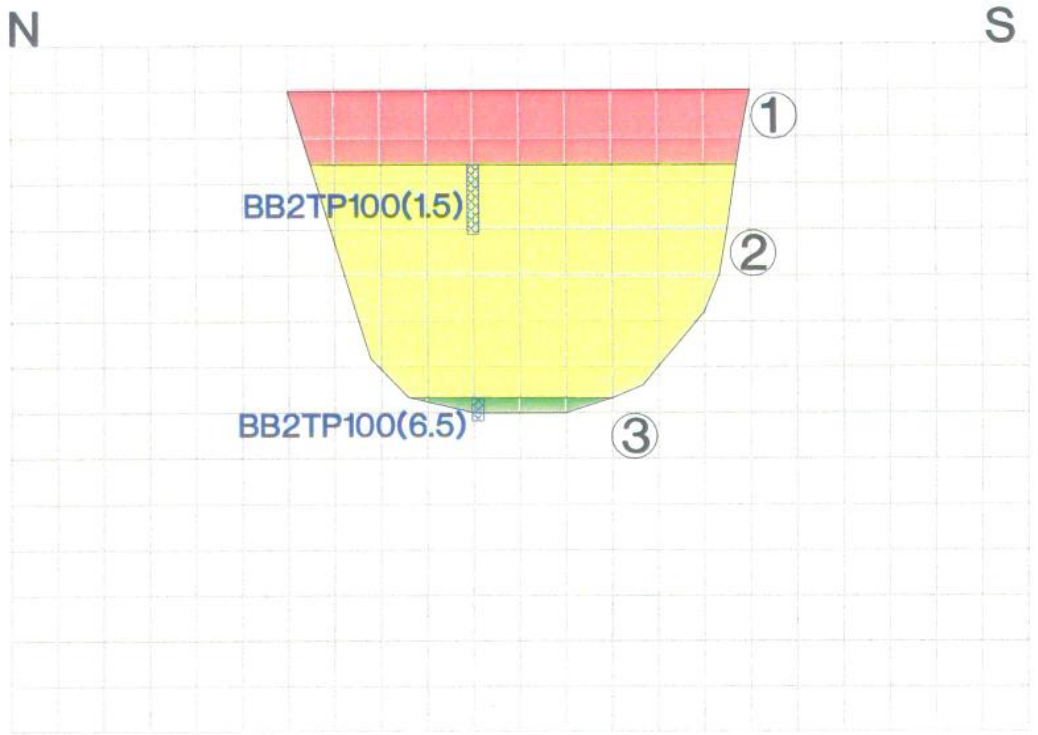
FIGURE
A2-14

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	MGJ	6-8-06

(1) Very dark brown clayey silt (ML)(10YR 2/2) Soft, wet. 60% Silt, 30% Clay, 10% Sand. No visible refuse. Interpreted as AFW due to scattered debris on ground surface.

(2) Dark yellowish brown sandy elastic silt (MH)(10YR 4/4) Soft, wet. 60% Silt, 30% Very fine sand, 10% Clay. Some iron oxide mottle.

(3) Dark grey serpentinite (sp)(5Y 4/4) well consolidated. Moderately fractured, low hardness, weak to moderately strong, moderate weathering.



BB2TP100

BB2TP100(6.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2TP100
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, Ca

FIGURE
A2-15

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mg	6-8-06

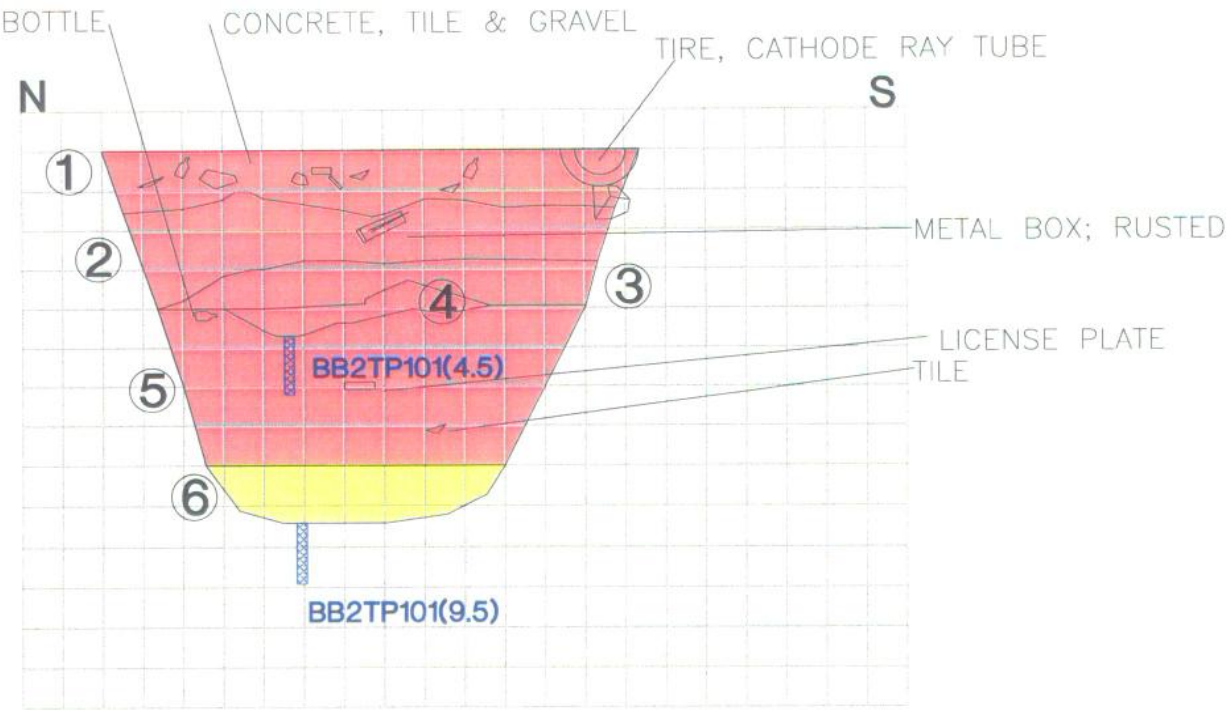
(1) Dark brown clayey gravel (GC)(10YR 3/3) Soft, wet. 60% Angular gravel with (Concrete and tile) 30% Clay, 10% Sand. Mottled Color.

(2) Yellowish brown silty clay (CM)(10YR 5/4) Soft, to medium dense, wet. 70% Clay, 30% Silts. Trace sand, Heterogeneous texture with debris.

(3) Black silty sand with waste (SM) (10YR 2/1) Loose, moist. 50% Refuse (Glass, charcoal), 30% Sand, 20% Silt.

(4) Very dark brown well-graded sand (SW)(10YR 2/2) Loose, moist.

(5) Very dark brown fat clay (CL)(10YR 2/2) Soft, wet. With scattered refuse, 70% Clay, 30% Silt.



BB2TP101

(6) Dark yellowish brown sandy lean clay (CL)(10YR 4/4) 60% Silt, 40% Very fine sand. Some oxide mottling. (Disturbed native soil.)

BB2TP101(9.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB1TP101
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

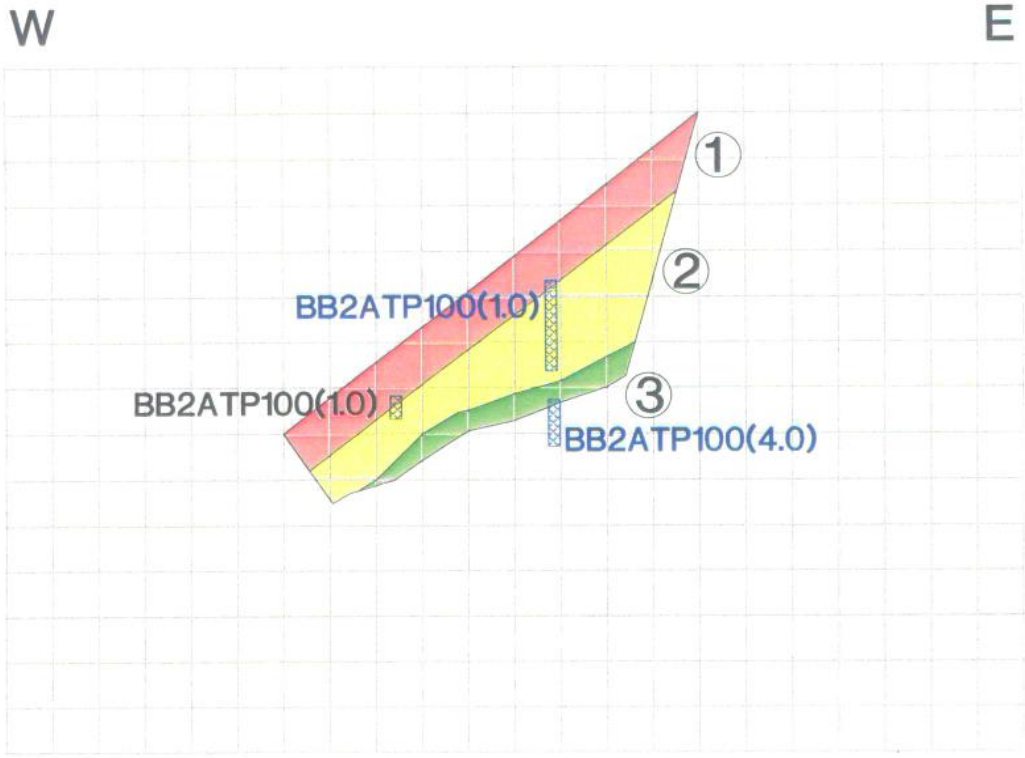
FIGURE
A2-16

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	Maf	6-8-06

(1) Very dark sandy silt (ML) (10YR 3/1) Soft, Moist. 70% Silt/fines, 30% Fine sand. Has debris: wood, broken glass, metal, (AFW) slate, terra cotta tile.

(2) Olive brown sandy elastic silt (MH)(2.5Y 4/3) soft to medium firm. Moist 60% clay, 20% sand, 20% gravel (Colluvium).

(3) Serpentinite. Greenish grey serpentinite (sp)(5 G 5/1) Intensely fractured. Low hardnes, weak locally friable, deeply weathered.



BB2ATP100

BB2ATP100(4.0) GEOTECHNICAL TEST SAMPLE

BB2ATP100(1.0) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2ATP100
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-17

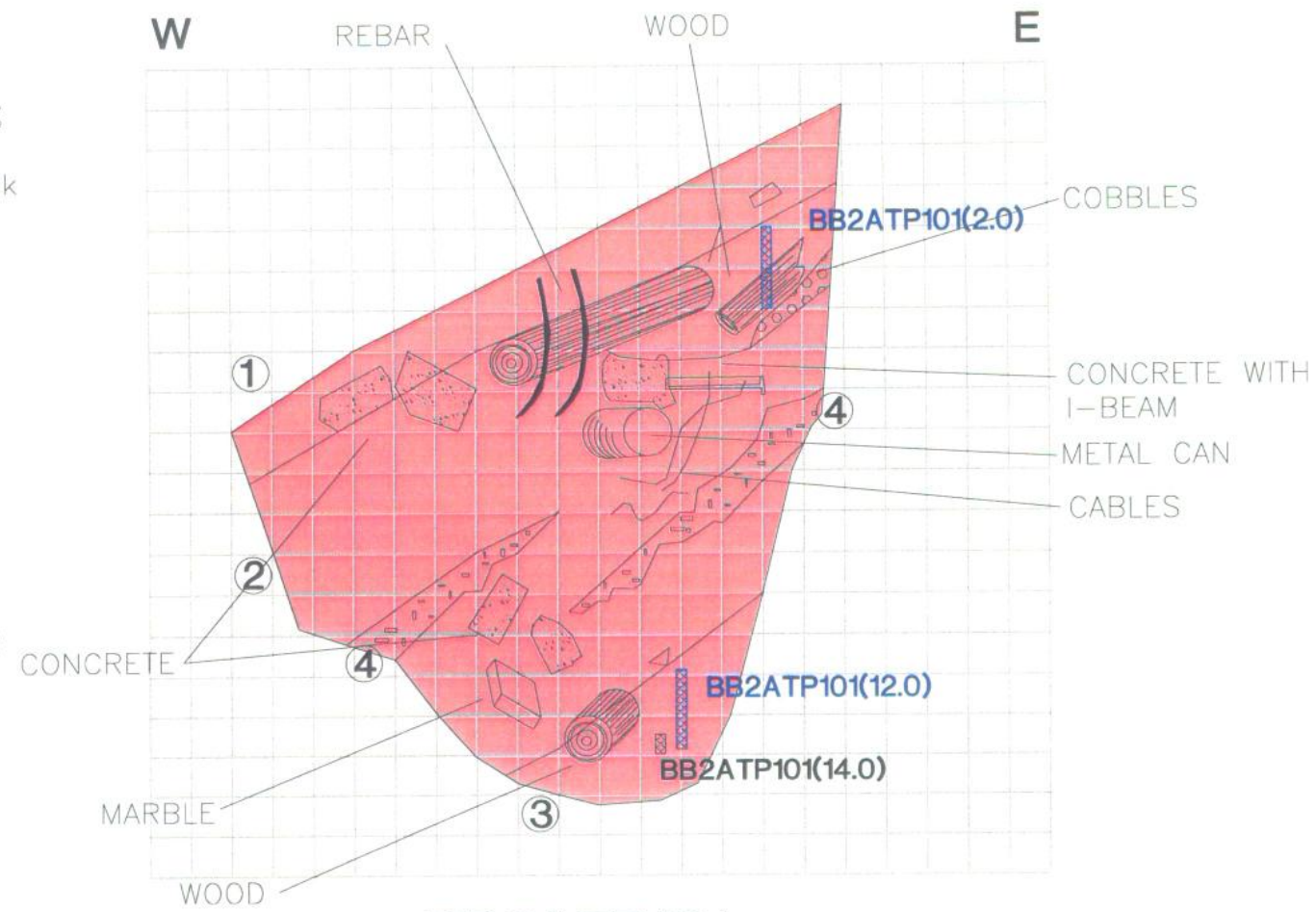
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	MG	6-8-06

(1) Very dark greyish brown sandy silt (ML) (10YR 3/2) Soft, Moist. 60% Silt 30% Sand 10% Gravel. With Concrete, glass, metal, wood, brick slate.

(2) Yellowish brown sandy lean clay (CL)(10YR 5/4) Loose, Moist. 40% Sand 40% Clay/Fines 20% Angular Gravel. Cobble zone at base on east end of test pit.

(3) Very dark grey clayey sand (SC) (10YR 3/1) soft to medium firm. Moist to wet at bottom. 60% Clay/fines 30% Gravel 10% Sand with waste including concrete, wood, glass, bottles, marble.

(4) Brick debris zones within clay. With approximately 40-50% brick.



BB2ATP101

BB2ATP101(12.0) GEOTECHNICAL TEST SAMPLE

BB2ATP101(14.0) ANALYTICAL TEST SAMPLE

2.5 0 2.5 5

APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2ATP101
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-18

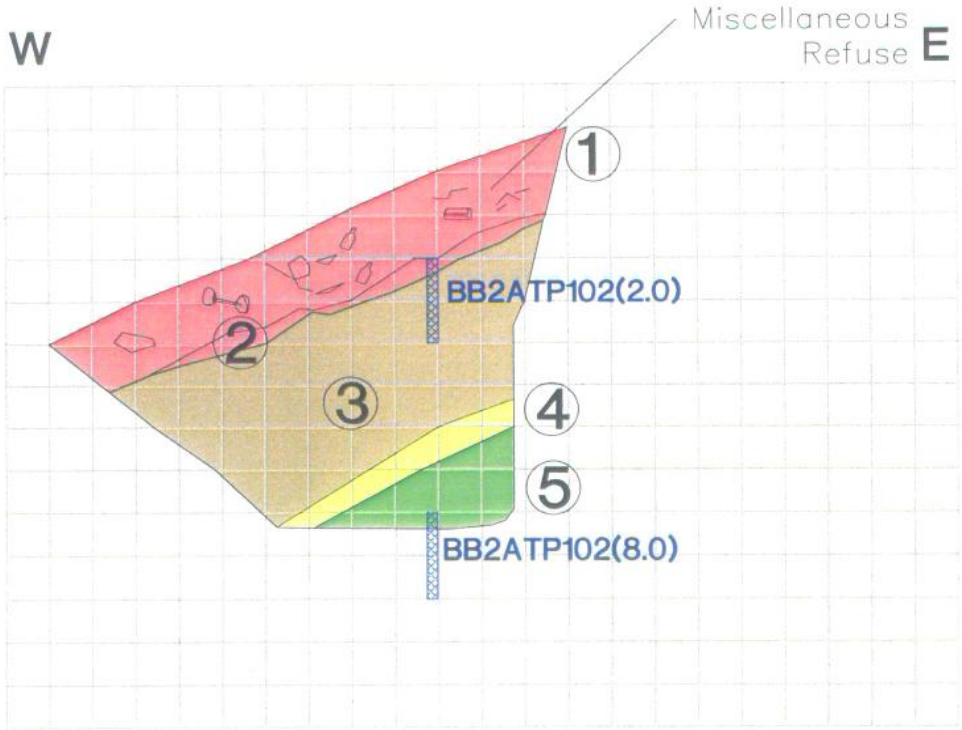
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	May	6-8-06

(1) Very dark greyish brown sandy silt with refuse (ML) (10YR 3/2) Soft, Moist. 60% Silt, 30% Silt, 10% Gravel and refuse. Slate, metal parts (leaf spring, axle assembly) Cable, I-beam, glass, porcelain, concrete, charcoal, wood, brick.

(2) Brick layer: dark redish brown silty gravel (GM)(2.5YR 3/4) Medium dense, Moist. 70% Brick fragment gravel, 30% Silt/Sand.

(3) Loose gravel fill: light olive brown clayey gravel w/ sand (GC) (2.5Y 5/3) Loose to dense, moist. 80% Siltstone/Shale gravel angular.

(4) Serpentinite-derived soil. light olive brown lean clay (CL)(2.5Y 5/3) Firm, moist. 90% Clay, 10% Weathered gravel.



BB2ATP102

(5) Greenish grey serpentinite (sp)(5G 5/1) Moderately consolidated. Intensely fractured. Low hardness, weak to friable. Deeply weathered.

BB2ATP102(8.0) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2ATP102
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-19

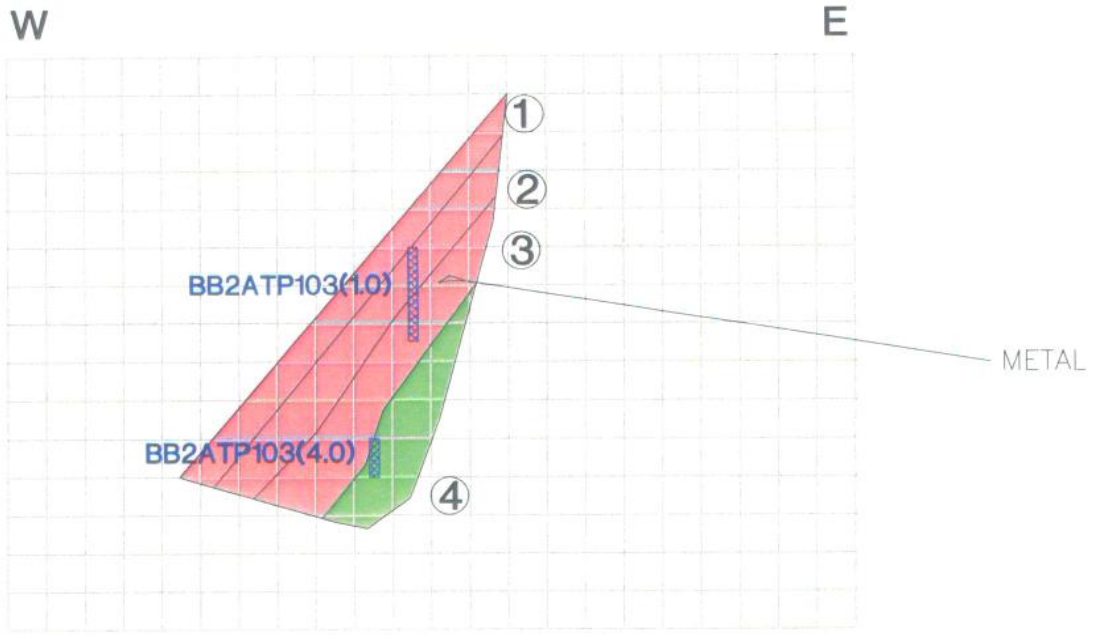
DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mg	6-8-06

(1) Very dark greyish brown sandy silt (ML) (10YR 3/2) Soft, moist 70% Silt 30% Sand, occasional gravel. Including Red chert.

(2) Greenish grey lean clay (CL)(5GY 5/1) medium firm moist, 90% clay/fines, 10% sand. (Slope wash from serpentinite outcrop upslope.)

(3) Very dark greyish brown clayey sand (SC)(10YR 3/2) with sub-rounded inclusions of dark yellowish brown lean clay (CL)(10YR 4/4). Firm, moist 70% silt, 30% sand some metal debris, (fill).

(4) Greenish grey serpentinite (sp)(5G 5/1) moderatly consolidated, intensely fractured, low hardness, friable, deeply weathered.



BB2ATP103

BB2ATP103(4.0) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2ATP103
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, Ca

FIGURE
A2-20

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	Mey	6-8-06

(1) Dark greyish brown sandy silt with gravel(SM)(10YR 4/2) Loose, moist. 50% Sand, 30%Silt, 20% Gravel. Abundant waste: concrete, brick, wood, metal parts, slate, glass bottles, porcelain pieces, sheet metal.

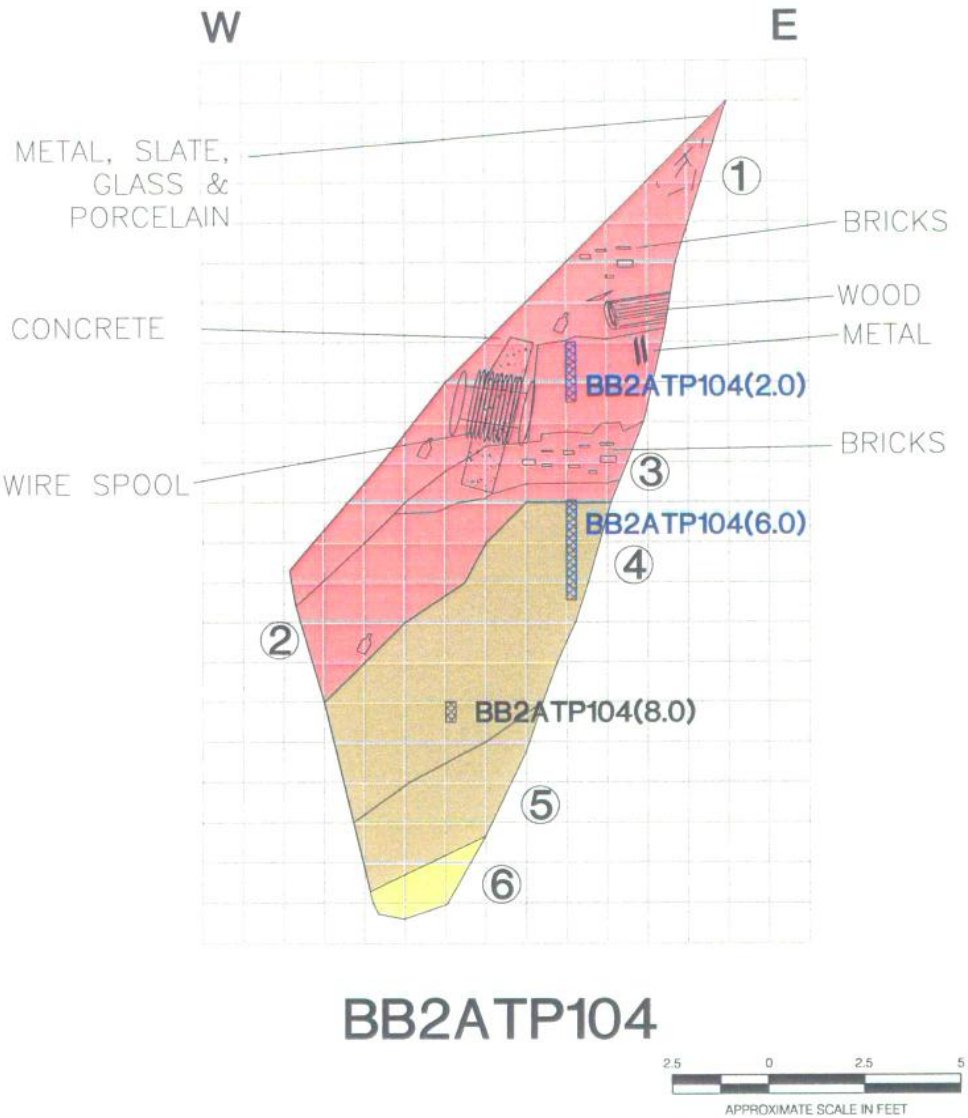
(2) Very dark grey sany lean clay w/ gravel (CL)(10YR 3/1) Firm, moist. 60% Clay, 40% Sand. Some wood debris.

(3) Dark brown sandy clay with bricks (CL) (10YR 3/3) Firm Moist. 50% Clay, 20% Sand, 30% Broken red brick.

(4) Olive brown clayey sand w/ gravel (SC)(2.5Y 4/3) soft–firm. Moist. 70% Clay/fines, 30% fine sand, Heterogeneous texture weathered clasts within matrix, color variations along relict grain boundaries.

(5) Very dark grey fat clay with sand (CH)(5Y 3/1) Soft, moist to wet. 50% Clay, 30% Silt, 20% Very fine sand.

(6) Light yellowish brown clayey gravel with sand (GC)(10YR 6/4) Dense wet. 60% Fine angular gravel (sandstone, shale, serpentinite), 20% Sand, 20% Clay.



BB2ATP104(6.0) GEOTECHNICAL TEST SAMPLE

BB2ATP104(8.0) ANALYTICAL TEST SAMPLE

MACTEC

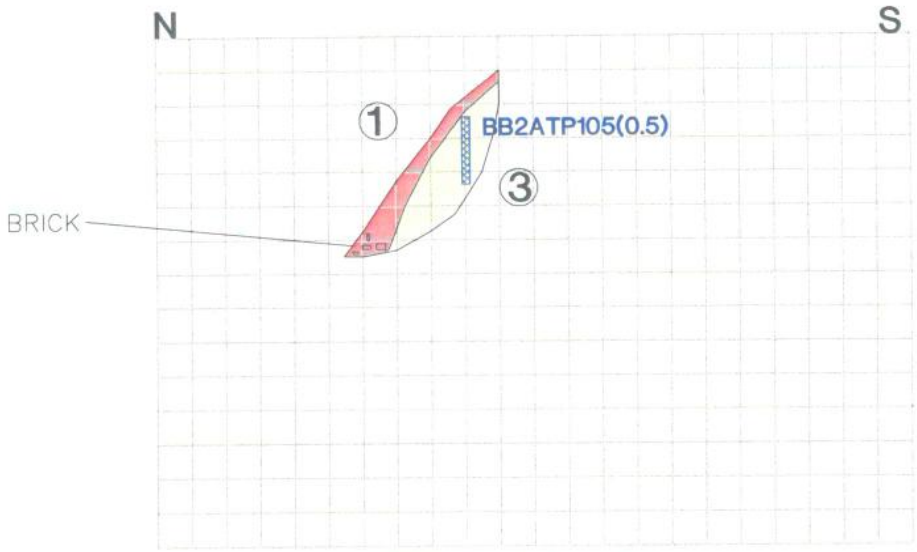
Test Pit Log BB2ATP104
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-21

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	mg	6-8-06

(1) Very dark grey sandy silt (ML)(10YR 3/1) Soft, Moist. 60% Silt/fines, 30% Sand, 10% Gravel. With glass, brick, marble, electrical parts.

(3) Black melange (KJm)(5Y 2.5/1) moderately consolidated intensely fractured. Low hardness. Weak to friable. Deep weathering. Sheared in multiple orientations.



BB2ATP105

BB2ATP105(0.5) GEOTECHNICAL TEST SAMPLE

2.5 0 2.5 5
APPROXIMATE SCALE IN FEET

MACTEC

Test Pit Log BB2ATP105
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

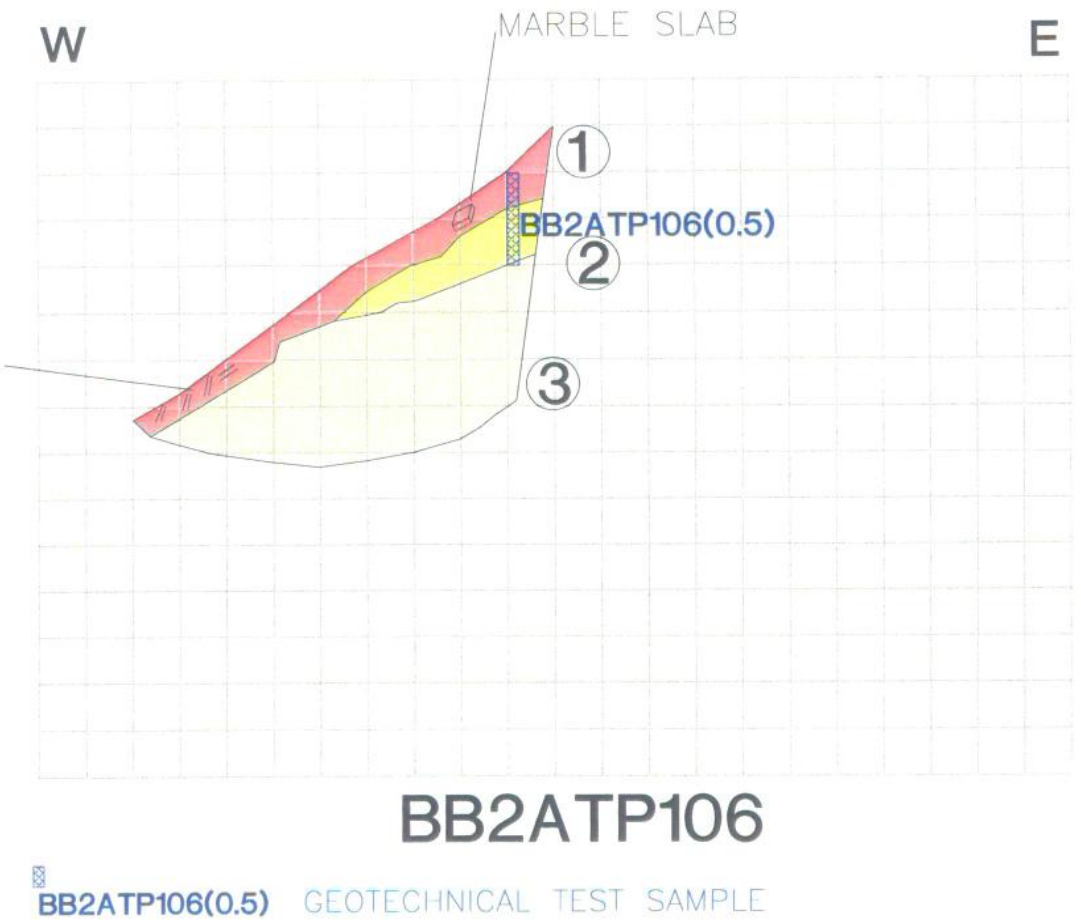
FIGURE
A2-22

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	May	6-8-06

(1) Very dark grey sandy silt (ML)(10YR 3/1) Soft, Moist. 60% Silt/fines, 30% Sand, 10% Gravel. Glass, brick, pieces of marble, electrical parts.

(2) Yellowish brown well graded gravel with sand (GW)(10YR 5/4) loose to medium dense. Moist to wet. 70% Angular mudstone & serpentinite gravel, 20% Sand, 10% Fines.

(3) Black melange (KJm)(5Y 2.5/1) moderately consolidated intensely fractured. Low hardness. Weak to friable. Deep weathering. Sheared in multiple orientations.



MACTEC

Test Pit Log BB2ATP106
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio San Francisco, California

FIGURE
A2-23

DRAWN	PROJECT NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
JHD	57255		01/17/2006	MG	6-8-06

APPENDIX A3

BORING LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488-93

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS OVER 50% RETAINED ON No.200 SIEVE SIZE	GRAVELS	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
	MORE THAN 1/2 OF COARSE FRACTION RETAINED ON No.4 SIEVE SIZE	GRAVELS WITH OVER 15% FINES	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS	CLEAN SANDS WITH LESS THAN 5% FINES	SW	Well-graded sand or gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
	MORE THAN 1/2 OF COARSE FRACTION PASSING No.4 SIEVE SIZE	SANDS WITH OVER 15% FINES	SM	Silty sand, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS OVER 50% PASSING No.200 SIEVE SIZE	SILTS & CLAYS LIQUID LIMIT 50% OR LESS		ML	Inorganic silts and sandy or gravelly silts, rock flour
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS LIQUID LIMIT GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays and silty clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils

NX Core Sampler

SPT Sampler

Modified California Sampler

Shelby or Osterberg Sampler

Pitcher Barrel

Grab or Bulk Sample

G.W. measured after water level stabilizes

G.W. measured during or soon after drilling

Perm	Permeability
Consol	Consolidation
LL	Liquid Limit (%)
PI	Plasticity Index (%)
EI	Expansion Index (%)
Gs	Specific Gravity
MA	Particle Size Analysis
-200=55%	Percent Passing No. 200 Sieve

Shear Strength (psf) — Confining Pressure

TxUU	3200	(2600)	-Unconsolidated Undrained Triaxial Shear (field moisture or saturated)
(FM) or (S)			
TxCU	3200	(2600)	-Consolidated Undrained Triaxial Shear (with or without pore pressure measurement.)
(P)			
TxCD	3200	(2600)	-Consolidated Drained Triaxial Shear
SSCU	3200	(2600)	-Simple Shear Consolidated Undrained (with or without pore pressure measurement.)
(P)			
SSCD	3200	(2600)	-Simple Shear Consolidated Drained
DSCD	2700	(2000)	-Consolidated Drained Direct Shear
UC	470		-Unconfined Compression
LVS	700		-Laboratory Vane Shear

KEY TO TEST DATA

Source: ADTM D 2488-93, based on the "*Unified Soil Classification System.*"

MACTEC

Soil Classification Chart and Key to Test Data
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE **A3-1**

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		12/05	may	6-8-06

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Relative Density	Standard Penetration Test Blow Count (blows per foot)
very loose	<4
loose	4-10
medium dense	10-30
dense	30-50
very dense	>50

CONSISTENCY OF FINE-GRAINED SOILS

Consistency	Approximate Blows/Foot (SPT)	Undrained Shear Strength (psf)
very soft	<2	0 - 250
soft	2-4	250 - 500
medium stiff	4-8	500 - 1,000
stiff	8-15	1,000 - 2,000
very stiff	15-30	2,000 - 4,000
hard	>30	>4,000

NATURAL MOISTURE CONTENT

Dry - Requires considerable moisture to obtain optimum moisture content for compaction

Moist - Near the optimum moisture content for compaction

Wet - Requires drying to obtain optimum moisture content for compaction

Note: Where laboratory data are not available, the field classifications given above provide a general indication of material properties; the classifications may require modification based on judgment or laboratory testing.

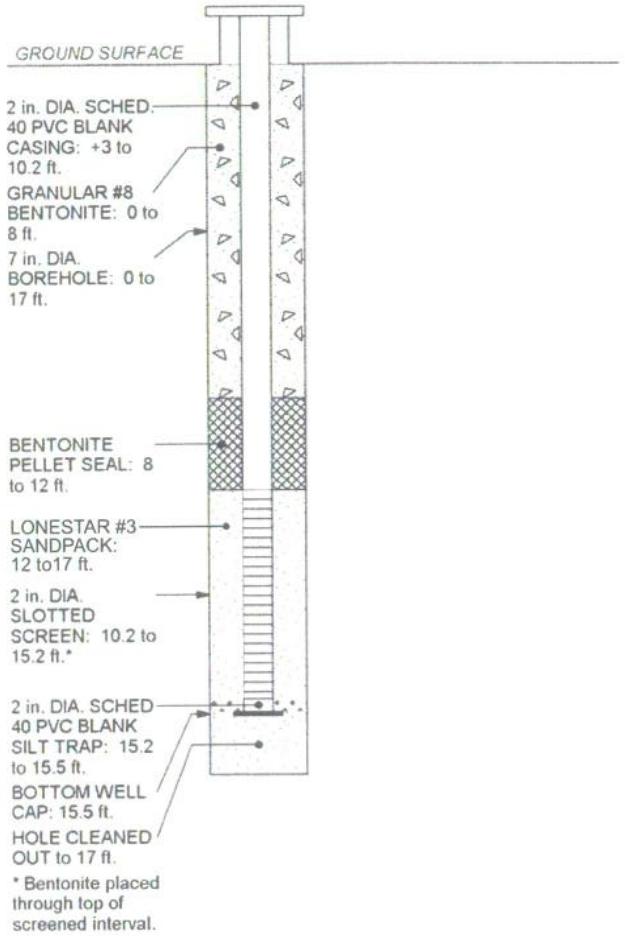
MACTEC

Physical Properties Criteria for Soil Classification
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

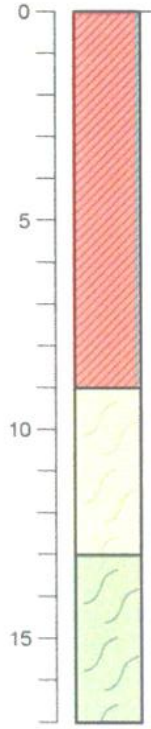
FIGURE
A3-2

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		12/05	May	6-8-06

Equipment: Spyder Exc. w/ 8" HSA attachment
Sample Method:
Hole Diameter:
Surface Elevation: 104.00 ft. Date: 4/21/05
Reference Datum: PLLW
Logged By: A. Henke



* Bentonite placed through top of screened interval.



VERY DARK GRAYISH BROWN GRAVELLY LEAN CLAY (CL) (10YR 3/2) Soft, moist to wet, 60% clay, 30% gravel/debris, 10% sand (Fill)

DARK OLIVE-GRAY MELANGE (5Y 3/20 Moderately consolidated, low hardness, intensely fractured, friable to weak, deep weathering

GREENISH GRAY SERPENTINITE (5B 5/1) Moderately consolidated, low hardness, moderately fractured, weak, moderate weathering

Bottom of boring at 17 ft.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/3/05

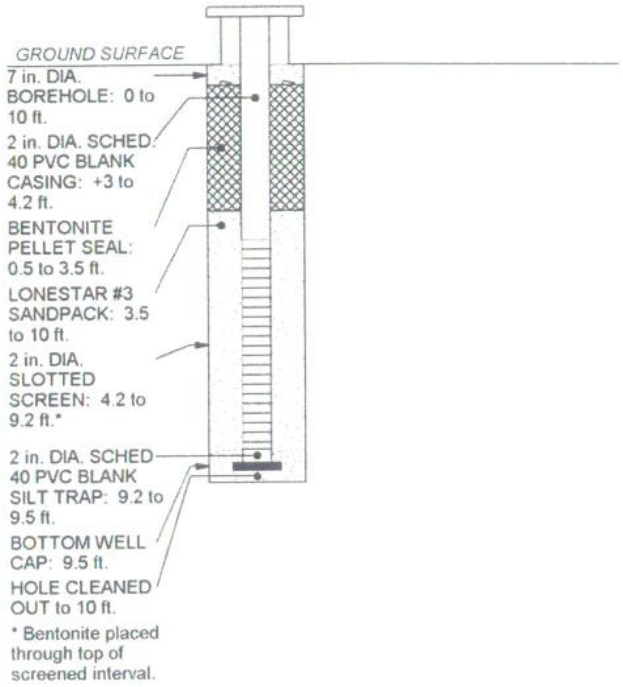
MACTEC

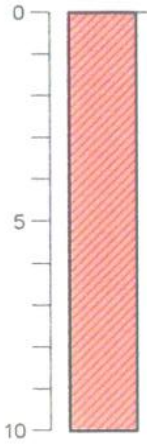
Log of Boring BB1PZ100
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-3

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	May	6-8-06

Equipment: Spyder Exc. w/ 8" HSA attachment
Sample Method:
Hole Diameter:
Surface Elevation: 64.00 ft. Date: 4/22/05
Reference Datum: PLLW
Logged By: A. Henke





VERY DARK GRAYISH BROWN GRAVELLY LEAN CLAY (CL) (10YR 3/2)
Soft, wet, 60% clay, 30% gravel and debris, 10% sand (Fill)

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC_57255_PRESIDIO.GPJ GEOL.GDT 10/3/05

MACTEC

Log of Boring BB1PZ101
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-4

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	May	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
	20.9	105				0		
UC = 2050.6	36.2 23.1	85.1 101.8			13*			
TxUU = 986.4(250.6) UC = 1056.9						5		
	24.9	97.8			30*			
			>4.5		43**			
LL = 65, PL = 45, PI = 20 -200 = 17.5% UC = 990.8	26.8	88.3			30*			
					41**	10		

Date 5/13/05
Equipment Mobile B-53
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb **Drop** 30 in.
Logged by A. Henke **Datum** PLLW
Surface Elevation 174
Northing 481786.465 **Easting** 1429296.051

ASPHALT at surface

DARK REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 3/3) Loose to medium dense, moist, 70% gravel, 20% sand, 10% fines (Fill)

DARK YELLOWISH BROWN CLAYEY SAND (SC) (10YR 4/4) Dense, moist, 60% fine sand, 40% clay (Fill)

OLIVE-BROWN SILTY SAND WITH GRAVEL (SM) (2.5Y 4/4) Medium stiff, moist

OLIVE-GRAY SERPENTINITE (5Y 4/2) Moderately consolidated, low hardness, closely to intensely sheared, fractured, weak to friable, deep to moderate weathering

Bottom of boring at 11 ft.
No groundwater encountered.
Backfilled with cement grout.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB100
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-5

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	mgl	6-8-06

Date 5/20/05
Equipment 8x8 Limited Access
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 189
Northing 481809.303 Easting 1429165.962

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
-200 = 32% UC = 968.8 PL=13, PI=4, LL=20	11 14	112.2			4^ 3	0		DARK GRAYISH BROWN SANDY SILT (10YR 4/2) (ML) Soft, moist (Fill)
-200 = 4.5% DSCD = 333.7 (24°)	12	104.3				5		VERY DARK GRAYISH BROWN SILT (10YR 3/2) (ML) Soft, moist
UC = 238.2	14	109.6			8^ 10			VERY DARK GRAY SANDY LEAN CLAY (10YR 4/2) (CL) Firm, moist @ 7 ft.: Inclusions of dark sand @ 8.5 ft.: Serpentinite gravels
	17	109.1				10		
-200 = 49.1% PL=14, PI=16, LL=30 TxCU = 2440 (543) UC = 2807.6 -200 = 4.4%	16 4	110.1			21^ 10			DARK GRAYISH BROWN POORLY-GRADED SAND (10YR 4/2) (SP) Loose, moist, 90% fine to very fine sand
-200 = 10.2% DSCD = 0.6 (32°)	7	103.0				15		
	20	109			18^ 62 60/5"^			BROWN CLAYEY SAND (10YR 4/3) (SC) Loose, wet DARK YELLOWISH BROWN LEAN CLAY (10YR 4/4 - 10YR 4/6) (CL) Hard, moist, with iron and black oxides along relict fractures OLIVE-GRAY SERPENTINITE (SP) Moderately consolidated, intensely fractured, sheared, low hardness, friable, deeply to moderately weathered Bottom of boring at 19.5 ft. Boring backfilled with bentonite chips. No groundwater encountered.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/7/05

MACTEC

Log of Boring BBSB101
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-6

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	MM	6-8-06

Date 5/12/05
Equipment Mobile B-53
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 188
Northing 481404.431 Easting 1429242.25

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
	15.9	94			26*	0		
TxUU = 3192.9(200.2)	16.6	112			22*			
	34	137.3				5		
UC = 2042.4	65	60.3			27*			
UC = 3971.2	13.2	114.2			96**			
UC = 2885.1	14	111.4			64*			

REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 3/3) Medium dense, moist, 60% gravel, 30% sand, 10% fines

YELLOWISH BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 4/4) Medium dense, moist, 50% fine sand, 20% clay, 30% angular serpentinite gravel

OLIVE SERPENTINITE (5Y 5/3) Moderately consolidated, soft to low hardness, intensely fractured, friable, deep weathering

@ 8 ft.: Color change to GREENISH GRAY (5GY 6/1), low hardness, moderately fractured, weak

Bottom of boring at 9.5 ft.
No groundwater encountered.
Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB102
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-7

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	MG	6-8-06

Date 5/23/05
Equipment 8x8 Limited Access
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by W. Godwin Datum PLLW
Surface Elevation 200
Northing 481470.547 Easting 1429143.811

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
LL=25, PL=15, PI=10 -200 = 41.2%	10.9 11.2	108			13	0		
LL=31, PL=21, PI=10 -200 = 46.1%	13	111.2			9			
TxCU = 1268(236)								
TxUU = 1986.3(299.5)	12.9	112.8			28	5		
	10.6				16			
DSCS = 136.1(34°) -200 = 22.4%	9.4 9.4	111.2			20			
					18	10		
DSCS = 129.1(29°)	11.2 62	112.9			35/1"			

DUSKY BROWN SILT (2.5YR 2.5/2) (ML)
Medium stiff, moist, 50% organics, trace medium-grained sand (Fill)

MOTTLED GRAYISH BROWN CLAYEY SAND (5YR 3/2) (SC) Loose, moist (Fill)

DUSKY BROWN (5YR 2/2), medium dense (Fill)

GRAYISH BLACK (N2)

DARK YELLOWISH BROWN (10YR 4/2) (Fill)

GRAYISH BROWN SILTY SAND (10YR 3/2) (SM) Medium dense, moist (Native)

@ 13 ft.: Driller indicates very hard drilling

DARK GREENISH GRAY SERPENTINITE, hard, strong, moderately weathered

Bottom of boring at 13.6 ft.
Backfilled with bentonite hole plug.
No groundwater encountered.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB103
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-8

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	Maj	6-8-06

Date 5/10/05
Equipment Marl M-10
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by W. Godwin Datum PLLW
Surface Elevation 221
Northing 481097.363 Easting 1429194.166

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
						0			Mixed CONCRETE, CHERT AND SAND (Fill)
					28*				MOTTLED YELLOWISH ORANGE-BROWN SANDY LEAN CLAY (CL) Very stiff, moist (Native)
UC = 4379.6 UC = 4279.4 LL=28, PL=14, PI=14 -200 = 52.8%	15.7 16.3 16.1	117.9 116.6			26* 24**				
	53.3 100				39* 16**	5			GREEN SERPENTINITE Low hardness, weak, deep weathering
TxUU = 2252.4(800.6)	78.1	51.5							
	65.7				50**	10			Bottom of boring at 10.5 ft. No groundwater observed. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB104
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-9

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	MG	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
	15.8	116			9^	0		
	17.4	46			23			
	74	54.6						
TxUU = 1665.9(250.6)	99.1							
	90.4				16	5		
TxUU = 2299.8(800.6)	85	48.2			27^			
	85.5				31			
	85.7				81	10		

Date 5/10/05
Equipment Marl M-10
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by W. Godwin Datum PLLW
Surface Elevation 225
Northing 481017.627 Easting 1429142.54

REDDISH BROWN SAND WITH GRAVEL (SP) Loose, wet (Fill)

MOTTLED RED, ORANGE AND BROWN SILTY SAND (SM) Medium dense, moist (Native)

OLIVE-GREEN AND BROWN SILTY SAND (SM) Medium dense, wet (Residual Soil)

OLIVE SERPENTINITE Low hardness, intensely fractured, friable, deep weathering

@ 8.5 ft.: Serpentinite contains less weathered clasts

Bottom of boring at 10.4 ft.
No groundwater observed.
Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB105
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-10

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05		6-8-06

Date 5/23/05
Equipment 8x8 Limited Access
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by W. Godwin Datum PLLW
Surface Elevation 257
Northing 480748.455 Easting 1428982.199

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
LL=35, PL=23, PI=12 -200 = 50.1 UC = 3358.5	16.4	104.3			14^	0			BROWNISH BLACK CLAYEY SILT (ML) (5YR 2/1) Stiff, moist (Fill)
	24				13				BLACK SILTY CLAYEY SAND (SM) (N/2) Dense, moist @ 2.8 ft.: Color change to REDDISH BROWN (5YR 4/4), silty sand, moist, dense
DSCD = 239.4(39°) LL=25, PL=14, PI=11	14.2	115				5			MOTTLED DARK YELLOWISH ORANGE LEAN CLAY (CL) (10YR 6/6) Medium stiff, moist (Native)
UC = 2154.8	18	109							
DSCS = 1116.2(30°) LL=33, PL=18, PI=15 -200 = 61.7 TxUU = 6914.9(499.5)	16 16 16.2	115.2			42^ 32				DARK YELLOWISH BROWN-ORANGE SANDY CLAY (CL) (10YR 6/6) Hard, moist (Weathered Bedrock)
UC = 3530.5 DSCS = 577.5(27°)	32.2	86			22^	10			SERPENTINITE Low hardness, weak, deep weathering
					44				
					63				@ 12.5 ft.: Becoming harder, moderate weathering, advance with solid flight augers
						15			
						20			
LL-97, PL-71, PI=26 -200 = 28.1					71	25			Becoming MOTTLED GREENISH GRAY, low hardness, crushed, friable
									Bottom of boring at 25.5 ft. No groundwater observed. Backfilled with bentonite "hole plug".

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/4/05

MACTEC

Log of Boring BBSB106
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-11

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	May	6-8-06

Date 5/10/05
Equipment Marl T-10
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by W. Godwin Datum PLLW
Surface Elevation 262
Northing 480503.807 Easting 1429029.757

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Graphic Log	
TxUU = 6216.3(99.4) -200 = 56.8	7 10.8	115.5 113.0			26	0		DARK REDDISH BROWN GRAVELLY SILTY SAND (SM) Medium dense, moist (Fill)
TxUU = 4031.7(149.8)	10	118.4			15			YELLOWISH ORANGE-BROWN LEAN CLAY (CL) Very stiff, moist (Fill)
					20			YELLOW-BROWN SILTY SAND (SM) Medium dense, moist (Native)
LL=31, PL=17, PI=14 DSCS = 371.7(12°)	16.2	103.0				5		
	15.6				21			ORANGE-BROWN FAT CLAY WITH SAND (CH) Stiff, moist
UC = 9269.7	16.4	114.9						
	14.9	111			16	10		LIGHT BROWN SANDY SILT (ML) Very stiff, moist
UC = 2256.7	12	114.6						YELLOW-BROWN SANDY LEAN CLAY (CL) Very stiff, moist
	12.2	121			29			OLIVE-BROWN SAND WITH SILT (SP-SM) Medium dense, moist
	12.1				24	15		
TxUU = 5569.2(999.4)	17.6	103.5			34			MEDIUM BROWN SILTY SAND (SM) Dense, moist
	24.5				43			BLUE-GRAY AND BROWN SERPENTINITE Crushed, friable deep weathering
TxUU = 7465.4(1300.3)	18.8	97.1			43			
						20		Bottom of boring at 20 ft. No groundwater observed. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/3/05

MACTEC

Log of Boring BBSB107
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-12

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	Mey	6-8-06

Equipment Hand Auger
Sample Method
Hole Diameter
Surface Elevation Date 5/12/05
Reference Datum
Logged By A. Henke

	Recovery (inches)	Sample Number	Depth (ft.) Sample	
GROUND SURFACE				
	6	BBSB 108 (0.0)	0	Very Dark Grayish Brown Lean Clay (CL) (10YR 3/2) Firm, moist, 90% clay/fines, 10% sand (fill)
	6			
	6			
	6	108 (2.0)		Yellowish Brown Clayey Gravel (GC) (10YR 5/4) Medium dense, moist, 60-70% siltstone gravel, 30-40% clay/fines (weathered bedrock)
	6			Bottom of boring at 2.5 feet.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

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Log of Boring BBSB108
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-13

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	Maj	6-8-06

Equipment: Hand Auguer
Sample Method:
Hole Diameter:
Surface Elevation: Date: 5/12/05
Reference Datum:
Logged By: A. Henke

Recovery (inches)	Sample Number	Depth (ft.)	Sample	
GROUND SURFACE				
6	BBSB 109 (0.0)	0		Very Dark Grayish Brown Gravelly Lean Clay (CL) (10YR 3/2) Firm, moist, 60% clay/fines, 40% gravel (fill)
6	Dup(050512)			
6				
6				Yellowish Brown Lean Clay (CL) (10YR 5/4) Firm, moist, 90% clay/fines, 10% sand
6	109 (2.0)			Bottom of boring at 2.5 feet.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

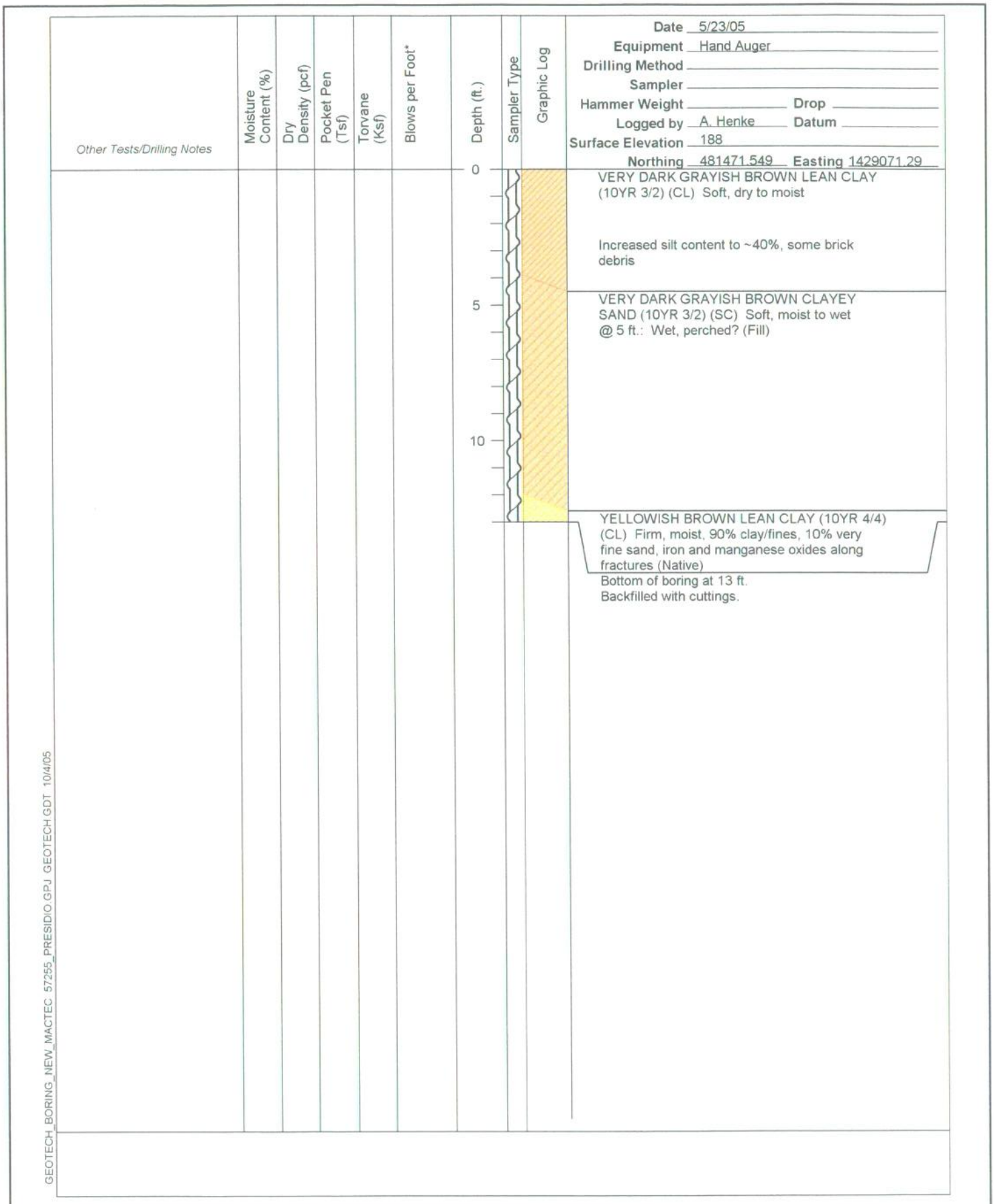
MACTEC

FIGURE

Log of Boring BBSB109
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

A3-14

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	MAJ	6-8-06



MACTEC

Log of Boring BBSB115
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-15

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	My	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
						0			GRAY-BROWN SILTY SAND (SM) Loose, dry
									MOTTLED BROWN TO YELLOW-BROWN CLAYEY SAND (SC) Loose, moist
									SANDY CLAY (CL) Medium stiff, serpentinite angular gravel 1.5" dia., soft, wet
									Lens of BLACK GRAVELLY SAND (SP) (recycled asphaltic concrete)
						5			MOTTLED YELLOW-BROWN WITH BLACK SILTY SAND (SM-SC) Loose, wet
									BLACK AND YELLOW-BROWN SANDY CLAY (CL) Soft, wet
						10			Color change to REDDISH BROWN
									REDDISH BROWN SILTY SAND (SM) Medium dense, wet
									BLACK TO MOTTLED YELLOW-BROWN SANDY CLAY (CL) Medium dense, wet
									Bottom of boring at 13.2 ft.
									No groundwater observed.
									Backfilled with cuttings.

Date 5/23/05
Equipment Hand Auger
Drilling Method
Sampler
Hammer Weight Drop
Logged by B. Godwin Datum PLLW
Surface Elevation 238
Northing Easting

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/4/05

MACTEC

Log of Boring BBSB116
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-16

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	May	6-8-06

Date 5/12/05
Equipment Mobile B-53
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 217
Northing 481203.095 Easting 1429086.814

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
	7				5*	0			BROWN SANDY LEAN CLAY (CL) (10YR 4/3) Medium stiff, dry, 60% fines, 40% sand (Fill)
TxUU = 2077.4(200.2)	15	112.3			7*				@ 2 ft.: Pockets of sand in clay, moist; color change to VERY DARK GRAYISH BROWN (10YR 3/2)
Analytical Sample BB1SB110(3.5)					23*				
	10	100.0			10*	5			REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 3/3) Medium dense, moist, 60% gravel, 30% sand, 10% fines
-200 = 11.1%	10								
					20*				LIGHT OLIVE-BROWN SERPENTINITE (2.5Y 5/4) Moderately consolidated, low hardness, intensely fractured, friable, deep weathering
	68	57.0							
	53					10			
UC = 602.4	62	58.8			56*				
					62/6"**				
									Bottom of boring at 12.5 ft. No groundwater encountered. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/6/05

MACTEC

Log of Boring BB1SB110
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-17

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	MG	6-8-06

Date 5/12/05
Equipment Mobile B-53
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 216
Northing 481195.742 Easting 1429121.217

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
	25.7	98			5*	0			VERY DARK GRAYISH BROWN SANDY LEAN CLAY (CL) (10YR 3/2) Medium stiff, moist, 60% clay, 30% sand, 10% gravel (Fill)
	15.4	103			12*				DARK YELLOWISH BROWN LEAN CLAY (CL) (10YR 4/4) Stiff, moist, 90% clay, 10% sand
UC = 3767	69.8	58.4			19*				DARK REDDISH BROWN CLAYEY GRAVEL WITH SAND (GC) (5YR 3/3) Medium dense, moist, 60% gravel, 20% sand, 20% clay (Fill)
	67					5			OLIVE-BROWN SERPENTINITE (2.5Y 4/4) Moderately consolidated, soft, plastic, intensely fractured, deep weathering
	56.1	61			21**				@ 7 ft.: Low hardness, friable
					10				
LL=138, PL=93, PI=45	58.5					10			@ 9 ft.: Bluish color
									Bottom of boring at 10.5 ft. No groundwater encountered. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/6/05

MACTEC

Log of Boring BB1SB111
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-18

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	Mq	6-8-06

Equipment: Hand Auger
Sample Method:
Hole Diameter:
Surface Elevation: Date: 5/13/05
Reference Datum:
Logged By: A. Henke

	Recovery (inches)	Sample Number	Depth (ft.)	Sample	
GROUND SURFACE			0		
	6	BB1SB			Olive Gray Poorly Graded Sand (SP) (5Y 5/2) Loose, moist, 95% sand, 5% silt (Qb)
	6	113 (0.5)			Bottom of boring at 1 foot.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

MACTEC

Log of Boring BB1SB113
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-19

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	Maz	6-8-06

Equipment: Hand Auger
Sample Method:
Hole Diameter:
Surface Elevation: Date: 5/13/05
Reference Datum:
Logged By: A. Henke

	Recovery (inches)	Sample Number	Depth (ft.)	Sample	
GROUND SURFACE			0		
	6	BB1SB 114 (0.5)			Olive Gray Poorly Graded Sand (SP) (5Y 5/2) Loose, moist, 95% sand, 5% silt (Qb)
	6				Bottom of boring at 1 foot.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

MACTEC

Log of Boring BB1SB114
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-20

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	MJ	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
						0		
						5		
						10		

Date 10/10/05
Equipment XD-1 (Precision)
Drilling Method Direct-push
Sampler 2" Liners
Hammer Weight NA Drop NA
Logged by A. Henke Datum PLLW
Surface Elevation ~190
Northing _____ Easting _____

ASPHALT/BASEROCK IN UPPER 6 in.

DARK GRAYISH BROWN SILTY SAND (SM) (10YR 4/2) Loose to medium dense, moist, 70% fine sand, 30% silt (Fill)

YELLOWISH BROWN SANDY LEAN CLAY (CL) (10YR 5/6) Very firm, moist, 70% clay, 30% fine sand

@ 7 ft.: Contains metasedimentary gravel
Color change to LIGHT OLIVE-BROWN LEAN CLAY (CL) (2.5Y 5/4) Firm, moist, 90% clay, 10% silt, with faint foliation, oxides along relict fractures

Bottom of boring (refusal) at 10 ft.
Backfilled with cement grout.
No groundwater encountered.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/26/05

MACTEC

Log of Boring BBSB117
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-21

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	MG	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
						0		
						5		
						10		

Date 10/10/05
Equipment XD-1 (Precision)
Drilling Method Direct-push
Sampler 2" Liners
Hammer Weight NA Drop NA
Logged by A. Henke Datum PLLW
Surface Elevation ~190
Northing _____ Easting _____

ASPHALT AND BASEROCK IN UPPER 6 in.

VERY DARK GRAYISH BROWN SILTY SAND (SM) (10YR 3/2) Medium dense, moist, 60% sand, 40% silt

Grading to YELLOWISH BROWN SANDY LEAN CLAY (CL) (10YR 5/4) Firm, moist, 70% clay, 30% fine sand, oxide staining

COMPLETELY WEATHERED SERPENTINITE

7 - 10 ft.: No recovery (serpentinite visible in bottom of sampler)

Bottom of boring (refusal) at 9 ft.
Backfilled with cement grout.
No groundwater encountered.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 10/26/05

MACTEC

Log of Boring BBSB118
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-22

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	Maj	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
BBSB119(2.5)						0		
BBSB119(4.5)						5		
						10		

Date 10/10/05
Equipment XD-1 (Precision)
Drilling Method Direct-push
Sampler 2" Liners
Hammer Weight NA **Drop** NA
Logged by A. Henke **Datum** PLLW
Surface Elevation ~190
Northing **Easting**

ASPHALT AND BASEROCK IN UPPER 6 in.

VERY DARK GRAYISH BROWN SILTY SAND (SM) (10YR 3/2) Medium dense, moist, trace gravel (Fill)

YELLOWISH BROWN SANDY LEAN CLAY (CL) (2.5Y 5/3) Intensely fractured, sheared, soft, plastic, deeply weathered

Firm to very firm, moist, 70-80% clay, 20-30% sand

LIGHT OLIVE-BROWN SERPENTINITE (sp) (2.5Y 5/3) Intensely fractured, sheared, soft, plastic, deeply weathered

Bottom of boring (refusal) at 8 ft.
Backfilled with cement grout.
No groundwater encountered.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/26/05

MACTEC

Log of Boring BBSB119
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-23

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	May	6-8-06

Date 5/9/05
Equipment Marl M-12
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 261
Northing 480482.995 Easting 1428943.684

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
	6.5				24^	0			REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 4/3) Very dense, moist, 60% angular gravel, 30% sand, 10% fines
TxUU = 4713.5(200)	17.6	112.9			15^				YELLOWISH BROWN AND VERY DARK BROWN SANDY CLAY (CL) (10YR 4/4 - 10YR 2/2) Stiff, moist, 70% clay, 15% silt, 15% very fine sand (mixed clay fill)
UC = 3520.8	20	105.3			16^				
TxUU = 3571(300)	15.2	117.4			14^	5			DARK YELLOWISH BROWN SANDY LEAN CLAY (CL) (10YR 4/4) Stiff, moist, 80% clay, 20% sand (Native)
UC = 4578.9	18.9	108.8							
TxCU = 6974.5(1694.9)	19.4	106.3	>4.5						
UC = 3569 -UC = 4860.6	28.0 21.0	95.7 107.5			19^				BROWN FAT CLAY (CH) Very stiff, moist
	16.3	109.0			26^	10			OLIVE-GREEN POORLY-GRADED SAND (SP) Very dense (Weathered Sandstone)
UC = 1599.2	25.2	85.3			30^				OLIVE SERPENTINITE (5Y 4/4) Moderately hard, strong, intensely fractured, moderate weathering
					24				Becoming OLIVE-GRAY (5Y 4/2), low hardness, weak
	24.7	90			22^	15			
	21.1				18^				Color change to DARK GREENISH GRAY (5G 4/1)
									Bottom of boring at 17 ft. No groundwater encountered. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

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MACTEC

Log of Boring BB2SB100
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-24

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	mgj	6-8-06

Date 5/11/05
Equipment Mobile B-53
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 257
Northing 480467.648 Easting 1428879.789

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
-200 = 16.3	7.7	119			17*	0			DARK REDDISH BROWN CLAYEY GRAVEL WITH SAND (GC) (5YR 3/3) Medium dense, moist, 45% gravel, 40% sand, 15% fines
	15.7	109			14*				
TxUU = 975.4(300) -200 = 36.5	14.7	114.5			11*				VERY DARK GRAYISH BROWN CLAYEY SAND (SC) (10YR 3/2) Medium dense, moist, 40% clay, 40% sand, 20% gravel (Mixed Fill)
UC = 908.5	18.7	108.2			10*	5			
					8*				BLACK SILTY SAND (SM) (5Y 2.5/1) Soft, moist
UC = 1399.7	41.4	70.9			12*				
					4*	10			
TxUU = 1525.1(750)	41.4	71.5			4*				BLACK ORGANIC CLAY (OL) Soft, moist (pockets of leaves, grass, small wood fragments and glass) (Fill)
LL=24, PL=16, PI=8 TxUU = 3578.9(985)	19.0	109.9							BROWN SANDY LEAN CLAY (CL) Medium stiff, moist
					17*	15			OLIVE GRAY SANDY FAT CLAY (CH) (5Y 4/2) Very stiff, moist
UC = 39722.5	19.7	109.5							LIGHT BROWN FAT CLAY WITH SAND (CH) Very stiff, moist
TxUU = 9069(999.4)	17.3	113.9			23*				
	14.2	120							
UC = 5481.2	17.6	114.3			25*	20			
LL=37, PLI=19, PI=18 TxCU = 4145.9(825.1)	17.6	112.8							BROWN LEAN CLAY WITH SAND (CL)
UC = 4649.3	18.9	107.8			22				
					30**				
LL=45, PL=32, PI-13	24.7	87				25			GREENISH GRAY SERPENTINITE (5GY 6/1) Moderately consolidated, soft to low hardness, intensely fractured, friable, deep to moderate weathering
									Bottom of boring at 26 ft. No groundwater encountered. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC_57255_PRESIDIO.GPJ GEOTECH.GDT 11/4/05

MACTEC

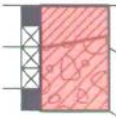
Log of Boring BB2SB101
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-25

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		09/05	mgf	6-8-06

Equipment Hand Auger
Sample Method
Hole Diameter
Surface Elevation Date 5/12/05
Reference Datum
Logged By A. Henke

	Recovery (inches)	Sample Number	Depth (ft.)	Sample
GROUND SURFACE			0	
	6	BB2SB 102 (0.0)		
	6			
	6			
	6			
	6	102 (2.0)		



Very Dark Grayish Brown Lean Clay with Sand (CL) (10YR 3/2) Soft, moist, 80% clay/fines, 20% sand (fill)

Very Dark Grayish Brown Clayey Gravel (GC) (10YR 3/2) Medium dense, moist, 60% red chert gravel, 40% clay/fines (fill)

Bottom of boring at 2.5 feet.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

MACTEC

Log of Boring BB2SB102
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-26

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	May	6-8-06

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log
	6.3				13^	0		
	12.4				16^			
					14^			
Analytical Sample BB2ASB100(4.0)					19^	5		
-200 = 65.3% DSCD = 36(27°)	10.7	108						
TxUU = 8678(600)	19.8	105.6			11^	10		
LL=43, PL=21, PI=22 UC = 5913	21	105.1			18^			
TxUU = 4668(800)	20.9	102.6			24^			
UC = 2235.2	15.8	118.1				15		
UC = 4893	15.9	111.6			18^			
	16.6	109			21^			
UC = 2128.8	17.0	107.8			34^			
	9.8	124			34^	20		
	18.9	103			27^			

Date 5/9/05
Equipment Marl M-10
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 258
Northing 480652.038 Easting 1428958.687

REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (7YR 4/3) Medium dense, moist, 75% chert gravel, 20% sand, 5% fines

GRAYISH BROWN POORLY-GRADED SAND (SP) (10YR 5/2) Medium dense, dry, 95% fine sand, 5% silt (Fill)

YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/4) Very stiff, dry to moist, 70% clay, 20% silt, 10% fine sand (Fill)

VERY DARK GRAYISH BROWN SILT (ML) (10YR 3/2) Stiff, dry, 70% silt, 20% clay, 10% fine sand (Fill)

YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/4) Very stiff, dry to moist, 70% clay, 20% silt, 10% fine sand, mottle black oxide halos on relic grains (Fill)

DARK YELLOWISH BROWN SANDY LEAN CLAY (CL) (10YR 4/4) Medium stiff, moist, 70% clay, 30% fine sand (Native)

@ 11.75 ft.: Color change to BROWN (10YR 4/3), very hard, prominent oxides

OLIVE-BROWN SERPENTINITE (2.5Y 4/3) Moderately consolidated, low hardness, weak to friable, closely fractured, deeply weathered

@ 17 ft.: Sheared melange texture

Becoming DARK GRAYISH BROWN (2.5Y 4/2) melange, crushed, soft (plastic)

@ 20 ft.: More resistant metased/shale, chunks in matrix

@ 22 ft.: Sheared melange

Gray metased in melange

Bottom of boring at 23.7 ft.
No groundwater encountered.
Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

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MACTEC

Log of Boring BB2ASB100
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-27

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	May	6-8-06

Date 5/9/05
Equipment Marl M-10
Drilling Method 8" dia. Hollow Stem Auger (HSA)
Sampler Mod-Cal, Shelby, SPT
Hammer Weight 140 lb Drop 30 in.
Logged by A. Henke Datum PLLW
Surface Elevation 256
Northing 480665.168 Easting 1428958.687

Other Tests/Drilling Notes	Moisture Content (%)	Dry Density (pcf)	Pocket Pen (Tsf)	Torvane (Ksf)	Blows per Foot*	Depth (ft.)	Sampler Type	Graphic Log	
						0			VERY DARK BROWN SILTY SAND WITH GRAVEL (SM) (10YR 2/2) Medium dense, moist, 60% sand, 20% gravel, 20% fines
-200 = 13	9.3	114			15^				
TxUU = 1552(155.5)	18.7	103			8^				REDDISH BROWN CLAYEY SAND WITH GRAVEL (SC) (5YR 4/4) Medium dense
					8^				DARK YELLOWISH BROWN LEAN CLAY WITH SAND (CL) (10YR 4/4) Stiff, moist, 80% clay, 20% sand
TxUU = 1269.5(300)	21.2	102.4			8^	5			
LL=20, PL=14, PI=6 DSCD = 77.5(39)	18.3	108.5			13^				BROWN SILTY CLAYEY SAND (SC-SM) (10YR 2/1) Medium dense, moist
UC = 4198.1	24.3	100.5			14^				ORANGE-BROWN FAT CLAY WITH SAND (CH) Stiff, moist
	59.5					10			
	44.8	66			30^				LIGHT OLIVE-GRAY SERPENTINITE (5Y 6/2) Moderately consolidated, low hardness, crushed
					68/10"				
									Bottom of boring at 14 ft. No groundwater encountered. Backfilled with cuttings and tamped.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

GEOTECH_BORING_NEW_MACTEC 57255_PRESIDIO.GPJ GEOTECH.GDT 10/6/05

MACTEC

Boring Log BB2ASB101
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-28

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255 004122		10/05	MAY	6-8-06

Equipment: Hand Auger
Sample Method:
Hole Diameter:
Surface Elevation: Date: 5/13/05
Reference Datum:
Logged By: A. Henke

	Recovery (inches)	Sample Number	Depth (ft.) Sample	
GROUND SURFACE			0	
	6	BB2ASB		Olive Gray Poorly Graded Sand (SP) (5Y 5/2) Loose, moist, 95% sand, 5% silt
	6	112 (0.5)		Bottom of boring at 1 foot.

* Blow counts with an * are Mod-Cal sampler blow counts, using a safety trip hammer, converted to standard penetration test N-values by multiplying the field values by 0.8. Blow counts with an ** are standard penetration test N-values converted by multiplying field values by 1.2. Blow counts with an ^ are Mod-Cal sampler blow counts converted to standard penetration test N-values by multiplying the field values by 0.7. Blow counts without either *, **, or ^ are standard penetration test N-values.

BORING_WELL_MACTEC 57255_PRESIDIO.GPJ GEOL.GDT 10/26/05

MACTEC

Boring Log BB2ASB112
Field Investigation Report
Baker Beach Disturbed Areas BBDA-1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE
A3-29

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
CN	57255.004122		10/05		

APPENDIX B

CULTURAL RESOURCE BASELINE AND IMPACT ASSESSMENT AND WEST BATTERY AND FORT SCOTT ENDICOTT BATTERIES – CONSTRUCTION, EVOLUTION, AND MODIFICATIONS

URS

February 21, 2006

Mr. George Ford
Presidio Trust
P. O. Box 29052
San Francisco, CA 94129

Re: Draft Final Report for Baker Beach Cultural Resource Evaluation

Dear Mr. Ford:

Enclosed are three copies of the report titled "Cultural Resources Baseline and Impact Assessment for the Baker Beach Disturbed Area (BBDA's) 1, 1A, 2 and 2A Remedial Actions". An electronic copy of this report is available on the URS FTP site, per our prior communications.

Thank you for the opportunity to work on this interesting and challenging project.

Sincerely,

URS CORPORATION

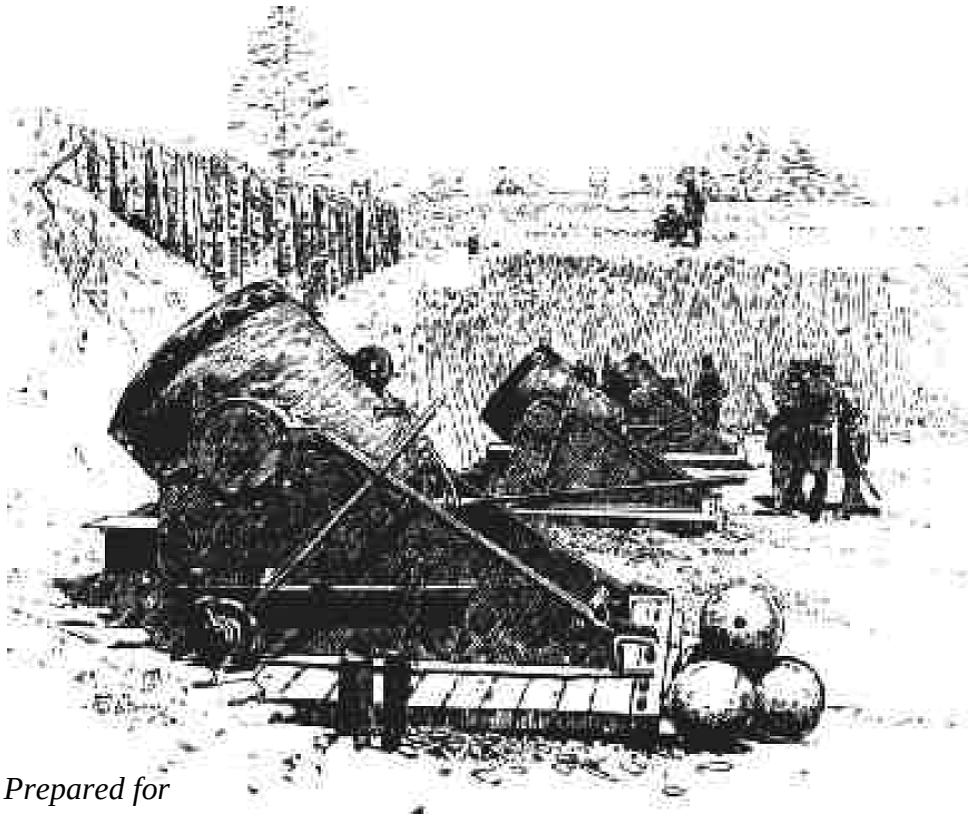
Vance G. Bente

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
Tel: 510.893.3600
Fax: 510.874.3268

DRAFT TECHNICAL REPORT

CULTURAL RESOURCE BASELINE AND IMPACT ASSESSMENT

For The Baker Beach Disturbed Areas (BBDAs) 1, 1A, 2, and 2A Remedial Action



Prepared for

The Presidio Trust, 34 Graham Street, San Francisco, CA 94129-0052

February 2006

Produced in cooperation with the National Park Service, with contributions by John Martini, Historian, and Anna Henke, MACTEC

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
26814549

TABLE OF CONTENTS

DRAFT

Section 1 Introduction 1-1

1.1 Regulatory Background 1-1

Section 2 Setting 2-1

2.1 The Project Area 2-1
2.1.1 The Area of Potential Effects 2-1
2.2 Prehistoric Setting 2-3
2.3 Historic Setting 2-4
2.3.1 Research Goals and Sources 2-4
2.3.2 Introduction 2-6
2.4 Cultural Resources in the Project Area 2-44
2.4.1 Field Reconnaissance of Baker Beach Remediation Project Area 2-46
2.4.2 Field Sampling 2-47
2.4.3 Area of Potential effects Expansion – Merchant Road 2-73

Section 3 Mitigation Planning 3-1

3.1 Mitigation Planning – End Condition 3-1
3.2 Landscape Considerations 3-2

Section 4 Potential Effects and Cumulative Effects 4-1

Section 5 References 5-1

Tables

2-1	Cultural Resources Inventory Designations
2-2	List of Vegetative Species Removed from West Battery Area During Brush Clearing and Removal
2-3	Artifacts Recovered During Vegetation Removal
2-4	Baker Beach Test Pits – Basic Stratigraphy and Characterization of Debris
2-5	Baker Beach Disturbed Area 1- Test Pit 102 Representative Artifact Description

Figures

1	Landfill Location Map: Project Area
2	Area of Potential effects
3	The visibility and vulnerability of masonry works is illustrated by this view of the fort at Fort Point in the Presidio, c1900
4	Prototypical plan of an earthwork drawing: "Plans Sections and Elevations of a Barbette Battery as Proposed by the Board of Engineers for Fortifications," 1868 (NARA RG 77, Drawer 155, Sheet 14)
5	Parts of a Rodman Gun & Carriage
6	Section Through an Emplacement Showing Names of Architectural Features
7	A "Plan of 1870" two gun emplacement at East Battery, Fort Scott, c1910. Note the entrance to the service magazine at right. (GOGA, PARC, FOPO Collection.)
8	A Union 13-inch mortar Model 1861 installed during the siege of Petersburg, VA, in 1864. (NARA)
9	Platform for a 13-inch seacoast mortar, 1870. This is the type of platform installed at West Battery. (NARA, RG 77)
10	Detail from drawing titled "Cross-section of Parapets Shewing [sic]. Their Construction in Sand," 1871. Note the layers of sods, mould, and clayey soil on superior slope. (NARA, RG 77, Drawer 155, Sheet 17)
11	Two views of Endicott batteries at Fort Scott along the former location of West Battery.
12	From left to right are Batteries Boutelle, Marcus Miller, Cranston, and Lancaster. A portion of a trapezoidal 1870s traverse #21 is visible between Batteries Boutelle and Marcus Miller. A WWI cantonment area is visible beyond Battery Boutelle. (GOGA, PARC, Interp Coll)
13	Extent of completed earthwork batteries above Fort Point in 1890. Current Remedial Action project areas are circled.

14 Cross-section of a West Battery emplacement for Rodman guns. The traverse and its service magazine are also shown. (From the engineers' 1870 proposal for barbette batteries above Fort Point.)

15 Aerial view of East Battery before construction of the Golden Gate Bridge toll plaza, showing the covered way and parados behind the emplacements. Battery Lancaster is at lower right. (Courtesy GG Bridge, Hwy & Trans. Dist.)

16 A pair of 15-inch Rodmans in West Battery as portrayed in an 1877 issue of "The Wasp," a satirical San Francisco publication. The accompanying article berated the U.S. Government for wasting money on constructing obsolete fortifications. The artist took several liberties with perspective and location, since Fort Point is not visible at this angle from West Battery. Also, the fort is drawn backwards. (California Historical Society)

17 West Battery in 1880 (GOGA, PARC)

18 A 12-inch rifle in Battery Godfrey at the moment of firing, c1915. The brick entrance to Traverse #27, integrated into Godfrey's earthworks, is visible at lower left. (GOGA, PARC)

19 A pair of 8-inch rifled Rodmans and the covered way behind East Battery, 1915. The buildings of the Panama Pacific International Exposition can be seen in the distance. (GOGA, FOPO Coll)

20 Fort Point and a portion of West Battery as viewed from the bay, c1890. Note the 15-inch Rodmans mounted between the traverses. (California Historical Society)

21 The traverses of West Battery appeared like a serrated edge in this view from Broadway and Lyon Streets in Pacific Heights. A portion of the Presidio's main post is in the foreground. (California Historical Society)

22 Section of original 1870 engineer plan showing Traverses 21 (top) and 22 (bottom) and positions for 13-inch mortars. Remedial Site BBDA 1. (NARA RG 77, Drawer 94, Sheet 102)

23 Three views of Traverse 21, view north. Note also the change in road width and the 3-foot height increase of the open area behind the battery

24 Section "f, 1" through mortar positions, showing original height of road cut behind emplacement. (NARA RG 77, Drawer 94, Sheet 102)

25 The outlines of Traverse 21, its magazine, and the former mortar battery location are visible as dotted lines in this 1902 proposal for an extension of Boutelle. Remedial Site BBDA 1. (PARC, GOGA)

26 1922 incinerator on dumpsite. View looking south. Remedial site BBDA 1. (GOGA, PARC)

27 1934 incinerator. View north. Note excavation into earthworks at right. Remedial site BBDA 1. (GOGA, PARC)

28 Approximate locations of two incinerators: 1922 (lower) and 1934 (upper)

29 The "new" incinerator at the dumpsite, lower right. February 1935. (Courtesy GG Bridge, Hwy & Trans. Dist.)

30 An aerial photo taken in May 1967 documents extensive fill on the former site of both the dump and across the road behind the batteries. A pond of water has apparently formed directly over the dumpsite. The curved outlines of the traverses flanking the former battery are still visible. Remedial Site BBDA 1. (Courtesy GG Bridge, Hwy & Trans. Dist.)

31 Section of original 1870 engineer plan showing Traverses 27 (top) and 28 (bottom), and Rodman positions #58 and #59. Section a – 1 is the site of the present overlook access road. Remedial Site BBDA 2A. (NARA RG 77, Drawer 94, Sheet 102)

32 Section "a, 1" through Rodman positions #58 and #59, showing deep road cut (now filled) behind emplacement. (NARA RG 77, Drawer 94, Sheet 102)

33 The three 1870s traverses on the left flank of Battery Godfrey are visible in this February 1942 view. The curved landform between #27 and #28 is a parados constructed to protect the left flank of Godfrey. Tire tracks probably indicate dump activities on the forward slope. Remedial site BBDA 2A. (PARC, GOGA, Cooper Collection)

34 Sections through two portions of Battery Marcus Miller. Note the impressive thickness of the concrete in front of the magazines (upper). (Report of Completed Works, Form 7, Marcus Miller)

35 The terraced superior slopes of Endicott era batteries are visible above Fort Point in this view taken c1900. A 12-inch disappearing rifle at Battery Lancaster appears at left. (California Historical Society)

36 East Battery partly filled in October 1937. Compare to 1984 conditions in Figure 15. (Courtesy GG Bridge, Hwy & Trans. Dist.)

37 Dumping activities occurring near Golden Gate Bridge toll plaza in May 1967. Battery Marcus Miller area at left, East Battery area at right. (Courtesy GG Bridge, Hwy & Trans. Dist.)

38 Survey Results and Vegetation Removal Areas

39 MACTEC G

40 Schematic Trench Location Relative to 1890 West Battery Armament Sketch

41 Interbedding of Soil Units

42 Entrance to Magazine 21

43 West Battery Mortar XLIV Platform

44 Post-Endicott Period Topography in the Vicinity of Magazines 27 and 28

Appendices

A	Report of the Field Exercise, Baker Beach Remediation Project, Archaeological Survey Field Notes
B	Monitoring Notes: Vegetation Removal, Geotechnical Test Pitting, and Archaeological Investigations
C	Test Pit Logs
D	Soil Profiles
E	Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2, and 2A
F	Merchant Road Tree Island Building History

Attachments

1	Soil Profile Overlays

Acronyms

APE	Area of Potential Effects
BBDA(s)	Baker Beach Disturbed Area(s)
FOPO	Fort Point (Collection)
GGBHTD	Golden Gate Bridge, Highway, and Transportation District
GGNRA	Golden Gate National Recreation Area (also cited as GOGA in photo captions)
NARA	National Archives and Records Administration
NPS	National Park Service
PARC	Park Archives and Records Center
RG	Record Group

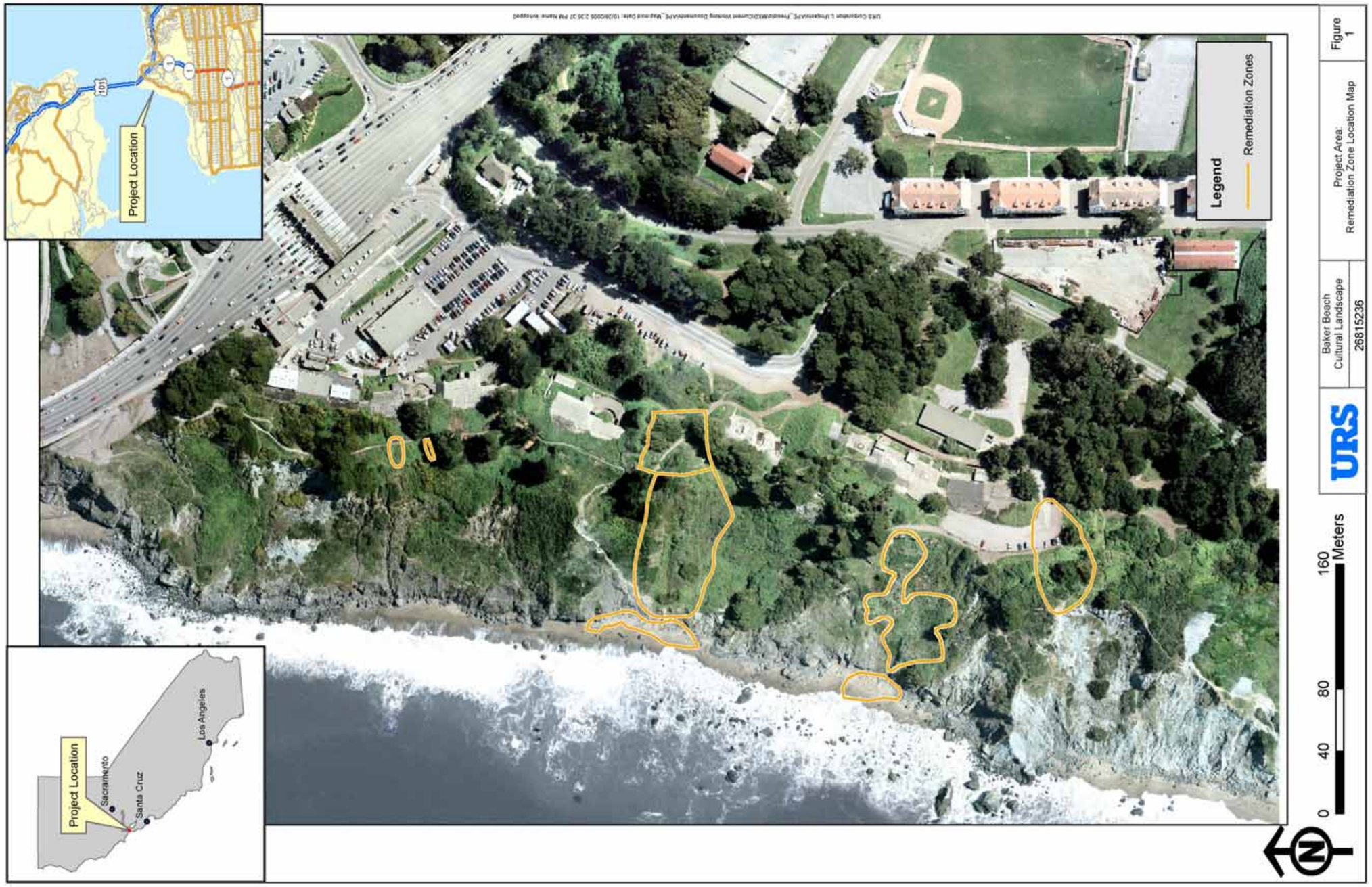
The Presidio Trust and the NPS (NPS) are working jointly to plan the removal of landfills known as Baker Beach Disturbed Areas (BBDAs) 1, 1A, 2, and 2A, shown on the illustration of the Historic Battery Survey (Figure 1). The disturbed areas are comprised of soil and debris deposits (landfills) created by 20th century disposal activity along the bluffs. The natural bluffs and cliffs along this portion of the coastline are composed largely of serpentinite bedrock outcrops. Project goals include removal of all contaminated soil and fill material, exposure of serpentinite soils and bedrock, and restoration of native vegetation and habitat. This document provides data pertinent to the cultural resources located on those bluffs and the potential for the undertaking to have an effect on those resources. The Presidio of San Francisco was designated a National Historic Landmark in 1963. The bluffs along this portion of the coastline are the location of 19th century fortifications that contribute to the Presidio's National Historic Landmark status.

Following this introduction, Section 2 presents a brief statement on the general environmental setting of the project area and a description of the Area of Potential Effects (APE). This description is followed by a description and discussion of the resources located along the bluff, both within and adjacent to the disturbed areas. Section 2 also provides a list of properties that are contributing elements to the National Historic Landmark status of the Presidio of San Francisco within the project area.

In Section 3, significant cultural resources are addressed relative to the undertaking, and measures/actions required to complete the characterization/description of those resources are recommended. Additional data are required to sufficiently inform the design documents so as to avoid effect to the resources. Section 4 provides brief comment on the potential for impacts. Section 5 provides a list of the references consulted and cited. Appendices to the document include a report of the intensive archaeological survey of the project APE, an annotated CAD depicting the disturbed areas as currently mapped and the structures and landforms that historically comprised the resources, and a compilation of the data used in the formulation of this report.

1.1 REGULATORY BACKGROUND

Fort Point and the Presidio are both parts of the Golden Gate National Recreation Area (GGNRA), and the BBDA is within the NPS legislated jurisdiction. Both the NPS and the Presidio Trust, the agency conducting the BBDA remediation project, have Programmatic Agreements for their cultural resource management processes, which were mutually developed between these two agencies, the California Office of Historic Preservation, and the Advisory Council on Historic Preservation. Cultural resource assessments for the BBDA have been conducted in a manner that meets the processes established within these Programmatic Agreements and parallels federal agency responsibilities under the National Historic Preservation Act (as amended 1992) as promulgated at 36CFR800 (Protection of Historic Properties). The data provided here will be used in the compilation of relevant sections of a California Environmental Quality Act Initial Study, required by the Department of Toxic Substances Control, and a Presidio Trust Project Screening.


Project Location
101
Legend
Remediation Zones
Project Location
Sacramento
Santa Cruz
Los Angeles
0
40
80
160
Meters
N
Figure 1
Project Area:
Remediation Zone Location Map
Baker Beach
Cultural Landscape
26815236
URS

2.1 THE PROJECT AREA

The project area is located within the Coastal Bluffs Planning Area of the Presidio of San Francisco. The Golden Gate Bridge Highway and Transportation District (GGBHTD) use area forms the project boundary to the north, and Lincoln Boulevard and the Pacific Ocean constitute the project boundaries to the east and west, respectively. The southern boundary is approximately 250 feet southern of the south end of the parking area at Battery Godfrey. BBDAs 1, 1A, 2, and 2A are situated immediately west of Endicott Era Batteries Marcus Miller, Boutelle, and Godfrey, and overly portions of the 19th century West Battery.

The BBDA 1, 1A, 2, and 2A project falls within the boundaries of the Presidio of San Francisco National Historic Landmark District (designated in 1963), managed by both the NPS and the Presidio Trust. It is also immediately adjacent to, and historically associated with, the Fort Point National Historic Monument (designated in 1970) and the Golden Gate Bridge National Historic Landmark (determined eligible for listing on the National Register of Historic Places in 1998). As such, many of the significant historic properties within the project area were originally identified and documented by previous surveys, which extend back to the 1960s. Additional research was conducted through the Presidio Trust, URS, and the NPS to acquire greater detail on these historic properties to inform the design of the Remedial Action Plan for the BBDA. The findings of this work are summarized here and recommendations for the completion of treatment of significant historic properties are designed to ensure that no adverse effect would result from project actions to properties contributing to either the Presidio or that might be individually eligible for listing on the National Register of Historic Places.

Other than the cultural landscape comprising the 1870s and 1890s coastal artillery fortifications, the project area consists of open space natural areas overlooking the Pacific Ocean. The area is covered by dense vegetation consisting primarily of introduced species that mask the natural as well as much of the man-made landforms along the bluffs. The majority of the natural growth directly around the batteries emerged in the latter half of the 20th century, outside of the period of significance of the batteries or the Presidio National Historic Landmark (1776-1945). The Coastal Trail runs along the top of the bluff and passes through portions of BBDAs 1, 1A, 2, and 2A. A number of smaller nonmaintained trails are also found in the project area.

2.1.1 The Area of Potential Effects

The APE (Figure 2), for purposes of the cultural resources investigation, was initially established at a preliminary planning meeting on March 5, 2004. The subsequent APE was confirmed at a meeting conducted on April 7, 2004. Participants at the meeting included Ms. Sannie Osborn (Trust), Mr. Leo Barker (NPS), and Mr. Vance Benté (URS). In July 28, 2004, the APE was revised to encompass the area identified to accommodate the relocation of Merchant Road.

The area as depicted on Figure 2 can be described as follows:

> From a point along the high tide line the boundary of the area of potential effects runs north, and then turns northeast, for 500 feet, and east, for about 150 feet, to intersect with the southwest side of the Golden Gate Bridge, following along the

Legend
APE (Area of Potential Effect)
Figure 2
Area of Potential Effect
Baker Beach Cultural Landscape
26814549
URS
0
40
80
160
Meters
N

Bridge's southeast side for approximately 300 feet; then turning southwest for 80 feet along the edge of the Golden Gate Bridge District property, and then turning south for 240 feet along the western edge of the district's property, then turning southeast through the district's parking lot to the opposite end, some 320 feet, to a point on Merchant Road.

Following Merchant Road northeast 160 feet, and then following the edge of the undeveloped land to a point on the left side of Highway 101 and the overpass over Lincoln Boulevard; there it turns south-southwest and follows Lincoln Boulevard to Storey Road, turning south for 70 feet, and southwest for approximately 120 feet, then southwest for 200 feet, and then west approximately 130 feet crossing Lincoln Boulevard and following along the left side of Lincoln Boulevard to a point approximately 120 feet south of Langdon Court and there turning west for 200 feet, and then turning south, then southwest, and then south for some 500 feet to a point on the west side of Lincoln Boulevard.

And then turning west, then northwest for 450 feet, and then north-northwest for 490 feet to the coastline. The APE fronts on the coastline for some 1,400 feet.

2.2 PREHISTORIC SETTING

Human occupation in the San Francisco Bay Area may extend back as far as 8,000 years. Archaeological remains in the city of San Francisco date to about 5,000 before present. Carbon dates from sites in the Crissy Field area of the Presidio of San Francisco, approximately ¼ mile east of the project area, demonstrate that native people lived in this locale at least 1,300 years ago (Alley et al. 1993; Clark 2001; Giambastiani and Fitzgerald 2001). Historically, the indigenous culture living in this area of Central California is known as the Costanos, Costanoans, and/or more recently Ohlone (Levy 1978). The specific subgroup living in the San Francisco vicinity were known ethnohistorically as the Yelamu, a semisedentary foraging people living in three village clusters around Mission Creek, Visitacion Valley, and the northwestern tip of the peninsula. This last cluster is associated with one specific village area called Peltlenuc, which existed somewhere along the northern tip of the San Francisco peninsula, perhaps in the Presidio of San Francisco (Milliken 1995:61-63).

In 1993, the NPS established management zones within the Presidio of San Francisco to facilitate its approach to the identification and preservation of both historic and prehistoric archaeological resources (Alley et al. 1993). Zones identified as potentially containing prehistoric sites included the Lobos Creek drainage, the low bluffs and marshlands along Crissy Field, the watershed of Tennessee Hollow, and the spring drainage running from the area of Infantry Terrace to Crissy Field – currently buried beneath the western Parade Ground of the Presidio's Main Post. In about 1998 the high bluffs above Baker Beach, Fort Point, and the west end of Crissy Field were added as possible zones of prehistoric occupation, as well as a major spring drainage on the northeastern side of Fort Winfield Scott.

All of the above areas of prehistoric sensitivity are included in the cultural resources inventory of the Presidio National Historic Landmark District, and both the Presidio Trust and the NPS have used these expected resource areas and contributing historic property inventories in Programmatic Agreements with both the California Office of Historic Preservation and the

Advisory Council on Historic Preservation for the management of cultural resources within the Presidio under the National Historic Preservation Act.

Given the great landform modifications required by the construction of Batteries West, Godfrey, Boutelle and Marcus Miller, it is unlikely, had there been occupation sites or activity areas attributable to Native Americans in the project area, that evidence of that activity would have survived to present day. Possible evidence of prehistoric use of the area is limited to observations of isolated shell fragments in the southern APE between two 1870s powder magazines. That this shell represents prehistoric activity has not been confirmed. During a two-day reconnaissance of the area, the intent of which was primarily to gather information pertinent to the historic period built environment, no evidence of prehistoric use of the area was observed. However, it should be noted that observation was limited to areas of low grass immediately adjacent to the bluffs, and the numerous trails that crisscross the project area. By far, the majority of the available ground surface not occupied by a structure is covered in dense, often impenetrable vegetation that prohibits visual inspection.

2.3 HISTORIC SETTING

2.3.1 Research Goals and Sources

Numerous sources detail the coastal fortifications within in the APE. Primary among these are a series of Historic Resource Studies, a standard work used by the NPS to provide historic context and to frame the management of historic properties in national parks. At GGNRA, these studies focused on the great array of historic military reservations and fortifications developed to defend the harbor of San Francisco Bay (Lewis 1965; Bearss 1973; Thompson 1979; Thompson 1997; Freeman et al. 1999). Historic maps and photographs available through the GGNRA Park Archives and Records Center (PARC) were also used in this study.

Based on discussions conducted during pre-award meetings, and a subsequent meeting convened to finalize the research design, the PARC and the National Archives at San Bruno were identified as the primary sources of data relevant to the research goals of the project. Seeking additional information from the central National Archives at College Park, MD, was carried out on a limited basis. These efforts were restricted to searches through specific record groups (RGs) where illustrations of San Francisco fortifications were previously known to exist.

2.3.1.1 Research Conducted at the Presidio Archives (PARC)

The focus of the research to be conducted at Presidio Archives included the notes written and compiled by Erwin Thompson for his publication *Historic Resource Study, Seacoast Fortifications,* the research notes used to compile the NPS' *Seacoast Fortifications Preservation Manual*, and the U.S. Army Corps of Engineers records including "completion reports" and armament reports with "as-builts" for West Battery and the Endicott Era batteries.

A general review of the holdings was undertaken to identify a set of high-resolution, historic (1942) aerial photos known as the "Cooper Collection," and any data pertaining to the design, construction, or maintenance of West Battery. The photo collection was not located during the research undertaken for this report, but was subsequently located at the San Francisco Maritime National Historic Park Archive and is addressed in Section 3.

Additional collections reviewed at the Park Archives included the Fort Point Drawing Collection, the historic photograph reference binders, the Harbor Defenses of San Francisco fortification drawing collections, and the "Historical Record Buildings, Fort Winfield Scott."

2.3.1.2 Research Conducted at the National Archives, San Bruno

The National Archives at San Bruno were accessed to recover any data that were additive to the materials recovered from the PARC. Review of the facility's holdings indicated little material pertinent to West Battery, or any other pre-1890 West Coast military installation/fortification among its holdings. Discussion with archivists Robert Glass and John Hedger revealed that nearly all pre-1890 historic military records from the West Coast had been relocated to the National Archives' primary facility in College Park, Maryland. Mr. Glass, National Archives local specialist on seacoast fortifications, confirmed that the facility at San Bruno did not include among its collection "as-builts," photos, or maps of West Battery.

Additional materials, listed under Research Conducted in Section 5 were reviewed to recover any secondary or ancillary information contained there.

2.3.1.3 Research Conducted at the National Archives II, College Park, MD

A contract researcher was enlisted to review specific collections in the cartographic branch of the National Archives II where drawings of generic earthwork batteries and the "Plan of 1870" fortifications constructed above Fort Point were known to exist. These collections were consulted in the hope that additional information would be identified that had been overlooked by previous researchers. These collections were all within Record Group 77, Corps of Engineers, specifically drawer numbers W-9, 93, 94, 97, 155, and 256. Text research was not conducted at the National Archives II due to the fact that historians Bearss and Thompson had already examined these records extensively for earlier Historic Resources Studies.

2.3.1.4 Research Conducted at the Golden Gate Bridge, Highway, and Transportation District Archive

GGBHTD maintains an archive of historic photographs documenting the construction of the bridge beginning in 1933, many of which include views of the adjacent fortifications in Fort Point. These photographs are useful for documenting conditions prior to construction of the toll plaza as well as subsequent building and filling operations behind the batteries. These collections are arranged in chronological order in a series of photo albums, which are maintained by the Director of Public Relations.

2.3.1.5 Research Conducted at the California Historical Society

Numerous photographs of the Fort Scott batteries were located in the collections of the California Historical Society in San Francisco, especially distance views of the earthworks at West and East Batteries. Photo collections consulted were "San Francisco – Presidio," "San Francisco – Fort Point," and "San Francisco – Fort Winfield Scott."

2.3.2 Introduction

The Presidio Trust has commissioned this investigation into the background, context, construction, alteration, and post-military uses of these batteries. The goal is to develop information that will support URS' historic resource studies on this area of the Presidio, which are being prepared to provide documentation on historic resources that may be encountered during remedial actions at the BBDAs in the Presidio of San Francisco. This report on the Presidio batteries will build and expand upon the excellent historic narrative portion of the report *Cultural Resource Baseline and Impact Assessment for the Baker Beach Disturbed Areas* prepared for the Presidio Trust by URS in August 2004.

Major emphasis in the report is given to the history of the 1870s earthworks in the areas designated BBDA 1 (between Batteries Marcus Miller and Boutelle) and BBDA 2A (adjacent to the left flank of Battery Godfrey) because of the documented existence of "Plan of 1870" remnant earthworks and magazines in these areas and the high likelihood of encountering additional resources.

2.3.2.1 Background and Context

The line of gun batteries stretching along the Presidio bluffs south and west from the Golden Gate Bridge toll plaza form an "outdoor museum" of late 19th century fortifications that are rivaled few places elsewhere in the United States. These gun batteries, constructed between 1870 and 1900, show the transitional nature of United States defenses at the time when its harbor fortification system was undergoing the change from "storybook castle forts" filled with muzzle loading cannon to modern low-profile earth and concrete fortifications mounting long-range, rifled steel guns.

These batteries, referred to as "works" by the U.S. Army Engineers who constructed them, represent not only a time capsule of evolutionary military design, but also include some of the earliest of the modernized American fortifications constructed anywhere in this country.

Beginning in 1865, the American military began to reassess its system of harbor defenses. Battlefield lessons learned during the Civil War showed that multitiered masonry forts of the style typified by Fort Sumter in Charleston, South Carolina, and Pulaski at Savannah, Georgia had proven to be highly vulnerable to attack. Built to design standards that went back to the 1820s, these forts – and about 40 other similar works around the United States – were referred to as "Third System forts" because they represented the third generation of American fortification designs. However, during the just-finished war their towering masonry walls had proven to be inviting targets for long-range, rifled artillery fire (Figure 3). Instead of withstanding months of siege, some masonry forts had surrendered after only a few days of bombardment. (Fort Pulaski's Confederate defenders held out for only 30 hours before its 7½-foot thick-walls were penetrated by Union artillery fire.)

In addition, steam-powered warships could race past these masonry fortifications, suffering relatively minor damage to their ironclad hulls, especially when compared to the wind-propelled wooden warships that had been state-of-the-art when the Third System was begun.

The lesson was clear: all these multistoried forts had become obsolete due to advances in military technologies, including the three-story fort at Fort Point in the Presidio of San Francisco,

a work that had only been completed in 1861. These sobering revelations would have impacts both abroad as well as in the United States.

FIGURE 3 The visibility and vulnerability of masonry works is illustrated by this view of the fort at Fort Point in the Presidio, c1900

Historian E.R. Lewis, the preeminent expert in the evolution of America's coastal defenses, summarized the situation in the late 1860s:

> By 1865 several European nations were already starting to respond to the technical lessons of the Civil War by drafting plans for the construction of entirely new, and extremely expensive, types of permanent harbor defenses armored with great masses of iron, thus beginning a trend in military architecture which was to continue well into the 20th century, making use in its extreme instances of shore-mounted battleship turrets.
>
> The United States, however, was in no position to commence an extensive new system of harbor defenses. The planning engineers, mindful of the suddenness with which the existing (i.e., Third System) fortifications had been rendered obsolete, were reluctant for technical reasons to turn to elaborate works that might quickly become outmoded, as there was much to suggest–correctly, as events proved–a coming period of further rapid advances in artillery. Nor would such an undertaking if proposed have stood much chance of realization, for under the extreme postwar stress on reduced military spending, any appropriations large enough to be meaningful would also have been out of the question.

The U.S. Engineers carried out limited testing with armor plates attached to the faces of existing masonry forts, but with disappointing results. Iron plates frequently split or shattered when hit by projectiles, and the sheer weight of the plates presented huge installation problems. Costs were enormous, and one glaring defect in the plan could not be overlooked; as one historian wrote, "The fort was still a large, obvious target, easy to hit." (Williford 2005, pg.3).

Even during these tests, the engineers' thinking was leaning towards a radically new design based upon the simple earthen batteries erected during the Civil War. These emergency works had been constructed of copious amounts of earth and sand cover, and had very low profiles when viewed by an attacking enemy. These improvised fortifications, they noted, had been simple to build, provided excellent protection against enemy fire, and were easy to maintain and repair. Earthworks, they decided, would become be the basis of the next generation of permanent American forts.

In August 1868 the New York Board presented a report concerning the proper profile for postwar barbette batteries. These specifications would be the standards for what came to be called the "Plan of 1870" because of the year of their actual implementation (Figure 4). Historian Erwin Thompson (1979) summarized the 1868 Board's findings:

- As a material for parapets, sand was far superior to clay.
- A parapet of sand, 20 feet between the crests supported by a breast-height wall 4 feet thick, would suffice as a minimum.
- A wall in the body of the parapet was not recommended.
- The introduction of iron plates in parapets was inexpedient except in peculiar cases.
- The minimum distance between 15-inch guns should be 34 feet, and the minimum distance between 10-inch guns should be 22 feet.
- The terreplein should not be less than 30 feet in depth.
- Every two guns exposed to direct or oblique fire and every gun subjected to enfilading fire should have a traverse. When practicable, guns liable to reverse fire should have a parados.
- Minimum dimensions for a traverse should be 14 feet in height, 12 feet in thickness at the top, and 20 feet in thickness at the bottom.
- Service magazines were indispensable. Good well-rammed concrete was the best material, with no lining.

The board concluded that the use of guns in barbette batteries would be greatly modified in the future, and it recommended that the present carriages and platforms not be constructed in great numbers (Thompson 1979, pp. 81-82; U.S. Army Board of Engineers 1868).

(The last-mentioned carriages and platforms would be a heated topic of research and development. The Ordnance Department was then carrying out experiments on a wide variety of cannon and carriage designs, and one that showed particular potential was the "King's Depressing Carriage." This weapon was, in effect, a conventional muzzle-loading gun mounted on an inclined, sliding steel carriage. After firing, the cannon slid down and out of view for loading. Battery technology for the next half-dozen years revolved around the anticipated – but never implemented – introduction of the Depressing carriage.)

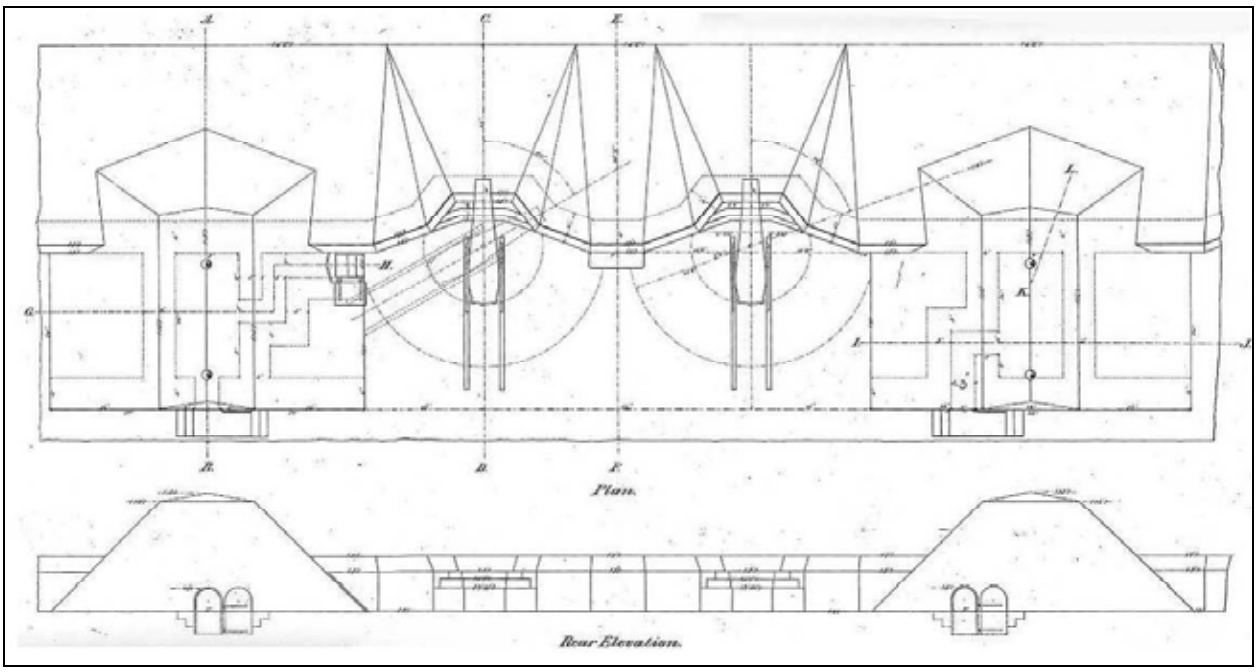


FIGURE 4 *Prototypical plan of an earthwork drawing: "Plans Sections and Elevations of a Barbette Battery as Proposed by the Board of Engineers for Fortifications," 1868 (NARA RG 77, Drawer 155, Sheet 14)*

These new American fortifications would be low-rise affairs, extending only 12 feet at most above grade when viewed from the sea. To provide maximum protection for the guns, the weapons would no longer be mounted in the long, unbroken lines of platforms built in the 1850s. It was now planned to emplace the cannon in pairs, and each pair would be separated by artificial earth hills called "traverses." Each traverse was also to house a powder magazine for ammunition storage. Brick-lined, arched tunnels through the earthworks permitted the safe movement of men and supplies during battles.

The new plans also called for a high degree of standardization of weaponry. Instead of the hodge-podge of calibers so common in pre-Civil War forts, the new batteries would mount only four different types of guns: 13-inch smoothbore mortars, 15-inch and 20-inch Rodman pattern smoothbore guns, and a 12-inch rifled Rodman gun still under development (Figure 5). (Neither of the latter two gun types, however, would ever proceed beyond the test phase.)(Martini 1999)

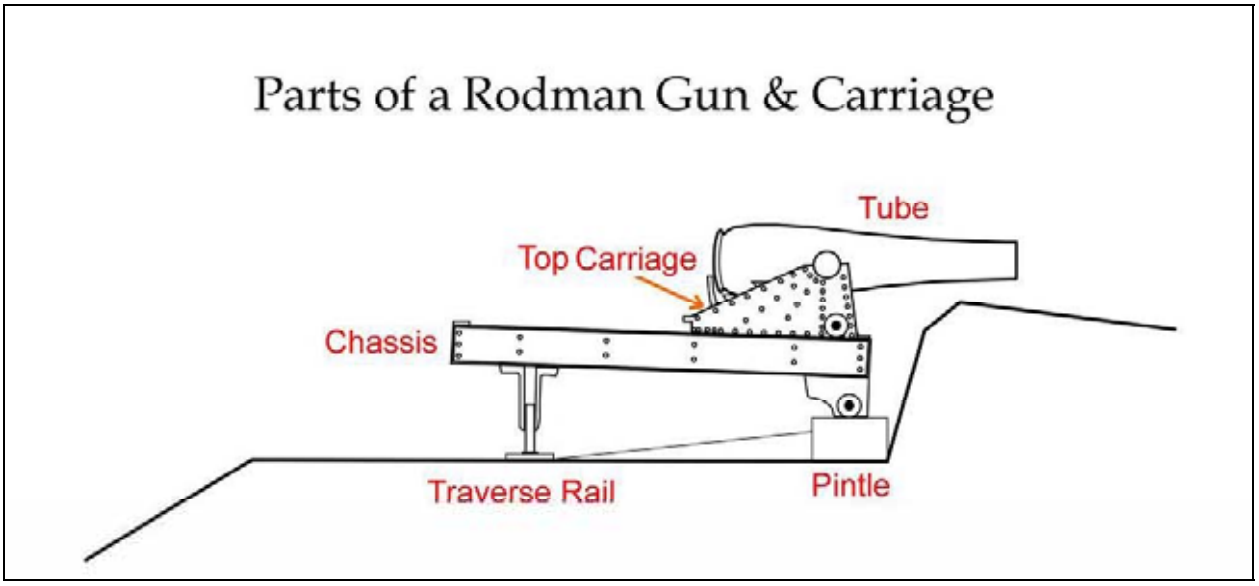


FIGURE 5 Parts of a Rodman Gun & Carriage

These batteries would be conspicuously similar in design, varying only slightly between forts due to local material availability and engineer preferences. Guns were to be emplaced entirely en barbette (i.e., mounted in the open), sitting atop simple wood or masonry firing platforms and aiming over a breast-high parapet wall directly in front of the gun (Figure 6). Set into this wall were brick steps for the gunners to use when loading powder and shell into the muzzle-loading Rodmans. Guns would be mounted in pairs, with a standard spacing of 34 feet between centerlines. Each pair of guns would be flanked by high earthen hills called "traverses," some measuring 20 feet tall, whose purpose was to prevent an enemy from being able to fire down the entire length of a gun battery (enfilading fire). And if by chance a gun were struck by enemy fire, the traverses on either side would restrict any damage to the two guns within the emplacement.

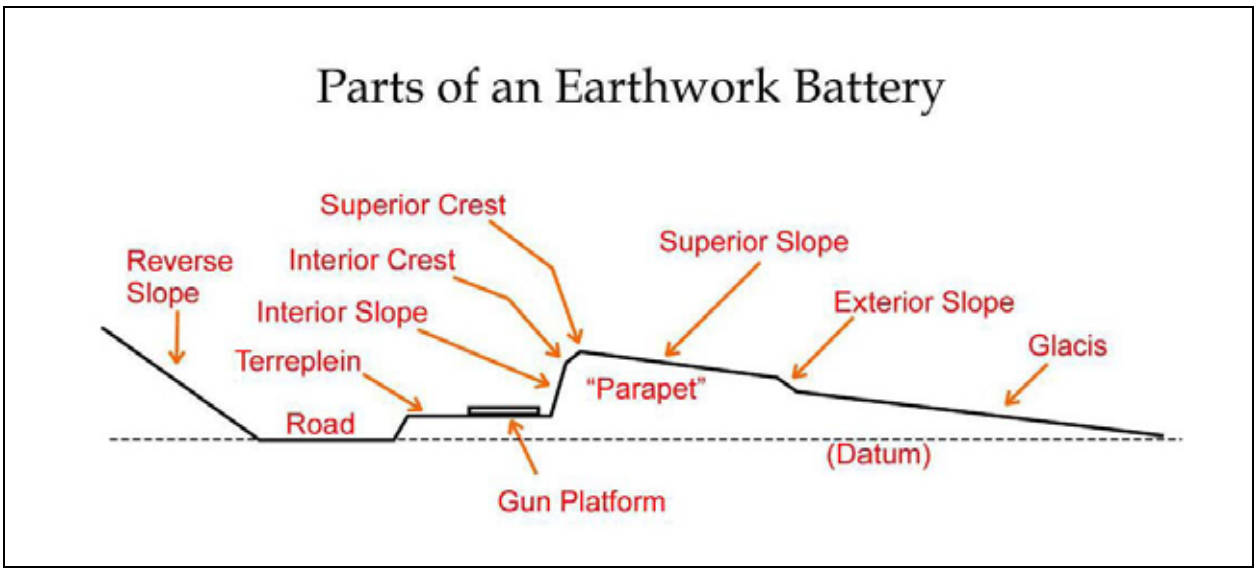


FIGURE 6 Section Through an Emplacement Showing Names of Architectural Features

Inside each traverse was service powder magazine for storing gunpowder for the battery (Figure 7). These service magazines were meant to provide ready-access for the gunners, while much larger "great magazines" located at dispersed locations held central reserves of propellant. Standard interior dimensions for a service magazine were to be 8' x 16', although exact dimensions, entrance locations, and arrangement of approach tunnels would vary. Shot (solid projectiles) and shell (hollow explosive rounds) would usually be stored outside on shot beds close to the guns themselves.

Historian Glen Williford (2005, pg. 4-5) described the flexibility and features of a typical "Plan of 1870" earthwork battery:

> These units could be strung together like beads on a string and lines or batteries could contain twenty or more gun emplacements. … In place of stone or brick, the plans incorporated the use of concrete – its first widespread application in American defenses.
>
> The principal material used for the parapet itself, any glacis in front, for the high traverse covers, and for any rear parados was sand, whose availability and cost advantage were obvious. Some 30 feet of earth or sand were specified for the depth of the terreplein. Magazines had hung wooden doors, and their interiors had special niches for oil lamps.

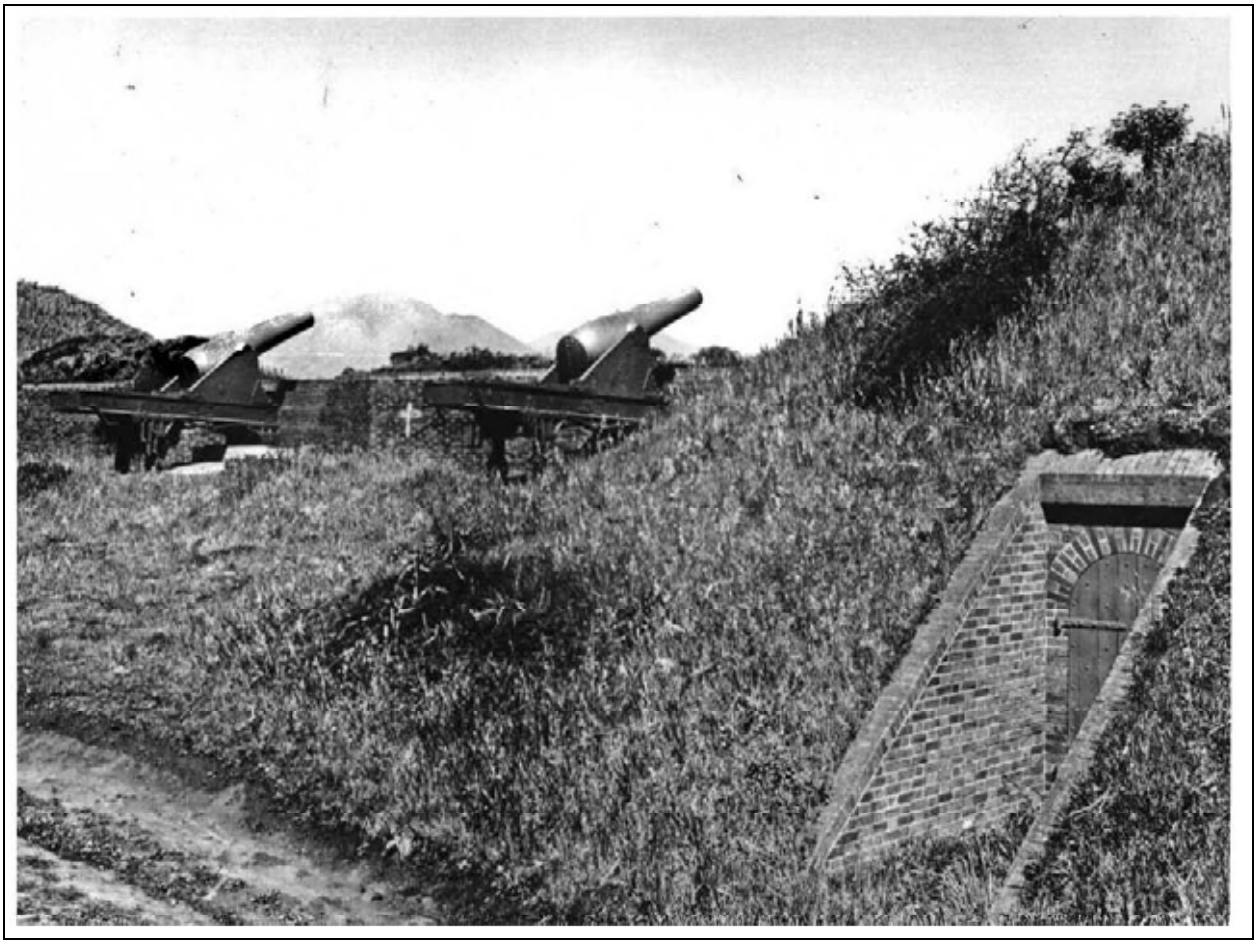


FIGURE 7 *A "Plan of 1870" two gun emplacement at East Battery, Fort Scott, c1910. Note the entrance to the service magazine at right. (GOGA, PARC, FOPO Collection.)*

Another feature of the Plan of 1870 works was the incorporation of mortars into the batteries (Figure 8). More than 100 13-inch caliber model 1861 mortars had been manufactured during the war, and it was felt their inclusion in the batteries and their plunging arcs of fire would be a perfect addition to the relatively flat trajectory fire of the Rodman cannon.

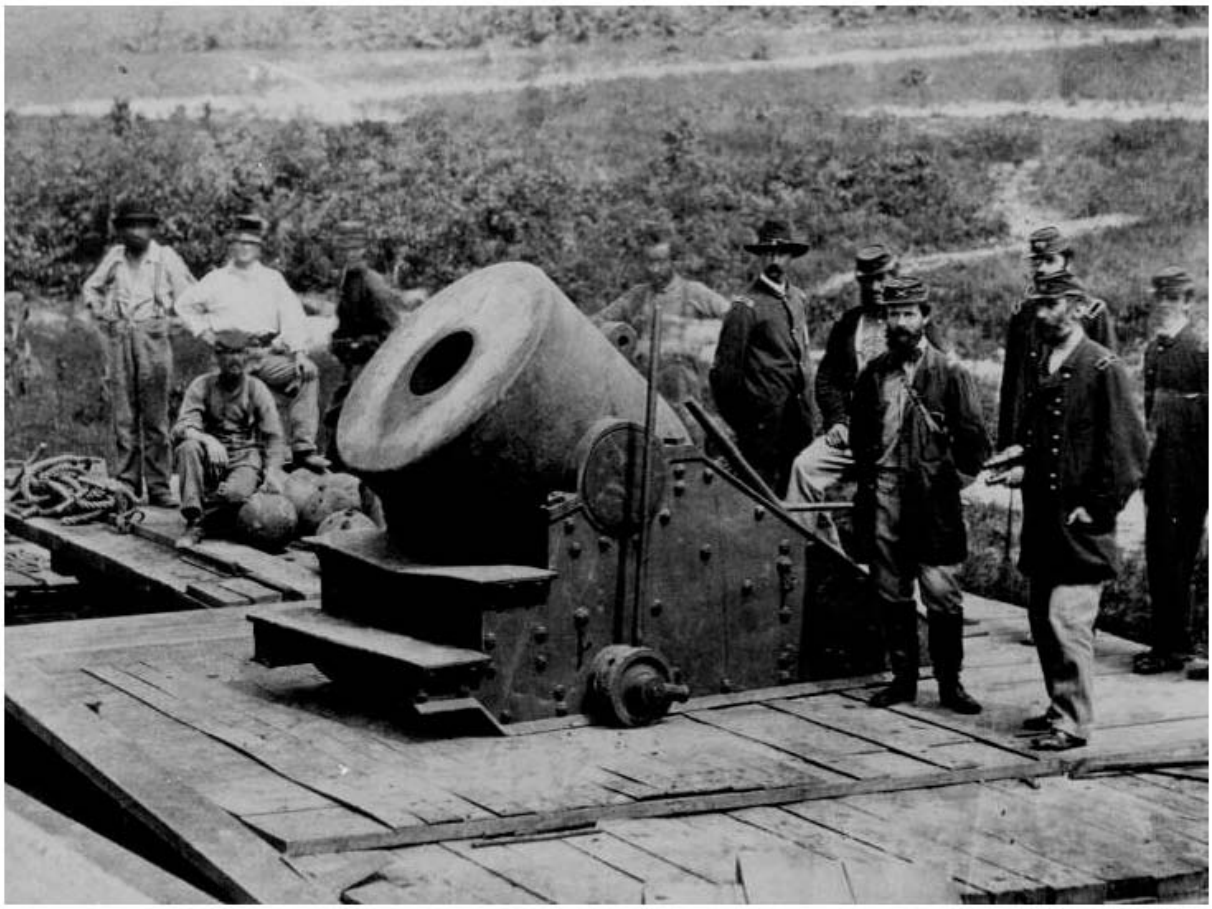


FIGURE 8 A Union 13-inch mortar Model 1861 installed during the siege of Petersburg, VA, in 1864. (NARA)

The drawback to the 13-inch mortar was its relatively short-range, slow rate of fire (weapons during this period were still aimed by brute force), and relative inaccuracy. A partial solution was to emplace mortars in groups; firing volleys of mortars at the same target greatly increased the probability of a hit. Two to four mortars per emplacement became the standard, with several mortar emplacements spaced along the length of a battery.

As opposed to the extensive masonry platforms required to support a 15-inch Rodman, mortar beds were relatively simple affairs constructed of overlapping courses of wood topped with iron skid plates. A mortar platform measured 13 feet square and 2 feet thick, and was set nearly flush with the ground. However, only three mortar emplacements around the country were ever armed before funding for the fortification program was cut off. None of these batteries were on the West Coast (Williford 2005, pp. 10-11). Numerous wooden mortar platforms were completed, though, and remained in place for decades afterwards (Figure 9). A cross-section of a related platform is depicted in Figure 10.

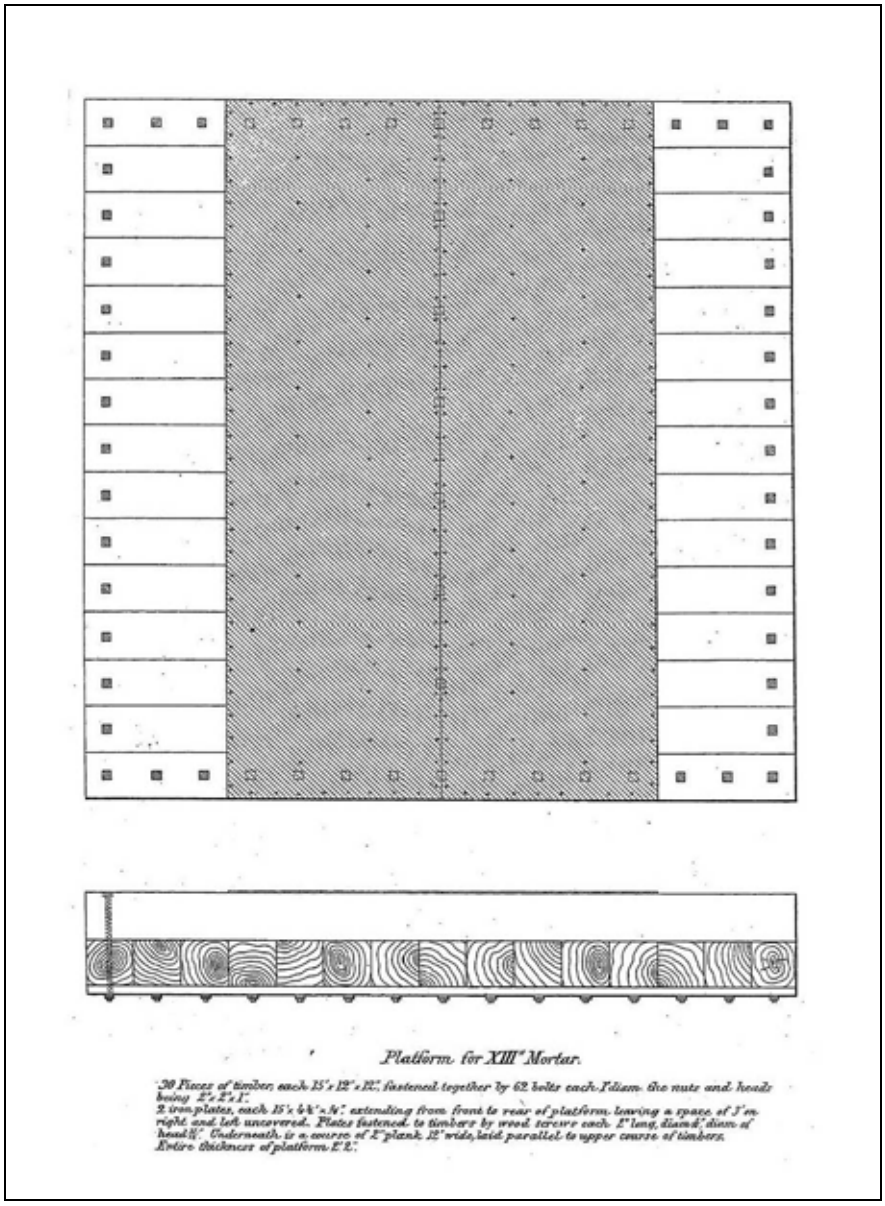


FIGURE 9 Platform for a 13-inch seacoast mortar, 1870, the type of platform installed at West Battery. (NARA, RG 77)

In 1870 the army established a special Pacific Coast Board of Engineers to oversee construction and modernization of the works around San Francisco Bay, where new batteries were proposed for Fort Point, Alcatraz Island, Angel Island, Lime Point in Marin County, and Point San Jose (Fort Mason) in San Francisco. At Fort Point the Board proposed to construct two lines of batteries on the hills behind the old masonry fort. These works would be named West Battery and East Battery, reflecting their geographic locations atop the bluffs west and east of the now-obsolete masonry fort.

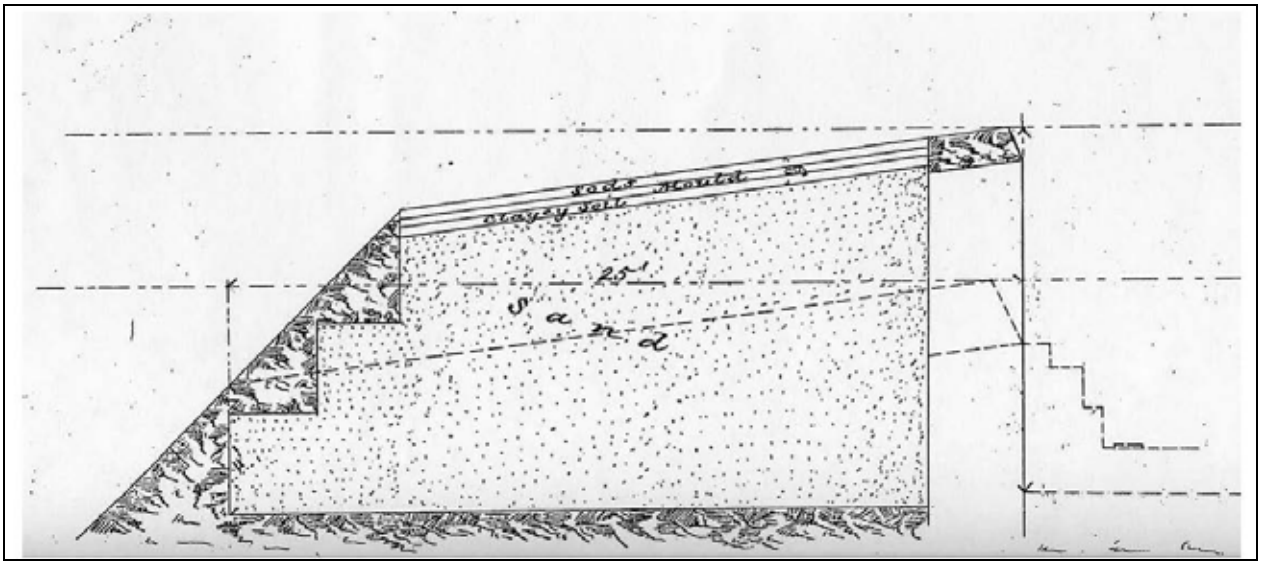


FIGURE 10 Detail from drawing titled "Cross-section of Parapets Shewing [sic]. Their Construction in Sand," 1871. Note the layers of sods, mould, and clayey soil on superior slope. (NARA, RG 77, Drawer 155, Sheet 17)

As work progressed on constructing the Plan of 1870 fortifications, financial and political realities began to rear their heads. The Congress began to question the army's continued expenditure of funds on what was becoming increasingly apparent as an obsolescent system of weapons, especially since international advances in weapons, warships, and tactics had left the old-pattern American smoothbore guns, no matter what their size, increasingly obsolescent. Rather than allocating money for modern armament and fortifications, Congress decided in 1876 to grant a mere $100,000 for "preservation and repair" of fortifications, and nothing for new construction. In 1877 things became even tighter when Congress adjourned without even passing an army appropriations bill.

For all intents and purposes, work on the Plan of 1870 ceased in 1876. Except for paltry amounts allocated for repair and preservation, no serious expenditures would occur until 1890. Again, Historian Lewis described the situation that followed:

> The deserted batteries were periodically inspected by caretakers, but neither funds nor labor was available to them for arresting the progressive deterioration that was to continue into the early 1890s. Third System forts, though patently outdated, and armed for the most part with smoothbore guns of Civil War or earlier vintage, continued to serve, of necessity, as major components of the nation's harbor defenses.
>
> This abortive program nevertheless marked a distinct turning point in American fortification practice, for the technical and tactical concepts on which it was based set a pattern that was to characterize all future harbor defense undertakings in the United States. … From this time on, a fort was a piece of real estate occupied by a number of dispersed individual batteries. Furthermore, the various items of armament intended for this project, though never in fact adopted, remained under constant development throughout the 1870s and 1880s, with the result that by about 1890 there became available greatly improved weapons around which was conceived the very advanced and extensive generation of defenses that followed (Lewis 1970, pg. 70).

In some ways, the lull in construction was a boon to U.S. Engineers. Instead of completing and arming the Plan of 1870 works, the army was compelled to wait until the early 1890s to begin construction on the next generation of defensive works, and during this period they were able to reap the windfall of technical developments in artillery and construction made by foreign powers.

During this period, numerous improvements were made that had a direct impact on America's next generation of harbor and coastal defense fortifications (Bearss 1973, pg. 286):

- Methods of manufacturing and rifling modern steel artillery pieces evolved to the point where breach-loading mechanisms could be introduced, thus allowing the use of highly efficient pointed projectiles and allowing for greater range and accuracy.
- The development of the "disappearing carriage" that utilized the recoil energy of a gun to lower itself behind a protective parapet for loading and aiming, without endangering the crew or exposing its location to the enemy
- The introduction of nitrocellulose- and nitroglycerin-based propellants that yielded higher muzzle velocities to effectively propel pointed projectiles.

In addition, military architecture had made great strides. Advances in concrete construction allowed the building of immensely strong battery structures that could withstand even direct hits by naval artillery. Mechanically operated hoists now lifted projectiles from subterranean magazines to surface gun emplacements, and embryonic telephonic and electrical systems were revolutionizing communications between various parts of the battery, the fort, and even the entire defensive area.

As Lewis summarized:

> Compared to the best of the smoothbore muzzle-loading cannon of the post Civil War period, the new weapons which began to emerge from the developmental stage around 1890 could fire projectiles that, caliber for caliber, were four times as heavy as to effective ranges two to three times as great; and they could do so with remarkably increased armor-penetration ability and accuracy (Lewis 1970, pg. 76).

In 1885, Secretary of War William Endicott convened a long-overdue board to review the state of the American defenses and make recommendations for upgrading the nation's forts. Their recommendations became the basis for the next generation of construction that would extend from 1890 to 1910, and give rise to the designation "Endicott Era" for these works. In 1886 the Board made its report, calling for extensive new fortification projects at 26 coastal locales. Recommendations ran from gun batteries to mortars to patrol boats and underwater minefields. Not all recommendations would be implemented, but the results would still bring sweeping changes to the coastal fortifications (Bearss 1973, pg. 287).

In general, the Endicott Board recommended emplacing several calibers of guns, each with its own anticipated targets, ranging in caliber from 12-inch rifles and mortars designed to deal with heavily armored ships such as battleships and cruisers, down to 3-inch rapid-fire guns meant to take on swift motor torpedo and patrol boats. In between these extremes were several other calibers of guns, each with its own justification for existence, although it is hard to see what the tactical difference might have been between a 5.7- and 6-inch guns. (Standardization would

come later.) In addition, electrically controlled underwater minefields would be planted in shipping channels and approaches.

Beginning in 1890, Congress began acting on the Board's report and resumed making annual appropriations for construction of coastal defenses. In 1890 and 1891, it passed acts authorizing almost $2 million in new construction. San Francisco and New York harbors were at the head of the list. Over the next several years, construction would proceed rapidly at these two ports that reflected their importance and the military's concern that they might be primary targets of enemy attack (Bearss 1973, pg. 288).

Work began in 1890 above Fort Point, where ground was broken for a 10-inch disappearing gun emplacement in Battery Marcus Miller. Before long, additional batteries were being constructed at the post (formally named Fort Winfield Scott in 1882) that mounted a variety of large caliber guns, rapid-fire weapons and mortars. The best location for many of these emplacements was the bluff occupied by West Battery, and by 1900 five different Endicott batteries had been built atop its earthworks (Figure 11). These new works removed or incorporated much of the 1870s emplacements, but a service magazines in truncated traverses survived to be incorporated into the new batteries.

The Endicott program would be succeeded by newer generations of coastal defense construction in the 20th century, but their stout emplacements would survive long after the guns were dismounted. In the Presidio, some of the 1890s emplacements would see military uses as late as the 1960s, frequently as storage facilities but sometimes as command posts and even soldiers' quarters during wartime (Figure 12).

FIGURE 11 *Two views of Endicott batteries at Fort Scott along the former location of West Battery.*

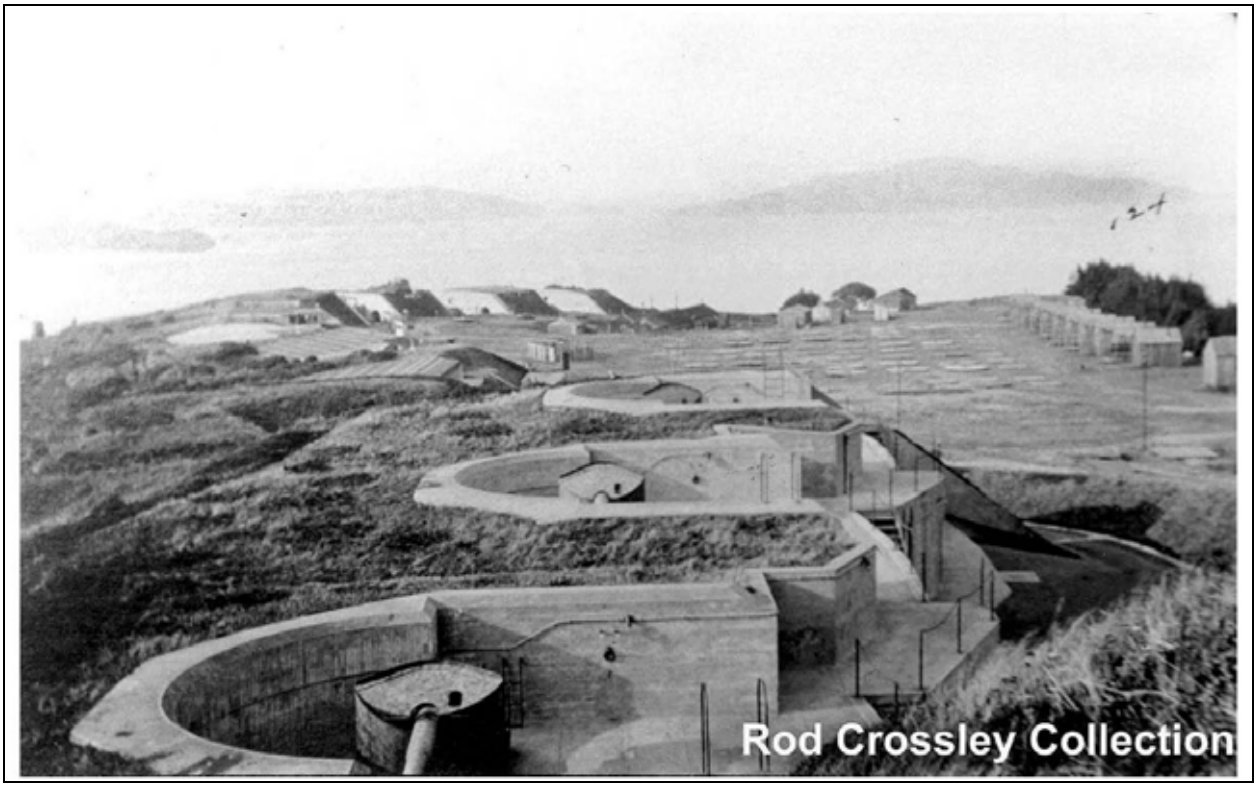


FIGURE 12 From left to right are Batteries Boutelle, Marcus Miller, Cranston, and Lancaster. A portion of a trapezoidal 1870s traverse #21 is visible between Batteries Boutelle and Marcus Miller. A World War I cantonment area is visible beyond Battery Boutelle. (GOGA, PARC, Interp Coll)

2.3.2.2 Construction – Plan of 1870

The construction of earthwork batteries at Fort Point followed very closely the guidelines set forth in the 1868 report by the Board of Engineers. The most extensive retelling of the construction of West and East batteries is contained in *Historic Structure Report: Fort Point Historic Data Section*, prepared by historian Edwin C. Bearss of the NPS in 1973. This researcher has excerpted extensively the sections concerning West Battery taken from Bearss' landmark report. A copy of his report relating to the batteries' construction is included as an addendum to this report.[1]

Guided by the concepts contained in the Washington engineers' 1868 report on earthwork fortifications, the Pacific Coast Board of Engineers developed an extensive scheme of defense for San Francisco Bay. In their September 1870 report to the Chief of Engineers the members outlined their vision for works at Fort Point: "The best position on this shore for Barbette and Mortar Batteries to defend the approaches to the harbor were along the crest of the bluff, south of Fort Point, and that a powerful battery can be placed on the bluff East of the Fort."

The proposal was nothing if not expansive. In its original form, the Board envisioned West Battery as a series of gun and mortar positions to emplace 57 guns and 28 mortars, extending

[1] Wherever possible, primary sources Bearss cited in his Historic Structure Report will be used in this report.

along the ridgeline from directly behind Fort Point all the way to Telegraph Hill in the Presidio (today's Robb Hill). Its guns would face almost due west and command the approaches to the Golden Gate. Guns on its extreme right flank could also intersect with fire from batteries planned at Lime Point.

East Battery, by comparison, was a relatively small work consisting of only 16 guns and 4 mortars. It was positioned so that its field of fire was almost entirely within the bay, half of its guns oriented toward Alcatraz Island and the others facing toward Point San Jose.

Following closely the Washington Board's guidelines, the traverses would be spaced 64 feet apart on their centerlines, allowing enough room for two 15-inch Rodman guns in each battery. This spacing would also allow sufficient room to allow for any modifications in platform design or carriages that the Washington Board might later require. (At this time the army was still considering the adoption of the King's Depressing Carriage described earlier.) Far behind the batteries, earthwork positions for riflemen would be constructed near Robb Hill to prevent the artillery emplacements from being seized from the rear.

But the Pacific Board was also realistic about the eventual expense, stating the batteries would "probably absorb in their construction at the appropriations that will be made for defensive works at Fort Point for several years." They prioritized work on various sections of the batteries, with initial priority going to the northern half of West Battery, which would include positions for a 20-inch Rodman, fourteen 15-inch Rodmans, and eight 13-inch mortars. (The proposed 20-inch gun would later be replaced by another 15-inch Rodman.)[2]

A meticulously detailed map was also prepared that accompanied the report, showing the locations of the proposed works. In later years this plan would be followed with almost slavish accuracy as actual construction work took place, and today's surviving features of West Battery only vary by inches from measurements shown on the 1870 proposal.[3]

The Chief of Engineers had to concur, of course, and went along with the Board's proposal, although he felt the West Battery positions, "though unnecessarily high and too oblique in direction for the most efficient fire on hostile fleets running through mid-channel to enter the Golden Gate," were found to occupy the only available ground in the area. The southernmost of its guns near Telegraph Hill would actually be more than 2½ miles from mid-channel – almost the extreme range of a 15-inch Rodman. Consequently, Humphreys only approved constructing the northern portion of West Battery – the portion that survives today. With these reservations, Humphreys sent the Fort Point proposal to the Secretary of War, who approved the project on November 9, 1870, "subject to such changes in details by the Chief Engineer, as in the course of construction may be found advisable."[4]

Actual work on West Battery commenced in late December 1870, beginning with the six emplacements directly behind Fort Point. Initial projects included stockpiling of materials,

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[2] Brig. Gen. Barton Alexander to Chief of Engineers Gen. Humphries, 29 August & 23 September 1870, NARA, RG 77, Letters Received, Chief Engineer.
[3] Drawing "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, FOPO Collection; NARA RG 77, Drawer 94, Sheet 102).
[4] Secretary of War William W. Belknap to Humphreys, November 9, 1870, NARA, RG 77, Letters Sent, Secretary of War.

building and improving roads to the construction site, grading of the battery site, and excavation and embankment of earth for its terreplein and traverse.

Over the next several months, battery construction proceeded swiftly at Fort Point indicating the army's desire to have modern fortifications completed as soon as possible. Extensive correspondence in the National Archives indicates that works began at the northern end of West Battery and then proceeded in a southerly direction. By mid-April 1871 Stewart was able to report that work had progressed as far as the two mortar batteries, and that a portion of the traverse on the right flank of the battery had been embanked and excavations made for its magazine walls (today's Magazine 21). By May, the front, side, and end walls of the two mortar battery magazines had been raised to the spring lines of their arched interiors, and their parapets constructed.

Elsewhere along line of emplacements, work was in varying stages of progress on excavating, laying granite blocks and pouring concrete for gun platforms, constructing magazine walls, grading terrepleins, and sodding slopes. By June 30, 1871, the embankment of the terrepleins, traverses, etc. had been two-thirds completed for a length of 1,324 feet. Altogether 29,586 cubic yards of embankment had been positioned. Sodding totaled 7,180 yards. The breast-height wall had been begun, the masonry of two traverse magazines almost completed, and eight others about two-thirds finished. Foundations for 12 platforms and pintle blocks for mounting 15-inch Rodman guns had been put down. Altogether, 1,928 cubic yards of brick, stone, and concrete work were in place[5] (Figures 13 and 14).

[5] *Executive Documents, Published by Order of the House of Representatives during the 2nd Session of the 42nd Congress, 1871–1872*. Washington, 1872. Serial 1504, Vol. 2, p. 24.

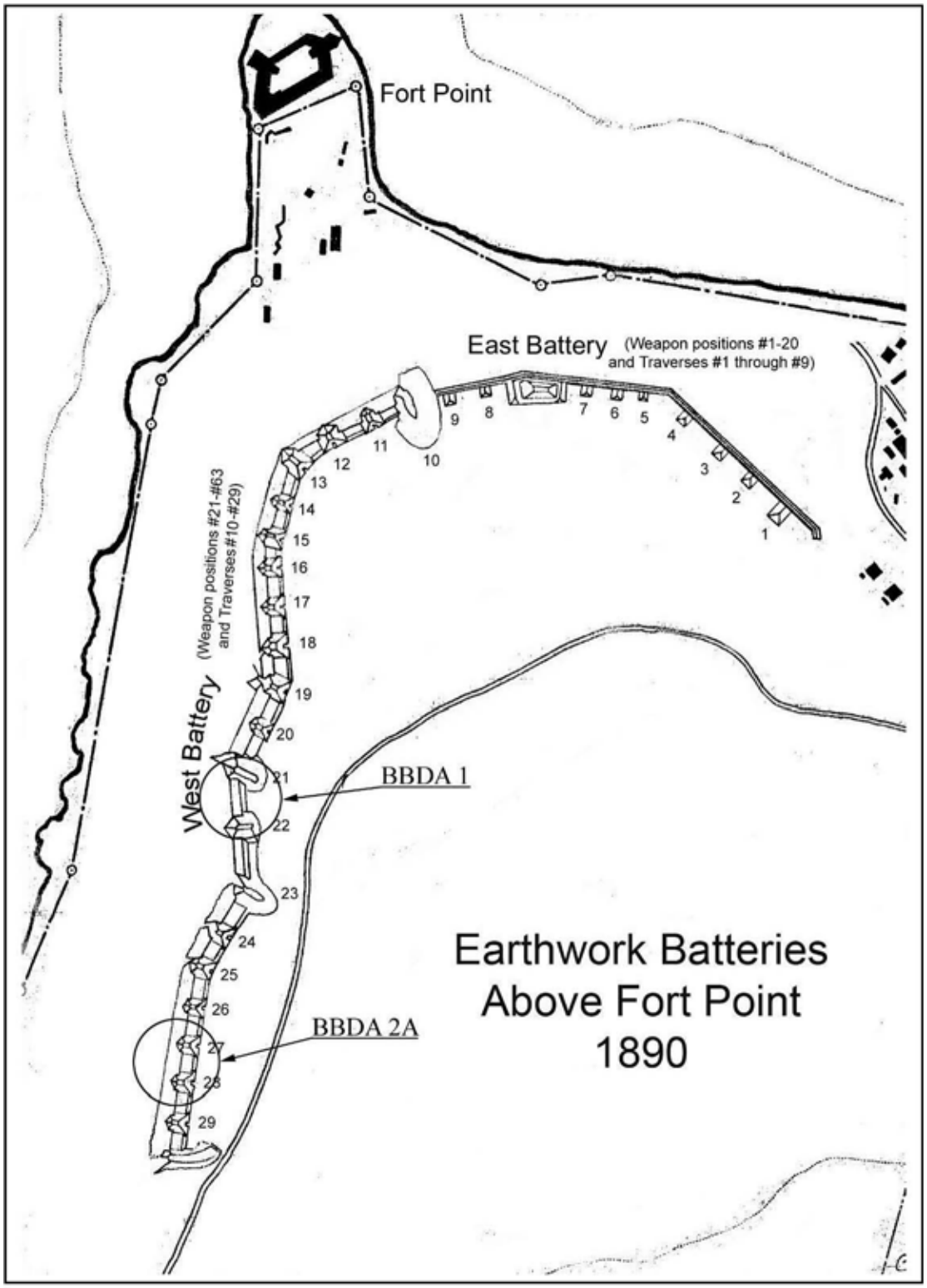

FIGURE 13 Extent of completed earthwork batteries above Fort Point in 1890. Current Remedial Action project areas are circled.

An unwelcome complication arose in early June when orders arrived from Washington directing that work on the batteries be suspended until decisions were made about how to arrange them to fit "King's counterpoise carriage."[6] This directive surprised the supervising engineer, Lt. Col. C. Seaforth Stewart, who had been proceeding with construction of standard barbette style emplacements, not depressing ones. He replied that the interior crests of the emplacements under construction at Fort Point varied in height from 180 to 196 feet above sea level, giving no tactical advantage to this style of embryonic disappearing gun.[7]

The situation was clarified in a couple of weeks when the Washington Board of Engineers made an updated report on the use of King's depressing carriage, and noted its inefficiency atop the Fort Point bluffs. "As it [West Battery] is quite exempt from enfilade fire and cannot be closely approached in front, it is believed that ordinary mounted barbette guns may be served with entire efficiency."[8] Work resumed in July.

Over the next year, work proceeded on the completion and partial arming of West Battery. Completing the magazines and emplacements occupied much of the workers' time, along with details such as sodding, grading, terracing, installing traverse rails, and hanging inner and outer magazine doors.[9] By Summer 1872, Stewart was readying West Battery for its armament and noted that to complete the process he wished to finish the rear slopes and to "unmask the fire" of several gun positions. This latter remark indicates that during construction, the terrain immediately in front of some of the guns had intentionally been left in its natural state, possibly to prevent prying eyes from seeing the work in progress. The cover now needed to be removed so the guns could have a field of fire.[10]

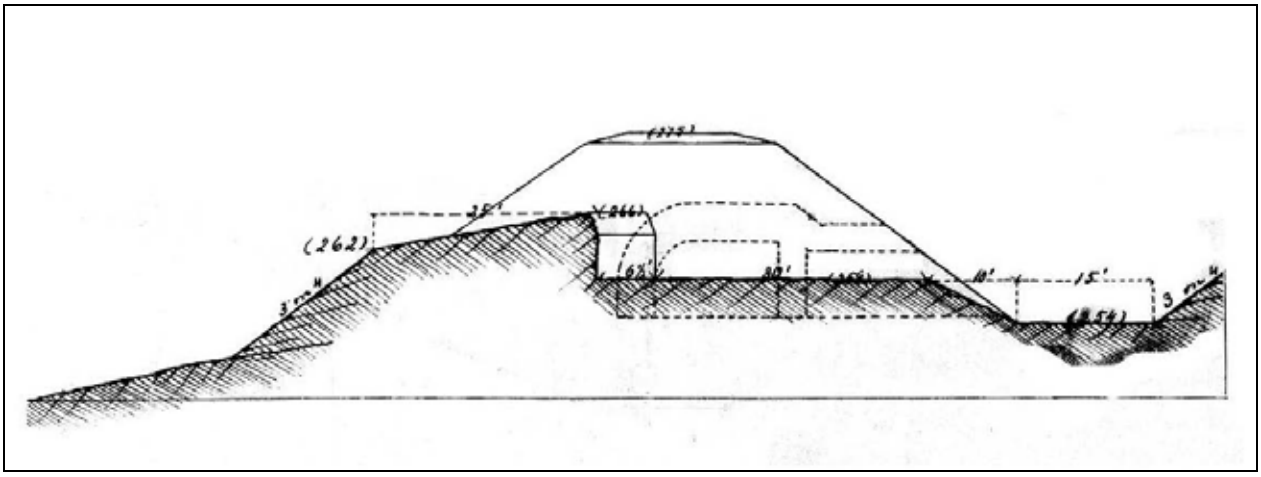

FIGURE 14 Cross-section of a West Battery emplacement for Rodman guns. The traverse and its service magazine are also shown. (From the engineers' 1870 proposal for barbette batteries above Fort Point.)

[6] Humphreys to Steward, June 5, 1871, NARA, RG 77, Letters Sent, Chief Engineer.
[7] Steward to Humphreys, June 13, 1871, NARA, RG 77, Letters Received, Chief Engineer.
[8] Humphreys to Stewart, June 27, 1871, NARA, RG 77, Letters Sent, Chief Engineer.
[9] *Executive Documents, Published by Order of the House of Representatives during the 3rd Session of the 42nd Congress, 1872–1873*. Washington, 1873. Serial 1559, Vol. 2, pt. 2, p. 22.
[10] Steward to Humphreys, July 26, 1872, NARA, RG 77, Letters Received, Chief Engineer.

Plans for East Battery were finally approved in early 1873, and work commenced on that work shortly afterward. For the next year, work proceeded simultaneously on both East and West batteries. Although East Battery falls outside the immediate scope of this report, it should be noted that it differed from West Battery in one major feature: the presence of a covered way provided with a high earthen slope on the backside of the emplacement (a *parados*) that protected the road and battery from enfilade fire.

At East Battery, the engineers were given permission to elevate each pair of guns slightly from the adjacent pair. As the emplacements changed in elevation, they would "become better protected" from warships outside the Golden Gate, using the sloping topography of the hill west of the emplacements to form a parados.[11] The layout of East Battery and its sunken road – later buried – were documented in a 1934 aerial photograph showing early construction work on the Golden Gate Bridge (Figure 15).[12]

FIGURE 15 Aerial view of East Battery before construction of the Golden Gate Bridge toll plaza, showing the covered way and parados behind the emplacements. Battery Lancaster is at lower right. (Courtesy GGBHTD)

By contrast, West Battery did not have a covered way. While some–but not all–of its emplacements did have reverse slopes, these features varied in height from 2 feet to slightly more than 10. None formed a true parados, but could better be described as uneven road shoulders resulting from the undulating topography adjacent to the emplacements.

Numbers for the individual emplacements became standardized during construction of the two batteries. It should be noted that the terms West Battery and East Battery were never formally

[11] Board of Engineers, Pacific Coast to Humphreys, May 18, 1872, NARA, RG 77, Letters Received, Chief Engr.
[12] Photo GG 37, in GGBHTD collection.

designated military names but evolved out of common usage. To the army's constructing engineers, the fortification was simply one large earthwork. Correspondingly, they began numbering the emplacements at the extreme right flank of East Battery and numbered consecutively from east to west.

In its final form, East Battery consisted of 20 gun positions numbered #1 through #20 (including platforms for 4 mortars), and West Battery consisted of 43 positions numbered #21 through #63 (including platforms for 8 mortars).

For reference, Remedial Action Area BBDA 1 is located on the site of historic mortar emplacements #42-45, while the road portion of Remedial Action Area BBDA 2A is on the site of historic Rodman positions #58 and #59.

Col. Stewart reported that West Battery was "essentially completed" on June 30, 1873. The magazines could all be used (although not all the asphaltic floors had been laid); stone platforms, pintles, and traverse rails had been completed for 12 Rodmans; a ramp had been constructed between West Battery and East Battery; and 8 wooden platforms for 13-inch mortars had been constructed in the 2 mortar emplacements located midway along the line of batteries. In his annual report, Stewart noted that twelve 15-inch Rodmans had been emplaced, all of them in positions on the right flank of West Battery (Figure 16).[13]

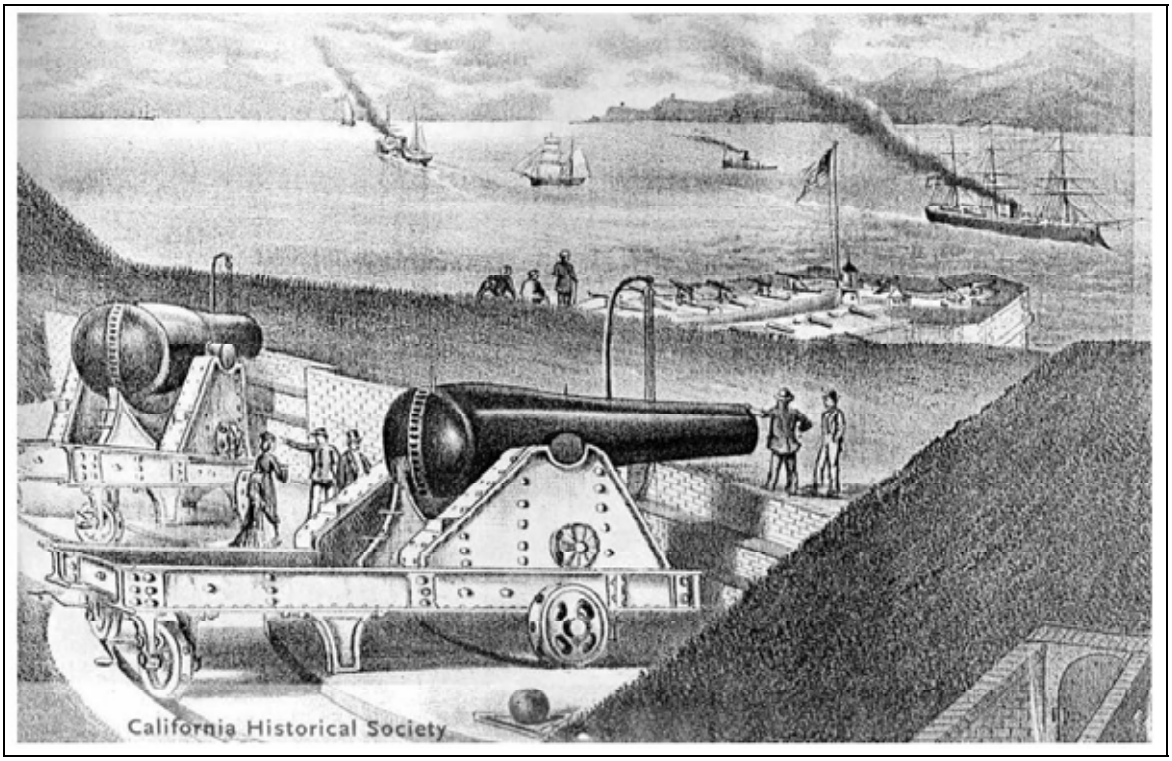

FIGURE 16 *A pair of 15-inch Rodmans in West Battery as portrayed in an 1877 issue of "The Wasp," a satirical San Francisco publication. The accompanying article berated the U.S. Government for wasting money on constructing obsolete fortifications. The artist took several liberties with perspective and location, since Fort Point is not visible at this angle from West Battery. Also, the fort is drawn backwards. (California Historical Society)*

[13] *Annual Report of Progress made in the Construction of Fort at Fort Point* in Fiscal Year 1873, NARA, RG 77, Letters Received, Chief Engineer. Positions occupied by Rodmans were Nos. 21-30, 36, and 37.

On May 18, 1874, the Rodmans in positions #21 through #32 were test fired for the first time. The targets were located at distances of from 1 to 2-3/4 miles distance, and the guns loaded with powder charges ranging from 60 to 100 lbs. When fired at elevations of 33 degrees the Rodmans and carriages performed perfectly, but when one 15-incher was intentionally fired at 0 degree elevation it recoiled violently against the end stops on its carriage. Although the iron chassis and carriage were slightly damaged, the emplacement itself took the shocks well and suffered only slight spalling of granite on the pintle block. The earthworks hadn't fared quite as well, though, and it was reported that the muzzle blast from the horizontal firing experiment had torn the sodding off the parapet.[14]

FIGURE 17 West Battery in 1880. (GOGA, PARC)

When Congress decided in Fiscal Year 1876 to reduce funding for harbor defenses, Fort Point was hit hard. Instead of the $80,000 requested, only $25,000 was allocated.[15] The result was an immediate changeover from construction to mere maintenance. Work was suspended on both batteries, and before even a single gun was ever emplaced in East Battery. The scene was grim for the supervising engineer, and would only get more frustrating. Historian Bearss summarized the sad entries from the annual reports for the following years:

"Congress for the next 14 years refused to vote funds for construction of seacoast fortifications, thus preventing completion of Battery East. With work suspended, the earthen batteries slowly deteriorated. Weasels and gophers burrowed into the traverses and parapets, and torrential rains caused some of the magazines to leak, with serious erosion wherever the works had not been sodded." (Bearss, p. 258)

Eventually, civilian "fort keepers" were employed with the paltry maintenance funds allocated the army, whose jobs included security, mowing earthworks, scraping rust, and painting ironwork. Sometimes they were assisted by soldiers from the regular garrisons of old Fort Point – that is, when the fort was occupied. One 1880s report stated that portions of the sodded slopes of the earthwork parapets and traverses (Figure 17) had recently been mowed, and observed how the sod consisted of "the thin and now matted roots of weeds and grasses," and without additional labor and expense for watering and weeding, it was impossible to keep the slopes "looking well during the long dry season."

Experience had shown the sod actually held up better *not* being mown when exposed to "the sun and strong steady winds of summer," and that the weeds and grasses acted as a mat, keeping the

[14] Stewart to Humphreys, May 21&27, 1874, NARA, RG 77, Letters Received, Chief Engineer.
[15] Humphreys to Steward, March 10, 1875, NA, RG 77, Letters Sent, Chief Engineer.

"light, dry soil, loosened and pulverized by the burrows of gophers . . . from being blown away." For this reason, considerable areas of the slopes were left unmowed.

Given the lack of funds for nearly 5 years, and all the hindrances to carrying out proper maintenance, Col. Stewart took a remarkably positive outlook when he reported the batteries looked "in tolerable good order."[16]

Periodically, the watchmen and the garrison were also able to perform maintenance on the non-earthwork portions of the batteries. These actions included clearing drains, painting doors, and painting and lacquering the ironwork on the wooden mortar platforms.

An 1882 inspection of the earthworks reported a variety of completed and incomplete emplacements. It also contained the notation that 12 timber platforms for heavy mortars had been laid in West and East Batteries, but that decay had set in. It also noted that ground had been prepared at the southern end of West Battery for 14 Rodman positions but no platforms had ever been constructed there.[17]

For some unknown reason, a test firing of the long-neglected 15-inch guns took place on October 1, 1884. The guns were manned and the targets selected: an offshore rock about halfway between Fort Scott and the Cliff House. After a couple of firings with reduced charges and only so-so accuracy (blamed on defective fuses), the colonel in charge ordered a gun loaded with a 450 lb solid shot and a full charge of 100 lbs of black powder. The results were predictable. The aging weapon recoiled along its chassis, which in turn buckled under the strain, allowing the 50,000-pound barrel and top carriage to jump completely off the chassis. The barrel dismounted itself and ended up splayed across the battery.[18]

In 1886, maintenance work ceased entirely for 2 years when Congress stopped all appropriations for preservation and protection of fortifications. When funds became available once again in 1888, workers cut brush and weeds around the earthworks, repaired sodding on slopes and broken ventilators, cleaned brickwork, painted magazine doors, and built steps over the earthen parapets. Iron plates from ten of the badly decayed mortar platforms were removed and stored in adjacent magazines.[19]

2.3.2.3 Endicott Era Construction

West Battery was perfectly sited to deal with an enemy approaching the Golden Gate, and for this strategic reason it was also selected as the site of the first Endicott batteries to be constructed in the San Francisco defenses. Work began on the new fortifications in June 1891 under the direction of Col. George Mendell of the Corps of Engineers (Figure 18).

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[16] *Executive Documents of the House of Representatives for the 1st Session of the 48th Congress, 1883–1884,* Washington: 1884. Serial 2183, Vol. 3, pp. 47-48.
[17] *Executive Documents of the House of Representatives for the 2nd Session of the 47th Congress, 1882–1883.* Washington: 1883, Serial 2092, Vol. 3, pp. 51-52.
[18] Stewart to Chief Engineer, October 2, 1884, NARA, RG 77, Letters Received, Chief Engineer.
[19] Col. George Mendell, Project Engineer, to Chief Engineer, July 7, 1890, NARA, RG 77, Letters Received, Chief Engineer.

By the end of the first month, Mendell's workers had dismounted four of the 15-inch guns in West Battery and begun demolishing their masonry platforms and other nearby emplacements. With the ordnance and earthworks gone, work next commenced on excavations for the disappearing gun emplacements. Progress was rapid and by December 1892 six of the new Endicott emplacements were nearly completed except for their armament. (These emplacements today comprise Batteries Marcus Miller and Godfrey.)[20]

Construction on another concrete emplacement in October 1896 required the removal of four more 15-inch Rodmans and their earthwork emplacements. (The site of today's Battery Lancaster position #3.) The guns were dismounted, their carriages and platforms salvaged, and the traverses and earthworks demolished.[21]

FIGURE 18 A 12-inch rifle in Battery Godfrey at the moment of firing, c1915. The brick entrance to Traverse #27, integrated into Godfrey's earthworks, is visible at lower left. (GOGA, PARC)

Then in June 1897, work began on two more emplacements (today's Battery Cranston) that necessitated removal of two more Rodmans, their carriages and platforms from West Battery. These were subsequently removed and their positions demolished. Only five 15-inch Rodmans remained in place: four in the extreme right end West Battery and one in East Battery. (The latter weapon–East Battery's first armament–had only recently been emplaced after being dismounted from West Battery.)[22]

[20] Mendell to Chief Engineer, September 1892, NARA, RG 77m, Letters Received, Chief Engineer.
[21] Lt. Charles L. Potter, Project Engineer, to Col. Charles R. Suter, District Engineer, 31 December 1896, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914.
[22] Potter to Suter, June 30, 1897, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914.

Work began in Summer 1898 on the last concrete emplacements that would require the removal of the armament from West Battery. These two disappearing gun positions (today's Lancaster #1 and #2) stood directly on the site of Rodman positions #21-24, and by the end of the year these last four smoothbore weapons had been removed to make way for new construction. With their removal, West Battery effectively ceased to exist.[23]

Battery East, although initially planned as the site for five more Endicott weapons, was left undisturbed. Although it had never been completed during the original "Plan of 1870" construction, it now mounted five weapons: a 15-inch Rodman in position #16 and four 8-inch converted Rodman rifles in positions #13, 14, 17, and 18 (Figure 19).

FIGURE 19 A pair of 8-inch rifled Rodmans and the covered way behind East Battery, 1915. The buildings of the Panama Pacific International Exposition can be seen in the distance. (GOGA, FOPO Coll)

The last Endicott fortification constructed at West Battery was Battery Boutelle, an emplacement for three 5-inch guns on balanced pillar mounts. No armament had to be removed to make way for the new work, since the 13-inch mortars intended for the site had never been mounted. Even their wooden platforms had been removed sometime prior to 1898.[24] When designing Boutelle,

[23] Lt. Louis C. Wolf, Project Engineer, to Maj. Charles E.L.B. Davis, District Engineer, December 31, 1898, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914.
[24] Drawing "Armament Sketches of Defensive Works in San Francisco Harbor," January 1, 1898, GOGA, PARC, FOPO Collection.

the engineers took advantage of pre-existing earthworks on the site by nestling the new emplacements snugly between traverses #22 and #23. Work on the battery began in 1898 and was completed in 1901. During the course of construction, the decision was made to retain the magazine in Traverse #22 and incorporate it into the new battery, where it apparently served as an auxiliary ammunition storage room for the battery's 5-inch fixed ammunition under the designation "old magazine."[25]

Retelling all the details of construction of the Endicott batteries falls outside the scope of this report, but the following summary provides an outline of their origins. Starting at the northern end of the line and working south, they are:

Name	Armament	Commenced	Completed
Battery Lancaster	Three 12-inch rifles on disappearing carriages	1896	1900
Battery Cranston	Two 10-inch rifles on disappearing carriages	1897	1898
Battery Marcus Miller	Three 10-inch rifles on disappearing carriages	1891	1898
Battery Boutelle	Three 5-inch rifles on Balanced Pillar mounts	1898	1901
Battery Godfrey	Three 12-inch rifles on barbette mounts	1892	1896

2.3.2.4 Alterations and Later Uses

Following its disarming, only a few traces of Battery West remained, including six traverses and magazines (#s 21, 22, 23, 27, 28, and 29), a four-gun mortar pit (positions #s 42-45), and the partial outlines of two unfinished two-gun Rodman emplacements at the southern end of the line (positions #s 60-63). One of these magazines (#23) was physically incorporated into the structure of Battery Godfrey and became a storeroom off the battery's generator room. The other surviving magazines remained as distinct structures with their own entrances, and show up on period maps and drawings simply labeled "magazine." The rooms' exact uses are unknown, but they probably served as simple storage spaces for the adjacent Endicott batteries.

The history of the Endicott batteries surrounding the Golden Gate is documented extensively in historian Erwin Thompson's *Historic Resource Study: Seacoast Fortifications of San Francisco Harbor*, prepared for the NPS in May 1979. For the batteries along the former alignment of West Battery, their history was relatively short. By 1918 the batteries were recognized to have several faults: all were located too far inside the Golden Gate straits to have effective fields of fire; their carriage designs prohibited the barrels from being elevated for maximum range; and they were of an obsolescent design. Within a few years of their completion, the batteries' defensive roles were replaced by forts that had better fields of fire and were located further to the west – and closer to any potential enemy – posts such as Fort Miley in San Francisco and Fort Barry in Marin County.

Battery Boutelle was the first to be disarmed in 1918 when its 5-inch guns were removed for field use in Europe. Battery Cranston was disarmed that same year, and Marcus Miller's guns were removed in 1920. Batteries Cranston and Godfrey both retained their guns through World War II, but apparently more as a matter of neglect than for any tactical purposes. They finally

[25] "Report of Completed Works, Form 7, Battery Boutelle," corrected to December 1919.

lost their armament in 1943 during a general scrapping of 10-inch and 12-inch Endicott weapons remaining in the Bay's defenses.

Alterations to 1870s Traverses

The earthen traverses covering these magazines also survived, but four of the six were truncated by several feet to lower their profiles when viewed from the sea. When originally constructing the earthworks, the engineers seemingly gave little thought to making West Battery inconspicuous. Historic photographs taken from the bay reveal that the battery's traverses stood out against the sky as a series of tall, trapezoidal shaped mounds stair-stepped along the Fort Point hillside. The battery was so pronounced that its earthworks and guns were even visible from Pacific Heights (Figures 20 and 21).

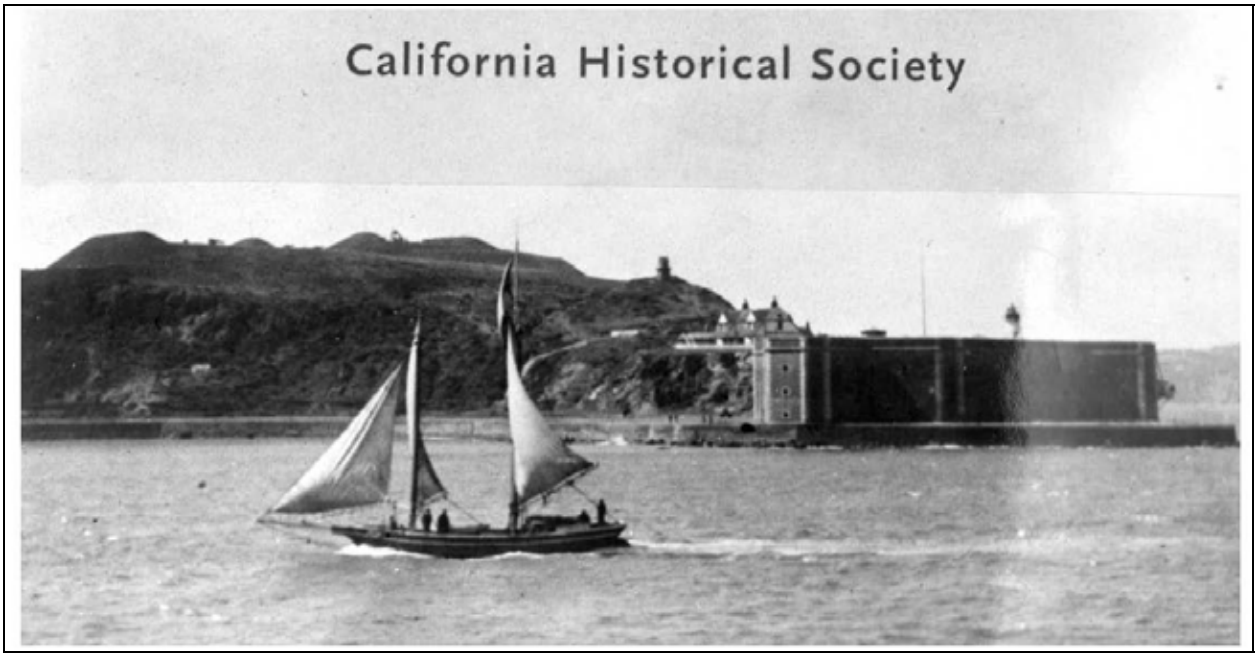


FIGURE 20 Fort Point and a portion of West Battery as viewed from the bay, c1890. Note the 15-inch Rodmans mounted between the traverses. (California Historical Society)

FIGURE 21 *The traverses of West Battery appeared like a serrated edge in this view from Broadway and Lyon Streets in Pacific Heights. A portion of the Presidio's main post is in the foreground. (California Historical Society)*

By contrast, the army wanted to draw as little attention as possible to the presence of the Endicott batteries, not so much for secrecy but rather to deny enemy gunners a good target. The traverses from the 1870s that still remained adjacent to the newer works would have only served to draw attention to the fortifications' locations.

In his 1920 treatise Notes on Seacoast Fortification Construction, Colonel Eben E. Winslow of the U.S. Army's Corps of Engineers described the evolving theory of coastal fortification design in the late 19th century:

> In the earthen emplacements constructed during and just after the Civil War, the guns were mounted on barbette carriages and were, therefore, always visible. In order to obtain a sufficient volume of fire they were mounted fairly close together along a parapet, although it was customary, wherever infilade [sic] fire was feared, to place frequent traverses in the line of guns so as to reduce the effect of this enfilade fire. In general, the guns were emplaced in pairs, two guns in the interval between two traverses.
>
> These traverses extended high above the parapet and, in fact, above the guns and, therefore, were visible from a considerable distance. The guns then in use were mounted in barbette and were always exposed to view, the ranges used at the time were comparatively short, and since the guns themselves were not concealed no concealment was lost by the exposure of the traverses to view.
>
> When, however, the disappearing [gun] principle was introduced into seacoast gun carriages so that the gun in the loading position was entirely out of sight, it became desirable to conceal, if possible, the position of the gun. It appeared to be desirable to reduce the height of the traverse to that of the parapet, so that when seen from the front, the emplacement appeared with an unbroken horizontal crest, no guns being visible and no traverses indicating the approximate positions of the guns. The early

designs for disappearing emplacements as prepared by the Board of Engineers were all based on this idea (Winslow 1920, pp. 109-110).

During the construction of the Endicott batteries, the tall earthwork traverses of West Battery were reduced in height to correspond to the adjacent parapets and superior slopes of the new concrete fortifications. Although the engineers' reports for the concrete fortifications at Fort Scott make no specific reference to lowering the old traverses, it was likely done in accordance with the new design standard described by Winslow as "an unbroken horizontal crest … and no traverses indicating the approximate locations of the guns" (Figure 22).

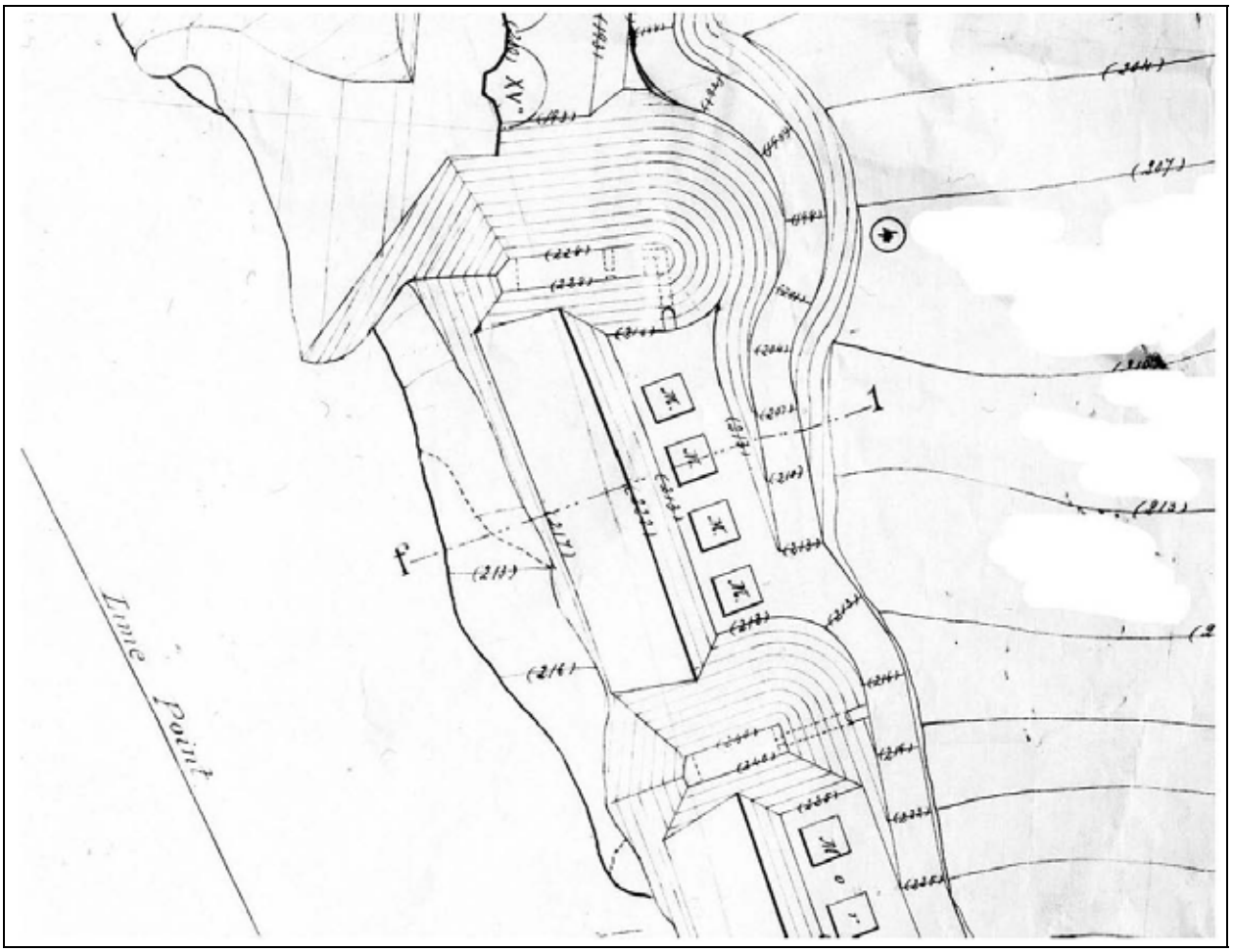


FIGURE 22 Section of original 1870 engineer plan showing Traverses 21 (top) and 22 (bottom) and positions for 13-inch mortars. Remedial Site BBDA 1. (NARA RG 77, Drawer 94, Sheet 102)

The best-documented example of reducing a traverse's profile is Traverse #21 on the right flank of the mortar battery and adjacent to Battery Marcus Miller. The original 1870 map (Figure 22) shows a proposed crest of 228 feet for this traverse, while an 1891 drawing shows the finished elevation as 229 feet. (Discrepancies of about a foot are common to historic maps of the area.) By 1902, however, 7 feet of the traverse had been shaved off and its elevation reduced to 222 feet, bringing its crest to the same level as the superior crest of the adjacent mortar emplacement.

Although leaving the magazine with only about 2 feet of earthen cover, the traverse was now much less conspicuous. Viewed from the water, the battery now appeared more like a simple earthen bank in the hill (Figure 23).[26]

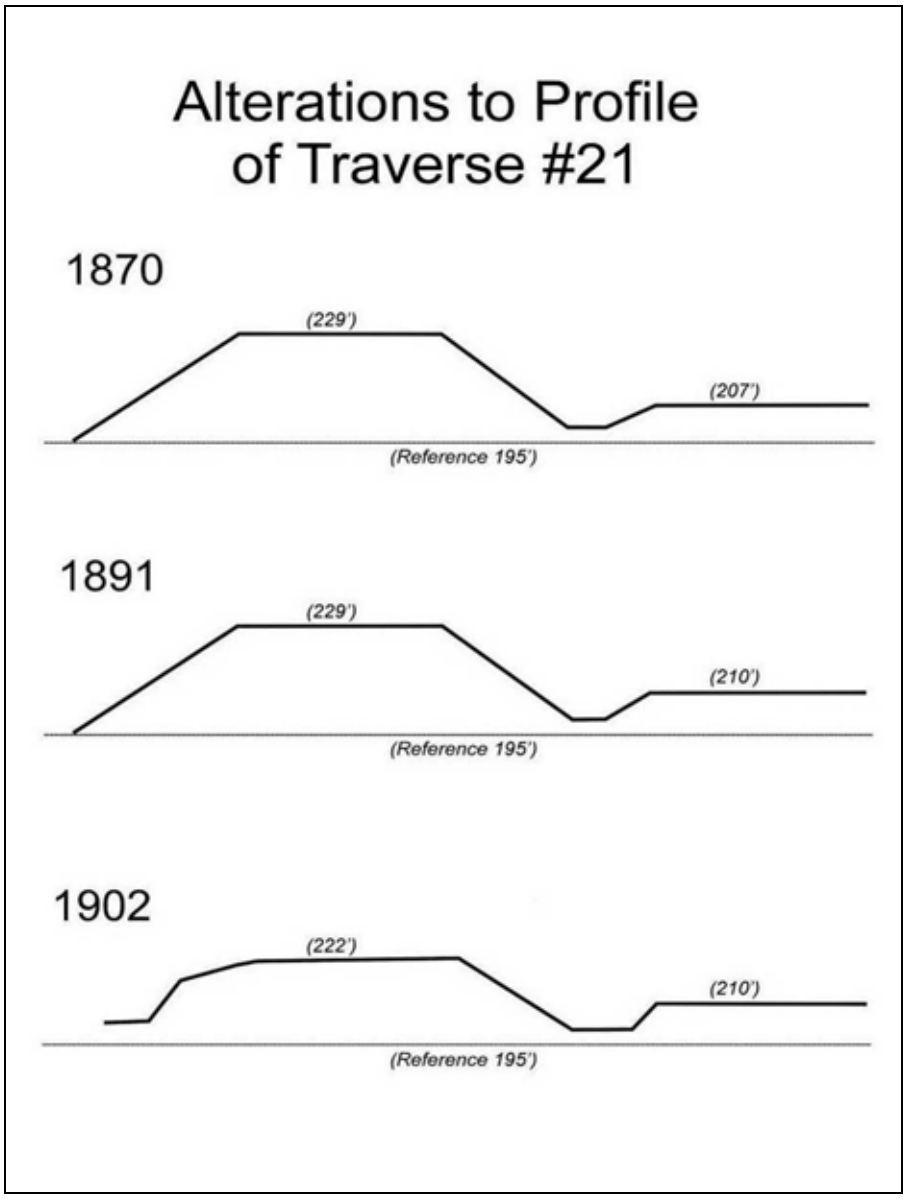


FIGURE 23 *Three views of Traverse 21, view north. Note also the change in road width and the 3-foot height increase of the open area behind the battery.*

The same recontouring efforts occurred at Traverse #27 on the left flank of Battery Godfrey, which was reduced in height from an original elevation of 274 feet to a post-Endicott elevation

[26] Drawing "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, PARC, FOPO Collection; NARA RG 77, Drawer 94, Sheet 102); Drawing: "Gun Emplacements No 12–13 for 10 in. guns at Fort Point etc" 1891. (PARC, GOGA, Drawer 27, Folder 2; NARA RG 77, Drawer 94, Sheet 110-1); "Battery Commander Station for Battery Cranston," August 12, 1902. (GOGA, PARC, Drawer 272, Folder 4; NARA RG 77, Drawer 94, Sheet 110-12).

of approximately 270 feet.[27] Based on visual inspections, similar reductions in height appear also to have taken place at Traverses #28 & 29. (Confirming measurements have not yet been made.)

By contrast, Traverses #22 and #23 seem to have retained their original contours, although their crests are now suffering from erosion caused by visitors scrambling across the batteries. In fact, the footprint of Traverse #22 is somewhat larger than when first constructed, probably due to additional fill being placed around its eastern and southern sides when Battery Boutelle was constructed. As a result of this additional fill, a 25-foot extension had to be added to the corridor leading to the traverse magazine inside.[28]

2.3.2.5 Alternations to 1870s Gun Emplacements

Mortar Battery

The four mortar positions located between Batteries Marcus Miller and Boutelle lasted well into the 20th century, along with the traverses flanking both sides of their emplacement. Subsequent alterations and filling can be traced through historic drawings made of the battery, beginning with a section from the original 1870 engineer map for the Fort Point batteries. This map shows the relationship among the original slopes, the mortar platforms, road, reverse slope, and "natural surface." (Figure 24)

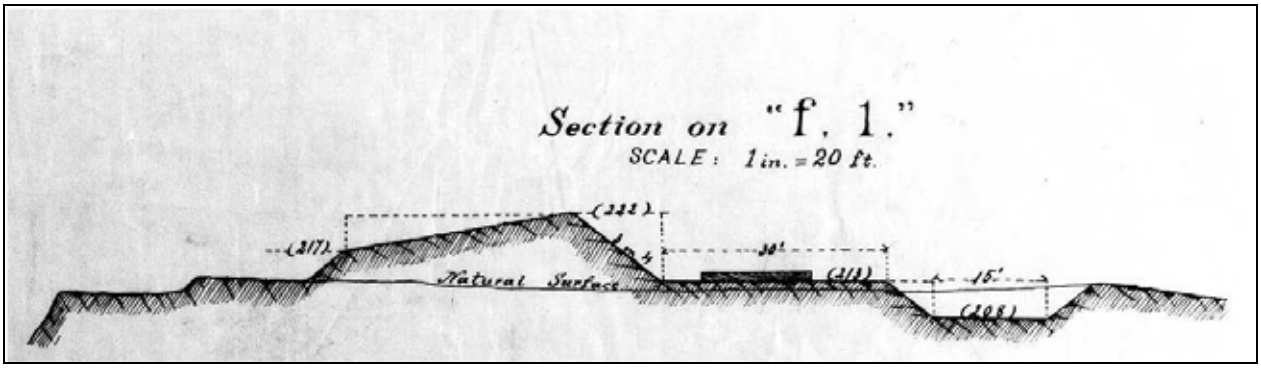


FIGURE 24 Section "f, 1" through mortar positions, showing original height of road cut behind emplacement. (NARA RG 77, Drawer 94, Sheet 102)

A map prepared in 1902 showing a proposed (but never implemented) extension of the Endicott batteries onto the mortar site revealed that the original outline of the earthwork emplacement was still recognizable, complete with the interior slope and intact (albeit truncated) earthen traverse and magazine #21 on the right flank (Figure 25). The four wooden platforms were gone, but the open area where they had been located was still plainly discernible.[29]

[27] Drawing "Plan and Sections of Batteries for Fort Point" 1870; "Report of Completed Works, Form 7, Battery Godfrey," corrected to 1919.
[28] "Report of Completed Works, Form 7, Battery Boutelle," corrected to December 1919.
[29] Drawing "Battery Commander Station for Battery Cranston," August 12, 1902. (GOGA, PARC, Drawer 272, Folder 4; NARA RG 77, Drawer 94, Sheet 110-12).

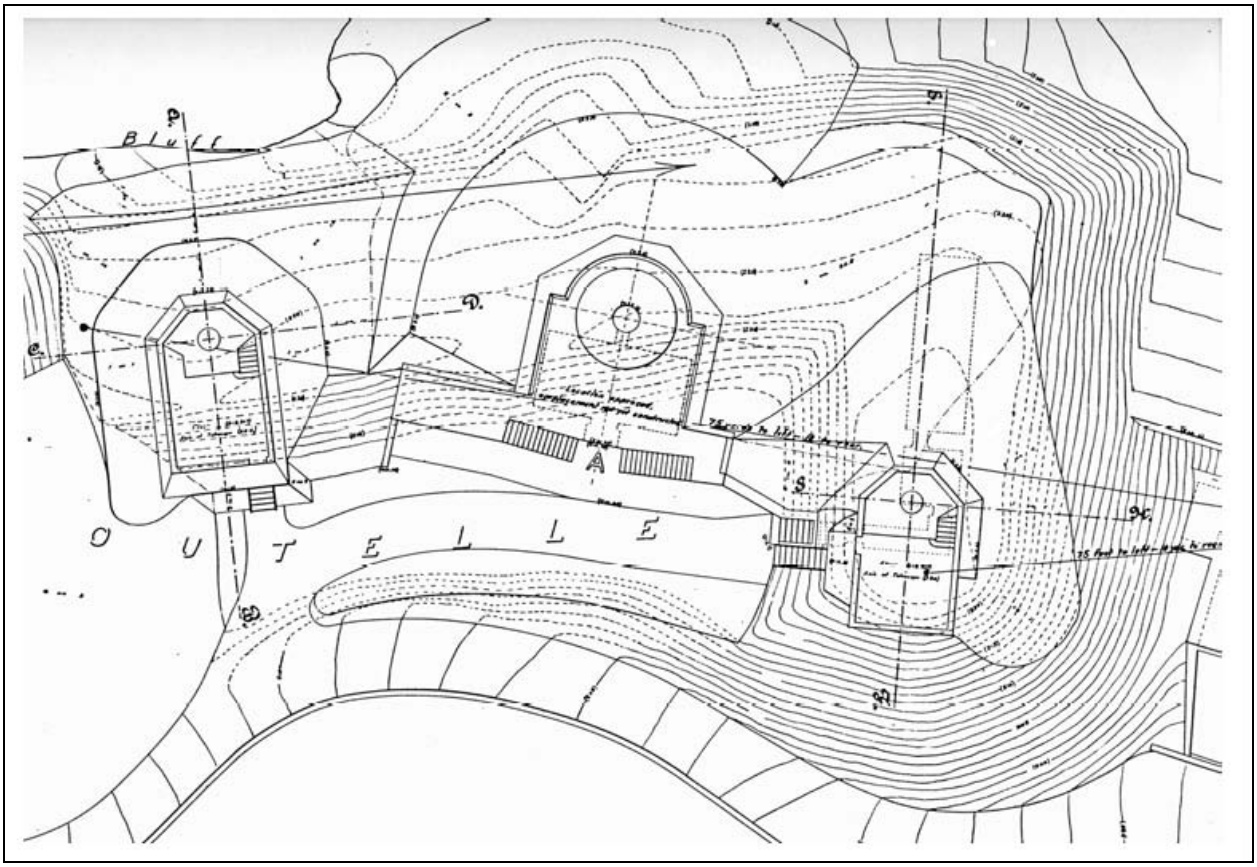


FIGURE 25 The outlines of Traverse 21, its magazine, and the former mortar battery location are visible as dotted lines in this 1902 proposal for an extension of Boutelle. Remedial Site BBDA 1. (PARC, GOGA)

At some undetermined date, the superior slope of the old mortar battery was flattened and a disposal site established on its site. This dump was likely associated either with the garrison buildings at nearby Fort Winfield Scott or with a sprawling complex of World War I temporary barracks erected behind the batteries in 1917. Initially, debris appears to have been simply dumped down the face of the cliff leading to Baker Beach. In 1922, a concrete and brick trash incinerator was built on the flattened area (Figure 26). Designated as Fort Scott Building #237, it measured 6'4" x 8' and cost $414 to construct. It was arranged on a general east-west alignment across the former superior slope.

In 1934, the original incinerator was replaced by a newer version built primarily of concrete. It measured 9' x 13' and cost $800. Based on historic photos, this new incinerator was located on the northern side of the dump area, and was oriented on a roughly north-south alignment. To make room for this structure, yet another portion of the 1870s superior slope had to be cut away. The 1934 photograph also shows what appears to be a flat paved area directly in front of the incinerator possibly made of poured concrete that allowed vehicles to pull directly up to the furnace doors. Unfortunately, the extent and exact composition of this paving feature is not known (Figures 27, 28 and 29).

FIGURE 26 1922 incinerator on dumpsite. View looking south. Remedial site BBDA 1. (GOGA, PARC)

FIGURE 27 1934 incinerator. View north. Note excavation into earthworks at right. Remedial site BBDA 1. (GOGA, PARC)

Photographs in the collection of the Golden Gate Bridge District show that dumping activities continued at the site at least through 1967. In that year, a large expansion of the disposal site was recorded. (Figure 30) This material in the photo covers not only the slope below the dumpsite but also fills the flattened dump area on the former superior slope of the mortar battery.[30]

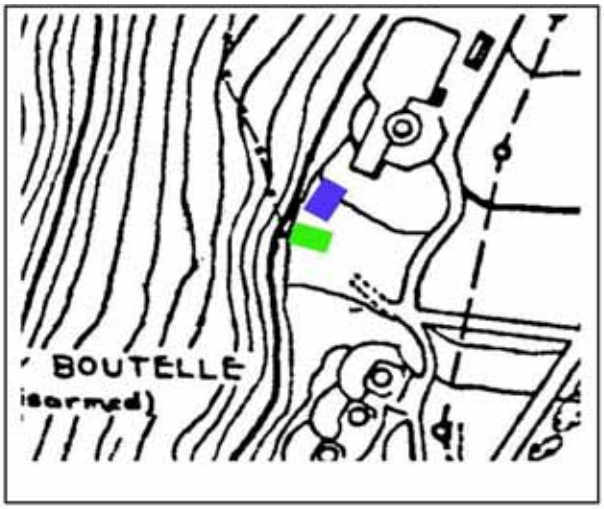


FIGURE 28 Approximate locations of two incinerators: 1922 (lower) and 1934 (upper)

FIGURE 29 The "new" incinerator at the dumpsite, lower right. February 1935. (Courtesy GGBHTD)

[30] Photograph in the GGBHTD collection, PIC037 May 1967.

FIGURE 30 An aerial photo taken in May 1967 documents extensive fill on the former site of both the dump and across the road behind the batteries. A pond of water has apparently formed directly over the dumpsite. The curved outlines of the traverses flanking the former battery are still visible. Remedial Site BBDA 1. (Courtesy GGBHTD)

Rodman Emplacements

As noted in the 1882 inspection of West Battery, the last 14 Rodman positions were never completed. An 1898 plan of the Fort Point batteries confirms that construction work on the positions had only extended to completion of the magazines and traverses, and grading of the parapets, superior slopes, and glacis. No work was ever carried out on the masonry of the parapet walls lining the interior slopes, the firing steps, or gun platforms. The 1898 plan also reveals that a never-constructed traverse and magazine were planned for the southern end of the line, and would have become Traverse #30.[31] Whether or not any grading for this traverse had been completed is unclear. (The same map showed that three of the wooden platforms had been removed from the mortar battery between Traverses #21 and #22, and that a fourth remained in place but was "unserviceable.")

[31] Drawing "Armament Sketches of Defensive Works in San Francisco Harbor," January 1, 1898, GOGA, PARC, FOPO Collection.

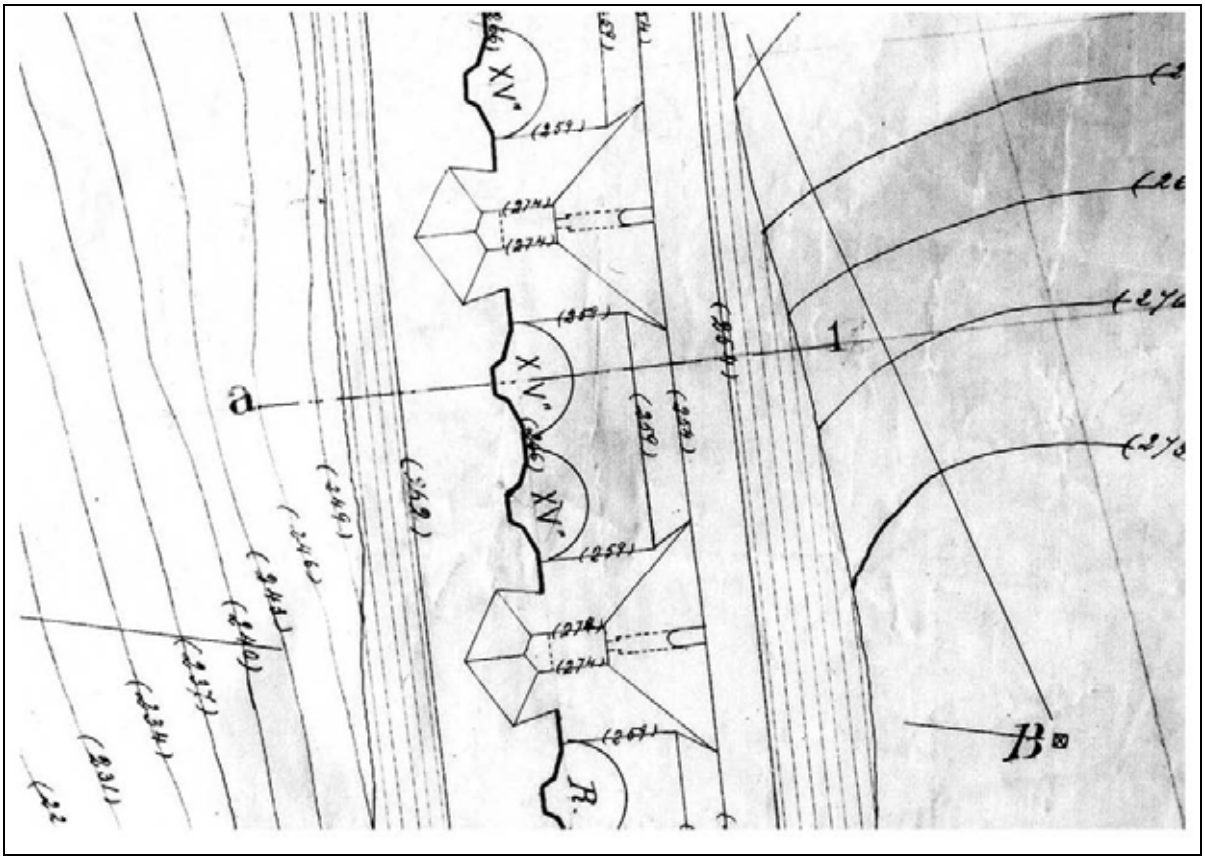


FIGURE 31 Section of original 1870 engineer plan showing Traverses 27 (top) and 28 (bottom), and Rodman positions #58 and #59. Section a – 1 is the site of the present overlook access road. Remedial Site BBDA 2A. (NARA RG 77, Drawer 94, Sheet 102)

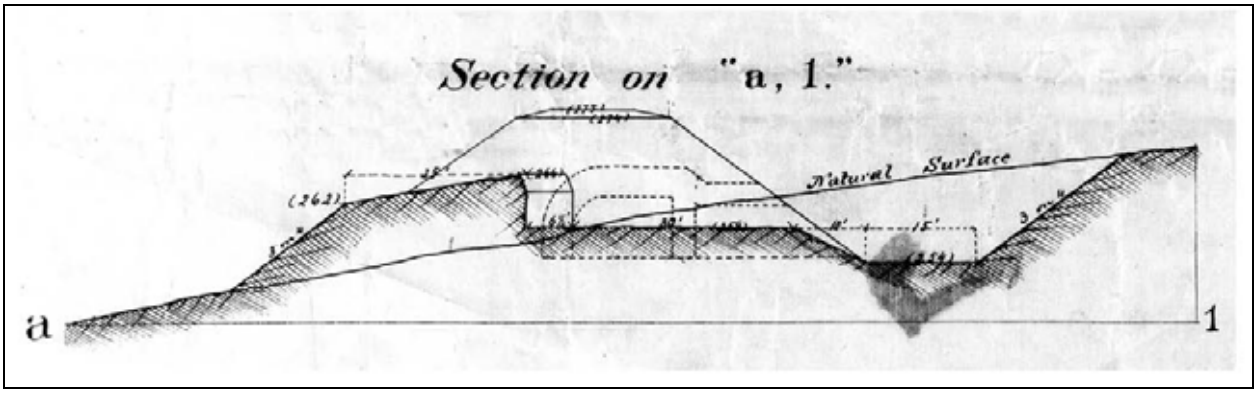


FIGURE 32 Section "a, 1" through Rodman positions #58 and #59, showing deep road cut (now filled) behind emplacement. (NARA RG 77, Drawer 94, Sheet 102)

When Battery Godfrey was constructed beginning in 1891, gun positions #50 through 57 were demolished along with Traverses #24 through 26. Traverse #27 was incorporated into the left flank of Godfrey. Gun positions #58 and 59 (Figures 31 and 32 above) were buried at this time and the road cut behind the emplacement filled by a high bank of earth. This bank, measuring approximately 8 feet high, formed a parados at the southern end of the battery that prevented enfilade fire from ships entering the Golden Gate. This embankment was converted into a service road leading to a dump constructed on the forward slope of Battery Godfrey sometime around 1940.

FIGURE 33 The three 1870s traverses on the left flank of Battery Godfrey are visible in this February 1942 view. The curved landform between #27 and #28 is a parados constructed to protect the left flank of Godfrey. Tire tracks probably indicate dump activities on the forward slope. Remedial site BBDA 2A. (PARC, GOGA, Cooper Collecton)

A detailed survey of the topography of the dump area was prepared by the 663rd Engineer Topographic Company in July 1954. It showed the general area of the dump, access roads, and proposed locations for new salvage shop and reclamation bins. It also showed that the reference elevation for the dump access road across the former Rodman positions was 262 feet, and the elevation of the surviving historic road behind the traverses was 255 feet – a difference of only 1 foot from the 1870 road elevation.[32]

This filling episode also explains why the entrance door to Traverse #27 (Figure 33 above) is located so far below current grade; the magazine lintel is at the historic road level while the adjacent service roads leading to Battery Godfrey and the 1940s dump are built atop 7 to 8 feet of fill that formed the 1890s parados.

Today this road over the Rodman positions serves as the unpaved access road to the Fort Scott Overlook, and is designated remedial site BBDA 2A.

Alterations to Superior Slopes

As part of the construction of the Endicott batteries, the area immediately in front of each gun emplacement (the superior slope) was cleared and graded to give the weapon a clear field of fire

[32] Drawing "Special Map for Redesign of Salvage & Dump Area Zone 1300," July 1954. Prepared by the 663rd Engineer Topographic Co., U.S. Army, Office of the District Engineer, San Francisco. PARC, GOGA, Drawer 275, Folder 2.

towards the Golden Gate. Each slope had a downward angle of this slope based on the lowest declination the gun barrel could be depressed below horizontal. In a major-caliber battery, the portions of the superior slope closest to the gun were constructed of concrete. At a distance from the muzzle, however, the material changed to graded and sodded earth. To prevent the weapon's powerful muzzle blast from tearing up the earthen slope, a thin concrete extension called a "blast apron" was frequently added to the concrete superior slope – usually based on experience with the gun's particular firing characteristics.

Figure 34 shows both the masonry and earthen superior slopes that were incorporated into Battery Marcus Miller's design.

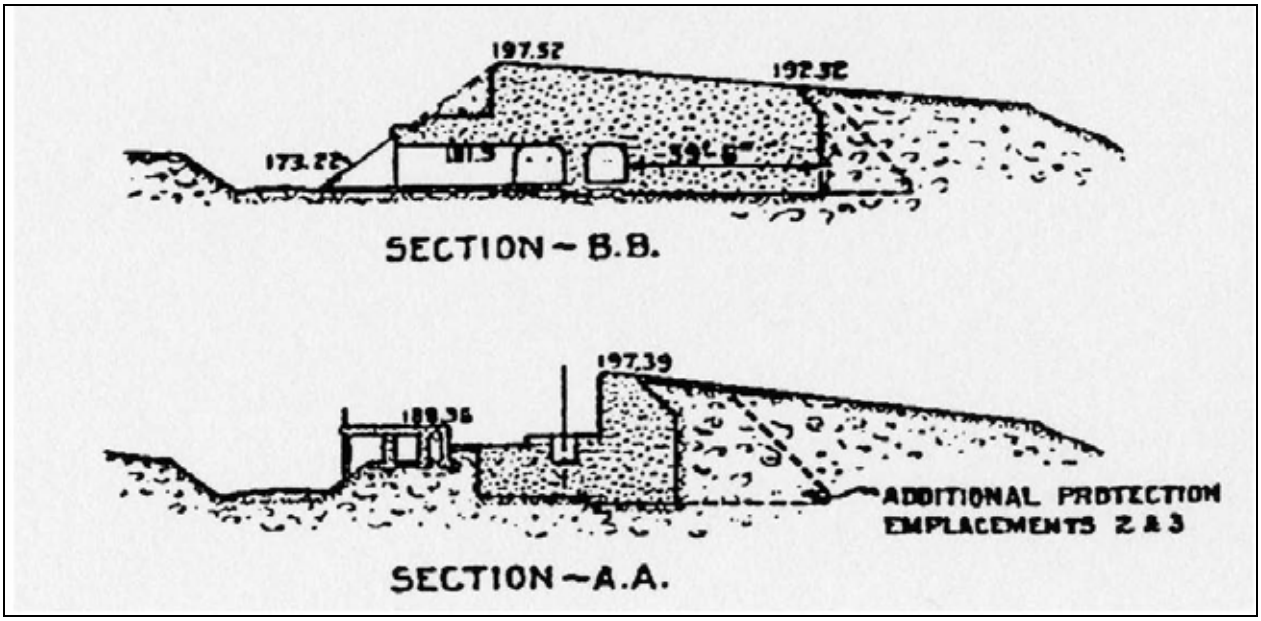


FIGURE 34 Sections through two portions of Battery Marcus Miller. Note the impressive thickness of the concrete in front of the magazines (upper). (Report of Completed Works, Form 7, Marcus Miller)

Due to the increasing elevations of the batteries south of Fort Point, each emplacement's superior slope ended up at a slightly different elevation from the adjacent battery. These differing slope heights created a visibly terraced, or "stair stepped," landscape when viewed from the ocean (Figure 35).

When the batteries were active defensive installations, these superior slopes were kept totally free of trees and any large vegetation that might obscure the field of fire. As time progressed and the guns became obsolete, though, the army ignored the superior slopes and their once-clean grades and profiles were eventually softened by vegetation spread and erosion. Portions of the graded slopes and terraces are still known to exist beneath the brush and tree cover that grows in

the area today, and are periodically exposed to view when the park carries out vegetation removal clearing projects.[33]

FIGURE 35 The terraced superior slopes of Endicott era batteries are visible above Fort Point in this view taken c1900. A 12-inch disappearing rifle at Battery Lancaster appears at left. (California Historical Society)

2.3.2.6 Filling Activities Adjacent to Batteries

The access road paralleling the line of Fort Scott batteries has its origins in the original service road constructed in the early 1870s to serve the gun emplacements at West Battery. Over the years, this road has frequently been referred to as a "covered way," based on the assumption that the road was constructed with high sides to protect it from enemy fire.

Actually, the road was not originally constructed as a feature sunken below ground level. When first constructed the road's level was roughly at the same elevation as the surrounding landscape. This landscape, however, has been raised over the decades as a result of grading activities associated with the Endicott fortifications and other construction events.

The earliest map of the West Battery road indicates that the height of the outboard shoulder (i.e., the side away from the gun positions) varied from exactly ground level to a height of 19 feet above the road's surface. The lowest areas were behind the Rodmans on the site of today's Batteries Cranston and Marcus Miller, where the shoulder was at grade, while the highest slope was behind the Rodmans on the site of present day Battery Godfrey. For most of its length, the outboard shoulder was usually only 1 or 2 feet in height.[34]

These elevations would start to change when work began on constructing the Endicott batteries that replaced West Battery, and land that had previously been at grade was suddenly raised by

[33] The author of this report directed once such project in the later 1980s at Battery Marcus Miller. The clearing work was carried out by members of the San Francisco Conservation Crew and extensive areas of earthen slopes and berms became discernible after clearing dense brush form the superior slopes. These outlines disappeared within a year, though, to returning vegetation.
[34] Drawing "Plan and Sections of Batteries for Fort Point" 1870.

several feet. The theory is that the vast quantities of earth and sand removed to make way for the new batteries were spread atop the natural terrain behind the batteries, resulting in a significant increase to the area's elevation.

For comparison purposes, I chose an arbitrary spot 50 feet east of Battery Marcus Miller gun #3, and tracked its elevation changes over the last 160 years. (Except for the last entry, all elevations are based on U.S. Army Engineer surveys.)

Year	Surveyed Elevation[35]
1847	Approximately 190 feet
1870	190 feet
1871	189 feet
1891	198 feet
1914	198 feet
1945	195-198 feet
2000	205 feet

The park's GIS expert has compared the relative accuracies of these historic surveys, and believes that they are correct to within 0.75 foot.[36] Given this variance, it is believed the terrain behind Battery Marcus Miller has been raised somewhere in the vicinity of 12 to 15 feet since 1847.

These filling activities appear to have occurred in two significant episodes: 1871–1891 and 1945–2005. The first episode, which resulted in an 8-foot elevation change, is probably associated with the construction of the Endicott batteries. Work began in 1891 on excavations for Batteries Marcus Miller and Godfrey, which coincides with this first increase.

These excavations were immense, and must have resulted in vast quantities of spoil. For example, the area occupied by Battery Marcus Miller measures 560 feet in length x 65 feet deep x 120 feet wide. An excavation this size would conservatively result in 161,177 cubic yards of spoil. It is theorized that this removed material was spread atop the natural hillside behind the batteries – the nearest flat dumping area adjacent to the battery site.

The possibility also exists that additional filling took place behind the batteries during construction of the Golden Gate Bridge toll plaza in 1936-1937. Photographs document that during this period, much of East Battery on the other size of the plaza was extensively filled (Figures 36 and 37). This activity resulted in the creation of today's Battery East Parking Lot

[35] Maps referenced are as follows: Lt. William Warner's 1847 survey of the Fort Point area, NARA, RG 77, W9; "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, PARC, FOPO Collection; NARA RG 77, Drawer 94, Sheet 102); "Map Showing the Military Reservation of the Presidio of San Francisco," 1871 (PARC, GOGA, Drawer 211, Folder 1; NARA RG 77, Drawer 93, Sheet 4-23; "Gun Emplacements No 12-13 for 10 in. guns at Fort Point etc" 1891, GOGA, PARK, Drawer 27, Folder 2; NARA, RG 77, Drawer 94, Sheet 110-1; "Armament Sketches of Defensive Works in San Francisco Harbor" 1898, GOGA, PARC, FOPO Collection; NARA RG 77, Drawer 256, Sheet 10-16; "Presidio of San Francisco and Fort Winfield Scott, 1914 GOGA, PARC, Drawer 312, Folder 2; "Fort Winfield Scott" Harbor Defenses of SF Annexes, November 6, 1945, GOGA Archeology lab, Fort Scott drawer; Photogrametrical Presidio Contours (based on 1988 NAVD), 2000, GOGA, GIS mapping project.
[36] Interview with Hans Barnaal, GIS specialist for GGNRA, at Presidio Archaeology Lab, August 13, 2005.

adjacent to Lincoln Blvd.[37] However, any filling on the southern side of the bridge approach likely took place close to the toll plaza and outside the current project areas.

FIGURE 36 East Battery partly filled in October 1937. Compare to 1984 conditions in Figure 15. (Courtesy GGBHTD)

The source of the second episode behind Marcus Miller (an increase of 7 feet) is harder to pin down but probably occurred during the 1960s. The previously cited 1967 aerial photograph in the Golden Gate Bridge collection shows extensive filling operations occurring on the sites of both the Fort Scott dump and also behind Batteries Marcus Miller and Cranston. In this photo, the area between the batteries and Merchant Road is covered with freshly dumped piles of light-colored fill, each pile corresponding to about the capacity of a dump truck. Tire tracks can be seen among the piles, indicating dumping is still taking place.

The source of the fill is unknown, but could have been come from excavations for the "new" Letterman General Hospital on the Presidio, where construction was just getting started about this time. The area being filled is bounded roughly by the batteries on the west, Merchant Road on the south, and the Golden Gate Bridge employee parking lot. Today, this area is covered by extensive growths of nonnative vegetation and trees; additional (but informal) parking areas, many of them abandoned; and temporary modular office buildings associated with the Golden Gate Bridge's administration.

[37] Photograph in the GGBHTD collection, October 1937, Picture B1095.

FIGURE 37 Dumping activities occurring near Golden Gate Bridge toll plaza in May 1967. Battery Marcus Miller area at left, East Battery area at right. (Courtesy GGBHTD)

In short, today's deeply sunken "covered way" behind Battery Marcus Miller is not a vestige of the Plan of 1870s earthworks but rather the result of Endicott-era and later filling activities. The historic grade in this area should be considered the elevations that existed following completion of the Endicott works.

2.4 CULTURAL RESOURCES IN THE PROJECT AREA

The Presidio of San Francisco National Historic Landmark District is composed of significant historical, architectural, cultural landscape, and archeological resources associated with the long Spanish, Mexican, and United States military history of the property. It was originally designated in 1963 under the Historic Sites Act of 1935, and was placed on the National Register of Historic Places in 1966. Contributing properties within this National Historic Landmark are managed through the National Historic Preservation Act, and under 36CFR65 (National Historic Landmark Program), and special treatment responsibilities in 36CFR800:

> Sec. 800.10 Special requirements for protecting National Historic Landmarks.
>
> (a) Statutory requirement. Section 110(f) of the National Historic Preservation Act requires that the agency official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking. When commenting on such undertakings, the Council shall use the process set forth in Secs. 800.6 through 800.7 and give special consideration to protecting National Historic Landmarks as specified in this section.

(b) Resolution of adverse effects. The agency official shall request the Council to participate in any consultation to resolve adverse effects on National Historic Landmarks conducted under Sec. 800.6.

(c) Involvement of the Secretary. The agency official shall notify the Secretary of any consultation involving a National Historic Landmark and invite the Secretary to participate in the consultation where there may be an adverse effect. The Council may request a report from the Secretary under Section 213 of the Act to assist in the consultation.

These contributing properties, and others with individual merit, are recognized in several national and state inventories used to facilitate the management of historic properties. Each has varying significance thresholds. Documentation prepared for these resources must also meet standards appropriate to these inventories.

(If it is not already evident), four structures are listed in current inventories of significant historic properties associated with the Presidio National Historic Landmark in the BBDA APE. These are:

- West Battery
- Battery Marcus Miller
- Battery Godfrey
- Battery Boutelle

Currently, these properties are represented in the following inventories (as shown in Table 2-1) used for cultural resources management by the NPS: the National Register of Historic Places Presidio National Historic Landmark Contributing Property Inventory (NHL), the NPS List of Classified Structures (LCS), the NPS Archaeological Sites Management Information System (ASMIS), the NPS Cultural Landscape Inventory (CLI), and the U.S. Army Presidio Building Inventory # (Army):

Table 2-1
Cultural Resources Inventory Designations

Structure/Site	NHL	LCS	ASMIS	CLI	Army
West Battery	F23	005949 005950 005952	GOGA-00025		1640 1643 1646
Battery Marcus Miller	F37	005955 005956			1658 1660 1661
Battery Godfrey	F39	005953			1647
Battery Boutelle	F45	005954			1651
Coastal Bluffs and Batteries: Presidio of San Francisco				725474	

GGNRA manages the West Battery Harbor Defense area in accordance with a Programmatic Agreement with the California Office of Historic Preservation and the Advisory Council on Historic Preservation. Under the provisions of this Agreement review of federal undertakings

involving historic properties (buildings, structures, archeological sites, ethnographic properties, and cultural landscapes) on the Presidio is conducted through the GGNRA Division of Cultural Resources as long as properties deemed eligible or already listed on the National Register of Historic Places are not adversely impacted or impaired by such undertakings. Projects that will impair such resources go must go through full consultation with Agreement signatories in accordance with the National Historic Preservation Act.

A *Seacoast Fortifications Preservation Manual* has also been produced to assist in the preservation and/or rehabilitation of elements of the fortification systems (Freeman et al. 1999). Repairs have been conducted on many parts of the deteriorating structures to preserve their condition for public interpretation. Most recently, all vegetation and trees were removed from Batteries Godfrey and Boutelle, and the earthworks were rehabilitated through revegetation with a specially designed native plant palette. All work was photographed and archaeologically monitored to ensure that structural and historic features were not impacted. Artifacts associated with the use of the batteries were recovered and accessioned into the GGNRA museum collection.

2.4.1 Field Reconnaissance of Baker Beach Remediation Project Area

Notes describing the survey of the Baker Beach Remediation Project Area are presented in Appendix A, Report of the Field Exercise Baker Beach Remediation Project, Archaeological Survey Field Notes. The goals of the field survey were to:

- Locate all remnant elements of West Battery, and previously unrecorded features.
- Agree upon the location/route of the "Covered Way" (the pathway that wound between the fortified earthworks and batteries of the coastal fortifications).
- Digitally map, with the Total Station, West, and Endicott Era structures that are within the current project's APE.
- Based on data derived from the field survey prepare a statement describing physical limitations on the usage of heavy equipment in the APE that could adversely affect historic features of the subject coastal fortifications.
- Conduct a shoreline pedestrian survey to identify discarded elements of the fortifications or shipwreck debris.

2.4.1.1 Results

The field crew was comprised of both URS archaeologists, Vance Benté, Sean Dexter, and Christopher Lee, as well as NPS and Presidio Trust archaeologists, including Leo Barker, NPS, Hans Barnaal, NPS, and Megan Wilkinson, Presidio Trust. Early focus of the survey was on the two West Battery magazines (#28-29) south of Battery Godfrey at the southern terminus of the project's APE. "Ground-truthing" elements of historic photos and maps were examined to see if battery features could be located. No evidence of prehistoric use of the area was encountered, nor were the earlier reported sparse scatters of shell observed. Two features of unknown origin and purpose were discovered during the survey. The first was discovered partially buried between Magazines # 28 and #29; it consists of a poured (in individual pie-shaped sections) and surfaced, circular concrete pad. It is approximately 12 feet in diameter, with a circular open center

approximately 24 inches in diameter. The surface has been painted with a thick coat of rust-colored orange paint similar to the color of the Golden Gate Bridge. Its function is unknown. Another partially visible circular concrete feature was discovered on the outer slope of West Magazine 29, and is likely an antiaircraft foundation. Remnants of the five West Battery magazines were located during the survey. The two southern West Batteries were mapped using the Total Station to capture accurate elevations. Completion of digital mapping was not completed during the two-day survey and it was concluded that NPS archaeologists, Leo Barker and Hans Barnaal, not URS archaeologists, would complete this task at a later date. Please see Appendix A, Report of the Field Exercise, for detailed notes of the Field Reconnaissance of the Baker Beach Remediation project area. Figure 38 Survey Results and Vegetation Removal, illustrates the location of the newly discovered features. Photographs of those features are included in Appendix A. Dense vegetation that effectively masked the site topography, and the absence of any specific plan that described the areas that would require remediation, or the manner in which the remediation would be undertaken, limited the usefulness of any evaluation regarding the usage of heavy equipment on the site. Structures with known subterranean hollow areas had been identified prior to the survey as areas that would require avoidance. No additional areas were identified as a result of the field survey.

2.4.1.2 Shoreline Pedestrian Survey

A significant amount of debris that appears to relate to structural demolition was observed along the shoreline at the base of the bluff, with a greater concentration below BBDA1 than BBDA2. In some cases, the structural elements were mixed with metal debris, e.g., axles, bolts, spikes, etc., and a possible ship's rudder. Although many of the concrete pieces were characterized by distinctly different aggregates, understanding of the construction practices throughout the Presidio over time is insufficient to make any reasonable statements regarding the source of this debris. None of the debris could be definitively associated with the bluff-top fortifications.

2.4.2 Field Sampling

Cultural resources studies were undertaken in concert with the geotechnical sampling at BBDAs 1, 1A, 2, and 2A. These studies obtained data essential to the design of a remedial action plan to avoid impact to significant features that compose the West Battery and Endicott Era coastal fortifications in the project are. Work included vegetation removal, designed to expose and allow surface mapping of the juxtaposition between historic earthworks and later landfills. Trenching assessed the relationship of the post-Endicott Era fill to the fortification features. Additional field and documentary data were collected to inform design of the finished condition to the remedial action plan. Archaeologists monitored activities during all phases of the brush removal and geotechnical sampling, and directed trench exposures and hand-excavations on the historic fortifications.

2.4.2.1 Vegetation Removal

Brush and tree removal was undertaken to improve visibility of the historic earthworks in preparation for the remediation sampling to follow. It also served to protect earthen historic resources by reducing the potential for damage caused by invasive root structures.

The removal process began on February 14, 2005, and continued intermittently through February 23, 2005. Periods of heavy rain required that clearing activities be postponed on February 15, 2005, owing to the potential for accidents and damage to historic resources.

In general, clearing was conducted in two areas: it began in the area bracketed by West Battery Magazines 27 and 28, on the southern end of Battery Godfrey. The fill area between Magazines 21 and 22 is known to be the location of West Battery mortar barbettes XLII through XLV. The area between Magazines 27 and 29 contains apparently incompletely constructed elements of West Battery magazines and gun pits LVIII to LXI. Notes and observations made by the in-field monitor that pertain to the day-to-day activities are included in Appendix B, Monitoring Notes. Figure 38 provides a graphic depiction of the area that underwent clearing.

To avoid damage to the landform, or near-surface archaeological deposits, the brush was consistently cut above the ground surface and no excavation to remove root systems was undertaken. Tree removal, specifically cypress tree in the Magazine 21 vicinity, was undertaken in the same manner to minimize alteration of the earthworks related to that feature and the adjacent covered way. Tools employed by the contractor included chainsaws, weed-whackers, and hand-pushed mowers. Waste was in some cases dragged from the site with a small backhoe, cut up, and mulched with a portable chipper. All waste was removed for off-site disposal.

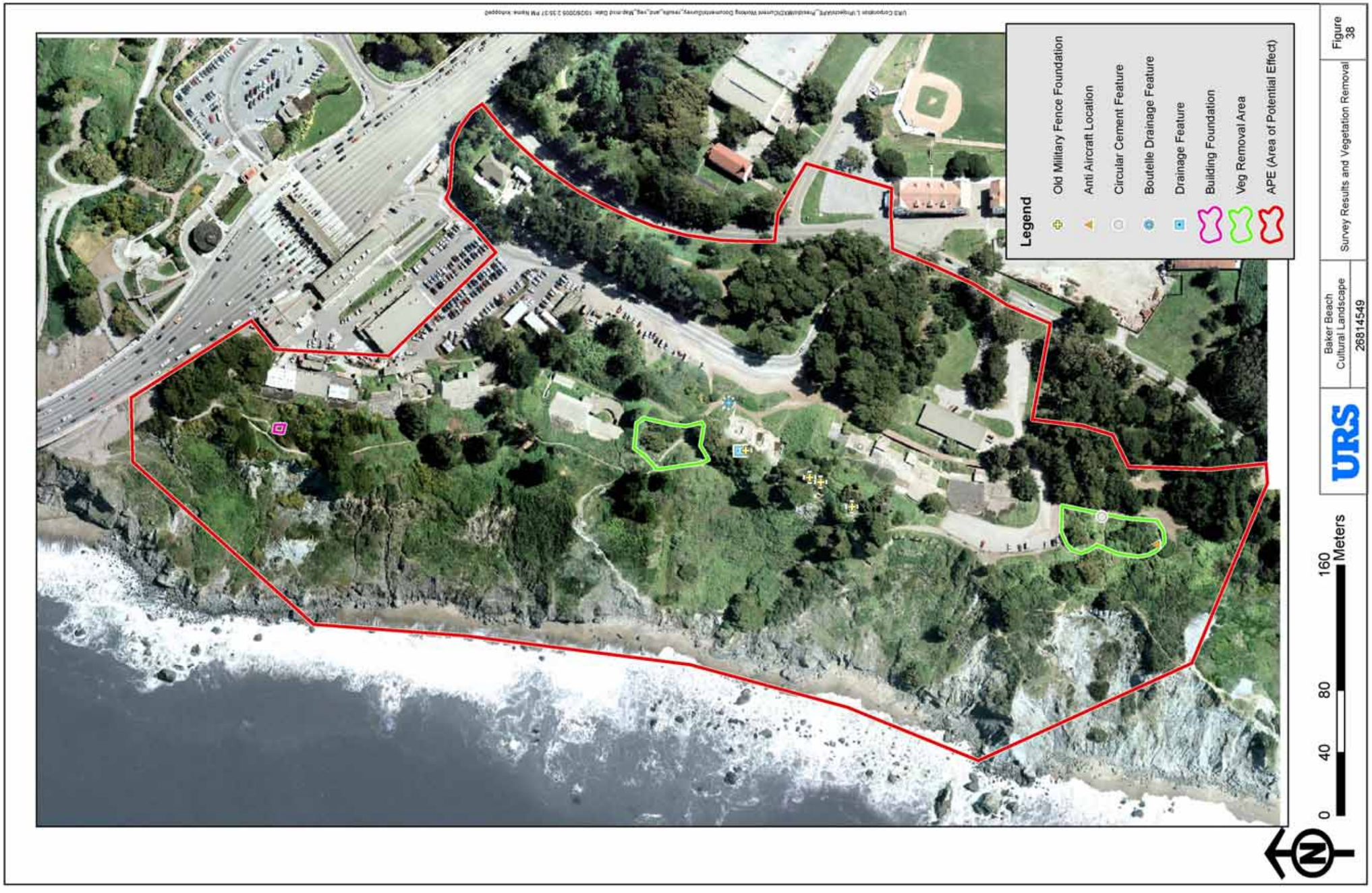
Table 2-2 is a list of vegetative species removed from the area. Lewis Stringer, NPS biologist, provided this list to URS.

Table 2-2
List of Vegetative Species Removed from West Battery Area During Brush Clearing and Removal

Scientific Name	Common Name	Scientific Name	Common Name
Natives		**Exotics**	
Baccharis pilularis	Coyote Brush	*Anagalis arvensis*	Scarlet Pimpernal
Eriophyllum staechadifolium	"Lizard Tail" or Costal Wooly Sunflower	*Carpobrotus edulis*	Hottentot Fig
Fragaria chiloensis	Sand or Beach Strawberry	*Circium vulgare*	Bull Thistle
Mimulus aurantiacus	Bush Monkey Flower	*Conium maculatum*	Poison Hemlock
Scrophularie californica	California Figwort	*Delairea odorata*	Cape Ivy
		Raphanus sativus	Wild Radish

Artifacts Observed and Recovered

A variety of artifacts, primarily representing the day-use common to the area, were recovered in the course of the brush and tree removal. All collected artifacts were analyzed and delivered to NPS personnel at the Presidio Archaeology Lab. Table 2-3 describes those artifacts to be considered for formal inclusion in park museum collections. The remaining items were discarded and no further description or evaluation was undertaken. Discarded items included modern glass bottles, aluminum cans, plastic sunglasses, syringes, and objects related to the prurient activities practiced in the area prior to vegetation removal.


Legend
Old Military Fence Foundation
Anti Aircraft Location
Circular Cement Feature
Boutelle Drainage Feature
Drainage Feature
Building Foundation
Veg Removal Area
APE (Area of Potential Effect)
Figure 38
Survey Results and Vegetation Removal
Baker Beach Cultural Landscape
26814549
URS
0
40
80
160
Meters
N

The artifacts recovered from the coastal slope adjacent to Battery Godfrey (Table 2-3) are representative of the materials that were recovered and provided to the NPS. This somewhat eclectic admixture of artifacts reflects refuse collection practices as well as disposal behavior following the period of fortification abandonment in this area of the Presidio, circa the late 1940s through the 1950s. Commercial refuse (e.g., a restaurant dairy bottle), demolition debris (e.g., industrial grade Siemens circuit breaker), soft drink containers, and drinking glass appear to have been collected and disposed of in a single episode. While all of the debris described here could represent activities occurring on the post, the possibility that the debris is the result of volunteer dumping by a nonpost entity cannot be dismissed.

While the brush removal provided better definition of the landforms and earthworks surrounding the historic properties, it did not reveal any previously unknown features or artifacts related to the West Battery or Endicott Era fortifications.

2.4.2.2 Geotechnical Test Pits

Goals and Procedures

The data obtained from the geotechnical investigation, undertaken by MACTEC and associated subcontractors, were to be used primarily to determine the extent of the post-Endicott Era fill, to describe the underlying soils and geology and to evaluate the suitability of the terrain to support heavy excavation equipment, and to provide soil samples for the characterization of the landfill wastes.

Because the test pits and borings would be excavated in areas immediately adjacent to known historic resources, or in areas where elements of those resources might have been disposed of, the NPS requested continuous on-site monitoring of the trenching. Test pit excavation was begun on April 5, 2005, and continued through April 19, 2005.

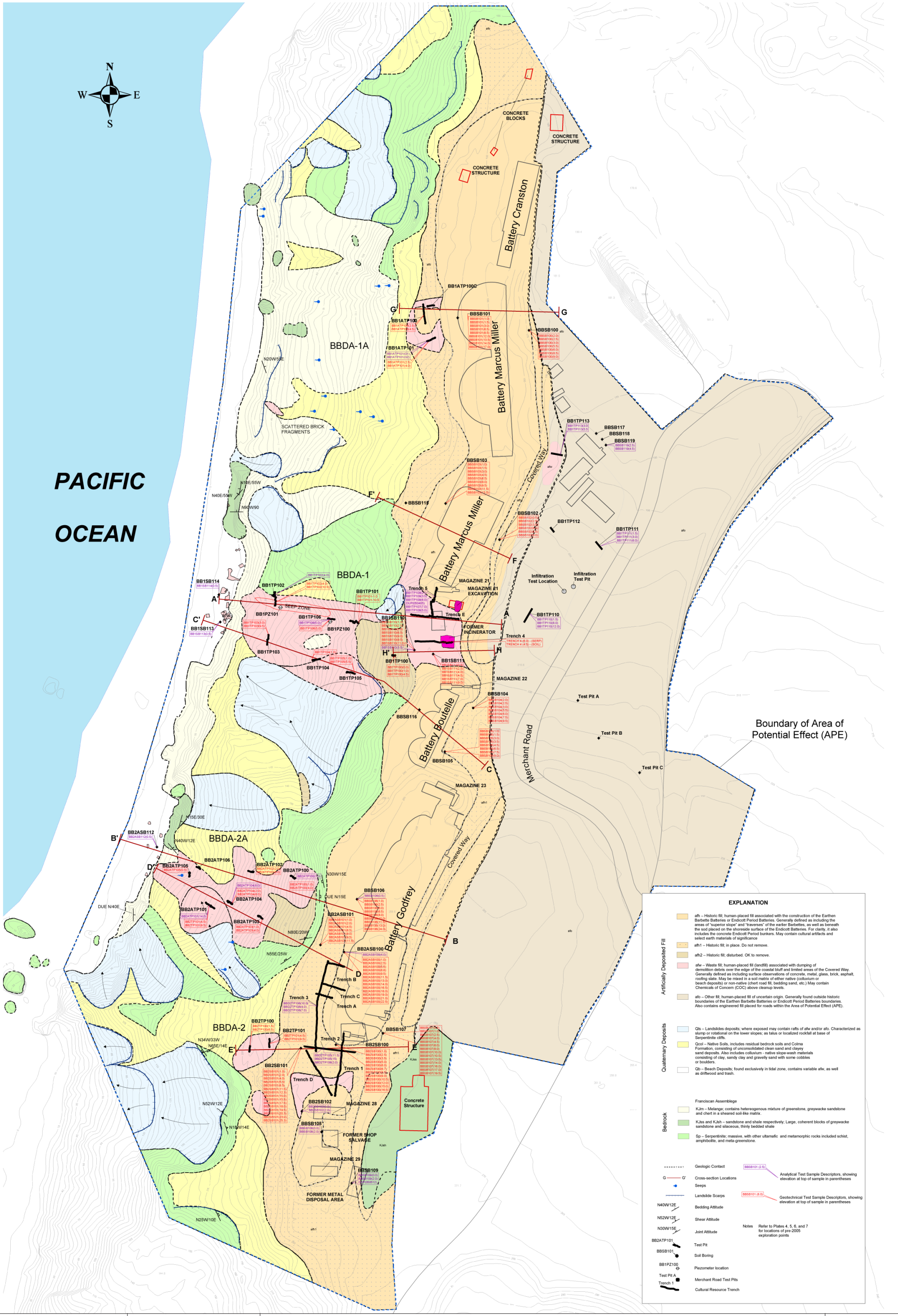
Trenching on the precipitous slopes was undertaken with a Kaiser S2 walking excavator equipped with a 24-inch-wide bucket. The test pits, essentially trenches, are depicted in Figure 39. A soils engineer and cultural resources specialist monitored each test pit. Specifics of the excavation can be found in the geotechnical sampling report.

A second phase of test pitting, undertaking as a result of information revealed by the historic research was conducted on October 3 and 4, 2005. These test pits, all in the vicinity of the covered way (Figure 39) were excavated to reveal the extent of post-Endicott Era fill along the covered way.

Results and Observations

This phase of the investigation was monitored on a continuous basis. A basic description of the stratigraphy, along with a characterization of the observed debris for each of the 21 test pits, is provided in Table 2-4. Test pit logs prepared by A. H. Henke are included as Appendix C.

None of the geotechnical test pits revealed substantial architectural or artifactual remains that provided new insights as the construction, use, or modification of either the West Battery or Endicott Era fortifications. The admixture of demolition waste and “domestic” debris appears to be mid-20th century refuse collected from throughout the post.



URS	26814549.SUPRE Baker Beach Cultural Landscape	Geologic Exploration Map (MACTEC)	Plate 39

Trench 1 in the Baker Beach Test Pit 102 vicinity encountered a substantial accumulation of debris suggesting a long-term residential occupation. Those items are described in Table 2-5. The presence of ceramic items with backstamps that include reference to the Quartermaster indicate the source of the refuse to be from a post-related occupation; however, the specific population is unknown.

A few of the artifacts recovered from Test Pit 102 have manufacturer's marks that are sufficiently diagnostic to suggest that the debris accumulated over a period ranging from the late 1940s through the mid to late 1950s (e.g., the "D-patent" Coca Cola bottles, produced from 1938 to 1951; and the mark of a ceramic manufacturer, Technical Porcelain and Chinaware Company [TEPCO] 1922-1972, located in El Cerrito, CA. The "TEPCO/U.S.A./CHINA" mark was first used in 1954, and subsequently registered in 1955).

As described in the historic context, two incinerators were built on the bluff in the BBDA-1 area, adjacent to the west of the parapet and mortar platforms known to have been situated between Traverses 21 and 22. The first of the incinerators was built in 1917; it was subsequently replaced in 1934. Citing a relationship between the sheet-refuse encountered by the test pitting on the face of the bluff and the disposal activity evinced by the incinerators is attractive; however, they may not be related.

The majority of artifactual materials encountered appear to date from the late 1930s/early 1940s through the 1950s, significantly postdating the first incinerator but possibly related to the second. Further, no significant deposits of ash were encountered, nor did a substantial number of the artifacts observed or recorded appear to have been subjected to high heat. One possible explanation for this apparent disconnect is that waste was separated and the noncombustibles were dumped over the bluff.

Table 2-3
Artifacts Recovered During Vegetation Removal

Additional Comments	Artifact Description
Large clear glass jar, barrel-shaped, with embossed lines to mimic barrel staves and hoops.	Base embossed with: "425-65," "13," "4," and "Ball" (in cursive).
Clear drinking glass.	Bottom embossed with: "C," two intersecting diamonds, and "4" (along top), "6" (at bottom), and "6181" above it.
Coca Cola bottle, Georgia green, complete.	Manufacturers mark of the Maywood Glass Company, CA, used circa 1940s.
Dr. Pepper bottles (2), clear glass. Both complete. Both are debossed with a stylized clock pointing to 10, 2, and 4.	Owens-Illinois Glass Company marks with plant designations for Oakland and Los Angeles, suggesting manufacturing dates as late as 1954.
Half-pint dairy bottle. Front is stenciled with: "GREEN GLEN DAIRY SAN FRANCISCO," in green; back in green letters: "WHY COOK AT HOME? RESTAURANTS OFFER A VARIETY; FOR EVERY TASTE."	Established in 1937, the Green Glenn dairy provided products to the three main restaurant chains in San Francisco. The history page on the company website notes, "During the war the business flourished as a major supplier to the service personnel in San Francisco."
Glass fragment (smoked) (1 cm thick).	
Ferrous metal pipe end - open only on one side; badly corroded.	
Molded case circuit breaker manufactured by ITE Siemens – has opening in center with "on" at one end and "off" at the other, two rusty screws remain attached. A switch that fits in the center aperture was found in association, but is separate.	
Metal and plastic electrical assemblies, all screws missing and metal parts rusty; may be electrical equipment related to the above breaker.	
Two cast-metal light fixtures with porcelain sockets; plastic-coated copper wires (black and white) protrude from each piece.	

Table 2-4
Baker Beach Test Pits – Basic Stratigraphy and Characterization of Debris (Reference Figure 39 for location of Test Pits)

Area/Test Pit	Stratigraphy	Characterization of Debris
Baker Beach 1		
BB1TP100	Dark, blackish-brown, sandy-silt, over a 7-foot layer of soils mixed with debris, above concrete rubble. Rubble halted further excavation at 8 feet.	Debris observed in 7-foot fill layer included corroded metal, nails, screws, spark plug, and concrete.
BB1TP101	Fill in this area continued to a depth of 17 feet, the maximum reach of the excavator.	Debris consisted of a melted piece of aqua glass, one fragment of white-improved earthenware, a fragment of orange-colored marble, a medicinal bottle and a condiment bottle both machine-made, and a single piece of white porcelain marked with an eagle and the words "United States Army."
BB1TP102	Fill to approximately 11 feet – bedrock was not encountered.	A representative collection of the domestic debris mixed with construction debris was collected for review in the NPS laboratory. Materials included broken and whole bottles, white-improved earthenware, porcelain, concrete rubble, and metal debris. In-field dating placed the deposit in the 1930s to 1940s; review of the materials suggests deposit was made in the late 1940s or 1950s.
BBTP103	A 10-foot layer of fill overlying serpentinite bedrock.	Debris included screw-top medicine, wine and liquor bottles, porcelain and white-improved earthenware sherds, corroded metal, asphalt and slate roofing, and roof tiles. In-field dating places the deposit in the 1930s to 1940s; review of the materials suggests the late 1940s into the 1950s.
BB1TP104	A 9-foot layer of fill overlying a Franciscan outcrop. Interbedding of debris with shale suggest periodic disposal.	Debris consisted of concrete rubble, tar, roofing material, and corroded metal.
BB1TP105	A fill layer, mixed with debris, extended to a depth of 11 feet, bedrock encountered at 14 to 18 feet.	Debris consists of concrete rubble, brick, layers of mortar, corroded metal, slate roofing, and a few glass bottles with screw-top closures, which appear to date to the 1930s-1940s.
BB1TP110	A 3-foot layer of fill with concrete and brick, over a 1 ½ foot thick layer of cobbles, over fill transitioning to sterile native colma – fill is perhaps 6 to 7 feet in depth	Brick and concrete mixed with earth fill
BB1TP111	Chert bedding layer encountered at approximately 2 feet below surface, over 4-5 feet of colma, transitioning to native colma at 7 feet.	Brick and concrete mixed with earth fill

Table 2-4 (continued)
Baker Beach Test Pits – Basic Stratigraphy and Characterization of Debris (Reference Figure 39 for location of Test Pits)

Area/Test Pit	Stratigraphy	Characterization of Debris
BB1TP113	Chert bedding layer, over an asphalt layer encountered at 2 feet, over a fill layer 3 to 4 feet in depth, native colma encountered at 7 feet	Fill contained rebar, concrete, brick debris, rubber bumper, pull-tabs from cans, "Mickey's Malt Liquor" bottle
Baker Beach 1A		
BB1ATP100	3 feet of dark, blackish-brown sandy silt, trending to serpentinite rock at 3 to 4 feet.	A single brick was recovered from the upper level, no other debris or artifacts were encountered. An extension of this test pit to the north revealed no additional debris.
BB1ATP101	4- to 6-inch layer of debris, overlying a dark, blackish-brown layer of sandy silt, with decomposing serpentinite at base (approximately 5 feet in depth).	Debris layer consisted of roofing materials.
BB1ATP102	1 foot of top soil over approximately 3 to 3.5 feet of debris, overlying Colma formation soil above a serpentinite rock formation.	Debris consisted of the macadam-like material (tar and sand) used on the roof surfaces of the batteries.
Baker Beach 2		
BB2TP100	18-inch top soil layer over sterile native soil (Colma Formation). No excavation beyond approximately 6.5 feet.	No debris of historic materials encountered.
BB2TP101	3- to 6-inch layer of top soil over a 12- to 18-inch layer of debris, over a 6.5-foot layer of sandy, silt soil with serpentinite inclusions. A serpentinite rock formation was encountered at 9.5 feet.	Debris was composed of concrete, brick, tile, rusted metal, wire, and glass fragments. An intact television cathode ray tube (screen tube) was recovered; a "D-Patent" Coca-cola bottle (production dates 1938-1951).
Baker Beach 2A		
BB2ATP100	Original location could not be accessed (April 14, 2005). Original TP101 location became TP100. Fill layer to approximately 3 feet, overlying serpentinite bedrock.	Debris consisted primarily of wood, broken glass, and slate roof tiles. Concrete rubble was not observed in large amounts.
BB2ATP101	Moved to a location south of BB2ATP104.	Debris consisted of large metal construction pieces, e.g., "I" beams, axel and spring assemblies from an automobile; other elements of the fill included slate roofing, wood, broken glass, white-improved earthenware, porcelain sherds. A distinct layer of brick was encountered at an approximately 7-foot depth.

Table 2-4 Concluded
Baker Beach Test Pits – Basic Stratigraphy and Characterization of Debris (Reference Figure 39 for location of Test Pits)

Area/Test Pit	Stratigraphy	Characterization of Debris
BB2ATP102	Fill extended to a depth of 7 feet, overlying serpentinite bedrock at 8 feet.	Debris consisted of a concrete post or pillar, melted glass, white-improved earthenware, porcelain sherds, bottles, a fragment of marble, and wooden posts and siding. No slate, brick, or tar roofing material was observed.
BB2ATP103	Fill to approximately 5 feet.	Minimal debris – a large piece of metal wire.
BB2ATP104	Fill to a depth of 12-14 feet. Excavated to 21 feet.	Debris consisted of concrete rubble, tile, slate, roofing materials, along with a Dr. Pepper bottle, a Shield's Harper and Company Motor Oil container, a green glass wine bottle, a vinegar bottle, and a brown glass medicinal bottle.
BB2ATP105	Serpentinite bedrock encountered at 6-inch depth.	No debris recorded.
BB2ATP106	Serpentinite bedrock encountered 6-inch to 2.5-foot depths.	No debris recorded.

Table 2-5
Baker Beach Disturbed Area 1- Test Pit 102 Representative Artifact Description

Description	Count
Ceramic	
Missionware plate fragment, pink with fuchsia roses, green leaves, and blue flowers.	1
White improved earthenware base, with blue band on rim and windmill design in blue, black, orange.	1
Blue/purple porcelain, possible plate fragment.	1
White porcelain plate base fragment, white glaze with thick black stripe around rim of plate and a thinner red/orange stripe below it around rim.	1
Porcelain base fragment, light blue glaze, possible plate.	1
Aqua blue porcelain bakeware or mixing bowl fragment; crazing on finish.	1
White porcelain bowl fragment; with a thick dark green band around rim and a thinner green band below it around rim.	1
White porcelain base fragment; possible mug or bowl.	1
Porcelain light fixtures, with screws/metal attachments, one piece has [BRYANT] embossed on underside; may be parallel wire knob and tube type.	4
Porcelain mug, plain white, complete, on bottom of mug in black ink: [TEPCO U.S.A. CHINA] (Technical Porcelain and Chinaware Company, 1922-1972, El Cerrito, CA) specific make first used in 1954, registered in 1955. (Lehner 1988: 468-469).	1
Thick white porcelain mug, nearly complete (part of the body is missing so it may or may not have had a handle); on bottom of mug in blue ink, written in a circle: [ROYAL CHINA INC./ SEBRING OHIO] (1934 to present, Lehner 1988:83).	1
Thick white porcelain mug, approximately half of the mug (part of the body is missing so it may or may not have had a handle); base is mostly gone but a hint of blue ink (and its size) suggests it is a mug identical to the example above.	1
Thick white porcelain mug, approximately half of the mug (part of the body is missing so it may or may not have had a handle; base is mostly gone but the letters [CO] in blue ink suggests it is a mug identical to the "TEPCO" example above, or is it "SAN FRANCISCO CALIF CO"? Half of the specimen, on both the exterior and interior, has a grayish pattern on the glaze, suggests being in the presence of heat?	1
White porcelain rim and body fragment of same type of mug as noted in above examples; base missing.	1
White porcelain mug body fragment of same type as noted in above example.	1
White porcelain gravy boat fragment, nearly half of a complete specimen, with half of base, rim, and body present; handle broken off; on bottom of base in blue ink, [U.S.Q.M. NEW CASTLE, MA]; same thickness as mugs noted above.	1
White porcelain container, possible sugar bowl or condiment container, half of base and a fragment of the body; on base in blue ink [U.S.Q.M./W 4 (6?) 31 QM 4-28-41]; same thickness as above-mentioned gravy boat and mug fragments.	1
White porcelain three-section plate, same thickness as all above-mentioned articles; plate is divided into at least 3 separate sections; on base in red ink: [TEPCO/ VITRIFIED/ MADE IN].	1
White porcelain bowl fragment (slightly less than half); including some base and rim; no inscriptions/maker's marks.	1

Table 2-5 (continued)
Baker Beach Disturbed Area 1- Test Pit 102 Representative Artifact Description

Description	Count
White porcelain bowl fragment, smaller sized than above example but same thickness; including some base and rim but no identifying marks.	1
White porcelain vase or pitcher fragment, including portion of rim but no base; slightly less thick than above example (approximately 4 mm thick as opposed to 5 mm); one nonrounded corner suggests spout; no identifying marks).	1
White porcelain bowl fragment of same thickness as above pitcher fragment; some rim and base present but no identifying marks.	1
White porcelain plate fragment of same thickness as above pitcher and bowl fragment; some rim and base present, plate NOT divided into portions (as the other plate fragment was); no identifying marks.	1
White porcelain plate or shallow bowl fragment, some rim and base present, but no identifying marks; thinnest example of this group (approx. 3 mm).	1
Glass	
Glass or slag, black.	1
Green wine bottle, complete, with small push-up base and double ring neck finish. [BOTTLE MADE IN ITALY] embossed around edge of base.	1
Milk glass jar bottom; embossed in circle in center of base: [CORNING] (around top); [T.M. REG.] (in center, with a small human figure between them); and [MADE IN U.S.A.] along bottom.	1
Green glass bottle, complete. Embossed [COCA COLA/TRADEMARK REGISTERED/MIN. CONTENTS 6 FL. OZ./D-1055 29/SAN FRANCISO CALIF.]; D-patent Coca-Cola bottle produced 1938-1951.	1
Clear glass ketchup bottle, complete, no label or writing on sides; bottom of body is divided into 8 "sides," embossed on base: [12], a diamond superimposed over an oval (Owens-Illinois glass company, Toledo, OH); [0] (all on the same line); and [8] below the diamond symbol (1929-1954, plant # adds no additional definition.)	1
Clear glass ketchup bottle, nearly complete (part of neck is broken off); similar in shape to above bottle but not as tall; embossed on base: [H-257] (in center) and below that, the letter [H] over the letter [A] (symbol of the Hazel-Atlas glass company, Wheeling, WV), and the letter B, 1902-1964.	1
Clear glass condiment bottle, complete, no label or writing on sides; bottom of body is divided into 10 "sides" on bottom base, likely D-patent Coca-Cola bottle produced 1938-1951.	1
Amber bottle fragment, top and neck portion with just the slightest part of the body remaining; plastic orange cap is present and twists on and off.	1
Clear glass jar bottom, embossed on bottom: [GLAS] in cursive on top; [STORE] in large letters in center, and [23], a diamond is superimposed over an oval (Owens Illinois, Toledo, OH), and [3] along the bottom; on side: [ONE QUART/1719]. The #23 could represent the Los Angeles, CA plant, which did not open until the late 1940s.	1
Clear glass jar bottom, complete base, embossed on bottom: [4-9] on top, the letter [H] over the letter [A] (symbol of the Hazel-Atlas glass company, Wheeling, WV) in the center; and along the bottom: [K 625] (1902-1964).	1
Clear glass condiment bottle, [1916-0] embossed on bottom.	1

Table 2-5 (concluded)
Baker Beach Disturbed Area 1- Test Pit 102 Representative Artifact Description

Description	Count
Small blue glass Noxzema cosmetics jar, lid missing but otherwise complete, the number 2 and the word [NOXEMA] embossed on base, with the [Z] being very large and dividing the word in half ([NOX] on one side, [EMA] on the other).	1
Small blue glass Vicks cosmetic/medicine jar, lid missing but otherwise complete; embossed on bottom: [VICKS] (around top of base); a triangle (in center); and [VA-TRO-NOL] along bottom.	1
Blue glass vial or small bottle; [7] on bottom, [BROMO SELTZER EMERSON DRUG CO.] embossed on side.	1
Milk glass bottle, lid missing but otherwise complete; on bottom of base: [METHOLATUM 5 REG. TRADE MARK]	1
Small clear glass bottle, lid missing but otherwise complete, no markings except on bottom of base,: [DR LYONS TOOTH POWDER] around circ. of base, with the number [5], the [A] in a circle, and [43] along the center.	1
Clear glass bottle neck, threaded? Lines are spread wide apart.	1
Dark blue bottle glass, fragment of the base and some of the body; the letters [OPS] are visible on the base.	1
Clear glass bottle neck/top fragment; melted/burned and as a result is twisted and distorted.	1
Clear glass base fragment.	1
Indeterminate clear glass fragment; melted/burned", circular pattern on one side (possibly structural).	1
Green glass soda bottle body fragment; red and yellow paint residue present; the word [ROYAL] is etched into the body and was probably painted; possibly Royal soda	1
Indeterminate clear glass fragment; thick (approx. 5 mm) with a raised bubble pattern on upper surface; possible crazing? Structural?	1
Indeterminate clear glass fragment; about the same thickness as above specimen, but no rim or base visible; entire surface is cracked/crazed with bubble-like pattern; possibly structural.	1

2.4.2.3 Battery Godfrey / West Area Archaeological Investigation (BBDA 2, 2A Area)

The BBDA 2 landfill is located on the bluff-top at the southern end of the parking lot situated on the western side of Battery Godfrey as show on Figure 39. Given the location of Battery West, as derived from historic documentation and field observations, it appeared as though portions of the landfill were likely to be superpositioned on the earthworks of West Battery Magazines 27 and 28, and the frontal slope of Battery Godfrey; however, the nature, depth, and horizontal extent of the fill was unknown.

Goals

To obtain sufficient data on which to design the remedial action plan in a manner that would avoid or minimize damage during remediation to either of the Battery West magazines or the frontal slope of Battery Godfrey, two trenches at approximate right angles were to be excavated in the parking lot area between West Battery Magazines 27 and 28. These trenches were intended to capture data that would provide definition of the stratigraphic relationship between modern landfills and historic earthworks, to include identification of original grade period grades, the earthen fill related to each phase of construction, and the relationship of landfills to earth and concrete structures of West and Godfrey batteries.

These data were viewed as crucial to complete the necessary identification and effect assessment of the resources known to be within the area of BBDAs 2 and 2A; provide essential metrics as to the extent of the deposit requiring remediation; and provide data essential to the post-remediation restoration of the location, once the modern landfills are removed.

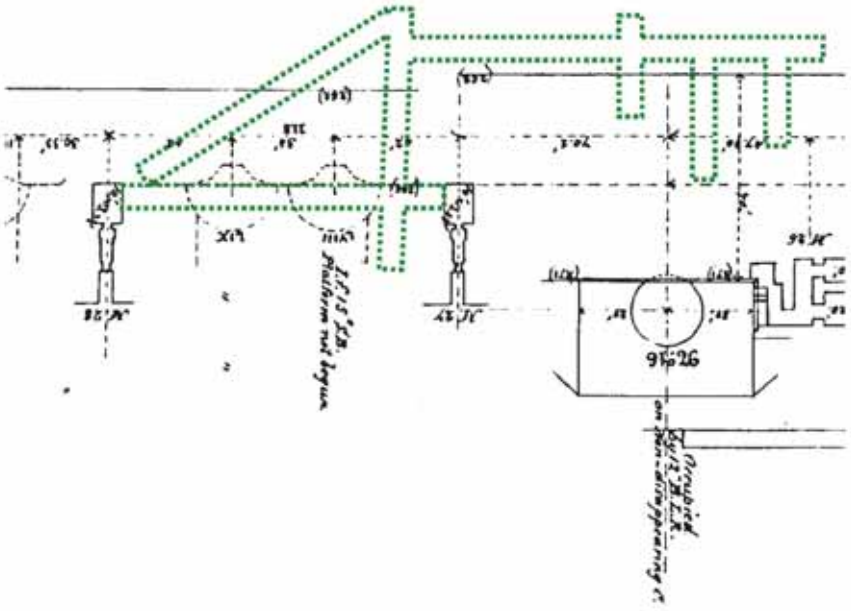
Figure 39 depicts each of the trenches that were eventually excavated. As anticipated in the *Cultural Resources Investigation Sampling Plan* (The Presidio Trust 2005), the lengths, orientations, depths, and number of trenches required modification as the subsurface layering was revealed. Additional exposures were excavated to capture data that were required to expose and interpret the stratigraphy encountered in the two planned trenches, and then further define the debris fill encountered within those trenches.

Trenches were excavated with a conventional backhoe equipped with a 24-inch bucket with three teeth, or a 24-inch bucket with a toothless cutting blade (“butter bar”), the latter employed in circumstances requiring a cleaner cut. Fieldwork for the first portion of this work began on April 25, 2005, and continued through April 29, 2005. All trench excavation was continuously monitored by a minimum of two archaeologists.

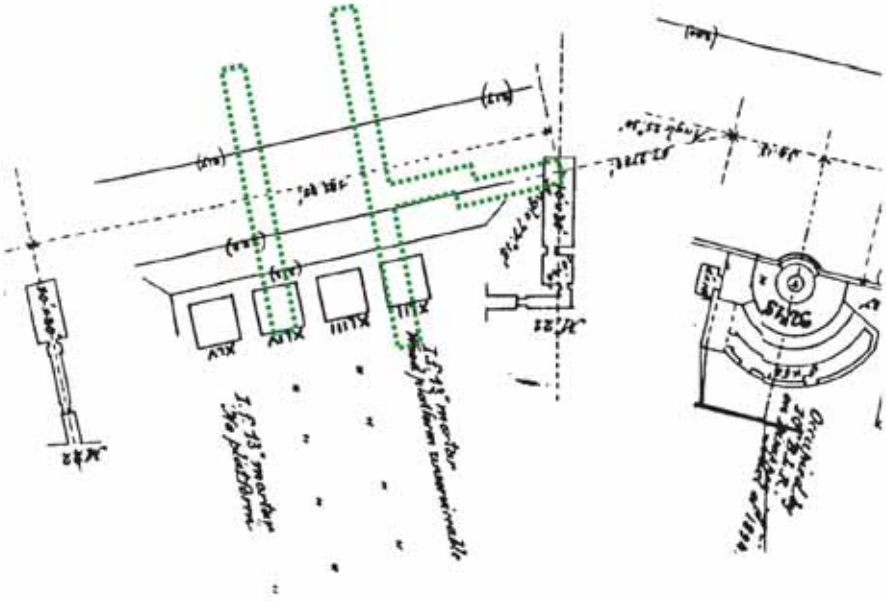
Discussion of Results

Figure 39 illustrates each of the trenches relative to the project area. Detailed soil profile drawings are provided in Appendix D (prepared by Anna H. Henke, MACTEC), for each of the trenches (BBDA1 and BBDA2), 1 through 5, and A through E (Subappendices D-A1 through D-A10). Subappendices D-A11 and D-A12 provide a schematic of the relationship among the Battery West magazines, the frontal slope of Battery Godfrey, and the mortar platforms between Magazines 21 and 22. Figure 40 depicts the trenches as they relate to the 1890 West Battery armament sketch. Casual review of the profiles would suggest that each of the trenches was excavated at a separate and distinct site, in fact, while the stratigraphy has some unifying

Baker Beach Disturbed Area 2A



Baker Beach Disturbed Area 1



Scale: 1" = 50'

URS	26814549.SUPRE Baker Beach Cultural Landscape	Schematic Trench Location Relative to 1890 West Battery Armament Sketch	Figure 40

regularities, the subsurface is remarkably variable depending on where it is exposed and observed. Overlays, depicting the cultural stratigraphy were prepared as an aide to the discussions that follow. The overlays are bound separately and located in the rear pocket of this report as (Attachment 1: Overlays 1-8). Trenches were not excavated in a strict numeric or alpha character sequence. However, they will be presented in this report in alpha/numeric sequence for ease and clarity of review.

Trench 1. Trench 1 traverses the current roadway between Magazines 27 and 28. It was excavated primarily to reveal the relationship of the fill beneath the access road to the parking area located on what was Battery Godfrey's historic frontal slope, and to the original earthworks related to each of the adjacent Battery West magazines.

As is evident from the soil profile (Appendix D-A1), the area immediately south and adjacent to Battery 27 has been the site of numerous cut-and-fill episodes that are capped with a layer of chert, which serves as the present day road surface. The presence of large quantities of waste/excess concrete (slurry "cleanout" deposits) at the edge of the roadway and extending south to the continuation of the landform that is a portion of Magazine 28 suggests that the area was once a recognized disposal point. However, the stratigraphy revealed by this trench does not indicate that the waste fill located here encroaches on intact landforms related to the magazines. There appears to be no buried remnant of any earthen parapet, which Magazine 27s and 28 would have been traverses from, as evidenced between Magazines 28 and 29 to the south.

The stratigraphy revealed by Trench 1 (see Attachment 1: Overlay 1) adjacent to each of the magazines demonstrates the 1870 era construction practice of defensive soil placement (illustrated in black and described as "black lean clay 10YR2/1") alongside and above the mortar and brick structures of the magazines to absorb the impact of incoming fire. However, reference to descriptions, plans and drawings, and photographs of magazines that were part of West Battery and other that were coeval with it, suggest that these soils are only remnants of the earthworks over the magazines, and that in some cases raised the elevation as much as 9 feet (see discussion of Magazine 21 that follows). The 1870s earthworks were added primarily as means to protect the magazine structures from aerial bombardment and their resulting visibility was not considered an issue at that time, as is evidenced by the bluff-line profiles illustrated on Figures 20 and 21.

Subsequent changes in the philosophy of warfare and related construction of fortified emplacements during the Endicott Era required reshaping of the bluff-line profile to reduce visibility of the earthworks. As noted under *Alteration to 1870s Traverses* in Section 2.3.2.4, the 1870s era batteries were so pronounced that its earthworks and guns were even visible from Pacific Heights. Colonel Eben E. Winslow noted in his 1920 treatise, *Notes on Seacoast Fortification Construction*, that during the Endicott Era when the disappearing [gun] principle was introduced into seacoast gun carriages, it became desirable to conceal the gun and, therefore, it was desirable to reduce the height of the traverse to the parapet. Additionally, Emmanuel R. Lewis (1965) notes in *A History of San Francisco Harbor Defense Installations: Forts Baker, Barry, Cronkhite, and Funston* that, "With the development of the modern disappearing carriage, however, most of the batteries were to have an uninterrupted, horizontal crest line, which would render them extremely difficult to pinpoint from the seaward direction. This requirement–to hold the tops of the traverse to the level of the parapet–created an interesting design problem, for it demanded a substantial lowering of the magazines if adequate cover was to be maintained."

The minimal depth of soil on the top of the structures and the addition of soil on the flanks of each magazine may be evidence of this evolution of design, form, and function. The black soil unit on the side of each magazine is covered and interbedded (Figure 41) with a substantial soil unit described as mixed clay fill (10YR5/6). The source of these strata is likely the excavations required to produce landforms appropriate to Endicott Era construction goals with obsolete West Battery magazine landforms. Based on observable interbedding of the two soil units it appears that the earthworks were removed from the tops of the magazines during the Endicott construction period, and that those soils, augmented with soils taken from Endicott excavations, were used to "dampen" or modulate the topography. In the area adjacent to Magazine 27 it appears that the Endicott Era deposition extended southward to the limits of the cut surface, and was graded to accommodate the roadbed represented by the chert fill.

FIGURE 41 Interbedding of Soil Units

In the area immediately adjacent to Magazine 28 (See Attachment 1: Overlay 1) it appears that the cut surface at the base of the magazine represents the original excavation made to accommodate the magazine construction, which was subsequently capped with the same mixed-clay fill observed in the profiles at Magazine 27. The slope of the cut is observable also in Trench D, which was excavated to determine the relationship of the concrete and debris fill, encountered in Trenches 2 and 3, to the northeastern extent of Magazine 28. As demonstrated by Subappendix D-A1, the debris and concrete do not appear to encroach on the intact stratigraphy contemporary to the Endicott Era.

A few additional details revealed by Trench 1 are notable. The near vertical cut surface shown at the base of Magazine 27 is likely the original builder's construction trench. The brick pavement encountered at the bottom appears to have been a construction "landing" or walkway of some sort. The cut surface extending upward is thought to represent cutting during the Endicott construction period that was subsequently filled to achieve the more modulated surface required by the times.

Trench 2. Trench 2, which is essentially perpendicular to Trench 1, was excavated primarily to define the limits of the subsurface debris encountered at the southern end of Trench 3. Grading for the chert surfacing, of the parking lot, is clearly evidenced in the profile of Trench 2, as is the use of the western end adjacent to the bluff as a disposal area that was subsequently capped by the chert surface of the parking area (see Subappendix D-A2). The intriguing stratum with respect to both the Battery West and Endicott Era construction sequences is the clay (1) layer that presents an even gradient from the cut surface approximately midway in the trench to the western end of the trench. Although this clay layer was classified as natural, the nature of the soil

and contrast with adjacent soil types, its repose and abrupt interface with the clay (2) layer suggests that it may be the "sodded" frontal slope (exterior slope or glacis) relating to Battery West. If so, the sandy silt layer may represent Endicott Era alteration. Alternatively, clay (1) layer may represent the finished Endicott Era frontal slope, subsequently buried by post-Endicott fill episode sand and eventually the parking lot surface (See Attachment 1: Overlay 2).

The artifactual materials recovered from the debris fill toward the western end of Trench 2 are presented in Appendix E. While the vast majority of the artifacts appear to represent mid-20th century disposal, a single bottle base, embossed with the markings of the "California Bottling Co./John Weiland's Export Beer," was recovered. Wilson (1968:173) places the bottling of Wieland's Export Beer between 1894 and 1900.

The chronological gap between this single specimen and the remainder of the assemblage is noteworthy. A number of possible explanations compete to explain its presence: (1) that this single bottle is evidence of a lower component of the dump that dates to the 19th century; (2) one of the dump loads in the mid-20th century contained significantly dated debris; or (3) that someone, much like the behavior of modern San Franciscans, visited the bluff and enjoyed a bottle of beer, and discarded the bottle over the bluff. The latter scenario may be a bit tenuous as the area was a military reservation at the turn-of-the-century; however, the visitor could have been a member of the military.

Trench 3. Trench 3, bisected the parking lot north to south and exposed the debris deposition adjacent to the bluff. This trench also reveals the relatively uniform depth and character of the clay (1) layer that is believed to represent the prepared surface of the frontal slope that may be related to Battery West and/or Battery Godfrey.

Trenches A, B, and C. Trenches A, B, and C were each excavated to evaluate the relationship of the Battery Godfrey frontal slope to the existing parking lot, and to the fill revealed by Trench 3. The relationship of the mixed clay fill soil unit to the clay (1) soil unit in Trench A is suggestive of the relationship of these same two soils units as exposed by Trench 1 adjacent to the magazines. The relationship is perhaps predictable as it is consistent with the supposition that the clay (1) soil unit is the prepared surface of West Battery, and the mixed clay fill unit above it represents additional fills placed to form the earthen frontal slopes of Battery Godfrey (See Subappendix D-A4 and Attachment 1: Overlay 4).

Verification of this interpretation was not forthcoming from Trench B, as it could not be demonstrated that the mixed clay fill and clay (1) soil units articulated with the actual structure of Battery Godfrey or what might represent a related construction trench. Beneath the chert surface, from the edge of the battery, west for some 20 feet the trench exposed a layer of fine fill sand. The trench was abandoned at a depth of approximately 3 feet as the sidewalls were unstable and collapsing. Mixed clay fill was exposed at 20 feet west to the junction with Trench 3. The sand appears to be a late 20th century intrusion as sheet plastic was observed in the sand.

Trench C provides "weak" confirmation of the relationship of the mixed clay fill soil unit to the Clay (1) unit and the historic relationship to Battery Godfrey. The trench, as depicted in the soil profile drawing, shows the clay (1) layer approach the battery structure with an abrupt interface

between it and the mixed clay fill layer, thought to represent post-construction backfill and purposeful modification of the slope to obscure the location of the battery.

Trench D. Trench D was excavated from the north-facing slope of Magazine 29 to the northwest to expose the current condition of the Magazine 29 earthworks and to further evaluate the proximity of the landfill exposed by Trench 2 to Magazine 29. As depicted in the Trench D soil profile, the earthworks associated with the West Battery construction sequence and the Endicott Era construction sequence appear to have been removed, leaving a thin mantle of the original cover atop Magazine 29 and a remnant of the Endicott Era fill that are not covered by top soil.

Some 30 feet northwest of the vent towards the western end of the magazine is an area 20 to 22 feet in length that consists of solidified concrete. This deposit appears to represent the disposal of excess wet concrete and related washout of concrete delivery trucks.

Beyond the concrete, a layer of Endicott Era fill is found above remnants of the West Battery earthworks. The Endicott Era fill is capped with Post-Endicott Era fill and a chert base, similar to Chert Base or Road Bed B. The landfill encountered by Trench 2 is approximately 60 feet northwest of the magazine and capped by the same chert layer.

Summary

The clay (1) stratum revealed in 5 of the 6 trenches (1, 2, 3, A, and C) appears to represent an introduced soil layer that was used to prepare a base for the sodding, or may constitute the "sodding" of the Battery West fortifications. Subsequent demolition and modification of the Battery West structures to accommodate the construction of the Endicott Era fortification required the cutting and redistribution of that soil unit. Upon completion of the construction and in conformance with design requirements of the period, fill–the mixed clay fill stratum–was then introduced to "camouflage" the landform.

While Trenches 2 and 3 encountered substantial amounts of debris fill and the area was used historically to dispose of excess wet concrete, none appear to encroach on the intact portions of the magazines or battery. The one exception is the chert road surfacing on the southern side of Magazine 27, which rests on the Endicott Era mixed clay fill. Thus, removal of the fill in this area would serve in part to restore the landform related to the Endicott Era, a topic that is addressed in greater detail in the discussion that follows.

2.4.2.4 Battery Boutelle/Marcus Miller/West Area Archaeological Sampling (BBDA 1)

The BBDA 1 landfill, the majority of which is located on the western, sea-facing slope, was also in evidence on the bluff-top swale between Magazine 22 on the northern side of Battery Boutelle and Magazine 21 on the southern side of Battery Marcus Miller (Figure 39). The swale between the two batteries was the historically recorded location of the West Battery Mortar Barbettes XLII-XLV. Armament sketch maps prepared in 1898 depicted four squares, each believed to represent a wooden mortar platform and three parallel lines with elevations seaward of the squares, representing an associated earthen parapet.

Observable portions of the fill along the bluff appeared to be an admixture of large pieces of concrete and soil. While the nature, depth, and horizontal extent of fill was unknown, the fill adjacent to the entry of Magazine 21 was of sufficient depth to leave only the upper one foot of the magazine entrance visible.

Goals

To obtain sufficient data on which to design the remedial action plan, in a manner that would avoid or minimize damage to either of the Battery West Magazines 21 or 22 or elements of the mortar barbettes that might be buried beneath the fill, two trenches were to be excavated in the swale between Batteries Marcus Miller and Boutelle, and a single areal excavation was to be undertaken to remove fill from the partially buried doorway of Magazine 21 (Figure 39). The trenches and areal excavation were intended to capture data that would provide:

- Definition of the stratigraphy to include identification of the original grade, the earthen fill related to each phase of construction, and the relationship of the fill to the structure
- Identification and definition of relationship of the landfill debris to each structure
- Expose the entrance of and provide entry to Magazine 21, so that a condition assessment, including a structural evaluation, could be undertaken
- Data defining the presence/absence of the superior slope, parapet wall, mortar platform, and covered way

These data were viewed as crucial to complete the necessary identification and effect assessment of the resources known to be within the BBDA 1 area, provide essential metrics as to the extent of the post deposit requiring remediation, and provide data essential to the postremediation restoration of the area/resource.

Figure 39 depicts each of the trenches that were eventually excavated. As anticipated in the *Cultural Resource Investigation Sampling Plan* (The Presidio Trust 2005), the lengths, orientations, depths, and number of trenches required modification once the below surface condition was revealed. The additional exposures were excavated to capture data were required to interpret the stratigraphy and resources encountered in the two planned trenches, and to further define debris fills encountered in the two planned trenches, and to further define debris fills encountered by those trenches.

The trenches were excavated with a conventional backhoe equipped with a 24-inch bucket with three teeth or a 24-inch bucket with a toothless cutting blade ("butter-bar"), the latter employed in circumstances requiring a cleaner cut. Fieldwork for Phase 3 began in May 2, 2005, and continued through May 6, 2005. All trench excavation was continuously monitored by a minimum of two cultural resource specialists.

Discussion of Results

Each of the trenches, 4, 5, and E, are shown relative to the overall project area on Figure 39; Subappendix D-A12 provides a schematic of the relationship among the trenches, Battery West Magazine 21, and the mortar platform and related earthwork. Subappendices D-A8 through D-A10 are soil profiles for each of the trenches. The subsurface stratigraphy in the area is somewhat less complex relative to the stratigraphy encountered in the parking lot adjacent to Battery Godfrey. Visible evidence of the construction of the mortar barbettes and the subsequent modifications related to the construction of the Endicott Era fortifications are clearly represented (Attachment 1: Overlays 6, 7, and 8). Post-Endicott modifications resulted in the removal and capping of the earthworks representing the Battery West era parapet, and substantial portions of filling related to the Endicott modifications to the topography.

Trench 4. Trench 4 was excavated to determine whether portions of the 1870s mortar platform, elements of Battery West, were present and to evaluate the nature of the fill exposed at the surface near the edge of the bluff. The trench was excavated essentially east to west, in two stages. A substantial layer of clay fill (2-3½ feet) was exposed atop a layer of chert fill (6 to 18 inches in depth) that was similar to that exposed in the Battery Godfrey parking area. Two roadbeds were exposed within or atop the chert layer.

On the eastern end of the trench the chert rested atop a silt layer 6 to 24 inches in depth, mixed with a yellow-brown clay. The silt layer sat immediately above a layer of sand, approximately 6 inches thick, which rested on a serpentinite-derived clay layer that was naturally occurring. At the western end of the sand layer, an introduced block of clay fill sat above the sand and beneath the silt fill. West of this activity the trench revealed a continuous layer of clay and a thin lens of "clay fill" beneath the chert layer and above the naturally occurring soil units. Subsequent evaluation of the sand layer that was observed at approximately 7 feet beneath the existing ground surface indicated that it was a portion of the mortar pad construction; a description and discussion of this feature, and the surrounding stratigraphy follows.

Trench E. Trench E was excavated parallel to Trench 4 approximately 45 feet to the north. Trending east-west the trench was approximately 86 feet long and extended west from the historically recorded area of the mortar platforms towards the bluff. A substantial layer of gravel fill/mixed clay fill +/- 4 feet in depth, similar to that exposed in Trench 4, was exposed above the same chert layer; a concrete pad thought to be related to the incinerator once located in this area was exposed, adjacent to the chert bedding. The fill west of the slab consisted of a dark silt layer at a depth of approximately 14 feet resting directly on naturally occurring serpentinite; the silt layer was capped by 2 to 4 feet of sand, a layer of debris fill, and a mixed clay fill with pockets of cobbles and sand.

East of the concrete pad (See Subppendix D-A10 and Attachment 1: Overlay 8) beneath the chert bedding was a shallow layer of sand resting on a 2- to 4-foot layer of silt similar to that exposed in Trench 4. At approximately 7 feet below the existing ground surface a 6-inch sand layer was encountered. The sand layer rested immediately above a clay layer also identical to that exposed in Trench 4. The stratigraphic relationship of the sand to the clay soil unit below, the silt fill above, and the depth of the sand layer suggests that it also was related to one of the mortar platforms. Unlike the sand layer exposed in Trench 4, the western end of this layer appears to have been graded away, along with the underlying clay substrate, and capped soon after by the silt described above (See Subappendix D-A10).

Trench 5. Trench 5 was excavated primarily to define the relationship of the fill in the bluff-top swale south and adjacent to the southern slope of Magazine 21 (Subappendix D-A12), the earthworks that historically formed the south-facing slope of Magazine 21, and the earthen parapet seaward of the mortar platforms. This trench revealed stratigraphy adjacent to the magazine structure similar to that observed at Magazines 27 and 28 (Subappendix D-A9).

The soil layer immediately adjacent to the structure of the magazine is predominately a dark, in this case sandy material that is interbedded with a mixed clay fill layer beneath a minimal layer of topsoil. The mixed clay fill soil unit likely represents the same importation and placement of soil undertaken in the Endicott construction period that was intended to mask the profile of the magazines.

Below the mixed clay fill, at depths of 7 to 8 feet, a substantial accumulation of broken brick was encountered within a soil unit comprised primarily of silts (Subappendix D-A9). The lack of any mortar adhered to or in association with the brick sampled from this deposit strongly suggests that it represents waste brick from the magazine's construction. The waste brick appears to have been mixed with imported soil and used to form a portion of the earthen parapet that extended southeast from the south-facing slope of Magazine 21, further suggesting that the historic construction grade was likely the interface of the lower silt layer.

At a point approximately 20 feet south of the top of the magazine it appears as though the mixed clay fill and silt soils thought to represent a portion of the parapet were graded away to produce a level area suitable for the concrete slab and adjacent sand apron. Both layers were subsequently buried beneath 2 to 3 feet of fill. A stratum of red chert beneath the sand apron and silt layer (see Attachment 1: Overlay 7), appears anomalous, owing to its position beneath the silt layer. However, the trench was not accessed (owing to its depth) to prepare this profile, and it is possible that the chert is related to an intrusive event that was not observed in the sidewall.

Magazine 21 Entrance Exposure. The entrance to Magazine 21 was cleared to enable access to the interior for condition assessment, including a structural evaluation, as well to evaluate the relationship of the fill to the structure. The backhoe was employed to remove the bulk of the fill and hand tools were used to complete the clearing. This task revealed a granite threshold and entrance stairway leading down to the doorway of the magazine (Figure 42). The concrete balusters to each side of the stairway were found to be essentially intact with exception of slight scaring by the equipment that was used to fill the entrance. The door to the magazine was absent, but two damaged hinge-pintles were visible on the eastern side of the doorway.

FIGURE 42: Entrance to Magazine 21

The elevation of the threshold stone at the top of the entrance to Magazine 21 was found to be 215.63 feet, when corrected to the 1893 elevations, which places it approximately 1.3 feet above the historically recorded and observable elevation of the sand layer on which the mortar platforms are thought to have rested.

Mortar Pit Excavation

Close inspection of the sand layer in Trench 4 revealed a stratum consisting of deteriorated redwood, and the remains of iron fasteners in an advanced state of deterioration, resting on top of the sand layer and capped by the silt layer described above. To evaluate the stratum and the possibility that it might be the remains of a mortar platform, the trench was laid back on each side to the extent of the sand layer (revealed in the trench profile) and to the depth of the interface. This action produced a large aerial exposure 15.5 feet north-south by 15 feet east-west. Limitations on space required the backfilling of Trench E, a circumstance that subsequently

obviated the opportunity to confirm that the sand layer observed there also represented a mortar platform.

Archaeologists monitored the backhoe-assisted removal of the fill layer. No chronologically sensitive artifacts that would provide a date for the fill were observed. Hand excavation was employed to remove the remaining fill resting directly on the wood and metal remains. Other than a flat, black-rubber seal (4½ inches in diameter) found at the interface between the sand and silt layers–obviating an association to either of the strata–no artifacts beyond the corroded metal were observed.

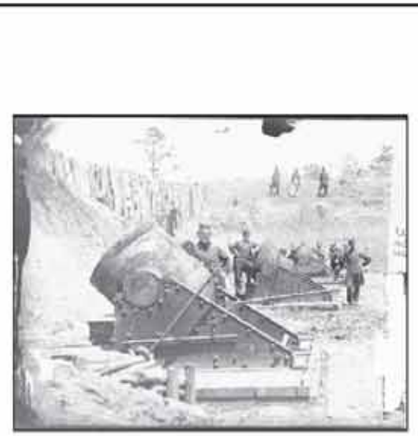
Figure 43 provides a plan and profile of the completed excavation. The sand layer, 1 foot northeast by southeast and 13 feet northwest by southwest was contained within a shallow depression that had been excavated into the clay substrate. Portions of the substrate appear to have served as "curbs" along the sides to retain or revet the wood platform built upon the sand that supported the mortar. The corrected elevation of the deteriorated wood remains on the surface of the sand is 214.03 feet; as indicated in the 1870 map of West Battery, the contour elevation immediately west of the mortar platforms at the based of the parapet was 213 feet.

As noted above, removal of the silt layer exposed little more that a veneer redwood, which varied in width from 3 to 4 inches and contained no more than 8 fasteners, some that appear to be short, squat flat head wood screws, in an extremely deteriorated condition. The silt removal and subsequent investigation of the stratum characterized by the wood and metal remains did not yield any chronologically sensitive artifacts that would indicate dates of construction, use dates, or confirm the date that the silt fill was placed above the sand.

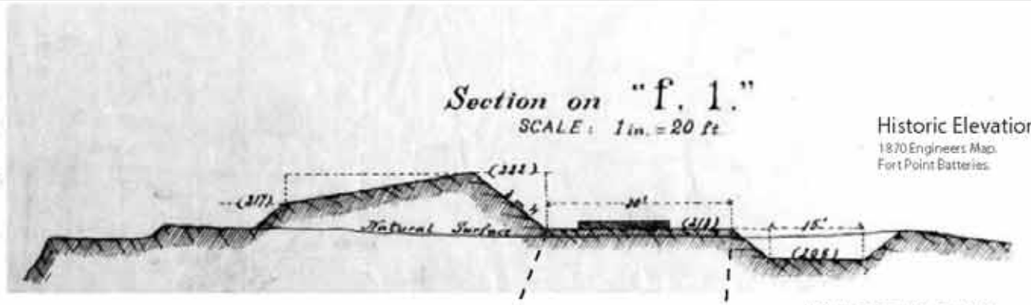
However, the consistency of the silt fill, its color, and stratigraphic position suggest that it represents the displaced earthworks that were part of the original fill above the magazines.

The mixed clay soil unit seen at the western end of the sand layer in Subappendix D-A8, as observed in the north wall profile of Trench 4, was not observed in the southern wall profile of the aerial exposure, suggesting that it may have been a portion of the parapet graded on top of the sand layer during the Endicott modifications discussed above.

The section drawings included as an inset in the 1870 drawing of Battery West are of some interest in this regard. The section Drawing "F.1" was drawn through the mortar platform thought to be immediately adjacent to the north of the platform revealed by the excavation. The profile (Figure 43) depicts a platform-like square approximately 7 feet long resting on an elevated level area that is above a line designated as "Natural Surface." The elevation above that line is approximately 1/2 foot. The width of the level area is shown as 30 feet; and the increase in elevation to the peak of the parapet is approximately 9 feet. The entire earthwork that comprises the parapet appears to have been constructed on the line noted as "Natural Surface." The elevation difference between the level area and the base of the "covered way" is 5 feet.

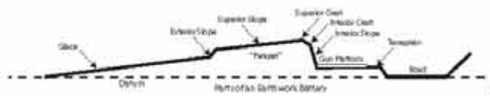


Civil War Era 13-inch Mortars



Historic Elevations
1870 Engineers Map
Fort Point Batteries

NARA RG77 Drawer 94, Sheet 102



Roadbeds

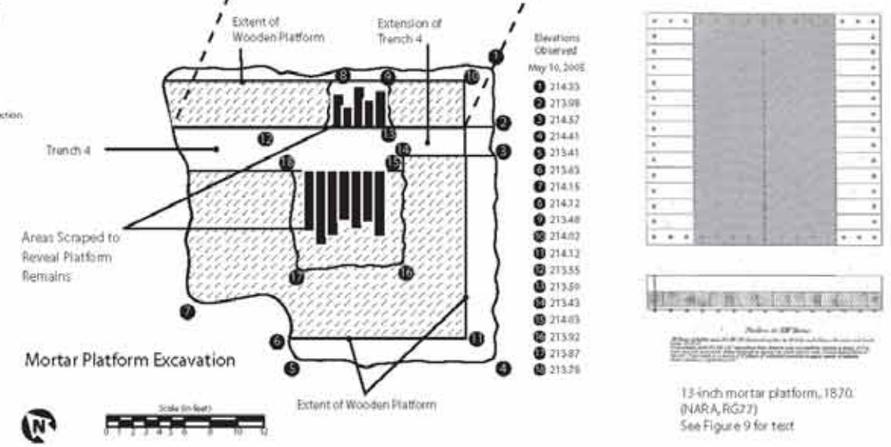
213 Feet at the End

Battery West Construction
Mortar Platform Base

LEGEND
- West Battery Construction
- Battery Goodrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Base or Road Bed A
- Sand Fill West Battery Construction
- Natural

Detail of Trench Profile at West End of Sand Layer

Mortar Platform Excavation, Same Orientation as Drawing



Mortar Platform Excavation

13-inch mortar platform, 1870.
(NARA, RG77)
See Figure 9 for text

West Battery Mortar XLIV Platform
Baker Beach
San Francisco, California

Figure
43

CHECKED | CHK'D DATE | APPROVED | APP'D DATE

2.4.2.5 A Discussion of Battery West and Endicott Era Fortifications and Related Earthworks, Their Preservation, and Relationship to Post-Endicott Disturbance

Data obtained from an extensive review of historic documentation and a subsurface field investigation provide considerable evidence that previously unknown elements of the West Battery fortifications and related earthworks, as well as remnants of the Endicott Era earthworks have been preserved in the archaeological record. In some cases, as with the mortar platform, the archaeological evidence lends itself to immediate and relatively straightforward interpretation. However, in other cases individual soil units lack materials that are sufficiently chronologically sensitive, or are situated in such an ambiguous manner that placement relative to the developmental history of the project area is very difficult to achieve. Extrapolation with respect to the presence/absence of soil units representing the earthworks related to each of the two major building episodes, on the basis of the data collected, is particularly difficult in light of the extensive post-Endicott Era modifications to the project area.

Observations and data obtained from geologic test pitting combined with data from the subsurface archaeological investigation have been used to characterize and to project the location of post-Endicott Era landfills throughout the project area. For the most part these landfills are situated on the west-facing slopes of the bluff; however, the archaeological investigation identified significant fill deposits and related landscape modification in BBDA 1 south and west of Magazine 21, and north and west of Magazine 28 at BBDA 2.

The relationship of post-Endicott Era landfills and the structural remains of both West Battery and the Endicott Era fortifications, that is, the actual physical structures, are easier, as would be expected, to define than the juxtaposition of the landfills and the earthworks related to each period of fortification. In no case were landfill materials observed in contact with the structural remains of fortifications, that is, the concrete and brick structures.

The remains of the four mortar platforms and related parapet between Magazines 21 and 22 (BBDA 1) are buried beneath Endicott Era and Post-Endicott Era fill. Two of the mortar platforms evidenced by sand deposits, which appear to have been the foundations for the wooden mortar platforms, were revealed during the field investigation. Portions of the parapet, albeit truncated by post-Endicott Era grading, and the remnants of the frontal slope were observed in Trench 4. Excavation for the two incinerators and appurtenant features built circa 1922 and 1934, the latter replacing the former, appear to have destroyed the earthworks to the north and west as revealed by Trenches E and 5. The remnants of the earthworks, revealed in Trench 4 are capped by a layer of chert representing the roadbed and base associated with one or both of the incinerators.

With respect to the juxtaposition of the landfills and the earthworks at BBDA 2 a waste fill (a concrete washout in this case identified as artificial fill waste) located to the north of Magazine 28 appears to have been deposited on a cut surface that removed the Endicott Era earthworks and any vestiges of the West Battery earthworks; the relationship of the waste fill to the earthworks on the western side was not evaluated in the field. A remnant of the clay layer thought to represent the “sodding layer” related to West Battery construction and the fill thought to represent the Endicott modification of the associated earthworks was observed some 40 feet northwest of the magazine at a depth of 6 to 7 feet.

Reference to the profile for Trench 2 illustrates a distinct layer of clay thought to represent the "sodded" surface of the frontal slope, trending downward towards the bluff, that is topped in one area with what is thought to be Endicott Era fill. Trenches A, B, and C expose a similar layer at a depth of 7 to 8 feet, and the layer was exposed throughout Trench 2 at a depth of 7 to 10 feet. The consistent presence of this layer, as evidenced in Trenches 2, 3, and A-C, suggests that substantial portions of the West Battery "sodded" frontal slope may remain buried beneath what is presently the parking area in front of Battery Godfrey.

The absence of soil units that represent the West Battery/Endicott Era earthworks between Magazines 27 and 28 are likely the result of a wholesale landscape modification that occurred during and subsequent to the Endicott construction phase.

The modifications leading to the present condition may have been sequenced as follows. That the West Battery earthworks "the parapets, superior slope and glacis" related to these positions was completed seems to be confirmed by the 1898 plan of Fort Point (see Rodman Emplacements, this report). Endicott Era construction is reported to have buried the gun positions between Traverses 27 and 28 and to have included the construction of a "parados" (an elevated landform) on the southern end of the battery to prevent enfilade fire. The "parados" subsequently became a vehicle access route to a bluff-side dump area.

The modification that removed the West Battery earthworks and downcut to the natural soil horizon may have been a cut-and-fill episode related to the 1890s construction of the "parados." The cut surfaces identified in Trench Profiles 1 and 2, adjacent the magazines, and mid-way along the trenches may be related to the cutting and filling required to build the "parados." Perhaps the chert base or road bed B atop the sand fill exposed in each trench represented a prepared surface enabling access to the dumpsite.

It then appears that a subsequent episode of grading, almost certainly in the 20th century removed a portion of the "parados" and that cut was then in-filled with waste concrete and debris. The relationship of this cutting and subsequent filling to the surfacing of the area with the chert base or road bed A was not determined.

In summary, the most visible remains of West Battery are the entries and transverse earthworks that housed magazines. Today, these earthworks are for the most part incorporated into the structure of the latter Endicott Era Batteries. At BBDA 1 Magazine 21 was incorporated into the southern flank of Battery Marcus Miller after significant reduction in height, but with no apparent modification to the entry. Magazine 22 was incorporated into the northern flank of Battery Boutelle; modification of the height is unclear, and a new entry was constructed. At BBDA 2 Magazine 27 was incorporated into the southern flank of Battery Godfrey; here again the earthworks above the magazine were reduced, but the entry appears to be the original construction. The earthwork over Magazine 28 was also reduced in height; however, the filling of soil–presumably as part of the parados construction on the northern side of the magazine–in conjunction with reduction in elevation tends to make the magazine appear very indescript when viewed from the parking lot area.

At BBDA 1, the open area between Magazines 21 and 22 is the result of modifications to accommodate the Endicott Era construction followed by cutting and filling in preparation for subsequent construction. Subsurface investigation of the flat indicates that earthworks for at least two of the pads that supported mortar platforms, and evidence of the wooden platforms, remain buried beneath the surface. Assuming similar preservation it is very likely that remains of the

other two platforms have been preserved as well. A truncated portion of the earthen parapet also remains, but subsequent grading appears to have destroyed the frontal slope. This archaeological evidence confirms the historic reference to the completion of construction in this area, but provided no information on use or abandonment.

At BBDA 2, a section of the parapet, albeit breeched, appears to remain between Magazines 28 and 29, although it has been removed in the Battery Godfrey vicinity. Again, its removal was probably related to the construction of the parados, which buried elements of the frontal slope in the parking area in front of Battery Godfrey.

The covered way that links each battery on the eastern side appears to have been substantially altered from its original design. The rear or reverse slope of the covered way appears to have been from 2 to 5 feet in height above the base of the road bed when first built, the current condition has heights twice or more, indicating the introduction of significant amounts of fill.

2.4.3 Area of Potential effects Expansion – Merchant Road

Modification to the APE to accommodate the relocation of Merchant Road required additional background research, field survey, and evaluation. The NPS noted that additional historic batteries, roads, vegetation, and possibly other features may be located within the expanded APE area.

On February 3, 2005, Michael Land of the Presidio Trust provided George Ford, Manager, Remedial Construction of the Presidio Trust with a memorandum entitled, "Merchant Road Tree Island Building History" (See Appendix F for memorandum). This memorandum summarized Lamb's findings of his investigation on the past uses of the buildings that existed in and around the area referred to as the "tree island," between Merchant Road and Lincoln Boulevard. Working with maps and Quartermaster Reports available to the Presidio Trust, it is speculated that two small structures that appear in the 1907 Harts plan may have been a guard shack or sentry post, based on their location to roads. Seeing the larger building referenced as the Guardhouse in the *Defender of the Gate* only added to the speculation.

In the Fort Winfield Scott Lighting System map of 1917, two buildings (80 and 49) are located in the tree island area, as well as several unnumbered buildings west of Merchant Road. Buildings 70 through 78 and 136 through 143 are present east of Lincoln. In the *Presidio Archaeological Resources* (draft) by W.H. Adams (1994) Building 80 is referenced as being in association with the 7th Company Artillery Cantonment and is labeled as "MILITA WH." Building 49 appears to have survived into the future, possibly as late as 1951, when it was known as Building 1394 and then 1659. Buildings 70 through 78 were identified as being constructed in 1917 and used for a Camp of Instruction (Adams 1994). The final plan image in 1943 shows a number of structures in the now expanded tree island area. None of the buildings are identified.

2.4.3.1 Merchant Road Cursory Survey

A reconnaissance-level survey conducted in the Merchant Road realignment vicinity encountered extremely dense vegetation. Observation of the ground surface was all but totally obscured by the unmaintained vegetative growth.

A subsequent inspection was made on May 6, 2005, when geotechnical test pits for the Merchant Road realignment were undertaken. Test Pits B and C were excavated to a depth of 5 feet. Each

revealed a 2-foot layer of topsoil above the underlying Colma formation. The third test pit revealed a layer of red chert approximately 2 feet beneath the ground surface. This red chert layer may be evidence of an earlier road or parking area. Given the depth of the discovery, no further pedestrian survey for the road alignment was undertaken. No other archaeological features or artifacts were observed.

2.4.3.2 Covered Way Test Pitting

Three test pits, essentially trenches, were excavated along the covered way to corroborate the impression derived from historic documentation that fill placement/disposal had significantly altered the appearance of the covered way in the project area. Both BB1TP110 Test Pits 111 and 113 exposed 6 to 7 feet of fill consisting primarily of redeposited Colma formation materials. However, chert bedding was observed in Test Pits 111 and 113, and a cobble fill layer was encountered in Test Pit 110. The presence of this fill in conjunction with the fill observed adjacent to the covered way at the site of the mortar pit excavation (see Section 2.4.2.3) suggests that the present day appearance of the covered way, particularly with respect to its depth relative to the slopes that are found on either side of the road way, may have been significantly exaggerated by the placement of the fill.

3.1 MITIGATION PLANNING – END CONDITION

Removal of debris and waste material from the disposal areas along the Baker Beach bluff will inevitably result in modifications to the present landscape. In the paragraphs that follow summary statements regarding the fill to be removed are followed by descriptions of an end-condition that would conserve the historic landscape and provide the visitor to the bluff a sense of place consistent with the heritage resources located there.

BBDA 1A

BBDA 1A – Located on coastal slope west of north end of Battery Marcus Miller.

The material that will be removed consists of a shallow layer of discarded roofing material that was removed from Battery Marcus Miller. The materials are located in the area that was historically the frontal slope of Battery Marcus Miller and the natural slope that extends westward from the battery complex. Following removal of the roofing material and related debris the surface will be re-configured to conform to the existing gradient of the frontal slope of Battery Marcus Miller, or to the natural landform. The foot trail will be redefined through the areas of remediation. Monitoring by a qualified archaeologist is recommended to ensure preservation of any remnants of the former frontal slope.

BBDA 1

BBDA 1 – This disposal area is located between Batteries Marcus Miller and Boutelle in the area that was the former location of West Battery mortar pits XLV - XLII. The area is bound on the north by Magazine 21 and on the south by Magazine 22, the covered-way to the east and the shoreline to the west. The area of historical interest is located between the two magazines and westward from the covered way to the edge of the bluff.

Removal of the fill from the west-facing slope, poses no immediate adverse effect to the resources identified on the bluff above the fill area. Concerns regarding slope stability and related potential effects to Battery Boutelle are recognized, and instrumentation will be placed at Battery Boutelle during remediation activities to provide substantial and comprehensive data with respect to any changes in the existing condition.

On the bluff top in the historic location of the mortar platforms, parapet, and frontal slope, fill soils will be removed to a depth consistent with the chert layer that for the most part blankets the entire site. This layer is thought to be sufficiently thick and/or is located high enough above the resource, to act as a protective cap to the original construction and landforms that comprise this section of the fortification.

In the vicinity of the incinerators, on the western margin of the area adjacent the bluff, excavation to remove contaminated soils, where the chert layer was not encountered, may require removal of a portion of the earthworks related to Magazine 21 and the frontal slope. Monitoring will be required during all soil removal to ensure that no undue damage accrues to the earthworks.

The end condition will involve reconfiguring of the ground surface in a manner that conforms to, or reflects, the topography recorded in the 1902 plans of the “Battery Commander Station for

Battery Cranston" (Figure 44). That plan appears to reflect the post-Endicott modifications to the surrounding earthworks but retains the bench that was the location of the mortars, the parapet and the frontal slope characteristic of the West Battery period. Elevations provided by the drawing correspond relatively well to the existing condition, in that the upper most surface of Magazine 21 is shown as 222 feet, and the elevation of that feature was recorded during the 2005 field investigation as being 220 feet. Reconfiguration of the existing landform will look to restoring the parapet and frontal slope in the vicinity of the mortar platforms between Magazines 21 and 22.

Some in-field effort also will be required to create conformance of the grades in the vicinity of the granite threshold stone at the entrance of Magazine 21 and the four mortar pit locations to the south of the magazine.

It is recommended that trained archaeologists monitor the remediation and reconfiguration activities to ensure that the expected subsurface condition is consistent with the profiles revealed during the test phase and that no damage accrues to unanticipated resources.

BBDA 2A

BBDA 2A – This remediation area is located on the coastal slope toward the middle of Battery Godfrey. Remediation activities in this area are not anticipated to have any adverse effect on the resources located on the bluff top.

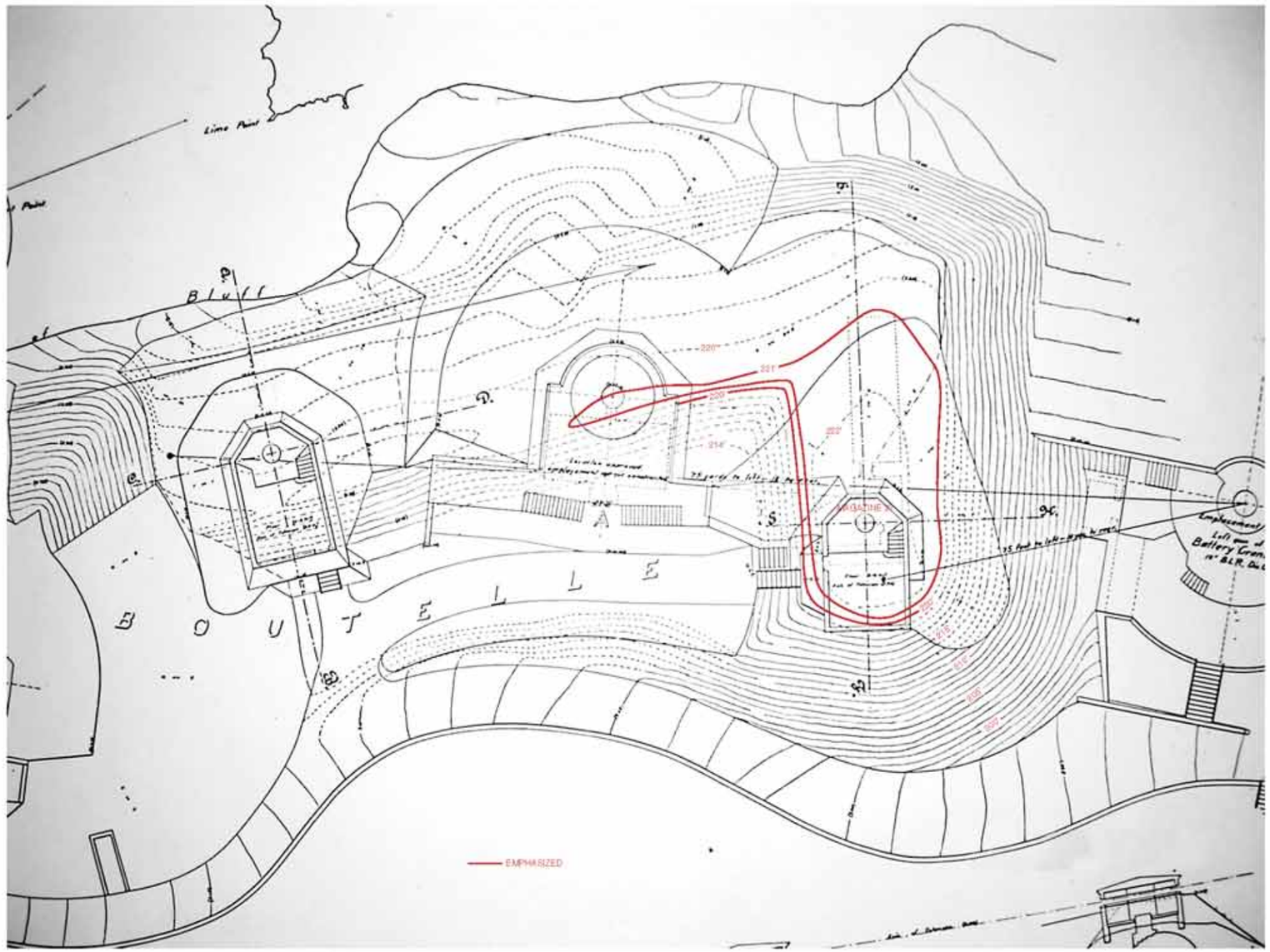
BBDA 2

BBDA 2 – This remediation area is located at the south end of Battery Godfrey, essentially between Magazines 28 and 29 and extends north into the existing parking lot, and west, to and over the bluff. Based on the profiles revealed during the testing conducted in mid-2005, the removal of the waste fill will have no impact to the remaining historic resources in the vicinity.

Evidence of the frontal slope (specific identification as to whether this is associated with the Battery West fortifications or the subsequent Endicott Period fortifications has not been established) has been identified in the parking lot area (see prior discussion and profile drawings). Pending resolution of the disposition of the parking lot and general planning issues, consideration should be given to re-configuring that area to conform to the historic gradient consistent with the frontal slope of the Endicott period fortifications.

3.2 LANDSCAPE CONSIDERATIONS

The concrete fortifications and man-made earthworks that parallel the west-facing coastal bluffs, south of the Golden Gate Bridge, contrast strongly with the otherwise natural appearance of the surrounding environment. The cultural landscape, embodied in the concrete structures, the spatial organization of the structures, the roadway that served to safely connect them, and the earthworks that enveloped and camouflaged all evoke a period of time when concerns for national defense and the contemporary modes of warfare required the construction of such fortifications. Formally designed by military engineers and strategists during the 19th century, the cultural landscape capitalizes on the geography of the bluffs, which provide an elevated position for artillery while also providing the opportunity for concealment of the related fortifications.



Taken from Battery Commander Station for Battery Cranston, U.S. Engineer Office, San Francisco, 1902.

URS	26814549.SUPRE Baker Beach Cultural Landscape	Post-Endicott Period Topography in the Vicinity of Magazines 27 and 28	Figure 44

Spatial organization, dictated primarily by the need for a clear, designated field of fire and the logistics of supply, placed the batteries side by side along the top of the bluff. The two primary periods of construction differ somewhat in this regard. In the project area the Endicott Era (1891-1904) concrete fortifications dominate the landscape, with Battery Marcus Miller on the north, followed by Battery Boutelle, and Battery Godfrey on the south. These batteries–comprised of gun platforms, magazines, and control centers–form discrete, individual complexes at strategic intervals. A reliance on concrete and steel, their spatial organization, and the effort to make them less obtrusive to the landscape are characteristics of the Endicott Era fortifications, which reflects not only a shift in material and construction technology consistent with the times, but also speaks of newer warfare technologies emerging in the late 19th century.

West Battery (1870-1876), on the other hand, is evinced by the presence of earthworks among and surrounding the Endicott Era batteries. These earthworks, when originally constructed–and their superior slopes, parapet crests, and transverse magazines–formed a continuous chain of defense along the edge of the bluff that was imposed upon the natural topography. Relying primarily on earth-covered brick and concrete, their remains are a final vestigial expression of siege defenses common in the mid-19th and earlier centuries.

The covered way now serves as a broad trail (Bowman Road) linking the Endicott Era batteries, but its route appears to reflect elements defined in both the 1870s and 1890s. In places the roadway becomes serpentine, dictated perhaps by the placement of the West Battery fortifications. Other sections of the "covered way" seem to reflect the measures taken in the Endicott Era to conceal its presence.

Numerous informal foot-trails, extending east to west from the parking area along Merchant Road, provide visitor access and exploration of the structures and to take advantage of the expansive view provided from the location of the individual batteries. These footpaths are not visible on historic period photographs and are assumed to have emerged sometime after the Army's formal use of the area.

The subject fortifications have been abandoned and more or less neglected since at least 1946. The advanced deterioration of the iron fixtures, spalling of concrete, and dense vegetation that surrounds and masks the landforms related to the batteries is advanced in some areas. Vegetation on the batteries is comprised almost entirely of introduced species, the most dominant being ice plant, and including cypress trees, blackberry and other shrubs, serve to obscure the man-made earthworks that were in turn intended to both camouflage and protect the gun platforms and magazines. Natural vegetation consisted of small shrubs, flowering plants, and grasses. Thus, while the dense overgrowth promotes a sense of the mysterious, it in fact reflects the neglect of the area, except on the landforms around Battery Boutelle and Godfrey where NPS rehabilitation projects began in 2001.

As noted in Section 2.0 the remaining elements of West Battery, the majority of which have been incorporated into the Endicott Period fortifications, and the portions of the Endicott Batteries located in the project area, Battery Marcus Miller, Battery Godfrey and Battery Boutelle, are all contributing elements of the Presidio National Historic Landmark. As such, any action that would result in the modification of those resources, that would serve to diminish the characteristics that define the resources as contributing elements is viewed as an adverse effect.

This study was undertaken specifically to identify the potential for such an effect. Substantial research and field investigation was completed to provide a thorough understanding of the resources as they were constructed; and field investigation was undertaken to determine the extent and nature of those resources as they currently exist.

While the present undertaking will ultimately lead to substantial modifications of the existing landscape in the areas to be treated, the proposed end condition will more nearly replicate the historic landscape as it appeared in the post-Endicott construction period of the early 20th Century. In no case were fill units composed of debris or waste materials found to be situated in direct contact with the masonry elements of either the West Battery or Endicott period fortifications.

However, soil units containing debris and other materials that will require removal are in some instances found in direct contact with earthworks related to one or both periods of fortification. Portions of those earthworks may require removal if soil testing, conducted during remediation, demonstrate unacceptable levels of contamination. The net effect of this removal is anticipated be minimal, but cannot be quantified until the extent of contamination is determined. In all cases the landform will be restored with like, clean fill, and the uninformed observer would be unaware of the modification.

Cumulatively, modifications such as these in conjunction with the changes related to successive phases of construction and deterioration as a result of natural causes, e.g., erosion, have resulted in the removal of substantial portions of the original soils imported to construct the earthworks. The current project, by researching the construction history and documenting the present condition provides a baseline by which future conservation and restoration of the resource can be achieved.

RESEARCH CONDUCTED AT THE PRESIDIO ARCHIVES (PARC)

Erwin N. Thompson Fortifications Research Notes (collected, handwritten notes). GOGA 35182. 2 Boxes (1 linear foot)

Seacoast Fortifications Preservation Manual Study Collection (collected notes). GOGA 3110. 2 Boxes (1 linear foot). GOGA 32467. 2 Boxes (1 linear foot)

Winslow, Colonel Eben Eveleth. 1920. Notes on Seacoast Fortification Construction, Number 61, Occasional. Papers, Engineer School, United States Army. Washington, Government Printing Office. UG 410.W56, 1994 vol. 1.

United States Army Corps of Engineers Armament Map 1898 Map of West Battery

AS-BUILTS REVIEWED

- Battery Marcus Miller (3 sheets). Handwritten notes on one of the copies of each of the three sheets indicate different measurements/dimensions of a few rooms. Also assigns different numbers to the rooms than what are on the plans. (date? citation?)
- Battery Godfrey. Good copy of sectional plans of Battery Godfrey.
- Battery Boutelle.
- Battery Stotsenburg-McKinnon

All U.S. Army Corps of Engineers "as-builts" for above referenced batteries included several oversized folders of many versions of design plans for Endicott Era batteries. Selections were made to be copied based on completeness of plans, dates of plans/as-builts as compared to actual construction dates of the batteries, and level of detail of the plans.

RESEARCH CONDUCTED AT THE NATIONAL ARCHIVES AT SAN BRUNO, CA (NARA)

Record Group 392. Boxes 1 through 5. Records of the U.S. Army Coast Artillery Districts and Defenses, 1901-1942 (2.5 linear feet)

RESEARCH CONDUCTED AT NATIONAL ARCHIVES II AT COLLEGE PARK, MARYLAND

Record Group 77, Cartographic Branch, Drawers W-9, 93, 94, 97, 155, and 256

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Appendix A

Report of the Field Exercise
Baker Beach Remediation Project, Archaeological Survey Field Notes

MAY 19, 2004, WEDNESDAY 8AM-10:30AM

A pre-field meeting was held at the Presidio Archaeology Lab (Building 230) on Gorgas Avenue.

Meeting participants: Chris Lee, Vance Benté, and Sean Dexter from URS Corporation, Leo Barker and Hans Barnaal from the NPS, and Megan Wilkinson from the Presidio Trust.

Topics Discussed:

- Level of success achieved from archival research and potential additions to corpus of data.
- Digitization of maps and as-builts: how much has been achieved? How much more is necessary?

Hans states that he needs this field exercise to complete the mapping of the Endicott Era batteries, and to position the 1898 digitized as-built of West Battery elements into real space.

Leo Barker produced a set of three historic aerial photos from 1942 that we used as comparison with the high-resolution aerial photos taken of the Presidio in 2000. These images were then used in conjunction with modern and historic maps (both topographic and feature-based maps) to locate features that could contain remnant elements of West Battery.

It is known that certain magazines from West Battery were incorporated into the Endicott Era batteries such as Batteries Godfrey, Boutelle, and Marcus Miller, but the extent of reuse must be explored through pedestrian reconnaissance and then digitally mapped with a Total Station. These data will be compared with CAD and GIS maps digitized by Hans from the as-builts of the Endicott batteries and historic maps of West Battery.

Subjecting these features to "ground truthing" and surveying for additional, previously unrecorded/mapped extant features of West Battery is a top priority of this field exercise to better inform an "opportunity and constraints analysis" for the remediation project.

Goals of Field Survey:

- Locate all remnant elements of West Battery, and previously unrecorded features
- Agree upon the location/route of the "Covered Way" (the pathway that wound between the fortified earthworks and batteries of the coastal fortifications).
- Digitally map with the West and Endicott Era structures that are within the current project's Area of Potential effects (APE).
- Through the field survey, translate findings into a statement that describes physical limitations on the usage of heavy equipment in the APE that could adversely affect historic features of the subject coastal fortifications.

10:30 – 12:00 Noon, Field Survey

Early focus was on two West Battery magazines (#28-29) south of Battery Godfrey, the southern terminus of the project's APE. Historic maps and other documents such as the Army Corps' "Letters of Completion" numbered the magazines of West Battery sequentially. Remnants of five West Battery magazines were located today, including the two previously mentioned at the southern terminus of the project south of Battery Godfrey.

12:30 – 5:00PM

The two southern West Battery magazines were mapped by Hans and Megan at the end of the day. Leo and Vance collaborated on "ground-truthing" elements of the historic photos and maps to see if they could locate features of batteries.

During the early afternoon, Leo noticed that a door had been taken off its hinges at the northern end of Battery Godfrey. Although there was concern that the removed door could provide access to vandals and homeless people it did provide access to the archaeologists. Upon entry, it became apparent that the anteroom was part of the Endicott Era construction evidenced by the reinforced concrete, but that a much larger room led off at the right (northern) side of the anteroom. Preliminary investigation on Day 1 of the survey showed that a brick-lined passageway led down a short flight of stairs to a hallway. This hallway then turned to the left and led into a small room with another door at its far end. This doorway led into a long, rectangular room. Measurements of these rooms and passageways will wait until Day 2 of the survey. Comparison with historic records demonstrated that the West Battery magazine found opened at Battery Godfrey is of the same design as buried West Battery Magazine 21 adjacent to Battery Marcus Miller. Data collected helped to inform some of the nature of what is expected in the area of the BBDA 1 crane pad and haul road location.

A partially buried feature of unknown origin and purpose was discovered between West Battery's Magazines 28 and 29 at the end of the day. It consists of a poured (in individual pie-cut sections) and surfaced, circular concrete pad. It is approximately 12 feet in diameter, with a circular open center approximately 24 inches in diameter. The surface has been painted with a thick coat of rust-colored orange paint similar to the color of the Golden Gate Bridge. Its function is unknown. Another partially visible circular concrete feature was located on the outer slope of West Magazine 29.

By day's end the route/location of the "covered way" was agreed upon by all present after continued verification of features on the historic photos to extant features in the field. Additionally, Park Police were notified that the door had been forcibly removed from the magazine at Battery Godfrey.

MAY 20, 2004, THURSDAY

Field Crew:

- Vance Benté
- Leo Barker
- Chris Lee
- Sean Dexter
- Hans Barnaal

The primary focus of the second day of field survey was to take measurements of the brick-lined magazine at Battery Godfrey, to finish Hans' digital mapping of the Endicott Era batteries, and to further investigate the red ceramic feature at the southern end of the APE.

Upon arrival at the site, Vance Benté and Chris Lee investigated a brick feature protruding through an earthwork emplacement between Batteries Boutelle and Marcus Miller. The feature appeared to be a doorway into a magazine, likely of West Battery, that had been covered in dirt and used to improve the "covered way", but likely not used for its intended purpose as a magazine. The brickwork was identical in shape to that found the previous day at Battery Godfrey. It was decided that both this brick feature and the rooms/passageways discovered the previous day were magazines of the former West Battery. The one at Battery Godfrey had been incorporated into the Endicott Era system as a magazine while the feature that was investigated on Day 2 was covered over and used, not as a magazine, but, was incorporated as part of the "covered way" to shield the Endicott batteries from view from the sea.

Leo Barker and Chris Lee took extensive measurements of the West Battery magazine that was incorporated into Battery Godfrey. All of the rooms were measured as well as the stairwell, steps, wall thickness, ceiling height, etc.

Hans continued to take Total Station "points" with the assistance of Sean Dexter.

At the end of the day it was decided by the survey participants that the majority of exploratory work had been accomplished and that a third day would be required to complete the data collection with the Total Station, but that this task would be accomplished by NPS employees, Leo Barker and Hans Barnaal, and that URS would not be required to participate in the third day of fieldwork.

Compilation of data used in preparing historic context

REPORT OF SUBSEQUENT SHORELINE SURVEY

October 4, 2005, Tuesday 12:00PM-1:10PM

At 12:00 pm Henke and St. Clair walked to the beach areas below Test Areas 1 and 2A to investigate and record the debris in the area. Henke informed St. Clair that there are pictures

documenting much of the rubble from a previous MACTEC report. Henke told St. Clair that she would provide these pictures to St. Clair for use in the cultural resources report. Henke also took several digital photographs of debris that St. Clair pointed out as potentially important.

Overall, more concrete and metal debris appeared to be concentrated along the beach below test area 1 versus test area 2A. Henke did note that the sand level had increased since the time that MACTEC had conducted their initial survey in the spring. Below test area 2A, along the beach, various fragments of both water-worn and unworn concrete were noted. The concrete contained different types of aggregate, including one that had primarily Franciscan-derived minerals, another primarily made of red chert, and another with mostly rounded river cobbles. Also observed along the hillside below test area 2A was a spool of cable or wire that Henke noted had fallen further down the hillside during investigative activities using the Spider Excavator earlier in the spring.

On the beach below test area 1, a much higher concentration of concrete debris was observed. Two chimney fragments were noted, including one made primarily of firebricks, and another made of red brick. The firebricks had maker's marks from [RICHMOND], [STAR M.S. DICKEY CLAY MFG. CO], and [GMB] in an oval with [COLUMBIA] also written on the 'GMB' brick. Concrete footings observed included some with cut-out areas where fence posts may have been placed, areas where corroded metal pipes were eroding out, and concrete pieces that looked to function as things such as gutters. Concrete in this area contained various types of aggregates that could be representative of different periods of construction. The aggregates included (1) Sandstone aggregate, (2) Red Chert aggregate, (3) an aggregate that contained more rounded and even-sized stones, (4) an aggregate that contained more angular pieces, and (5) an aggregate that contained a Franciscan mix of red chert, green chert, etc. A couple of pieces of cut granite were observed. Various metal pieces were noted, including metal spikes, metal bolts, a possible metal rudder to a boat, and two large metal axles. Of interest was a metal piece of machinery that may have been some type of pressure gauge? A large piece of slag was observed that contained melted pieces of glass and metal. Perhaps the slag came from the incinerator that was perched above the cliffs in test area 1 historically? Another interesting piece of debris noted was a large square piece of cement with board mold marks still visible. The cement was molded into four equal compartments. Pieces of wood that may have previously been used as fence posts or beams were also noted in the vicinity. Many of the pieces of wood have been deteriorated from the saltwater and waves. One large beam contained corroded metal pipes and may have been related to a structural element of a building.

Overall, the materials and debris observed along the beach in these areas appear to be related to structural elements, although it is unclear what structure. Further research into the types of materials used on specific batteries and related structures in the area that have been demolished would be helpful.

The beach survey was concluded at 1:00 pm. St. Clair left the work site at 1:10 pm.

Appendix B

Monitoring Notes: Vegetation Removal, Geotechnical Test Pitting, and Archaeological Investigations

Baker Beach Disturbed Areas

Cultural Resources Investigation

Brush/Tree Removal

Daily Field Notes

Monday, February 14, 2005 - Today was the first day of brush and tree removal at the Baker Beach Disturbed Areas. An initial team meeting and de-briefing of Marin County Arborists work crew was planned for the morning. Those present at the meeting included: Vance Benté (URS), Michelle St. Clair (URS), Leo Barker (NPS), George Ford (Presidio Trust), Ken ? (Marin County Arborists), Craig Benson and various laborers from Marin County Arborists.

Barker outlined protocol for retrieval of artifacts, as well as the process should buried remains or unexploded ordinance be encountered.

1) All materials (including any modern material like bottles, aluminum cans, etc.) should be collected during the brush clearing and tree removal process by the work crew. All materials will be placed in labeled buckets provided by the NPS. Buckets will be collected by URS staff at the end of the workday and transported to the NPS/Presidio Trust Archaeology Laboratory for review by URS and NPS staff.
2) If human remains or unexploded ordinance is encountered during the brush clearing and tree removal process, Leo Barker (415-561-4836) and George Ford (415-561-4292) should be immediately notified by phone. Immediately following, Park Dispatch (415-561-5505) should be contacted.
3) If there is any person(s) in the area that become a nuisance to the work crew, the Park Police (415-561-5656) should be contacted.

The work crew began to work at approximately 9:30 am. Michelle St. Clair, Craig Benson, and David Thompson stayed at the site to monitor work. Work was concentrated in the low-lying area between Battery Boutelle and Battery Miller. Weed-whackers and chain saws were used to clear tall grass and bushes. The crew also began to remove cypress trees located near Battery Miller. It began to rain heavily at approximately 11:00 am. The crew works in the rain. The crew took a break for lunch at approximately 12:30 pm. Work resumed at approximately 1:15pm. It continued to rain heavily throughout the afternoon.

At approximately 2:00 pm, St. Clair left the site to take collected items to Leo Barker at the NPS/ Presidio Trust Archaeology Laboratory for review. Items included: modern glass bottles, aluminum cans, a pair of plastic sunglasses, and a sunglass case with a hypodermic needle kit for either drug use or insulin. St. Clair returned to the work site with additional buckets and monitored the crew's activities until clean up at 4:00 pm.

Tuesday, February 15, 2005 - St. Clair arrived at work site at 8:00 am. It was raining moderately. St. Clair waited for Marin County Arborists work crew until 8:30 am. Crew did not show up. St. Clair left a voicemail message for George Ford. St. Clair returned to the URS Oakland office. Ford contacted St. Clair at approximately 10:30 am and explained that the brush clearing and tree removal work was called off for the day. Concerns over safety and protections

of the batteries in the rain were voiced. Ford had informed the Marin County Arborists work crew (including Ken) that they should stay off the slopes and avoid clearing trees off the batteries when it was raining. It was decided that conditions were too wet and saturated to proceed on Tuesday. St. Clair and Ford agreed to speak Wednesday morning concerning the work schedule.

Wednesday, February 16, 2005 - St. Clair arrived at the work site at 8:00 am. Weather was clear. Marin County Arborist crew was present at the site. St. Clair contacted Ford and left voicemail that crew was on-site and working. St. Clair stayed on-site to monitor. Crew concentrated on removal of Cypress Trees located near Battery Miller. Ford arrived at the site at 10:00 am. It was decided that it was unnecessary for URS staff to attend a 10:30 am weekly planning meeting taking place at Fort Baker. St. Clair returned to the URS Oakland office. At 3:45 pm St. Clair returned to the work site to check-up on the progress of the work crew. The crew was wrapping up the days work. Almost all of the Cypress Trees near Battery Miller had been cleared. Crew had a small bucket of materials recovered during the day. Materials included: modern glass beer bottles, a ferrous metal paint can, and possibly tin can. St. Clair transported the materials to the NPS/Presidio Trust Laboratory for review.

Thursday, February 17, 2005 - Ford contacted St. Clair around 1:30 pm. Ford informed St. Clair that the crew was going to fill the ruts created by machinery with hay. Ford asked St. Clair to inspect the areas where the ruts were created before it was covered. St. Clair arrived at the site at 3:45 pm. She inspected the ruts. No cultural materials were discovered in the area. She talked with the crew chief, who mentioned that a canister and some historical bottles were discovered earlier in the day and were taken to the NPS/Presidio Trust Archaeology Laboratory by Craig. St. Clair took a bucket of materials collected during the day. The materials mostly consisted of modern glass bottles. She transported the materials to the NPS/Presidio Trust Laboratory for review. She spoke with Hans (NPS) who showed her the collected materials that were transported to the laboratory earlier in the day. The bottles appeared to be some sort of historical food or medicine containers and were aqua in color. The metal container looked to be older and Hans was unsure of its function. Leo Barker will take a look at it and conduct additional research on the object.

Friday, February 18, 2005 - St. Clair arrived at the work site at 3:30 pm. Work crew had completed clearing areas around Battery Marcus Miller, Battery Boutelle and the low-lying area between the two batteries. Crew was laying out straw in areas that were becoming muddy and forming large ruts from movement of work equipment and automobiles in and out of the area. St. Clair left a message for George Ford that the crew had completed work in the area. She also contacted Vance Benté to notify him of the progress of the work crew. The work crew had a small collection of modern glass bottles and other modern debris at the site. St. Clair transported these materials to the NPS/Presidio Trust Laboratory for review. St. Clair was unable to get in touch with anyone regarding the Monday, February 21, 2005, President's Day Holiday. It is unclear if the crew will be working this day.

Monday, February 21, 2005 - Monday was President's Day. Crew was not working at the site. St. Clair did not visit the work area.

Tuesday, February 22, 2005 - Unfortunately, when St. Clair arrived to the site at approximately 4 pm, the work crew had already departed. St. Clair walked to "covered way" across from Battery Marcus Miller and Battery Boutelle. She observed a moderate amount of modern trash

on the ground surface. St. Clair contacted George Ford of the Presidio Trust and Leo Barker of NPS. She left voicemail messages indicating the work crew was not collecting all surface material and that she would return to the site in the AM the next day to remind the crew. Some of the trash observed included: food wrappers, glass soda and beer bottles, and aluminum soda and beer cans.

Wednesday, February 23, 2005 - St. Clair arrived at work site at approximately 8:00 am. Crew was working in the West Battery Area. They had cleared the area around Magazine 27 the day before. No cultural resources were collected from this area. Work crew informed St. Clair that they had not found any materials during brush clearing and tree removal on Tuesday. There was no bucket of material available to go the Archaeology Laboratory. St. Clair brought more buckets for collection of materials to the work site. She also left a voicemail message for George Ford and Leo Barker about her concern that the crew was not collecting materials. She was provided with contact information for Craig Benson of Schauff and Wheeler. Craig said that he would send David Thompson to monitor work crew's progress and collect any materials on the ground surface.

St. Clair returned to the work site at approximately 1:30 pm. David Thompson of Schauff and Wheeler, as well as two MacTech geologists, George Ford, and various NPS staff were present. David Thompson had collected as much of the ground surface material as possible. There was an abundance of material located on the west slope of Magazine 29 of the West Battery. Much of this material was not collected, but was noted. The materials not collected included: a dense scatter of glass wine bottles, glass beer bottles, aluminum beer bottles, food wrappers, several pairs of boxer shorts, condom wrappers, and various other sexual paraphernalia. Two large buckets of materials were collected and brought to the NPS/Presidio Trust Archaeology Laboratory for analysis by Leo Baker. This material included: glass soda and beer bottles, various metal parts (possible machinery), a plastic mug, and a canister of pepper spray.

Work crew informed St. Clair that they had completed work for the designated areas and would be returning in the coming weeks (once rain has ceased) to paint tree stumps and bushes with herbicide. It should also be noted that areas on the west upper slope of Magazine 29 and the west slope of Magazine 29 were not cleared because they contained plants native to the Presidio (sage and various other plants).

Monitoring of brush and tree removal has been completed. URS staff will return to the field for the next phase of work as planned.

Baker Beach Disturbed Areas

Cultural Resources Investigation

Brush/Tree Removal

Amendment to Daily Field Notes

- Tools used by the Marin County Arborists work crew during brush removal included the following: chainsaws, weed-whackers, large pick-up truck with trailer holding wood chipper, round and flat shovels, industrial sized dump trucks for collecting wood chips, small backhoe, and hand pushed mowers.
- Marin County Arborists also conducted Herbicide Application to tree stumps that were not completely removed.

- **2/14/2005 (Monday)** Began working in low-lying area (swale) between Magazine 21 and Magazine 22. Worked west towards cliff edge. Cleared low-lying brush, grasses and bushes.
- **2/15/2005 (Tuesday)** continued brush clearing in same area as mentioned above. Continued to clear low-lying brush, grasses, and bushes. Also began to remove trees from Magazine 21 area.
- **2/16/2005 (Wednesday)** Concentrated on removal of Cypress trees located on and around the slope of Magazine 21.
- **2/17/2005 (Thursday)** Continued with removal and splintering of trees on and around Magazine 21.
- **2/18/2005 (Friday)** Completed clearing low-lying brush, ivy, grasses, and bushes in the area between Magazine 21 and 22.
- **2/22/2005 (Tuesday)** Cleared low-lying grass, brush, and bushes on and around Magazine 27. This included the frontal slope facing west towards the parking lot and the "covered way" area on the east side of Magazine 27. Also began brush removal in low-lying area between Magazine 28 and 29.
- **2/23/2005 (Wednesday)** Cleared low-lying grass, brush, bushes and dense amount of poison oak located on and around Magazines 28 and 29. Also removed trees that were on top and around Magazines 28 and 29.

Baker Beach Disturbed Areas

Cultural Resources Investigation

Geotechnical Investigations

Daily Field Notes

Field Notes – Baker Beach Disturbed Areas (BBDAs) 1, 1A, 2 and

Tuesday, April 5, 2005 – A project kick-off meeting was held at 9:30 am. Andy Sheaffer, President and Brian McNeil, Superintendent of AIS Construction, Anne Henke, Project Geologist of Mactec, and Michelle St. Clair, Archaeologist of URS were present. Hans Bernal, Archaeologist of the NPS (NPS) was not able to attend due to prior commitments. Mactec is the prime contractor on the Baker Beach project and has devised schedule for the proposed field activities that was distributed March 30, 2005.

Henke conducted a walk through of all work areas of the project. She discussed issues regarding staging of equipment and the scope of work. Henke estimated that approximately two to three geological test pits will be dug per day. Mactec will be responsible for logging the test pits, photographing, and mapping. Issues regarding how to bring in equipment to access Area 1A of the project were discussed. Plan A is to bring the equipment over the frontal slope of Battery Miller. Plan B is to bring equipment under the Golden Gate Bridge along the frontal slope of Battery Cranston. AIS staff preferred Plan B for access. St. Clair voiced concern over the effect the machinery would have on the frontal slope of Battery Cranston and did not want to make a decision until Vance Benté, Project Manager of URS was consulted. Henke asked for clarification from URS on the involvement of NPS archaeologists on the project. St. Clair recommended that Mactec first contact URS and that URS will convey information to NPS archaeologists.

Wednesday, April 6, 2005 – Work began today at 8:00 am in Area 2 of the project. Two geological test pits were placed in this area. Two Shelby Tube Samples were taken at each location. Henke began the day with a safety meeting for all work crew.

BB2TP101 was the first test pit excavated. Work began on this pit at approximately 8:30 am. The pit revealed a 3-6” layer of topsoil over an approximately 12” layer of debris that is likely the result of U.S. Army dumping activities in this area. The debris included concrete, brick, tile, metal, and glass fragments, as well as some wire, and degraded metal parts. An intact glass cathode ray tube was recovered, as well as a “D-Patent” Coca Cola bottle that was in production from 1938 to 1951. Under the debris layer was an approximately 9’ layer of sandy silt soil with inclusions of serpentinite rock encountered towards the bottom 8’ to 9’. A serpentinite rock formation was encountered at 9’.

BB2TP100 was the second test pit excavated. It was located down slope (north) from BB2TP101 on a flat shelf. Work began on this pit at approximately 11:30 am. There was no observable debris layer in this pit. The pit contained approximately 10” of topsoil and an organic sandy silt soil that was dark brownish black in color. Mactec geologists were calling this layer of soil, “Colma.” Underlying this soil was 6’ of sterile native soil that was more of a sandy substrate, mottled, and orangish-brown in color. Serpentinite rock was encountered after this layer. No

historical materials were observed in this test pit. No hazardous materials were identified in the test pits.

(Vance Benté of URS visited the site to inspect the proposed access routes for equipment to Area 1A. Hans Bernal, NPS wanted to consult with Leo Barker, NPS before recommending how the work site should be accessed. Phone messages were left with Leo Barker, Steve Haller, and George Ford. Benté informed each of the decision to bring equipment under the Golden Gate Bridge and access the site via the frontal slope of Battery Cranston. It is believed that the thick layer of vegetation will provide a good buffer from possible impacts upon the topsoil layers of the frontal slope of the battery. The machine operator will be advised to move slowly and deliberately through the area making sure not to cause large ruts or impacts into the soil. The go-ahead to access the work area was received from Ford, Haller and Leo in the afternoon and early evening of April 6, 2005.)

Henke and Sheaffer met with the Golden Gate Bridge Authority at 1:30 pm to discuss access underneath the bridge. Equipment will be brought in between 7:00 and 8:00 am on Thursday to minimize impact on traffic.

Thursday, April 7, 2005 – Work began at 7:00 am. AIS had to walk equipment underneath the Golden Gate Bridge. Henke, St. Clair, and NPS biologists were on site to oversee the movement of equipment along the frontal slope of Battery Cranston. Rain caused conditions to be slightly muddy and damp. The movement of the spider excavator did cause compression of the grasses, plants, and brush in the area, but did not cause large ruts or pitting in the soil. Henke left the site for a doctor's appointment at 8:00 am. Bill Godwin of Mactec was present in Henke's absence.

Work on the test pit BB1ATP101 began at approximately 9:30 am. A small layer debris approximately 4" to 6" in thickness and consisting of roofing materials, was encountered at the uppermost layer. Underlying this material was a dark blackish brown layer of sandy silt with decomposing serpentinite at the bottom (approximately 5' in depth).

Test pit BB1ATP100 was dug north of BB1ATP101 at approximately 11:00 am. A single brick was recovered from the top layer of this pit. No other cultural materials were recovered in this test pit. It consisted of approximately 3' of dark blackish brown sandy silt, and changed to serpentinite rock at approximately 3' to 4'. Henke and Godwin of Mactec decided to extend test pit BB1ATP100 further to the north as a trench to see if any historical materials could be revealed in this area. No historical materials were recovered in the extended trench.

An exploratory trench (BB1ATP102) was also placed in the eastern slope of Area 1A to gain a better understanding of the extent of debris. The trench revealed that there was approximately 1' of topsoil over approximately 3' of roofing debris composed of black tar with sandy soil. No other cultural materials were observed mixed with this debris. Under the debris layer was native or sterile soil that was orangish brown in color and overlies a serpentinite rock formation.

One Shelby Tube (undisturbed sample) and three modified CA (disturbed samples) were taken from Area 1A for geotechnical testing. Under the direction of the Presidio Trust, Mactec also collected two environmental samples from BP1ATP101 for analysis of the PH. No hazardous materials were observed in the area. St. Clair stayed on site to oversee the removal of the equipment from the work area along the frontal slope of Battery Cranston. No additional disturbances were observed. Mactec plans no work for Friday, April 8, 2005, because the NPS

bird biologist must inspect Area 1 and Area 2 before work can proceed. The bird biologist is scheduled to visit the site Friday.

Friday, April 8, 2005 – Henke contacted St. Clair about work schedule for the following week. Because of rain, the bird biologist was unable to conduct his/her survey. The bird biologist will visit the site Monday to conduct survey. It is anticipated that geological work will start up at approximately 10 am after the bird biologist survey is complete.

Monday, April 11, 2005 – Arrived at work site at 10:00 am. NPS bird biologist and Daniel Edelstein, biologist with MACTEC were completing bird survey at this time. Spider excavator was being moved to site by AIS crew. At 10:30 am, Mactec, URS, and AIS personnel were briefed by biologists about birds present in the work area. An Allen's Hummingbird nest (special status species) was observed in a Lollipop tree in Area 1 where the proposed well is anticipated to be installed. The location of the nest is also near the proposed access route for BB1TP104. Mactec will work with Lewis Stringer of NPS to identify an alternate route to this proposed test pit and the significance of nest location to proposed upper seep well. A review of the health and safety guidelines for the project was conducted by Henke for the crew It took until 1:30 pm to utilize the spider excavator, drill and associated equipment into Area 1. The ground of the upper slope was extremely damp causing the spider excavator to move slowly through the area.

Work on test pit BB1TP100 began at approximately 1:45 pm. The test pit was excavated to approximately 7' in depth before encountering a layer of concrete rubble that impeded further investigation in this area. The topsoil of the test pit consisted of dark blackish brown sandy silt. Because of concrete rubble in the test pit excavations could not proceed. Therefore, native soils were not observed. Fill was observed throughout the 7' depth and included, corroded metal materials, nails, screws, a spark plug, and dense amounts of concrete rubble.

There was no indication of hazardous materials. Work concluded at 4 pm. The spider excavator was staged for work the next day.

Tuesday, April 12, 2005 – Work began at 7:00 am. The first test pit excavated was BB1TP105. The fill included extensive concrete rubble, brick with thick layers of mortar, corroded metal materials, slate roofing materials, black tar roofing materials, and a few glass bottles with twist tops that likely date to the 1930s/1940s. The fill layer in this unit extends over 11' in depth. Serpentinite bedrock was encountered between 10.5 and 12' in depth.

BB1TP101 was the second test pit dug. Fill in this area extended to over 17' in depth (which was the maximum reach of the excavator). The fill is primarily composed of concrete or cement rubble and also included one fragment of white porcelain that depicted an eagle with the words "United States Army" on it. Although serpentinite rock was not reached in this test pit, a mottling of the soils was seen towards the bottom 17' that displayed inclusions of serpentinite rock. A twist top soda bottle and medicine bottle (1930s/1940s?) were located east of BB1TP101 on the slope, as well as a melted piece of aqua glass, a fragment of WIE, and a large slab of orange colored marble.

BB1TP104 was dug mid-slope in a dense patch of poison oak. There was approximately 7' of fill present in this area. At approximately 7-8' a large Franciscan outcrop was encountered. Henke commented that the stratigraphy in this area displays intermittent periods of shale slough-off with layers of fill intermittent. She described it as being almost "alluvial" in appearance. The fill

in this area consisted of concrete rubble, tar, roofing materials, and various unidentifiable, corroded metal fragments. Because of the Franciscan outcrop encountered in the test pit, excavations did not proceed past 8'.

BB1TP103 was the final test pit excavated. Fill in this pit extended to approximately 9 ½' in depth. The fill in this pit contained "domestic refuse." The make-up of the fill included, twist-top glass medicine bottles, wine bottles, twist top liquor bottles, porcelain and WIE fragments, unidentifiable corroded metal fragments, asphalt-slate roofing material, and roof tiles. The materials in the fill appear to date to the 1930s/1940s time period. Serpentinite bedrock was encountered at approximately 10 ½' in depth.

There was no indication of hazardous materials. Two Shelby tubes were collected each from test pits BB1TP101, TP103, and –TP105 and one from BB1TP104 for geotechnical testing. Work concluded at 5 pm.

Wednesday, April 13, 2005 – Work began at 7:00 am. After set-up of equipment, work began at test pit BB1TP102. Work was stopped at 2 feet in this area because the spark plug had to be replaced on the spider excavator. The first two feet of BB1TP102 contained large amounts of "domestic debris" fill as was seen in BB1TP103. The test pit was temporarily backfilled to be revisited at a later date. At 9:00 am St. Clair left the site for a doctor's appointment. St. Clair returned to the site at 10:15 am. The spider excavator walked along the beach to access Area 2A of the project. Test pits BB2ATP103 and BB2ATP104 were excavated. Both test pits contained waste fill that consisted primarily of concrete rubble debris, slate roofing material, and amorphous metal fragments. BB2ATP103 was a shallow test pit that extended to 5' in depth. It contained very minimal amounts of waste fill; most notable was a large piece of metal wire. BB2ATP104 contained fill to a depth of 10-12' and was dug to 17' in depth (the extent of the spider excavator reach). The fill debris included concrete rubble, tile, slate roofing materials, and a couple of glass bottles.

Bottles discovered in BB2ATP104 include, a colorless glass Dr. Pepper bottle, a colorless glass Shield's Harper and Co. Motor Oil container, a indeterminate green glass wine or alcohol bottle, a colorless glass vinegar bottle, and a brown glass bottle that is likely a medicine bottle. All of the bottles appear to date to the 1930s/1940s time period.

No hazardous materials were discovered in this area. Two Shelby tubes each were collected from BB2ATP103 and BB2ATP104 for geotechnical testing. One environmental sample was collected from BB2ATP104.

St. Clair contacted Leo Barker, NPS Archaeologist in regards to test pits BB1TP103 and BB1TP102 that were showing large amounts of "domestic refuse" and how the NPS would like URS to proceed in light of the discovery. The domestic debris is mixed with construction debris and consists of WIE and porcelain vessels and fragments, broken and whole glass bottles and food containers, melted bottle glass, corroded metal materials, etc. Barker asked URS expressed to get a representative sample of materials from these areas. URS plans to collect a bucket-sized sample of materials from the area of test pit BB1TP102 when the spider excavator returns to Area 1.

Thursday, April 14, 2005 – Work began at 7:00 am. Armando Cuellar, archaeologist with URS will be joining St. Clair today to provide additional support during monitoring because of the

recent discovery of areas of domestic refuse. The spider excavator attempted to access the area of test pit BB2ATP100 in the early morning. Cuellar arrived on-site at 9:30am. He was briefed by Henke about the Health and Safety guidelines of the project. Cuellar was briefed by St. Clair about the project scope and archaeological aspect of the project. St. Clair and Cuellar met with Barker near Battery Boutelle at 10:00 am. Discussion involved a plan for sampling of domestic refuse in Area 1. Barker requested that URS take digital photographs of large construction type elements that are too large to collect, but are of interest. Barker planned to return to Area 2A later in the day to observe work activities taking place there. St. Clair contacted Vance Benté and Sean Dexter of URS in regards to the availability of a digital camera.

Due to the steepness of the slope, BB2ATP100 could not be accessed by the spider excavator and was installed at the BB2ATP101 location. BB2ATP101 was moved south of BB2ATP104 to evaluate the extent of waste fill in that area. BB2ATP100 (previously BB2ATP101) extended 5' before serpentinite bedrock was encountered. Fill in this area was shallow and consisted of wood (probably used in construction) broken glass, and slate roof tiles. Concrete rubble debris was not observed in large amounts.

BB2ATP101 contained waste fill to a depth of 12 to 14'. Large metal construction pieces and car parts were observed in the fill at this location. Metal parts observed included an I-beam, spring axel, and other various car parts. Other fill materials observed included slate roofing materials, wood, broken glass, and WIE and porcelain ceramic fragments. A distinctive layer of brick fill was located at approximately 7' in depth. Serpentinite bedrock was encountered at approximately 14' in depth.

St. Clair left the site to bring Leo Barker the representative materials from the domestic refuse areas of Area 1 for review. She also picked-up copies of maps and line drawings that were reviewed by Michael Lamb for his historical research on the use of the "tree island." St. Clair left a voice message for George Ford in regards to the work schedule for the tree island. St. Clair asked when URS should conduct research and an archaeological survey in the area. Mactec geologist, Bill Godwin, placed markers in the tree island to delineate trenching that will be taking place there. Godwin was unsure when trenching would take place in the tree island, but thought it may take place the week of April 18-22, 2005. Cuellar remained at the test pit location to monitor activities taking place there.

BB2ATP102 was placed in an area that was not originally depicted on the project map and was placed in lieu of the test pit area that could not be accessed by the spider excavator. Serpentinite bedrock in the this area was encountered at a depth of approximately 8'. Fill in the area contained, a concrete post or pillar possibly used to hold a fence line across the slope, melted glass, WIE and porcelain ceramics, various glass bottles, a thick piece of marble, wood posts, and possible wood siding. No slate roofing materials, brick, or tar was observed in this area. The fill extended to approximately 7' in this area.

No hazardous materials were discovered in this area. Two Shelby tubes were collected from each test pit. Work concluded at 5 pm.

Friday, April 15, 2005 – Work began at 7 am today. Armando Cuellar was present at the site to monitor geological testing activities. Test pits BB2ATP105 and BB2ATP106 (an additional test pit not depicted on the original map) were placed in Area 2A in the morning. Both test pit areas

were extremely shallow, and serpentinite bedrock was encountered between depths of 0.5' and 2.5' feet in both areas. A minimal amount of fill was observed in both test pits and did not contain domestic refuse. Most of the fill appeared to be construction debris that included wood siding, unidentifiable corroded metal, and possible roofing materials.

No hazardous materials were located in this area. One Shelby tube was collected from each test pit.

At 10:00 am Cuellar contacted St. Clair to notify her that the spider excavator would be moving from the Area 2A to Area 1 during low tied. St. Clair arrived at the site at 10:15 am to monitor work in the area of test pit BB1TP102 and to collect a representative sample of domestic refuse.

Area of BB1TP102 was extremely damp and difficult to access. It took over an hour for the spider excavator to reach the area of the test pit. The test pit was re-excavated. It contained domestic refuse mixed with construction debris. The fill extended to 17 feet (the extent of the spider excavator). Bedrock was not encountered. The fill consisted of broken and whole glass bottles, WIE and porcelain vessels, concrete rubble, and metal debris. Cuellar and St. Clair collected a bucket-sized sample to return to the Presidio archaeology laboratory.

No hazardous materials were observed in this area. Two Shelby tubes were collected from the test pits.

The spider excavator cleared back some of the area surrounding BB1TP102 to further get an idea about the extent of the domestic debris in the area. The material seemed to be concentrated near BB1TP102 in the general vicinity of the natural seep of the slope.

The work planned to take the rest of the day to stage the drill and associated equipment for the placement of the piezometers on Monday, April 18, 2005. Cuellar and St. Clair brought the collected materials from BB1TP102 to the Presidio archaeology laboratory for clean up at approximately 1 pm.

St. Clair and Cuellar met with Leo Barker who was concerned with the start-up of the cultural resources investigations for the Baker Beach project (to begin Wednesday, April 19, 2005). Barker was concerned that neither himself of Hans Barnaal would be able to monitor the activities in the area due to prior work and conference commitments. Barker contact George Ford to ask that the project be postponed until Monday, April 25, 2005.

After the meeting, St. Clair and Cuellar washed the representative artifacts from BB1TP102. St. Clair, Cuellar, and Barker spent approximately 45 minutes discussing the possible significance of the domestic refuse in the area. Barker asked that a discussion about this area that would involve Benté be scheduled for a later date.

Cuellar left the laboratory at 2:45 pm. St. Clair stayed to catalog the materials. (Please see *Catalog of Materials Recovered from Test Pit BB1TP102 from the Baker Beach Disturbed Areas 1, 1A, 2, and 2A project*.)

Monday, April 18, 2005 – Work began at 7 am. Cuellar was present at the site to monitor installation of piezometers in Area 1. Problems with the starter of the spider excavator delayed work. Cuellar left the site at approximately 1 pm.

George Ford sent out an email indicating that work on the cultural resource trenches would be postponed until Monday, April 25, 2005. Anna Henke contacted St. Clair to coordinate a meeting place and time to delineate the cultural resources trenches in the field. St. Clair and Henke decided to meet at 7 am on Tuesday, April 19, 2005.

St. Clair has not heard back from Ford in regards to the research and cultural resources survey for the "tree island" area of the project.

Tuesday, April 19, 2005 – St. Clair and Henke met at the work site at 7 am. White spray paint and nails with white flagging were used to delineate the proposed cultural resources trenches in the field. St. Clair contacted Barker and Barnaal by telephone, as well as sent a email to Barker, Barnaal, Henke, Ford, and Benté detailing the delineation in the field with a roughly drawn map. St. Clair asked that Barker and/or Barnaal visit the area in the next week to comment on the trench locations so that any necessary alterations or changes can be made before the beginning of work Monday, April 25, 2005. Ford responded to St. Clair's email commenting that the trenches do not need to extend into the magazine vents, and that careful exploration in the area should sufficient. St. Clair also commented that in consultation with NPS biologist, Lewis Stringer, the native plants flagged in the area of Magazine 27 will be carefully removed and replaced after the cultural resources trenches have been backfilled.

At 11 am Henke contacted St. Clair to notify her that in the area of piezometer BB1PZ100, an exploratory trench was placed to stage the drill (trench to be named by Henke post field investigations). Domestic refuse as was seen in the area of test pit BB1TP102 was discovered in this area. Henke will leave the area exposed so that St. Clair can investigate it when she returns to the field in the afternoon.

Monday, October 3, 2005 – St. Clair arrived at work site at 9:50 am. Others present included: Anna Henke, Geologist with MACTEC, Jim Nores, Project Superintendent with ERRG, and Enrique, laborer with ERRG. Purposes of these investigations were to investigate the extent of historic fill in the area of the parking lot strip and covered way north of Merchant Road and south of Baker Beach Test Area 1. According to historian John Martini's research of the of land use of the area by the military, there is the potential for debris and fill to be present in these areas.

Anna Henke began the day with a safety meeting and a review of how the test pitting investigations would proceed. Using a backhoe with a 24" tooth bucket, 3 test pit trenches were to be investigated. The plan is to remove approximately 4' of soil from a trench and then stop to the allow the geologist to further investigate by entering the trench. Further investigation will continue to a depth of 10' or however deep is required to reach native soil.

We began with the investigation of BB1TP107 located on the ridge of the covered way area and just north of Merchant Road. The area was covered in ivy and other types vegetative overgrowth. Excavations proceeded to a depth of 4' initially. Approximately 4 brick fragments and 6 fragments of concrete were observed in the uppermost 2' of the trench. BB1TP107 contained approximately 4 inches of dark brown organic top soil, overlaying approximately 2' of the colma derived fill observed in other areas of Baker Beach during previous investigations. Other refuse observed in the colma fill included a fragment of sewer pipe and various types of gravels. The trench was excavated to a length of 29' running east-west. At 4' Henke halted the excavation so

that she could enter the trench and take some samples of the soil. After Henke collected samples the excavations continued in the trench. At approximately 4' to 5' in depth a layer of large sized, water worn cobbles was encountered. These cobbles appeared to be roughly the size of a football and larger. They are not native to the area. The cobbles were loosely packed together and were consistent throughout this layer. Dark brown sandy silt soil appeared between the cobbles. This soil is similar to the soils observed near Magazines 27 and 28 during previous investigations. St. Clair notified Vance Benté, historical archaeologist with URS, as well as George Ford, Project Manager with the Presidio Trust of the cobbles. Ford noted that he has encountered these types of cobbles in various areas throughout the Presidio, and although they are not native, they were used in construction projects such as walls. The current cobble layer encountered at BB1TP107 does not appear to be a specific structure. These cobbles may have been dumped in this area as part of a fill episode. Some of the cobbles were pulled aside for review by George Ford. Excavation in the trench proceeded to approximately 13' in depth. Beneath the cobble layer was more colma fill that transitioned to serpentinite derived soils and then serpentinite bedrock starting at approximately 8' in depth.

At 1:15 pm MACTEC geologist Bill Godwin and George Ford of the Presidio Trust arrived at the work site. There was some discussion about the placement of BB1TP109 and its proximity to the Golden Gate Bridge Transportation Authority modulars and existing utility lines in the area. It was decided that the trench would be placed along the hillside of the covered way.

BB1TP109 excavations began at 2:49 pm. Fill was encountered in this trench including older rebar, concrete and brick debris, a rubber bumper, a metal pop top pull, and a green glass bottle with a crown cap. The green bottle appears to be a Mickey's Malt Liquor bottle with a crown cap. The bottle had the following embossed on it: [PLEASE DON'T LITTER/ PAT. PEND./ 534 NW 80]. Roofing tar and a red chert layer were encountered at approximately 2' below the surface. Henke took samples of the fill layer and the native colma soil. At approximately 7' in depth the native colma layer was reached and excavation in this area ceased.

Work ended at 5:00 pm.

Tuesday, October 4, 2005 – Arrived at work site at 7:30 am. The Golden Gate Bridge Transit Authority had to clear two abandoned automobiles from the site area so that work could proceed in the area. Jim Nores of ERRG arrived at the work site at 8:00 am. Work began on excavation of BB1TP108 that ran north-south and was located immediately north of Merchant Road. BB1TP108 contained a 1' to 1.5' layer of modern roadbed made up of light grey soils and gravel. At approximately 2' a red chert layer was encountered. Above the chert layer was a layer of disturbed colma fill that contained some small brick fragments and concrete fragments. An older sewer pipe that was no longer working was discovered in the side wall of the trench at approximately 1' below ground surface. Beneath the red chert layer was what Henke called, "colma derived fill" that contained fragments of brick and concrete. At approximately 7' to 7.5' feet, native colma was encountered. Henke took samples of the fill above and below the chert, as well as the native colma soil in the trench. In total, this trench was approximately 12' in length and began approximately 8' from the white edge stripe that is painted along Merchant Road. It was decided not to extend the BB1TP108 trench the entire length of the test area, and rather to get a sampling of the soils further north to trace the extent of the fill in the area.

George Ford arrived at the site and recommended that Henke return to the BB1TP107 trench site to sample the layer of fill soil that occurred above the cobble layer encountered. The backhoe excavated a trench immediately adjacent to the filled-in BB1TP107 trench. This trench was similar in stratigraphic layers to BB1TP107, except that the fill layer contained a much heavier concentration of fragmented bricks, including fragmented bricks with mortar. The bricks contained a large aggregate that was yellow in color. Henke took a sample in this trench of the fill layer above the cobbles and noted that the fill appeared to be colma derived.

BB1TP108 (Auxiliary) was excavated further north of the original BB1TP108 to trace the extent of the red chert layer and fill layer. Fill extended to approximately 7', where the chert layer was encountered (7') and appeared to be mixed with asphalt. The fill contained brick, concrete, and amorphous metal fragments. Below the chert fill, a type of topsoil development was encountered with oxidized fragments similar to what was seen in trenches during the cultural resources investigations. There is also what appears to be a layer within the 7' of fill that is a windblown sand layer that may be representative of an area remaining open for a period of time, allowing for a thin sand accumulation before being filled. This trench was stopped before reaching the native colma layer, as the purpose of the trench was to investigate the extent of the fill in these areas. The auxiliary trench for BB1TP108 extended approximately 10' in length. Overall, it indicates that the present ground surface is built up 2' to 7' above the episodes of fill and chert in this area. It indicates that the historical ground surface may have trended downwards as it extended to the north towards the covered way.

Baker Beach Disturbed Areas

Cultural Resources Investigation

Specific Cultural Resources Investigations

Daily Field Notes

(*Notes from Michelle St. Clair 4/25/05 – 5/6/05*)

Monday, April 25, 2005 - Work began at 7:00 am. This phase of work included the installation of Cultural Resources trenches. Work began with a safety meeting and overview of project objectives. People present at the work site included: Anna Henke (MACTEC), Vance Benté (URS), Christopher Lee (URS), Michelle St. Clair (URS), George Ford (Presidio Trust), Leo Barker (NPS), Hans Barnall (NPS), Lewis Stringer (NPS), and backhoe operation crew from ERRG. Began by excavating Trench 3. Backhoe operator was instructed to excavate approximately eight inches at a time. Backhoe began work with a 2 ½' wide, three comb bucket.

Fill in the Trench 3 did not match the anticipated pattern for the area. The parking lot ground surface was underlay by a layer of dark sand at approximately 12 to 13" below ground surface and approximately 12 to 14" thick. The loosely compacted sand overlay what was deemed the mottled "colma/fill" layer in the field. This layer was approximately 4 ½' thick. Under this layer was a relatively level layer of what appears to be dark blackish brown soil that contained some organic materials and rootlets. It was suggested this dark layer may represent the sodding layer of the West Battery. The dark blackish brown soil layer was first encountered at approximately 5 ½ ' below ground surface. It appears to be about 2' in thickness. It was decided to excavate Trench 3 to the extant of the backhoe arm. At 7 ½' a compressed pinecone was recovered. Under the dark blackish brown layer was a transition to the native soils (called "colma" in the field) Colma is made up of clay with serpentinite formations. The trench advanced to 13 feet below ground surface. St. Clair drew a sidewall profile of Trench 3 entitled, *Trench 3 – Initial Excavations 4/25/05*. No cultural materials, besides the pinecone, were discovered during excavation of the trench. Barker suggests that the frontal slope may need to be tested further north of Trench 3, directly in front of the battery wall. This will help to further investigate the theory that the dark brown soil layer represents sod or topsoil that was placed a top the battery or magazine and later moved.

An additional short trench (deemed Trench A in the field by Henke) was placed perpendicular to Battery Godfrey to trace the extent of the dark blackish brown soil layer. Under the modern parking lot ground surface was a layer of approximately 6" of red chert gravel. This layer may be an older roadbed. Under this level was a layer of mottled "Colma" fill mixed with multiple lifts of dark brown sandy silt. The level was approximately 3 ½' thickness. It changed to what appeared to be strictly colma/fill that was approximately 2' in thickness. At approximately 6' below ground surface, there was a change to what was previously described as the dark blackish brown soil layer. This was approximately 3' in thickness. After lunch, Trench A was extended west to trace the extant of the dark blackish brown soil layer. It was theorized that the dark brown soil layer represented something nonnative to the area and was introduced. No cultural materials were observed while excavating this trench. St. Clair drew a sidewall profile of Trench A entitled, *Trench A 4/25/05*.

An additional short trench (deemed Trench B in the field by Henke), was placed further north of Trench A. It was also perpendicular to Battery Godfrey. Initial excavations next to the Battery wall revealed that the modern parking lot surface was underlain with approximately 6" of red chert gravel. Under this level a layer of sand was encountered. One machine made, amber glass bottle with twist top was recovered from the sand level. It was not understood if the sand represents original sand dunes in the area or if it was used as fill material. It was decided that Trench B would be further extended west into the parking lot the next day. Work ended at 3:30 pm.

Tuesday, April 26, 2005 - Work began at 7:00 am. Trench B was extended to the west to trace the sand level. Sand level was discovered to interface with the colma/fill level at approximately 22' from the wall of Battery Godfrey. Trench B was extended to a depth of 9' and was a total 33'. A plastic bag was recovered from the first 1' of the sand layer of the trench. No other cultural materials were observed. St. Clair drew a sidewall profile of Trench B entitled, *Trench B 4/26/05*.

Per direction of the URS staff, it was decided to extend Trench 3 approximately 100 feet north of the original trench location. The modern parking lot surface was underlay by approximately 6" of red chert gravel. Under the red chert layer was a layer of colma/fill approximately 5 to 5 ½' thick. This fill layer contained some brick debris. Representative samples of brick were collected for examination in the NPS laboratory. At approximately 6' the dark blackish brown soil layer was encountered. This level was approximately 2' in thickness. Rootlets were visible in the soil. A sample of this soil was collected for further investigation of the types of roots or seeds present. At approximately 8 to 9' throughout Trench B, native bedrock (colma with serpentinite rock inclusions) was encountered. No other cultural materials were encountered. St. Clair drew a sidewall profile of Trench 3 entitled, *Trench 3 4/26/05*.

The backhoe bucket was changed to a "flat" bucket before beginning work on Trench C to protect the walls of Battery Godfrey. It was discovered that the battery wall was actually an approximately 2' thick concrete apron. The apron of the battery was over- and underlay with dark brown sandy silt soil. At the bottom of the slope of the battery, the topsoil changed to the modern day road gravel underlay by approximately 6" of the red chert gravel. Approximately 5 to 5 ½' of colma/fill underlay this layer. Dark blackish brown soil was encountered at approximately 6 to 6 ½' and was approximately 2' in thickness. Native soil or bedrock was encountered at approximately 9' and contained serpentinite rock formations. No cultural materials were observed. St. Clair drew a sidewall profile of Trench C entitled, *Trench C 4/26/05*. Work ended at 3:30pm.

Wednesday, April 27, 2005 - Work began at 7:00am. Trench 1 was excavated from the vent of Magazine 27 to the vent of Magazine 28. Trench work began at the vent of Magazine 27. A "flat" bucket was used to protect the magazine walls. A thin layer of topsoil (less than 6" in thickness) overlays the magazine structure and extends down the slop of the magazine until it stops at the parking lot surface. Under the topsoil, and directly against the magazine structure was a compact layer of grayish black clayey soil. This layer was approximately 6 to 8" thick. Against the magazine there was evidence of an excavated trench (possibly for construction of the magazine) that was 20" wide and extends into the native "Colma" soil of the area. At the bottom of this trench at approximately 13 to 14' below ground surface, a layer of bricks 2 courses high

and 2 to 3 courses wide was discovered. The bricks were directly abutted against the magazine wall. A layer of colma/fill appeared to have been laid on top of the clay layer that was placed directly against the magazine. In the south end of the trench that extends out from Magazine 27 there was evidence of the red chert gravel. It occurs at approximately 1' below ground surface, approximately 8' south of the magazine wall, and continues to run south. The native colma layer was encountered at approximately 14' below ground surface. No cultural materials were discovered during the excavation of this side of the trench. St. Clair drew two sidewall profiles of Trench 1 entitled, *Trench 1 – Magazine 27 4/27/05*.

Trench 1 was extended southward towards Magazine 28. The statigraphy was similar to that described above. There was evidenced that the colma/layer was trending downwards (deeper) as the trench moved southward. The coma/fill layer appeared to be intermixed with dark brown tidal sand towards the south end of the trench. A thick layer of red chert gravel overlay the colma/fill layer. The red chert gravel layer was thicker than observed in any other area investigated. The red chert gravel was approximately 1 to 1 ½' in thickness at this location.

Under the direction of MACTEC, Trench 3 was continued south toward the intersection with Trench 2. It was dug to a depth of 4' to investigate the possibility of refuse. Statigraphy in the trench was similar to what was observed at the more northern ends of Trench 3. Under the modern surface of the parking lot was a 6" thick layer of red chert gravel. The colma/fill layer underlay this level. It was approximately 2 ½' thick and trended downward toward the southern end of the trench. The fill layer in the end of the trench contained wire, glass, nails, corroded metal and wood debris towards the far southern end. A coke bottle, wire nail, amber glass fragment, and Nee-Hi bottle were recovered. Materials were collected for analysis at the NPS laboratory. St. Clair drew two sidewall profiles of Trench 3 entitled, *Trench 3 – Southern End 4/27/05 and Trench 3 4/27/05*. Work ended at 3:30 pm.

Thursday, April 28, 2005 - Work began at 7:00 am. Began by excavating the section of Trench 1 against Magazine 28. Statigraphy on this end of the trench appears to be similar to that of Magazine 27. A 10" layer of dark blackish brown soil (compact and somewhat clayey) was placed directly against the magazine walls. There was evidence of an excavated construction trench approximately 20" wide abutted against the magazine structure. No brick platform was observed in the bottom of the trench. The dark blackish brown soil appeared to have been dug into and overlays the native "colma" soils that contained serpentinite inclusions. Over the dark blackish brown soil was the colma/fill layer. Over this there was a topsoil layer that was organic and contained an abundance of poison oak. The topsoil layer was approximately 3" in thickness. No cultural materials were observed. St. Clair and Barnaal drew a sidewall profile of the south end of Trench 1 entitled, *Trench 1 – Southern End of Magazine 28 4/28/05*.

Trench 2 was excavated to a depth of 14' throughout. A large refuse deposit that contained mostly 1930s era historic materials was encountered in the west end of the trench. The trash deposit included, cyclone fencing, bay and eucalyptus tree cuttings, broken brick pieces, Acme aluminum beer can, Pabst Blue Ribbon aluminum beer can, clear glass bottle neck, amber glass beer bottle, men's leather shoe sole, saw cut cow rib, coca cola bottle, Regal Pale Ale beer bottle, Brown Derby Pilsner Beer can, roofing paper, Green Glenn Dairy glass bottle (from San Francisco), and various other broken bottles and ferrous metal pieces. All materials were collected for analysis at the NPS laboratory. The colma/fill layer, blackish brown soil layer, and

the native colma all trend abruptly downward in the west end of the trench. St. Clair drew a sidewall profile of Trench 2 entitled, *Trench 2 – West End 4/28/05*. Work ended at 3:30 pm.

Friday, April 29, 2005 - Began day at 7:00 am. Trench 1 was extended north from Magazine 28 to trace the extant and depth of an apparent cement washout in the area. After probing with the backhoe bucket it appeared that the cement was more than 3' in depth. A decision was made to cease excavation of this trench.

Trench 2 was extended east toward the intersection with Trench 1. Trench 2 was excavated to 95' total in length. The red chert gravel layer was approximately 1 ½ to 2' in thickness at the eastern end of the trench. Underlying the chert at the east end was dark brown tidal sand with some inclusions of colma/fill toward the top of the layer. The sand layer was approximately 3 ½' to 4' in thickness and transitioned to completely sand with no colma inclusions at approximately 5 feet in depth. No cultural materials were observed. St. Clair drew a sidewall profile of Trench 2 entitled, *Trench 2 – East End Past Trench 4/29/05*.

Per the direction of URS staff an additional trench was placed extending off of Magazine 28 west toward Trench 2 (deemed Trench D in the field by Henke). A dark blackish brown layer of soil was abutted against the magazine wall. Over this was a layer of colma/fill. The topsoil was approximately 3-6" thick. Beneath the blackish brown soil, native colma with serpentinite rock inclusions was encountered. No cultural materials were recovered from this area. St. Clair drew a sidewall profile of Trench D entitled, *Trench D – Southeast End 4/29/05*.

The backhoe blew a hydraulic house at 10:15 am. Work was stopped and Benté and St. Clair returned to the URS Oakland office.

Monday, May 2, 2005 - Work began on the area adjacent to Marcus Miller and Battery Boutelle. ERRG crew set-up safety fencing. Barnaal mapped out locations of the original mortar barbettes. Excavation work on the trenches began at approximately 10:15 am. Trench 4 was excavated to approximately 11' in depth. Complex statigraphy was encountered. Approximately 2' of topsoil overlay approximately 2' of red chert gravel. In the east side of the trench evidence of a black tar roadbed underlay the red chert gravel. Under the red chert gravel was a layer of sand dug for a gas line that was encountered, blackish brown soil, and clayey type of colma. A consistent and level layer of sand was encountered at approximately 6' in depth below the ground surface. Native colma soils underlay all of the aforementioned layers and changed to serpentinite bedrock formations at the bottom. No cultural materials were observed. St. Clair drew a sidewall profile of Trench 4 entitled, *Trench 4 5/2/05*.

Per the direction of URS staff a trench was placed north of Trench 4 (deemed Trench E in the field). Trench E was dug to a depth of approximately 6 ½'. The trench was extended approximately 65' west. The gas line was also encountered in this trench. Some concrete rubble was encountered in the eastern end of the trench next to the slope of the covered way. This rubble may have been used to brace or support the slope of the covered way. At approximately 35', and extending to 57' (22' in length total), a large cement pad was encountered in the trench. The trench was 8" in thickness and was encountered at a depth of 4'. The cement pad appeared to be placed at the same level as the red chert gravel at the eastern edge of the trench. The cement slab corresponds with the current plotted location of the incinerator. The statigraphy of the trench was as follows: approximately 3' of top soil, with 6" of red chert (or the cement pad)

underlying this, 2' of blackish brown sandy silt soil, turning into colma/fill/clay below. Some historic materials dating to the 1930s were recovered. The materials were collected and taken to the NPS laboratory for processing. Excavations were halted at the cement pad so that Benté and Barker could investigate the next day. The trench was left open. Barnaal and St. Clair shot elevation points of features and levels of the open trenches. Work ended at 3:30 pm.

Tuesday, May 3, 2005 - Work began at 7:00 am. Barker and Benté visited the two trenches opened on Monday. St. Clair drew a sidewall profile of Trench E entitled, *Trench E 5/3/05*. Work at Trench 6 involved peeling back soils that had filled in the entrance to the magazine, so that staff could enter the magazine. Granite steps that enter into the magazine were encountered and crew had to move to hand excavation of the trench to prevent damage. The soils that filled in the magazine contained modern and historic refuse that was collected. Materials collected were taken to the NPS laboratory for examination. Elevation points were of the magazine entrance were taken by Barnaal. Work ended at 3:30 pm.

Wednesday, May 4, 2005 - Work began at 7:00 am. Trench 5 was excavated south of the magazine. The trench was approximately 42' in length and excavated to approximately 12' in depth. Statigraphy was similar to that seen at Magazines 27 and 28. A layer of dark blackish brown sandy silt was placed against the magazine structure. This soil contained more sand and less clay than at Magazines 27 and 28. The excavated construction trench was not a clearly delineated in this trench as it was in the others. Approximately 1 to 1 ½' of topsoil overlay the entire trench. Beneath this layer was a layer of fill/colma that was approximately 4 to 4 ½' in thickness. A sandy fill layer, underlay by the red chert gravel road was abutted against the dark blackish brown sandy silt at approximately 5 ½ to 6' in depth. In the bottom of the dark blackish brown sandy silt, a layer of sand and mixed brick was encountered. Samples of the bricks, including bricks with mortar, were collected and taken to the NPS laboratory. It was theorized that the brick represents spoils from the construction of the magazine. Trench 5 was extended to Trench E. No sign of the cement pad was found in Trench 5. Trench 5 was continued past Trench E to trace the extent of the cement pad. Refuse, ash, and burned material was encountered in the south edge of the trench adjacent to the cement slab. Some of these materials were collected and taken to the NPS laboratory for analysis. Work ended at 3:30 pm.

Thursday, May 4, 2005 - Work began at 7:00 am. St. Clair began day by drawing sidewall profile of Trench 5 entitled, *Trench 5 5/5/2005*. Trench 4 was exposed to the north and south to investigate the "sand layer" and to look for possible evidence of postholes associated with the mortar barbette. At the interface of the dark blackish brown soil layer and the sand layer, thin layers of redwood (appearing to be planks) were encountered. Trenching was stopped and URS crew worked with hand tools to peel back the layers of soil and reveal the wood. It was theorized that the wood represents the remnants of the mortar barbettes and matches with elevations recorded on historical maps for the area. Extensive digital photographs were taken by Barnaal and Barker of NPS and elevation points were recorded by Barnaal. Work ended at 3:30 pm.

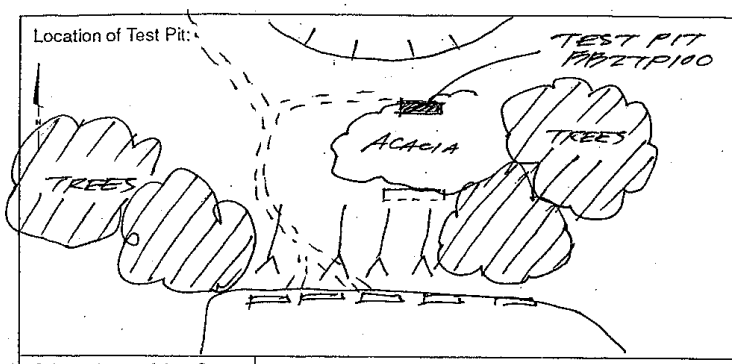
Friday, May 6, 2005 - Work began at 7:00 am. The backhoe blew a hose early in the morning and work in the area was delayed. Benté and St. Clair investigated the profile of Trench 5 while waiting for the hose to be fixed. Once the hose was fixed, the crew began to extend Trench 4 to the south to investigate the size of the mortar barbette. The gas pipe previously located in the trench was broken. Work was stopped until PG & E can investigate.

Backhoe moved to the Merchant Road Tree Island area to dig three geological test pits. St. Clair was present to monitor for cultural resources. Test Pit "C" was dug to 5' in depth. The trench was 2' of organic topsoil underlay by the native colma formation to 5'. There was no evidence of imported fill in the area. Test Pit "B" was dug to 5' in depth. The trench was 2' of organic topsoil underlay by native colma formation to 5'. Test Pit "A" contained a layer of red chert gravel at 2' below ground surface, underneath the organic topsoil. The red chert was visible in other areas of the Merchant Road Tree Island and may indicate an earlier road alignment in the area.

Work concludes at 2:30 pm and it was decided that URS will return to the field for 2 additional days to complete the cultural resources investigation of Trench 4 and the associated mortar barbette area.

Appendix C
Test Pit Logs

Location of Test Pit:

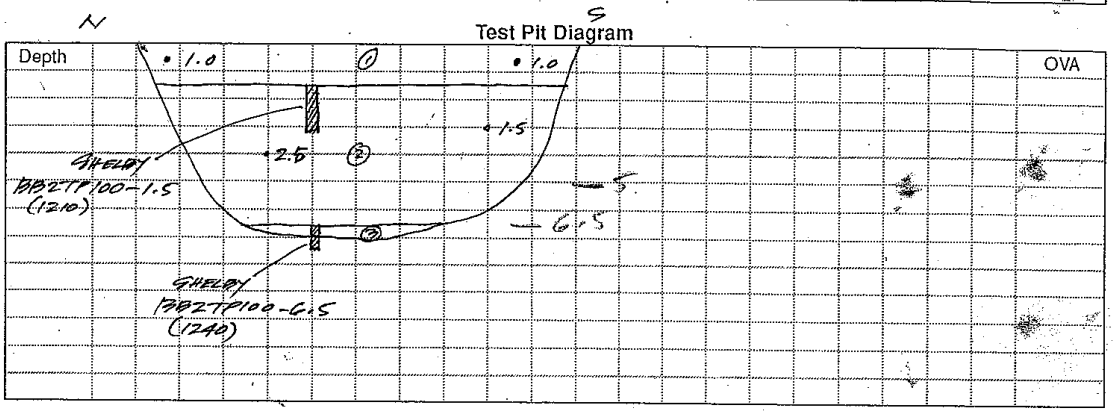


TEST PIT LOG	
Test Pit #:	BBZTP100
Project Name:	PRES-SF-BBDA
Project #:	57255.005123
Proj. Mgr.:	MA JACOBVITZ
Started - Date:	4/6/05
Time:	1200
Backfilled - Date:	4/6/05
Time:	1410
Logged by:	A-M HENIKE
Edited by:	

Orientation: N-S

Field Conditions: SUNNY BREEZY

Test Pit Diagram



Test Pit Descriptions

Description: (1) COLUVIUM TOPSOIL VERY DARK BROWN CLAYEY SILT (ML)(10YR 2/2) SOFT. WET. 60% SILT 30% CLAY 10% SAND NO VISIBLE REFUSE

(2) COLMA DARK YELLOWISH BROWN SANDY SILT (ML) (10YR 4/4) SOFT WET. 60% SILT 30% VERY FINE SAND 10% CLAY. SOME OXIDE MOTTLE

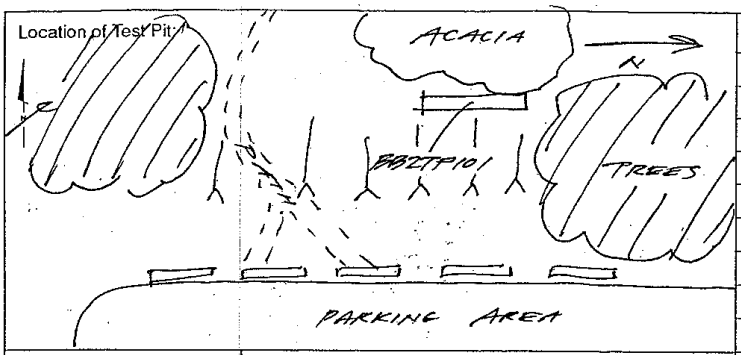
(3) SERPENTINITE - DARK GREY SERPENTINITE (Sp)(5Y 4/1) WELL CONSOLIDATED. MODERATELY FRACTURED. LOW HARDNESS. WEAK TO MODERATELY STRONG. MODERATE WEATHERING.

Sample Numbers:

Additional Information:

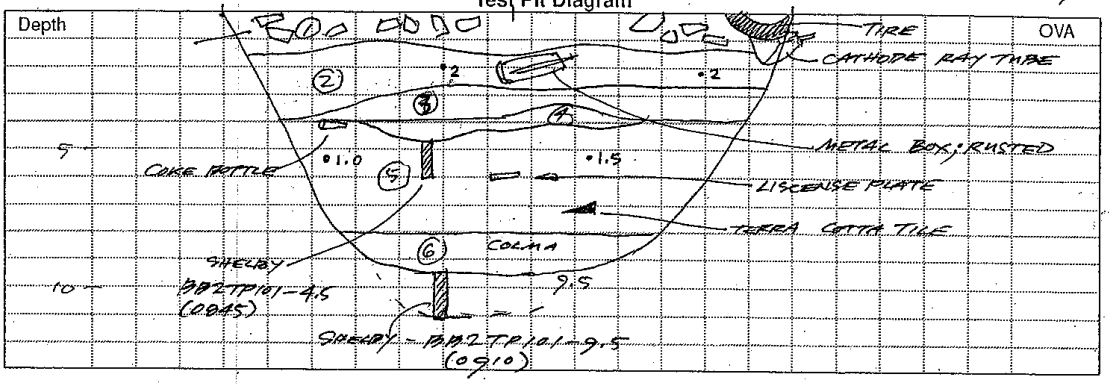
23366 01723

Location of Test Pit



TEST PIT LOG	
Test Pit #: BBZTP101	
Project Name: PRESIDIO SF BBDA	
Project #: 57255.005123	
Proj. Mgr.: MA VACOBVITZ	
Started - Date: 4/6/05	
Time: 0845	
Backfilled - Date: 4/6/05	
Time: 1120	
Logged by: A H HENKE	
Orientation: N - S	Field Conditions: SUNNY. CALM
Edited by:	

Test Pit Diagram

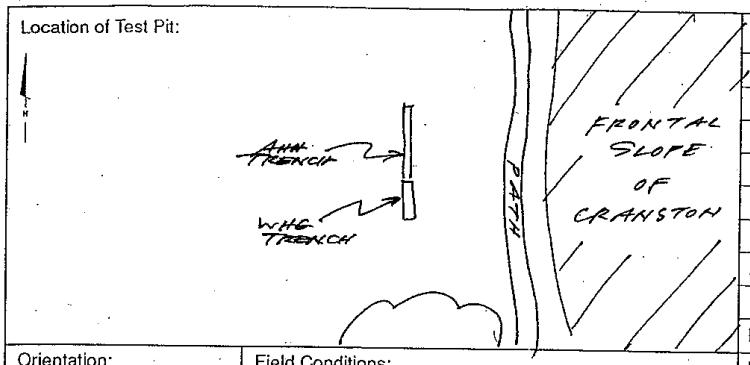


Test Pit Descriptions

Description: ① ~~WASTE FILL~~ ~~REFUSE~~ FILL	DARK BROWN CLAYEY GRAVEL/FILL MATERIAL (GC)(10YR 3/3) SOFT. WET. 60% ANGULAR GRAVEL + FILL (CONCRETE, TILE, GRAVEL) 30% CLAY 10% SAND. MOTTLED COLOUR.
② COLMA FILL	YELLOWISH BROWN SILTY CLAY. (CH)(10YR 5/4) SOFT. TO MED. DENSE. WET. 70% CLAY 30% SILT. TRACE SAND. PIECES OF COLMA IN DK. MATRIX W/ DEBRIS
③ ~~WASTE FILL~~ ~~FILL/REFUSE~~ FILL	BLACK SILTY SAND WITH REFUSE (SM)(10YR 2/1) LOOSE. MOIST. 50% REFUSE (GLASS, CHARCOAL) 30% SAND 20% SILT.
④ SANDY SOIL	VERY DARK BROWN WELL-GRADED SAND (SW)(10YR 2/2) LOOSE. MOIST. LOOKS LIKE BEACH SAND.
⑤ CLAY	VERY DARK BROWN SILTY CLAY (CH)(10YR 2/2) SOFT. WET. MASSIVE WITH SCATTERED REFUSE. 70% CLAY 30% SILT
Sample Numbers ⑤ ⑥ COLMA	DARK YELLOWISH BROWN SANDY SILT (ML)(10YR 4/4) 60% SILT 40% VERY FINE SAND SOME OXIDE MOTTLE
Additional Information:	LOOKS DISTURBED.

23366 01723

Location of Test Pit:

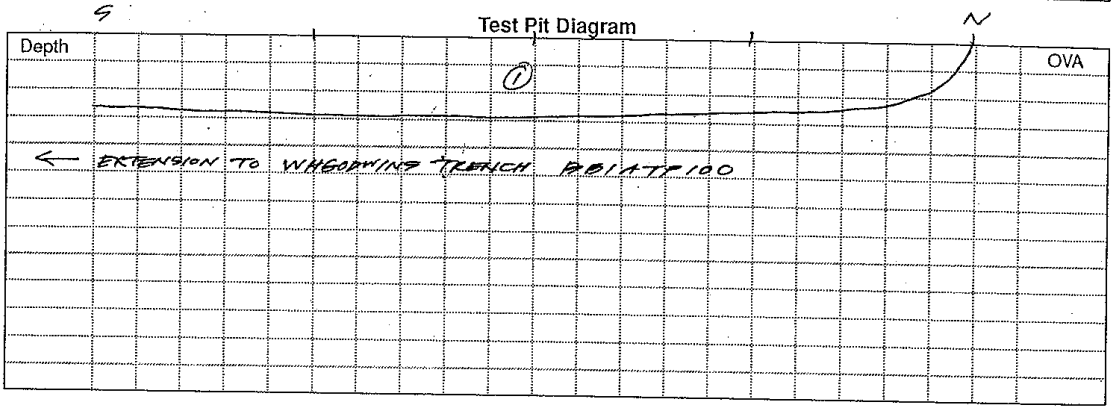


TEST PIT LOG	
Test Pit #:	BBIATP100-B
Project Name:	PRESIDIO SF BBIA
Project #:	57255.005113
Proj. Mgr.:	MA JACOBVITZ
Started - Date:	4/7/05
Time:	1200
Backfilled - Date:	4/7/05
Time:	1210
Logged by:	A H HEINE.
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram



Test Pit Descriptions

Description: (1) DARK BROWN SILTY SAND.
NO VISIBLE TRASH OR DEBRIS

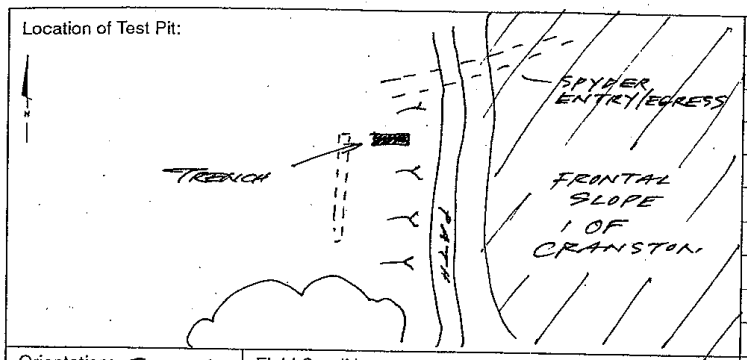
Sample Numbers:

Additional Information:

23366 01723

BBIATP102

Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBIATP102-C
Project Name:	PRES. SF - BBDA
Project #:	57255.005113
Proj. Mgr.:	MA JACOBY ITZ
Started - Date:	4/7/05
Time:	1215
Backfilled - Date:	4/7/05
Time:	1235
Logged by:	A M HENKE
Edited by:	

Orientation: E – W

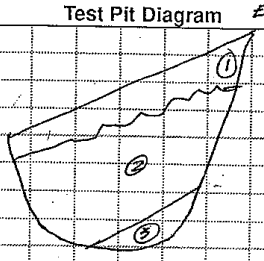
Field Conditions: OVERCAST. SPRINKLES

Test Pit Diagram

W E

Depth

OVA



Test Pit Descriptions

Description:

① CHUNKS OF TAR/SAND MIX. VERY LITTLE TO NO SOIL

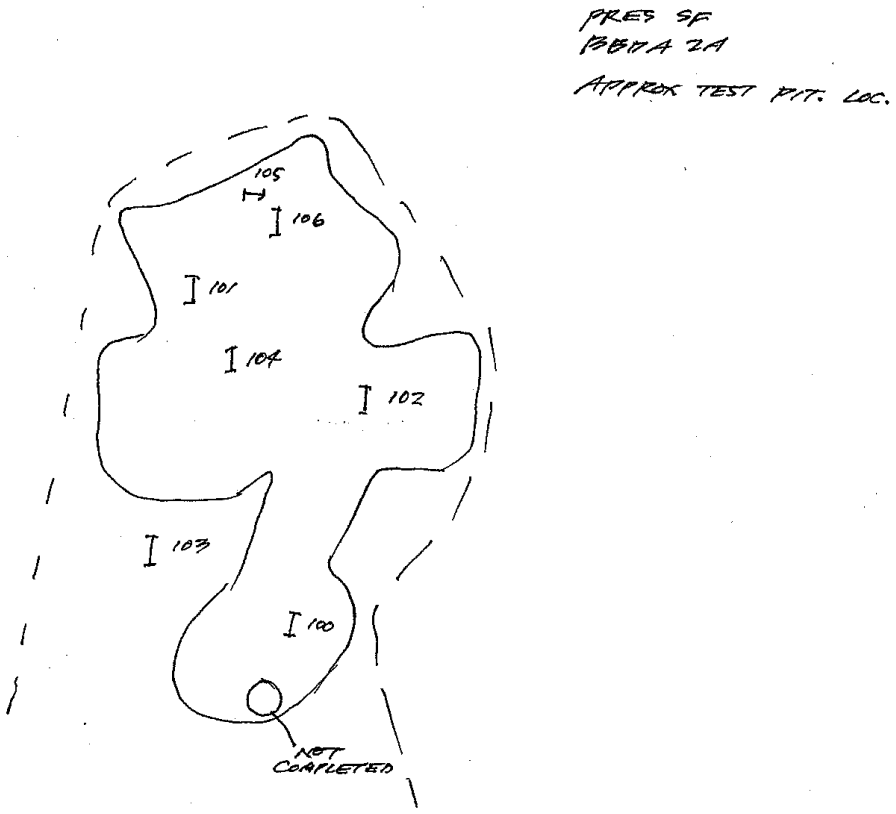
② VERY DARK BROWN SILTY SAND (SM) (10YR 2/2) LOOSE. MOIST. 70% SAND 30% SILT. HAS CHUNKS OF COLMA MIXED IN - FILL.

③ VERY DARK GREYISH BROWN POORLY GRADED SAND (SP) (10YR 3/2) 90% FINE GRAINED GREY SAND. 10% SILT.

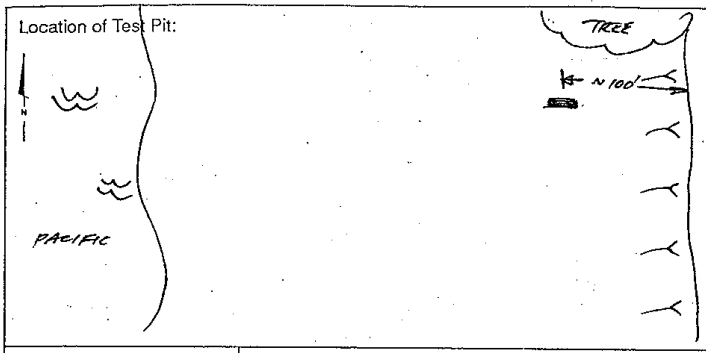
Sample Numbers:

Additional Information:

23366 01723


PRES SF
BBIPA 2A
APPROX TEST PIT. LOC.
105
106
101
104
102
103
100
NOT COMPLETED

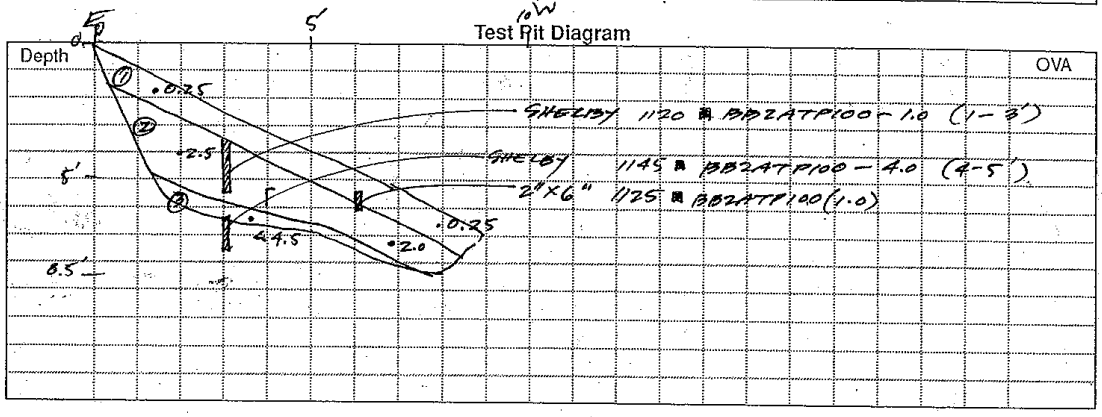
Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBDAZATP100
Project Name:	PRESIDIO SF
Project #:	57255.005/33
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/14/04
Time:	1110
Backfilled - Date:	4/14/04
Time:	1200
Logged by:	A H HERLIE
Edited by:	

Orientation: E-W | Field Conditions: SUNNY. BREEZY

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREY SANDY SILT (ML) (10YR 3/1) SOFT. MOIST 70% SILT/FINES 30% FINE SAND. HAS DEBRIS: WOOD BROKEN GLASS, METAL. FILL SLATE, TERRA COTTA TILE

② COLLUVIUM OLIVE BROWN SANDY LEAN CLAY WITH GRAVEL (CL)(2.5Y 4/3) SOFT TO MEDIUM FIRM. MOIST 60% CLAY 20% SAND 20% CLAY

③ SERPENTINITE. GREENISH GREY SERPENTINITE (Sp)(5 G 5/1) INTENSELY FRACTURED. LOW HARDNESS. WEAK, LOCALLY FRIABLE. DEEPLY WEATHERED

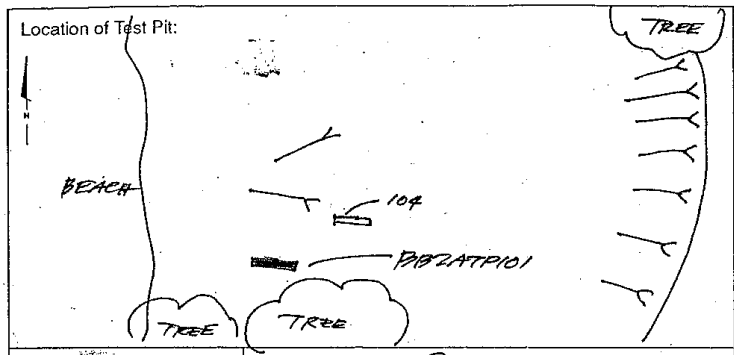
Sample Numbers:

SERPENTINITE MATERIAL IS CLOSE TO THE SURFACE DOWNSLOPE OF TEST PIT. EXCAVATOR WHEEL RUTS TO ~1.5-2' BGS EXPOSE WEATHERED SERPENTINITE.

Additional Information:

23366 01723

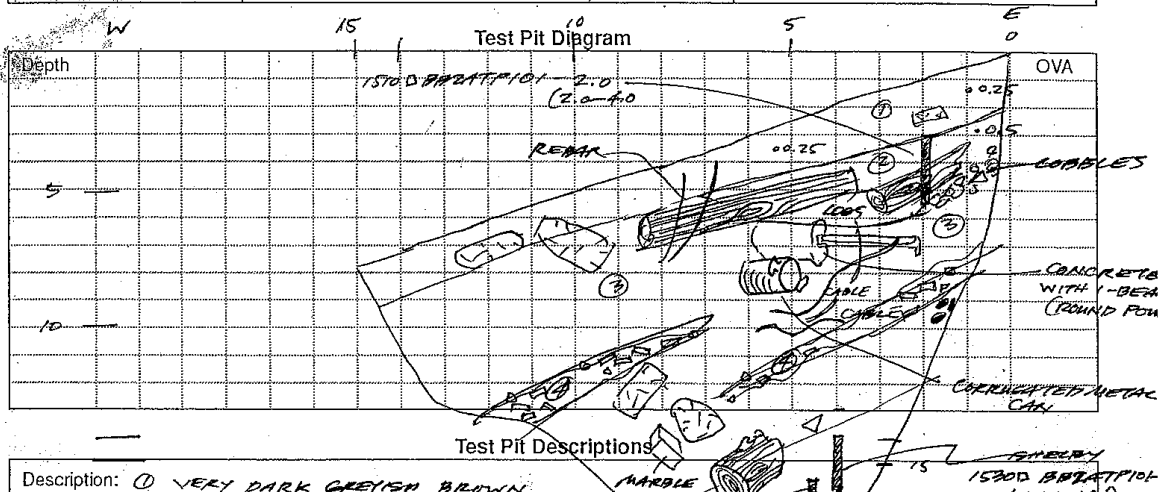
Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBZATP101
Project Name:	PRES SF - BBDA
Project #:	57255 0051B3
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/14/05
Time:	1445
Backfilled - Date:	4/14/05
Time:	1610
Logged by:	A H HENKLE
Edited by:	

Orientation: W-E | Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. MOIST. 60% SILT 30% SAND 10% GRAVEL. CONCRETE, GLASS, METAL, WOOD, BRICK SLATE

② YELLOWISH BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 5/4) LOOSE. MOIST. 40% SAND 40% CLAY/FINES 20% ANGULAR GRAVEL. COBBLE ZONE AT BASE ON EAST END OF TEST PIT

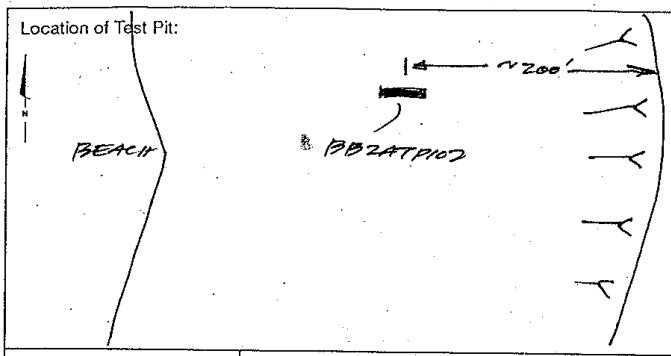
③ VERY DARK GREY GRAVELLY LEAN CLAY (CL) (10YR 3/1) SOFT TO MEDIUM FIRM. MOIST TO WET AT BOTTOM. 60% CLAY/FINES 30% GRAVEL 10% SAND. WITH REFUSE. CONCRETE, WOOD, GLASS, BOTTLES. MARBLE

Sample Numbers: ④ BRICK DEBRIS ZONES. AS ABOVE WITH 40-50% BRICK

Additional Information:

23366 01723

Location of Test Pit:

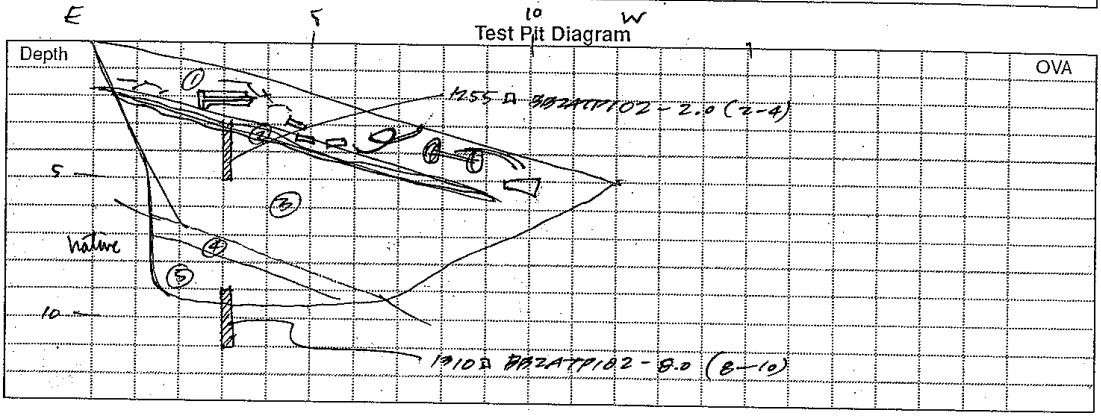


TEST PIT LOG	
Test Pit #:	BBZATP102
Project Name:	PRES. SF
Project #:	57255.005133
Proj. Mgr.:	MATTACONITZ
Started - Date:	4/14/04
Time:	1230
Backfilled - Date:	4/14/04
Time:	1320
Logged by:	A H HENIKE
Edited by:	

Orientation: E-W

Field Conditions: SUNNY BREEZY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN SANDY SILT WITH REFUSE. ~~SP~~ (ML) (10YR3/2) SOFT. MOIST. 60% SILT. 30% SAND 10% GRAVEL & REFUSE. SLATE, METAL PARTS (LEAF SPRING, AXLE ASSEMBLY) CABLE, I-BEAM, GLASS, PORCELAIN, CONCRETE, WOOD, CHARCOAL, BRICK

② BRICK LAYER: DARK REDISH BROWN SILTY GRAVEL (GM) (2.5YR3/4) MEDIUM DENSE. MOIST. ~70% BRICK FRAGMENT GRAVEL 30% SILT / SAND

③ LOOSE GRAVEL FILL: LIGHT OLIVE BROWN WELL-GRADED GRAVEL (GW) (2.5Y 5/3) LOOSE TO MEDIUM DENSE. MOIST. 80% SILTSTONE/SHALE GRAVEL - ANGULAR

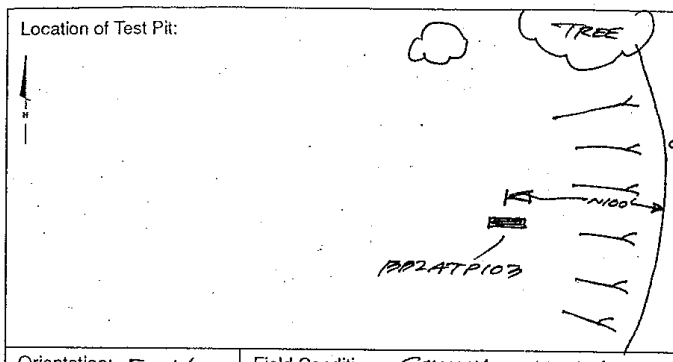
④ SERPENTINITE - DERIVED SOIL. LIGHT OLIVE BROWN LEAN CLAY (CL) (2.5Y 5/3) FIRM. MOIST. 90% CLAY 10% WEATHERED GRAVEL

Sample Numbers: ⑤ SERPENTINITE GREENISH GREY SERPENTINITE (SP) (5GE 5/1) MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW

Additional Information: HARDNESS. WEAR TO FRIABLE. DEEPLY WEATHERED

23366 01723

Location of Test Pit:



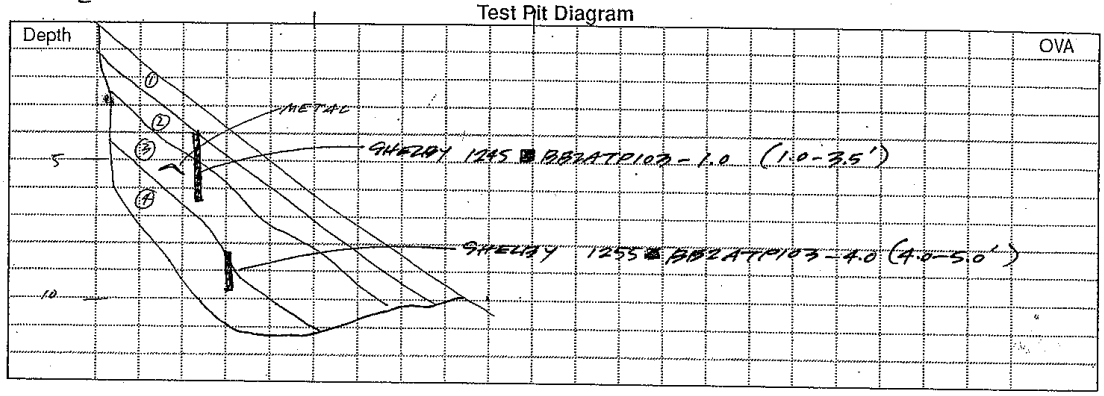
TEST PIT LOG	
Test Pit #:	BB2ATP103
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	~~4/13/05~~ 4/13/05
Time:	1155
Backfilled - Date:	4/13/05
Time:	1300
Logged by:	A K HENKE
Edited by:	

Orientation: E - W

Field Conditions: SUNNY. WINDY

E W

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. MOIST. 70% SILT 30% SAND OCCASIONAL GRAVEL - INCL. RED CHERT. FILL.

② (SERPENTINITE DERIVED SOIL) GREENISH GREY LEAN CLAY (CL) (5GY5/1) MEDIUM FIRM. MOIST. 90% CLAY/FINES 10% SAND. SLOPE WASH FROM OUTCROP ABOVE.

③ VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) WITH SUB-ROUNDED INCLUSIONS OF DARK YELLOWISH BROWN LEAN CLAY (CL) (10YR 4/4). FIRM. MOIST. 70% SILT 30% SAND. SOME METAL DEBRIS. FILL.

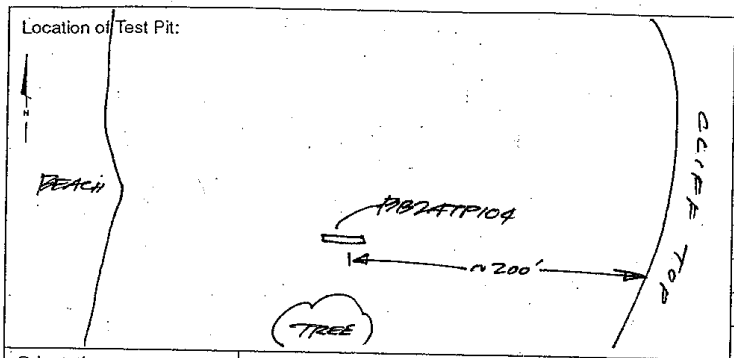
④ (SERPENTINITE) GREENISH GREY SERPENTINITE (SP) (5G 5/1) MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW HARDNESS. FRIABLE. DEEPLY WEATHERED.

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:

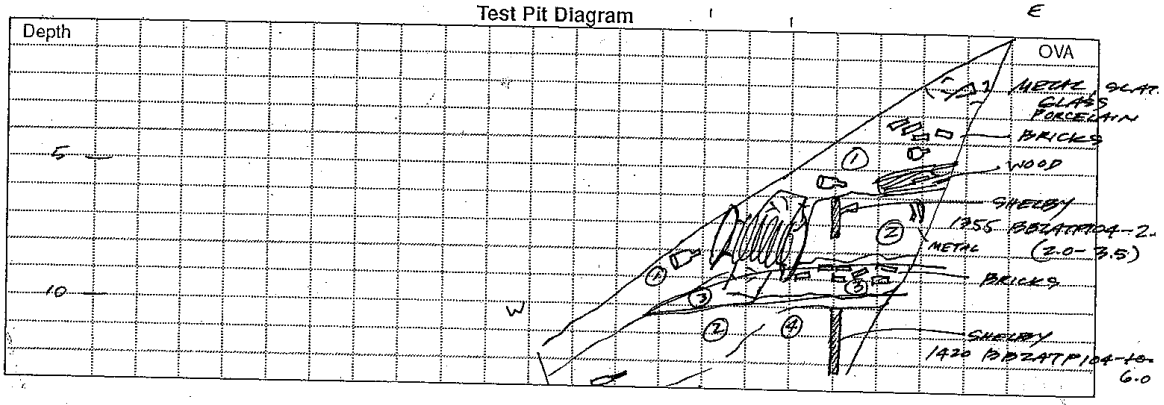


TEST PIT LOG	
Test Pit #:	BBZATP104
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/13/05
Time:	1335
Backfilled - Date:	4/13/05
Time:	1830
Logged by:	A H HENKE
Edited by:	

Orientation: W - E

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: (1) DARK GREYISH BROWN SILTY SAND WITH GRAVEL (SM) (10YR 4/2) LOOSE. MOIST. 50% SAND 30% SILT 20% GRAVEL. ABUNDANT DEBRIS: CONCRETE, BRICK, WOOD, METAL PARTS, SLATE, GLASS BOTTLES, PORCELAIN PIECES, SHEET METAL.

(2) VERY DARK GREY SANDY LEAN CLAY (CL) (10YR 3/1) FIRM. MOIST. 60% CLAY 40% SAND. SOME WOOD DEBRIS

(3) DARK BROWN SANDY CLAY WITH BRICKS (CL) (10YR 3/3) FIRM MOIST. 50% CLAY 20% SAND 30% RED BRICK, BROKEN UP.

(4) OLIVE BROWN SANDY FAT CLAY (CH) (2.5Y 4/3) SOFT-FIRM. MOIST. 70% CLAY/FINES 30% FINE SAND. TEXTURE IS IRREGULAR WEATHERED CLASTS WITHIN MATRIX, COLOUR VARIATIONS ALONG RELICT GRAIN BOUNDARIES.

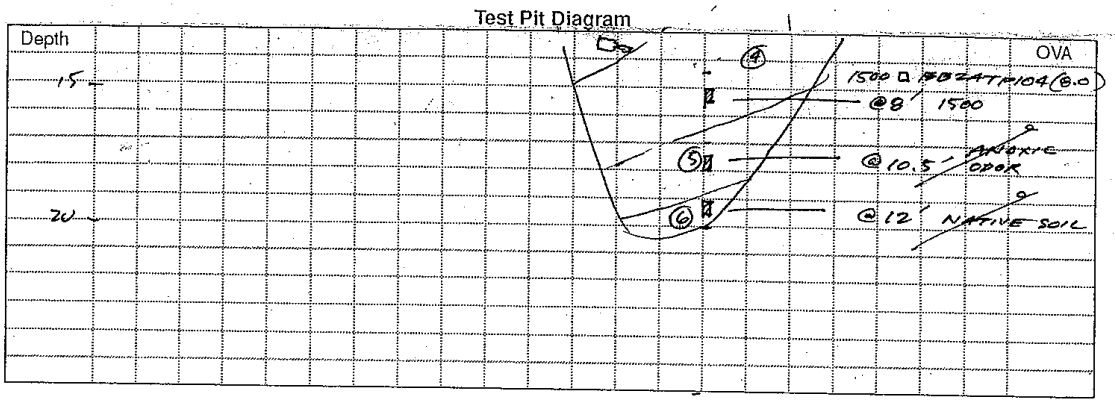
Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:	TEST PIT LOG
N	Test Pit #: BBZATP104 - PG 2
	Project Name:
	Project #:
	Proj. Mgr.:
	Started - Date:
	Time:
	Backfilled - Date:
	Time:
	Logged by:
Orientation: / Field Conditions:	Edited by:

Test Pit Diagram



Test Pit Descriptions

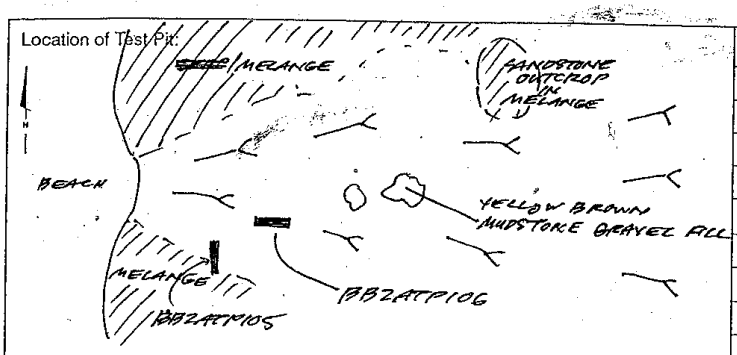
Description: (5) "STAINED" NATIVE (FILL)
VERY DARK GREY (SILTY) FAT CLAY WITH SAND (CH) (5Y 3/1)
SOFT. MOIST TO WET. 50% CLAY 30% SILT 20% VERY FINE SAND
(6) NATIVE SOIL (PERHAPS FILL – BASED ON OBSERVATION AT OTHER LOC
LIGHT YELLOWISH BROWN CLAYEY GRAVEL WITH SAND (GC) (10YR 6/4)
DENSE. WET. 60% FINE ANGULAR GRAVEL (SANDSTONE, SHALE, SERPENTINITE) 20% SAND 20% CLAY.

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:

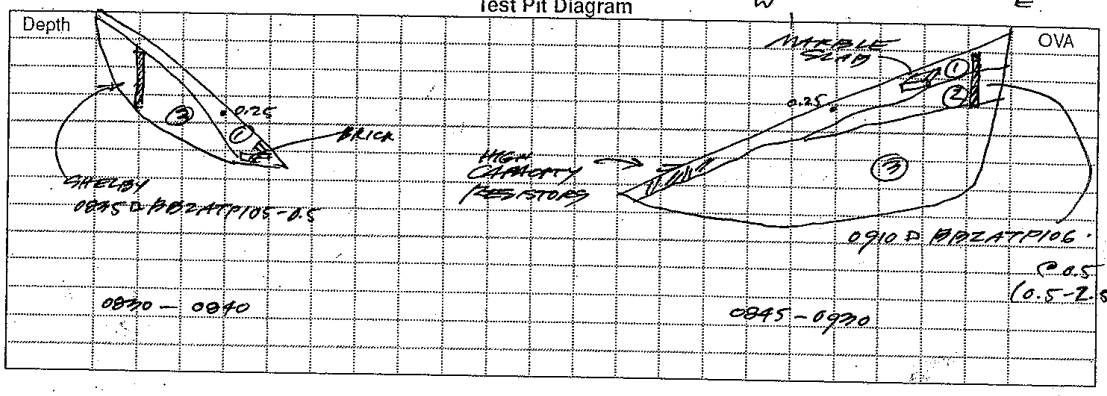


TEST PIT LOG	
Test Pit #:	BBZATP105, 106
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	MA JACOBVITZ
Started - Date:	4/15/05
Time:	
Backfilled - Date:	4/15/05
Time:	
Logged by:	A M HENKE
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREY SANDY SILT (ML) (10YR 3/1) SOFT. MOIST. 60% SILT/FINES. 30% SAND 10% GRAVEL. GLASS BRICK, PIECE OF MARBLE, ELECT. PARTS.

② YELLOWISH BROWN WELL GRADED GRAVEL WITH SAND (GW) (10YR 5/4) LOOSE TO MEDIUM DENSE. MOIST TO WET. 70% ANGULAR MUDSTONE + SERPENTINITE GRAVEL. 20% SAND. 10% FINES. CLEAN FILL

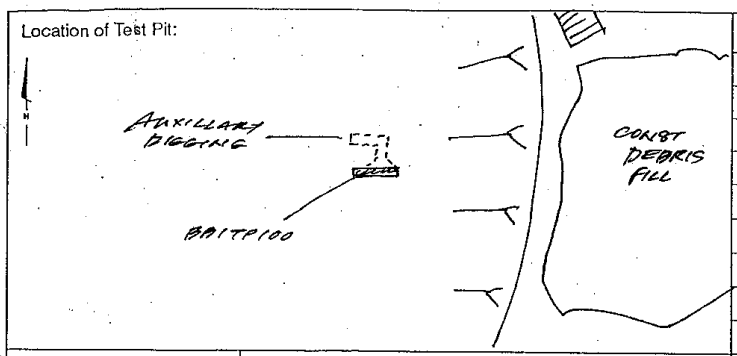
③ MELANGE. BLACK MELANGE (K) (5Y 2.5/1) MODERATELY CONSOLIDATED INTENSELY FRACTURED. LOW HARDNESS. WEAK TO FRIABLE. DEEP WEATHERING. SHEARED IN MULTIPLE ORIENTATION

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBITP100
Project Name:	PRES-SF - BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/11/05
Time:	1350
Backfilled - Date:	4/11/05
Time:	1530
Logged by:	A N HENKE
Edited by:	

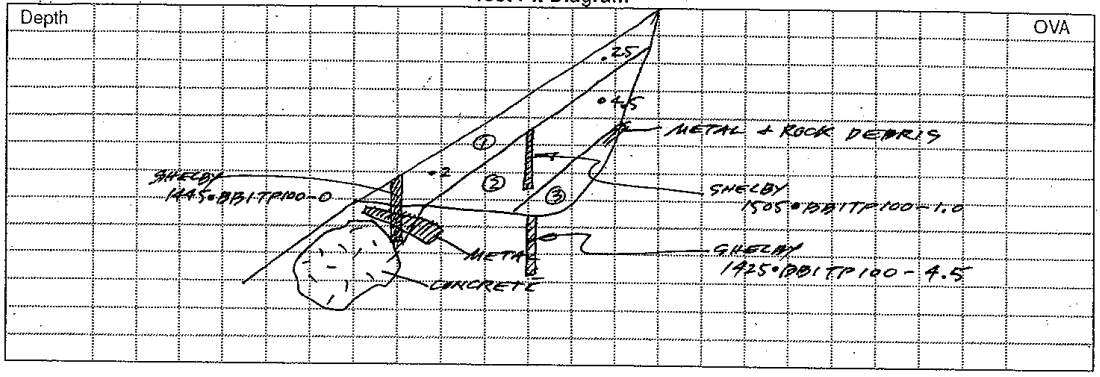
Orientation:

Field Conditions: SUNNY. WINDY. .

Test Pit Diagram

W

E



Test Pit Descriptions

Description: ① DARK BROWN FAT CLAY WITH SAND (CH) (10YR 3/3) SOFT. WET 60% CLAY/FINES 20% GRAVEL (INCL. RED CHERT) 20% SAND. LITTLE REFUSE. FILL SOIL

② DARK YELLOWISH BROWN SILTY SAND (SM) (10YR 4/4) LOOSE. WET. 70% FINE SAND 30% SILT/FINES. COLMA FILL.

③ VERY DARK GREYISH BROWN SANDY FAT CLAY (CH) (10YR 3/2) SOFT. WET. 50% CLAY 30% SAND 20% SILT. WITH DEBRIS IN LAYERS. METAL, GLASS, ASPHALT, TAR WOOD, SWEATER/CLOTH FRAGMENTS, SPARK PLUG.

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:

N-S VIEW OF BBITP100
SEE X-SECT 1

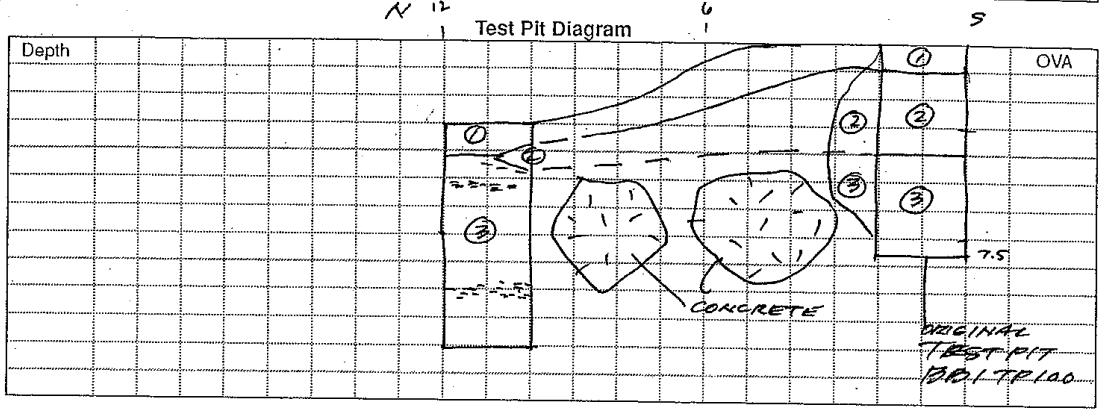
Orientation:

Field Conditions: SUNNY WINDY

TEST PIT LOG

Test Pit #: BBITP100
Project Name: PRES-SF - BBDA
Project #: 57255.005103
Proj. Mgr.: MA JACOBVITZ
Started - Date: 4/11/05
Time: 1350
Backfilled - Date: 4/11/05
Time: 1530
Logged by: A M HENKE
Edited by:

Test Pit Diagram



Test Pit Descriptions

Description: BBITP100 - AUXILARY DIGGING - N-S

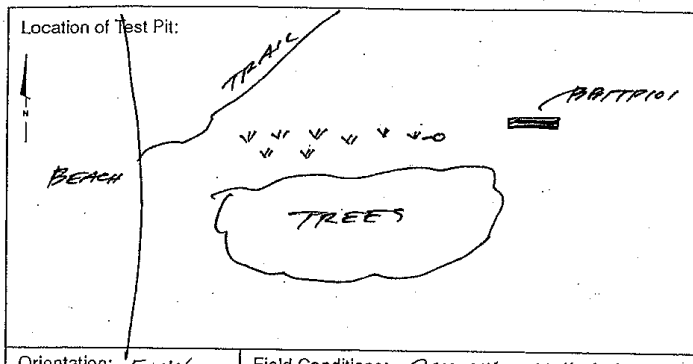
(3) DEBRIS THROUGHOUT. WOOD (SOME BURNED), TEXTILE, GLASS ASPHALT, CONCRETE, RUSTED METAL PARTS, BRICKS.

Sample Numbers:

Additional Information:

23366 01723

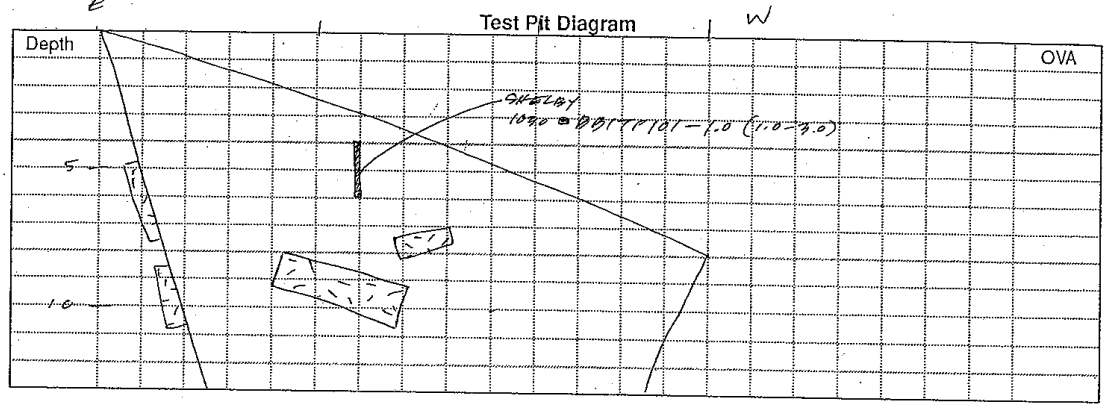
Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBITP101
Project Name:	PRESIDIO SF-BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/12/05
Time:	1020
Backfilled - Date:	4/12/05
Time:	1040
Logged by:	A H HENKE
Edited by:	

Orientation: E-W | Field Conditions: SUNNY WINDY

Test Pit Diagram



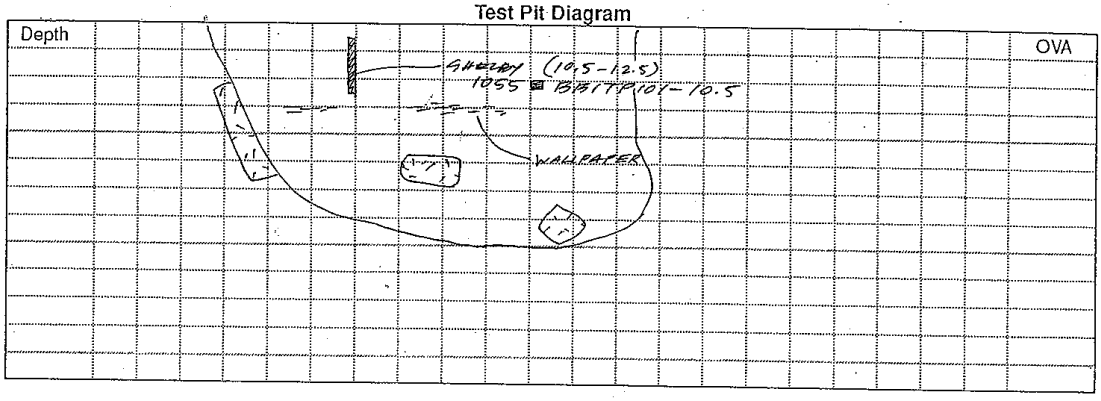
Test Pit Descriptions

Description:	DARK BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 3/3) MEDIUM DENSE MOIST. 60% SAND 30% CLAY/FINES 10% GRAVEL WITH CONCRETE AND SOME BRICK DEBRIS. LAYERS OF COLMA FILL WITHIN MATERIAL ARE SMALL & DISCONTINUOUS.
Sample Numbers:	
Additional Information:	

23366 01723

Location of Test Pit:	TEST PIT LOG
N	Test Pit #: BBITP101
	Project Name: PRES-SF-BBRA
	Project #: 57255 005103
	Proj. Mgr.: MA JACOBVITZ
	Started - Date: 4/12/05
	Time: 1020
CONTINUATION OF BBITP101	Backfilled - Date: 4/12/05
	Time: 1140
	Logged by: A H HENKE
Orientation: E W / Field Conditions:	Edited by:

Test Pit Diagram

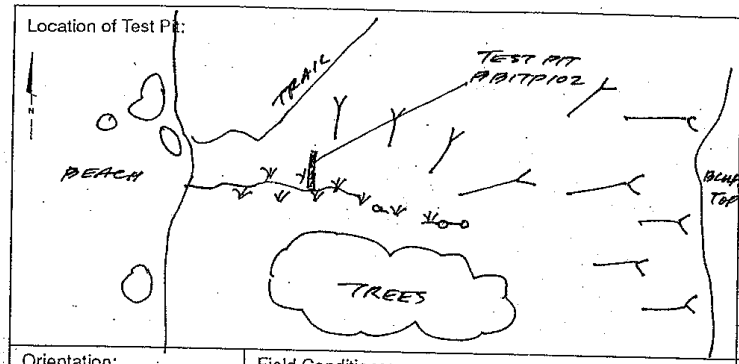


Test Pit Descriptions

Description:
Sample Numbers:
Additional Information:

23366 01723

Location of Test Pit:

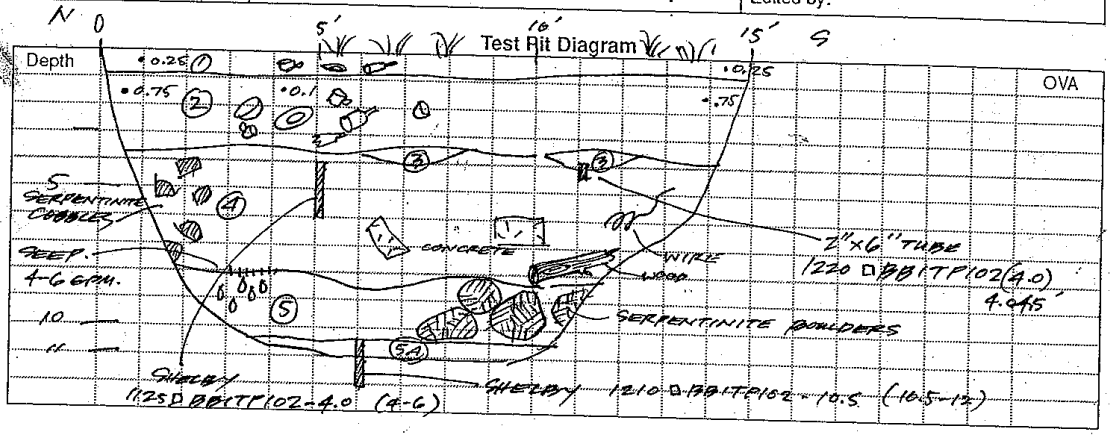


TEST PIT LOG	
Test Pit #:	BBITP102
Project Name:	PRES. SF – BBDA
Project #:	67255.005103
Proj. Mgr.:	M A JACOBY ITZ
Started - Date:	4/15/05
Time:	1115
Backfilled - Date:	4/15/05
Time:	1300
Logged by:	A N HENKE
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. WET - 60% SILT 40% SAND - REFUSE - MOSTLY HOUSE-HOLD. CHINA, GLASS, BOTTLES. ~~SOME~~

② DARK GREYISH BROWN GRAVELLY LEAN CLAY (CL) (2.5Y 4/2) SOFT. WET. 60% CLAY/FINES. 30% ANGULAR GRAVEL 10% SAND. SATURATED. FILLED WITH HOUSE HOLD WASTE SOME BLACKENED ZONES ③ SOME MELTED BOTTLES

④ VERY DARK GREY CLAYEY GRAVEL (GC) (2.5Y 3/0) LOOSE. WET. 70% GRAVEL/SAND/DEBRIS 30% FINES.

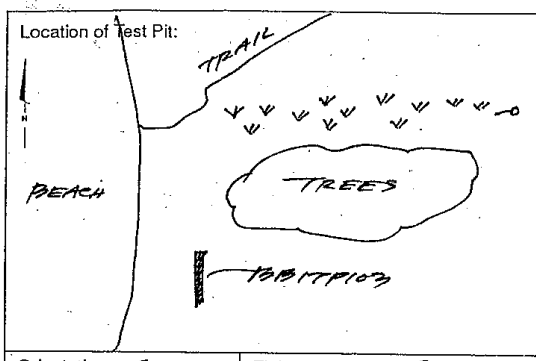
⑤ VERY DARK GREY ~~&~~ MELANGE ( )(2.5Y 3/0) MODERATELY CONSOLIDATED. MODERATELY FRACTURED. LOW TO MODERATE HARDNESS. WEAK TO FRIABLE. MODERATE TO DEEP WEATHERING. LOOKS LIKE SATURATED RUBBLE FILL – BUT NO WATER IS SEEPING FROM IT, SEEPS AT CONTACT WITH FILL ABOVE.

Sample Numbers:

Additional Information: (5A) AS ABOVE – HOMOGENOUS TEXTURE

23366 01723

Location of Test Pit:

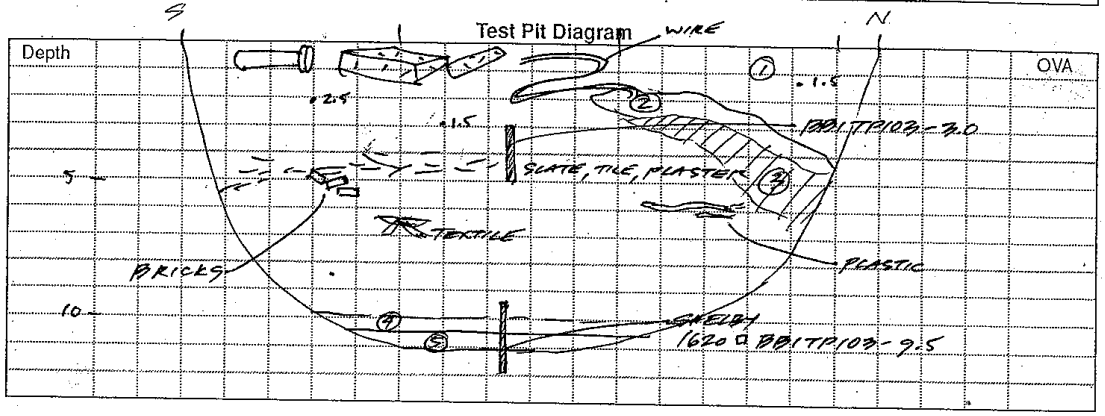


TEST PIT LOG	
Test Pit #:	BBITP103
Project Name:	PRES- SF BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/16/05
Time:	1530
Backfilled - Date:	4/16/05
Time:	1645
Logged by:	A H HENKE
Edited by:	

Orientation: S - N

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK BROWN CLAYEY SAND WITH GRAVEL (SC)(10YR) LOOSE TO MEDIUM DENSE. MOIST TO WET. 60% SAND 20% GRAVEL 20% CLAY. CONCRETE, METAL, WIRE.

② COLMA FILL

③ ~~VERY DARK GREYISH~~ BLACK ~~BROWN~~ SANDY CLAY (CH) (10YR 2/1) MED

④ CLAY SOIL - DERIVED FROM SERPENTINITE OLIVE GREY LEAN CLAY (CL) (5Y 5/2) SOFT. WET. 90% CLAY 10% SAND/GRAV. GERP.

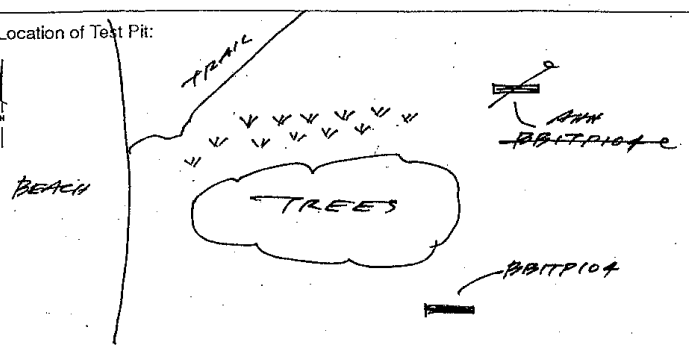
⑤ SERPENTINITE GREENISH GREY SERPENTINITE (SP) (5GY5/1) MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW HARDNESS. WEAK. DEEPLY WEATHERED.

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:

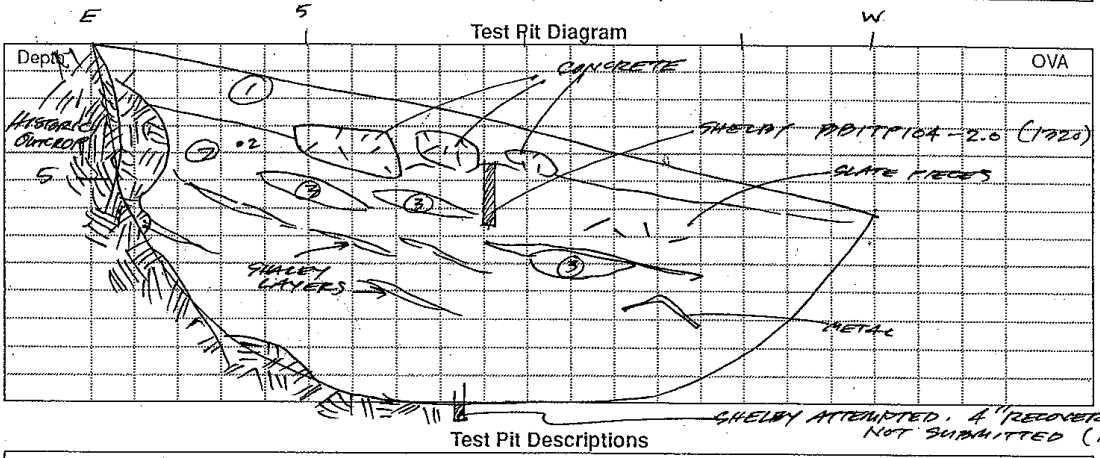


TEST PIT LOG	
Test Pit #:	BBITP104
Project Name:	PRES. SF-BBIDA
Project #:	57255 005103
Proj. Mgr.:	MA JACOBVITZ
Started - Date:	4/12/05
Time:	1315
Backfilled - Date:	4/12/05
Time:	1440
Logged by:	A H HENKE
Edited by:	

Orientation: E-W

Field Conditions: SUNNY, WINDY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN CLAYEY SAND WITH GRAVEL (SC)(10YR3/2) SOFT. WET TO MOIST. 50% SAND 30% CLAY/FINES 20% GRAVEL

② DARK GREYISH BROWN SANDY WELL-GRADED GRAVEL WITH SAND (GW) ( ) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 70% GRAVEL - COBBLES (GREYWACKE + SHALE) 25% SAND 5% FINES

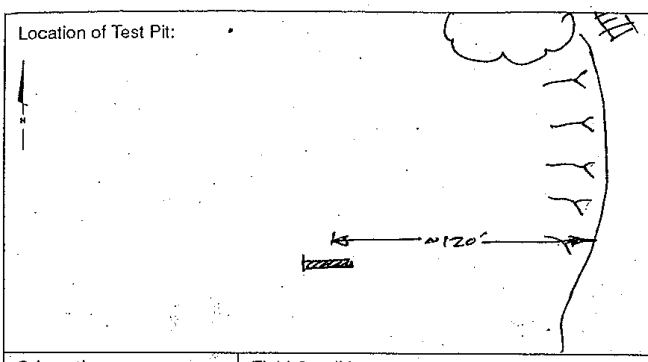
③ ZONES OF COCHIA-DERIVED FILL

Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:

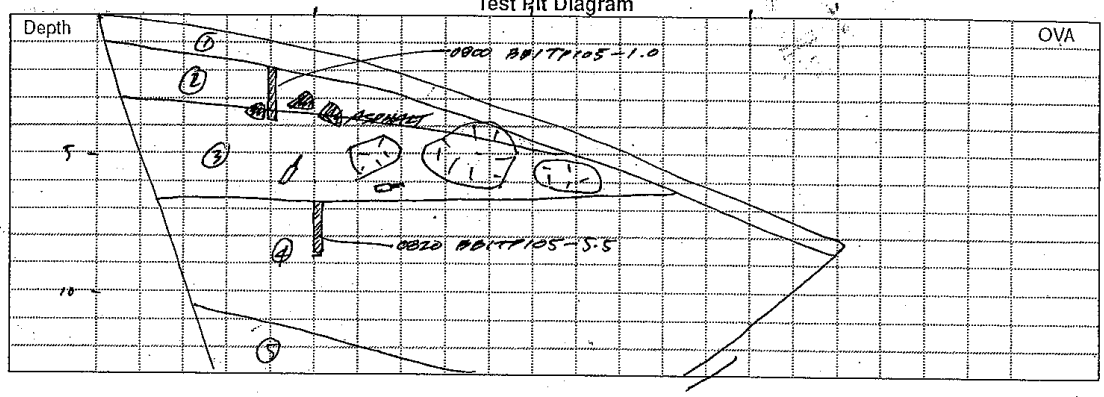


TEST PIT LOG	
Test Pit #:	BBITP105
Project Name:	PRES SF BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/12/05
Time:	0750
Backfilled - Date:	4/12/05
Time:	0915
Logged by:	A H HENKE
Edited by:	

Orientation: E – W

Field Conditions: SUNNY . WINDY

Test Pit Diagram



Test Pit Descriptions

Description: (1) DK GREYISH BROWN CLAYEY GRAVEL WITH SAND (GC) (10YR3/2) ~~SOFT~~ LOOSE. WET. 60% GRAVEL 30% CLAY 10% SAND. SLOPE WASH.

(2) COLMA FILL WITH DEBRIS. SANDY. - YELLOWISH BROWN SILTY SAND (SM) (10YR5/4) 80% FINE SAND 20% SILT/FINES. FILL W/ DEBRIS

(3) VERY DARK GREYISH BROWN CLAYEY GRAVEL (GC) (10YR3/2) MEDIUM DENSE. MOIST. 60% GRAVEL 30% CLAY 10% SAND. WITH CONCRETE, ASPHALT, GLASS, BRICK, SLATE. GLASS BOTTLES

(4) YELLOWISH BROWN CLAYEY GRAVEL. (GC) (10YR5/4) MEDIUM DENSE MOIST. 50% GRAVEL 30% CLAY 20% SAND. SOME METAL, BRICK, SLATE

(5) SERPENTINITE RUBBLE FILL. LARGE COBBLES. SOME METAL GREYISH BROWN SILTY GRAVEL (GM) (2.5Y5/2) MEDIUM DENSE. MOIST. 60% GRAVEL-COBBLES. 20% SAND 20% SILT.

(6) SERPENTINITE OLIVE GREY SERPENTINITE. (SP) (5Y5/2) MODERATELY CONSOLIDATED. CLOSELY FRACTURED. LOW HARDNESS WEAK TO MODERATELY STRONG. DEEPLY WEATHERED

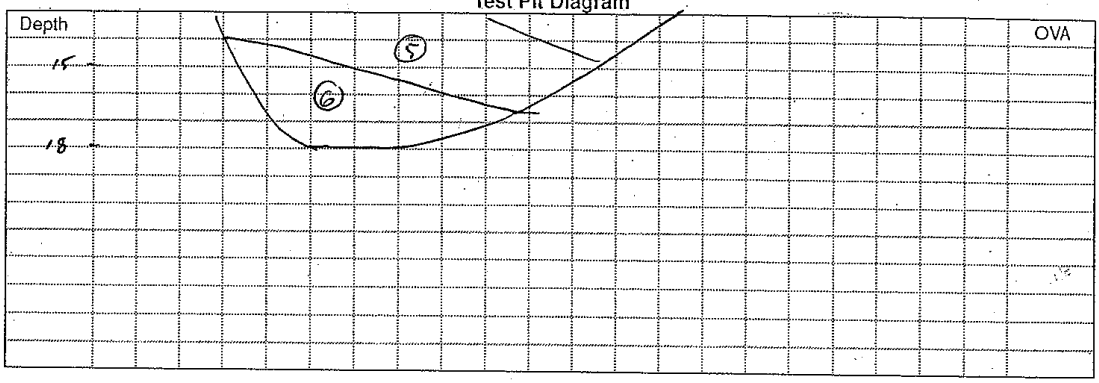
Sample Numbers:

Additional Information:

23366 01723

Location of Test Pit:	TEST PIT LOG
N	Test Pit #: BBITP105 Pg 2
CONTINUATION OF BBITP105	Project Name:
	Project #:
	Proj. Mgr.:
	Started - Date:
	Time:
	Backfilled - Date:
	Time:
	Logged by:
Orientation: / Field Conditions:	Edited by:

Test Pit Diagram



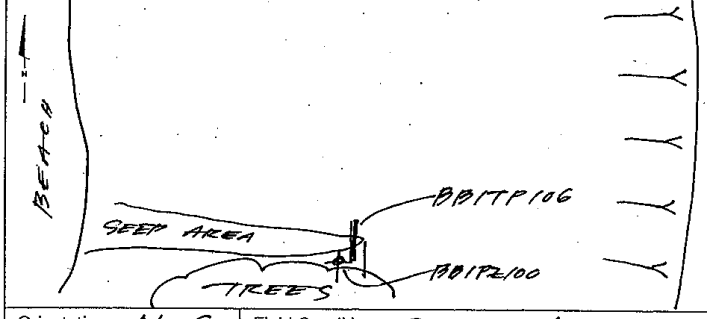
Test Pit Descriptions

Description:
Sample Numbers:
Additional Information:

23366 01723

OUT OF SCOPE - ADJACENT TO PIEZO

Location of Test Pit:

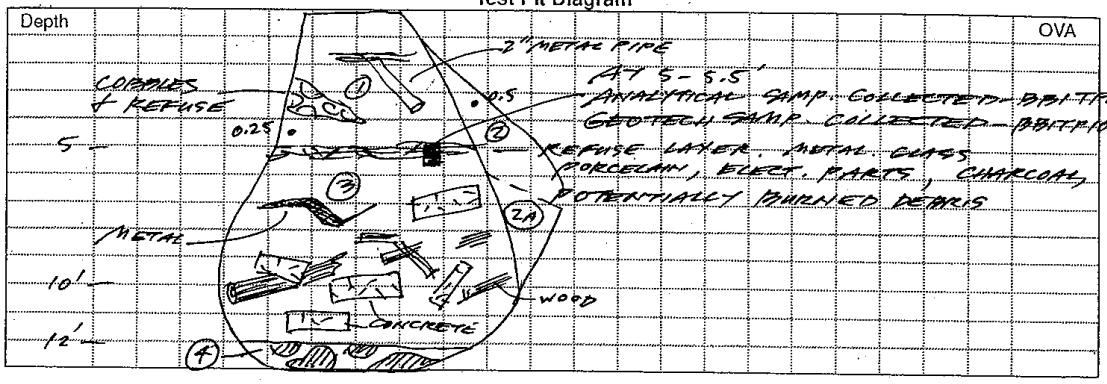


TEST PIT LOG	
Test Pit #:	BBITP106
Project Name:	PRESIDIO OF BBIDA
Project #:	57255 005103
Proj. Mgr.:	M & JACOBYITZ
Started - Date:	4/19/05
Time:	0830
Backfilled - Date:	4/19/05
Time:	0920
Logged by:	A H HENKLE
Edited by:	

Orientation: N – S (N / S)

Field Conditions: SUNNY, BREEZY

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREYISH BROWN CLAYEY GRAVEL (GC) (10YR 3/2) LOOSE. MOIST TO WET. 60% GRAVEL (ANGULAR) 30% CLAY/FINES 10% SAND. REFUSE IN LAYERS MINOR AMOUNTS OF GLASS SHARDS THROUGHOUT.

② DARK GREYISH BROWN SANDY LEAN CLAY (CL) (10YR 4/2) SOFT. MOIST. 70% CLAY/FINES 30% SAND. LITTLE TO NO REFUSE

(2A) COLOUR & MOISTURE CHANGE OLIVE GREY (5Y 4/2) WET.

③ VERY DARK GREYISH BROWN WELL-GRADED GRAVEL (GW) (10YR 3/2) LOOSE. WET. 70% GRAVEL (ANGULAR SILTSTONE) / COBBLES (SERPENTINITE) / CONCRETE CHUNKS.

④ MELANGE WITH SERPENTINITE. DARK OLIVE GREY

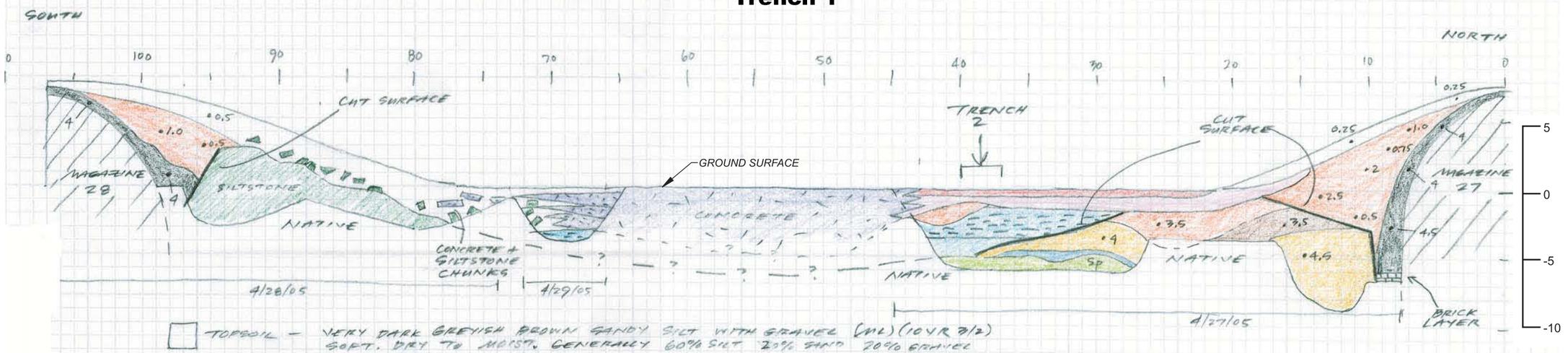
Sample Numbers: MELANGE (K) (5Y 3/2) WET. MODERATELY CONSOLIDATED INTENSELY FRACTURED. LOW HARDNESS. FRIABLE TO WEAK.

Additional Information: DEEPLY WEATHERED.

23366 01723

Appendix D
Soil Profile Overlays

Trench 1



TOPSOIL – VERY DARK GREYISH BROWN SANDY SILT WITH GRAVEL (ML)(10YR 3/2) SOFT. DRY TO MOIST. GENERALLY 60% SILT 20% SAND 20% GRAVEL

MIXED CLAY FILL – MIXTURE OF YELLOWISH BROWN (10YR 5/6) AND VERY DARK BROWN (10YR 2/2) LEAN CLAY (CL) SOFT. MOIST., 80% CLAY 20% SILT. OCCASIONALLY SANDY.

CONSTRUCTION CLAY – BLACK LEAN CLAY (CL) (10YR 2/1) HARD TO VERY HARD. MOIST. 100% CLAY. COMPACTED ON SIDES OF STRUCTURES.

CONCRETE – MULTIPLE LAYERS OF CONCRETE AND CEMENT GROUT (SOME WITH COLOURING AGENTS ADDED) PRESUMED TO BE AN OLD WASH OUT AREA.

CHERT FILL (1) – DARK REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW)(5Y 3/3) DENSE. DRY. 70% GRAVEL (ANGULAR CHERT TO 1.5" Ø) 20% SAND <10% FINES.

CHERT FILL (2) – AS ABOVE, BUT LIGHTER COLOUR - REDDISH GREY (5Y 5/2)

FILL SAND (1) – VERY DARK GREY POORLY GRADED SAND WITH CLAY INCLUSIONS (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 70% SAND. 30% YELLOWISH BROWN CLAY.

FILL SAND (2) – VERY DARK GREY POORLY GRADED SAND (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. MOIST. 100% SAND.

NATIVE MATERIALS

SILTSTONE – OLIVE GREY SILTSTONE (5Y 5/2) ( ) MODERATELY CONSOLIDATED. CLOSELY FRACTURED LOW HARDNESS. WEAK. DEEPLY WEATHERED

CLAY (1) – VERY DARK GREYISH BROWN LEAN CLAY (CL) (10YR 3/2) HARD. MOIST. 80% CLAY 15% SILT 5% VERY FINE GRAINED SAND.

CLAY (2) – YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/6) HARD. MOIST., 100% CLAY. WITH FeO_2 MOTTLE, AND BLACK OXIDATION ALONG FRACTURES. IN PLACES RESEMBLES WEATHERED ROCK.

SAND – DARK GREYISH BROWN SILTY SAND (SM) (2.5Y 4/2) DENSE. WET. 60% VERY FINE SAND 40% SILT/FINES. HAS BEDDING PLANES. THIN LAMINATIONS.

SERPENTINITE – LIGHT OLIVE BROWN (2.5Y 5/3) TO GREENISH GREY (5BG 5/1). MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW TO MODERATE HARDNESS. FRIABLE TO WEAK. DEEPLY WEATHERED.

• 4.5 – POCKET PENETROMETER

SECTIONS TRENCHED 4/27 THRU 4/29/05.
BACKFILLED 4/28 AND 4/29/05

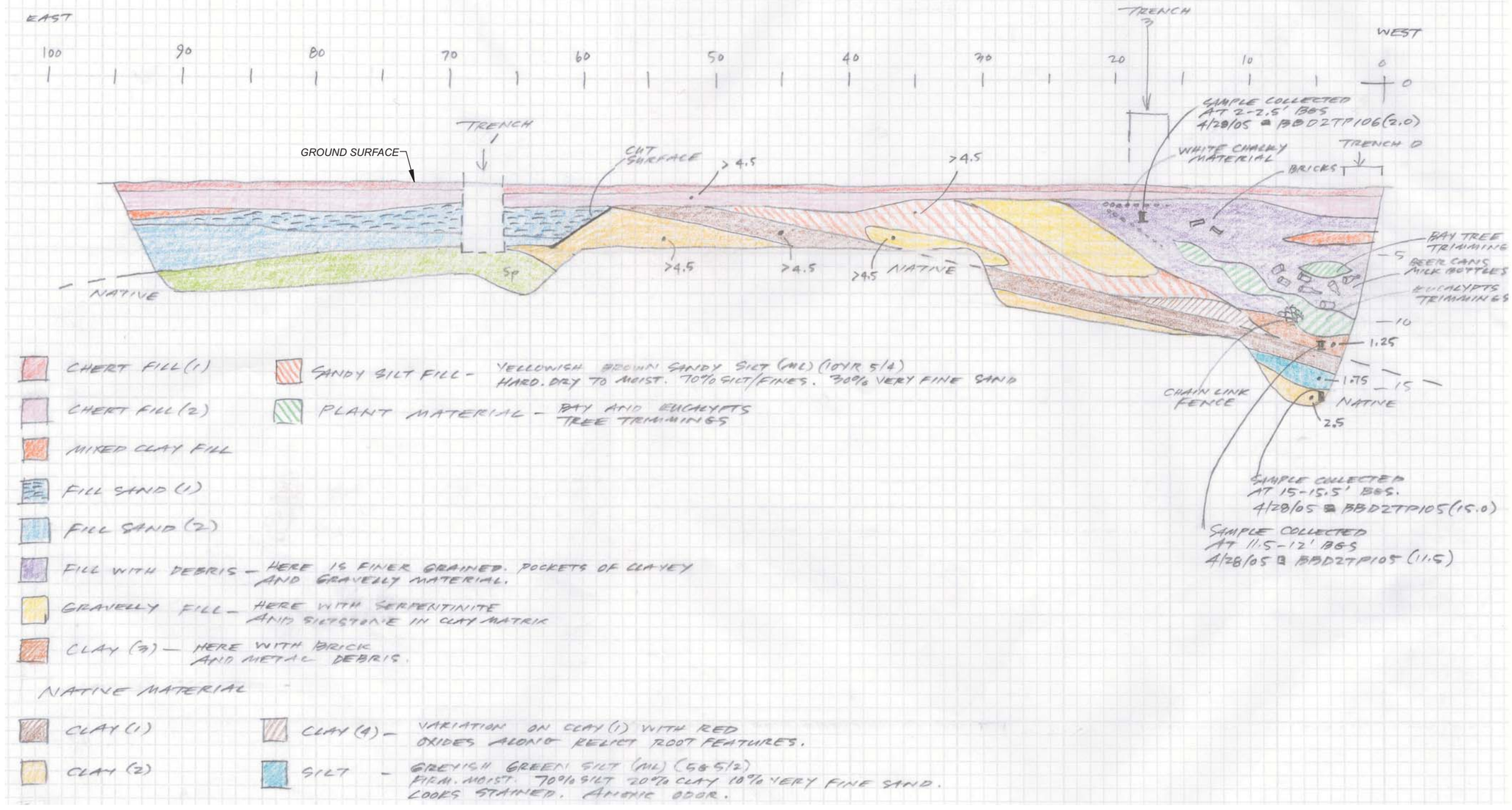
MACTEC

PLATE

Field Log of Trench 1
Baker Beach
San Francisco, California

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 05125		07/05		

Trench 2



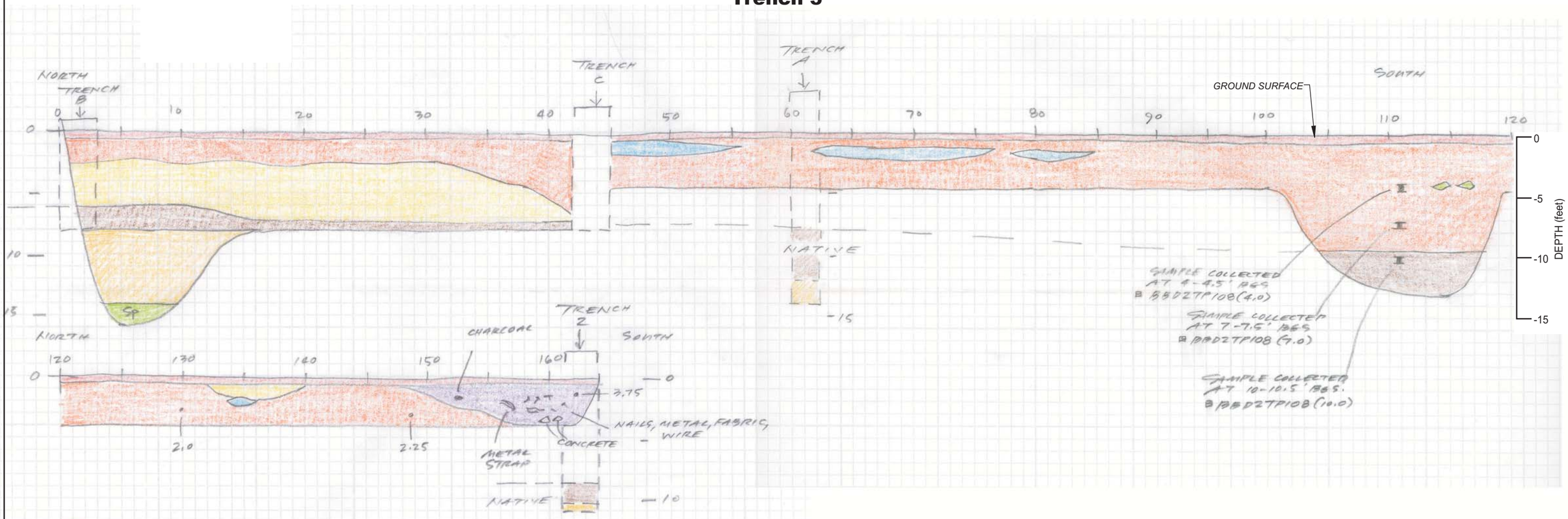
MACTEC

Field Log of Trench 2
Baker Beach
San Francisco, California

PLATE
A2

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench 3



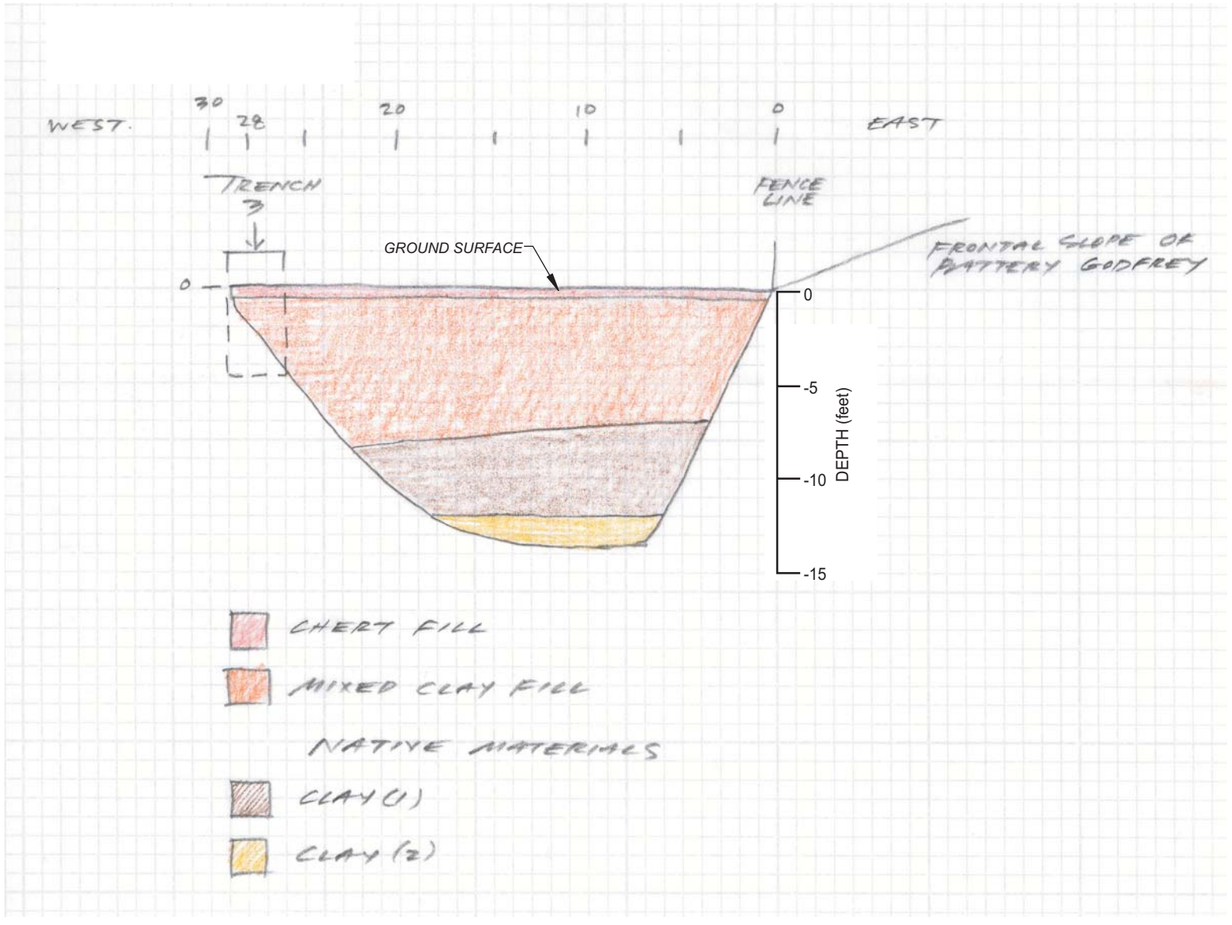
MACTEC

Field Log of Trench 3
Baker Beach
San Francisco, California

PLATE
A3

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench A



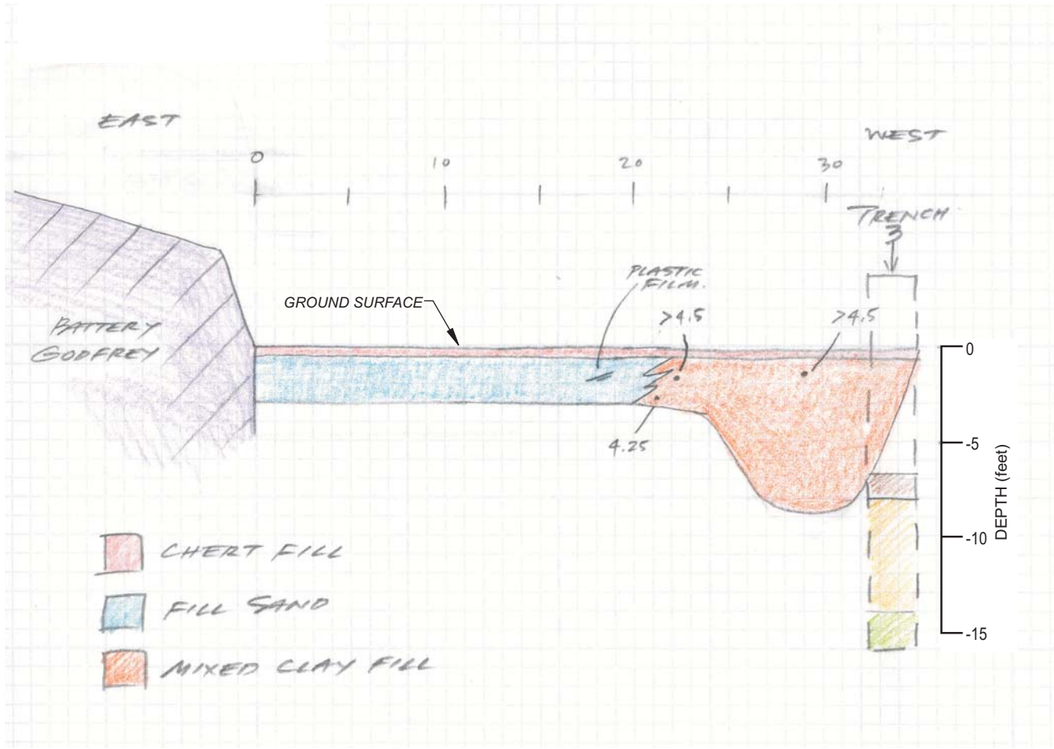
MACTEC

Field Log of Trench A
Baker Beach
San Francisco, California

PLATE
A4

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench B



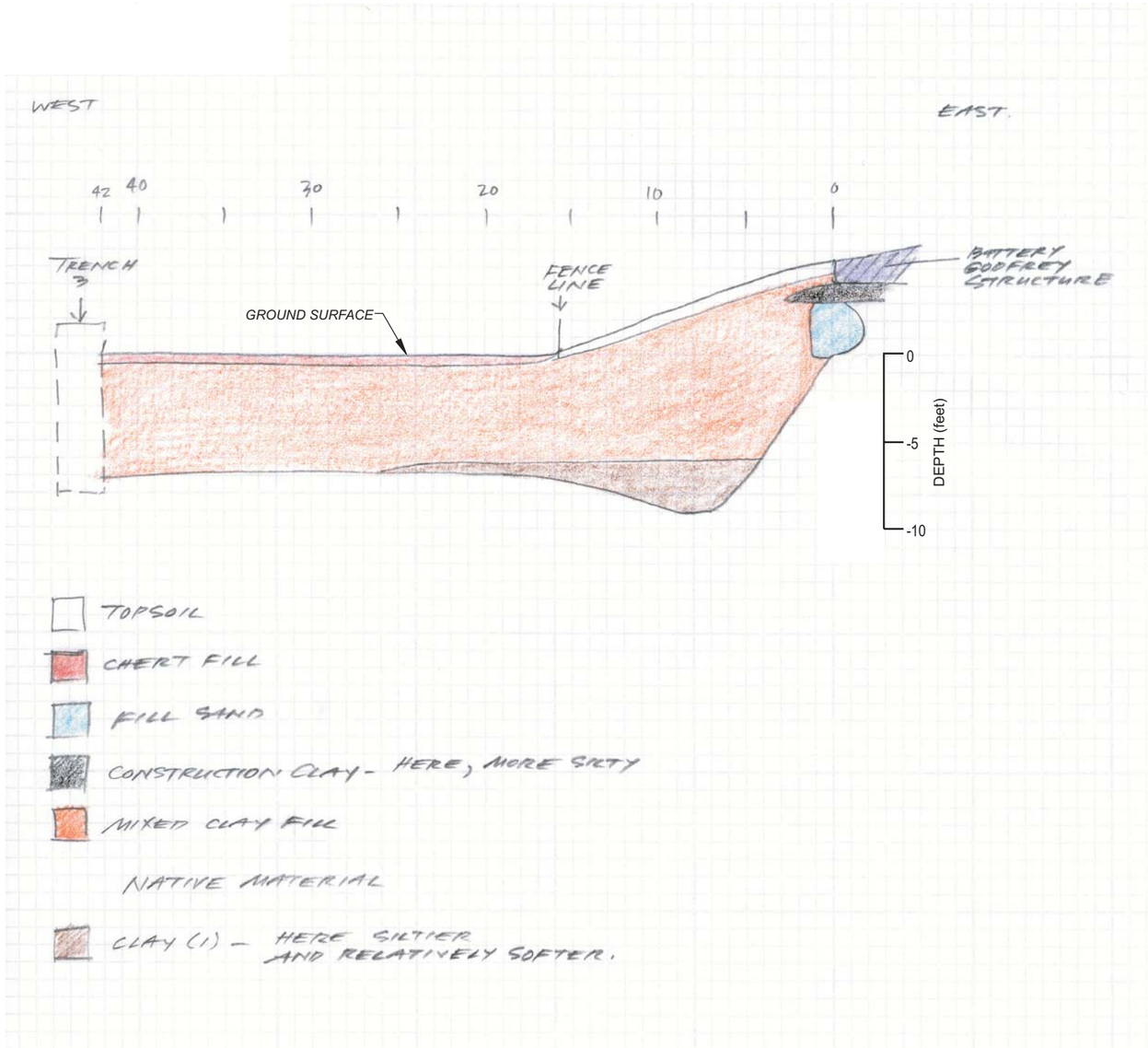
MACTEC

Field Log of Trench B
Baker Beach
San Francisco, California

PLATE
A5

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench C



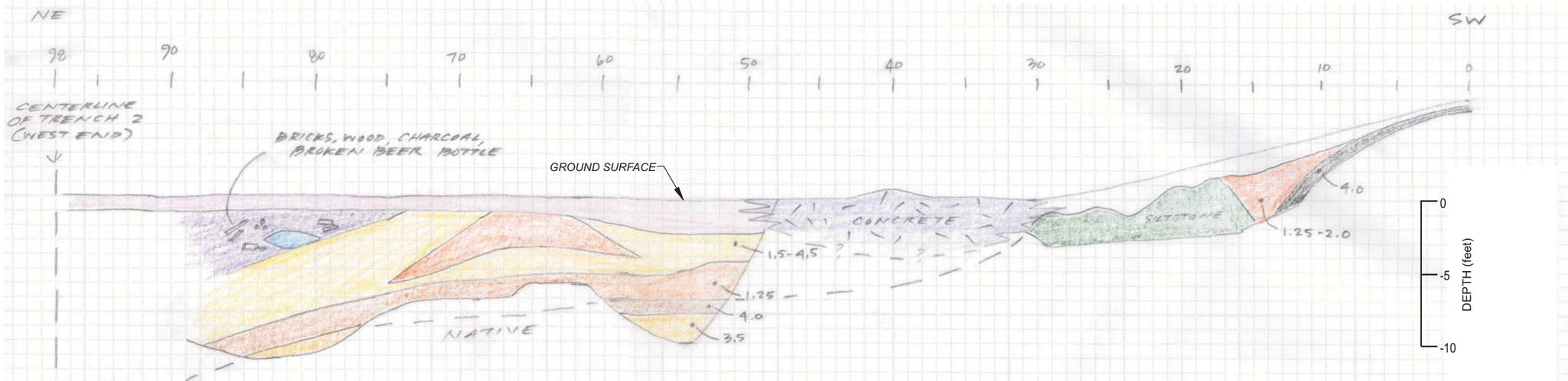
MACTEC

Field Log of Trench C
Baker Beach
San Francisco, California

PLATE
A6

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench D



FILL SAND (2)

TOPSOIL

CHERT FILL (2)

MIXED CLAY FILL

CONSTRUCTION CLAY

NATIVE MATERIALS

SILTSTONE

CLAY (1) – HERE WITH RED OXIDES ALONG RELICT ROOT FEATURES.

CLAY (2) – HERE WITH WEATHERED, DEGRADED SILTSTONE CLASTS.

GRAVELLY FILL – LIGHT OLIVE BROWN CLAYEY GRAVEL (GC) (2.5Y 5/4) DENSE TO MEDIUM DENSE. MOIST. 80% ANGULAR SILTSTONE TO 2" ϕ. 20% CLAY/FINES. CLEAN.

FILL WITH DEBRIS – VERY DARK GREY SICTY GRAVEL WITH SAND (GM) (2.5Y N3/2) MEDIUM DENSE. DRY TO MOIST 50% GRAVEL 30% SILT 20% SAND. WITH DEBRIS.

CLAY (3) – VERY DARK GREY LEAN CLAY (CL) (10YR 3/1) FIRM MOIST. 80% CLAY 20% SILT. TEXTURALLY DISTURBED

TRENCHED & BACKFILLED 4/29/05

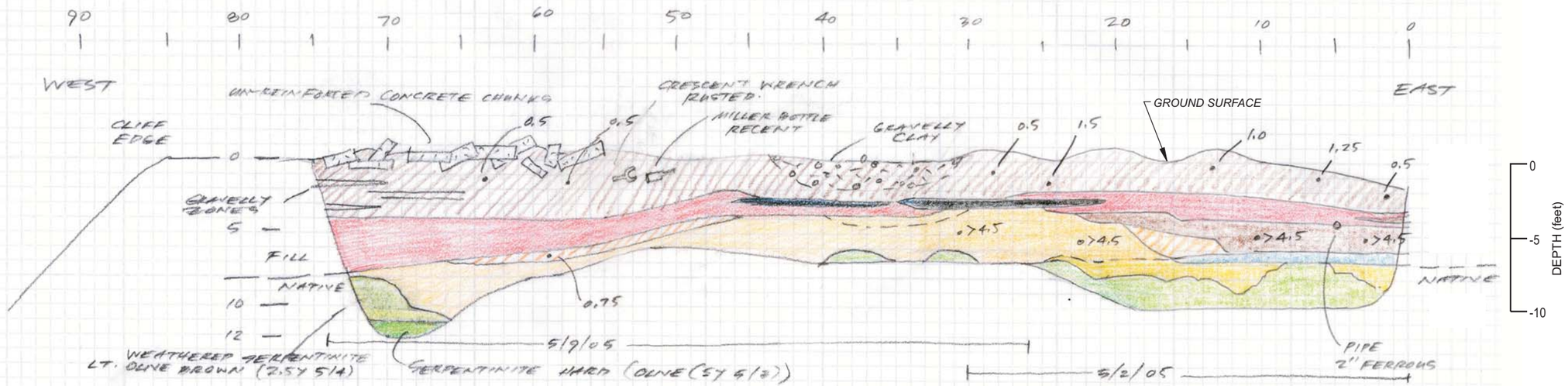
MACTEC

Field Log of Trench D
Baker Beach
San Francisco, California

PLATE
A7

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench 4



CLAY FILL – VERY DARK GREYISH BROWN SANDY CLAY (CL) (10YR 3/2) SOFT TO FIRM. MOIST. 70% CLAY/FINES. 30% SAND. OCCASIONAL GRAVEL.

OLD ROAD BED – ASPHALT + GRAVEL/SAND. OCCASIONAL NAIL

CHERT FILL – HERE WITH A THIN LAYER OF VERY DARK GREYISH BROWN COARSE ANGULAR SAND

SILT – NOT NATIVE AT THIS LOCATION. INCLUSIONS OF YELLOWISH BROWN CLAY.

SAND – YELLOWISH BROWN

CLAY – YELLOWISH BROWN CLAY

CLAY FILL – MATERIAL AS ABOVE WITH 20-30% SERPENTINITE GRAVEL + COBBLES.

SERPENTINITE-DERIVED CLAY – COLOUR + APPEARANCE OF SERPENTINITE. HAS SLICKENSIDES. SOFT CLAY TEXTURE

SERPENTINITE

AH HENKE
MACTEC
5/2/05 – 5/9/05
PRESIDIO OF SF BAY

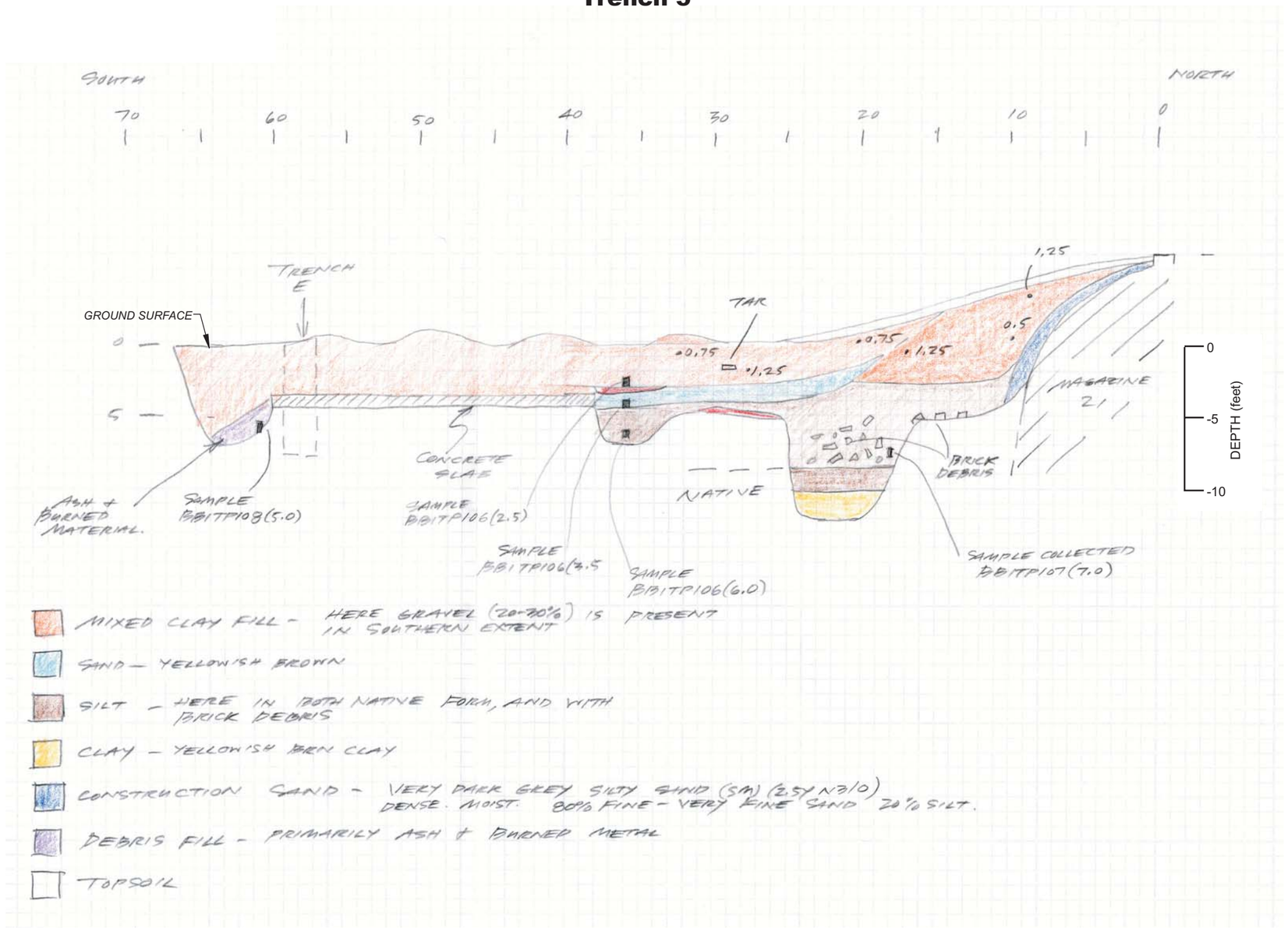
MACTEC

Field Log of Trench 4
Baker Beach
San Francisco, California

PLATE
A8

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench 5



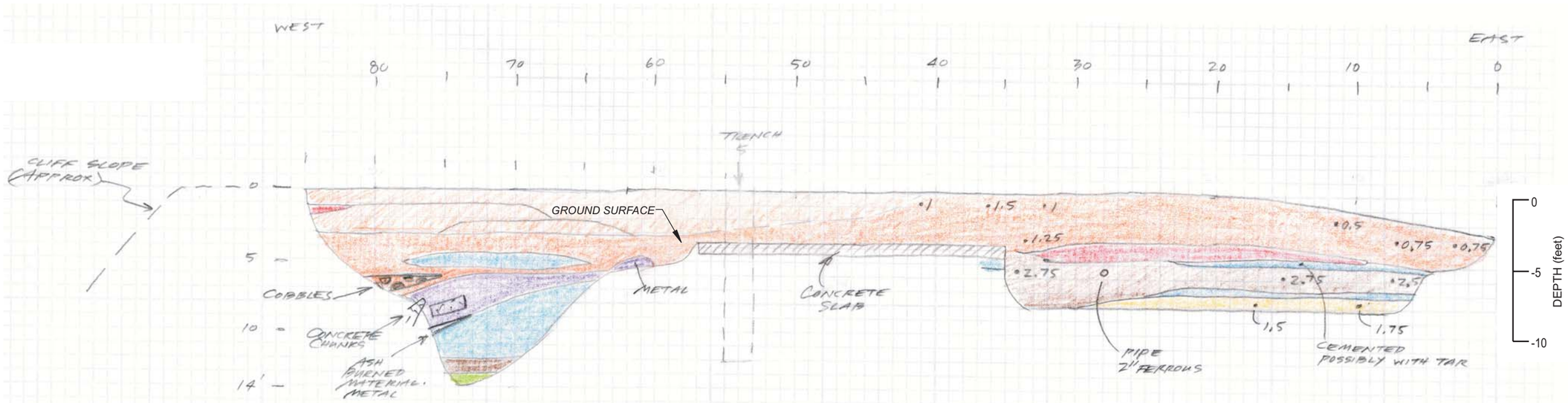
MACTEC

Field Log of Trench 5
Baker Beach
San Francisco, California

PLATE
A9

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench E



MIXED CLAY FILL – DARK BROWN LEAN CLAY WITH GRAVEL (CL) (10YR3/3) SOFT TO FIRM. MOIST. CONTAINS INCLUSIONS OF YELLOWISH BROWN CLAY (10YR5/4) 80% CLAY 20% GRAVEL.

CHERT FILL – REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR4/3) DENSE. DRY. 80% GRAVEL (ANGULAR) 15% SAND 5% FINES

SAND – DARK YELLOWISH BROWN SILTY SAND (SM) (10YR4/4) DENSE. MOIST. 80% VERY FINE SAND 20% SILT. SOME FeO_2 STAINING IN PATCHES

GRAVEL FILL – DARK GREY TO BROWN SILTY GRAVEL WITH SAND (GM) (10YR4/1 – 10YR5/3) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 60% ANGULAR GRAVEL 20% SAND 20% SILT/FINES. PLACED IN LIFTS DISTINGUISHED BY COLOUR CHANGE.

SILT – VERY DARK GREYISH BROWN (CLAYEY) SILT (ML) (10YR3/2) HARD. DRY TO MOIST. 70% SILT. 30% CLAY. NATIVE OR DISTURBED NATIVE.

CLAY – YELLOWISH BROWN LEAN CLAY (CL) (10YR5/6) HARD. MOIST. 90-100% CLAY. SOME FINE SAND. FeO_2 MOTTLE AND BLACK OXIDES ALONG FRACTURES

DEBRIS FILL – GREY WELL-GRADED GRAVEL WITH SAND (GW) (2.5YN5/0) LOOSE. DRY. 60% GRAVEL. 20% SAND. 20% DEBRIS – INCL. CONCRETE, METAL, ASH, GLASS.

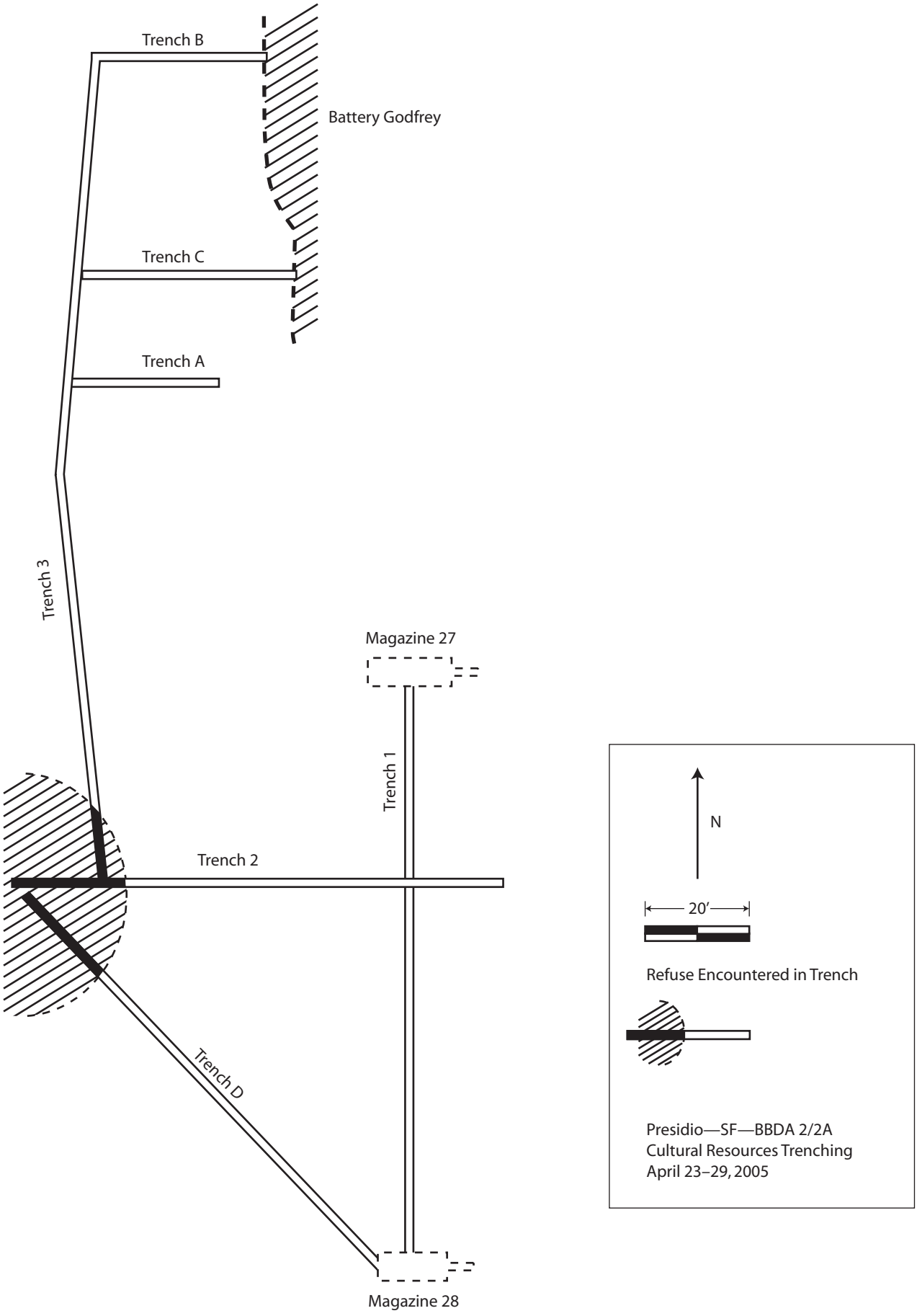
SERPENTINITE

MACTEC

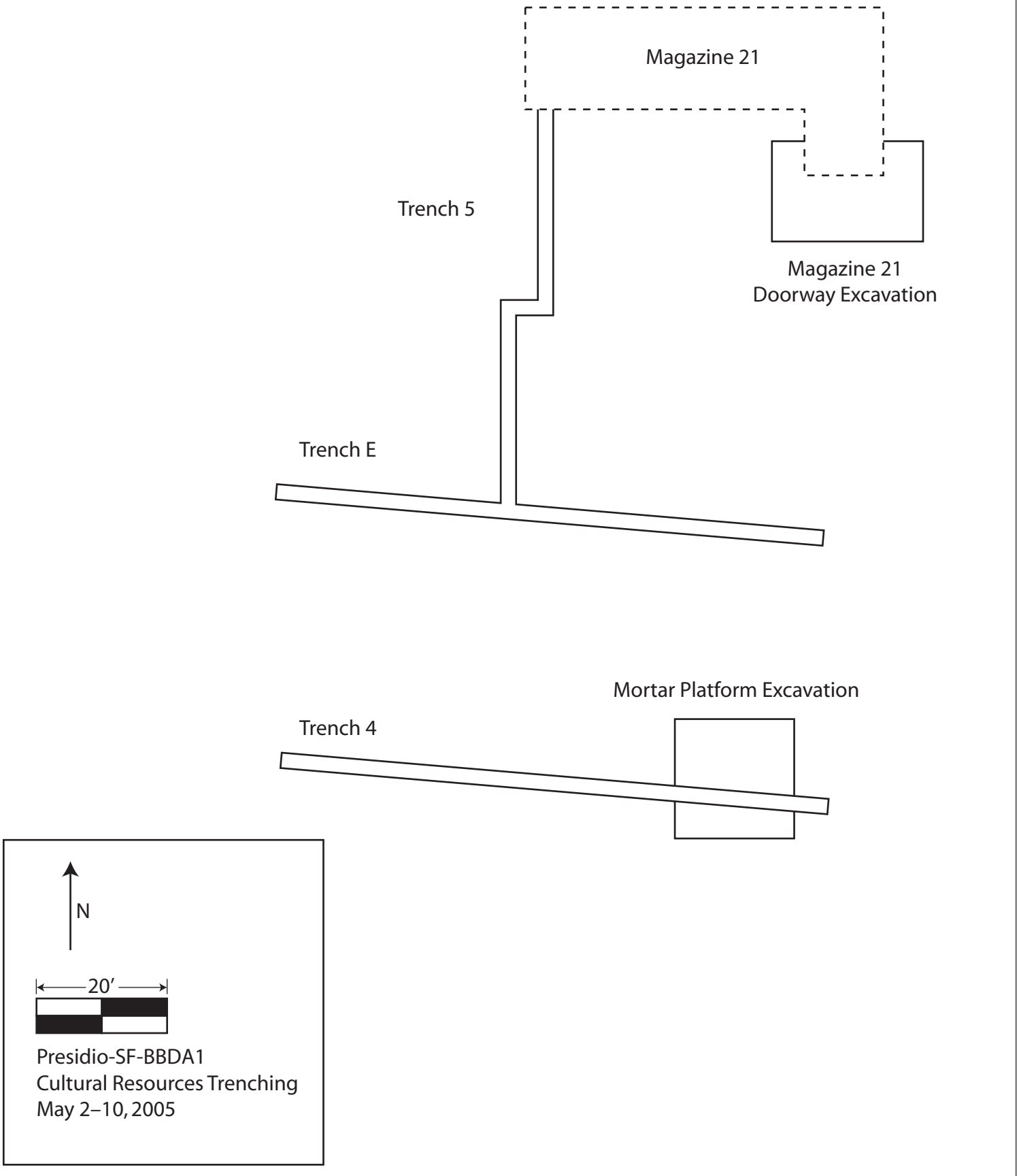
Field Log of Trench E
Baker Beach
San Francisco, California

PLATE **A10**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		



URS	26814549.SUPRE Cultural Resources Trenching	Trench Locations BBDA 2	Figure A11



URS	26814549.SUPRE Cultural Resources Trenching	Trench Locations BBDA 1	Figure A12

Appendix E

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2, and 2A

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	Baker Beach 1, east side mound of brick powder magazine	nd (April 2005	clear glass medicine bottle, complete save for a top, across top front it says "QUALITY" and across bottom front it says "PURITY"; along back sides it gives measurements and says "3 VL" on top	1
Presidio	Baker Beach 1, east side mound of brick powder magazine	nd (April 2005	rusted iron hand crank/wrench	1
Presidio	Baker Beach 1, North slope of cement battery (Boutelle)	nd (April 2005	clear glass bottle, prob. liquor, flask-shaped, no label remains	1
Presidio	Baker Beach 1, North slope of cement battery (Boutelle)	nd (April 2005	metal cylinder, poss. aluminum, poss. a thermos, the mouth narrows towards the body of the thermos and the metal is folded over at the top, barely crushed; introduced circa 1913; reference: Aladdin-Stanley (800-251-4535)	1
Presidio	BBDA Trench 1, against Magazine 27	38469	Bricks, ranging in size from nearly complete specimens to fragments	11
Presidio	BBDA Trench 1, against Magazine 27	38469	ferrous metal: one nail, one long flat piece	2
Presidio	BBDA 1	38483	gas or recoil cylinder from semiautomatic rifle	1
Presidio	BBDA Trench 1, against Magazine 28	38469	Soil sample- sod pack against magazine structure 28	1 bag
Presidio	BBDA Trench 1, South end/ cement washout	38471	cement fragment	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	black glass	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic base fragment, showing floral design in red, green, blue, and black on cream; possible plate	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic base fragment, showing poss. windmill design in blue, black, and red on white	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic rim fragment, whiteware with blue glaze on exterior and interior; poss. mug	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic plate base fragment, white glaze with thick black stripe around circum. of plate and a thinner red stripe below it	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic base fragment, lt. blue glaze, poss. plate	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic rim fragment, whiteware with turquoise-blue glaze on exterior and interior; vase or large bowl; wheel made; cracks in glaze; copper-colored flecks on interior as well as some rust	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	green wine bottle, complete, with small push-up base and “BOTTLE MADE IN ITALY” embossed around edge of base	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	white glass bottle base; embossed in circle in center of base: “CORNING” (around top); “T.M. REG.” (in center, with a small human figure between them); and “MADE IN U.S.A.” along bottom	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic rim fragment; poss. mug or bowl, white glaze, with a thick dark green stripe around exterior top and a thinner green stripe below it	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic base fragment; poss. mug or bowl, white	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	ceramic utility pipe fragments, GE brand, with screws/metal attachments, one piece has "BRYANT" embossed on underside; rusty	4
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	metal cylindrical pipe fragment	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	green glass Coke bottle, complete	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass soda bottle, complete, no label or writing on sides; bottom of body is divided into 8 "sides"; embossed on base: "12", a diamond superimposed over an oval (letter O)(symbol of the Owens-Illinois glass company, Toledo, OH)	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass soda bottle, nearly complete (part of neck is broken off); similar in shape to above bottle but not as tall; embossed on base: "H-257" (in center) and below that, the letter "H" over the letter "A" (symbol of the Hazel-Atlas glass company, Whe	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass bottle, nearly complete (part of neck is broken off); bottom of body is divided into 10 "sides"; on base: "9", the letter "H" over the letter "A" (symbol of the Hazel-Atlas glass company, Wheeling, WV) (in center); and (along bottom) "0-9161"	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	green glass Coke bottle fragment: all of base and some of the body, "SAN FRANCISCO CAL" on bottom of base	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	amber bottle fragment- top and neck portion with just the slightest part of the body remaining; plastic orange cap is present and twists on and off	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass bottle base, nearly complete, embossed on bottom: "…glas" in cursive on top; "STORE" in large letters in center, and "23", the diamond-superimposed-over-an-oval symbol mentioned earlier, and the number "3" along the bottom	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass bottle base, complete base, embossed on bottom: "4-9" on top, the letter "H" over the letter "A" (symbol of the Hazel-Atlas glass company, Wheeling, WV) in the center; and along the bottom: "K 625"	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small clear glass bottle, complete, for medicine or cosmetics?, wrapped around the bottom half of the body is a slightly (1 mm) thicker raised area	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small blue glass Noxzema cosmetics jar, lid missing but otherwise complete; the number 2 and the word "NOXZEMA" embossed on base, with the "Z" being very large and dividing the word in half ("NOX" on one side; "EMA" on the other)	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small blue glass Vicks cosmetic/medicine jar, lid missing but otherwise complete; embossed on bottom: "VICKS" (around top of base); a triangle (in center); and "VA-TRO-NOL" along bottom	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small blue glass medicine jar, lid missing but otherwise complete; embossed in the center of the base bottom is the letter M	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small white glass bottle, lid missing but otherwise complete; on bottom of base: "MENTHOLATUM 5 REG. TRADE MARK"	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	small clear glass bottle, lid missing but otherwide complete, no markings except on bottom of base: "DR. LYONS TOOTH POWDER" around circ. of base, with the number 5, the letter A in a circle, and the number 43 along the center	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass bottle neck/top fragment	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	dark blue bottle glass; fragment of the base and some of the body; the letters “OPS” are visible on the base	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass bottle neck/top fragment; melted/burned and as a resulted is twisted and distorted	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass base fragment	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass body fragment; melted/burned, with horiz. Lines resembling those of a potter’s wheel	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	green glass soda bottle body fragment; red and yellow paint residue present; the word “ROYAL” is etched into the body and was probably painted	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass base (?) fragment; thick (approx. 5 mm) with a raised bubble-like pattern on upper surface	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	clear glass fragment; about the same thickness as above specimen, but no rim or base visible; entire surface is cracked/crazed with bubble-like pattern	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	porcelain mug, plain white, complete, on bottom of mug in black ink: "TEPCO U.S.A. CHINA"	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	thick white mug, nearly complete (part of the body is missing so it may or may not have had a handle); on bottom of mug in blue ink, written in a circle: "ROYAL CHINA INC. SEBRING, OHIO"	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	thick white mug, approx. half of the mug (part of the body is missing so it may or may not have had a handle); base is mostly gone but a hint of blue ink (and its size) suggests it is a mug identical to the example above	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	thick white mug, approx. half of the mug (part of the body is missing so it may or may not have had a handle); base is mostly gone but the letters "CO" in blue ink on the base bottom (and its size) suggests it is a mug identical to the TEPCO example a	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	rim and body fragment of same type of mug as noted in above examples; base missing	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	mug body fragment of same type as noted in above examples	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	gravy boat fragment- nearly half of a complete specimen- with half of base, rim, and body present; handle broken off; on bottom of base in blue ink " U.S.Q.M…."; below that: "Shenango"; "New Castle,PA"; same thickness as mugs noted above	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	mug or cup fragment- half of base and a fragment of the body; on base in blue ink: "U.S.Q.R……"; below that: "W 431 QM-……"; below that: "4-28-41"; same thickness as above mentioned gravy boat and mug fragments	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	plate fragment, same thickness as all above mentioned articles; plate is divided into at least 3 separate portions; white; on base in red ink: "TEPCO VITRIFIED …….; MADE IN ……."	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	large bowl fragment (slightly less than half); incl. some base and rim; no inscriptions/maker's marks	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	bowl fragment, smaller sized than above example but same thickness; incl. some base and rim but no identifying marks	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	vase or pitcher fragment, incl. portion of rim but no base; white, slightly less thick than above examples (approx. 4 mm thick as opposed to 5 mm); one nonrounded corner suggests spout; no identifying marks	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	white bowl fragment of same thickness as above pitcher fragment; some rim and base present but no identifying marks	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	white plate fragment of same thickness as above pitcher and bowl fragment; some rim and base present, plate NOT divided into portions (as the other plate fragment was); no identifying marks	1
Presidio	BBDA; 1, 1A, 2, and 2A; Trench Area 1; Test Pit BBITP102 (representative collection) for URS	38457	plate or shallow bowl fragment, white some rim and base present but no identifying marks; thinnest example of this group (approx. 3 mm)	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	Cow rib (saw cut)	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	Cream bottle, green lettering; paint washed off but writing engraved on bottle exterior; "GREEN GLEN DAIRY SAN FRANCISCO" on front; "Life in San Francisco INCLUDES DINING OUT OFTEN" on back	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle base; embossed on bottom are: the letter "H" over an "A" (symbol of the Hazel-Atlas glass company, Wheeling, WV); the numbers "5 5 3 3" below the A, the letter "L" below the #s, and the number "6" below the L	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	top, neck, and upper body fragment of green soda bottle (coke bottle?)	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	bronze pipe fragment	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle base; embossed on bottom are: the letter "N" in a square; the number "23" at the same level as the N but towards the right side; and the number "8" in the center bottom of the base	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	purple glass bottle base; oval-shaped, poss. medicine or liquor bottle; base has the number "10" embossed on bottom; outline of circle on bottom center of base	1
Presidio	BBDA Trench 2, West End Trash Deposit; Back fill pile	38471	wood fragment, some mold, white paint remains	1
Presidio	BBDA Trench 2, West End Trash Deposit; Back fill pile	38471	ferrous metal; possible bottle top, badly corroded	1
Presidio	BBDA Trench 2, West End Trash Deposit; Back fill pile	38471	clear glass bottle base; embossed on bottom are: (curved around top) "23", a diamond superimposed over an oval (letter O)(symbol of the Owens-Illinois glass company, Toledo, OH), and an encircled letter, possibly an "S" or a "G"; a large "DM" in the cente	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	iron spike, corroded	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	amber bottle fragment: most of base and part of body; embossed up the side is visible: ""….ING Co."; below that (if held sideways): "…ND's"; below that, "…..ER" stands for: CALIFORNIA BOTTLING Co; JOHN WIELAND'S; EXPORT BEER. 1894-1900 Red Amber (Wilson 1968)	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass body fragments	2
Presidio	BBDA Trench 2, West End Trash Deposit	38470	lead wire cover/small pipe fragment, bent	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	small clear glass Listerine bottle with black plastic cover still on and yellow-colored liquid still inside (about 1/3 full); on bottom of body: "LAMBERT PHARMACAL Co"	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA Trench 2, West End Trash Deposit	38470	medium-sized clear glass bottle with metal cap molded/melted on and oxidizing; a small amount of yellowish liquid remains in bottle (just enough to cover the bottom); "ABSORBINE JR. 4 FL" circles just below the neck of the bottle	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	asphalt roofing shingles, black and crumbly, with green grainy particles (paint remnant?) stuck to one side of most of them	5
Presidio	BBDA Trench 2, West End Trash Deposit	38470	green glass soda bottle fragment- most of bottom portion; red and yellow paint is smeared on some of the body; along bottom is embossed: "PROPERTY OF (?)NEHI BOTTLING CO"; on bottom of base is embossed: "20", the diamond-superimposed-over-an-oval symbol,	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle fragment- all of neck/rim, part of body, no identifying marks; poss. milk/cream bottle	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	small orange medicine bottle with top rusted on; embossed on bottom is the letter H over the letter A (symbol of the Hazel-Atlas glass company, Wheeling, WV) and a very small 5	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass medicine/cosmetic jar; complete; no inscriptions/maker's mark save a number 9 (or 6) on bottom of jar	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle fragment- rim/neck and body fragment	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle fragment with embossed wave design around most of fragment	1
Presidio	BBDA Trench 2, West End Trash Deposit	38470	clear glass bottle fragments	2
Presidio	BBDA Trench 2, West End Trash Deposit	38470	2 half-pint cream bottles, clear glass; "CLARA-CAL, A COOPERATIVE ORGANIZATION OF BAY AREA DAIRYMEN"; below that, a picture of the head of a cow in a circle; on the back side of the bottle: "USE MORE CLARA-CAL MILK; DELICIOUS: as a beverage (this is in cursive)	2
Presidio	BBDA Trench 2	38447	leather boot, badly corroded, just the sole and heel portions	1
Presidio	BBDA Trench 2	04/2005.	ferrous metal utility pipes (stays?); both have hook-shaped ends, badly corroded	2
Presidio	BBDA Trench 2	04/2005.	clear glass bottle body fragment	1
Presidio	BBDA Trench 2	04/2005.	2 half-pint cream bottles, clear glass; "CLARA-CAL, A COOPERATIVE ORGANIZATION OF BAY AREA DAIRYMEN"; below that, a picture of the head of a cow in a circle; on the back side of the bottle: "USE MORE CLARA-CAL MILK; DELICIOUS: as a beverage (this is in cursive)	2

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA Trench 2	04/2005.	clear glass bottle fragment, upper portion (neck and part of body), no remaining maker's marks or paint	1
Presidio	BBDA Trench 2	04/2005.	1 half-pint cream/milk bottle, clear glass; etched (once painted in red, but the paint is gone): "DEL MAR CREAMERY S.F. AND S.M. CAL." on front; on back, a picture of a hand holding a creamer, pouring cream into a coffee cup with steam rising out of it;	1
Presidio	BBDA Trench 2	04/2005.	Beer cans; Brown Derby Pilsner brand, 12 fl. oz can; in various stages of rust and crushedness	4
Presidio	BBDA Trench 2	04/2005.	Beer cans; Pabst Blue ribbon brand, 12 fl. oz can; one is rusty but barely crushed; the other is not as rusty but very crushed	2
Presidio	BBDA Trench 2	04/2005.	Beer can; Acme brand (black can with black label on white and a leafy decoration); slightly crushed but not much rust; 12 fl oz.	1
Presidio	BBDA Trench 2	04/2005.	Beer can, Regal Pale Ale brand, 12 fl oz; slightly crushed but minimally rusty	1
Presidio	BBDA Trench 2	04/2005.	amber beer bottle, complete except for a lid/cap, no label or distinguishing markings; on bottom of base is the number 7 below the diamond-in-oval symbol and the letter J	1
Presidio	BBDA Trench 2	04/2005.	clear glass bottle, complete except for a lid/cap, no label or distinguishing markings; on bottom of base: the letter N in a square (symbol of the Obear-Nester glass company, East St. Louis, IL); "12", and (below them) "9."	1
Presidio	BBDA Trench 2	04/2005.	brick fragment (about half); orange in color with lots of cracks and pebble inclusions; some traces of green paint are present throughout the specimen	1
Presidio	BBDA 1, 1A, 2, and 2A; Trench Area 2A- slope (representative collection); for URS	38456	clear glass wine bottle, whole, with ferrous top rusted on; embossed on bottom: "20"; a diamond superimosed over an oval (letter O) (symbol of the Owens-Illinois glass company, Toledo, OH); "4", "5B", "1685-W"	1
Presidio	BBDA 1, 1A, 2, and 2A; Trench Area 2A- slope (representative collection); for URS	38456	clear glass beverage bottle; top missing but otherwise complete; has 20 "sides"; on bottom of base: "1088" (on top) and "7" (on bottom)	1
Presidio	BBDA 1, 1A, 2, and 2A; Trench Area 2A- slope (representative collection); for URS	38456	clear glass bottle fragment- bottom half and part of neck; embossed on body: "MOTOR OIL"; along bottom: "SHIELDS, HARPER & CO OAKLAND-LOS ANGELES-SEATTLE"; on back: "FILL TO LINE AT ARROW POINT"; written sideways up neck: "ONE ……"; on bottom of base: "	1
Presidio	BBDA 1, 1A, 2, and 2A; Trench Area 2A- slope (representative collection); for URS	38456	amber glass bottle, complete (except for a top); on bottom of base: "L-54"; below that: "351 CC"; below that: "US PAT. 2097912"; below that, an anchor logo with an "H" superimposed over it (symbol of the Anchor Hocking Corporation, Lancaster, OH and other	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBDA 1, 1A, 2, and 2A; Trench Area 2A- slope (representative collection); for URS	38456	bottom half of a green Dr. Pepper bottle	1
Presidio	BBLR Trench 4 (Expansion), North Side, Red chert interface	38477	nearly complete brick; only one part of one corner is missing; orange in color with lots of cracks and pebble inclusions	1
Presidio	BBLR Trench 4 (Expansion), North Side, Wood/platform interface	38478	metal spike or nail, badly corroded	1
Presidio	BBLR Trench 4 (Expansion), North Side, Wood/platform interface	38478	clear glass bottle body fragments	2
Presidio	BBLR Trench 4 (Expansion), North Side, Wood/platform interface	38478	clear glass bottle fragment- upper portion (neck and part of body); no paint or maker's marks present; large opening suggests dairy bottle	1
Presidio	BBLR Trench 4 (Expansion), North Side, Wood/platform interface	38478	clear glass bottle fragment- upper portion (neck and part of body); no paint or maker's marks present; smaller mouth suggests liquor or medicine bottle	1
Presidio	BBLR Trench 4 (Expansion), South Side, Sample	38477	red chert core fragment	1
Presidio	BBLR Trench 4 (Expansion), South Side, Sample	38477	metal spikes/nails, badly corroded	3
Presidio	BBLR Trench 4 (Expansion), South Side, Sample	38477	Black glass covered in rust	1
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, Top of sand/ bottom of dark fill + metal detector finds	38484	nails/spikes, badly corroded	5
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, Top of sand/ bottom of dark fill + metal detector finds	38484	ferrous metal fragments (pieces of nails?); badly corroded	2

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, Top of sand/ bottom of dark fill + shovel skim finds	38484	purple glass bottle fragment with portion of rim present	1
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, black (dark fill) fill above sand pad + backhoe finds	38485	clear glass bottle fragment, upper portion (neck and part of body), no remaining maker's marks or paint	1
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, black (dark fill) fill above sand pad + backhoe finds	38485	ferrous metal bottle cap, nearly complete, badly corroded	1
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, black (dark fill) fill above sand pad + backhoe finds	38485	nails, badly corroded	3
Presidio	Battery West Mortar Batteries, Trench 4 (Expansion), South Side, black (dark fill) fill above sand pad + backhoe finds	38485	ferrous metal fragment, badly corroded	1
Presidio	Battery West, Trench 4 (Expansion), South Side, Top of sand/bottom of dark fill + shovel skim finds	38484	thin black rubber (?) strips, broken into several pieces	6
Presidio	BBLR Trench 4 (Expansion), Southside, sand interface to dark soil	38477	large metal spike/pipe, badly corroded	1
Presidio	BBLR Trench 4 (Expansion), Southside, sand interface to dark soil	38477	badly corroded nails/nail fragments	27
Presidio	BBLR Trench 4 (Expansion), Southside, interface of black soil/ sand layer	38477	metal spike/large nail, badly corroded	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBLR Trench 4 (Expansion), Southside, interface of black soil/ sand layer	38477	nails, badly corroded	2
Presidio	BBLR Trench 4 (Expansion), South side, interface of black soil/ sand layer	38477	unidentified ferrous metal piece, round and small (approx. 5 mm), badly corroded, poss. button/snap?	1
Presidio	BBLR Trench 4 (Expansion), North side, interface of chert/black soil layer	38477	brick fragment, dark red, about 1/8 of brick	1
Presidio	BBLR Trench 4 (Expansion), North side, interface of chert/black soil layer	38477	large metal pipe fragment, badly rusted, curves upward in a “J” shape	1
Presidio	BBLR Trench 4 (Expansion), North side, interface of chert/black soil layer	38477	building ceramic fragments; light orange in color, full of pebble inclusions	2
Presidio	BBLR Trench 4 (Expansion), North side, interface of chert/black soil layer	38477	lead pipe (?) fragment, curved, fair condition	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	lt.blue plastic plant tag, approx. 4 cm x 1 cm x 1 mm; written in black sharpie on front: “LIZARD TA…..”; below that, “FT. POINT”	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	ceramic insulator fragments, white, approx. 2 cm circ., middle-sized piece has .”..JOHNSON” etched in black ink on front	3
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	small concrete fragment, with hexagonal white ceramic tile attached to top	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	large concrete fragment, with white ceramic tile fragment attached to top	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	red brick fragments	4
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	green glass bottle body fragments	2
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	lt. blue glass bottle body fragment; visible on fragment is the number 7(?) in a square	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	porcelain plate rim fragment, white with a thick maroon stripe along edge and a thinner maroon stripe below it	1

Summary of Artifacts Recovered During all Investigative Activities for Baker Beach Disturbed Areas 1, 1A, 2 and 2A

Location	Area of Investigation	Collection Date	Description	Count
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	nail, badly corroded	1
Presidio	BBLR Trench 4 (Expansion), bottom of trench	05/2005.	small glass medicine bottle with top rusted/secured on; remnants of white paper label present on front of bottle but illegible	1
Presidio	BBDA Trench 5	38477	white glazed ceramic utility fragment	1
Presidio	BBDA Trench 5	38477	green Coca Cola bottle, complete	1
Presidio	BBDA Trench B, 0-1' depth	38467	small amber glass medicine bottle, complete	1
Presidio	BB Landfill Removal; Excavation of magazine	38477	ferrous metal object, round, possible bottle top, badly corroded; white plastic label on top; in red ink along upper part: "Catch Our Spirit:, in center: a black "CT" symbol, along bottom of label in blue: "County Transit"	1
Presidio	BBDA, from deep concentration adjacent to Feature 21	05/2005.	red brick fragments	8
Presidio	BBDA, from deep concentration adjacent to Feature 21	05/2005.	one piece of black slag, with one thin piece broken off	2
Presidio	Battery Godfrey	38406	large clear glass jar, barrel-shaped, lid missing but otherwise complete and in good condition; on bottom of base: "425-65"; "13", "4", and "Ball" (in cursive)	1
Presidio	Battery Godfrey	38406	clear drinking glass, complete, on bottom: "C", two intersecting diamonds, and "4" (along top), "6" (at bottom) and "6181" (above it)	1
Presidio	Battery Godfrey	38406	green Coca Cola bottle, complete	1
Presidio	Battery Godfrey	38406	2 clear glass Dr. Pepper bottles, complete, on back of both, a clock is pointing to 10, 2, and 4	2
Presidio	Battery Godfrey	38406	clear glass bottle, complete, for cream or milk, half-pint on front in green letters: "GREEN GLEN DAIRY SAN FRANCISCO"; on back in green letters: "WHY COOK AT HOME? Restaurant (in cursive); (illegible) VARIETY; (illegible) CLEAN TASTE"	1
Presidio	Battery Godfrey	38406	thick (approx. 1 cm) black glass fragment, poss. fragment of safety glass?	1
Presidio	Battery Godfrey	38406	ferrous metal pipe end- open only on one side; badly corroded	1
Presidio	Battery Godfrey	38406	black plastic cover for machine/mechanism; has opening in center with "on" at one end and "off" at the other; two screws present and rusty, center piece with lever to move to "on" or "off" is also present, but separate	2
Presidio	Battery Godfrey	38406	metal/plastic machine/engine pieces, all screws missing and metal parts rusty; appear to be the pieces covered by the black plastic cover, above	4

Location	Area of Investigation	Collection Date	Description	Count
Presidio	Battery Godfrey	38406	two lead light fixtures with round porcelain pieces inside each to hold the light bulb; plastic-coated copper wires protrude from each piece (on one, the covers are black, on the other, white)	2

Appendix F

Merchant Road Tree Island Building History

Memorandum

To: George Ford

CC:

From: Michael Lamb MICHAEL

Date: February 3, 2005

Re: Merchant Road Tree Island Building History

George,

The purpose of this memo is to report on my findings to date on my investigation on the past uses of the buildings that have existed in and around the site that is currently being referred to as the "tree island", between Merchant Road and Lincoln Boulevard in the Fort Scott area of the Presidio. This memo is not meant to replace the more detailed description of the evolution of this area that I will be providing in the near future. This memo will reference a number of attached images that were used in our recent discussion with Quintex on this past January 19, as well as a few additional images to support my thoughts on this matter.

Working with both the maps we have on hand and the Quartermaster Reports I have made these conclusions. It should be noted that moving back between the Quartermaster reports and these drawn images is complicated by the fact that the numbering system for these buildings were changed numerous times through the history of the Presidio. The first drawn map that I used in my Quintex presentation was produced by Major Harts in 1906, see attachment. Within the area of the tree island are two small buildings that are identified as wood frame in the maps legend (not shown in this attachment). A summary drawing of Fort Winfield Scott 1909 shown in Defender of the Gate (D.O.G.), page 559, shows the same two small buildings in the Harts plan and a slightly larger building to the southwest labeled as a guardhouse. It is pure speculation on my part, but after looking at the two small structures in the 1907 Harts plan I wondered if they might have been some guard shack or sentry post based on their location on roads leading from the larger roadway which would become Lincoln Boulevard out to the possibly more sensitive areas in and around the bluffs overlooking Fort Point and the Golden Gate. Seeing the larger building referenced as the Guardhouse in the D.O.G only added to speculation on that possibility.

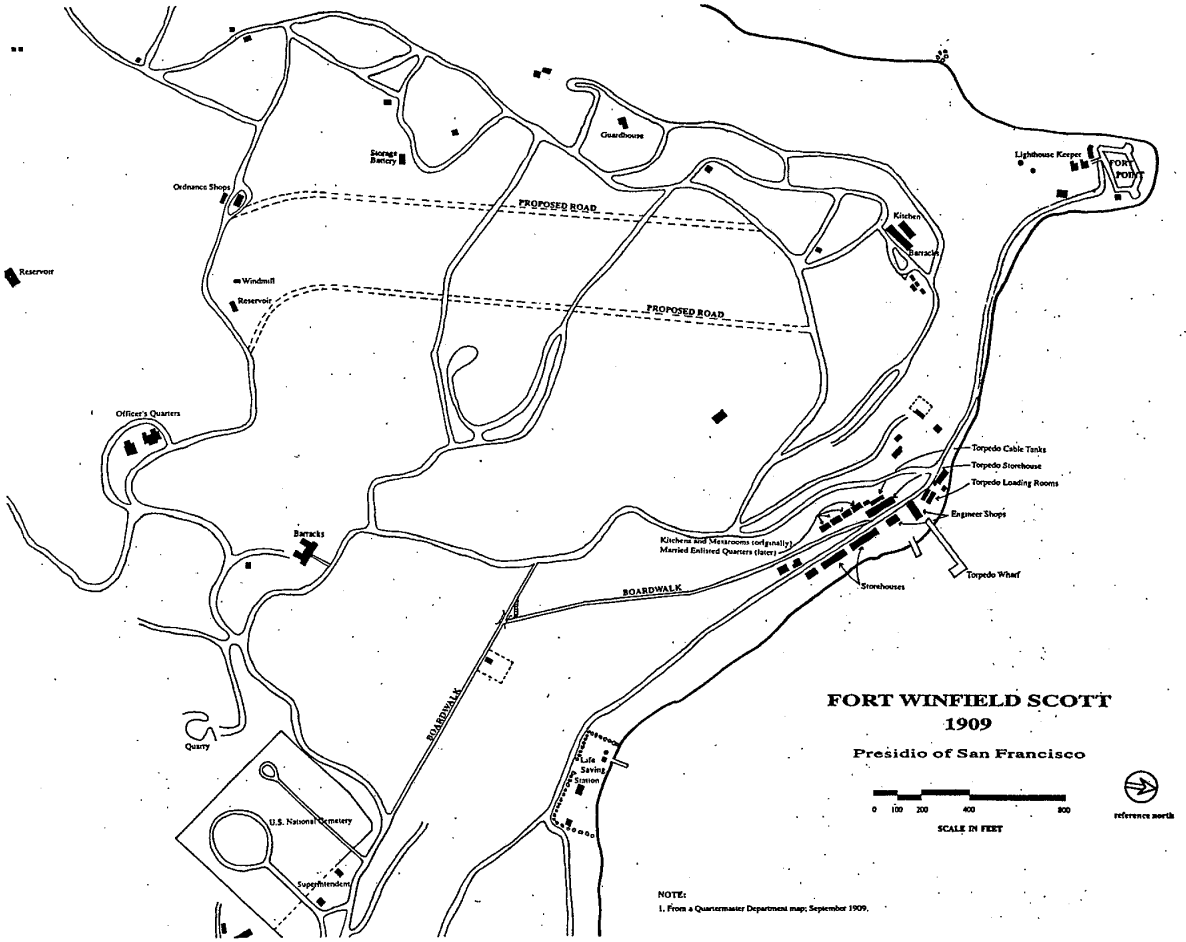
In the Ft. Winfield Scott Lighting System map of 1917 we see that there are two buildings (80 and 49) within the yet to be expanded tree island and several un-numbered buildings west of Merchant and buildings 70 through 78 and 136 through 143 east of Lincoln. In the Presidio Archaeological Resources (Draft), by W.H. Adams , 1994, Building 80 is referenced as being associated with the 7th Co. Artillery Cantonment, and is labeled as "MILITIA WH". Building 49 shown in the 1917 plan appears to be the one building that survived well into the future, as late as 1951, when it was known as Building 1394 and possibly later still as 1659. The stout construction of this storehouse, 13" concrete walls and slate roof

February 3, 2005

described in the attached Quartermaster report may be the reason that it was able to survive for such a long period after being constructed in 1915. To the east of Lincoln Buildings 70 through 78 were identified as being constructed in 1917 and used for a Camp of Instruction in the Adams report.

The final plan image from 1943 shows a number of structures in the now expanded tree island. These buildings are not identified in any way but one appears to be Building 49 (later 1394) referenced above. Attached is a sheet from the Quartermasters report on Building 1393, a wooden and tar paper mess hall built in 1942 . Again, with speculation, the fact that this building is numbered sequential to 1394 and the photo depicts a tree planting consistent with the island as we believe to have been, strongly suggests that this is one of the now demolished buildings that were in the vicinity of the proposed Merchant Road realignment.

2



NPS drawing no. 641-20494.

WAR DEPARTMENT
Q.M.C. Form No. 117 (Old No. 1734)
Revised June 28, 1939

Revised April 9, 1941

1659

Post Plan No. 1254 OLD

O.Q.M.G.: Plan No. 251-A Building No. P49

Place FORT WINFIELD SCOTT, CALIFORNIA (South Gate Entrance G.G. Bridge Area)
Designation of building Quartermaster Storehouse Capacity 17789 cu ft
Total cost, $ 2,527.06 Date completed March 25, 1915
Material: Walls Concrete (thickness 13") Foundation Concrete
Roof Slate Floors Concrete
Total floor area above basement, square feet ~~1611~~ 1800
Size: Main building 60' x 30' Wings None Basement None
a None (How heated) Height of first floor above ground 1' to 2'
b None (Type of heat) How lighted None
c None (Type of domestic hot water heater) Water connections None
Sewer connections None
Gas connections None

COOKING RANGES INSTALLED (Give quantity and size)
Coal None
Gas None
Electric None
Oil None
Steam None

REFRIGERATORS INSTALLED (Give quantity and size)
Gas None
Electric None
Ice None

METERS INSTALLED (Give quantity and capacity)
Gas None
Electric None
Oil None
Steam None
Water None

(Formerly called Militia Storehouse)

Approval of Secretary of War as required by A. R. 30-1435 (Give date and File Number)
2-26-41, App. 20th Ind. 601.4 A.G.O.

One Story

ADDITIONS AND INSTALLATIONS
(Below enter chronologically all modifications, additions, introductions of water, sewer, lights, heating, etc.)

DATE		COST	DATE		COST
4-15-39	Total Expenditures to June 1938	$ 253.22		P91-005.862	
6-30-39	M.R. F/Y 1939	.00			
6-30-40	M.R. F/Y 1940	.00			
6-30-41	M&R F.Y. 1941	.00			
9-24-41	Heater, roofway, complete WO # 1257	[illegible]			

INSTRUCTIONS.—"a" State whether heated from central heating or by individual heating plants, stoves, furnaces, or fireplaces.
"b" State whether steam, vapor, hot water, or hot air.
"c" State whether gas, coal, oil, or central heating plant.

See reverse side of form.

60.14

WAR DEPARTMENT
Q.M.C. Form No. 117 (Old No. 173A)
Revised June 28, 1939

Post Plan No. 1392 OK

O.Q.M.G.: Plan No. _____ Building No. T-89

Place FORT WINFIELD SCOTT, CALIFORNIA
Designation of building MESS HALL (THEATRE OPERATIONS Capacity _____
Total cost, $ 2,109 Date completed August 1942
Material: Walls Wood & Tar Paper Foundation _____
Roof Tar Paper Floors Wood
Total floor area above basement, square feet 2038 S.F.
Size: Main building _____ Wings _____ Basement _____
a _____ (How heated) Height of first floor above ground _____
b _____ (Type of heat) How lighted _____
c _____ (Type of domestic hot water heater) Water connections _____
Sewer connections _____
Gas connections _____

COOKING RANGES INSTALLED (Give quantity and size)	REFRIGERATORS INSTALLED (Give quantity and size)	METERS INSTALLED (Give quantity and capacity)
Coal 2 #5	Gas	Gas None
Gas	Electric	Electric
Electric	Ice	Oil
Oil		Steam
Steam		Water

Approval of Secretary of War as required by A. R. 30-1435 (Give date and File Number) _____

ADDITIONS AND INSTALLATIONS (one story)

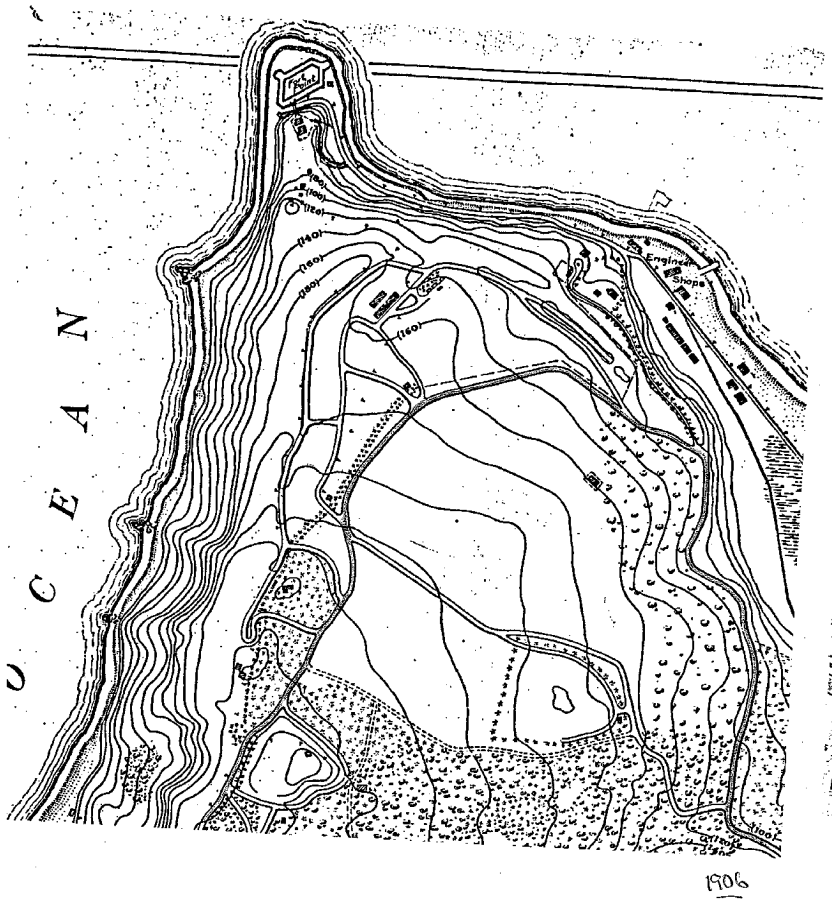
(Below enter chronologically all modifications, additions, introductions of water, sewer, lights, heating, etc.)

DATE		COST	DATE
9/11/43 (1)	CABINET, SPRAY, RINSE w/8 1151	23.50	
9/11/43 (3)	RACKS-DISH " @ $2.92	8.76	

INSTRUCTIONS.—"a" State whether heated from central heating or by individual heating plants, stoves, furnaces, or fireplaces.
"b" State whether steam, vapor, hot water, or hot air.
"c" State whether gas, coal, oil, or central heating plant.

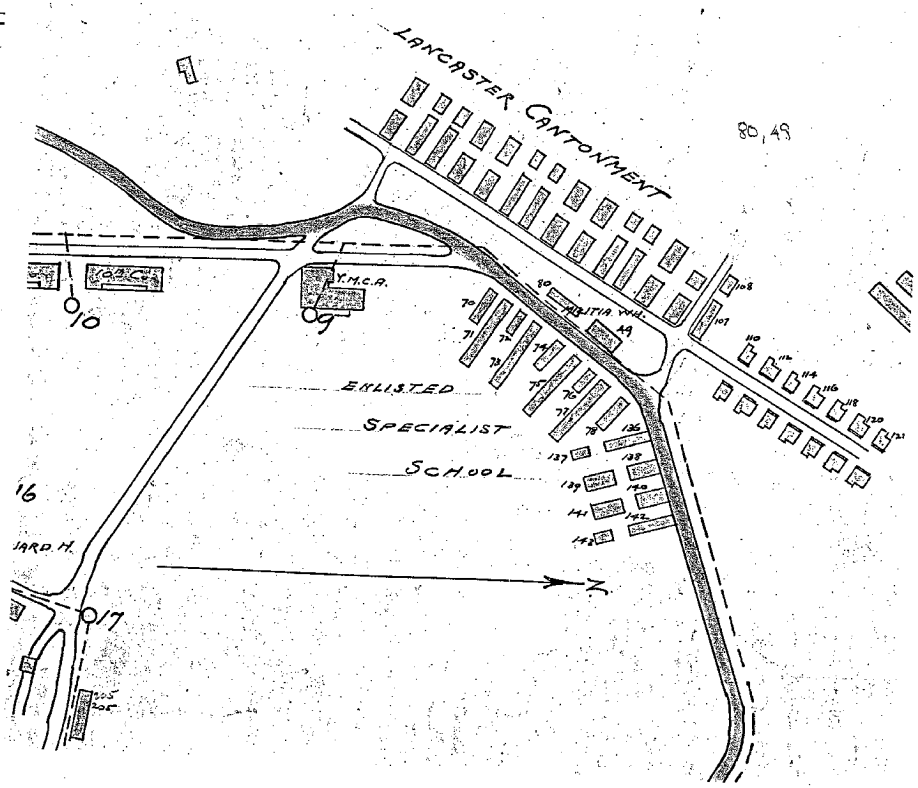
See reverse side of form.

16—8668



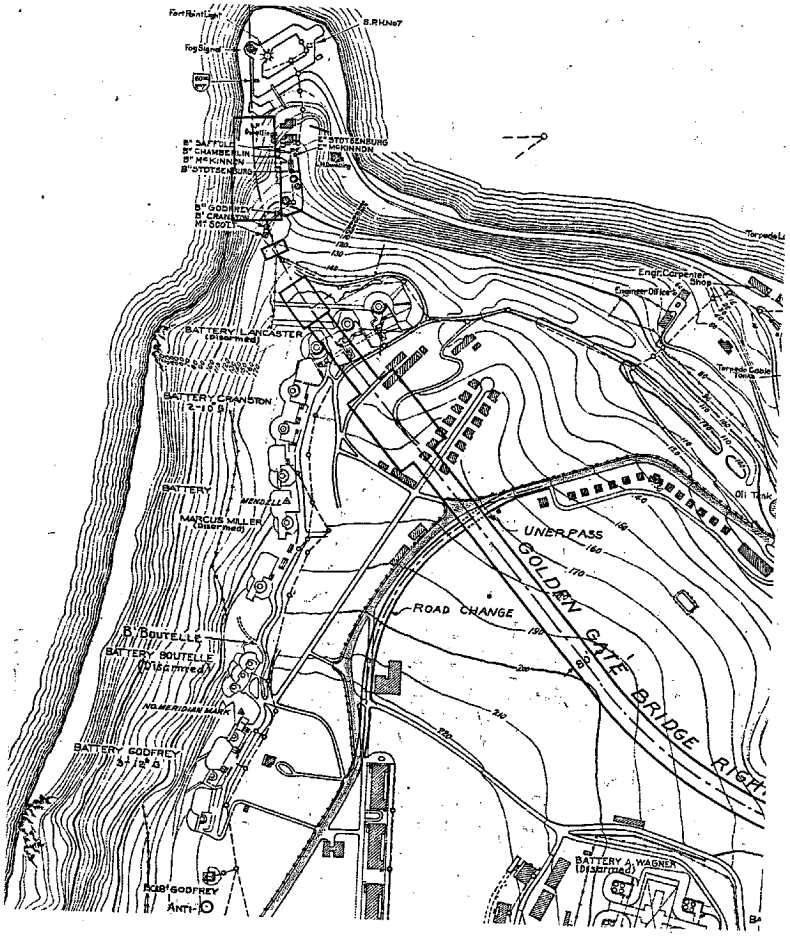
MAP OF THE PRESIDIO OF SAN FRANCISCO CALIFORNIA

MAJOR Wm. W. HARTS, CORPS OF ENGINEERS
OCTOBER 1906 FEBRUARY 1907
SCALE 1" = 500'



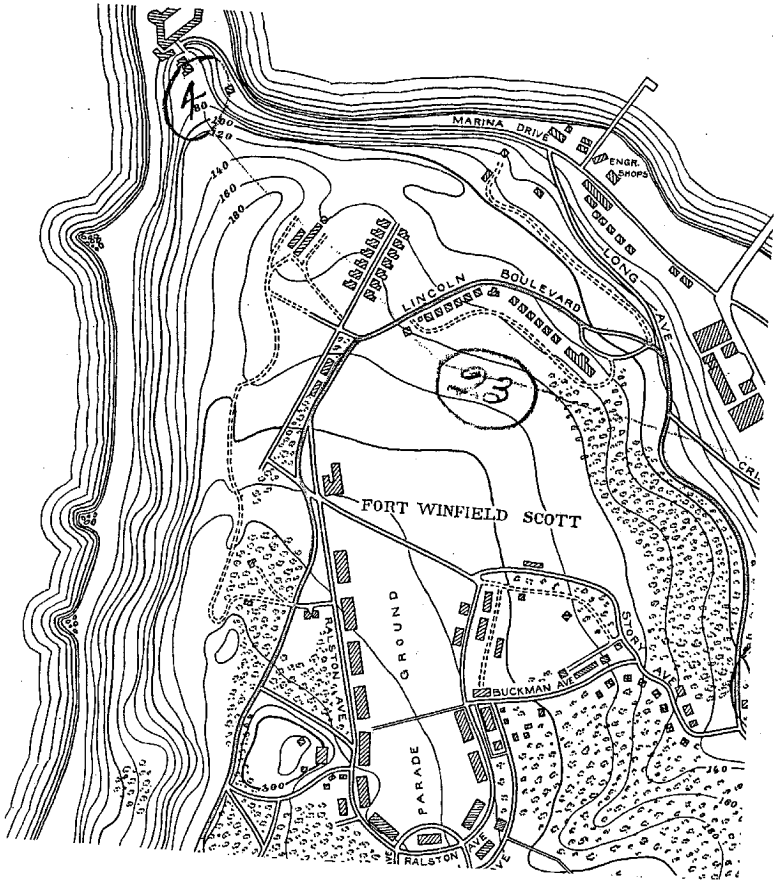
FT. WINFIELD SCOTT LIGHTING SYSTEM

O.C.D.Q.M.
MARCH 1917
SCALE 1" = 200'



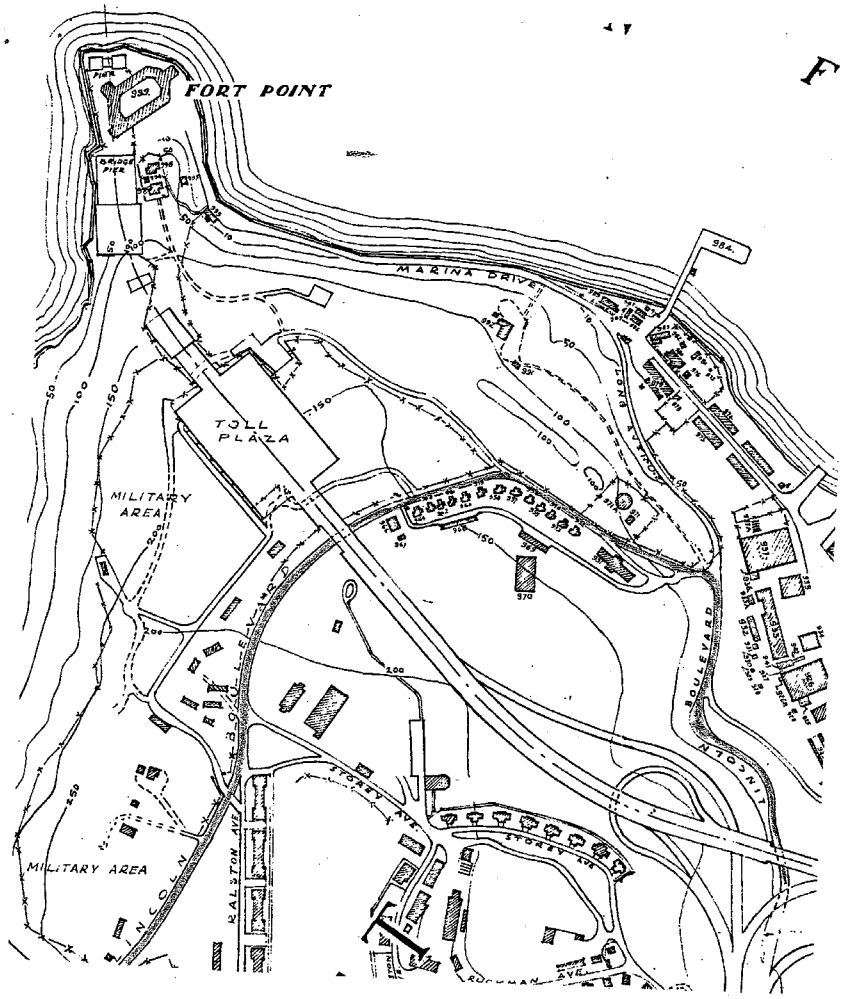
FORT WINFIELD SCOTT AND PRESIDIO OF SAN FRANCISCO

US ENGINEER OFFICE, SAN FRANCISCO
AUGUST 1918 (NO REVISION NOTED)
SCALE 1" = 400'



MAP OF THE PRESIDIO OF SAN FRANCISCO CALIFORNIA

SEPTEMBER 1928
SCALE 1" = 500'



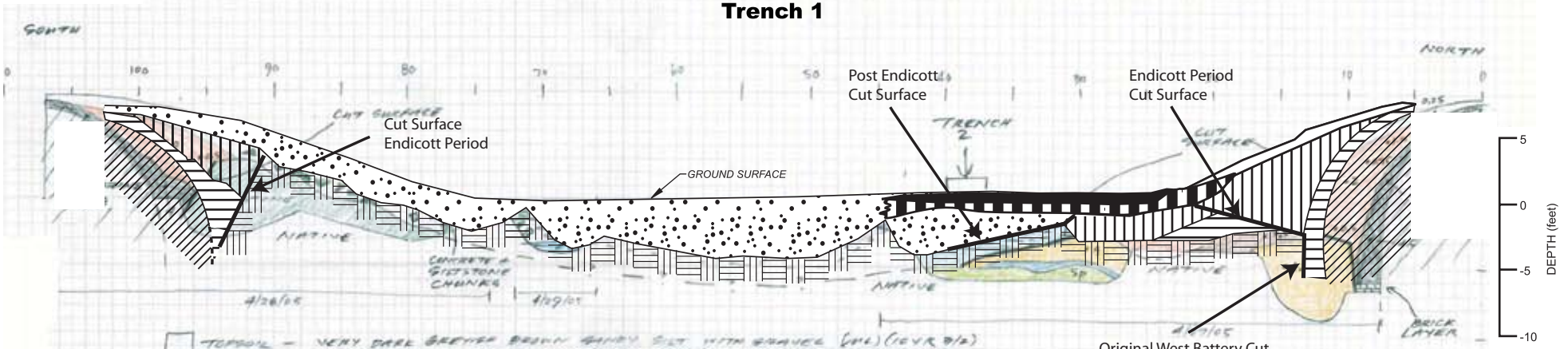
FORT WINFIELD SCOTT AND PRESIDIO OF SAN FRANCISCO

US ENGINEER OFFICE, SAN FRANCISCO
1942 (REVISED 1943)
SCALE 1" = 400'

Attachment 1

Soil Profile Overlays

Trench 1



TOPSOIL – VERY DARK GREYISH BROWN SANDY SILT WITH GRAVEL (ML)(10YR 3/2) SOFT, DRY TO MOIST, GENERALLY 60% SILT 20% SAND 20% GRAVEL

MIXED CLAY FILL – MIXTURE OF YELLOWISH BROWN (10YR 5/6) AND VERY DARK BROWN (10YR 2/2) LEAN CLAY (CL) SOFT, MOIST., 80% CLAY 20% SILT, OCCASIONALLY SANDY.

CONSTRUCTION CLAY – BLACK LEAN CLAY (CL) (10YR 2/1) HARD TO VERY HARD, MOIST 100% CLAY, COMPACTED ON SIDES OF STRUCTURES.

CONCRETE – MULTIPLE LAIERS OF CONCRETE AND CEMENT GROUT (SOME WITH CELOCURING AGENTS ADDED) PRESUMED TO BE AN OLD WAR CUT AREA

CHERT FILL (1) – DARK REDDISH BROWN WELL GRADED GRAVEL WITH SAND (GW)(5Y 3/2) DENSE, DRY 70% GRAVEL (ANGULAR CHERT TO 1.5"Ø) 20% SAND <10% FINES

CHERT FILL (2) – AS ABOVE, BUT LIGHTER (OLIVE - REDDISH GREY (5Y 5/2)

FILL SAND (1) – VERY DARK GREY POORLY GRADED SAND WITH CLAY INCLUSIONS (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE, DRY TO MOIST. 70% SAND 30% YELLOWISH BROWN CLAY.

FILL SAND (2) – VERY DARK GREY POORLY GRADED SAND (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. MOIST. 100% SAND.

NATIVE MATERIALS

SILTSTONE – OLIVE GREY SILTSTONE (5Y 5/2) ( ) MODERATELY CONSOLIDATED. CLOSELY FRACTURED LOW HARDNESS. WEAK, DEEPLY WEATHERED

CLAY (1) – VERY DARK GREYISH BROWN LEAN CLAY (CL) (10YR 3/2) HARD. MOIST 80% CLAY 15% SILT 5% VERY FINE GRAINED SAND.

CLAY (2) – YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/6) HARD. MOIST., 100% CLAY, WITH FeO_2 MOTTLE, AND BLACK OXIDATION ALONG FRACTURES. IN PLACES RESEMBLES WEATHERED ROCK.

SAND – DARK GREYISH BROWN SILTY SAND (SM) (2.5Y 4/2) DENSE, WET. 60% VERY FINE SAND 40% SILT/FINES. HAS BEDDING PLANES. THIN LAMINATIONS.

SERPENTINITE – LIGHT OLIVE BROWN (2.5Y 5/2) TO GREENISH GREY (5GY 5/1), MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW TO MODERATE HARDNESS. FRIABLE TO WEAK. DEEPLY WEATHERED.

LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Base or Road Bed A
- Chert Base or Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

* 4.5 – PILOT PENETROMETER

SECTIONS TRENCHED 4/27 THRU 4/29/05. BACKFILLED 4/28 AND 4/29/05

MACTEC

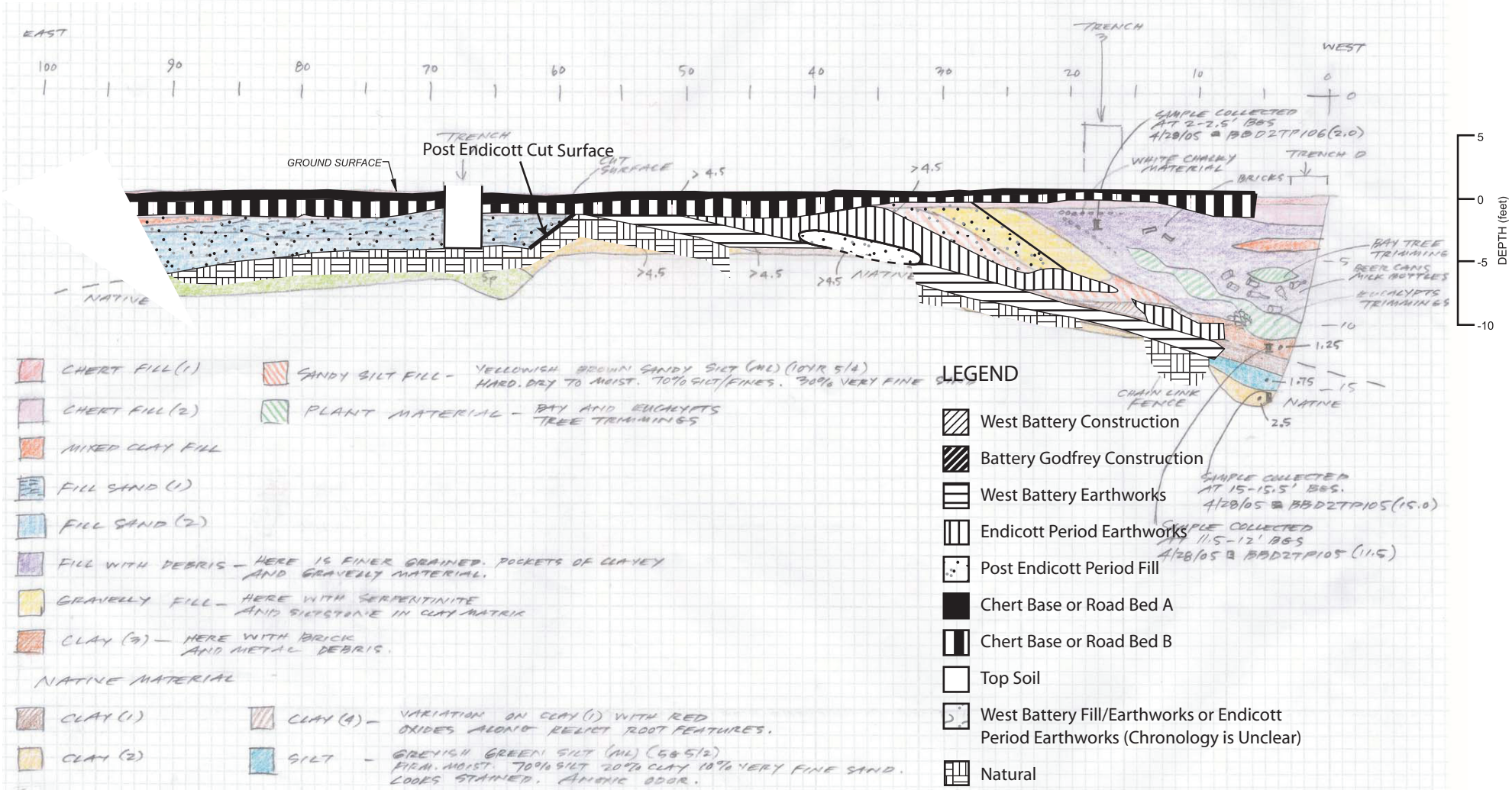
PLATE

Field Log of Trench 1
Baker Beach
San Francisco, California

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 05125		07/05		

OVERLAY 1

Trench 2



MACTEC

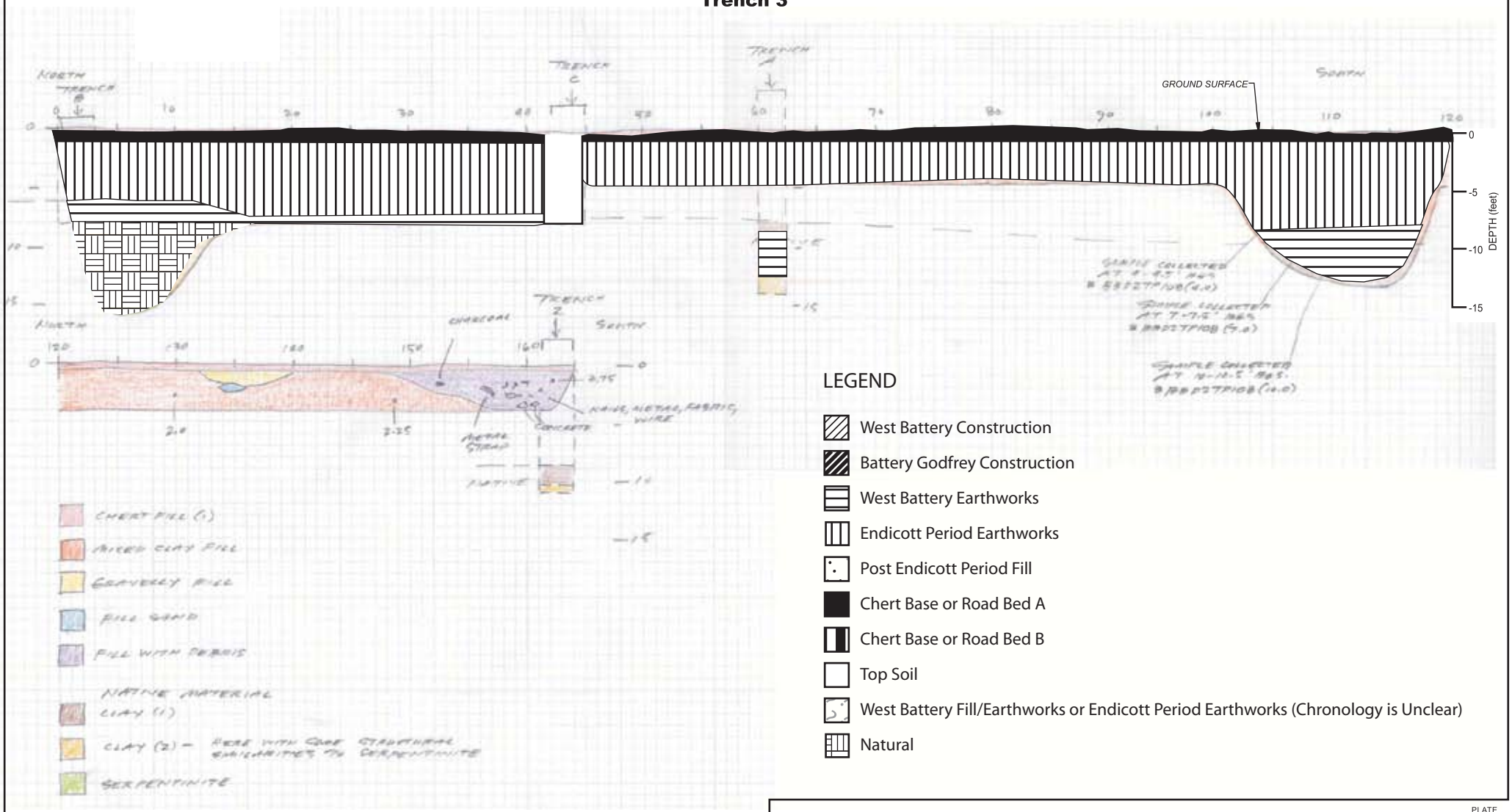
Field Log of Trench 2
Baker Beach
San Francisco, California

PLATE **A2**

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 2

Trench 3



MACTEC

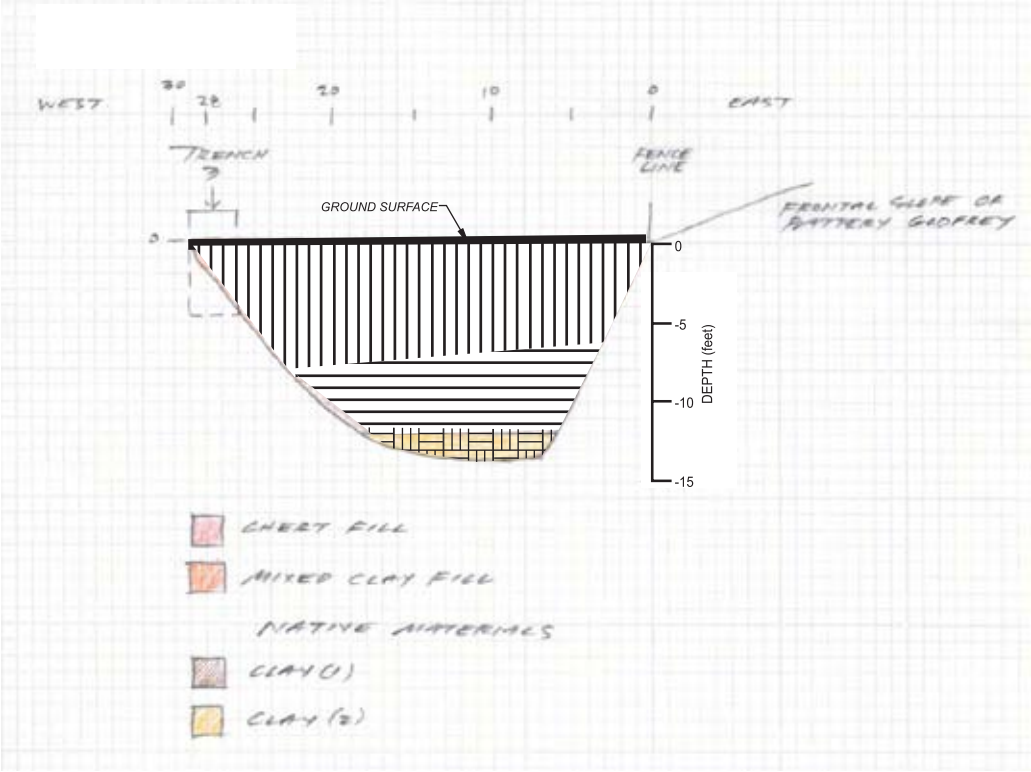
Field Log of Trench 3
Baker Beach
San Francisco, California

PLATE
A3

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 3

Trench A



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Road Bed A
- Chert Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

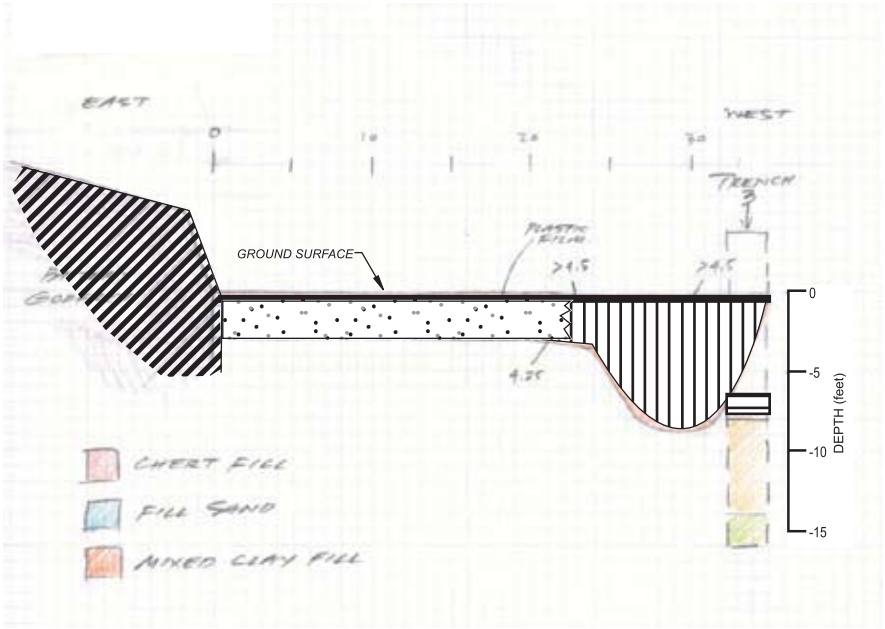
MACTEC

Field Log of Trench A
Baker Beach
San Francisco, California

PLATE
A4

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench B



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Road Bed A
- Chert Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

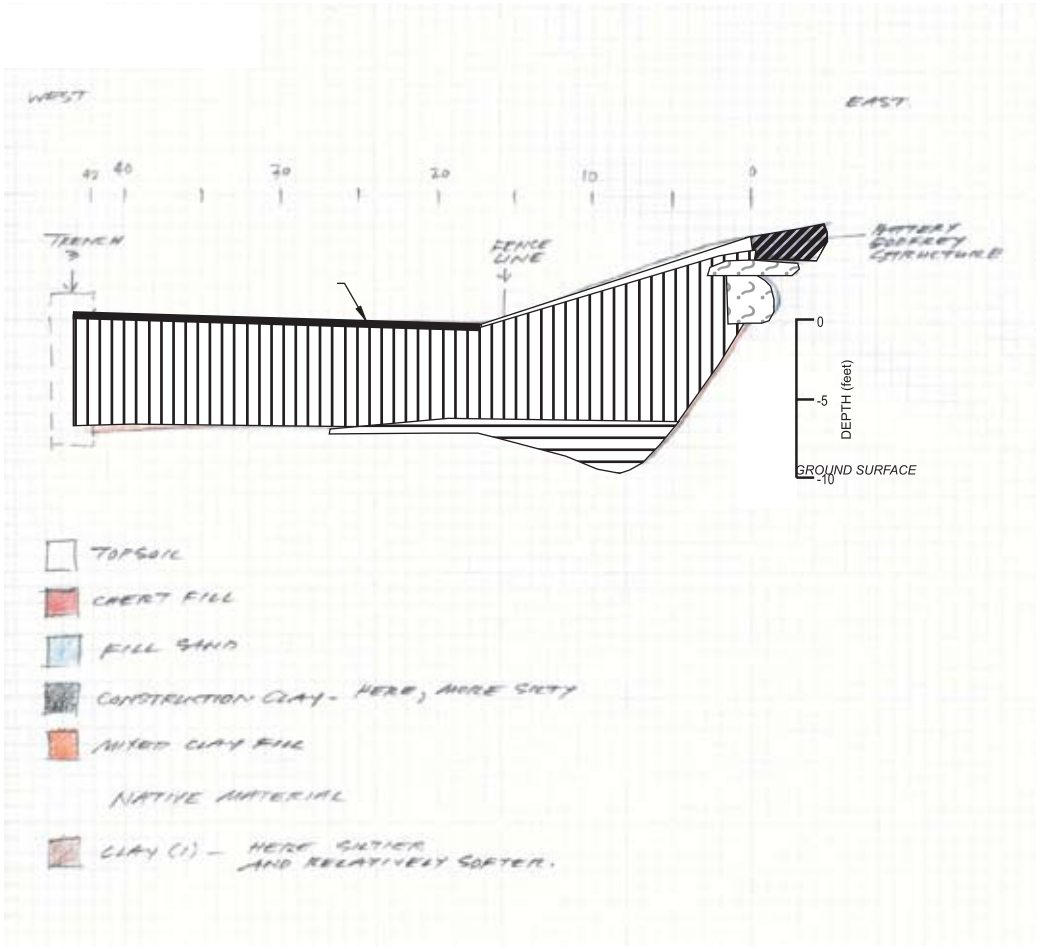
MACTEC

Field Log of Trench B
Baker Beach
San Francisco, California

PLATE
A5

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench C



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Road Bed A
- Chert Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

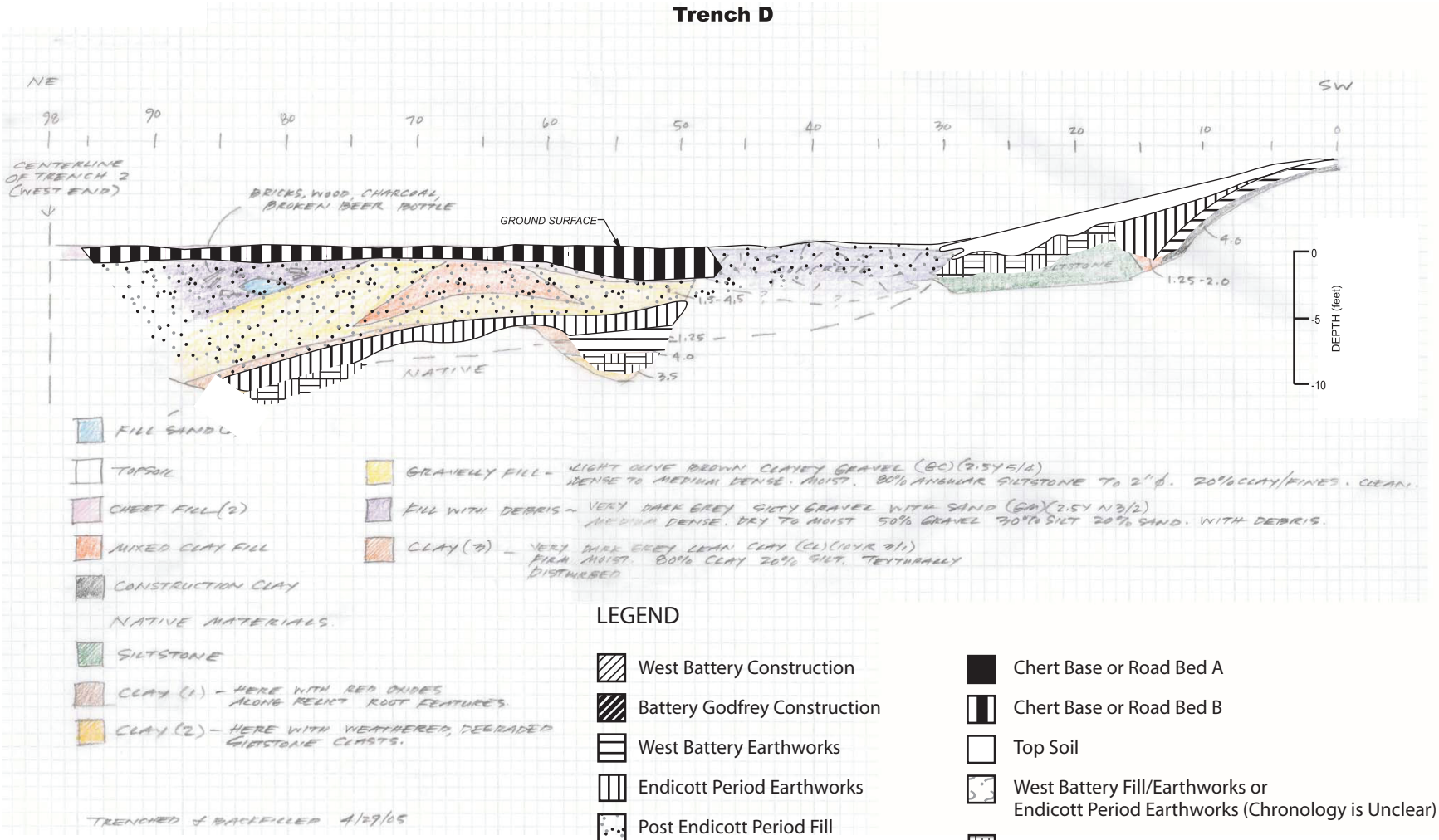
MACTEC

Field Log of Trench C
Baker Beach
San Francisco, California

PLATE
A6

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

Trench D



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Base or Road Bed A
- Chert Base or Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

MACTEC

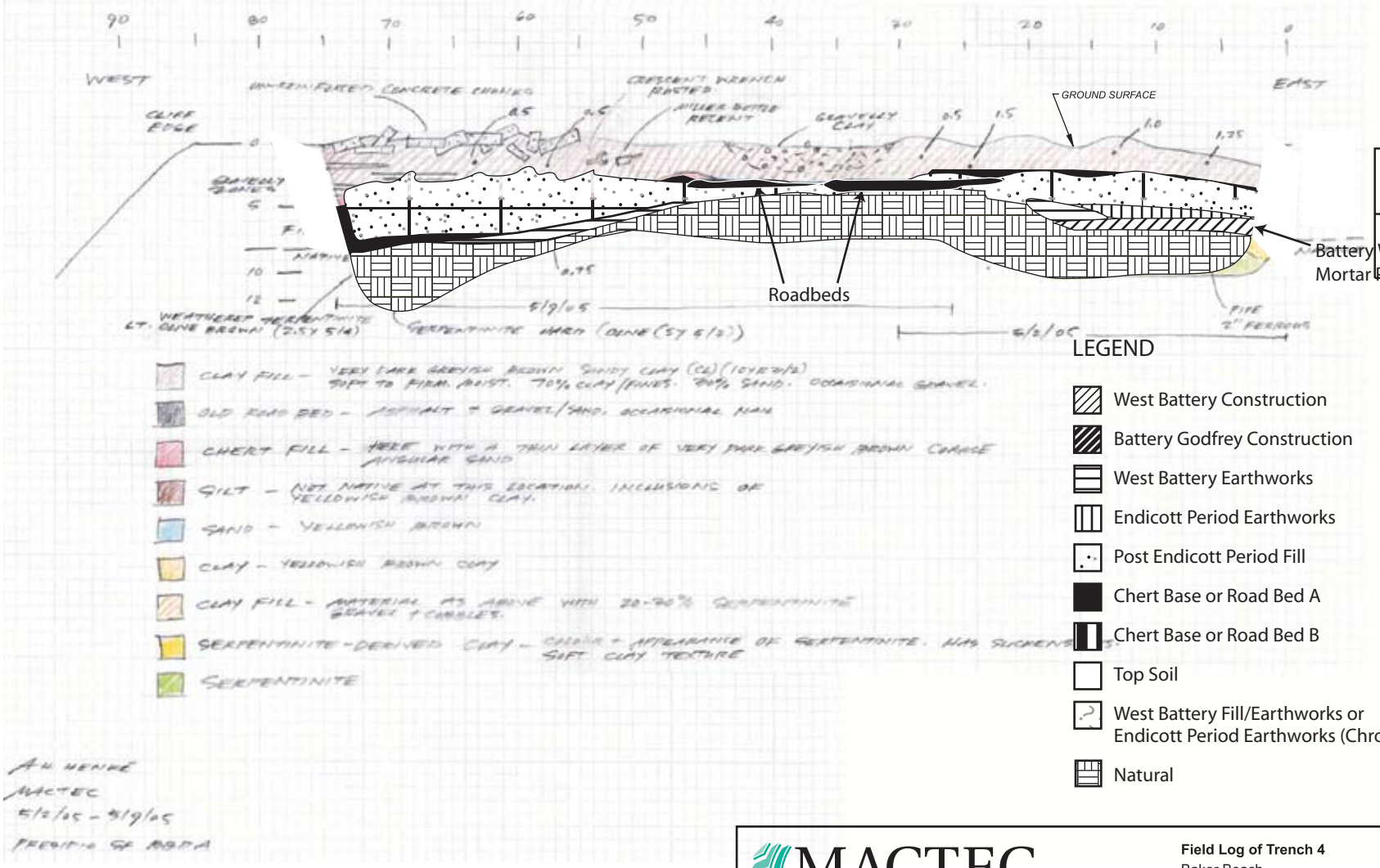
Field Log of Trench D
Baker Beach
San Francisco, California

PLATE
A7

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 5

Trench 4



MACTEC

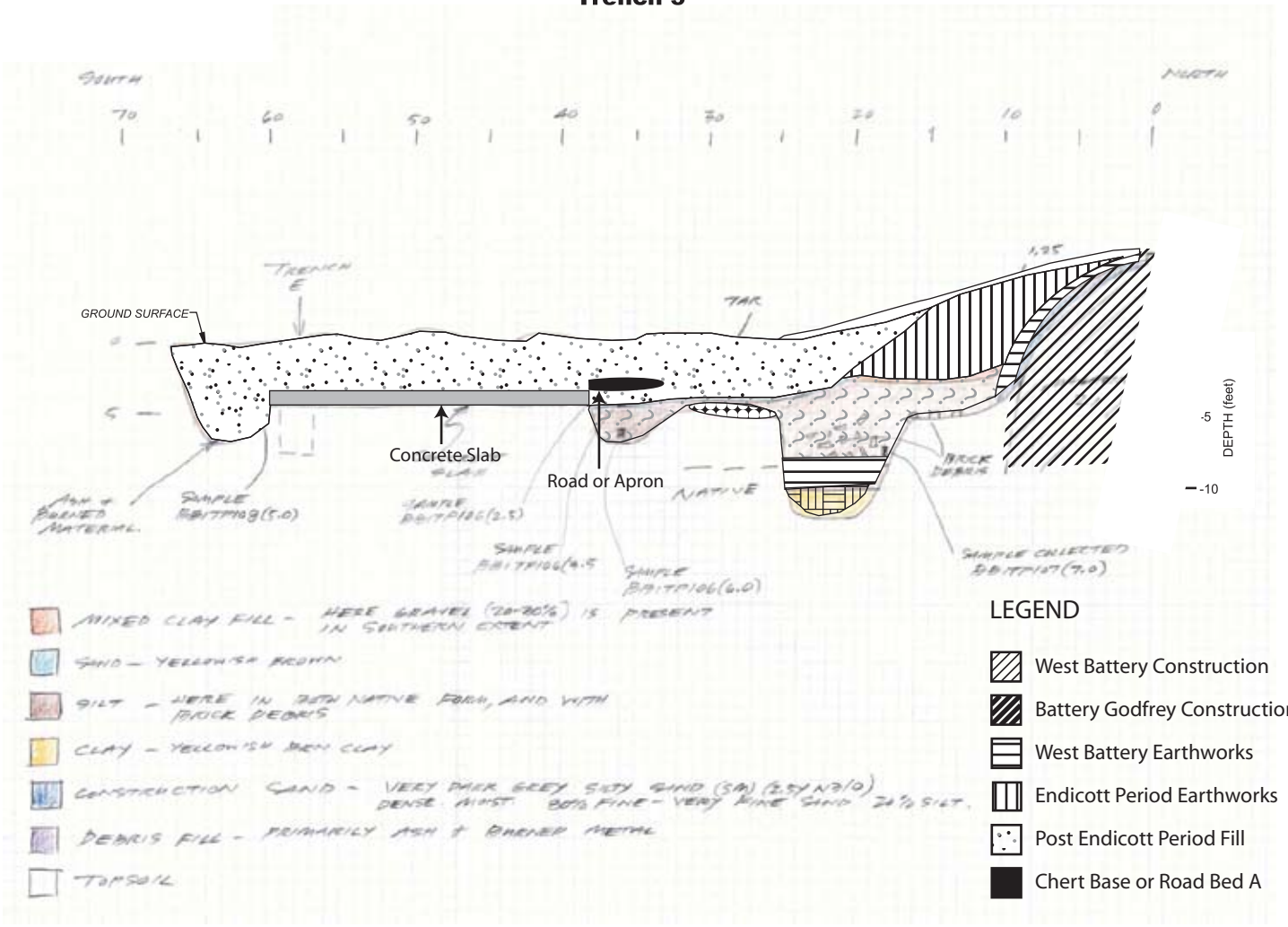
Field Log of Trench 4
Baker Beach
San Francisco, California

PLATE
A8

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 6

Trench 5



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Base or Road Bed A
- Chert Base or Road Bed B
- Top Soil
- West Battery Fill/ Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural
- Anomaly

MACTEC

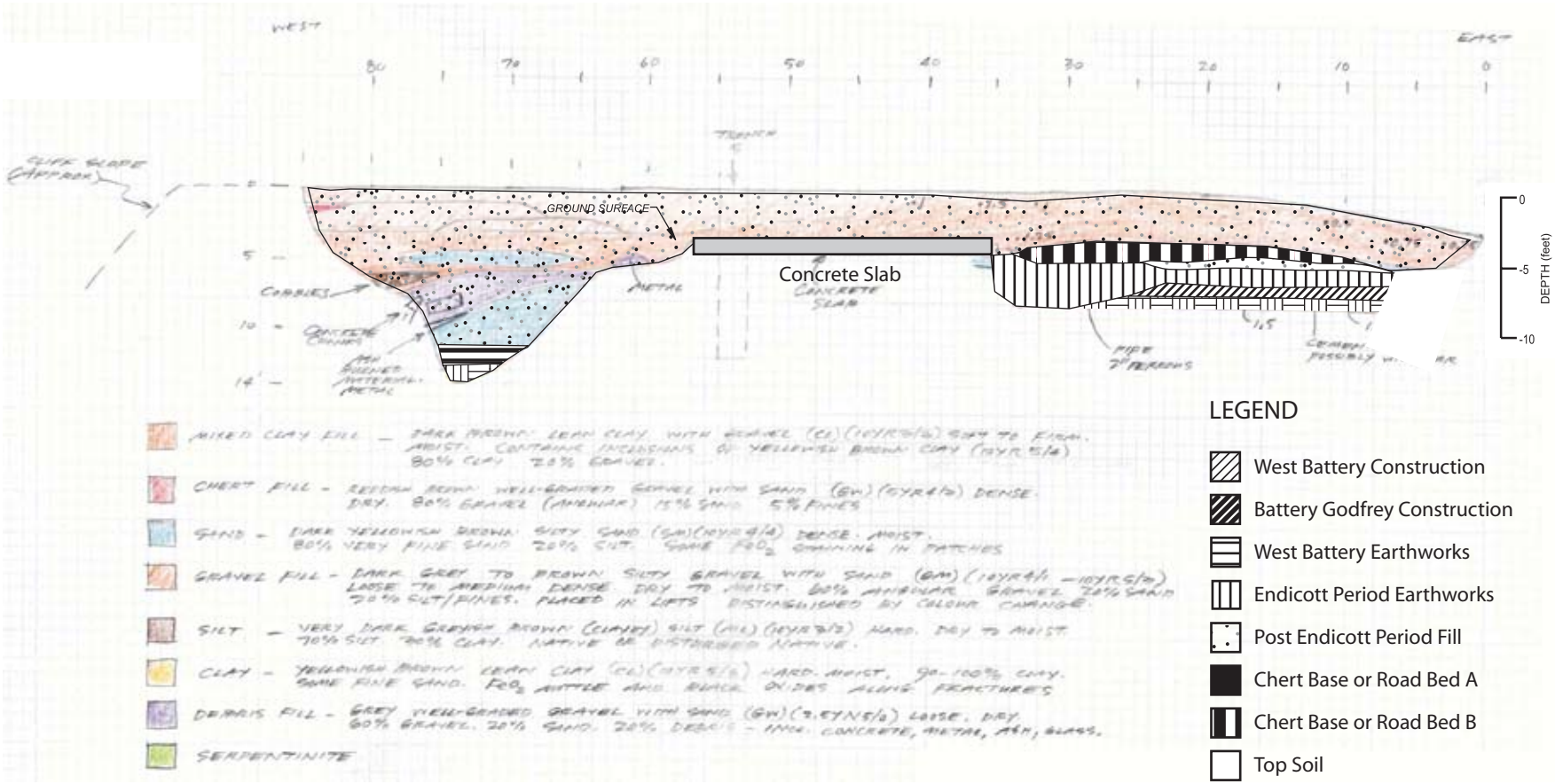
Field Log of Trench 5
Baker Beach
San Francisco, California

PLATE
A9

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 7

Trench E



LEGEND

- West Battery Construction
- Battery Godfrey Construction
- West Battery Earthworks
- Endicott Period Earthworks
- Post Endicott Period Fill
- Chert Base or Road Bed A
- Chert Base or Road Bed B
- Top Soil
- West Battery Fill/Earthworks or Endicott Period Earthworks (Chronology is Unclear)
- Natural

MACTEC

Field Log of Trench E
Baker Beach
San Francisco, California

PLATE
A10

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APP'D DATE
CN	57255 005125		07/05		

OVERLAY 8

West Battery & Fort Scott Endicott Batteries – Construction, Evolution, and Modifications

Introduction

The line of gun batteries stretching along the Presidio bluffs south and west from the Golden Gate Bridge toll plaza form an 'outdoor museum' of late 19th century fortifications that are rivaled few places elsewhere in the United States. These gun batteries, constructed between 1870 and 1900, show the transitional nature United States defenses at the time when its harbor fortification system was undergoing the change from "storybook castle forts" filled with muzzle loading cannon to modern low-profile earth and concrete fortifications mounting long range, rifled steel guns.

These batteries, referred to as "works" by the U.S. Army Engineers who constructed them, represent not only a time capsule of evolutionary military design, but also include some of the earliest of the modernized American fortifications constructed anywhere in the country.

This investigation into the background, context, construction, alteration, and post-military uses of these batteries has been commissioned by the Presidio Trust. The goal is to develop information that will support URS Corporation's historic resource studies on this area of the Presidio, which are being prepared to provide documentation on historic resources that may be encountered during remedial actions at the Baker Beach Disturbed Areas (BBDAs) in the Presidio of San Francisco. This report on the Presidio batteries will build and expand upon the excellent historic narrative portion of the report "Cultural Resource Baseline and Impact Assessment for the Baker Beach Disturbed Areas" prepared for the Presidio Trust by URS in August 2004.

Major emphasis in the report is given to the history of the 1870s earthworks in the areas designated BBDA 1 (between Batteries Marcus Miller and Boutelle) and BBDA 2A (adjacent to the left flank of Battery Godfrey) because of the documented existence of "Plan of 1870" remnant earthworks and magazines in these areas and the high likelihood of encountering additional resources.

Background and Context

Beginning in 1865, the American military began to reassess its system of harbor defenses. Battlefield lessons learned during the Civil War showed that multi-tiered masonry forts of the style typified by Fort Sumter in Charleston, South Carolina and Fort Pulaski at Savannah, Georgia had proven to be highly vulnerable to attack. Built to design standards that went back to the 1820s, these forts – and about forty other similar works around the United States – were referred to as "Third System forts" because they represented the third generation of American fortification designs. However, during the just-finished war their towering masonry walls had proven to be inviting targets for long range, rifled artillery fire. Instead of withstanding months of siege, some masonry forts had surrendered after only a few days of bombardment. (Fort Pulaski's Confederate defenders held out for only thirty hours before its 7½-foot thick walls were penetrated by Union artillery fire.)

In addition, steam powered warships could race past these masonry fortifications, suffering relatively minor damage to their ironclad hulls, especially when compared to the wind-propelled wooden warships that had been state-of-the-art when the Third System was begun.[1]

The lesson was clear: all these multi storied forts had become obsolete due to advances in military technologies. This included the three-story fort at Fort Point in the Presidio of San Francisco, a work that had only been completed in 1861. These sobering revelations would have impacts both abroad as well as in the United States.

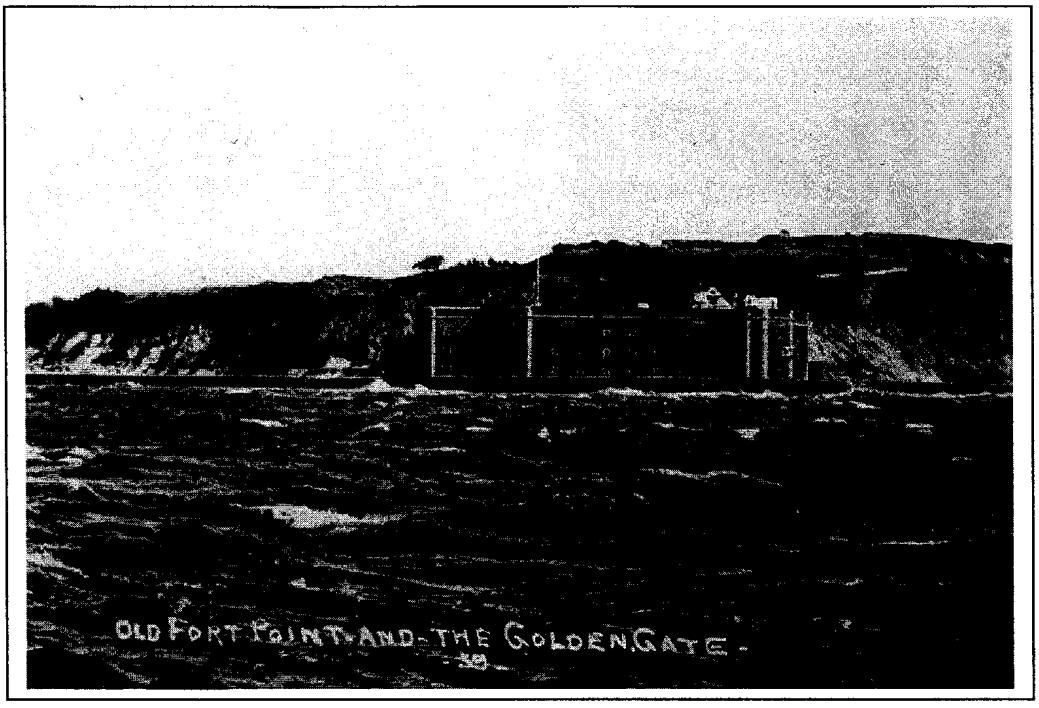


Figure 1. *The visibility and vulnerability of masonry works is illustrated by this view of the fort at Fort Point in the Presidio, c1900.*

Historian E.R. Lewis, the preeminent expert in the evolution of America's coastal defenses, summarized the situation in the late 1860s:

> By 1865 several European nations were already starting to respond to the technical lessons of the Civil War by drafting plans for the construction of entirely new, and extremely expensive, types of permanent harbor defenses armored with great masses of iron, thus beginning a trend in military architecture which was to continue well into the twentieth century, making use in its extreme instances of shore-mounted battleship turrets.
>
> The United States, however, was in no position to commence an extensive new system of harbor defenses. The planning engineers, mindful of the suddenness with which the existing (i.e., Third System) fortifications had been rendered obsolete, were reluctant for technical reasons to turn to elaborate works that might quickly become outmoded, as there was much

> to suggest—correctly, as events proved—a coming period of further rapid advances in artillery. Nor would such an undertaking if proposed have stood much chance of realization, for under the extreme postwar stress on reduced military spending, any appropriations large enough to be meaningful would also have been out of the question.[2]

The U.S. Engineers carried out limited testing with armor plates attached to the faces of existing masonry forts, but with disappointing results. Iron plates frequently split or shattered when hit by projectiles, and the sheer weight of the plates presented huge installation problems. Costs were enormous, and one glaring defect in the plan could not be overlooked; as one historian wrote, "The fort was still a large, obvious target, easy to hit."[3]

Even during these tests, the engineers' thinking was leaning towards a radically new design based upon the simple earthen batteries erected during the Civil War. These emergency works had been constructed of copious amounts of earth and sand cover, and had very low profiles when viewed by an attacking enemy. These improvised fortifications, they noted, had been simple to build, provided excellent protection against enemy fire, and were easy to maintain and repair. Earthworks, they decided, would become be the basis of the next generation of permanent American forts.

In August 1868 the New York Board presented a report concerning the proper profile for postwar barbette batteries. These specifications would be the standards for what came to be called the "Plan of 1870" because of the year of their actual implementation. Historian Erwin Thompson summarized the 1868 Board's findings:

- As a material for parapets, sand was far superior to clay.

- A parapet of sand, 20 feet between the crests supported by a breast-height wall 4 feet thick, would suffice as a minimum.

- A wall in the body of the parapet was not recommended.

- The introduction of iron plates in parapets was inexpedient except in peculiar cases.

- The minimum distance between 15-inch guns should be 34 feet, and the minimum distance between 10-inch guns should be 22 feet.

- The terreplein should not be less than 30 feet in depth.

- There should be a traverse for every two guns that were exposed to direct or oblique fire, and a traverse for every gun subjected to enfilading fire. When practicable, there should be a parados for guns liable to reverse fire.

- Minimum dimensions for a traverse should be 14 feet in height, 12 feet in thickness at the top, and 20 feet in thickness at the bottom.

- Service magazines were indispensable. Good well-rammed concrete was the best material, with no lining.

The board concluded that the use of guns in barbette batteries would be greatly modified in the future, and it recommended that the present carriages and platforms not be constructed in great numbers.[4]

(The last-mentioned carriages and platforms would be a heated topic of research and development. The Ordnance Department was then carrying out experiments on a wide variety of cannon and carriage designs, and one that showed particular potential was the "King's Depressing Carriage." This weapon was, in effect, a conventional muzzle-loading gun mounted on an inclined, sliding steel carriage. After firing, the cannon slid down and out of view for loading. Battery technology for the next half-dozen years

revolved around the anticipated – but never implemented – introduction of the Depressing carriage.)

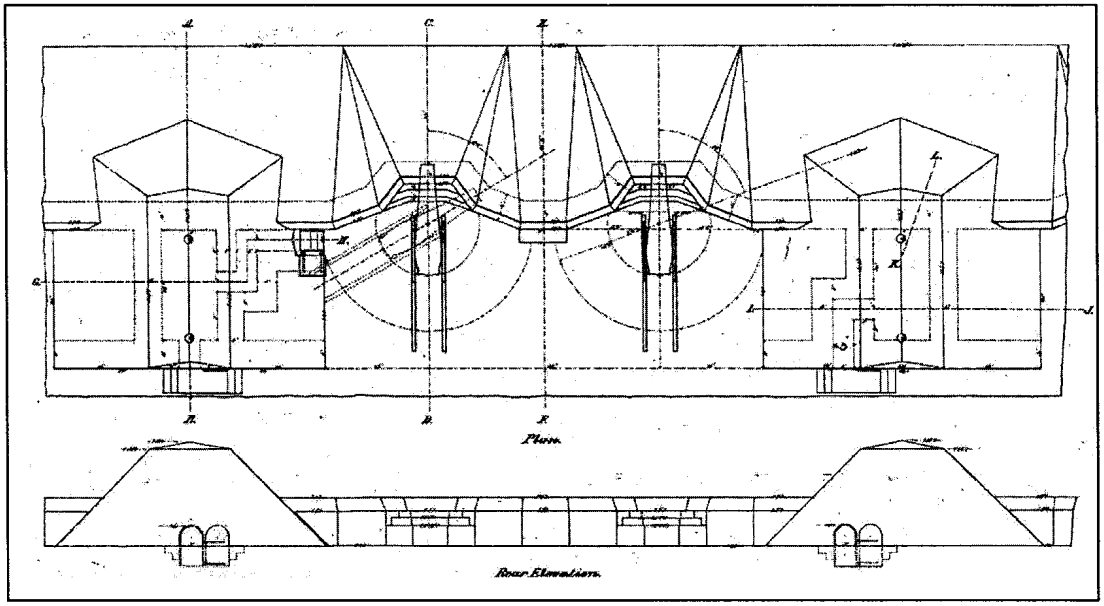


***Figure 2.** Prototypical plan of an earthwork drawing: "Plans Sections and Elevations of a Barbette Batter as Proposed by the Board of Engineers for Fortifications," 1868 (NARA RG77, Dr 155, Sht 14)*

These new American fortifications would be low-rise affairs, extending only a dozen feet at most above grade when viewed from the sea. In order to provide maximum protection for the guns, the weapons would no longer be mounted in the long-unbroken lines of platforms built in the 1850s. It was now planned to emplace the cannon in pairs, and each pair would be separated by artificial earth hills called "traverses." Each traverse was also to house a powder magazine for ammunition storage. Brick-lined, arched tunnels through the earthworks permitted the safe movement of men and supplies during battles.

The new plans also called for a high degree of standardization of weaponry. Instead of the hodge-podge of calibers so common in pre-Civil War forts, the new batteries would mount only four different types of guns: 13-inch smoothbore mortars; 15-inch and 20-inch Rodman pattern smoothbore guns; and a 12-inch rifled Rodman gun still under development. (Neither of the latter two gun types, however, would ever proceed beyond the test phase.)[5]

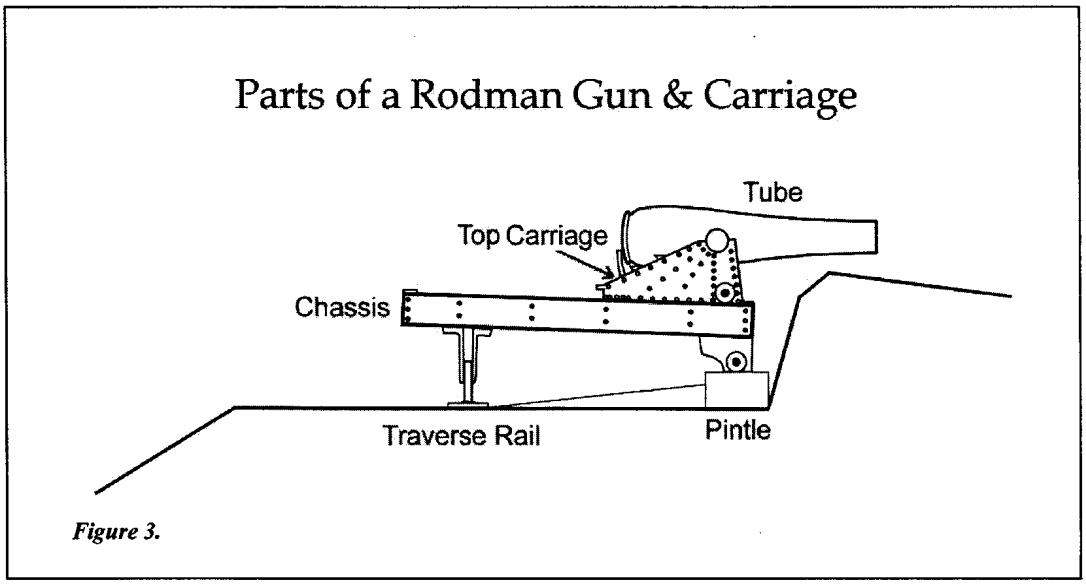


Figure 3.

These batteries would be conspicuously similar in design, varying only slightly between forts due to local material availability and engineer preferences. Guns were to be emplaced entirely *en barbette* (i.e., mounted in the open), sitting atop simple wood or masonry firing platforms and aiming over a breast-high parapet wall directly in front of the gun. Set into this wall were brick steps for the gunners to use when loading powder and shell into the muzzle-loading Rodmans. Guns would be mounted in pairs, with a standard spacing of 34 feet between centerlines. Each pair of guns would be flanked by high earthen hills called "traverses", some measuring 20 feet tall, whose purpose was to prevent an enemy from being able to fire down the entire length of a gun battery (*enfilading fire*). And if by chance a gun was struck by enemy fire, the traverses on either side would restrict any damage to the two guns within the emplacement.

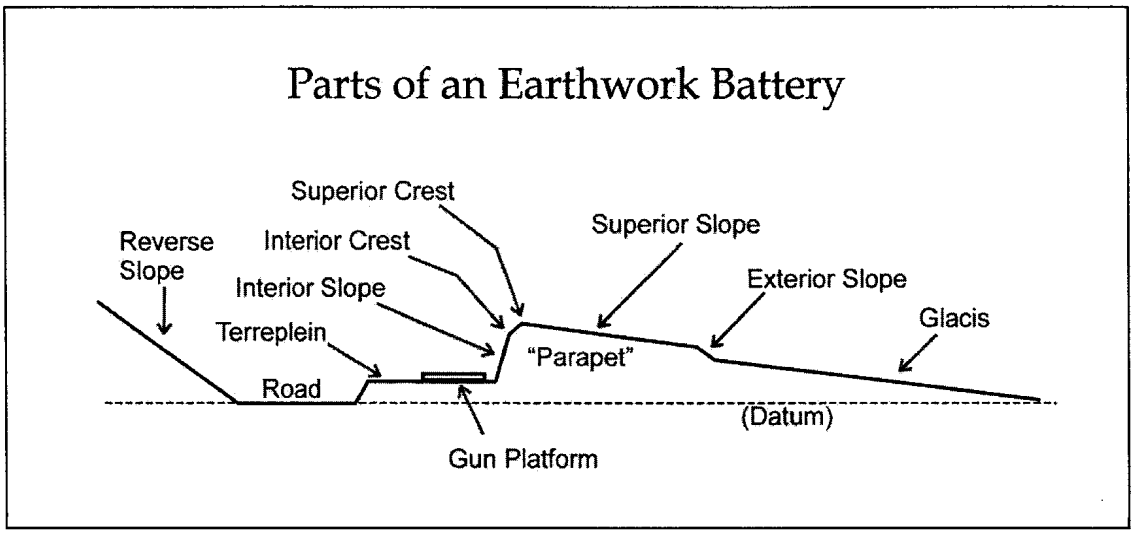


Figure 4. *Section through an emplacement showing names of architectural features.*

Inside each traverse was service powder magazine for storing gun powder for the battery. These service magazines were meant to provide ready-access for the gunners, while much larger "great magazines" located at dispersed locations held central reserves of propellant. Standard interior dimensions for a service magazine was to be 8' x 16', although exact dimensions, entrance locations, and arrangement of approach tunnels would vary. Shot (solid projectiles) and shell (hollow explosive rounds) would usually be stored outside on shot beds close to the guns themselves.

Historian Glen Williford described the flexibility and features of a typical "Plan of 1870" earthwork battery:

> These units could be strung together like beads on a string and lines or batteries could contain twenty or more gun emplacements. … In place of stone or brick, the plans incorporated the use of concrete – its first widespread application in American defenses.
>
> The principal material used for the parapet itself, any glacis in front, for the high traverse covers, and for any rear parados was sand, whose availability and cost advantage were obvious. Some 30 feet of earth or

sand were specified for the depth of the terreplein. Magazines had hung wooden doors, and their interiors had special niches for oil lamps.[6]

Figure5. *A "Plan of 1870" two gun emplacement at East Battery, Fort Scott, c1910. Note the entrance to the service magazine at right. (GOGA, PARC, FOPO Collection.)*

Another feature of the Plan of 1870 works was the incorporation of mortars into the batteries. More than one hundred 13-inch caliber model 1861 mortars had been manufactured during the war, and it was felt their inclusion in the batteries and their plunging arcs of fire would be a perfect addition to the relatively flat trajectory fire of the Rodman cannon.

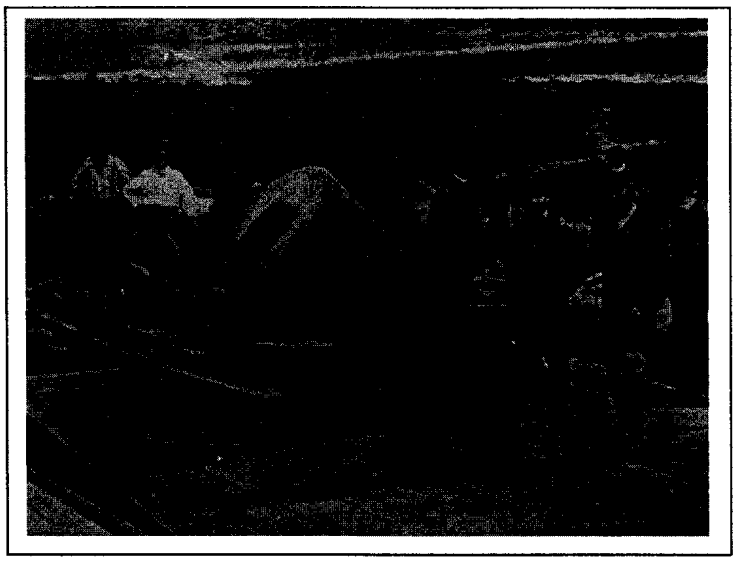


Figure 6. *A Union 13-inch mortar Model 1861 installed during the siege of Petersburg, VA, in 1864. (NARA)*

The drawback to the 13-inch mortar was its relatively short range, slow rate of fire (weapons during this period were still aimed by brute force), and relative inaccuracy. A partial solution was to emplace mortars in groups; firing volleys of mortars at the same target greatly increased the probability of a hit. Two to four mortars per emplacement became the standard, with several mortar emplacements spaced along the length of a battery.

As opposed to the extensive masonry platforms required to support a 15-inch Rodman, mortar beds were relatively simple affairs constructed of overlapping courses of wood topped with iron skid plates. A mortar platform measured 13 feet square and 2 feet thick, and was set nearly flush with the ground. However, only three mortar emplacements around the country were ever armed before funding for the fortification program was cut off. None of these batteries were on the West Coast.[7] Numerous wooden mortar platforms were completed, though, and remained in place for decades afterwards. (See Figure 7.)

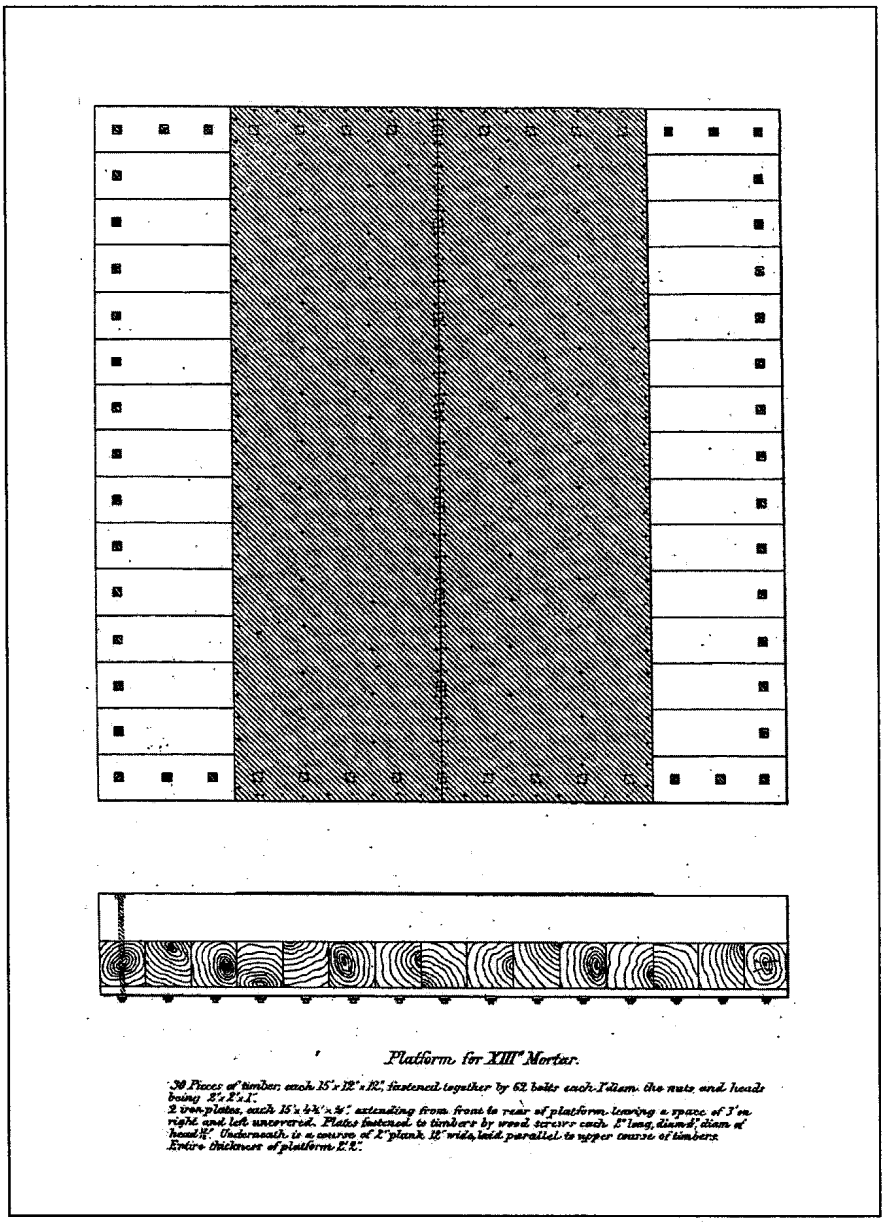


***Figure** 7. Platform for a 13-inch seacoast mortar, 1870. This is the type of platform installed at West Battery. (NARA, RG77)*

In 1870 the army established a special Pacific Board of Engineers to oversee construction of the and modernization of the works around San Francisco Bay, where new batteries were proposed for Fort Point, Alcatraz Island, Angel Island, Lime Point in Marin County, and Point San Jose (Fort Mason) in San Francisco. At Fort Point the Board proposed to construct two lines of batteries on the hills behind the old masonry fort. These works

would be named West Battery and East Battery, reflecting their geographic locations atop the bluffs west and east of the now-obsolete masonry fort.

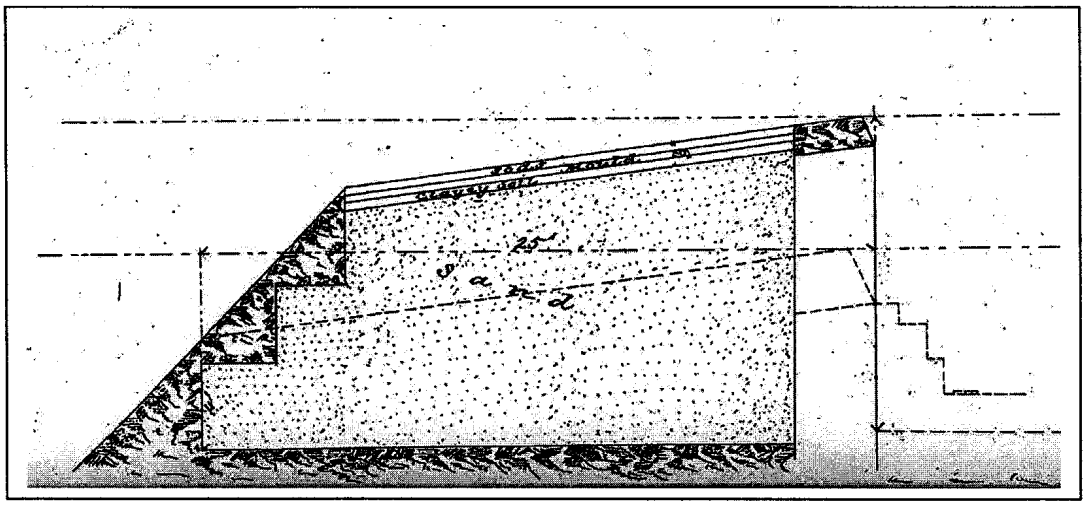


Figure 8. *Detail from drawing titled "Cross-section of Parapets Shewing [sic] Their Construction in Sand," 1871. Note the layers of sods, mould, and clayey soil on superior slope. (NARA, RG77, Dr 155, Sht 17)*

As work progressed on constructing the Plan of 1870 fortifications, financial and political realities began to rear their heads. The Congress began to question the army' continued expenditure of funds on what was becoming increasingly apparent as an obsolescent system of weapons, especially since international advances in weapons, warships and tactics had left the old-pattern American smoothbore guns, no matter what their size, increasingly obsolescent. Rather than allocating money for modern armament and fortifications, Congress decided in 1876 to grant a mere $100,000 for "preservation and repair" of fortifications, and nothing for new construction. In 1877 things became even tighter when Congress adjourned without even passing an army appropriations bill.

For all intents and purposes, work on the Plan of 1870 ceased in 1876. Except for paltry amounts allocated for repair and preservation, no serious expenditures would occur until 1890. Again, Historian Lewis described the situation that followed:

> The deserted batteries were periodically inspected by caretakers, but neither funds nor labor was available to them for arresting the progressive

> deterioration that was to continue into the early 1890s. Third System forts, though patently outdated, and armed for the most part with smoothbore guns of Civil War or earlier vintage, continued to serve, of necessity, as major components of the nation's harbor defenses.
>
> This abortive program nevertheless marked a distinct turning point in American fortification practice, for the technical and tactical concepts on which it was based set a pattern that was to characterize all future harbor defense undertakings in the United States. ... From this time on, a fort was a piece of real estate occupied by a number of dispersed individual batteries. Furthermore, the various items of armament intended for this project, though never in fact adopted, remained under constant development throughout the 1870s and 1880s, with the result that by about 1890 there became available greatly improved weapons around which was conceived the very advanced and extensive generation of defenses that followed.[8]

In some ways, the lull in construction was a boon to U.S. Engineers. Instead of completing and arming the Plan of 1870 works, the army was compelled to wait until the early 1890s to begin construction on the next generation of defensive works, and during this period they were able to reap the windfall of technical developments in artillery and construction made by foreign powers.

During this period, numerous improvements were made that had a direct impact on America's next generation of harbor and coastal defense fortifications:

1. Methods of manufacturing and rifling modern steel artillery pieces evolved to the point where breach loading mechanisms could be introduced, thus allowing the use of highly efficient pointed projectiles and allowing for greater range and accuracy.

2. The development of the 'disappearing carriage' that utilized the recoil energy of a gun to lower itself behind a protective parapet for loading and aiming, without endangering the crew or exposing its location to the enemy
3. The introduction of nitrocellulose- and nitroglycerin-based propellants that yielded higher muzzle velocities to effectively propel pointed projectiles.[9]

In addition, military architecture had made great strides. Advances in concrete construction allowed the building of immensely strong battery structures that could withstand even direct hits by naval artillery. Mechanically operated hoists now lifted projectiles from subterranean magazines to surface gun emplacements, and embryonic telephonic and electrical systems were revolutionizing communications between various parts of the battery, the fort, and even the entire defensive area.

As Lewis summarized:

> Compared to the best of the smoothbore muzzle-loading cannon of the post Civil War period, the new weapons which began to emerge from the developmental stage around 1890 could fire projectiles that, caliber for caliber, were four times as heavy as to effective ranges two to three times as great; and they could do so with remarkably increased armor-penetration ability and accuracy.[10]

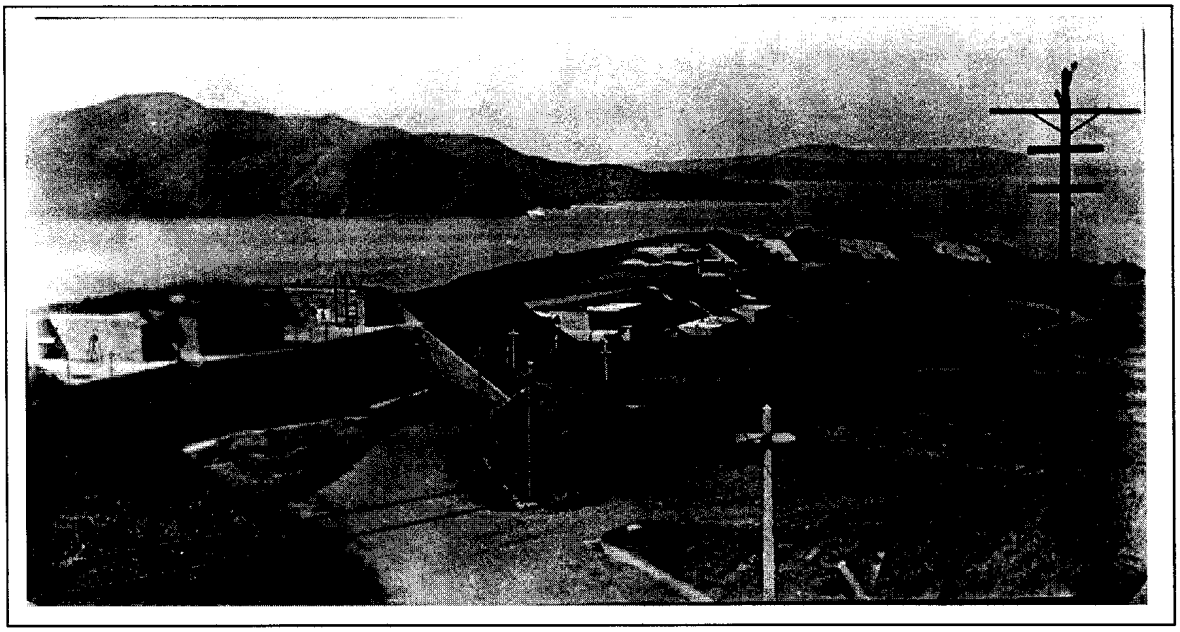
In 1885, Secretary of War William Endicott convened a long-overdue board to review the state of the American defenses and make recommendations for upgrading the nation's forts. Their recommendations became the basis for the next generation of construction that would extend from 1890 to 1910, and give rise to the designation "Endicott Era" for these works. In 1886 the Board made its report, calling for extensive new fortification projects at 26 coastal locales. Recommendations ran from gun batteries to mortars, to patrol boats and underwater minefields. Not all recommendations would be implemented, but the results would still bring sweeping changes to the coastal fortifications.[11]

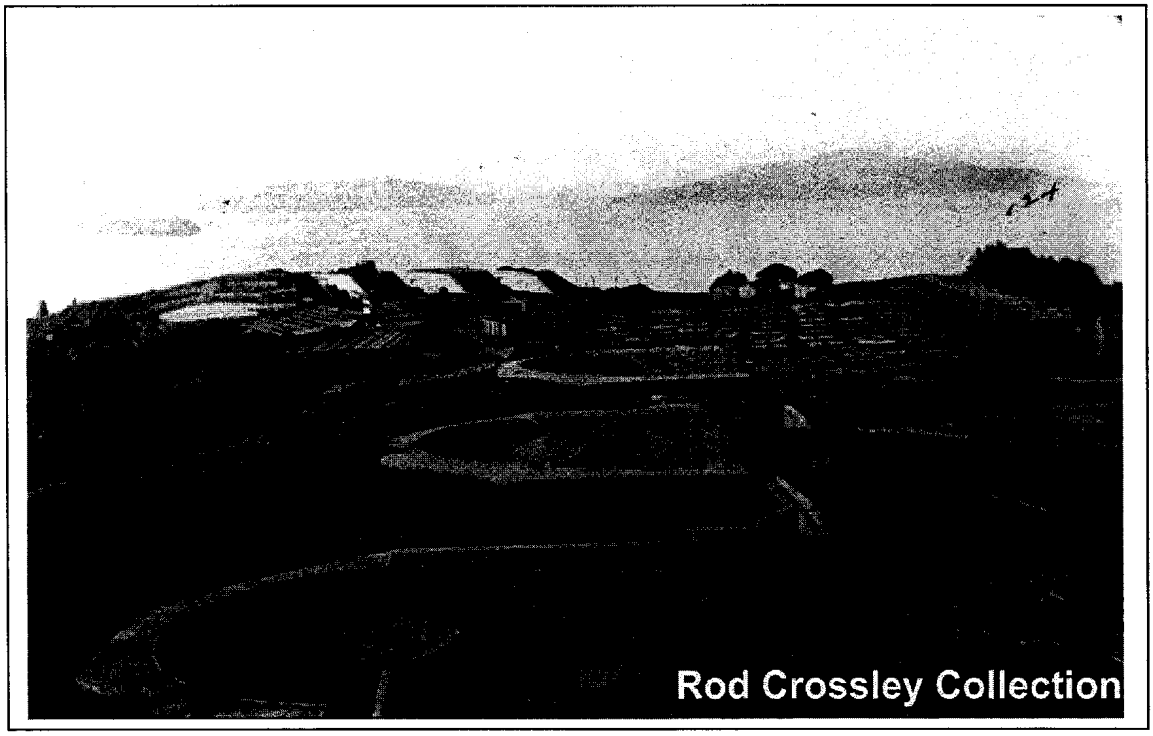
In general, the Endicott Board recommended emplacing several calibers of guns, each with its own anticipated targets, ranging in caliber from 12-inch rifles and mortars designed to deal with heavily-armored ships such as battleships and cruisers, down to 3-inch rapid-fire guns meant to take on swift motor torpedo and patrol boats. In between these extremes were several other calibers of guns, each with its own justification for existence, although it's hard to see what the tactical difference might have been between a 5.7-inch gun and a 6-inch gun. (Standardization would come later.) In addition, electrically controlled underwater minefields would be planted in shipping channels and approaches.

Beginning in 1890, Congress began acting on the Board's report and resumed making annual appropriations for construction of coastal defenses. In 1890 and 1891, it passed acts authorizing almost $2 million in new construction. San Francisco and New York Harbor were at the head of the list. Over the next several years, construction would proceed rapidly at these two ports that reflected their importance and the military's concern that they might be primary targets of enemy attack.[12]

Work began in 1890 above Fort Point, where ground was broken for a 10-inch disappearing gun emplacement in Battery Marcus Miller. Before long, additional batteries were being constructed at the post (formally named Fort Winfield Scott in 1882) that mounted a variety of large caliber guns, rapid-fire weapons and mortars. The best location for many of these emplacements was the bluff occupied by West Battery, and by 1900 five different Endicott batteries had been built atop its earthworks. These new works obliterated nearly every trace of the 1870s emplacements, but a handful of service magazines in truncated traverses survived to be incorporated into the new batteries.

The Endicott program would be succeeded by newer generations of coastal defense construction in the 20th century, but their stout emplacements would survive long after the guns were dismounted. In the Presidio, some of the 1890s emplacements would see military uses as late as the 1960s, frequently as storage facilities but sometimes as command posts and even soldiers' quarters during wartime.





***Figures 9 & 10**. Two views of Endicott batteries at Fort Scott along the former location of West Battery. (Above) From left to are Batteries Boutelle, Marcus Miller, Cranston and Lancaster. A portion of a trapezoidal 1870s traverse #21 is visible between Batteries Boutelle and Marcus Miller. (Below) A WWI cantonment area is visible beyond Battery Boutelle. (GOGA, PARC, Interp Coll)*

I. Construction

A. "Plan of 1870"

The construction of earthwork batteries at Fort Point followed very closely the guidelines set forth in the 1868 report by the Board of Engineers. The most extensive retelling of the construction of West Battery and East Battery is contained in the National Park Service publication *Historic Structure Report: Fort Point Historic Data Section*, prepared by historian Edwin C. Bearss of the NPS in 1973. This researcher has excerpted extensively the sections concerning West Battery taken from Bearss' landmark report. A copy of his HSR relating to the batteries' construction is included as an addendum to this report.[13]

Guided by the concepts contained in the Washington engineers' 1868 report on earthwork fortifications, the Board of Engineers for the Pacific Coast developed an extensive scheme of defense for San Francisco Bay. In their September 1870 report to the Chief of Engineers the members outlined their vision for works at Fort Point: "The best position on this shore for Barbette and Mortar Batteries to defend the approaches to the harbor were along the crest of the bluff, south of Fort Point, and that a powerful battery can be placed on the bluff East of the Fort."

The proposal was nothing if not expansive. In its original form, the Board envisioned West Battery as a series of gun and mortar positions to emplace 57 guns and 28 mortars, extending along the ridgeline from directly behind Fort Point all the way to Telegraph Hill in the Presidio (today's Robb Hill). Its guns would face almost due west and command the approaches to the Golden Gate. Guns on its extreme right flank could also intersect with fire from batteries planned at Lime Point.

East Battery, by comparison, was a relatively small work consisting of only 16 guns and four mortars. It was positioned so that its field of fire was almost entirely within the bay, half of its guns oriented towards Alcatraz Island and the others facing towards Point San Jose.

Following closely the Washington Board's guidelines, the traverses would be spaced 64 feet apart on their centerlines, allowing enough room for two 15-inch Rodman guns in each battery. This spacing would also allow sufficient room to allow for any modifications in platform design or carriages that the Washington Board might later require. (At this time the army was still considering the adoption of the King's Depressing Carriage described earlier.) Far behind the batteries, earthwork positions for riflemen would be constructed near Robb Hill to prevent the artillery emplacements from being seized from the rear.

But the Pacific Board was also realistic about the eventual expense, stating the batteries would "probably absorb in their construction al the appropriations that will be made for defensive works at Fort Point for several years." They prioritized work on various sections of the batteries, with initial priority going to the northern half of West Battery, which would include positions for a 20-inch Rodman, fourteen 15-inch Rodmans, and eight 13-inch mortars. (The proposed 20-inch gun would later be replaced by another 15-inch Rodman.)[14]

A meticulously detailed map was also prepared that accompanied the report, showing the locations of the proposed works. In later years this plan would be followed with almost slavish accuracy as actual construction work took place, and today's surviving features of West Battery only vary by inches from measurements shown on the 1870 proposal.[15]

The Chief of Engineers had to concur, of course, and went along with the Board's proposal, although he felt the West Battery positions, "though unnecessarily high and too oblique in direction for the most efficient fire on hostile fleets running through mid-channel to enter the Golden Gate," were found to occupy the only available ground in the area. The southernmost of its guns near Telegraph Hill would actually be more than 2½ miles from mid-channel – almost the extreme range of a 15-inch Rodman. Consequently, Humphreys only approved constructing the northern portion of West Battery – the portion that survives today. With these reservations, Humphreys sent the Fort Point

proposal to the Secretary of War, who approved the project on 9 November 1870, "subject to such changes in details by the Chief Engineer, as in the course of construction may be found advisable."[16]

Actual work on West Battery commenced in late December 1870, beginning with the six emplacements directly behind Fort Point. Initial projects included stockpiling of materials, building and improving roads to the construction site, grading of the battery site, and excavation and embankment of earth for its terreplein and traverse.

Over the next several months, battery construction proceeded swiftly at Fort Point indicating the army's desire to have modern fortifications completed as soon as possible. Extensive correspondence in the National Archives indicates that works began at the north end of West Battery and then proceeded in a southerly direction. By mid-April 1871 Stewart was able to report that work had progressed as far as the two mortar batteries, and that a portion of the traverse on the right flank of the battery had been embanked and excavations made for its magazine walls (today's magazine 21). By May, the front, side and end walls of the two mortar battery magazines had been raised to the spring lines of their arched interiors, and their parapets constructed.

Elsewhere along line of emplacements, work was in varying stages of progress on excavating, laying granite blocks and pouring concrete for gun platforms, constructing magazine walls, grading terrepleins, and sodding slopes. By 30 June 1871 the embankment of the terrepleins, traverses, etc. had been 2/3 completed for a length of 1,324 feet. Altogether 29,586 cubic yards of embankment had been positioned. Sodding totaled 7,180 yards. The breast-height wall had been begun, the masonry of two traverse magazines almost completed, and eight others about two-thirds finished. Foundations for 12 platforms and pintle blocks for mounting 15-inch Rodman guns had been put down. Altogether, 1,928 cubic yards of brick, stone and concrete work were in place.[17]

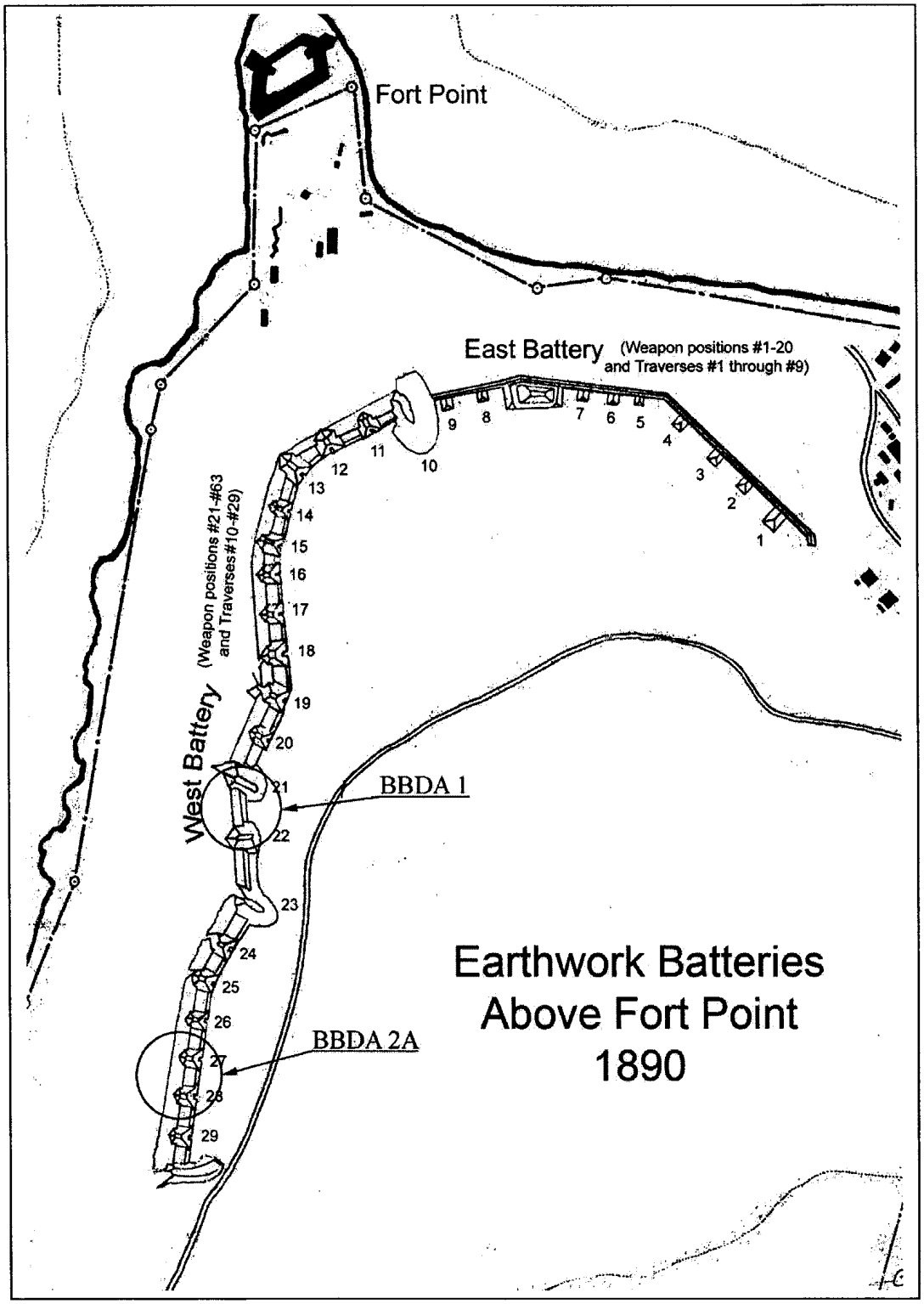


Figure 11. *Extent of completed earthwork batteries above Fort Point in 1890. Current Remedial Action project areas are circled.*

An unwelcome complication arose in early June when orders arrived from Washington directing that work on the batteries be suspended until decisions were made about how to arrange them to fit "King's counterpoise carriage."[18] This directive surprised the supervising engineer, Lt. Col. C. Seaforth Stewart, who had been proceeding with construction of standard barbette style emplacements, not depressing ones. He replied that the interior crests of the emplacements under construction at Fort Point varied in height from 180 to 196 feet above sea level, giving no tactical advantage to this style of embryonic disappearing gun.[19]

The situation was clarified in a couple of weeks when the Washington Board of Engineers made an updated report on the use of King's depressing carriage, and noted its inefficiency atop the Fort Point bluffs. "As it [West Battery] is quite exempt from enfilade fire and cannot be closely approached in front, it is believed that ordinary mounted barbette guns may be served with entire efficiency."[20] Work resumed in July.

Over the next year, work proceeded on the completion and partial arming of West Battery. Completing the magazines and emplacements occupied much of the workers' time, along with details such as sodding, grading, terracing, installing traverse rails, and hanging inner and outer magazine doors.[21] By summer 1872, Stewart was readying West Battery for its armament and noted that to complete the process he wished to finish the rear slopes and to 'unmask the fire' of several gun positions. This latter remark indicates that during construction, the terrain immediately in front of some of the guns had intentionally been left in its natural state, possibly to prevent prying eyes from seeing the work in progress. The cover now needed to be removed so the guns could have a field of fire.[22]

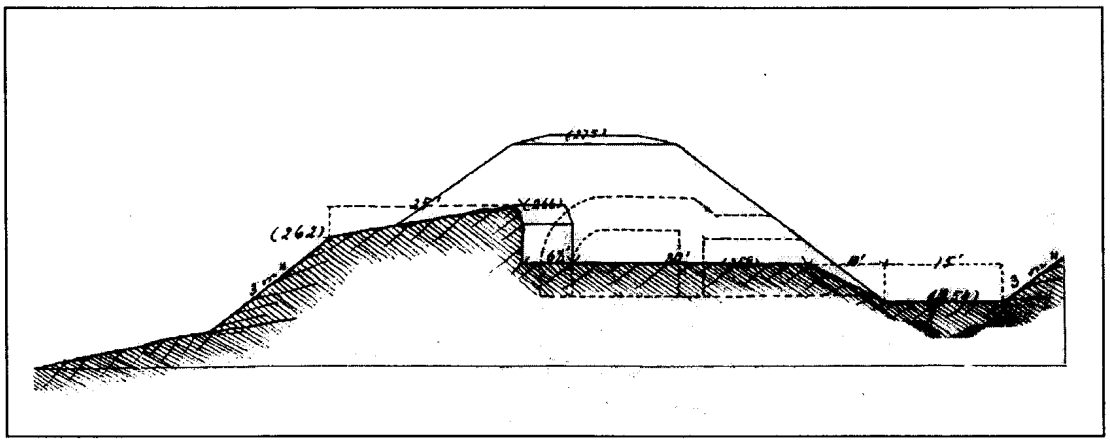


Figure 12. *Cross-section of a West Battery emplacement for Rodman guns. The traverse and its service magazine are also shown. (From the engineers' 1870 proposal for barbette batteries above Fort Point.)*

Plans for East Battery were finally approved in early 1873, and work commenced on that work shortly afterward. For the next year, work proceeded simultaneously on both East Battery and West. Although East Battery falls outside the immediate scope of this report, it should be noted that it differed from West Battery in one major feature: the presence of a covered way provided with a high earthen slope on the backside of the emplacement (a *parados*) that protected the road and battery from enfilade fire.

At East Battery, the engineers were given permission to elevate each pair of guns slightly from the adjacent pair. As the emplacements changed in elevation, they would "become better protected" from warships outside the Golden Gate, using the sloping topography of the hill west of the emplacements to form a parados.[23] The layout of Battery East and its sunken road – later buried – were documented in a 1934 aerial photograph showing early construction work on the Golden Gate Bridge. (See Figure 13.)[24]

Figure 13. *Aerial view of East Battery before construction of the Golden Gate Bridge toll plaza, showing the covered way and parados behind the emplacements. Battery Lancaster is at lower right. (Courtesy GG Bridge, Hwy & Trans. Dist.)*

By contrast, West Battery did not have a covered way. While some – but not all – of its emplacements did have reverse slopes, these features varied in height from two feet to slightly more than ten. None formed a true parados, but could better be described as uneven road shoulders resulting from the undulating topography adjacent to the emplacements.

Numbers for the individual emplacements became standardized during construction of the two batteries. It should be noted that the terms West Battery and East Battery were never formally designated military names but evolved out of common usage. To the army's constructing engineers, the fortification was simply one large earthwork. Correspondingly, they began numbering the emplacements at the extreme right flank of East Battery and numbered consecutively from east to west.

In its final form, East Battery consisted of twenty gun positions numbered #1 through #20 (including platforms for four mortars), and West Battery consisted of forty-three positions numbered # 21 through #63 (including platforms for eight mortars).

For reference, Remedial Action Area BBDA 1 is located on the site of historic mortar emplacements #42-#45, while the road portion of Remedial Action Area BBDA 2A is on the site of historic Rodman positions #58 and #59.

Col. Stewart reported that West Battery was "essentially completed" on 30 June 1873. The magazines could all be used (although not all the asphaltic floors had been laid); stone platforms, pintles and traverse rails had been completed for twelve Rodmans; a ramp had been constructed between West Battery and East Battery; and eight wooden platforms for 13-inch mortars had been constructed in the two mortar emplacements located midway along the line of batteries. In his annual report, Stewart noted that twelve 15-inch Rodmans had been emplaced, all of them in positions on the right flank of West Battery.[25]

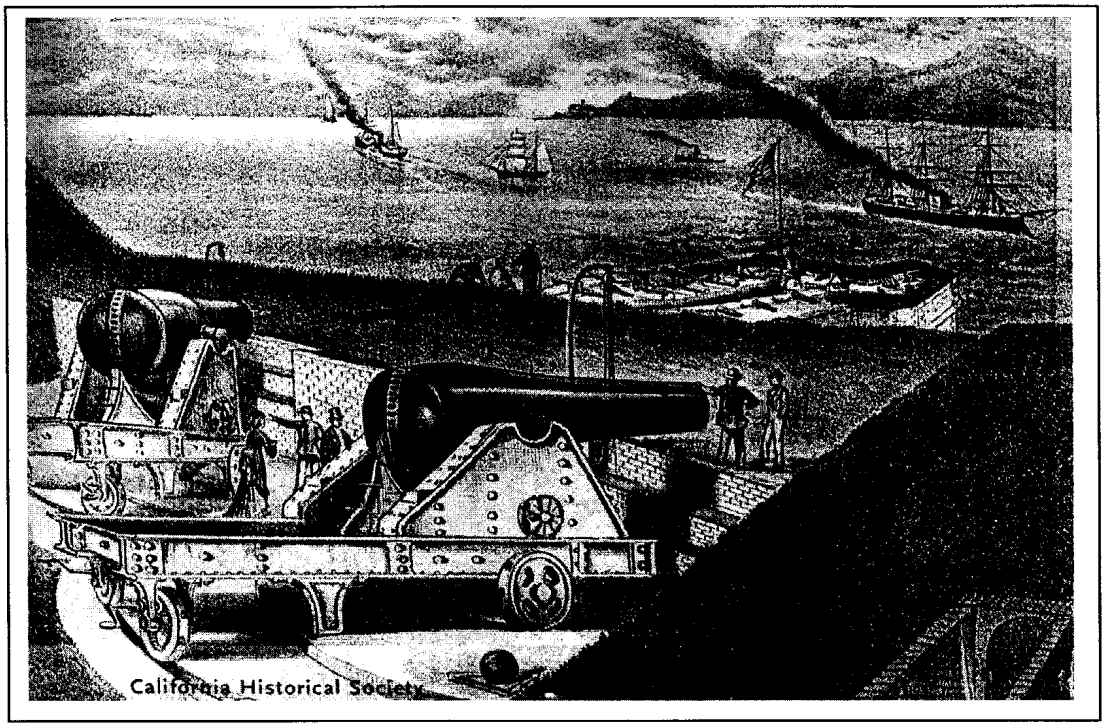


Figure 14. *A pair of 15-inch Rodmans in West Battery as portrayed in an 1877 issue of "The Wasp," a satirical San Francisco publication. The accompanying article berated the U.S. Government for wasting money on constructing obsolete fortifications. The artist took several liberties with perspective and location, since Fort Point is not visible at this angle from West Battery. Also, the fort is drawn backwards. (California Historical Society)*

On 18 May 1874, the Rodmans in positions #21 through #32 were test fired for the first time. The targets were located at distances of from one to two and three-quarter miles distance, and the guns loaded with powder charges ranging from 60 lbs. to 100 lbs. When fired at elevations of 33 degrees the Rodmans and carriages performed perfectly, but when one 15-incher was intentionally fired at 0 degrees elevation it recoiled violently against the end stops on its carriage. Although the iron chassis and carriage were slightly damaged, the emplacement itself took the shocks well and suffered only slight spalling of granite on the pintle block. The earthworks hadn't fared quite as well, though, and it was reported that the muzzle blast from the horizontal firing experiment had torn the sodding off the parapet.[26]

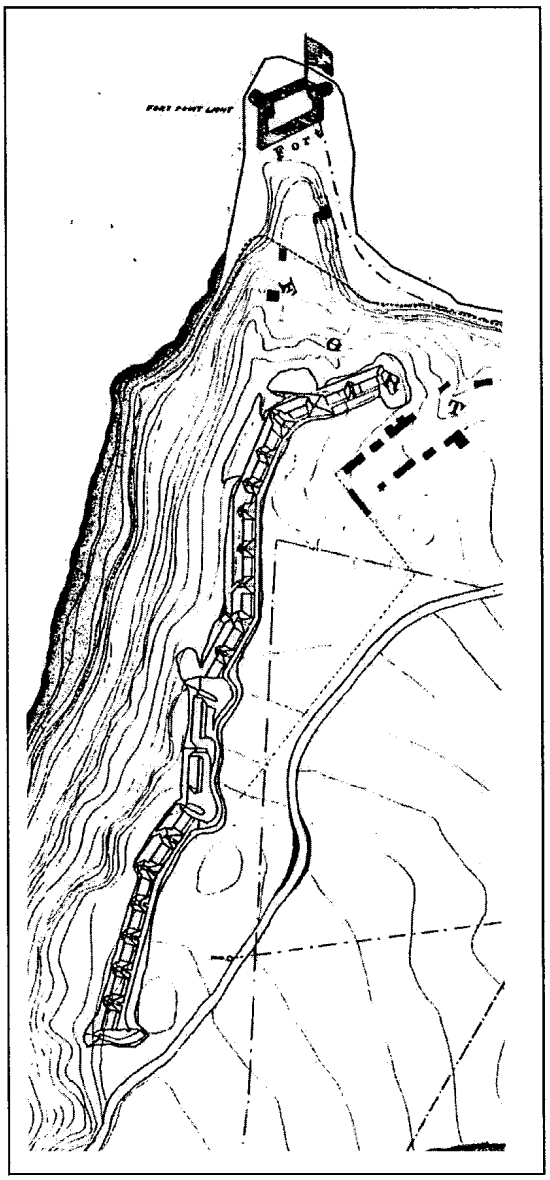


Figure 15. *West Battery in 1880. (GOGA, PARC)*

When Congress decided in Fiscal Year 1876 to reduce funding for harbor defenses, Fort Point was hit hard. Instead of the $80,000 requested, only $25,000 was allocated.[27] The result was an immediate changeover from construction to mere maintenance. Work was suspended on both batteries, and before even a single gun was ever emplaced in East Battery. The scene was grim for the supervising engineer, and would only get more frustrating. Historian Bearss summarized the sad entries from the annual reports for the following years:

"Congress for the next 14 years refused to vote funds for

construction of seacoast fortifications, thus preventing completion of Battery East. With work suspended, the earthen batteries slowly deteriorated. Weasels and gophers burrowed into the traverses and parapets, and torrential rains caused some of the magazines to leak, with serious erosion wherever the works had not been sodded."[28]

Eventually, civilian "fort keepers" were employed with the paltry maintenance funds allocated the army, whose jobs included security, mowing earthworks, scraping rust, and painting ironwork. Sometimes they were assisted by soldiers from the regular garrisons of old Fort Point – that is, when the fort was occupied. One 1880s report stated that portions of the sodded slopes of the earthwork parapets and traverses had recently been mowed, and observed how the sod consisted of "the thin and now matted roots of weeds and grasses," and without additional labor and expense for watering and weeding, it was impossible to keep the slopes "looking well during the long dry season."

Experience had shown the sod actually held up better *not* being mown when exposed to "the sun and strong steady winds of summer," and that the weeds and grasses acted as a mat, keeping the "light, dry soil, loosened and pulverized by the burrows of gophers . . . from being blown away." For this reason, considerable areas of the slopes were left unmowed.

Given the lack of funds for nearly five years, and all the hindrances to carrying out proper maintenance, Col. Stewart took a remarkably positive outlook when he reported the batteries looked "in tolerable good order."[29]

Periodically, the watchmen and the garrison were also able to perform maintenance on the non-earthwork portions of the batteries. These actions included clearing drains, painting doors, and painting and lacquering the ironwork on the wooden mortar platforms.

An 1882 inspection of the earthworks reported a variety of completed and incomplete emplacements. It also contained the notation that 12 timber platforms for heavy mortars

had been laid in West and East Batteries, but that decay had set in. It also noted that ground had been prepared at the south end of West Battery for 14 Rodman positions but no platforms had ever been constructed there.[30]

For some unknown reason, a test firing of the long-neglected 15-inch guns took place on 1 October 1884. The guns were manned and the targets selected: an offshore rock about halfway between Fort Scott and the Cliff House. After a couple of firings with reduced charges and only so-so accuracy (blamed on defective fuses), the colonel in charge ordered a gun loaded with a 450 lb. solid shot and a full charge of 100 pounds of black powder. The results were predictable. The aging weapon recoiled along its chassis, which in turn buckled under the strain, allowing the 50,000 pound barrel and top carriage to jump completely off the chassis. The barrel dismounted itself and ended up splayed across the battery.[31]

In 1886, maintenance work ceased entirely for two years when Congress stopped all appropriations for preservation and protection of fortifications. When funds became available once again in 1888, workers cut brush and weeds around the earthworks, repaired sodding on slopes and broken ventilators, cleaned brickwork, painted magazine doors, and built steps over the earthen parapets. Iron plates from ten of the badly decayed mortar platforms were removed and stored in adjacent magazines.[32]

B. "Endicott Era" Construction

West Battery was perfectly sited to deal with an enemy approaching the Golden Gate, and for this strategic reason it was also selected as the site of the first Endicott batteries to be constructed in the San Francisco defenses. Work began on the new fortifications in June 1891 under the direction of Col. George Mendell of the Corps of Engineers.

By the end of the first month, Mendell's workers had dismounted four of the 15-inch guns in West Battery and begun demolishing their masonry platforms and other nearby emplacements. With the ordnance and earthworks gone, work next commenced on excavations for the disappearing gun emplacements. Progress was rapid, and by December 1892 six of the new Endicott emplacements were nearly completed except for their armament. (These emplacements today comprise Batteries Marcus Miller and Godfrey.)[33]

Construction on another concrete emplacement in October 1896 required the removal of four more 15-inch Rodmans and their earthwork emplacements. (The site of today's Battery Lancaster position #3.) The guns were dismounted, their carriages and platforms salvaged, and the traverses and earthworks demolished.[34]

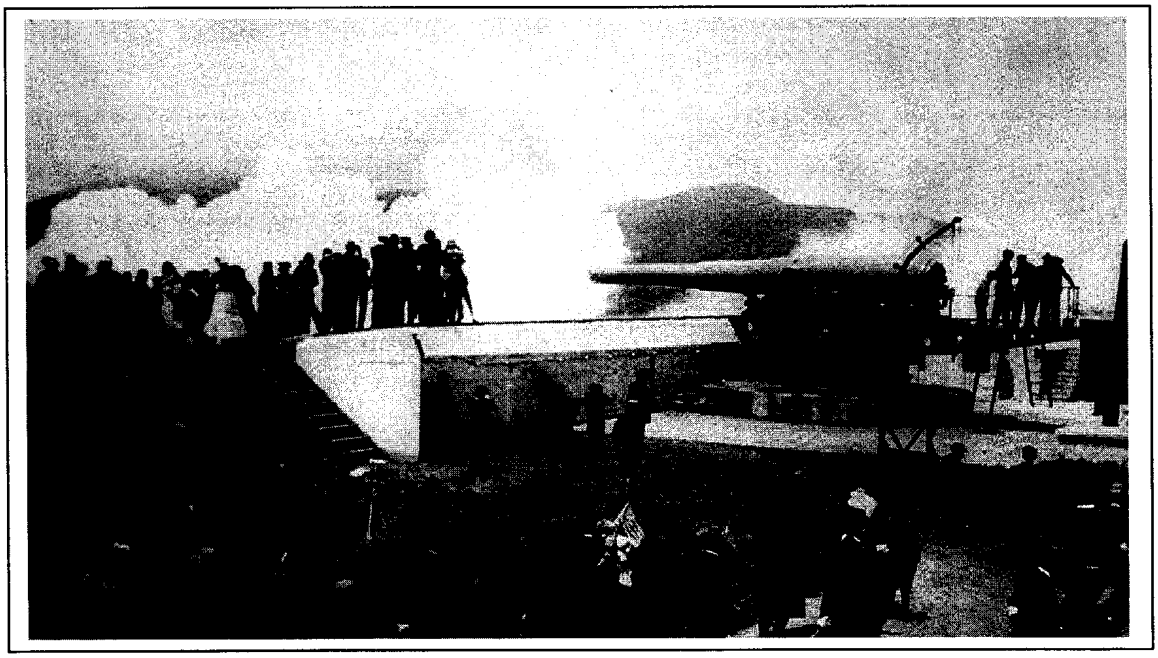


Figure 16. *A 12-inch rifle in Battery Godfrey at the moment of firing, c1915. The brick entrance to Traverse #27, integrated into Godfrey's earthworks, is visible at lower left. (GOGA, PARC)*

Then in June 1897, work began on two more emplacements (today's Battery Cranston) that necessitated removal of two more Rodmans, their carriages and platforms from West Battery. These were subsequently removed and their positions demolished. Only five 15-inch Rodmans remained in place: four in the extreme right end West Battery and one in

East Battery. (The latter weapon – East's first armament – had only recently been emplaced after being dismounted from West Battery.)[35]

Work began in summer 1898 on the last concrete emplacements that would require the removal of the armament from West Battery. These two disappearing gun positions (today's Lancaster #1 and #2) stood directly on the site of Rodman positions #21-24, and by the end of the year these last four smoothbore weapons had been removed to make way for new construction. With their removal, West Battery effectively ceased to exist.[36]

Battery East, although initially planned as the site for five more Endicott weapons, was left undisturbed. Although it had never been completed during the original "Plan of 1870" construction, it now mounted five weapons: a 15-inch Rodman in position #16 and four 8-inch converted Rodman rifles in positions #13, 14, 17 and 18.

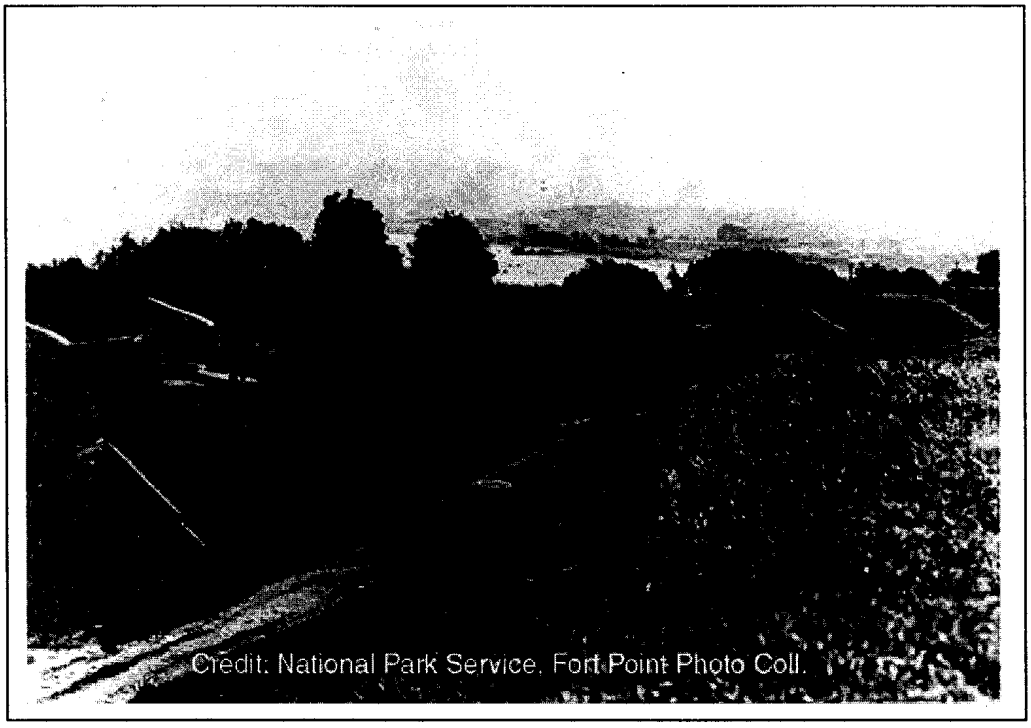


Figure 17. *A pair of 8-inch rifled Rodmans and the covered way behind East Battery, 1915. The buildings of the Panama Pacific International Exposition can be seen in the distance. (GOGA, FOPO Coll)*

The last Endicott fortification constructed at West Battery was Battery Boutelle, an emplacement for three 5-inch guns on balanced pillar mounts. No armament had to be removed to make way for the new work, since the 13-inch mortars intended for the site had never been mounted. Even their wooden platforms had been removed sometime prior to 1898.[37] When designing Boutelle, the engineers took advantage of pre-existing earthworks on the site by nestling the new emplacements snugly between traverses #22 and #23. Work on the battery began in 1898 and was completed in 1901. During the course of construction, the decision was made to retain the magazine in Traverse #22 and incorporate it into the new battery, where it apparently served as an auxiliary ammunition storage room for the battery's 5-inch fixed ammunition under the designation "old magazine."[38]

Retelling all the details of construction of the Endicott batteries falls outside the scope of this report, but the following summary provides an outline of their origins. Starting at the north end of the line and working south, they are:

Name	*Armament*	*Commenced*	*Completed*
Battery Lancaster	Three 12-inch rifles on disappearing carriages	1896	1900
Battery Cranston	Two 10-inch rifles on disappearing carriages	1897	1898
Battery Marcus Miller	Three 10-inch rifles on disappearing carriages	1891	1898
Battery Boutelle	Three 5-inch rifles on Balanced Pillar mounts	1898	1901

Battery Godfrey	Three 12-inch rifles on barbette mounts	1892	1896

II. Alterations and Later Uses

Following its disarming, only a few traces of Battery West remained. These included six traverses and magazines (#s 21, 22, 23, 27, 28 and 29), a four gun mortar pit (positions #s 42-45), and the partial outlines of two unfinished two-gun Rodman emplacements at the south end of the line (positions #s 60-63). One of these magazines (#23) was physically incorporated into the structure of Battery Godfrey and became a store room off the battery's generator room. The other surviving magazines remained as distinct structures with their own entrances, and show up on period maps and drawings simply labeled "magazine." The rooms' exact uses are unknown, but they probably served as simple storage spaces for the adjacent Endicott batteries.

The history of the Endicott batteries surrounding the Golden Gate is documented extensively in historian Erwin Thompson's *Historic Resource Study: Seacoast Fortifications of San Francisco Harbor*, prepared for the National Park Service in May 1979. For the batteries along the former alignment of West Battery, their history was relatively short. By 1918 the batteries were recognized to have several faults: all were located too far inside the Golden Gate straits to have effective fields of fire; their carriage designs prohibited the barrels from being elevated for maximum range; and they were of an obsolescent design. Within a few years of their completion, the batteries' defensive roles were replaced by forts that had better fields of fire and were located further to the west – and closer to any potential enemy – posts such as Fort Miley in San Francisco and Fort Barry in Marin County.

Battery Boutelle was the first to be disarmed in 1918 when its 5-inch guns were removed for field use in Europe. Battery Cranston was disarmed that same year, and Marcus Miller's guns were removed in 1920. Cranston and Godfrey both retained their guns through World War II, but apparently more as a matter of neglect than for any tactical purposes. They finally lost their armament in 1943 during a general scrapping of 10-inch and 12-inch Endicott weapons remaining in the Bay's defenses.

A. Alterations to 1870s Traverses

The earthen traverses covering these magazines also survived, but four of the six were truncated by several feet to lower their profiles when viewed from the sea. When originally constructing the earthworks, the engineers seemingly gave little thought to making West Battery inconspicuous. Historic photographs taken from the bay reveal that the battery's traverses stood out against the sky as a series of tall, trapezoidal shaped mounds stair-stepped along the Fort Point hillside. The battery was so pronounced that its earthworks and guns were even visible from Pacific Heights. (See illustrations following.)

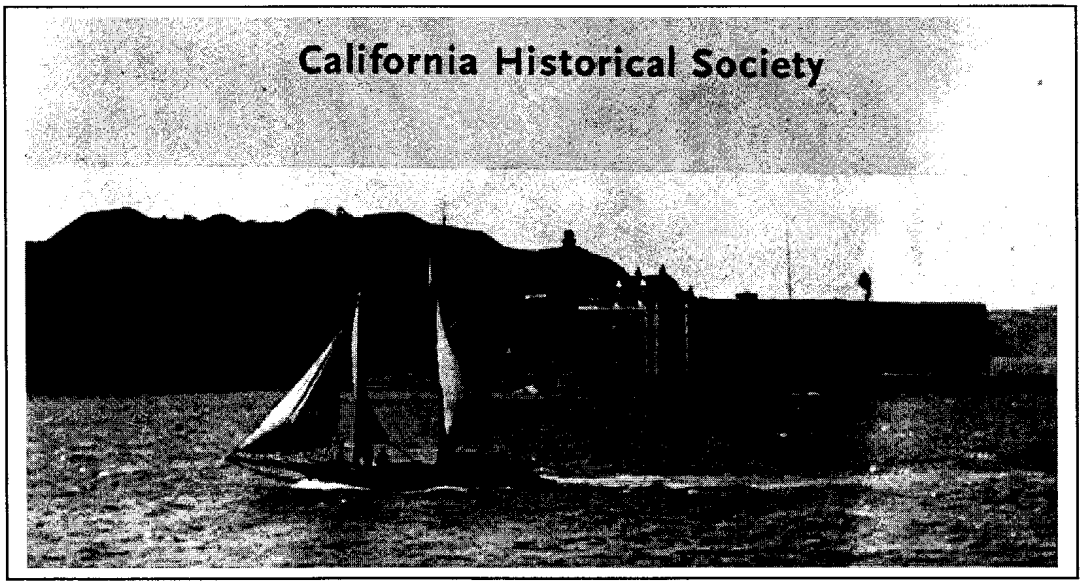


Figure 18. *Fort Point and a portion of West Battery as viewed from the bay, c1890. Note the 15-inch Rodmans mounted between the traverses. (California Historical Society)*

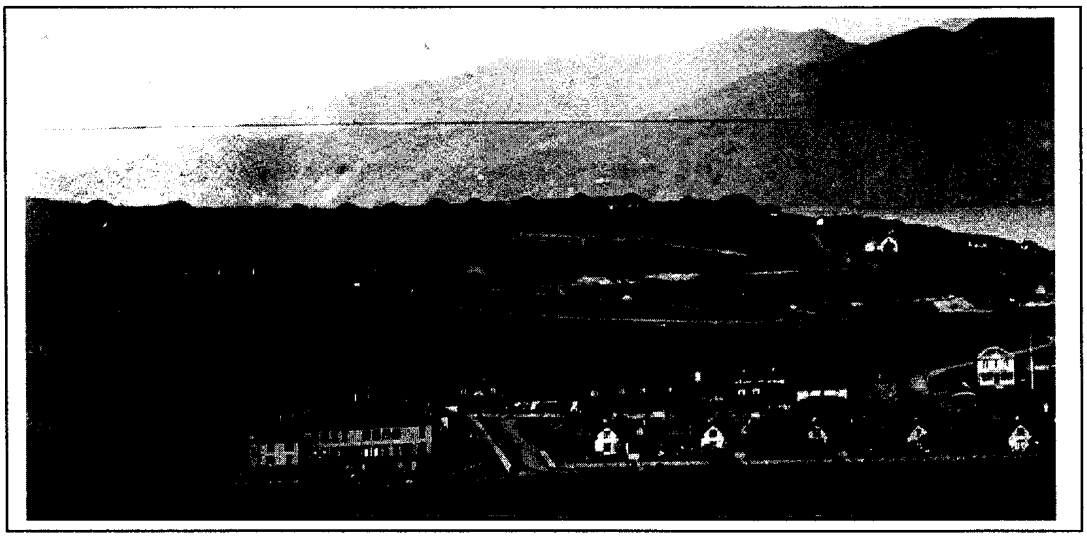


Figure 19. *The traverses of West Battery appeared like a serrated edge in this view from Broadway and Lyon Streets in Pacific Heights. A portion of the Presidio's main post is in the foreground. (California Historical Society)*

By contrast, the army wanted to draw as little attention as possible to the presence of the Endicott batteries, not so much for secrecy but rather to deny enemy gunners a good target. The traverses from the 1870s that still remained adjacent to the newer works would have only served to draw attention to the fortifications' locations.

In his 1920 treatise *Notes on Seacoast Fortification Construction*, Colonel Eben E. Winslow of the U.S. Army's Corps of Engineers described the evolving theory of coastal fortification design in the late 19th century:

> In the earthen emplacements constructed during and just after the Civil War, the guns were mounted on barbette carriages and were, therefore, always visible. In order to obtain a sufficient volume of fire they were mounted fairly close together along a parapet, although it was customary, wherever infilade [sic] fire was feared, to place frequent traverses in the line of guns so as to reduce the effect of this enfilade fire. In general, the guns were emplaced in pairs, two guns in the interval between two traverses.

> These traverses extended high above the parapet and, in fact, above the guns and, therefore, were visible from a considerable distance. The guns then in use were mounted in barbette and were always exposed to view, the ranges used at the time were comparatively short, and since the guns themselves were not concealed no concealment was lost by the exposure of the traverses to view.
>
> When, however, the disappearing [gun] principle was introduced into seacoast gun carriages so that the gun in the loading position was entirely out of sight, it became desirable to conceal, if possible, the position of the gun. It appeared to be desirable to reduce the height of the traverse to that of the parapet, so that when seen from the front, the emplacement appeared with an unbroken horizontal crest, no guns being visible and no traverses indicating the approximate positions of the guns. The early designs for disappearing emplacements as prepared by the Board of Engineers were all based on this idea.[39]

During the construction of the Endicott batteries, the tall earthwork traverses of West Battery were reduced in height to correspond to the adjacent parapets and superior slopes of the new concrete fortifications. Although the engineers' reports for the concrete fortifications at Fort Scott make no specific reference to lowering the old traverses, it was likely done in accordance with the new design standard described by Winslow as "an unbroken horizontal crest … and no traverses indicating the approximate locations of the guns."

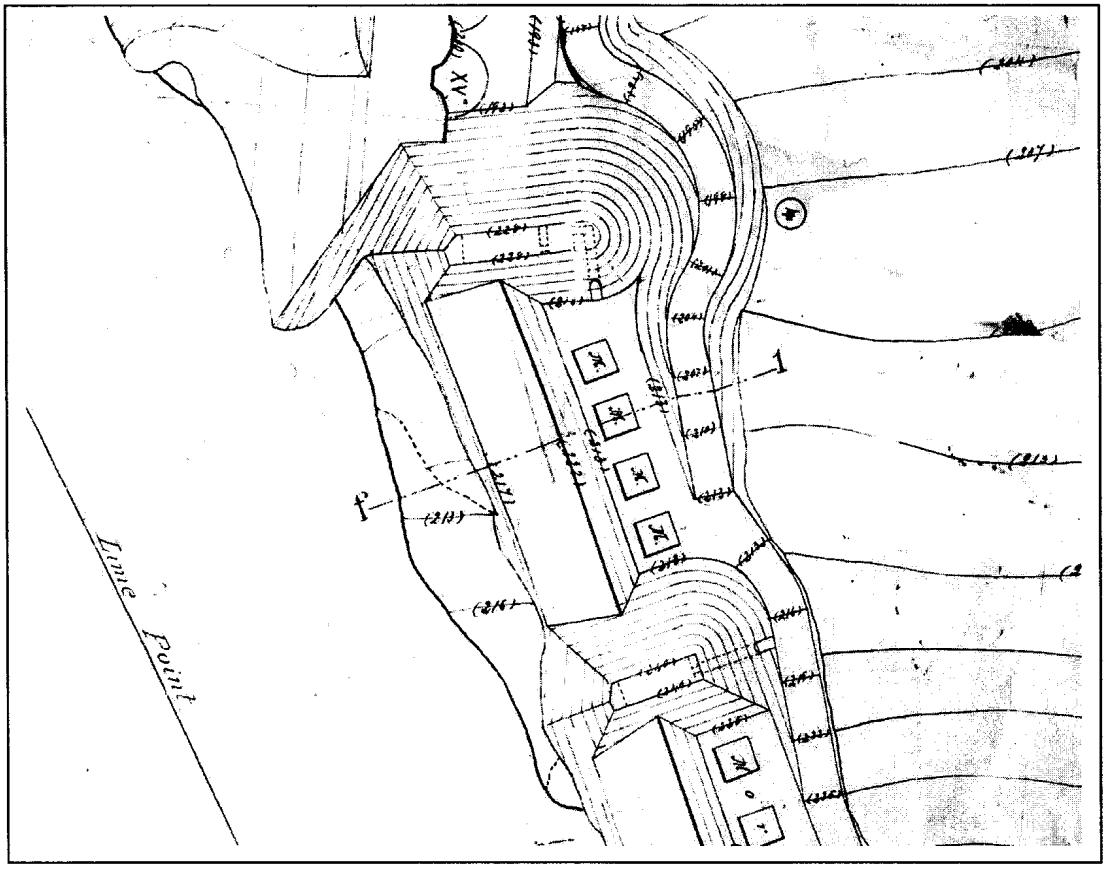


Figure 20. *Section of original 1870 engineer plan showing Traverses 21 (top) and 22 (bottom) and positions for 13-inch mortars. This is remedial project area BBDA 1. (NARA RG77, Drawer 94, Sheet 102)*

The best-documented example of reducing a traverse's profile is Traverse #21 on the right flank of the mortar battery and adjacent to Battery Marcus Miller. The original 1870 map shows a proposed crest of 228 feet for this traverse, while an 1891 drawing shows the finished elevation as 229 feet. (Discrepancies of about a foot are common to historic maps of the area.) By 1902, however, seven feet of the traverse had been shaved off and its elevation reduced to 222 feet, bringing its crest to the same level as the superior crest of the adjacent mortar emplacement. Although this left the magazine with only about two feet of earthen cover, the traverse was now much less conspicuous. Viewed from the water, the battery now appeared more like a simple earthen bank in the hill.[40]

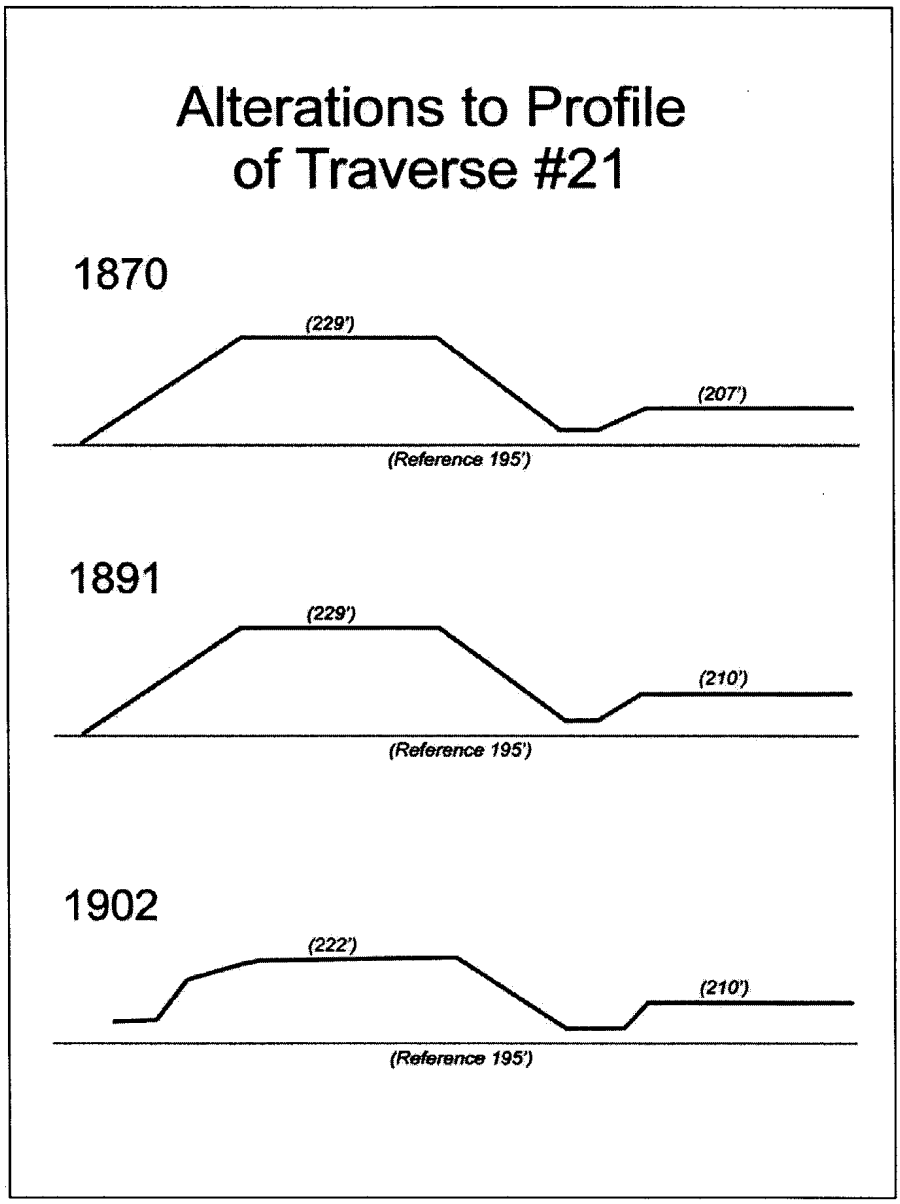


Figure 21. *Three views of Traverse 21, view north. Note also the change in road width and the three-foot height increase of the open area behind the battery.*

The same re-contouring efforts occurred at Traverse #27 on the left flank of Battery Godfrey, which was reduced in height from an original elevation of 274 feet to a post-Endicott elevation of approximately 270 feet.[41] Based on visual inspections, similar reductions in height appear also to have taken place at Traverses #28 & 29. (Confirming measurements have not yet been made.)

By contrast, Traverses #22 and #23 seem to have retained their original contours, although their crests are now suffering from erosion caused by visitors scrambling across the batteries. In fact, the footprint of Traverse #22 is somewhat larger than when first constructed, probably due to additional fill being placed around its eastern and southern sides when Battery Boutelle was constructed. As a result of this additional fill, a 25-foot extension had to be added to the corridor leading to the traverse magazine inside.[42]

B. Alterations to 1870s Gun Emplacements

Mortar Battery. The four mortar positions located between Batteries Marcus Miller and Boutelle lasted well into the 20th century, along with the traverses flanking both sides of their emplacement. Subsequent alterations and filling can be traced through historic drawings made of the battery, beginning with a section from the original 1870 engineer map for the Fort Point batteries. This map shows the relationship between the original slopes, the mortar platforms, road, reverse slope, and "natural surface." (See Figure 22.)

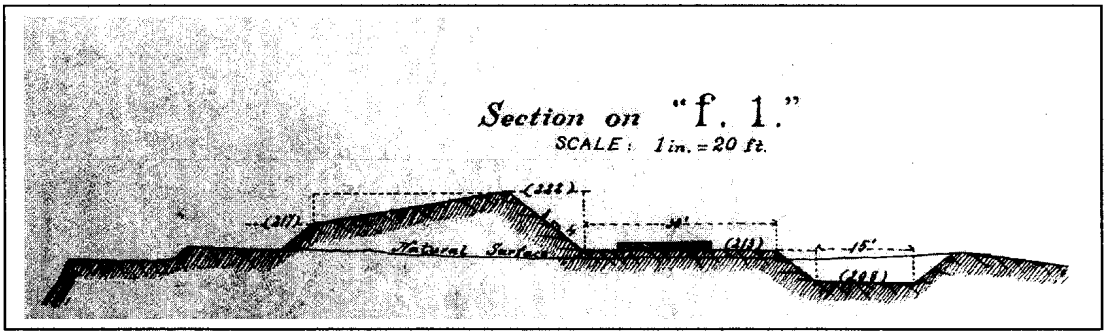


Figure 22. *Section "f, 1" through mortar positions, showing original height of road cut behind emplacement. (NARA RG77, Drawer 94, Sheet 102)*

A map prepared in 1902 showing a proposed (but never implemented) extension of the Endicott batteries onto the mortar site revealed that the original outline of the earthwork emplacement was still recognizable, complete with the interior slope and intact (albeit truncated) earthen traverse and magazine #21 on the right flank. The four wooden platforms were gone, but the open area where they had been located was still plainly discernible.[43]

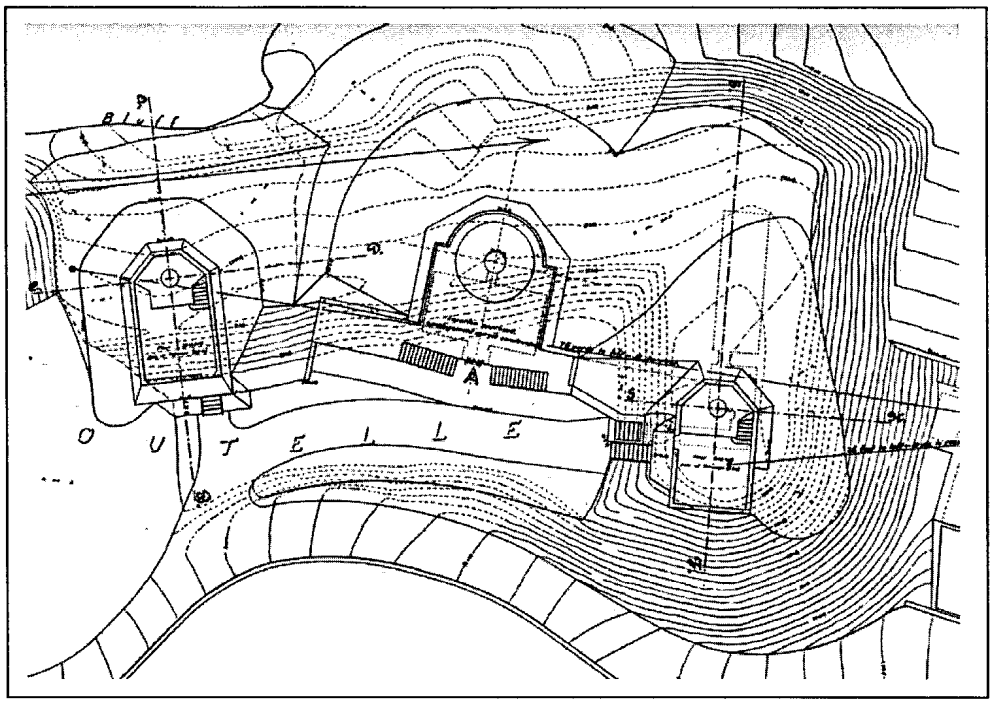


Figure 23. *The outlines of Traverse 21, its magazine, and the former mortar battery location are visible as dotted lines in this 1902 proposal for an extension of Boutelle. This remedial site BBDA 1. (PARC, GOGA)*

At some undetermined date, the superior slope of the old mortar battery was flattened and a disposal site established on its site. This dump was likely associated either with the garrison buildings at nearby Fort Winfield Scott or with a sprawling complex of World War I temporary barracks erected behind the batteries in 1917. Initially, debris appears to have been simply dumped down the face of the cliff leading to Baker Beach. In 1922, a concrete and brick trash incinerator was built on the flattened area. Designated as Fort Scott Building #237, it measured 6'4" x 8'and cost $414 to construct. It was arranged on a general east-west alignment across the former superior slope.

In 1934, the original incinerator was replaced by a newer version built primarily of concrete. It measured 9' x 13' and cost $800. Based on historic photos, this new incinerator was located on the north side of the dump area, and was oriented on a roughly north-south alignment. To make room for this structure, yet another portion of the 1870s superior slope had to be cut away. The 1934 photograph also shows what appears to be a flat paved area directly in front of the incinerator possibly made of poured concrete that

allowed vehicles to pull directly up to the furnace doors. Unfortunately, the extent and exact composition of this paving feature is not known. (See figure 25.)

Figure 24. *1922 incinerator on dump site. View looking south. Remedial site BBDA 1 (GOGA, PARC)*

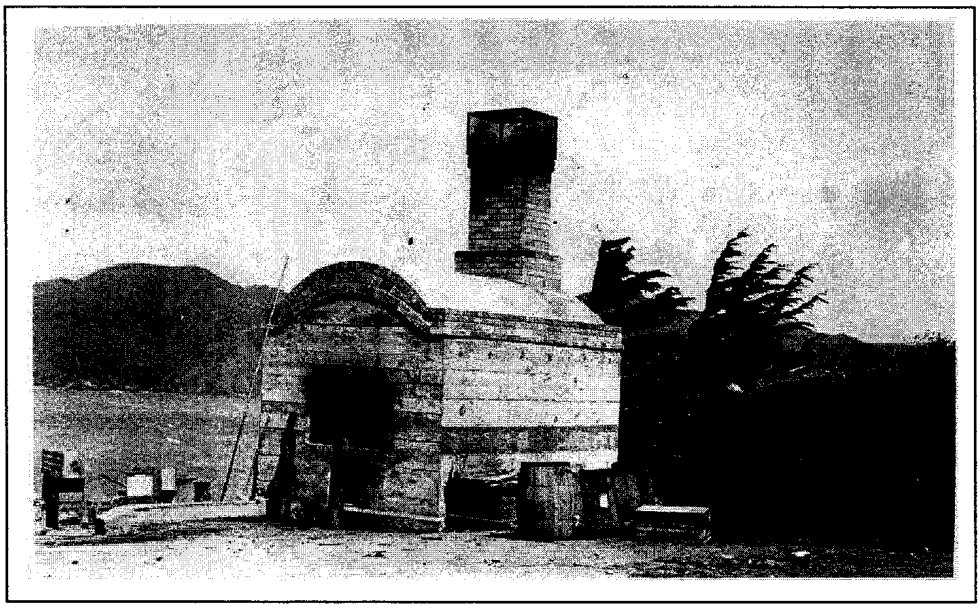


Figure 25. *1934 incinerator. View north. Note excavation into earthworks at right. Remedial site BBDA 1. (GOGA, PARC)*

Photographs in the collection of the Golden Gate Bridge District show that dumping activities continued at the site at least through 1967. In that year, a large expansion of the disposal site was recorded. (See GG Bridge photo May 1967) This material in the photo covers not only the slope below the dump site but also fills the flattened dump area on the former superior slope of the mortar battery.[44]

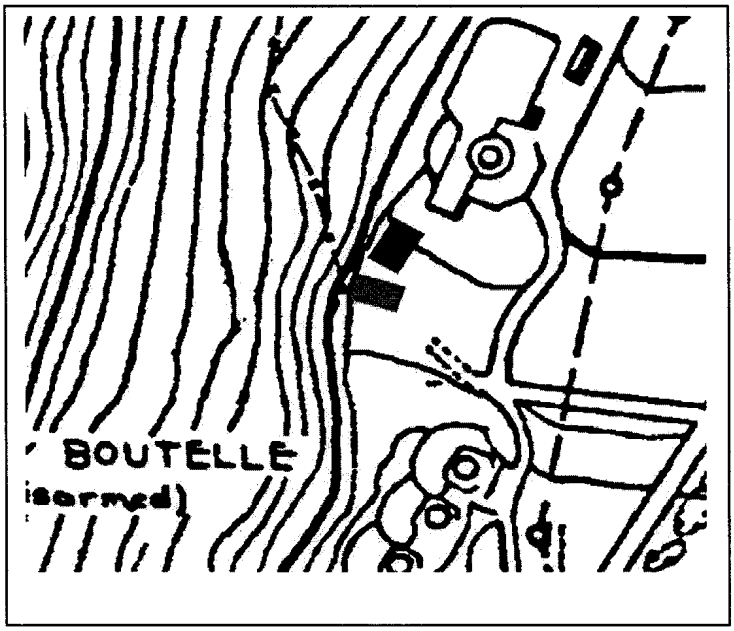


Figure 26. *Approximate locations of two incinerators: 1922 (lower) and 1934 (upper)*

Figure 27. *The 'new' incinerator at the dump site, lower right. February 1935. (Courtesy GG Bridge, Hwy & Trans. Dist.)*

Figure 28. *An aerial photo taken in May 1967 documents extensive fill on the former site of both the dump and across the road behind the batteries. A pond of water has apparently formed directly over the dump site. The curved outlines of the traverses flanking the former battery are still visible. Remedial site BBDA 1. (Courtesy GG Bridge, Hwy & Trans. Dist.)*

Rodman Emplacements. As noted in the 1882 inspection of West Battery, the last fourteen Rodman positions were never completed. An 1898 plan of the Fort Point batteries confirms that construction work on the positions had only extended to completion of the magazines and traverses, and grading of the parapets, superior slopes and glacis. No work was ever carried out on the masonry of the parapet walls lining the interior slopes, the firing steps, or gun platforms. The 1898 plan also reveals that a never-constructed traverse and magazine were planned for the south end of the line, and would have become traverse #30.[45] Where or not any grading for this traverse had been completed is unclear. (The same map showed that three of the wooden platforms had been removed from the mortar battery between traverses #21 and #22, and that a fourth remained in place but was "unserviceable.")

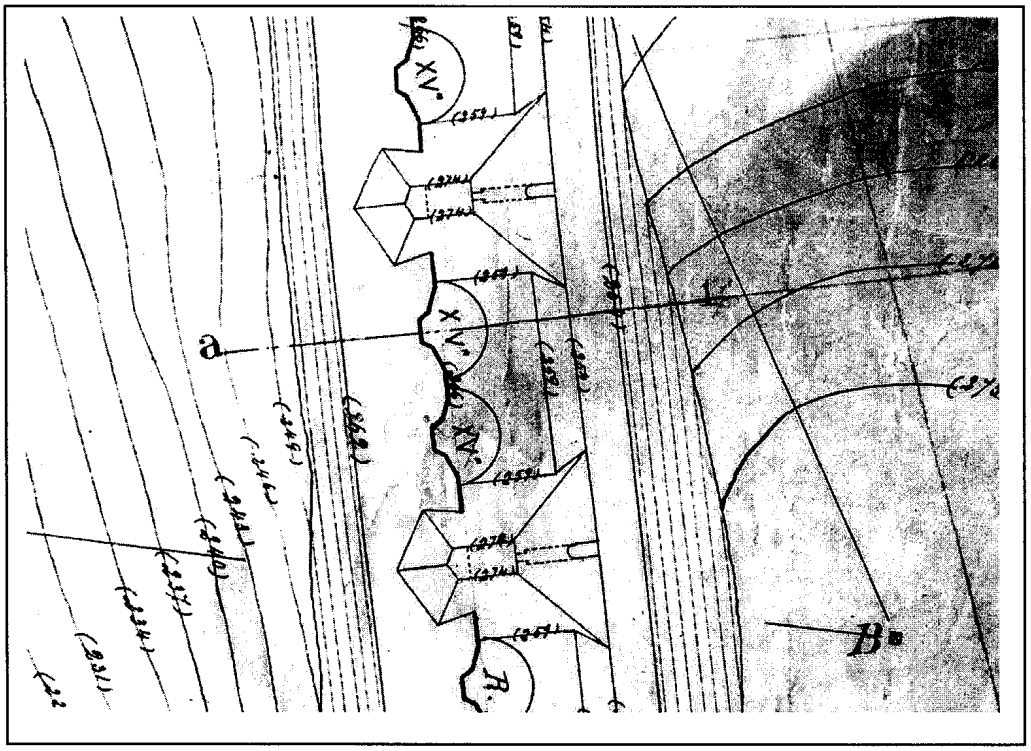


Figure 29. *Section of original 1870 engineer plan showing Traverses 27 (top) and 28 (bottom), and Rodman positions #59 and #60. Section a – 1 is the site of the present overlook access road. This is remedial project area BBDA 2A. (NARA RG77, Drawer 94, Sheet 102)*

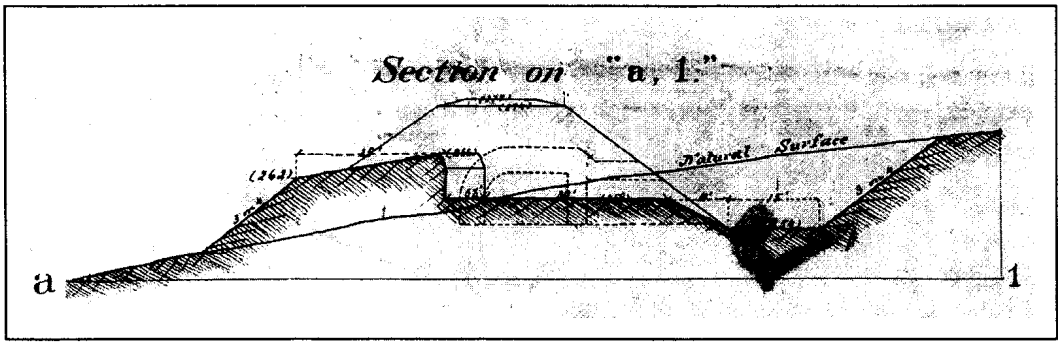


Figure 30. *Section "a, 1" through Rodman positions #59 and #60, showing deep road cut (now filled) behind emplacement. (NARA RG77, Drawer 94, Sheet 102)*

When Battery Godfrey was constructed beginning in 1891, gun positions #51 through #58 were demolished along with traverses #24 through #26. Traverse #27 was incorporated into the left flank of Godfrey. Gun positions #59-#60 were buried at this time and the road cut behind the emplacement filled by a high bank of earth. This bank, measuring approx. 8 feet high, formed a parados at the south end of the battery that prevented enfilade fire from ships entering the Golden Gate. This embankment was converted into a service road leading to a dump constructed on the forward slope of Battery Godfrey sometime around 1940.

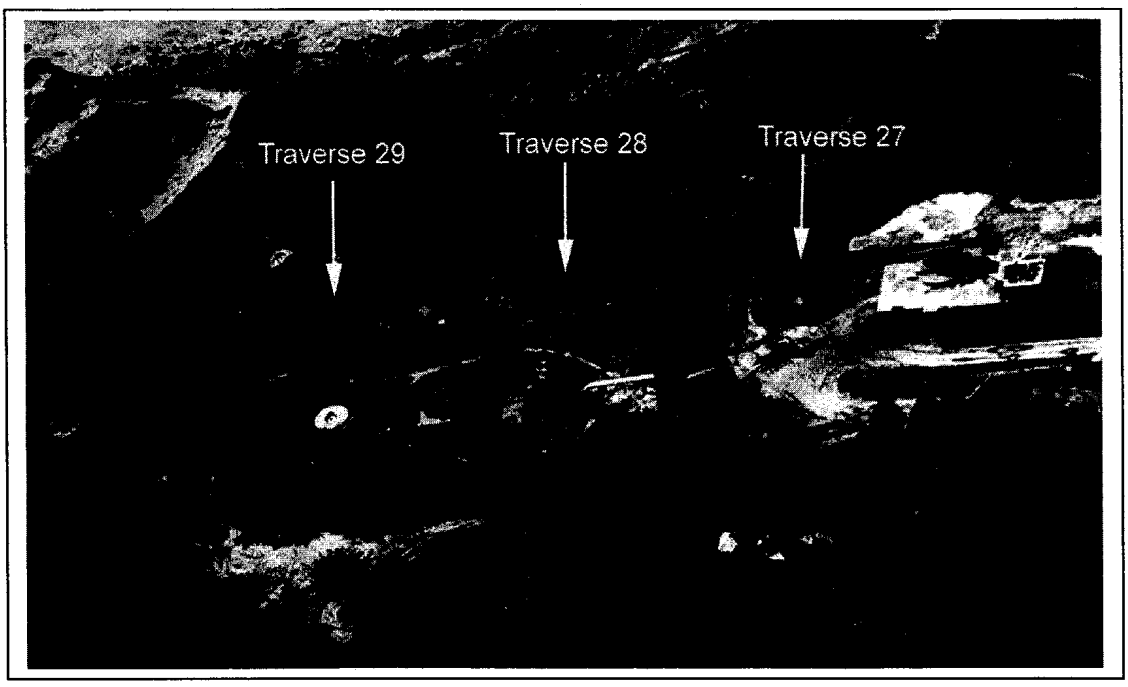


Figure 31. *The three 1870s traverses on the left flank of Battery Godfrey are visible in this February 1942 view. The curved landform between #27 and #28 is a parados constructed to protect the left flank of Godfrey. Tire tracks probably indicate dump activities on the forward slope. Remedial site BBDA 2A. (PARC, GOGA, Cooper Coll.)*

A detailed survey of the topography of the dump area was prepared by the 663rd Engineer Topographic Company in July 1954. It showed the general area of the dump, access roads, and proposed locations for new salvage shop and reclamation bins. It also showed that the reference elevation for the dump access road across the former Rodman positions was 262 feet, and the elevation of the surviving historic road behind the traverses was 255 feet – a difference of only one foot from the 1870 road elevation.[46]

This filling episode also explains why the entrance door to Traverse #27 is located so far below current grade; the magazines lintel is at the historic road level while the adjacent service roads leading to Battery Godfrey and the 1940s dump are built atop seven to eight feet of fill that formed the 1890s parados.

Today this road over the Rodman positions serves as the unpaved access road to the Fort Scott Overlook, and is designated remedial site BBDA 2A.

C. Alterations to Superior Slopes

As part of the construction of the Endicott batteries, the area immediately in front of each gun emplacement (the *superior slope*) was cleared and graded to give the weapon a clear field of fire towards the Golden Gate. Each slope had a downward angle of this slope based on the lowest declination the gun barrel could be depressed below horizontal. In a major-caliber battery, the portions of the superior slope closest to the gun were constructed of concrete. At a distance from the muzzle, however, the material changed to graded and sodded earth. In order to prevent the weapon's powerful muzzle blast from tearing up the earthen slope, a thin concrete extension called a "blast apron" was frequently to the concrete superior slope – usually based on experience with the gun's particular firing characteristics.

The following illustration of Battery Marcus Miller shows both the masonry and earthen superior slopes that were incorporated into its design. (See Figure 32.)

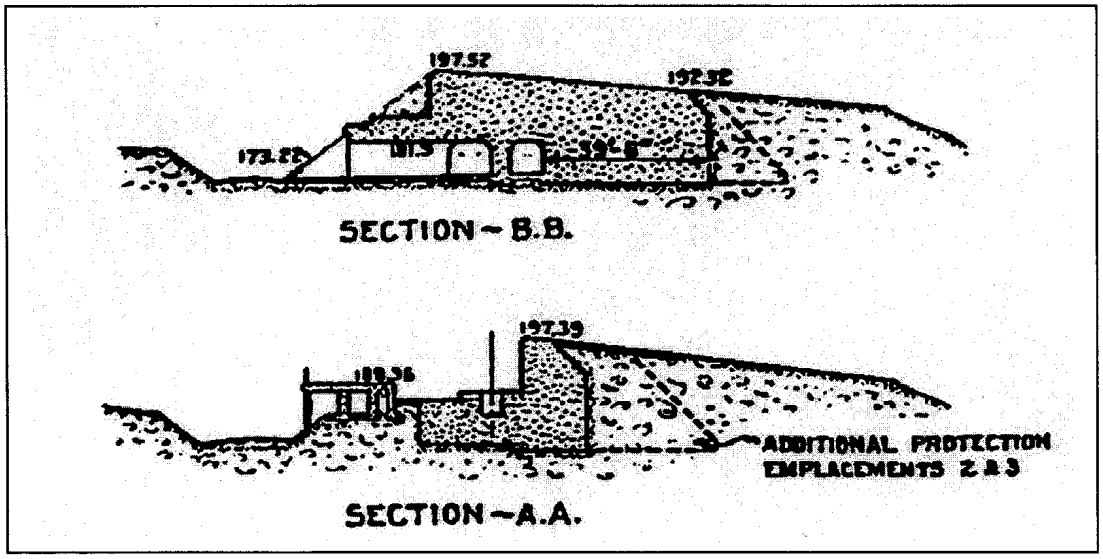


Figure 32. *Sections through two portions of Battery Marcus Miller. Note the impressive thickness of the concrete in front of the magazines (upper). (Report of Completed Works, Form 7, Marcus Miller)*

Due to the increasing elevations of the batteries south of Fort Point, each emplacement's superior slope ended up at a slightly different elevation from the adjacent battery. These differing slope heights created a visibly terraced, or "stair stepped," landscape when viewed from the ocean. (See Figure 33.)

When the batteries were active defensive installations, these superior slopes were kept totally free of trees and any large vegetation that might obscure the field of fire. As time progressed and the guns became obsolete, though, the army ignored the superior slopes and their once-clean grades and profiles were eventually softened by vegetation spread and erosion. Portions of the graded slopes and terraces are still known to exist beneath the brush and tree cover that grows in the area today, and are periodically exposed to view when the park carries out vegetation removal clearing projects.[47]

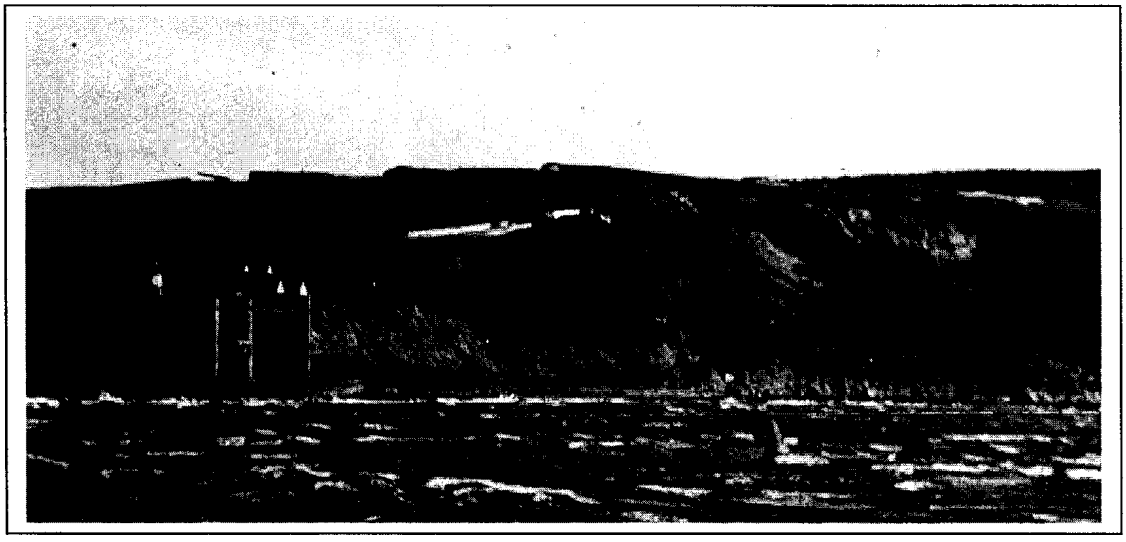


Figure 33. *The terraced superior slopes of Endicott era batteries are visible above Fort Point in this view taken c1900. A 12-inch disappearing rifle at Battery Lancaster appears at left. (California Historical Society)*

D. Filling Activities Adjacent to Batteries.

The access road paralleling the line of Fort Scott batteries has its origins in the original service road constructed in the early 1870s to serve the gun emplacements at West Battery. Over the years, this road has frequently been referred to as a "covered way", based on the assumption that the road was constructed with high sides to protect it from enemy fire.

Actually, the road was not originally constructed as a feature sunken below ground level. When first constructed the road's level was roughly at the same elevation as the surrounding landscape. This landscape, however, has been raised over the decades as a result of grading activities associated with the Endicott fortifications and other construction events.

The earliest map of the West Battery road indicates that the height of the outboard shoulder (i.e., the side away from the gun positions) varied from exactly ground level to a height of 19 feet above the road's surface. The lowest areas were behind the Rodmans on the site of today's Batteries Cranston and Marcus Miller, where the shoulder was at grade, while the highest slope was behind the Rodmans on the site of present day Battery Godfrey. For most of its length, the outboard shoulder was usually only one or two feet in height.[48]

These elevations would start to change when work began on constructing the Endicott batteries that replaced West Battery, and land that had previously been at grade was suddenly raised by several feet. The theory is that the vast quantities of earth and sand removed to make way for the new batteries were spread atop the natural terrain behind the batteries, resulting in a significant increase to the area's elevation.

For comparison purposes, I chose an arbitrary spot 50 feet east of Battery Marcus Miller gun #3, and tracked its elevation changes over the last 160 years. (Except for the last entry, all elevations are based on US Army Engineer surveys.)

Year	*Surveyed elevation*[49]
1847	Approx. 190 feet
1870	190 feet
1871	189 feet
1891	198 feet
1914	198 feet
1945	195-198 feet
2000	205 feet

The park's GIS expert has compared the relative accuracies of these historic surveys, and believes that they are correct to within .75 foot.[50] Given this variance, it is believed the terrain behind Battery Marcus Miller has been raised somewhere in the vicinity of 12 to 15 feet since 1847.

These filling activities appear to have occurred in two significant episodes: 1871-1891, and 1945-2005. The first episode, which resulted in an 8 foot elevation change, is probably associated with the construction of the Endicott batteries. Work began in 1891 on excavations for Batteries Marcus Miller and Godfrey, which coincides with this first increase.

These excavations were immense, and must have resulted in vast quantities of spoil. For example, the area occupied by Battery Marcus Miller measures 560 feet in length x 65 feet deep x 120 feet wide. An excavation this size would conservatively result in 161,177 cubic yards of spoil. It is theorized that this removed material was spread atop the natural hillside behind the batteries – the nearest flat dumping area adjacent to the battery site.

There is also the possibility that additional filling took place behind the batteries during construction of the Golden Gate Bridge toll plaza in 1936-1937. Photographs document that during this period, much of East Battery on the other size of the plaza was

extensively filled. This activity resulted in the creation of today's Battery East Parking Lot adjacent to Lincoln Blvd.[51] However; any filling on the south side of the bridge approach likely took place close to the toll plaza and outside the current project areas.

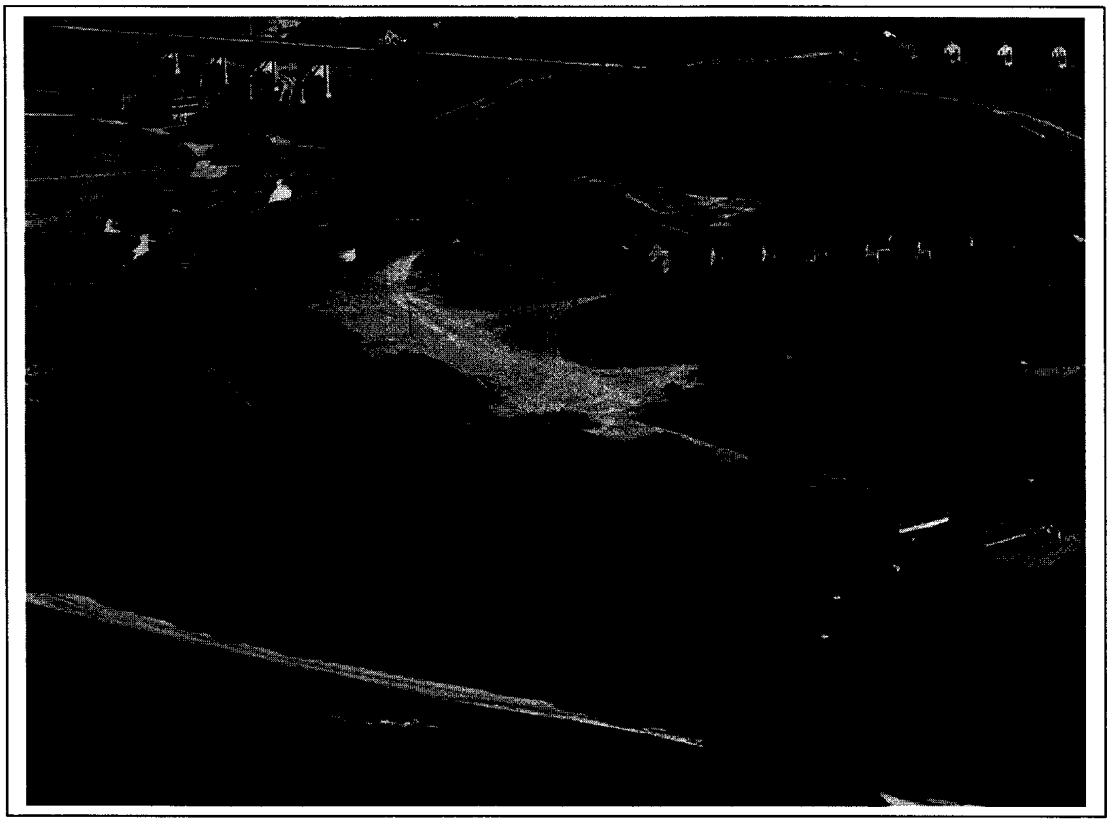


Figure 34. *East Battery partly filled in, October 1937. Compare to 1934 conditions in Figure 13. (Courtesy GG Bridge, Hwy & Trans. Dist.)*

The source of the second episode behind Marcus Miller (an increase of 7 feet) is harder to pin down but probably occurred during the 1960s. The previously cited 1967 aerial photograph in the Golden Gate Bridge collection shows extensive filling operations occurring on the sites of both the Fort Scott dump and also behind Batteries Marcus Miller and Cranston. In this photo, the area between the batteries and Merchant Road is covered with freshly-dumped piles of light-colored fill, each pile corresponding to about the capacity of a dump truck. Tire tracks can be seen among the piles, indicating dumping is still taking place.

The source of the fill is unknown, but could have been come from excavations for the 'new' Letterman General Hospital on the Presidio, where construction was just getting started about this time. The area being filled is bounded roughly by the batteries on the west, Merchant Road on the south, and the Golden Gate Bridge employee parking lot. Today, this area is covered by extensive growths of non-native vegetation and trees; additional (but informal) parking areas, many of them abandoned; and temporary modular office buildings associated with the Golden Gate Bridge's administration.

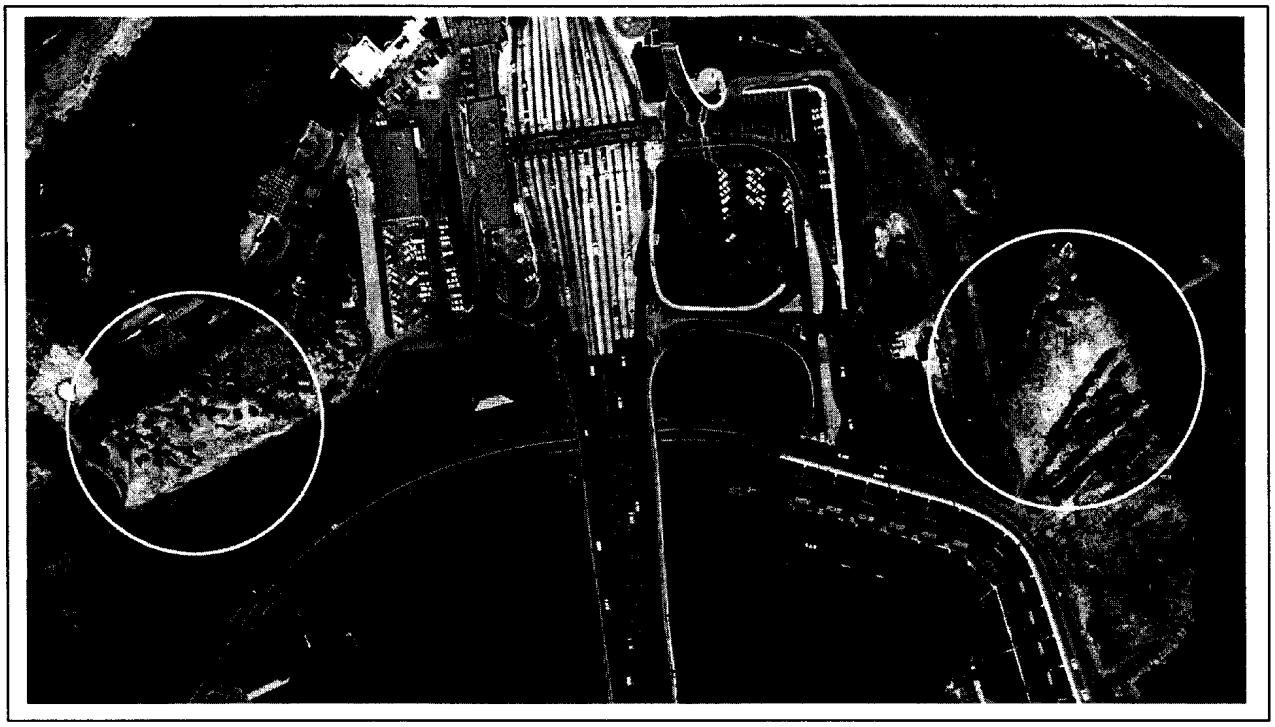


Figure 35. *Dumping activities occurring near Golden Gate Bridge toll plaza in May 1967. Battery Marcus Miller area at left, East Battery area at right. (Courtesy GG Bridge, Hwy & Trans. Dist.)*

In short, today's deeply sunken "covered way" behind Battery Marcus Miller is not a vestige of the Plan of 1870s earthworks but rather the result of Endicott-era and later filling activities. The historic grade in this area should be considered the elevations that existed following completion of the Endicott works.

[1] Lewis, Emmanuel Raymond. *Seacoast Fortifications of the United States: An Introductory History.* Washington:Smithsonian Institution Press, 1970. p 66
[2] Lewis, p. 68
[3] Williford, Glen M. *The Transitional Coast Defense Generation, American Seacoast Defenses in the 1870s*, Privately published, Zionsville, IN 2005, p. 3
[4] Thompson, Erwin N. Historic Resource Study: Seacoast Fortifications of San Francisco Harbor. Denver, National Park Service, 1979. Pp. 81-82; and *Report of the US Board of Engineers on General Profiles for Barbette Batteries*, Washington, D.C.: War Department, 14 August 1868
[5] Martini, John A. *Battery Cavallo: Special History Study*, San Francisco: National Park Service, 1999.
[6] Williford, pp. 4-5
[7] Williford, pp. 10-11
[8] Lewis, p. 70
[9] Bearss, Edwin C. *Historic Structure Report: Fort Point Historic Data Section.* Denver: National Park Service, 1973. p 286
[10] Lewis, p. 76
[11] Bearss, p. 287
[12] Bearss, p. 288
[13] Wherever possible, endnotes in this report will use the primary sources Bearss cited in his HSR.
[14] Brig. Gen. Barton Alexander to Chief of Engineers Gen. Humphries, 29 August & 23 September 1870, NARA, RG 77, Letters Recd, Chief Engineer.
[15] Drawing "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, FOPO Collection; NARA RG77, Dr 94, Sht 102)
[16] Secretary of War William W. Belknap to Humphreys, 9 November 1870, NARA, RG 77, Letters Sent, Secretary of War
[17] *Executive Documents, Published by Order of the House of Representatives during the 2nd Session of the 42nd Congress, 1871-1872.* Washington, 1872. Serial 1504, vol. 2, p. 24.
[18] Humphreys to Stewart, 5 June 1871, NARA, RG 77, Letters Sent, Chief Engineer
[19] Stewart to Humphreys, 13 June 1871, NARA, RG 77, Letters Rec'd, Chief Engineer
[20] Humphreys to Stewart, 27 June 1871, NARA, RG77, Letters Sent, Chief Engineer
[21] *Executive Documents, Published by Order of the House of Representatives during the 3rd Session of the 42nd Congress, 1872-1873.* Washington, 1873. Serial 1559, vol. 2, pt. 2, p. 22
[22] Stewart to Humphreys, 26 July 1872, NARA, RG 77, Letters Rec'd, Chief Engineer
[23] Board of Engineers, Pacific Coast to Humphreys, 18 May 1872, NARA, RG 77, Letters Rec'd, Chief Engineer.
[24] Photo GG 37, in collection of Golden Gate Bridge and Highway District.
[25] *Annual Report of Progress made in the Construction of Fort at Fort Point* in Fiscal Year 1873, NARA, RG 77, Letters Rec'd, Chief Engineer. Positions occupied by Rodmans were Nos. 21-30, 36 and 37.
[26] Stewart to Humphreys, 21 & 27 May 1874, NARA, RG 77, Letters Rec'd, Chief Engineer
[27] Humphreys to Stewart, 10 March 1875, NA, RG 77, Letters Sent, Chief Engineer.
[28] Bearss, p. 258
[29] *Executive Documents of the House of Representatives for the 1st Session of the 48th Congress, 1883-1884*, Washington: 1884. Serial 2183, vol. 3, pp. 47-48
[30] *Executive Documents of the House of Representatives for the 2nd Session of the 47th Congress, 1882-1883,* Washington: 1883, Serial 2092, vol. 3, pp. 51-52
[31] Stewart to Chief Engineer, 2 October 1884, NARA, RG 77, Letters Rec'd, Chief Engineer
[32] Col. George Mendell, Project Engineer, to Chief Engineer, 7 July 1890, NARA, RG 77, Letters Rec'd, Chief Engineer
[33] Mendell to Chief Engineer, September 1892, NARA, RG 77, Letters Rec'd, Chief Engineer
[34] Lt. Charles L. Potter, Project Engineer, to Col. Charles R. Suter, District Engineer, 31 December 1896, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914.
[35] Potter to Suter, 30 June 1897, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914.

[36] Lt. Louis C. Wolf, Project Engineer, to Maj. Charles E.L.B. Davis, District Engineer, 31 December 1898, SF Records Center, RG 77, Letters Sent by Project Engineer, Entry 1914

[37] Drawing "Armament Sketches of Defensive Works in San Francisco Harbor", 1 January 1898, GOGA, PARC, FOPO Coll.

[38] "Report of Completed Works, Form 7, Battery Boutelle", corrected to December 1919

[39] Winslow, Col. Eben E., *Notes on Seacoast Fortification Construction*, Washington: Government Printing Office, 1920. pp. 109-110

[40] Drawing "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, PARC, FOPO Collection; NARA RG77, Dr 94, Sht 102); and Drawing: "Gun Emplacements No 12-13 for 10 in. guns at Fort Point etc" 1891. (PARC, GOGA, Dr 27, Fldr 2; NARA RG 77, Dr 94, Sht 110-1); and "Battery Commander Station for Battery Cranston," 12 August 1902. (GOGA, PARC, Dr 272, Fldr 4; NARA RG77, Dr 94, Sht 110-12)

[41] Drawing "Plan and Sections of Batteries for Fort Point" 1870; and "Report of Completed Works, Form 7, Battery Godfrey", corrected to 1919

[42] "Report of Completed Works, Form 7, Battery Boutelle", corrected to December 1919

[43] Drawing "Battery Commander Station for Battery Cranston," 12 August 1902. (GOGA, PARC, Dr 272, Fldr 4; NARA RG77, Dr 94, Sht 110-12)

[44] Photograph in the collection of the Golden Gate Bridge & Highway District, PIC037 May 1967

[45] Drawing "Armament Sketches of Defensive Works in San Francisco Harbor", 1 January 1898, GOGA, PARC, FOPO Coll.

[46] Drawing "Special Map for Redesign of Salvage & Dump Area Zone 1300," July 1954. Prepared by the 663rd Engineer Topographic Co., U.S. Army, Office of the District Engineer, San Francisco. PARC, GOGA, Dr. 275, Fldr. 2

[47] The author of this report directed once such project in the late 1980s at Battery Marcus Miller. The clearing work was carried out by members of the San Francisco Conservation Crew, and extensive areas of earthen slopes and berms became discernible after clearing dense brush from the superior slopes. These outlines disappeared within a year, though, to returning vegetation.

[48] Drawing "Plan and Sections of Batteries for Fort Point" 1870

[49] Maps referenced are as follows: Lt. William Warner's 1847 survey of the Fort Point area, NARA, RG77, W9; "Plan and Sections of Batteries for Fort Point" 1870. (GOGA, PARC, FOPO Collection; NARA RG77, Dr 94, Sht 102); "Map Showing the Military Reservation of the Presidio of San Francisco," 1871 (PARC, GOGA, Dr 211, Fldr 1; NARA RG77, Dr. 93, Sht 4-23; "Gun Emplacements No 12-13 for 10 in. guns at Fort Point etc" 1891, GOGA, PARK, Dr 27, Fldr 2; NARA, RG 77, Dr 94, Sht 110-1; "Armament Sketches of Defensive Works in San Francisco Harbor" 1898, GOGA, PARC, FOPO Coll; NARA RG77, Dr 256, Sht 10-16; "Presidio of San Francisco and Fort Winfield Scott, 1914 GOGA, PARC, Dr. 312, Fldr 2; "Fort Winfield Scott" Harbor Defenses of SF Annexes, 6 November 1945, GOGA Archeology lab, Ft Scott drawer; Photogrametrical Presidio Contours (based on 1988 NAVD), 2000, GOGA, GIS mapping project

[50] Interview with Hans Barnaal, GIS specialist for Golden Gate NRA, at Presidio Archaeology Lab, 13 August 2005

[51] Photograph in the collection of the Golden Gate Bridge & Highway District, October 1937, Pic B1095

APPENDIX C

LABORATORY TEST RESULTS

Geotechnical Laboratory Test Results
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

															UU Triaxial Strength			CU Triaxial Strength				Direct Shear		Confining Pressures			
Boring or Test Pit	Debris Area	Nearest Cross Section	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample #	Sample Depth (ft, bgs)	Formation	Moisture	DD(pcf)	TD(pcf)	LL	PL	PI	<#200	%Clay (< 2μ)	Sieve	Unconfined Compression (tsf)	Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS	UC (psf)	UU confining (psf)	UU sigma 1 (psf)	Direct Shear (psf)
BB1SB110	1	H	216	BB1SB110(1.0)	1	afw	0.07																						
BB1SB110	1	H	216	BB1SB110(2.5)	2.5	afw	0.15	112.3	129.5942								0.2002	1.8772	0.94								200.2	2077.4	
BB1SB110	1	H	216	BB1SB110(5.0)	5	afh1	0.10	100	109.6																				
BB1SB110	1	H	216	BB1SB110(6.5)	6.5	afh1	0.10						11.1		y														
BB1SB110	1	H	216	BB1SB110(9.0)	9	sp	0.68	57	95.703																				
BB1SB110	1	H	216	BB1SB110(9.5)	9.5	sp	0.53																						
BB1SB110	1	H	216	BB1SB110(11.0)	11	sp	0.62	58.8	95.1972							0.3012										602.4			
BB1SB111	1	H	219	BB1SB111(0.5)	0.5	afw	0.26	98	123.186																				
BB1SB111	1	H	219	BB1SB111(2.5)	2.5	afw	0.15	103	118.862																				
BB1SB111	1	H	219	BB1SB111(4.0)	4	sp	0.70	58.4	99.1632							1.8835										3767			
BB1SB111	1	H	219	BB1SB111(4.5)	4.5	sp	0.67																						
BB1SB111	1	H	219	BB1SB111(7.0)	7	sp	0.56	61	95.221																				
BB1SB111	1	H	219	BB1SB111(9.0)	9	sp	0.59			138	93	45	17.1		y														
BB1TP100	1	H	195	BB1TP100(0.0)	0	afw	0.20	104.6	125.3108	27	18	9				0.27025										540.5			
BB1TP100	1	H	195	BB1TP100(1.0)	1	afw	0.18	102	119.85				36.9		y									0.113	27.6				112.7
BB1TP100	1	H	195	BB1TP100(4.5)	4.5	afw	0.21	106	128.578																				
BB1TP101	1	A	140	BB1TP101(1.0)	1	afw	0.10	122	133.834															0.458	26.5				457.7
BB1TP101	1	A	140	BB1TP101(10.5)	10.5	afw	0.15																						
BB1TP102	1	A	62	BB1TP102(4.0)	4	afw	0.30																						
BB1TP102	1	A	62	BB1TP102(10.5)	10.5	KJm	0.10	133.4	146.2064							0.28275										565.5			
BB1TP103	1	C	68	BB1TP103(3.0)	3	afw	0.07	103	109.695				11		y														
BB1TP103	1	C	68	BB1TP103(9.5)	9.5	Qcol/sp	0.26	98.4	124.0824				80.1		y	0.7383										1476.6			
BB1TP104	1	C	107	BB1TP104(1.0)	1	afh2	0.19																						
BB1TP105	1	C	145	BB1TP105(1.0)	1	afw	0.18	111	130.425																				
BB1TP105	1	C	145	BB1TP105(5.5)	5.5	afw	0.21	69	83.697															0.524	24.3				524.4
BB1TP106	1	A	105	BB1TP106(5.0)	5	afw	0.21			24	21	3	14.6		y														
BBSB102	1	F	190	BBSB102(0.5)	0.5	afh1	0.16	94	108.946																				
BBSB102	1	F	190	BBSB102(2.5)	2.5	Qcol	0.17	112	130.592								0.2002	2.9927	1.50								200.2	3192.9	
BBSB102	1	F	190	BBSB102(3.5)	3.5	Qcol/sp	1.37	34	80.682																				
BBSB102	1	F	190	BBSB102(6.0)	6	sp	0.65	60.3	99.495							1.0212										2042.4			
BBSB102	1	F	190	BBSB102(8.5)	8.5	sp	0.13	114.2	129.2744							1.9856										3971.2			
BBSB102	1	F	190	BBSB102(9.0)	9	sp	0.14	111.4	126.996							1.44255										2885.1			
BBSB103	1	F	200	05BBSB103(1.0)	0	afh	0.11	108	119.772	25	15	10	41.2																
BBSB103	1	F	200	05BBSB103(1.5)	1.5	afh	0.11																						
BBSB103	1	F	200	05BBSB103(3.0)	3.0	afh	0.13	111.2	125.656	31	21	10	46.1		y					0.31	17	0.1051	35						
BBSB103	1	F	200	05BBSB103(4.5)	4.5	afh	0.13	112.8	127.3512								0.2995	1.6868	0.84								299.5	1986.3	
BBSB103	1	F	200	05BBSB103(6.5)	6.5	afh / afh1	0.11																						
BBSB103	1	F	200	05BBSB103(8.0)	8.0	afh1	0.09	111.2	121.6528				22.4		y									0.136	34				136.1
BBSB103	1	F	200	05BBSB103(9.5)	9.5	afh1	0.09																						
BBSB103	1	F	200	05BBSB103(11.5)	11.5	Qcol	0.11	112.9	125.5448	NP	NP	NP	23.7											0.129	29				129.1
BBSB103	1	F	200	05BBSB103(13.0)	13.0	sp	0.63																						
BBSB104	1		221	05BBSB104(2.0)	2	Qcol	0.16	117.9	136.4103	28	14	14	52.8			2.1898										4379.6			
BBSB104	1		221	05BBSB104(2.5)	2.5	Qcol	0.16	116.6	135.6058							2.1397										4279.4			
BBSB104	1		221	05BBSB104(3.0)	3	Qcol	0.16																						
BBSB104	1		221	05BBSB104(5.5)	5.5	sp	0.53																						
BBSB104	1		221	05BBSB104(6.0)	6	sp	1.00																						
BBSB104	1		221	05BBSB104(7.5)	7.5	sp	0.78	51.5	91.7215								0.8006	1.4518	0.73								800.6	2252.4	
BBSB104	1		221	05BBSB104(9.5)	9.5	sp	0.66																						
BBSB105	1	C	225	05BBSB105(1.0)	1	afh1	0.16	116	134.328																				
BBSB105	1	C	225	05BBSB105(1.5)	1.5	Qcol	0.17																						
BBSB105	1	C	225	05BBSB105(3.0)	3	Qcol	0.99	46	91.586																				
BBSB105	1	C	225	05BBSB105(3.5)	3.5	sp	0.74	54.6	94.731								0.2506	1.4153	0.71								250.6	1665.9	
BBSB105	1	C	225	05BBSB105(4.5)	4.5	sp	0.90																						
BBSB105	1	C	225	05BBSB105(6.5)	6.5	sp	0.85	48.2	89.17								0.8006	1.4992	0.75								800.6	2299.8	
BBSB105	1	C	225	05BBSB105(7.5)	7.5	sp	0.86																						
BBSB105	1	C	225	05BBSB105(9.0)	9	sp	0.86																						
Trench 4	1	A		Trench 4(4.5)	4.5					40	19	21	84.2	38.5	y														
Trench 4	1	A		Trench 4(6.0)	6					96	34	62	73.7	60.2	y														
BB2SB100	2	E	261	BB2SB100(1.0)	1	afh1	0.07																						
BB2SB100	2	E	261	BB2SB100(2.5)	2.5	afh1	0.17	112.9	131.5285								0.2002	4.5133	2.26								200.2	4713.5	
BB2SB100	2	E	261	BB2SB100(3.5)	3.5	afh1	0.20	105.3	126.36							1.7604										3520.8			
BB2SB100	2	E	261	BB2SB100(5.0)	5	Qcol	0.15	117.4	135.2448								0.2995	3.2719	1.64								299.5	3571.4	
BB2SB100	2	E	261	BB2SB100(6.0)	6	Qcol	0.19	108.8	129.3632							2.28945										4578.9			
BB2SB100	2	E	261	BB2SB100(6.7)	6.7	Qcol	0.19	106.3	126.9222											1.0631	33	-2.2029	60						
BB2SB100	2	E	261	BB2SB100(8.5)	8.5	Qcol	0.28	95.7	122.496							1.7845										3569			
BB2SB100	2	E	261	BB2SB100(9.0)	9	Qcol	0.21	107.5	130.075							2.4303										4860.6			
BB2SB100	2	E	261	BB2SB100(10.5)	10.5	Qcol	0.16	109	126.767																				
BB2SB100	2	E	261	BB2SB100(12.0)	12	sp	0.25	85.3	106.7956							0.7996										1599.2			
BB2SB100	2	E	261	BB2SB100(15.0)	15	sp	0.25	90	112.23																				

Geotechnical Laboratory Test Results
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

																UU Triaxial Strength			CU Triaxial Strength				Direct Shear		Confining Pressures			
Boring or Test Pit	Debris Area	Nearest Cross Section	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample #	Sample Depth (ft, bgs)	Formation	Moisture	DD(pcf)	TD(pcf)	LL	PL	PI	<#200	%Clay (< 2μ)	Sieve	Unconfined Compression (tsf)	Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS	UC (psf)	UU confining (psf)	UU sigma 1 (psf)	Direct Shear (psf)
BB2SB100	2	E	261	BB2SB100(16.5)	16.5	sp	0.21																						
BB2SB101	2	E	257	BB2SB101(1.0)	1	afh1	0.08	119	128.163				16.3		y														
BB2SB101	2	E	257	BB2SB101(2.0)	2	afh1	0.16	109	126.113																				
BB2SB101	2	E	257	BB2SB101(4.0)	4	afw	0.15	114.5	131.3315				36.5				0.2995	0.6759	0.34								299.5	975.4	
BB2SB101	2	E	257	BB2SB101(5.5)	5.5	afw	0.19	108.2	128.4334							0.45425										908.5			
BB2SB101	2	E	257	BB2SB101(8.5)	8.5	afw	0.41	70.9	100.2526							0.69985										1399.7			
BB2SB101	2	E	257	BB2SB101(11.5)	11.5	afw	0.41	71.5	101.101								0.7502	0.7749	0.39								750.2	1525.1	
BB2SB101	2	E	257	BB2SB101(12.3)	12.3	Qcol	0.19	109.9	130.781	24	16	8					0.985	2.5939	1.30								985	3578.9	
BB2SB101	2	E	257	BB2SB101(15.0)	15	Qcol	0.20	109.5	131.0715							1.98625										3972.5			
BB2SB101	2	E	257	BB2SB101(15.5)	15.5	Qcol																							
BB2SB101	2	E	257	BB2SB101(17.5)	17.5	Qcol	0.17	113.9	133.6047								0.9994	8.0696	4.03								999.4	9069	
BB2SB101	2	E	257	BB2SB101(18.0)	18	Qcol	0.14	120	137.04																				
BB2SB101	2	E	257	BB2SB101(19.5)	19.5	Qcol	0.18	114.3	134.4168							2.7406										5481.2			
BB2SB101	2	E	257	BB2SB101(20.3)	20.3	Qcol	0.18	112.8	132.6528	37	19	18								0.2136	30	0.1788	41						
BB2SB101	2	E	257	BB2SB101(23.0)	23	Qcol	0.19	107.8	128.1742							2.32465										4649.3			
BB2SB101	2	E	257	BB2SB101(25.3)	25.3	sp	0.25	87	108.489	45	32	13																	
BB2TP100	2	E	230	BB2TP100(1.5)	1.5	Qcol	0.15	116.4	133.6272								0.2002	1.9753	0.99								200.2	2175.5	
BB2TP100	2	E	230	BB2TP100(6.5)	6.5	sp	0.34																						
BB2TP101	2	E	242	BB2TP101(4.5)	4.5	afw	0.27	79	100.014	25	16	9												0.038	36.5				37.6
BB2TP101	2	E	242	BB2TP101(9.5)	9.5	Qcol	0.17	113.6	132.7984															0.779	12.9				779.3
BBSB107	2	E	263	05BBSB107(0.5)	0.5	afh1	0.07	115.5	123.816								0.0994	6.1169	3.06								99.4	6216.3	
BBSB107	2	E	263	05BBSB107(1.0)	1	afh1	0.11	113	125.204				56.8																
BBSB107	2	E	263	05BBSB107(2.5)	2.5	afh1	0.10	118.4	130.24								0.1498	3.8819	1.94								149.8	4031.7	
BBSB107	2	E	263	05BBSB107(4.0)	4	afh1																							
BBSB107	2	E	263	05BBSB107(4.5)	4.5	afh1	0.16	103	119.686	31	17	14												0.372	12				371.7
BBSB107	2	E	263	05BBSB107(6.0)	6	afh1	0.16																						
BBSB107	2	E	263	05BBSB107(8.0)	8	afh1	0.16	114.9	133.7436							4.63485										9269.7			
BBSB107	2	E	263	05BBSB107(10.0)	10	Qcol	0.15	111	127.539																				
BBSB107	2	E	263	05BBSB107(10.5)	10.5	Qcol	0.12	114.6	128.352							1.12835										2256.7			
BBSB107	2	E	263	05BBSB107(13.5)	13.5	Qcol	0.12	121	135.762																				
BBSB107	2	E	263	05BBSB107(14.0)	14	Qcol	0.12																						
BBSB107	2	E	263	05BBSB107(16.0)	16	Qcol	0.18	103.5	121.716								0.9994	4.5698	2.28								999.4	5569.2	
BBSB107	2	E	263	05BBSB107(17.0)	17	sp	0.25																						
BBSB107	2	E	263	05BBSB107(19.5)	19.5	sp	0.19	97.1	115.3548								1.3003	6.1651	3.08								1300.3	7465.4	
BB1ATP100	1A	G	168	BB1ATP100(2.5)	2.5	afh2																							
BB1ATP100	1A	G	168	BB1ATP100(4.5)	4.5	Qcol	0.30	91	117.845																				
BB1ATP101	1A		170	BB1ATP101(2.5)	2.5	afh	0.19																						
BB1ATP101	1A		170	BB1ATP101(4.0)	4	afh	0.06	107	113.527															-0.061	43.8				-61
BBSB100	1A	G	175	BBSB100(2.0)	2	Qcol	0.21	105	126.945																				
BBSB100	1A	G	175	BBSB100(2.5)	2.5	Qcol	0.36	85.1	115.9062							1.0253										2050.6			
BBSB100	1A	G	175	BBSB100(3.0)	3	sp	0.23	101.8	125.3158								0.2506	0.7358	0.37								250.6	986.4	
BBSB100	1A	G	175	BBSB100(5.5)	5.5	sp	0.25	97.8	122.1522							0.52845										1056.9			
BBSB100	1A	G	175	BBSB100(6.0)	6	sp																							
BBSB100	1A	G	175	BBSB100(8.5)	8.5	sp																							
BBSB100	1A	G	175	BBSB100(9.0)	9	sp	0.27	88.3	111.9644	65	45	20	17.5			0.4954										990.8			
BBSB101	1A	G	188	BBSB101(1.0)	0	afh	0.11	112.2	124.8786	20	13	7	32		y	0.4844										968.8			
BBSB101	1A	G	188	BBSB101(1.5)	1.5	afh / afh2	0.14																						
BBSB101	1A	G	188	BBSB101(3.0)	3.0	afh2	0.12	104.3	116.2945				4.5											-0.034	24				-33.7
BBSB101	1A	G	188	BBSB101(6.5)	6.5	afh2	0.14	109.6	124.396							0.1191										238.2			
BBSB101	1A	G	188		7.0	afh2																							
BBSB101	1A	G	188	BBSB101(8.5)	8.5	afh2	0.17	109.1	127.7561	30	14	16	49.1		y					0.40	23.00	0.13	33						
BBSB101	1A	G	188	BBSB101(12.0)	12.0	afh2	0.16	110.1	128.1564							1.4038										2807.6			
BBSB101	1A	G	188	BBSB101(13.5)	13.5	Qcol	0.04						4.4																
BBSB101	1A	G	188	BBSB101(14.0)	14.0	Qcol	0.07	103	110.313				10.2											0.001	32				0.6
BBSB101	1A	G	188	BBSB101(17.0)	17.0	Qcol	0.20	109	131.127																				
BBSB101	1A	G	188		17.5	Qcol																							
BBSB101	1A	G	188		19.0	sp																							
BB2ASB100	2A	D	258	BB2ASB100(1.0)	1	afh	0.06																						
BB2ASB100	2A	D	258	BB2ASB100(2.5)	2.5	afh	0.12																						
BB2ASB100	2A	D	258	BB2ASB100(5.5)	5.5	afh																							
BB2ASB100	2A	D	258	BB2ASB100(6.8)	6.8	Qcol	0.11	108	119.556				65.3		y									0.036	27				36
BB2ASB100	2A	D	258	BB2ASB100(9.5)	9.5	Qcol	0.20	105.6	126.5088								0.6005	8.0776	4.04								600.5	8678.1	
BB2ASB100	2A	D	258	BB2ASB100(11.5)	11.5	sp	0.21	105.1	127.4863	43	21	22				2.95645										5912.9			
BB2ASB100	2A	D	258	BB2ASB100(13.0)	13	sp	0.21	102.6	124.0434								0.8006	3.8672	1.93								800.6	4667.8	
BB2ASB100	2A	D	258	BB2ASB100(14.0)	14	sp	0.16	118.1	136.7598							1.1176										2235.2			
BB2ASB100	2A	D	258	BB2ASB100(16.5)	16.5	sp	0.16	111.6	129.3444							2.44645										4892.9			
BB2ASB100	2A	D	258	BB2ASB100(18.0)	18	KJm	0.17	109	127.094																				
BB2ASB100	2A	D	258	BB2ASB100(19.0)	19	KJm	0.17	107.8	126.126							1.0644										2128.8			
BB2ASB100	2A	D	258	BB2ASB100(21.0)	21	KJm	0.10	124	136.152																				

Geotechnical Laboratory Test Results
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

																UU Triaxial Strength			CU Triaxial Strength				Direct Shear		Confining Pressures			
Boring or Test Pit	Debris Area	Nearest Cross Section	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample #	Sample Depth (ft, bgs)	Formation	Moisture	DD(pcf)	TD(pcf)	LL	PL	PI	<#200	%Clay (< 2μ)	Sieve	Unconfined Compression (tsf)	Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS	UC (psf)	UU confining (psf)	UU sigma 1 (psf)	Direct Shear (psf)
BB2ASB100	2A	D	258	BB2ASB100(22.5)	22.5	KJm	0.19	103	122.467																				
BB2ASB101	2A	D	256	BB2ASB101(1.0)	1	afh1	0.09	114	124.602				13		y														
BB2ASB101	2A	D	256	BB2ASB101(2.0)	2	afh1	0.19	103	122.261								0.1555	1.3965	0.70								155.5	1552	
BB2ASB101	2A	D	256	BB2ASB101(4.5)	4.5	afh1	0.21	102.4	124.1088								0.2995	0.97	0.49								299.5	1269.5	
BB2ASB101	2A	D	256	BB2ASB101(6.5)	6.5	Qcol	0.18	108.5	128.3555	20	14	6												0.078	39				77.5
BB2ASB101	2A	D	256	BB2ASB101(8.0)	8	Qcol	0.24	100.5	124.9215							2.09905										4198.1			
BB2ASB101	2A	D	256	BB2ASB101(9.5)	9.5	Qcol	0.60																						
BB2ASB101	2A	D	256	BB2ASB101(11.5)	11.5	sp	0.45	66	95.568																				
BB2ATP100	2A	B	190	BB2ATP100(1.0)	1	Qcol	0.33	77	102.256	53	36	17												0.025	35.8				24.6
BB2ATP100	2A	B	190	BB2ATP100(4.0)	4	sp	0.19	101	120.291																				
BB2ATP101	2A	D	95	BB2ATP101(2.0)	2	afw	0.18	111.8	131.924				17.9		y	0.72555										1451.1			
BB2ATP101	2A	D	95	BB2ATP101(12.0)	12	afw	0.27	94.6	120.5204								0.0994	0.7798	0.39								99.4	879.2	
BB2ATP102	2A	B	130	BB2ATP102(2.0)	2	afh2	0.13	104	117.104				17.9		y														
BB2ATP102	2A	B	130	BB2ATP102(8.0)	8	sp	0.13	113.9	129.0487							0.21205										424.1			
BB2ATP103	2A	D	160	BB2ATP103(1.0)	1	afh2/afw	0.16	107	124.548				47.5		y	0.28555										571.1			
BB2ATP103	2A	D	160	BB2ATP103(4.0)	4	sp	0.08	116	125.396																				
BB2ATP104	2A	D	113	BB2ATP104(2.0)	2	afw	0.18	102	120.054															-0.109	38.6				-109.2
BB2ATP104	2A	D	113	BB2ATP104(6.0)	6	afh2	0.20	105.2	126.4504	29	18	11					0.6005	1.0635	0.53								600.5	1664	
BB2ATP105	2A	D	50	BB2ATP105(0.5)	0.5	KJm	0.05																						
BB2ATP106	2A	B	60	BB2ATP106(0.5)	0.5	afw/Qls	0.15	117	134.433																				
BBSB106	2A	B	258		0	afh																							
BBSB106	2A	B	258	05BBSB106(1.0)	1.0	afh	0.16	104.3	121.4052	35	23	12	50.1	19.5	y	1.67925										3358.5			
BBSB106	2A	B	258		1.5	afh																							
BBSB106	2A	B	258	05BBSB106(2.5)	2.5	afh	0.24																						
BBSB106	2A	B	258	05BBSB106(3.5)	3.5	Qcol	0.14	115	131.33	25	14	11												0.239	39				239.4
BBSB106	2A	B	258	05BBSB106(6.0)	6.0	Qcol	0.19	109.6	130.0952							1.0774										2154.8			
BBSB106	2A	B	258	05BBSB106(6.5)	6.5	Qcol	0.18	109	128.838																				
BBSB106	2A	B	258	05BBSB106(7.0)	7.0	Qcol	0.17	111	129.315	33	18	15	61.7											1.116	30				1116.2
BBSB106	2A	B	258	05BBSB106(7.5)	7.5	Qcol	0.16	115.2	133.9776								0.4997	6.4152	3.21								499.7	6914.9	
BBSB106	2A	B	258	05BBSB106(8.0)	8.0	Qcol	0.16																						
BBSB106	2A	B	258	05BBSB106(10.0)	10.0	sp	0.32	86	113.692							1.76525										3530.5			
BBSB106	2A	B	258	05BBSB106(10.5)	10.5	sp	0.60	62.3	99.4931															0.578	27				577.5
BBSB106	2A	B	258	05BBSB106(11.5)	11.5	sp			0																				
BBSB106	2A	B	258	05BBSB106(13.0)	13.0	sp			0																				
BBSB106	2A	B	258	05BBSB106(24.0)	24.0	sp	0.40		0	97	71	26	28.1																

Abbreviations Key:

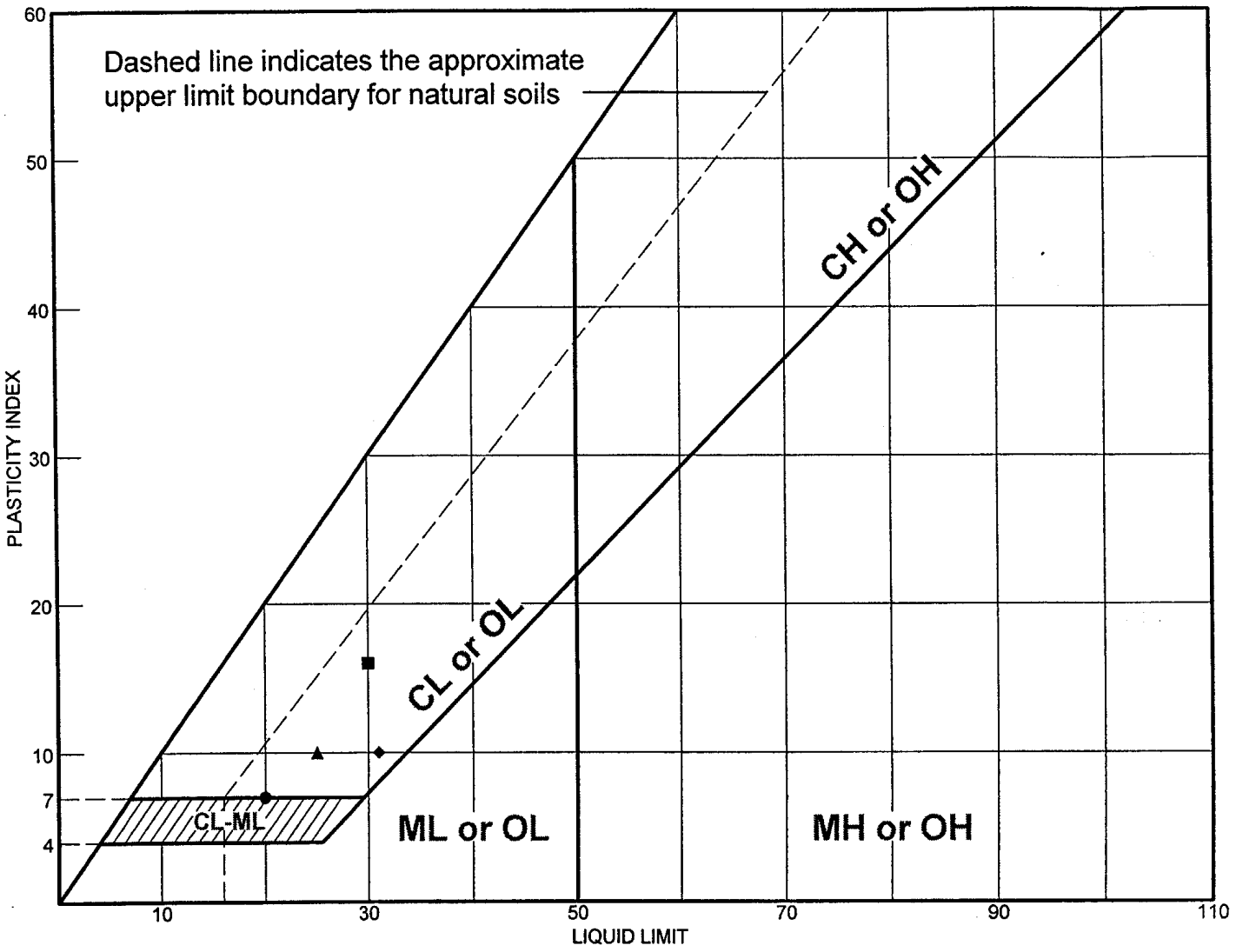
HSA - Hollow Stem Auger	c - Cohesion	CU - Consolidated Undrained
MC - Modified California Sampler	DD - Dry Density	KJm - Melange
SPT - Standard Penetration Test Sampler	TD - Total or Wet Density	sp - Serpentinite
N-60 - Hammer energy and sample type corrected blow count	LL - Liquid Limit	Qls - Landslide Deposits
Phi Meyerhof - Internal friction angle (Phi) based on Meherhof table in EPRI, August 1990	PL - Plastic Limit	afo - Other fill
Su - Undrained shear strength	PI - Plasticity Index	Qcol - Colma Fm/Native Soils
Su = N/8 - Shear strength relationship based on N_60, EPRI, August 1990	tsf - tons (2000 pounds) per square feet	afh - Battery West Historic Fill; most recent construction and still in place.
Eff_Stress - Effective overburden stress	ksf - kips (l000 pounds) per square feet	afh1 - Battery West Historic Fill; disturbed on bluff top.
C_N - Overburden correction factor	psf - pounds per square feet	afh2 - Battery West Historic Fill; disturbed downslope.
N1,60 - N60 value corrected for overburden	pcf - pounds per cubic foot	afw - Waste Fill
ft - Feet	y - Sieve analyses was done on sample	
PLLW - Presidio Low Level Water	c_DS - Consolidated Drained Direct Shear	
bgs - Below ground surface	DS - Direct Shear	
UU - Unconsolidated Undrained	UC - Unconfined Compression	
Su_UU - Unconsolidated Undrained Shear Strength	NP - Not Plastic	

Checked
Approved

APPENDIX C1

GEOTECHNICAL LABORATORY TEST RESULTS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Dark Brown Silty Clayey Sand (SC-SM)	20	13	7	92.5	32.0	SC-SM
■	Brown Clayey Sand (SC)	30	14	16	95.1	49.1	SC
▲	Dark Brown Clayey Sand (SC)	25	15	10		41.2	SC
◆	Dark Brown Clayey Sand (SC)	31	21	10	86.8	46.1	SC
▼	Brown Silty Sand (SM)	NV	NP	NP		23.7	SM

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

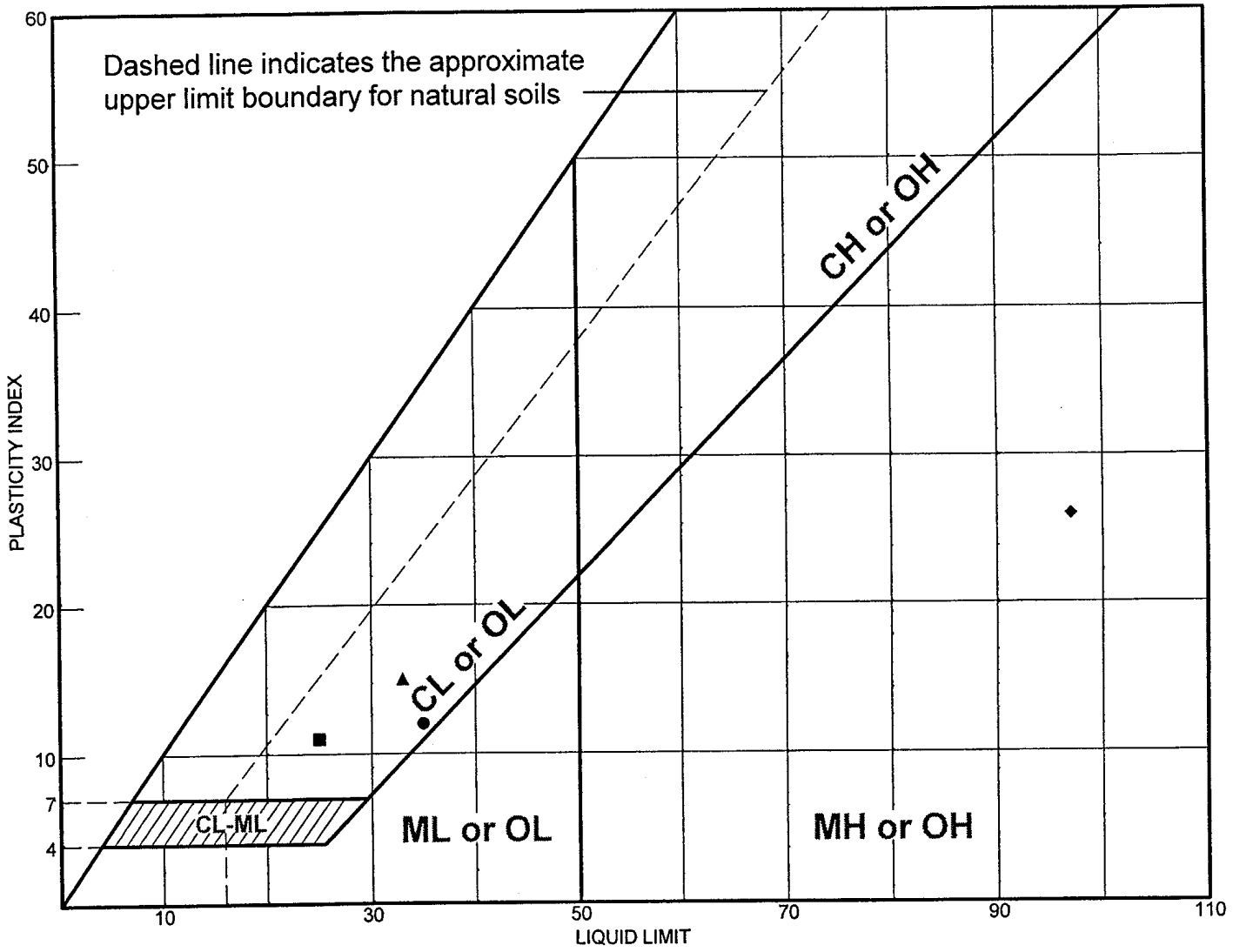
● **Source:** BBSB101 **Elev./Depth:** 1.0-1.5'
■ **Source:** BBSB101 **Elev./Depth:** 8.5-10.8'
▲ **Source:** BBSB103 **Elev./Depth:** 0.0-1.5'
◆ **Source:** BBSB103 **Elev./Depth:** 3.0-4.5'
▼ **Source:** BBSB103 **Elev./Depth:** 11.5-13.0'

Remarks:
●
■
▲
◆
▼

R G H CONSULTANTS, INC.

Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Dark Brown Sandy Lean Clay (CL)	35	23	12	87.4	50.1	CL
■	Brown Sandy Lean Clay (CL)	25	14	11			CL
▲	Brown Sandy Lean Clay (CL)	33	18	15		61.7	CL
◆	Olive Green Silty Sand W/Gravel (SM)	97	71	26		28.1	SM

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

● **Source:** BBSB106 **Elev./Depth:** 0.0-1.5'
■ **Source:** BBSB106 **Elev./Depth:** 3.5-5.5'
▲ **Source:** BBSB106 **Elev./Depth:** 7.0-7.5'
◆ **Source:** BBSB106 **Elev./Depth:** 24.0-25.5'

Remarks:
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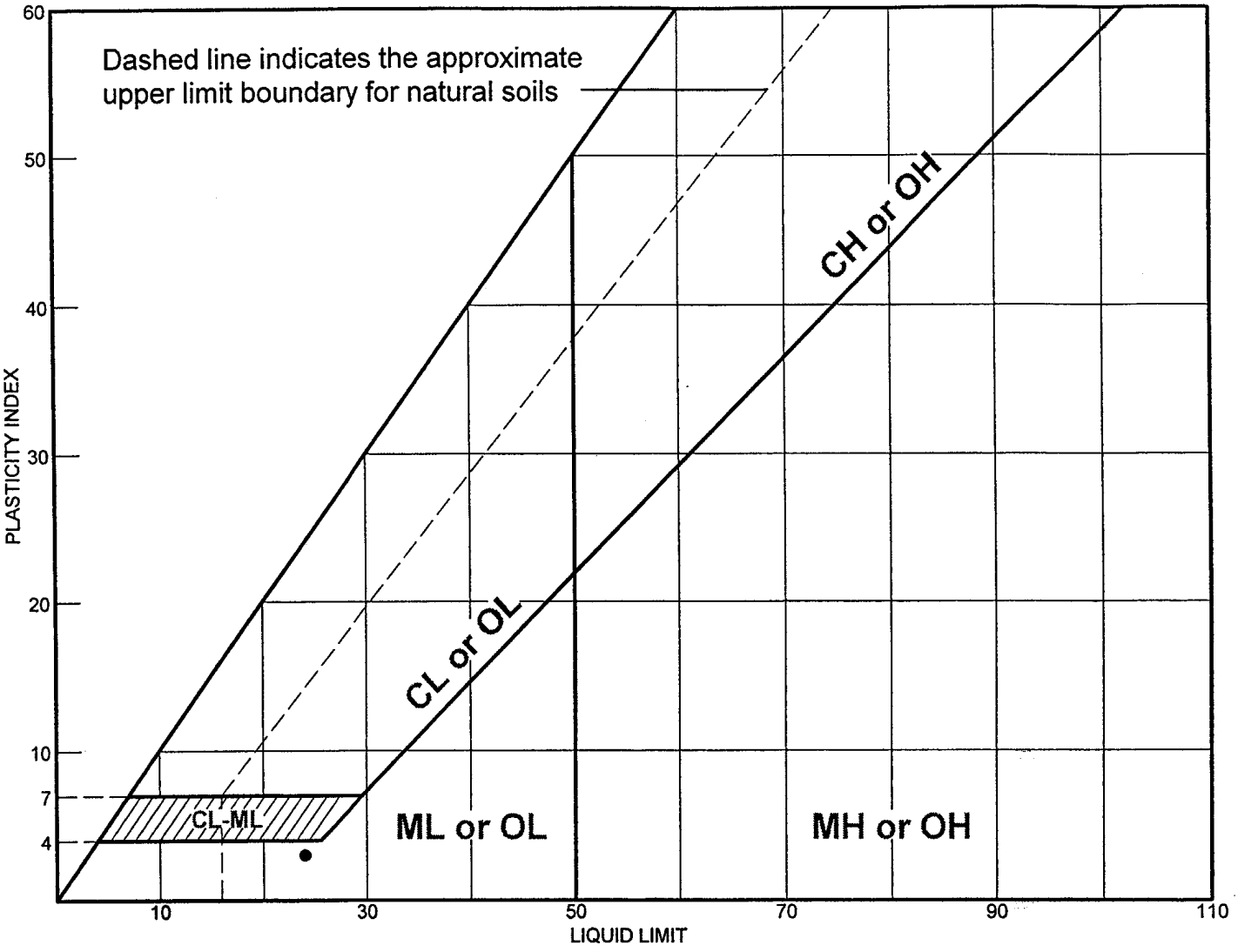
Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Silty Sand W/Gravel (SM)	24	21	3	41.9	14.6	SM

Project No. 57255.005103 **Client:** Mactec E & C

Project: Presidio SF-BBDA1

● **Source:** BB1TP106 **Elev./Depth:** 5.0-5.5'

Remarks:

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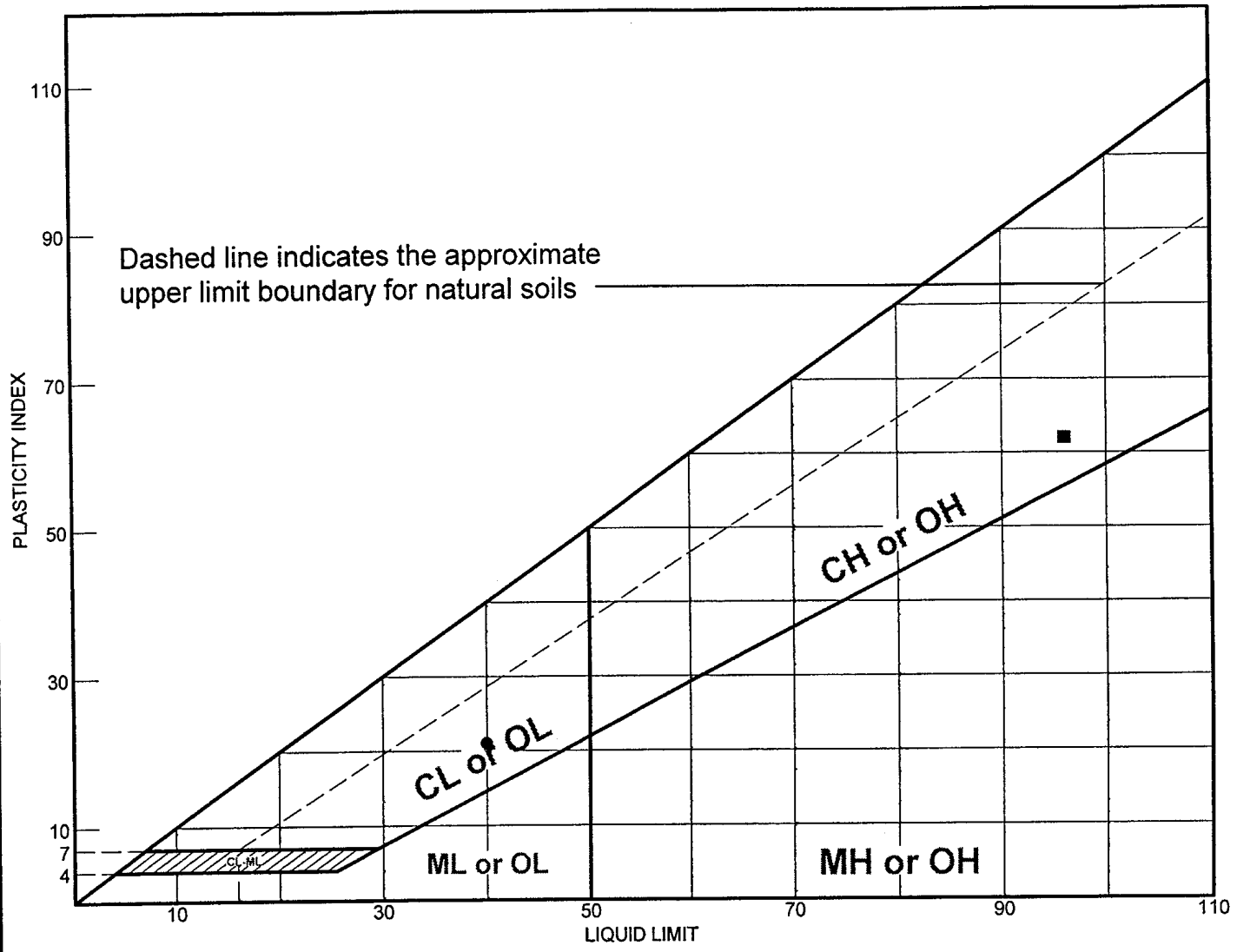
Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Lean Clay W/Sand (CL)	40	19	21	98.5	84.2	CL
■	Brown Clay W/Sand (CH)	96	34	62	92.5	73.7	CH

Project No. 57255.005102 **Client:** Mactec E & C

Project: Presidio SF BBDA1

● **Source:** Trench 4 **Elev./Depth:** 4.5'

■ **Source:** Trench 4 **Elev./Depth:** 6.0'

Remarks:

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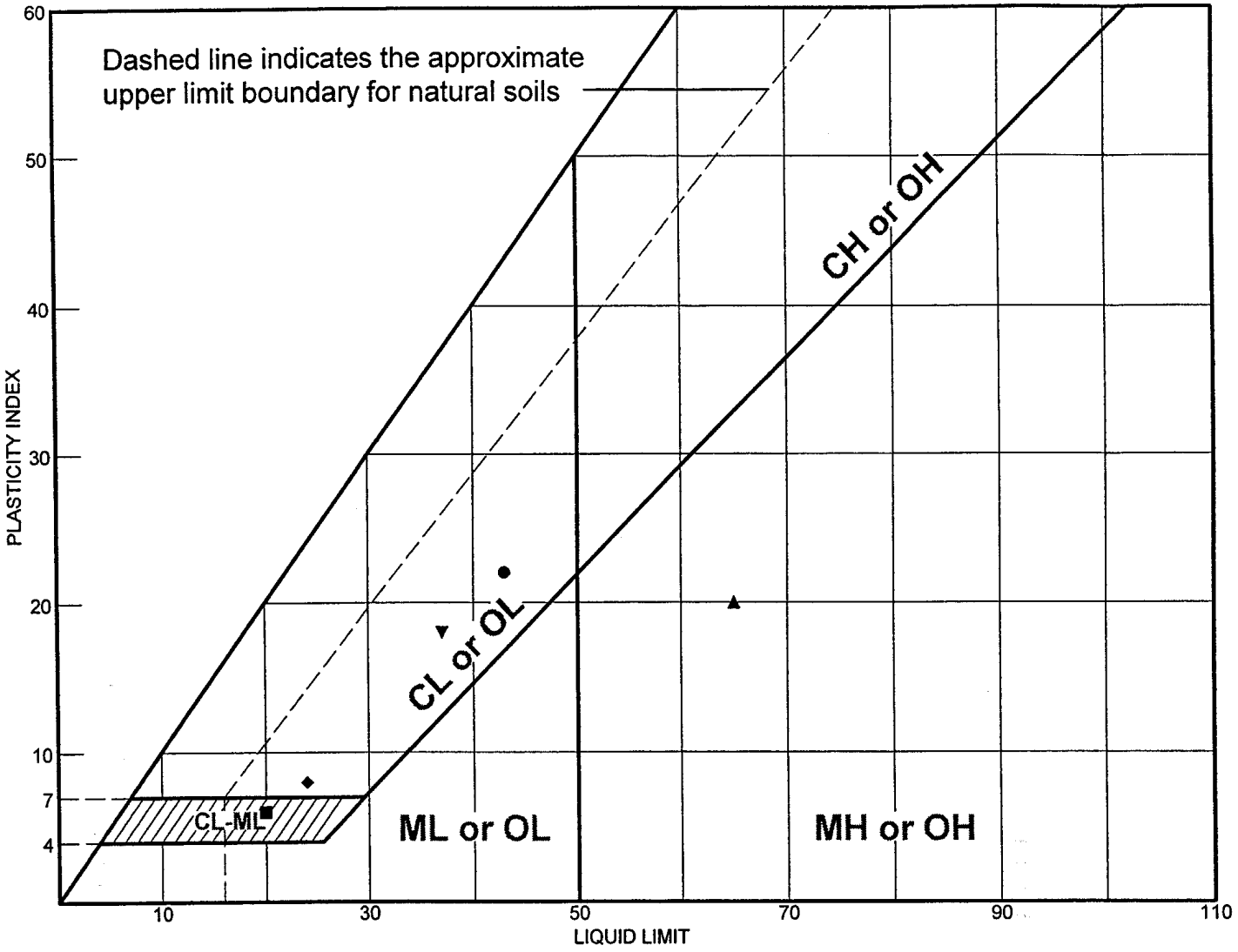
Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Lean Clay W/Sand (CL)	43	21	22			CL
■	Brown Silty Clayey Sand (SC-SM)	20	14	6			SC-SM
▲	Brown Silty Sand W/Gravel (SM)	65	45	20		17.5	SM
◆	Brown Sandy Lean Clay (CL)	24	16	8			CL
▼	Brown Lean Clay W/Sand (CL)	37	19	18			CL

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

● **Source:** BB2ASB100	**Elev./Depth:** 11.5'
■ **Source:** BB2ASB101	**Elev./Depth:** 6.5'
▲ **Source:** BBSB100	**Elev./Depth:** 9.0-9.5'
◆ **Source:** BB2SB101	**Elev./Depth:** 12.3-14.0'
▼ **Source:** BB2SB101	**Elev./Depth:** 20.3-22.0'

Remarks:

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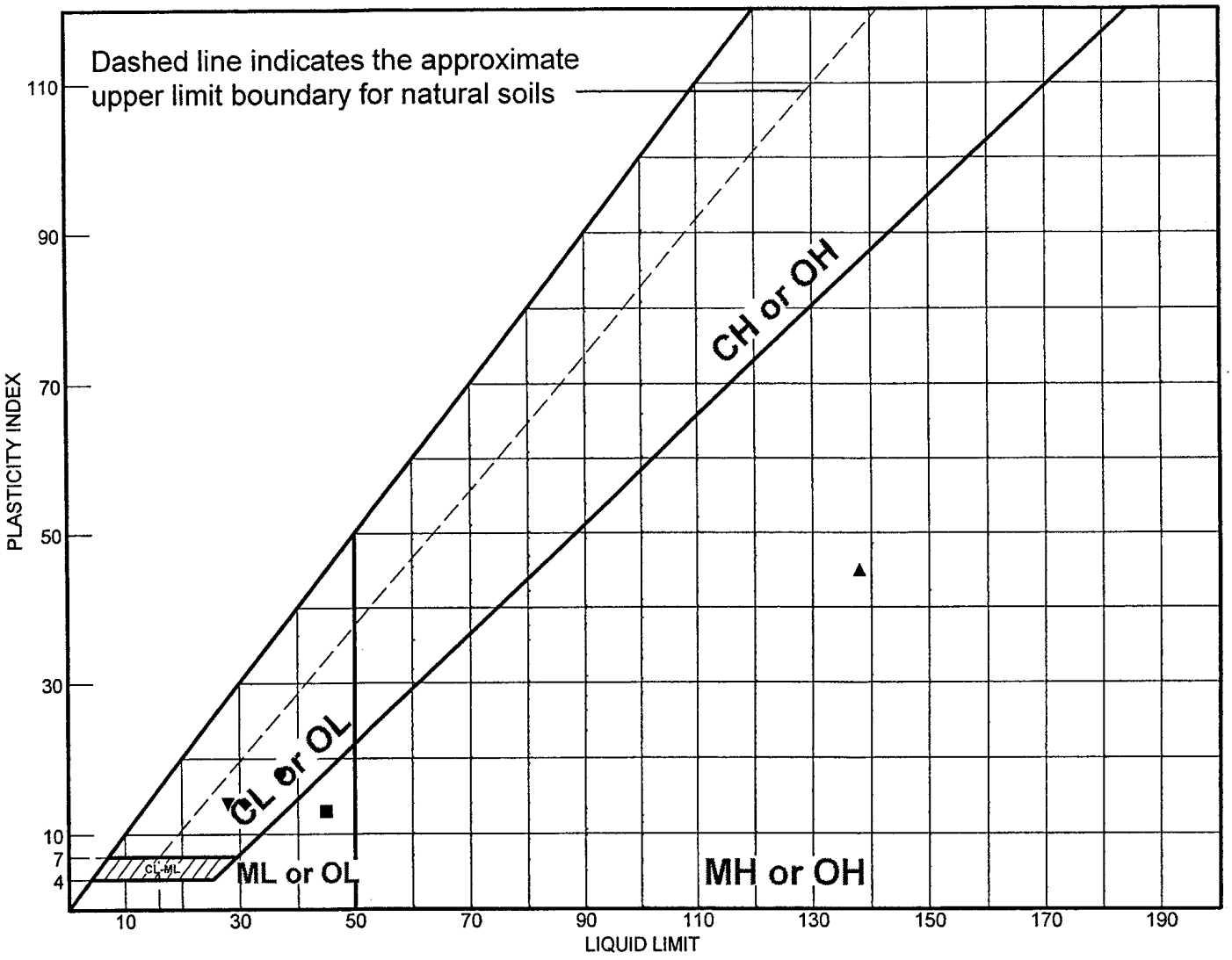
Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Lean Clay W/Sand (CL)	37	19	18			CL
■	Grey Brown Sandy Silt (ML)	45	32	13			ML
▲	Brown Silty Sand W/Gravel (SM)	138	93	45	38.4	17.1	SM
◆	Brown Lean Clay W/Sand (CL)	31	17	14			CL
▼	Brown Sandy Lean Clay (CL)	28	14	14		52.8	CL

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

● **Source:** BB2SB101 **Elev./Depth:** 20.3-22.0'
■ **Source:** BB2SB101 **Elev./Depth:** 25.3-26.0'
▲ **Source:** BB1SB111 **Elev./Depth:** 9.0-10.5'
◆ **Source:** BBSB107 **Elev./Depth:** 4.5'
▼ **Source:** BBSB104 **Elev./Depth:** 2.0'

Remarks:
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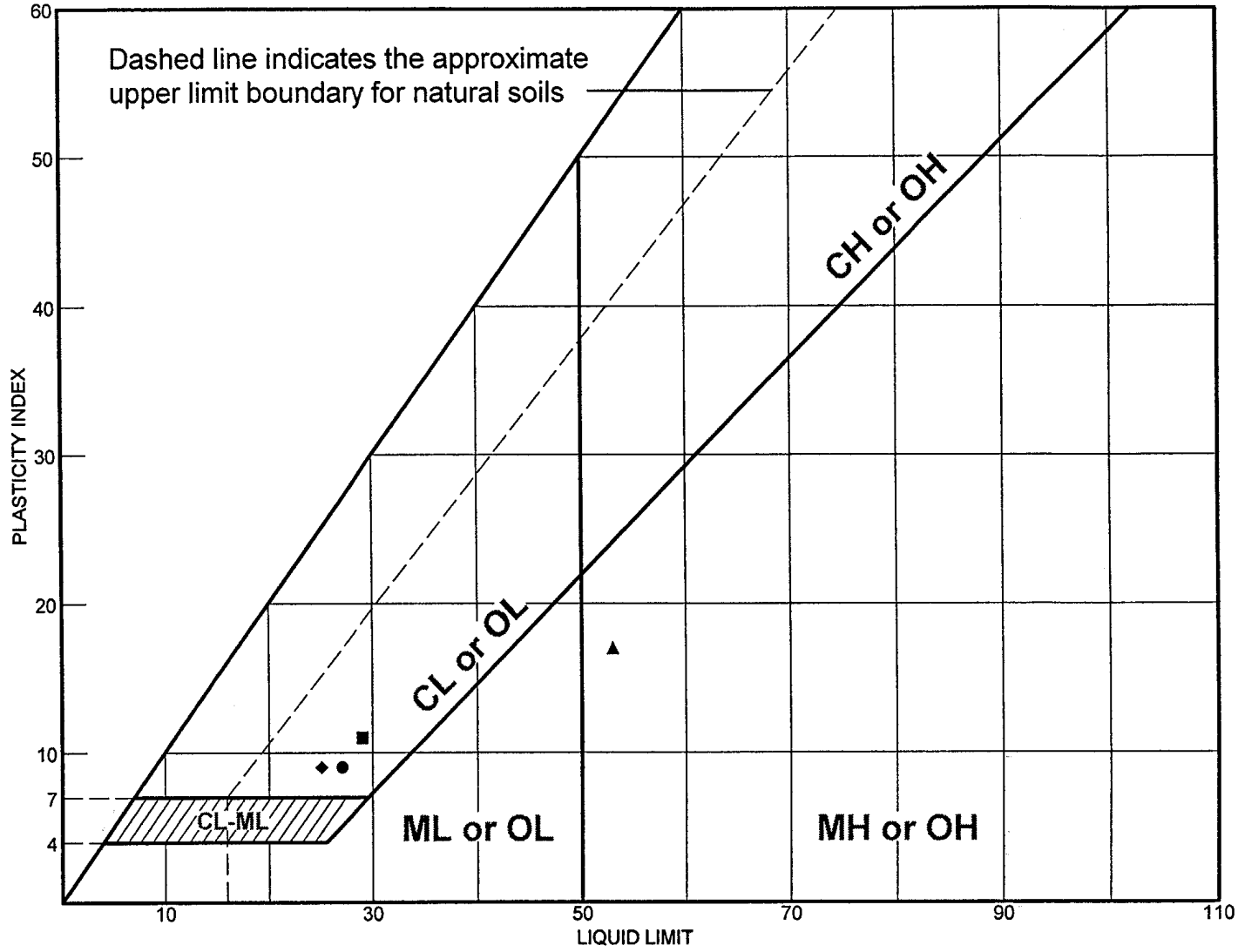
Plate

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Dark Brown Clayey Sand (SC)	27	18	9			SC
■	Dark Brown Clayey Sand W/Gravel (SC)	29	18	11			SC
▲	Brown Sandy Elastic Silt (MH)	53	36	17			MH
◆	Dark Brown Lean Clay (CL)	25	16	9			CL

Project No. 57255- **Client:** Mactec E & C

Project: Presidio San Francisco- Baker Beach

● **Source:** BB1TP100 **Elev./Depth:** 0.0-2.0'
■ **Source:** BB2ATP104 **Elev./Depth:** 6.0-8.5'
▲ **Source:** BB2ATP100 **Elev./Depth:** 1.0-3.0'
◆ **Source:** BB2TP101 **Elev./Depth:** 4.5-5.5'

Remarks:
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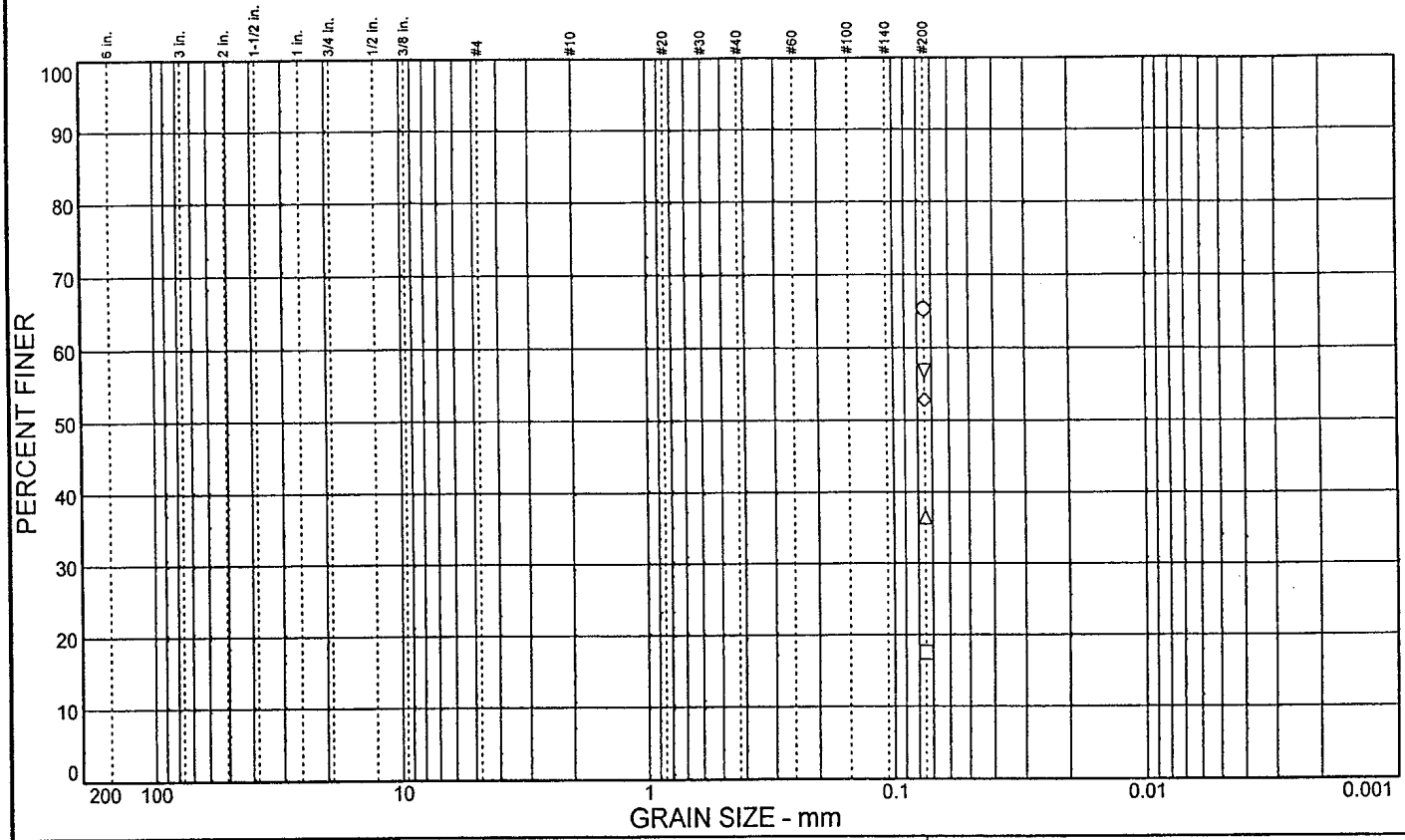
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○							65.3	
□							17.5	
△							36.5	
◇							52.8	
▽							56.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○										
□	65	45								
△										
◇	28	14								
▽										

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Sandy Lean Clay (CL)	SC	
□ Brown Silty Sand W/Gravel (SM)	SM	
△ Brown Clayey Sand (SC)	SC	
◇ Brown Sandy Lean Clay (CL)	CL	
▽ Light Brown Lean Clay (CL)	CL	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB2ASB100 **Elev./Depth:** 6.8-7.5'

□ **Source:** BBSB100 **Elev./Depth:** 9.0-9.5'

△ **Source:** BB2SB101 **Elev./Depth:** 4.0-4.5'

◇ **Source:** BBSB104 **Elev./Depth:** 2.0'

▽ **Source:** BBSB107 **Elev./Depth:** 1.0'

Remarks:

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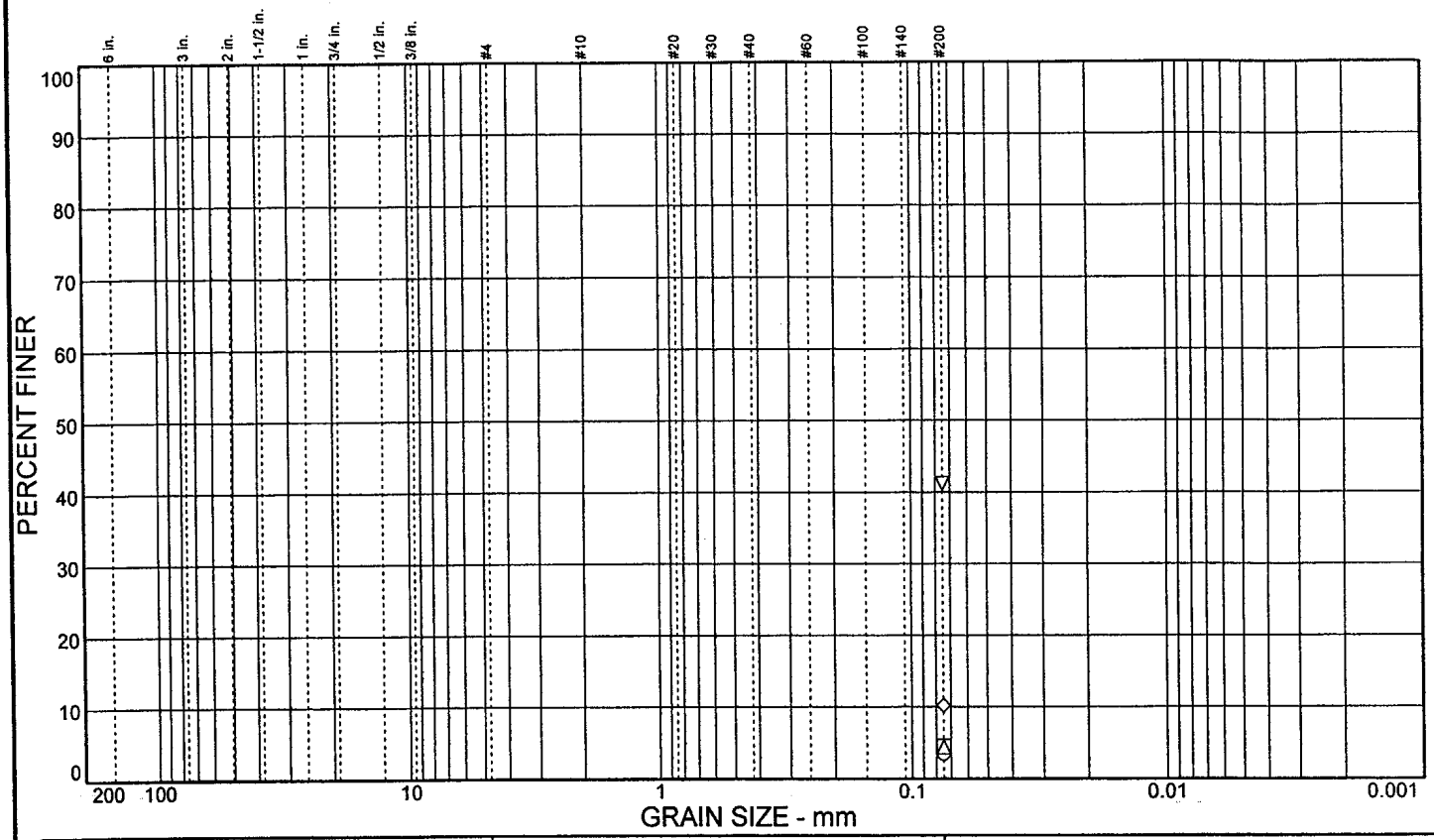
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○							3.5	
□							4.5	
△							4.4	
◇							10.2	
▽							41.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○										
□										
△										
◇										
▽	25	15								

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Sand (SP)	SP	
□ Brown Sand (SP)	SP	
△ Brown Sand (SP)	SP	
◇ Brown Sand W/Silt (SP-SM)	SP-SM	
▽ Dark Brown Clayey Sand (SC)	SC	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB101 **Elev./Depth:** 2.5'

□ **Source:** BBSB101 **Elev./Depth:** 3.0-5.5'

△ **Source:** BBSB101 **Elev./Depth:** 13.5'

◇ **Source:** BBSB101 **Elev./Depth:** 14.0-16.0'

▽ **Source:** BBSB103 **Elev./Depth:** 0.0-1.5'

Remarks:

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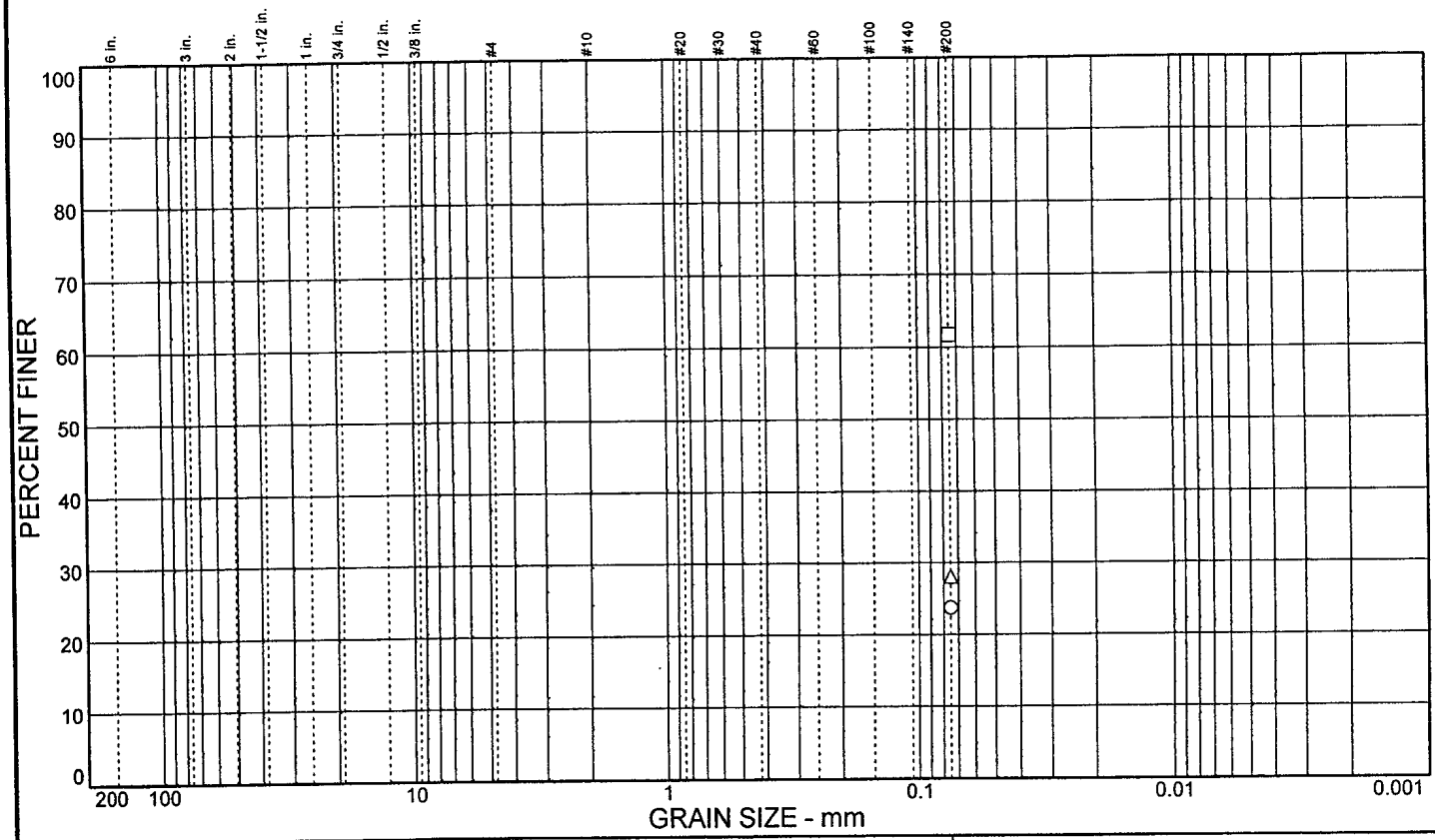
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○							23.7	
□							61.7	
△							28.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP								
□	33	18								
△	97	71								

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Silty Sand (SM)	SM	
□ Brown Sandy Lean Clay (CL)	CL	
△ Olive Green Silty Sand W/Gravel (SM)	SM	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB103 **Elev./Depth:** 11.5-13.0'

□ **Source:** BBSB106 **Elev./Depth:** 7.0-7.5'

△ **Source:** BBSB106 **Elev./Depth:** 24.0-25.5'

Remarks:

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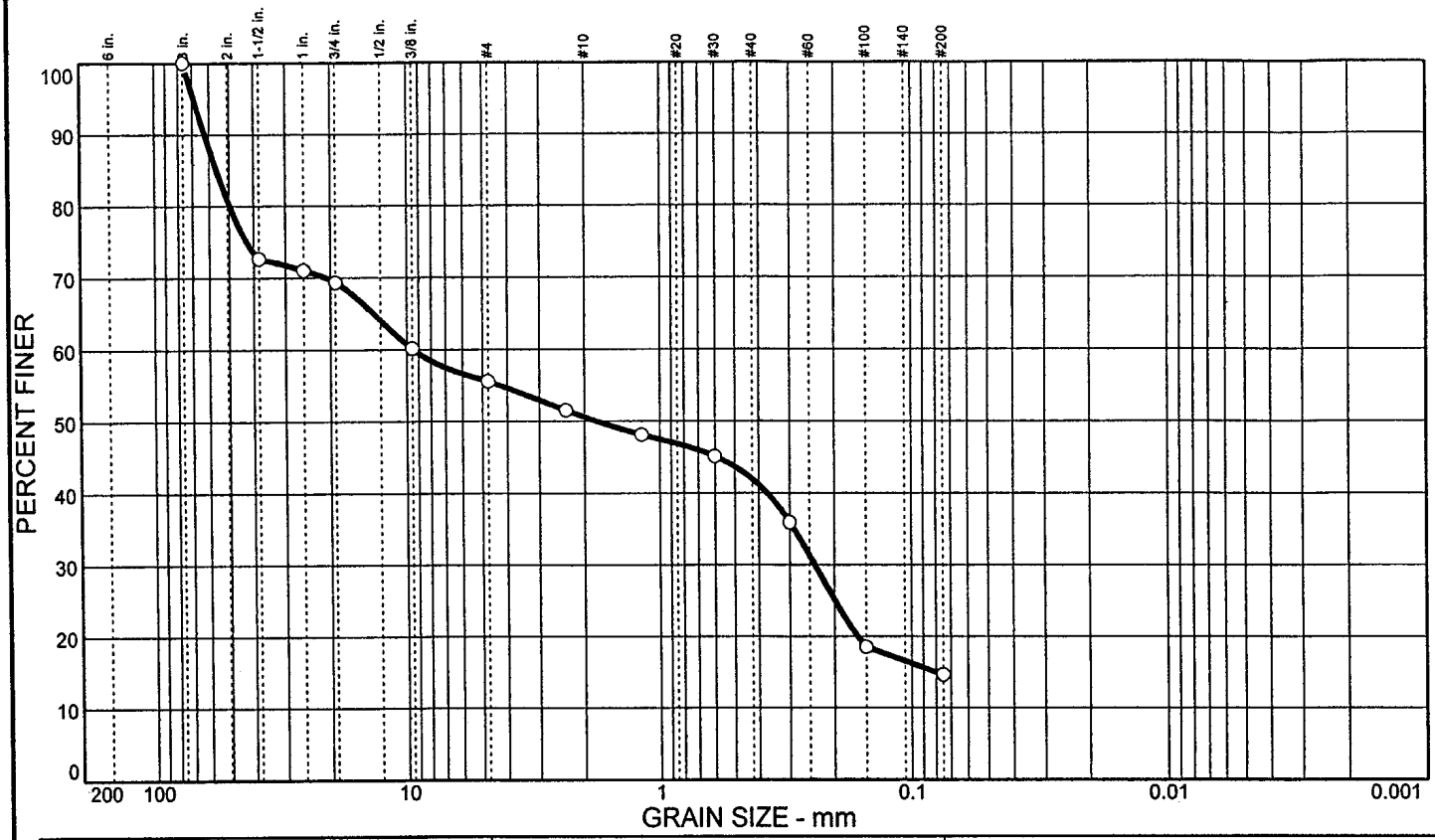
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	30.7	13.8	4.9	8.7	27.3	14.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	24	21	56.2	9.44	1.79	0.239	0.0805			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Silty Sand W/Gravel (SM)	SM	

Project No. 57255.005103 **Client:** Mactec E & C

Project: Presidio SF-BBDA1

○ **Source:** BB1TP106 **Elev./Depth:** 5.0-5.5'

Remarks:

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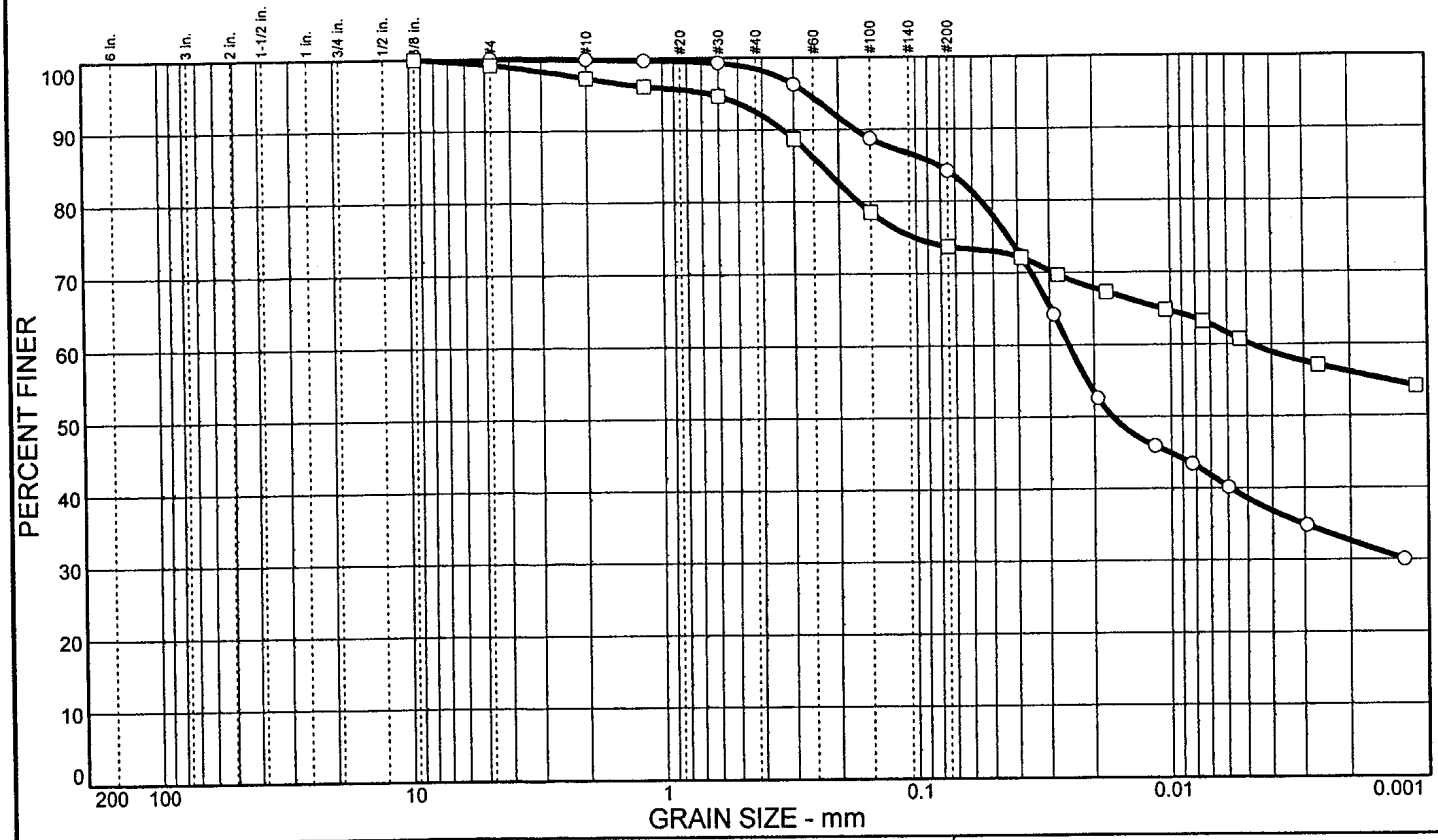
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.1	1.4	14.3	45.7	38.5
□	0.0	0.0	0.8	1.9	4.8	18.8	13.5	60.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	40	19	0.0818	0.0252	0.0169	0.0012				
□	96	34	0.233	0.0048						

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Lean Clay W/Sand (CL)	CL	
□ Brown Clay W/Sand (CH)	CH	

Project No. 57255.005102 **Client:** Mactec E & C

Project: Presidio SF BBDA1

○ **Source:** Trench 4 **Elev./Depth:** 4.5'

□ **Source:** Trench 4 **Elev./Depth:** 6.0'

Remarks:

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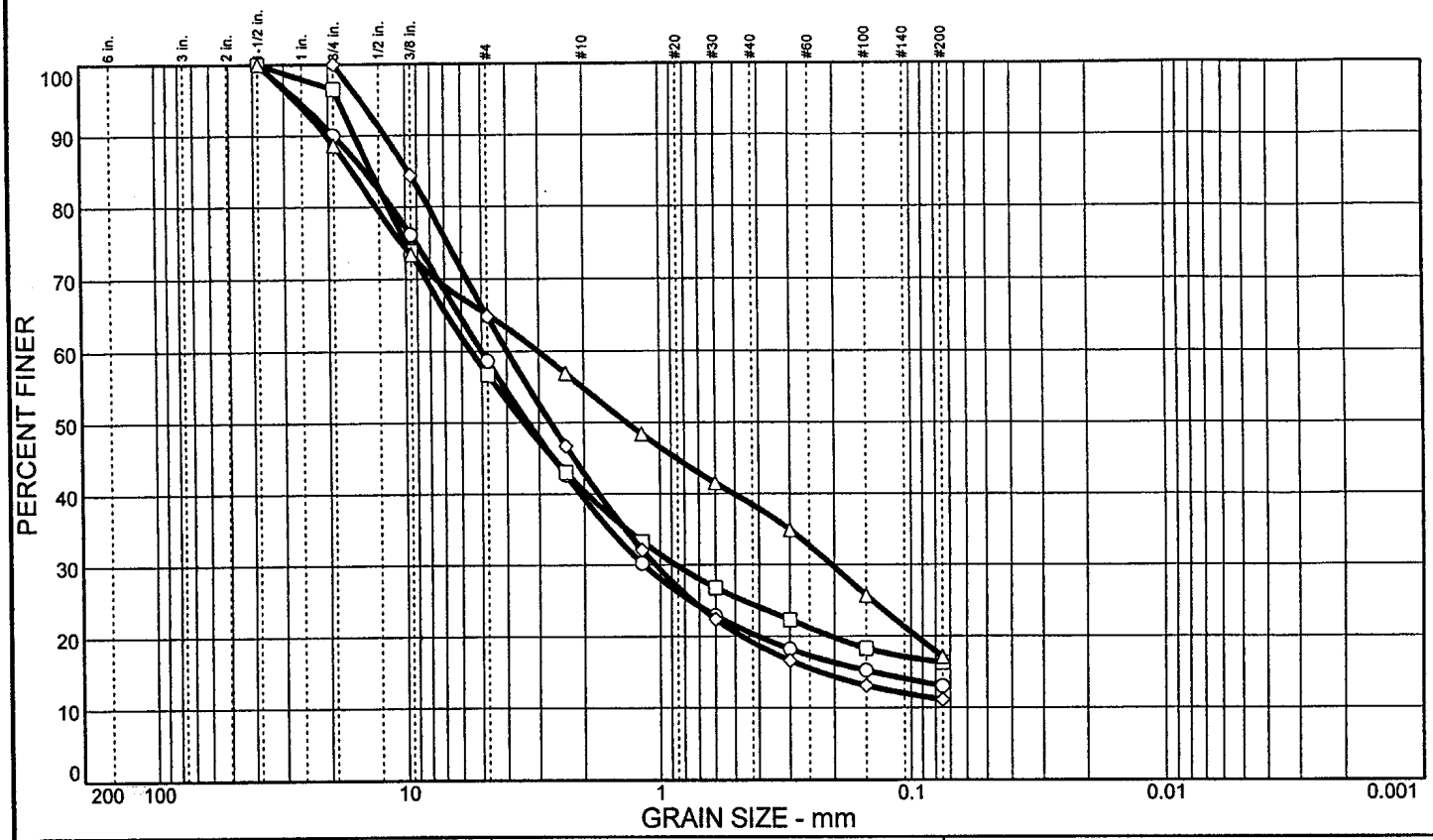
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	10.0	31.4	19.3	18.9	7.4	13.0	
□	0.0	3.5	39.8	16.4	15.9	8.1	16.3	
△	0.0	11.4	23.5	10.3	16.4	21.3	17.1	
◇	0.0	0.0	35.2	21.9	23.8	8.0	11.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			14.4	5.02	3.31	1.16	0.142			
□			13.6	5.52	3.45	0.866				
△	138	93	16.2	3.03	1.35	0.205				
◇			9.75	3.99	2.71	1.04	0.228			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Sand W/Gravel (SC)	SC	
□ Brown Clayey Gravel W/Sand (GC)	GC	
△ Brown Silty Sand W/Gravel (SM)	SM	
◇ Brown Sand W/Clay And gravel (SP-SC)	SP-SC	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB2ASB101 **Elev./Depth:** 1.0'

□ **Source:** BB2SB101 **Elev./Depth:** 1.0-1.5'

△ **Source:** BB1SB111 **Elev./Depth:** 9.0-10.5'

◇ **Source:** BB1SB110 **Elev./Depth:** 6.5-8.0'

Remarks:

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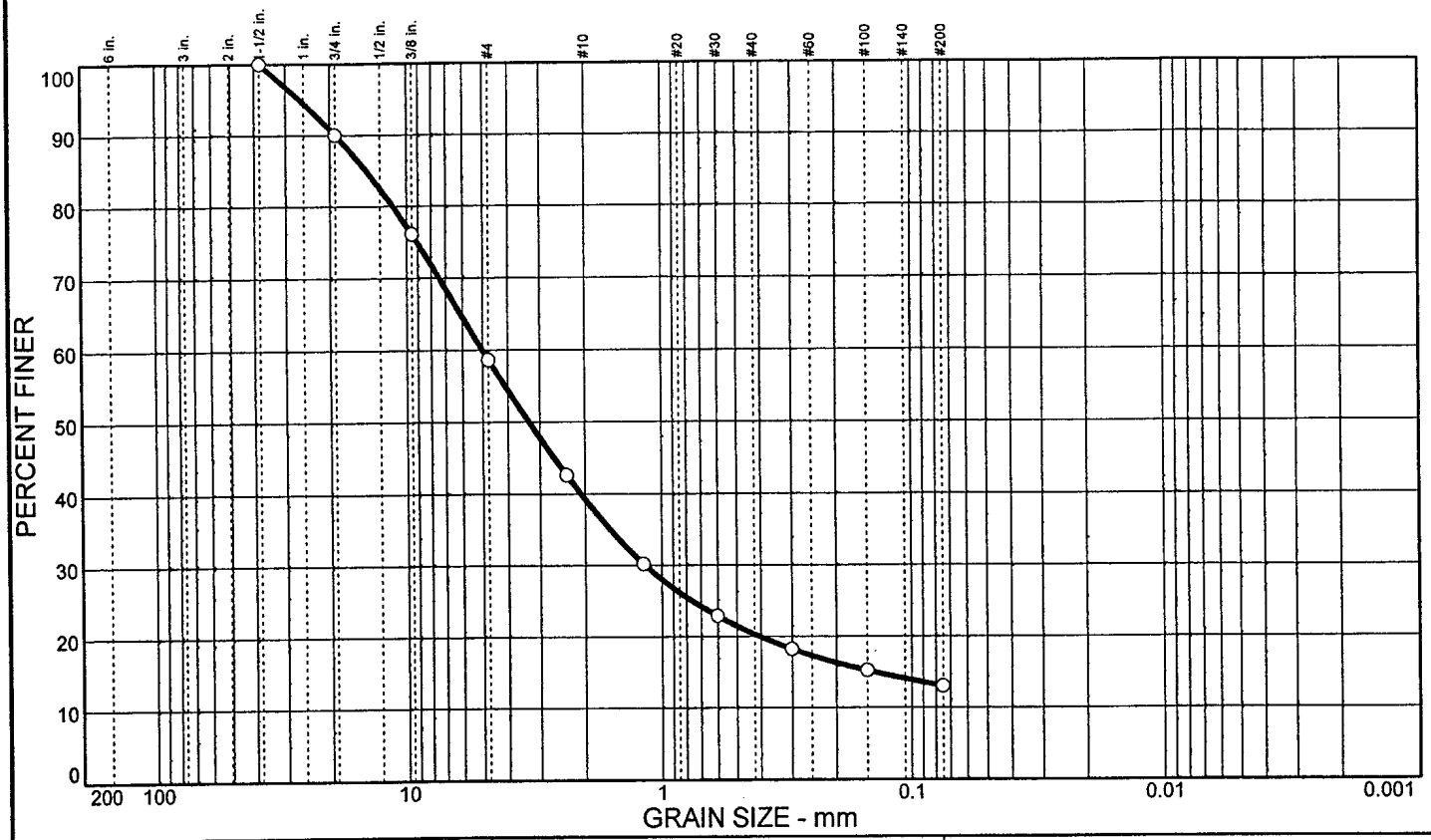
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	10.0	31.4	19.3	18.9	7.4	13.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			14.4	5.02	3.31	1.16	0.142			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Sand W/Gravel (SC)	SC	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB2ASB101 **Elev./Depth:** 1.0'

Remarks:

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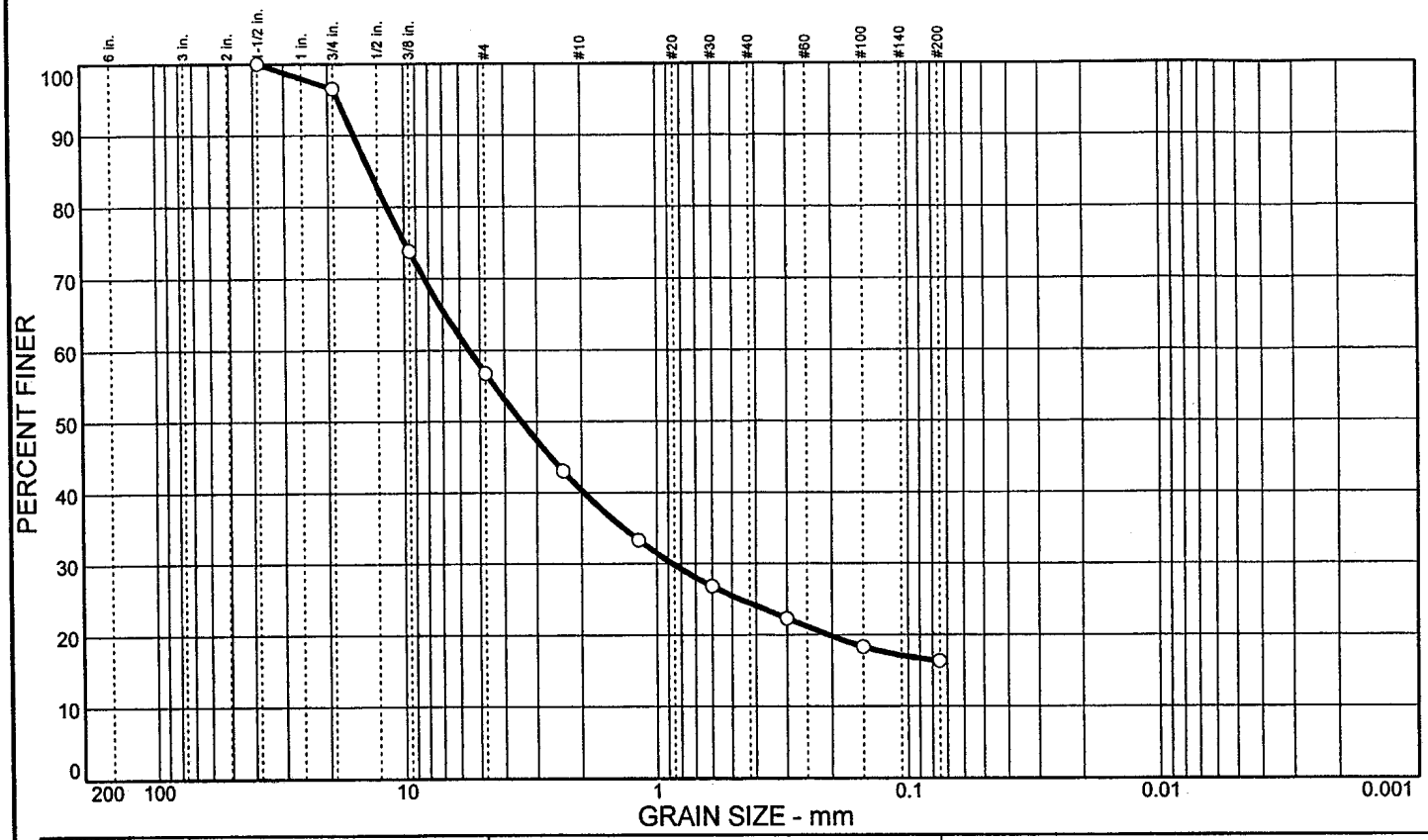
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	3.5	39.8	16.4	15.9	8.1	16.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			13.6	5.52	3.45	0.866				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Gravel W/Sand (GC)	GC	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB2SB101 **Elev./Depth:** 1.0-1.5'

Remarks:

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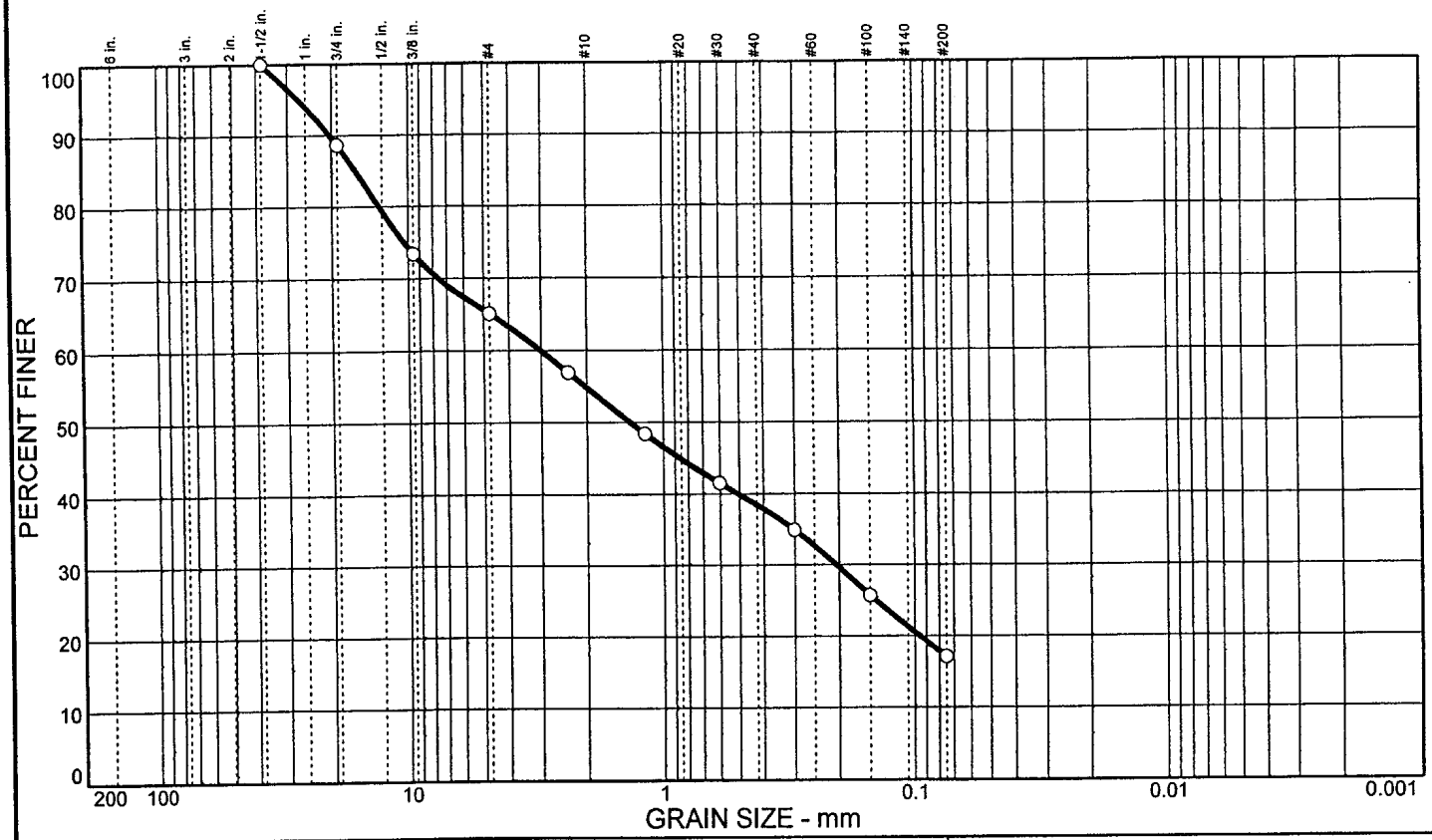
Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	11.4	23.5	10.3	16.4	21.3	17.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	138	93	16.2	3.03	1.35	0.205				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Silty Sand W/Gravel (SM)	SM	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB1SB111 **Elev./Depth:** 9.0-10.5'

Remarks:

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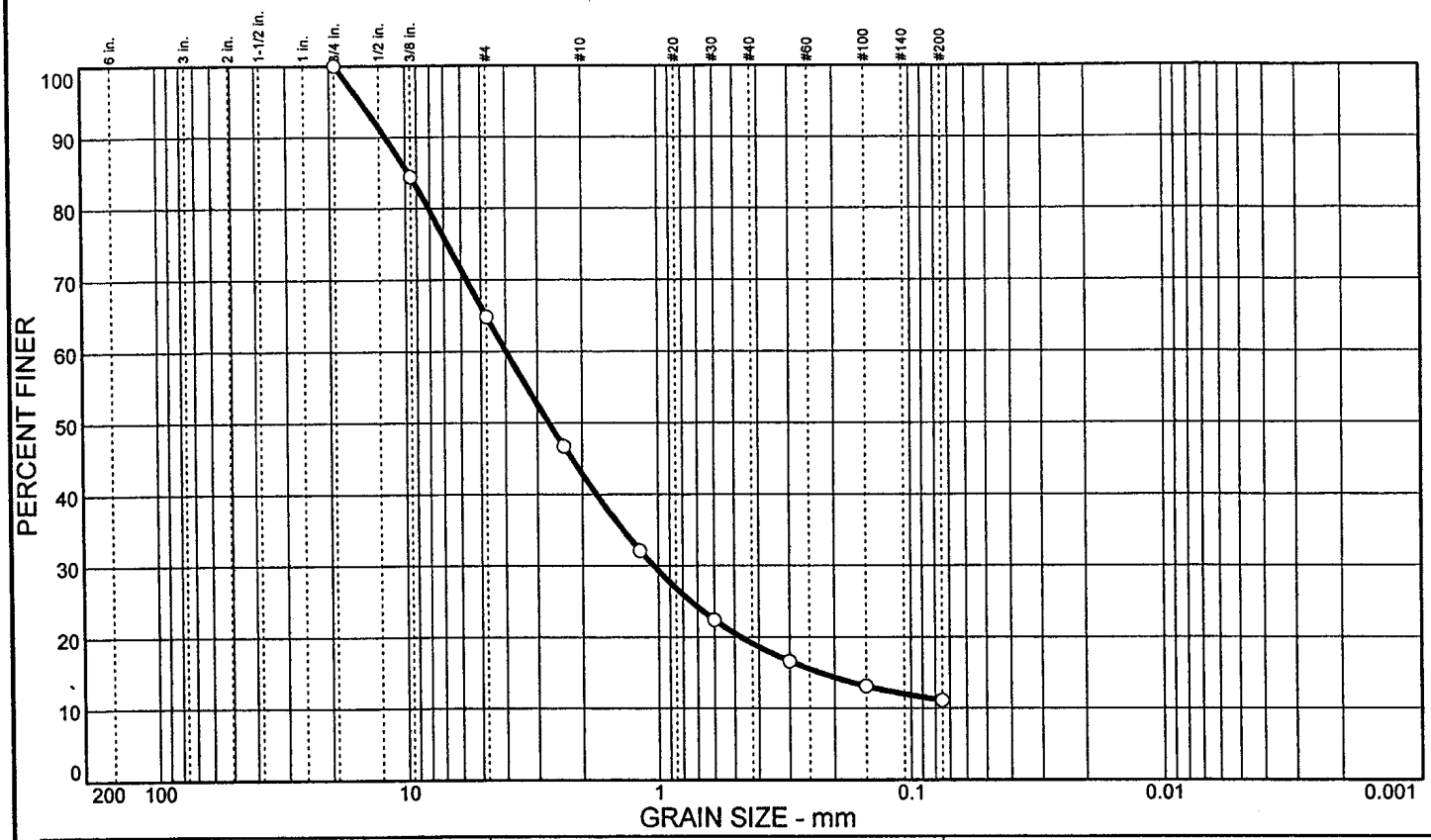
R G H CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	35.2	21.9	23.8	8.0	11.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			9.75	3.99	2.71	1.04	0.228			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Sand W/Clay And gravel (SP-SC)	SP-SC	

Project No. 57255005132 **Client:** Mactec E&C

Project: Presidio SF BBDA

○ **Source:** BB1SB110 **Elev./Depth:** 6.5-8.0'

Remarks:

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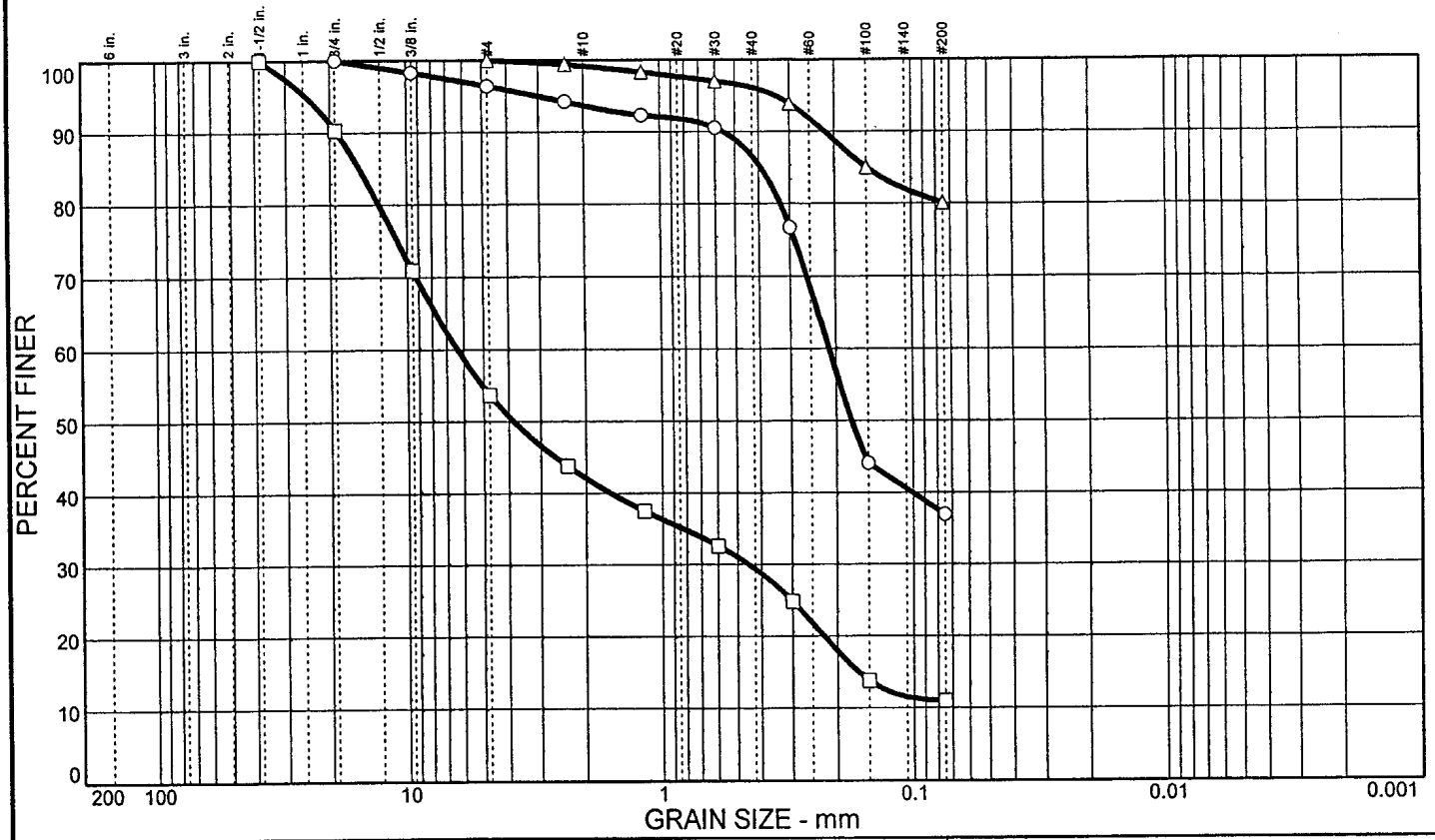
R G H CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	3.6	2.7	7.1	49.7	36.9	
□	0.0	9.7	36.6	11.6	12.7	18.4	11.0	
△	0.0	0.0	0.0	0.8	3.1	16.0	80.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.393	0.213	0.174					
□			15.4	6.35	3.83	0.451	0.165			
△			0.150							

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Sand (SC)	SC	
□ Black And Brown Sand W/Silt And Gravel (SP-SM)	SP-SM	
△ Light And Dark Brown Lean Clay W/Sand (CL)	CL	

Project No. 57255- **Client:** Mactec E & C

Project: Presidio San Francisco- Baker Beach

○ **Source:** BB1TP100 **Elev./Depth:** 1.0-3.0'

□ **Source:** BB1TP103 **Elev./Depth:** 3.0-5.0'

△ **Source:** BB1TP103 **Elev./Depth:** 9.5-12.0'

Remarks:

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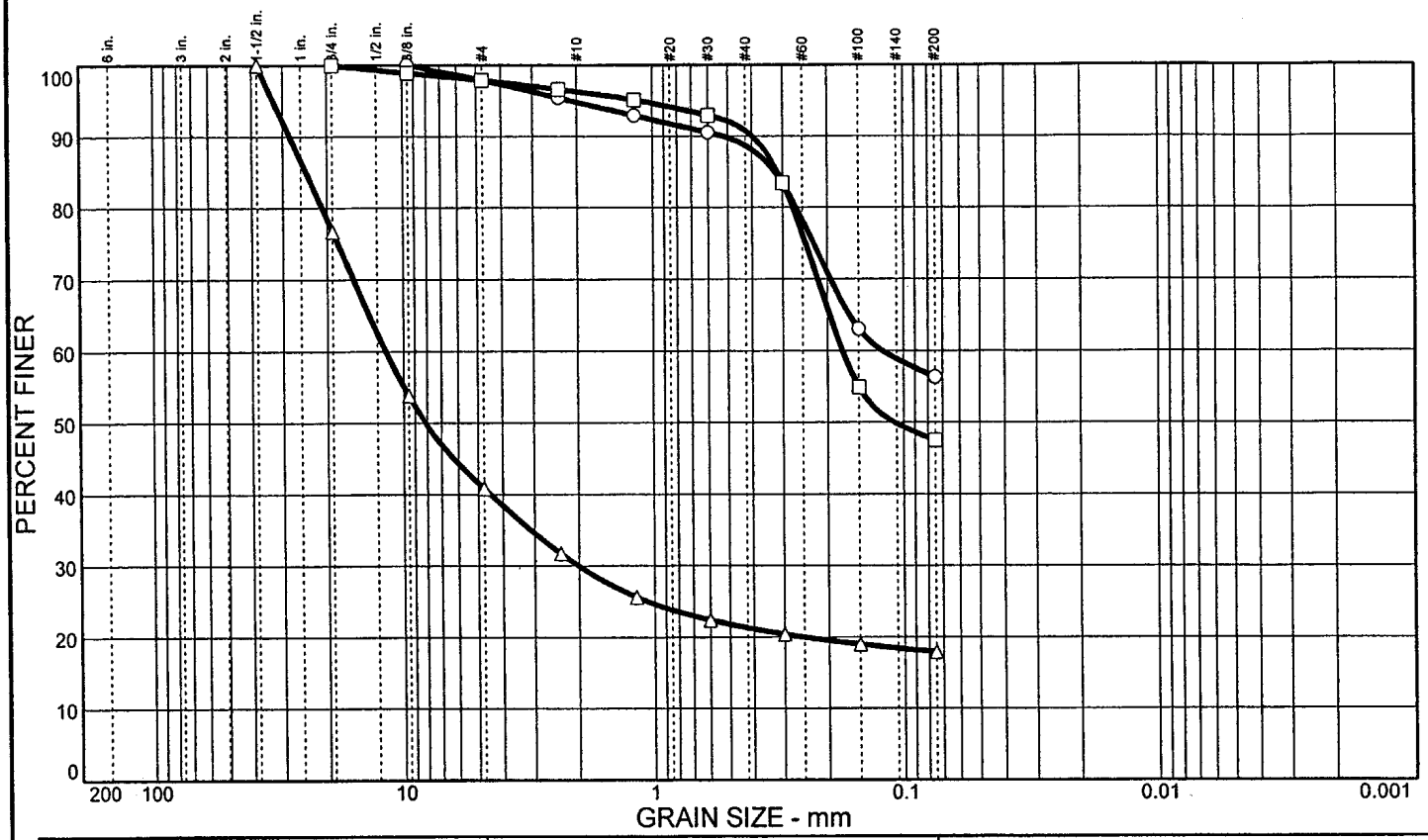
RGH CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	2.1	3.1	6.1	32.4	56.3	
□	0.0	0.0	2.1	1.6	5.5	43.3	47.5	
△	0.0	23.3	35.9	10.9	8.6	3.4	17.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	30	15	0.325	0.121						
□			0.316	0.174	0.109					
△			24.2	11.8	8.13	2.01				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Mottled Light And Dark Brown Sandy Lean Clay (CL)	CL	
□ Dark Brown Clayey Sand (SC)	SC	
△ Dark Brown Clayey Gravel W/Sand (GC)	GC	

Project No. 57255- **Client:** Mactec E & C

Project: Presidio San Francisco- Baker Beach

○ **Source:** BB2ATP101 **Elev./Depth:** 2.0-4.0'

□ **Source:** BB2ATP103 **Elev./Depth:** 1.0-3.5'

△ **Source:** BB2ATP102 **Elev./Depth:** 2.0-4.0'

Remarks:

○

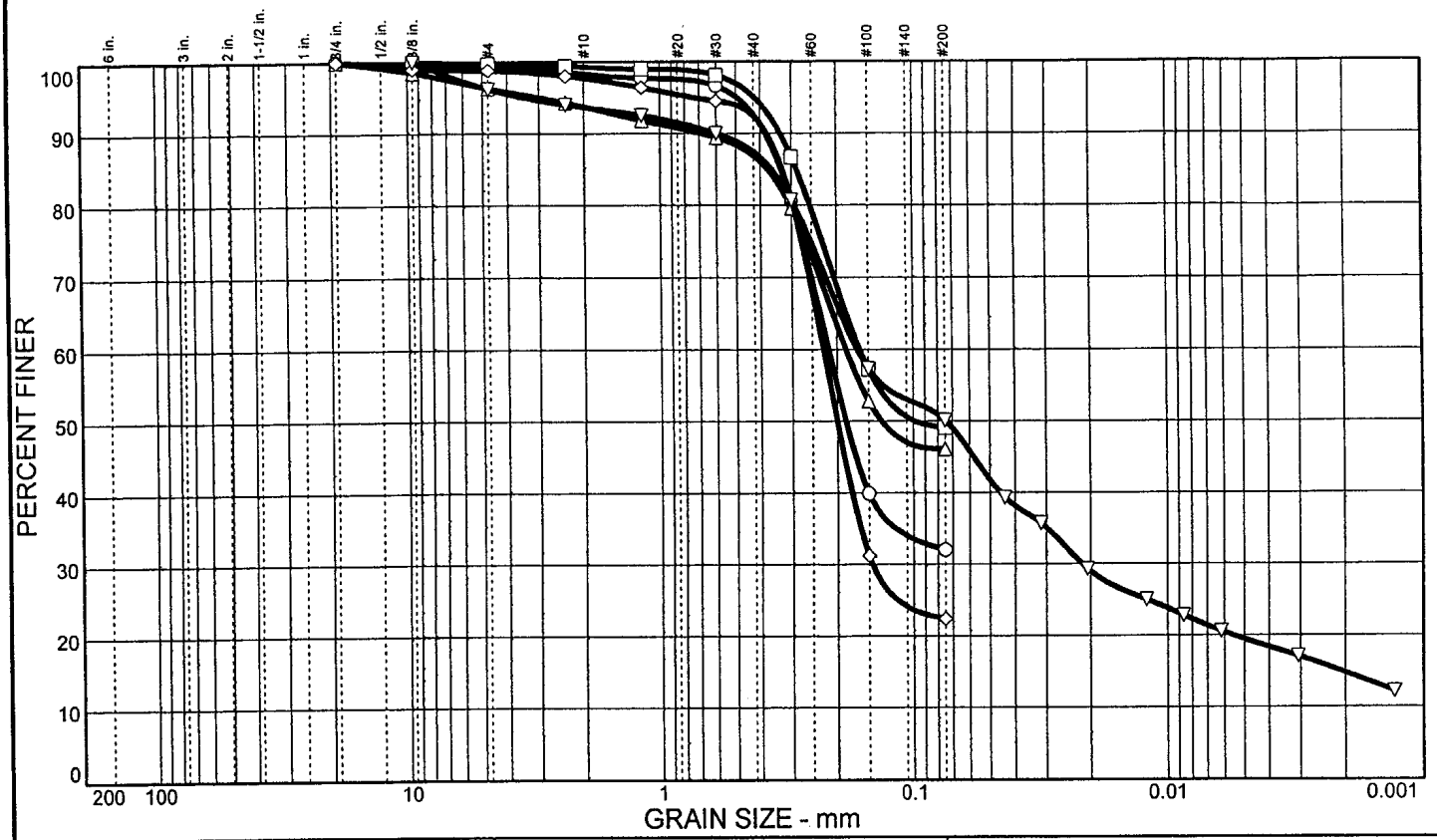
□

△

RGH CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.9	0.7	5.8	60.6	32.0	
□	0.0	0.0	0.3	0.4	4.2	46.0	49.1	
△	0.0	0.0	3.7	2.6	6.9	40.7	46.1	
◇	0.0	0.0	1.2	1.1	5.3	70.0	22.4	
▽	0.0	0.0	3.8	2.6	6.2	37.3	30.6	19.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○	20	13	0.331	0.216	0.185					
□	30	14	0.286	0.163	0.0983					
△	31	21	0.375	0.184	0.133					
◇			0.327	0.226	0.200	0.146				
▽	35	23	0.361	0.166	0.0745	0.0216	0.0021			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Brown Silty Clayey Sand (SC-SM)	SC-SM	
□ Brown Clayey Sand (SC)	SC	
△ Dark Brown Clayey Sand (SC)	SC	
◇ Brown Clayey Sand (SC)	SC	
▽ Dark Brown Sandy Lean Clay (CL)	CL	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○	**Source:** BBSB101	**Elev./Depth:** 1.0-1.5'
□	**Source:** BBSB101	**Elev./Depth:** 8.5-10.8'
△	**Source:** BBSB103	**Elev./Depth:** 3.0-4.5'
◇	**Source:** BBSB103	**Elev./Depth:** 8.0-9.5'
▽	**Source:** BBSB106	**Elev./Depth:** 0.0-1.5'

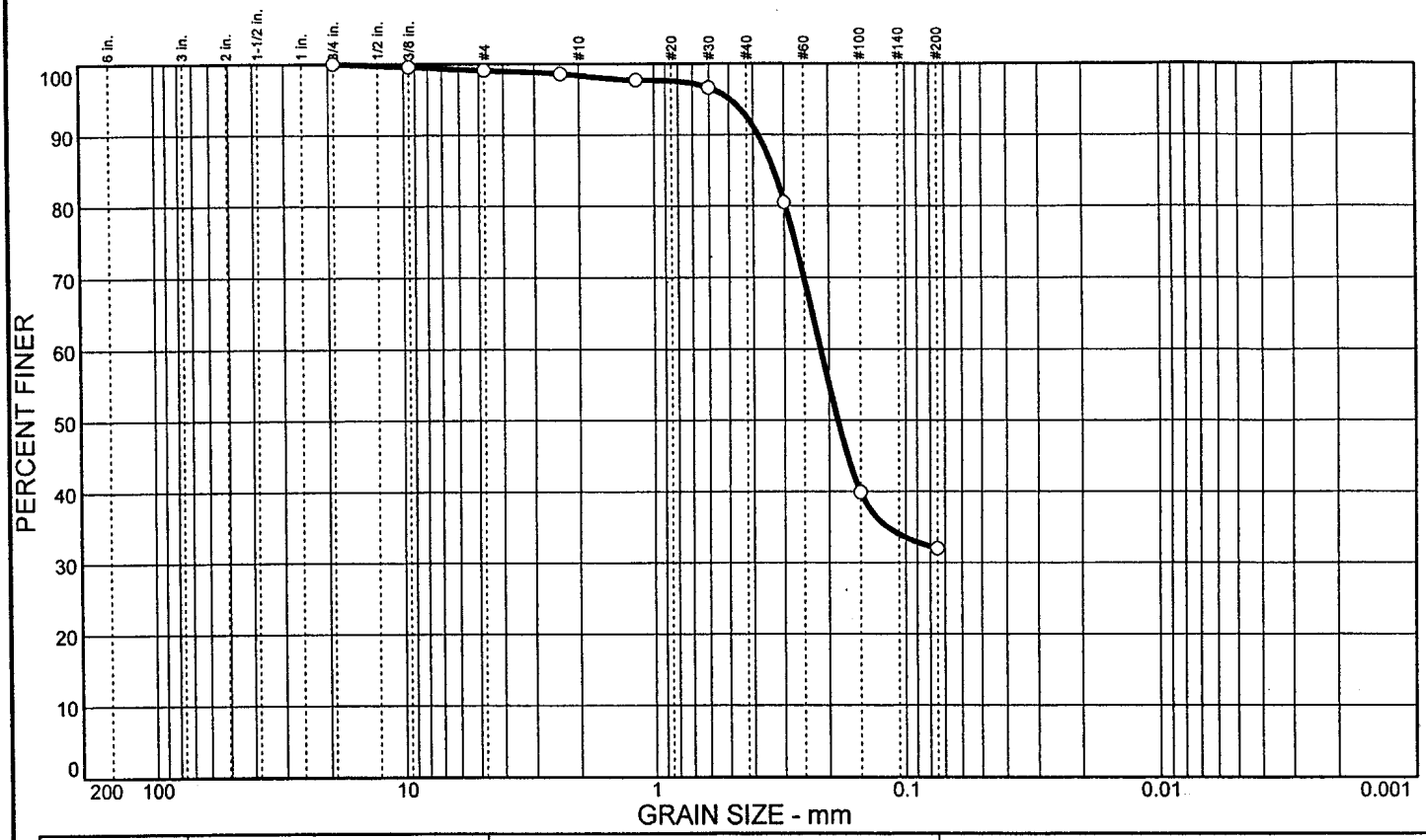
Remarks:

○
□
△
◇
▽

RGH CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.9	0.7	5.8	60.6	32.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	20	13	0.331	0.216	0.185					

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Brown Silty Clayey Sand (SC-SM)	SC-SM	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB101 **Elev./Depth:** 1.0-1.5'

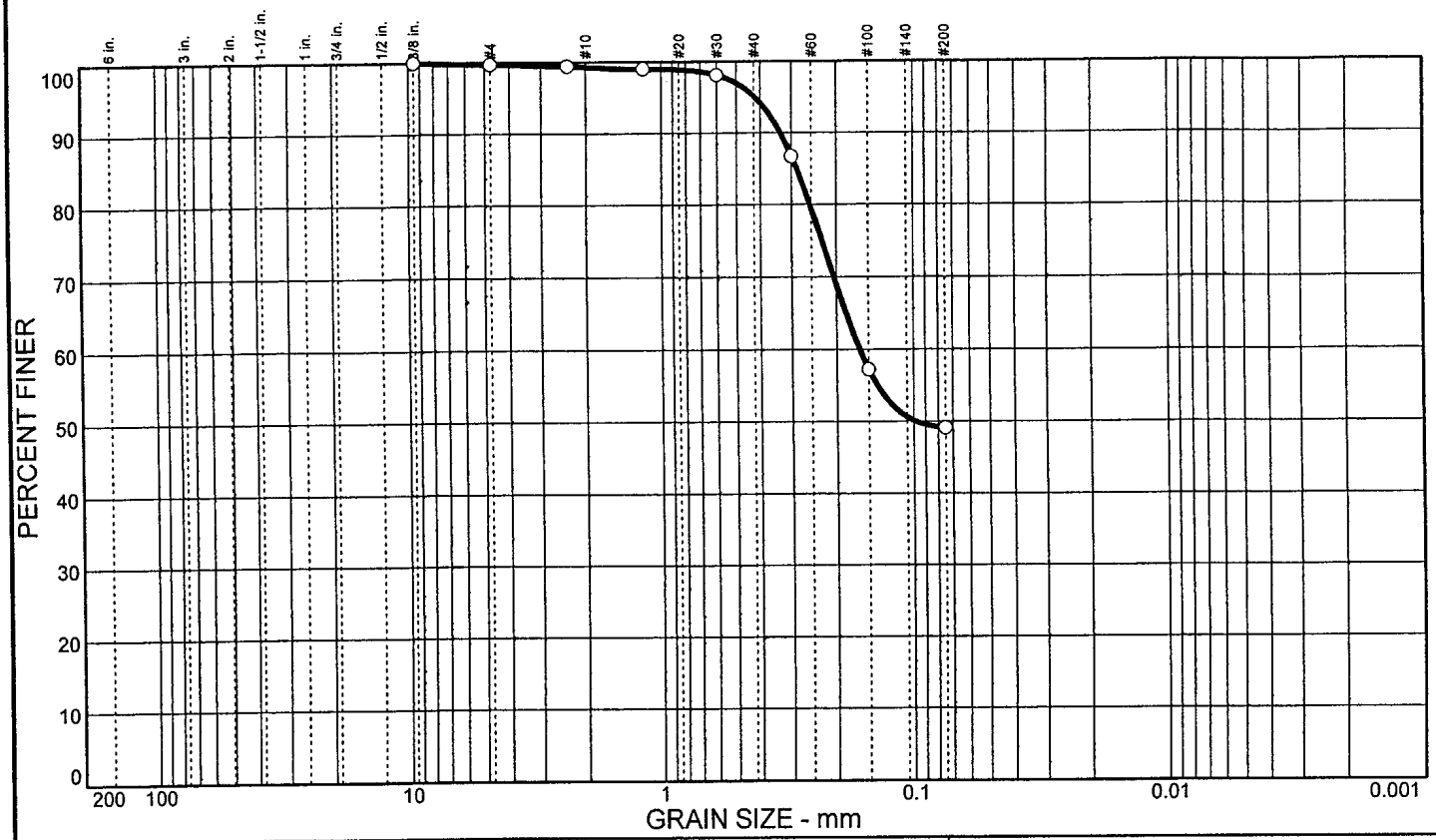
Remarks:

○

RGH CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.3	0.4	4.2	46.0	49.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	30	14	0.286	0.163	0.0983					

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Sand (SC)	SC	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB101 **Elev./Depth:** 8.5-10.8'

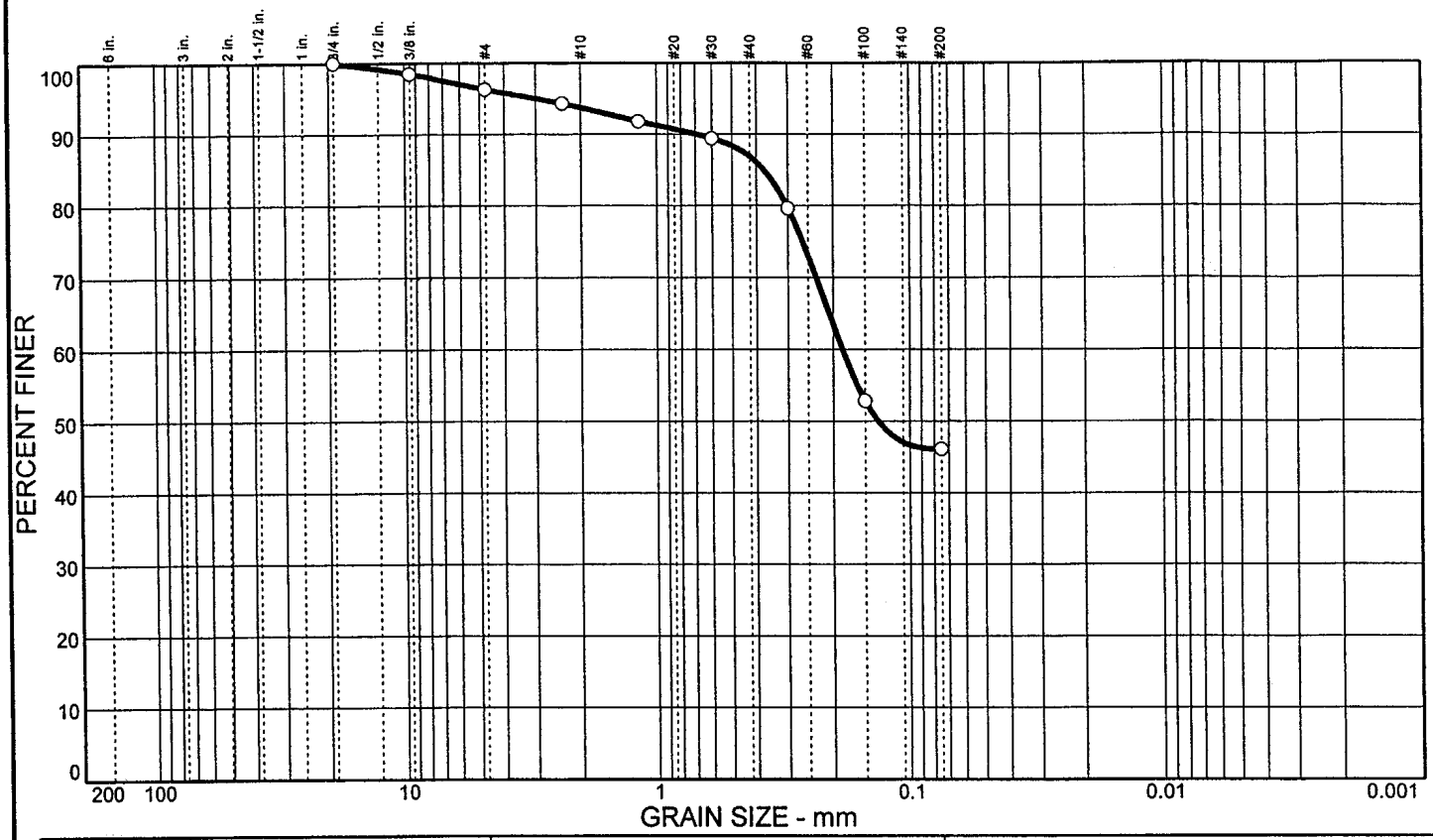
Remarks:

○

R G H CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	3.7	2.6	6.9	40.7	46.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	31	21	0.375	0.184	0.133					

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Brown Clayey Sand (SC)	SC	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB103 **Elev./Depth:** 3.0-4.5'

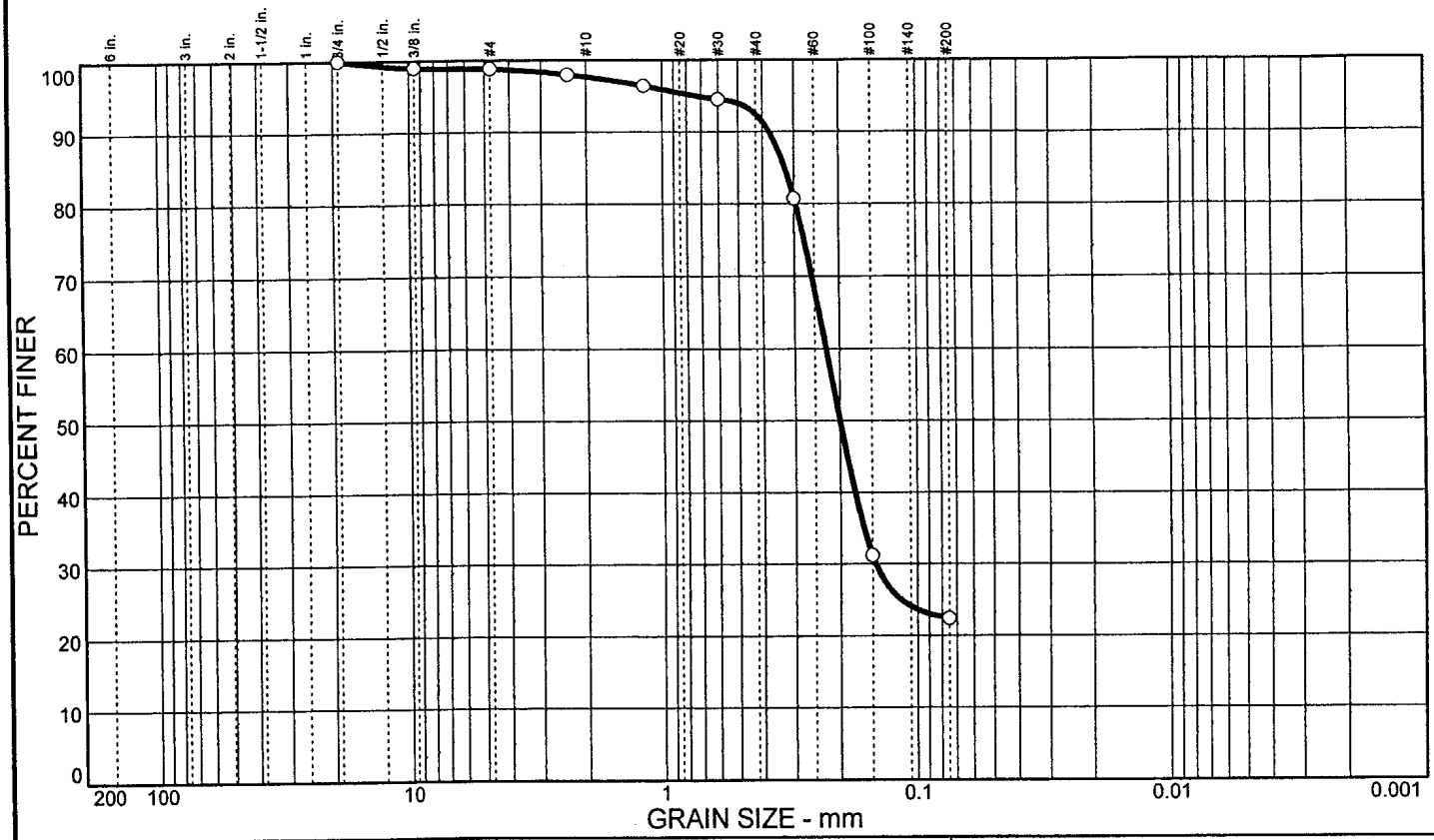
Remarks:

○

R G H CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	1.2	1.1	5.3	70.0	22.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.327	0.226	0.200	0.146				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brown Clayey Sand (SC)	SC	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB103 **Elev./Depth:** 8.0-9.5'

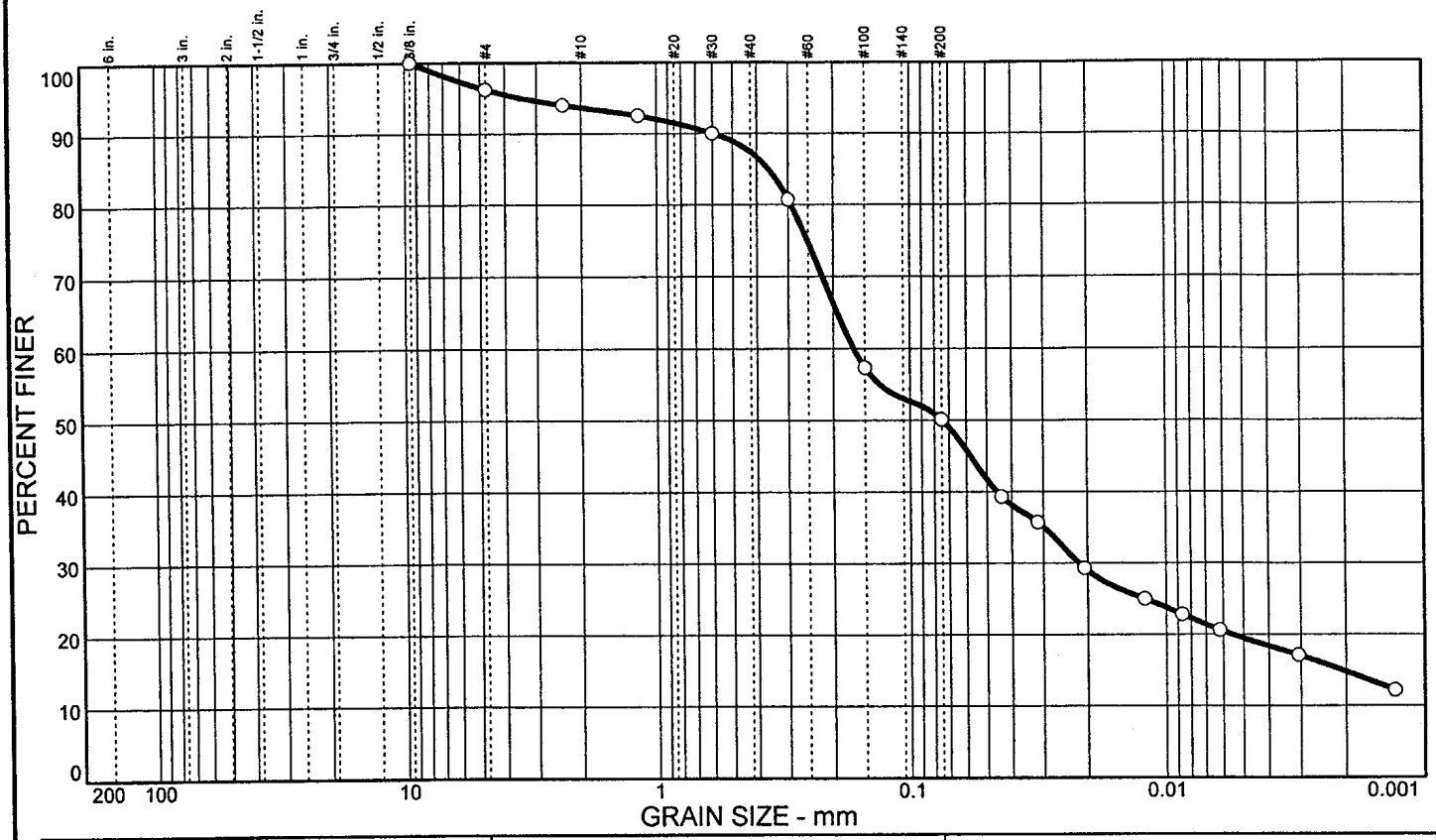
Remarks:

○

R G H CONSULTANTS, INC.

Plate

Particle Size Distribution Report



	% + 3"	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	3.8	2.6	6.2	37.3	30.6	19.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	35	23	0.361	0.166	0.0745	0.0216	0.0021			

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Brown Sandy Lean Clay (CL)	CL	

Project No. 57255005 **Client:** Mactec E&C

Project: Presidio S.F. BBDA

○ **Source:** BBSB106 **Elev./Depth:** 0.0-1.5'

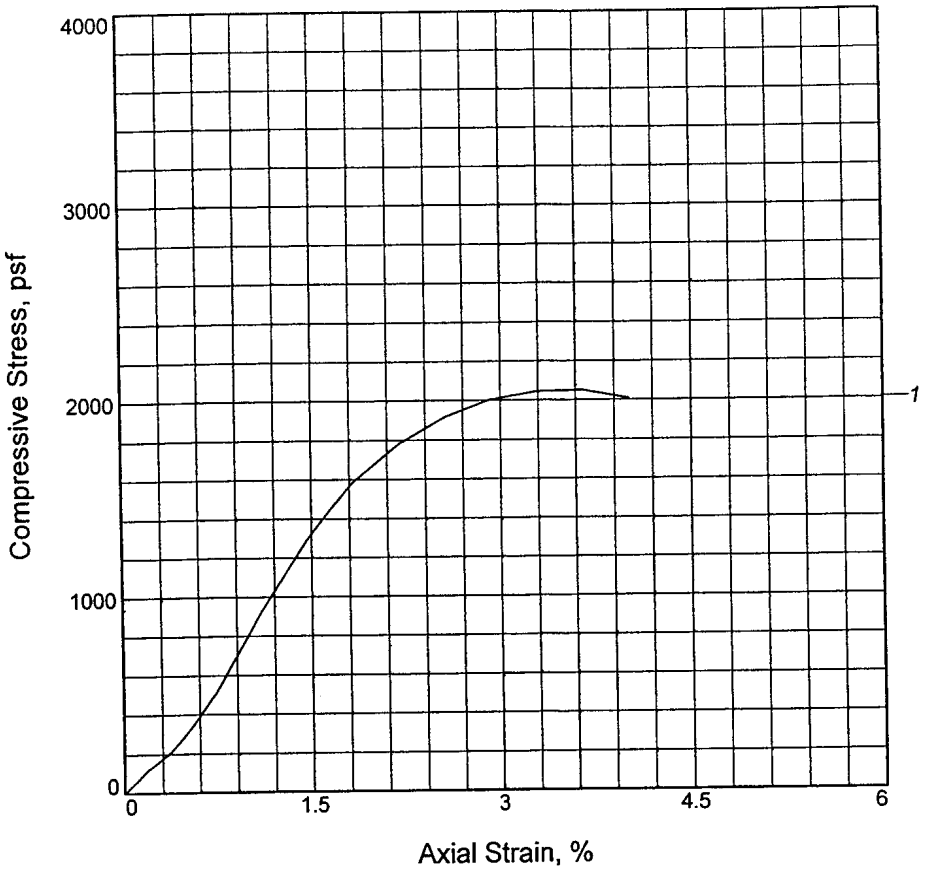
Remarks:

○

R G H CONSULTANTS, INC.

Plate

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2050.6			
Undrained shear strength, psf	1025.3			
Failure strain,	3.6			
Strain rate, in./min.	0.06			
Water content, %	36.2			
Wet density, pcf	115.8			
Dry density, pcf	85.1			
Saturation, %	99.5			
Void ratio	0.9814			
Specimen diameter, in.	2.43			
Specimen height, in.	5.48			
Height/diameter ratio	2.26			

Description: Brown Sandy Fat Clay W/Gravel (CH)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132

Date: 5-20-05

Remarks:
Sample was layered CH (TOP) With SC (MID) With CH (BOTT).

Plate _____

Client: Mactec E&C

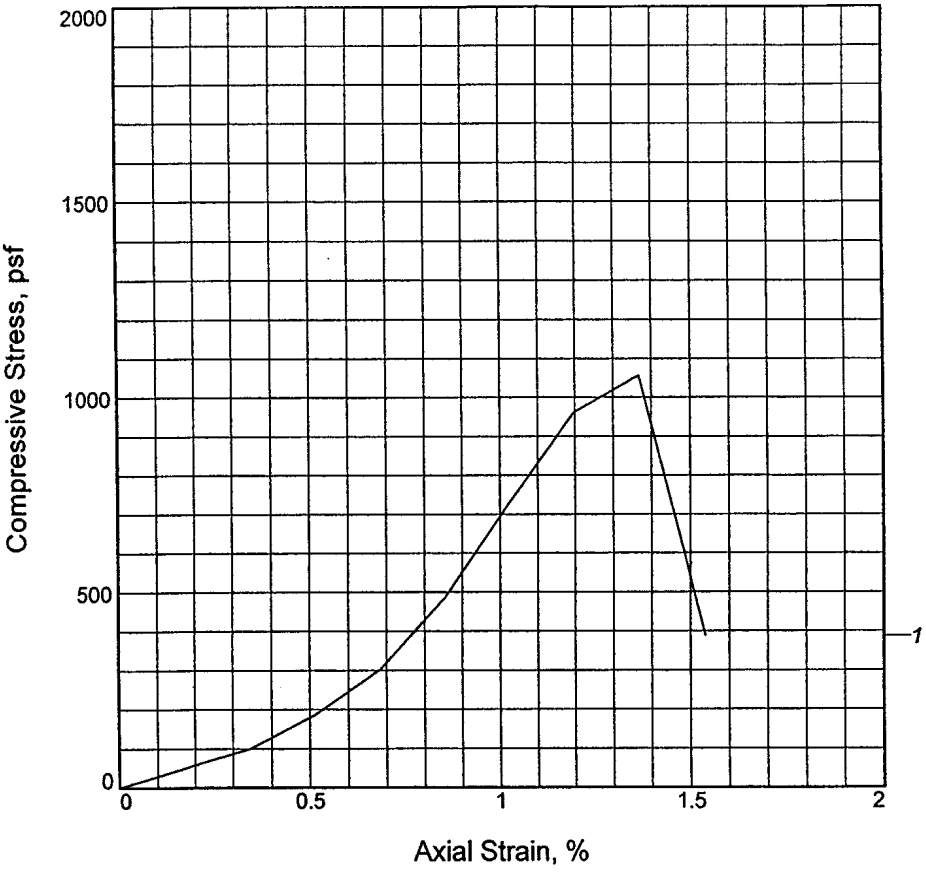
Project: Presidio SF BBDA

Source of Sample: BBSB100 **Depth:** 2.5-3.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	1056.9			
Undrained shear strength, psf	528.4			
Failure strain,	1.4			
Strain rate, in./min.	0.06			
Water content, %	24.9			
Wet density, pcf	122.2			
Dry density, pcf	97.8			
Saturation, %	93.1			
Void ratio	0.7231			
Specimen diameter, in.	2.43			
Specimen height, in.	5.85			
Height/diameter ratio	2.41			

Description: Grey Clayey Sand W/Gravel (SC)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

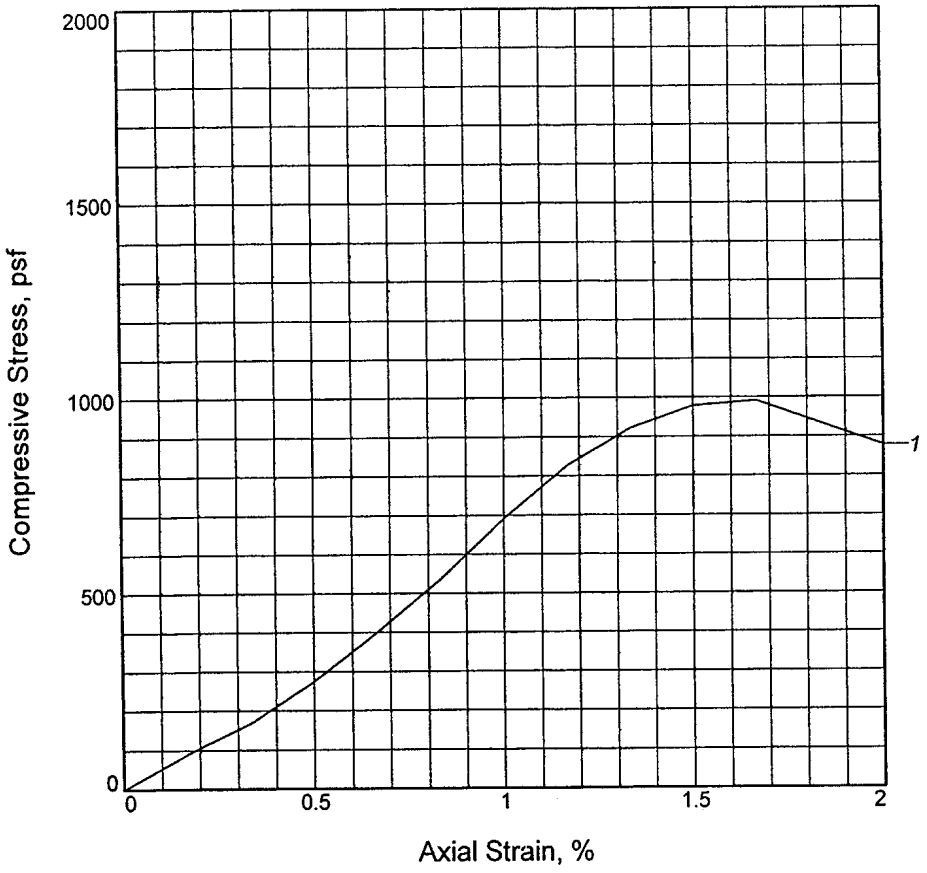
Source of Sample: BBSB100 **Depth:** 5.5-6.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	990.8			
Undrained shear strength, psf	495.4			
Failure strain,	1.7			
Strain rate, in./min.	0.06			
Water content, %	26.8			
Wet density, pcf	111.9			
Dry density, pcf	88.3			
Saturation, %	79.6			
Void ratio	0.9099			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Brown Silty Sand W/Gravel (SM)

LL = 65	**PL** = 45	**PI** = 20	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132

Date: 5-19-05

Remarks:
Used Plaster Caps.

Plate _____

Client: Mactec E&C

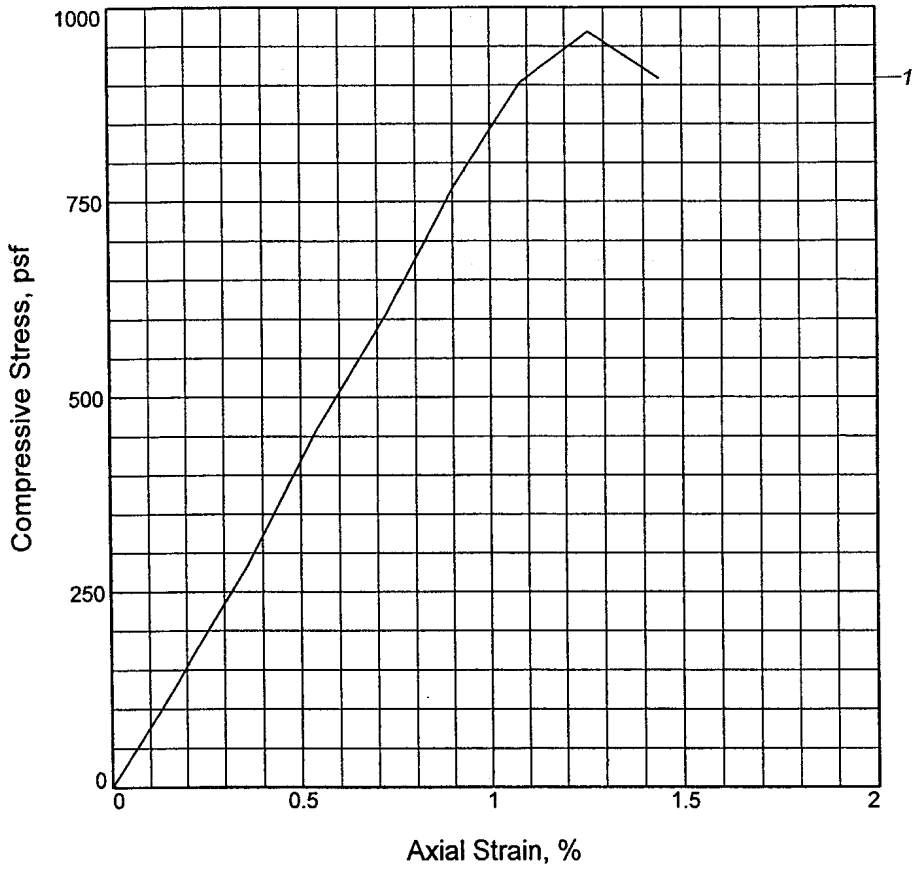
Project: Presidio SF BBDA

Source of Sample: BBSB100 **Depth:** 9.0-9.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	968.8			
Undrained shear strength, psf	484.4			
Failure strain,	1.3			
Strain rate, in./min.	0.06			
Water content, %	11.3			
Wet density, pcf	124.8			
Dry density, pcf	112.2			
Saturation, %	60.6			
Void ratio	0.5024			
Specimen diameter, in.	2.43			
Specimen height, in.	5.55			
Height/diameter ratio	2.28			

Description: Dark Brown Silty Clayey Sand (SC-SM)

LL = 20	**PL** = 13	**PI** = 7	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005

Date: 6-7-05

Remarks:
Top 1/3 of sample was (CL) and bottom 2/3 was (SC-SM)

Plate _____

Client: Mactec E&C

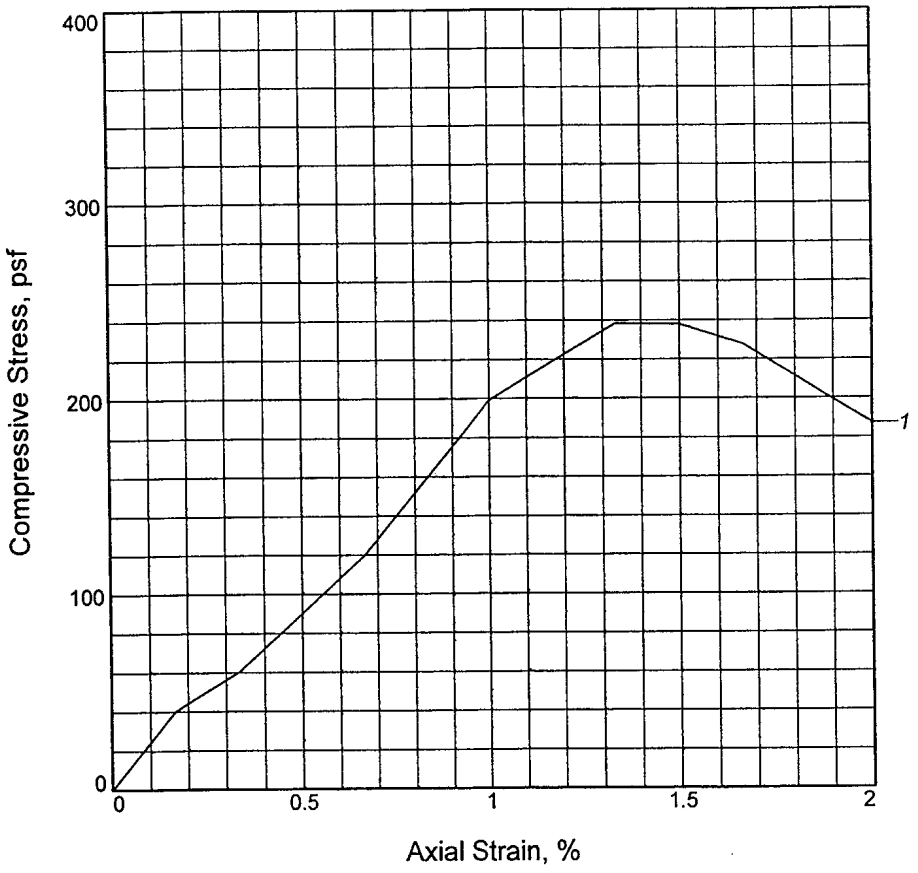
Project: Presidio S.F. BBDA

Source of Sample: BBSB101 **Depth:** 1.0-1.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	238.2			
Undrained shear strength, psf	119.1			
Failure strain,	1.3			
Strain rate, in./min.	0.06			
Water content, %	13.5			
Wet density, pcf	124.5			
Dry density, pcf	109.6			
Saturation, %	68.0			
Void ratio	0.5372			
Specimen diameter, in.	2.40			
Specimen height, in.	6.00			
Height/diameter ratio	2.50			

Description: Brown Clayey Sand (SC)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005

Date: 6-7-05

Remarks:
Sample had a 1/2" Lateral Vein of (SP) in the middle.

Plate _____

Client: Mactec E&C

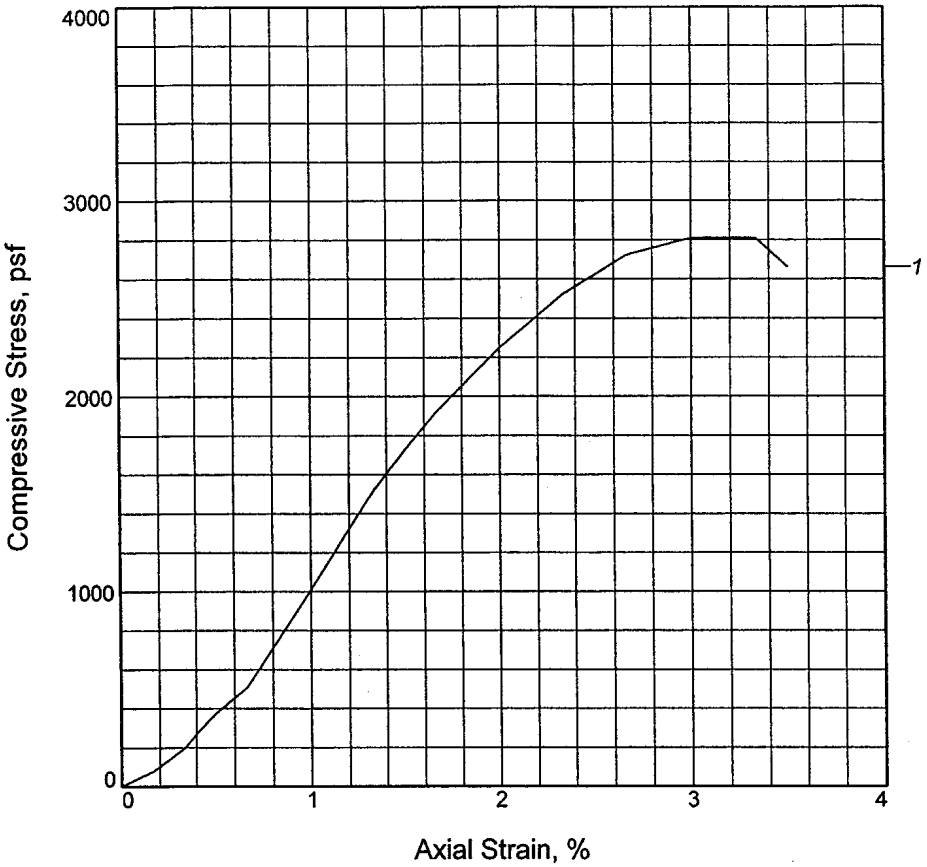
Project: Presidio S.F. BBDA

Source of Sample: BBSB101 **Depth:** 6.5-7.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2807.6			
Undrained shear strength, psf	1403.8			
Failure strain,	3.0			
Strain rate, in./min.	0.06			
Water content, %	16.4			
Wet density, pcf	128.2			
Dry density, pcf	110.1			
Saturation, %	83.6			
Void ratio	0.5308			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Mottled Dark And Light Brown Sandy Lean Clay (CL)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255005
Date: 6-7-05
Remarks:

Client: Mactec E&C

Project: Presidio S.F. BBDA

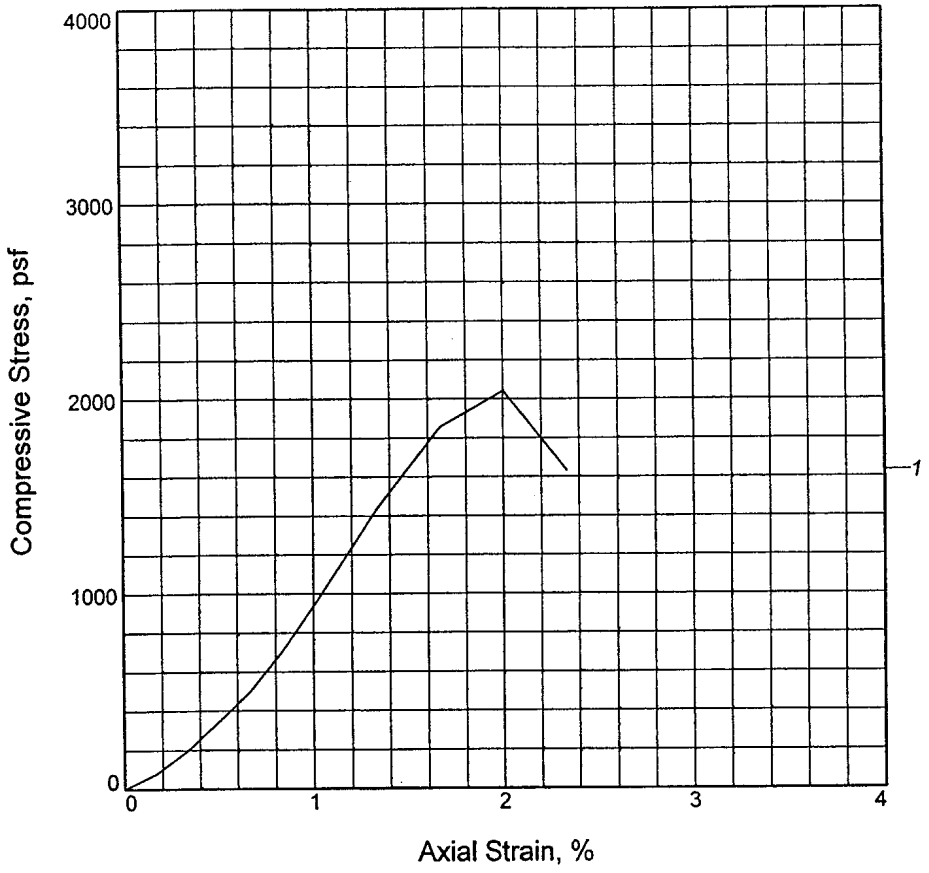
Source of Sample: BBSB101 **Depth:** 12.0-12.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: TMc **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2042.4			
Undrained shear strength, psf	1021.2			
Failure strain,	2.0			
Strain rate, in./min.	0.06			
Water content, %	65.0			
Wet density, pcf	99.6			
Dry density, pcf	60.3			
Saturation, %	97.9			
Void ratio	1.7931			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Olive Green Silty Sand W/Gravel (SM)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

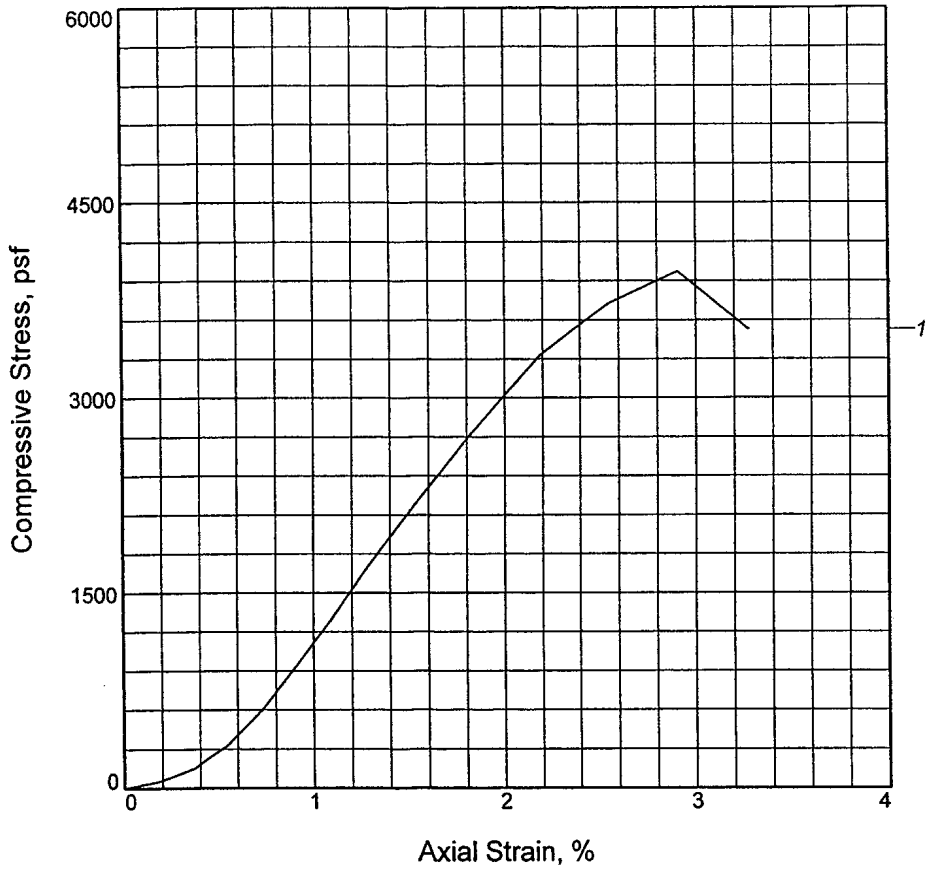
Source of Sample: BBSB102 **Depth:** 6.0-6.5'

RGH CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3971.2			
Undrained shear strength, psf	1985.6			
Failure strain,	2.9			
Strain rate, in./min.	0.06			
Water content, %	13.2			
Wet density, pcf	129.3			
Dry density, pcf	114.2			
Saturation, %	75.0			
Void ratio	0.4765			
Specimen diameter, in.	2.41			
Specimen height, in.	5.50			
Height/diameter ratio	2.28			

Description: Green Silty Sand W/Gravel (SM)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Plate _____

Client: Mactec E&C

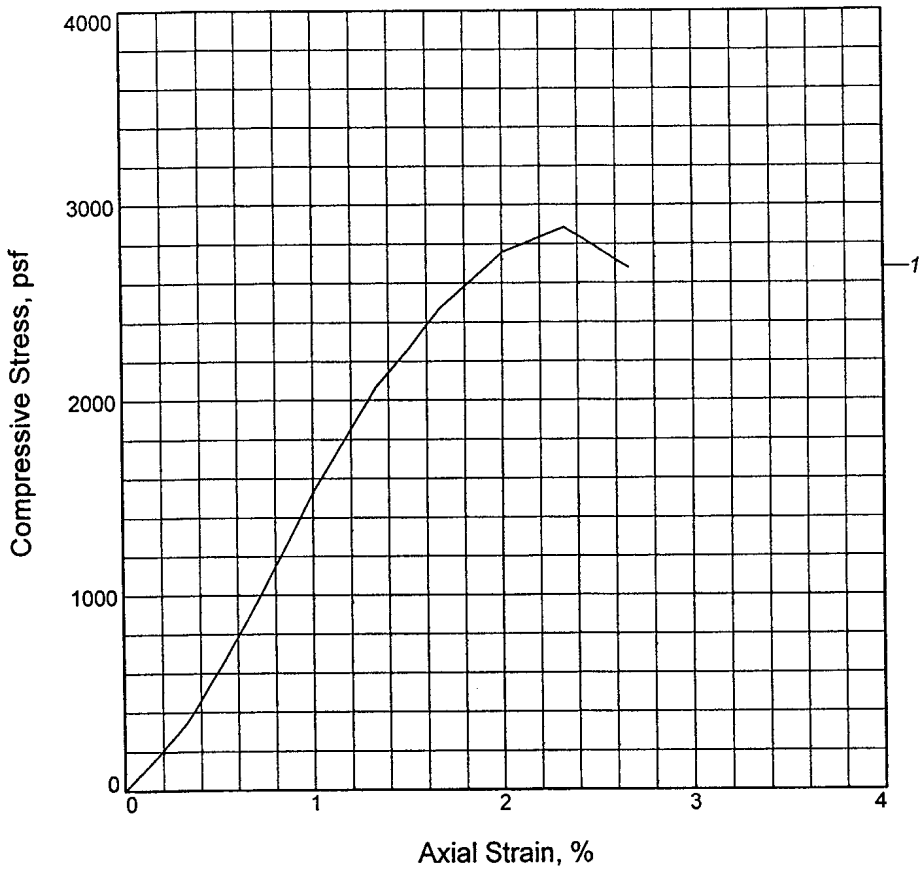
Project: Presidio SF BBDA

Source of Sample: BBSB102 **Depth:** 8.5-9.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2885.1			
Undrained shear strength, psf	1442.6			
Failure strain,	2.3			
Strain rate, in./min.	0.06			
Water content, %	14.0			
Wet density, pcf	127.0			
Dry density, pcf	111.4			
Saturation, %	73.6			
Void ratio	0.5131			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Green Silty Sand W/Gravel (SM)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

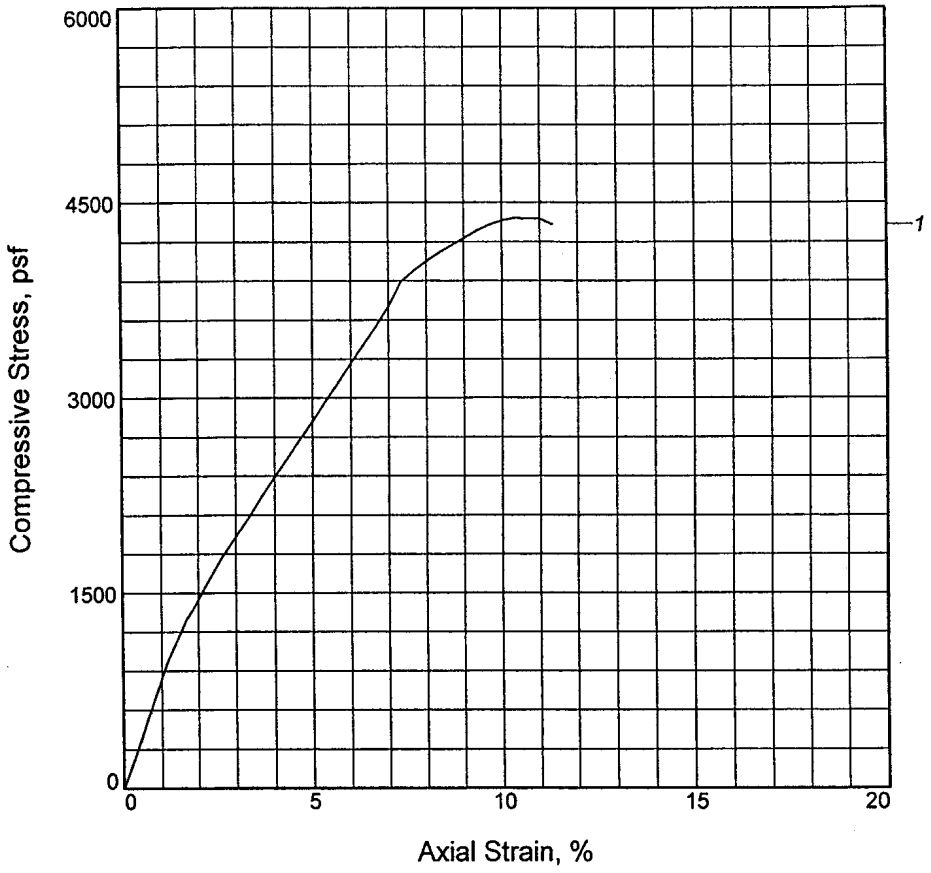
Source of Sample: BBSB102 **Depth:** 9.0-9.5'

RGH CONSULTANTS, INC.

Plate _____

Tested By: SW _____ **Checked By:** TMc _____

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4379.6			
Undrained shear strength, psf	2189.8			
Failure strain,	10.3			
Strain rate, in./min.	0.06			
Water content, %	15.7			
Wet density, pcf	136.4			
Dry density, pcf	117.9			
Saturation, %	98.8			
Void ratio	0.4299			
Specimen diameter, in.	2.39			
Specimen height, in.	6.00			
Height/diameter ratio	2.51			

Description: Brown Sandy Lean Clay (CL)

LL = 28	**PL** = 14	**PI** = 14	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

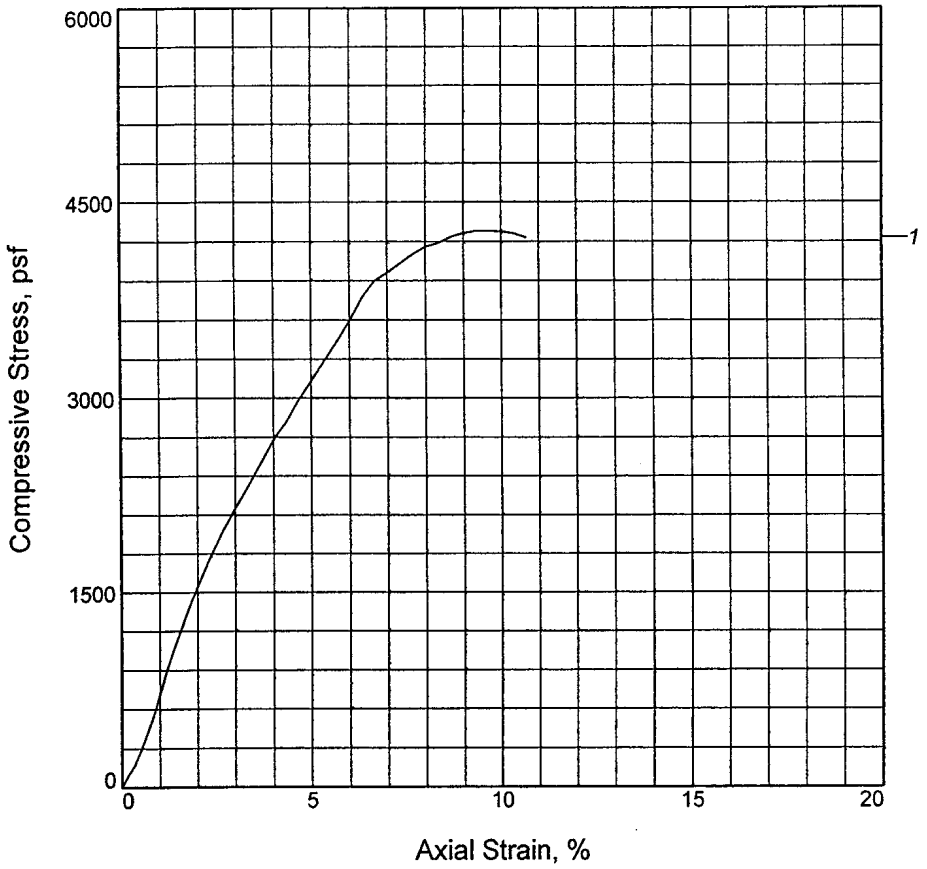
Source of Sample: BBSB104 **Depth:** 2.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4279.4			
Undrained shear strength, psf	2139.7			
Failure strain,	9.3			
Strain rate, in./min.	0.06			
Water content, %	16.3			
Wet density, pcf	135.5			
Dry density, pcf	116.6			
Saturation, %	98.4			
Void ratio	0.4459			
Specimen diameter, in.	2.40			
Specimen height, in.	6.00			
Height/diameter ratio	2.50			

Description: Orange Brown Sandy Lean Clay (CL)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132

Date: 5-19-05

Remarks:

Plate _____

Client: Mactec E&C

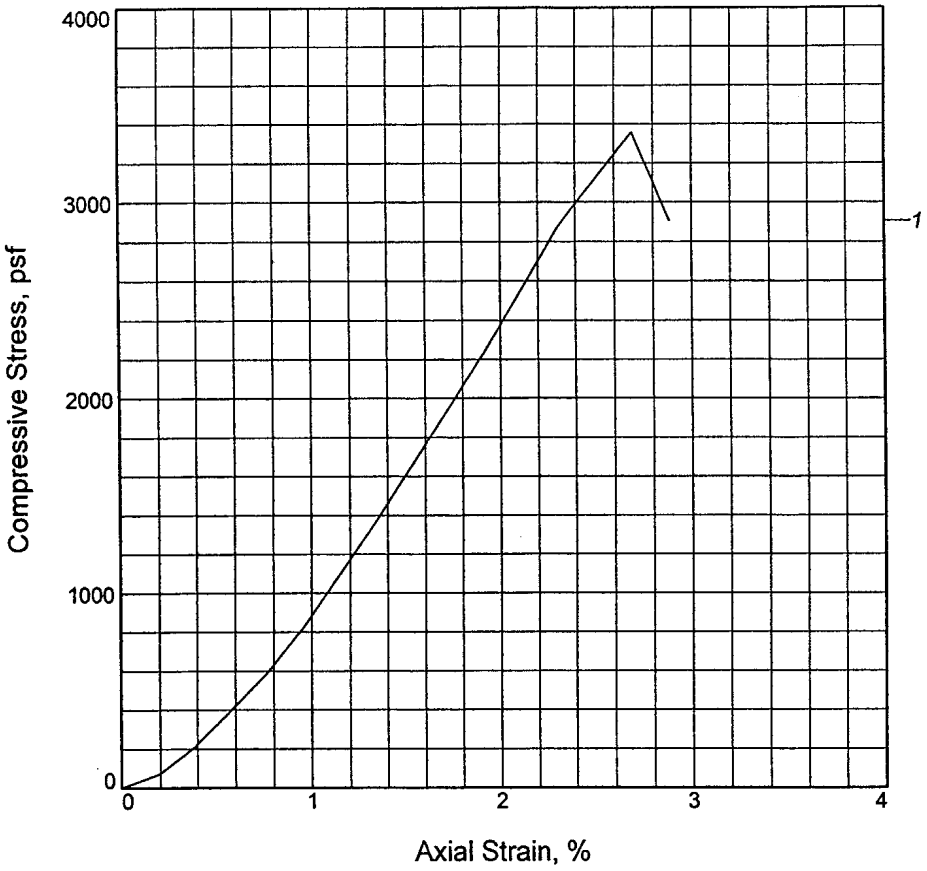
Project: Presidio SF BBDA

Source of Sample: BBSB104 **Depth:** 2.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3358.5			
Undrained shear strength, psf	1679.3			
Failure strain,	2.7			
Strain rate, in./min.	0.06			
Water content, %	16.4			
Wet density, pcf	121.4			
Dry density, pcf	104.3			
Saturation, %	71.9			
Void ratio	0.6164			
Specimen diameter, in.	2.41			
Specimen height, in.	5.20			
Height/diameter ratio	2.16			

Description: Dark Brown Sandy Lean Clay (CL)

LL = 35	**PL =** 23	**PI =** 12	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005
Date: 6-7-05
Remarks:

Plate _____

Client: Mactec E&C

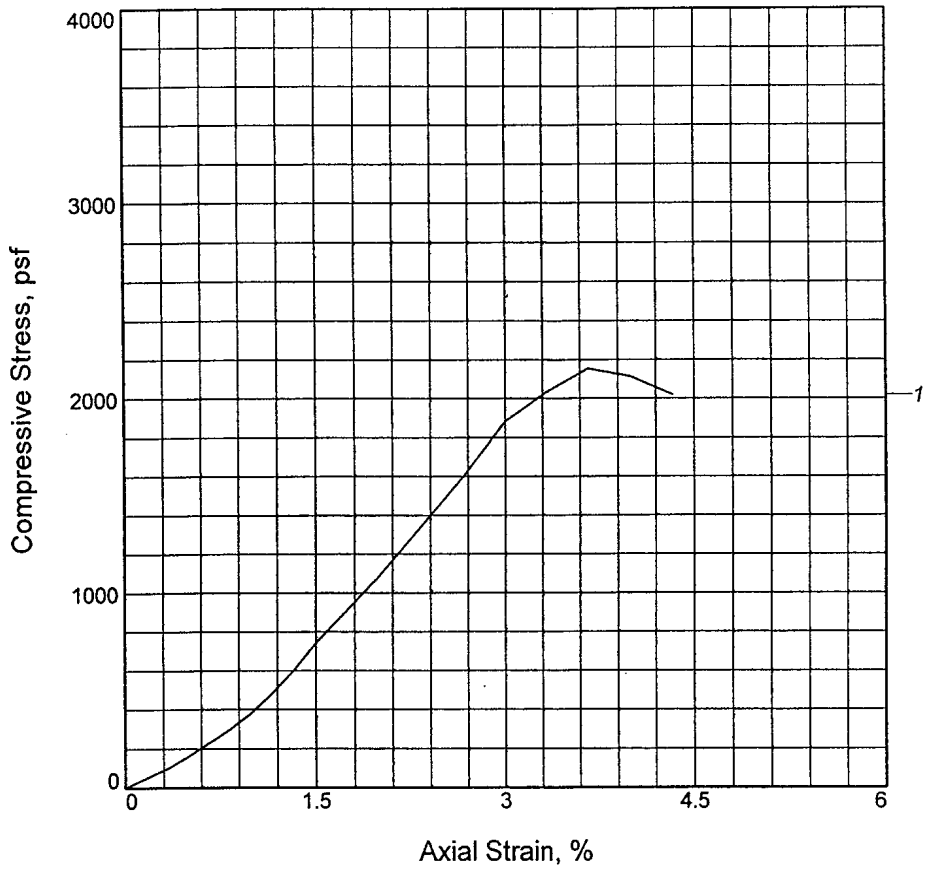
Project: Presidio S.F. BBDA

Source of Sample: BBSB106 **Depth:** 0.0-1.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2154.8			
Undrained shear strength, psf	1077.4			
Failure strain,	3.7			
Strain rate, in./min.	0.06			
Water content, %	18.7			
Wet density, pcf	130.1			
Dry density, pcf	109.6			
Saturation, %	93.9			
Void ratio	0.5383			
Specimen diameter, in.	2.87			
Specimen height, in.	6.00			
Height/diameter ratio	2.09			

Description: Light Brown Sandy Lean Clay (CL)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005
Date: 6-7-05
Remarks:

Client: Mactec E&C

Project: Presidio S.F. BBDA

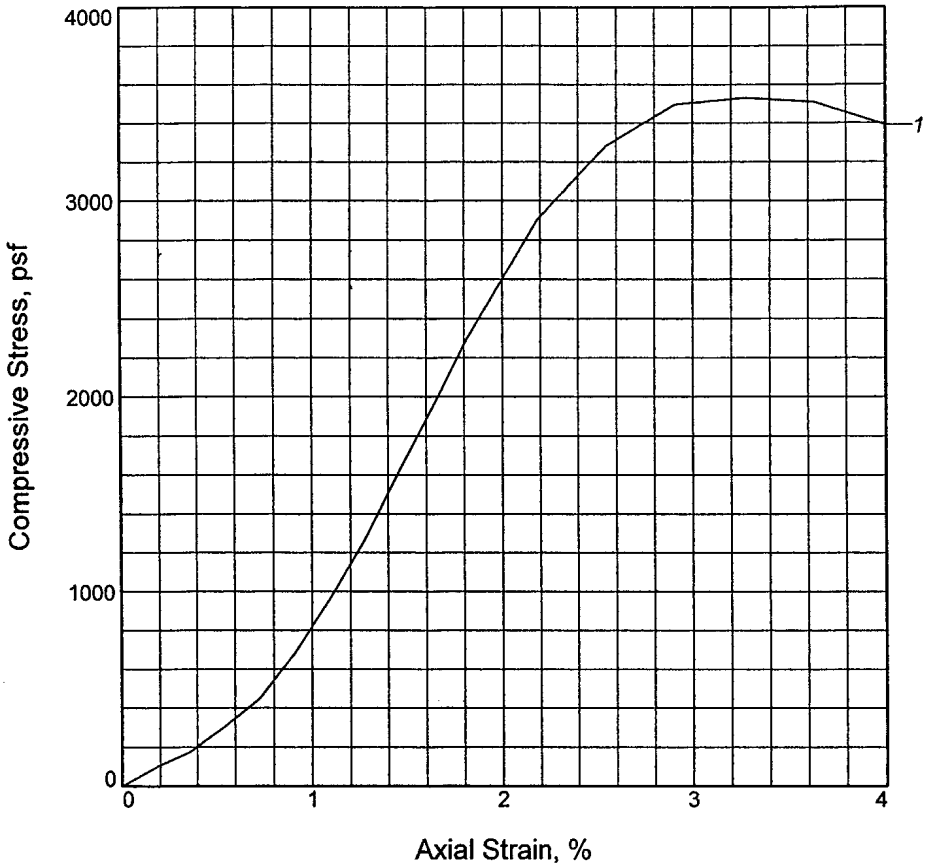
Source of Sample: BBSB106 **Depth:** 6.0-6.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3530.5			
Undrained shear strength, psf	1765.3			
Failure strain,	3.3			
Strain rate, in./min.	0.06			
Water content, %	32.2			
Wet density, pcf	113.6			
Dry density, pcf	86.0			
Saturation, %	90.4			
Void ratio	0.9609			
Specimen diameter, in.	2.43			
Specimen height, in.	5.50			
Height/diameter ratio	2.26			

Description: Brown Sandy Lean Clay (CL)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005
Date: 6-7-05
Remarks:

Client: Mactec E&C

Project: Presidio S.F. BBDA

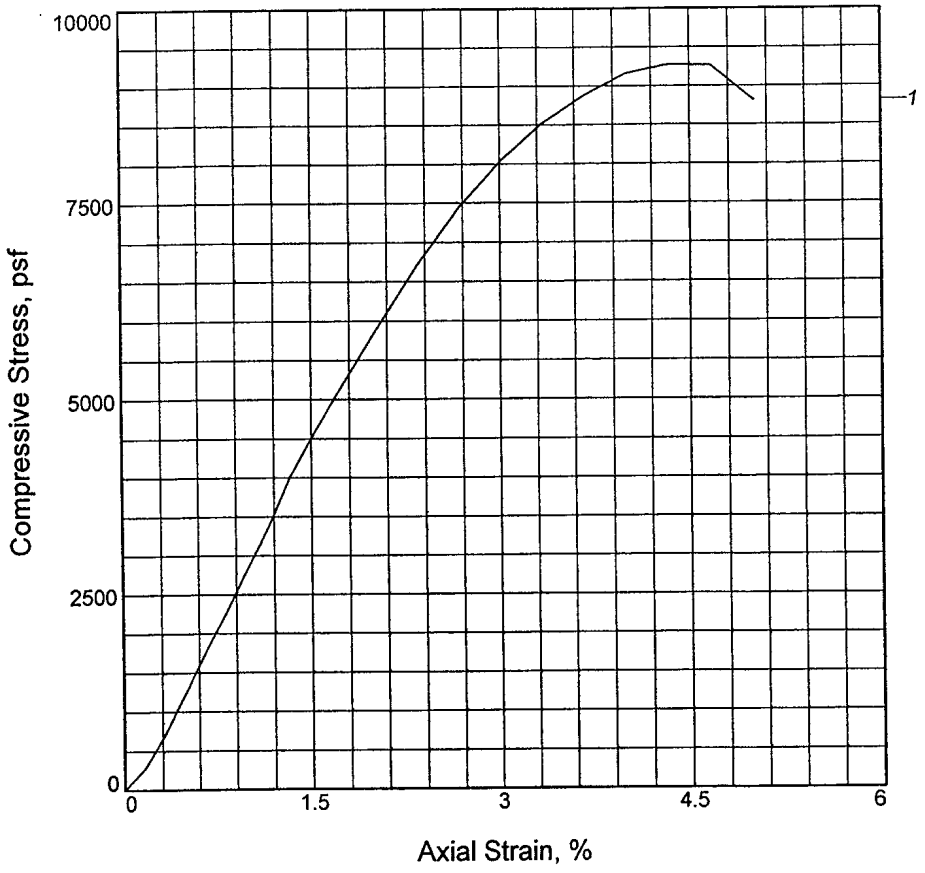
Source of Sample: BBSB106 **Depth:** 10-10.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: TMc **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	9269.7			
Undrained shear strength, psf	4634.8			
Failure strain,	4.3			
Strain rate, in./min.	0.06			
Water content, %	16.4			
Wet density, pcf	133.7			
Dry density, pcf	114.9			
Saturation, %	94.6			
Void ratio	0.4671			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Orange Brown Fat Clay W/Sand (CH)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

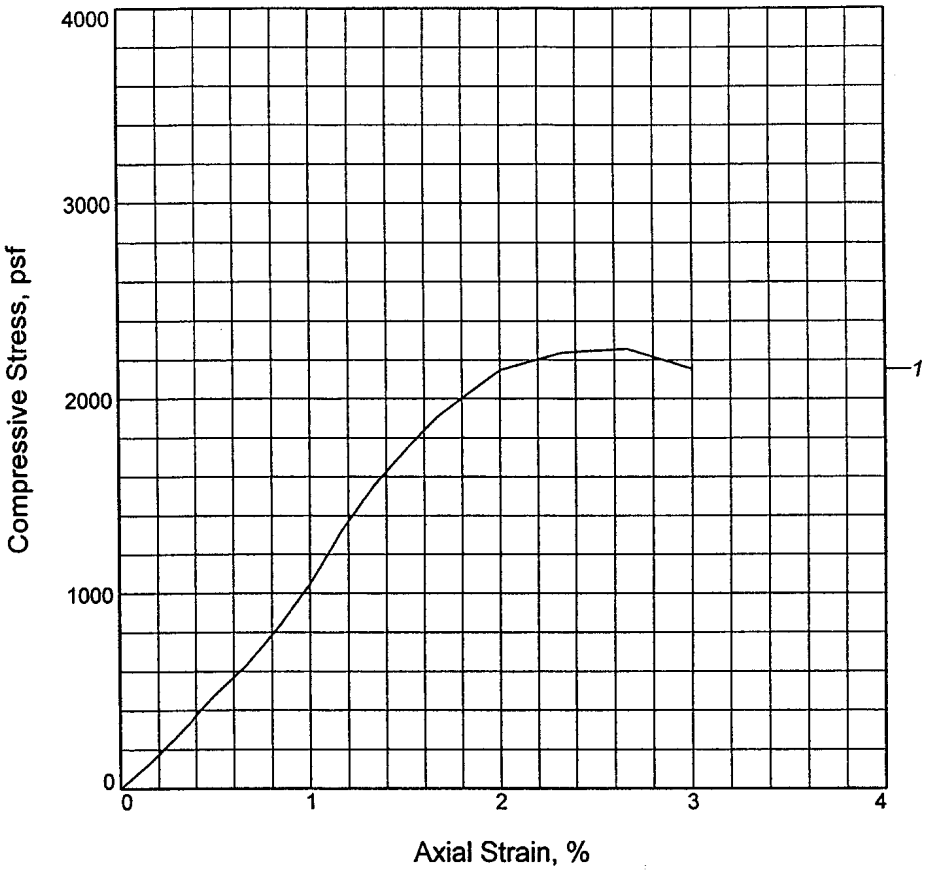
Source of Sample: BBSB107 **Depth:** 8.0'

R G H CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2256.7			
Undrained shear strength, psf	1128.4			
Failure strain,	2.7			
Strain rate, in./min.	0.06			
Water content, %	12.0			
Wet density, pcf	128.4			
Dry density, pcf	114.6			
Saturation, %	69.1			
Void ratio	0.4707			
Specimen diameter, in.	2.87			
Specimen height, in.	6.00			
Height/diameter ratio	2.09			

Description: Brown Sandy Lean Clay (CL)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-25-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

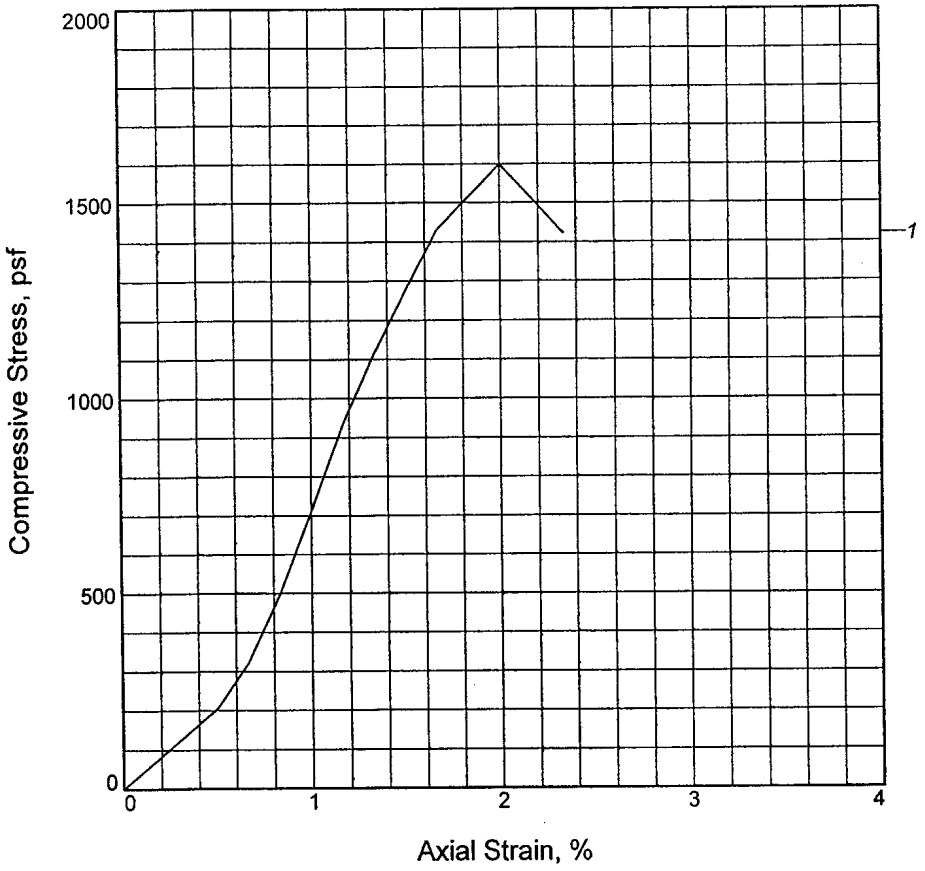
Source of Sample: BBSB107 **Depth:** 10.5'

Plate _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	1599.2			
Undrained shear strength, psf	799.6			
Failure strain,	2.0			
Strain rate, in./min.	0.06			
Water content, %	25.2			
Wet density, pcf	106.7			
Dry density, pcf	85.3			
Saturation, %	69.7			
Void ratio	0.9772			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Green Silty Sand W/Gravel (SM)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132

Date: 5-20-05

Remarks:
Plaster caps were used.

Plate _____

Client: Mactec E&C

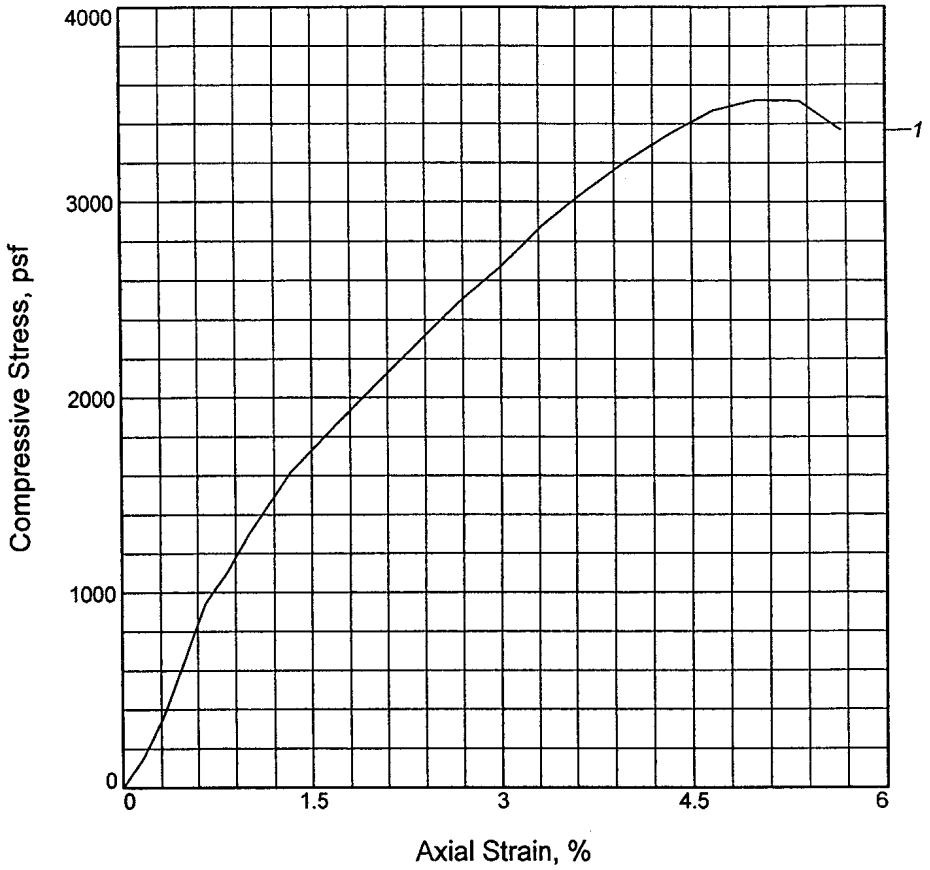
Project: Presidio SF BBDA

Source of Sample: BB2SB100 **Depth:** 12.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3520.8			
Undrained shear strength, psf	1760.4			
Failure strain,	5.0			
Strain rate, in./min.	0.06			
Water content, %	20.0			
Wet density, pcf	126.3			
Dry density, pcf	105.3			
Saturation, %	89.7			
Void ratio	0.6011			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Orange Brown Sandy Lean Clay (CL)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

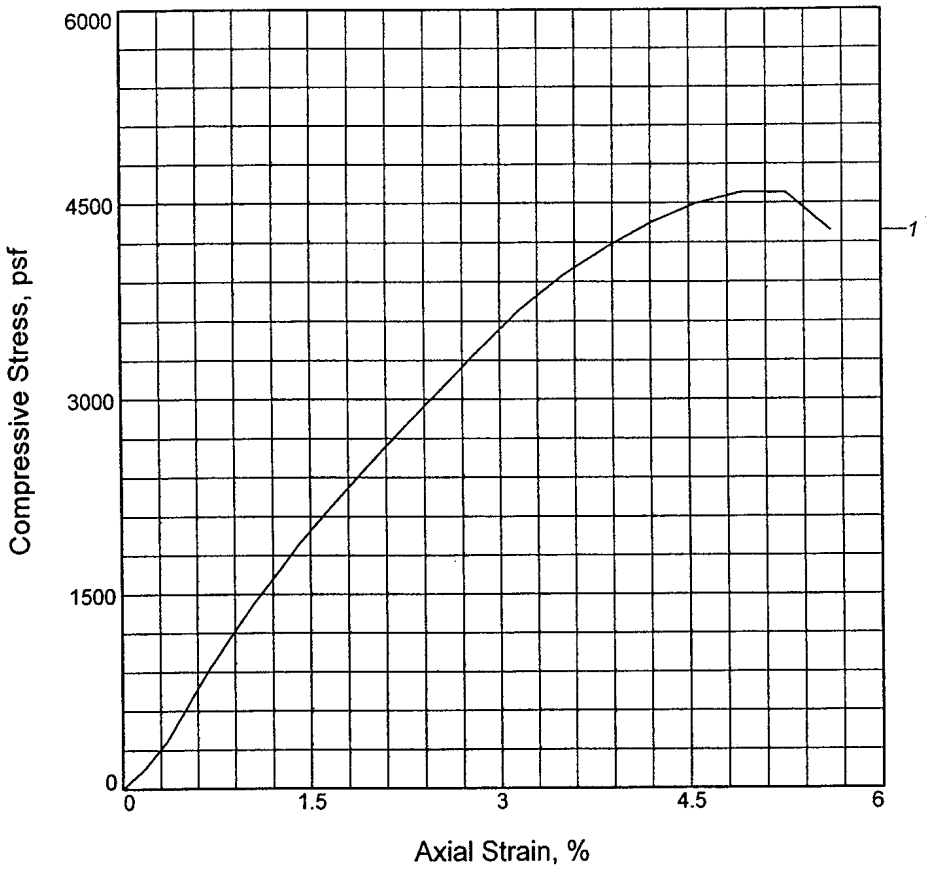
Source of Sample: BB2SB100 **Depth:** 3.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4578.9			
Undrained shear strength, psf	2289.4			
Failure strain,	4.9			
Strain rate, in./min.	0.06			
Water content, %	18.9			
Wet density, pcf	129.4			
Dry density, pcf	108.8			
Saturation, %	93.1			
Void ratio	0.5485			
Specimen diameter, in.	2.43			
Specimen height, in.	5.70			
Height/diameter ratio	2.35			

Description: Brown Lean Clay W/Sand (CL)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

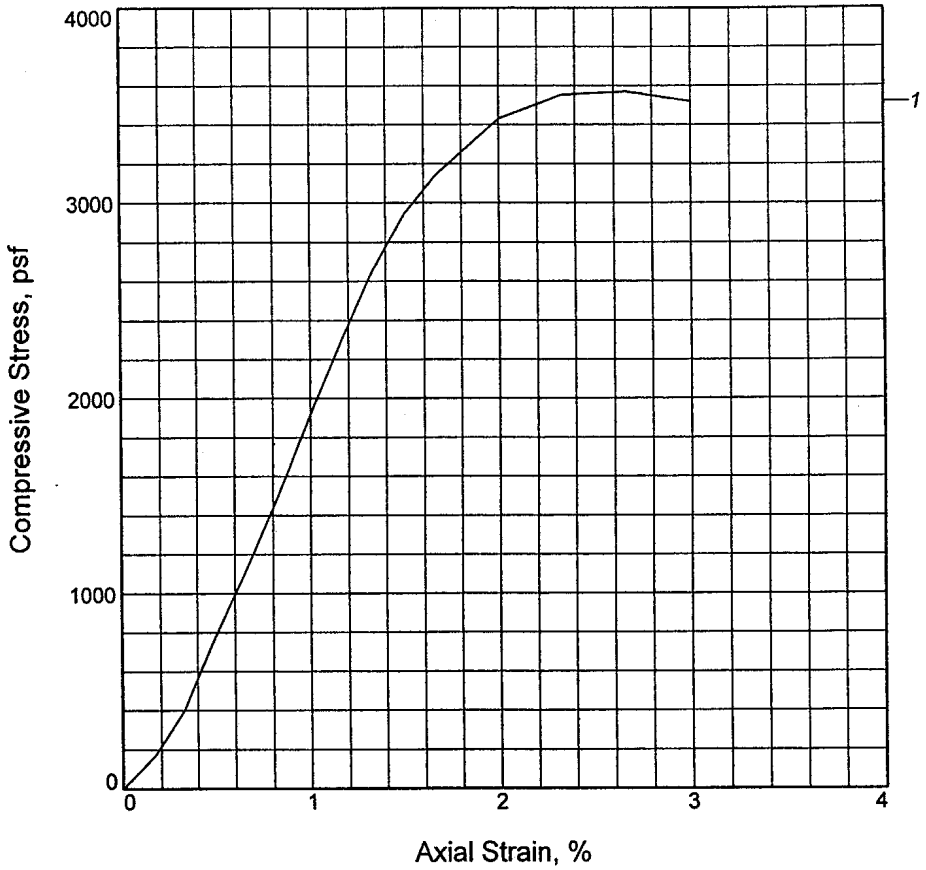
Source of Sample: BB2SB100 **Depth:** 6.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3569.0			
Undrained shear strength, psf	1784.5			
Failure strain,	2.7			
Strain rate, in./min.	0.06			
Water content, %	28.0			
Wet density, pcf	122.4			
Dry density, pcf	95.7			
Saturation, %	99.1			
Void ratio	0.7615			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Brown Fat Clay (CH)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

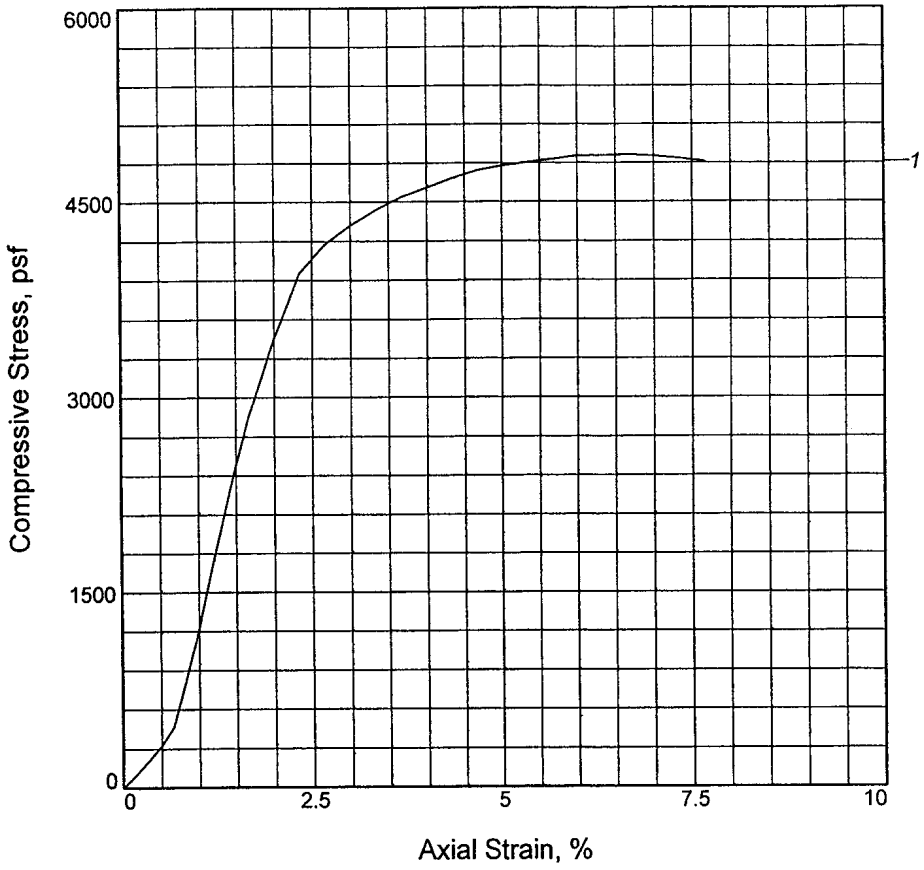
Source of Sample: BB2SB100 **Depth:** 8.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4860.6			
Undrained shear strength, psf	2430.3			
Failure strain,	6.7			
Strain rate, in./min.	0.06			
Water content, %	21.0			
Wet density, pcf	130.0			
Dry density, pcf	107.5			
Saturation, %	99.7			
Void ratio	0.5677			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Brown Fat Clay (CH)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

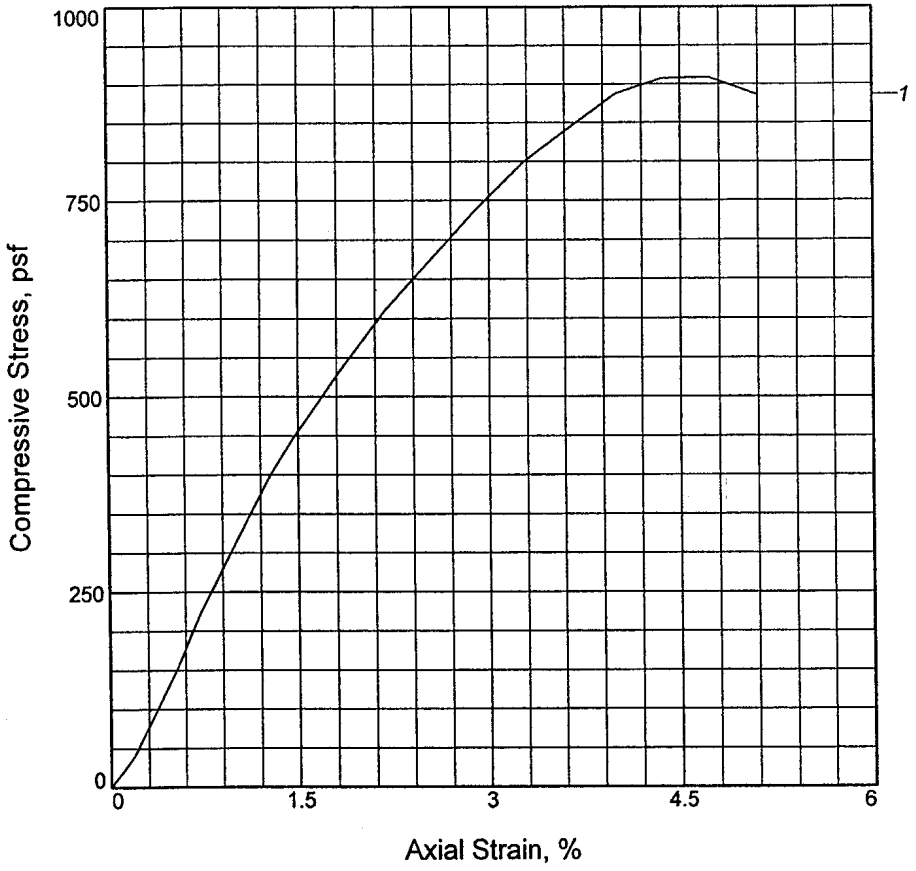
Source of Sample: BB2SB100 **Depth:** 9.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	908.5			
Undrained shear strength, psf	454.2			
Failure strain,	4.7			
Strain rate, in./min.	0.06			
Water content, %	18.7			
Wet density, pcf	128.4			
Dry density, pcf	108.2			
Saturation, %	90.6			
Void ratio	0.5584			
Specimen diameter, in.	2.43			
Specimen height, in.	5.50			
Height/diameter ratio	2.26			

Description: Black And Brown Sandy Lean Clay (CL)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Plate _____

Client: Mactec E&C

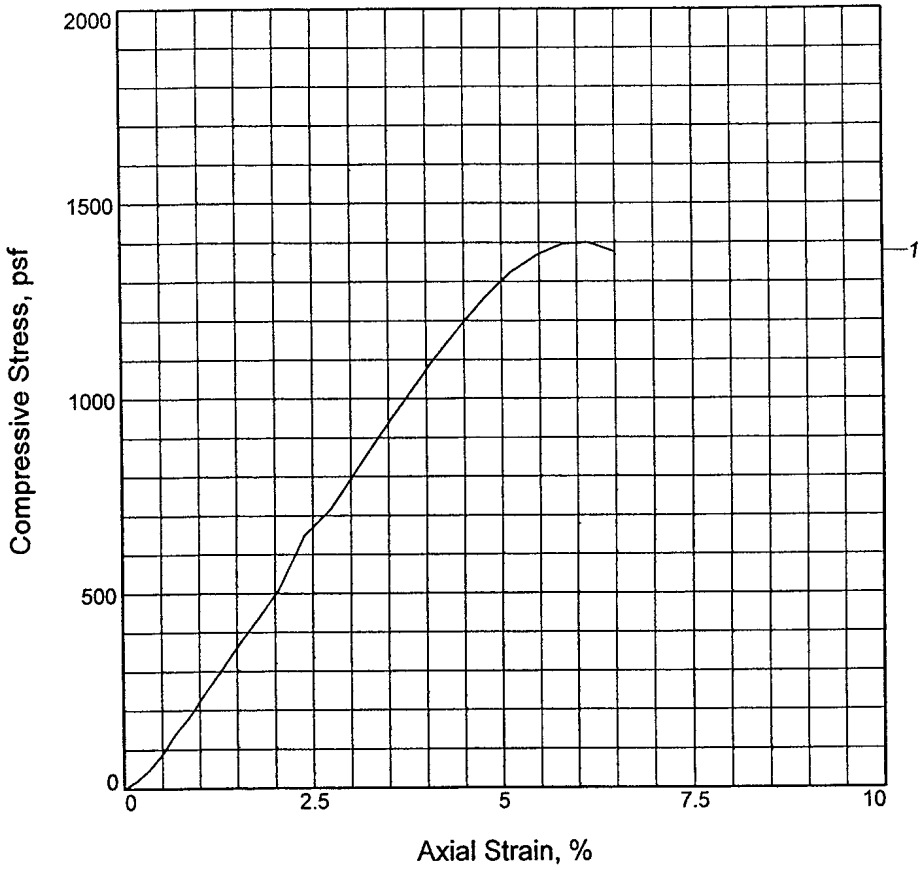
Project: Presidio SF BBDA

Source of Sample: BB2SB101 **Depth:** 5.0-5.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	1399.7			
Undrained shear strength, psf	699.9			
Failure strain,	6.2			
Strain rate, in./min.	0.06			
Water content, %	41.4			
Wet density, pcf	100.2			
Dry density, pcf	70.9			
Saturation, %	81.0			
Void ratio	1.3782			
Specimen diameter, in.	2.40			
Specimen height, in.	5.85			
Height/diameter ratio	2.44			

Description: Black Silty Sand (SM) Very Organic

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132

Date: 5-19-05

Remarks:
Plaster caps were used.

Plate _____

Client: Mactec E&C

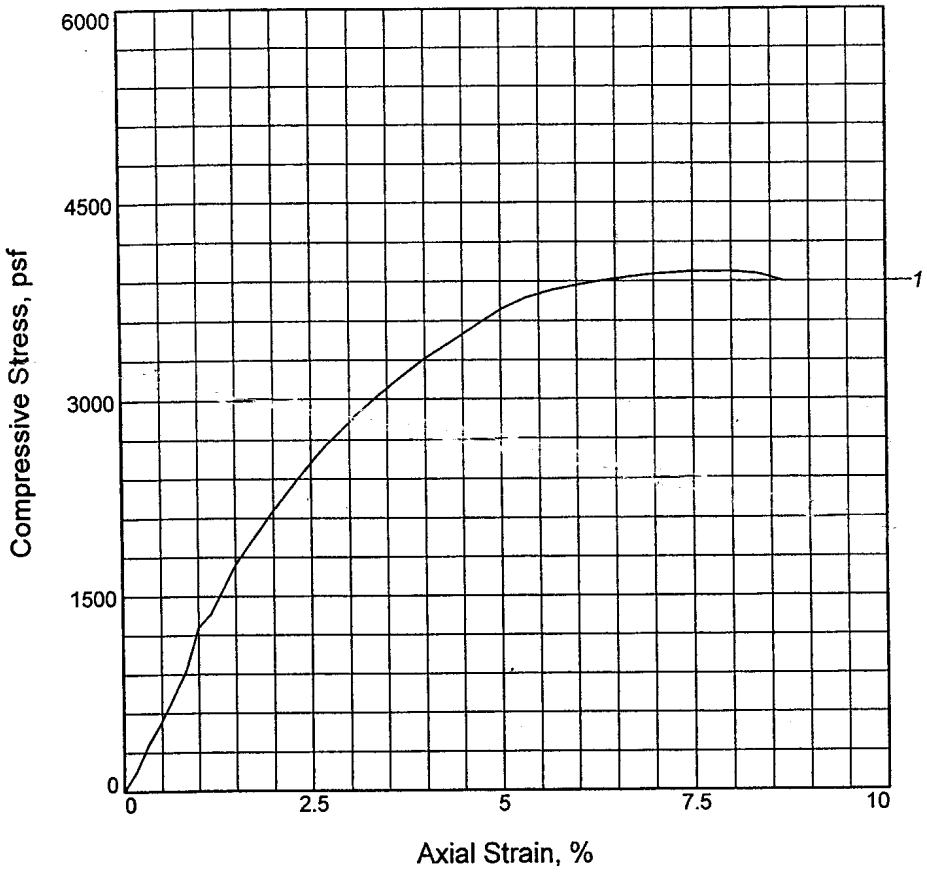
Project: Presidio SF BBDA

Source of Sample: BB2SB101 **Depth:** 8.0-8.5'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3972.5			
Undrained shear strength, psf	1986.2			
Failure strain,	7.7			
Strain rate, in./min.	0.06			
Water content, %	19.7			
Wet density, pcf	131.0			
Dry density, pcf	109.5			
Saturation, %	98.4			
Void ratio	0.5395			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Blue Grey Sandy Fat Clay (CH)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

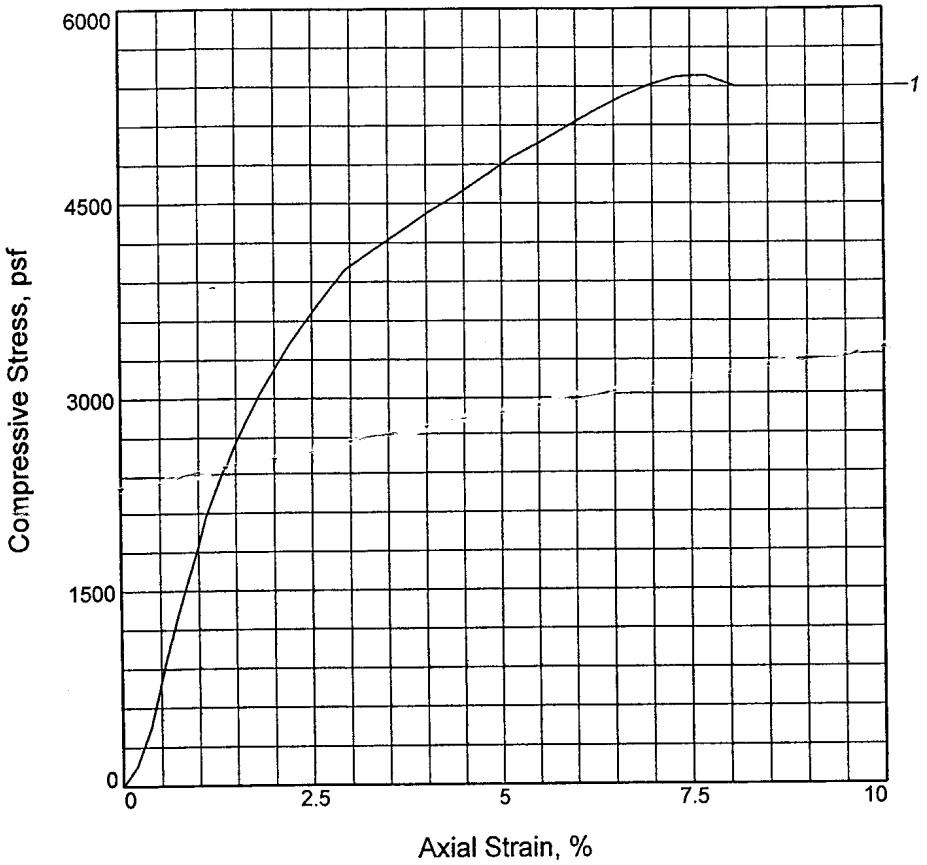
Source of Sample: BB2SB101 **Depth:** 15-15.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	5481.2			
Undrained shear strength, psf	2740.6			
Failure strain,	7.7			
Strain rate, in./min.	0.06			
Water content, %	17.6			
Wet density, pcf	134.4			
Dry density, pcf	114.3			
Saturation, %	99.9			
Void ratio	0.4748			
Specimen diameter, in.	2.41			
Specimen height, in.	5.45			
Height/diameter ratio	2.26			

Description: Mottled Orange Brown Fat Clay (CH)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

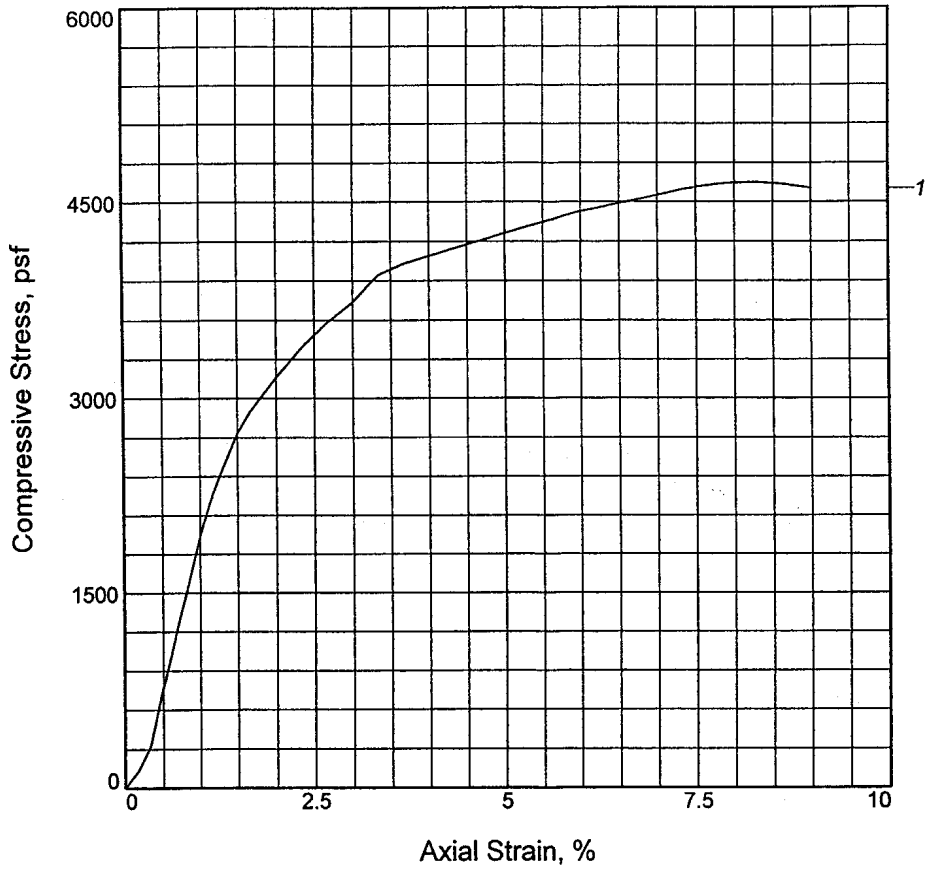
Source of Sample: BB2SB101 **Depth:** 19.5-20.0'

RGH CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4649.3			
Undrained shear strength, psf	2324.6			
Failure strain,	8.3			
Strain rate, in./min.	0.06			
Water content, %	18.9			
Wet density, pcf	128.1			
Dry density, pcf	107.8			
Saturation, %	90.4			
Void ratio	0.5637			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Olive Green Fat Clay W/Sand (CH)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

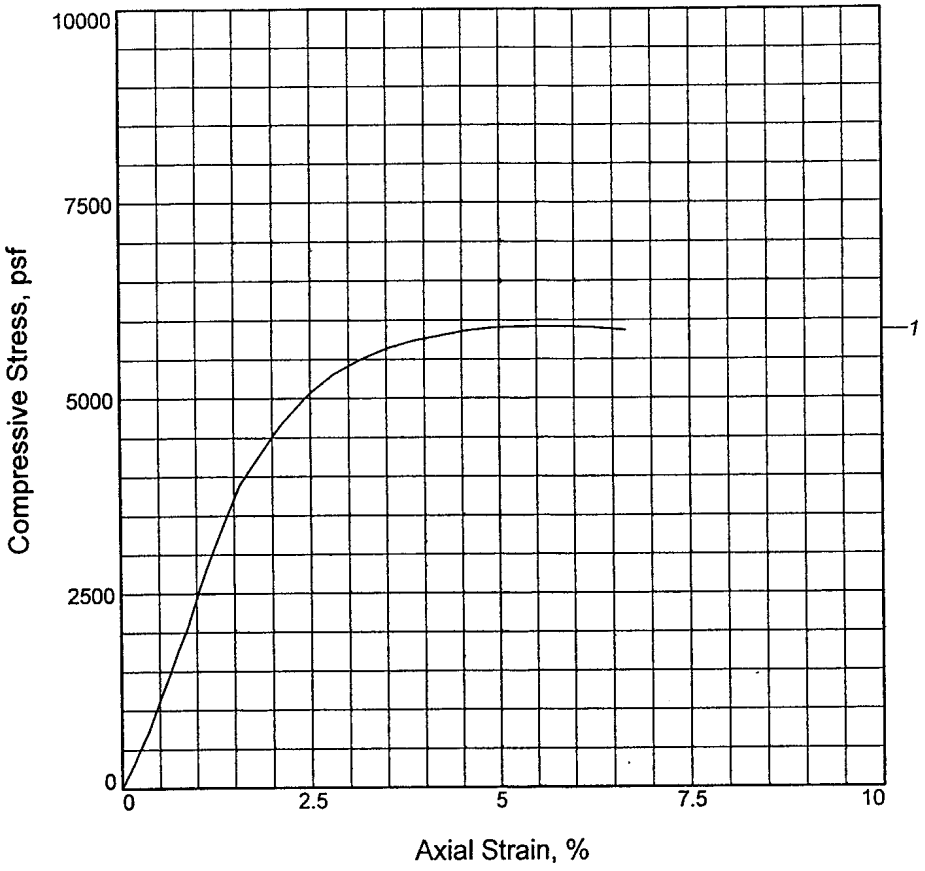
Source of Sample: BB2SB101 **Depth:** 23.0-23.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	5912.9			
Undrained shear strength, psf	2956.5			
Failure strain,	5.3			
Strain rate, in./min.	0.06			
Water content, %	21.3			
Wet density, pcf	127.5			
Dry density, pcf	105.1			
Saturation, %	95.3			
Void ratio	0.6037			
Specimen diameter, in.	2.43			
Specimen height, in.	5.70			
Height/diameter ratio	2.35			

Description: Brown Lean Clay W/Sand (CL)

LL = 43	**PL** = 21	**PI** = 22	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

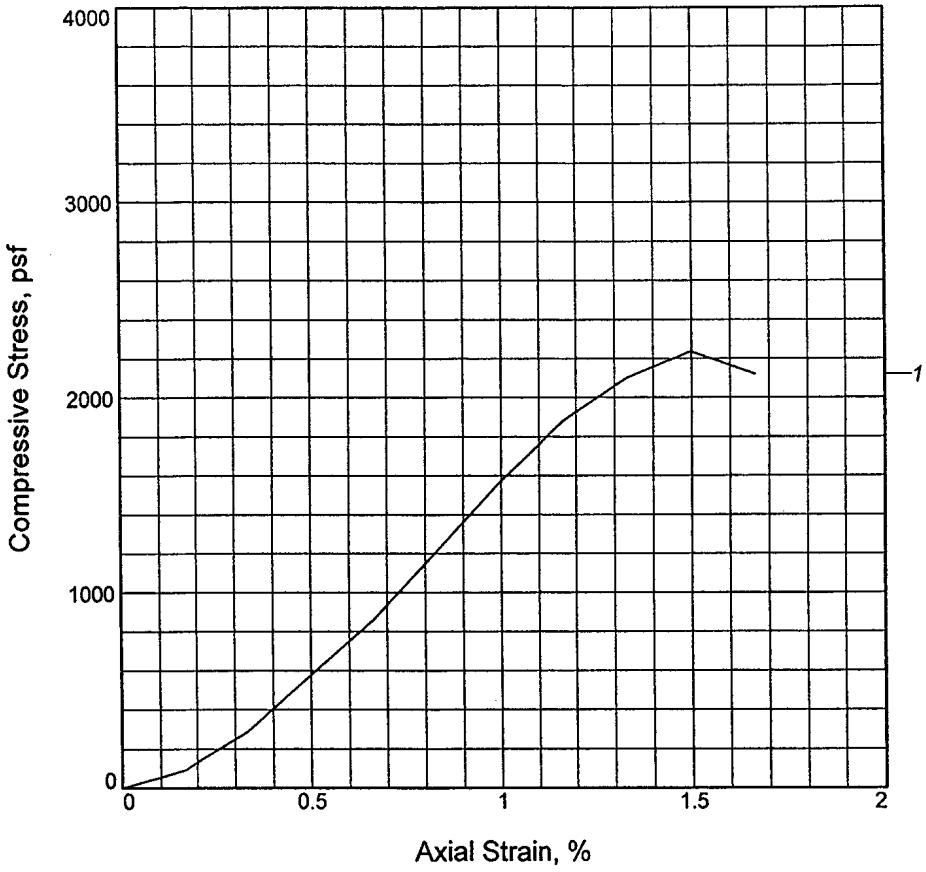
Source of Sample: BB2ASB100 **Depth:** 11.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2235.2			
Undrained shear strength, psf	1117.6			
Failure strain,	1.5			
Strain rate, in./min.	0.06			
Water content, %	15.8			
Wet density, pcf	136.7			
Dry density, pcf	118.1			
Saturation, %	99.8			
Void ratio	0.4275			
Specimen diameter, in.	2.87			
Specimen height, in.	6.01			
Height/diameter ratio	2.09			

Description: Brown Clayey Sand W/Gravel (SC)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

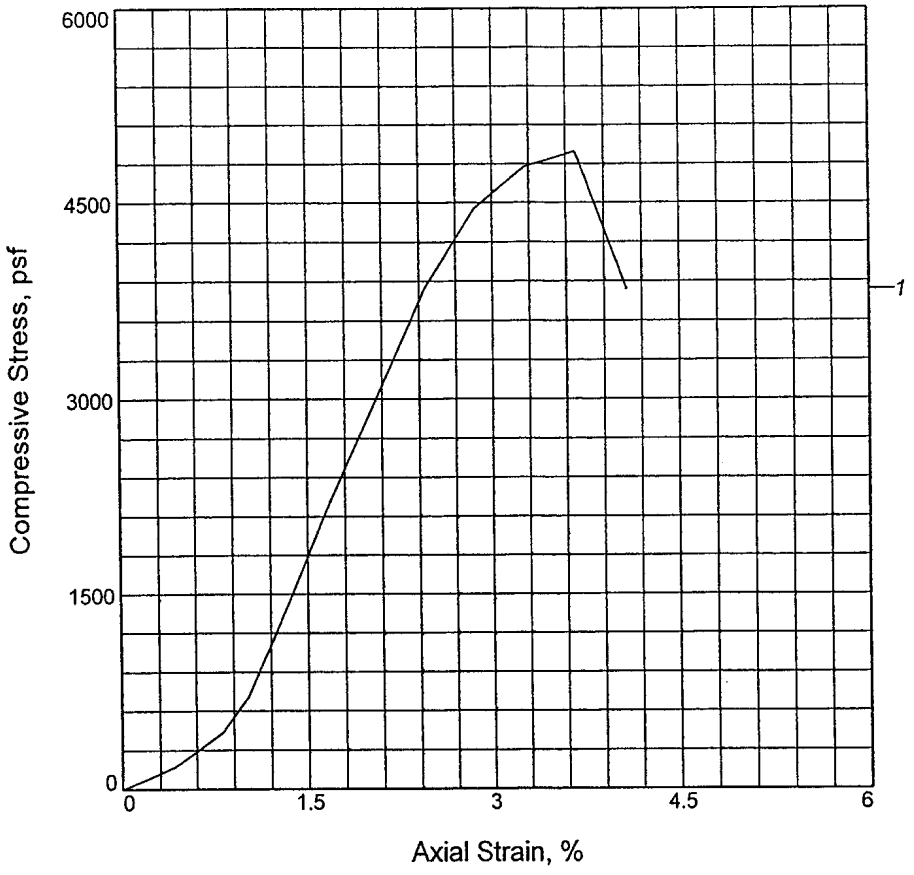
Source of Sample: BB2ASB100 **Depth:** 14-15.5'

R G H CONSULTANTS, INC.

Plate _____

Tested By: MW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4892.9			
Undrained shear strength, psf	2446.4			
Failure strain,	3.7			
Strain rate, in./min.	0.06			
Water content, %	15.9			
Wet density, pcf	129.3			
Dry density, pcf	111.6			
Saturation, %	84.2			
Void ratio	0.5110			
Specimen diameter, in.	2.43			
Specimen height, in.	4.90			
Height/diameter ratio	2.02			

Description: Brown Lean Clay (CL)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

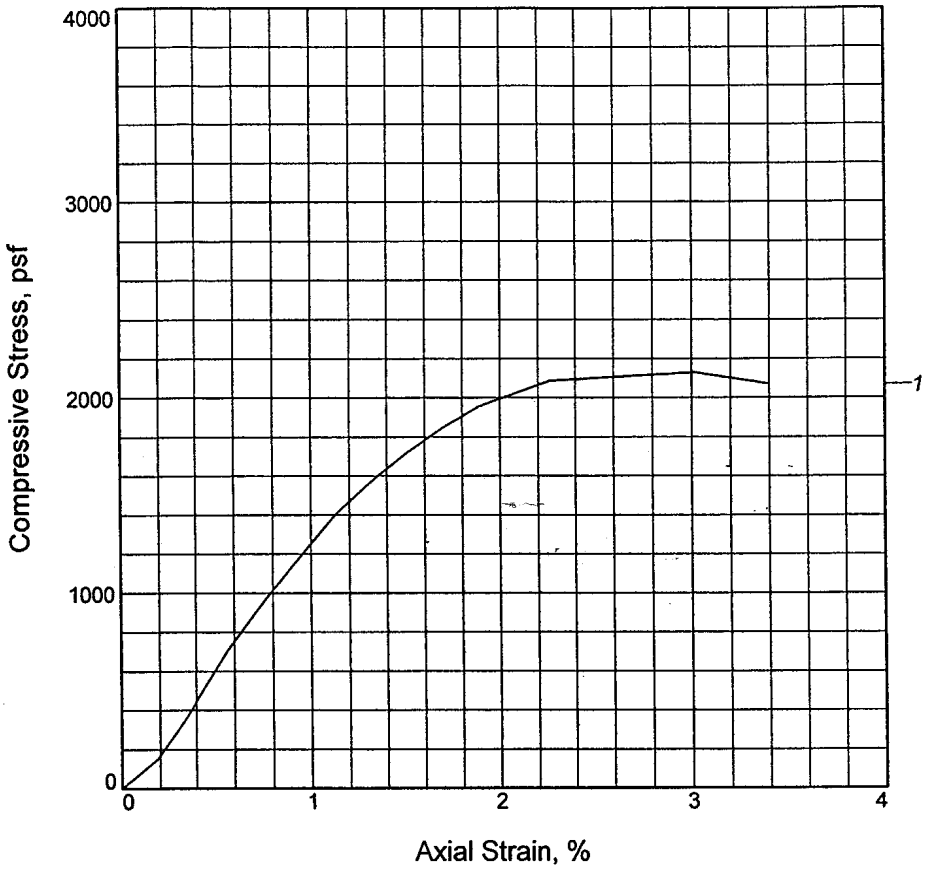
Source of Sample: BB2ASB100 **Depth:** 16.5'

R G H CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	2128.8			
Undrained shear strength, psf	1064.4			
Failure strain,	3.0			
Strain rate, in./min.	0.06			
Water content, %	17.0			
Wet density, pcf	126.1			
Dry density, pcf	107.8			
Saturation, %	81.2			
Void ratio	0.5637			
Specimen diameter, in.	2.39			
Specimen height, in.	5.30			
Height/diameter ratio	2.22			

Description: Mottled brown Lean Clay W/Sand (CL)

LL =	**PL =**	**PI =**	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05

Remarks:
There were many small voids thoughout the sample.

Plate _____

Client: Mactec E&C

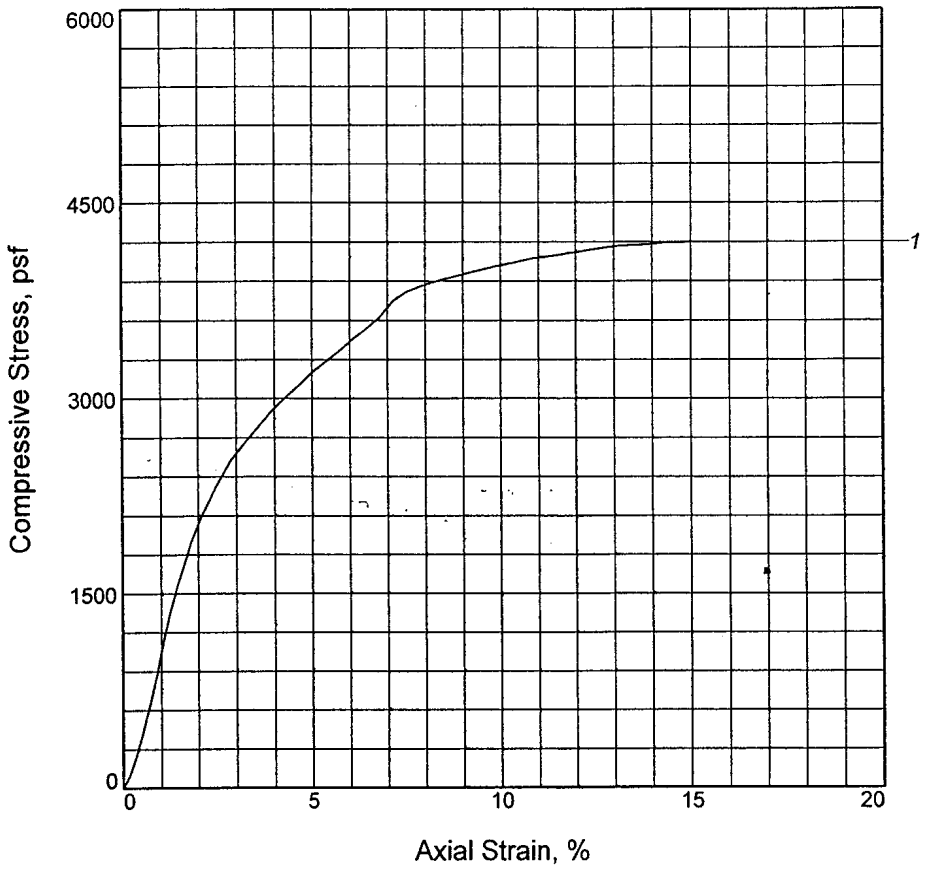
Project: Presidio SF BBDA

Source of Sample: BB2ASB100 **Depth:** 19.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	4198.1			
Undrained shear strength, psf	2099.1			
Failure strain,	15.0			
Strain rate, in./min.	0.06			
Water content, %	24.3			
Wet density, pcf	124.9			
Dry density, pcf	100.5			
Saturation, %	96.8			
Void ratio	0.6774			
Specimen diameter, in.	2.42			
Specimen height, in.	5.60			
Height/diameter ratio	2.31			

Description: Orange Brown Fat Clay W/Sand (CH)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-20-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

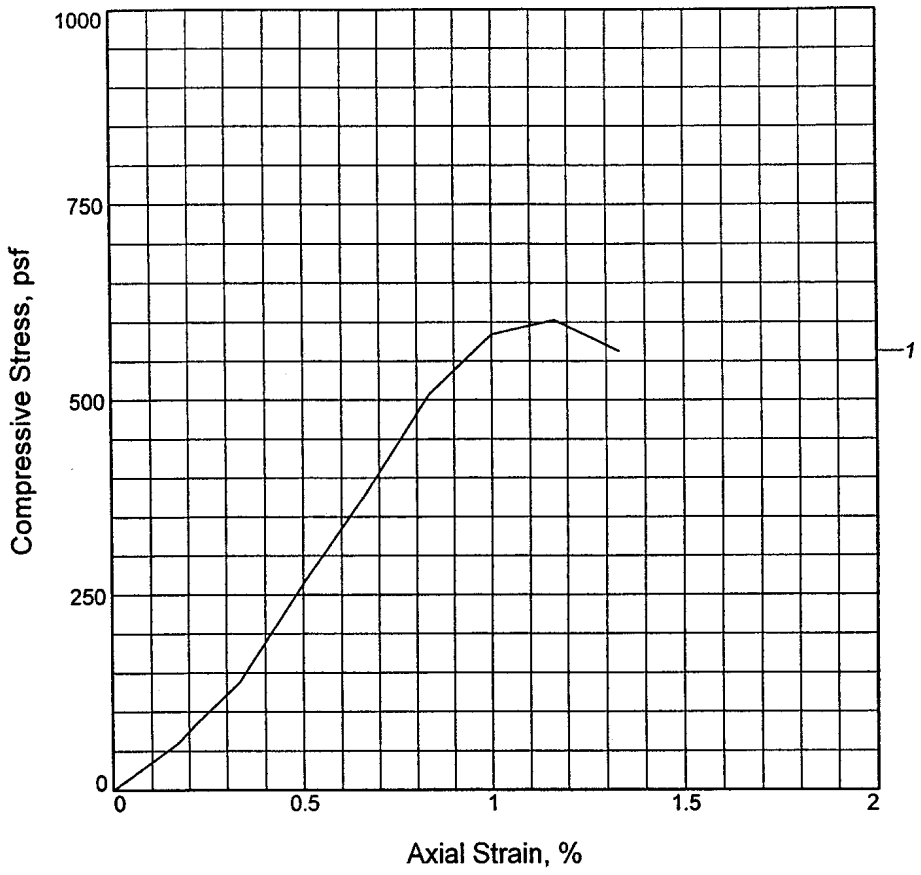
Source of Sample: BB2ASB101 **Depth:** 8.0'

RGH CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	602.4			
Undrained shear strength, psf	301.2			
Failure strain,	1.2			
Strain rate, in./min.	0.06			
Water content, %	61.9			
Wet density, pcf	95.3			
Dry density, pcf	58.8			
Saturation, %	89.7			
Void ratio	1.8643			
Specimen diameter, in.	2.43			
Specimen height, in.	6.00			
Height/diameter ratio	2.47			

Description: Dark Grey And Brown Silty Sand W/Gravel (SM)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255005132

Date: 5-20-05

Remarks:
Sample had many small voids throughout.

Client: Mactec E&C

Project: Presidio SF BBDA

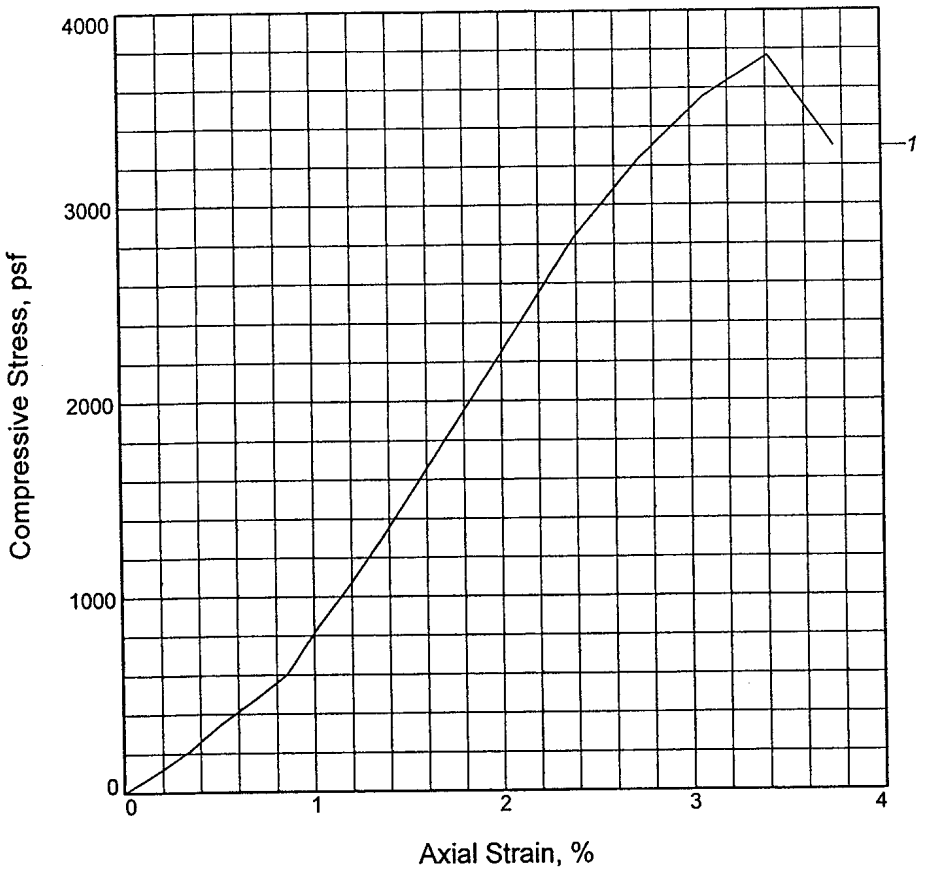
Source of Sample: BB1SB110 **Depth:** 11.0-11.5'

RGH CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	3767.0			
Undrained shear strength, psf	1883.5			
Failure strain,	3.4			
Strain rate, in./min.	0.06			
Water content, %	69.8			
Wet density, pcf	99.2			
Dry density, pcf	58.4			
Saturation, %	100.0			
Void ratio	1.8851			
Specimen diameter, in.	2.40			
Specimen height, in.	5.86			
Height/diameter ratio	2.44			

Description: Yellow Brown Sandy Lean Clay (CL)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255005132
Date: 5-19-05
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

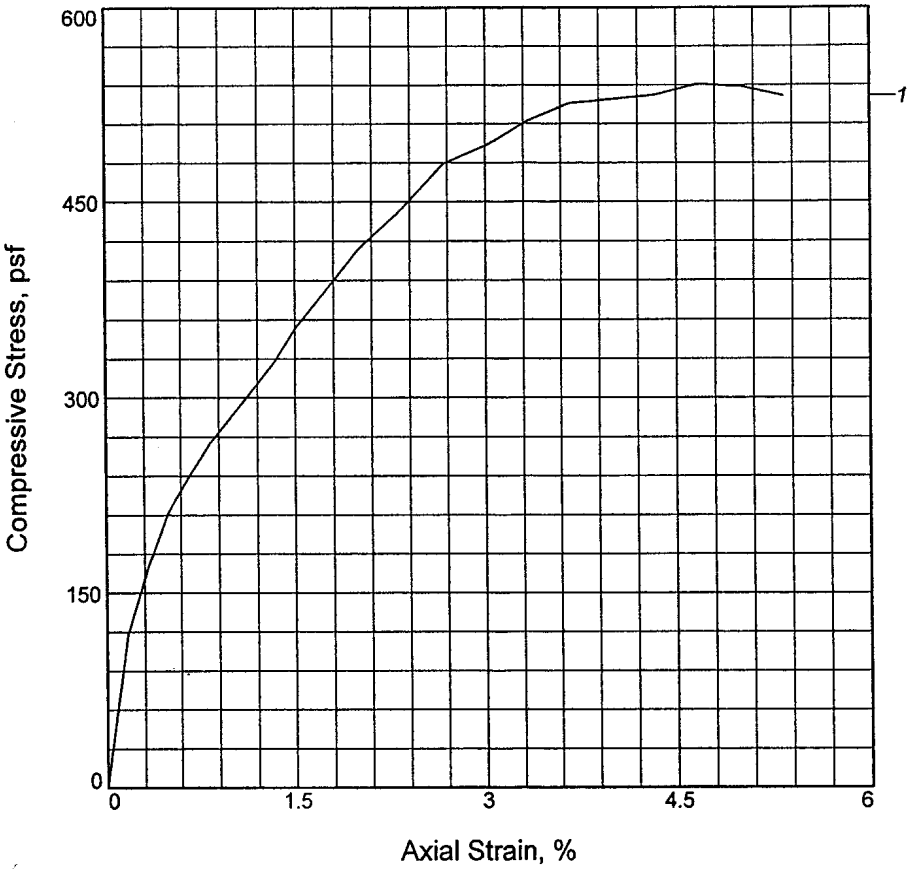
Source of Sample: BB1SB111 **Depth:** 4.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	540.5			
Undrained shear strength, psf	270.2			
Failure strain,	4.7			
Strain rate, in./min.	0.06			
Water content, %	19.8			
Wet density, pcf	125.3			
Dry density, pcf	104.6			
Saturation, %	87.5			
Void ratio	0.6109			
Specimen diameter, in.	2.80			
Specimen height, in.	6.00			
Height/diameter ratio	2.14			

Description: Dark Brown Clayey Sand (SC)

LL = 27	**PL** = 18	**PI** = 9	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255-005135

Date: 4-21-05

Remarks:

Plate _____

Client: Mactec E & C

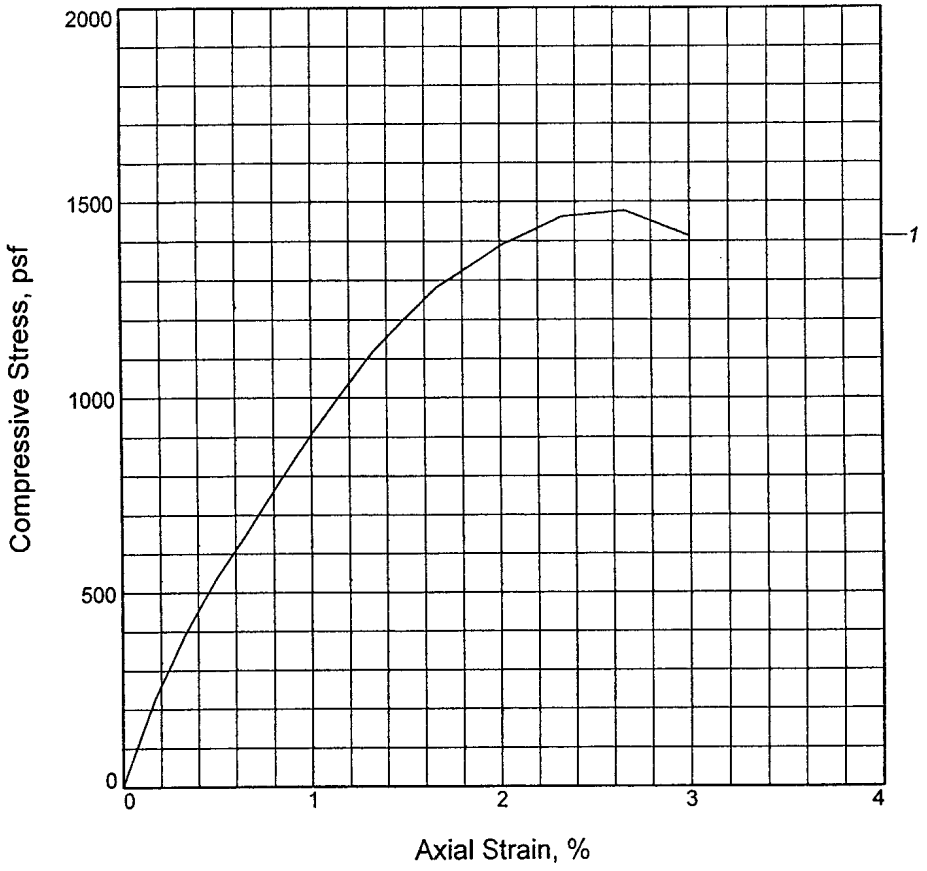
Project: Presidio San Francisco- Baker Beach

Source of Sample: BB1TP100 **Depth:** 0.0-2.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	1476.6			
Undrained shear strength, psf	738.3			
Failure strain,	2.7			
Strain rate, in./min.	0.06			
Water content, %	26.1			
Wet density, pcf	124.1			
Dry density, pcf	98.4			
Saturation, %	99.0			
Void ratio	0.7129			
Specimen diameter, in.	2.87			
Specimen height, in.	6.00			
Height/diameter ratio	2.09			

Description: Light And Dark Brown Lean Clay W/Sand (CL)

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed

Project No.: 57255-005135

Date: 4-22-05

Remarks:

Plate _____

Client: Mactec E & C

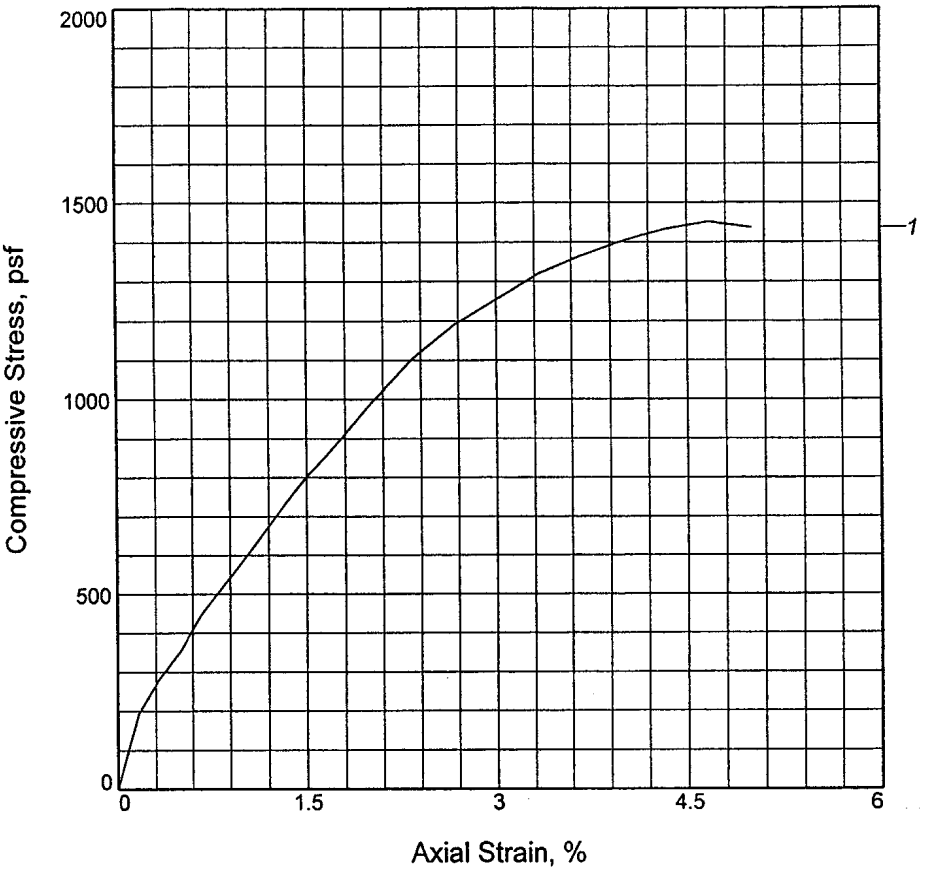
Project: Presidio San Francisco- Baker Beach

Source of Sample: BB1TP103 **Depth:** 9.5-12.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	1451.1			
Undrained shear strength, psf	725.5			
Failure strain,	4.7			
Strain rate, in./min.	0.06			
Water content, %	18.0			
Wet density, pcf	131.9			
Dry density, pcf	111.8			
Saturation, %	95.6			
Void ratio	0.5083			
Specimen diameter, in.	2.87			
Specimen height, in.	6.00			
Height/diameter ratio	2.09			

Description: Mottled Light And Dark Brown Sandy Lean Clay (CL)

LL = 30	**PL** = 15	**PI** = 15	**Assumed GS=** 2.70	**Type:** Undisturtbed

Project No.: 57255-005135

Date: 4-22-05

Remarks:

Client: Mactec E & C

Project: Presidio San Francisco- Baker Beach

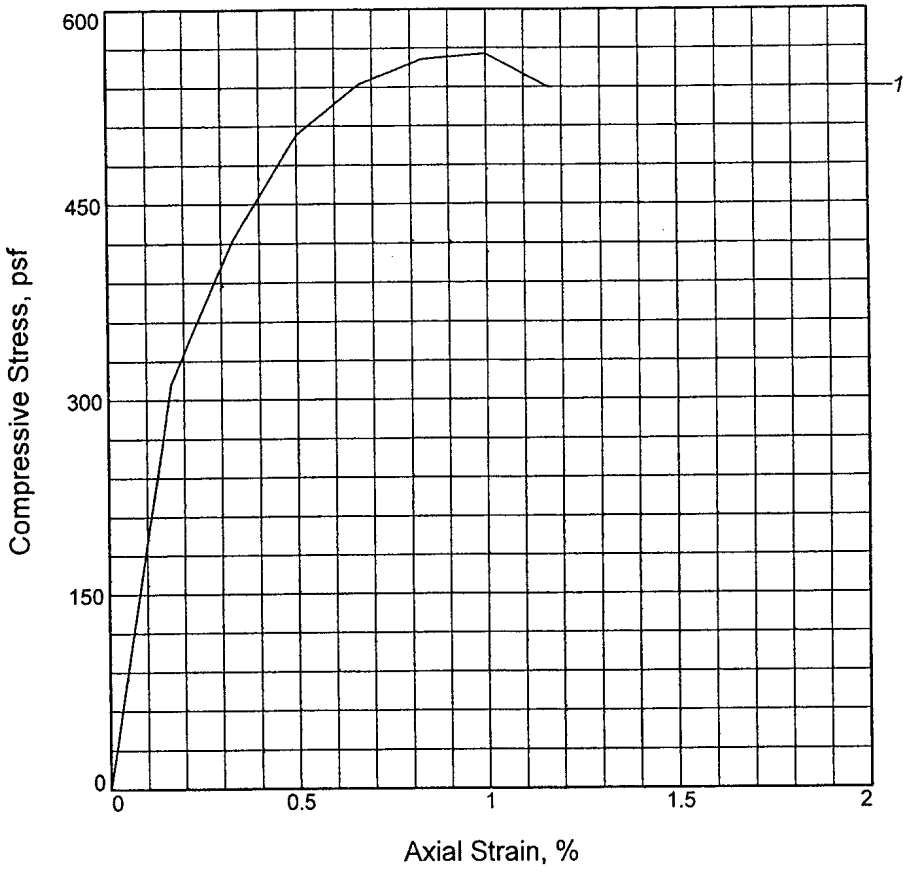
Source of Sample: BB2ATP101 **Depth:** 2.0-4.0'

Plate _____

RGH CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	565.5			
Undrained shear strength, psf	282.8			
Failure strain,	1.0			
Strain rate, in./min.	0.06			
Water content, %	9.6			
Wet density, pcf	146.1			
Dry density, pcf	133.4			
Saturation, %	97.8			
Void ratio	0.2640			
Specimen diameter, in.	2.88			
Specimen height, in.	6.00			
Height/diameter ratio	2.08			

Description: Black Clayey Sand W/Gravel (SC)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255-005135

Date: 4-25-05

Remarks:

Client: Mactec E & C

Project: Presidio San Francisco- Baker Beach

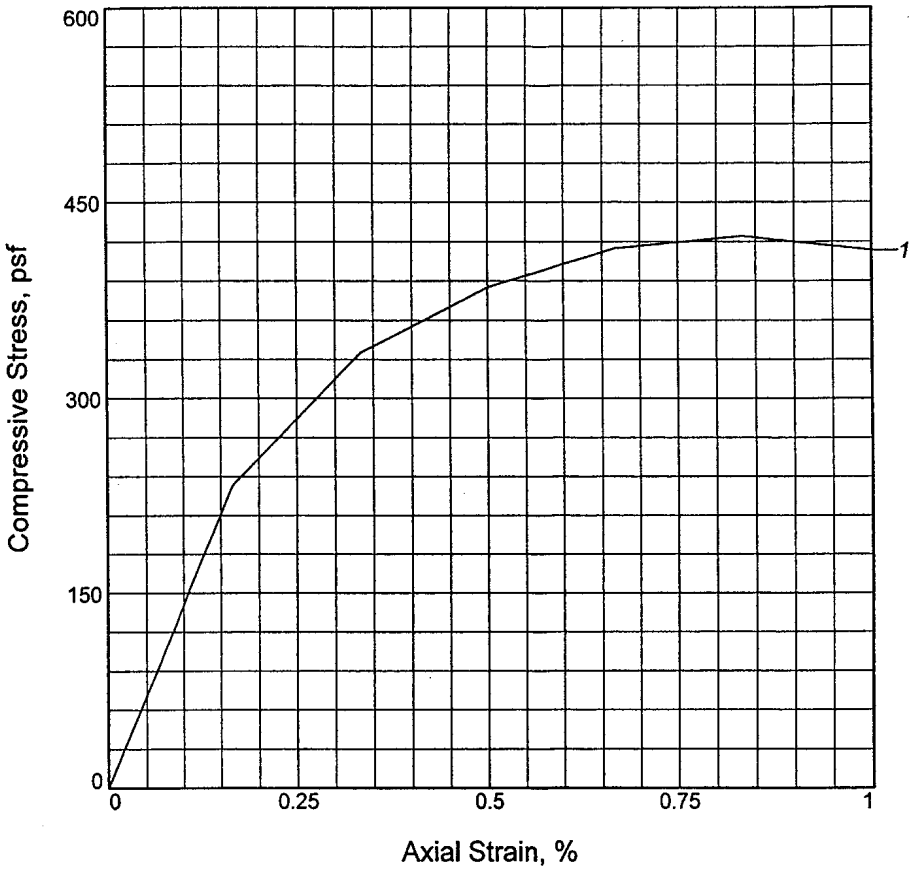
Source of Sample: BB1TP102 **Depth:** 10.5-12.0'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	424.1			
Undrained shear strength, psf	212.0			
Failure strain,	0.8			
Strain rate, in./min.	0.06			
Water content, %	13.3			
Wet density, pcf	129.1			
Dry density, pcf	113.9			
Saturation, %	74.9			
Void ratio	0.4798			
Specimen diameter, in.	2.87			
Specimen height, in.	6.00			
Height/diameter ratio	2.09			

Description: Blue Grey Silty Sand W/Gravel (SM)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255-005135

Date: 4-24-05

Remarks:

Plate _____

Client: Mactec E & C

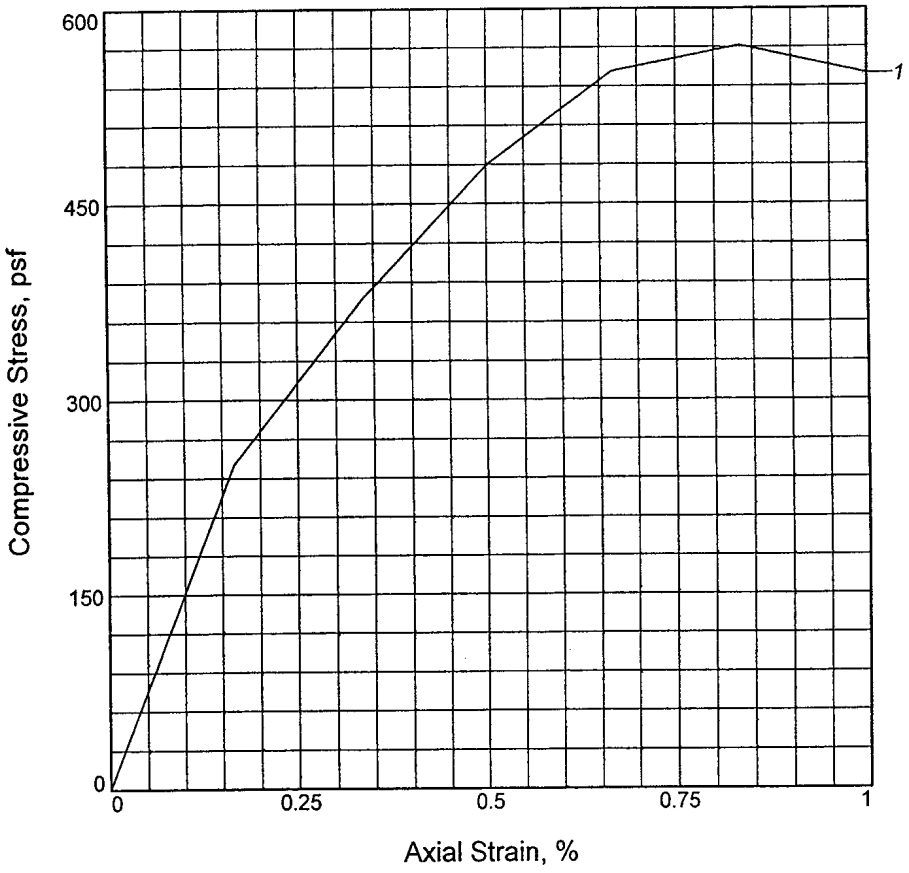
Project: Presidio San Francisco- Baker Beach

Source of Sample: BB2ATP102 **Depth:** 8.0-10.0'

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc

UNCONFINED COMPRESSION TEST



Sample No.	1			
Unconfined strength, psf	571.1			
Undrained shear strength, psf	285.6			
Failure strain,	0.8			
Strain rate, in./min.	0.06			
Water content, %	16.4			
Wet density, pcf	124.5			
Dry density, pcf	107.0			
Saturation, %	76.8			
Void ratio	0.5753			
Specimen diameter, in.	2.83			
Specimen height, in.	6.00			
Height/diameter ratio	2.12			

Description: Dark Brown Clayey Sand (SC)

LL =	PL =	PI =	**Assumed GS=** 2.70	**Type:** Undisturbed

Project No.: 57255-005135

Date: 4-21-05

Remarks:

Client: Mactec E & C

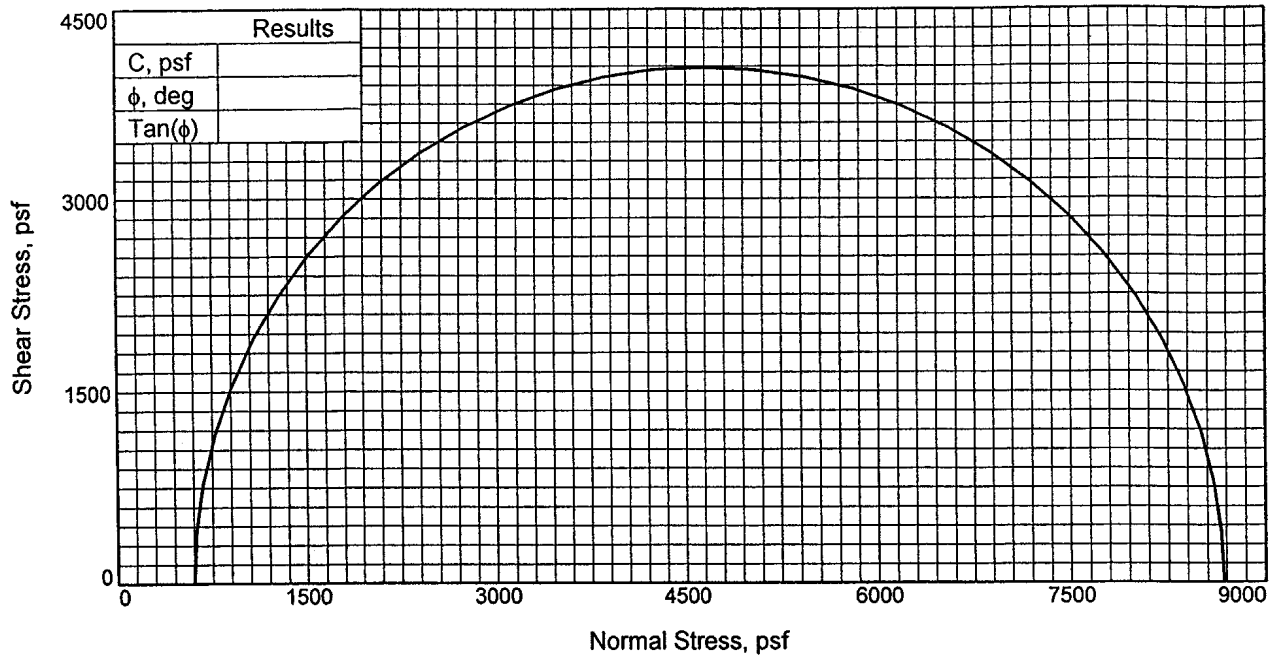
Project: Presidio San Francisco- Baker Beach

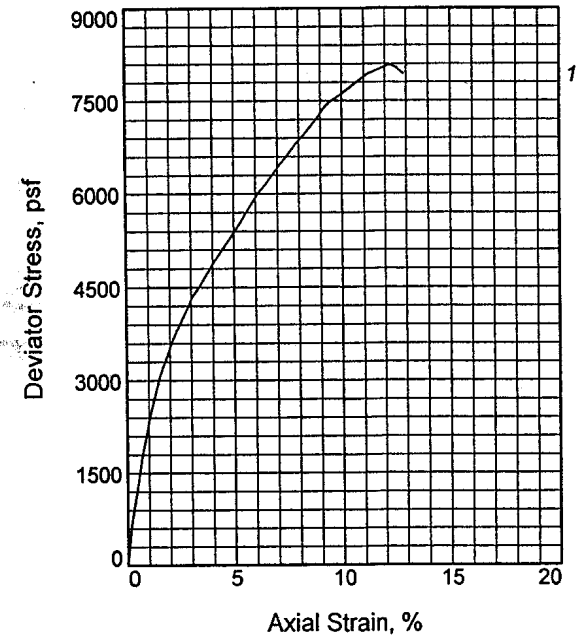
Source of Sample: BB2ATP103 **Depth:** 1.0-3.5'

Plate _____

R G H CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	19.8
	Dry Density, pcf	105.6
	Saturation,	89.4
	Void Ratio	0.5968
	Diameter, in.	2.43
	Height, in.	5.90
At Test	Water Content,	19.8
	Dry Density, pcf	105.6
	Saturation,	89.4
	Void Ratio	0.5968
	Diameter, in.	2.43
	Height, in.	5.90
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		600.5
Fail. Stress, psf		8077.6
Strain, %		12.2
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		8678.1
σ_3 Failure, psf		600.5

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: Brown Lean Clay W/Sand (CL)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

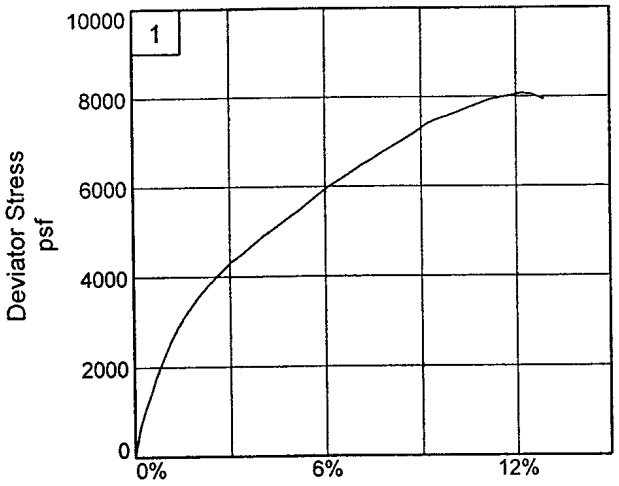
Project: Presidio SF BBDA

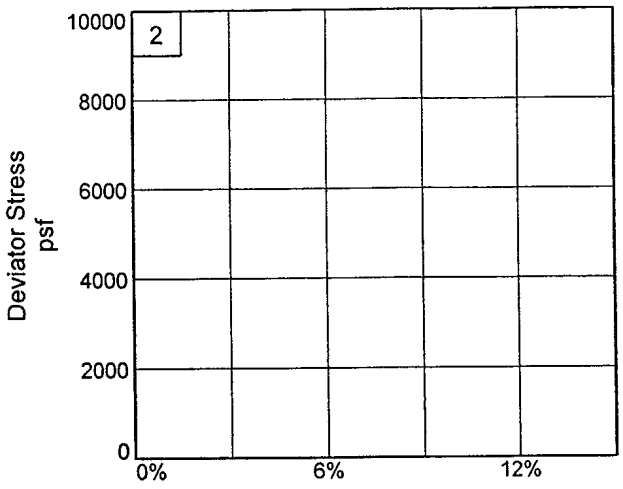
Source of Sample: BB2ASB100 **Depth:** 9.5'

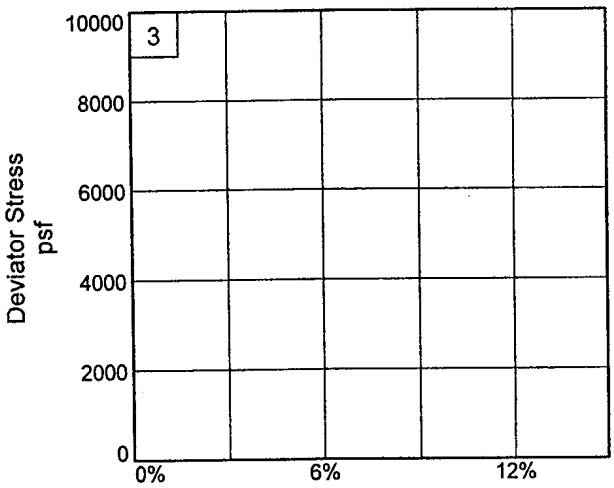
Proj. No.: 57255005132 **Date:** 5-19-05

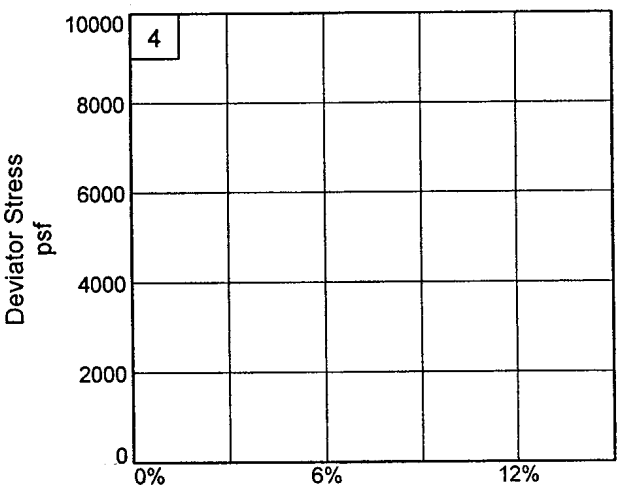
R G H CONSULTANTS, INC.

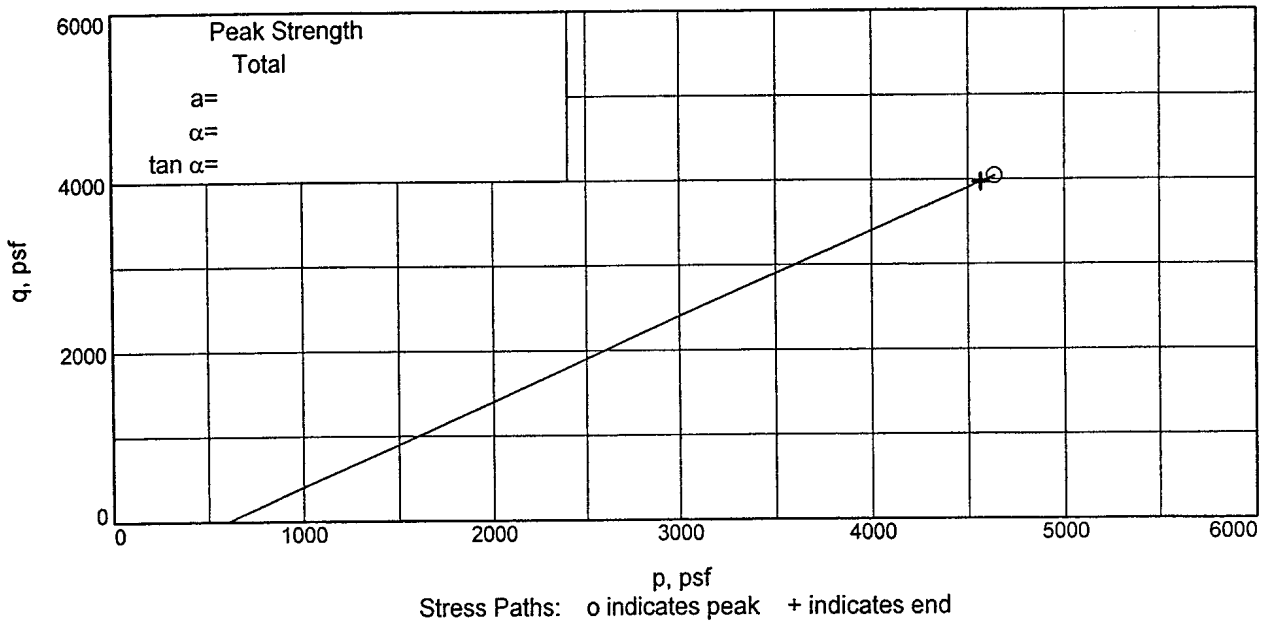
Tested By: GEF **Checked By:** TMc









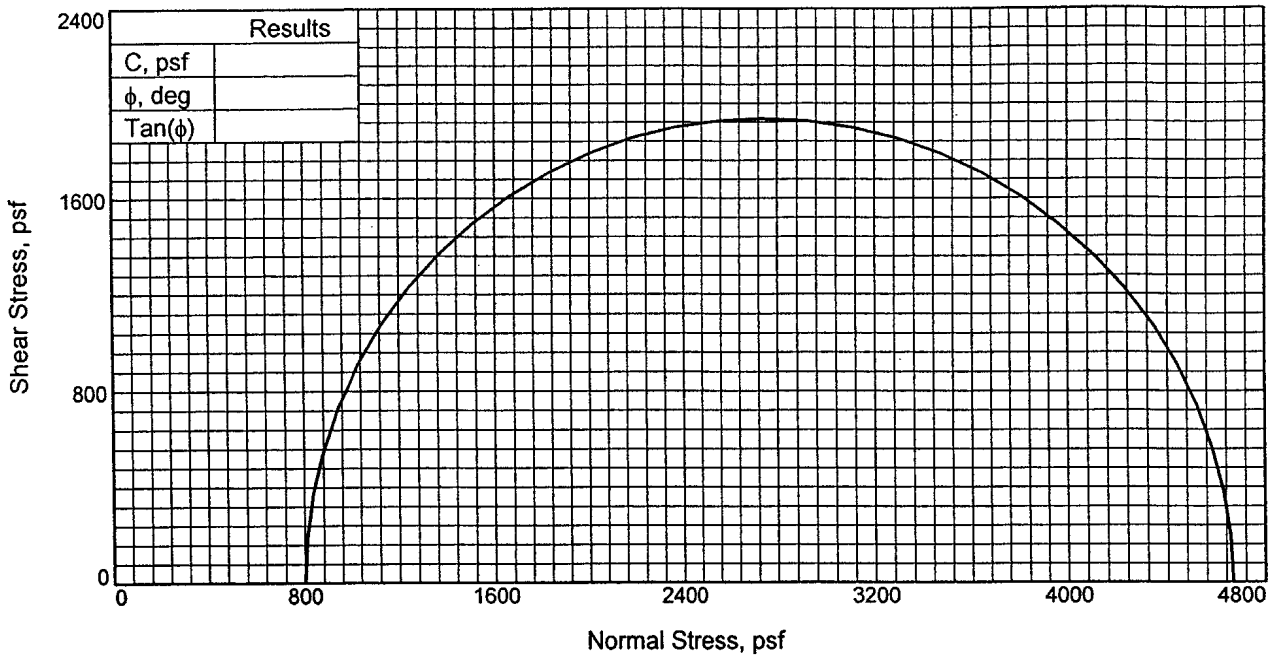


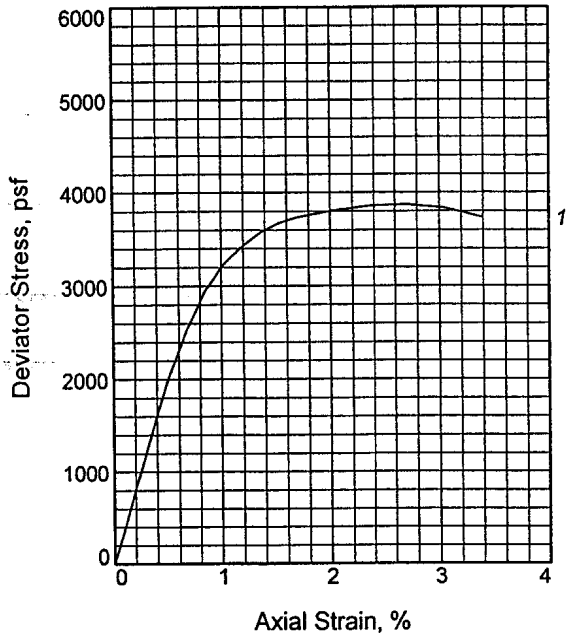
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2ASB100 **Depth:** 9.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	20.9
	Dry Density, pcf	102.6
	Saturation,	87.8
	Void Ratio	0.6428
	Diameter, in.	2.43
	Height, in.	5.90
At Test	Water Content,	20.9
	Dry Density, pcf	102.6
	Saturation,	87.8
	Void Ratio	0.6428
	Diameter, in.	2.43
	Height, in.	5.90
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		800.6
Fail. Stress, psf		3867.1
Strain, %		2.7
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		4667.8
σ_3 Failure, psf		800.6

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Light Brown Lean Clay W/Sand (CL)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

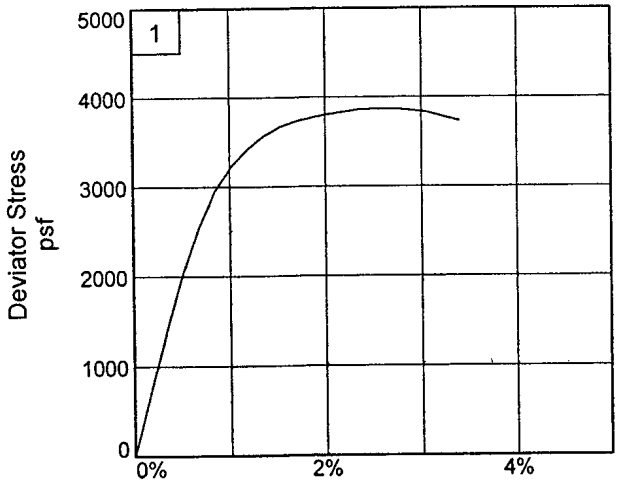
Project: Presidio SF BBDA

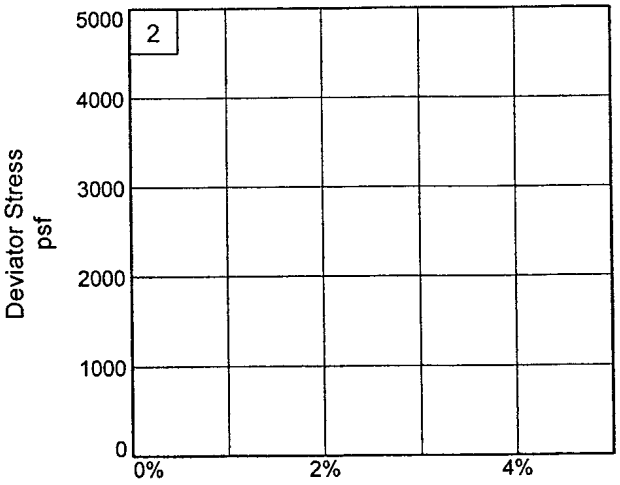
Source of Sample: BB2ASB100 **Depth:** 13.0'

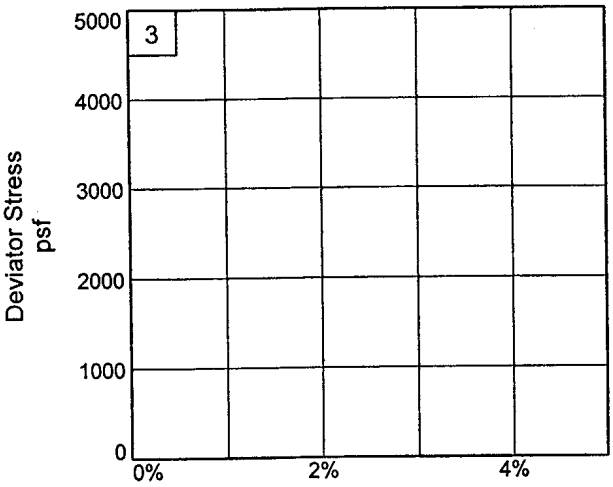
Proj. No.: 57255005132 **Date:** 5-19-05

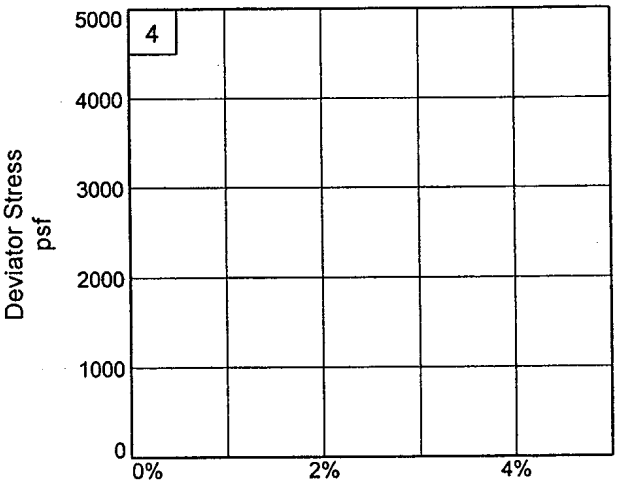
R G H CONSULTANTS, INC.

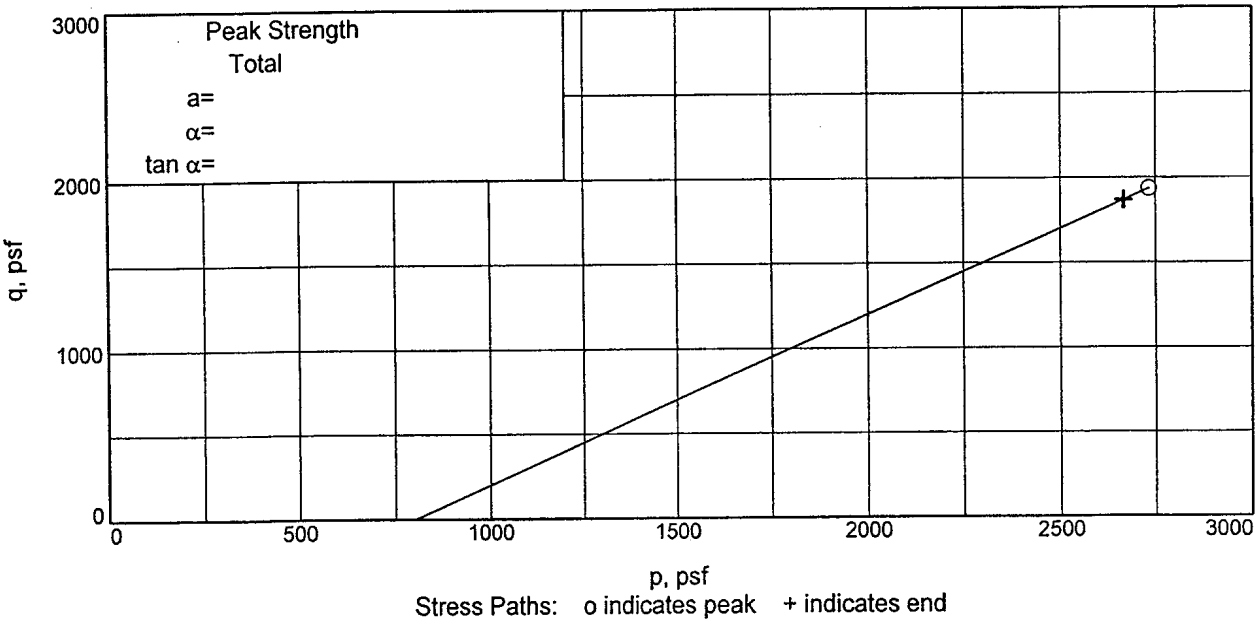
Tested By: GEF **Checked By:** TMc









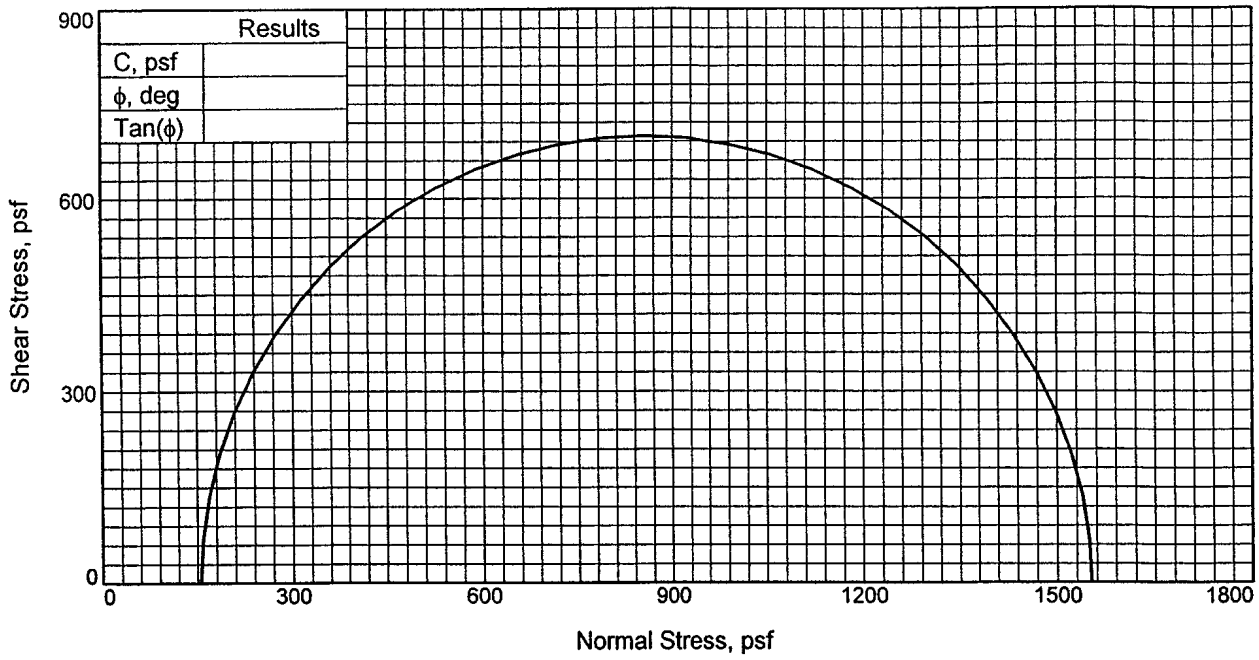


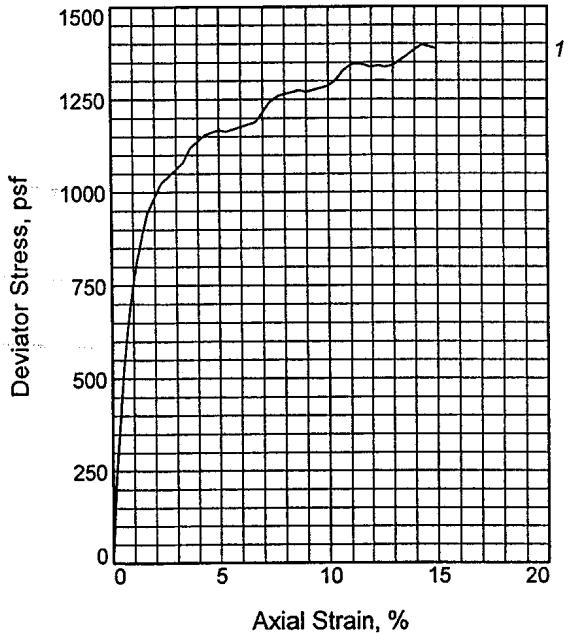
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2ASB100 **Depth:** 13.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	18.7
	Dry Density, pcf	103.0
	Saturation,	79.1
	Void Ratio	0.6367
	Diameter, in.	2.43
	Height, in.	6.00
At Test	Water Content,	18.7
	Dry Density, pcf	103.0
	Saturation,	79.1
	Void Ratio	0.6367
	Diameter, in.	2.43
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		155.5
Fail. Stress, psf		1396.5
Strain, %		14.3
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1552.0
σ_3 Failure, psf		155.5

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: Red Brown Clay W/Sand (CL)

Assumed Specific Gravity= 2.70
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

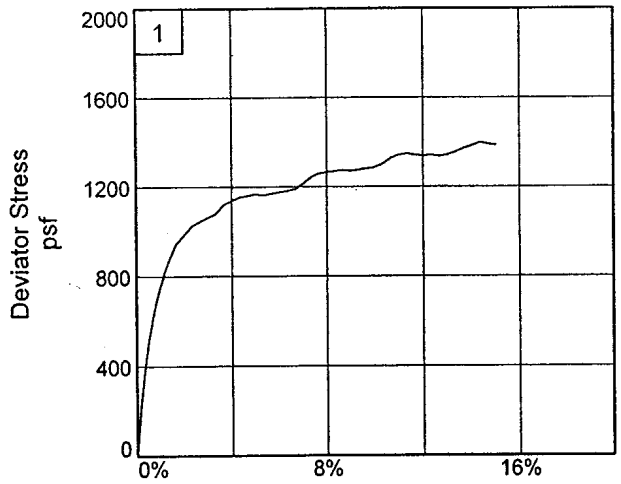
Source of Sample: BB2ASB101 **Depth:** 2.0'

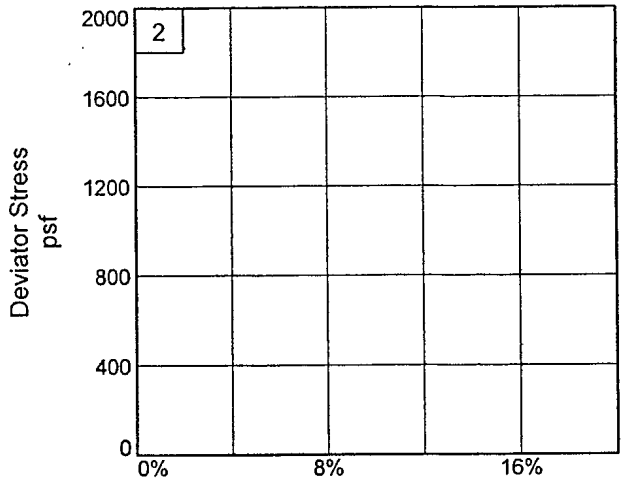
Proj. No.: 57255005132 **Date:** 5-19-05

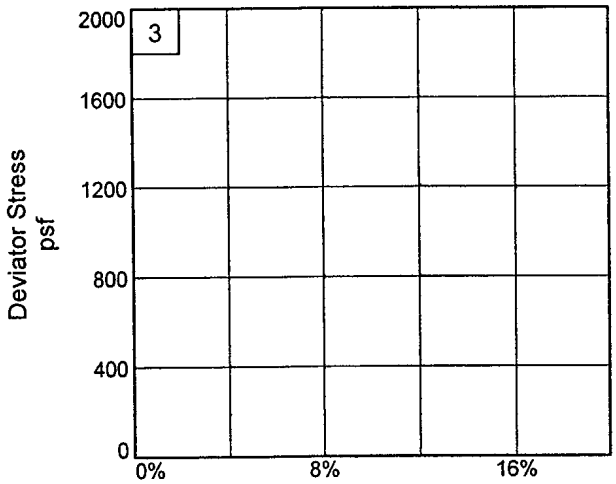
R G H CONSULTANTS, INC.

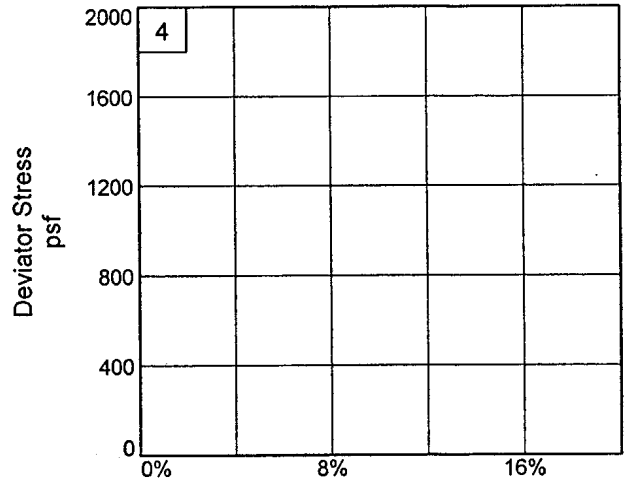
Plate _____

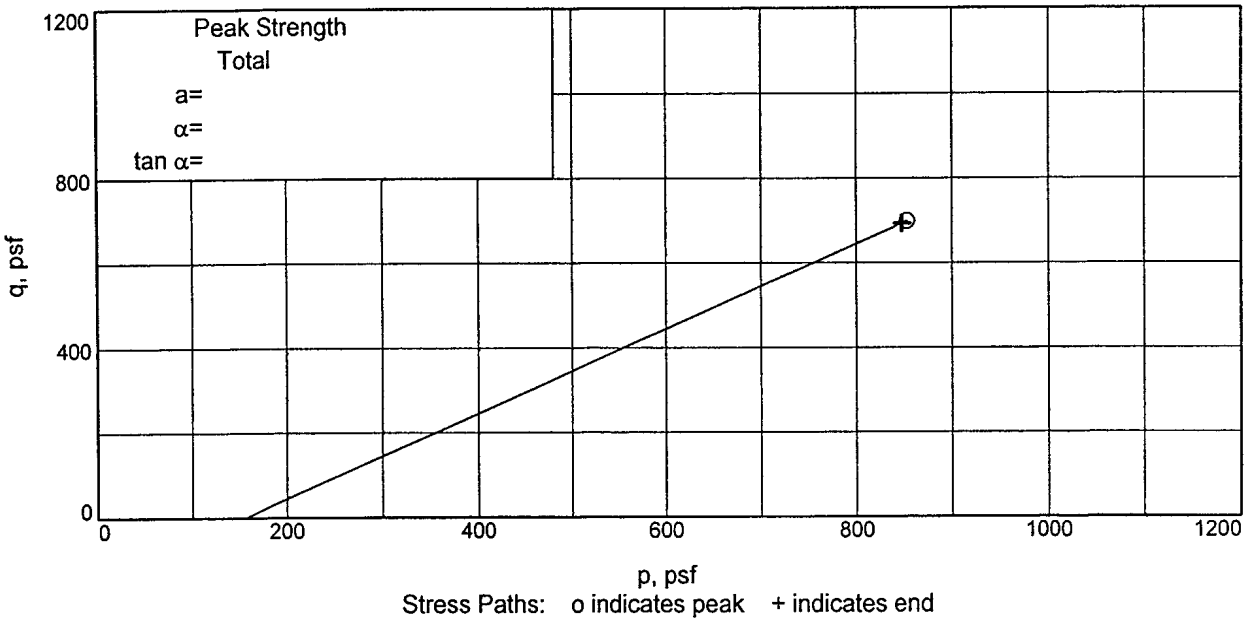
Tested By: GEF **Checked By:** TMc









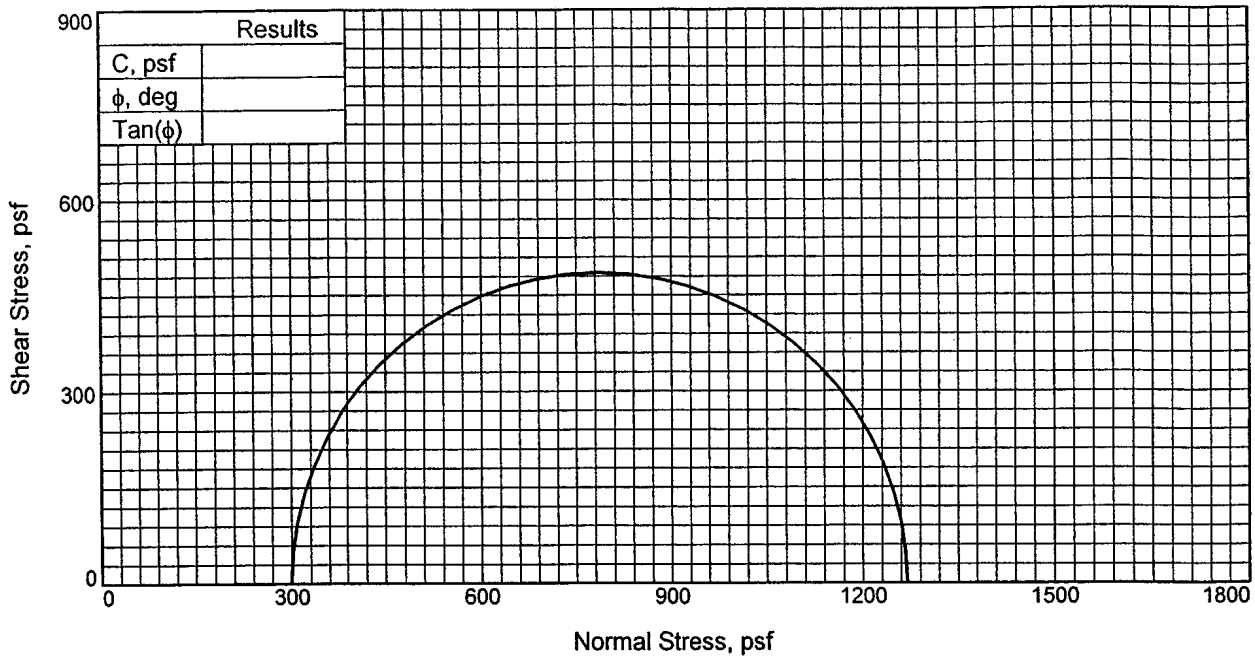


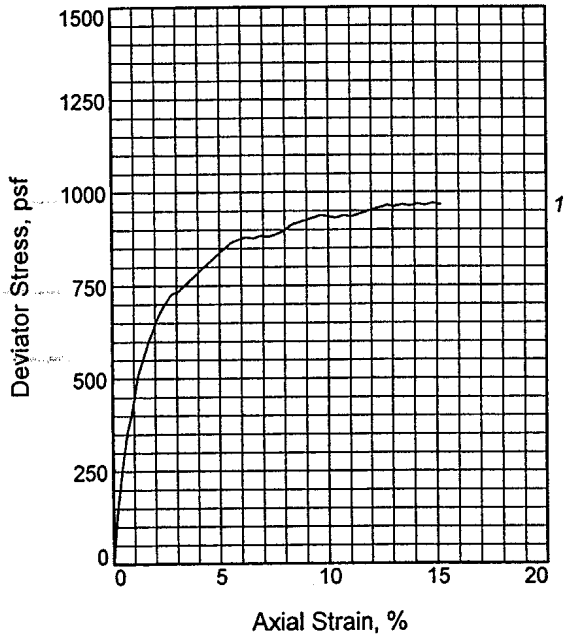
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2ASB101 **Depth:** 2.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	21.2
	Dry Density, pcf	102.4
	Saturation,	88.6
	Void Ratio	0.6453
	Diameter, in.	2.43
	Height, in.	5.80
At Test	Water Content,	21.2
	Dry Density, pcf	102.4
	Saturation,	88.6
	Void Ratio	0.6453
	Diameter, in.	2.43
	Height, in.	5.80
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		299.5
Fail. Stress, psf		970.0
Strain, %		14.8
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1269.5
σ_3 Failure, psf		299.5

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Lean Clay W/Sand (CL)

Assumed Specific Gravity= 2.70

Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

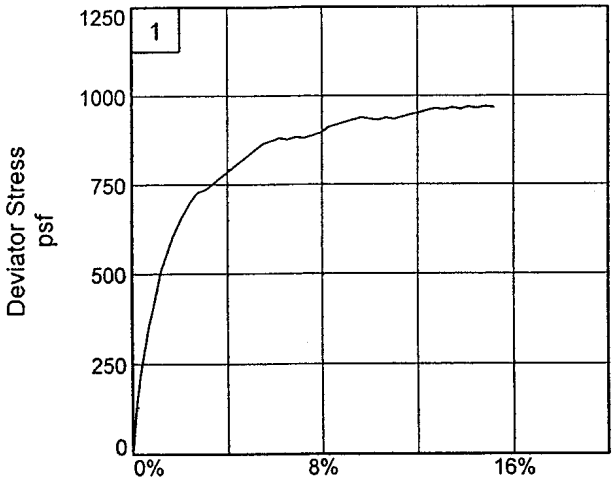
Source of Sample: BB2ASB101 **Depth:** 4.5'

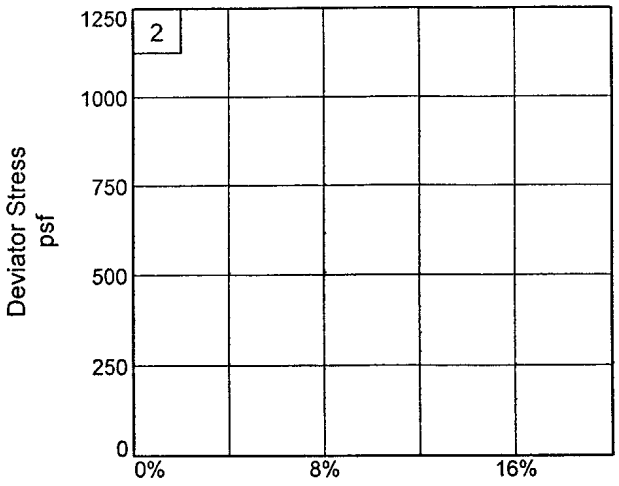
Proj. No.: 57255005132 **Date:** 5-19-05

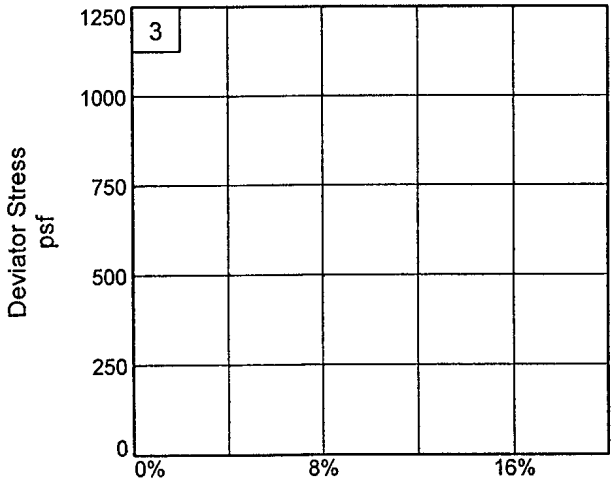
R G H CONSULTANTS, INC.

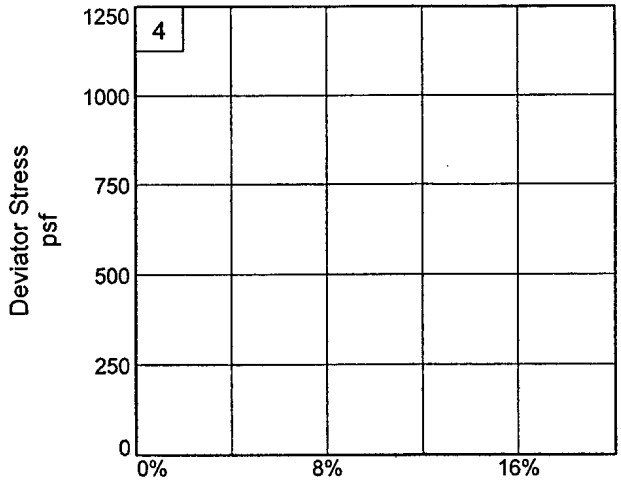
Plate _____

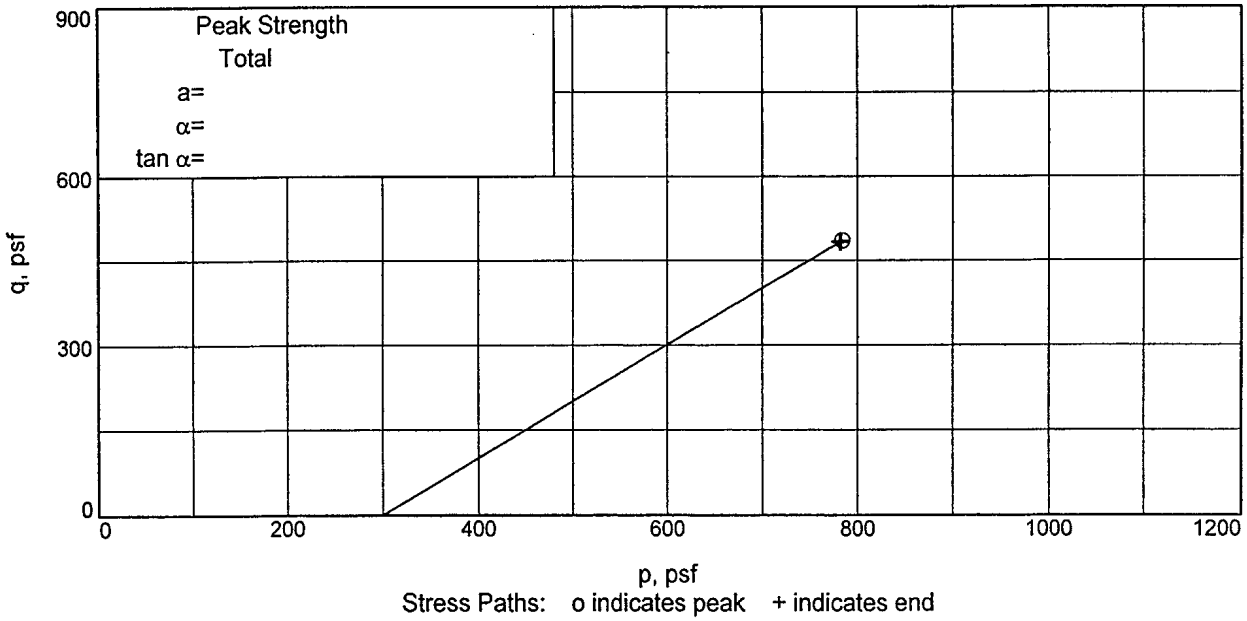
Tested By: GEF **Checked By:** TMc









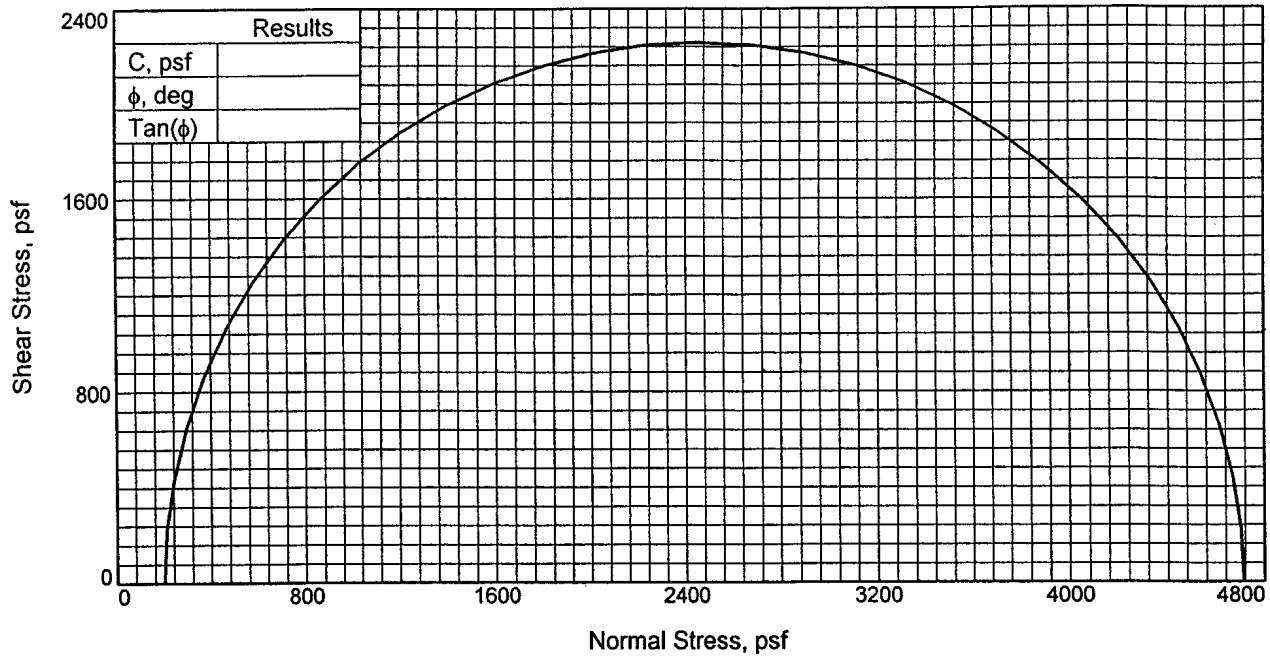


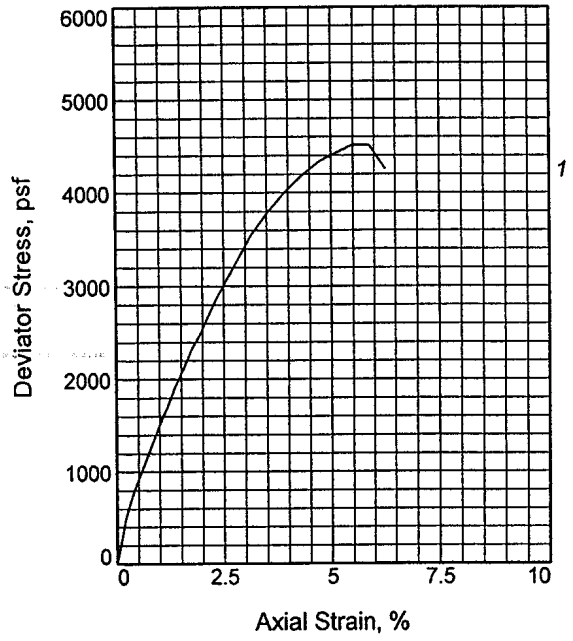
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2ASB101 **Depth:** 4.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	16.5
	Dry Density, pcf	112.9
	Saturation,	90.7
	Void Ratio	0.4924
	Diameter, in.	2.40
	Height, in.	5.10
At Test	Water Content,	16.5
	Dry Density, pcf	112.9
	Saturation,	90.7
	Void Ratio	0.4924
	Diameter, in.	2.40
	Height, in.	5.10
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		200.2
Fail. Stress, psf		4513.3
Strain, %		5.5
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		4713.5
σ_3 Failure, psf		200.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

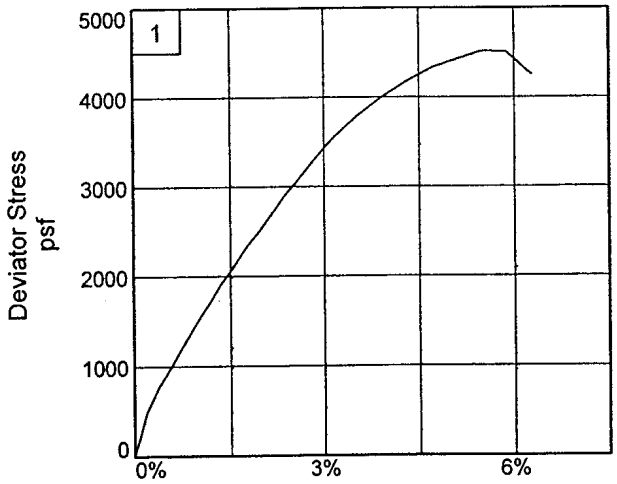
Project: Presidio SF BBDA

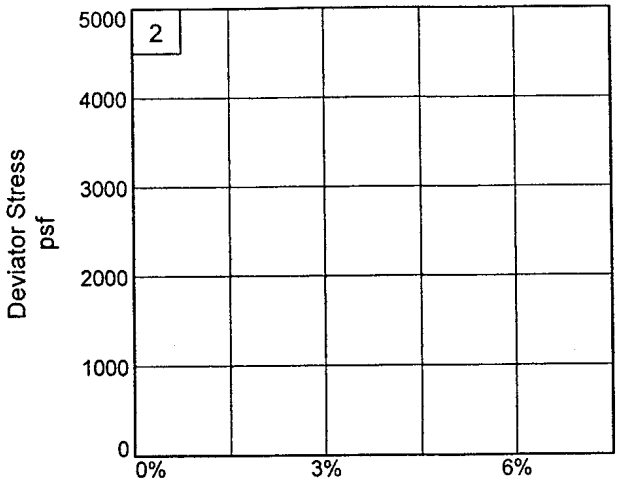
Source of Sample: BB2SB100 **Depth:** 2.5'

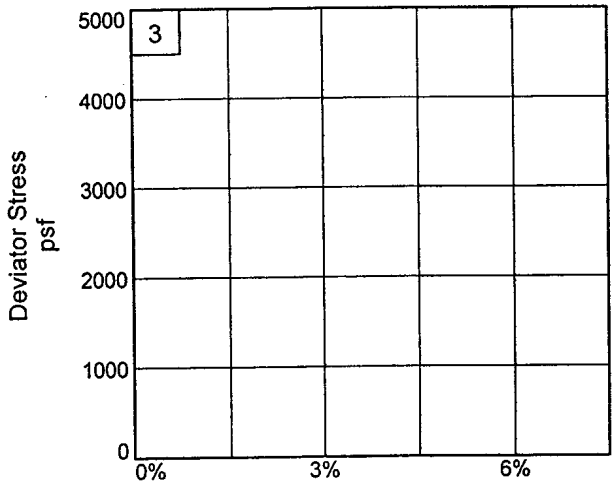
Proj. No.: 57255005132 **Date:** 5-23-05

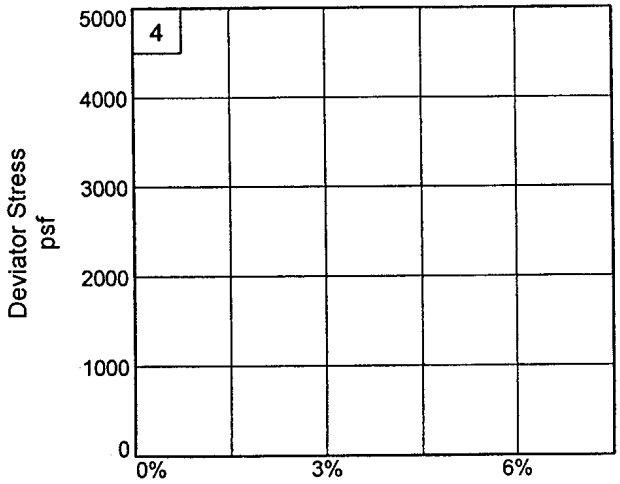
R G H CONSULTANTS, INC.

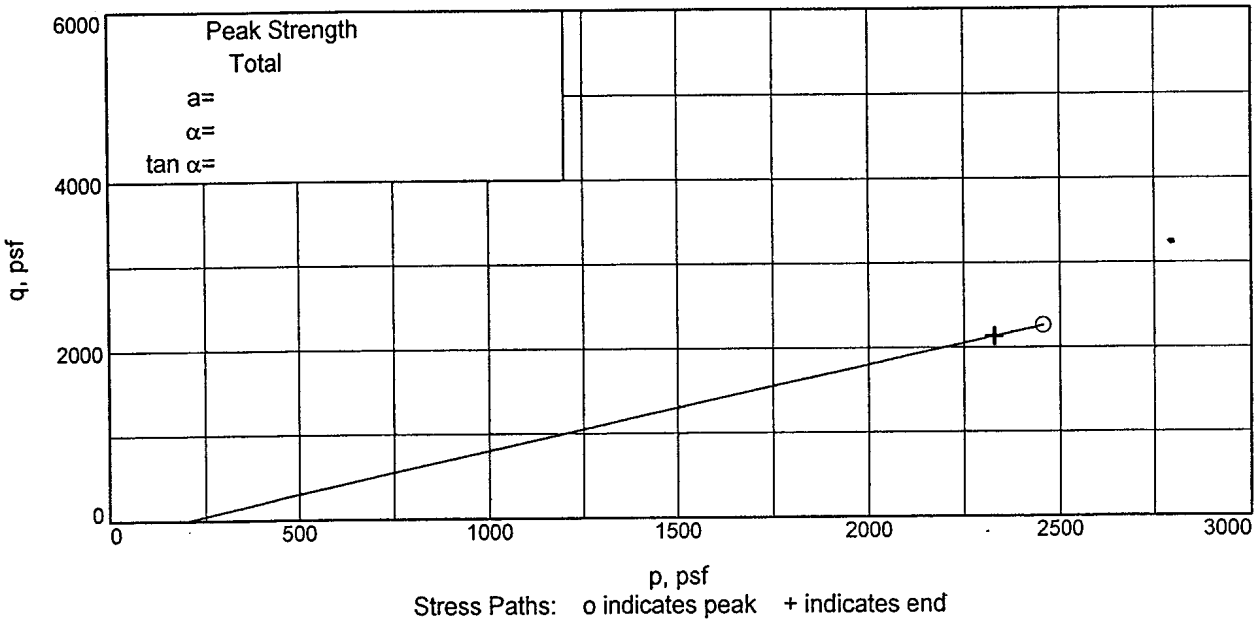
Tested By: MW **Checked By:** TMc









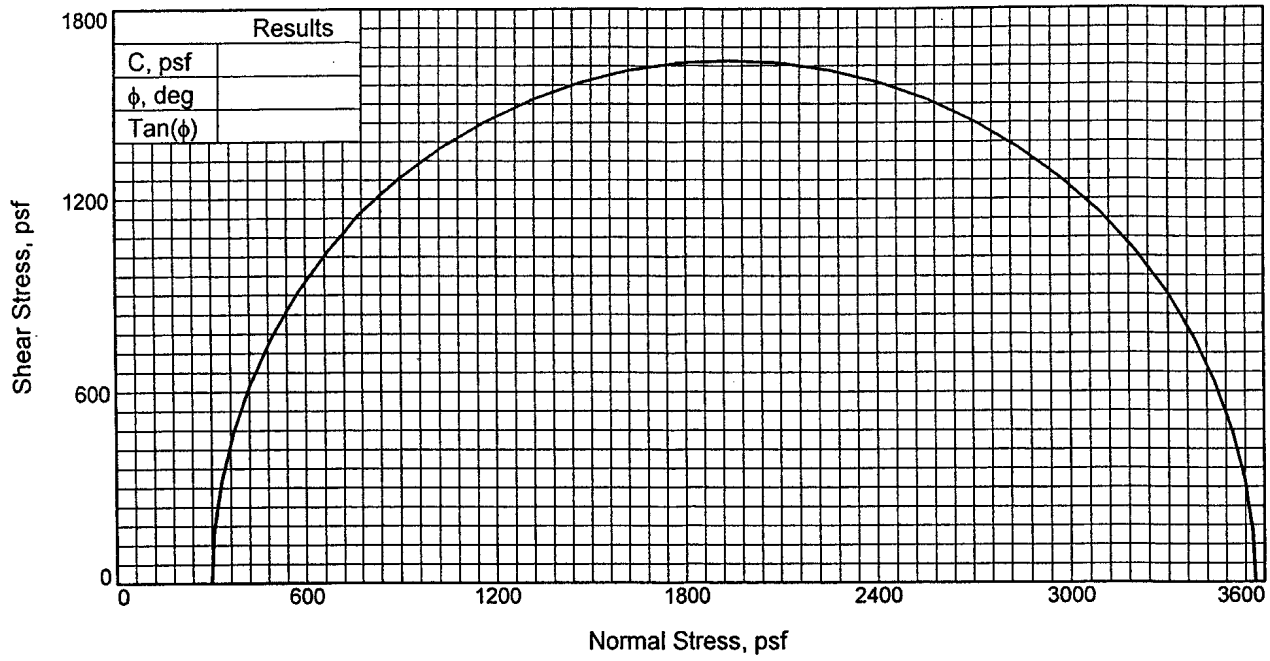


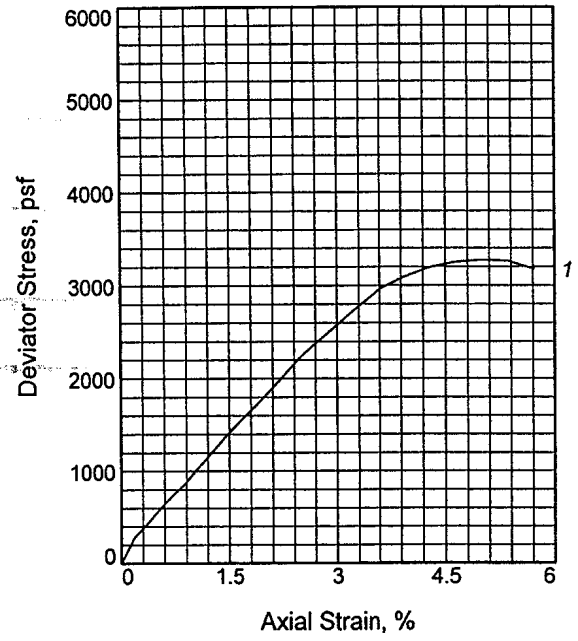
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB100 **Depth:** 2.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	15.2
	Dry Density, pcf	117.4
	Saturation,	94.3
	Void Ratio	0.4352
	Diameter, in.	2.43
	Height, in.	5.60
At Test	Water Content,	15.2
	Dry Density, pcf	117.4
	Saturation,	94.3
	Void Ratio	0.4352
	Diameter, in.	2.43
	Height, in.	5.60
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		299.5
Fail. Stress, psf		3271.8
Strain, %		5.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		3571.4
σ_3 Failure, psf		299.5

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

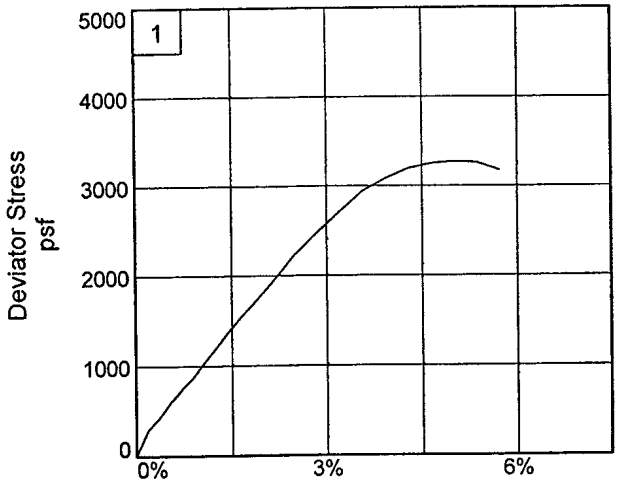
Project: Presidio SF BBDA

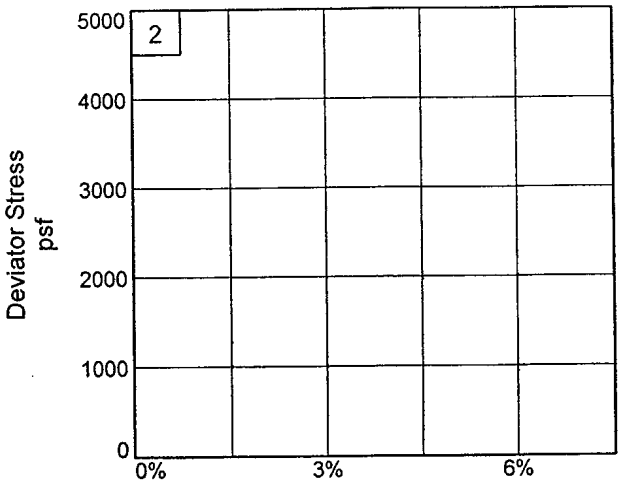
Source of Sample: BB2SB100 **Depth:** 5.0'

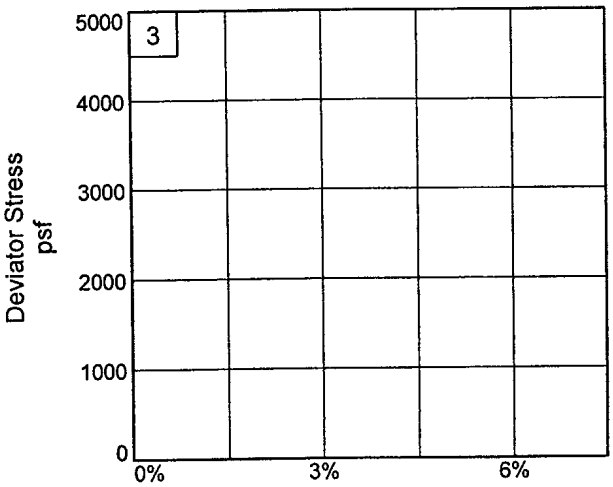
Proj. No.: 57255005132 **Date:** 5-23-05

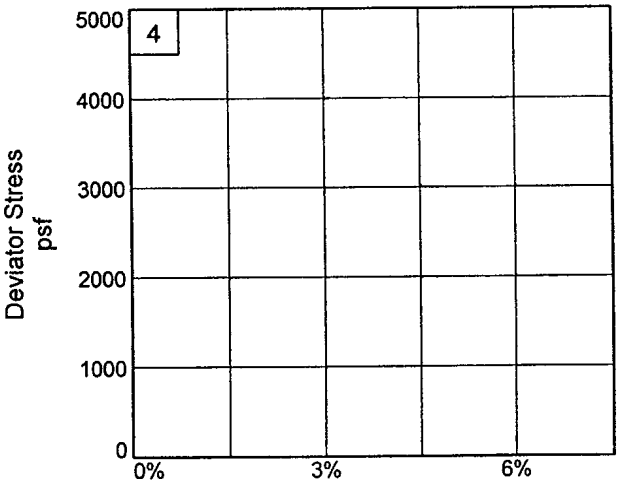
R G H CONSULTANTS, INC.

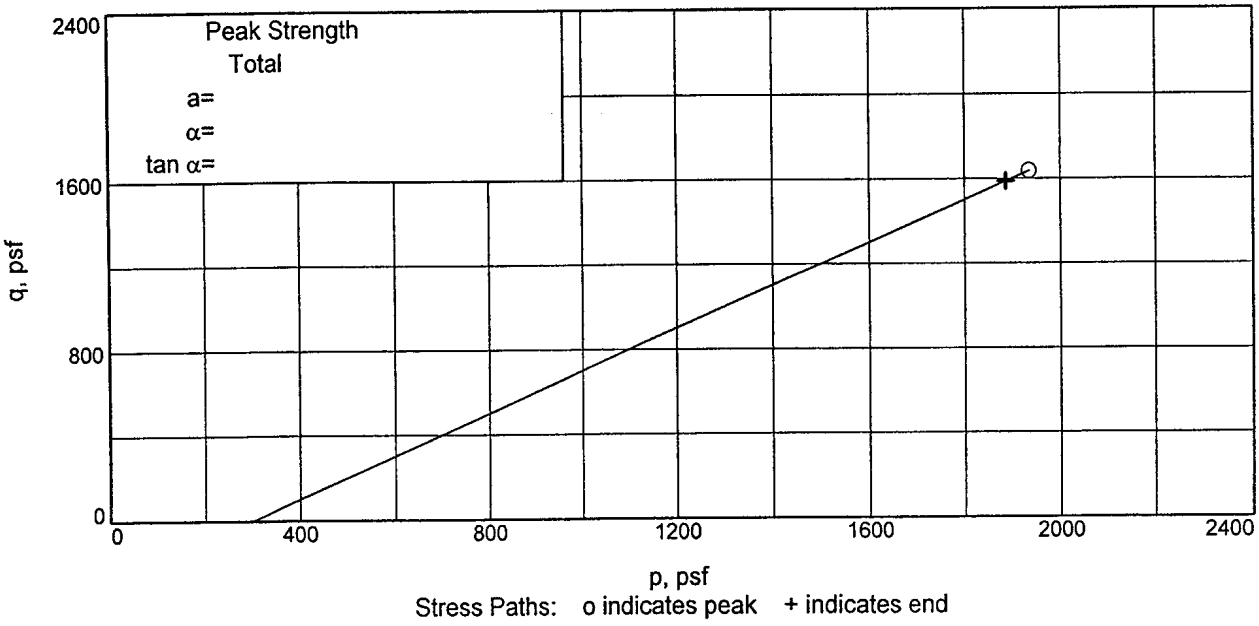
Tested By: MW **Checked By:** TMc









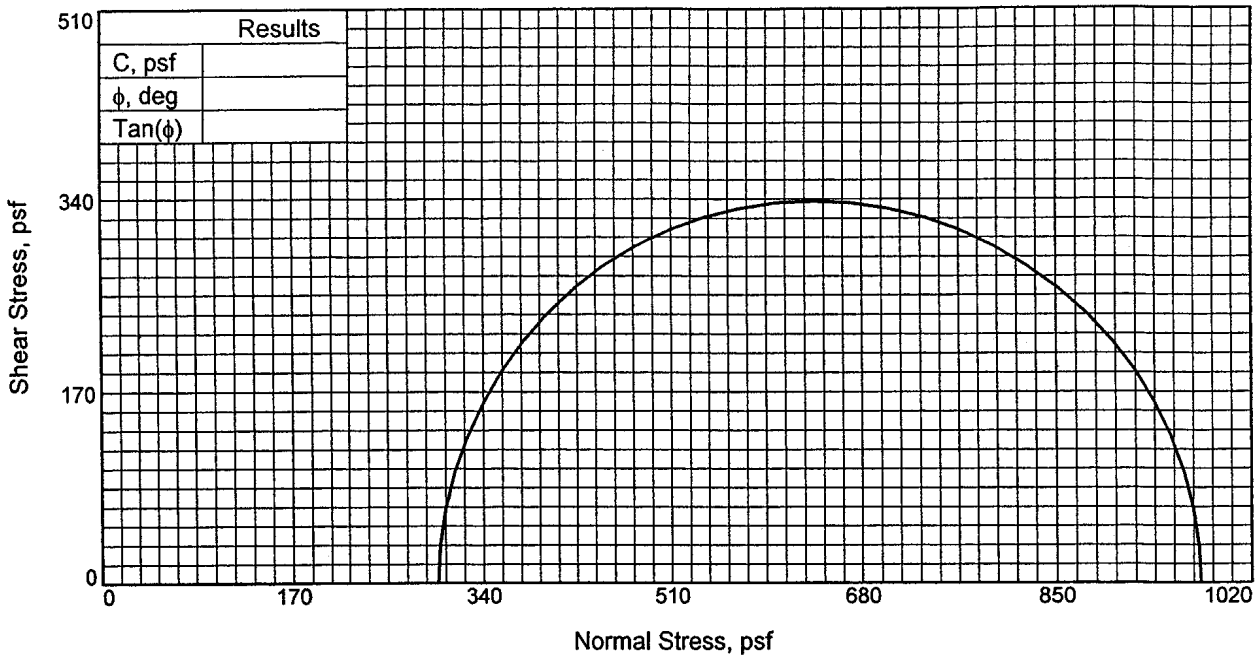


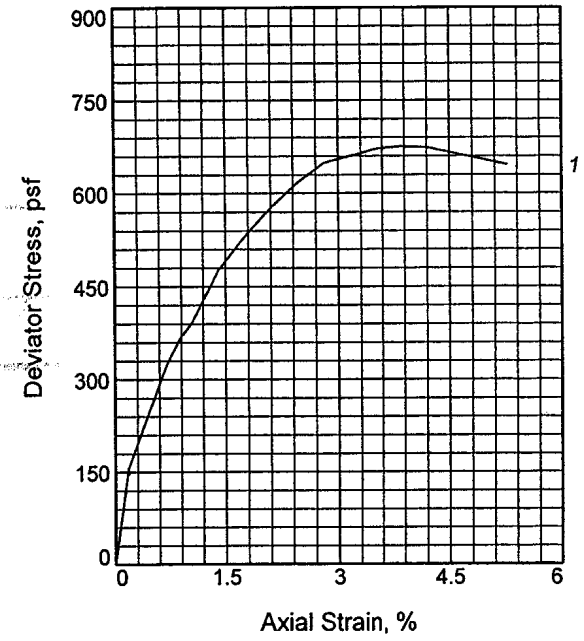
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB100 **Depth:** 5.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	14.7
	Dry Density, pcf	114.5
	Saturation,	84.4
	Void Ratio	0.4715
	Diameter, in.	2.43
	Height, in.	5.70
At Test	Water Content,	14.7
	Dry Density, pcf	114.5
	Saturation,	84.4
	Void Ratio	0.4715
	Diameter, in.	2.43
	Height, in.	5.70
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		299.5
Fail. Stress, psf		675.9
Strain, %		3.9
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		975.4
σ_3 Failure, psf		299.5

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

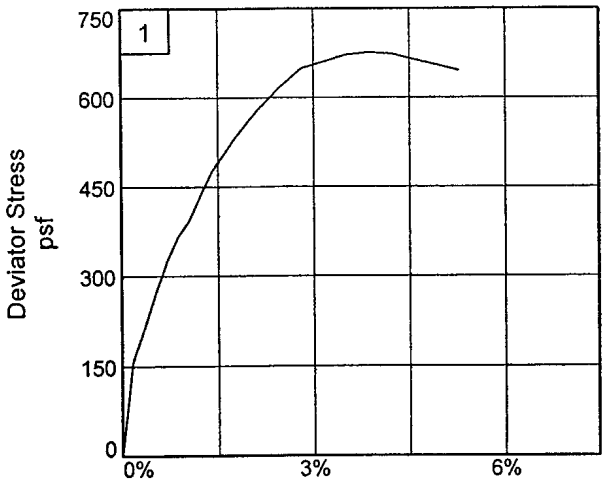
Project: Presidio SF BBDA

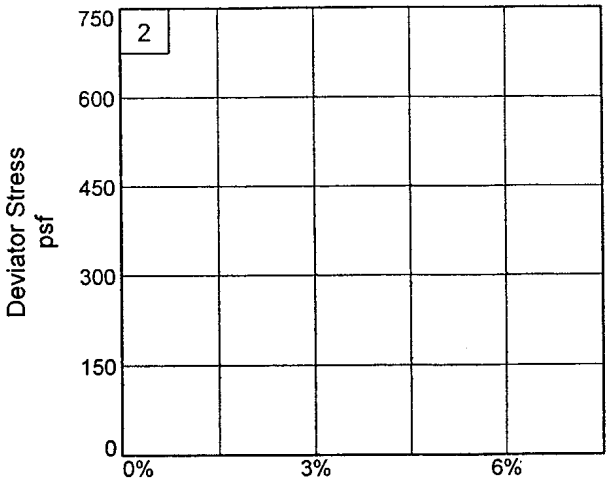
Source of Sample: BB2SB101 **Depth:** 4.0-4.5'

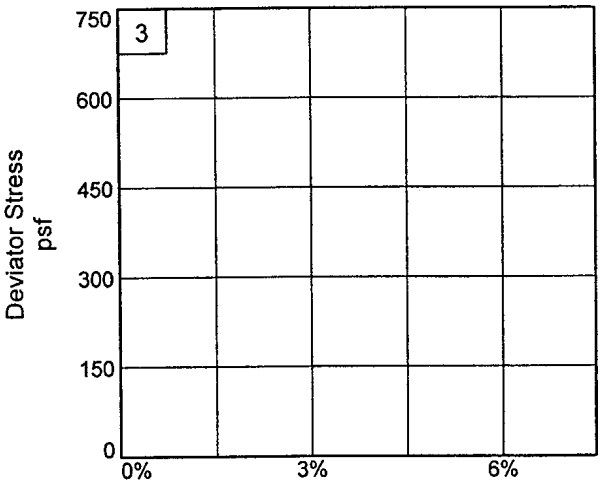
Proj. No.: 57255005132 **Date:** 5-21-05

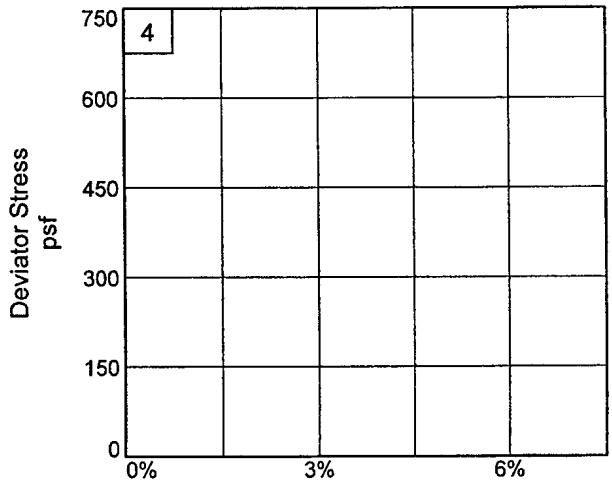
R G H CONSULTANTS, INC.

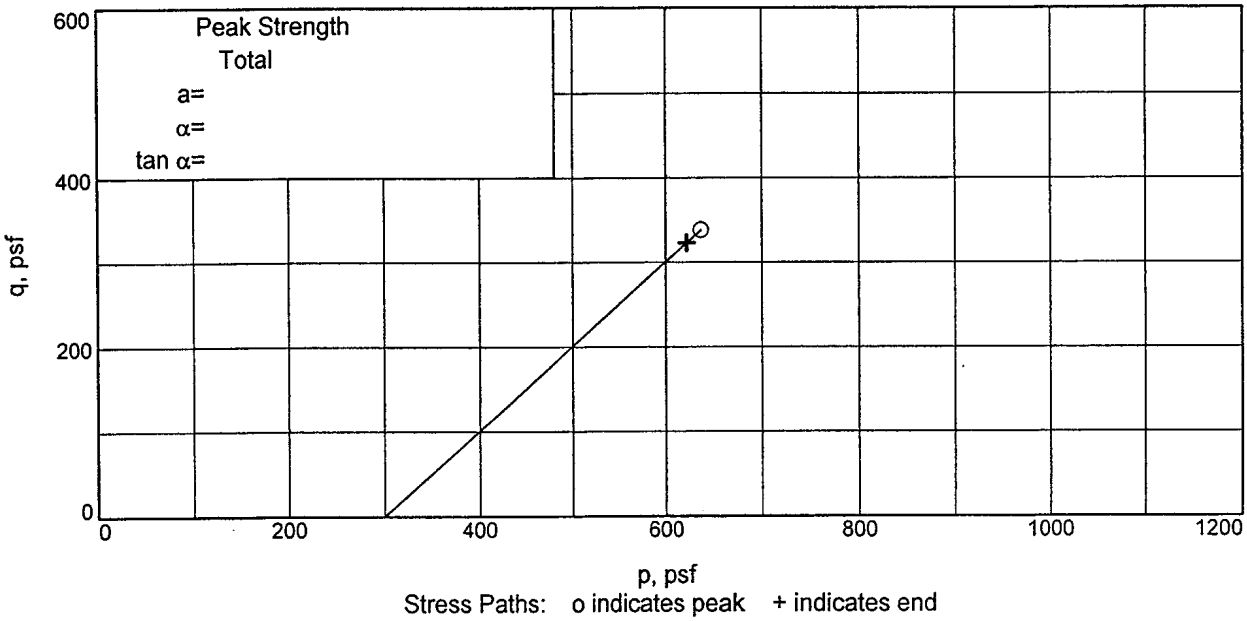
Tested By: GEF **Checked By:** TMc









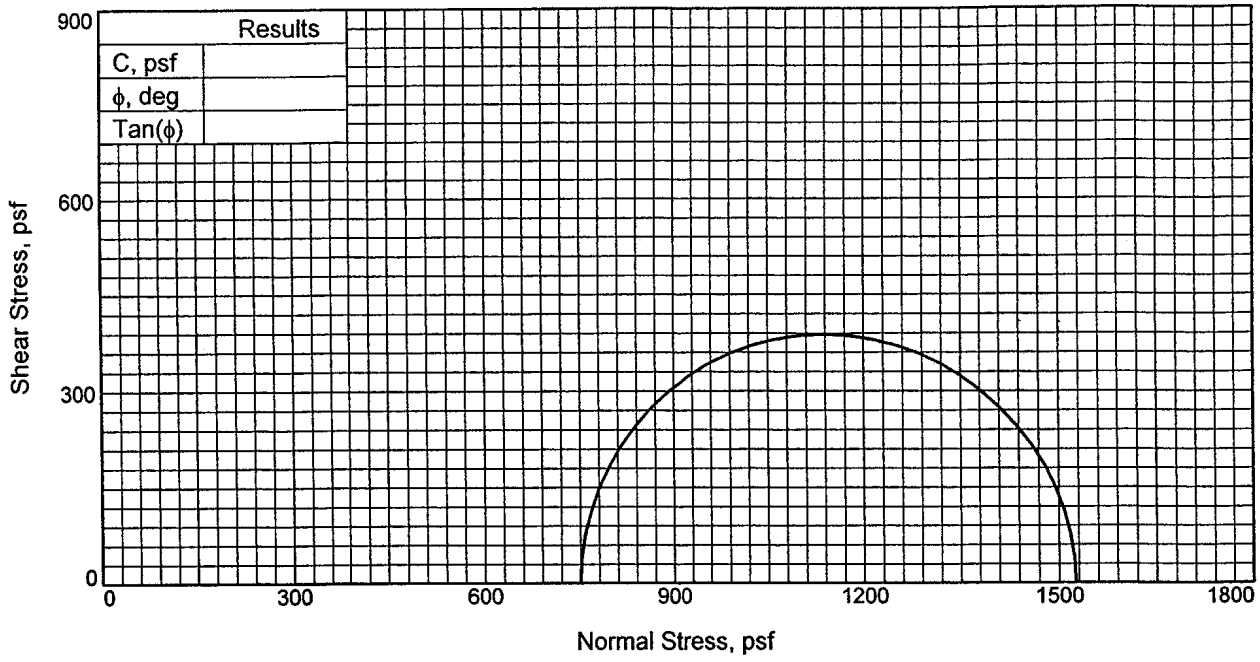


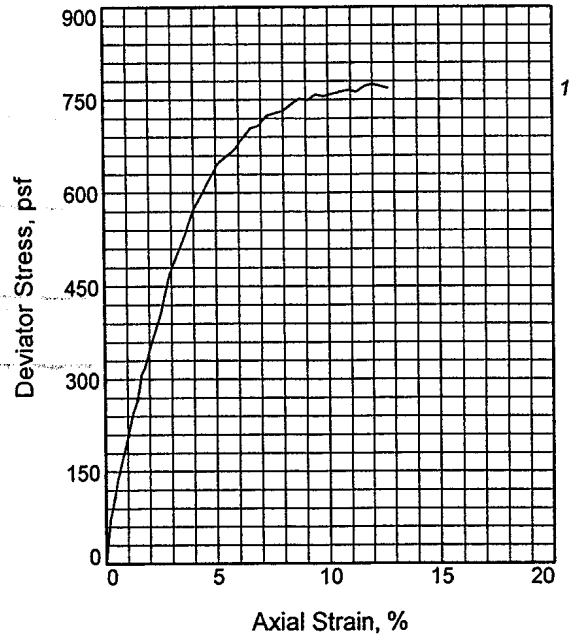
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB101 **Depth:** 4.0-4.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	41.4
	Dry Density, pcf	71.5
	Saturation,	82.3
	Void Ratio	1.3572
	Diameter, in.	2.43
	Height, in.	5.50
At Test	Water Content,	41.4
	Dry Density, pcf	71.5
	Saturation,	82.3
	Void Ratio	1.3572
	Diameter, in.	2.43
	Height, in.	5.50
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		750.2
Fail. Stress, psf		774.9
Strain, %		12.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1525.1
σ_3 Failure, psf		750.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Black Organic Clay (OL)

Assumed Specific Gravity= 2.70

Remarks: Sample had many pieces of glass.

Client: Mactec E&C

Project: Presidio SF BBDA

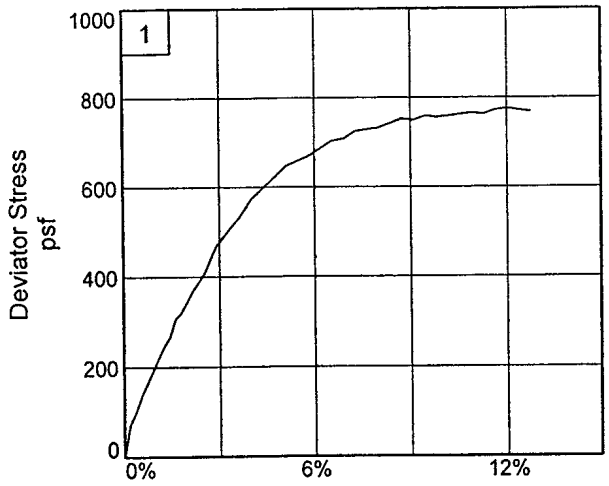
Source of Sample: BB2SB101 **Depth:** 11.5-12.0'

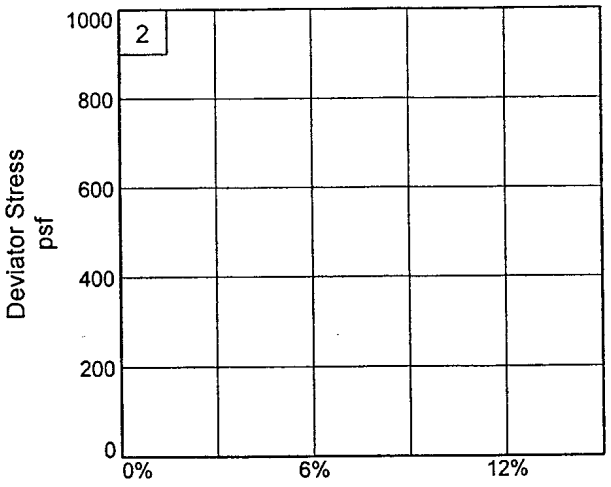
Proj. No.: 57255005132 **Date:** 5-23-05

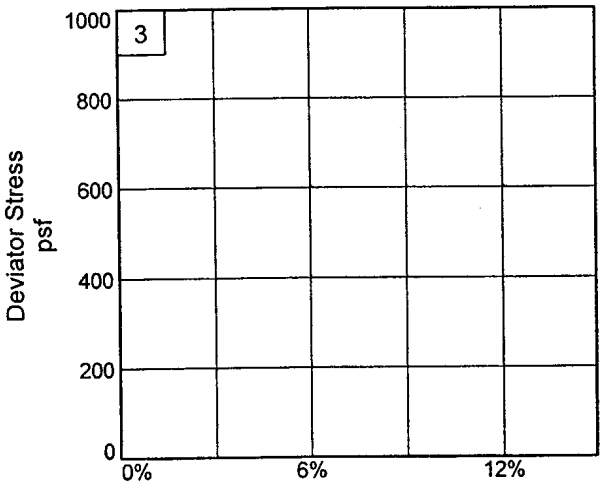
RGH CONSULTANTS, INC.

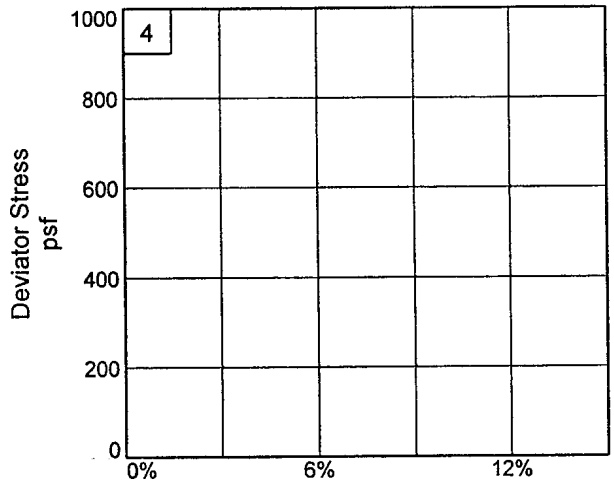
Plate _____

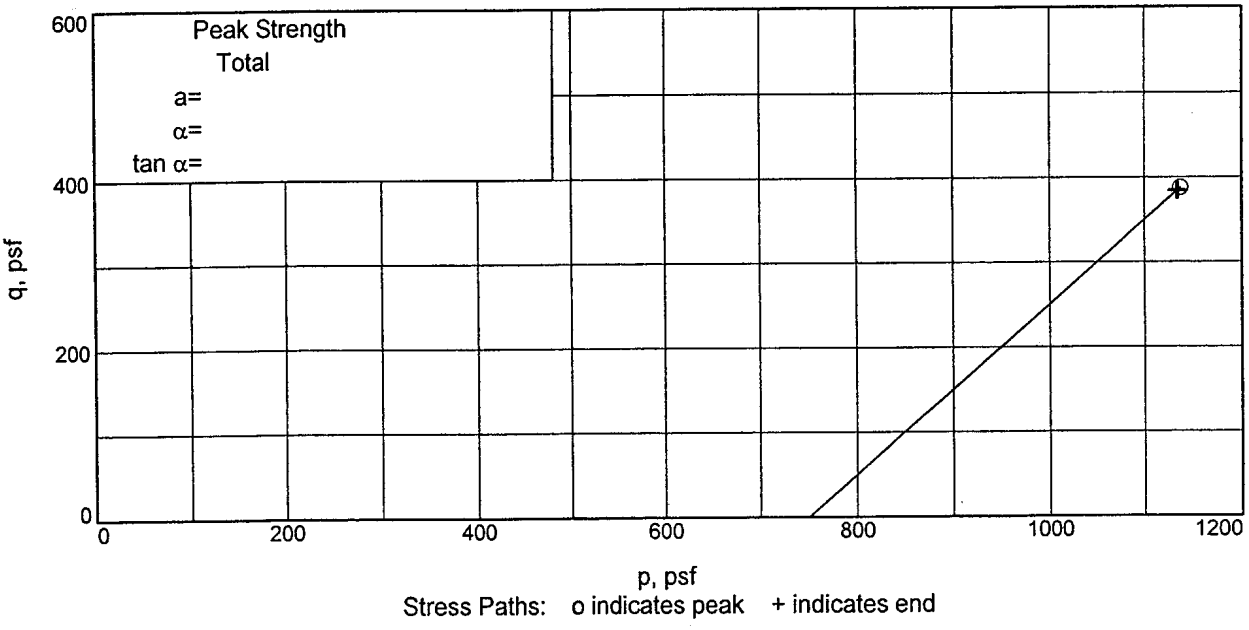
Tested By: MW **Checked By:** TMc









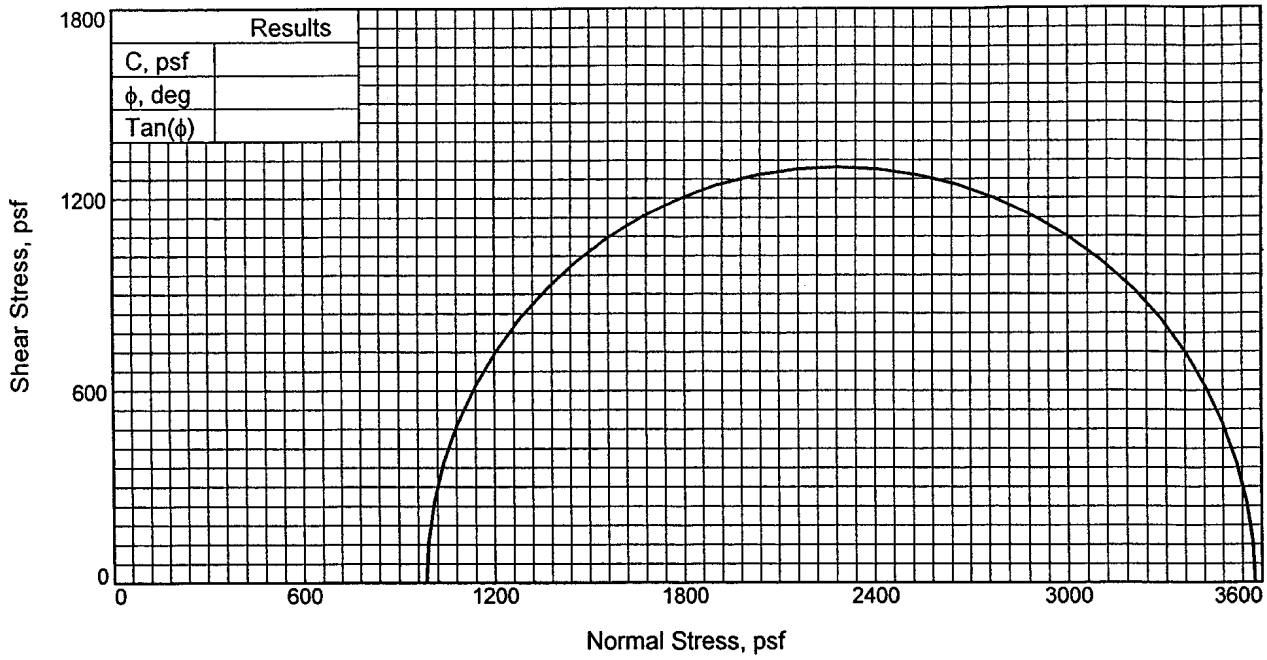


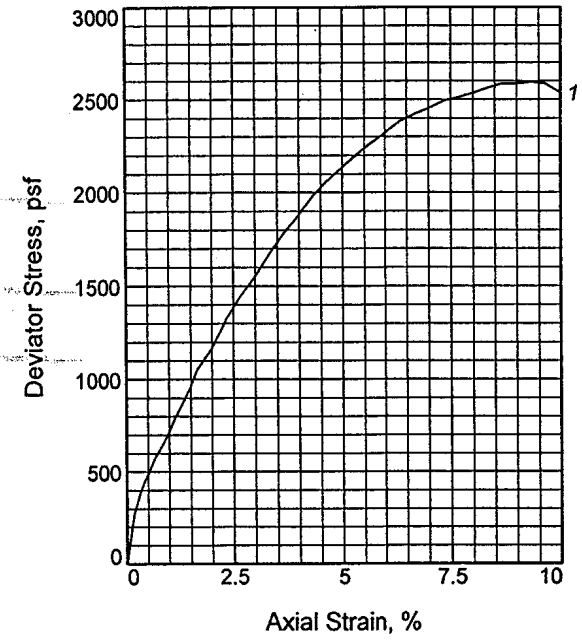
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB101 **Depth:** 11.5-12.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	19.0
	Dry Density, pcf	109.9
	Saturation,	96.2
	Void Ratio	0.5340
	Diameter, in.	2.87
	Height, in.	6.00
At Test	Water Content,	19.0
	Dry Density, pcf	109.9
	Saturation,	96.2
	Void Ratio	0.5340
	Diameter, in.	2.87
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		985.0
Fail. Stress, psf		2593.9
Strain, %		9.3
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		3578.9
σ_3 Failure, psf		985.0

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: Brown Sandy Lean Clay (CL)

LL= 24 **PL=** 16 **PI=** 8
Assumed Specific Gravity= 2.70
Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

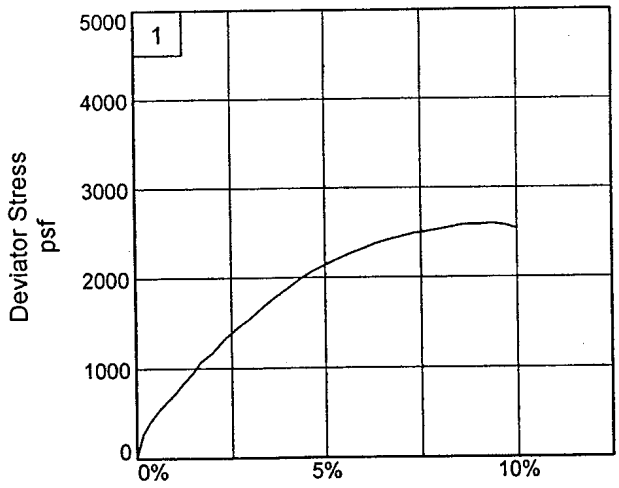
Source of Sample: BB2SB101 **Depth:** 12.3-14.0'

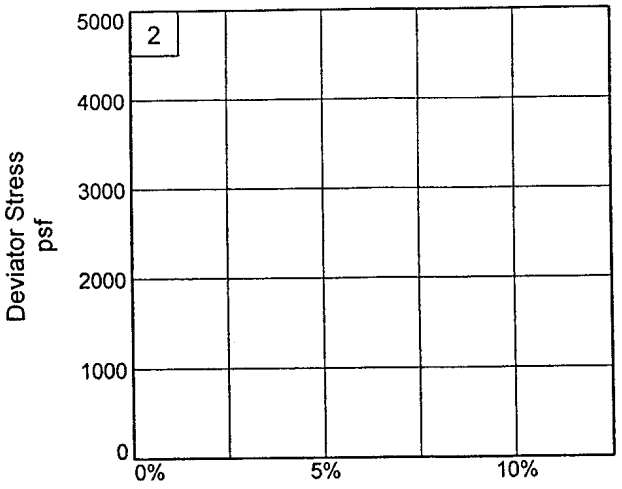
Proj. No.: 57255005132 **Date:** 5-24-05

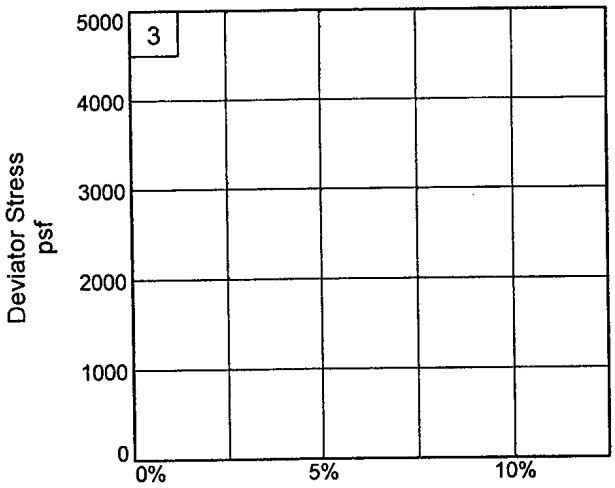
RGH CONSULTANTS, INC.

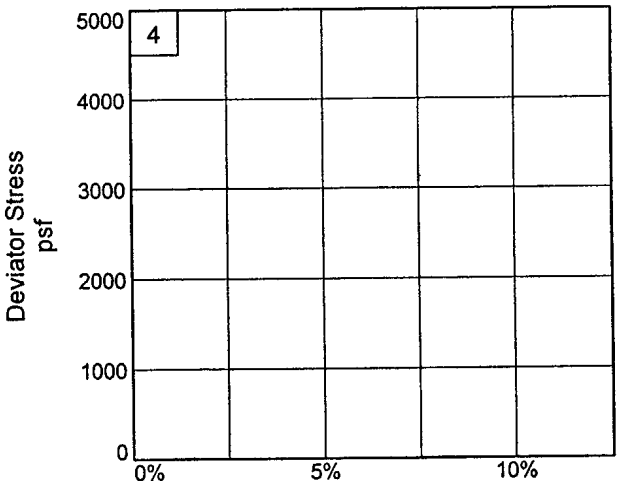
Plate _____

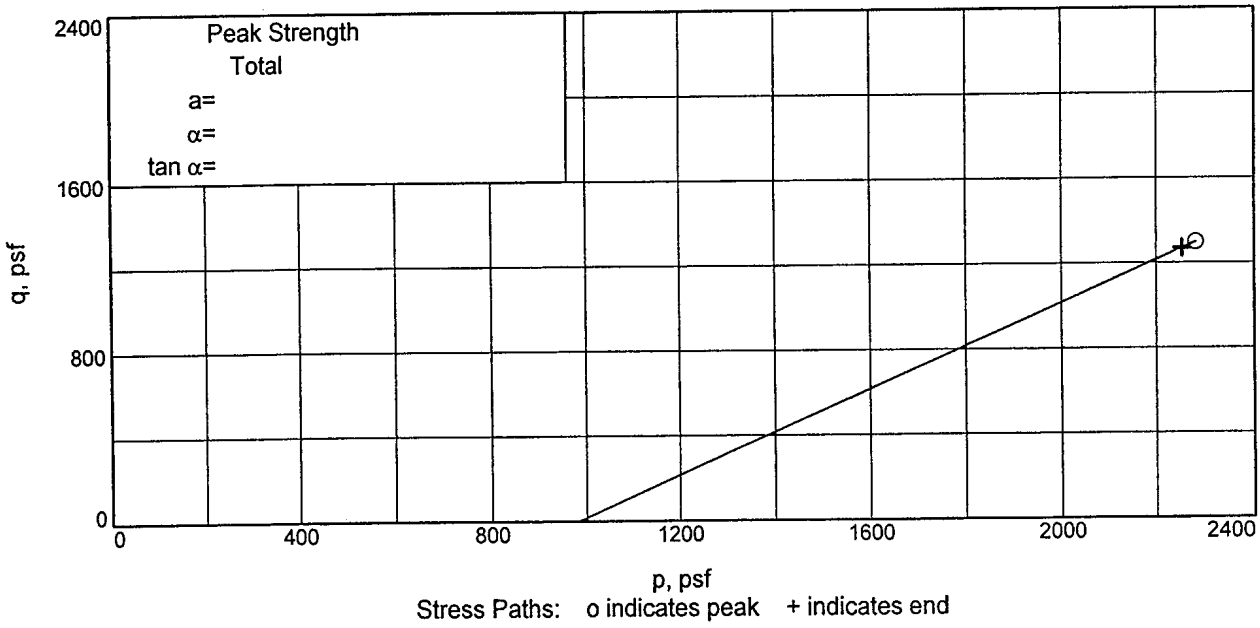
Tested By: MW **Checked By:** TMc









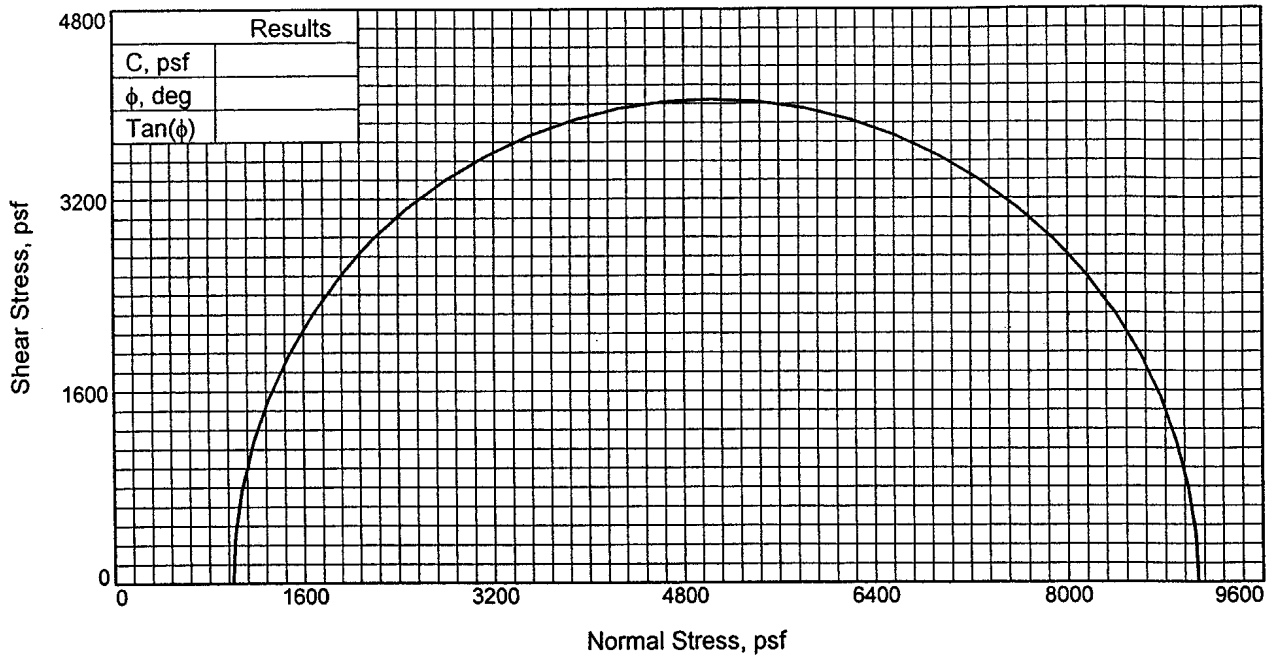


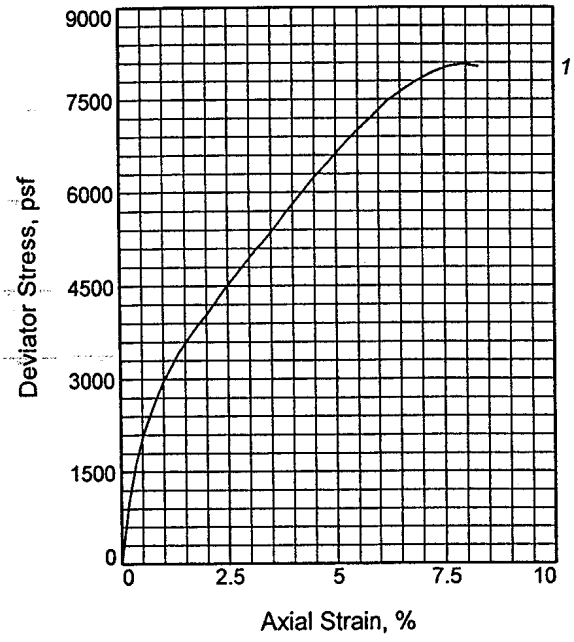
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB101 **Depth:** 12.3-14.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	17.3
	Dry Density, pcf	113.9
	Saturation,	97.6
	Void Ratio	0.4793
	Diameter, in.	2.40
	Height, in.	5.80
At Test	Water Content,	17.3
	Dry Density, pcf	113.9
	Saturation,	97.6
	Void Ratio	0.4793
	Diameter, in.	2.40
	Height, in.	5.80
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		999.4
Fail. Stress, psf		8069.7
Strain, %		7.9
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		9069.0
σ_3 Failure, psf		999.4

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Light Brown Fat Clay W/Sand (CH)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

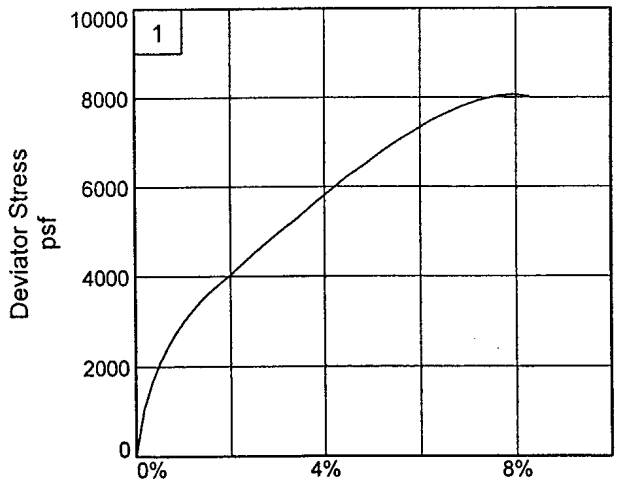
Project: Presidio SF BBDA

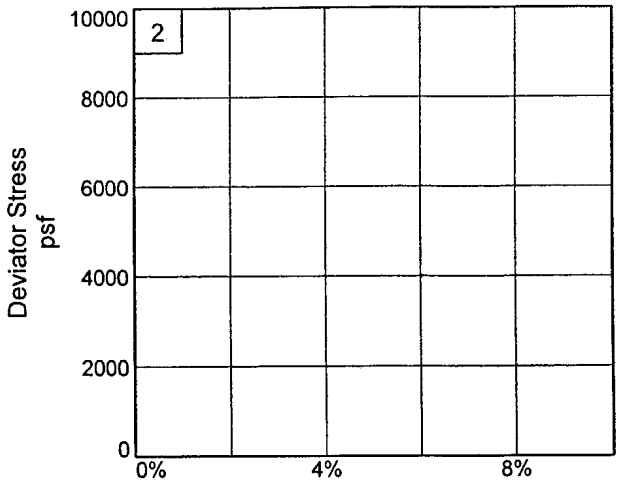
Source of Sample: BB2SB101 **Depth:** 17.5'-18.0'

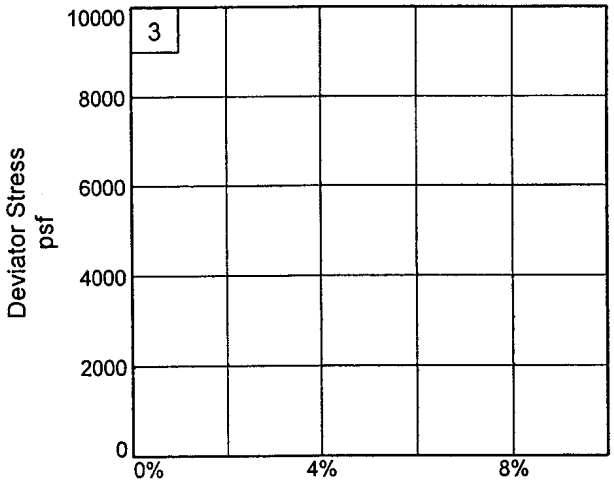
Proj. No.: 57255005132 **Date:** 5-23-05

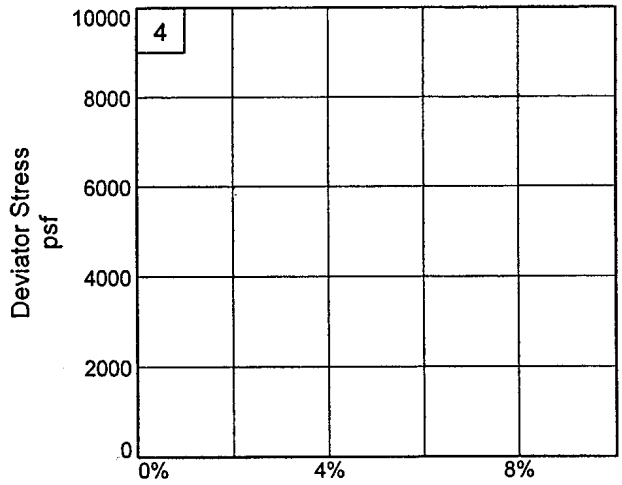
RGH CONSULTANTS, INC.

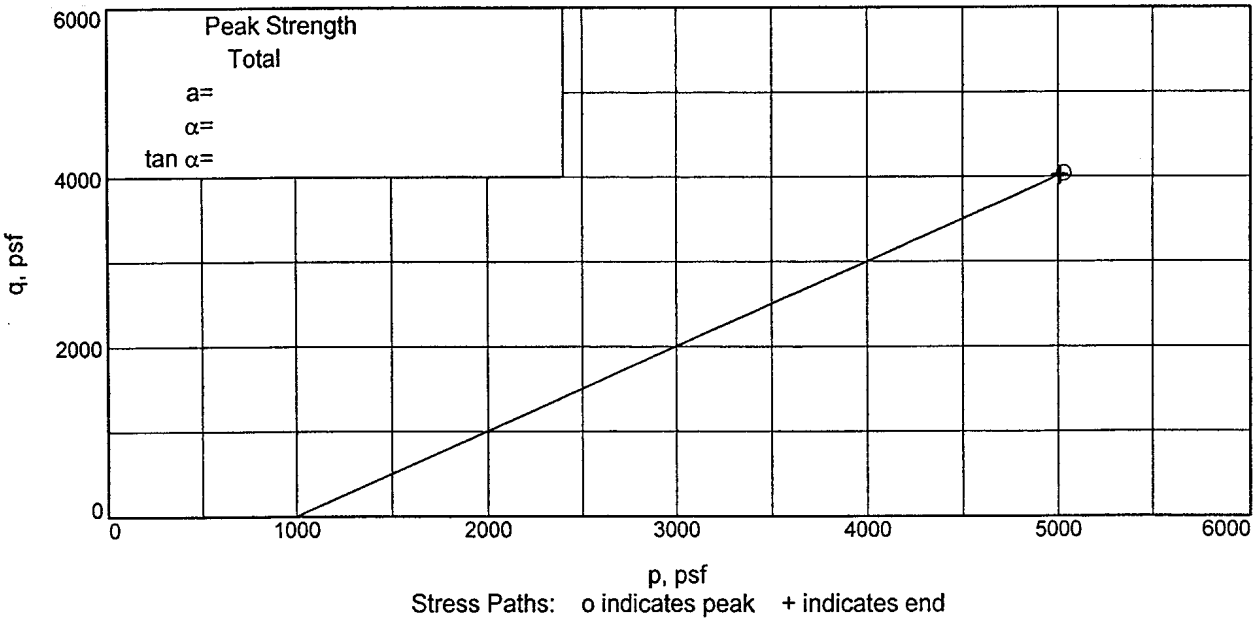
Tested By: MW **Checked By:** TMc









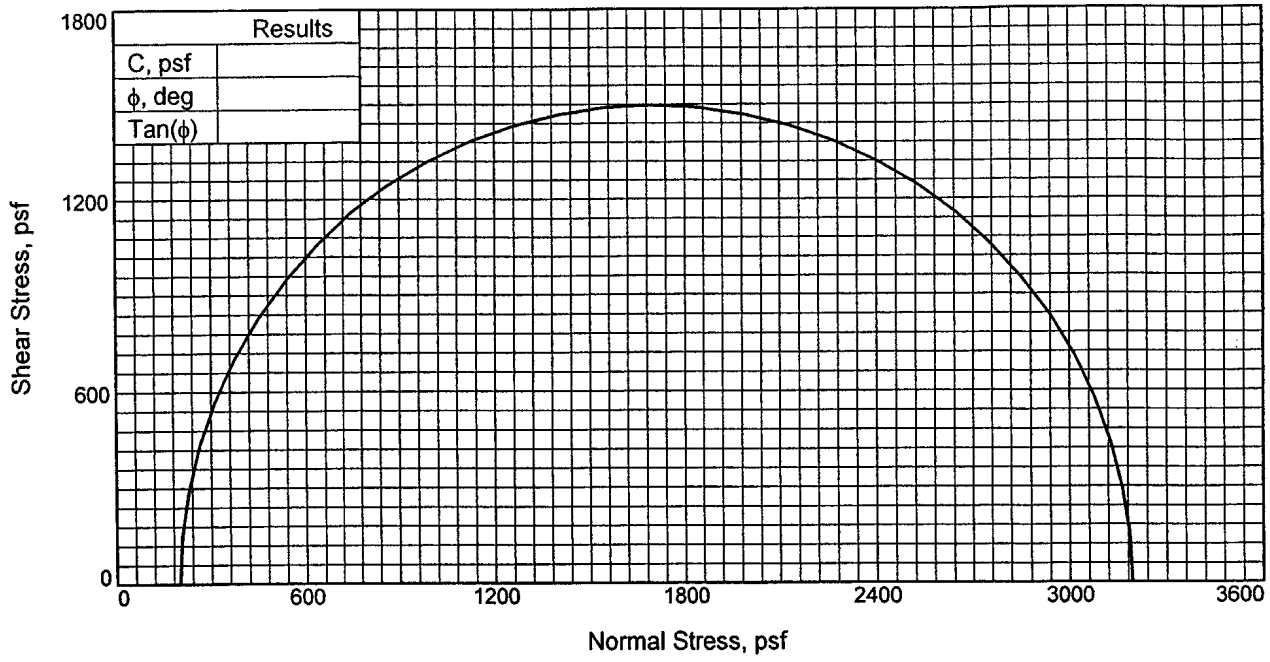


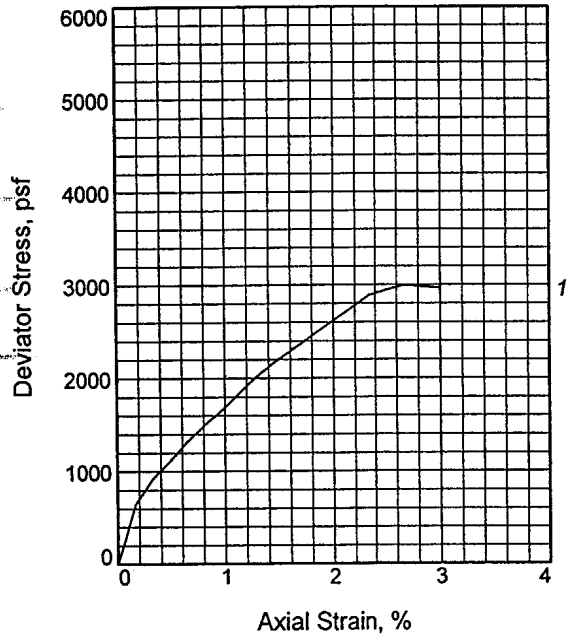
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB101 **Depth:** 17.5'-18.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	16.6
	Dry Density, pcf	112.0
	Saturation,	88.9
	Void Ratio	0.5050
	Diameter, in.	2.43
	Height, in.	6.00
At Test	Water Content,	16.6
	Dry Density, pcf	112.0
	Saturation,	88.9
	Void Ratio	0.5050
	Diameter, in.	2.43
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		200.2
Fail. Stress, psf		2992.8
Strain, %		2.7
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		3192.9
σ_3 Failure, psf		200.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Light Brown Clayey Sand W/Gravel (SC)

Assumed Specific Gravity= 2.70

Remarks: Plaster caps were used on this sample.

Client: Mactec E&C

Project: Presidio SF BBDA

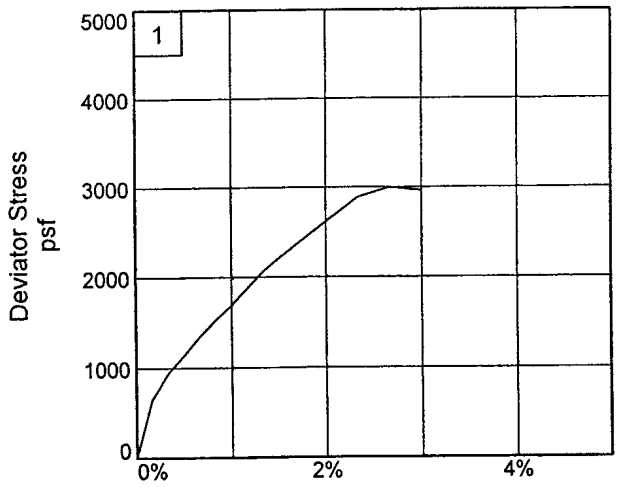
Source of Sample: BBSB102 **Depth:** 2.5-3.0'

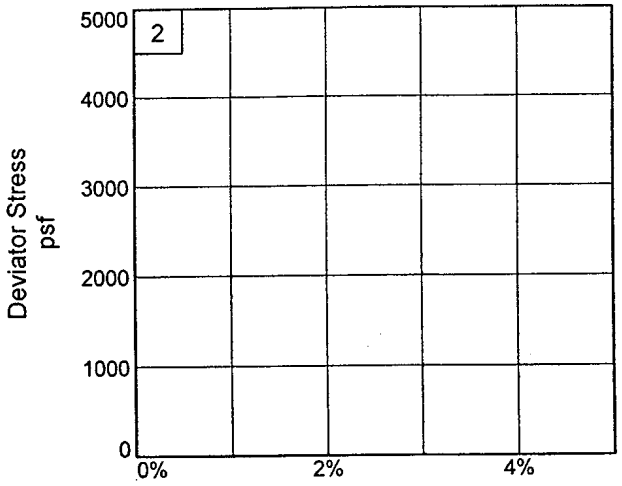
Proj. No.: 57255005132 **Date:** 5-24-05

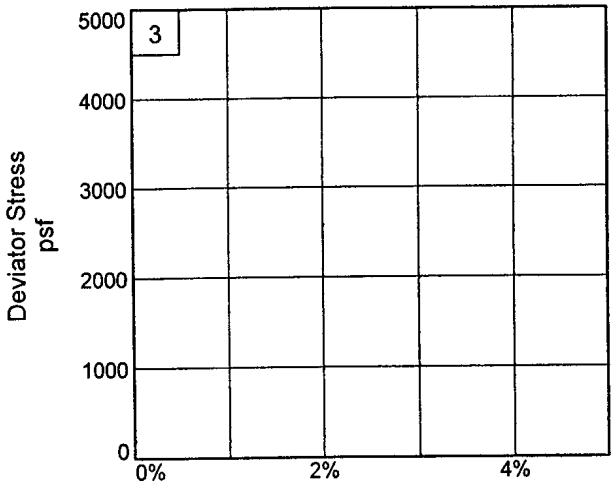
RGH CONSULTANTS, INC.

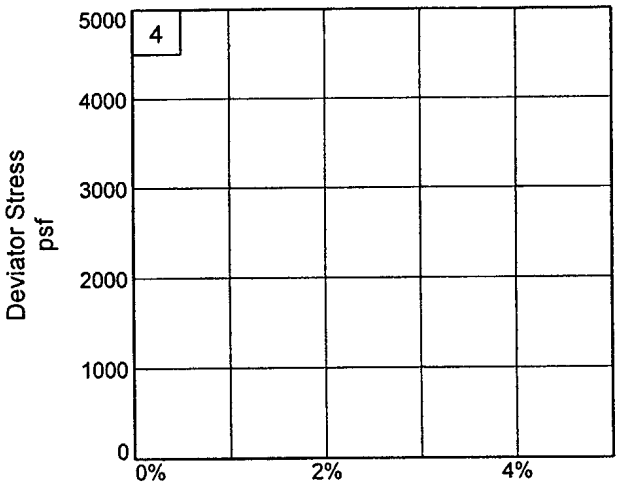
Plate _____

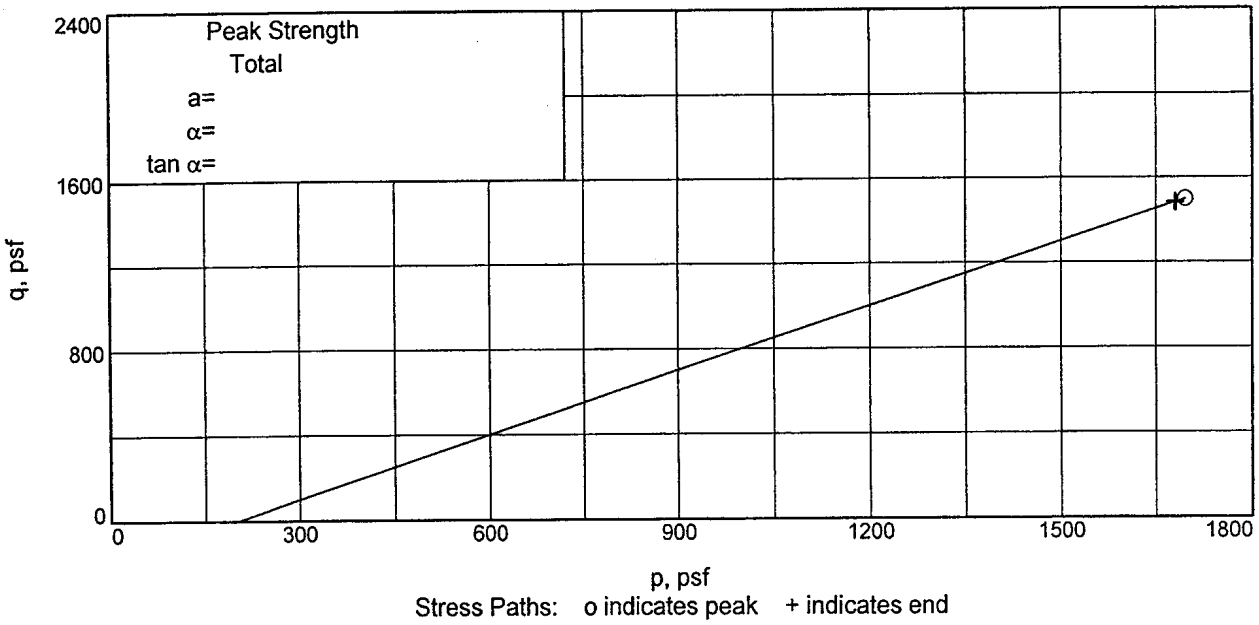
Tested By: MW **Checked By:** TMc









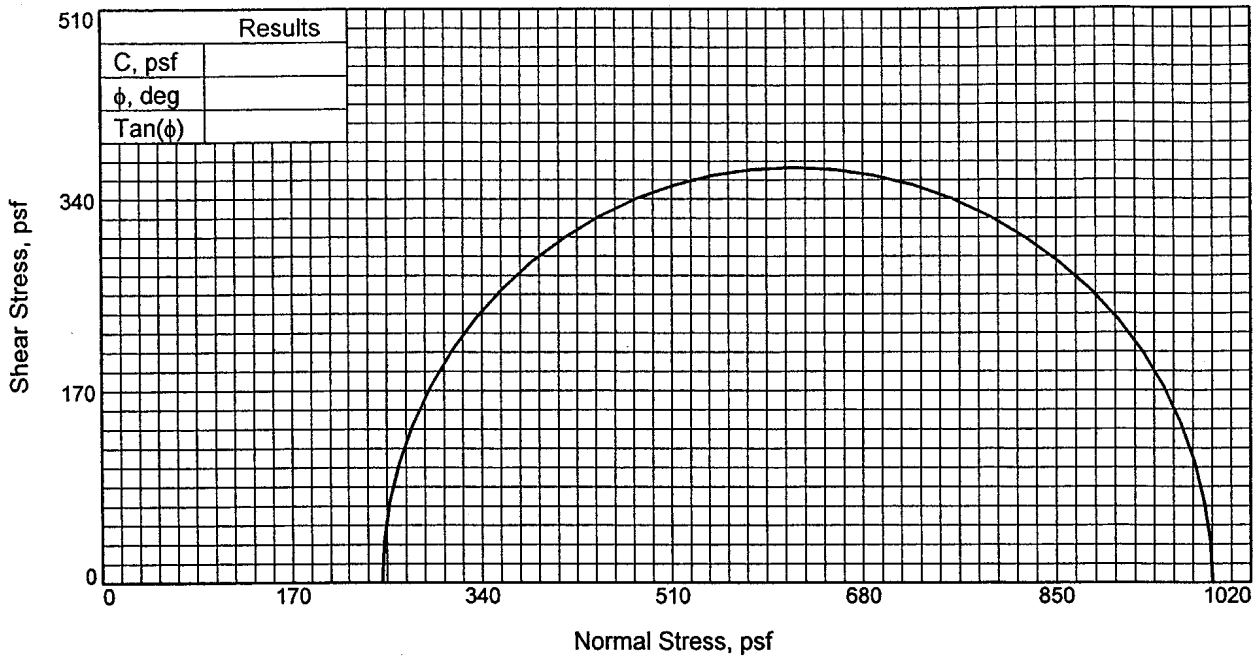


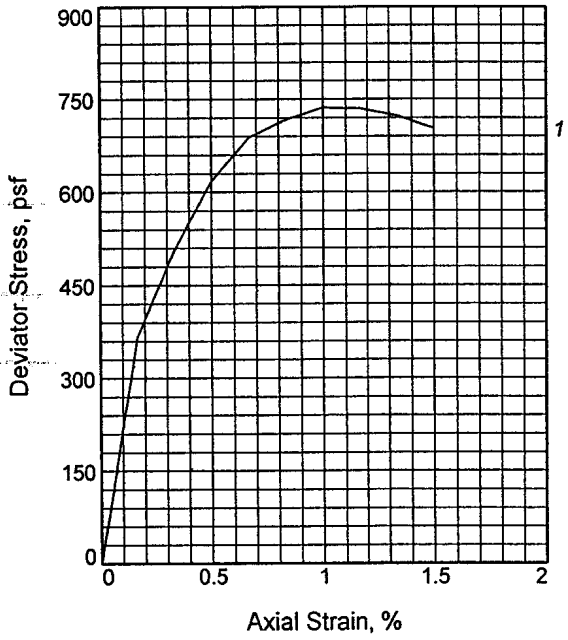
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB102 **Depth:** 2.5-3.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	23.1
	Dry Density, pcf	101.8
	Saturation,	95.3
	Void Ratio	0.6552
	Diameter, in.	2.87
	Height, in.	6.00
At Test	Water Content,	23.1
	Dry Density, pcf	101.8
	Saturation,	95.3
	Void Ratio	0.6552
	Diameter, in.	2.87
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		250.6
Fail. Stress, psf		735.8
Strain, %		1.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		986.4
σ_3 Failure, psf		250.6

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Clayey Sand W/Gravel (SC)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

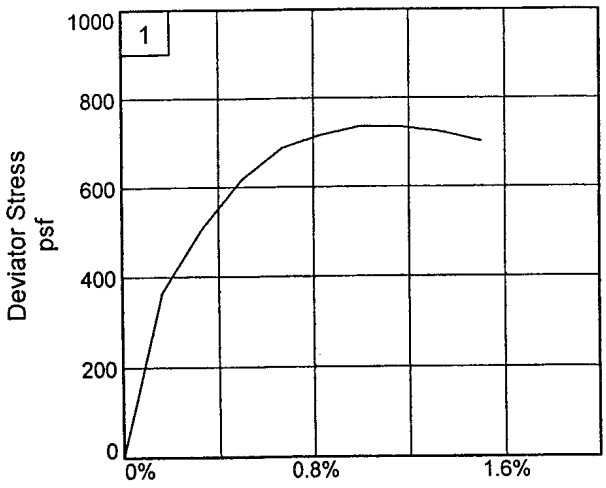
Project: Presidio SF BBDA

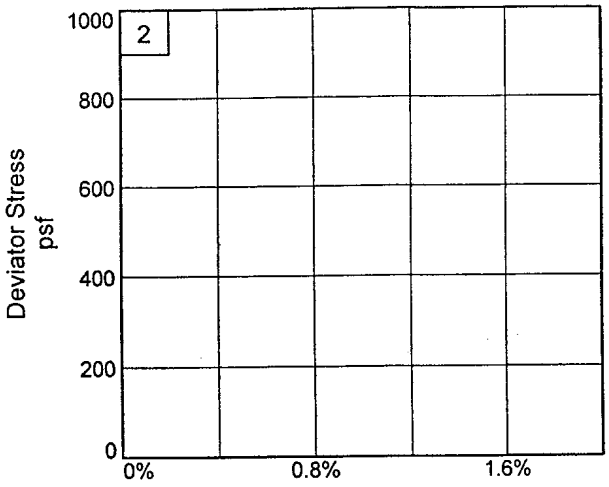
Source of Sample: BBSB100 **Depth:** 3.0-5.0'

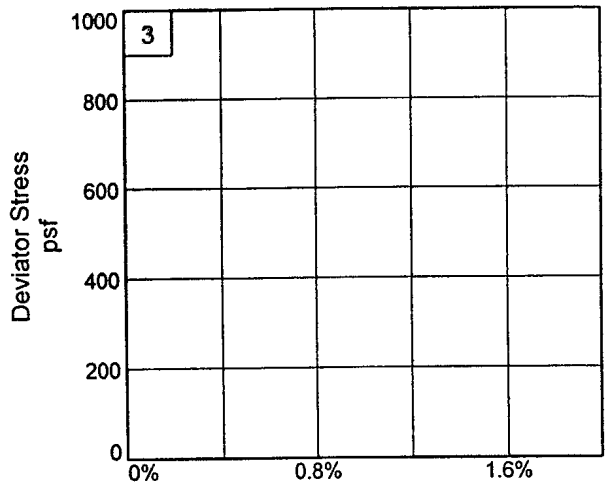
Proj. No.: 57255005132 **Date:** 5-24-05

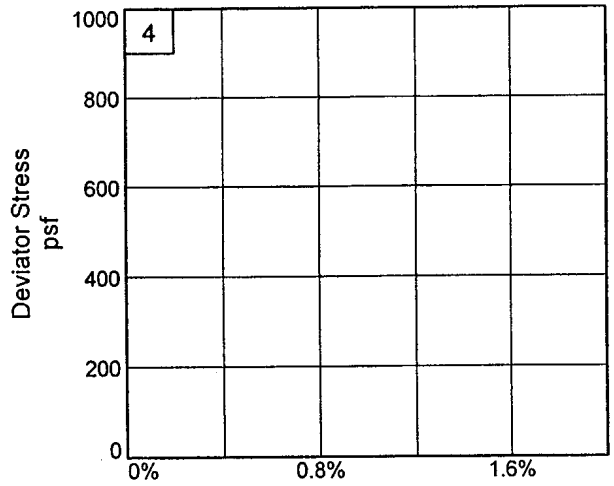
R G H CONSULTANTS, INC.

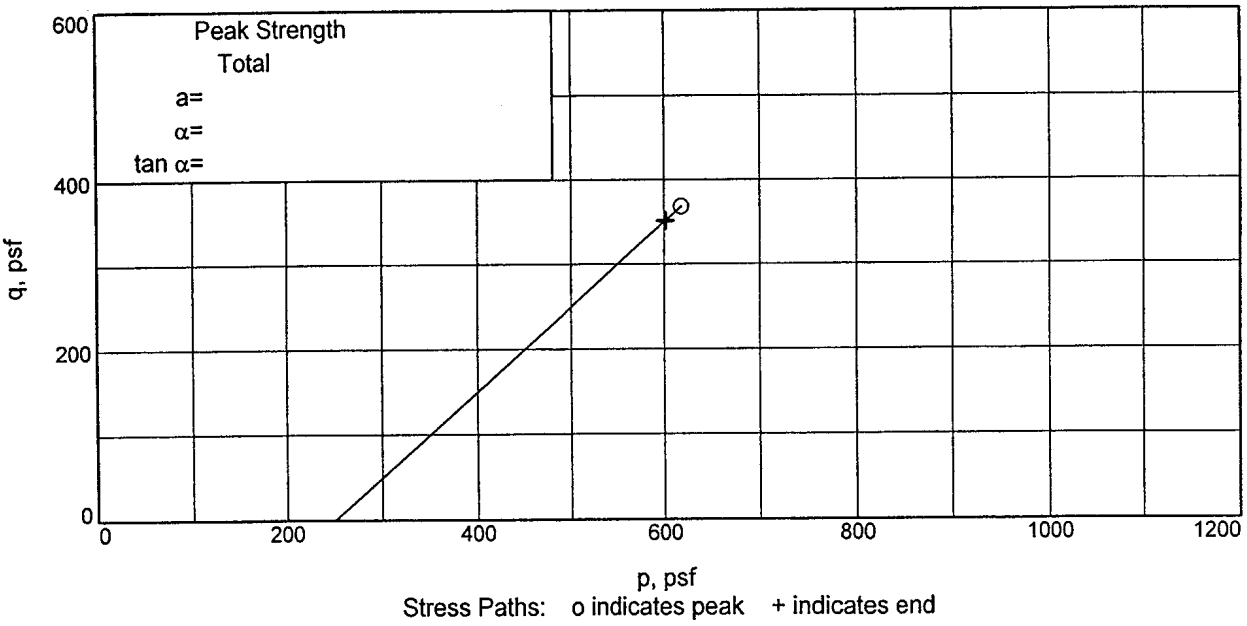
Tested By: MW **Checked By:** TMc









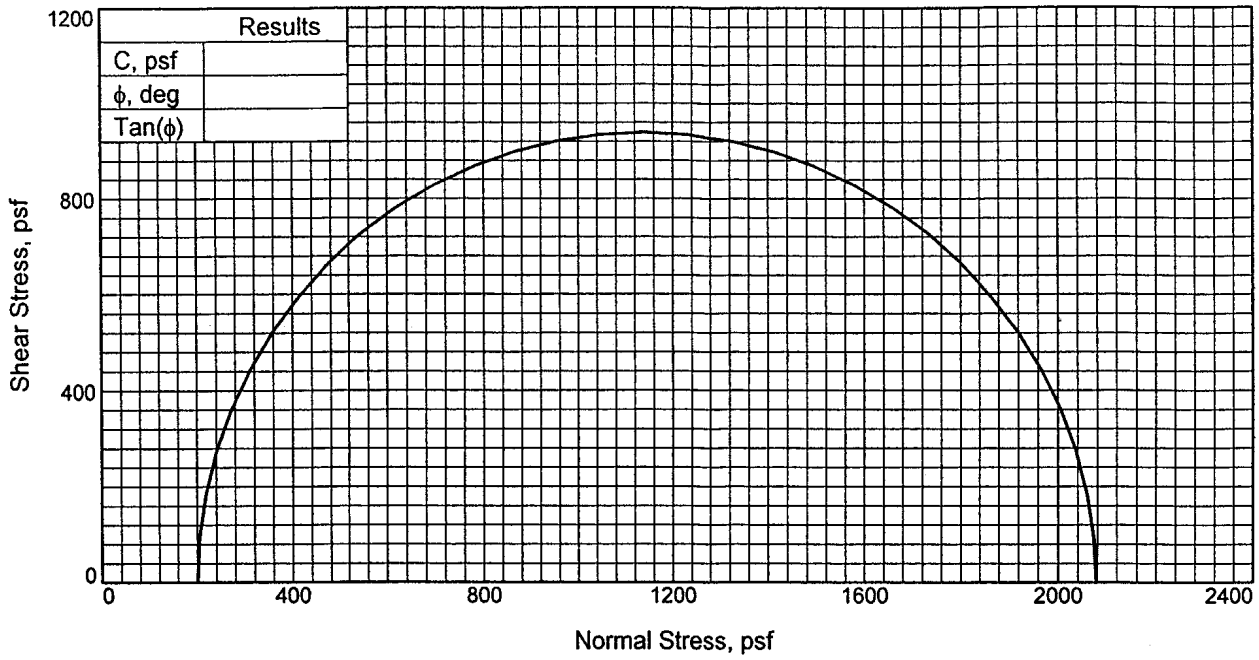


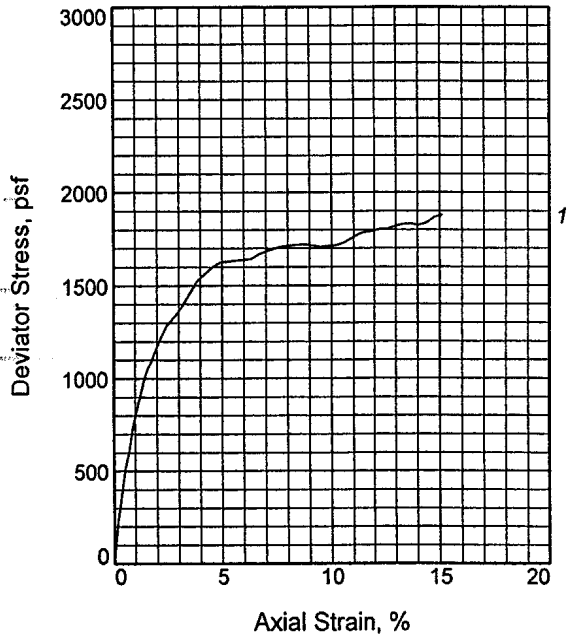
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB100 **Depth:** 3.0-5.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





		Sample No. 1
Initial	Water Content,	15.4
	Dry Density, pcf	112.3
	Saturation,	83.0
	Void Ratio	0.5004
	Diameter, in.	2.43
	Height, in.	5.70
At Test	Water Content,	15.4
	Dry Density, pcf	112.3
	Saturation,	83.0
	Void Ratio	0.5004
	Diameter, in.	2.43
	Height, in.	5.70
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		200.2
Fail. Stress, psf		1877.2
Strain, %		15.1
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		2077.4
σ_3 Failure, psf		200.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70

Remarks: Sample had one 1.5" piece of gravel in the lower portion.

Plate _____

Client: Mactec E&C

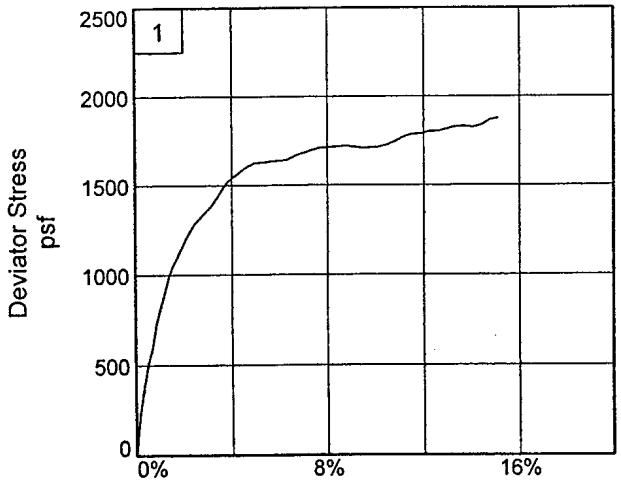
Project: Presidio SF BBDA

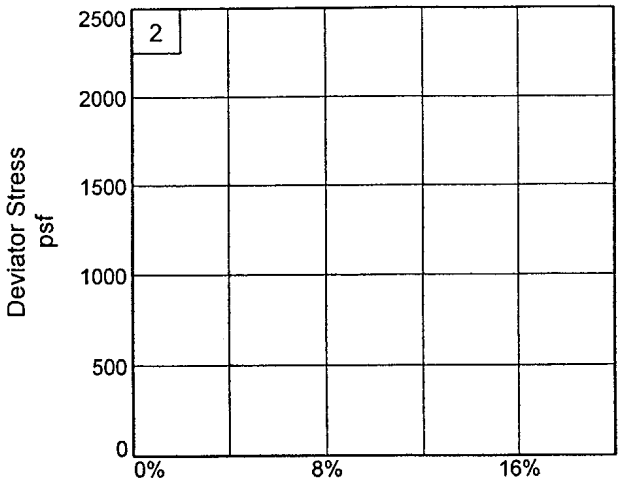
Source of Sample: BB1SB110 **Depth:** 2.5-3.0'

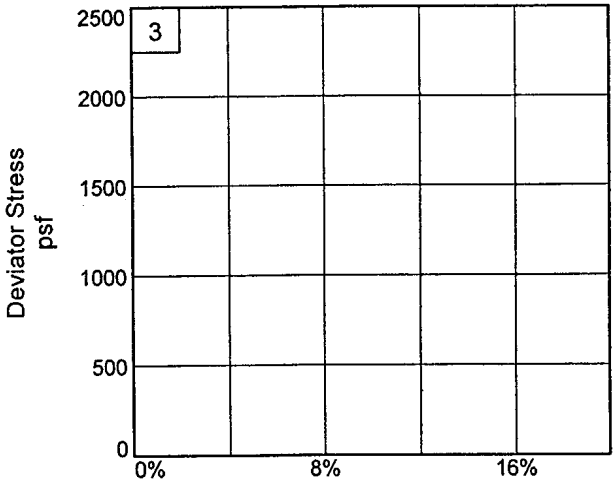
Proj. No.: 57255005132 **Date:** 5-19-05

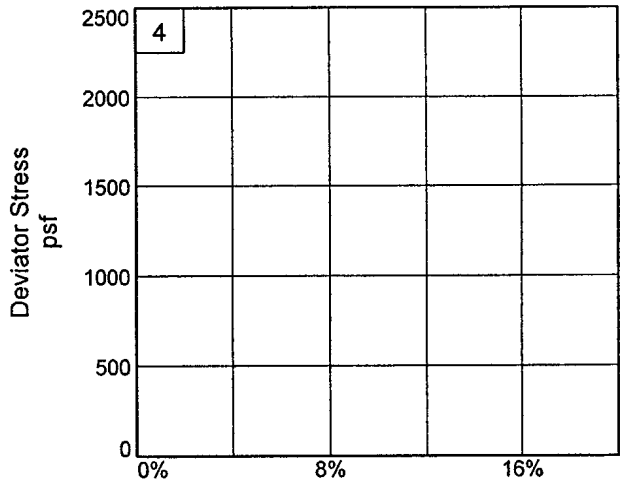
R G H CONSULTANTS, INC.

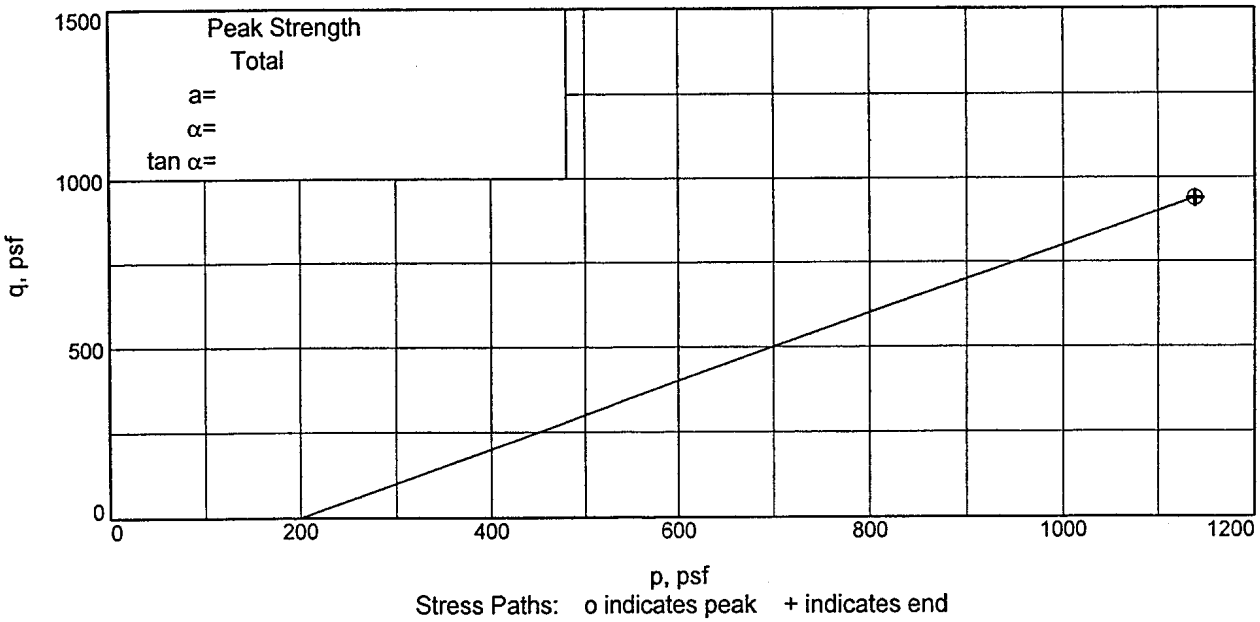
Tested By: GEF **Checked By:** TMc









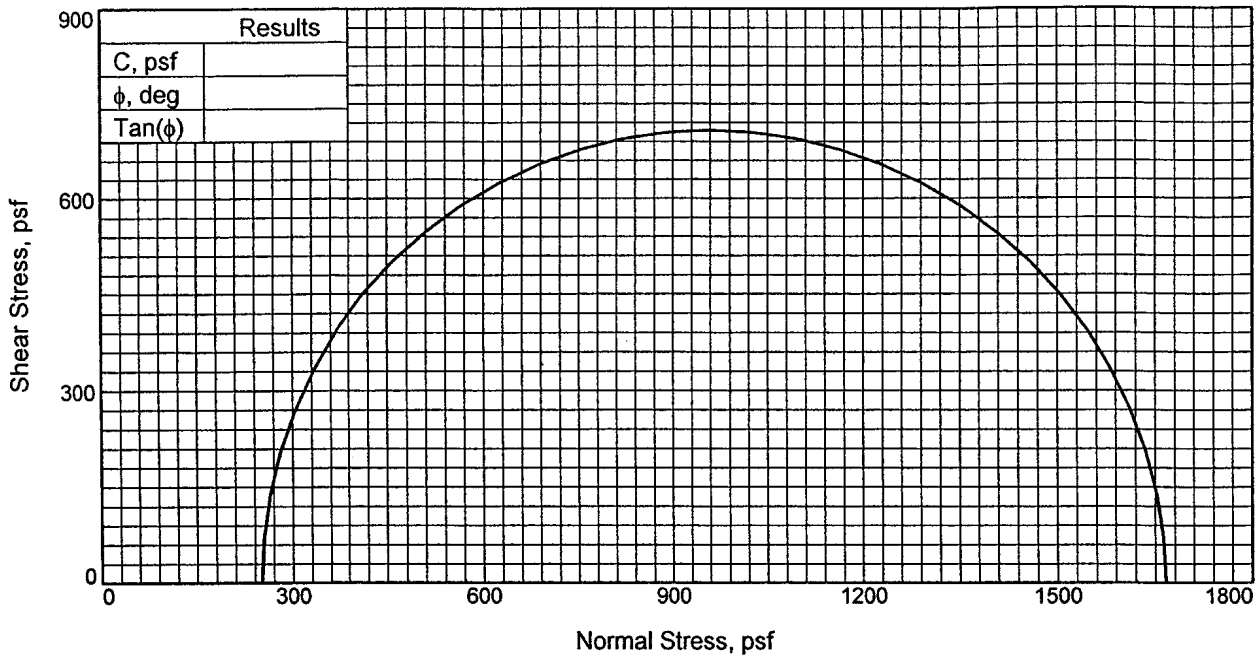


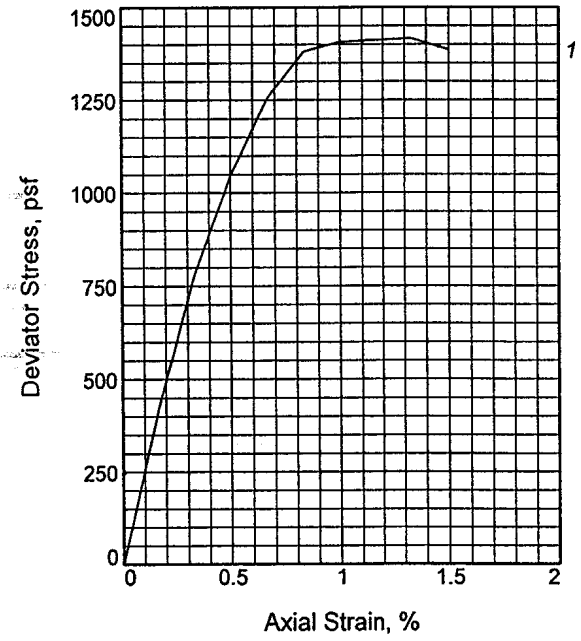
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB1SB110 **Depth:** 2.5-3.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1
Initial	Water Content,	73.5
	Dry Density, pcf	54.6
	Saturation,	95.1
	Void Ratio	2.0864
	Diameter, in.	2.43
	Height, in.	6.00
At Test	Water Content,	73.5
	Dry Density, pcf	54.6
	Saturation,	95.1
	Void Ratio	2.0864
	Diameter, in.	2.43
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		250.6
Fail. Stress, psf		1415.3
Strain, %		1.3
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1665.9
σ_3 Failure, psf		250.6

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Yellow Brown Sandy Fat Clay (CH)

Assumed Specific Gravity= 2.70

Remarks: Sample had many pre-existing voids.

Plate _____

Client: Mactec E&C

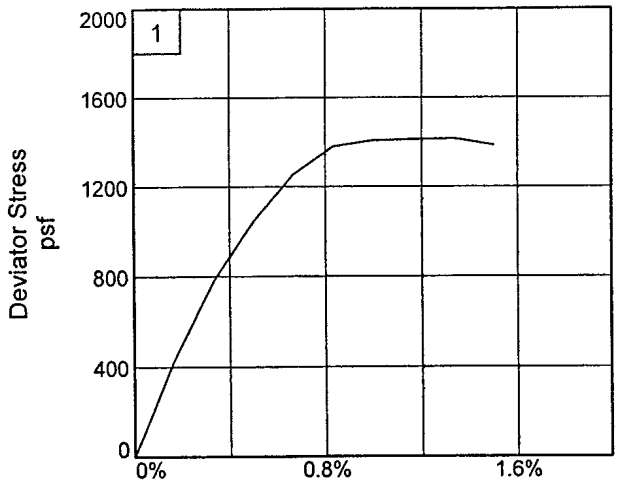
Project: Presidio SF BBDA

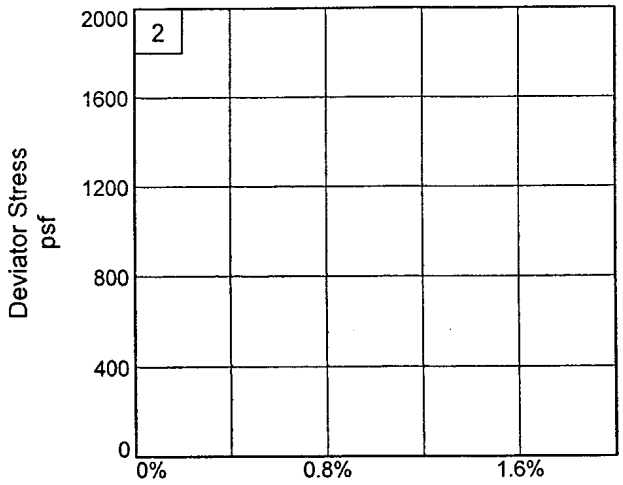
Source of Sample: BBSB105 **Depth:** 3.5'

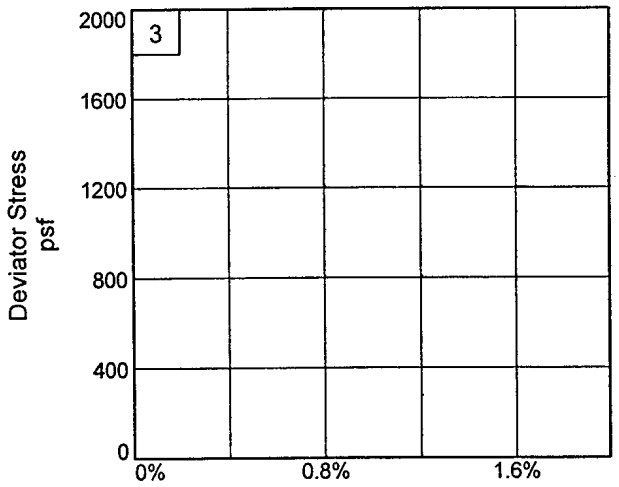
Proj. No.: 57255005132 **Date:** 5-24-05

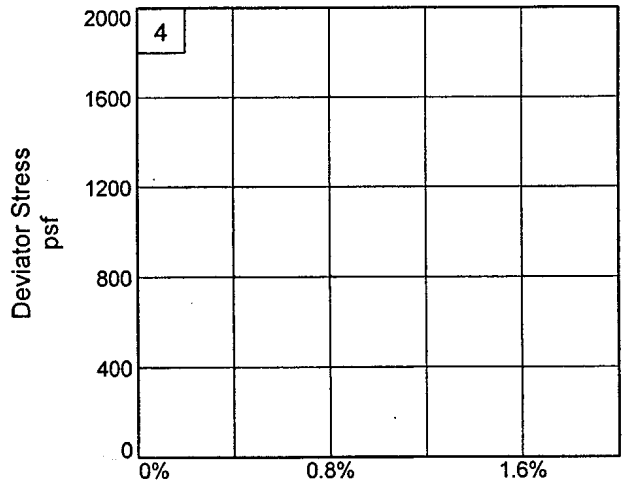
RGH CONSULTANTS, INC.

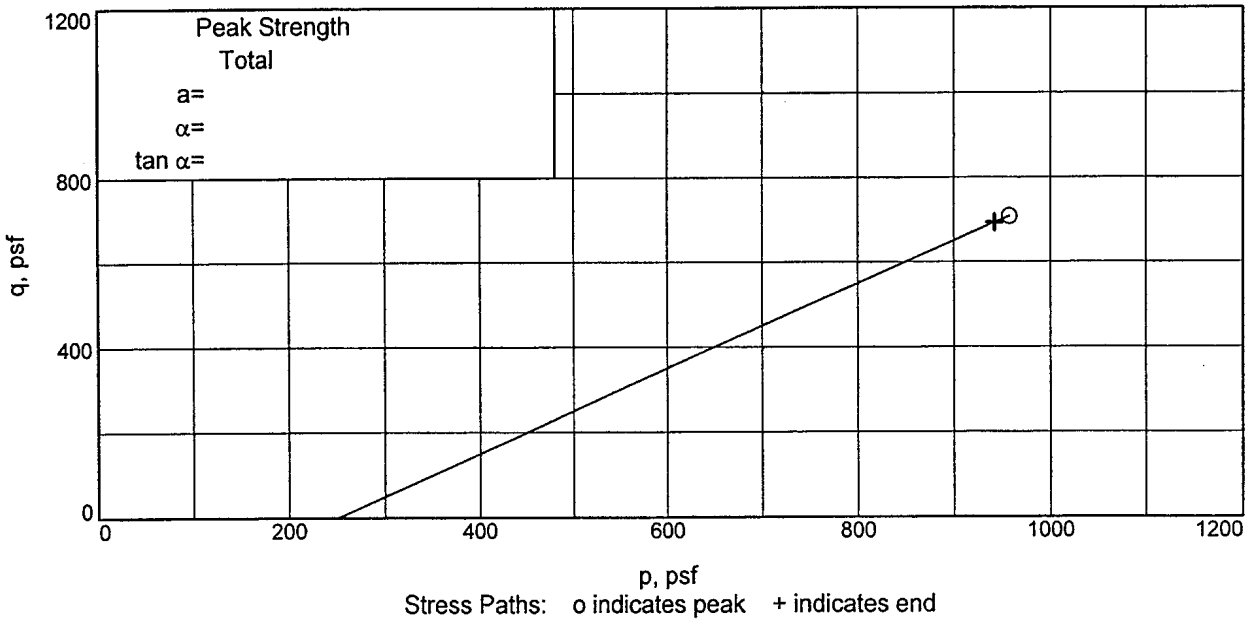
Tested By: MW **Checked By:** TMC









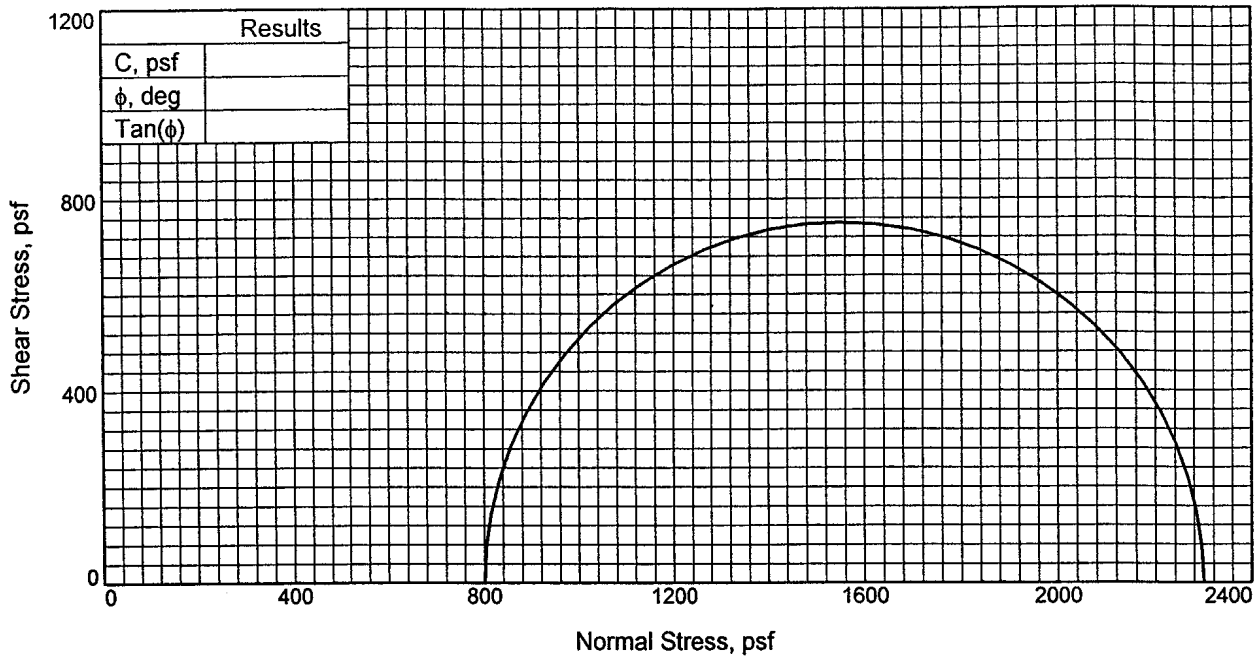


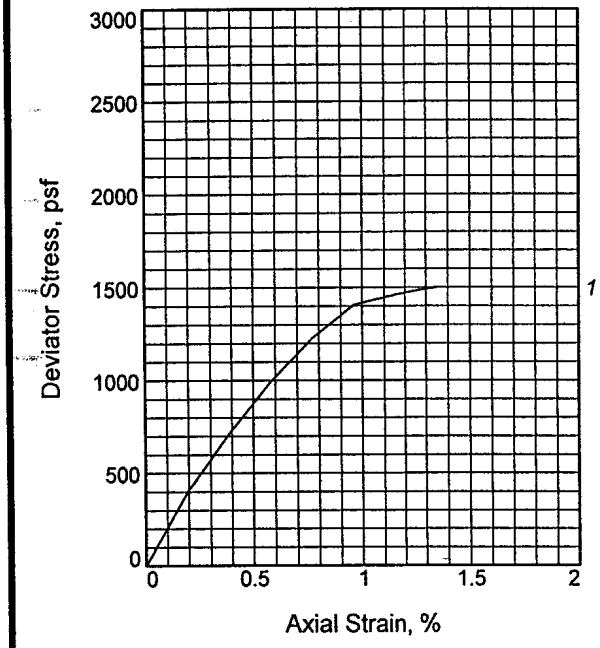
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB105 **Depth:** 3.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMC





Sample No.		1
Initial	Water Content,	85.0
	Dry Density, pcf	48.2
	Saturation,	91.9
	Void Ratio	2.4975
	Diameter, in.	2.43
	Height, in.	5.20
At Test	Water Content,	85.2
	Dry Density, pcf	48.2
	Saturation,	92.1
	Void Ratio	2.4975
	Diameter, in.	2.43
	Height, in.	5.20
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		800.6
Fail. Stress, psf		1499.2
Strain, %		1.3
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		2299.8
σ_3 Failure, psf		800.6

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Silty Sand W/Gravel (SM)

Assumed Specific Gravity= 2.70

Remarks:

Client: Mactec E&C

Project: Presidio SF BBDA

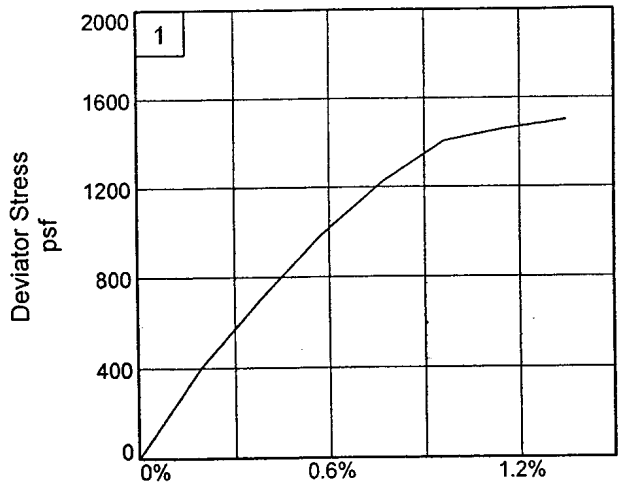
Source of Sample: BBSB105 **Depth:** 6.5'

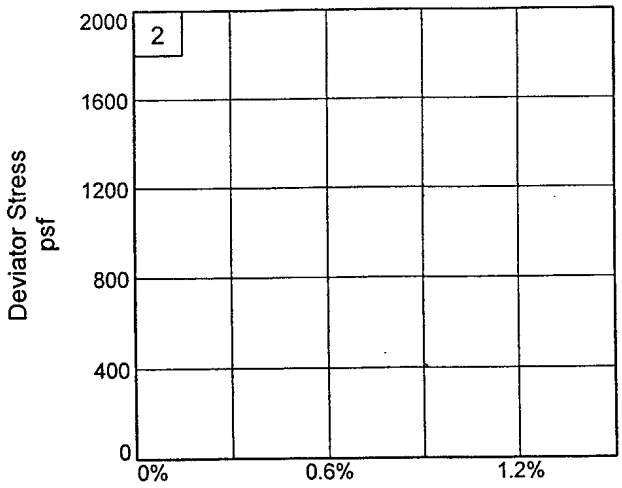
Proj. No.: 57255005132 **Date:** 5-23-05

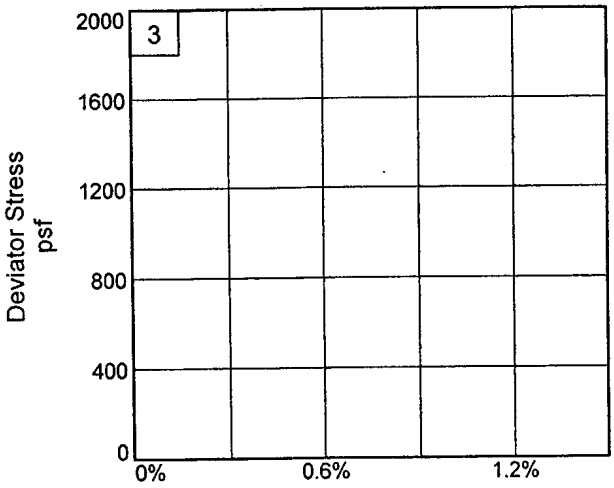
R G H CONSULTANTS, INC.

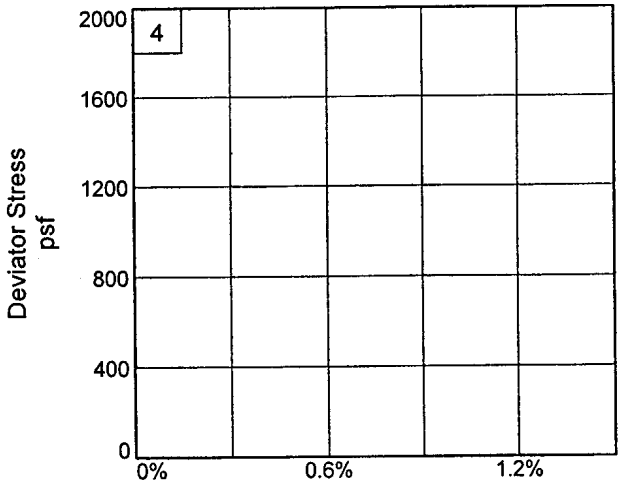
Plate _____

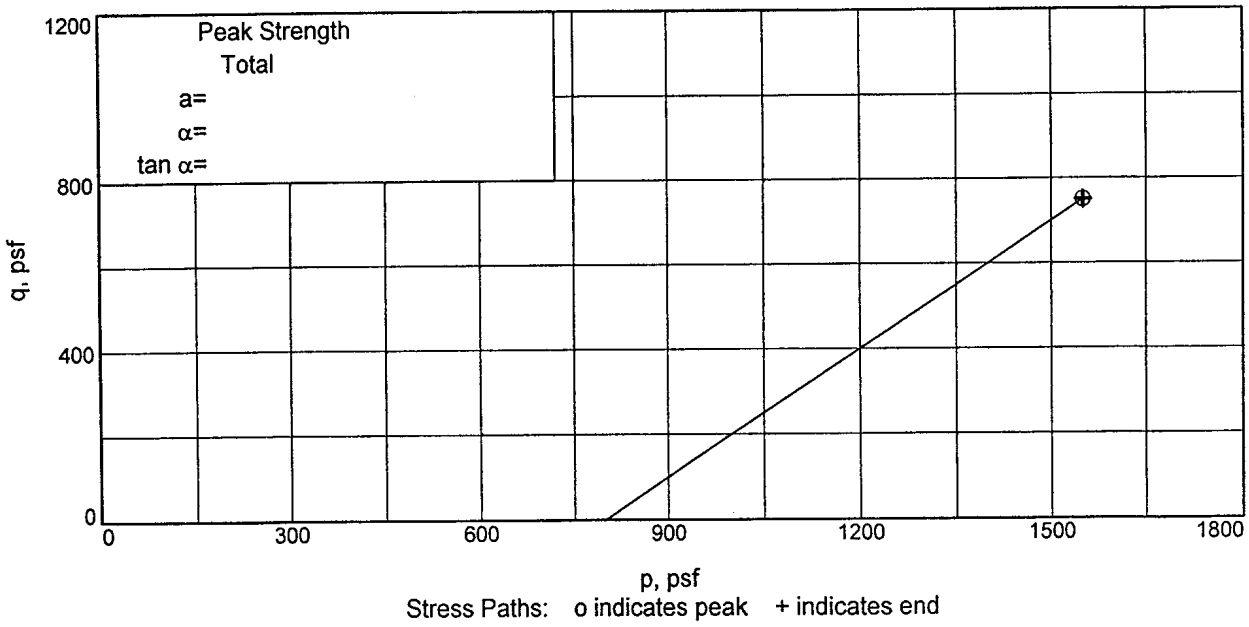
Tested By: MW **Checked By:** TMc









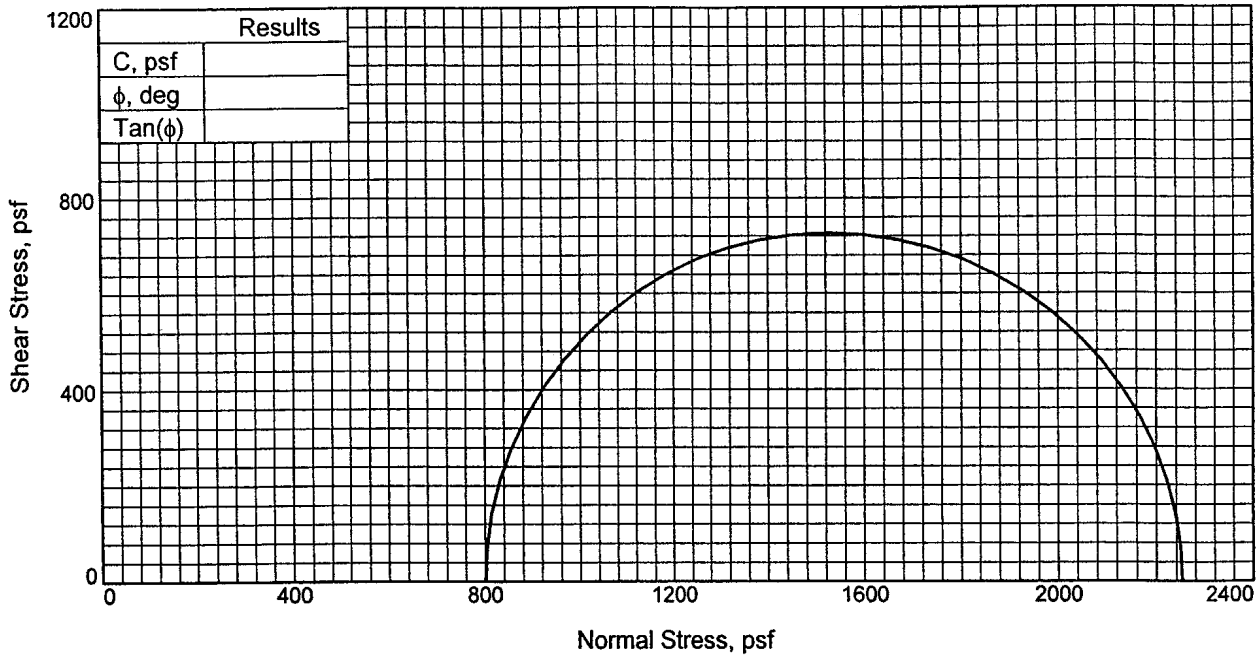


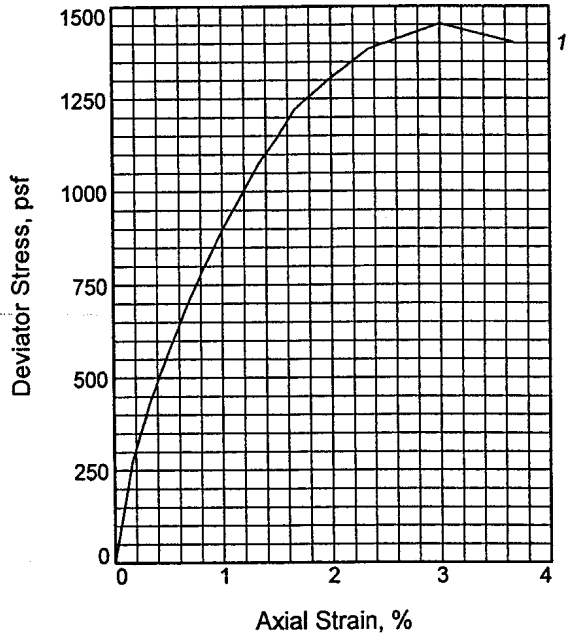
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB105 **Depth:** 6.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	78.1
	Dry Density, pcf	51.5
	Saturation,	92.7
	Void Ratio	2.2751
	Diameter, in.	2.87
	Height, in.	6.00
At Test	Water Content,	78.1
	Dry Density, pcf	51.5
	Saturation,	92.7
	Void Ratio	2.2751
	Diameter, in.	2.87
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		800.6
Fail. Stress, psf		1451.8
Strain, %		3.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		2252.4
σ_3 Failure, psf		800.6

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

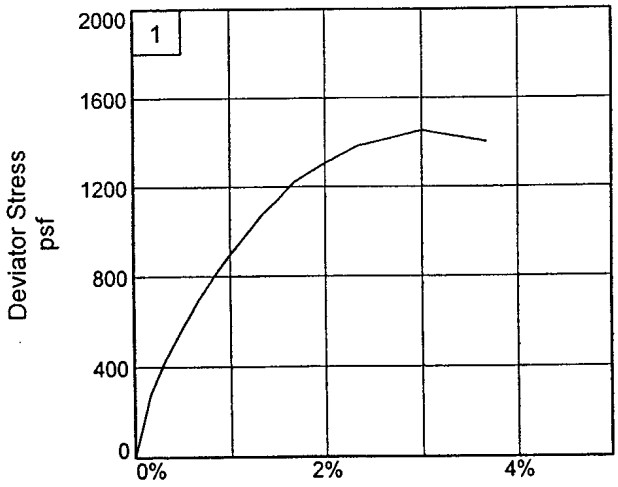
Project: Presidio SF BBDA

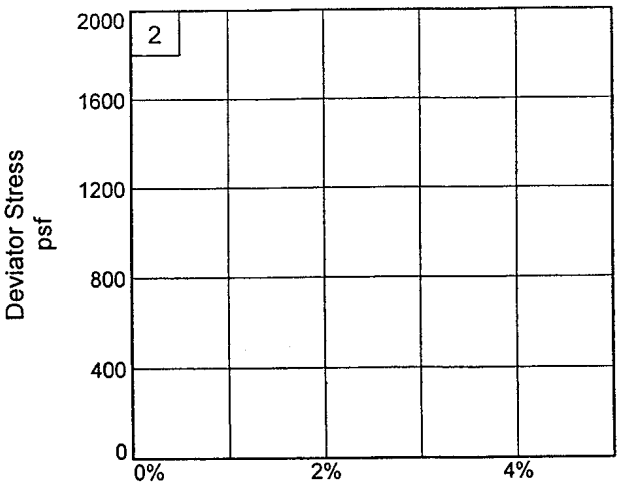
Source of Sample: BBSB104 **Depth:** 7.5'

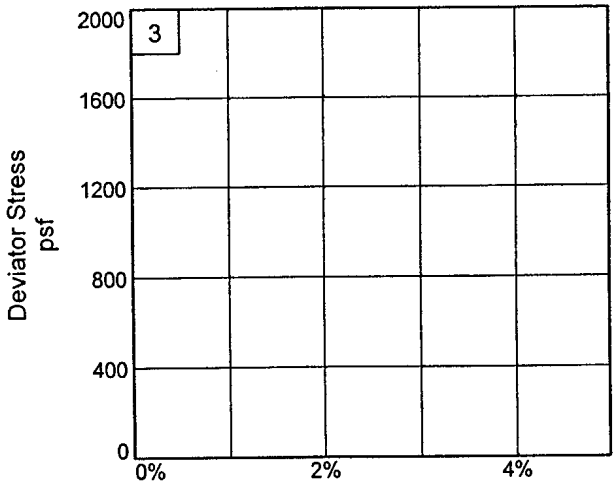
Proj. No.: 57255005132 **Date:** 5-24-05

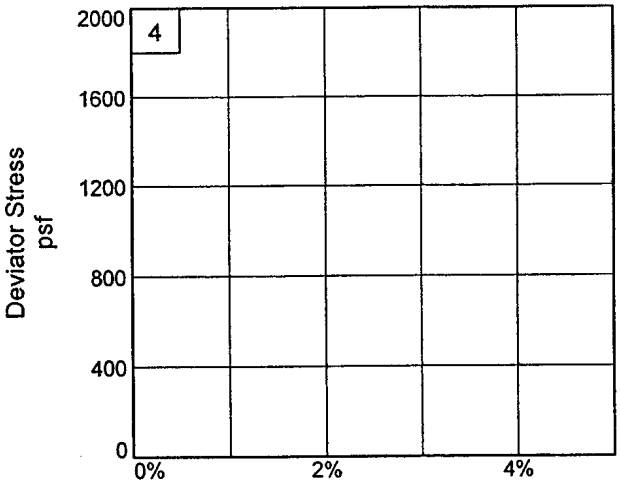
R G H CONSULTANTS, INC.

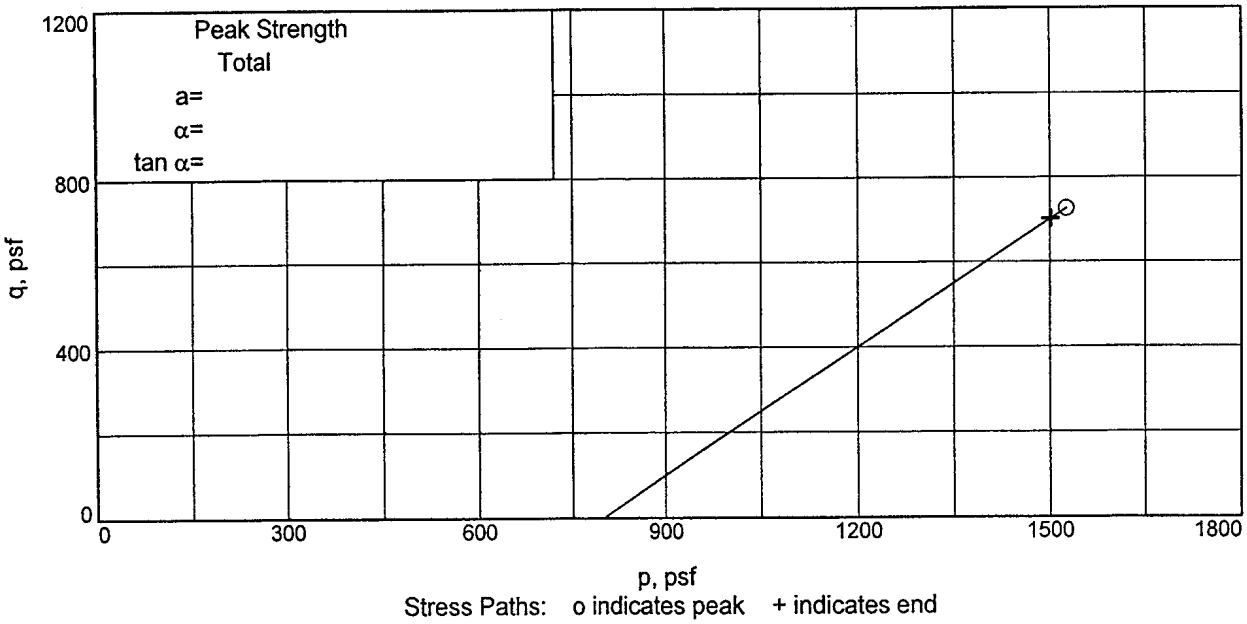
Tested By: MW **Checked By:** TMc









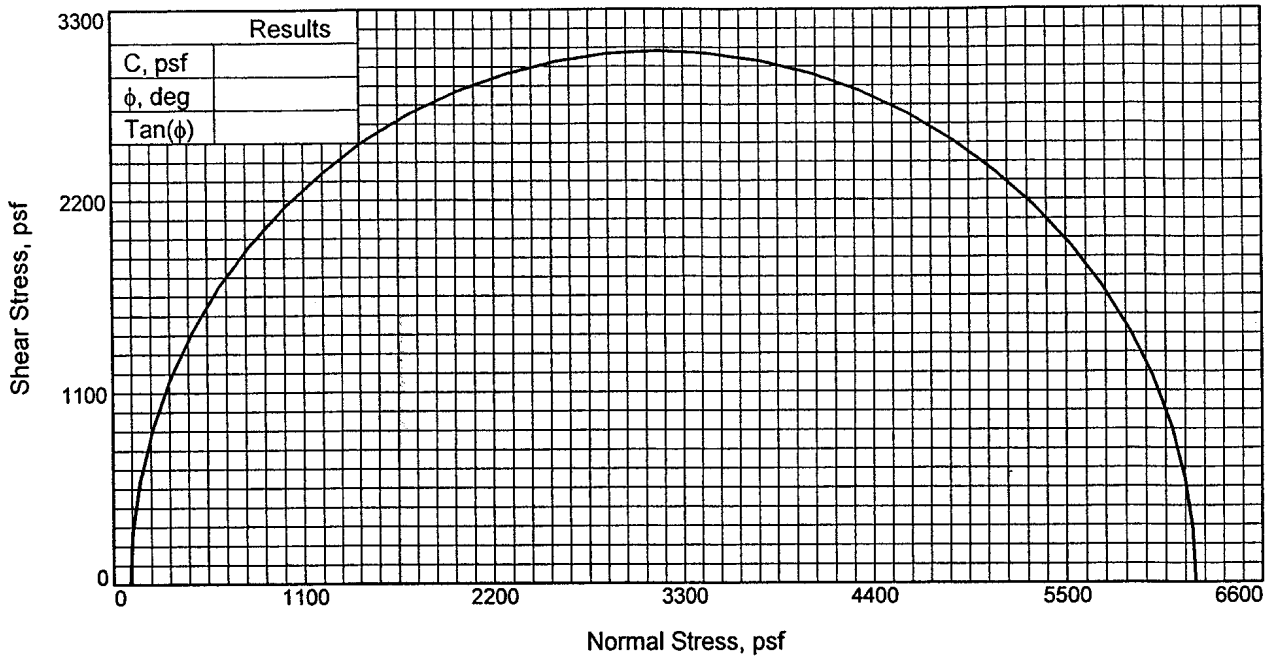


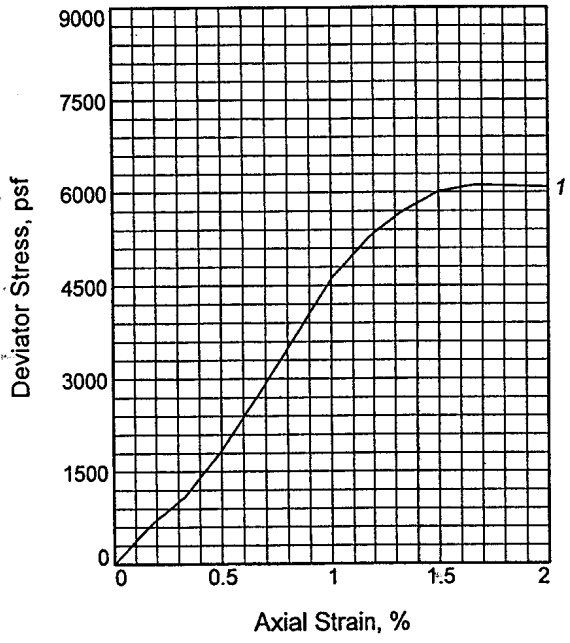
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB104 **Depth:** 7.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	7.2
	Dry Density, pcf	115.5
	Saturation,	42.5
	Void Ratio	0.4589
	Diameter, in.	2.43
	Height, in.	6.00
At Test	Water Content,	7.2
	Dry Density, pcf	115.5
	Saturation,	42.5
	Void Ratio	0.4589
	Diameter, in.	2.43
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		99.4
Fail. Stress, psf		6116.9
Strain, %		1.7
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		6216.3
σ_3 Failure, psf		99.4

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Silty Sand W/Gravel (SM)

Assumed Specific Gravity= 2.70

Remarks: Plaster caps were used on this sample.

Plate _____

Client: Mactec E&C

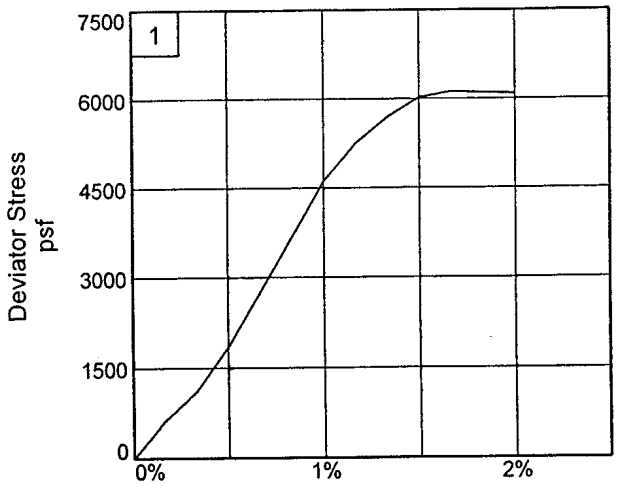
Project: Presidio SF BBDA

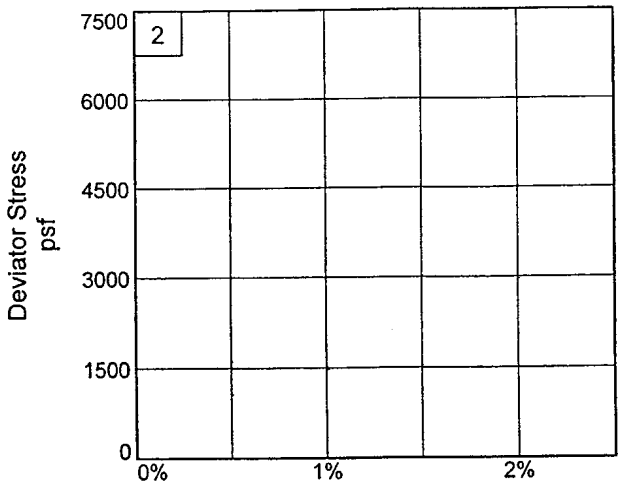
Source of Sample: BBSB107 **Depth:** 0.5'

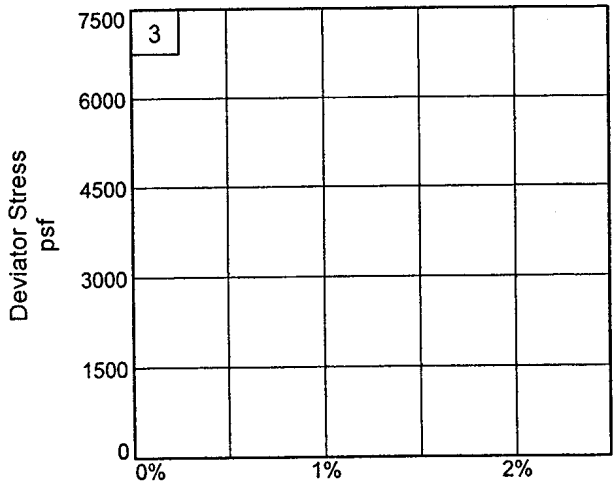
Proj. No.: 57255005132 **Date:** 5-24-05

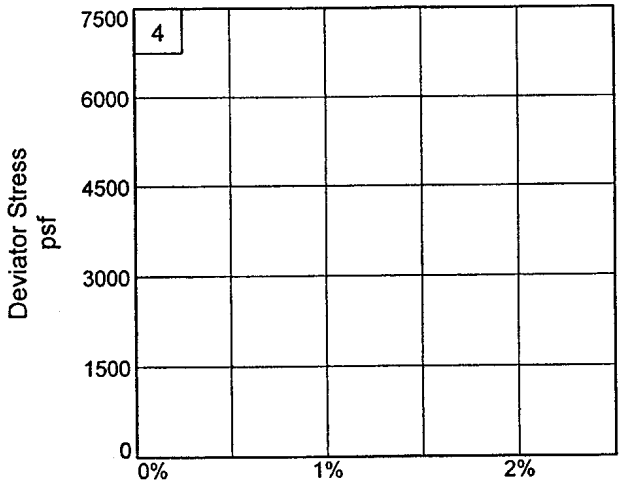
RGH CONSULTANTS, INC.

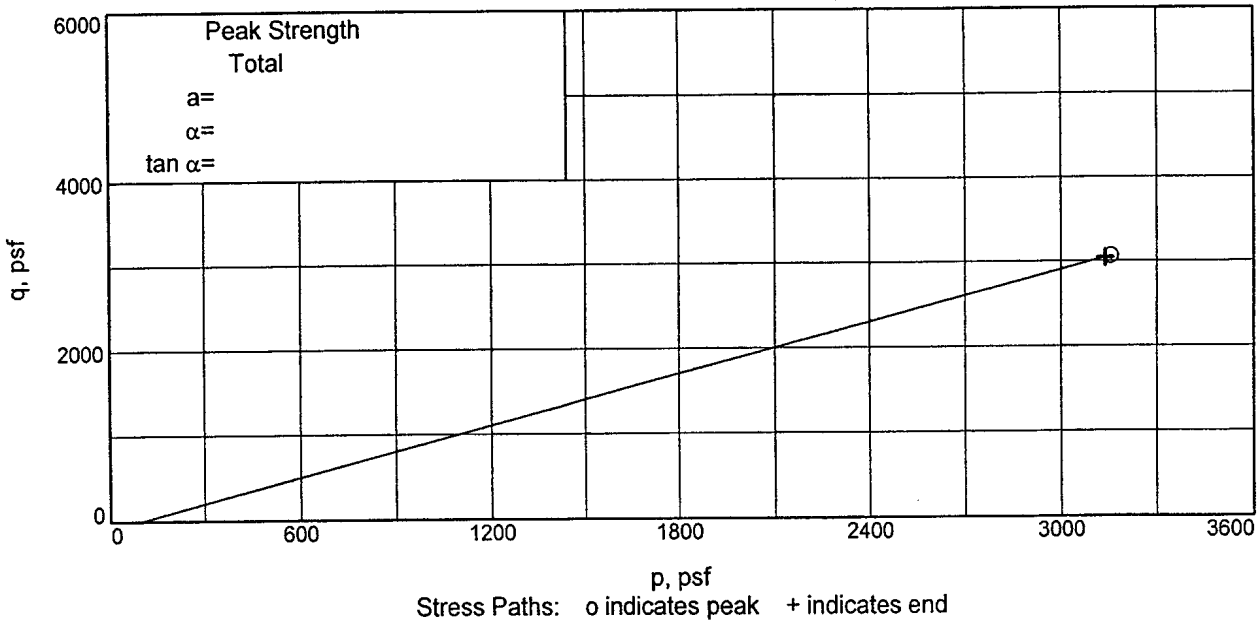
Tested By: MW









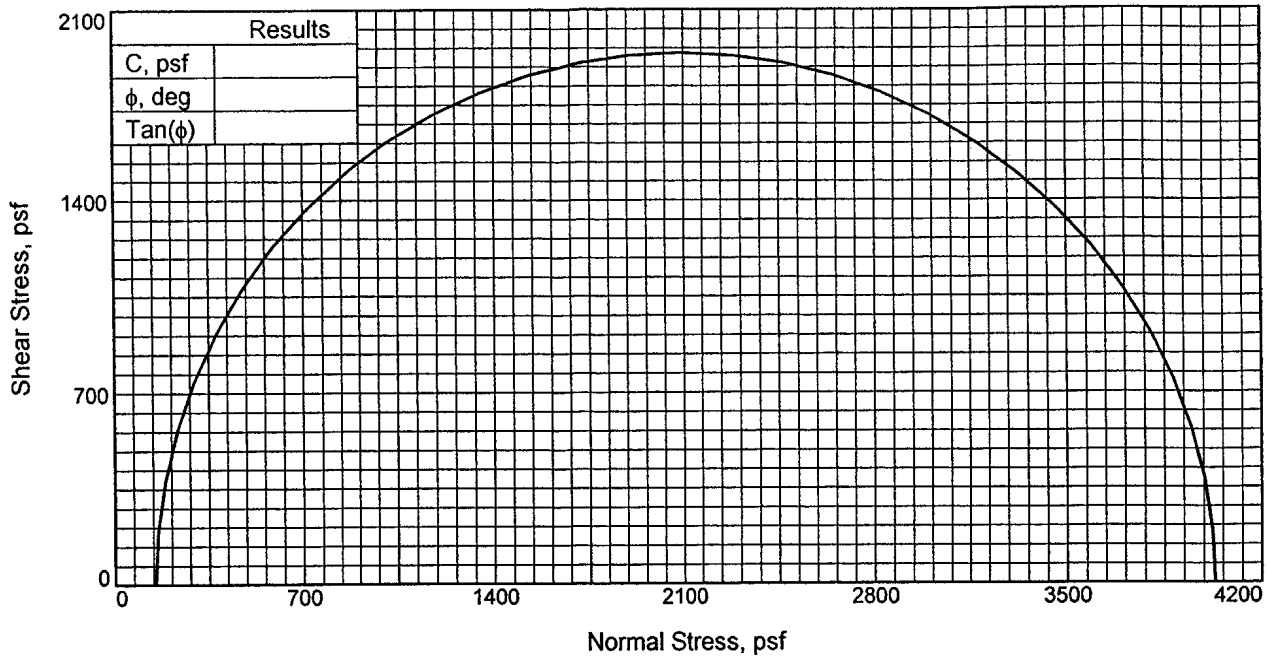


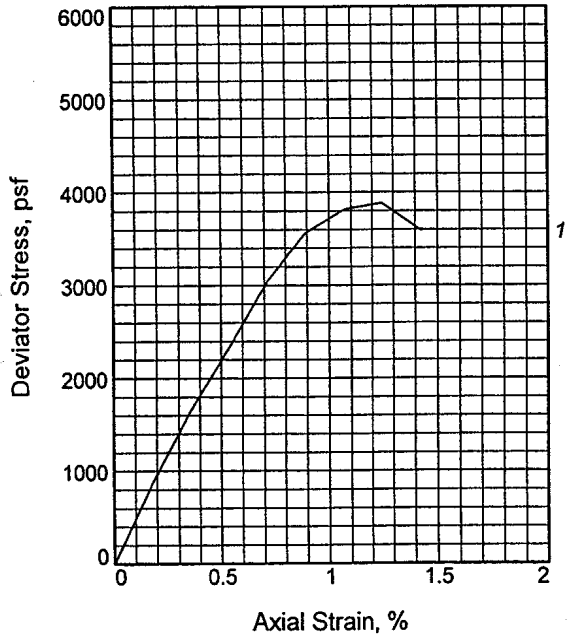
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB107 **Depth:** 0.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW





Sample No.		1
Initial	Water Content,	10.0
	Dry Density, pcf	118.4
	Saturation,	63.5
	Void Ratio	0.4238
	Diameter, in.	2.40
	Height, in.	5.60
At Test	Water Content,	10.0
	Dry Density, pcf	118.4
	Saturation,	63.5
	Void Ratio	0.4238
	Diameter, in.	2.40
	Height, in.	5.60
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		149.8
Fail. Stress, psf		3881.9
Strain, %		1.3
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		4031.7
σ_3 Failure, psf		149.8

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Light Brown Silty Sand (SM)

Assumed Specific Gravity= 2.70

Remarks: Sample had lateral cracks before shear test.

Plate _____

Client: Mactec E&C

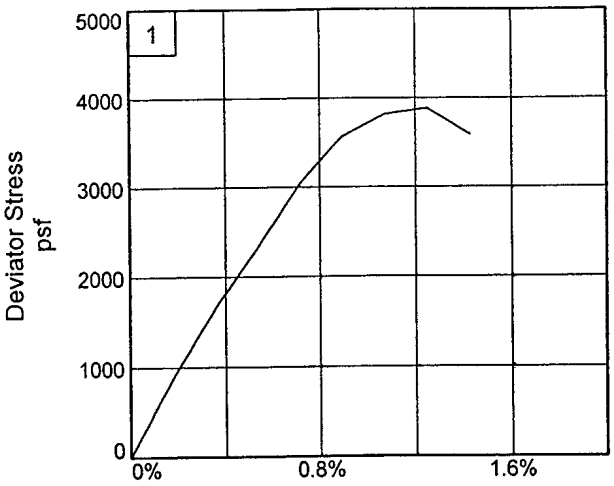
Project: Presidio SF BBDA

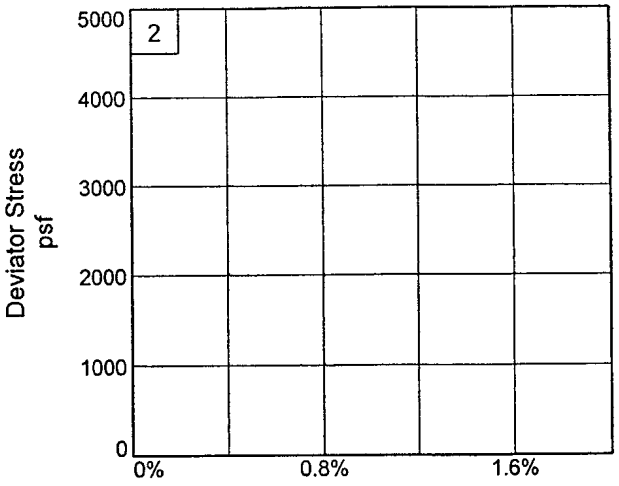
Source of Sample: BBSB107 **Depth:** 2.5'

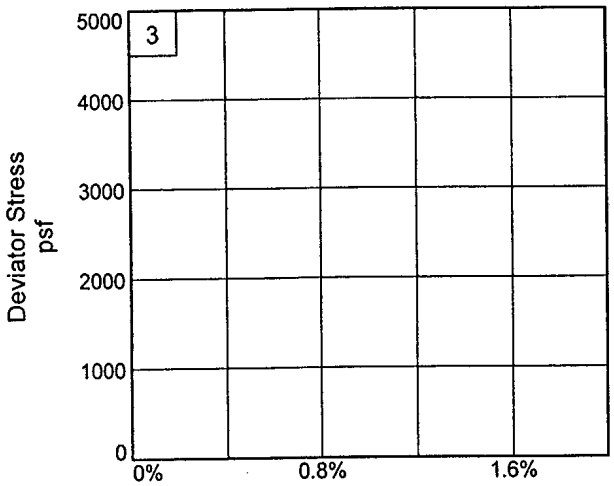
Proj. No.: 57255005132 **Date:** 5-23-05

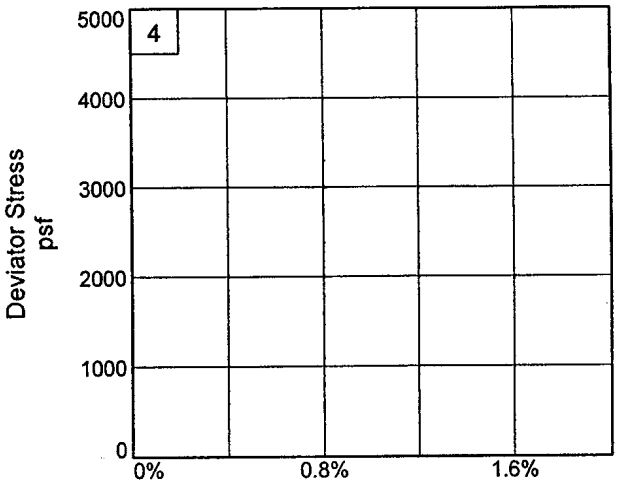
R G H CONSULTANTS, INC.

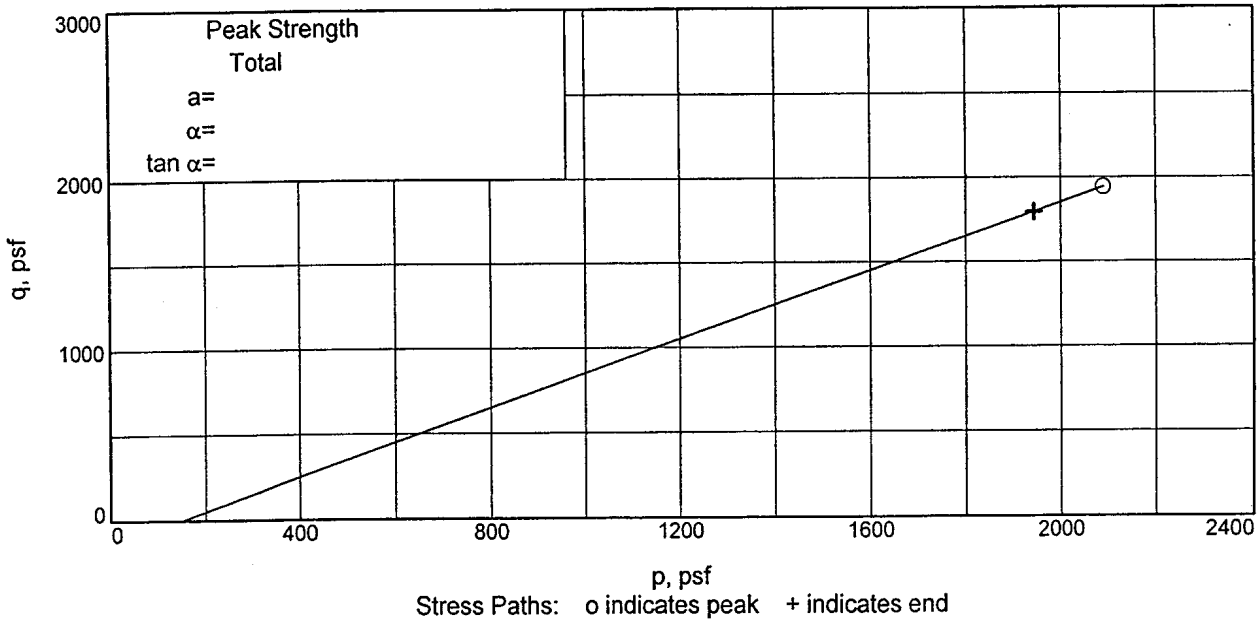
Tested By: MW **Checked By:** TMc









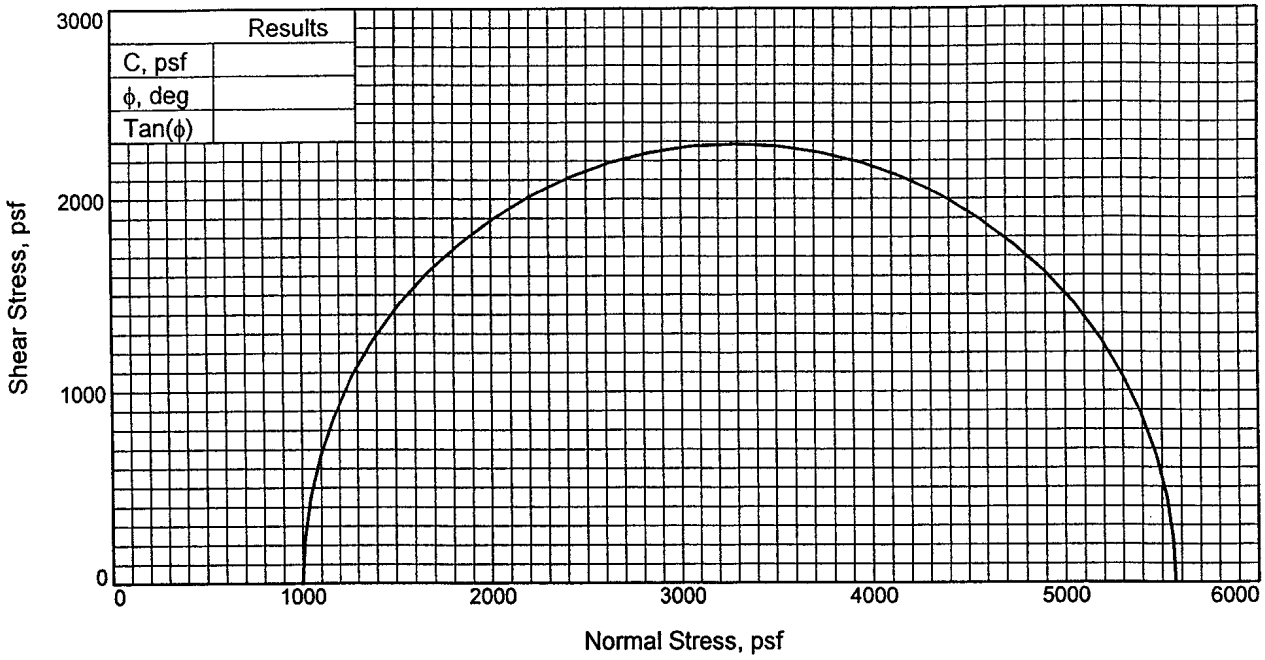


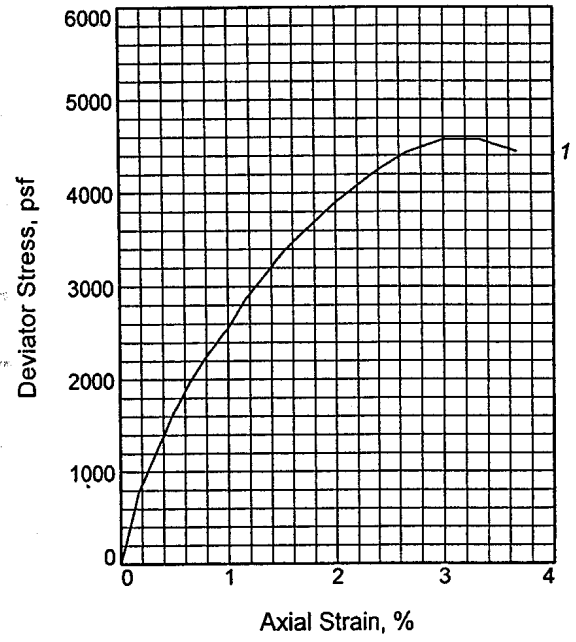
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB107 **Depth:** 2.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	17.6
	Dry Density, pcf	103.5
	Saturation,	75.3
	Void Ratio	0.6292
	Diameter, in.	2.42
	Height, in.	6.00
At Test	Water Content,	17.6
	Dry Density, pcf	103.5
	Saturation,	75.3
	Void Ratio	0.6292
	Diameter, in.	2.42
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		999.4
Fail. Stress, psf		4569.9
Strain, %		3.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		5569.2
σ_3 Failure, psf		999.4

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Silty Sand (SM)

Assumed Specific Gravity= 2.70

Remarks: Sample had lateral cracks before shear test.

Plate _____

Client: Mactec E&C

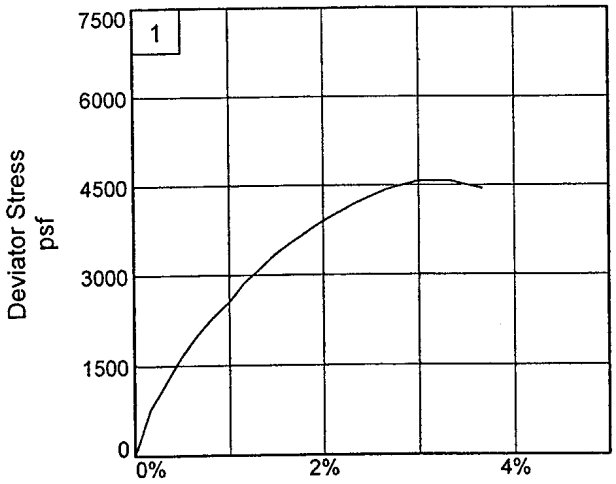
Project: Presidio SF BBDA

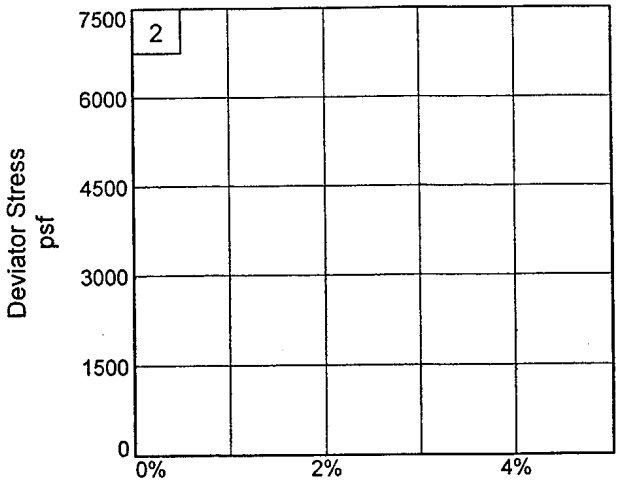
Source of Sample: BBSB107 **Depth:** 16.0'

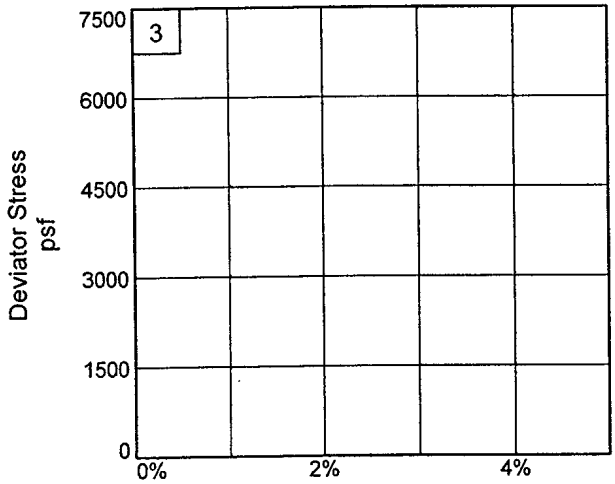
Proj. No.: 57255005132 **Date:** 5-23-05

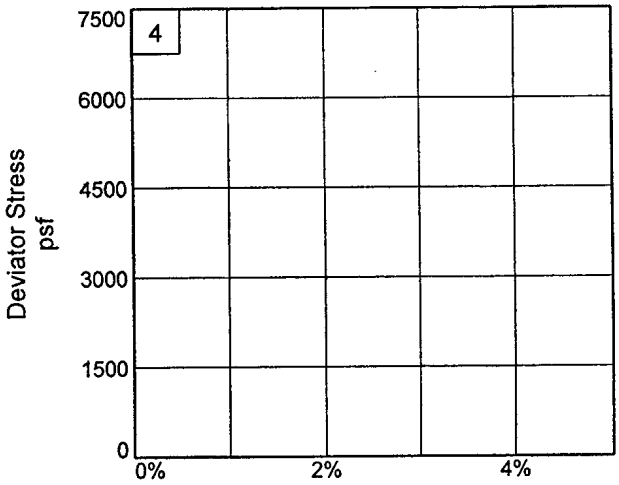
RGH CONSULTANTS, INC.

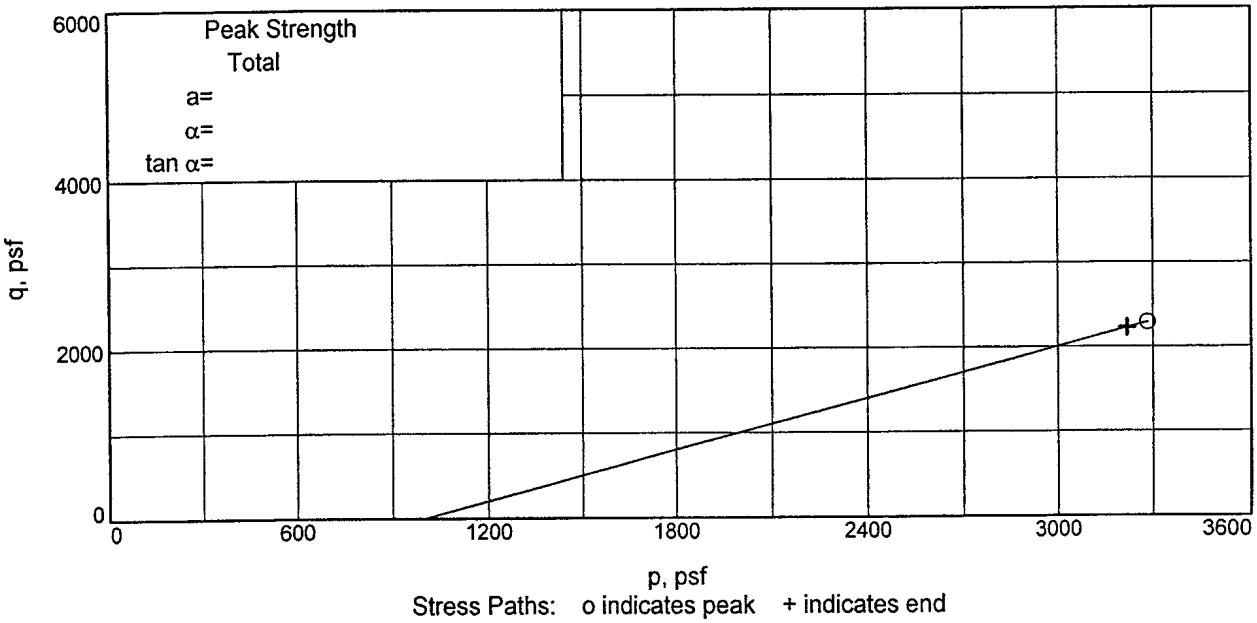
Tested By: MW **Checked By:** TMc









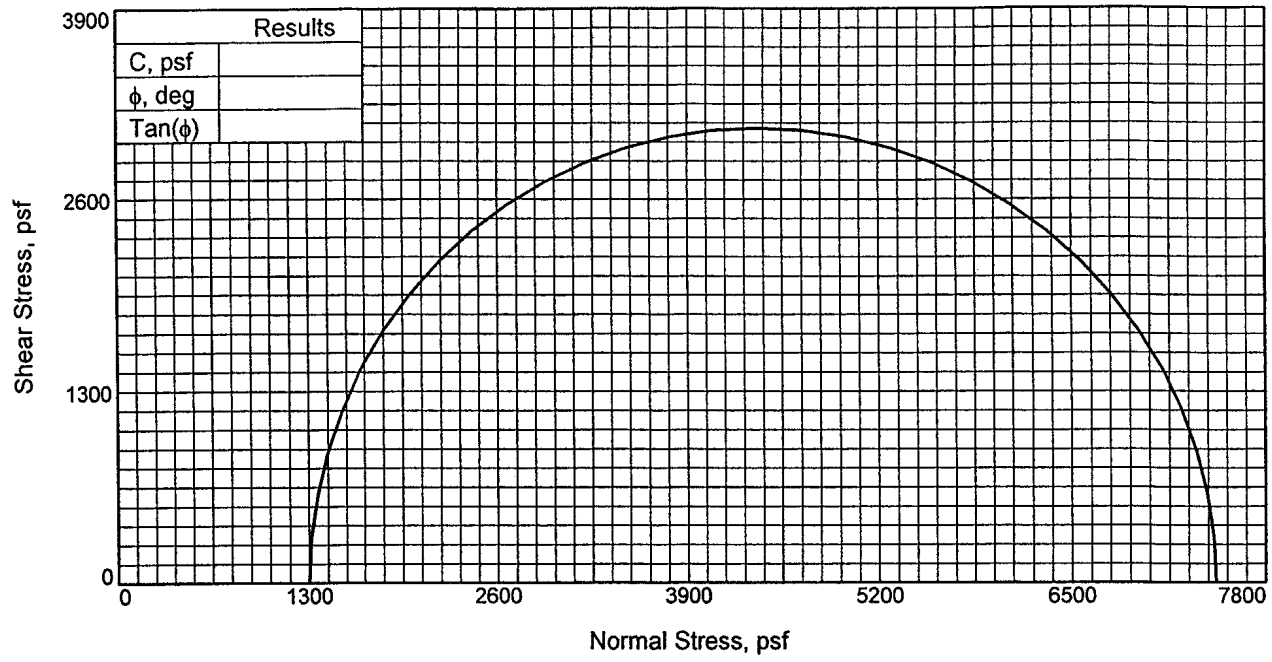


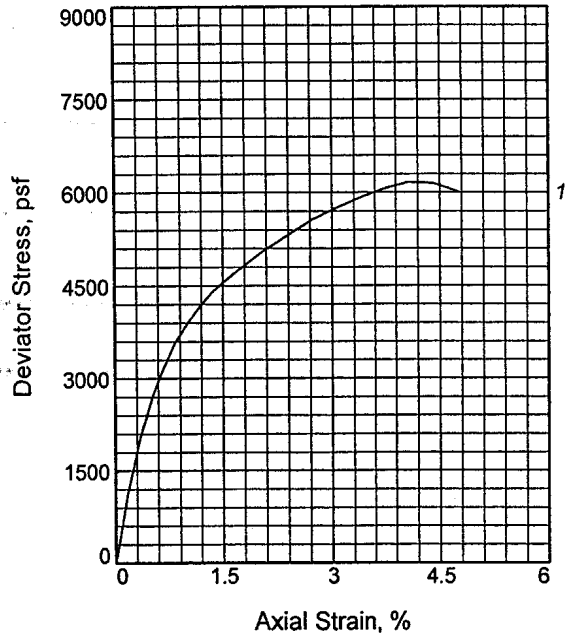
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB107 **Depth:** 16.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	18.8
	Dry Density, pcf	97.1
	Saturation,	69.0
	Void Ratio	0.7359
	Diameter, in.	2.43
	Height, in.	5.90
At Test	Water Content,	18.8
	Dry Density, pcf	97.1
	Saturation,	69.0
	Void Ratio	0.7359
	Diameter, in.	2.43
	Height, in.	5.90
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		1300.3
Fail. Stress, psf		6165.1
Strain, %		4.1
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		7465.4
σ_3 Failure, psf		1300.3

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: Green Silty Sand (SM)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

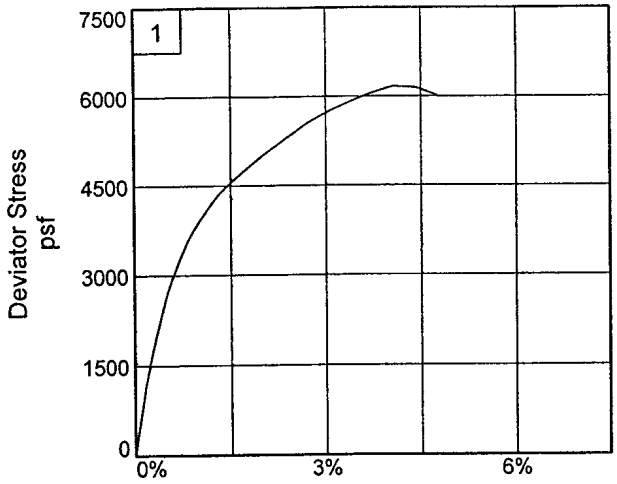
Project: Presidio SF BBDA

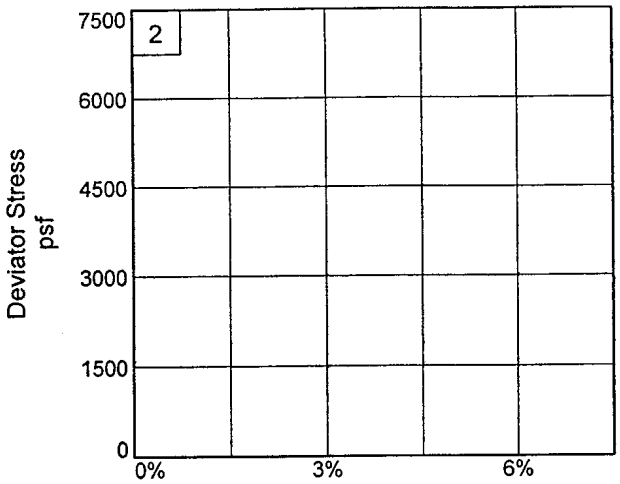
Source of Sample: BBSB107 **Depth:** 19.5'

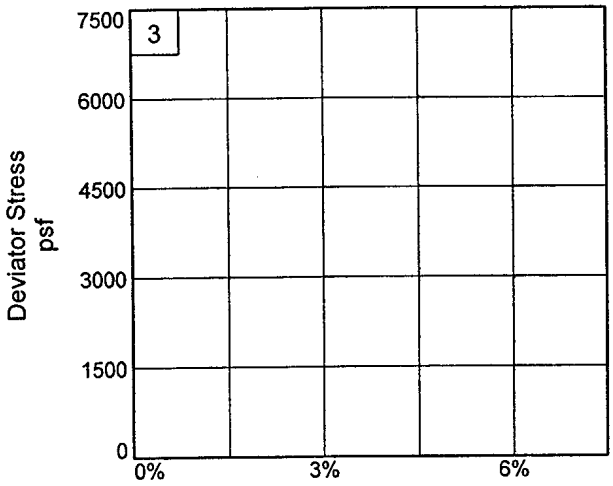
Proj. No.: 57255005132 **Date:** 5-23-05

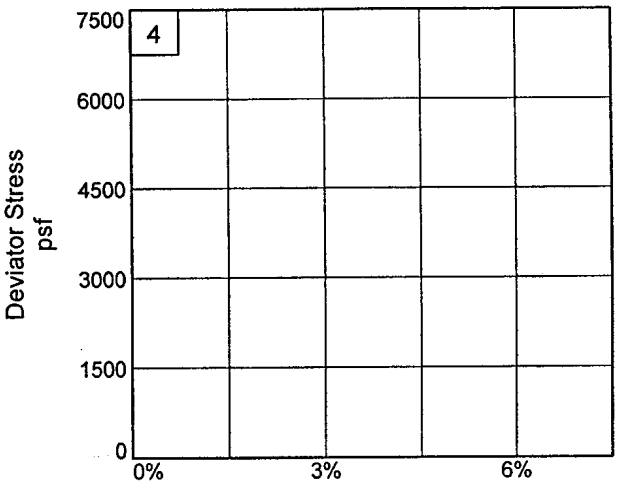
R G H CONSULTANTS, INC.

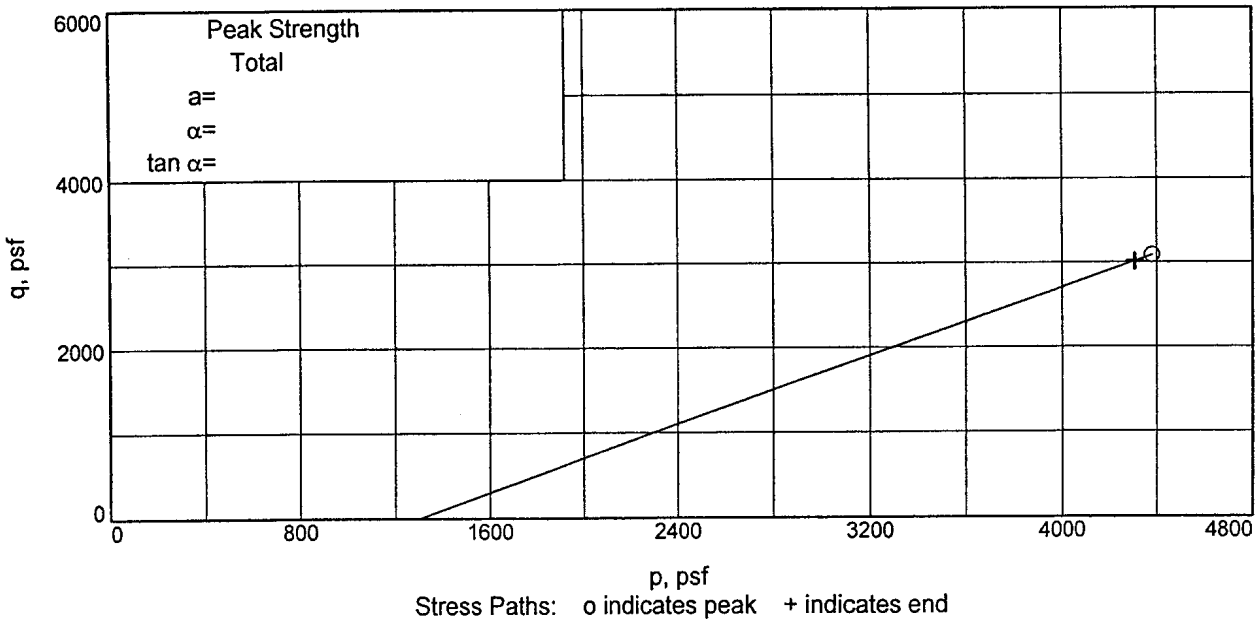
Tested By: MW **Checked By:** TMc









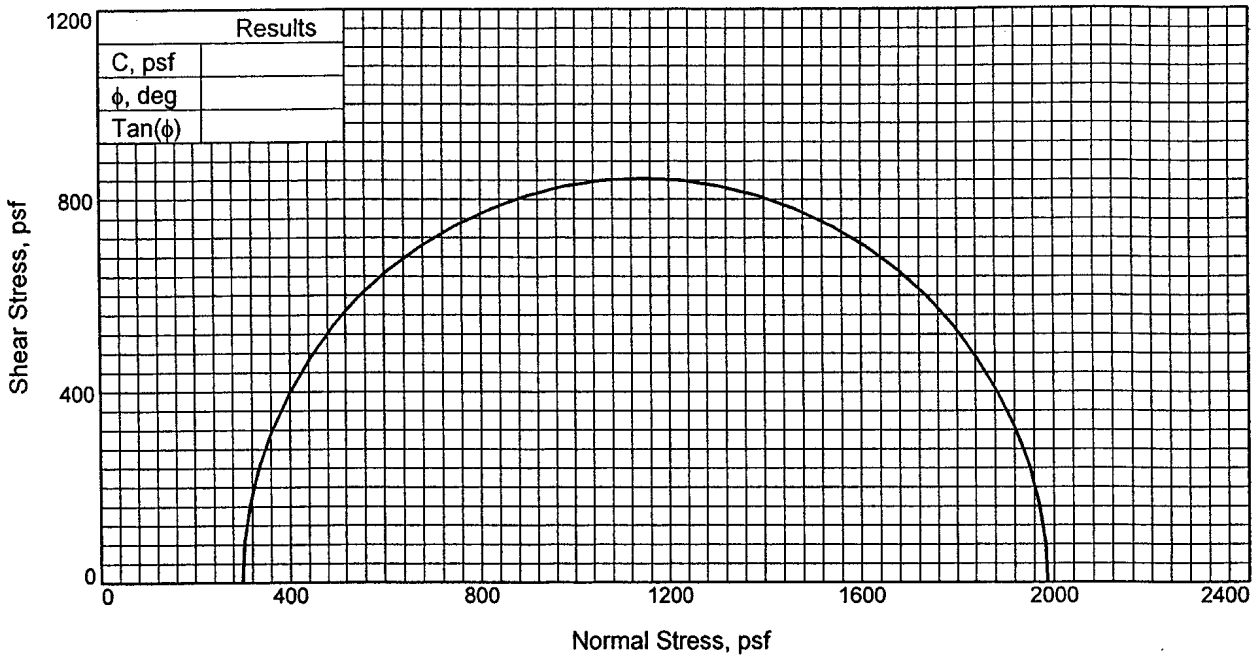


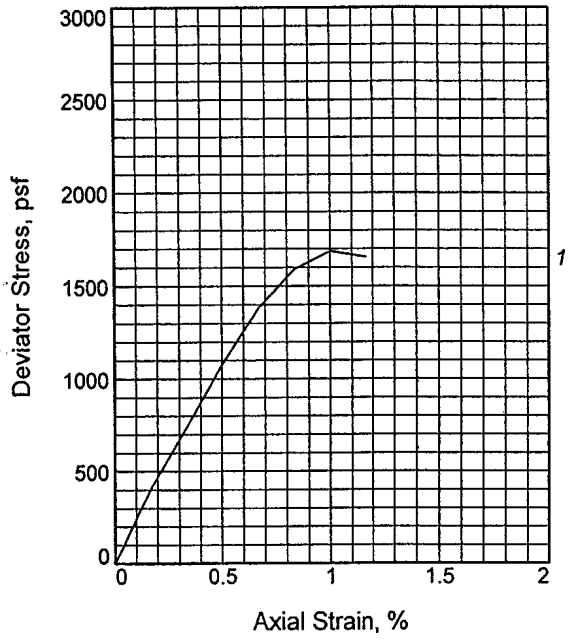
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BBSB107 **Depth:** 19.5'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	12.9
	Dry Density, pcf	112.8
	Saturation,	70.7
	Void Ratio	0.4938
	Diameter, in.	2.41
	Height, in.	6.00
At Test	Water Content,	12.9
	Dry Density, pcf	112.8
	Saturation,	70.7
	Void Ratio	0.4938
	Diameter, in.	2.41
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		299.5
Fail. Stress, psf		1686.8
Strain, %		1.0
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1986.3
σ_3 Failure, psf		299.5

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Dark Brown Clayey Sand W/Gravel (SC)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

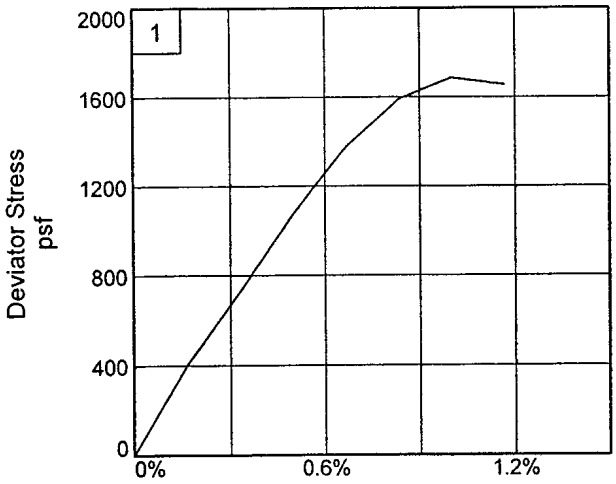
Project: Presidio S.F. BBDA

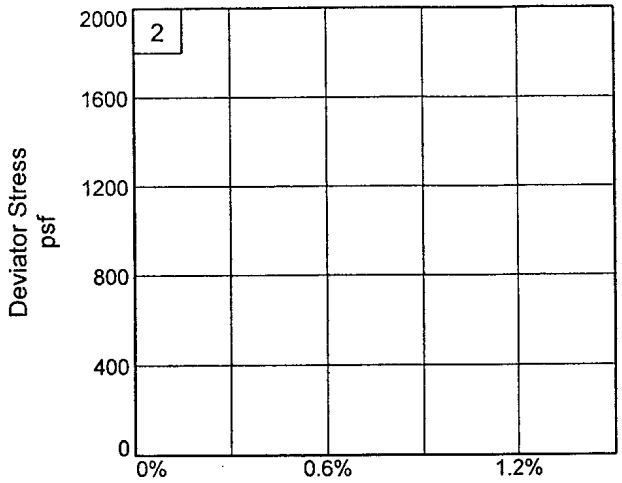
Source of Sample: BBSB103 **Depth:** 4.5-6.0'

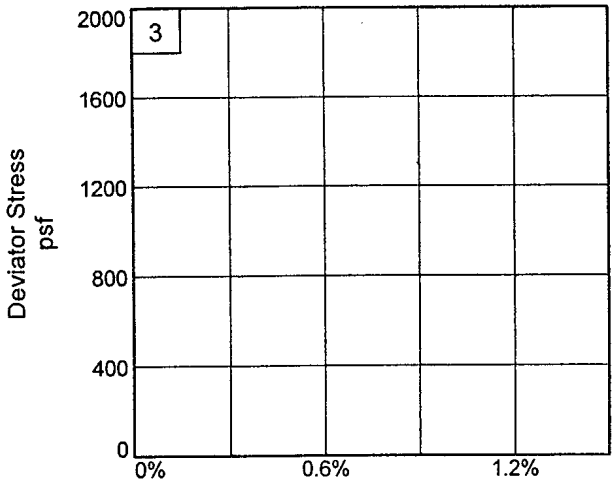
Proj. No.: 57255005 **Date:** 6-2-05

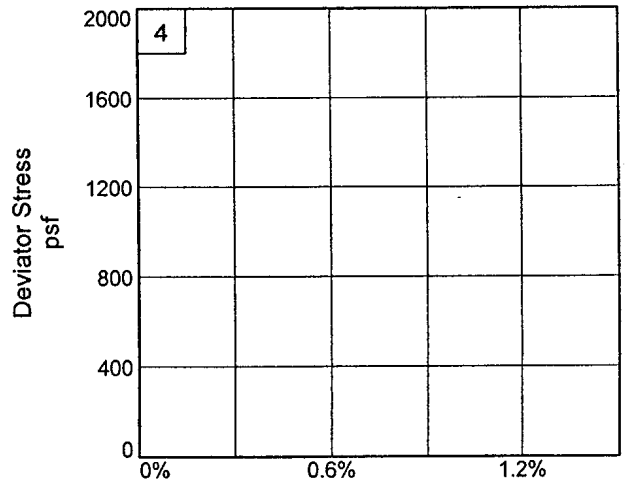
R G H CONSULTANTS, INC.

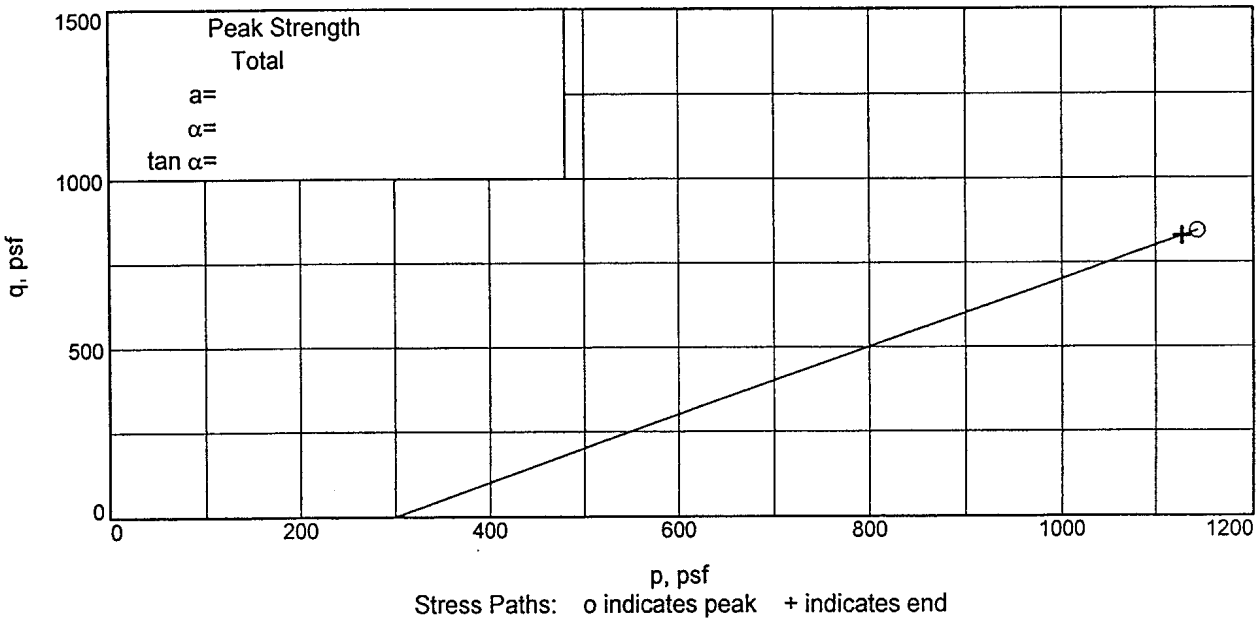
Tested By: MW **Checked By:** TMc









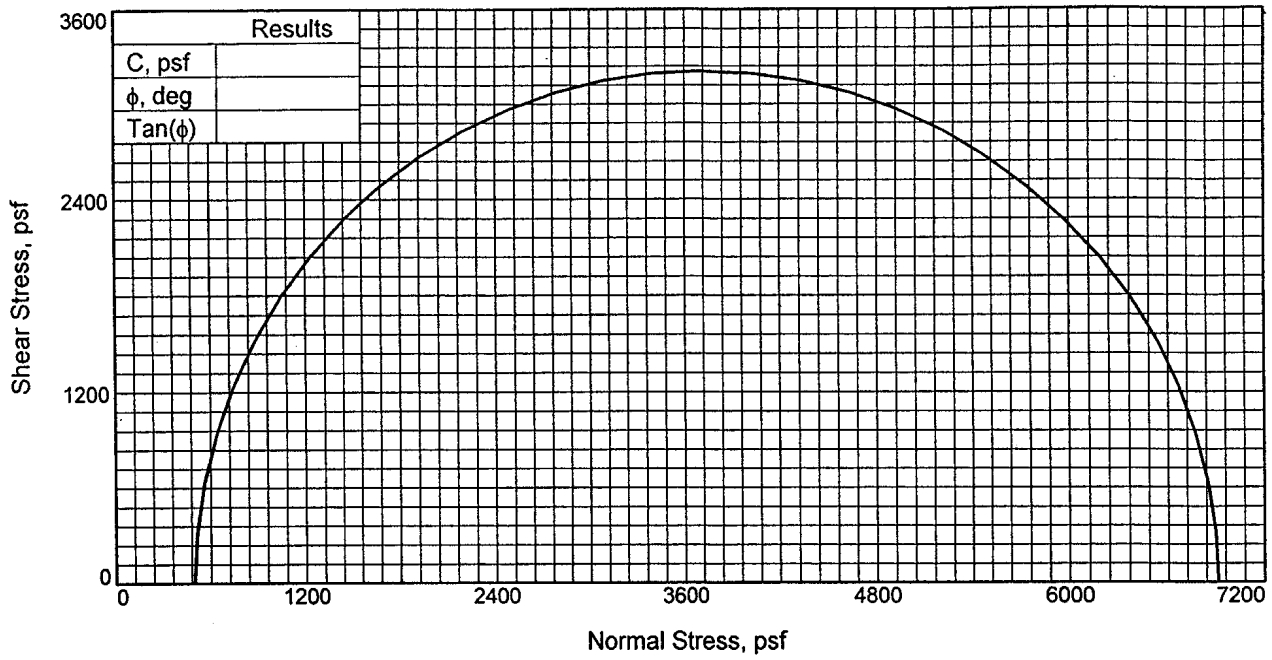


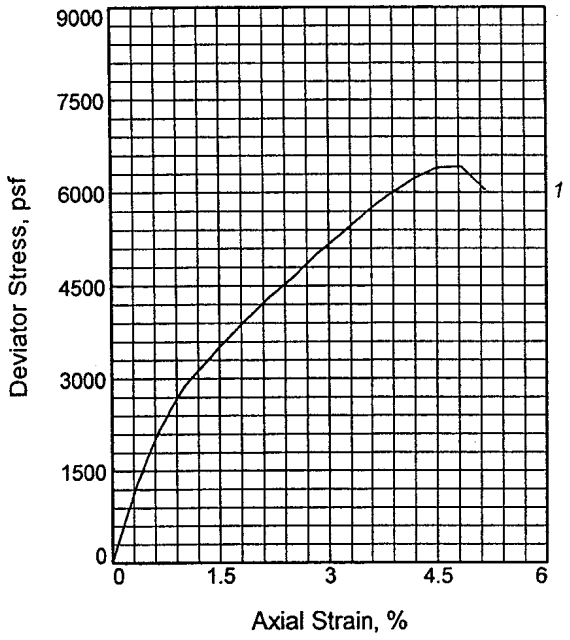
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio S.F. BBDA
Source of Sample: BBSB103 **Depth:** 4.5-6.0'
Project No.: 57255005 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	16.3
	Dry Density, pcf	115.2
	Saturation,	95.1
	Void Ratio	0.4633
	Diameter, in.	2.40
	Height, in.	6.00
At Test	Water Content,	16.3
	Dry Density, pcf	115.2
	Saturation,	95.1
	Void Ratio	0.4633
	Diameter, in.	2.40
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		499.7
Fail. Stress, psf		6415.2
Strain, %		4.8
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		6914.9
σ_3 Failure, psf		499.7

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Light Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

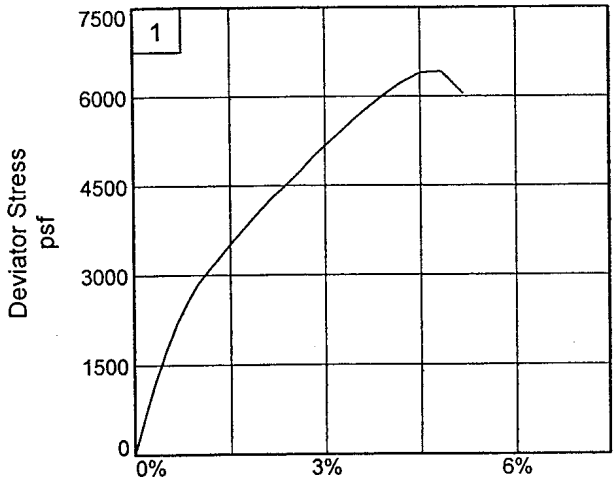
Project: Presidio S.F. BBDA

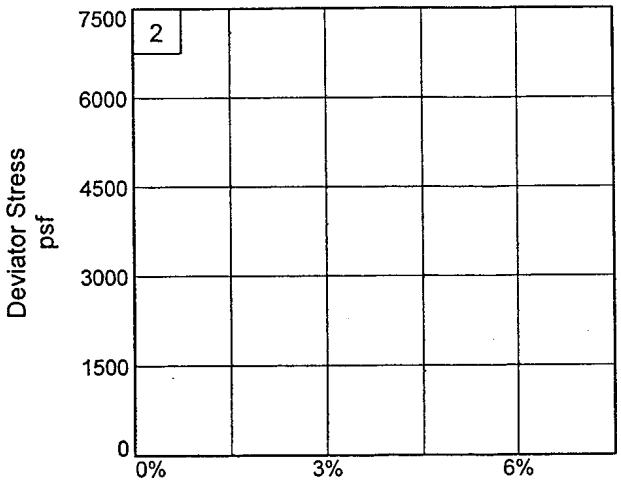
Source of Sample: BBSB106 **Depth:** 7.5-8.0'

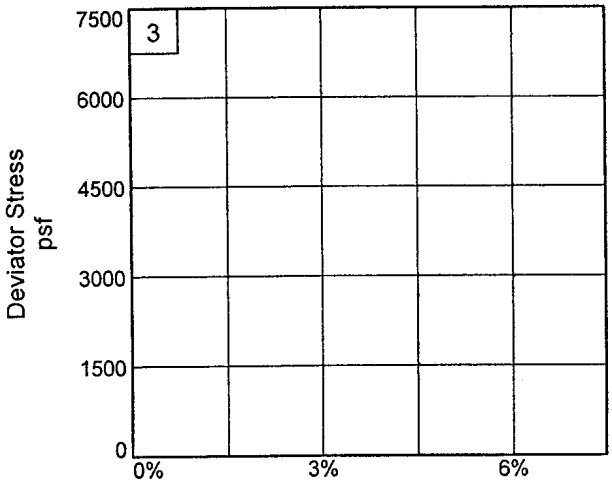
Proj. No.: 57255005 **Date:** 6-2-05

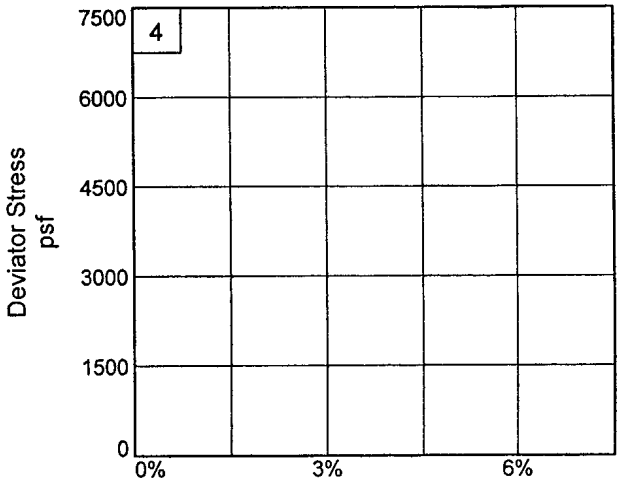
R G H CONSULTANTS, INC.

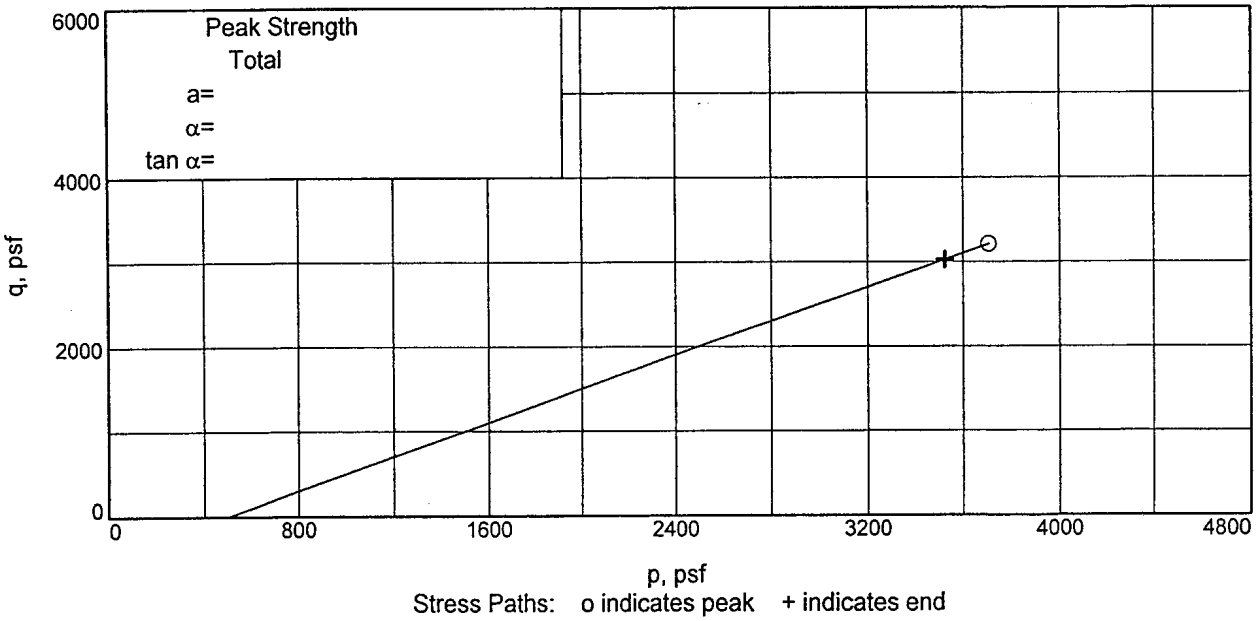
Tested By: MW **Checked By:** TMc









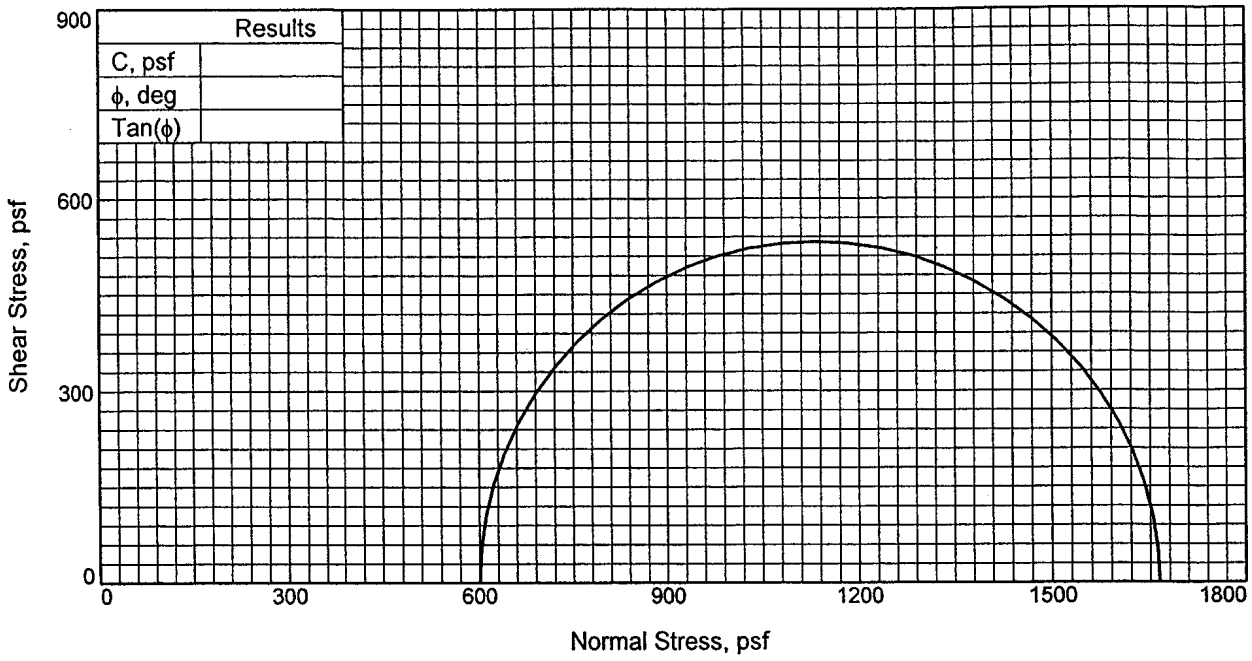


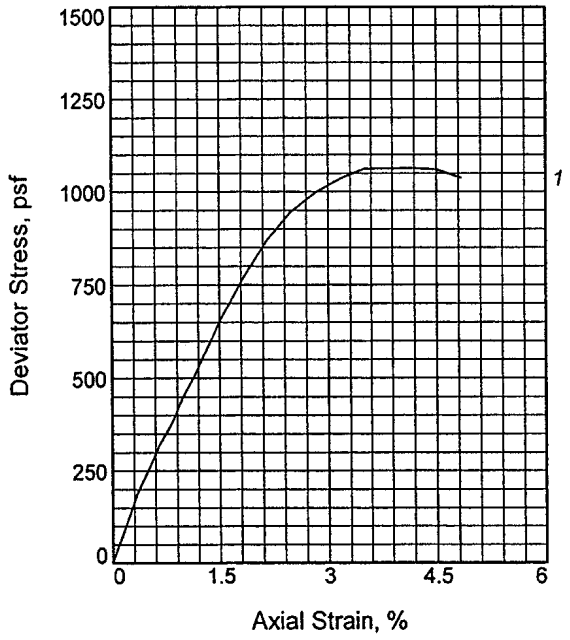
Stress Paths: o indicates peak + indicates end

Client: Mactec E&C
Project: Presidio S.F. BBDA
Source of Sample: BBSB106 **Depth:** 7.5-8.0'
Project No.: 57255005 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: MW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	20.2
	Dry Density, pcf	105.2
	Saturation,	90.7
	Void Ratio	0.6016
	Diameter, in.	2.87
	Height, in.	6.00
At Test	Water Content,	20.2
	Dry Density, pcf	105.2
	Saturation,	90.7
	Void Ratio	0.6016
	Diameter, in.	2.87
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		600.5
Fail. Stress, psf		1063.5
Strain, %		4.2
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		1664.0
σ_3 Failure, psf		600.5

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: Dark Brown Clayey Sand W/Gravel (SC)
LL= 29 **PL=** 18 **PI=** 11
Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E & C

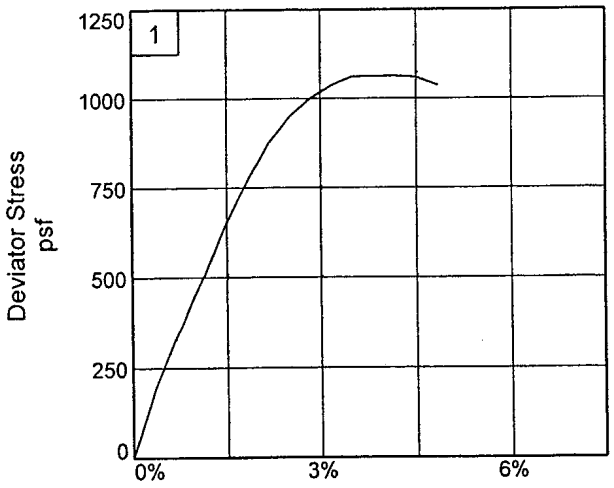
Project: Presidio San Francisco- Baker Beach

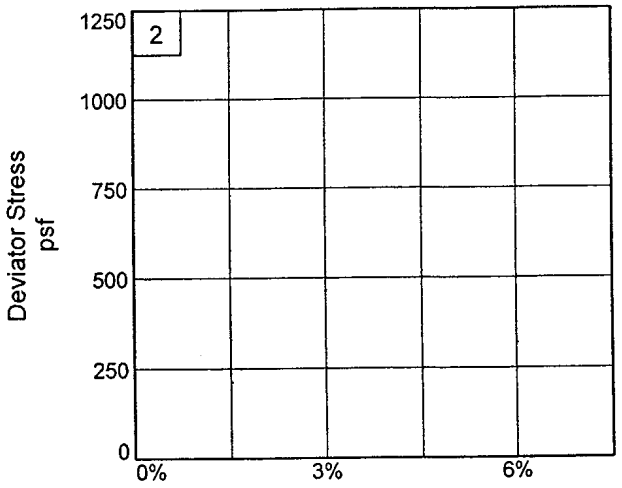
Source of Sample: BB2ATP104 **Depth:** 6.0-8.5'

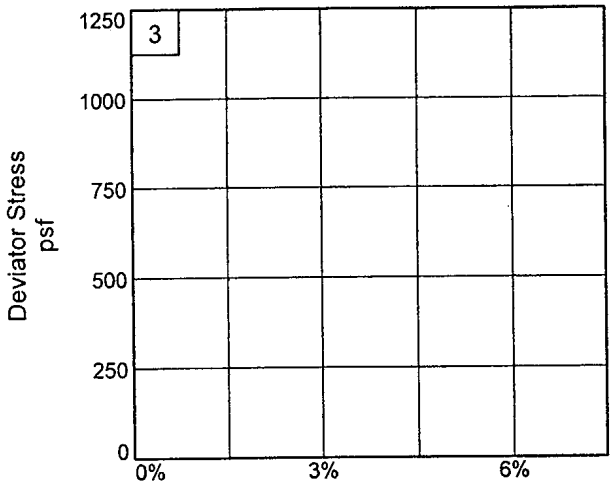
Proj. No.: 57255-005135 **Date:** 4-22-05

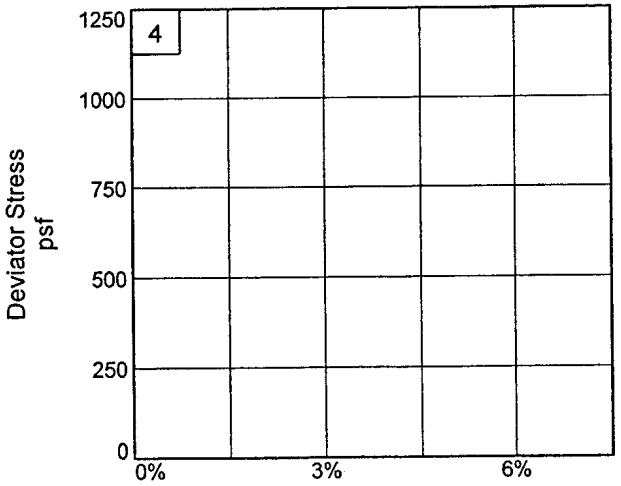
R G H CONSULTANTS, INC.

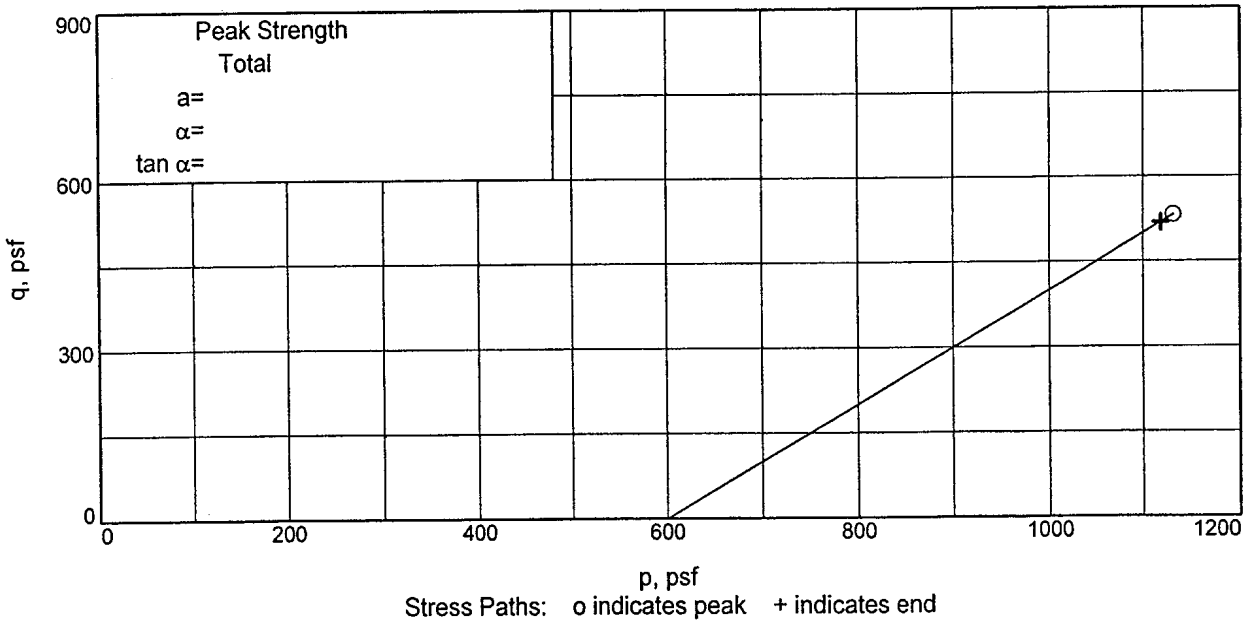
Tested By: TMc **Checked By:** TMc









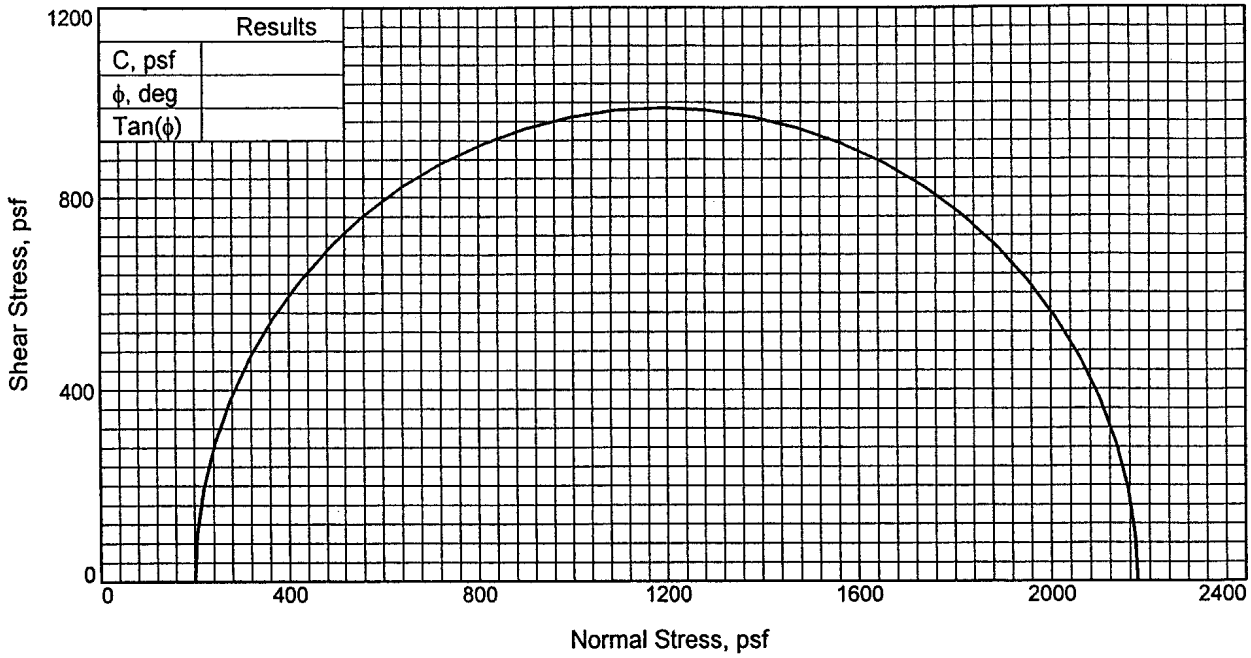


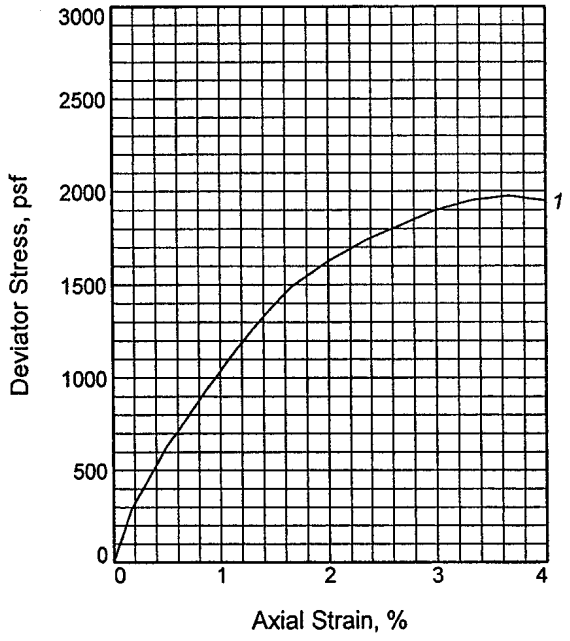
Stress Paths: o indicates peak + indicates end

Client: Mactec E & C
Project: Presidio San Francisco- Baker Beach
Source of Sample: BB2ATP104 **Depth:** 6.0-8.5'
Project No.: 57255-005135 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: TMc **Checked By:** TMc





Sample No.		1
Initial	Water Content,	14.8
	Dry Density, pcf	116.4
	Saturation,	89.3
	Void Ratio	0.4483
	Diameter, in.	2.86
	Height, in.	6.00
At Test	Water Content,	14.8
	Dry Density, pcf	116.4
	Saturation,	89.3
	Void Ratio	0.4483
	Diameter, in.	2.86
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		200.2
Fail. Stress, psf		1975.3
Strain, %		3.7
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		2175.5
σ_3 Failure, psf		200.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Red Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70

Remarks:

Client: Mactec E & C

Project: Presidio San Francisco- Baker Beach

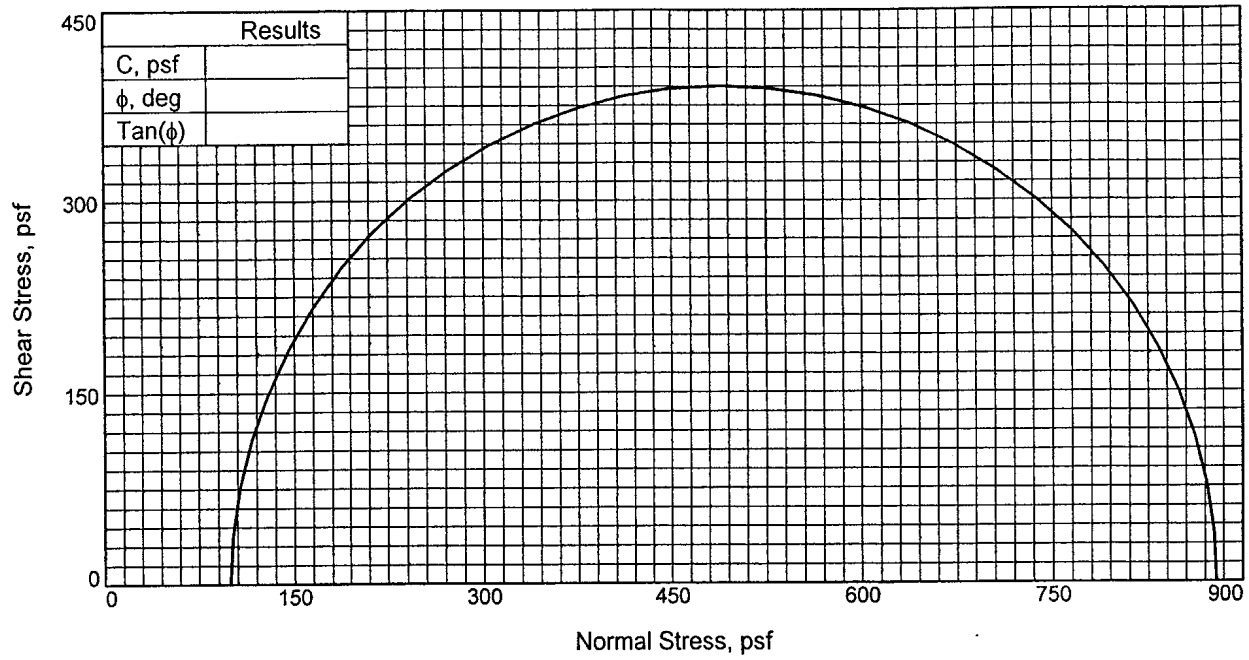
Source of Sample: BB2TP100 **Depth:** 1.5-3.0'

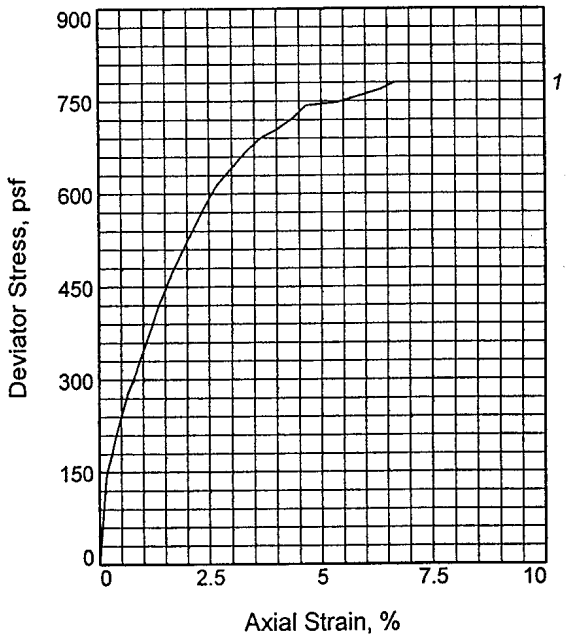
Proj. No.: 57255-005135 **Date:** 4-21-05

R G H CONSULTANTS, INC.

Plate _____

Tested By: SW **Checked By:** TMc





Sample No.		1
Initial	Water Content,	27.4
	Dry Density, pcf	94.6
	Saturation,	94.7
	Void Ratio	0.7825
	Diameter, in.	2.86
	Height, in.	6.00
At Test	Water Content,	27.4
	Dry Density, pcf	94.6
	Saturation,	94.7
	Void Ratio	0.7825
	Diameter, in.	2.86
	Height, in.	6.00
Strain rate, in./min.		0.08
Back Pressure, psf		0.0
Cell Pressure, psf		99.4
Fail. Stress, psf		779.9
Strain, %		6.7
Ult. Stress, psf		
Strain, %		
σ_1 Failure, psf		879.2
σ_3 Failure, psf		99.4

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70

Remarks:

Client: Mactec E & C

Project: Presidio San Francisco- Baker Beach

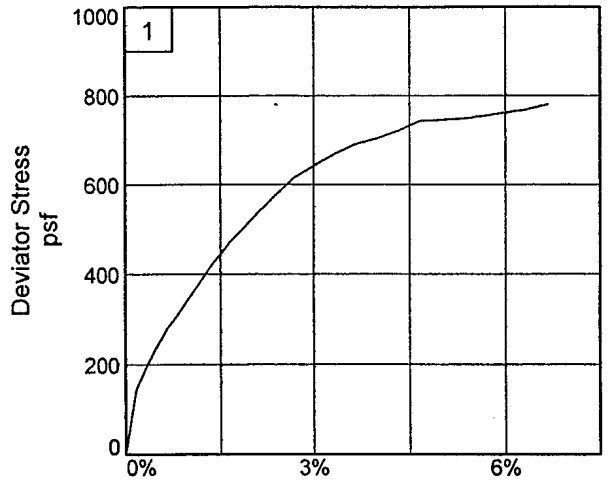
Source of Sample: BB2ATP101 **Depth:** 12.0-14.0'

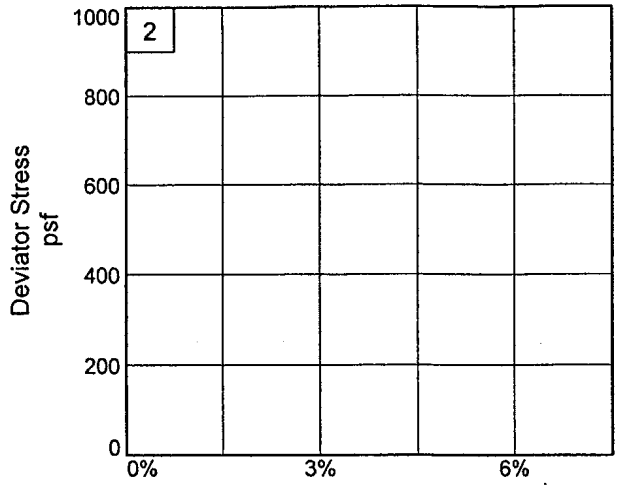
Proj. No.: 57255-005135 **Date:** 4-21-05

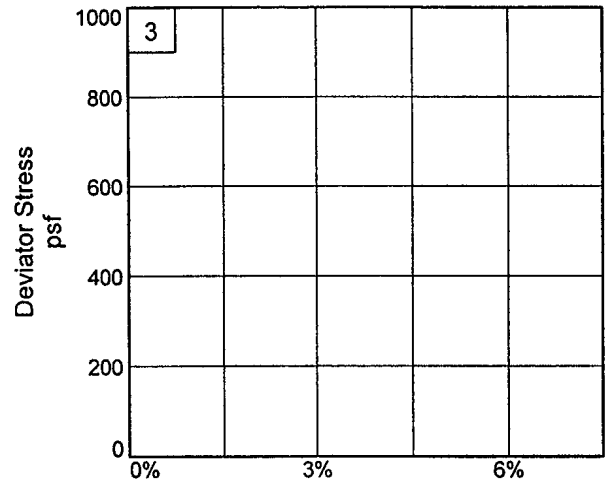
RGH CONSULTANTS, INC.

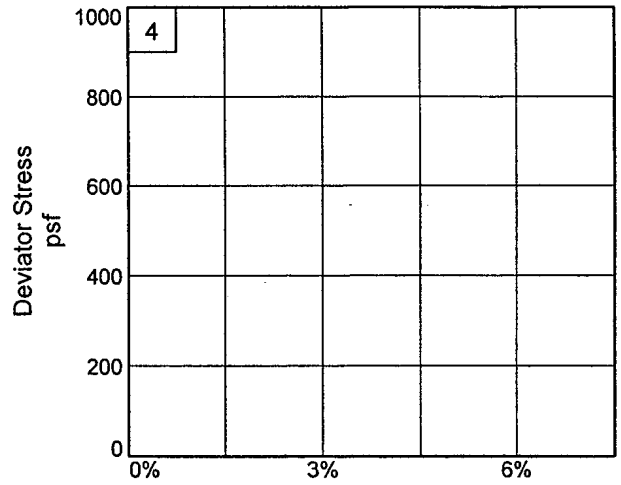
Plate _____

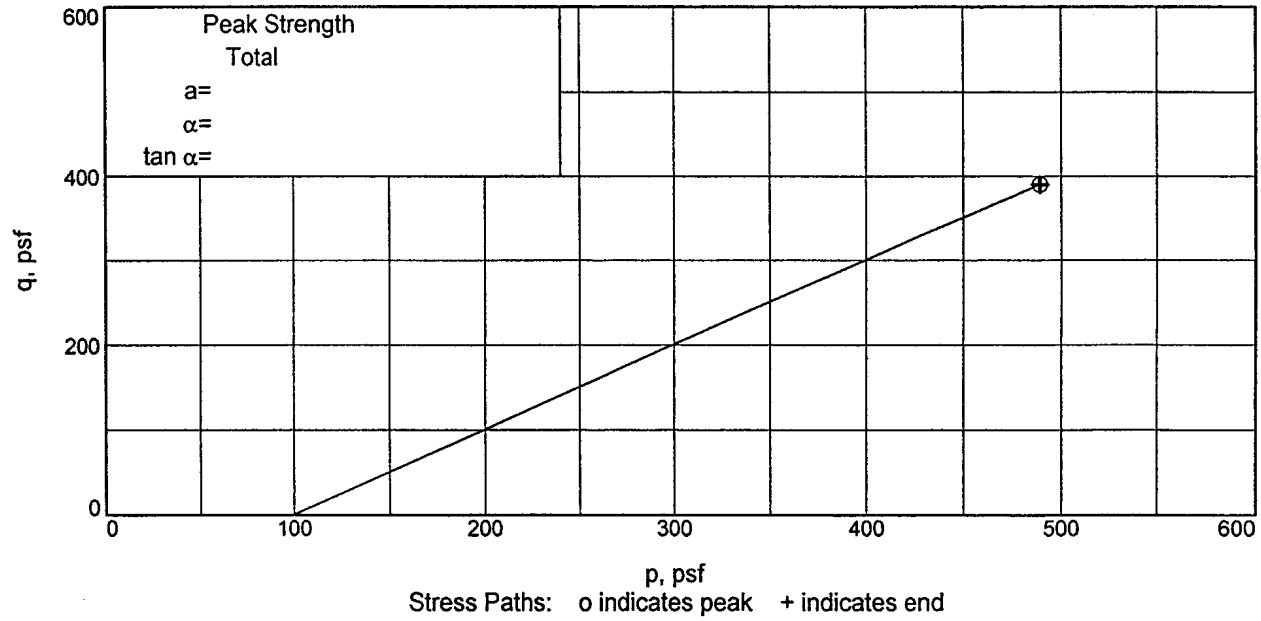
Tested By: SW **Checked By:** TMc









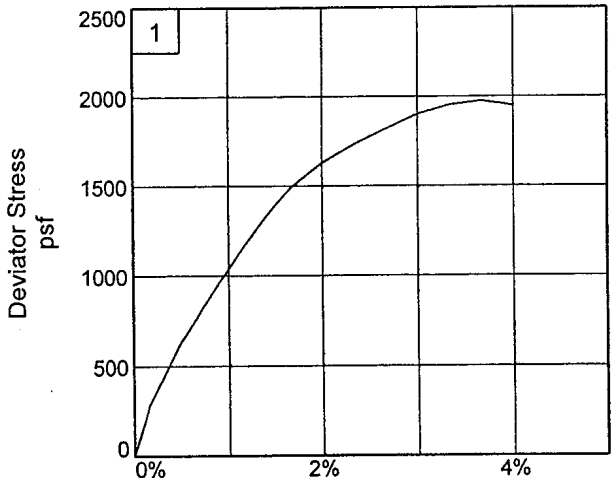


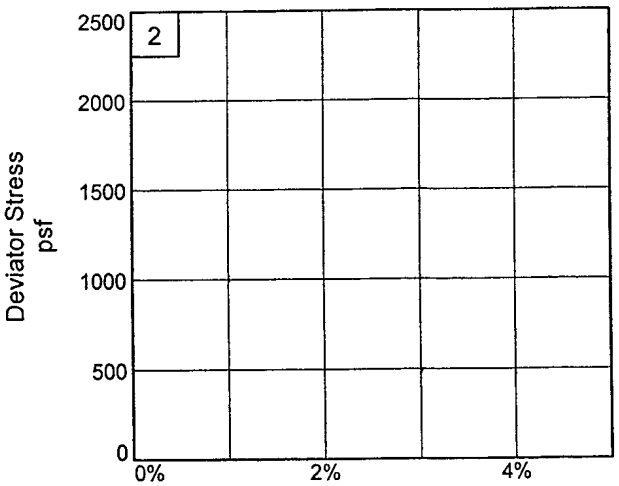
Stress Paths: o indicates peak + indicates end

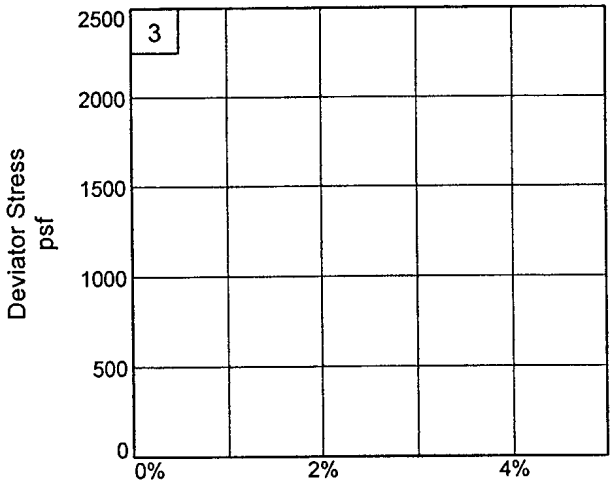
Client: Mactec E & C
Project: Presidio San Francisco- Baker Beach
Source of Sample: BB2ATP101 **Depth:** 12.0-14.0'
Project No.: 57255-005135 **Plate** _____

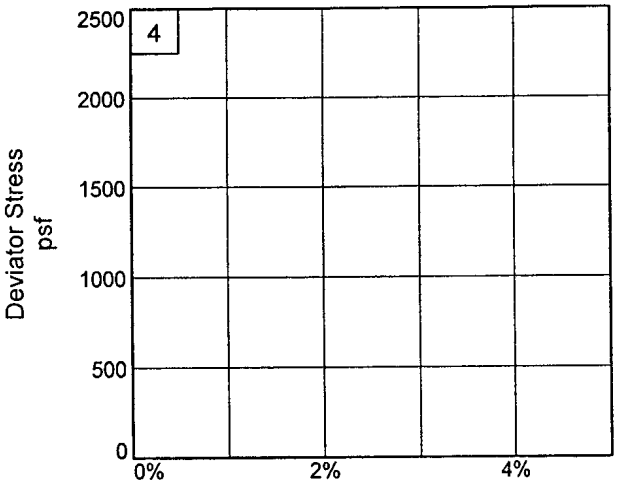
RGH CONSULTANTS, INC.

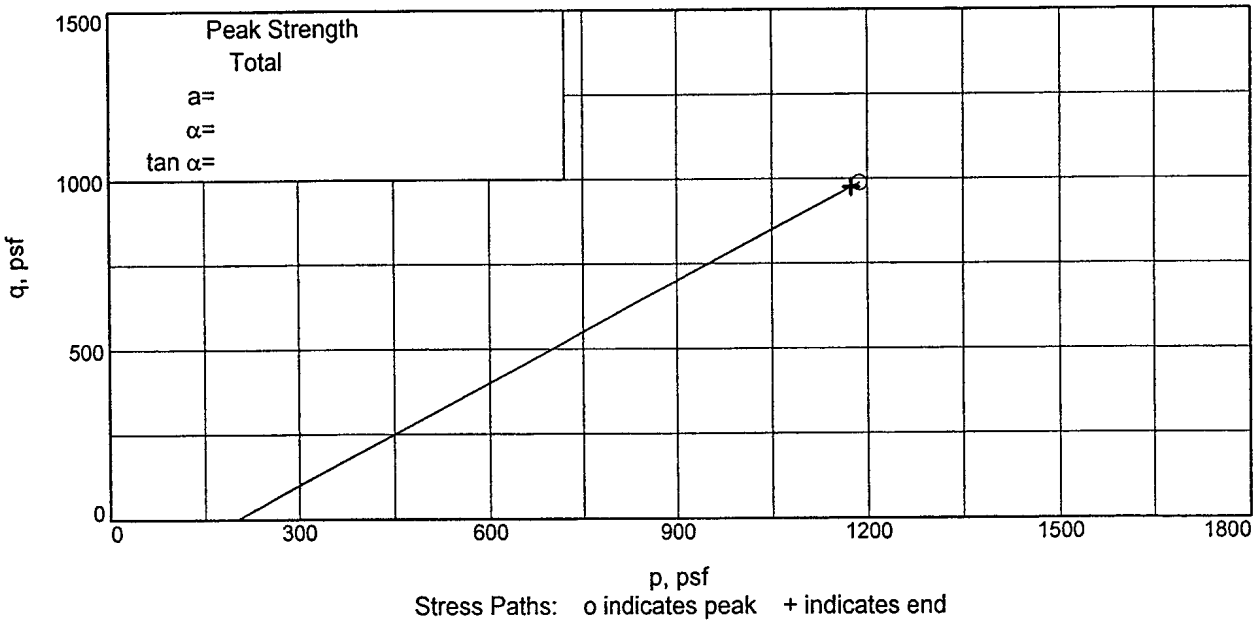
Tested By: SW **Checked By:** TMc











Stress Paths: o indicates peak + indicates end

Client: Mactec E & C

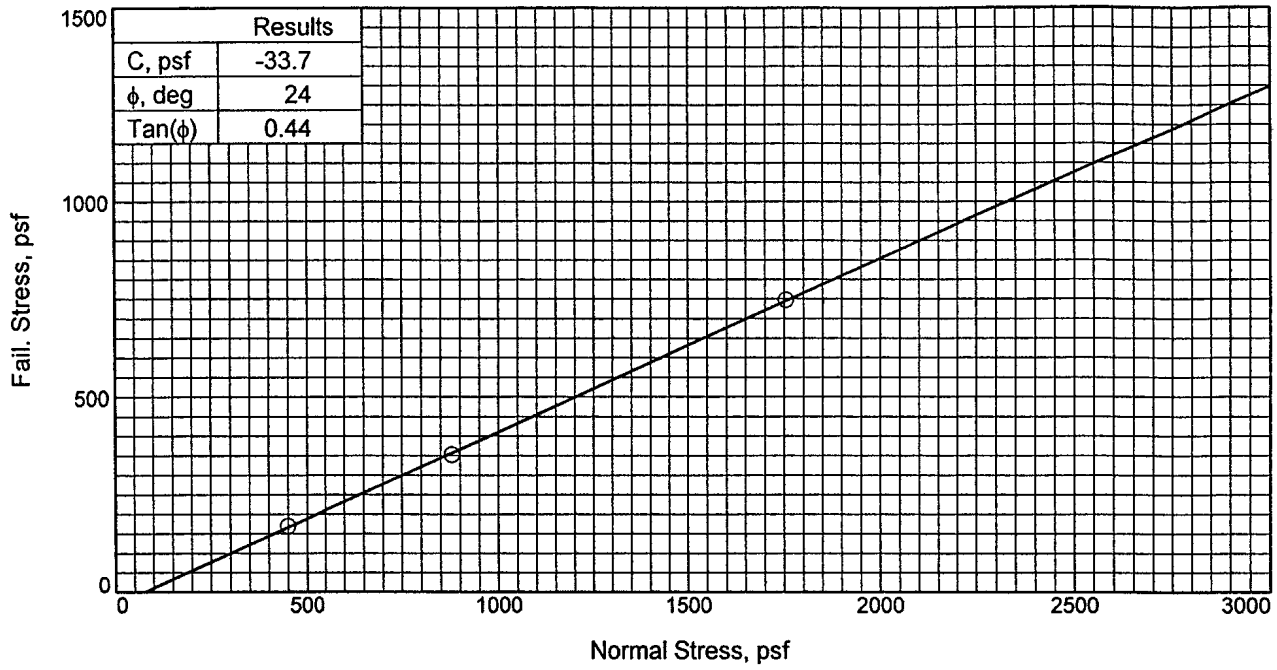
Project: Presidio San Francisco- Baker Beach

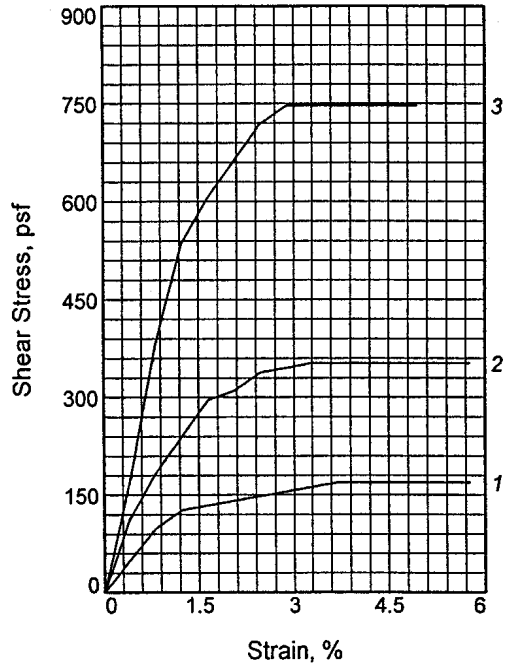
Source of Sample: BB2TP100 **Depth:** 1.5-3.0'

Project No.: 57255-005135 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: SW **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	11.5	8.9	10.7
	Dry Density, pcf	104.3	107.2	105.0
	Saturation, %	50.2	42.1	47.8
	Void Ratio	0.6153	0.5718	0.6046
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	20.8	20.5	20.3
	Dry Density, pcf	108.0	108.6	108.9
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.5605	0.5524	0.5482
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.80	0.81	0.80
Normal Stress, psf		450.0	880.0	1755.0
Fail. Stress, psf		169.0	352.1	746.5
Strain, %		3.7	3.3	2.9
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.06	0.06	0.06

Sample Type: Trimmed
Description: Brown Sand (SP)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

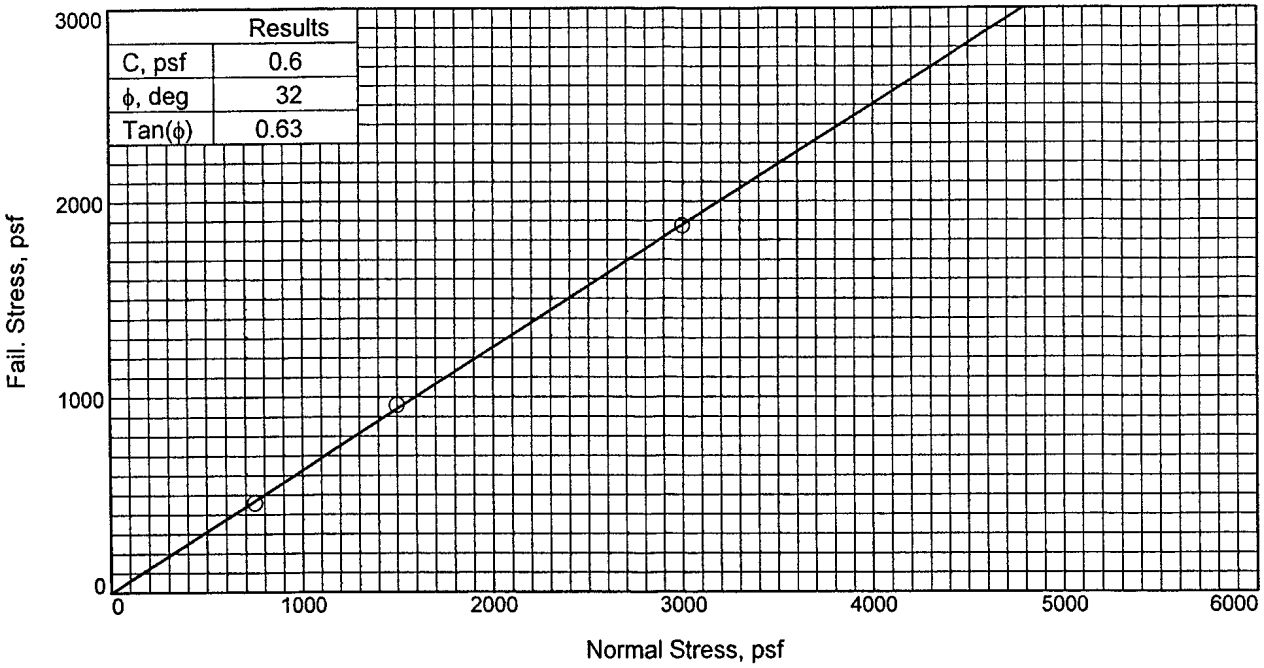
Project: Presidio S.F. BBDA

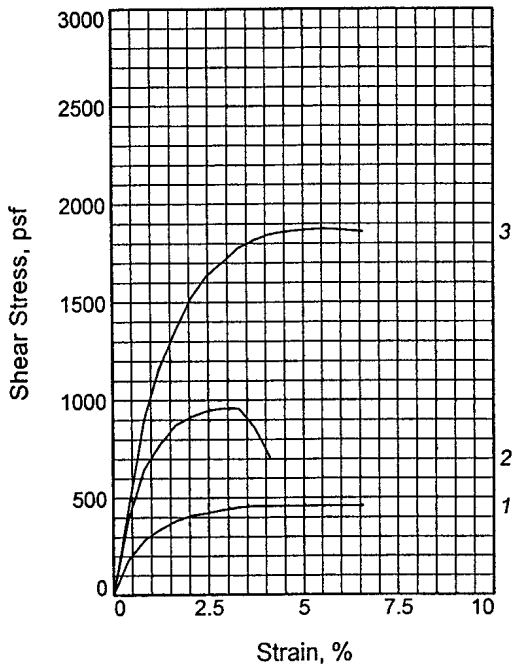
Source of Sample: BBSB101 **Depth:** 3.0-5.5'

Proj. No.: 57255005 **Date:** 6-9-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	8.8	8.5	8.9
	Dry Density, pcf	104.9	109.2	109.1
	Saturation, %	39.3	42.1	43.9
	Void Ratio	0.6061	0.5432	0.5446
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	20.7	19.8	19.0
	Dry Density, pcf	108.2	109.9	111.4
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.5584	0.5334	0.5137
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.80	0.82	0.81
Normal Stress, psf		750.0	1500.0	3000.0
Fail. Stress, psf		458.3	957.7	1873.2
Strain, %		6.2	2.9	5.3
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.06	0.06	0.06

Sample Type: Trimmed
Description: Brown Sand W/Silt (SP-SM)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

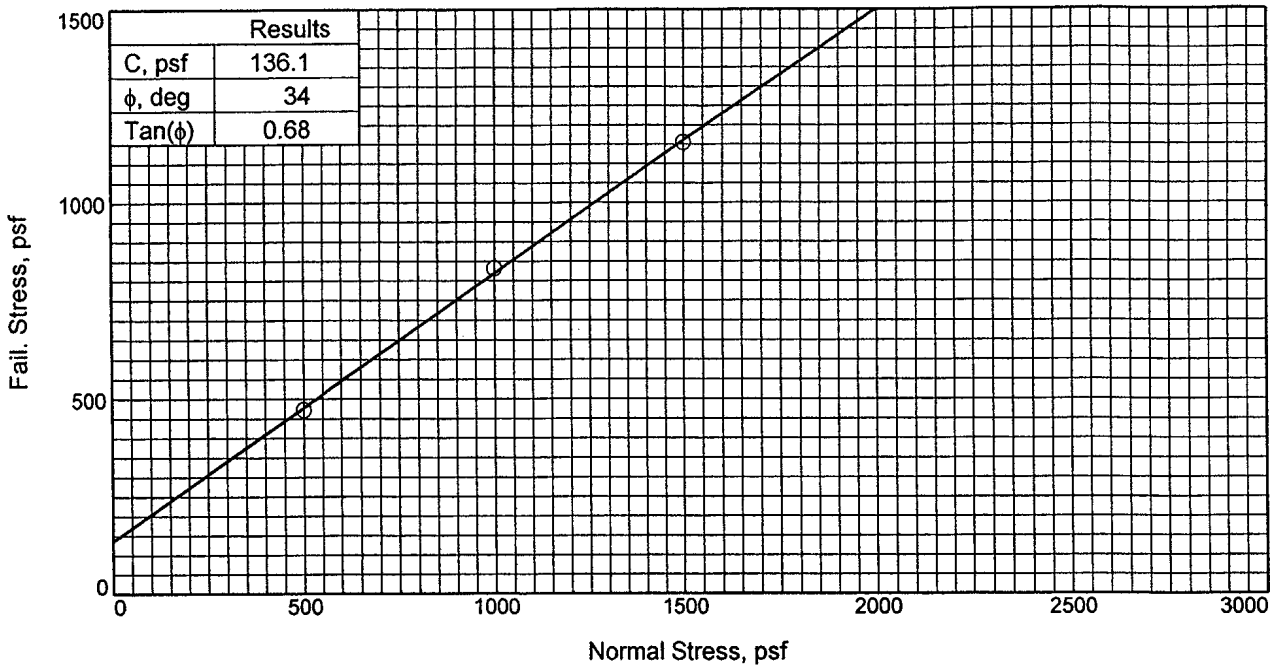
Project: Presidio S.F. BBDA

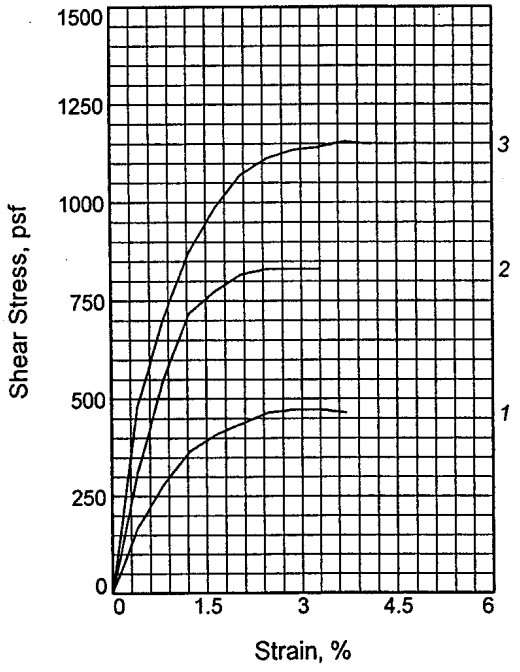
Source of Sample: BBSB101 **Depth:** 14.0-16.0'

Proj. No.: 57255005 **Date:** 6-10-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	9.4	11.8	11.3
	Dry Density, pcf	111.2	113.1	112.3
	Saturation, %	49.2	65.0	60.7
	Void Ratio	0.5155	0.4902	0.5008
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	16.7	16.8	17.4
	Dry Density, pcf	116.2	116.0	114.7
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.4509	0.4528	0.4689
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.79	0.80	0.81
Normal Stress, psf		500.0	1000.0	1500.0
Fail. Stress, psf		471.8	831.0	1154.9
Strain, %		2.9	2.5	3.7
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.06	0.06	0.06

Sample Type: Undisturbed
Description: Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

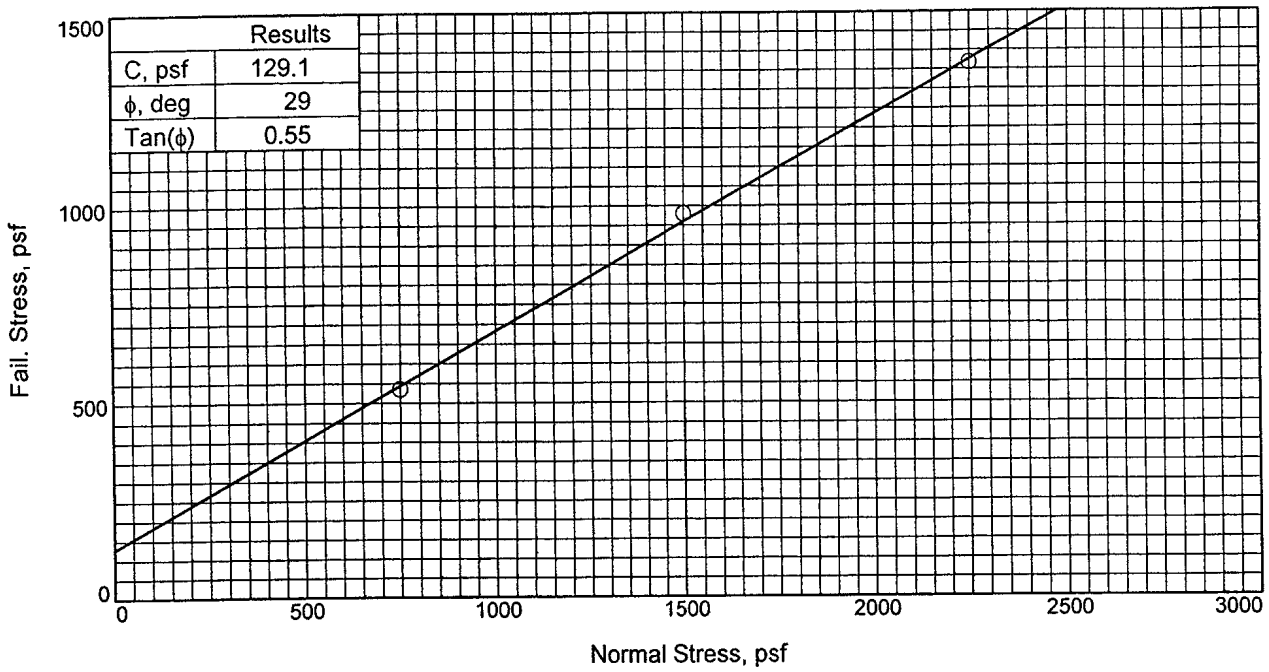
Project: Presidio S.F. BBDA

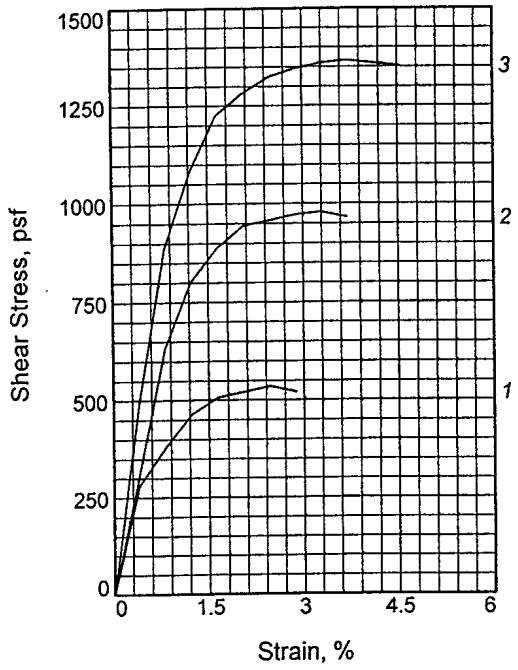
Source of Sample: BBSB103 **Depth:** 8.0-9.5'

Proj. No.: 57255005 **Date:** 6-2-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	11.2	11.6	11.6
	Dry Density, pcf	112.9	112.0	112.3
	Saturation, %	61.4	62.3	62.6
	Void Ratio	0.4928	0.5048	0.5008
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	17.6	18.3	18.3
	Dry Density, pcf	114.3	112.9	112.8
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.4747	0.4935	0.4944
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.81	0.82	0.82
Normal Stress, psf		750.0	1500.0	2250.0
Fail. Stress, psf		535.2	978.9	1366.2
Strain, %		2.5	3.3	3.7
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.06	0.06	0.06

Sample Type: Trimmed
Description: Brown Silty Sand (SM)

LL= NV **PI=** NP
Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

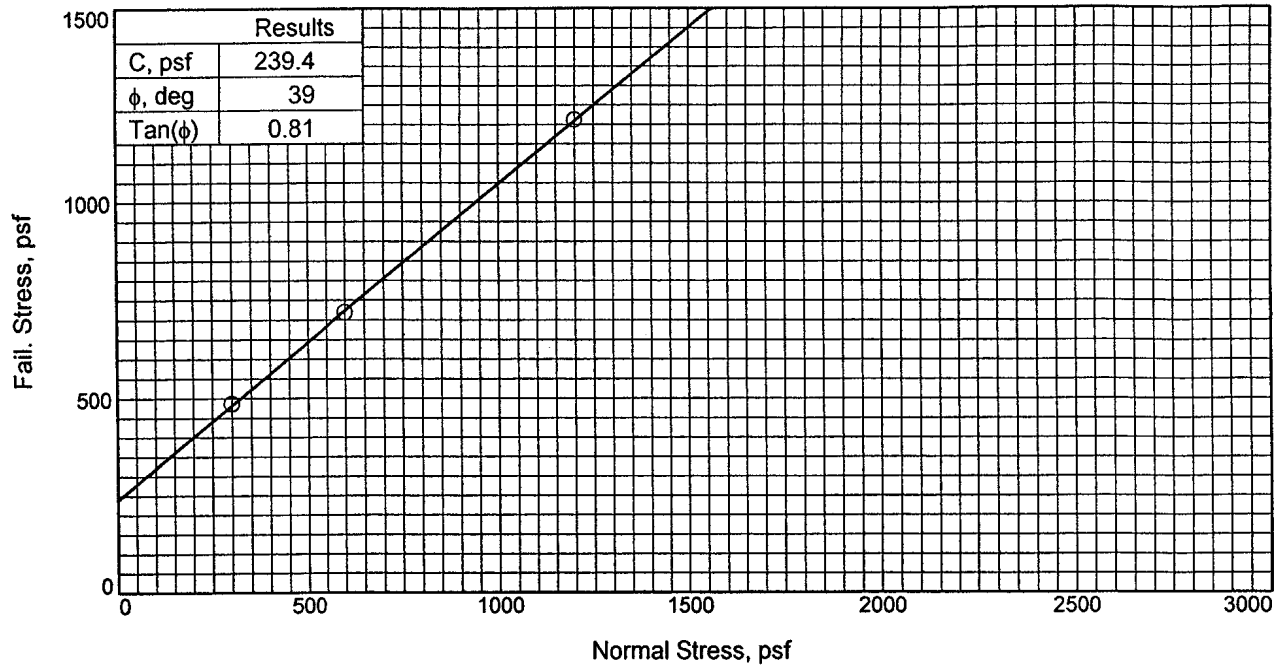
Project: Presidio S.F. BBDA

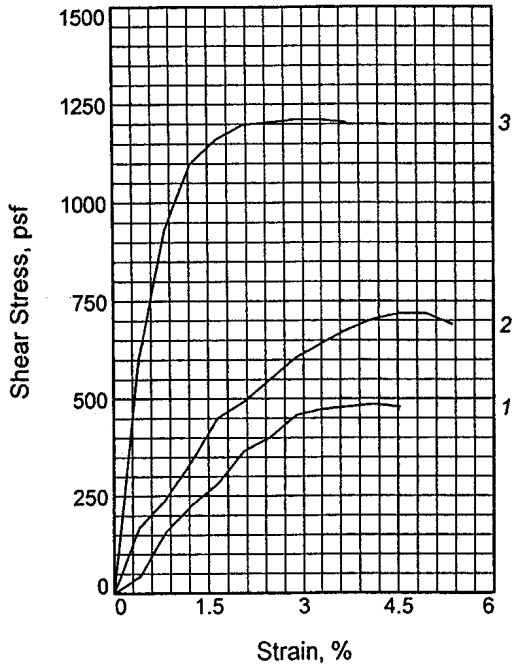
Source of Sample: BBSB103 **Depth:** 11.5-13.0'

Proj. No.: 57255005 **Date:** 6-10-05

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	13.9	16.4	18.9
	Dry Density, pcf	117.9	107.7	107.4
	Saturation, %	87.5	78.2	89.7
	Void Ratio	0.4298	0.5646	0.5689
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	15.5	19.8	20.5
	Dry Density, pcf	118.8	109.9	108.5
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.4185	0.5337	0.5541
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.81	0.82
Normal Stress, psf		300.0	600.0	1200.0
Fail. Stress, psf		485.9	718.3	1211.2
Strain, %		4.1	4.5	2.9
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Sandy Lean Clay (CL)

LL= 25 **PL=** 14 **PI=** 11
Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

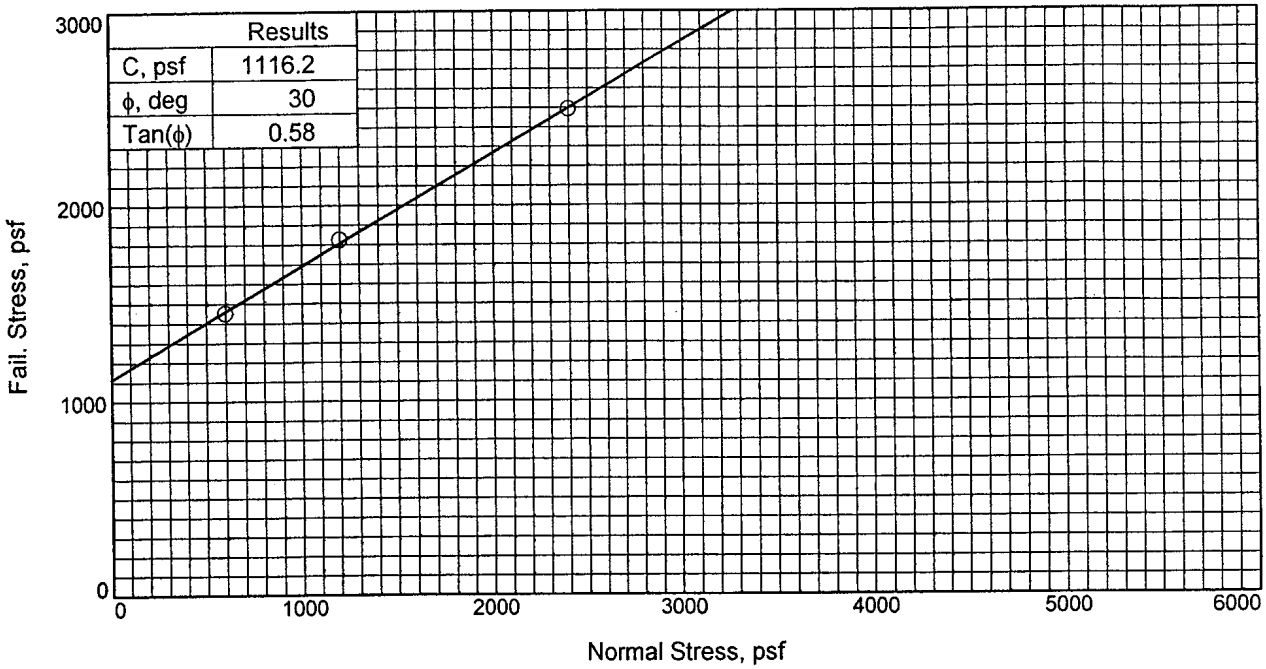
Project: Presidio S.F. BBDA

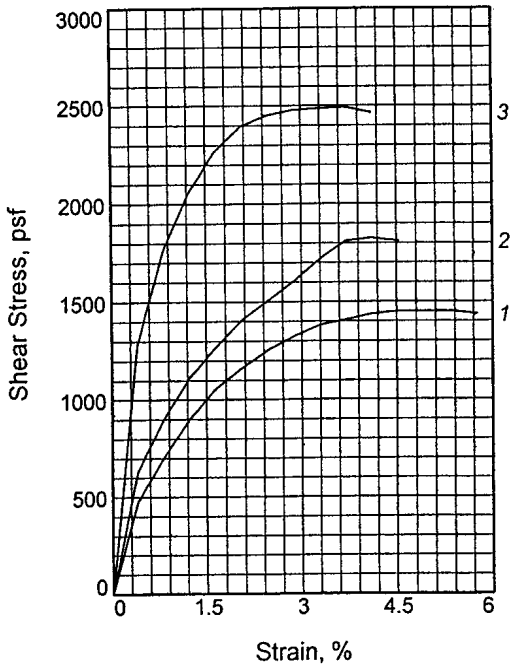
Source of Sample: BBSB106 **Depth:** 3.5-5.5'

Proj. No.: 57255005 **Date:** 6-9-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	17.8	17.2	16.6
	Dry Density, pcf	111.5	111.5	112.5
	Saturation, %	93.8	91.0	90.2
	Void Ratio	0.5115	0.5115	0.4981
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	20.1	19.6	18.3
	Dry Density, pcf	109.2	110.3	112.9
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.5435	0.5283	0.4932
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.84	0.83	0.82
Normal Stress, psf		600.0	1200.0	2400.0
Fail. Stress, psf		1450.7	1823.9	2492.9
Strain, %		4.5	4.1	3.7
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Undisturbed
Description: Brown Sandy Lean Clay (CL)

LL= 33 **PL=** 18 **PI=** 15
Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

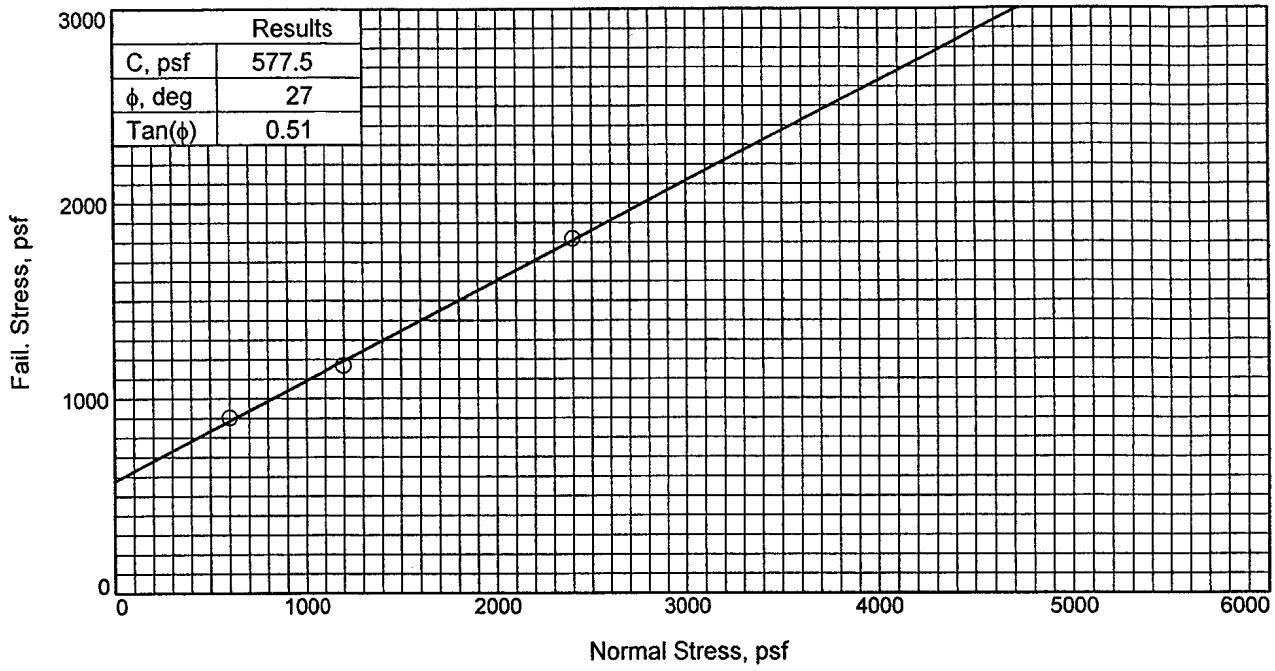
Project: Presidio S.F. BBDA

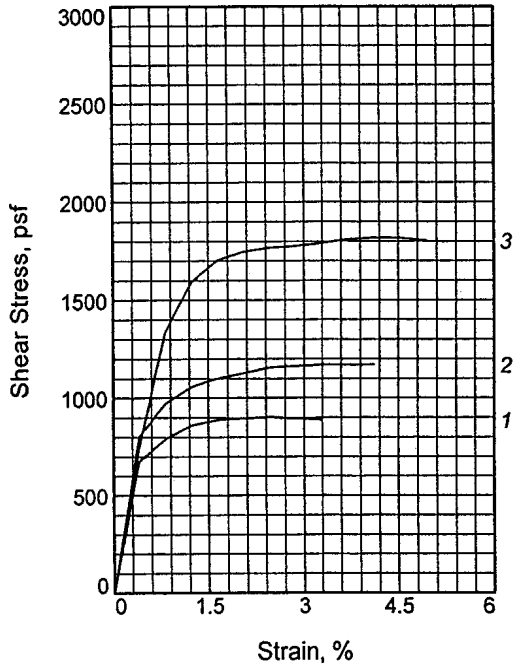
Source of Sample: BBSB106 **Depth:** 7.0-7.5'

Proj. No.: 57255005 **Date:** 6-2-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	59.7	60.0	60.8
	Dry Density, pcf	62.3	63.4	62.5
	Saturation, %	94.7	97.7	96.9
	Void Ratio	1.7043	1.6576	1.6956
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	65.0	64.5	63.3
	Dry Density, pcf	61.2	61.5	62.2
	Saturation, %	100.0	100.0	100.0
	Void Ratio	1.7551	1.7419	1.7103
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.84	0.85	0.83
Normal Stress, psf		600.0	1200.0	2400.0
Fail. Stress, psf		901.4	1169.0	1816.9
Strain, %		2.5	3.3	4.1
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Undisturbed
Description: Brown Fat Clay W/Sand (CH)

Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

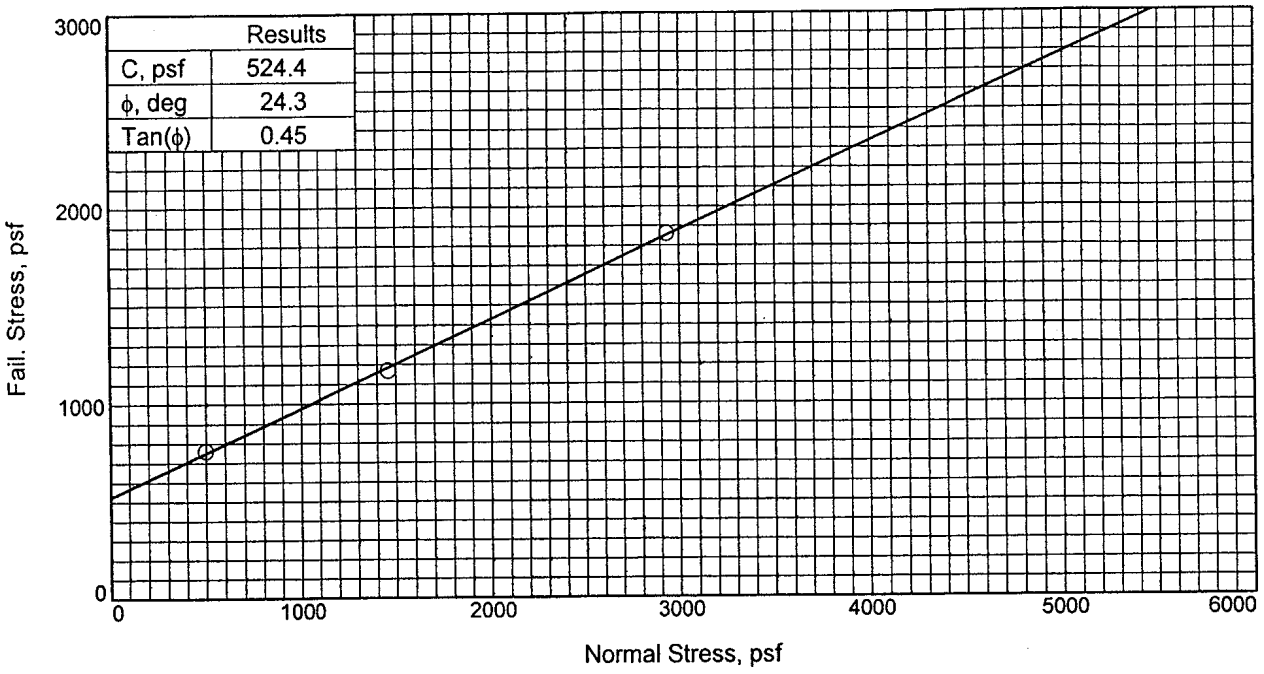
Project: Presidio S.F. BBDA

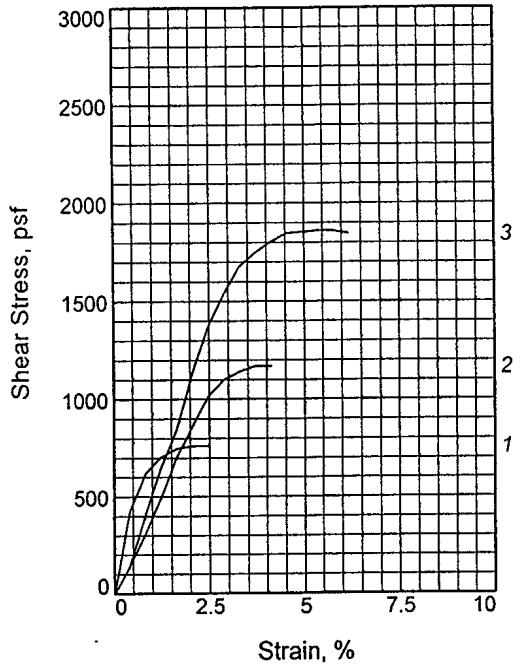
Source of Sample: BBSB106 **Depth:** 10.5-11.0'

Proj. No.: 57255005 **Date:** 6-6-05

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	100.5	100.5	100.5
	Dry Density, pcf	43.4	43.4	43.4
	Saturation, %	94.1	94.1	94.1
	Void Ratio	2.8827	2.8827	2.8827
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	104.6	103.2	99.8
	Dry Density, pcf	44.1	44.5	45.6
	Saturation, %	100.0	100.0	100.0
	Void Ratio	2.8239	2.7886	2.6945
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.81	0.80	0.78
Normal Stress, psf		500.0	1460.0	2935.0
Fail. Stress, psf		760.5	1169.0	1859.1
Strain, %		2.1	3.7	5.3
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Sandy Lean Clay W/Gravel (CL)

Assumed Specific Gravity= 2.70
Remarks: A three stage DS/CD was run on this sample. Not enough good material to run separate points.

Plate _____

Client: Mactec E & C

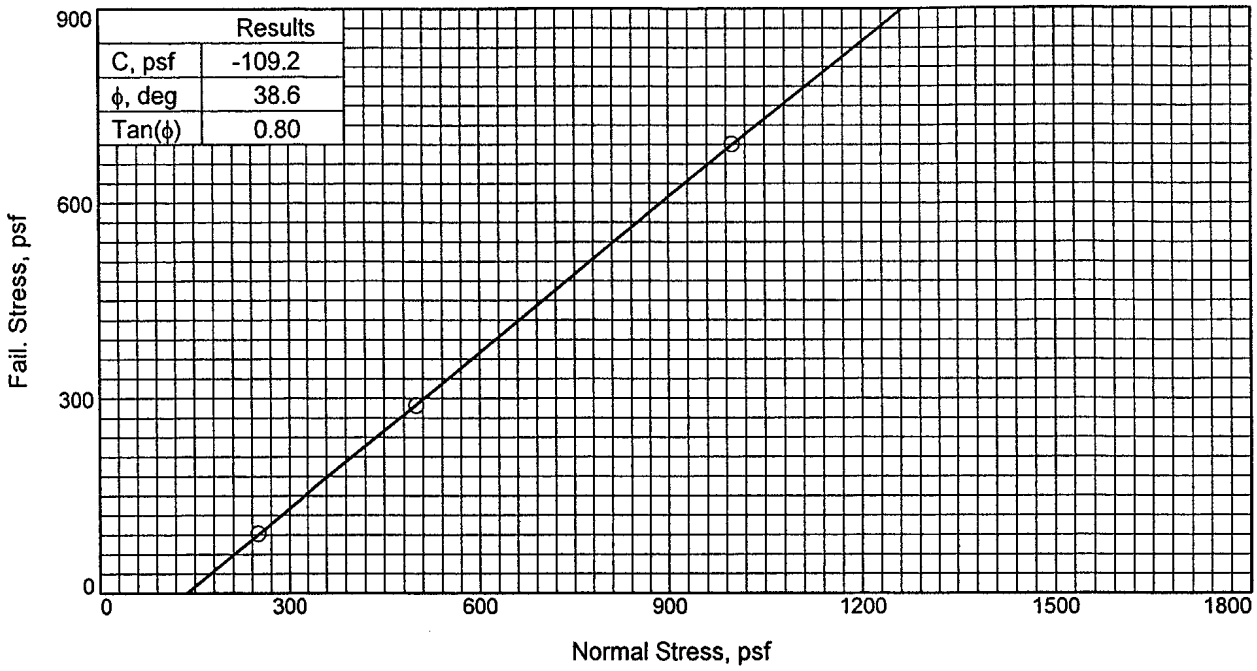
Project: Presidio San Francisco- Baker Beach

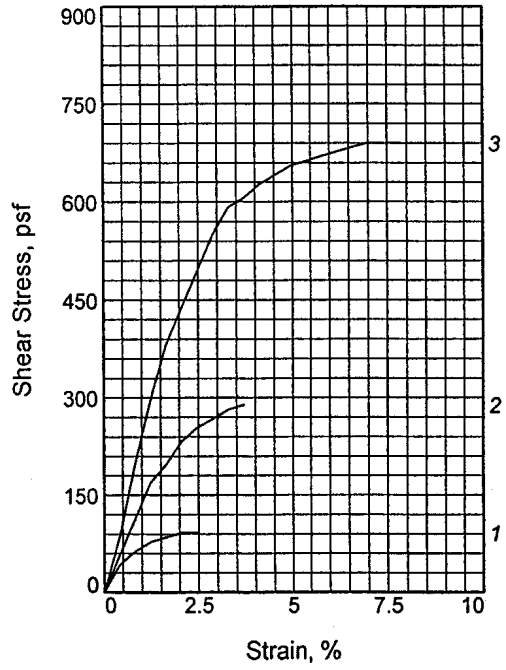
Source of Sample: BB1TP105 **Depth:** 5.5-7.5'

Proj. No.: 57255-005135 **Date:** 5-9-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	20.4	20.4	20.4
	Dry Density, pcf	89.9	89.9	89.9
	Saturation, %	62.9	62.9	62.9
	Void Ratio	0.8747	0.8747	0.8747
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	30.6	28.1	24.0
	Dry Density, pcf	92.4	95.8	102.2
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.8252	0.7593	0.6486
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.80	0.77	0.73
Normal Stress, psf		250.0	500.0	1000.0
Fail. Stress, psf		91.5	288.7	690.1
Strain, %		2.1	3.7	7.0
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Trimmed
Description: Brown Sandy Lean Clay W/Gravel (CL)

Assumed Specific Gravity= 2.70
Remarks: Athree stage DS/CD was run on this sample. Not enough good material and too much gravel to run separate points.

Plate _____

Client: Mactec E & C

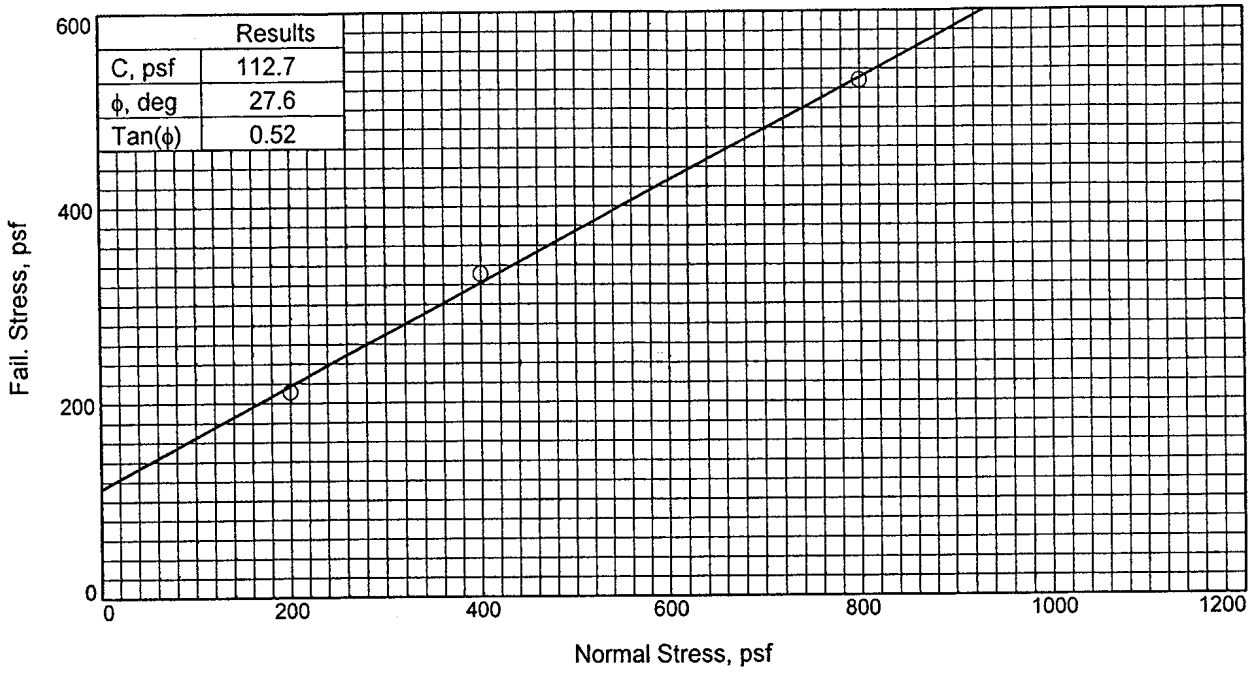
Project: Presidio San Francisco- Baker Beach

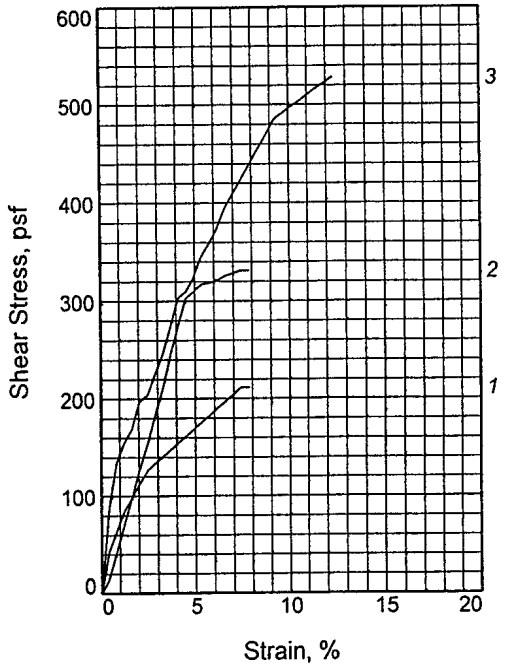
Source of Sample: BB2ATP104 **Depth:** 2.0-3.5'

Proj. No.: 57255-005135 **Date:** 4-22-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	20.1	20.1	20.1
	Dry Density, pcf	109.2	109.2	109.2
	Saturation, %	99.7	99.7	99.7
	Void Ratio	0.5432	0.5432	0.5432
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	24.7	19.0	16.2
	Dry Density, pcf	101.1	111.5	117.2
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.6668	0.5121	0.4384
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.89	0.81	0.77
Normal Stress, psf		200.0	400.0	800.0
Fail. Stress, psf		211.3	331.0	528.2
Strain, %		7.4	7.4	12.3
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Trimmed
Description: Brown Clayey Sand (SC)

Assumed Specific Gravity= 2.70
Remarks: Athree stage DS/CD was run on this sample. Not enough good material to run separate points.

Plate _____

Client: Mactec E & C

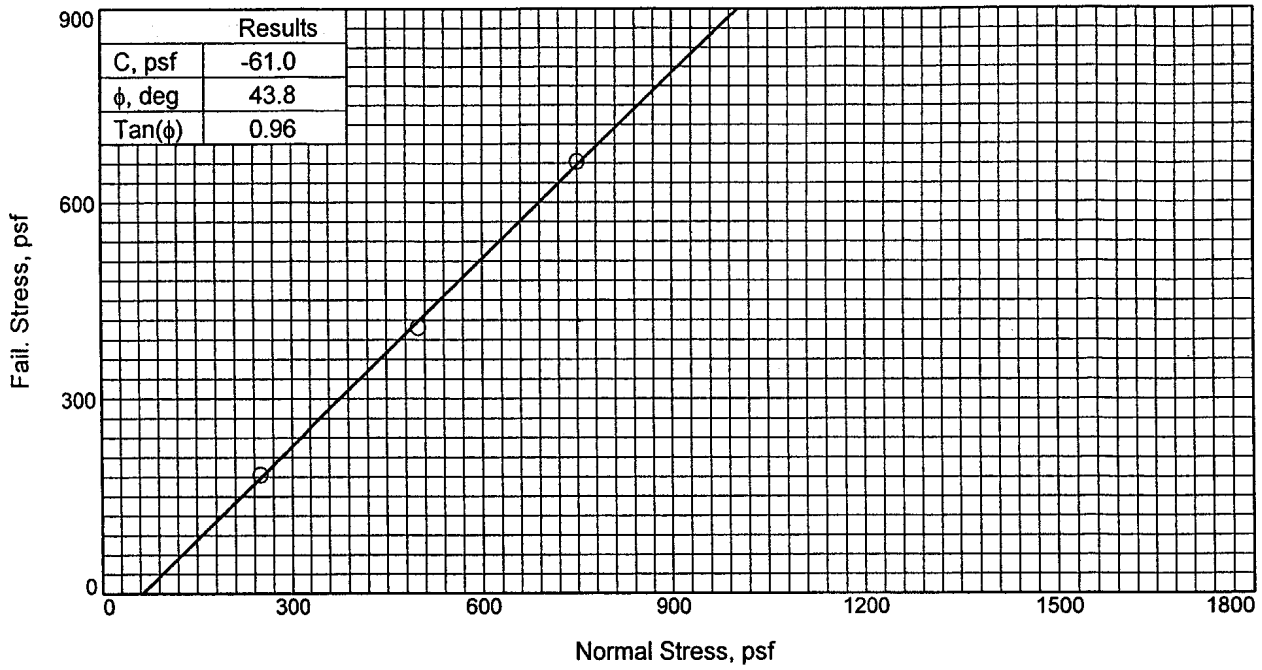
Project: Presidio San Francisco- Baker Beach

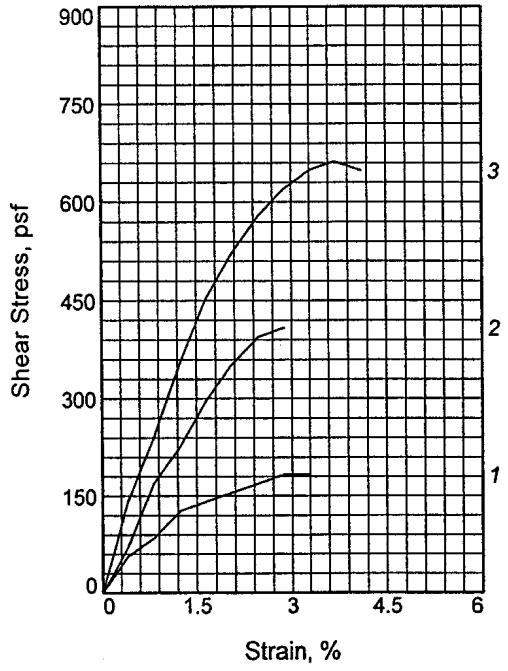
Source of Sample: BB1TP100 **Depth:** 1.0-3.0'

Proj. No.: 57255-005135 **Date:** 5-4-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	7.5	8.2	7.5
	Dry Density, pcf	109.4	108.7	109.4
	Saturation, %	37.3	40.0	37.3
	Void Ratio	0.5404	0.5502	0.5404
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	19.6	18.3	16.7
	Dry Density, pcf	110.3	112.8	116.3
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.5284	0.4944	0.4498
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.80	0.78
Normal Stress, psf		250.0	500.0	750.0
Fail. Stress, psf		183.1	408.4	662.0
Strain, %		2.9	2.9	3.7
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.04	0.04	0.04

Sample Type: Trimmed
Description: Brown Sand (SP)

Assumed Specific Gravity= 2.70
Remarks: A three stage DS/CD was run on this Sample. Not enough good material to run separate points.

Plate _____

Client: Mactec E & C

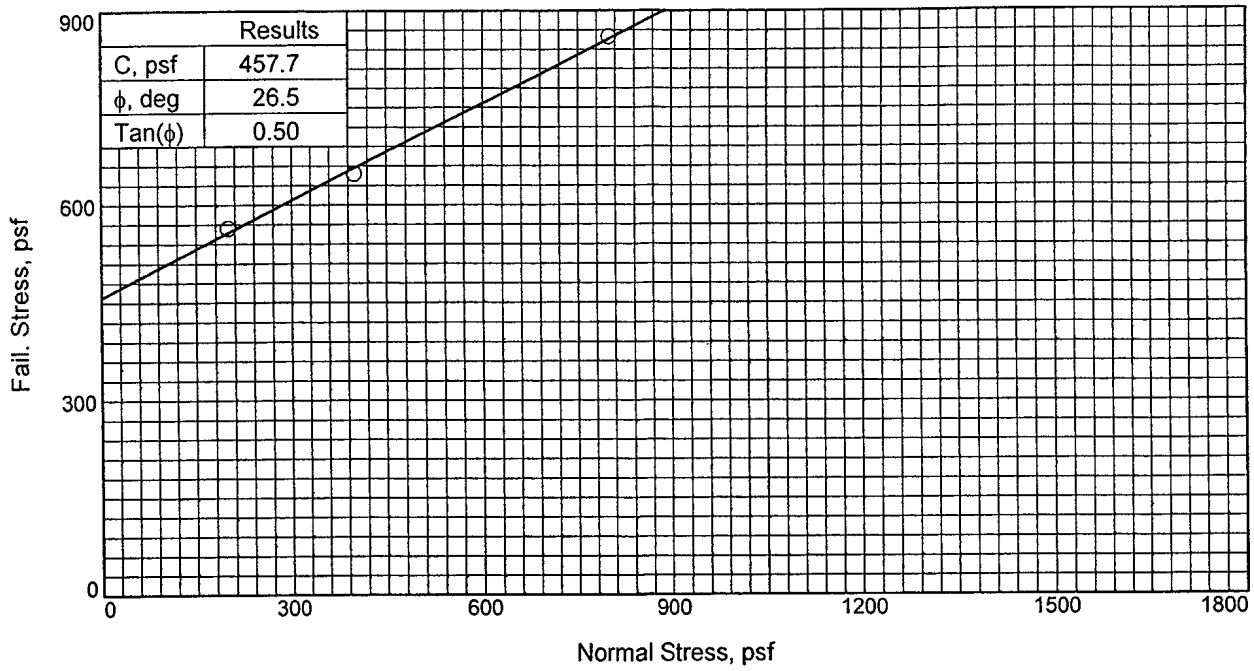
Project: Presidio San Francisco- Baker Beach

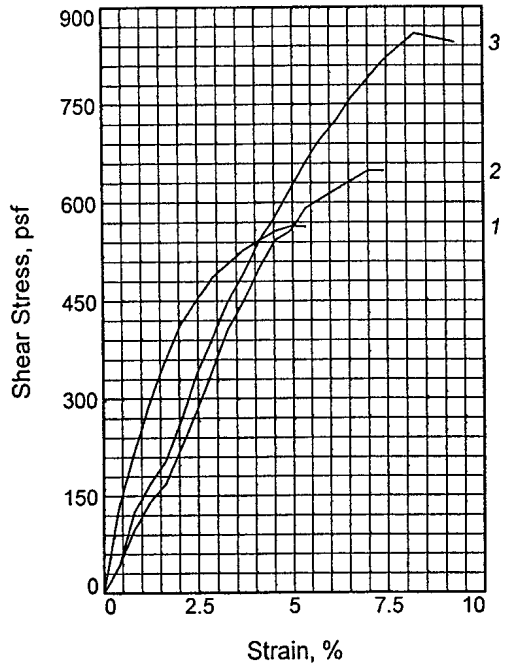
Source of Sample: BB1ATP101 **Depth:** 4.0'

Proj. No.: 57255-005135 **Date:** 4-21-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	14.5	14.5	14.5
	Dry Density, pcf	115.8	115.8	115.8
	Saturation, %	86.1	86.1	86.1
	Void Ratio	0.4556	0.4556	0.4556
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	24.3	17.5	13.5
	Dry Density, pcf	101.7	114.4	123.6
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.6567	0.4734	0.3635
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.94	0.84	0.77
Normal Stress, psf		200.0	400.0	800.0
Fail. Stress, psf		563.4	647.9	859.1
Strain, %		4.9	7.0	8.2
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Sandy Lean Clay W/Gravel (CL)

Assumed Specific Gravity= 2.70
Remarks: A three stage DS/CD was run on this sample. Not enough good material to run separate points.

Plate _____

Client: Mactec E & C

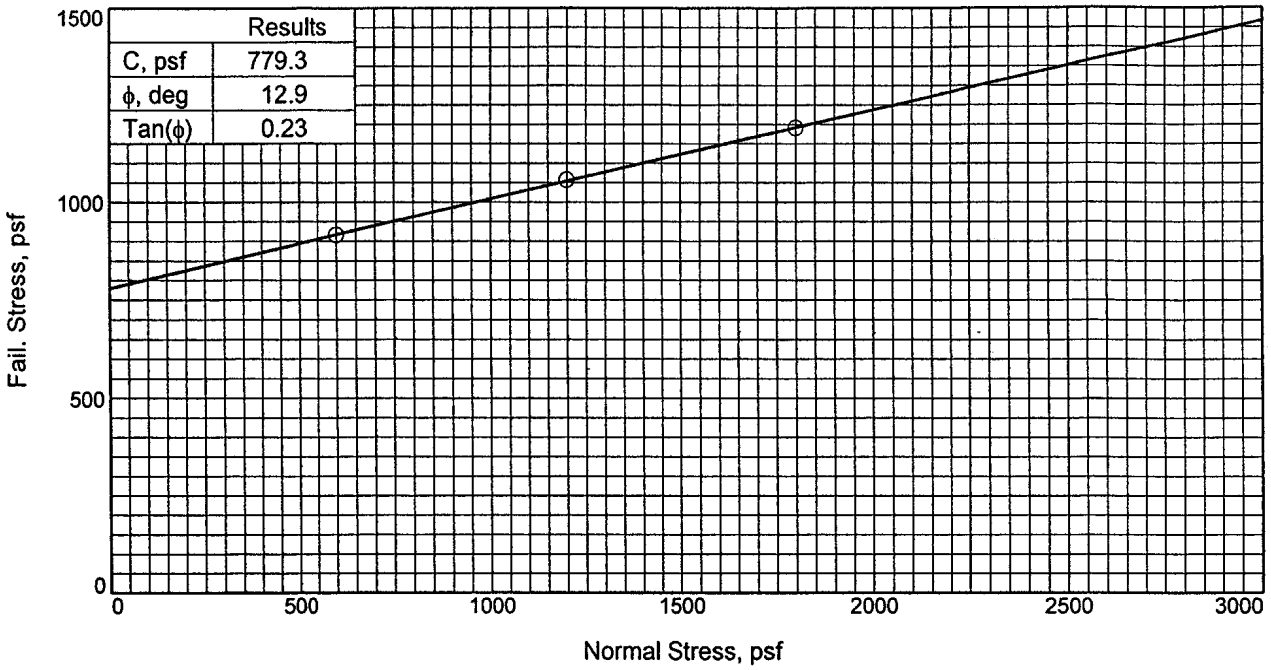
Project: Presidio San Francisco- Baker Beach

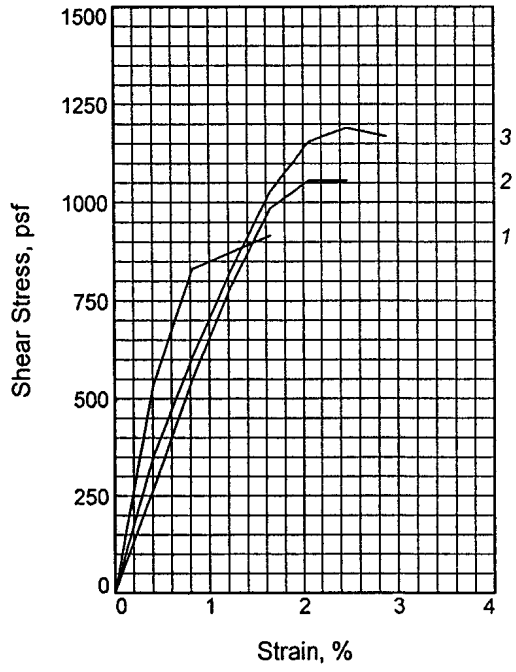
Source of Sample: BB1TP101 **Depth:** 1.0-3.0'

Proj. No.: 57255-005135 **Date:** 5-3-05

R G H CONSULTANTS, INC.

Tested By: GEF TMc





Sample No.		1	2	3
Initial	Water Content, %	16.9	16.9	16.9
	Dry Density, pcf	113.6	113.6	113.6
	Saturation, %	94.4	94.4	94.4
	Void Ratio	0.4837	0.4837	0.4837
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	17.7	17.3	16.6
	Dry Density, pcf	114.0	115.0	116.4
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.4779	0.4662	0.4486
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.81
Normal Stress, psf		600.0	1200.0	1800.0
Fail. Stress, psf		915.5	1056.3	1190.1
Strain, %		1.6	2.1	2.5
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70
Remarks: A three stage DS/CD was run on this sample. Not enough good material to run separate points.

Plate _____

Client: Mactec E & C

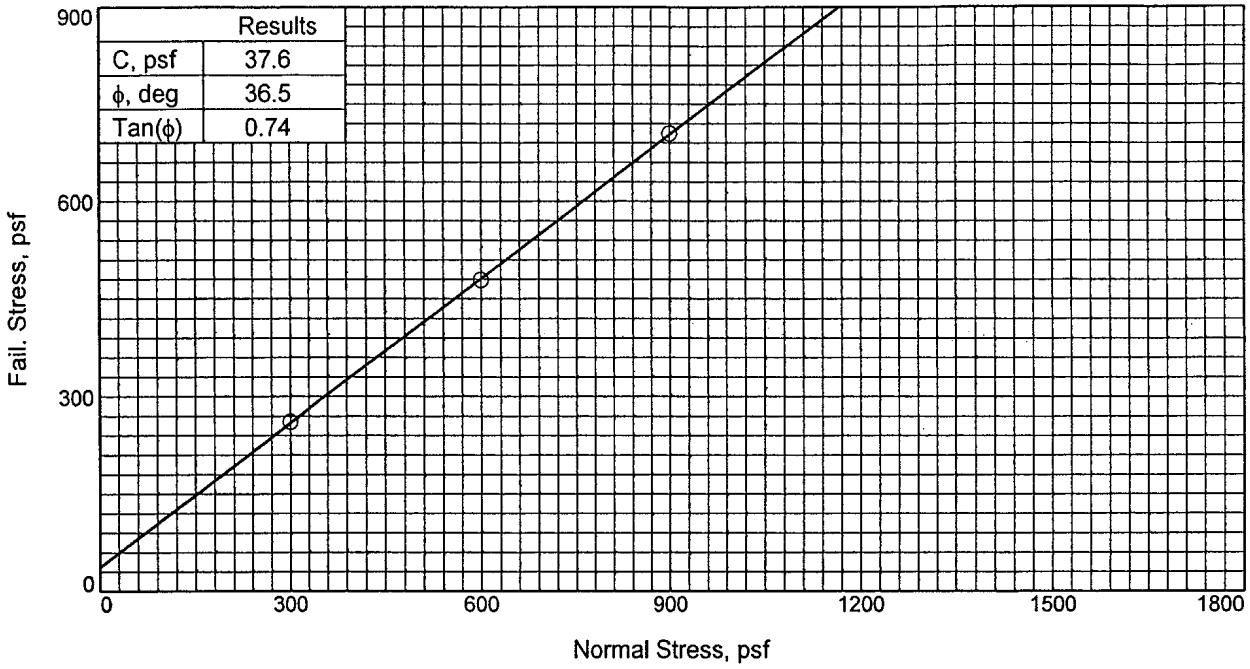
Project: Presidio San Francisco- Baker Beach

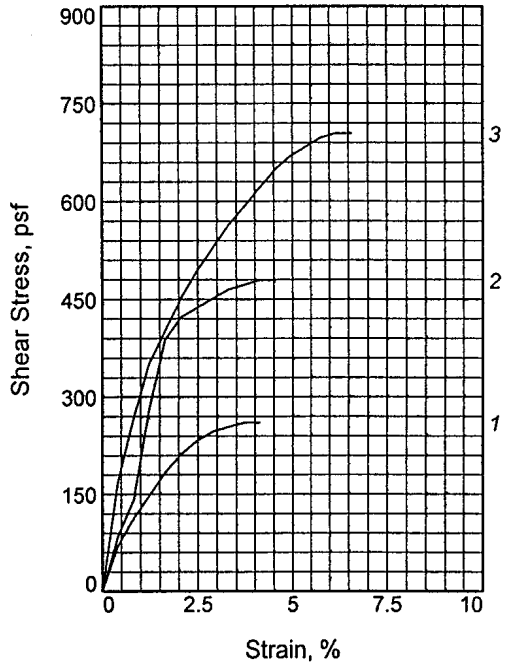
Source of Sample: BB2TP101 **Depth:** 9.5-11.0'

Proj. No.: 57255-005135 **Date:** 4-27-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	24.6	33.3	32.7
	Dry Density, pcf	94.8	81.3	84.4
	Saturation, %	85.5	83.8	88.5
	Void Ratio	0.7773	1.0720	0.9963
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	23.3	34.3	30.4
	Dry Density, pcf	103.5	87.5	92.6
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.6282	0.9264	0.8209
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.76	0.77	0.75
Normal Stress, psf		300.0	600.0	900.0
Fail. Stress, psf		260.6	478.9	704.2
Strain, %		3.7	4.1	6.2
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Trimmed
Description: Dark Brown Lean Clay (CL)

LL= 25 **PL=** 16 **PI=** 9
Assumed Specific Gravity= 2.70
Remarks: Three separate DS/CD points were run on this sample.

Plate _____

Client: Mactec E & C

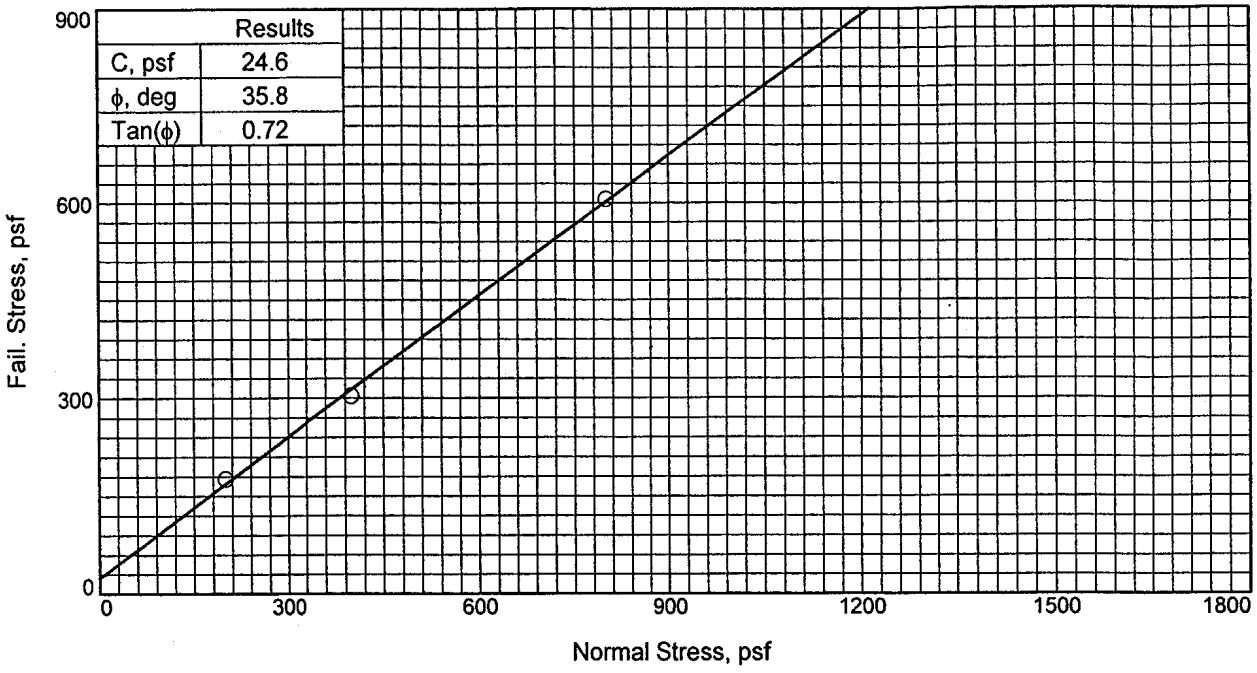
Project: Presidio San Francisco- Baker Beach

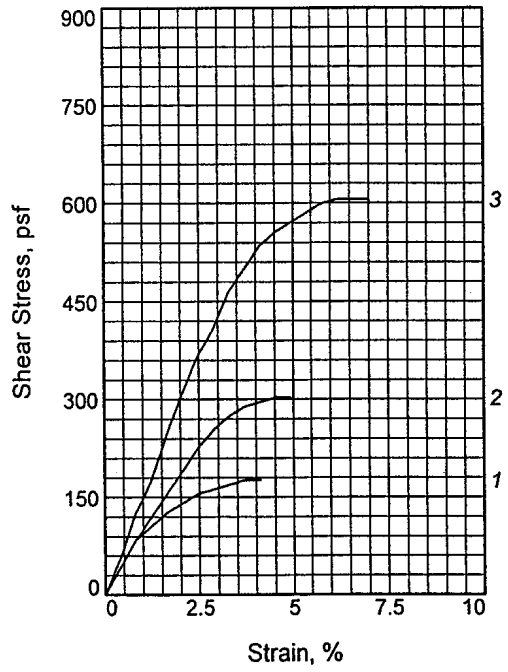
Source of Sample: BB2TP101 **Depth:** 4.5-5.5'

Proj. No.: 57255-005135 **Date:**

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	34.7	34.7	34.7
	Dry Density, pcf	77.3	77.3	77.3
	Saturation, %	79.2	79.2	79.2
	Void Ratio	1.1815	1.1815	1.1815
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	42.7	40.7	35.9
	Dry Density, pcf	78.4	80.3	85.6
	Saturation, %	100.0	100.0	100.0
	Void Ratio	1.1511	1.0995	0.9687
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.81	0.79	0.74
Normal Stress, psf		200.0	400.0	800.0
Fail. Stress, psf		176.1	302.8	605.6
Strain, %		3.7	4.5	6.2
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Trimmed
Description: Brown Sandy Elastic Silt (MH)

LL= 53 **PL=** 36 **PI=** 17
Assumed Specific Gravity= 2.70
Remarks: A three stage DS/CD was run on this sample. Not enough good material enough good material to run three separate points.

Plate _____

Client: Mactec E & C

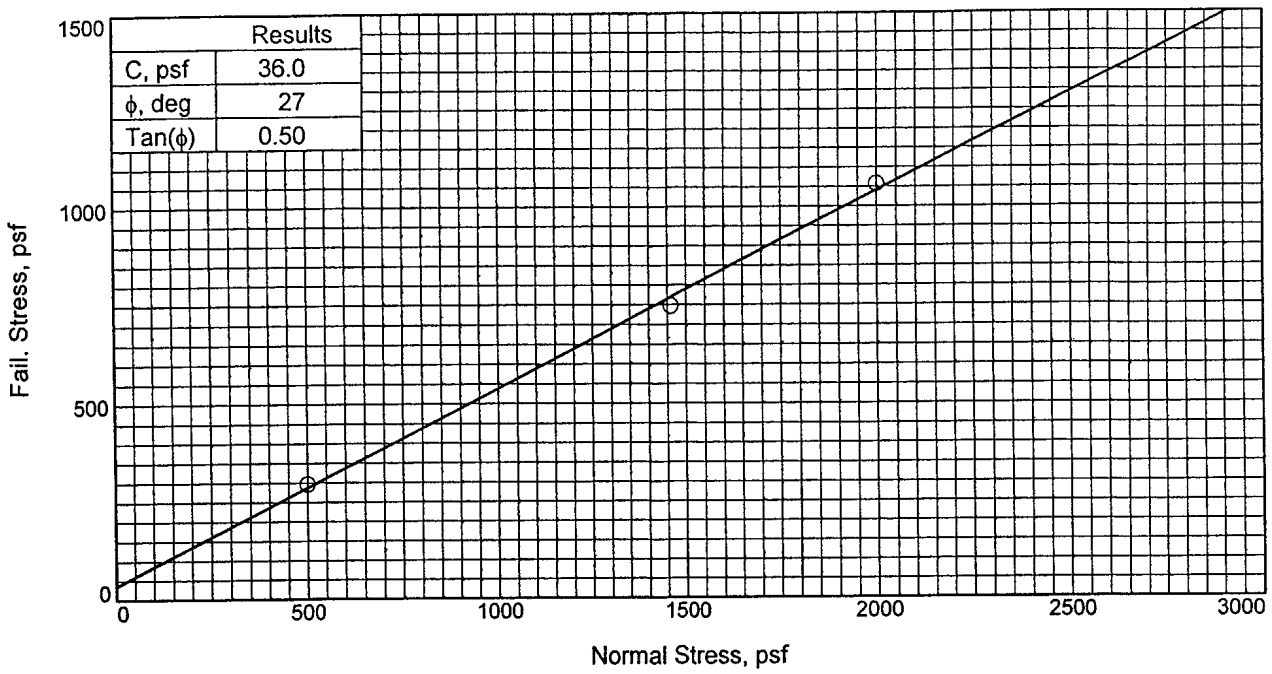
Project: Presidio San Francisco- Baker Beach

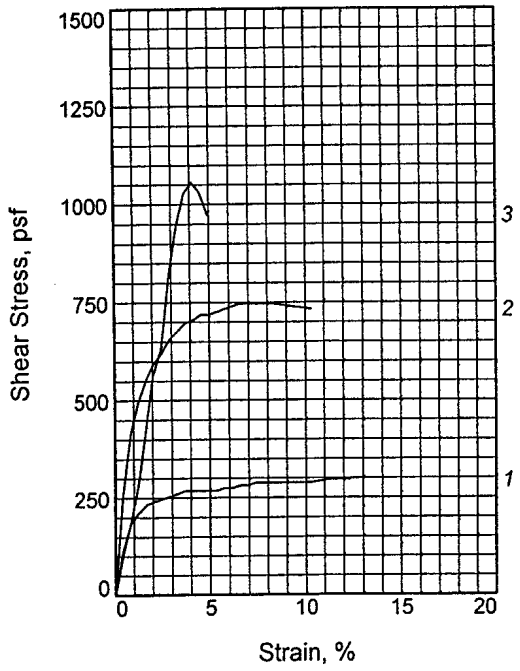
Source of Sample: BB2ATP100 **Depth:** 1.0-3.0'

Proj. No.: 57255-005135 **Date:** 4-26-05

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	11.0	11.0	12.4
	Dry Density, pcf	107.4	111.6	112.8
	Saturation, %	52.3	58.1	67.5
	Void Ratio	0.5689	0.5101	0.4941
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	16.6	16.1	13.8
	Dry Density, pcf	116.3	117.3	122.5
	Saturation, %	99.8	99.7	99.2
	Void Ratio	0.4491	0.4369	0.3764
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.76	0.78	0.76
Normal Stress, psf		500.0	1460.0	2000.0
Fail. Stress, psf		295.8	746.5	1056.3
Strain, %		11.3	6.6	4.1
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Sandy Lean Clay (CL)

Assumed Specific Gravity= 2.70
Remarks: A three point DS/CD was run on this sample.

Plate _____

Client: Mactec E&C

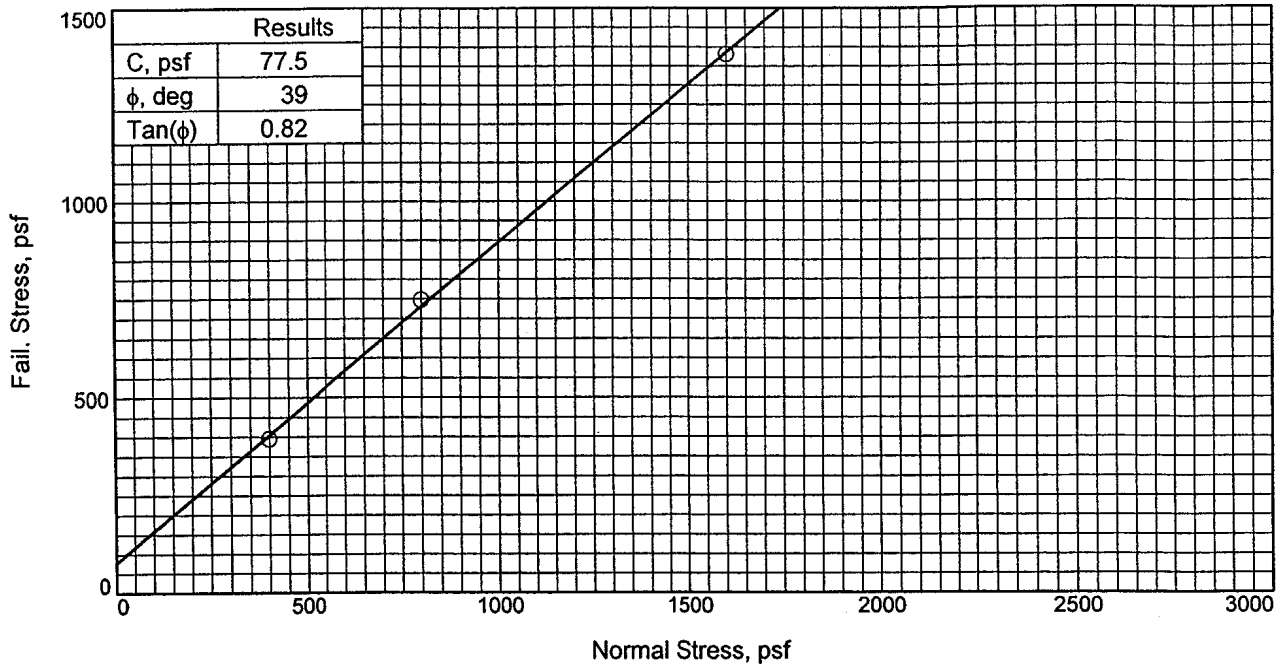
Project: Presidio SF BBDA

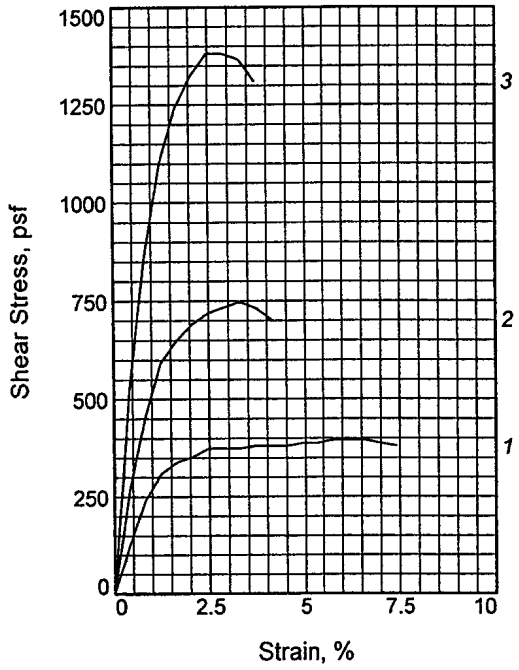
Source of Sample: BB2ASB100 **Depth:** 6.8-7.5'

Proj. No.: 57255005132 **Date:** 5-20-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	18.3	16.8	16.5
	Dry Density, pcf	108.5	112.5	112.7
	Saturation, %	89.1	91.1	90.0
	Void Ratio	0.5531	0.4981	0.4955
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	19.3	16.5	16.5
	Dry Density, pcf	110.8	116.6	116.7
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.5218	0.4451	0.4447
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.81	0.80	0.80
Normal Stress, psf		400.0	800.0	1600.0
Fail. Stress, psf		394.4	746.5	1380.3
Strain, %		5.8	3.3	2.5
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Undisturbed
Description: Brown Silty Clayey Sand (SC-SM)

LL= 20 **PL=** 14 **PI=** 6
Assumed Specific Gravity= 2.70
Remarks:

Plate _____

Client: Mactec E&C

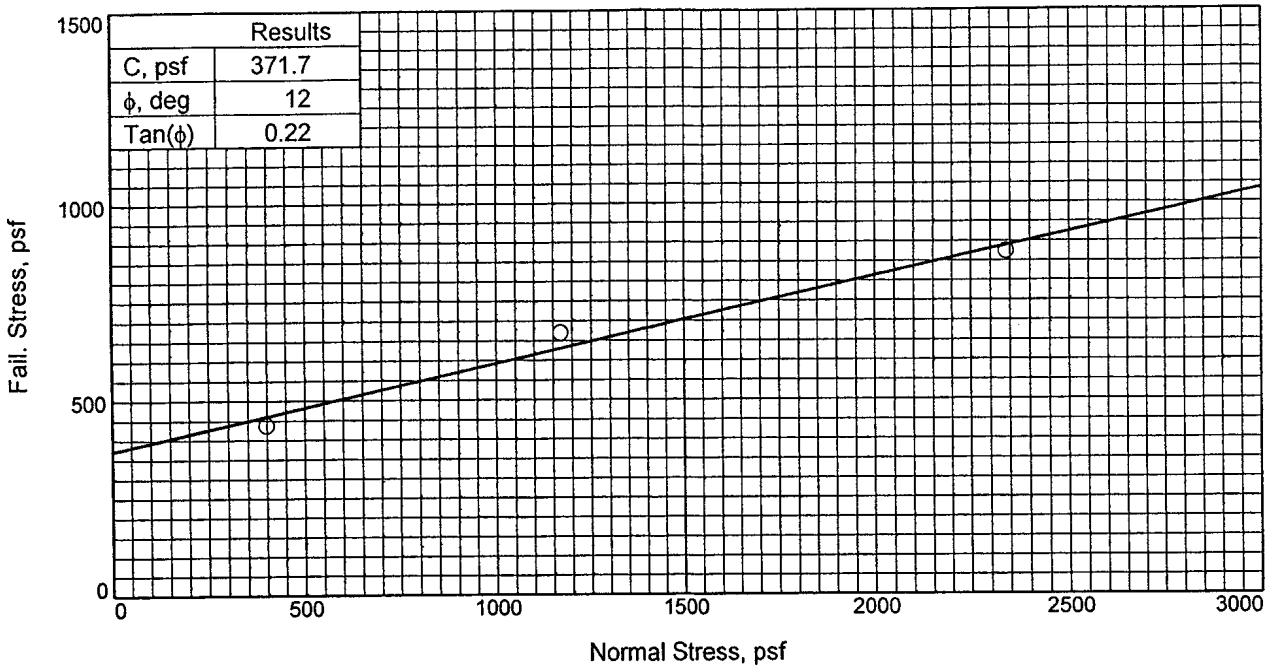
Project: Presidio SF BBDA

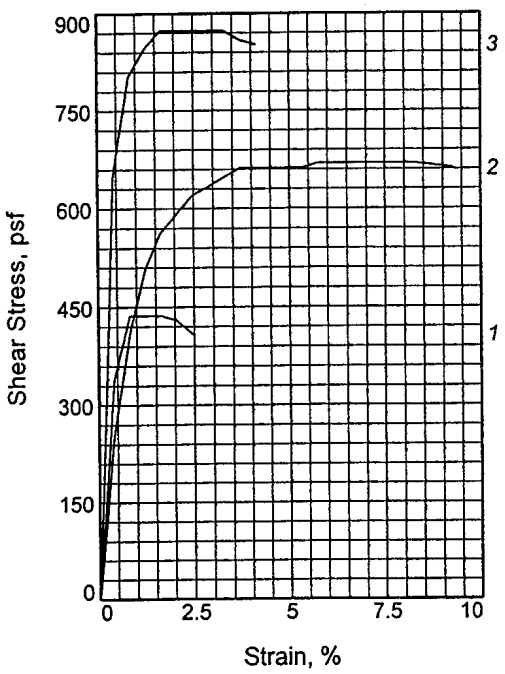
Source of Sample: BB2ASB101 **Depth:** 6.5'

Proj. No.: 57255005132 **Date:** 5-26-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content, %	16.2	16.9	16.9
	Dry Density, pcf	103.0	101.3	105.6
	Saturation, %	68.8	68.7	76.5
	Void Ratio	0.6372	0.6646	0.5955
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.82	0.82
At Test	Water Content, %	22.1	22.9	21.4
	Dry Density, pcf	103.3	102.9	106.5
	Saturation, %	94.2	97.0	99.1
	Void Ratio	0.6324	0.6375	0.5826
	Diameter, in.	2.43	2.43	2.43
	Height, in.	0.82	0.81	0.82
Normal Stress, psf		400.0	1170.0	2340.0
Fail. Stress, psf		436.6	669.0	873.2
Strain, %		0.8	5.8	1.6
Ult. Stress, psf				
Strain, %				
Strain rate, in./min.		0.02	0.02	0.02

Sample Type: Trimmed
Description: Brown Lean Clay W/Sand (CL)

LL= 31 **PL=** 17 **PI=** 14
Assumed Specific Gravity= 2.70
Remarks: A three point DS/CD was run on this sample.

Plate _____

Client: Mactec E&C

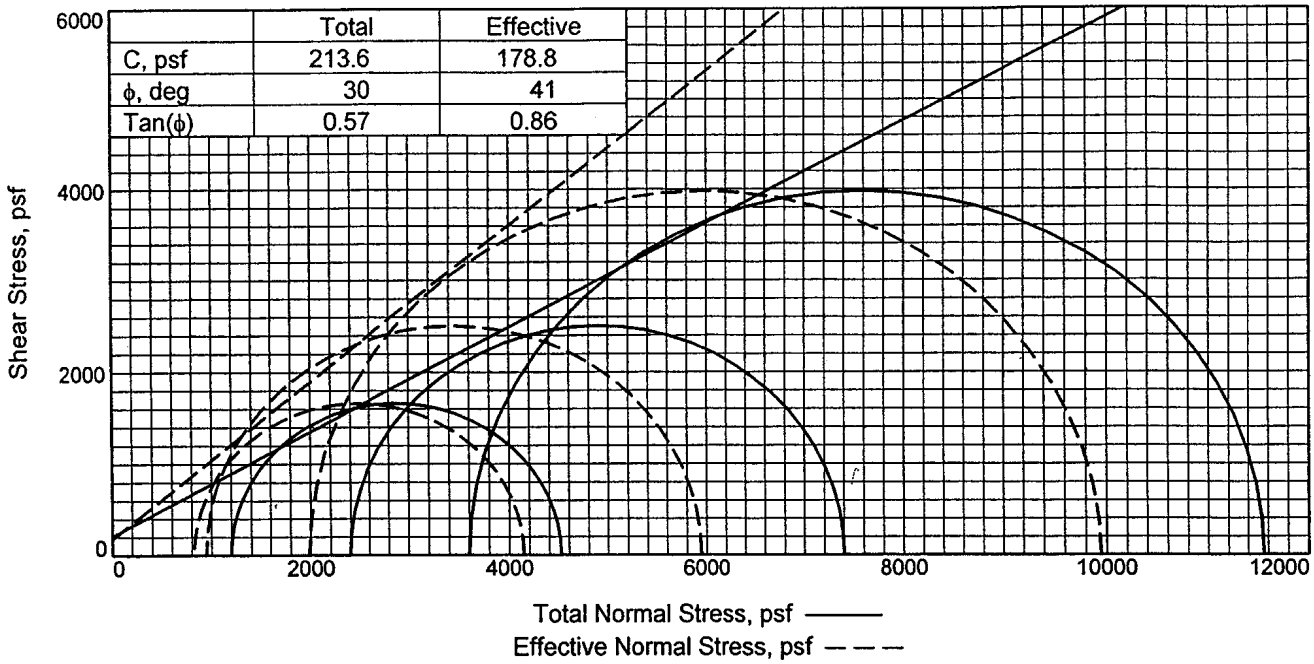
Project: Presidio SF BBDA

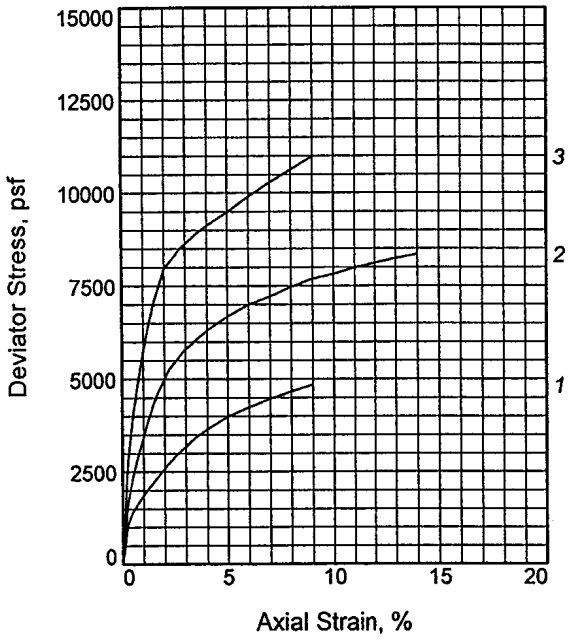
Source of Sample: BBSB107 **Depth:** 4.5'

Proj. No.: 57255005132 **Date:** 5-23-05

R G H CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content,	17.6	15.8	18.5
	Dry Density, pcf	112.8	118.1	112.4
	Saturation,	96.5	100.0	100.0
	Void Ratio	0.4936	0.4266	0.4991
	Diameter, in.	2.87	2.87	2.87
	Height, in.	6.00	6.00	6.01
At Test	Water Content,	19.1	17.0	18.9
	Dry Density, pcf	111.1	115.4	111.7
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.5169	0.4601	0.5090
	Diameter, in.	2.89	2.91	2.89
	Height, in.	6.02	5.97	5.97
Strain rate, in./min.		0.00	0.00	0.00
Eff. Cell Pressure, psf		1199.5	2399.0	3600.0
Fail. Stress, psf		3320.7	5002.8	7958.3
Total Pore Pr., psf		7862.4	8942.4	9100.8
Strain, %		3.2	2.0	2.0
Ult. Stress, psf		3320.7	5002.8	7958.3
Total Pore Pr., psf		7862.4	8942.4	9100.8
Strain, %		3.2	2.0	2.0
$\bar{\sigma}_1$ Failure, psf		4145.9	5947.5	9945.5
$\bar{\sigma}_3$ Failure, psf		825.1	944.6	1987.2

Type of Test:
CU with Pore Pressures
Sample Type: Undisturbed
Description: Brown Lean Clay W/Sand (CL)

LL= 37 **PL=** 19 **PI=** 18
Assumed Specific Gravity= 2.70
Remarks: Third point of the three was BB2SB101 @ 15.5 17.0' as per test request.

Plate _____

Client: Mactec E&C

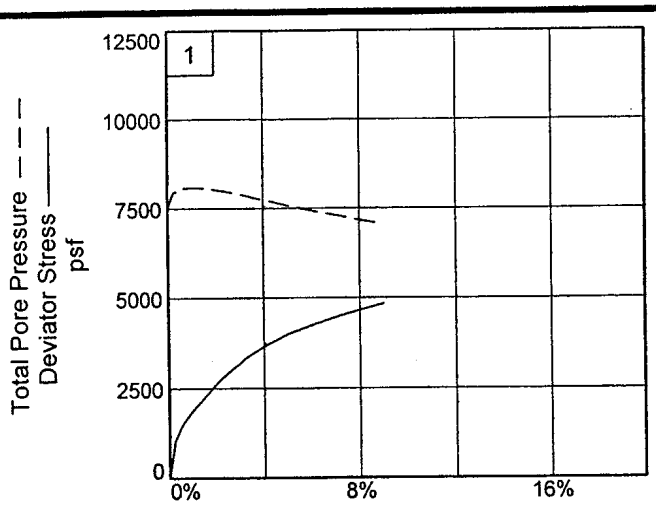
Project: Presidio SF BBDA

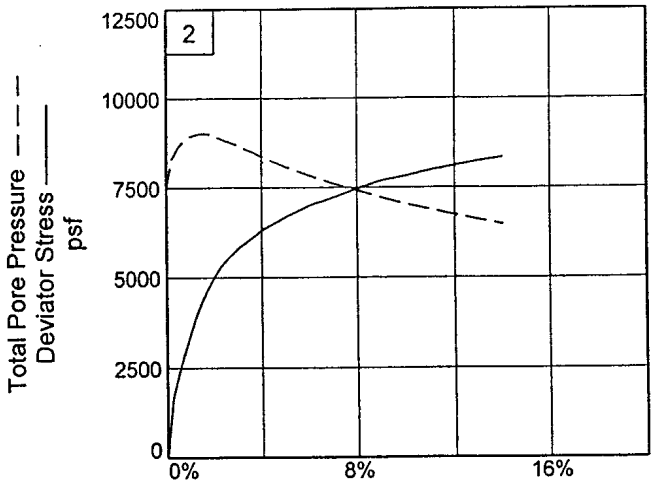
Source of Sample: BB2SB101 **Depth:** 20.3-22.0'

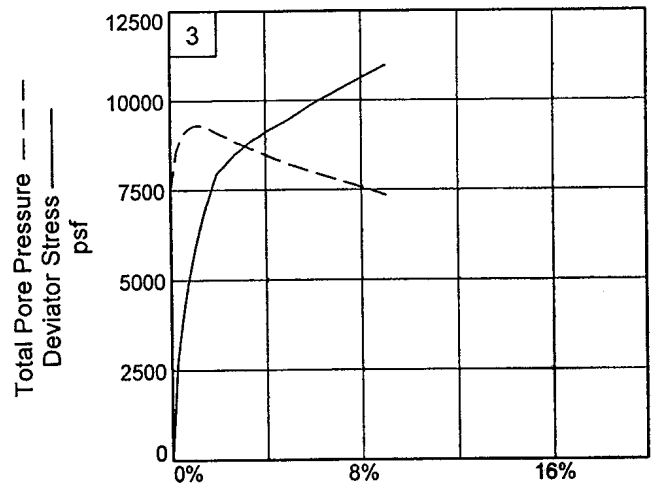
Proj. No.: 57255005132 **Date:** 5-20-05

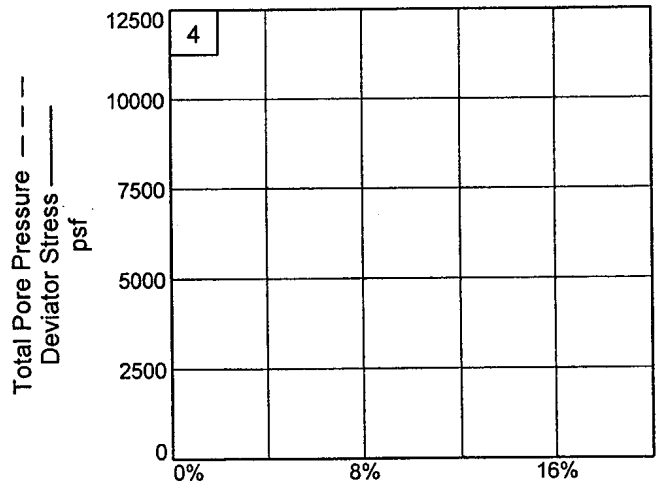
R G H CONSULTANTS, INC.

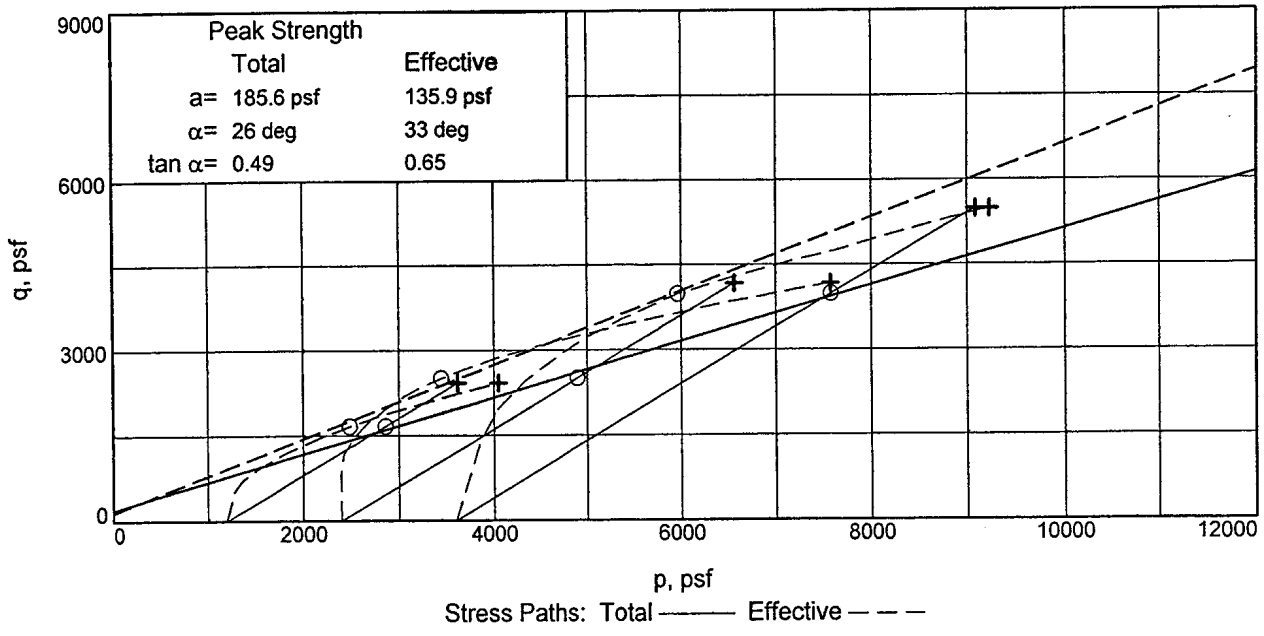
Tested By: GEF **Checked By:** TMc







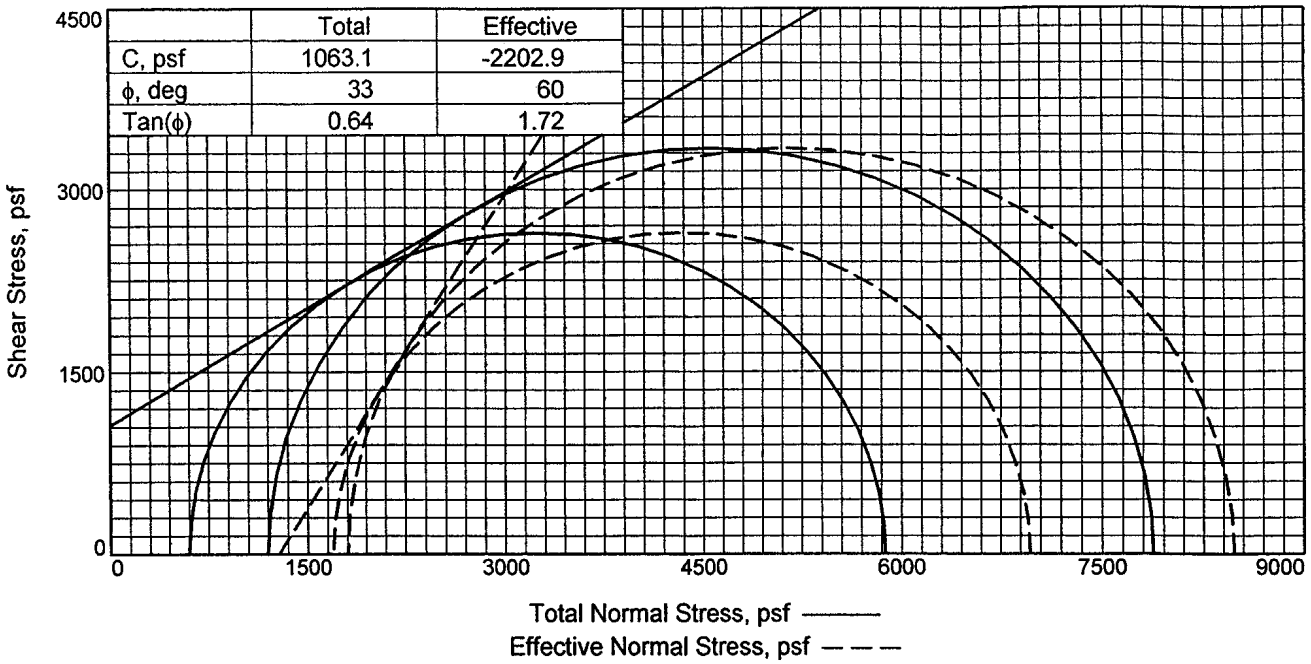


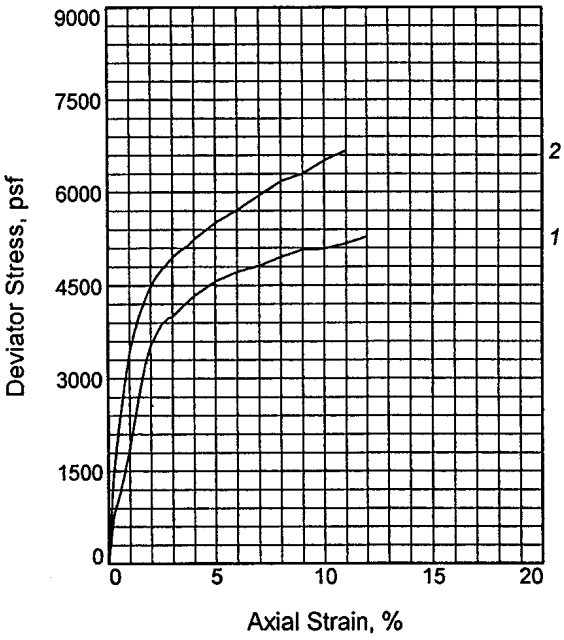


Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB101 **Depth:** 20.3-22.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2
Initial	Water Content,	19.4	18.9
	Dry Density, pcf	106.3	91.4
	Saturation,	89.3	60.4
	Void Ratio	0.5862	0.8433
	Diameter, in.	2.87	2.87
	Height, in.	6.00	6.00
At Test	Water Content,	21.7	20.9
	Dry Density, pcf	106.3	107.8
	Saturation,	100.0	100.0
	Void Ratio	0.5850	0.5632
	Diameter, in.	2.88	2.65
	Height, in.	5.96	5.96
Strain rate, in./min.		0.00	0.00
Eff. Cell Pressure, psf		600.5	1199.5
Fail. Stress, psf		5279.6	6675.6
Total Pore Pr., psf		6393.6	6883.2
Strain, %		12.0	11.0
Ult. Stress, psf			
Total Pore Pr., psf			
Strain, %			
$\bar{\sigma}_1$ Failure, psf		6974.5	8479.9
$\bar{\sigma}_3$ Failure, psf		1694.9	1804.3

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: Brown Fat Clay W/Sand (CH)

Assumed Specific Gravity= 2.70

Remarks:

Plate _____

Client: Mactec E&C

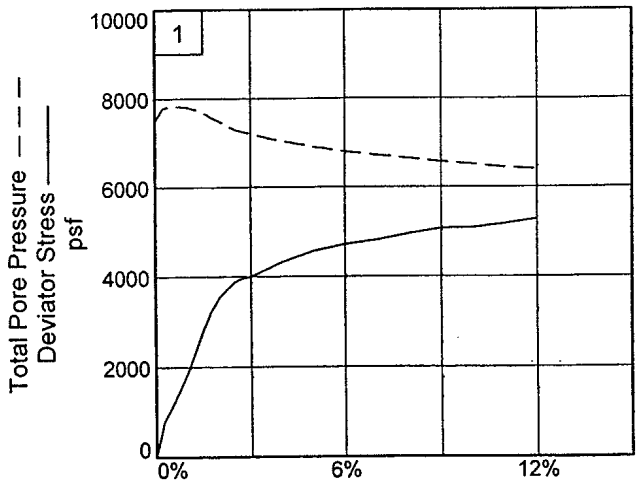
Project: Presidio SF BBDA

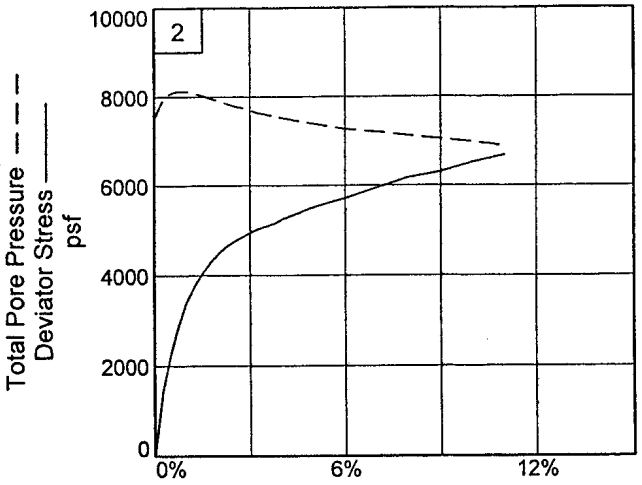
Source of Sample: BB2SB100 **Depth:** 6.7-8.0'

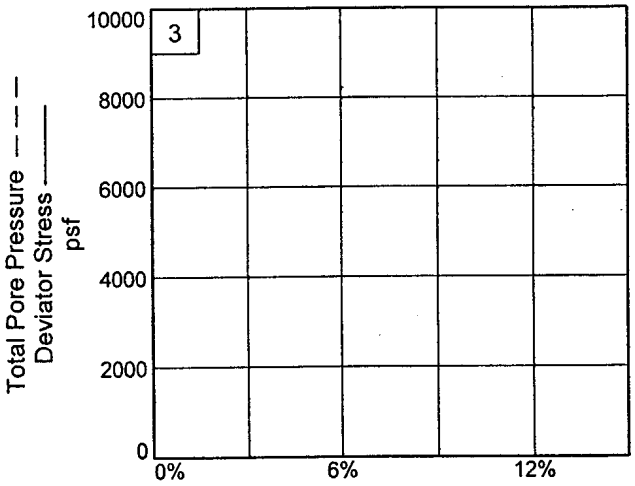
Proj. No.: 57255005132 **Date:** 5-25-05

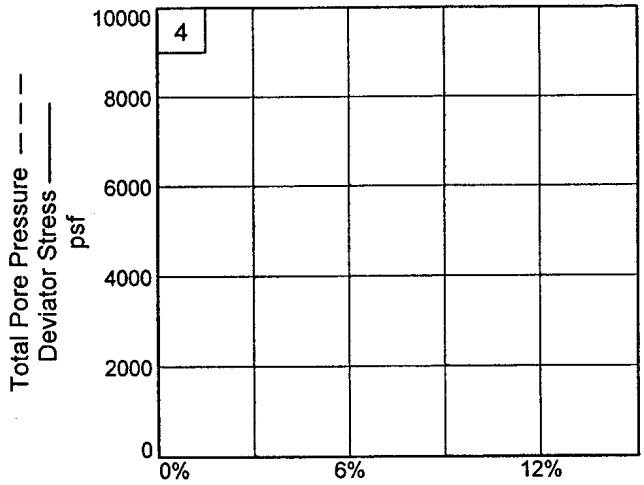
R G H CONSULTANTS, INC.

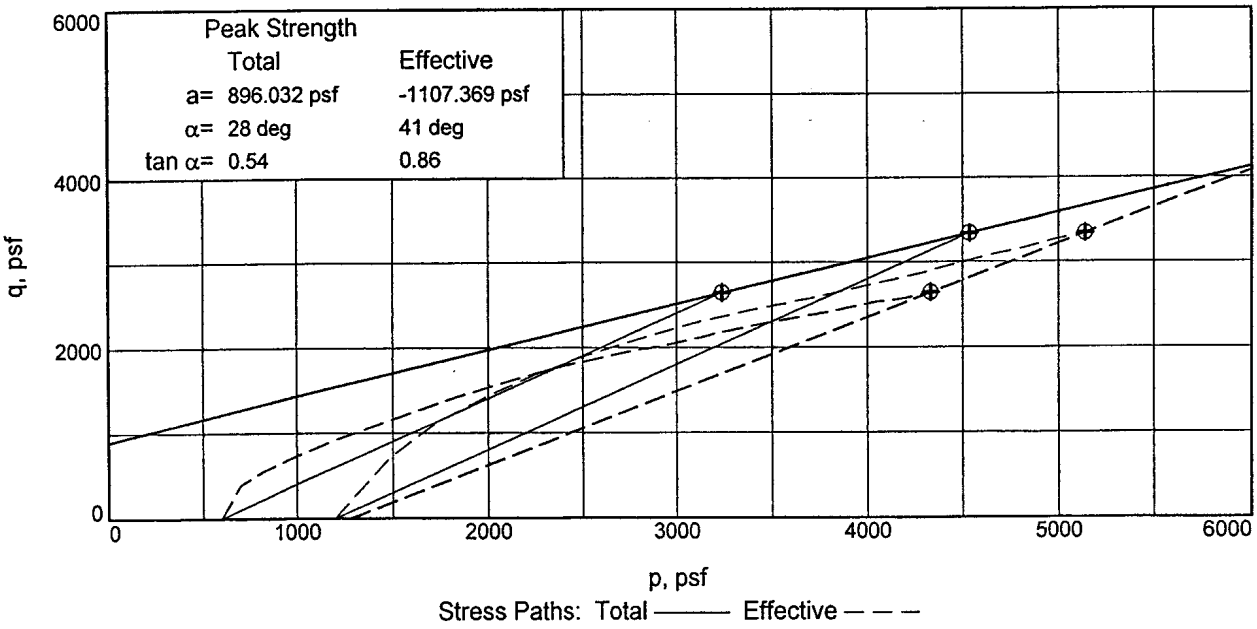
Tested By: GEF **Checked By:** TMc







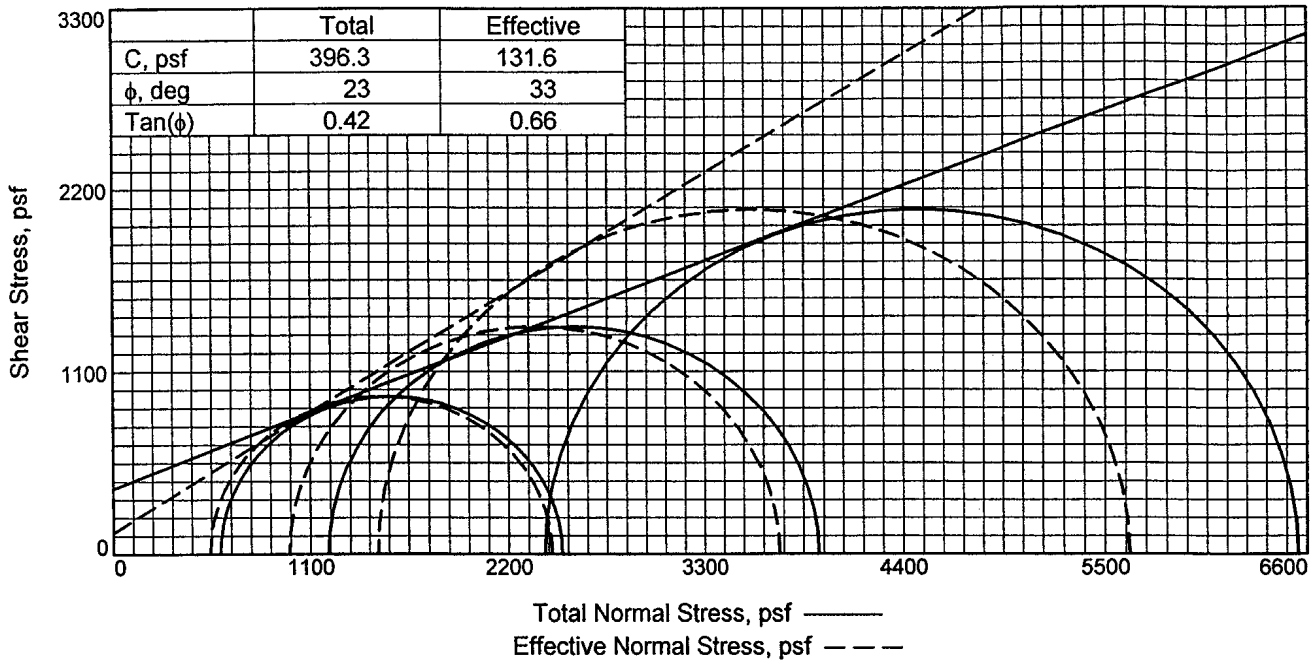


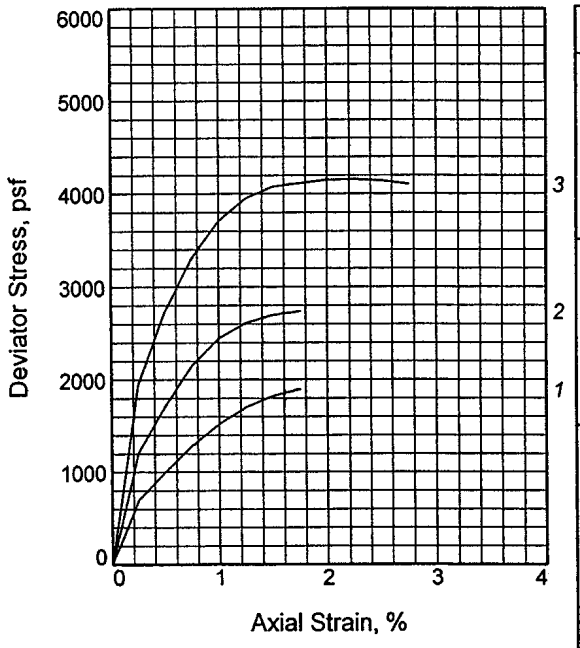


Client: Mactec E&C
Project: Presidio SF BBDA
Source of Sample: BB2SB100 **Depth:** 6.7-8.0'
Project No.: 57255005132 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2	3
Initial	Water Content,	17.7	17.7	17.7
	Dry Density, pcf	109.1	109.3	110.6
	Saturation,	87.7	88.1	91.2
	Void Ratio	0.5446	0.5420	0.5240
	Diameter, in.	2.87	2.87	2.87
	Height, in.	6.00	5.99	5.92
At Test	Water Content,	20.7	20.3	19.7
	Dry Density, pcf	108.1	108.8	110.0
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.5597	0.5485	0.5323
	Diameter, in.	2.89	2.90	2.89
	Height, in.	5.99	5.91	5.85
Strain rate, in./min.		0.01	0.01	0.01
Eff. Cell Pressure, psf		600.5	1199.5	2400.5
Fail. Stress, psf		1897.1	2735.1	4152.5
Total Pore Pr., psf		7545.6	7704.0	8409.6
Strain, %		1.7	1.8	2.2
Ult. Stress, psf				
Total Pore Pr., psf				
Strain, %				
$\bar{\sigma}_1$ Failure, psf		2440.0	3718.6	5631.4
$\bar{\sigma}_3$ Failure, psf		542.9	983.5	1478.9

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: Brown Clayey Sand (SC)

LL= 30 **PL=** 14 **PI=** 16

Assumed Specific Gravity= 2.70

Remarks: Ran 3 Stage TX/CU, not enough good sample to run 3 separate samples.

Plate _____

Client: Mactec E&C

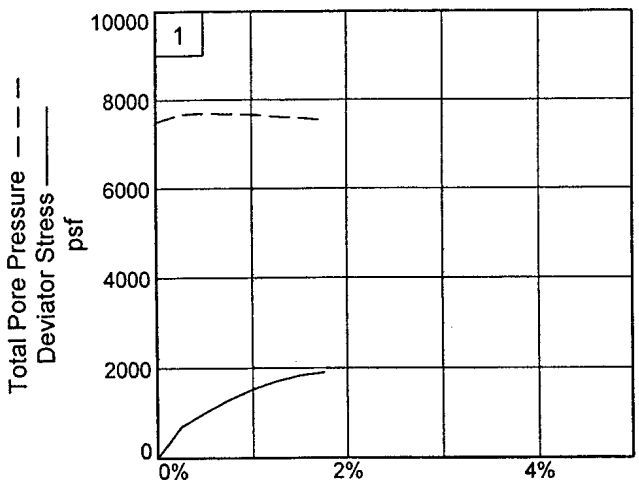
Project: Presidio S.F. BBDA

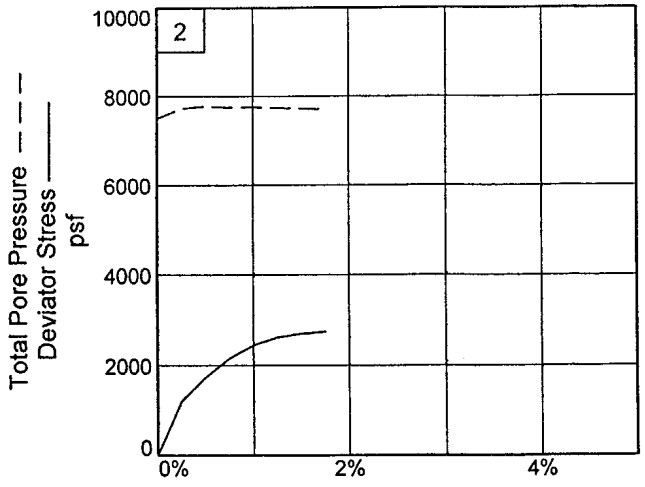
Source of Sample: BBSB101 **Depth:** 8.5-10.8'

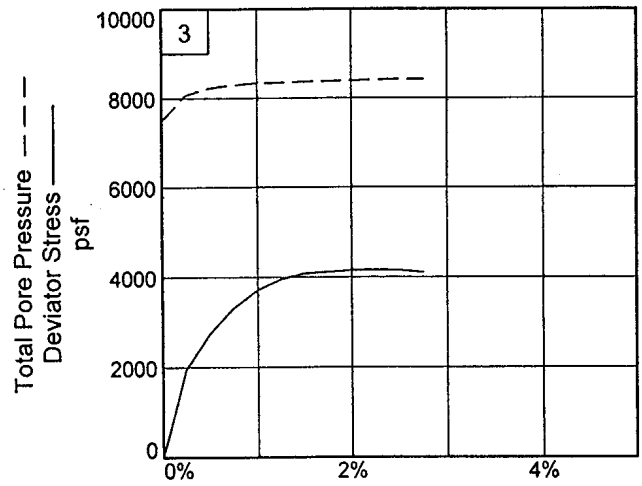
Proj. No.: 57255005 **Date:** 6-1-05

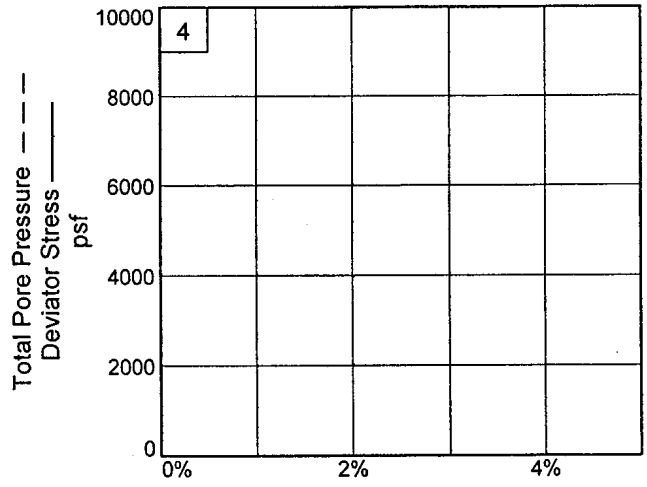
RGH CONSULTANTS, INC.

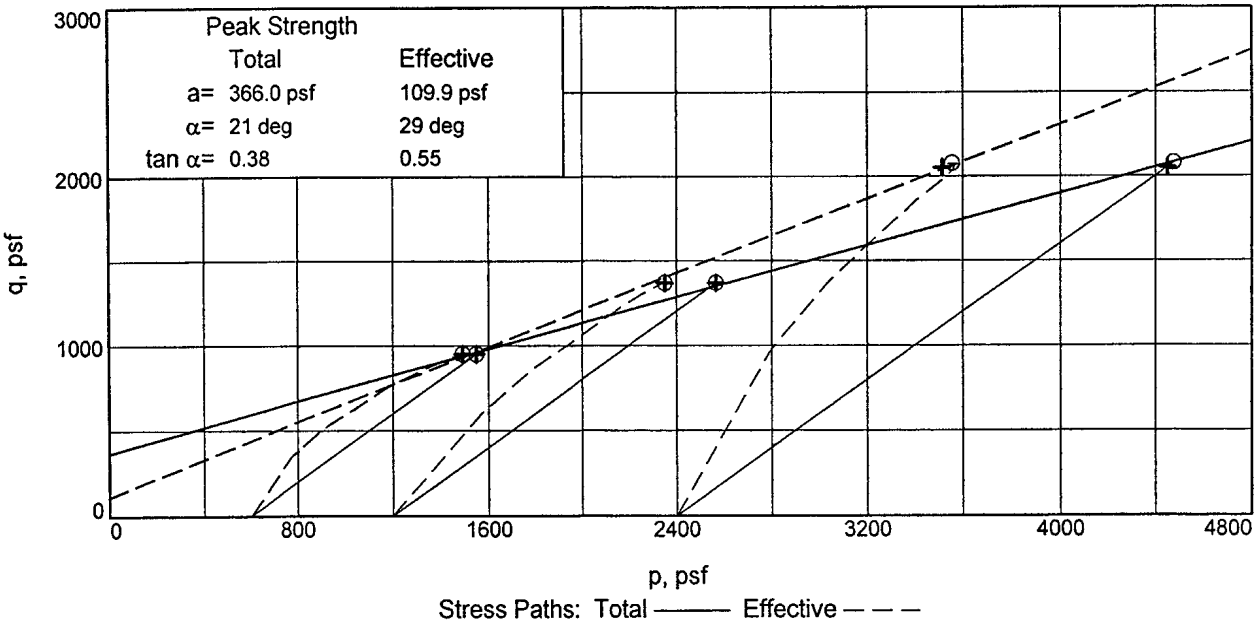
Tested By: GEF **Checked By:** TMc







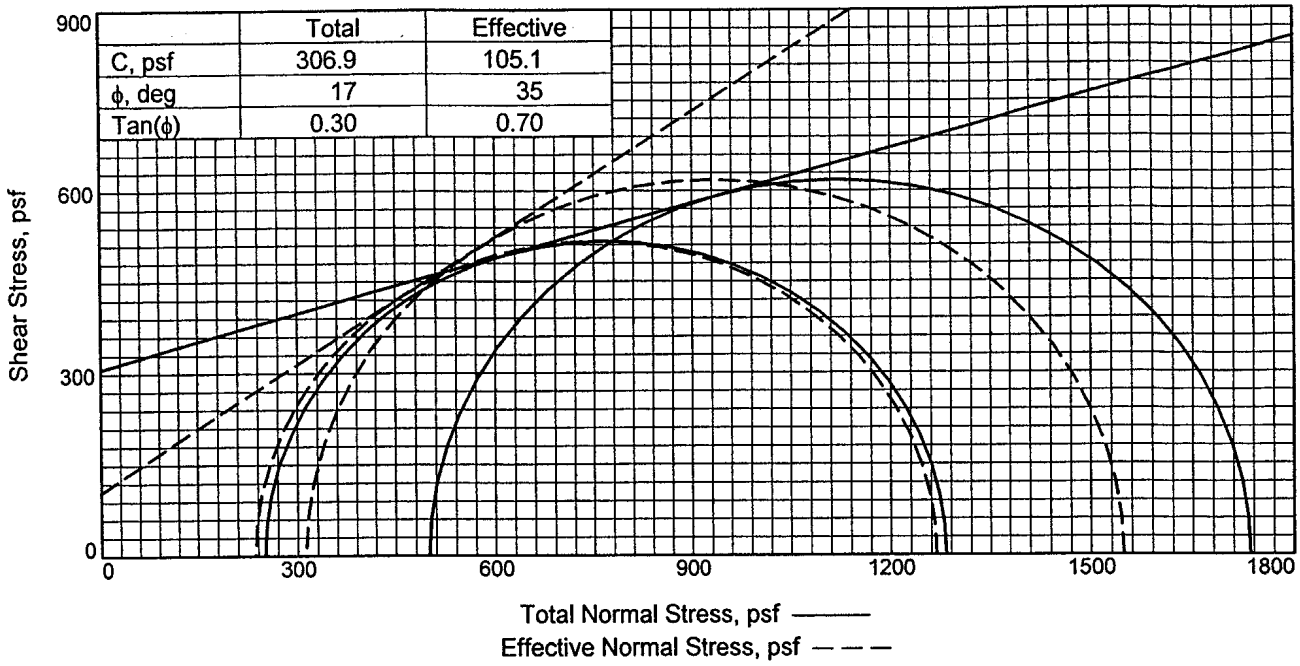


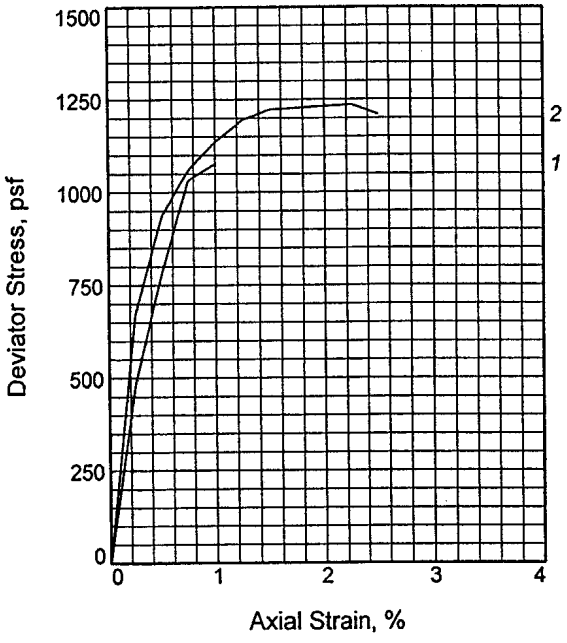


Client: Mactec E&C
Project: Presidio S.F. BBDA
Source of Sample: BBSB101 **Depth:** 8.5-10.8'
Project No.: 57255005 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc





Sample No.		1	2
Initial	Water Content,	13.0	13.0
	Dry Density, pcf	111.2	111.2
	Saturation,	68.1	68.1
	Void Ratio	0.5157	0.5157
	Diameter, in.	2.87	2.87
	Height, in.	6.00	6.00
At Test	Water Content,	20.0	19.8
	Dry Density, pcf	109.5	109.8
	Saturation,	100.0	100.0
	Void Ratio	0.5400	0.5349
	Diameter, in.	2.89	2.90
	Height, in.	6.00	5.96
Strain rate, in./min.		0.00	0.00
Eff. Cell Pressure, psf		250.6	499.7
Fail. Stress, psf		1032.1	1235.6
Total Pore Pr., psf		7502.4	7675.2
Strain, %		0.8	2.3
Ult. Stress, psf		1032.1	1235.6
Total Pore Pr., psf		7502.4	7675.2
Strain, %		0.8	2.3
$\bar{\sigma}_1$ Failure, psf		1268.3	1548.1
$\bar{\sigma}_3$ Failure, psf		236.2	312.5

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: Dark Brown Clayey Sand (SC)

LL= 31 **PL=** 21 **PI=** 10

Assumed Specific Gravity= 2.70

Remarks: Ran 2 stage TX/CU, not enough good sample for 2 separate points.

Plate _____

Client: Mactec E&C

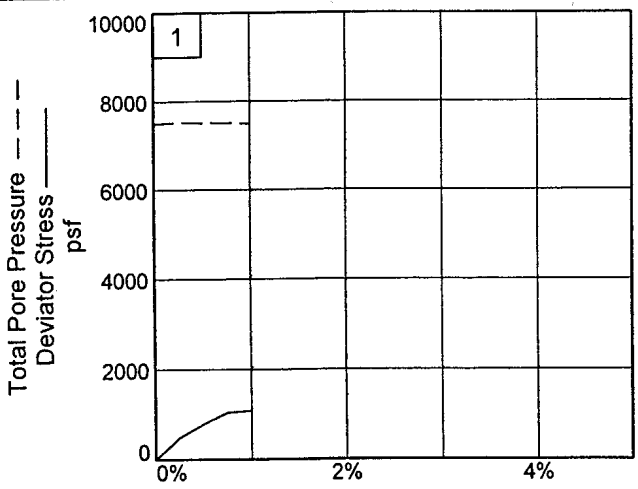
Project: Presidio S.F. BBDA

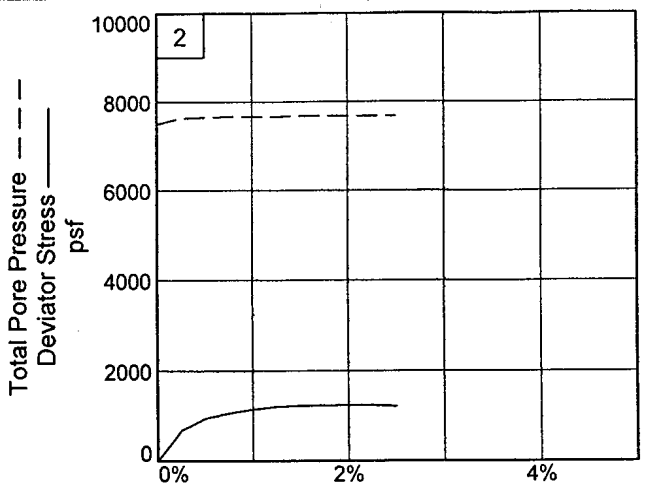
Source of Sample: BBSB103 **Depth:** 3.0-4.5'

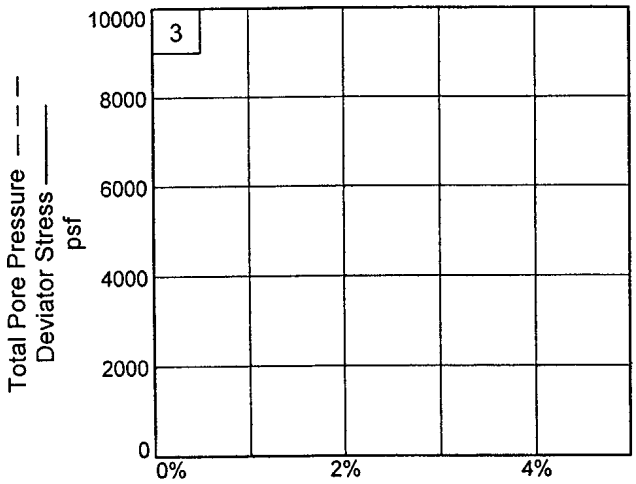
Proj. No.: 57255005 **Date:** 6-9-05

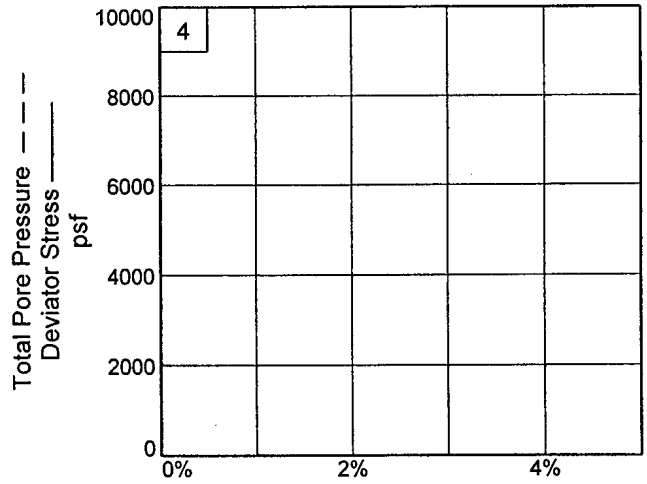
R G H CONSULTANTS, INC.

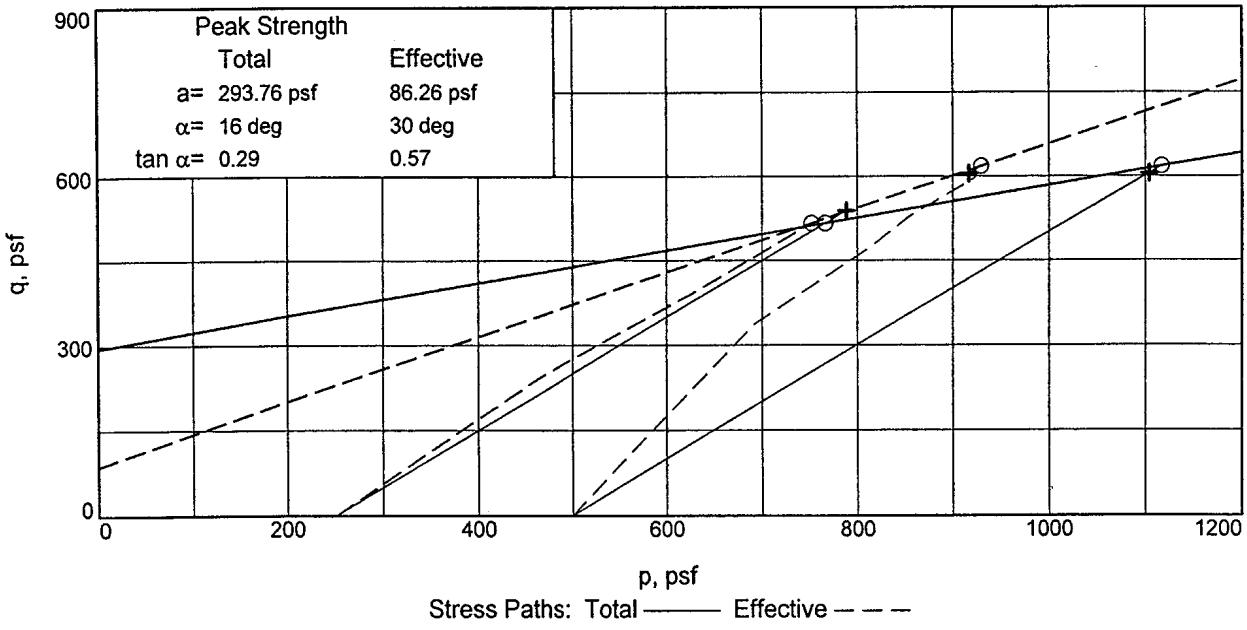
Tested By: GEF **Checked By:** TMc











Client: Mactec E&C
Project: Presidio S.F. BBDA
Source of Sample: BBSB103 **Depth:** 3.0-4.5'
Project No.: 57255005 **Plate** _____

RGH CONSULTANTS, INC.

Tested By: GEF **Checked By:** TMc

APPENDIX C2

ANALYTICAL LABORATORY TEST RESULTS

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	20YD SOIL PILE													
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Antimony	mg/kg		0.18	0.26		J-	J
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Arsenic	mg/kg		4.3	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Barium	mg/kg		110.	2.6			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Beryllium	mg/kg		0.43	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Cadmium	mg/kg		0.098	0.26			J
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Chromium	mg/kg		56.	2.6		J-	
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Cobalt	mg/kg		14.	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Copper	mg/kg		27.	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Lead	mg/kg		12.	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Molybdenum	mg/kg	<	0.36	0.36	ND	UJ	
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Nickel	mg/kg		60.	3.1		J-	
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Selenium	mg/kg		0.31	0.26			
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Silver	mg/kg		0.033	0.26			J
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Thallium	mg/kg		0.071	0.26			J
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Vanadium	mg/kg		49.	0.26		J-	
179266	5/5/2005	SOILCOMP	1144		SOIL	6020	Zinc	mg/kg		42.	1.1		J	
179266	5/5/2005	SOILCOMP	1144		SOIL	7471A	Mercury	mg/kg		0.08	0.019		J-	
179266	5/5/2005	SOILCOMP	1144		SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		7.0	1.2			HY
179266	5/5/2005	SOILCOMP	1144		SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		40.	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.17	0.17	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	4,4'-DDD	ug/kg	<	3.8	3.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	4,4'-DDE	ug/kg		1.5	3.8			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	4,4'-DDT	ug/kg	<	3.8	3.8	ND	UJ	
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Aldrin	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	alpha-BHC	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	alpha-Chlordane	ug/kg		1.4	2.0			CJ
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	beta-BHC	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	delta-BHC	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Dieldrin	ug/kg	<	3.8	3.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Endosulfan I	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Endosulfan II	ug/kg	<	3.8	3.8	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		20YD SOIL PILE												
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.8	3.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Endrin	ug/kg	<	3.8	3.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Endrin aldehyde	ug/kg	<	3.8	3.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	gamma-BHC	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	gamma-Chlordane	ug/kg		0.89	2.0			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Heptachlor	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.0	2.0	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Methoxychlor	ug/kg	<	20.	20.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8081A	Toxaphene	ug/kg	<	69.	69.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1221	ug/kg	<	28.	28.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8082	Aroclor 1260	ug/kg		86.	14.			
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.6	4.6	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	20YD SOIL PILE													
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	2-Butanone	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	2-Hexanone	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Benzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Bromobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Bromochloromethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Bromodichloromethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Bromoform	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Bromomethane	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Carbon disulfide	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Chlorobenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Chloroethane	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Chloroform	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Chloromethane	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Dibromochloromethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Dibromomethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.2	9.2	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		20YD SOIL PILE												
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Ethylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Freon 113	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Isopropylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND	U	J
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Naphthalene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	n-Butylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	n-Propylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Styrene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Tetrachloroethene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Toluene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Trichloroethene	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Vinyl acetate	ug/kg	<	46.	46.	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Vinyl chloride	ug/kg	<	9.2	9.2	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Xylenes (o-)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8260B	Xylenes (total)	ug/kg	<	4.6	4.6	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Acenaphthene	ug/kg	<	5.8	5.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Acenaphthylene	ug/kg		1.8	5.8			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Anthracene	ug/kg	<	5.8	5.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Benzo(a)anthracene	ug/kg		6.7	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Benzo(a)pyrene	ug/kg		7.8	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		7.5	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		8.9	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		5.4	5.8			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Chrysene	ug/kg		10.	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		3.5	5.8			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	20YD SOIL PILE													
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Fluoranthene	ug/kg		13.	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Fluorene	ug/kg	<	5.8	5.8	ND		
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		5.2	5.8			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Naphthalene	ug/kg		1.1	5.8			J
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Phenanthrene	ug/kg		7.7	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	8270SIM	Pyrene	ug/kg		17.	5.8			
179266	5/5/2005	SOILCOMP	1144		SOIL	D2216	Percent Moisture	%		14.	1.00			
Station Number	BB1ATP101-G1													
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Antimony	mg/kg		0.61	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Arsenic	mg/kg		3.0	0.27			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Barium	mg/kg		21.	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Beryllium	mg/kg		0.13	0.27			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Cadmium	mg/kg		0.15	0.27			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Chromium	mg/kg		46.	2.7			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Cobalt	mg/kg		4.7	0.27			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Copper	mg/kg		6.7	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Lead	mg/kg		8.6	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Molybdenum	mg/kg		0.42	0.27			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Nickel	mg/kg		38.	0.32			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Selenium	mg/kg		0.26	0.27			J
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Silver	mg/kg		0.043	0.27			J
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Thallium	mg/kg		0.12	0.27			J
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Vanadium	mg/kg		21.	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	6020	Zinc	mg/kg		21.	0.27		J-	
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	7471A	Mercury	mg/kg		0.021	0.019			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Acenaphthene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Acenaphthylene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Anthracene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	1000.	1000.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1ATP101-G1												
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		260.	1000.			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Chrysene	ug/kg		340.	1000.			
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Fluoranthene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Fluorene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Naphthalene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Phenanthrene	ug/kg	<	1000.	1000.	ND		
178846	4/7/2005	BB1ATP101-G1	1122		SOIL	8270SIM	Pyrene	ug/kg	<	1000.	1000.	ND		
Station Number		BB1ATP101-G2												
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Antimony	mg/kg		0.27	0.27		J-	J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Arsenic	mg/kg		2.6	0.27			
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Barium	mg/kg		28.	0.27		J-	
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Beryllium	mg/kg		0.13	0.27			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Cadmium	mg/kg		0.13	0.27			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Chromium	mg/kg		100.	2.7			
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Cobalt	mg/kg		11.	0.27			
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Copper	mg/kg		28.	0.27		J-	
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Lead	mg/kg		8.1	0.27		J-	
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Molybdenum	mg/kg		0.33	0.27			
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Nickel	mg/kg		69.	3.3			
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Selenium	mg/kg		0.26	0.27			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Silver	mg/kg		0.018	0.27			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Thallium	mg/kg		0.13	0.27			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Vanadium	mg/kg		66.	2.7		J-	
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	6020	Zinc	mg/kg		36.	0.27		J-	
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	7471A	Mercury	mg/kg	<	0.024	0.024	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.5	5.5	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1ATP101-G2													
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		1.2	5.5			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		1.1	5.5			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		0.85	5.5			J
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Naphthalene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.5	5.5	ND		
178846	4/7/2005	BB1ATP101-G2	1123	3.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.5	5.5	ND		
Station Number	BB1SB103													
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Antimony	mg/kg		0.52	0.26		J-	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Arsenic	mg/kg		2.5	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Barium	mg/kg		44.	0.26		J-	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Beryllium	mg/kg		0.20	0.26			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Cadmium	mg/kg		0.18	0.26			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Chromium	mg/kg		50.	0.26		J+	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Cobalt	mg/kg		5.3	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Copper	mg/kg		9.5	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Lead	mg/kg		36.	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Molybdenum	mg/kg		0.40	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Nickel	mg/kg		34.	0.31		J+	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Selenium	mg/kg		0.17	0.26			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Silver	mg/kg		0.05	0.26			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Thallium	mg/kg		0.27	0.26			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Vanadium	mg/kg		37.	0.26		J+	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	6020	Zinc	mg/kg		50.	1.00		J+	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	7471A	Mercury	mg/kg		0.06	0.023			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1SB103												
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	4,4'-DDD	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	4,4'-DDE	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	4,4'-DDT	ug/kg	<	19.	19.	ND	UJ	
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Aldrin	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	alpha-BHC	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	beta-BHC	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	delta-BHC	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Dieldrin	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Endosulfan I	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Endosulfan II	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Endrin	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	19.	19.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	gamma-BHC	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Heptachlor	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	10.	10.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Methoxychlor	ug/kg	<	100.	100.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8081A	Toxaphene	ug/kg	<	350.	350.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1221	ug/kg	<	22.	22.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	6.8	6.8	ND		

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Table C2-1
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB103													
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	2-Butanone	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	2-Hexanone	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Acetone	ug/kg	<	27.	27.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Benzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Bromobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Bromochloromethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	6.8	6.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1SB103												
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Bromoform	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Bromomethane	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Carbon disulfide	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Chlorobenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Chloroethane	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Chloroform	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Chloromethane	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Dibromomethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Ethylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Freon 113	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Methylene chloride	ug/kg	<	27.	27.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Naphthalene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	p-Isopropyltoluene	ug/kg		2.9	6.8			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Styrene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Toluene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Trichloroethene	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Vinyl acetate	ug/kg	<	68.	68.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Vinyl chloride	ug/kg	<	14.	14.	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	6.8	6.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB103													
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8260B	Xylenes (total)	ug/kg	<	6.8	6.8	ND		
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Acenaphthene	ug/kg		2.5	12.			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Acenaphthylene	ug/kg		29.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Anthracene	ug/kg		38.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		130.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		230.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		160.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		200.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		120.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Chrysene	ug/kg		170.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		82.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Fluoranthene	ug/kg		270.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Fluorene	ug/kg		9.4	12.			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		170.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Naphthalene	ug/kg		8.4	12.			J
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Phenanthrene	ug/kg		230.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	8270SIM	Pyrene	ug/kg		310.	12.			
179564	5/20/2005	BB1SB103(0.5)	1145	0.5	SOIL	D2216	Percent Moisture	%		15.	1.00			
Station Number	BB1SB110													
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Antimony	mg/kg	<	0.28	0.28	ND	UJ	J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Arsenic	mg/kg		6.4	0.28			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Barium	mg/kg		65.	2.8			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Beryllium	mg/kg		0.24	0.28			J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Cadmium	mg/kg		0.19	0.28			J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Chromium	mg/kg		70.	2.8			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Cobalt	mg/kg		9.9	0.28			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Copper	mg/kg		12.	0.28			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Lead	mg/kg		12.	0.28			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Molybdenum	mg/kg		0.26	0.28		J	J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Nickel	mg/kg		61.	3.3			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Selenium	mg/kg		0.19	0.28			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB110													
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Silver	mg/kg		0.042	0.28			J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Thallium	mg/kg	<	0.28	0.28	ND	U	J
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Vanadium	mg/kg		50.	0.28		J-	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	6020	Zinc	mg/kg		42.	1.1		J+	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	7471A	Mercury	mg/kg		0.097	0.012			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	4,4'-DDD	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	4,4'-DDE	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	4,4'-DDT	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Aldrin	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	alpha-BHC	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	beta-BHC	ug/kg	<	9.6	9.6	ND	UJ	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	delta-BHC	ug/kg	<	9.6	9.6	ND	UJ	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Dieldrin	ug/kg		23.	19.		J+	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Endosulfan I	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Endosulfan II	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Endrin	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	19.	19.	ND	UJ	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	gamma-BHC	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Heptachlor	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.6	9.6	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Methoxychlor	ug/kg	<	96.	96.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8081A	Toxaphene	ug/kg	<	340.	340.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1221	ug/kg	<	22.	22.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB110													
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Acenaphthene	ug/kg		17.	5.6		J+	
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Acenaphthylene	ug/kg		64.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Anthracene	ug/kg		100.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		360.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		330.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		210.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		320.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		200.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Chrysene	ug/kg		420.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		120.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Fluoranthene	ug/kg		720.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Fluorene	ug/kg		42.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		270.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Naphthalene	ug/kg		20.	5.6			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Phenanthrene	ug/kg		730.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	8270SIM	Pyrene	ug/kg		1000.	28.			
179445	5/12/2005	BB1SB110(3.5)	1138	3.5	SOIL	D2216	Percent Moisture	%		12.	1.00			
Station Number	BB1SB113													
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Antimony	mg/kg	<	0.21	0.21	ND	UJ	J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Arsenic	mg/kg		5.8	0.21			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Barium	mg/kg		8.4	0.21			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Beryllium	mg/kg		0.14	0.21			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Cadmium	mg/kg		0.093	0.21			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Chromium	mg/kg		48.	2.1			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Cobalt	mg/kg		7.0	0.21			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Copper	mg/kg		8.0	0.21			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Lead	mg/kg		4.3	0.21			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Molybdenum	mg/kg	<	0.21	0.21	ND	UJ	J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Nickel	mg/kg		30.	0.25			
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Selenium	mg/kg	<	0.21	0.21	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB113													
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Silver	mg/kg		0.0089	0.21			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Thallium	mg/kg	<	0.21	0.21	ND	U	J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Vanadium	mg/kg		32.	0.21		J-	
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	6020	Zinc	mg/kg		22.	0.85		J+	
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	7471A	Mercury	mg/kg		0.02	0.025			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		1.3	1.1			HY
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.21	0.21	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1016	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1221	ug/kg	<	20.	20.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1232	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1242	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1248	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1254	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8082	Aroclor 1260	ug/kg	<	10.	10.	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.1	5.1	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB113													
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	2-Butanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Benzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Bromobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Bromochloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Bromoform	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Carbon disulfide	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Chlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Chloroform	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Dibromomethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Ethylbenzene	ug/kg	<	5.1	5.1	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB113													
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Freon 113	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Methylene chloride	ug/kg		150.	530.			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Naphthalene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Styrene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Toluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Trichloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Vinyl acetate	ug/kg	<	51.	51.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8260B	Xylenes (total)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		1.3	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		1.2	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		1.4	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		1.6	5.3		J+	Jb
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		0.81	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Chrysene	ug/kg		2.0	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Fluoranthene	ug/kg		2.2	5.3			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB113													
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Fluorene	ug/kg		2.5	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.3	5.3	ND		
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Naphthalene	ug/kg		0.91	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Phenanthrene	ug/kg		3.8	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	8270SIM	Pyrene	ug/kg		3.0	5.3			J
179445	5/13/2005	BB1SB113(0.5)	1139	0.5	SOIL	D2216	Percent Moisture	%		6.0	1.00			
Station Number	BB1SB114													
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Antimony	mg/kg	<	0.22	0.22	ND	UJ	J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Arsenic	mg/kg		3.8	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Barium	mg/kg		13.	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Beryllium	mg/kg		0.097	0.22			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Cadmium	mg/kg		0.088	0.22			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Chromium	mg/kg		28.	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Cobalt	mg/kg		4.5	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Copper	mg/kg		5.4	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Lead	mg/kg		5.7	0.22			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Molybdenum	mg/kg	<	0.22	0.22	ND	UJ	J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Nickel	mg/kg		26.	0.26			
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Selenium	mg/kg	<	0.22	0.22	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Silver	mg/kg		0.025	0.22			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Thallium	mg/kg	<	0.22	0.22	ND	U	J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Vanadium	mg/kg		19.	0.22		J-	
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	6020	Zinc	mg/kg		20.	0.86		J+	
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	7471A	Mercury	mg/kg		0.017	0.021			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8015B	TPH Diesel (C10-C24)	mg/kg		0.59	1.1			HJY
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.029	0.21			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8015B	TPH Motor Oil	mg/kg		2.7	5.5			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1221	ug/kg	<	21.	21.	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB114													
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1254	ug/kg		8.3	11.			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB114													
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Acetone	ug/kg	<	23.	23.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Benzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Bromobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Bromochloromethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Bromoform	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Carbon disulfide	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Chlorobenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Chloroform	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Dibromomethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Ethylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Freon 113	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Methylene chloride	ug/kg		120.	560.			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Naphthalene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Styrene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.7	5.7	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB114													
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Toluene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Trichloroethene	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Vinyl acetate	ug/kg	<	57.	57.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8260B	Xylenes (total)	ug/kg	<	5.7	5.7	ND		b
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Naphthalene	ug/kg		1.9	5.5			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Phenanthrene	ug/kg		1.7	5.5			J
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.5	5.5	ND		
179445	5/13/2005	BB1SB114(0.5)	1140	0.5	SOIL	D2216	Percent Moisture	%		10.	1.00			
Station Number	BB1SB115													
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Antimony	mg/kg		1.4	3.2		J-	J
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Arsenic	mg/kg		14.	0.27		J-	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Barium	mg/kg		150.	0.53		J-	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Beryllium	mg/kg		0.35	0.11			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Cadmium	mg/kg		1.5	0.27			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1SB115													
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Chromium	mg/kg		130.	0.53			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Cobalt	mg/kg		18.	1.1		J+	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Copper	mg/kg		130.	0.53			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Lead	mg/kg		150.	0.16		J-	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Molybdenum	mg/kg		1.1	1.1			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Nickel	mg/kg		150.	1.1			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Selenium	mg/kg		0.53	0.27			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Silver	mg/kg	<	0.27	0.27	ND	UJ	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Thallium	mg/kg		0.15	0.27		J-	J
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Vanadium	mg/kg		70.	0.53		J-	
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	6010	Zinc	mg/kg		370.	1.1			
184680	2/1/2006	BB1SB115(0.5)	1248		SOIL	7471A	Mercury	mg/kg		0.077	0.024			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Antimony	mg/kg		0.54	4.1			J
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Arsenic	mg/kg		6.0	0.34			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Barium	mg/kg		140.	0.68			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Beryllium	mg/kg		0.36	0.14			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Cadmium	mg/kg		0.66	0.34			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Chromium	mg/kg		330.	0.68			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Cobalt	mg/kg		29.	1.4			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Copper	mg/kg		68.	0.68			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Lead	mg/kg		100.	0.21			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Molybdenum	mg/kg		0.61	1.4			J
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Nickel	mg/kg		470.	1.4			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Selenium	mg/kg		1.2	0.34			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Silver	mg/kg	<	0.34	0.34	ND		
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Thallium	mg/kg	<	0.34	0.34	ND		
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Vanadium	mg/kg		71.	0.68			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	6010	Zinc	mg/kg		240.	1.4			
185149	2/1/2006	BB1SB115(1.0)	1248		SOIL	7471A	Mercury	mg/kg		0.058	0.024			
Station Number	BB1TP102													
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Antimony	mg/kg		8.3	0.23		J-	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP102													
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Arsenic	mg/kg		18.	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Barium	mg/kg		550.	23.		J-	
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Beryllium	mg/kg		0.35	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Cadmium	mg/kg		2.9	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Chromium	mg/kg		380.	2.3			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Cobalt	mg/kg		45.	2.3			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Copper	mg/kg		260.	2.3		J-	
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Lead	mg/kg		3200.	23.		J-	
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Molybdenum	mg/kg		4.4	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Nickel	mg/kg		780.	27.			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Selenium	mg/kg		0.42	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Silver	mg/kg		12.	0.23			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Thallium	mg/kg		0.055	0.23			J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Vanadium	mg/kg		72.	2.3		J-	
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	6020	Zinc	mg/kg		2700.	23.		J-	
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	7471A	Mercury	mg/kg		0.43	0.033			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		31.	1.5			HY
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		180.	7.4			
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.18	1.6			J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1221	ug/kg	<	28.	28.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	7.1	7.1	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP102													
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,2-Dichloroethene (cis & trans)	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	2-Butanone	ug/kg		2.3	14.		J+	J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	2-Hexanone	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Acetone	ug/kg		16.	28.		J+	J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Benzene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Bromoform	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Bromomethane	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Carbon disulfide	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Chlorobenzene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Chloroethane	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Chloroform	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Chloromethane	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Ethylbenzene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Freon 113	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Methylene chloride	ug/kg	<	28.	28.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Styrene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Toluene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Trichloroethene	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Vinyl acetate	ug/kg	<	71.	71.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Vinyl chloride	ug/kg	<	14.	14.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	7.1	7.1	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP102													
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8260B	Xylenes (total)	ug/kg	<	7.1	7.1	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Anthracene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		36.	150.			Jb
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Chrysene	ug/kg		53.	150.			J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Fluoranthene	ug/kg		96.	150.			J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Fluorene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Naphthalene	ug/kg	<	150.	150.	ND		
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Phenanthrene	ug/kg		77.	150.			Jb
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	8270SIM	Pyrene	ug/kg		100.	150.			J
178951	4/15/2005	BB1TP102(4.0)	1132	4.0	SOIL	D2216	Percent Moisture	%		32.	1.00			
Station Number	BB1TP106													
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Antimony	mg/kg		35.	0.38		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Arsenic	mg/kg		230.	3.8			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Barium	mg/kg		610.	3.8		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Beryllium	mg/kg		0.51	0.38			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Cadmium	mg/kg		28.	0.38			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Chromium	mg/kg		42.	0.38			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Cobalt	mg/kg		74.	3.8			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Copper	mg/kg		2200.	38.		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Lead	mg/kg		1700.	38.		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Molybdenum	mg/kg		84.	3.8			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Nickel	mg/kg		240.	4.5			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Selenium	mg/kg		2.2	0.38			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP106													
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Silver	mg/kg		2.6	0.38			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Thallium	mg/kg		0.53	0.38			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Vanadium	mg/kg		110.	3.8		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	6020	Zinc	mg/kg		73000.	750.		J-	
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	7471A	Mercury	mg/kg		7.7	0.52			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		32.	1.5			HY
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.40	0.40	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8015B	TPH Motor Oil	mg/kg		120.	7.4			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1221	ug/kg	<	28.	28.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1254	ug/kg		430.	14.			
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	6.3	6.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP106													
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	2-Butanone	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	2-Hexanone	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Acetone	ug/kg	<	25.	25.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Benzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Bromobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Bromochloromethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Bromoform	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Bromomethane	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Carbon disulfide	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Chlorobenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Chloroethane	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Chloroform	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Chloromethane	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Dibromomethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Ethylbenzene	ug/kg	<	6.3	6.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP106													
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Freon 113	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Methylene chloride	ug/kg	<	25.	25.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Naphthalene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Styrene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Toluene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Trichloroethene	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Vinyl acetate	ug/kg	<	63.	63.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Vinyl chloride	ug/kg	<	13.	13.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8260B	Xylenes (total)	ug/kg	<	6.3	6.3	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Anthracene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Chrysene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	15.	15.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP106													
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Fluorene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Naphthalene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	8270SIM	Pyrene	ug/kg	<	15.	15.	ND		
179049	4/21/2005	BB1TP106(5.0)	1125	5.0	SOIL	D2216	Percent Moisture	%		33.	1.00			
Station Number	BB1TP107													
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Antimony	mg/kg		0.097	0.27		J-	J
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Arsenic	mg/kg		3.3	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Barium	mg/kg		67.	2.7			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Beryllium	mg/kg		0.31	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Cadmium	mg/kg		0.078	0.27			J
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Chromium	mg/kg		110.	2.7		J-	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Cobalt	mg/kg		12.	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Copper	mg/kg		11.	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Lead	mg/kg		5.5	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Molybdenum	mg/kg	<	0.41	0.41	ND	UJ	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Nickel	mg/kg		100.	3.2		J-	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Selenium	mg/kg		0.37	0.27			
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Silver	mg/kg		0.046	0.27			J
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Thallium	mg/kg		0.062	0.27			J
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Vanadium	mg/kg		50.	2.7		J-	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	6020	Zinc	mg/kg		34.	1.1		J	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	7471A	Mercury	mg/kg		0.26	0.025		J-	
179266	5/4/2005	BB1TP107(7.0)	1133	7.0	SOIL	D2216	Percent Moisture	%		13.	1.00			
Station Number	BB1TP108													
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Antimony	mg/kg		3.0	0.34		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Arsenic	mg/kg		6.7	0.34			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Barium	mg/kg		2500.	17.			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Beryllium	mg/kg		0.20	0.34			J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Cadmium	mg/kg		4.5	0.34			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP108												
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Chromium	mg/kg		64.	3.4		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Cobalt	mg/kg		12.	0.34			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Copper	mg/kg		370.	3.4			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Lead	mg/kg		420.	3.4			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Molybdenum	mg/kg		14.	0.34		J	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Nickel	mg/kg		87.	4.1		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Selenium	mg/kg	<	3.4	3.4	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Silver	mg/kg		140.	3.4			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Thallium	mg/kg		0.036	0.34			J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Vanadium	mg/kg		39.	0.34		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	6020	Zinc	mg/kg		930.	68.		J	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	7471A	Mercury	mg/kg		0.56	0.028		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		780.	14.			HY
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		3500.	69.			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.039	0.33			J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	4,4'-DDD	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	4,4'-DDE	ug/kg		12.	45.			J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	4,4'-DDT	ug/kg	<	45.	45.	ND	UJ	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Aldrin	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	alpha-BHC	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	beta-BHC	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	delta-BHC	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Dieldrin	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Endosulfan I	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Endosulfan II	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Endrin	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	45.	45.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	gamma-BHC	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	23.	23.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP108												
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Heptachlor	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	23.	23.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Methoxychlor	ug/kg	<	230.	230.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8081A	Toxaphene	ug/kg	<	820.	820.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1016	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1221	ug/kg	<	33.	33.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1232	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1242	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1248	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1254	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8082	Aroclor 1260	ug/kg	<	16.	16.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg		3.1	7.6		J+	J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	7.6	7.6	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP108												
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	2-Butanone	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	2-Hexanone	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Acetone	ug/kg	<	30.	30.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Benzene	ug/kg		1.7	7.6		J+	J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Bromobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Bromochloromethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Bromoform	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Bromomethane	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Carbon disulfide	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Chlorobenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Chloroethane	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Chloroform	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Chloromethane	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Dibromomethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Ethylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Freon 113	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Methylene chloride	ug/kg	<	30.	30.	ND	U	J

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Table C2-1
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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP108												
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Naphthalene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Styrene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Toluene	ug/kg		1.6	7.6		J+	J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Trichloroethene	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	7.6	7.6	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Vinyl acetate	ug/kg	<	76.	76.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Vinyl chloride	ug/kg	<	15.	15.	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Xylenes (o-)	ug/kg		1.3	7.6		J+	J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8260B	Xylenes (total)	ug/kg		2.8	7.6		J+	J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.8	6.8	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	6.8	6.8	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Anthracene	ug/kg	<	6.8	6.8	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		6.5	6.8			J
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		70.	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		54.	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		15.	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		100.	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Chrysene	ug/kg		73.	6.8			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		9.7	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Fluoranthene	ug/kg		9.3	6.8			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Fluorene	ug/kg	<	6.8	6.8	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		13.	6.8		J-	
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Naphthalene	ug/kg	<	6.8	6.8	ND		
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Phenanthrene	ug/kg		3.5	6.8			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP108													
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	8270SIM	Pyrene	ug/kg		39.	6.8			
179266	5/5/2005	BB1TP108(5.0)	1134	6.0	SOIL	D2216	Percent Moisture	%		27.	1.00			
Station Number	BB1TP109													
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Antimony	mg/kg		0.34	0.28		J-	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Arsenic	mg/kg		2.0	0.28			
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Barium	mg/kg		54.	0.28			
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Beryllium	mg/kg		0.17	0.28			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Cadmium	mg/kg		0.17	0.28			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Chromium	mg/kg		250.	2.8		J-	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Cobalt	mg/kg		35.	0.28			
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Copper	mg/kg		14.	0.28			
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Lead	mg/kg		6.6	0.28			
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Molybdenum	mg/kg	<	0.45	0.45	ND	UJ	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Nickel	mg/kg		300.	3.3		J-	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Selenium	mg/kg		0.25	0.28			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Silver	mg/kg		0.08	0.28			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Thallium	mg/kg		0.05	0.28			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Vanadium	mg/kg		42.	0.28		J-	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	6020	Zinc	mg/kg		77.	11.		J	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	7471A	Mercury	mg/kg		0.061	0.02		J-	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		1.0	1.2		UJ	JY
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		7.9	5.8		J-	Y
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.18	0.18	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.7	3.7	ND	UJ	
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Dieldrin	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Endrin	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.7	3.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8081A	Toxaphene	ug/kg	<	68.	68.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1221	ug/kg	<	28.	28.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.5	4.5	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	2-Butanone	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	2-Hexanone	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Benzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Bromoform	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Bromomethane	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Chloroethane	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Chloroform	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Chloromethane	ug/kg	<	9.0	9.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Freon 113	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND	U	J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Naphthalene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Styrene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Toluene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Vinyl acetate	ug/kg	<	45.	45.	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Vinyl chloride	ug/kg	<	9.0	9.0	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8260B	Xylenes (total)	ug/kg	<	4.5	4.5	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.7	5.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		0.72	5.7			J
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Naphthalene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.7	5.7	ND		
179266	5/4/2005	BB1TP109(2.5)	1241	2.5	SOIL	D2216	Percent Moisture	%		13.	1.00			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Antimony	mg/kg		0.084	0.23		J-	J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Arsenic	mg/kg		1.1	0.23			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Barium	mg/kg		39.	0.23			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Beryllium	mg/kg		0.18	0.23			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Cadmium	mg/kg		0.068	0.23			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Chromium	mg/kg		53.	2.3		J-	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Cobalt	mg/kg		8.4	0.23			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Copper	mg/kg		5.9	0.23			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Lead	mg/kg		4.1	0.23			
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Molybdenum	mg/kg	<	0.26	0.26	ND	UJ	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Nickel	mg/kg		51.	2.8		J-	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Selenium	mg/kg		0.11	0.23			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Silver	mg/kg		0.025	0.23			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Thallium	mg/kg		0.044	0.23			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Vanadium	mg/kg		35.	0.23		J-	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	6020	Zinc	mg/kg		35.	0.93		J	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	7471A	Mercury	mg/kg		0.048	0.019		J-	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		240.	2.2			HY
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		280.	11.			HL
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.057	0.19			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	4,4'-DDD	ug/kg	<	18.	18.	ND		

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	4,4'-DDE	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	4,4'-DDT	ug/kg	<	18.	18.	ND	UJ	
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Aldrin	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	alpha-BHC	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	beta-BHC	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	delta-BHC	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Dieldrin	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Endosulfan I	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Endosulfan II	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Endrin	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	18.	18.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	gamma-BHC	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Heptachlor	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.3	9.3	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Methoxychlor	ug/kg	<	93.	93.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8081A	Toxaphene	ug/kg	<	330.	330.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1221	ug/kg	<	26.	26.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.7	4.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg		0.81	4.7			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	2-Butanone	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	2-Hexanone	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Acetone	ug/kg		3.6	19.			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Benzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Bromoform	ug/kg	<	4.7	4.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Bromomethane	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Chloroethane	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Chloroform	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Chloromethane	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Freon 113	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Methylene chloride	ug/kg	<	19.	19.	ND	U	J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Naphthalene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Styrene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Toluene	ug/kg		0.77	4.7			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.7	4.7	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Vinyl acetate	ug/kg	<	47.	47.	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Vinyl chloride	ug/kg	<	9.5	9.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Xylenes (o-)	ug/kg		0.58	4.7			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8260B	Xylenes (total)	ug/kg		1.4	4.7			J

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NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		1.8	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		1.7	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		1.4	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		1.4	5.5			Jb
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		0.89	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Chrysene	ug/kg		2.0	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Fluoranthene	ug/kg		1.8	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		1.7	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Naphthalene	ug/kg	<	5.5	5.5	ND		
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Phenanthrene	ug/kg		2.2	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	8270SIM	Pyrene	ug/kg		2.8	5.5			J
179266	5/4/2005	BB1TP109(3.5)	1241	3.5	SOIL	D2216	Percent Moisture	%		9.0	1.00			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Antimony	mg/kg		0.27	0.26		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Arsenic	mg/kg		6.6	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Barium	mg/kg		150.	2.6			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Beryllium	mg/kg		0.48	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Cadmium	mg/kg		0.31	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Chromium	mg/kg		63.	2.6		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Cobalt	mg/kg		13.	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Copper	mg/kg		31.	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Lead	mg/kg		120.	2.6			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Molybdenum	mg/kg	<	0.51	0.51	ND	UJ	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Nickel	mg/kg		64.	3.1		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Selenium	mg/kg		0.35	0.26			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Silver	mg/kg		0.084	0.26			J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Thallium	mg/kg		0.073	0.26			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Vanadium	mg/kg		51.	2.6		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	6020	Zinc	mg/kg		140.	11.		J	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	7471A	Mercury	mg/kg		0.18	0.017		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		40.	1.2			HY
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		100.	5.8			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.16	0.16	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	4,4'-DDD	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	4,4'-DDE	ug/kg		12.	19.			J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	4,4'-DDT	ug/kg		52.	19.		J-	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Aldrin	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	alpha-BHC	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	beta-BHC	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	delta-BHC	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Dieldrin	ug/kg		42.	19.			
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Endosulfan I	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Endosulfan II	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Endrin	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	19.	19.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	gamma-BHC	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Heptachlor	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.6	9.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Methoxychlor	ug/kg	<	96.	96.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8081A	Toxaphene	ug/kg	<	340.	340.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	2-Butanone	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	2-Hexanone	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.3	4.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Acetone	ug/kg	<	17.	17.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Benzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Bromobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Bromochloromethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Bromoform	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Bromomethane	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Carbon disulfide	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Chlorobenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Chloroethane	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Chloroform	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Chloromethane	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Dibromomethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Ethylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Freon 113	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Methylene chloride	ug/kg	<	17.	17.	ND	U	J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Naphthalene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Styrene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.3	4.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Toluene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Trichloroethene	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Vinyl acetate	ug/kg	<	43.	43.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Vinyl chloride	ug/kg	<	8.6	8.6	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8260B	Xylenes (total)	ug/kg	<	4.3	4.3	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	11.	11.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Acenaphthylene	ug/kg		6.6	11.		J+	J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Anthracene	ug/kg		5.1	11.		J+	J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		24.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		37.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		35.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		16.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		20.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Chrysene	ug/kg		38.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		8.6	11.		J+	J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Fluoranthene	ug/kg		24.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Fluorene	ug/kg	<	11.	11.	ND		
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		15.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Naphthalene	ug/kg		2.8	11.		J+	J
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Phenanthrene	ug/kg		15.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	8270SIM	Pyrene	ug/kg		45.	11.		J+	
179266	5/4/2005	BB1TP109(6.0)	1241	6.0	SOIL	D2216	Percent Moisture	%		13.	1.00			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Antimony	mg/kg		0.17	0.25		J-	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Arsenic	mg/kg		2.6	0.25			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Barium	mg/kg		120.	2.5			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Beryllium	mg/kg		0.37	0.25			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Cadmium	mg/kg		0.23	0.25			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Chromium	mg/kg		37.	0.25		J-	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Cobalt	mg/kg		11.	0.25			

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Copper	mg/kg		37.	0.25			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Lead	mg/kg		45.	2.5			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Molybdenum	mg/kg	<	0.30	0.30	ND	UJ	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Nickel	mg/kg		38.	0.30		J-	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Selenium	mg/kg		0.24	0.25			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Silver	mg/kg		0.039	0.25			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Thallium	mg/kg		0.059	0.25			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Vanadium	mg/kg		34.	0.25		J-	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	6020	Zinc	mg/kg		88.	10.		J	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	7471A	Mercury	mg/kg		0.50	0.017		J-	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		95.	3.3			HY
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		440.	17.			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.033	0.17			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	4,4'-DDD	ug/kg		38.	18.		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	4,4'-DDE	ug/kg		68.	18.			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	4,4'-DDT	ug/kg		390.	18.		J-	b
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Aldrin	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	alpha-BHC	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	alpha-Chlordane	ug/kg		14.	9.4			C
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	beta-BHC	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	delta-BHC	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Dieldrin	ug/kg		73.	18.			
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Endosulfan I	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Endosulfan II	ug/kg	<	18.	18.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	18.	18.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Endrin	ug/kg	<	18.	18.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	18.	18.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	gamma-BHC	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	gamma-Chlordane	ug/kg		7.5	9.4			J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Heptachlor	ug/kg	<	9.4	9.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.4	9.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Methoxychlor	ug/kg	<	94.	94.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8081A	Toxaphene	ug/kg	<	330.	330.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.4	4.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	2-Butanone	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	2-Hexanone	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Benzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Bromoform	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Bromomethane	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Chloroethane	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Chloroform	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Chloromethane	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Freon 113	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND	U	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Naphthalene	ug/kg	<	4.4	4.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP109												
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Styrene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Toluene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Vinyl acetate	ug/kg	<	44.	44.	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Vinyl chloride	ug/kg	<	8.8	8.8	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8260B	Xylenes (total)	ug/kg	<	4.4	4.4	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.6	5.6	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Acenaphthylene	ug/kg		4.2	5.6		J+	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Anthracene	ug/kg		4.9	5.6		J+	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		19.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		27.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		23.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		8.6	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		22.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Chrysene	ug/kg		24.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		4.7	5.6		J+	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Fluoranthene	ug/kg		25.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.6	5.6	ND		
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		8.1	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Naphthalene	ug/kg		2.2	5.6		J+	J
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Phenanthrene	ug/kg		15.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	8270SIM	Pyrene	ug/kg		44.	5.6		J+	
179266	5/4/2005	DUP050405	1241	2.5	SOIL	D2216	Percent Moisture	%		11.	1.00			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Antimony	mg/kg		0.63	3.2			J
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Arsenic	mg/kg		5.5	0.26			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Barium	mg/kg		92.	0.53			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Beryllium	mg/kg		0.35	0.11			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Cadmium	mg/kg		0.93	0.26			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Chromium	mg/kg		100.	0.53			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Cobalt	mg/kg		11.	1.1			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Copper	mg/kg		19.	0.53			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Lead	mg/kg		4.8	0.16			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Molybdenum	mg/kg		0.63	1.1			J
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Nickel	mg/kg		69.	1.1			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Selenium	mg/kg	<	0.26	0.26	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Silver	mg/kg	<	0.26	0.26	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Thallium	mg/kg		0.20	0.26			J
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Vanadium	mg/kg		68.	0.53			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	6010	Zinc	mg/kg		38.	1.1			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	7471A	Mercury	mg/kg		0.053	0.023			
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.2	1.2	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.9	5.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.19	0.19	ND	U	J
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	4,4'-DDD	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	4,4'-DDE	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	4,4'-DDT	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Aldrin	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	alpha-BHC	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.1	2.1	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	beta-BHC	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	delta-BHC	ug/kg		0.67	2.1		J-	CJ
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Dieldrin	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Endosulfan I	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Endosulfan II	ug/kg	<	4.0	4.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Endrin	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	4.0	4.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	gamma-BHC	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.1	2.1	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Heptachlor	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.1	2.1	ND	UJ	
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Methoxychlor	ug/kg	<	21.	21.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8081A	Toxaphene	ug/kg	<	73.	73.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1016	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1232	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1242	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1248	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1254	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8082	Aroclor 1260	ug/kg	<	12.	12.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.0	5.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	2-Butanone	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	2-Hexanone	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Benzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Bromoform	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Bromomethane	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Chloroethane	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Chloroform	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Chloromethane	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.9	9.9	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Freon 113	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Naphthalene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Styrene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Toluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Vinyl acetate	ug/kg	<	50.	50.	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Vinyl chloride	ug/kg	<	9.9	9.9	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Anthracene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Chrysene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	6.0	6.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Fluorene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Naphthalene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(12.0)	1229	12.0	SOIL	8270SIM	Pyrene	ug/kg	<	6.0	6.0	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Antimony	mg/kg		0.59	2.7			J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Arsenic	mg/kg		4.4	0.23			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Barium	mg/kg		98.	0.46			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Beryllium	mg/kg		0.37	0.091			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Cadmium	mg/kg		0.82	0.23			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Chromium	mg/kg		66.	0.46			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Cobalt	mg/kg		9.7	0.91			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Copper	mg/kg		10.	0.46			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Lead	mg/kg		5.4	0.14			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Molybdenum	mg/kg		0.72	0.91			J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Nickel	mg/kg		41.	0.91			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Selenium	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Silver	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Thallium	mg/kg		0.15	0.23			J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Vanadium	mg/kg		61.	0.46			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	6010	Zinc	mg/kg		34.	0.91			
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	7471A	Mercury	mg/kg		0.015	0.021			J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.2	1.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.8	5.8	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.21	0.21	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Aldrin	ug/kg		0.59	2.0		J-	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	alpha-BHC	ug/kg	<	2.0	2.0	ND	UJ	

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.0	2.0	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	beta-BHC	ug/kg		0.52	2.0		J-	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	delta-BHC	ug/kg		1.3	2.0		J-	CJ
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Dieldrin	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Endosulfan I	ug/kg	<	2.0	2.0	ND	UJ	
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Endrin	ug/kg	<	3.9	3.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Endrin aldehyde	ug/kg		4.4	3.9			C
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	gamma-BHC	ug/kg	<	2.0	2.0	ND	UJ	
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.0	2.0	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Heptachlor	ug/kg	<	2.0	2.0	ND	UJ	
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.0	2.0	ND	UJ	
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Methoxychlor	ug/kg	<	20.	20.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8081A	Toxaphene	ug/kg	<	71.	71.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.2	5.2	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	2-Butanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Acetone	ug/kg	<	21.	21.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Benzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Bromoform	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.2	5.2	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Chloroform	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Freon 113	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Methylene chloride	ug/kg	<	21.	21.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Naphthalene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Styrene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Toluene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Vinyl acetate	ug/kg	<	52.	52.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.2	5.2	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.9	5.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.9	5.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Anthracene	ug/kg		1.6	5.9			J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.9	5.9	ND	U	J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP110												
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.9	5.9	ND		
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Naphthalene	ug/kg		1.3	5.9		J+	Jb
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/3/2005	BB1TP110(8.0)	1229	8.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.9	5.9	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Antimony	mg/kg	<	2.8	2.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Arsenic	mg/kg		5.3	0.23			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Barium	mg/kg		150.	0.46			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Beryllium	mg/kg		0.36	0.093			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Cadmium	mg/kg		0.84	0.23			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Chromium	mg/kg		61.	0.46			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Cobalt	mg/kg		12.	0.93			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Copper	mg/kg		16.	0.46			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Lead	mg/kg		11.	0.14			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Molybdenum	mg/kg		0.59	0.93			J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Nickel	mg/kg		49.	0.93			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Selenium	mg/kg		0.19	0.23			J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Silver	mg/kg	<	0.23	0.23	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Thallium	mg/kg		0.11	0.23			J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Vanadium	mg/kg		61.	0.46			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	6010	Zinc	mg/kg		41.	0.93			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	7471A	Mercury	mg/kg		0.049	0.022			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		1.7	1.1			HY
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		12.	5.6			

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.19	0.19	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	alpha-Chlordane	ug/kg		9.4	1.9			C
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Dieldrin	ug/kg		1.9	3.7			CJ
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Endosulfan sulfate	ug/kg		2.7	3.7			CJ
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Endrin	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	gamma-Chlordane	ug/kg		4.5	1.9			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Heptachlor epoxide	ug/kg		0.99	1.9			J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8081A	Toxaphene	ug/kg	<	68.	68.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.8	4.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	2-Butanone	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	2-Hexanone	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Acetone	ug/kg	<	19.	19.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Benzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.8	4.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Bromoform	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Bromomethane	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.8	4.8	ND	UJ	
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Chloroethane	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Chloroform	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Chloromethane	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.7	9.7	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Freon 113	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Methylene chloride	ug/kg	<	19.	19.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Naphthalene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Styrene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Toluene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Vinyl acetate	ug/kg	<	48.	48.	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Vinyl chloride	ug/kg	<	9.7	9.7	ND		

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP110													
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8260B	Xylenes (total)	ug/kg	<	4.8	4.8	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.6	5.6	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.6	5.6	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.6	5.6	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.6	5.6	ND		
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Naphthalene	ug/kg		18.	5.6			
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/4/2005	BB1TP110(1.5)	1229	1.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.9	5.9	ND	U	
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Antimony	mg/kg		0.18	3.2			J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Arsenic	mg/kg		4.3	0.26			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Barium	mg/kg		100.	0.53			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Beryllium	mg/kg		0.37	0.11			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Cadmium	mg/kg		0.82	0.26			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Chromium	mg/kg		56.	0.53			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Cobalt	mg/kg		12.	1.1			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Copper	mg/kg		19.	0.53			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Lead	mg/kg		49.	0.16			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Molybdenum	mg/kg		0.58	1.1			J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Nickel	mg/kg		32.	1.1			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Selenium	mg/kg		0.45	0.26			

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Silver	mg/kg	<	0.26	0.26	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Thallium	mg/kg	<	0.26	0.26	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Vanadium	mg/kg		53.	0.53			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	6010	Zinc	mg/kg		64.	1.1			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	7471A	Mercury	mg/kg		0.10	0.021			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.2	1.2	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		6.0	5.8			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.21	0.21	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Dieldrin	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Endrin	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.8	3.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8081A	Toxaphene	ug/kg	<	69.	69.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1221	ug/kg	<	22.	22.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	2-Butanone	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.0	5.0	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	2-Hexanone	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Benzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Bromobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Bromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Bromoform	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Bromomethane	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Carbon disulfide	ug/kg	<	5.0	5.0	ND	UJ	
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Chlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Chloroethane	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Chloroform	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Chloromethane	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Dibromomethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Ethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Freon 113	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Naphthalene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Styrene	ug/kg	<	5.0	5.0	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP111												
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Toluene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Trichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Vinyl acetate	ug/kg	<	50.	50.	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Vinyl chloride	ug/kg	<	9.9	9.9	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8260B	Xylenes (total)	ug/kg	<	5.0	5.0	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.8	5.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.8	5.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.8	5.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.8	5.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.8	5.8	ND		
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Naphthalene	ug/kg		15.	5.8			
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(1.5)	1230	1.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.8	5.8	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Antimony	mg/kg	<	3.4	3.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Arsenic	mg/kg		3.0	0.28			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Barium	mg/kg		73.	0.56			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Beryllium	mg/kg		0.21	0.11			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Cadmium	mg/kg		0.58	0.28			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Chromium	mg/kg		66.	0.56			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP111												
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Cobalt	mg/kg		7.1	1.1			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Copper	mg/kg		5.9	0.56			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Lead	mg/kg		3.2	0.17			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Molybdenum	mg/kg		0.45	1.1			J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Nickel	mg/kg		31.	1.1			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Selenium	mg/kg	<	0.28	0.28	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Silver	mg/kg	<	0.28	0.28	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Thallium	mg/kg		0.26	0.28			J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Vanadium	mg/kg		56.	0.56			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	6010	Zinc	mg/kg		21.	1.1			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	7471A	Mercury	mg/kg	<	0.023	0.023	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.1	1.1	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		6.8	5.4			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.26	0.26	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	4,4'-DDD	ug/kg		0.23	3.5			CJ
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.5	3.5	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	4,4'-DDT	ug/kg		0.59	3.5			J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Aldrin	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	alpha-BHC	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	beta-BHC	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	delta-BHC	ug/kg	<	1.8	1.8	ND	UJ	
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Dieldrin	ug/kg	<	3.5	3.5	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Endosulfan I	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.5	3.5	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Endosulfan sulfate	ug/kg		0.80	3.5			CJ
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Endrin	ug/kg	<	3.5	3.5	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.5	3.5	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	gamma-BHC	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	gamma-Chlordane	ug/kg		0.25	1.8			J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Heptachlor	ug/kg	<	1.8	1.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.8	1.8	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Methoxychlor	ug/kg	<	18.	18.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8081A	Toxaphene	ug/kg	<	64.	64.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1221	ug/kg	<	26.	26.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.4	5.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Acetone	ug/kg	<	22.	22.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Benzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Bromoform	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.4	5.4	ND	UJ	
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Chloroform	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Freon 113	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Methylene chloride	ug/kg	<	22.	22.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.4	5.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Naphthalene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Styrene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Toluene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Vinyl acetate	ug/kg	<	54.	54.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.4	5.4	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.4	5.4	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.4	5.4	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.4	5.4	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.4	5.4	ND	U	J
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Naphthalene	ug/kg		23.	5.4			
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.4	5.4	ND		
182254	10/4/2005	BB1TP111(3.0)	1230	3.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.4	5.4	ND	U	J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Antimony	mg/kg		0.29	2.4			J
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Arsenic	mg/kg		5.8	0.20			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Barium	mg/kg		100.	0.40			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Beryllium	mg/kg		0.46	0.081			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Cadmium	mg/kg		0.92	0.20			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Chromium	mg/kg		80.	0.40			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Cobalt	mg/kg		16.	0.81			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Copper	mg/kg		18.	0.40			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Lead	mg/kg		5.8	0.12			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Molybdenum	mg/kg		0.62	0.81			J
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Nickel	mg/kg		58.	0.81			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Selenium	mg/kg	<	0.20	0.20	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Silver	mg/kg	<	0.20	0.20	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Thallium	mg/kg		0.054	0.20			J
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Vanadium	mg/kg		64.	0.40			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	6010	Zinc	mg/kg		33.	0.81			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	7471A	Mercury	mg/kg		0.063	0.021			
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.1	1.1	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.19	0.19	ND	U	J
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Dieldrin	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.7	3.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Endrin	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.7	3.7	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8081A	Toxaphene	ug/kg	<	67.	67.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1221	ug/kg	<	21.	21.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.5	4.5	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	2-Butanone	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	2-Hexanone	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Benzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Bromobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Bromochloromethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Bromoform	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Bromomethane	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Carbon disulfide	ug/kg	<	4.5	4.5	ND	UJ	
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Chlorobenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Chloroethane	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Chloroform	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Chloromethane	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Dibromomethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.0	9.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Ethylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Freon 113	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Naphthalene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Styrene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Toluene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Trichloroethene	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Vinyl acetate	ug/kg	<	45.	45.	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Vinyl chloride	ug/kg	<	9.0	9.0	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8260B	Xylenes (total)	ug/kg	<	4.5	4.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.5	5.5	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP111													
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Naphthalene	ug/kg		1.0	5.5		J+	Jb
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.5	5.5	ND		
182254	10/4/2005	BB1TP111(6.0)	1230	6.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.5	5.5	ND		
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Antimony	mg/kg		0.12	2.7			J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Arsenic	mg/kg		5.8	0.23			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Barium	mg/kg		110.	0.45			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Beryllium	mg/kg		0.33	0.091			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Cadmium	mg/kg		0.96	0.23			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Chromium	mg/kg		78.	0.45			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Cobalt	mg/kg		12.	0.91			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Copper	mg/kg		17.	0.45			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Lead	mg/kg		39.	0.14			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Molybdenum	mg/kg		0.68	0.91			J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Nickel	mg/kg		59.	0.91			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Selenium	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Silver	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Thallium	mg/kg		0.071	0.23			J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Vanadium	mg/kg		68.	0.45			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	6010	Zinc	mg/kg		58.	0.91			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	7471A	Mercury	mg/kg		0.072	0.022			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		35.	1.1			HY
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		130.	5.6			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.20	0.20	ND	U	J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	4,4'-DDD	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	4,4'-DDE	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	4,4'-DDT	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Aldrin	ug/kg	<	9.6	9.6	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	alpha-BHC	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	beta-BHC	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	delta-BHC	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Dieldrin	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Endosulfan I	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Endosulfan II	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Endrin	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	gamma-BHC	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Heptachlor	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.6	9.6	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Methoxychlor	ug/kg	<	96.	96.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8081A	Toxaphene	ug/kg	<	340.	340.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1221	ug/kg	<	22.	22.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8082	Aroclor 1260	ug/kg		14.	11.			
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	2-Butanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Benzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Bromoform	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.0	5.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Chloroform	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Freon 113	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Naphthalene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Styrene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Toluene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Vinyl acetate	ug/kg	<	50.	50.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.0	5.0	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.7	5.7	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.7	5.7	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.7	5.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1TP113												
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	6.7	6.7	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	8.7	8.7	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	8.5	8.5	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	12.	12.	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	7.2	7.2	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Chrysene	ug/kg	<	11.	11.	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.7	5.7	ND	UJ	J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	8.1	8.1	ND	UJ	
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.7	5.7	ND		
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.7	5.7	ND	UJ	J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Naphthalene	ug/kg		5.3	5.7		J+	Jb
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.7	5.7	ND	U	J
182254	10/3/2005	BB1TP113(3.0)	1231	3.0	SOIL	8270SIM	Pyrene	ug/kg		16.	5.7		J	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Antimony	mg/kg	<	2.8	2.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Arsenic	mg/kg		3.1	0.23			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Barium	mg/kg		52.	0.47			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Beryllium	mg/kg		0.20	0.093			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Cadmium	mg/kg		0.71	0.23			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Chromium	mg/kg		76.	0.47			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Cobalt	mg/kg		5.3	0.93			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Copper	mg/kg		5.0	0.47			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Lead	mg/kg		3.1	0.14			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Molybdenum	mg/kg		0.41	0.93			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Nickel	mg/kg		28.	0.93			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Selenium	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Silver	mg/kg	<	0.23	0.23	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Thallium	mg/kg		0.17	0.23			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Vanadium	mg/kg		70.	0.47			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	6010	Zinc	mg/kg		21.	0.93			
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	7471A	Mercury	mg/kg		0.015	0.023			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.1	1.1	ND		

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.5	5.5	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.17	0.17	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Dieldrin	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Endrin	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.6	3.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8081A	Toxaphene	ug/kg	<	66.	66.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1221	ug/kg	<	21.	21.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.4	4.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	2-Butanone	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	2-Hexanone	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Benzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.4	4.4	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Bromoform	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Bromomethane	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.4	4.4	ND	UJ	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Chloroethane	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Chloroform	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Chloromethane	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Freon 113	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Naphthalene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Styrene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Toluene	ug/kg		1.9	4.4			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Vinyl acetate	ug/kg	<	44.	44.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1TP113													
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Vinyl chloride	ug/kg	<	8.8	8.8	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8260B	Xylenes (total)	ug/kg	<	4.4	4.4	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.6	5.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.6	5.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Anthracene	ug/kg		1.7	5.6			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	6.3	6.3	ND	U	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	6.9	6.9	ND	U	
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.6	5.6	ND		
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Naphthalene	ug/kg		5.2	5.6			J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.6	5.6	ND	U	J
182254	10/3/2005	BB1TP113(5.5)	1231	5.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.6	5.6	ND	U	J
Station Number	BB2ASB100													
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Antimony	mg/kg	<	0.43	0.43	ND	UJ	
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Arsenic	mg/kg		4.0	0.27			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Barium	mg/kg		130.	1.1			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Beryllium	mg/kg		0.38	0.27			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Cadmium	mg/kg		0.064	0.27			J
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Chromium	mg/kg		66.	0.54			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Cobalt	mg/kg		26.	0.27			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Copper	mg/kg		16.	0.27			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Lead	mg/kg		5.8	0.27			
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Molybdenum	mg/kg		0.54	0.27		J	
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Nickel	mg/kg		68.	0.64			

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASB100												
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Selenium	mg/kg		0.26	0.27			J
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Silver	mg/kg		0.017	0.27			J
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Thallium	mg/kg	<	0.27	0.27	ND	U	J
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Vanadium	mg/kg		66.	0.54		J-	
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	6020	Zinc	mg/kg		35.	1.1		J+	
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	7471A	Mercury	mg/kg	<	0.018	0.018	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.7	3.7	ND	UJ	
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Dieldrin	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Endrin	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.7	3.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8081A	Toxaphene	ug/kg	<	68.	68.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1221	ug/kg	<	22.	22.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2ASB100													
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Naphthalene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.7	5.7	ND		
179384	5/9/2005	BB2ASB100(4.0)	1121	4.0	SOIL	D2216	Percent Moisture	%		13.	1.00			
Station Number	BB2ASB112													
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Antimony	mg/kg	<	0.17	0.17	ND	UJ	J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Arsenic	mg/kg		6.4	0.17			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Barium	mg/kg		6.5	0.17			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Beryllium	mg/kg		0.12	0.17			J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Cadmium	mg/kg		0.057	0.17			J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Chromium	mg/kg		75.	1.7			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Cobalt	mg/kg		6.9	0.17			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Copper	mg/kg		6.5	0.17			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Lead	mg/kg		3.5	0.17			
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Molybdenum	mg/kg	<	0.17	0.17	ND	UJ	J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Nickel	mg/kg		42.	2.1			

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NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASB112												
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Selenium	mg/kg	<	0.17	0.17	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Silver	mg/kg		0.0029	0.17			J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Thallium	mg/kg	<	0.17	0.17	ND	U	J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Vanadium	mg/kg		28.	0.17		J-	
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	6020	Zinc	mg/kg		20.	0.70		J+	
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	7471A	Mercury	mg/kg		0.017	0.026			J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.0	1.00	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.21	0.21	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1016	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1221	ug/kg	<	20.	20.	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1232	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1242	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1248	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1254	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8082	Aroclor 1260	ug/kg	<	9.8	9.8	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.1	5.1	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASB112												
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	2-Butanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Acetone	ug/kg		3.6	20.			Jb
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Benzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Bromobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Bromochloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Bromoform	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Carbon disulfide	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Chlorobenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Chloroform	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Dibromomethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASB112												
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Ethylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Freon 113	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Methylene chloride	ug/kg		41.	20.			b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Naphthalene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Styrene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Toluene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Trichloroethene	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Vinyl acetate	ug/kg	<	51.	51.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8260B	Xylenes (total)	ug/kg	<	5.1	5.1	ND		b
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.2	5.2	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2ASB112													
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Naphthalene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Phenanthrene	ug/kg		1.4	5.2			J
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	8270SIM	Pyrene	ug/kg	<	5.2	5.2	ND		
179445	5/13/2005	BB2ASB112(0.5)	1142	0.5	SOIL	D2216	Percent Moisture	%		4.0	1.00			
Station Number	BB2ATP100													
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Antimony	mg/kg		0.50	0.25		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Arsenic	mg/kg		2.3	0.25			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Barium	mg/kg		49.	2.5		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Beryllium	mg/kg		0.13	0.25			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Cadmium	mg/kg		0.071	0.25			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Chromium	mg/kg		790.	25.			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Cobalt	mg/kg		73.	2.5			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Copper	mg/kg		21.	0.25		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Lead	mg/kg		11.	0.25		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Molybdenum	mg/kg		0.30	0.25			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Nickel	mg/kg		1600.	30.			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Selenium	mg/kg		0.23	0.25			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Silver	mg/kg		0.033	0.25			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Thallium	mg/kg		0.034	0.25			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Vanadium	mg/kg		14.	0.25		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	6020	Zinc	mg/kg		36.	0.25		J-	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	7471A	Mercury	mg/kg		0.33	0.025			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		47.	4.1		J+	HY
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		490.	20.			
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	1.5	1.5	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1221	ug/kg	<	26.	26.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ATP100												
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,2-Dichloroethene (cis & trans)	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	2-Butanone	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	2-Hexanone	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Acetone	ug/kg	<	26.	26.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Benzene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Bromoform	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Bromomethane	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Carbon disulfide	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Chlorobenzene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Chloroethane	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Chloroform	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Chloromethane	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Ethylbenzene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Freon 113	ug/kg	<	6.6	6.6	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2ATP100													
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Methylene chloride	ug/kg		110.	26.		J+	
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Styrene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Toluene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Trichloroethene	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Vinyl acetate	ug/kg	<	66.	66.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Vinyl chloride	ug/kg	<	13.	13.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8260B	Xylenes (total)	ug/kg	<	6.6	6.6	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Anthracene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		33.	140.			Jb
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Chrysene	ug/kg		35.	140.			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Fluoranthene	ug/kg		38.	140.			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Fluorene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Naphthalene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	140.	140.	ND		
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	8270SIM	Pyrene	ug/kg		42.	140.			J
178951	4/14/2005	BB2ATP100(1.0	1128	1.0	SOIL	D2216	Percent Moisture	%		27.	1.00			
Station Number	BB2ATP101													
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Antimony	mg/kg		0.63	0.28		J-	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Arsenic	mg/kg		3.8	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Barium	mg/kg		110.	2.8		J-	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ATP101												
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Beryllium	mg/kg		0.31	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Cadmium	mg/kg		0.40	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Chromium	mg/kg		160.	2.8			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Cobalt	mg/kg		24.	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Copper	mg/kg		70.	2.8		J-	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Lead	mg/kg		60.	2.8		J-	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Molybdenum	mg/kg		0.65	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Nickel	mg/kg		260.	3.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Selenium	mg/kg		0.37	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Silver	mg/kg		0.68	0.28			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Thallium	mg/kg		0.06	0.28			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Vanadium	mg/kg		48.	0.28		J-	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	6020	Zinc	mg/kg		110.	2.8		J-	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	7471A	Mercury	mg/kg		0.17	0.019			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		26.	1.3			HY
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		140.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	1.3	1.3	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1016	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1221	ug/kg	<	24.	24.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1232	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1242	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1248	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1254	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8082	Aroclor 1260	ug/kg		11.	12.			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,2-Dichloroethene (cis & trans)	ug/kg	<	5.9	5.9	ND		

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ATP101												
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	2-Butanone	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	2-Hexanone	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Acetone	ug/kg	<	23.	23.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Benzene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Bromoform	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Bromomethane	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Chloroethane	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Chloroform	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Chloromethane	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Freon 113	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Methylene chloride	ug/kg		64.	23.		J+	
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Styrene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Toluene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Vinyl acetate	ug/kg	<	59.	59.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Vinyl chloride	ug/kg	<	12.	12.	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.9	5.9	ND		
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.3	6.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units	Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2ATP101												
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Acenaphthylene	ug/kg	3.7	6.3			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Anthracene	ug/kg	2.3	6.3			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	8.6	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	13.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	11.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	11.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	11.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Chrysene	ug/kg	14.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	4.6	6.3			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Fluoranthene	ug/kg	18.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Fluorene	ug/kg	1.7	6.3			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	9.2	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Naphthalene	ug/kg	1.4	6.3			J
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Phenanthrene	ug/kg	8.6	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	8270SIM	Pyrene	ug/kg	21.	6.3			
178951	4/14/2005	BB2ATP101(14.	1130	14.0	SOIL	D2216	Percent Moisture	%	21.	1.00			
Station Number	BB2ATP104												
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Antimony	mg/kg	1.1	0.26		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Arsenic	mg/kg	3.4	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Barium	mg/kg	180.	2.6		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Beryllium	mg/kg	0.23	0.26			J
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Cadmium	mg/kg	0.67	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Chromium	mg/kg	100.	2.6			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Cobalt	mg/kg	13.	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Copper	mg/kg	92.	2.6		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Lead	mg/kg	110.	2.6		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Molybdenum	mg/kg	0.58	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Nickel	mg/kg	140.	3.1			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Selenium	mg/kg	0.31	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Silver	mg/kg	2.3	0.26			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Thallium	mg/kg	0.075	0.26			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ATP104												
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Vanadium	mg/kg		43.	0.26		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	6020	Zinc	mg/kg		270.	2.6		J-	
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	7471A	Mercury	mg/kg		0.57	0.44			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		150.	62.			HY
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		1900.	310.			
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	1.3	1.3	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1016	ug/kg	<	12.	12.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1221	ug/kg	<	24.	24.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1232	ug/kg	<	12.	12.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1242	ug/kg	<	12.	12.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1248	ug/kg	<	12.	12.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1254	ug/kg	<	12.	12.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8082	Aroclor 1260	ug/kg		11.	12.			J
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,2-Dichloroethene (cis & trans)	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Acetone	ug/kg		9.5	23.		J+	J
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Benzene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Bromoform	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ATP104												
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Chloroform	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Freon 113	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Methylene chloride	ug/kg	<	23.	23.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Styrene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Toluene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Vinyl acetate	ug/kg	<	57.	57.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.7	5.7	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Anthracene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		62.	120.			Jb
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		42.	120.			J
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Chrysene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Fluorene	ug/kg	<	120.	120.	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2ATP104													
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Naphthalene	ug/kg		41.	120.			J
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	8270SIM	Pyrene	ug/kg	<	120.	120.	ND		
178951	4/13/2005	BB2ATP104(8.0	1131	8.0	SOIL	D2216	Percent Moisture	%		19.	1.00			
Station Number	BB2SB102													
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Antimony	mg/kg		0.57	0.25		J-	
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Arsenic	mg/kg		4.0	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Barium	mg/kg		110.	2.5			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Beryllium	mg/kg		0.33	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Cadmium	mg/kg		0.32	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Chromium	mg/kg		57.	2.5			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Cobalt	mg/kg		13.	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Copper	mg/kg		36.	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Lead	mg/kg		80.	2.5			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Molybdenum	mg/kg		0.49	0.25			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Nickel	mg/kg		51.	3.0			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Selenium	mg/kg		0.24	0.25			J
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Silver	mg/kg		0.061	0.25			J
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Thallium	mg/kg	<	0.25	0.25	ND	U	J
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Vanadium	mg/kg		50.	0.25		J-	
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	6020	Zinc	mg/kg		110.	10.		J+	
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	7471A	Mercury	mg/kg		0.13	0.02			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	4,4'-DDD	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	4,4'-DDE	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	4,4'-DDT	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Aldrin	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	alpha-BHC	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	beta-BHC	ug/kg	<	11.	11.	ND	UJ	
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	delta-BHC	ug/kg	<	11.	11.	ND	UJ	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2SB102												
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Dieldrin	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Endosulfan I	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Endosulfan II	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Endrin	ug/kg	<	21.	21.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	21.	21.	ND	UJ	
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	gamma-BHC	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Heptachlor	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Methoxychlor	ug/kg	<	110.	110.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8081A	Toxaphene	ug/kg	<	380.	380.	ND		
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Acenaphthene	ug/kg		4.9	6.4		J+	J
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Acenaphthylene	ug/kg		14.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Anthracene	ug/kg		24.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		99.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		140.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		120.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		68.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		90.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Chrysene	ug/kg		130.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		35.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Fluoranthene	ug/kg		180.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Fluorene	ug/kg		6.7	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		72.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Naphthalene	ug/kg		5.1	6.4			J
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Phenanthrene	ug/kg		120.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	8270SIM	Pyrene	ug/kg		220.	6.4			
179445	5/12/2005	BB2SB102(0.0)	1141	0.0	SOIL	D2216	Percent Moisture	%		22.	1.00			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Antimony	mg/kg	<	0.32	0.32	ND	UJ	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Arsenic	mg/kg		4.4	0.26			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2SB102												
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Barium	mg/kg		120.	2.6			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Beryllium	mg/kg		0.47	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Cadmium	mg/kg		0.20	0.26			J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Chromium	mg/kg		49.	2.6			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Cobalt	mg/kg		11.	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Copper	mg/kg		29.	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Lead	mg/kg		40.	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Molybdenum	mg/kg		0.44	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Nickel	mg/kg		47.	0.30			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Selenium	mg/kg		0.37	0.26			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Silver	mg/kg		0.034	0.26			J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Thallium	mg/kg	<	0.26	0.26	ND	U	J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Vanadium	mg/kg		51.	0.26		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	6020	Zinc	mg/kg		97.	10.		J+	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	7471A	Mercury	mg/kg		0.046	0.022			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	4,4'-DDD	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	4,4'-DDE	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	4,4'-DDT	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Aldrin	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	alpha-BHC	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	beta-BHC	ug/kg	<	9.7	9.7	ND	UJ	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	delta-BHC	ug/kg	<	9.7	9.7	ND	UJ	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Dieldrin	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Endosulfan I	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Endosulfan II	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Endrin	ug/kg	<	19.	19.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	19.	19.	ND	UJ	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	gamma-BHC	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.7	9.7	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2SB102													
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Heptachlor	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.7	9.7	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Methoxychlor	ug/kg	<	97.	97.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8081A	Toxaphene	ug/kg	<	340.	340.	ND		
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Acenaphthene	ug/kg		2.1	5.7		J+	J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Acenaphthylene	ug/kg		11.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Anthracene	ug/kg		8.7	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		52.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		84.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		68.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		38.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		55.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Chrysene	ug/kg		69.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		19.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Fluoranthene	ug/kg		76.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Fluorene	ug/kg		3.8	5.7			J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		36.	5.7		J-	
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Naphthalene	ug/kg		4.0	5.7			J
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Phenanthrene	ug/kg		51.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	8270SIM	Pyrene	ug/kg		100.	5.7			
179445	5/12/2005	BB2SB102(2.0)	1141	2.0	SOIL	D2216	Percent Moisture	%		13.	1.00			
Station Number	BB2SB110													
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Antimony	mg/kg		0.96	3.9		J-	J
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Arsenic	mg/kg		4.7	0.32			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Barium	mg/kg		72.	0.65			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Beryllium	mg/kg		0.23	0.13			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Cadmium	mg/kg		0.32	0.32			J
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Chromium	mg/kg		740.	6.5			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Cobalt	mg/kg		52.	1.3			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Copper	mg/kg		16.	0.65			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Lead	mg/kg		28.	0.19			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2SB110												
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Molybdenum	mg/kg		0.50	1.3			J
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Nickel	mg/kg		910.	13.			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Selenium	mg/kg		1.3	0.32			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Silver	mg/kg	<	0.32	0.32	ND	UJ	
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Thallium	mg/kg	<	0.32	0.32	ND		
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Vanadium	mg/kg		67.	0.65			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	6010	Zinc	mg/kg		52.	1.3			
184678	2/1/2006	BB2SB110(0.5)	1249		SOIL	7471A	Mercury	mg/kg		0.045	0.028			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Antimony	mg/kg		0.33	3.4		J-	J
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Arsenic	mg/kg		4.1	0.28			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Barium	mg/kg		69.	0.57			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Beryllium	mg/kg		0.21	0.11			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Cadmium	mg/kg		0.25	0.28			J
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Chromium	mg/kg		400.	0.57			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Cobalt	mg/kg		39.	1.1		J-	
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Copper	mg/kg		15.	0.57			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Lead	mg/kg		32.	0.17			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Molybdenum	mg/kg		0.40	1.1			J
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Nickel	mg/kg		540.	1.1			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Selenium	mg/kg		0.98	0.28			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Silver	mg/kg	<	0.28	0.28	ND	UJ	
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Thallium	mg/kg	<	0.28	0.28	ND	U	J
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Vanadium	mg/kg		51.	0.57			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	6010	Zinc	mg/kg		44.	1.1			
185213	2/1/2006	BB2SB110(1.0)	1249		SOIL	7471A	Mercury	mg/kg		0.046	0.026		J-	
184678	2/1/2006	DUP020106	1249		SOIL	6010	Antimony	mg/kg	<	4.5	4.5	ND	R	
184678	2/1/2006	DUP020106	1249		SOIL	6010	Arsenic	mg/kg		5.6	0.37			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Barium	mg/kg		78.	0.74			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Beryllium	mg/kg		0.28	0.15			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Cadmium	mg/kg		0.31	0.37			J
184678	2/1/2006	DUP020106	1249		SOIL	6010	Chromium	mg/kg		370.	0.74			

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Table C2-1
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB2SB110													
184678	2/1/2006	DUP020106	1249		SOIL	6010	Cobalt	mg/kg		42.	1.5			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Copper	mg/kg		18.	0.74			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Lead	mg/kg		30.	0.22			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Molybdenum	mg/kg		0.52	1.5			J
184678	2/1/2006	DUP020106	1249		SOIL	6010	Nickel	mg/kg		540.	1.5			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Selenium	mg/kg		1.2	0.37			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Silver	mg/kg	<	0.37	0.37	ND	UJ	
184678	2/1/2006	DUP020106	1249		SOIL	6010	Thallium	mg/kg	<	0.37	0.37	ND		
184678	2/1/2006	DUP020106	1249		SOIL	6010	Vanadium	mg/kg		62.	0.74			
184678	2/1/2006	DUP020106	1249		SOIL	6010	Zinc	mg/kg		58.	1.5			
184678	2/1/2006	DUP020106	1249		SOIL	7471A	Mercury	mg/kg		0.049	0.023			
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Antimony	mg/kg		0.61	0.33		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Arsenic	mg/kg		7.4	0.33			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Barium	mg/kg		95.	3.3		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Beryllium	mg/kg		0.34	0.33			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Cadmium	mg/kg		0.16	0.33			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Chromium	mg/kg		63.	3.3		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Cobalt	mg/kg		18.	0.33			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Copper	mg/kg		20.	0.33			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Lead	mg/kg		35.	0.33		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Molybdenum	mg/kg		0.53	0.33		J	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Nickel	mg/kg		89.	3.9		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Selenium	mg/kg	<	0.33	0.33	ND	U	J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Silver	mg/kg		0.042	0.33			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Thallium	mg/kg		0.28	0.33			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Vanadium	mg/kg		46.	0.33		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	6020	Zinc	mg/kg		56.	0.33		J-	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	7471A	Mercury	mg/kg		0.04	0.023			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		5.3	1.2			HY
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.27	0.27			

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Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8015B	TPH Motor Oil	mg/kg		32.	6.1			Y
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.9	3.9	ND	UJ	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Aldrin	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	alpha-BHC	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	beta-BHC	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	delta-BHC	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Dieldrin	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Endosulfan I	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Endrin	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	gamma-BHC	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Heptachlor	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Methoxychlor	ug/kg	<	20.	20.	ND	UJ	
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8081A	Toxaphene	ug/kg	<	72.	72.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	2-Butanone	ug/kg		11.	10.			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Acetone	ug/kg		63.	20.			
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Benzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Bromobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Bromochloromethane	ug/kg	<	5.1	5.1	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Bromoform	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Carbon disulfide	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Chlorobenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Chloroform	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Dibromomethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Ethylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Freon 113	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Naphthalene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Styrene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Toluene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Trichloroethene	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Vinyl acetate	ug/kg	<	51.	51.	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8260B	Xylenes (total)	ug/kg	<	5.1	5.1	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.0	6.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	6.0	6.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Anthracene	ug/kg	<	6.0	6.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		1.4	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		1.7	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		2.9	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		3.2	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		3.0	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Chrysene	ug/kg		2.9	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		1.6	6.0			Jb
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Fluoranthene	ug/kg		3.0	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Fluorene	ug/kg	<	6.0	6.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		2.8	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Naphthalene	ug/kg	<	6.0	6.0	ND		
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Phenanthrene	ug/kg		1.9	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	8270SIM	Pyrene	ug/kg		2.8	6.0			J
179182	4/28/2005	BB02TP105(11.5)	1124	11.5	SOIL	D2216	Percent Moisture	%		17.	1.00			
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Antimony	mg/kg		0.29	0.29		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Arsenic	mg/kg		5.8	0.29			
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Barium	mg/kg		55.	0.29		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Beryllium	mg/kg		0.60	0.29			
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Cadmium	mg/kg		0.16	0.29			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Chromium	mg/kg		57.	2.9		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Cobalt	mg/kg		16.	0.29			
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Copper	mg/kg		25.	0.29			
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Lead	mg/kg		7.7	0.29		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Molybdenum	mg/kg		0.63	0.29		J	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Nickel	mg/kg		62.	3.4		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Selenium	mg/kg	<	0.37	0.37	ND	U	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Silver	mg/kg		0.043	0.29			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Thallium	mg/kg		0.25	0.29			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Vanadium	mg/kg		49.	2.9		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	6020	Zinc	mg/kg		52.	0.29		J-	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	7471A	Mercury	mg/kg	<	0.024	0.024	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.2	1.2	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.28	0.28	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8015B	TPH Motor Oil	mg/kg	<	5.8	5.8	ND	U	JY
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.9	3.9	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Aldrin	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	alpha-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	beta-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	delta-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Dieldrin	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Endosulfan I	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Endrin	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.9	3.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	gamma-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.0	2.0	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Heptachlor	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.0	2.0	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Methoxychlor	ug/kg	<	20.	20.	ND	UJ	
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8081A	Toxaphene	ug/kg	<	70.	70.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	2-Butanone	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.9	4.9	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	2-Hexanone	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Benzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Bromobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Bromochloromethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Bromoform	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Bromomethane	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Carbon disulfide	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Chlorobenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Chloroethane	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Chloroform	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Chloromethane	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Dibromomethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Ethylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Freon 113	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Naphthalene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Styrene	ug/kg	<	4.9	4.9	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP105													
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Toluene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Trichloroethene	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Vinyl acetate	ug/kg	<	49.	49.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Vinyl chloride	ug/kg	<	9.8	9.8	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8260B	Xylenes (total)	ug/kg	<	4.9	4.9	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	12.	12.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	12.	12.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Anthracene	ug/kg	<	12.	12.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		7.8	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		6.4	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		8.0	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		8.0	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		5.8	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Chrysene	ug/kg		5.5	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		8.5	12.			Jb
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Fluoranthene	ug/kg		7.6	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Fluorene	ug/kg	<	12.	12.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		8.1	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Naphthalene	ug/kg	<	12.	12.	ND		
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Phenanthrene	ug/kg		3.2	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	8270SIM	Pyrene	ug/kg		7.4	12.			J
179182	4/28/2005	BB02TP105(15.0)	1124	15.0	SOIL	D2216	Percent Moisture	%		15.	1.00			
Station Number	BBD2TP106													
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Antimony	mg/kg		0.56	0.27		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Arsenic	mg/kg		4.2	0.27			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Barium	mg/kg		520.	2.7		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Beryllium	mg/kg		0.33	0.27			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BBD2TP106												
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Cadmium	mg/kg		0.50	0.27			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Chromium	mg/kg		77.	2.7		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Cobalt	mg/kg		11.	0.27			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Copper	mg/kg		35.	0.27			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Lead	mg/kg		200.	2.7		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Molybdenum	mg/kg		0.53	0.27		J	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Nickel	mg/kg		88.	3.2		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Selenium	mg/kg	<	0.27	0.27	ND	U	J
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Silver	mg/kg		0.19	0.27			J
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Thallium	mg/kg		0.064	0.27			J
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Vanadium	mg/kg		46.	0.27		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	6020	Zinc	mg/kg		420.	2.7		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	7471A	Mercury	mg/kg		0.49	0.025			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		180.	1.1			HY
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.57	0.25			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8015B	TPH Motor Oil	mg/kg		360.	5.5			L
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	4,4'-DDD	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	4,4'-DDE	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	4,4'-DDT	ug/kg	<	18.	18.	ND	UJ	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Aldrin	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	alpha-BHC	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	beta-BHC	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	delta-BHC	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Dieldrin	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Endosulfan I	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Endosulfan II	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Endrin	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	18.	18.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	gamma-BHC	ug/kg	<	9.4	9.4	ND		

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Table C2-1
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP106													
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Heptachlor	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	9.4	9.4	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Methoxychlor	ug/kg	<	94.	94.	ND	UJ	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8081A	Toxaphene	ug/kg	<	330.	330.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1221	ug/kg	<	21.	21.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg		13.	5.6			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.6	5.6	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP106													
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Acetone	ug/kg	<	22.	22.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Benzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Bromoform	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Chloroform	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Ethylbenzene	ug/kg		13.	5.6			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Freon 113	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.6	5.6	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP106													
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Methylene chloride	ug/kg	<	22.	22.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Naphthalene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Styrene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Toluene	ug/kg		40.	5.6			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.6	5.6	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Vinyl acetate	ug/kg	<	56.	56.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Xylenes (o-)	ug/kg		18.	5.6			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8260B	Xylenes (total)	ug/kg		48.	5.6			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Acenaphthene	ug/kg		22.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Acenaphthylene	ug/kg		220.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Anthracene	ug/kg		120.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		540.	27.			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		800.	27.		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		610.	27.		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		260.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		540.	27.		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Chrysene	ug/kg		870.	27.			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		220.	27.		J-	
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Fluoranthene	ug/kg		1500.	27.			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Fluorene	ug/kg		120.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		290.	5.5			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Naphthalene	ug/kg		64.	5.5			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP106													
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Phenanthrene	ug/kg		1800.	27.			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	8270SIM	Pyrene	ug/kg		1800.	27.			
179182	4/28/2005	BB02TP106(2.0)	1126	2.0	SOIL	D2216	Percent Moisture	%		9.0	1.00			
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Antimony	mg/kg		0.13	0.30		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Arsenic	mg/kg		2.7	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Barium	mg/kg		130.	3.0		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Beryllium	mg/kg		0.32	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Cadmium	mg/kg		0.12	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Chromium	mg/kg		59.	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Cobalt	mg/kg		12.	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Copper	mg/kg		15.	0.30		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Lead	mg/kg		4.4	0.30		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Molybdenum	mg/kg		0.38	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Nickel	mg/kg		50.	0.35			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Selenium	mg/kg		0.44	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Silver	mg/kg		0.035	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Thallium	mg/kg		0.068	0.30			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Vanadium	mg/kg		47.	0.30		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	6020	Zinc	mg/kg		36.	0.30		J-	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	7471A	Mercury	mg/kg	<	0.02	0.02	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		1.9	1.2			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.31	0.31	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8015B	TPH Motor Oil	mg/kg		26.	6.0			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	4,4'-DDD	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	4,4'-DDE	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	4,4'-DDT	ug/kg	<	4.0	4.0	ND	UJ	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Aldrin	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	alpha-BHC	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	beta-BHC	ug/kg	<	2.1	2.1	ND		

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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	delta-BHC	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Dieldrin	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Endosulfan I	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Endosulfan II	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Endrin	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	4.0	4.0	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	gamma-BHC	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Heptachlor	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.1	2.1	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Methoxychlor	ug/kg	<	21.	21.	ND	UJ	
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8081A	Toxaphene	ug/kg	<	73.	73.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.5	5.5	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Acetone	ug/kg	<	22.	22.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Benzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Bromoform	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Chloroform	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Freon 113	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.5	5.5	ND		

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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Methylene chloride	ug/kg	<	22.	22.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Naphthalene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Styrene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Toluene	ug/kg		5.8	5.5			
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Vinyl acetate	ug/kg	<	55.	55.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.5	5.5	ND		
179089	4/25/2005	BB02TP108(10.0)	1127	10.0	SOIL	D2216	Percent Moisture	%		18.	1.00			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Antimony	mg/kg		0.11	0.23		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Arsenic	mg/kg		2.8	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Barium	mg/kg		96.	2.3		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Beryllium	mg/kg		0.30	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Cadmium	mg/kg		0.099	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Chromium	mg/kg		75.	2.3			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Cobalt	mg/kg		11.	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Copper	mg/kg		13.	0.23		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Lead	mg/kg		5.6	0.23		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Molybdenum	mg/kg		0.38	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Nickel	mg/kg		61.	2.7			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Selenium	mg/kg		0.33	0.23			

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Silver	mg/kg		0.024	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Thallium	mg/kg		0.066	0.23			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Vanadium	mg/kg		46.	2.3		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	6020	Zinc	mg/kg		32.	0.23		J-	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	7471A	Mercury	mg/kg		0.045	0.022			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.1	1.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.24	0.24	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8015B	TPH Motor Oil	mg/kg		4.0	5.5			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.6	3.6	ND	UJ	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Aldrin	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	alpha-BHC	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	beta-BHC	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	delta-BHC	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Dieldrin	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Endosulfan I	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Endrin	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.6	3.6	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	gamma-BHC	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Heptachlor	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.8	1.8	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Methoxychlor	ug/kg	<	18.	18.	ND	UJ	
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8081A	Toxaphene	ug/kg	<	65.	65.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.1	5.1	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	2-Butanone	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	2-Hexanone	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Acetone	ug/kg	<	20.	20.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Benzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.1	5.1	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Bromoform	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Bromomethane	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Chloroethane	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Chloroform	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Chloromethane	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	10.	10.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Freon 113	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Methylene chloride	ug/kg	<	20.	20.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Naphthalene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Styrene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Toluene	ug/kg		8.5	5.1			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Vinyl acetate	ug/kg	<	51.	51.	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Vinyl chloride	ug/kg	<	10.	10.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.1	5.1	ND		
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	8260B	Xylenes (total)	ug/kg		8.8	5.1			
179089	4/25/2005	BB02TP108(4.0)	1127	4.0	SOIL	D2216	Percent Moisture	%		9.0	1.00			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Antimony	mg/kg		0.18	0.27		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Arsenic	mg/kg		4.2	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Barium	mg/kg		92.	2.7		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Beryllium	mg/kg		0.42	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Cadmium	mg/kg		0.12	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Chromium	mg/kg		100.	2.7			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Cobalt	mg/kg		16.	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Copper	mg/kg		20.	0.27		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Lead	mg/kg		4.9	0.27		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Molybdenum	mg/kg		0.40	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Nickel	mg/kg		100.	3.3			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Selenium	mg/kg		0.25	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Silver	mg/kg		0.032	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Thallium	mg/kg		0.088	0.27			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Vanadium	mg/kg		56.	2.7		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	6020	Zinc	mg/kg		41.	0.27		J-	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	7471A	Mercury	mg/kg		0.057	0.019			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		0.38	1.2			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.24	0.24	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8015B	TPH Motor Oil	mg/kg		2.1	5.8			
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	4,4'-DDD	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	4,4'-DDE	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	4,4'-DDT	ug/kg	<	3.8	3.8	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Aldrin	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	alpha-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	alpha-Chlordane	ug/kg	<	2.0	2.0	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	beta-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	delta-BHC	ug/kg	<	2.0	2.0	ND	UJ	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Dieldrin	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Endosulfan I	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Endosulfan II	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Endrin	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.8	3.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	gamma-BHC	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	gamma-Chlordane	ug/kg	<	2.0	2.0	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Heptachlor	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Heptachlor epoxide	ug/kg	<	2.0	2.0	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Methoxychlor	ug/kg	<	20.	20.	ND	UJ	
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8081A	Toxaphene	ug/kg	<	69.	69.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.3	5.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Acetone	ug/kg	<	21.	21.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Benzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Bromoform	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Chloroform	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Freon 113	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.3	5.3	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Methylene chloride	ug/kg	<	21.	21.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Naphthalene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Styrene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Toluene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Vinyl acetate	ug/kg	<	53.	53.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.3	5.3	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Anthracene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Chrysene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Fluorene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Naphthalene	ug/kg	<	5.8	5.8	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBD2TP108													
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	8270SIM	Pyrene	ug/kg	<	5.8	5.8	ND		
179089	4/25/2005	BB02TP108(7.0)	1127	7.0	SOIL	D2216	Percent Moisture	%		14.	1.00			
Station Number	BBSB106													
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Antimony	mg/kg		0.46	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Arsenic	mg/kg		4.4	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Barium	mg/kg		130.	3.1			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Beryllium	mg/kg		0.43	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Cadmium	mg/kg		0.28	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Chromium	mg/kg		74.	3.1		J-	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Cobalt	mg/kg		14.	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Copper	mg/kg		20.	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Lead	mg/kg		31.	0.31		J-	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Molybdenum	mg/kg		0.45	0.31		J	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Nickel	mg/kg		57.	0.36		J-	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Selenium	mg/kg		0.35	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Silver	mg/kg		0.15	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Thallium	mg/kg		0.14	0.31			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Vanadium	mg/kg		49.	0.31		J-	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	6020	Zinc	mg/kg		190.	12.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	7471A	Mercury	mg/kg		0.081	0.026			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	4,4'-DDD	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	4,4'-DDE	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	4,4'-DDT	ug/kg	<	7.8	7.8	ND	UJ	
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Aldrin	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	alpha-BHC	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	beta-BHC	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	delta-BHC	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Dieldrin	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Endosulfan I	ug/kg	<	4.0	4.0	ND		

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Table C2-1
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB106													
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Endosulfan II	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Endrin	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	7.8	7.8	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	gamma-BHC	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	gamma-Chlordane	ug/kg		3.1	4.0			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Heptachlor	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	4.0	4.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Methoxychlor	ug/kg	<	40.	40.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8081A	Toxaphene	ug/kg	<	140.	140.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	6.0	6.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB106													
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	2-Butanone	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	2-Hexanone	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Acetone	ug/kg	<	24.	24.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Benzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Bromobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Bromochloromethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Bromoform	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Bromomethane	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Carbon disulfide	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Chlorobenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Chloroethane	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Chloroform	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Chloromethane	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Dibromomethane	ug/kg	<	6.0	6.0	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB106													
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Ethylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Freon 113	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Methylene chloride	ug/kg	<	24.	24.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Naphthalene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Styrene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Toluene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Trichloroethene	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Vinyl acetate	ug/kg	<	60.	60.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Vinyl chloride	ug/kg	<	12.	12.	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8260B	Xylenes (total)	ug/kg	<	6.0	6.0	ND		
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Acenaphthene	ug/kg		5.8	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Acenaphthylene	ug/kg		100.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Anthracene	ug/kg		67.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		270.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		340.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		280.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		230.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		250.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Chrysene	ug/kg		370.	29.			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB106													
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		130.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Fluoranthene	ug/kg		640.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Fluorene	ug/kg		28.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		270.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Naphthalene	ug/kg		58.	5.9			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Phenanthrene	ug/kg		770.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	8270SIM	Pyrene	ug/kg		650.	29.			
179603	5/23/2005	BBSB106(0.5)	1135	0.5	SOIL	D2216	Percent Moisture	%		15.	1.00			
Station Number	BBSB108													
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Antimony	mg/kg		0.49	0.38		J-	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Arsenic	mg/kg		3.1	0.38			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Barium	mg/kg		110.	3.8			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Beryllium	mg/kg		0.27	0.38			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Cadmium	mg/kg		0.70	0.38			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Chromium	mg/kg		43.	0.38			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Cobalt	mg/kg		7.5	0.38			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Copper	mg/kg		26.	0.38			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Lead	mg/kg		160.	3.8			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Molybdenum	mg/kg		0.37	0.38			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Nickel	mg/kg		47.	0.45			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Selenium	mg/kg		0.26	0.38			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Silver	mg/kg		0.12	0.38			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Thallium	mg/kg	<	0.38	0.38	ND	U	J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Vanadium	mg/kg		35.	0.38		J-	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	6020	Zinc	mg/kg		170.	15.		J+	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	7471A	Mercury	mg/kg		0.13	0.023			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		27.	1.4			HY
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		120.	7.0			L
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.32	0.32	ND	UJ	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	2-Butanone	ug/kg	<	17.	17.	ND		b

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	2-Hexanone	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Acetone	ug/kg		15.	34.			Jb
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Benzene	ug/kg	<	8.4	8.4	ND	UJ	b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Bromobenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Bromochloromethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Bromoform	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Bromomethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Carbon disulfide	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Chlorobenzene	ug/kg	<	8.4	8.4	ND	UJ	b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Chloroethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Chloroform	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Chloromethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Dibromomethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Ethylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Freon 113	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Methylene chloride	ug/kg		11.	34.			Jb
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Naphthalene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	8.4	8.4	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Styrene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Toluene	ug/kg	<	8.4	8.4	ND	UJ	b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Trichloroethene	ug/kg	<	8.4	8.4	ND	UJ	b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Vinyl acetate	ug/kg	<	84.	84.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Vinyl chloride	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8260B	Xylenes (total)	ug/kg	<	8.4	8.4	ND		b
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.9	6.9	ND		
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Acenaphthylene	ug/kg		6.8	6.9			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Anthracene	ug/kg		8.1	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		38.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		45.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		34.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		21.	6.9		J-	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		28.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Chrysene	ug/kg		58.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		14.	6.9		J-	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Fluoranthene	ug/kg		53.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Fluorene	ug/kg		2.0	6.9			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		20.	6.9		J-	
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Naphthalene	ug/kg		2.1	6.9			J
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Phenanthrene	ug/kg		36.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	8270SIM	Pyrene	ug/kg		85.	6.9			
179445	5/12/2005	BBSB108(0.0)	1136	0.0	SOIL	D2216	Percent Moisture	%		29.	1.00			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Antimony	mg/kg	<	0.38	0.38	ND	UJ	
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Arsenic	mg/kg		10.	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Barium	mg/kg		110.	1.9			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Beryllium	mg/kg		0.59	0.19			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Cadmium	mg/kg		0.095	0.19			J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Chromium	mg/kg		25.	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Cobalt	mg/kg		5.4	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Copper	mg/kg		35.	1.9			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Lead	mg/kg		14.	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Molybdenum	mg/kg		0.38	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Nickel	mg/kg		37.	0.23			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Selenium	mg/kg		0.67	0.19			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Silver	mg/kg		0.09	0.19			J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Thallium	mg/kg	<	0.19	0.19	ND	U	J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Vanadium	mg/kg		33.	1.9		J-	
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	6020	Zinc	mg/kg		74.	7.7		J+	
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	7471A	Mercury	mg/kg		0.069	0.024			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		8.5	1.2			HY
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		51.	6.0			L
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.18	0.18	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1016	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1221	ug/kg	<	23.	23.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1232	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1242	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1248	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1254	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8082	Aroclor 1260	ug/kg	<	11.	11.	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.9	4.9	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	2-Butanone	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	2-Hexanone	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Acetone	ug/kg		2.3	20.			Jb
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Benzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Bromobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Bromochloromethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Bromoform	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Bromomethane	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Carbon disulfide	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.9	4.9	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Chlorobenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Chloroethane	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Chloroform	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Chloromethane	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Dibromomethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Ethylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Freon 113	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Methylene chloride	ug/kg		29.	20.			b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Naphthalene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Styrene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Toluene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Trichloroethene	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Vinyl acetate	ug/kg	<	49.	49.	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Vinyl chloride	ug/kg	<	9.9	9.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8260B	Xylenes (total)	ug/kg	<	4.9	4.9	ND		b
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.0	6.0	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Acenaphthylene	ug/kg		3.6	6.0			J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Anthracene	ug/kg		3.5	6.0			J

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB108													
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		20.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		20.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		14.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		13.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		11.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Chrysene	ug/kg		25.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		5.7	6.0			J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Fluoranthene	ug/kg		26.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Fluorene	ug/kg	<	6.0	6.0	ND		
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		11.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Naphthalene	ug/kg		1.5	6.0			J
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Phenanthrene	ug/kg		15.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	8270SIM	Pyrene	ug/kg		36.	6.0			
179445	5/12/2005	BBSB108(2.0)	1136	2.0	SOIL	D2216	Percent Moisture	%		17.	1.00			
Station Number	BBSB109													
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Antimony	mg/kg		0.92	0.45		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Arsenic	mg/kg		2.2	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Barium	mg/kg		120.	4.5			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Beryllium	mg/kg		0.22	0.45			J
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Cadmium	mg/kg		1.3	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Chromium	mg/kg		34.	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Cobalt	mg/kg		7.3	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Copper	mg/kg		33.	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Lead	mg/kg		1900.	18.			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Molybdenum	mg/kg		0.50	0.45			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Nickel	mg/kg		36.	0.54			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Selenium	mg/kg	<	0.45	0.45	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Silver	mg/kg		0.16	0.45			J
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Thallium	mg/kg	<	0.45	0.45	ND	U	J
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Vanadium	mg/kg		28.	0.45		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	6020	Zinc	mg/kg		210.	18.		J+	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	7471A	Mercury	mg/kg		0.54	0.038			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		43.	1.7			HY
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		230.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.30	0.30	ND	UJ	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1016	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1221	ug/kg	<	32.	32.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1232	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1242	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1248	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1254	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8082	Aroclor 1260	ug/kg	<	16.	16.	ND		
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	8.3	8.3	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	2-Butanone	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	2-Hexanone	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Acetone	ug/kg	<	33.	33.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Benzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Bromobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Bromochloromethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Bromoform	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Bromomethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Carbon disulfide	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Chlorobenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Chloroethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Chloroform	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Chloromethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Dibromomethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Ethylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Freon 113	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Methylene chloride	ug/kg		7.4	33.			Jb

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Naphthalene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Styrene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Toluene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Trichloroethene	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Vinyl acetate	ug/kg	<	83.	83.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Vinyl chloride	ug/kg	<	17.	17.	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8260B	Xylenes (total)	ug/kg	<	8.3	8.3	ND		b
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Acenaphthene	ug/kg		3.5	8.3		J+	J
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Acenaphthylene	ug/kg		8.8	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Anthracene	ug/kg		24.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		65.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		82.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		93.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		34.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		55.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Chrysene	ug/kg		85.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		19.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Fluoranthene	ug/kg		88.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Fluorene	ug/kg		4.1	8.3			J
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		36.	8.3		J-	
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Naphthalene	ug/kg		13.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Phenanthrene	ug/kg		59.	8.3			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BBSB109												
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	8270SIM	Pyrene	ug/kg		110.	8.3			
179445	5/12/2005	BBSB109(0.0)	1137	0.0	SOIL	D2216	Percent Moisture	%		40.	1.00			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Antimony	mg/kg	<	0.38	0.38	ND	UJ	
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Arsenic	mg/kg		6.8	0.25			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Barium	mg/kg		49.	2.5			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Beryllium	mg/kg		0.97	0.25			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Cadmium	mg/kg		0.24	0.25			J
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Chromium	mg/kg		140.	2.5			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Cobalt	mg/kg		23.	0.25			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Copper	mg/kg		50.	2.5			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Lead	mg/kg		35.	0.25			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Molybdenum	mg/kg		0.28	0.25		J	
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Nickel	mg/kg		190.	2.9			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Selenium	mg/kg		0.21	0.25			J
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Silver	mg/kg		0.039	0.25			J
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Thallium	mg/kg	<	0.25	0.25	ND	U	J
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Vanadium	mg/kg		63.	2.5		J-	
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	6020	Zinc	mg/kg		96.	9.9		J+	
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	7471A	Mercury	mg/kg		0.097	0.022			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg	<	1.3	1.3			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		7.4	6.3			
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.20	0.20	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1016	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1221	ug/kg	<	24.	24.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1232	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1242	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1248	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1254	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8082	Aroclor 1260	ug/kg	<	12.	12.	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	5.3	5.3	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	2-Butanone	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	2-Hexanone	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Acetone	ug/kg	<	21.	21.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Benzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Bromobenzene	ug/kg	<	5.3	5.3	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Bromochloromethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Bromoform	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Bromomethane	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Carbon disulfide	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Chlorobenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Chloroethane	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Chloroform	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Chloromethane	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Dibromomethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Ethylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Freon 113	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Methylene chloride	ug/kg		52.	21.			b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Naphthalene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	p-Isopropyltoluene	ug/kg		5.5	5.3			b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Styrene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Toluene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Trichloroethene	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Vinyl acetate	ug/kg	<	53.	53.	ND		b

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Vinyl chloride	ug/kg	<	11.	11.	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8260B	Xylenes (total)	ug/kg	<	5.3	5.3	ND		b
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Acenaphthene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Acenaphthylene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Anthracene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		1.3	6.3		J+	Jb
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Chrysene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Fluoranthene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Fluorene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Naphthalene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Phenanthrene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	8270SIM	Pyrene	ug/kg	<	6.3	6.3	ND		
179445	5/12/2005	BBSB109(2.0)	1137	2.0	SOIL	D2216	Percent Moisture	%		21.	1.00			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Antimony	mg/kg		0.78	0.33		J-	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Arsenic	mg/kg		3.2	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Barium	mg/kg		150.	3.3			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Beryllium	mg/kg		0.26	0.33			J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Cadmium	mg/kg		1.1	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Chromium	mg/kg		60.	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Cobalt	mg/kg		9.8	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Copper	mg/kg		40.	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Lead	mg/kg		180.	3.3			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Molybdenum	mg/kg		2.1	0.33			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Nickel	mg/kg		66.	0.40			

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Selenium	mg/kg		0.24	0.33			J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Silver	mg/kg		0.12	0.33			J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Thallium	mg/kg	<	0.33	0.33	ND	U	J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Vanadium	mg/kg		41.	0.33		J-	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	6020	Zinc	mg/kg		250.	13.		J+	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	7471A	Mercury	mg/kg		1.1	0.032			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8015B	TPH Diesel (C12-C24)	mg/kg		62.	1.5		J+	HY
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		270.	7.4		J+	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg		0.16	0.28		J-	J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1016	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1221	ug/kg	<	28.	28.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1232	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1242	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1248	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1254	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8082	Aroclor 1260	ug/kg	<	14.	14.	ND		
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	7.3	7.3	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	2-Butanone	ug/kg		2.8	15.			Jb
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	2-Chlorotoluene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	2-Hexanone	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	4-Chlorotoluene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Acetone	ug/kg		25.	29.			Jb
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Benzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Bromobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Bromochloromethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Bromodichloromethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Bromoform	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Bromomethane	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Carbon disulfide	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Carbon tetrachloride	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Chlorobenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Chloroethane	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Chloroform	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Chloromethane	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Dibromochloromethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Dibromomethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	15.	15.	ND		b

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB109													
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Ethylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Freon 113	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Isopropylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Methylene chloride	ug/kg		9.1	29.			Jb
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Naphthalene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	n-Butylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	n-Propylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	p-Isopropyltoluene	ug/kg		27.	7.3			b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	sec-Butylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Styrene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	tert-Butylbenzene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Tetrachloroethene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Toluene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Trichloroethene	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Vinyl acetate	ug/kg	<	73.	73.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Vinyl chloride	ug/kg	<	15.	15.	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Xylenes (o-)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8260B	Xylenes (total)	ug/kg	<	7.3	7.3	ND		b
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Acenaphthene	ug/kg		1.4	7.4		J+	J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Acenaphthylene	ug/kg		7.5	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Anthracene	ug/kg		11.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		21.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		24.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		28.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		16.	7.4		J-	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		21.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Chrysene	ug/kg		30.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		11.	7.4		J-	

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number BBSB109														
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Fluoranthene	ug/kg		31.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Fluorene	ug/kg		2.2	7.4			J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		19.	7.4		J-	
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Naphthalene	ug/kg		6.8	7.4			J
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Phenanthrene	ug/kg		22.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	8270SIM	Pyrene	ug/kg		42.	7.4			
179445	5/12/2005	DUP050512	1137	0.0	SOIL	D2216	Percent Moisture	%		33.	1.00			
Station Number BBSB119														
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Antimony	mg/kg		0.52	3.5		J-	J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Arsenic	mg/kg		4.0	0.29			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Barium	mg/kg		86.	0.59			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Beryllium	mg/kg		0.25	0.12			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Cadmium	mg/kg		0.89	0.29			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Chromium	mg/kg		97.	0.59			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Cobalt	mg/kg		6.8	1.2			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Copper	mg/kg		14.	0.59			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Lead	mg/kg		150.	0.18			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Molybdenum	mg/kg		0.63	1.2			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Nickel	mg/kg		37.	1.2			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Selenium	mg/kg	<	0.29	0.29	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Silver	mg/kg	<	0.29	0.29	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Thallium	mg/kg		0.14	0.29			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Vanadium	mg/kg		67.	0.59			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	6010	Zinc	mg/kg		57.	1.2			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	7471A	Mercury	mg/kg		0.026	0.016			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8015B	TPH Diesel (C10-C24)	mg/kg		23.	1.1			HY
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg		190.	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.18	0.18	ND	U	J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	4,4'-DDD	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	4,4'-DDE	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	4,4'-DDT	ug/kg	<	37.	37.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Aldrin	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	alpha-BHC	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	beta-BHC	ug/kg	<	19.	19.	ND	UJ	
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	delta-BHC	ug/kg	<	19.	19.	ND	UJ	
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Dieldrin	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Endosulfan I	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Endosulfan II	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Endrin	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	37.	37.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	gamma-BHC	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Heptachlor	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Methoxychlor	ug/kg	<	190.	190.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8081A	Toxaphene	ug/kg	<	670.	670.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.6	4.6	ND		

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Table C2-1
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	2-Butanone	ug/kg		4.7	9.2			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	2-Hexanone	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Acetone	ug/kg		20.	18.			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Benzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Bromoform	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Bromomethane	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.6	4.6	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Chloroethane	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Chloroform	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Chloromethane	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Freon 113	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Naphthalene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Styrene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Toluene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Vinyl acetate	ug/kg	<	46.	46.	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Vinyl chloride	ug/kg	<	9.2	9.2	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Xylenes (m&p-)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.6	4.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.6	5.6	ND		

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Table C2-1
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Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Anthracene	ug/kg		1.6	5.6			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		5.8	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg		6.5	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		5.4	5.6			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		5.9	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		4.6	5.6			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Chrysene	ug/kg		11.	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		3.9	5.6			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Fluoranthene	ug/kg		6.7	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		4.7	5.6			J
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Naphthalene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Phenanthrene	ug/kg		6.5	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	8270SIM	Pyrene	ug/kg		13.	5.6			
182357	10/10/2005	BBSB119(2.5)	1232	2.5	SOIL	D2216	Percent Moisture	%		11.	1.00			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Antimony	mg/kg		0.71	3.2		J-	J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Arsenic	mg/kg		3.2	0.27			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Barium	mg/kg		46.	0.54			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Beryllium	mg/kg		0.22	0.11			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Cadmium	mg/kg		0.74	0.27			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Chromium	mg/kg		74.	0.54			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Cobalt	mg/kg		6.6	1.1			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Copper	mg/kg		10.	0.54			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Lead	mg/kg		3.2	0.16			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Molybdenum	mg/kg		0.45	1.1			J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Nickel	mg/kg		47.	1.1			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Selenium	mg/kg	<	0.27	0.27	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Silver	mg/kg	<	0.27	0.27	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Thallium	mg/kg	<	0.27	0.27	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Vanadium	mg/kg		47.	0.54			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	6010	Zinc	mg/kg		24.	1.1			

ND = Not Detected
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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	7471A	Mercury	mg/kg		0.021	0.02			
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8015B	TPH Diesel (C10-C24)	mg/kg	<	1.1	1.1	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8015B	TPH Fuel Oil (C24-C36)	mg/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8015B	TPH Gasoline (C7-C12)	mg/kg	<	0.24	0.24	ND	U	J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	4,4'-DDD	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	4,4'-DDE	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	4,4'-DDT	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Aldrin	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	alpha-BHC	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	alpha-Chlordane	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	beta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	delta-BHC	ug/kg	<	1.9	1.9	ND	UJ	
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Dieldrin	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Endosulfan I	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Endosulfan II	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Endosulfan sulfate	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Endrin	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Endrin aldehyde	ug/kg	<	3.7	3.7	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	gamma-BHC	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	gamma-Chlordane	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Heptachlor	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Heptachlor epoxide	ug/kg	<	1.9	1.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Methoxychlor	ug/kg	<	19.	19.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8081A	Toxaphene	ug/kg	<	68.	68.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1016	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1221	ug/kg	<	27.	27.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1232	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1242	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1248	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1254	ug/kg	<	13.	13.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8082	Aroclor 1260	ug/kg	<	13.	13.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1,1,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1,1-Trichloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1,2,2-Tetrachloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1,2-Trichloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1-Dichloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1-Dichloroethene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,1-Dichloropropene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2,3-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2,3-Trichloropropane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2,4-Trichlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2,4-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dibromo-3-chloropropane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dibromoethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dichloroethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dichloroethene (cis)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dichloroethene (trans)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,3,5-Trimethylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,3-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,3-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,3-Dichloropropene (cis)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,3-Dichloropropene (trans)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	1,4-Dichlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	2,2-Dichloropropane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	2-Butanone	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	2-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	2-Hexanone	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	4-Chlorotoluene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	4-Methyl-2-pentanone	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Acetone	ug/kg	<	18.	18.	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Benzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Bromobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Bromochloromethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Bromodichloromethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Bromoform	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Bromomethane	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Carbon disulfide	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Carbon tetrachloride	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Chlorobenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Chloroethane	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Chloroform	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Chloromethane	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Dibromochloromethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Dibromomethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Dichlorodifluoromethane	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Ethylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Freon 113	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Hexachlorobutadiene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Isopropylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Methylene chloride	ug/kg	<	18.	18.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Methyl-tert-butyl ether	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Naphthalene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	n-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	n-Propylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	p-Isopropyltoluene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	sec-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Styrene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	tert-Butylbenzene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Tetrachloroethene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Toluene	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Trichloroethene	ug/kg	<	4.5	4.5	ND		

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Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BBSB119													
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Trichlorofluoromethane	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Vinyl acetate	ug/kg	<	45.	45.	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Vinyl chloride	ug/kg	<	8.9	8.9	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Xylenes (m&p-)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8260B	Xylenes (o-)	ug/kg	<	4.5	4.5	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Acenaphthene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Acenaphthylene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Anthracene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Benzo(a)anthracene	ug/kg		0.76	5.6			J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Benzo(a)pyrene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Chrysene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Fluoranthene	ug/kg		1.3	5.6			J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Fluorene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		0.57	5.6		J+	Jb
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Naphthalene	ug/kg	<	5.6	5.6	ND		
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Phenanthrene	ug/kg		0.85	5.6			J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	8270SIM	Pyrene	ug/kg		0.84	5.6			J
182357	10/10/2005	BBSB119(4.5)	1232	4.5	SOIL	D2216	Percent Moisture	%		11.	1.00			
Station Number	BBSB120													
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Antimony	mg/kg		0.69	3.0		J-	J
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Arsenic	mg/kg		4.2	0.25			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Barium	mg/kg		67.	0.50			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Beryllium	mg/kg		0.24	0.099			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Cadmium	mg/kg		0.16	0.25			J
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Chromium	mg/kg		130.	0.50			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Cobalt	mg/kg		13.	0.99			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Copper	mg/kg		11.	0.50			

ND = Not Detected
NA: Not Analyzed

Table C2-1
Laboratory Analytical Results for Soil Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BBSB120												
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Lead	mg/kg		9.5	0.15			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Molybdenum	mg/kg		0.30	0.99			J
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Nickel	mg/kg		150.	0.99			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Selenium	mg/kg		0.58	0.25			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Silver	mg/kg	<	0.25	0.25	ND	UJ	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Thallium	mg/kg		0.73	0.25			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Vanadium	mg/kg		75.	0.50			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	6010	Zinc	mg/kg		44.	0.99			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	7471A	Mercury	mg/kg		0.047	0.019			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	2-Methylnaphthalene	ug/kg		9.3	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Acenaphthene	ug/kg		2.2	5.8		J	J
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Acenaphthylene	ug/kg		31.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Anthracene	ug/kg		20.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Benzo(a)anthracene	ug/kg		55.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Benzo(a)pyrene	ug/kg		64.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Benzo(b)fluoranthene	ug/kg		60.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Benzo(g,h,i)perylene	ug/kg		35.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Benzo(k)fluoranthene	ug/kg		59.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Chrysene	ug/kg		99.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Dibenzo(a,h)anthracene	ug/kg		12.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Fluoranthene	ug/kg		170.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Fluorene	ug/kg		11.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Indeno(1,2,3-cd)pyrene	ug/kg		35.	5.8		J	
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Naphthalene	ug/kg		14.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Phenanthrene	ug/kg		180.	5.8			
184679	2/1/2006	BBSB120(1.0)	1247		SOIL	8270SIM	Pyrene	ug/kg		200.	5.8			

Reviewed: MJH

ND = Not Detected
NA: Not Analyzed
SQLRpt4.1 02-May-06

Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Antimony	ug/l		4.9	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Arsenic	ug/l		3.4	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Barium	ug/l		99.	1.00		J+	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Beryllium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Cadmium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Chromium	ug/l		2.0	1.00		J-	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Cobalt	ug/l		0.32	1.00			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Copper	ug/l		1.4	1.00		J-	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Lead	ug/l		2.2	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Molybdenum	ug/l		32.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Nickel	ug/l		11.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Selenium	ug/l		0.63	1.00			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Vanadium	ug/l		3.6	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Zinc	ug/l		19.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	7470A	Mercury	ug/l		8.5	0.20			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	160.1	Total Dissolved Solids	mg/l		990.	25.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	300.0	Bromide	mg/l		0.90	0.20			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	300.0	Chloride	mg/l		240.	5.0			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	300.0	Fluoride anion	mg/l		0.13	0.10			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	300.0	Nitrate	mg/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	300.0	Sulfate	mg/l		140.	13.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	310.1	Alkalinity, Bicarbonate	mg/l		490.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	310.1	Alkalinity, Carbonate	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	310.1	Alkalinity, Hydroxide	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	310.1	Alkalinity, Total	mg/l		490.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	353.3	Nitrate-Nitrite as N	mg/l		0.14	0.10			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Aluminum	ug/l		51.	50.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Antimony	ug/l		1.1	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Arsenic	ug/l		8.9	1.00			

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Barium	ug/l		250.	5.0		J+	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Beryllium	ug/l		0.40	1.00			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Cadmium	ug/l		3.1	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Calcium	ug/l		39000.	100.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Chromium	ug/l		180.	5.0		J-	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Cobalt	ug/l		16.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Copper	ug/l		74.	1.00		J-	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Iron	ug/l		250.	50.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Lead	ug/l		1800.	20.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Magnesium	ug/l		55000.	1000.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Manganese	ug/l		110.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Molybdenum	ug/l		3.3	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Nickel	ug/l		230.	5.0			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Selenium	ug/l		1.7	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Silver	ug/l		0.21	1.00			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Sodium	ug/l		190000.	1000.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Vanadium	ug/l		55.	1.00			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	6020	Zinc	ug/l		2200.	20.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	7470A	Mercury	ug/l		7.5	0.20			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8015B	TPH Diesel (C12-C24)	ug/l		380.	50.			HY
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8015B	TPH Fuel Oil (C24-C36)	ug/l		1600.	300.			
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8015B	TPH Gasoline (C7-C12)	ug/l	<	50.	50.	ND	U	J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	4,4'-DDD	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	4,4'-DDE	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	4,4'-DDT	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Aldrin	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	alpha-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	alpha-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	beta-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	delta-BHC	ug/l	<	0.05	0.05	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Dieldrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endosulfan I	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endosulfan II	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endosulfan sulfate	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endrin aldehyde	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Endrin ketone	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	gamma-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	gamma-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Heptachlor	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Heptachlor epoxide	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Methoxychlor	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8081A	Toxaphene	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1016	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1221	ug/l	<	0.95	0.95	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1232	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1242	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1248	ug/l	<	0.48	0.48	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1254	ug/l	<	0.48	0.48	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8082	Aroclor 1260	ug/l	<	0.48	0.48	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1,1,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1,1-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1,2,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1,2-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1-Dichloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,1-Dichloropropene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2,3-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2,3-Trichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2,4-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2,4-Trimethylbenzene	ug/l	<	0.50	0.50	ND		

ND = Not Detected
NA: Not Analyzed

Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dibromo-3-chloropropane	ug/l	<	2.0	2.0	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dibromoethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dichloroethene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dichloroethene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,3,5-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,3-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,3-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,3-Dichloropropene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,3-Dichloropropene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	1,4-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	2,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	2-Butanone	ug/l	<	10.	10.	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	2-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	2-Hexanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	4-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	4-Methyl-2-pentanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Acetone	ug/l		1.5	10.			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Benzene	ug/l		0.20	0.50			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Bromobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Bromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Bromodichloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Bromoform	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Bromomethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Carbon disulfide	ug/l		0.10	0.50			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Carbon tetrachloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Chlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Chloroethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Chloroform	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Chloromethane	ug/l	<	1.0	1.00	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Dibromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Dibromomethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Dichlorodifluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Ethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Freon 113	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Hexachlorobutadiene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Isopropylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Methylene chloride	ug/l	<	10.	10.	ND	U	J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Methyl-tert-butyl ether	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Naphthalene	ug/l	<	2.0	2.0	ND	UJ	
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	n-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	n-Propylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	p-Isopropyltoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	sec-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Styrene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	tert-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Tetrachloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Toluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Trichloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Trichlorofluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Vinyl acetate	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Vinyl chloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Xylenes (m&p-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8260B	Xylenes (o-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	2-Methylnaphthalene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Acenaphthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Acenaphthylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Benzo(a)anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Benzo(a)pyrene	ug/l	<	0.10	0.10	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Benzo(b)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Benzo(g,h,i)perylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Benzo(k)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Chrysene	ug/l		0.02	0.10			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Dibenzo(a,h)anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Fluorene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Indeno(1,2,3-cd)pyrene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Naphthalene	ug/l		0.06	0.10			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Phenanthrene	ug/l		0.02	0.10			J
184692	2/1/2006	BB1PZ100_2/06	1253		H2O	8270SIM	Pyrene	ug/l		0.02	0.10			J
184692	2/1/2006	DUP020106-	1253		H2O	6020	Antimony	ug/l		9.7	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Arsenic	ug/l		9.3	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Barium	ug/l		85.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Beryllium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	6020	Cadmium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	6020	Chromium	ug/l		1.3	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Cobalt	ug/l		2.6	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Copper	ug/l		2.1	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Lead	ug/l		1.5	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Molybdenum	ug/l		8.7	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Nickel	ug/l		13.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Selenium	ug/l		1.1	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	6020	Vanadium	ug/l		8.6	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Zinc	ug/l		23.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	7470A	Mercury	ug/l		8.9	0.20			
184692	2/1/2006	DUP020106-	1253		H2O	160.1	Total Dissolved Solids	mg/l		1000.	50.			
184692	2/1/2006	DUP020106-	1253		H2O	300.0	Bromide	mg/l		0.85	0.20			
184692	2/1/2006	DUP020106-	1253		H2O	300.0	Chloride	mg/l		230.	5.0			

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	DUP020106-	1253		H2O	300.0	Fluoride anion	mg/l		0.091	0.10			J
184692	2/1/2006	DUP020106-	1253		H2O	300.0	Nitrate	mg/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	300.0	Sulfate	mg/l		110.	13.			
184692	2/1/2006	DUP020106-	1253		H2O	310.1	Alkalinity, Bicarbonate	mg/l		550.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	310.1	Alkalinity, Carbonate	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	310.1	Alkalinity, Hydroxide	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	310.1	Alkalinity, Total	mg/l		550.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	353.3	Nitrate-Nitrite as N	mg/l		0.11	0.10			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Aluminum	ug/l		34.	50.			J
184692	2/1/2006	DUP020106-	1253		H2O	6020	Antimony	ug/l		1.9	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Arsenic	ug/l		9.4	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Barium	ug/l		330.	5.0			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Beryllium	ug/l		0.38	1.00			J
184692	2/1/2006	DUP020106-	1253		H2O	6020	Cadmium	ug/l		3.3	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Calcium	ug/l		74000.	500.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Chromium	ug/l		320.	5.0			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Cobalt	ug/l		26.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Copper	ug/l		190.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Iron	ug/l		300.	50.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Lead	ug/l		2000.	20.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Magnesium	ug/l		110000.	500.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Manganese	ug/l		1000.	10.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Molybdenum	ug/l		6.9	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Nickel	ug/l		360.	5.0			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Selenium	ug/l		2.4	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Silver	ug/l		0.96	1.00			J
184692	2/1/2006	DUP020106-	1253		H2O	6020	Sodium	ug/l		180000.	500.			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	6020	Vanadium	ug/l		62.	1.00			
184692	2/1/2006	DUP020106-	1253		H2O	6020	Zinc	ug/l		2000.	20.			
184692	2/1/2006	DUP020106-	1253		H2O	7470A	Mercury	ug/l		11.	0.40			

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Table C2-2
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	DUP020106-	1253		H2O	8015B	TPH Diesel (C12-C24)	ug/l		830.	50.			HY
184692	2/1/2006	DUP020106-	1253		H2O	8015B	TPH Fuel Oil (C24-C36)	ug/l		3100.	300.			
184692	2/1/2006	DUP020106-	1253		H2O	8015B	TPH Gasoline (C7-C12)	ug/l	<	50.	50.	ND	U	J
184692	2/1/2006	DUP020106-	1253		H2O	8081A	4,4'-DDD	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	4,4'-DDE	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	4,4'-DDT	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Aldrin	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	alpha-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	alpha-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	beta-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	delta-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Dieldrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endosulfan I	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endosulfan II	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endosulfan sulfate	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endrin aldehyde	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Endrin ketone	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	gamma-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	gamma-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Heptachlor	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Heptachlor epoxide	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Methoxychlor	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8081A	Toxaphene	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1016	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1221	ug/l	<	0.95	0.95	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1232	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1242	ug/l	<	0.48	0.48	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1248	ug/l	<	0.48	0.48	ND	UJ	
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1254	ug/l	<	0.48	0.48	ND	UJ	
184692	2/1/2006	DUP020106-	1253		H2O	8082	Aroclor 1260	ug/l	<	0.48	0.48	ND	UJ	

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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
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Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ100												
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1,1,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1,1-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1,2,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1,2-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1-Dichloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,1-Dichloropropene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2,3-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2,3-Trichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2,4-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2,4-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dibromo-3-chloropropane	ug/l	<	2.0	2.0	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dibromoethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dichloroethene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dichloroethene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,3,5-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,3-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,3-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,3-Dichloropropene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,3-Dichloropropene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	1,4-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	2,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	2-Butanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	2-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	2-Hexanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	4-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	4-Methyl-2-pentanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Acetone	ug/l		0.90	10.			J

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ100													
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Benzene	ug/l		0.10	0.50			J
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Bromobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Bromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Bromodichloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Bromoform	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Bromomethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Carbon disulfide	ug/l		0.10	0.50			J
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Carbon tetrachloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Chlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Chloroethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Chloroform	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Chloromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Dibromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Dibromomethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Dichlorodifluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Ethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Freon 113	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Hexachlorobutadiene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Isopropylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Methylene chloride	ug/l		0.20	10.			J
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Methyl-tert-butyl ether	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Naphthalene	ug/l	<	2.0	2.0	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	n-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	n-Propylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	p-Isopropyltoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	sec-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Styrene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	tert-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Tetrachloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Toluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Trichloroethene	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ100													
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Trichlorofluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Vinyl acetate	ug/l	<	10.	10.	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Vinyl chloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Xylenes (m&p-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8260B	Xylenes (o-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	2-Methylnaphthalene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Acenaphthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Acenaphthylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Benzo(a)anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Benzo(a)pyrene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Benzo(b)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Benzo(g,h,i)perylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Benzo(k)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Chrysene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Dibenzo(a,h)anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Fluorene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Indeno(1,2,3-cd)pyrene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Naphthalene	ug/l		0.02	0.10			J
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Phenanthrene	ug/l		0.01	0.10			J
184692	2/1/2006	DUP020106-	1253		H2O	8270SIM	Pyrene	ug/l	<	0.10	0.10	ND	U	J
Station Number	BB1PZ101													
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Antimony	ug/l		2.6	60.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Arsenic	ug/l		6.8	5.0			
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Barium	ug/l		63.	10.		J+	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Beryllium	ug/l	<	2.0	2.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Cadmium	ug/l	<	5.0	5.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Chromium	ug/l		0.69	10.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Cobalt	ug/l		2.1	20.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Copper	ug/l		1.6	10.			J

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Lead	ug/l		0.26	3.0			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Molybdenum	ug/l		6.7	20.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Nickel	ug/l		10.	20.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Selenium	ug/l		0.60	5.0			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Silver	ug/l	<	5.0	5.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Thallium	ug/l	<	5.0	5.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Vanadium	ug/l		3.0	10.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	6020	Zinc	ug/l		18.	20.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	7470A	Mercury	ug/l	<	0.20	0.20	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8015B	TPH Diesel (C10-C24)	ug/l		31.	50.			JY
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8015B	TPH Gasoline (C7-C12)	ug/l	<	50.	50.	ND	U	J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8015B	TPH Motor Oil	ug/l		58.	300.			JY
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	4,4'-DDD	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	4,4'-DDE	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	4,4'-DDT	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Aldrin	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	alpha-BHC	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	alpha-Chlordane	ug/l	<	0.05	0.05	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	beta-BHC	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	delta-BHC	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Dieldrin	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Endosulfan I	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Endosulfan II	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Endosulfan sulfate	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Endrin	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Endrin aldehyde	ug/l	<	0.09	0.09	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	gamma-BHC	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	gamma-Chlordane	ug/l	<	0.05	0.05	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Heptachlor	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Heptachlor epoxide	ug/l	<	0.05	0.05	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Methoxychlor	ug/l	<	0.50	0.50	ND	UJ	

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Table C2-2
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8081A	Toxaphene	ug/l	<	0.90	0.90	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1016	ug/l	<	0.47	0.47	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1221	ug/l	<	0.94	0.94	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1232	ug/l	<	0.47	0.47	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1242	ug/l	<	0.47	0.47	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1248	ug/l	<	0.47	0.47	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1254	ug/l	<	0.47	0.47	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8082	Aroclor 1260	ug/l	<	0.47	0.47	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1,1,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1,1-Trichloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1,2,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1,2-Trichloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1-Dichloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1-Dichloroethene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,1-Dichloropropene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2,3-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2,3-Trichloropropane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2,4-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2,4-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dibromo-3-chloropropane	ug/l	<	2.0	2.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dibromoethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dichloroethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dichloroethene (cis)	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dichloroethene (trans)	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,3,5-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,3-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,3-Dichloropropane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,3-Dichloropropene (cis)	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,3-Dichloropropene (trans)	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	1,4-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	2,2-Dichloropropane	ug/l	<	0.50	0.50	ND	UJ	
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	2-Butanone	ug/l	<	10.	10.	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	2-Chlorotoluene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	2-Hexanone	ug/l	<	10.	10.	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	4-Chlorotoluene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	4-Methyl-2-pentanone	ug/l	<	10.	10.	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Acetone	ug/l		0.90	10.			J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Benzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Bromobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Bromochloromethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Bromodichloromethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Bromoform	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Bromomethane	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Carbon disulfide	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Carbon tetrachloride	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Chlorobenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Chloroethane	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Chloroform	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Chloromethane	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Dibromochloromethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Dibromomethane	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Dichlorodifluoromethane	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Ethylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Freon 113	ug/l	<	5.0	5.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Hexachlorobutadiene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Isopropylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Methylene chloride	ug/l	<	10.	10.	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Methyl-tert-butyl ether	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Naphthalene	ug/l	<	2.0	2.0	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	n-Butylbenzene	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	n-Propylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	p-Isopropyltoluene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	sec-Butylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Styrene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	tert-Butylbenzene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Tetrachloroethene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Toluene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Trichloroethene	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Trichlorofluoromethane	ug/l	<	1.0	1.00	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Vinyl acetate	ug/l	<	10.	10.	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Vinyl chloride	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Xylenes (o-)	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8260B	Xylenes (total)	ug/l	<	0.50	0.50	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Acenaphthene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Acenaphthylene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Anthracene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Benzo(a)anthracene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Benzo(a)pyrene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Benzo(b)fluoranthene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Benzo(g,h,i)perylene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Benzo(k)fluoranthene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Chrysene	ug/l	<	0.09	0.09	ND	U	J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Dibenzo(a,h)anthracene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Fluoranthene	ug/l	<	0.09	0.09	ND	U	J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Fluorene	ug/l		0.20	0.09			
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Indeno(1,2,3-cd)pyrene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Naphthalene	ug/l	<	0.09	0.09	ND		
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Phenanthrene	ug/l	<	0.09	0.09	ND	U	J
179714	5/27/2005	BB1PZ101_5/27	1143		H2O	8270SIM	Pyrene	ug/l	<	0.09	0.09	ND		
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Antimony	ug/l		1.3	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Arsenic	ug/l		13.	1.00			

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ101												
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Barium	ug/l		120.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Beryllium	ug/l		0.33	1.00			J
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Cadmium	ug/l		0.17	1.00			J
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Chromium	ug/l		17.	1.00			J
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Cobalt	ug/l		14.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Copper	ug/l		60.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Lead	ug/l		45.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Molybdenum	ug/l		2.2	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Nickel	ug/l		42.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Selenium	ug/l		1.9	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Thallium	ug/l		0.94	1.00			J
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Vanadium	ug/l		25.	1.00			
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	6020	Zinc	ug/l		75.	1.00		J	
180973	8/1/2005	BB1PZ101_8/05	1143		H2O	7470A	Mercury	ug/l	<	0.20	0.20	ND		
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Antimony	ug/l		3.1	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Arsenic	ug/l		7.1	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Barium	ug/l		74.	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Beryllium	ug/l	<	1.0	1.00	ND		
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Cadmium	ug/l	<	1.0	1.00	ND		
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Chromium	ug/l		0.69	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Cobalt	ug/l		1.9	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Copper	ug/l		1.2	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Lead	ug/l		0.25	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Molybdenum	ug/l		5.9	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Nickel	ug/l		9.4	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Selenium	ug/l		0.80	1.00			J
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Vanadium	ug/l		2.7	1.00			
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	6020	Zinc	ug/l		17.	1.00		J	

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ101												
180973	8/1/2005	BB1PZ101_8/1	1143		H2O	7470A	Mercury	ug/l	<	0.20	0.20	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Antimony	ug/l		1.9	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Arsenic	ug/l		3.4	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Barium	ug/l		110.	1.00		J+	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Beryllium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Cadmium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Chromium	ug/l		1.0	1.00		J-	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Cobalt	ug/l	<	1.0	1.00	ND	U	J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Copper	ug/l		0.56	1.00		J-	J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Lead	ug/l	<	1.0	1.00	ND	U	J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Molybdenum	ug/l		33.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Nickel	ug/l		11.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Selenium	ug/l		1.3	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Vanadium	ug/l		3.8	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Zinc	ug/l		14.	1.00			b
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	7470A	Mercury	ug/l	<	0.20	0.20	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	160.1	Total Dissolved Solids	mg/l		1340.	50.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	300.0	Bromide	mg/l		0.91	0.20			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	300.0	Chloride	mg/l		270.	10.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	300.0	Fluoride anion	mg/l		0.25	0.10			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	300.0	Nitrate	mg/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	300.0	Sulfate	mg/l		110.	25.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	310.1	Alkalinity, Bicarbonate	mg/l		670.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	310.1	Alkalinity, Carbonate	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	310.1	Alkalinity, Hydroxide	mg/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	310.1	Alkalinity, Total	mg/l		670.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	353.3	Nitrate-Nitrite as N	mg/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Aluminum	ug/l		22.	50.			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Antimony	ug/l		3.8	1.00			

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ101												
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Arsenic	ug/l		18.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Barium	ug/l		160.	1.00		J+	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Beryllium	ug/l		0.63	1.00			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Cadmium	ug/l		0.42	1.00			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Calcium	ug/l		36000.	1000.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Chromium	ug/l		37.	1.00		J-	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Cobalt	ug/l		20.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Copper	ug/l		64.	1.00		J-	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Iron	ug/l		140.	50.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Lead	ug/l		56.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Magnesium	ug/l		61000.	1000.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Manganese	ug/l		110.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Molybdenum	ug/l		4.0	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Nickel	ug/l		62.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Selenium	ug/l		1.7	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Silver	ug/l		0.054	1.00			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Sodium	ug/l		200000.	1000.			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Thallium	ug/l		0.09	1.00			Jb
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Vanadium	ug/l		49.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	6020	Zinc	ug/l		140.	1.00			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	7470A	Mercury	ug/l		0.30	0.20			
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8015B	TPH Diesel (C12-C24)	ug/l		94.	50.			HY
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8015B	TPH Fuel Oil (C24-C36)	ug/l		140.	300.			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8015B	TPH Gasoline (C7-C12)	ug/l	<	50.	50.	ND	U	J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	4,4'-DDD	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	4,4'-DDE	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	4,4'-DDT	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Aldrin	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	alpha-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	alpha-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	beta-BHC	ug/l	<	0.05	0.05	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	delta-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Dieldrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endosulfan I	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endosulfan II	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endosulfan sulfate	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endrin	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endrin aldehyde	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Endrin ketone	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	gamma-BHC	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	gamma-Chlordane	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Heptachlor	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Heptachlor epoxide	ug/l	<	0.05	0.05	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Methoxychlor	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8081A	Toxaphene	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1016	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1221	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1232	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1242	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1248	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1254	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8082	Aroclor 1260	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1,1,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1,1-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1,2,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1,2-Trichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1-Dichloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,1-Dichloropropene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2,3-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2,3-Trichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2,4-Trichlorobenzene	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ101												
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2,4-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dibromo-3-chloropropane	ug/l	<	2.0	2.0	ND	UJ	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dibromoethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dichloroethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dichloroethene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dichloroethene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,3,5-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,3-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,3-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,3-Dichloropropene (cis)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,3-Dichloropropene (trans)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	1,4-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	2,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	2-Butanone	ug/l	<	10.	10.	ND	UJ	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	2-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	2-Hexanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	4-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	4-Methyl-2-pentanone	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Acetone	ug/l		1.0	10.			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Benzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Bromobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Bromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Bromodichloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Bromoform	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Bromomethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Carbon disulfide	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Carbon tetrachloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Chlorobenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Chloroethane	ug/l	<	1.0	1.00	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB1PZ101												
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Chloroform	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Chloromethane	ug/l	<	1.0	1.00	ND	UJ	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Dibromochloromethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Dibromomethane	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Dichlorodifluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Ethylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Freon 113	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Hexachlorobutadiene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Isopropylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Methylene chloride	ug/l	<	10.	10.	ND	U	J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Methyl-tert-butyl ether	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Naphthalene	ug/l	<	2.0	2.0	ND	UJ	
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	n-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	n-Propylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	p-Isopropyltoluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	sec-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Styrene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	tert-Butylbenzene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Tetrachloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Toluene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Trichloroethene	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Trichlorofluoromethane	ug/l	<	1.0	1.00	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Vinyl acetate	ug/l	<	10.	10.	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Vinyl chloride	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Xylenes (m&p-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8260B	Xylenes (o-)	ug/l	<	0.50	0.50	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	2-Methylnaphthalene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Acenaphthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Acenaphthylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Benzo(a)anthracene	ug/l	<	0.10	0.10	ND		

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Table C2-2
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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number	BB1PZ101													
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Benzo(a)pyrene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Benzo(b)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Benzo(g,h,i)perylene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Benzo(k)fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Chrysene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Dibenzo(a,h)anthracene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Fluoranthene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Fluorene	ug/l		0.06	0.10			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Indeno(1,2,3-cd)pyrene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Naphthalene	ug/l	<	0.10	0.10	ND		
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Phenanthrene	ug/l		0.01	0.10			J
184692	2/1/2006	BB1PZ101_2/06	1143		H2O	8270SIM	Pyrene	ug/l	<	0.10	0.10	ND	U	J
Station Number	BB2ASW100													
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Aluminum	ug/l		36.	50.			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Antimony	ug/l		7.3	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Arsenic	ug/l		7.5	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Barium	ug/l		88.	1.00		J+	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Beryllium	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Cadmium	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Calcium	ug/l		53000.	500.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Chromium	ug/l		5.0	1.00		J-	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Cobalt	ug/l		0.60	1.00			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Copper	ug/l		13.	1.00		J-	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Iron	ug/l		200.	50.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Lead	ug/l	<	1.2	1.2	ND	U	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Magnesium	ug/l		120000.	500.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Manganese	ug/l		7.0	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Molybdenum	ug/l		12.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Nickel	ug/l		17.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Selenium	ug/l		2.1	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Silver	ug/l	<	1.0	1.00	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASW100												
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Sodium	ug/l		180000.	500.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Thallium	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Vanadium	ug/l		5.2	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Zinc	ug/l		24.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	7470A	Mercury	ug/l		1.3	0.20			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	160.1	Total Dissolved Solids	mg/l		1200.	25.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	300.0	Bromide	mg/l		0.27	0.20			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	300.0	Chloride	mg/l		250.	5.0			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	300.0	Fluoride anion	mg/l		0.31	0.10			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	300.0	Nitrate	mg/l		0.94	0.05			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	300.0	Sulfate	mg/l		210.	13.			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	310.1	Alkalinity, Bicarbonate	mg/l		530.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	310.1	Alkalinity, Carbonate	mg/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	310.1	Alkalinity, Hydroxide	mg/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	310.1	Alkalinity, Total	mg/l		530.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	353.3	Nitrate-Nitrite as N	mg/l		0.97	0.10			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Antimony	ug/l		3.0	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Arsenic	ug/l		19.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Barium	ug/l		290.	5.0		J+	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Beryllium	ug/l		2.0	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Cadmium	ug/l		2.6	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Chromium	ug/l		77.	1.00		J-	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Cobalt	ug/l		190.	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Copper	ug/l		320.	5.0		J-	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Lead	ug/l		610.	5.0			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Molybdenum	ug/l		1.5	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Nickel	ug/l		810.	5.0			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Selenium	ug/l		5.5	1.00			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Silver	ug/l		0.097	1.00			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Thallium	ug/l		0.95	1.00			Jb
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Vanadium	ug/l		65.	1.00			

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASW100												
184691	2/1/2006	BB2ASW100_2/	1252		H2O	6020	Zinc	ug/l		820.	5.0			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	7470A	Mercury	ug/l		5.5	0.20			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8015B	TPH Diesel (C12-C24)	ug/l		47.	50.			JY
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8015B	TPH Fuel Oil (C24-C36)	ug/l	<	300.	300.	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8015B	TPH Gasoline (C7-C12)	ug/l	<	50.	50.	ND	U	J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	4,4'-DDD	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	4,4'-DDE	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	4,4'-DDT	ug/l		0.03	0.10			CJ
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Aldrin	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	alpha-BHC	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	alpha-Chlordane	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	beta-BHC	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	delta-BHC	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Dieldrin	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endosulfan I	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endosulfan II	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endosulfan sulfate	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endrin	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endrin aldehyde	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Endrin ketone	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	gamma-BHC	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	gamma-Chlordane	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Heptachlor	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Heptachlor epoxide	ug/l	<	0.05	0.05	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Methoxychlor	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8081A	Toxaphene	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1016	ug/l	<	0.48	0.48	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1221	ug/l	<	0.95	0.95	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1232	ug/l	<	0.48	0.48	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1242	ug/l	<	0.48	0.48	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1248	ug/l	<	0.48	0.48	ND	UJ	

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASW100												
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1254	ug/l	<	0.48	0.48	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8082	Aroclor 1260	ug/l	<	0.48	0.48	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1,1,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1,1-Trichloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1,2,2-Tetrachloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1,2-Trichloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1-Dichloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1-Dichloroethene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,1-Dichloropropene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2,3-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2,3-Trichloropropane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2,4-Trichlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2,4-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dibromo-3-chloropropane	ug/l	<	2.0	2.0	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dibromoethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dichloroethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dichloroethene (cis)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dichloroethene (trans)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,3,5-Trimethylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,3-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,3-Dichloropropane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,3-Dichloropropene (cis)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,3-Dichloropropene (trans)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	1,4-Dichlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	2,2-Dichloropropane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	2-Butanone	ug/l	<	10.	10.	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	2-Chlorotoluene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	2-Hexanone	ug/l	<	10.	10.	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	4-Chlorotoluene	ug/l	<	0.50	0.50	ND		

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Table C2-2
Laboratory Analytical Results for Groundwater and Seep Samples
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASW100												
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	4-Methyl-2-pentanone	ug/l	<	10.	10.	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Acetone	ug/l		2.6	10.			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Benzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Bromobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Bromochloromethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Bromodichloromethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Bromoform	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Bromomethane	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Carbon disulfide	ug/l		0.10	0.50			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Carbon tetrachloride	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Chlorobenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Chloroethane	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Chloroform	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Chloromethane	ug/l	<	1.0	1.00	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Dibromochloromethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Dibromomethane	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Dichlorodifluoromethane	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Ethylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Freon 113	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Hexachlorobutadiene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Isopropylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Methylene chloride	ug/l	<	10.	10.	ND	U	J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Methyl-tert-butyl ether	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Naphthalene	ug/l	<	2.0	2.0	ND	UJ	
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	n-Butylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	n-Propylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	p-Isopropyltoluene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	sec-Butylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Styrene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	tert-Butylbenzene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Tetrachloroethene	ug/l	<	0.50	0.50	ND		

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Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Lab Batch	Sample Date	Sample	Bag ID	Sample Depth	Matri	Test Method	Analyte	Units		Value	Reporting Limit	Non Detect	Val Qual	Lab
Station Number		BB2ASW100												
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Toluene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Trichloroethene	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Trichlorofluoromethane	ug/l	<	1.0	1.00	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Vinyl acetate	ug/l	<	10.	10.	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Vinyl chloride	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Xylenes (m&p-)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8260B	Xylenes (o-)	ug/l	<	0.50	0.50	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	2-Methylnaphthalene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Acenaphthene	ug/l		0.03	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Acenaphthylene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Anthracene	ug/l		0.05	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Benzo(a)anthracene	ug/l		0.01	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Benzo(a)pyrene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Benzo(b)fluoranthene	ug/l		0.02	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Benzo(g,h,i)perylene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Benzo(k)fluoranthene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Chrysene	ug/l		0.03	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Dibenzo(a,h)anthracene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Fluoranthene	ug/l		0.05	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Fluorene	ug/l		0.10	0.10			
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Indeno(1,2,3-cd)pyrene	ug/l	<	0.10	0.10	ND		
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Naphthalene	ug/l		0.05	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Phenanthrene	ug/l		0.09	0.10			J
184691	2/1/2006	BB2ASW100_2/	1252		H2O	8270SIM	Pyrene	ug/l		0.05	0.10			J

Reviewed: MJH

ND = Not Detected
NA: Not Analyzed
SQLRpt4.1 02-May-06

Table C2-3. Definition of Qualifiers
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Summary of Analyte Qualifiers Used in this Report

Type	Qualifier	Qualifier Description — Qualifiers are listed as validation qualifier / lab qualifier where applicable (e.g. J/J+)
Inorganic/ Organic	J	Data are qualified as estimated. It is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	J-	Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	J+	Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.
Inorganic/ Organic	U	Data are qualified as nondetected, because the analyte was observed in an associated laboratory or field blank.
Inorganic/ Organic	A	Data has been validated and no qualifiers were applied.
Inorganic/ Organic	UJ	The analyte was not detected above the reported sample quantization limit. However, the reported quantization limit is approximate and may or may not represent the actual limit of quantization necessary to accurately and precisely measure the analyte in the sample.
Inorganic/ Organic	C	Presence confirmed, but RPD between columns exceeds 40%.
Inorganic/ Organic	b	Analytical problems were encountered. See the associated case narrative in data package from lab.
Inorganic/ Organic	H	Heavier hydrocarbons contributed to the quantification.
Inorganic/ Organic	L	Lighter hydrocarbons contributed to the quantification.
Inorganic/ Organic	Y	Sample exhibits chromatographic pattern that does not resemble standard.
Inorganic/ Organic	YZ	Indicates that quantization is based only on a single peak or peaks and that the chromatogram does not resemble a fuel pattern.
Inorganic/ Organic	Z	Indicates that the chromatogram resembles the requested standard, but includes a single peak that significantly biases the quantization.

Footnotes:

Results exceeding cleanup levels are outlined with a box.

Sample data is provided on a dry weight basis.

ND = Not Detected at the specific reporting level in parentheses.

NT = Not Tested

Analytical tables present results for compounds that were detected in any of the samples collected from the site.

Results for non-detect compounds are listed on tables in Appendix C2.

Notes: Where validation qualifiers are absent, data was used for screening purposes.

Reviewed: MJH

APPENDIX C3

DATA VALIDATION

TO: Gary Lieberman, Mactec E & C, Inc. March 15, 2006

FROM: Donna Breaux, DataVal, Inc.

DATA VALIDATION SUMMARY REPORT FOR THE BAKER BEACH SITE, THE PRESIDIO OF SAN FRANCISCO, CA

LABORATORY: Curtis & Tompkins Laboratories, Berkeley, CA

SAMPLING DATES: April 7 - 28, May 4 - 27, August 1 and October 3 thru 10, 2005

Data validation of Level III and Level IV laboratory data packages was performed according to the project-specific guidelines. These guidelines were outlined in the Presidio-wide Quality Assurance Project Plan, Sampling and Analysis Plan, April, 2001; the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review, August, 2002; the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review, October, 1999; and the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October, 2004.

The data were reviewed for holding times, blanks, GC/MS tunes, initial calibrations, continuing calibration verification (CCV) standards, performance evaluation mix (PEM) standards, surrogate recoveries, internal standards, laboratory control samples (LCS), laboratory duplicate samples, matrix spikes (MS), matrix spike duplicates (MSD), ICP interference check standards, ICP serial dilutions, field QC blanks, field duplicate samples and compound identification and quantitation.

The following paragraphs highlight the essential findings of the data validation effort:

I. **Volatile Organic Compounds by GC/MS (8260B)**

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C, F, H and J.

A. Reporting Limits

The laboratory reporting limits for VOCs in water and soil matrix samples met the project required reporting limits, with the following exceptions:

1. It should be noted that the reporting limits for all soils were raised due to dry weight correction.
2. The following table lists the compounds which the laboratory reporting limits did not meet the project required reporting limits listed in Table 2-6.8-1 of the QAPP.

Reviewed: MJH

Compound	Matrix	Laboratory Reporting Limit	Project Required Reporting Limit
Acetone	Soil	20 ug/kg	10 ug/kg
Methylene chloride	Soil	20 ug/kg	5 ug/kg
Vinyl acetate	Soil	50 ug/kg	10 ug/kg
Bromoform	Water	1.0 ug/L	0.5 ug/L
Bromomethane	Water	1.0 ug/L	0.5 ug/L
Chloroethane	Water	1.0 ug/L	0.5 ug/L
Chloromethane	Water	1.0 ug/L	0.5 ug/L
Methylene chloride	Water	10 ug/L	4.5 ug/L

B. Holding Times

Technical holding time criteria specified in the analysis method were met for all project samples. Soil samples BBSB108(0.0), BBSB108(2.0), BBSB109(0.0), DUP(050512), BBSB109(2.0), BB2ASB112(0.5), BB1SB113(0.5), BB1SB114(0.5) and BBITP113(5.5) were collected in Encore samplers. The samples listed above were analyzed by the laboratory past the recommended 48-hour holding time. Since the samples were kept under refrigeration at the specified temperature ($2^{o}C$ to $6^{o}C$) until analysis, the results were accepted without qualification. In the professional judgment of the reviewer, the data were acceptable as reported.

C. Blanks

Target analytes were not observed in the trip blank associated with the project samples. Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC295690 had a detected level of naphthalene at 2.1 ug/L. The associated samples were non-detect for naphthalene, and qualification was not required.
2. Laboratory method blank QC292135 had a detected level of methylene chloride at 4.0 ug/kg. The associated samples were either non-detect for methylene chloride, or had values for methylene chloride greater than ten times the blank amount, and qualification was not required.
3. Laboratory method blank QC292755 had a detected level of methylene chloride at 1.9 ug/kg. All results less than 10 times the blank amount were affected by this contamination. The detected results for methylene chloride in the associated project samples were changed to non-detect (U) if those values were less than ten times the blank amount.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. GC/MS Tunes

All QC criteria were met for the GC/MS tunes associated with the project samples.

E. Initial Calibration

Initial calibration criteria were met for all initial calibration standards associated with the project samples.

F. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification (CCV) standards associated with the project samples, with the following exceptions:

1. Qualification was not required for samples with non-detect results associated with high-failing continuing calibration standards (%D > +25%). Those failures were not noted in this report.
2. The 6/1/05 at 09:42 water matrix CCV analyzed on instrument MSVOA04 had one compound with a percent difference less than -25%, 2,2-dichloropropane (-44%). The associated samples were non-detect for this compound and qualified as estimated (UJ).
3. The 10/6/05 at 09:26 soil matrix CCV analyzed on instrument MSVOA06 had one compound with a percent difference less than -25%, carbon disulfide (-27%). The associated samples were non-detect for this compound and qualified as estimated (UJ).

See Table 2 of this report for a summary of qualifications due to continuing calibration percent difference failure.

G. Internal Standards

Internal standard QC acceptance criteria were met for all project samples.

H. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. Five project soil samples had high-failing percent recoveries outside the 59%-113% project acceptance criteria for surrogate 4-bromofluorobenzene. The detected results in samples BB2ATP104(8.0), BB2ATP100(1.0), BB2ATP101(14.0), BB1TP102(4.0) and BB1TP108(5.0), were qualified as estimated with a high bias (J+). It should be noted that the detected result for methylene chloride in sample BB1TP108(5.0) was changed to non-detect due to method blank contamination, and qualification for surrogate recovery failure was not required. Qualification was not required for non-detected results.

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

I. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

J. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recoveries for trichloroethene were outside the 65%-135% project acceptance criteria in QC samples 178983-001 MS/MSD at 162% and 163%, respectively. The parent sample was associated with a site unrelated to the project site and qualification was not required. QC Batch 101317
2. The percent recovery for 1,1-dichloroethene was outside the 65%-135% project acceptance criteria in QC sample in BB1TP108(5.0) MS at 136%. The parent sample was non-detect for 1,1-dichloroethene, and qualification was not required. QC Batch 101759
3. The percent recoveries were outside the 65%-135% project acceptance criteria in QC samples BBSB108(0.0) MS/MSD for benzene (64%/52%), toluene (57%/44%), chlorobenzene (47%/34%) and trichloroethene (okay/50%). The parent sample was non-detect for these compounds and qualified as estimated (UJ). QC Batch 102044

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery failure.

K. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of GC/MS tunes, initial and continuing calibrations, surrogate values, and internal standard areas; in addition to re-calculation of all reported results for VOCs in these samples. The results for VOCs were verified as correctly reported by the laboratory.

II. Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS (8270C-SIM)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C, F, G, H and I.

A. Reporting Limits

The laboratory reporting limits for PAHs in soil and water matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC296175 had detected levels of phenanthrene at 0.03 ug/L, fluoranthene at 0.03 ug/L, chrysene at 0.02 ug/L, and benzo(a)anthracene at 0.02 ug/L. The associated sample was non-detect for benzo(a)anthracene, and qualification was not required. The detected results for phenanthrene, fluoranthene and chrysene in the associated sample were changed to non-detect (U).
2. Laboratory method blank QC313307 had detected levels of phenanthrene at 0.99 ug/kg, fluoranthene at 2.1 ug/kg, pyrene at 2.9 ug/kg, benzo(a)anthracene at 2.7 ug/kg, chrysene at 2.2 ug/kg, benzo(b)fluoranthene at 3.3 ug/kg, benzo(k)fluoranthene at 3.7 ug/kg, benzo(a)pyrene at 3.0 ug/kg, indeno(1,2,3-cd)pyrene at 3.8 ug/kg, dibenz(a,h)anthracene at 3.2 ug/kg and benzo(g,h,i)perylene at 4.0 ug/kg. The detected results for these compounds in the associated samples were changed to non-detect (U) if those values were less than five times the blank amounts.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. GC/MS Tunes

All QC criteria were met for the GC/MS tunes associated with the project samples.

E. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

F. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples with the following exceptions:

1. The 5/17/05 at 20:04 soil matrix CCV analyzed on instrument MSBNA03 had three compounds with percent differences greater than +25%: indeno(1,2,3-cd)pyrene (+36%), dibenz(a,h)anthracene (+39%) and benzo(g,h,i)perylene (+28%). The associated samples were non-detect for indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene, and qualification was not required. The detected results for benzo(g,h,i)perylene in the associated samples were qualified as estimated with a high bias (J+).
2. The 10/19/05 at 08:44 soil matrix CCV analyzed on instrument MSBNA03 had one compound with a percent difference greater than +25%: naphthalene (+28%). The detected results for naphthalene in the associated samples were qualified as estimated with a high bias (J+).

3. The 10/27/05 at 10:19 soil matrix CCV analyzed on instrument MSBNA04 had one compound with a percent difference greater than +25%: indeno(1,2,3-cd)pyrene (+41%). The detected results for indeno(1,2,3-cd)pyrene in the associated samples were qualified as estimated with a high bias (J+).
4. Qualification was not required for samples with non-detect results associated with high-failing continuing calibration standards. Those failures were not noted in this report.

See Table 2 of this report for a summary of qualifications due to continuing calibration percent difference failure.

G. Internal Standards

Internal standard QC acceptance criteria were met for all project samples with the following exceptions:

1. The area counts for internal standard perylene-d12 were outside the -50% acceptance criteria in project samples BBD2TP106(2.0) (179182-003), DUP(050405) (179266-004), BB1TP108(5.0) (179266-007), BB29B102(2.0) (179445-003), BBSB108(0.0) (179445-004), BBSB109(0.0) (179445-006) and DUP(050512) (179445-007). The compounds associated with this internal standard were qualified as estimated with a low bias (J-/UJ).
2. The area counts for internal standards chrysene-d12 and perylene-d12 were outside the -50% acceptance criteria in project sample BBITP113(3.0) (182254-003). The compounds associated with this internal standard were qualified as estimated with a low bias (J-/UJ).

See Table 2 of this report for a summary of qualifications due to internal standard area count failure.

H. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. The percent recoveries for surrogates nitrobenzene-d5 and terphenyl-d14 were outside of the project acceptance limits in sample BB1TP106(6.0) (179266-001) at 123% and 142%, respectively; and sample DUP(050405) (179266-004) at 133% and 140%, respectively. The detected results in these samples were qualified as estimated with a high bias (J+). Qualification was not required for non-detected results.

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

I. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples, with the following exception:

1. The percent recovery for acenaphthene was outside the 36% - 111% project acceptance criteria in laboratory control sample QC294077 at 117%. The detected results for acenaphthene in the associated samples were qualified as estimated with a high bias (J+). Qualification was not required for non-detected results. QC Batch 102111

J. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exception:

1. The percent recovery for pyrene was outside the 35% - 142% project acceptance criteria in QC sample 179646-029 MSD at 183%. The parent sample was associated with a site unrelated to the project site, and qualification was not required. QC Batch 102619

K. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of GC/MS tunes, initial and continuing calibrations, surrogate values, and internal standard areas; in addition to re-calculation of all reported results for PAHs in these samples. The results for PAHs were verified as correctly reported by the laboratory.

III. Dioxins and Furans by High Resolution GC/MS (8290)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits

The laboratory reporting limits for dioxins and furans in soil and water matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exception:

1. Laboratory method blanks 64980, 65028 , 65087 and 65208 had detected levels of various target analytes. The associated samples were either non-detect for those analytes, or the levels in the samples were greater than five times the blank amounts, and qualification was not required.

D. GC/MS System Performance Check
All QC criteria were met for the GC/MS mass calibration and column performance check standards associated with the project samples.

E. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples.

F. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

G. Internal Standards
Internal standard recoveries met QC acceptance criteria for all project samples.

H. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

I. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spike and matrix spike duplicates associated with the project samples with the following exceptions:

1. The percent recoveries for three target compounds failed the 50% - 150% project acceptance criteria in QC sample 402-11-3 MSD. The parent sample was associated with a site unrelated to the project site, and qualification was not required.
2. The percent recoveries for three target compounds failed the 50% - 150% project acceptance criteria in QC samples 402-96-6 MS and/or MSD. The parent sample was associated with a site unrelated to the project site, and qualification was not required.

J. Compound Identification and Quantitation
Samples analyzed for dioxins and furans did not receive full (Level IV) data validation.

IV. Total Petroleum Hydrocarbons - Gasoline Range (8015B)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C, F and H.

A. Reporting Limits
The laboratory reporting limits for TPH – gasoline in water and soil matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times
Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks or trip blanks associated with the project samples, with the following exceptions:

1. Trip blank TB-1 (179714-002) had a detected level of TPH-gasoline at 11 ug/L. All results less than 5 times the blank amount were affected by this contamination. The detected result for TPH-gasoline in project sample BB1PZ101 (179714-001) was changed to non-detect (U).
2. Laboratory method blank QC295383 had a detected level of TPH-gasoline at 11 ug/L. Values for TPH-gasoline less than five times the blank amount were affected by this contamination. The results for TPH-gasoline in project samples BB1PZ101 and TB-1 were changed to non-detect (U).
3. Laboratory method blank QC291612 had a detected level of TPH-gasoline at 20 ug/kg. The associated samples were non-detect for TPH-gasoline, and qualification was not required.
4. Laboratory method blank QC291334 had a detected level of TPH-gasoline at 19 ug/kg. The associated samples were non-detect for TPH-gasoline, and qualification was not required.
5. Laboratory method blank QC311317 had a detected level of TPH-gasoline at 0.021 mg/kg. Values for TPH-gasoline less than five times the blank amount were affected by this contamination. The results for TPH-gasoline in project samples BBITP110(8.0), BBITP110(12.0), BBITP113(3.0), BBITP113(5.5), BBITP111(1.5), BBITP111(6.0), BBITP111(3.0) and BBITP110(1.5) were changed to non-detect (U) since the sample values were less than five times the blank amount.
6. Laboratory method blank QC312369 had a detected level of TPH-gasoline at 0.018 mg/kg. Values for TPH-gasoline less than five times the blank amount were affected by this contamination. The results for TPH-gasoline in project samples BBSB119(2.5) and BBSB119(4.5) were changed to non-detect (U) since the sample values were less than five times the blank amount.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

F. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exception:

1. The percent recoveries for surrogate 4-bromofluorobenzene were outside the 65%-135% project acceptance criteria in samples BBSB109(0.0) at 56% and DUP(050512) at 60%. The non-detected result for TPH-gasoline in sample BBSB109(0.0) were qualified as estimated (UJ). The detected result for TPH-gasoline in sample DUP(050512) was qualified as estimated with a low bias (J-).

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

G. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recovery for TPH-gasoline was outside the 65%-135% project acceptance criteria in QC sample 179425-001 MS at 58%. The parent sample was associated with an unrelated site, and qualification was not required. QC Batch 101984
2. The percent recoveries for TPH-gasoline were outside the 65%-135% project acceptance criteria in QC samples BBSB108(0.0) MS/MSD at 45% and 45%, respectively. The parent sample was non-detect for TPH-gasoline and qualified as estimated (UJ). QC Batch 101984
3. The percent recovery for TPH-gasoline was outside the 65%-135% project acceptance criteria in QC sample 179425-004 MS at 58%. The parent sample was associated with a site unrelated to the project site, and qualification was not required. QC Batch 101984

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery failure.

I. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations, and surrogate values; in addition to re-calculation of the reported results for TPH-gasoline in these samples. The results for TPH - gasoline were verified as correctly reported by the laboratory.

V. Total Petroleum Hydrocarbons – Diesel/Fuel Oil (8015B)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C, F and H.

A. Reporting Limits

The laboratory reporting limits for TPH–diesel and fuel oil in water and soil matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC292456 had a detected level of TPH-fuel oil at 0.37 mg/kg. Values for TPH-fuel oil less than five times the blank amount were affected by this contamination. The result for TPH-fuel oil in project sample BBD2TP105(15.0) was changed to non-detect (U).
2. Laboratory method blank QC292868 had a detected level of TPH-diesel 0.48 mg/kg. Values for TPH-diesel less than five times the blank amount were affected by this contamination. The result for TPH-diesel in project sample BB1TP106(2.5) was changed to non-detect (U).

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

F. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. Samples with failing surrogate recoveries which required dilutions of five-fold or greater did not require qualification and were not included in this report.
2. The percent recovery for surrogate hexacosane was outside the 65%-135% project acceptance criteria in sample DUP(050512) (179445-007) at 140%. The detected results for TPH-diesel and

TPH-fuel oil in this sample were qualified as estimated with a high bias (J+).

3. The percent recovery for surrogate hexacosane was outside the 65%-135% project acceptance criteria in sample BB1TP106(2.5) (179266-003) at 64%. The detected results for TPH-diesel and TPH-fuel oil were qualified as estimated with a low bias (J-).

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

G. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recoveries for TPH-diesel in QC samples 179062-003 MS/MSD were outside the 65%-135% project acceptance criteria at 136% and -220%, respectively. The parent sample was associated with a site unrelated site to the project site and qualification was not required. QC Batch 101505
2. The percent recovery for TPH-diesel in QC sample BB2ATP100(1.0) MSD was outside the 65%-135% project acceptance criteria at 156%. The detected result for TPH-diesel in the parent sample was qualified as estimated with a high bias (J+). QC Batch 101361
3. The percent recoveries for TPH-diesel in QC samples 179446-002 MS/MSD were outside the 65%-135% project acceptance criteria at 6% and 140%, respectively. The parent sample was associated with a site unrelated to the project site and qualification was not required. QC Batch 102056

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery failure.

I. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations, and surrogate values; in addition to re-calculation of the reported results for TPH-diesel and TPH-fuel oil in these samples. The results for TPH-diesel and TPH-fuel oil were verified as correctly reported by the laboratory.

VI. Organochlorine Pesticides (8081A)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections D, E, G, H and I.

A. Reporting Limits

The laboratory reporting limits for pesticides in water and soil matrix samples met the project required reporting limits, with the following exceptions:

1. The reporting limits for all soils were raised due to dry weight correction.
2. The laboratory reporting limit did not meet the project required reporting limit listed in Table 2-6.5-1 of the QAPP for toxaphene in soil matrix samples. The laboratory reported 60 ug/kg for this compound. The project required reporting limit was 40 ug/kg.
3. The results for all pesticide compounds in sample BBITP113(3.0) (182254-003) were reported as non-detected at a five-fold dilution due to the nature of the sample matrix. The reporting limits were raised by the dilution factor.
4. The results for all pesticide compounds in sample BBSB119(2.5) (182357-001) were reported as non-detected at a ten-fold dilution due to the nature of the sample matrix. The reporting limits were raised by the dilution factor.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exception:

1. Laboratory method blank QC295453 had a detected level of delta-BHC at 0.005 ug/L. The associated samples were non-detect for delta-BHC, and qualification was not required.
2. Laboratory method blank QC313628 had a detected level of endrin aldehyde at 1.9 ug/kg. The associated samples were non-detect for endrin aldehyde, and qualification was not required.

D. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples with the following exceptions:

1. The 5/17/05 soil matrix initial calibration analyzed on instrument GC23B had two compounds with percent relative standard deviations (%RSD) greater than the 20% method acceptance criteria: beta-BHC at 28%, and delta-BHC at 24%. The non-detect results for these compounds in the associated samples were qualified as estimated (UJ).
2. The 5/11/05 soil matrix initial calibration analyzed on instrument GC16A had one compound with the %RSD greater than the 20%

method acceptance criteria, 4,4'-DDT at 25%. The result for 4,4'-DDT in the associated sample was qualified as estimated (J).

3. The 9/28/05 soil matrix initial calibration analyzed on instrument GC23A had two compounds with the %RSD greater than the 20% method acceptance criteria, beta-BHC at 27% and delta-BHC at 23%. The non-detect results for these compounds in the associated samples were qualified as estimated (UJ).
4. The 9/28/05 soil matrix initial calibration analyzed on instrument GC23B had one compound with the %RSD greater than the 20% method acceptance criteria, delta-BHC at 21%. The non-detected results for delta-BHC in the associated samples were qualified as estimated (UJ).

See Table 2 of this report for a summary of qualifications due to initial calibration percent RSD failure.

E. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples with the following exceptions:

1. Qualification was not required for samples with non-detect results associated with high-failing CCV standards. Those failures were not noted in this report.
2. The 5/3/05 at 23:33 soil matrix CCV analyzed on instrument GC16B had two compounds with percent differences less than -15%, 4,4'-DDT (-35%) and methoxychlor (-26%). The associated samples were non-detect and qualified as estimated (UJ).
3. The 5/18/05 at 16:51 soil matrix CCV analyzed on instrument GC23B had three compounds with percent differences less than -15%, beta-BHC (-21%), delta-BHC (-17%) and endrin aldehyde (-16%). The associated samples were non-detect and qualified as estimated (UJ).
4. The 5/19/05 at 00:06 soil matrix CCV analyzed on instrument GC23B had two compounds with percent differences less than -15%, beta-BHC (-25%) and delta-BHC (-16%). The associated samples were non-detect and qualified as estimated (UJ).
5. The same CCV (5/19/05 at 00:06) had three compounds with percent differences greater than +15%, dieldrin (+18%), 4,4'-DDE (+22%) and 4,4'-DDD (+27%). The associated samples were non-detect for 4,4'-DDE and 4,4'-DDD, and qualification was not required. The detected results for dieldrin in the associated samples were qualified as estimated with a high bias (J+).
6. The 5/13/05 at 00:16 soil matrix CCV analyzed on instrument GC16B had one compound with a percent difference less than -15%, 4,4'-DDT (-16%). The associated samples were non-detect and qualified as estimated (UJ).

7. The 5/4/05 at 04:08 soil matrix CCV analyzed on instrument GC16B had two compounds with percent differences less than -15%, 4,4'-DDT (-21%) and methoxychlor (-20%). The associated samples were non-detect and qualified as estimated (UJ).
8. The 5/3/05 at 23:33 soil matrix CCV analyzed on instrument GC16B had two compounds with percent differences less than -15%, 4,4'-DDT (-35%) and methoxychlor (-26%). The associated samples were non-detect and qualified as estimated (UJ).
9. The 5/13/05 at 12:50 soil matrix CCV analyzed on instrument GC16B had one compound with a percent difference greater than +15%, 4,4'-DDD (+17%). The detected results for 4,4'-DDD in the associated samples were qualified as estimated with a high bias (J+). Qualification was not required for non-detected results.
10. The same CCV (5/13/05 at 12:50) had one compound with a percent difference less than -15%, 4,4'-DDT (-25%). The associated samples were non-detect and qualified as estimated (UJ).
11. The 6/4/05 at 07:53 soil matrix CCV analyzed on instrument GC23B had one compound with a percent difference less than –15%, 4,4'-DDT (-17%). The associated samples were non-detect and qualified as estimated (UJ).
12. The 10/20/05 at 10:18 soil matrix CCV analyzed on instrument GC23A had one compound with a percent difference less than -15%, delta-BHC (-16%). The associated samples were non-detect and qualified as estimated (UJ).
13. The 10/20/05 at 16:44 soil matrix CCV analyzed on instrument GC23A had two compounds with percent differences less than -15%, beta-BHC (-21%) and delta-BHC (-24%). The associated samples were non-detect and qualified as estimated (UJ).

See Table 2 of this report for a summary of qualifications due to continuing calibration percent difference failure.

F. Performance Evaluation Mix (PEM) Check Standards

All PEM check standards met the project degradation criteria of 15% for endrin and 4,4'-DDT.

G. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. Samples with failing surrogate recoveries which required dilutions of five-fold or greater did not require qualification and were not included in this report.
2. Samples with non-detect results and high-failing surrogate recoveries did not require qualification, and were not noted in this report.

3. The percent recoveries for surrogate tetrachloro-m-xylene (TCMX) were outside the 65% - 135% project acceptance criteria in samples BB02TP108(7.0) (179089-002) at 62% and BBD2TP105(15.0) (179182-002) at 63%. The compounds associated with this surrogate, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, aldrin, heptachlor, heptachlor epoxide and endosulfan I, were non-detect and qualified as estimated (UJ).
4. The percent recovery for surrogate decachlorobiphenyl (DCB) was outside the 65%-135% project acceptance criteria in sample BBIPZ101 (179714-001) at 55%. The compounds associated with this surrogate, alpha-chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endosulfan II, endosulfan sulfate, endrin, endrin aldehyde, gamma-chlordane, methoxychlor and toxaphene, were non-detect and qualified as estimated (UJ).
5. The percent recoveries for surrogate TCMX were outside the 65% - 135% project acceptance criteria in samples BBITP110(12.0) (182254-002) at 55%, BBITP110(8.0) (182254-001) at 60%, BBITP111(6.0) (182254-006) at 57% and BBITP113(5.5) (182254-004) at 54%. The compounds associated with this surrogate, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, aldrin, heptachlor, heptachlor epoxide and endosulfan I, were qualified as estimated with a low bias (J-/UJ).

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

H. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples with the following exception:

1. The percent recovery for 4,4'-DDT was outside the 65% - 135% project acceptance criteria in laboratory control sample QC292397 at 62%. The non-detected results for 4,4'-DDT in the associated samples were qualified as estimated (UJ). QC Batch 101667

See Table 2 of this report for a summary of qualifications due to laboratory control sample percent recovery failure.

I. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spike and matrix spike duplicates associated with the project samples with the following exceptions:

1. The percent recovery for 4,4'-DDT was outside the 65%-135% project acceptance criteria in QC sample BB1TP106(3.5) MSD at 64%. The non-detected result for 4,4'-DDT in the parent sample was qualified as estimated (UJ).
2. The percent recovery for 4,4'-DDT in QC sample 182560-001 MS was outside the 65%-135% project acceptance criteria at 154%. The parent sample was associated with a site unrelated site to the project site and qualification was not required. QC Batch 106900.

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery failure.

J. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of PEM standards, initial and continuing calibrations and surrogate values; in addition to re-calculation of all reported results for pesticides in these samples. The results for pesticides were verified as correctly reported by the laboratory.

VII. Polychlorinated Biphenyls (PCBs) (8082)

Overall, the data are usable as reported with any added qualifiers. Qualification was required for the reason noted in Section F.

A. Reporting Limits

The laboratory reporting limits for PCBs in water and soil matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

D. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples. Qualification was not required for samples with non-detect results associated with high-failing CCV standards. Those failures were not noted in this report.

F. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. The percent recovery for surrogate decachlorobiphenyl (DCB) was outside the 65%-135% project acceptance criteria in sample BBIPZ101 at 44%. The PCBs associated with this surrogate, PCB-1248, PCB-1254 and PCB-1260, were non-detect and qualified as estimated (UJ).

2. Samples with non-detect results and high-failing surrogate recoveries did not require qualification, and were not noted in this report.

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

G. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spike and matrix spike duplicate associated with the project samples.

I. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations and surrogate values; in addition to re-calculation of all reported results for PCBs in these samples. The results for PCBs were verified as correctly reported by the laboratory.

VIII. Total and Dissolved Metals (6010B/6020/7470A/7471A)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections F and H.

A. Reporting Limits

The laboratory reporting limits for total and dissolved metals in water and soil matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC293915 had detected levels of antimony (0.095 mg/kg), cobalt (0.0038 mg/kg), lead (0.012 mg/kg), molybdenum (0.028 mg/kg) and thallium (0.035 mg/kg). The associated samples had levels of cobalt and lead greater than five times the blank amounts, and qualification was not required. The results for antimony, molybdenum and thallium in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.

2. Laboratory method blank QC293127 had a detected level of molybdenum (0.19 mg/kg). The results for molybdenum in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.
3. Laboratory method blank QC292252 had detected levels of chromium (0.068 mg/kg), lead (0.02 mg/kg), selenium (0.11 mg/kg) and zinc (0.22 mg/kg). The associated samples had levels of chromium, lead and zinc greater than five times the blank amounts, and qualification was not required. The results for selenium in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.
4. Laboratory method blank QC294826 had detected levels of arsenic (0.24 mg/kg), lead (0.013 mg/kg), molybdenum (0.012 mg/kg) and thallium (0.017 mg/kg). The associated samples had levels of these metals greater than five times the blank amounts, and qualification was not required.
5. Laboratory method blank QC294960 had a detected level of zinc (0.078 mg/kg). The associated samples had levels of zinc greater than five times the blank amount, and qualification was not required.
6. Laboratory method blank QC313185 had detected levels of chromium (0.063 mg/kg), copper (0.18 mg/kg) and molybdenum (0.030 mg/kg). The associated samples had levels of these metals greater than five times the blank amounts, and qualification was not required.
7. Laboratory method blank QC313706 had detected levels of chromium (0.046 mg/kg), copper (0.066 mg/kg), molybdenum (0.041 mg/kg) and nickel (0.037 mg/kg). The associated samples had levels of these metals greater than five times the blank amounts, and qualification was not required.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. Initial and Continuing Calibrations

All initial and continuing calibration verification standards associated with the project samples met QC acceptance criteria.

E. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

F. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB1ATP101-G2 MS and/or MSD for antimony at 35% and 34%, barium at 66%, copper at 27% and -12%, lead at 71% and 62%, vanadium at 70%, and zinc at 44% and

20%. The detected results for these metals in the associated samples were qualified as estimated with a low bias (J-). QC Batch 101496

2. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BBD2TP105 (11.5) MS and/or MSD for antimony at 37% and 34%, barium at 68% and 66%, chromium at 65%, lead at 41% and 18%, nickel at 40%, vanadium at 66% and 48%, and zinc at 49% and 41%. The detected results for these metals in the associated samples were qualified as estimated with a low bias (J-). QC Batch 101627
3. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB1TP106 (6.0) MS and/or MSD for antimony at 31% and 40%, chromium at 48% and -74%, nickel at 60% and -75%, and vanadium at -29%. In addition, the relative percent differences were outside the 30% project acceptance criteria for chromium at 55%, nickel at 58% and vanadium at 53%. The results for these metals in the associated samples were qualified as estimated (J-/UJ) for percent recovery and/or RPD failure. In the same QC samples, the percent recoveries and RPDs were outside the 75%-125% recovery and 30% RPD QC acceptance criteria for barium, lead and zinc. The amounts of these metals present in the parent sample were greater than four times the amounts spiked, and qualification was not required. QC Batch 101858
4. The percent recoveries for mercury in QC samples BB1TP107(7.0) MS/MSD were outside the 75%-125% project acceptance criteria at 62% and 62%, respectively. The detected results for mercury in the associated samples were qualified as estimated with a low bias (J-). QC Batch 101939
5. The percent recoveries for several metals were outside the 75%-125% project acceptance criteria in QC samples BB2ASB100(4.0) MS and/or MSD. The recoveries for antimony were 36% and 38%, barium at -30% and -29%, vanadium at 71%, and zinc at 494%. In addition, the RPD for zinc failed the 30% project acceptance criteria at 92%. The amount of barium in the parent sample was greater than four times the amount spiked, and qualification was not required. The detected results for antimony and vanadium were qualified as estimated with a low bias (J-). The detected results for zinc in the associated samples were qualified as estimated with a high bias (J+) for percent recovery and RPD failure. QC Batch 102065
6. The percent recoveries for several metals were outside the 75%-125% project acceptance criteria in QC samples BBSB101(0.5) MS and/or MSD. The recoveries for antimony were 45% and 47%, barium at 66%, chromium at 166% and 186%, nickel at 127%, vanadium at 142% and zinc at 137% and 132%. The detected results for antimony and barium were qualified as estimated with a low bias (J-). The detected results for chromium, nickel, vanadium and zinc were qualified as estimated with a high bias (J+). QC Batch 102304

7. The percent recoveries for several metals were outside the 75%-125% project acceptance criteria in QC samples BBSB106(0.5) MS and/or MSD. The recoveries were barium at -25% and 56%, chromium at 20%, lead at 65%, nickel at 45%, vanadium at 35%, and zinc at -441% and -334%. The amounts of barium and zinc in the parent sample were greater than four times the amounts spiked, and qualification was not required. The detected results for chromium, nickel, lead and vanadium were qualified as estimated with a low bias (J-). QC Batch 102337
8. The percent recoveries for antimony were outside the 75%-125% project acceptance criteria in QC samples 182483-002 MS/MSD. The parent sample was associated with a site unrelated to the project site and qualification was not required QC Batch 106787
9. The percent recoveries for antimony were outside the 75%-125% project acceptance criteria in QC samples BBSB119(4.5) MS/MSD at 44% and 41%. The detected results for antimony were qualified as estimated with a low bias (J-). QC Batch 106917

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery and RPD failures.

G. ICP Interference Check Standards

All QC criteria were met for the ICP interference check standards associated with the project samples.

H. ICP Serial Dilution

ICP serial dilutions met method requirements with the following exceptions:

1. The percent difference failed the 10% difference project acceptance criteria for molybdenum in the serial dilution of sample BB2ASB100(4.0) at 22%. The results for molybdenum in the associated samples were qualified as estimated (J). QC Batch 102065
2. The percent differences failed the 10% difference project acceptance criteria for molybdenum at 20% and zinc at 24% in the serial dilution of sample BB2TP105(11.5). The results for molybdenum and zinc in the associated samples were qualified as estimated (J/UJ). QC Batch 101627
3. The percent difference failed the 10% difference project acceptance criteria for molybdenum in the serial dilution of sample BB1TP106(6.0) at 47%. The results for molybdenum in the associated samples were qualified as estimated (J). QC Batch 101858
4. The percent difference failed the 10% difference project acceptance criteria for vanadium in the serial dilution of sample BB1SB101(0.5) at 13%. The results for vanadium in the associated samples were qualified as estimated (J). QC Batch 102304
5. The percent difference failed the 10% difference project acceptance criteria for molybdenum in the serial dilution of sample BBSB106(0.5)

at 96%. The results for molybdenum in the associated samples were qualified as estimated (J). QC Batch 102337

6. The percent difference failed the 10% difference project acceptance criteria for zinc in the serial dilution of sample BB1PZ101 at 27%. The results for total and dissolved zinc in the associated sample were qualified as estimated (J). QC Batch 104577

See Table 2 of this report for a summary of qualifications due to serial dilution failure.

I. Compound Identification and Quantitation

Samples BBD2TP105(11.5) (179182-001), BBD2TP105(15.0) (179182-002), BBD2TP106(2.0) (179182-003), BBSB119(2.5) (182357-001) and BBSB119(4.5) (182357-002) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations; in addition to re-calculation of all reported results for metals in these samples. The results for metals were verified as correctly reported by the laboratory.

The following paragraphs highlight the essential findings of the field duplicate samples:

Field duplicate precision was evaluated by calculating the relative percent difference (RPD) between detected results in the original sample and its associated duplicate. The control limit used for field duplicates was a relative percent difference less than or equal to 50 percent, or the absolute difference of the two results must be less than twice the reporting limit for those analytes that were at or near the detection limit. Two samples were collected in duplicate for the Baker Beach sampling event.

Project Sample Primary ID	Laboratory Sample ID	Project Sample Duplicate ID	Laboratory Sample ID
BBSB109(0.0)	179445-006	DUP(050512)	179445-007
BB1TP106(2.5)	179266-003	DUP(050405)	179266-004

The attached Table 3 summarizes the field duplicate sample results. The detected results of the original sample and the associated duplicate sample were compared and the calculated relative percent differences (RPDs) reported.

All RPDs met the 50 percent precision control limit requirement (or +/- two times the reporting limit for values at or near the detection limit), with the following exceptions:

1. In field duplicates BB1TP106(2.5) and DUP(050405), the relative percent differences failed for chromium at 148%, cobalt at 104%, nickel at 155%, barium at 76%, beryllium at 74%, copper at 90%, lead at 149%, mercury at 157%, diesel at 196%, fuel oil at 193%, dieldrin at 200%, 4,4'-DDE at 200%, 4,4'-DDD at 200%, 4,4'-DDT at 200%, alpha-chlordane at 200%, phenanthrene at 200%, fluoranthene at 200%, pyrene at 200%, benzo(a)anthracene at 200%, chrysene at 200%, benzo(b)fluoranthene at 200%, benzo(k)fluoranthene at 187% and benzo(a)pyrene at 200%.
2. In field duplicates BBSB109(0.0) and DUP(050512), the relative percent differences failed for lead at 165%, chromium at 55%, molybdenum at 123%, nickel at 59%, mercury at 68%, para-isopropyl toluene at 200%, phenanthrene at 91%, fluoranthene at 96%, pyrene at 89%, benzo(a)anthracene at 102%, chrysene at 96%, benzo(b)fluoranthene at 107%, benzo(k)fluoranthene at 89%, benzo(a)pyrene at 109%, indeno(1,2,3cd)pyrene at 62% and benzo(g,h,i)perylene at 72%.

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results in the field duplicate pairs listed above may be due to the sample matrix, sampling or laboratory technique, sample non-homogeneity, or method defects. With the exceptions noted above, the results between the field duplicate pairs matched well. Since the effect on the quality of the data is not known, data is not qualified for field duplicate failure.

SUMMARY

The attached Table 1 summarizes the site samples, laboratory sample IDs, sampling dates, analysis methods and sample types. The attached Table 2 summarizes the data qualifications of all project samples for each test method included in the data package.

USABILITY

The quality control criteria were reviewed, and other than those discussed above, all criteria were met and the data are considered acceptable. Estimated sample results (J/UJ) are usable only for limited purposes. Rejected sample results are not usable for any purpose. Based upon the full and cursory validation, all other results are considered valid and usable for all purposes.

VALIDATION QUALIFIERS IDENTIFICATION

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October, 1999.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. *A minus sign (-) indicates the numerical value has a low bias. A plus sign (+) indicates the numerical value has a high bias.*

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Table 1
Summary of Samples/Analyses
Baker Beach
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BB1ATP101-G1	178846-001	7-Apr-05	PAHs (8270C-SIM), Total Metals (6020/7471A)	Soil
BB1ATP101-G2	178846-002	7-Apr-05	PAHs (8270C-SIM), Total Metals (6020/7471A)	Soil
BB2ATP104(8.0)	178951-001	13-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB2ATP100(1.0)	178951-002	14-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB2ATP101(14.0)	178951-003	14-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1TP102(4.0)	178951-004	15-Apr-05	VOCs (8260B), PAHs (8270C-SIM), Dioxins/Furans (8290), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1TP106(5.0)	179049-001	21-Apr-05	VOCs (8260B), PAHs (8270C-SIM), Dioxins/Furans (8290), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB02TP108(4.0)	179089-001	25-Apr-05	VOCs (8260B), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), Total Metals (6020/7471A)	Soil
BB02TP108(7.0)	179089-002	25-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), Total Metals (6020/7471A)	Soil
BB02TP108(10.0)	179089-003	25-Apr-05	VOCs (8260B), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), Total Metals (6020/7471A)	Soil
BBD2TP105(11.5)	179182-001	28-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BBD2TP105(15.0)	179182-002	28-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil

Table 1
Summary of Samples/Analyses
Baker Beach
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BBD2TP106(2.0)	179182-003	28-Apr-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BB2ASB100(4.0)	179384-001	9-May-05	PAHs (8270C-SIM)), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A	Soil
BB19B110(3.5)	179445-001	12-May-05	PAHs (8270C-SIM)), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A	Soil
BB29B102(0.0)	179445-002	12-May-05	PAHs (8270C-SIM), Pesticides (8081A), Total Metals (6020/7471A)	Soil
BB29B102(2.0)	179445-003	12-May-05	PAHs (8270C-SIM), Pesticides (8081A), Total Metals (6020/7471A)	Soil
BBSB108(0.0)	179445-004	12-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BBSB108(2.0)	179445-005	12-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BBSB109(0.0)	179445-006	12-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil(1)
DUP(050512)	179445-007	12-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	FD(1)
BBSB109(2.0)	179445-008	12-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB2ASB112(0.5)	179445-009	13-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1SB113(0.5)	179445-010	13-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1SB114(0.5)	179445-011	13-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1TP106(6.0)	179266-001	4-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil

Table 1
Summary of Samples/Analyses
Baker Beach
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BB1TP106(3.5)	179266-002	4-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1TP106(2.5)	179266-003	4-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil(2)
DUP(050405)	179266-004	4-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	FD(2)
BB1TP107(7.0)	179266-005	4-May-05	Total Metals (6020/7471A)	Soil
SOILCOMP	179266-006	5-May-05	VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1TP108(5.0)	179266-007	5-May-05	VOCs (8260B), PAHs (8270C-SIM), Dioxins/Furans (8290), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BBSB101(0.5)	179564-001	20-May-05	VOCs (8260B), PAHs (8270C-SIM), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BBSB106(0.5)	179603-001	23-May-05	VOCs (8260B), PAHs (8270C-SIM), Pesticides (8081A), PCBs (8082), Total Metals (6020/7471A)	Soil
BB1PZ101	179714-001	27-May-05	VOCs (8260B), PAHs (8270C-SIM), Dioxins/Furans (8290), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Dissolved Metals (6020/7470A)	Water
TB-1	179714-002	27-May-05	VOCs (8260B), TPH-Gasoline (8015B)	Trip Blank

VOCs: Volatile Organic Compounds
PAHs: Polynuclear Aromatic Hydrocarbons
TPH: Total Petroleum Hydrocarbons
PCBs: Polychlorinated Biphenyls
FD: Field duplicate of previous numbered sample, (1), (2), etc.

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB1ATP101-G1	178846-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1ATP101-G1	178846-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB1ATP101-G1	178846-001	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB1ATP101-G1	178846-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB1ATP101-G1	178846-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB1ATP101-G1	178846-001	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB1ATP101-G2	178846-002	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB2ATP104(8.0)	178951-001	8260B	Acetone	67-64-1	J+	Surrogate %R failure
BB2ATP100(1.0)	178951-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	8015B	TPH-Diesel	68334-30-5	J+	MS/MSD %R failure
BB2ATP100(1.0)	178951-002	8260B	Methylene Chloride	75-09-2	J+	Surrogate %R failure
BB2ATP101(14.0)	178951-003	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB2ATP101(14.0)	178951-003	8260B	Methylene Chloride	75-09-2	J+	Surrogate %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB1TP102(4.0)	178951-004	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB1TP102(4.0)	178951-004	8260B	Acetone	67-64-1	J+	Surrogate %R failure
BB1TP102(4.0)	178951-004	8260B	2-Butanone	78-93-3	J+	Surrogate %R failure
BBITP106(5.0)	179049-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBITP106(5.0)	179049-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BBITP106(5.0)	179049-001	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BBITP106(5.0)	179049-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BBITP106(5.0)	179049-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBITP106(5.0)	179049-001	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB02TP108(4.0)	179089-001	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure
BB02TP108(4.0)	179089-001	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BB02TP108(7.0)	179089-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB02TP108(7.0)	179089-002	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure
BB02TP108(7.0)	179089-002	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BB02TP108(7.0)	179089-002	8081A	delta-BHC	319-86-8	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	Aldrin	309-00-2	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	Endosulfan I	959-98-8	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	beta-BHC	319-85-7	UJ	Surrogate %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB02TP108(7.0)	179089-002	8081A	Heptachlor epoxide	1024-57-3	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	Heptachlor	76-44-8	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	alpha-BHC	319-84-6	UJ	Surrogate %R failure
BB02TP108(7.0)	179089-002	8081A	gamma-BHC (lindane)	58-89-9	UJ	Surrogate %R failure
BB02TP108(10.0)	179089-003	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	6020	Copper	7440-50-8	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	6020	Zinc	7440-66-6	J-	MS/MSD %R failure
BB02TP108(10.0)	179089-003	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure
BB02TP108(10.0)	179089-003	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BBD2TP105(11.5)	179182-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Chromium	7440-47-3	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BBD2TP105(11.5)	179182-001	6020	Nickel	7440-02-0	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Selenium	7782-49-2	U	Method blank contamination
BBD2TP105(11.5)	179182-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBD2TP105(11.5)	179182-001	6020	Zinc	7440-66-6	J-	MS/MSD %R failure, ICP Serial dilution %D failure
BBD2TP105(11.5)	179182-001	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure
BBD2TP105(11.5)	179182-001	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BBD2TP105(15.0)	179182-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Chromium	7440-47-3	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BBD2TP105(15.0)	179182-002	6020	Nickel	7440-02-0	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Selenium	7782-49-2	U	Method blank contamination
BBD2TP105(15.0)	179182-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBD2TP105(15.0)	179182-002	6020	Zinc	7440-66-6	J-	MS/MSD %R failure, ICP Serial dilution %D failure
BBD2TP105(15.0)	179182-002	8015B	TPH-Motor Oil		U	Blank contamination
BBD2TP105(15.0)	179182-002	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BBD2TP105(15.0)	179182-002	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BBD2TP105(15.0)	179182-002	8081A	alpha-BHC	319-84-6	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	delta-BHC	319-86-8	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	Endosulfan I	959-98-8	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	Heptachlor epoxide	1024-57-3	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	Aldrin	309-00-2	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	Heptachlor	76-44-8	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	beta-BHC	319-85-7	UJ	Surrogate %R failure
BBD2TP105(15.0)	179182-002	8081A	gamma-BHC (lindane)	58-89-9	UJ	Surrogate %R failure
BBD2TP106(2.0)	179182-003	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Chromium	7440-47-3	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BBD2TP106(2.0)	179182-003	6020	Nickel	7440-02-0	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Selenium	7782-49-2	U	Method blank contamination
BBD2TP106(2.0)	179182-003	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBD2TP106(2.0)	179182-003	6020	Zinc	7440-66-6	J-	MS/MSD %R failure, ICP Serial dilution %D failure
BBD2TP106(2.0)	179182-003	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, LCS %R failure
BBD2TP106(2.0)	179182-003	8081A	Methoxychlor	72-43-5	UJ	CCV %D failure
BBD2TP106(2.0)	179182-003	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J-	Internal standard area failure
BBD2TP106(2.0)	179182-003	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J-	Internal standard area failure
BBD2TP106(2.0)	179182-003	8270C-SIM	Benzo(a)pyrene	50-32-8	J-	Internal standard area failure
BBD2TP106(2.0)	179182-003	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
BB1TP106(6.0)	179266-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP106(6.0)	179266-001	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
BB1TP106(6.0)	179266-001	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1TP106(6.0)	179266-001	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
BB1TP106(6.0)	179266-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
BB1TP106(6.0)	179266-001	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
BB1TP106(6.0)	179266-001	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
BB1TP106(6.0)	179266-001	8081A	4,4'-DDT	50-29-3	J-	CCV %D failure
BB1TP106(6.0)	179266-001	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
BB1TP106(6.0)	179266-001	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J+	Surrogate %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB1TP106(6.0)	179266-001	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Acenaphthylene	208-96-8	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Phenanthrene	85-01-8	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Anthracene	120-12-7	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Fluoranthene	206-44-0	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Pyrene	129-00-0	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Benzo(a)pyrene	50-32-8	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Benzo(a)anthracene	56-55-3	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Chrysene	218-01-9	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Naphthalene	91-20-3	J+	Surrogate %R failure
BB1TP106(6.0)	179266-001	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J+	Surrogate %R failure
BB1TP106(3.5)	179266-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP106(3.5)	179266-002	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
BB1TP106(3.5)	179266-002	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1TP106(3.5)	179266-002	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
BB1TP106(3.5)	179266-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
BB1TP106(3.5)	179266-002	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
BB1TP106(3.5)	179266-002	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
BB1TP106(3.5)	179266-002	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure, MS/MSD %R failure
BB1TP106(3.5)	179266-002	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
BB1TP106(2.5)	179266-003	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP106(2.5)	179266-003	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
BB1TP106(2.5)	179266-003	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1TP106(2.5)	179266-003	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
BB1TP106(2.5)	179266-003	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
BB1TP106(2.5)	179266-003	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
BB1TP106(2.5)	179266-003	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
BB1TP106(2.5)	179266-003	8015B	TPH-Diesel	68334-30-5	UJ	Blank contamination, Surrogate %R failure
BB1TP106(2.5)	179266-003	8015B	TPH-Motor Oil		J-	Surrogate %R failure
BB1TP106(2.5)	179266-003	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
BB1TP106(2.5)	179266-003	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
DUP(050405)	179266-004	6020	Antimony	7440-36-0	J-	MS/MSD %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
DUP(050405)	179266-004	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
DUP(050405)	179266-004	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
DUP(050405)	179266-004	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
DUP(050405)	179266-004	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
DUP(050405)	179266-004	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
DUP(050405)	179266-004	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
DUP(050405)	179266-004	8081A	4,4'-DDT	50-29-3	J-	Initial Calibration %RSD failure, CCV %D failure
DUP(050405)	179266-004	8081A	4,4'-DDD	72-54-8	J+	CCV %D failure
DUP(050405)	179266-004	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
DUP(050405)	179266-004	8270C-SIM	Fluoranthene	206-44-0	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Anthracene	120-12-7	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Phenanthrene	85-01-8	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Pyrene	129-00-0	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Naphthalene	91-20-3	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J+	IS area failure, Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Acenaphthylene	208-96-8	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Benzo(a)anthracene	56-55-3	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Chrysene	218-01-9	J+	Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J+	IS area failure, Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J+	IS area failure, Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Benzo(a)pyrene	50-32-8	J+	IS area failure, Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J+	IS area failure, Surrogate %R failure
DUP(050405)	179266-004	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J+	IS area failure, Surrogate %R failure
BB1TP107(7.0)	179266-005	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP107(7.0)	179266-005	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
BB1TP107(7.0)	179266-005	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1TP107(7.0)	179266-005	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
BB1TP107(7.0)	179266-005	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
BB1TP107(7.0)	179266-005	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
BB1TP107(7.0)	179266-005	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
SOILCOMP	179266-006	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
SOILCOMP	179266-006	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
SOILCOMP	179266-006	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
SOILCOMP	179266-006	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
SOILCOMP	179266-006	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
SOILCOMP	179266-006	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
SOILCOMP	179266-006	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
SOILCOMP	179266-006	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
SOILCOMP	179266-006	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
BB1TP108(5.0)	179266-007	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB1TP108(5.0)	179266-007	6020	Chromium	7440-47-3	J-	MS/MSD %R & RPD failure
BB1TP108(5.0)	179266-007	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BB1TP108(5.0)	179266-007	6020	Nickel	7440-02-0	J-	MS/MSD %R & RPD failure
BB1TP108(5.0)	179266-007	6020	Vanadium	7440-62-2	J-	MS/MSD %R & RPD failure
BB1TP108(5.0)	179266-007	6020	Zinc	7440-66-6	J	ICP Serial dilution %D failure
BB1TP108(5.0)	179266-007	7471A	Mercury	7439-97-6	J-	MS/MSD %R failure
BB1TP108(5.0)	179266-007	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
BB1TP108(5.0)	179266-007	8260B	Methylene Chloride	75-09-2	U	Method blank contamination
BB1TP108(5.0)	179266-007	8260B	m,p-Xylenes	1330-20-7	J+	Surrogate %R failure
BB1TP108(5.0)	179266-007	8260B	o-Xylene	95-47-6	J+	Surrogate %R failure
BB1TP108(5.0)	179266-007	8260B	1,2,4-Trimethylbenzene	95-63-6	J+	Surrogate %R failure
BB1TP108(5.0)	179266-007	8260B	Benzene	71-43-2	J+	Surrogate %R failure
BB1TP108(5.0)	179266-007	8260B	Toluene	108-88-3	J+	Surrogate %R failure
BB1TP108(5.0)	179266-007	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J-	Internal standard area failure
BB1TP108(5.0)	179266-007	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J-	Internal standard area failure
BB1TP108(5.0)	179266-007	8270C-SIM	Benzo(a)pyrene	50-32-8	J-	Internal standard area failure
BB1TP108(5.0)	179266-007	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J-	Internal standard area failure
BB1TP108(5.0)	179266-007	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
BB1TP108(5.0)	179266-007	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J-	Internal standard area failure
BB2ASB100(4.0)	179384-001	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB2ASB100(4.0)	179384-001	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BB2ASB100(4.0)	179384-001	6020	Thallium	7440-28-0	U	Method blank contamination
BB2ASB100(4.0)	179384-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB2ASB100(4.0)	179384-001	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB2ASB100(4.0)	179384-001	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
BB19B110(3.5)	179445-001	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB19B110(3.5)	179445-001	6020	Thallium	7440-28-0	U	Method blank contamination
BB19B110(3.5)	179445-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB19B110(3.5)	179445-001	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB19B110(3.5)	179445-001	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BB19B110(3.5)	179445-001	8081A	beta-BHC	319-85-7	UJ	Initial Calibration %RSD failure, CCV %D failure
BB19B110(3.5)	179445-001	8081A	delta-BHC	319-86-8	UJ	Initial Calibration %RSD failure, CCV %D failure
BB19B110(3.5)	179445-001	8081A	Dieldrin	60-57-1	J+	CCV %D failure
BB19B110(3.5)	179445-001	8081A	Endrin aldehyde	7421-93-4	UJ	CCV %D failure
BB19B110(3.5)	179445-001	8270C-SIM	Acenaphthene	83-32-9	J+	LCS %R failure
BB29B102(0.0)	179445-002	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BB29B102(0.0)	179445-002	6020	Thallium	7440-28-0	U	Method blank contamination
BB29B102(0.0)	179445-002	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB29B102(0.0)	179445-002	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB29B102(0.0)	179445-002	8081A	beta-BHC	319-85-7	UJ	Initial Calibration %RSD failure, CCV %D failure
BB29B102(0.0)	179445-002	8081A	delta-BHC	319-86-8	UJ	Initial Calibration %RSD failure, CCV %D failure
BB29B102(0.0)	179445-002	8081A	Endrin aldehyde	7421-93-4	UJ	CCV %D failure
BB29B102(0.0)	179445-002	8270C-SIM	Acenaphthene	83-32-9	J+	LCS %R failure
BB29B102(2.0)	179445-003	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB29B102(2.0)	179445-003	6020	Thallium	7440-28-0	U	Method blank contamination
BB29B102(2.0)	179445-003	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB29B102(2.0)	179445-003	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB29B102(2.0)	179445-003	8081A	beta-BHC	319-85-7	UJ	Initial Calibration %RSD failure, CCV %D failure
BB29B102(2.0)	179445-003	8081A	delta-BHC	319-86-8	UJ	Initial Calibration %RSD failure, CCV %D failure
BB29B102(2.0)	179445-003	8081A	Endrin aldehyde	7421-93-4	UJ	CCV %D failure
BB29B102(2.0)	179445-003	8270C-SIM	Acenaphthene	83-32-9	J+	LCS %R failure
BB29B102(2.0)	179445-003	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J-	Internal standard area failure
BB29B102(2.0)	179445-003	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J-	Internal standard area failure
BB29B102(2.0)	179445-003	8270C-SIM	Benzo(a)pyrene	50-32-8	J-	Internal standard area failure
BB29B102(2.0)	179445-003	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J-	Internal standard area failure
BB29B102(2.0)	179445-003	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
BB29B102(2.0)	179445-003	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J-	Internal standard area failure
BBSB108(0.0)	179445-004	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBSB108(0.0)	179445-004	6020	Thallium	7440-28-0	U	Method blank contamination
BBSB108(0.0)	179445-004	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBSB108(0.0)	179445-004	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BBSB108(0.0)	179445-004	8015B	TPH - Gasoline	8006-61-9	UJ	MS/MSD %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BBSB108(0.0)	179445-004	8260B	Benzene	71-43-2	UJ	MS/MSD %R failure
BBSB108(0.0)	179445-004	8260B	Toluene	108-88-3	UJ	MS/MSD %R failure
BBSB108(0.0)	179445-004	8260B	Chlorobenzene	108-90-7	UJ	MS/MSD %R failure
BBSB108(0.0)	179445-004	8260B	Trichloroethene	79-01-6	UJ	MS/MSD %R failure
BBSB108(0.0)	179445-004	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J-	Internal standard area failure
BBSB108(0.0)	179445-004	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
BBSB108(0.0)	179445-004	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J-	Internal standard area failure
BBSB108(2.0)	179445-005	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BBSB108(2.0)	179445-005	6020	Thallium	7440-28-0	U	Method blank contamination
BBSB108(2.0)	179445-005	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBSB108(2.0)	179445-005	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BBSB109(0.0)	179445-006	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBSB109(0.0)	179445-006	6020	Thallium	7440-28-0	U	Method blank contamination
BBSB109(0.0)	179445-006	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBSB109(0.0)	179445-006	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BBSB109(0.0)	179445-006	8015B	TPH - Gasoline	8006-61-9	UJ	Surrogate %R failure
BBSB109(0.0)	179445-006	8270C-SIM	Acenaphthene	83-32-9	J+	LCS %R failure
BBSB109(0.0)	179445-006	8270C-SIM	Benzo(b)fluoranthene	205-99-2	J-	Internal standard area failure
BBSB109(0.0)	179445-006	8270C-SIM	Benzo(k)fluoranthene	207-08-9	J-	Internal standard area failure
BBSB109(0.0)	179445-006	8270C-SIM	Benzo(a)pyrene	50-32-8	J-	Internal standard area failure
BBSB109(0.0)	179445-006	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J-	Internal standard area failure
BBSB109(0.0)	179445-006	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
BBSB109(0.0)	179445-006	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J-	Internal standard area failure
DUP(050512)	179445-007	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
DUP(050512)	179445-007	6020	Thallium	7440-28-0	U	Method blank contamination
DUP(050512)	179445-007	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
DUP(050512)	179445-007	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
DUP(050512)	179445-007	8015B	TPH - Gasoline	8006-61-9	J-	Surrogate %R failure
DUP(050512)	179445-007	8015B	TPH-Diesel	68334-30-5	J+	Surrogate %R failure
DUP(050512)	179445-007	8015B	TPH-Motor Oil		J+	Surrogate %R failure
DUP(050512)	179445-007	8270C-SIM	Acenaphthene	83-32-9	J+	LCS %R failure
DUP(050512)	179445-007	8270C-SIM	Indeno(1,2,3-cd)pyrene	193-39-5	J-	Internal standard area failure
DUP(050512)	179445-007	8270C-SIM	Dibenz(a,h)anthracene	53-70-3	J-	Internal standard area failure
DUP(050512)	179445-007	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J-	Internal standard area failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BBSB109(2.0)	179445-008	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BBSB109(2.0)	179445-008	6020	Thallium	7440-28-0	U	Method blank contamination
BBSB109(2.0)	179445-008	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BBSB109(2.0)	179445-008	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BBSB109(2.0)	179445-008	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BBSB109(2.0)	179445-008	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J+	CCV %D failure
BB2ASB112(0.5)	179445-009	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB2ASB112(0.5)	179445-009	6020	Thallium	7440-28-0	U	Method blank contamination
BB2ASB112(0.5)	179445-009	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB2ASB112(0.5)	179445-009	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB2ASB112(0.5)	179445-009	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1SB113(0.5)	179445-010	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB1SB113(0.5)	179445-010	6020	Thallium	7440-28-0	U	Method blank contamination
BB1SB113(0.5)	179445-010	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB1SB113(0.5)	179445-010	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB1SB113(0.5)	179445-010	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BB1SB113(0.5)	179445-010	8270C-SIM	Benzo(g,h,i)perylene	191-24-2	J+	CCV %D failure
BB1SB114(0.5)	179445-011	6020	Antimony	7440-36-0	UJ	Method blank contamination, MS/MSD %R failure
BB1SB114(0.5)	179445-011	6020	Thallium	7440-28-0	U	Method blank contamination
BB1SB114(0.5)	179445-011	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure
BB1SB114(0.5)	179445-011	6020	Zinc	7440-66-6	J+	MS/MSD %R & RPD failure
BB1SB114(0.5)	179445-011	6020	Molybdenum	7439-98-7	UJ	Method blank contamination, ICP serial dilution %D failure
BBSB101(0.5)	179564-001	6020	Antimony	7440-36-0	J-	MS/MSD %R failure
BBSB101(0.5)	179564-001	6020	Barium	7440-39-3	J-	MS/MSD %R failure
BBSB101(0.5)	179564-001	6020	Chromium	7440-47-3	J+	MS/MSD %R failure
BBSB101(0.5)	179564-001	6020	Nickel	7440-02-0	J+	MS/MSD %R failure
BBSB101(0.5)	179564-001	6020	Vanadium	7440-62-2	J+	MS/MSD %R failure, ICP Serial dilution %D failure
BBSB101(0.5)	179564-001	6020	Zinc	7440-66-6	J+	MS/MSD %R failure
BBSB101(0.5)	179564-001	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
BBSB106(0.5)	179603-001	6020	Chromium	7440-47-3	J-	MS/MSD %R failure
BBSB106(0.5)	179603-001	6020	Lead	7439-92-1	J-	MS/MSD %R failure
BBSB106(0.5)	179603-001	6020	Molybdenum	7439-98-7	J	ICP Serial dilution %D failure
BBSB106(0.5)	179603-001	6020	Nickel	7440-02-0	J-	MS/MSD %R failure
BBSB106(0.5)	179603-001	6020	Vanadium	7440-62-2	J-	MS/MSD %R failure

Table 2
Summary of Qualified Data
Baker Beach
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BBSB106(0.5)	179603-001	8081A	4,4'-DDT	50-29-3	UJ	CCV %D failure
BB1PZ101	179714-001	6020	Dissolved Barium	7440-39-3	J+	MS/MSD %R failure
BB1PZ101	179714-001	8082	PCB-1248	12672-29-6	UJ	Surrogate %R failure
BB1PZ101	179714-001	8082	PCB-1254	11097-69-1	UJ	Surrogate %R failure
BB1PZ101	179714-001	8082	PCB-1260	11096-82-5	UJ	Surrogate %R failure
BB1PZ101	179714-001	8015B	TPH - Gasoline	8006-61-9	U	Blank contamination
BB1PZ101	179714-001	8081A	4,4'-DDD	72-54-8	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Dieldrin	60-57-1	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	4,4'-DDE	72-55-9	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Endrin	72-20-8	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Endosulfan sulfate	1031-07-8	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Endrin aldehyde	7421-93-4	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	4,4'-DDT	50-29-3	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Chlordane (a)	5103-71-9	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Chlordane (g)	5103-74-2	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Methoxychlor	72-43-5	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Toxaphene	8001-35-2	UJ	Surrogate %R failure
BB1PZ101	179714-001	8081A	Endosulfan II	33213-65-9	UJ	Surrogate %R failure
BB1PZ101	179714-001	8260B	2,2-Dichloropropane	594-20-7	UJ	CCV %D failure
BB1PZ101	179714-001	8270C-SIM	Chrysene	218-01-9	U	Blank contamination
BB1PZ101	179714-001	8270C-SIM	Fluoranthene	206-44-0	U	Blank contamination
BB1PZ101	179714-001	8270C-SIM	Phenanthrene	85-01-8	U	Blank contamination
TB-1	179714-002	8015B	TPH - Gasoline	8006-61-9	U	Blank contamination
TB-1	179714-002	8260B	2,2-Dichloropropane	594-20-7	UJ	CCV %D failure

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BBSB109(0.0)	179445-006	Soil	8015B	Gasoline C7-C12	ND<0.3	DUP(050512)	179445-007	0.16 J	NC
BBSB109(0.0)	179445-006	Soil	8015B	Diesel C10-C24	38	DUP(050512)	179445-007	56	-38%
BBSB109(0.0)	179445-006	Soil	8015B	Fuel Oil C24-C36	230	DUP(050512)	179445-007	270	-16%
BBSB109(0.0)	179445-006	Soil	8260B	Acetone	ND<33	DUP(050512)	179445-007	25 J	NC
BBSB109(0.0)	179445-006	Soil	8260B	Methylene Chloride	7.4 J	DUP(050512)	179445-007	9.1 J	-21%
BBSB109(0.0)	179445-006	Soil	8260B	2-Butanone	ND<17	DUP(050512)	179445-007	2.8 J	NC
BBSB109(0.0)	179445-006	Soil	8260B	para-Isopropyl Toluene	ND<8.3	DUP(050512)	179445-007	27	200%
BBSB109(0.0)	179445-006	Soil	8260B	All other VOCs	ND	DUP(050512)	179445-007	ND	NA
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Naphthalene	13	DUP(050512)	179445-007	6.8 J	NC
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Acenaphthylene	8.8	DUP(050512)	179445-007	7.5	16%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Acenaphthene	3.5 J	DUP(050512)	179445-007	1.4 J	NC
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Fluorene	4.1 J	DUP(050512)	179445-007	2.2 J	NC
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Phenanthrene	59	DUP(050512)	179445-007	22	91%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Anthracene	24	DUP(050512)	179445-007	11	NC
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Fluoranthene	88	DUP(050512)	179445-007	31	96%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Pyrene	110	DUP(050512)	179445-007	42	89%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Benzo(a)anthracene	65	DUP(050512)	179445-007	21	102%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Chrysene	85	DUP(050512)	179445-007	30	96%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Benzo(b)fluoranthene	93	DUP(050512)	179445-007	28	107%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Benzo(k)fluoranthene	55	DUP(050512)	179445-007	21	89%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Benzo(a)pyrene	82	DUP(050512)	179445-007	24	109%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Indeno(1,2,3-cd)pyrene	36	DUP(050512)	179445-007	19	62%
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Dibenz(a,h)anthracene	19	DUP(050512)	179445-007	11	NC
BBSB109(0.0)	179445-006	Soil	8270C-SIM	Benzo(g,h,i)perylene	34	DUP(050512)	179445-007	16	72%
BBSB109(0.0)	179445-006	Soil	8082	All PCBs	ND	DUP(050512)	179445-007	ND	NA
BBSB109(0.0)	179445-006	Soil	6020	Antimony	0.92	DUP(050512)	179445-007	0.78	16%
BBSB109(0.0)	179445-006	Soil	6020	Arsenic	2.2	DUP(050512)	179445-007	3.2	-37%
BBSB109(0.0)	179445-006	Soil	6020	Barium	120	DUP(050512)	179445-007	150	-22%
BBSB109(0.0)	179445-006	Soil	6020	Beryllium	0.22 J	DUP(050512)	179445-007	0.26 J	17%
BBSB109(0.0)	179445-006	Soil	6020	Cadmium	1.3	DUP(050512)	179445-007	1.1	17%
BBSB109(0.0)	179445-006	Soil	6020	Chromium	34	DUP(050512)	179445-007	60	-55%
BBSB109(0.0)	179445-006	Soil	6020	Cobalt	7.3	DUP(050512)	179445-007	9.8	-29%

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BBSB109(0.0)	179445-006	Soil	6020	Copper	33	DUP(050512)	179445-007	40	-19%
BBSB109(0.0)	179445-006	Soil	6020	Lead	1900	DUP(050512)	179445-007	180	165%
BBSB109(0.0)	179445-006	Soil	7470A	Mercury	0.54	DUP(050512)	179445-007	1.1	-68%
BBSB109(0.0)	179445-006	Soil	6020	Molybdenum	0.5	DUP(050512)	179445-007	2.1	-123%
BBSB109(0.0)	179445-006	Soil	6020	Nickel	36	DUP(050512)	179445-007	66	-59%
BBSB109(0.0)	179445-006	Soil	6020	Selenium	ND<0.45	DUP(050512)	179445-007	0.24 J	NC
BBSB109(0.0)	179445-006	Soil	6020	Silver	0.16 J	DUP(050512)	179445-007	0.12 J	29%
BBSB109(0.0)	179445-006	Soil	6020	Thallium	0.068 J	DUP(050512)	179445-007	0.058 J	16%
BBSB109(0.0)	179445-006	Soil	6020	Vanadium	28	DUP(050512)	179445-007	41	-38%
BBSB109(0.0)	179445-006	Soil	6020	Zinc	210	DUP(050512)	179445-007	250	-17%
BB1TP106(2.5)	179266-003	Soil	8015B	Gasoline C7-C12	ND<0.18	DUP(050405)	179266-004	0.033 J	NC
BB1TP106(2.5)	179266-003	Soil	8015B	Diesel C10-C24	1.1 J	DUP(050405)	179266-004	84	-195%
BB1TP106(2.5)	179266-003	Soil	8015B	Fuel Oil C24-C36	7.9	DUP(050405)	179266-004	440	-193%
BB1TP106(2.5)	179266-003	Soil	8260B	Methylene Chloride	1.1 J	DUP(050405)	179266-004	0.75 J	38%
BB1TP106(2.5)	179266-003	Soil	8260B	All other VOCs	ND	DUP(050405)	179266-004	ND	NA
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Naphthalene	ND<5.7	DUP(050405)	179266-004	2.2 J	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Acenaphthylene	ND<5.7	DUP(050405)	179266-004	4.2 J	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Phenanthrene	ND<5.7	DUP(050405)	179266-004	15	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Anthracene	ND<5.7	DUP(050405)	179266-004	4.9 J	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Fluoranthene	ND<5.7	DUP(050405)	179266-004	25	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Pyrene	ND<5.7	DUP(050405)	179266-004	44	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Benzo(a)anthracene	ND<5.7	DUP(050405)	179266-004	19	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Chrysene	ND<5.7	DUP(050405)	179266-004	24	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Benzo(b)fluoranthene	ND<5.7	DUP(050405)	179266-004	23	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Benzo(k)fluoranthene	0.72	DUP(050405)	179266-004	22	187%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Benzo(a)pyrene	ND<5.7	DUP(050405)	179266-004	27	200%
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Indeno(1,2,3-cd)pyrene	ND<5.7	DUP(050405)	179266-004	8.1	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Dibenz(a,h)anthracene	ND<5.7	DUP(050405)	179266-004	4.7 J	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	Benzo(g,h,i)perylene	ND<5.7	DUP(050405)	179266-004	8.6	NC
BB1TP106(2.5)	179266-003	Soil	8270C-SIM	All other PAHs	ND	DUP(050405)	179266-004	ND	NA
BB1TP106(2.5)	179266-003	Soil	8081A	Dieldrin	ND<3.7	DUP(050405)	179266-004	73	200%
BB1TP106(2.5)	179266-003	Soil	8081A	4,4'-DDE	ND<3.7	DUP(050405)	179266-004	68	200%

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BB1TP106(2.5)	179266-003	Soil	8081A	4,4'-DDD	ND<3.7	DUP(050405)	179266-004	38	200%
BB1TP106(2.5)	179266-003	Soil	8081A	4,4'-DDT	ND<3.7	DUP(050405)	179266-004	390	200%
BB1TP106(2.5)	179266-003	Soil	8081A	alpha-Chlordane	ND<1.9	DUP(050405)	179266-004	14	200%
BB1TP106(2.5)	179266-003	Soil	8081A	gamma-Chlordane	ND<1.9	DUP(050405)	179266-004	7.5 J	NC
BB1TP106(2.5)	179266-003	Soil	8081A	All other Pesticides	ND	DUP(050405)	179266-004	ND	NA
BB1TP106(2.5)	179266-003	Soil	8082	All PCBs	ND	DUP(050405)	179266-004	ND	NA
BB1TP106(2.5)	179266-003	Soil	6020	Antimony	0.34	DUP(050405)	179266-004	0.17 J	NC
BB1TP106(2.5)	179266-003	Soil	6020	Arsenic	2	DUP(050405)	179266-004	2.6	-26%
BB1TP106(2.5)	179266-003	Soil	6020	Barium	54	DUP(050405)	179266-004	120	-76%
BB1TP106(2.5)	179266-003	Soil	6020	Beryllium	0.17 J	DUP(050405)	179266-004	0.37	-74%
BB1TP106(2.5)	179266-003	Soil	6020	Cadmium	0.17 J	DUP(050405)	179266-004	0.23 J	-30%
BB1TP106(2.5)	179266-003	Soil	6020	Chromium	250	DUP(050405)	179266-004	37	148%
BB1TP106(2.5)	179266-003	Soil	6020	Cobalt	35	DUP(050405)	179266-004	11	104%
BB1TP106(2.5)	179266-003	Soil	6020	Copper	14	DUP(050405)	179266-004	37	-90%
BB1TP106(2.5)	179266-003	Soil	6020	Lead	6.6	DUP(050405)	179266-004	45	-149%
BB1TP106(2.5)	179266-003	Soil	7470A	Mercury	0.061	DUP(050405)	179266-004	0.5	-157%
BB1TP106(2.5)	179266-003	Soil	6020	Molybdenum	0.45	DUP(050405)	179266-004	0.3	40%
BB1TP106(2.5)	179266-003	Soil	6020	Nickel	300	DUP(050405)	179266-004	38	155%
BB1TP106(2.5)	179266-003	Soil	6020	Selenium	0.25 J	DUP(050405)	179266-004	0.24 J	4%
BB1TP106(2.5)	179266-003	Soil	6020	Silver	0.08 J	DUP(050405)	179266-004	0.039 J	NC
BB1TP106(2.5)	179266-003	Soil	6020	Thallium	0.05 J	DUP(050405)	179266-004	0.059 J	-17%
BB1TP106(2.5)	179266-003	Soil	6020	Vanadium	42	DUP(050405)	179266-004	34	21%
BB1TP106(2.5)	179266-003	Soil	6020	Zinc	77	DUP(050405)	179266-004	88	-13%

NC: Not calculated. The absolute difference between the sample result and the duplicate sample result is less than the reporting limit.

ND: The sample result was non-detect.

N/A: Not analyzed

NA: Not applicable. Calculation of the relative percent difference between the sample result and the duplicate sample result is not applicable.

Units: mg/kg for TPH-Gasoline, TPH-diesel, and metals
ug/kg for VOCs, Pesticides,PCBs, and PAHs

TO: Gary Lieberman, Mactec E & C, Inc. May 2, 2006

FROM: Donna Breaux, DataVal, Inc.

DATA VALIDATION SUMMARY REPORT FOR THE BAKER BEACH SITE, THE PRESIDIO OF SAN FRANCISCO, CA

LABORATORY: Curtis & Tompkins Laboratories, Berkeley, CA

SAMPLING DATE: February 1, 2006

Data validation of Level III and Level IV laboratory data packages was performed according to the project-specific guidelines. These guidelines were outlined in the Presidio-wide Quality Assurance Project Plan, Sampling and Analysis Plan, April, 2001; the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review, October, 1999; and the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October, 2004.

The data were reviewed for holding times, blanks, GC/MS tunes, initial calibrations, continuing calibration verification (CCV) standards, performance evaluation mix (PEM) standards, surrogate recoveries, internal standards, laboratory control samples (LCS), laboratory duplicate samples, matrix spikes (MS), matrix spike duplicates (MSD), ICP interference check standards, ICP serial dilutions, field QC blanks, field duplicate samples and compound identification and quantitation.

The following paragraphs highlight the essential findings of the data validation effort:

I. **Volatile Organic Compounds by GC/MS (8260B)**

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C and F.

A. Reporting Limits

The laboratory reporting limits for VOCs in water matrix samples met the project required reporting limits, with the following exceptions:

1. The following table lists the compounds for which the laboratory reporting limits did not meet the project required reporting limits listed in Table 2-6.8-1 of the QAPP.

Compound	Matrix	Laboratory Reporting Limit	Project Required Reporting Limit
Bromoform	Water	1.0 ug/L	0.5 ug/L
Bromomethane	Water	1.0 ug/L	0.5 ug/L

Reviewed: MJ It

Compound	Matrix	Laboratory Reporting Limit	Project Required Reporting Limit
Chloroethane	Water	1.0 ug/L	0.5 ug/L
Chloromethane	Water	1.0 ug/L	0.5 ug/L
Methylene chloride	Water	10 ug/L	4.5 ug/L

B. Holding Times

Technical holding time criteria specified in the analysis method were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks or trip blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC326953 had a detected level of methylene chloride at 0.3 ug/L. The detected results for methylene chloride in the associated project samples were changed to non-detect (U) if those values were less than ten times the blank amount.
2. Trip blank TB (020106) (184692-004) had a detected level of methylene chloride at 0.2 ug/L. The detected results for methylene chloride in the associated project samples were changed to non-detect (U) if those values were less than ten times the blank amount. It should be noted that the methylene chloride result for trip blank sample TB (020106) (184692-004) was previously changed to non-detect (U) due to method blank contamination.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. GC/MS Tunes

All QC criteria were met for the GC/MS tunes associated with the project samples.

E. Initial Calibration

Initial calibration criteria were met for all initial calibration standards associated with the project samples.

F. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification (CCV) standards associated with the project samples, with the following exception:

1. The 2/6/06 at 09:18 water matrix CCV analyzed on instrument MSVOA05 had four compounds with percent differences less than -25%: chloromethane (-28%), 2-butanone (-30%), 1,2-dibromo-3-chloropropane (-26%) and naphthalene (-47%). The associated samples were non-detect for these compounds and qualified as estimated (UJ).

See Table 2 of this report for a summary of qualifications due to continuing calibration percent difference failure.

G. Internal Standards
Internal standard QC acceptance criteria were met for all project samples.

H. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples.

I. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

J. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples.

K. Compound Identification and Quantitation
Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002), BB1PZ101 (184692-003) and TB (020106) (184692-004) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations and surrogate values; in addition to re-calculation of all reported results for VOCs in these samples. The results for VOCs were verified as correctly reported by the laboratory.

II. Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS (8270C-SIM)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections C, G and J.

A. Reporting Limits
The laboratory reporting limits for PAHs in soil and water matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times
Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exception:

1. Laboratory method blank QC326884 had a detected level of pyrene at 0.01 ug/L. The detected results for pyrene in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. GC/MS Tunes

All QC criteria were met for the GC/MS tunes associated with the project samples.

E. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

F. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

G. Internal Standards

Internal standard QC acceptance criteria were met for all project samples with the following exception:

1. The area count for internal standard perylene-d12 was outside the -50% to +100% acceptance criteria in project sample BBSB120(1.0) (184679-001). The compounds associated with this internal standard were qualified as estimated (J/UJ).

See Table 2 of this report for a summary of qualifications due to internal standard area count failure.

H. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exception:

1. Samples with one failing acid surrogate and/or one failing base/neutral surrogate did not require qualification. Those failures were not noted in this report.

I. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

J. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exception:

1. The percent recoveries for pyrene were outside the 35% - 142% project acceptance criteria in QC samples BBSB120(1.0) (184679-001) MS/MSD. The amount of pyrene present in the parent sample was greater than four times the amount spiked, and qualification was not required. In the same QC samples, the relative percent difference (RPD) was outside the 21% QC acceptance criteria for acenaphthene at 68%. The detected result for acenaphthene in the sample was qualified as estimated (J). QC Batch 110148.

See Table 2 of this report for a summary of qualifications due to matrix spike RPD failure.

K. Compound Identification and Quantitation

Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of GC/MS tunes, initial and continuing calibrations, surrogate values, and internal standard areas; in addition to re-calculation of all reported results for PAHs in these samples. The results for PAHs were verified as correctly reported by the laboratory.

III. Total Petroleum Hydrocarbons - Gasoline Range (8015B)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Section C.

A. Reporting Limits

The laboratory reporting limit for TPH-gasoline in water matrix samples met the project required reporting limit.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks or trip blanks associated with the project samples, with the following exceptions:

1. Laboratory method blank QC326759 had a detected level of TPH-gasoline at 18 ug/L. The detected results for TPH-gasoline in the associated project samples were changed to non-detect (U) if those values were less than five times the blank amount.

2. Trip blank TB (020106) (184692-004) had a detected level of TPH-gasoline at 25 ug/L. The detected results for TPH-gasoline in the associated project samples were changed to non-detect (U) if those values were less than five times the blank amount. It should be noted that the TPH-gasoline result for trip blank sample TB (020106) (184692-004) was previously changed to non-detect (U) due to method blank contamination.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

F. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples.

G. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples.

I. Compound Identification and Quantitation
Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002), BB1PZ101 (184692-003) and TB (020106) (184692-004) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations, and surrogate values; in addition to re-calculation of the reported results for TPH-gasoline in these samples. The results for TPH-gasoline were verified as correctly reported by the laboratory.

IV. Total Petroleum Hydrocarbons – Diesel/Fuel Oil (8015B)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits
The laboratory reporting limits for TPH-diesel and TPH-fuel oil in water matrix samples met the project required reporting limits.

B. Holding Times
Technical holding time criteria were met for all project samples.

C. Blanks
Target analytes were not observed in any laboratory method blanks associated with the project samples.

D. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples.

F. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples.

G. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples.

I. Compound Identification and Quantitation
Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations, and surrogate values; in addition to re-calculation of the reported results for TPH-diesel and TPH-fuel oil in these samples. The results for TPH-diesel and TPH-fuel oil were verified as correctly reported by the laboratory.

V. Organochlorine Pesticides (8081A)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits
The laboratory reporting limits for pesticides in water matrix samples met the project required reporting limits.

B. Holding Times
Technical holding time criteria were met for all project samples.

C. Blanks
Target analytes were not observed in any laboratory method blanks associated with the project samples.

D. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples with the following exception:
1. Data was obtained from two columns, and calibration standards with percent relative standard deviation (%RSDs) that failed criteria on one column did not require qualification if sample results were reported from the column in control. Those failures were not noted in this report.

E. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples with the following exceptions:
1. Qualification was not required for samples with non-detect results associated with high-failing CCVs. Those failures were not noted in this report.
2. Data was reported from two columns, and CCVs with percent differences that failed criteria on one column did not require qualification if sample results were reported from the column in control. Those failures were not noted in this report.

F. Performance Evaluation Mix (PEM) Check Standards
All PEM check standards met the project degradation criteria of 15% for endrin and 4,4'-DDT.

G. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples.

H. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

I. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spike and matrix spike duplicates associated with the project samples.

J. Compound Identification and Quantitation
Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of PEM standards, initial and continuing calibrations and surrogate values; in addition to re-

calculation of all reported results for pesticides in these samples. The results for pesticides were verified as correctly reported by the laboratory.

VI. Polychlorinated Biphenyls (PCBs) (8082)

Overall, the data are usable as reported with any added qualifiers. Qualification was required for the reason noted in Section F.

A. Reporting Limits

The laboratory reporting limits for PCBs in water matrix samples met the project required reporting limits.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

D. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

E. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration verification standards associated with the project samples with the following exceptions:

1. Qualification was not required for samples with non-detect results associated with CCVs that failed high. Those failures were not noted in this report.
2. Data was reported from two columns, and CCVs with percent differences that failed criteria on one column did not require qualification if sample results were reported from the column in control. Those failures were not noted in this report.

F. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exception:

1. The percent recoveries for surrogate decachlorobiphenyl (DCB) were outside the 65%-135% project acceptance criteria in samples BB2ASW100 (184691-001) (44%), BB1PZ100 (184692-001) (45%) and DUP(020106) (184692-002) (40%). The PCBs associated with this surrogate, PCB-1248, PCB-1254 and PCB-1260, were non-detect and qualified as estimated (UJ).

See Table 2 of this report for a summary of qualifications due to surrogate percent recovery failure.

G. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.

H. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spike and matrix spike duplicate associated with the project samples.

I. Compound Identification and Quantitation
Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations and surrogate values; in addition to re-calculation of all reported results for PCBs in these samples. The results for PCBs were verified as correctly reported by the laboratory.

VII. Total and Dissolved Metals (6010B/6020/7470A/7471A)

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections B, C, F and H.

A. Reporting Limits
The laboratory reporting limits for total and dissolved metals in water and soil matrix samples met the project required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times
Technical holding time criteria were met for all project samples, with the following exception:
1. Sample BB2SB110(1.0) (185213-001) was analyzed for mercury 6 days past the 28 day analysis holding time. The detected result for mercury in the sample was qualified as estimated with a low bias (J-).

See Table 2 of this report for a summary of qualifications due to missed analysis holding time.

C. Blanks
Target analytes were not observed in any laboratory method blanks or calibration blanks associated with the project samples, with the following exceptions:
1. Laboratory method blank QC326681 had a detected level of chromium at 0.050 mg/kg. The associated samples had levels of chromium greater than five times the blank amount, and qualification was not required.
2. Laboratory method blank QC326688 had detected levels of chromium (0.043 mg/kg), nickel (0.038 mg/kg) and thallium (0.047 mg/kg). The associated samples were non-detect for thallium and had levels of

chromium and nickel greater than five times the blank amounts, and qualification was not required.

3. Laboratory method blank QC326963 had a detected level of molybdenum at 0.28 ug/L. The associated samples had levels of molybdenum greater than five times the blank amount, and qualification was not required.
4. Laboratory method blank QC327072 had a detected level of chromium at 0.042 mg/kg. The associated samples had levels of chromium greater than five times the blank amount, and qualification was not required.
5. The second continuing calibration blank analyzed on 2/22/06 on instrument MET05 had a detected level of lead at 0.326 ug/L. The results for lead in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.
6. The third continuing calibration blank analyzed on 2/22/06 on instrument MET05 had detected levels of chromium (0.155 ug/L) and cobalt (0.042 ug/L). The associated samples had levels of chromium greater than five times the blank amount, and qualification was not required. The results for cobalt in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.
7. Laboratory method blank QC329855 had detected levels of chromium (0.053 mg/kg), copper (0.064 mg/kg) and nickel (0.045 mg/kg). The associated samples had levels of chromium, copper and nickel greater than five times the blank amounts, and qualification was not required.
8. Laboratory method blank QC330027 had detected levels of chromium (0.061 mg/kg), copper (0.28 mg/kg), molybdenum (0.029 mg/kg) and thallium (0.037 mg/kg). The associated samples had levels of chromium, copper and molybdenum greater than five times the blank amounts, and qualification was not required. The results for thallium in the associated samples were changed to non-detect (U) if those values were less than five times the blank amount.

See Table 2 of this report for a summary of qualifications due to blank contamination.

D. Initial and Continuing Calibrations

All initial and continuing calibration verification standards associated with the project samples met QC acceptance criteria.

E. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

F. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB2SB110(0.5) (184678-001) MS/MSD for antimony (22%/23%), chromium (-94%/-100%), nickel (-566%/-600%) and silver (58%/63%). The amounts of chromium and nickel present in the parent sample were greater than four times the amounts spiked, and qualification was not required. The non-detected results for silver in the associated samples were qualified as estimated (UJ). The percent recoveries for antimony were less than 30%, which required rejection of non-detected results. The detected results for antimony in the associated samples were qualified as estimated with a low bias (J-); the non-detected results for antimony in the associated samples were qualified as rejected (R). (QC batch 110124)
2. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BBSB120(1.0) (184679-001) MS/MSD for antimony (36%/31%), nickel (42%/66%) and silver (69%/60%). The amount of nickel present in the parent sample was greater than four times the amount spiked, and qualification was not required. The results for antimony and silver in the associated sample were qualified as estimated with a low bias (J-/UJ). (QC batch 110211)
3. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB1SB115(0.5) (184680-001) MS and/or MSD for antimony (26%/29%), arsenic (70%), barium (238%/71%), cobalt (169%), copper (-617%/-325%), lead (47%), nickel (173%), silver (67%/36%), thallium (73%), vanadium (62%) and zinc (-348%/-216%). In addition, the relative percent differences were outside the 30% project acceptance criteria for barium (52%), cobalt (39%) and silver (59%). The amounts of copper, nickel and zinc present in the parent sample were greater than four times the amounts spiked, and qualification was not required. The detected results for antimony, arsenic, lead, thallium and vanadium in the associated sample were qualified as estimated with a low bias (J-). The detected result for cobalt in the associated sample was qualified as estimated with a high bias (J+) for percent recovery and RPD failure. The results for barium and silver in the associated sample were qualified as estimated with a low bias (J-/UJ) for percent recovery and RPD failure. (QC Batch 110123)
4. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB2ASW100 (184691-001) MS and/or MSD for barium (135%/129%), chromium (62%/60%), copper (73%), lead (128%), nickel (-69%/-68%) and zinc (16%/29%). The amounts of lead, nickel and zinc present in the parent sample were greater than four times the amounts spiked, and qualification was not required. The detected results for barium in the associated samples

were qualified as estimated with a high bias (J+). The detected results for chromium and copper in the associated samples were qualified as estimated with a low bias (J-). (QC batch 110189)

5. The percent recoveries were outside the 75%-125% project acceptance criteria in QC samples BB2SB110(1.0) (185213-001) MS and/or MSD for antimony (24%/23%), chromium (335%), cobalt (70%), nickel (389%/-160%) and silver (58%/58%). The amounts of chromium and nickel present in the parent sample were greater than four times the amounts spiked, and qualification was not required. The detected result for antimony in the associated sample was qualified as estimated with a low bias (J-). The results for cobalt and silver in the associated samples were qualified as estimated with a low bias (J-/UJ). (QC batch 110952)
6. The percent recoveries for antimony, copper and silver failed the 75%-125% acceptance criteria in QC samples 184995-005 MS and/or MSD. The parent sample was associated with a site unrelated to the project site, and qualification of the project samples was not required. (QC batch 110908)

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery failure.

G. ICP Interference Check Standards

All QC criteria were met for the ICP interference check standards associated with the project samples.

H. ICP Serial Dilution

ICP serial dilutions met the 10% difference method requirement with the following exceptions:

1. The percent difference failed the 10% difference project acceptance criteria for copper in the serial dilution of sample BB2ASW100 (184691-001) at 12%. The results for copper in the associated samples were qualified as estimated (J/UJ). (QC Batch 110189)
2. The percent differences failed the 10% difference project acceptance criteria for cobalt, copper and nickel in the serial dilution of sample 184995-005. The parent sample was associated with a site unrelated to the project site, and qualification of the project samples was not required. (QC Batch 110908)

See Table 2 of this report for a summary of qualifications due to serial dilution failure.

I. Compound Identification and Quantitation

Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations; in addition to re-calculation of all reported results for metals in these samples. The results for total and dissolved metals were verified as correctly reported by the laboratory.

VIII. General Chemistry Methods (160.1, 300.1, 310.0, 353.3)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits

The laboratory reporting limits for the general chemistry methods analyzed met the project required reporting limits listed in the tables of the QAPP, with the following exceptions:

1. The laboratory reporting limit for total dissolved solids was 10 mg/L; the project required reporting limit for this analyte was 5 mg/L. The laboratory reporting limit for nitrate+nitrite as nitrogen was 0.1 mg/L, the project required reporting limit for this analyte was 0.05 mg/L.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

D. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

E. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exception:

1. The percent recoveries for nitrate+nitrite as nitrogen failed the 80%-120% acceptance criteria in QC samples 06-02-0215-02 MS/MSD. The parent sample was associated with a site unrelated to the project site, and qualification of the project samples was not required. (QC batch 60207N03S1)

F. Laboratory Duplicate Samples

All QC criteria were met for the laboratory duplicate samples associated with the project samples.

G. Initial and Continuing Calibrations

All initial and continuing calibration standards associated with the project samples met QC acceptance criteria.

H. Compound Identification and Quantitation

Samples BB2ASW100 (184691-001), BB1PZ100 (184692-001), DUP (020106) (184692-002) and BB1PZ101 (184692-003) received full (Level IV) data validation. This included re-calculation of initial and continuing calibrations; in addition to re-calculation of all reported results for general chemistry methods in these samples. The results for general chemistry were verified as correctly reported by the laboratory.

SUMMARY

The attached Table 1 summarizes the site samples, laboratory sample IDs, sampling dates, analysis methods and sample types. This table also designates which samples received Level IV data validation. The attached Table 2 summarizes the data qualifications of all project samples for each test method included in the data package.

USABILITY

The quality control criteria were reviewed, and other than those discussed above, all criteria were met and the data are considered acceptable. Estimated sample results (J/UJ) are usable only for limited purposes. Rejected sample results were not usable for any purpose. Based upon the full and cursory validation, all other results are considered valid and usable for all purposes.

VALIDATION QUALIFIERS IDENTIFICATION

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October, 1999.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. *A minus sign (-) indicates the numerical value has a low bias. A plus sign (+) indicates the numerical value has a high bias.*

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following paragraphs highlight the essential findings of the field duplicate samples:

Field duplicate precision was evaluated by calculating the relative percent difference (RPD) between detected results in the original sample and its associated duplicate. The control limit used for field duplicates was a relative percent difference less than or equal to 50 percent, or the absolute difference of the two results must be less than the reporting limit (for waters) or less than twice the reporting limit (for soils) for those analytes that were at or near the detection limit. Two samples were collected in duplicate for this Baker Beach sampling event.

Project Sample Primary ID	Laboratory Sample ID	Project Sample Duplicate ID	Laboratory Sample ID
BB2SB110 (0.5)	184678-001	DUP (020106)	184678-002
BB1PZ100	184692-001	DUP (020106)	184692-002

The attached Table 3 summarizes the field duplicate sample results. The detected results of the original sample and the associated duplicate sample were compared and the calculated relative percent differences (RPDs) reported. All RPDs met the 50 percent precision control limit requirement, with the following exceptions:

1. In field duplicates BB2SB110(0.5) (184678-001) and DUP(020106) (184678-002), the relative percent differences failed for chromium (67%) and nickel (51%).
2. In field duplicates BB1PZ100 (184692-001) and DUP(020106) (184692-002), the relative percent differences failed for TPH-diesel (74%), TPH-fuel oil (64%), total chromium (56%), total copper (88%), total molybdenum (71%), dissolved antimony (66%), dissolved arsenic (93%), dissolved cobalt (156%), dissolved molybdenum (114%) and dissolved vanadium (82%).

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results in the field duplicate pairs listed above may be due to the sample matrix, sampling or laboratory technique, sample non-homogeneity, or method defects. With the exceptions noted above, the results between the field duplicate pairs matched well. Since the effect on the quality of the data is not known, data is not qualified for field duplicate failure.

Table 1
Summary of Samples/Analyses
Baker Beach
The Presidio of San Francisco, CA

Site Sample ID	Lab Sample ID	Date Sampled	Analyses	Sample Type
BB2SB110 (0.5)	184678-001	1-Feb-06	Total Metals (6010B/7471A)	Soil (1)
DUP (020106)	184678-002	1-Feb-06	Total Metals (6010B/7471A)	FD (1)
BBSB120 (1.0)	184679-001	1-Feb-06	PAHs (8270C-SIM), Total Metals (6010B/7471A)	Soil
BB1SB115 (0.5)	184680-001	1-Feb-06	Total Metals (6010B/7471A)	Soil
BB2ASW100	**184691-001**	**1-Feb-06**	**VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), General Chemistry Parameters (1, 2, 3, 4)**	**Water**
BB2ASW100_2/06UF	**184691-001**	**1-Feb-06**	**Total Metals (6020/7470A)**	**Water**
BB2ASW100_2/06	**184691-001**	**1-Feb-06**	**Dissolved Metals (6020/7470A)**	**Water**
BB1PZ100	**184692-001**	**1-Feb-06**	**VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), General Chemistry Parameters (1, 2, 3, 4)**	**Water (2)**
BB1PZ100_2/06UF	**184692-001**	**1-Feb-06**	**Total Metals (6020/7470A)**	**Water (2)**
BB1PZ100_2/06	**184692-001**	**1-Feb-06**	**Dissolved Metals (6020/7470A)**	**Water (2)**
DUP (020106)	**184692-002**	**1-Feb-06**	**VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), Total and Dissolved Metals (6020/7470A), General Chemistry Parameters (1, 2, 3, 4)**	**FD (2)**
BB1PZ101	**184692-003**	**1-Feb-06**	**VOCs (8260B), PAHs (8270C-SIM), TPH-Gasoline (8015B), TPH-Diesel/Fuel Oil (8015B), Pesticides (8081A), PCBs (8082), General Chemistry Parameters (1, 2, 3, 4)**	**Water**
BB1PZ101_2/06UF	**184692-003**	**1-Feb-06**	**Total Metals (6020/7470A)**	
BB1PZ101_2/06	**184692-003**	**1-Feb-06**	**Dissolved Metals (6020/7470A)**	**Water**
TB (020106)	**184692-004**	**1-Feb-06**	**Volatile Organic Compounds (8260B)**	**Trip Blank**
BB1SB115(1.0)	185149-001	1-Feb-06	Total Metals (6010B/7471A)	Soil
BB2SB110(1.0)	185213-001	1-Feb-06	Total Metals (6010B/7471A)	Soil

VOCs: Volatile Organic Compounds
PAHs: Polynuclear Aromatic Hydrocarbons
TPH: Total Petroleum Hydrocarbons
PCBs: Polychlorinated Biphenyls
FD: Field duplicate of previous numbered sample, (1), (2), etc.
BOLD: Bold typeface indicates samples/analyses that received full (Level IV) data validation

General Chemistry Parameters
(1) Total Dissolved Solids (160.1)
(2) Alkalinity (310.1)
(3) Anions (300.0)
(4) Nitrate/Nitrite-N (353.2)

Table 2
Qualified Data Summary
Baker Beach Sampling Event
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB2SB110 (0.5)	184678-001	6010B	Antimony	7440-36-0	J-	MS/MSD percent recovery failure
BB2SB110 (0.5)	184678-001	6010B	Silver	7440-22-4	UJ	MS/MSD percent recovery failure
DUP (020106)	184678-002	6010B	Antimony	7440-36-0	R	MS/MSD percent recovery failure
DUP (020106)	184678-002	6010B	Silver	7440-22-4	UJ	MS/MSD percent recovery failure
BBSB120 (1.0)	184679-001	8270C	Acenaphthene	83-32-9	J	MS/MSD relative percent difference failure
BBSB120 (1.0)	184679-001	8270C	Benzo(b)fluoranthene	205-99-2	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	8270C	Benzo(k)fluoranthene	207-08-9	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	8270C	Benzo(a)pyrene	50-32-8	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	8270C	Indeno(1,2,3-cd)pyrene	193-39-5	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	8270C	Dibenz(a,h)anthracene	53-70-3	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	8270C	Benzo(g,h,i)perylene	191-24-2	J	Internal standard area count failure
BBSB120 (1.0)	184679-001	6010B	Antimony	7440-36-0	J-	MS/MSD percent recovery failure
BBSB120 (1.0)	184679-001	6010B	Silver	7440-22-4	UJ	MS/MSD percent recovery failure
BB1SB115 (0.5)	184680-001	6010B	Antimony	7440-36-0	J-	MS/MSD percent recovery failure
BB1SB115 (0.5)	184680-001	6010B	Arsenic	7440-38-2	J-	MS/MSD percent recovery failure
BB1SB115 (0.5)	184680-001	6010B	Barium	7440-39-3	J-	MS/MSD %R failure, MS/MSD RPD failure
BB1SB115 (0.5)	184680-001	6010B	Cobalt	7440-48-4	J+	MS/MSD %R failure, MS/MSD RPD failure
BB1SB115 (0.5)	184680-001	6010B	Lead	7439-92-1	J-	MS/MSD percent recovery failure
BB1SB115 (0.5)	184680-001	6010B	Silver	7440-22-4	UJ	MS/MSD %R failure, MS/MSD RPD failure
BB1SB115 (0.5)	184680-001	6010B	Thallium	7440-28-0	J-	MS/MSD percent recovery failure
BB1SB115 (0.5)	184680-001	6010B	Vanadium	7440-62-2	J-	MS/MSD percent recovery failure
BB2ASW100	184691-001	8260B	Methylene chloride	75-09-2	U	Method blank contamination
BB2ASW100	184691-001	8260B	Chloromethane	74-87-3	UJ	Continuing calibration verification percent difference failure
BB2ASW100	184691-001	8260B	2-Butanone	78-93-3	UJ	Continuing calibration verification percent difference failure
BB2ASW100	184691-001	8260B	1,2-Dibromo-3-chloropropane	96-12-8	UJ	Continuing calibration verification percent difference failure
BB2ASW100	184691-001	8260B	Naphthalene	91-20-3	UJ	Continuing calibration verification percent difference failure
BB2ASW100	184691-001	8015B	Gasoline C7-C12	8006-61-9	U	Method blank contamination
BB2ASW100	184691-001	8082	PCB-1248	12672-29-6	UJ	Surrogate percent recovery failure
BB2ASW100	184691-001	8082	PCB-1254	11097-69-1	UJ	Surrogate percent recovery failure
BB2ASW100	184691-001	8082	PCB-1260	11096-82-5	UJ	Surrogate percent recovery failure
BB2ASW100_2/06UF	184691-001	6020	Aluminum, Total	7429-90-5	J	ICP Serial dilution %D failure
BB2ASW100_2/06	184691-001	6020	Aluminum, Dissolved	7429-90-5	UJ	Blank contamination, ICP Serial dilution %D failure
BB2ASW100_2/06UF	184691-001	6020	Barium, Total	7440-39-3	J+	MS/MSD percent recovery failure
BB2ASW100_2/06	184691-001	6020	Barium, Dissolved	7440-39-3	J+	MS/MSD percent recovery failure
BB2ASW100_2/06UF	184691-001	6020	Chromium, Total	7440-47-3	J-	MS/MSD percent recovery failure
BB2ASW100_2/06	184691-001	6020	Chromium, Dissolved	7440-47-3	J-	MS/MSD percent recovery failure

Table 2
Qualified Data Summary
Baker Beach Sampling Event
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
BB2ASW100_2/06UF	184691-001	6020	Copper, Total	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
BB2ASW100_2/06	184691-001	6020	Copper, Dissolved	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
BB2ASW100_2/06	184691-001	6020	Lead, Dissolved	7439-92-1	U	Calibration blank contamination
BB1PZ100	184692-001	8260B	Methylene chloride	75-09-2	U	Method blank and trip blank contamination
BB1PZ100	184692-001	8260B	Chloromethane	74-87-3	UJ	Continuing calibration verification percent difference failure
BB1PZ100	184692-001	8260B	2-Butanone	78-93-3	UJ	Continuing calibration verification percent difference failure
BB1PZ100	184692-001	8260B	1,2-Dibromo-3-chloropropane	96-12-8	UJ	Continuing calibration verification percent difference failure
BB1PZ100	184692-001	8260B	Naphthalene	91-20-3	UJ	Continuing calibration verification percent difference failure
BB1PZ100	184692-001	8015B	Gasoline C7-C12	8006-61-9	U	Method blank and trip blank contamination
BB2ASW100	184692-001	8082	PCB-1248	12672-29-6	UJ	Surrogate percent recovery failure
BB2ASW100	184692-001	8082	PCB-1254	11097-69-1	UJ	Surrogate percent recovery failure
BB2ASW100	184692-001	8082	PCB-1260	11096-82-5	UJ	Surrogate percent recovery failure
BB1PZ100_2/06UF	184692-001	6020	Aluminum, Total	7429-90-5	J	ICP Serial dilution %D failure
BB1PZ100_2/06	184692-001	6020	Aluminum, Dissolved	7429-90-5	UJ	Blank contamination, ICP Serial dilution %D failure
BB1PZ100_2/06UF	184692-001	6020	Barium, Total	7440-39-3	J+	MS/MSD percent recovery failure
BB1PZ100_2/06	184692-001	6020	Barium, Dissolved	7440-39-3	J+	MS/MSD percent recovery failure
BB1PZ100_2/06	184692-001	6020	Calcium, Dissolved	7440-70-2	J	ICP Serial dilution %D failure
BB1PZ100_2/06UF	184692-001	6020	Chromium, Total	7440-47-3	J-	MS/MSD percent recovery failure
BB1PZ100_2/06	184692-001	6020	Chromium, Dissolved	7440-47-3	J-	MS/MSD percent recovery failure
BB1PZ100_2/06UF	184692-001	6020	Copper, Total	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
BB1PZ100_2/06	184692-001	6020	Copper, Dissolved	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
DUP (020106)	184692-002	8260B	Methylene chloride	75-09-2	U	Method blank and trip blank contamination
DUP (020106)	184692-002	8260B	Chloromethane	74-87-3	UJ	Continuing calibration verification percent difference failure
DUP (020106)	184692-002	8260B	2-Butanone	78-93-3	UJ	Continuing calibration verification percent difference failure
DUP (020106)	184692-002	8260B	1,2-Dibromo-3-chloropropane	96-12-8	UJ	Continuing calibration verification percent difference failure
DUP (020106)	184692-002	8260B	Naphthalene	91-20-3	UJ	Continuing calibration verification percent difference failure
DUP (020106)	184692-002	8270C	Pyrene	129-00-0	U	Method blank contamination
DUP (020106)	184692-002	8015B	Gasoline C7-C12	8006-61-9	U	Method blank and trip blank contamination
DUP (020106)	184692-002	8082	PCB-1248	12672-29-6	UJ	Surrogate percent recovery failure
DUP (020106)	184692-002	8082	PCB-1254	11097-69-1	UJ	Surrogate percent recovery failure
DUP (020106)	184692-002	8082	PCB-1260	11096-82-5	UJ	Surrogate percent recovery failure
DUP (020106)	184692-002	6020	Aluminum, Total	7429-90-5	J	ICP Serial dilution %D failure
DUP (020106)	184692-002	6020	Aluminum, Dissolved	7429-90-5	UJ	Blank contamination, ICP Serial dilution %D failure
DUP (020106)	184692-002	6020	Barium, Total	7440-39-3	J+	MS/MSD percent recovery failure
DUP (020106)	184692-002	6020	Barium, Dissolved	7440-39-3	J+	MS/MSD percent recovery failure
DUP (020106)	184692-002	6020	Calcium, Dissolved	7440-70-2	J	ICP Serial dilution %D failure
DUP (020106)	184692-002	6020	Chromium, Total	7440-47-3	J-	MS/MSD percent recovery failure

Table 2
Qualified Data Summary
Baker Beach Sampling Event
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	CAS Number	Qualifier	Reason
DUP (020106)	184692-002	6020	Chromium, Dissolved	7440-47-3	J-	MS/MSD percent recovery failure
DUP (020106)	184692-002	6020	Copper, Total	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
DUP (020106)	184692-002	6020	Copper, Dissolved	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
DUP (020106)	184692-002	6020	Lead, Dissolved	7439-92-1	U	Calibration blank contamination
BB1PZ101	184692-003	8260B	Methylene chloride	75-09-2	U	Method blank and trip blank contamination
BB1PZ101	184692-003	8260B	Chloromethane	74-87-3	UJ	Continuing calibration verification percent difference failure
BB1PZ101	184692-003	8260B	2-Butanone	78-93-3	UJ	Continuing calibration verification percent difference failure
BB1PZ101	184692-003	8260B	1,2-Dibromo-3-chloropropane	96-12-8	UJ	Continuing calibration verification percent difference failure
BB1PZ101	184692-003	8260B	Naphthalene	91-20-3	UJ	Continuing calibration verification percent difference failure
BB1PZ101	184692-003	8270C	Pyrene	129-00-0	U	Method blank contamination
BB1PZ101	184692-003	8015B	Gasoline C7-C12	8006-61-9	U	Method blank and trip blank contamination
BB1PZ101_2/06UF	184692-003	6020	Aluminum, Total	7429-90-5	J	ICP Serial dilution %D failure
BB1PZ101_2/06	184692-003	6020	Aluminum, Dissolved	7429-90-5	UJ	Blank contamination, ICP Serial dilution %D failure
BB1PZ101_2/06UF	184692-003	6020	Barium, Total	7440-39-3	J+	MS/MSD percent recovery failure
BB1PZ101_2/06	184692-003	6020	Barium, Dissolved	7440-39-3	J+	MS/MSD percent recovery failure
BB1PZ101_2/06	184692-003	6020	Calcium, Dissolved	7440-70-2	J	ICP Serial dilution %D failure
BB1PZ101_2/06UF	184692-003	6020	Chromium, Total	7440-47-3	J-	MS/MSD percent recovery failure
BB1PZ101_2/06	184692-003	6020	Chromium, Dissolved	7440-47-3	J-	MS/MSD percent recovery failure
BB1PZ101_2/06	184692-003	6020	Cobalt, Dissolved	7440-48-4	U	Calibration blank contamination
BB1PZ101_2/06UF	184692-003	6020	Copper, Total	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
BB1PZ101_2/06	184692-003	6020	Copper, Dissolved	7440-50-8	J-	MS/MSD %R failure, Serial dilution %D failure
BB1PZ101_2/06	184692-003	6020	Lead, Dissolved	7439-92-1	U	Calibration blank contamination
TB (020106)	184692-004	8260B	Methylene chloride	75-09-2	U	Method blank contamination
TB (020106)	184692-004	8260B	Chloromethane	74-87-3	UJ	Continuing calibration verification percent difference failure
TB (020106)	184692-004	8260B	2-Butanone	78-93-3	UJ	Continuing calibration verification percent difference failure
TB (020106)	184692-004	8260B	1,2-Dibromo-3-chloropropane	96-12-8	UJ	Continuing calibration verification percent difference failure
TB (020106)	184692-004	8260B	Naphthalene	91-20-3	UJ	Continuing calibration verification percent difference failure
TB (020106)	184692-004	8015B	Gasoline C7-C12	8006-61-9	U	Method blank contamination
BB2SB110(1.0)	185213-001	6010B	Thallium	7440-28-0	U	Method blank contamination
BB2SB110(1.0)	185213-001	7471A	Mercury	7439-97-6	J-	Missed analysis holding time
BB2SB110(1.0)	185213-001	6010B	Antimony	7440-36-0	J-	MS/MSD percent recovery failure
BB2SB110(1.0)	185213-001	6010B	Cobalt	7440-48-4	J-	MS/MSD percent recovery failure
BB2SB110(1.0)	185213-001	6010B	Silver	7440-22-4	UJ	MS/MSD percent recovery failure

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BB2SB110 (0.5)	184678-001	Soil	6010B	Antimony	0.96	DUP (020106)	184678-002	ND< 4.5	NC
BB2SB110 (0.5)	184678-001	Soil	6010B	Arsenic	4.7	DUP (020106)	184678-002	5.6	-17%
BB2SB110 (0.5)	184678-001	Soil	6010B	Barium	72	DUP (020106)	184678-002	78	-8.0%
BB2SB110 (0.5)	184678-001	Soil	6010B	Beryllium	0.23	DUP (020106)	184678-002	0.28	-20%
BB2SB110 (0.5)	184678-001	Soil	6010B	Cadmium	0.32	DUP (020106)	184678-002	0.31	3.2%
BB2SB110 (0.5)	184678-001	Soil	6010B	Chromium	740	DUP (020106)	184678-002	370	**67%**
BB2SB110 (0.5)	184678-001	Soil	6010B	Cobalt	52	DUP (020106)	184678-002	42	21%
BB2SB110 (0.5)	184678-001	Soil	6010B	Copper	16	DUP (020106)	184678-002	18	-12%
BB2SB110 (0.5)	184678-001	Soil	6010B	Lead	28	DUP (020106)	184678-002	30	-6.9%
BB2SB110 (0.5)	184678-001	Soil	7471A	Mercury	0.045	DUP (020106)	184678-002	0.049	-8.5%
BB2SB110 (0.5)	184678-001	Soil	6010B	Molybdenum	0.5	DUP (020106)	184678-002	0.52	-3.9%
BB2SB110 (0.5)	184678-001	Soil	6010B	Nickel	910	DUP (020106)	184678-002	540	**51%**
BB2SB110 (0.5)	184678-001	Soil	6010B	Selenium	1.3	DUP (020106)	184678-002	1.2	8.0%
BB2SB110 (0.5)	184678-001	Soil	6010B	Silver	ND	DUP (020106)	184678-002	ND	NA
BB2SB110 (0.5)	184678-001	Soil	6010B	Thallium	ND	DUP (020106)	184678-002	ND	NA
BB2SB110 (0.5)	184678-001	Soil	6010B	Vanadium	67	DUP (020106)	184678-002	62	7.8%
BB2SB110 (0.5)	184678-001	Soil	6010B	Zinc	52	DUP (020106)	184678-002	58	-11%
BB1PZ100	184692-001	Water	8260B	Acetone	1.5	DUP (020106)	184692-002	0.9	50%
BB1PZ100	184692-001	Water	8260B	Methylene chloride	0.3	DUP (020106)	184692-002	0.2	40%
BB1PZ100	184692-001	Water	8260B	Carbon disulfide	0.1	DUP (020106)	184692-002	0.1	0%
BB1PZ100	184692-001	Water	8260B	Benzene	0.2	DUP (020106)	184692-002	0.1	NC
BB1PZ100	184692-001	Water	8260B	All other VOCs	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100	184692-001	Water	8270C	Naphthalene	0.06	DUP (020106)	184692-002	0.02	NC
BB1PZ100	184692-001	Water	8270C	Phenanthrene	0.02	DUP (020106)	184692-002	0.01	NC
BB1PZ100	184692-001	Water	8270C	Pyrene	0.02	DUP (020106)	184692-002	0.02	0%
BB1PZ100	184692-001	Water	8270C	Chrysene	0.02	DUP (020106)	184692-002	ND< 0.1	NC
BB1PZ100	184692-001	Water	8270C	All other PAHs	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100	184692-001	Water	8015B	Gasoline C7-C12	33	DUP (020106)	184692-002	31	6.3%
BB1PZ100	184692-001	Water	8015B	Diesel C12-C24	380	DUP (020106)	184692-002	830	**-74%**
BB1PZ100	184692-001	Water	8015B	Fuel Oil C24-C36	1600	DUP (020106)	184692-002	3100	**-64%**

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BB1PZ100	184692-001	Water	8081A	All pesticides	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100	184692-001	Water	8082	All PCBs	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06UF	184692-001	Water	6020	Antimony, total	1.1	DUP (020106)	184692-002	1.9	NC
BB1PZ100_2/06UF	184692-001	Water	6020	Arsenic, total	8.9	DUP (020106)	184692-002	9.4	-5.5%
BB1PZ100_2/06UF	184692-001	Water	6020	Barium, total	250	DUP (020106)	184692-002	330	-28%
BB1PZ100_2/06UF	184692-001	Water	6020	Beryllium, total	0.4	DUP (020106)	184692-002	0.38	5.1%
BB1PZ100_2/06UF	184692-001	Water	6020	Cadmium, total	3.1	DUP (020106)	184692-002	3.3	-6.2%
BB1PZ100_2/06UF	184692-001	Water	6020	Chromium, total	180	DUP (020106)	184692-002	320	**-56%**
BB1PZ100_2/06UF	184692-001	Water	6020	Cobalt, total	16	DUP (020106)	184692-002	26	-48%
BB1PZ100_2/06UF	184692-001	Water	6020	Copper, total	74	DUP (020106)	184692-002	190	**-88%**
BB1PZ100_2/06UF	184692-001	Water	6020	Lead, total	1800	DUP (020106)	184692-002	2000	-11%
BB1PZ100_2/06UF	184692-001	Water	7470A	Mercury, total	7.5	DUP (020106)	184692-002	11	-38%
BB1PZ100_2/06UF	184692-001	Water	6020	Molybdenum, total	3.3	DUP (020106)	184692-002	6.9	**-71%**
BB1PZ100_2/06UF	184692-001	Water	6020	Nickel, total	230	DUP (020106)	184692-002	360	-44%
BB1PZ100_2/06UF	184692-001	Water	6020	Selenium, total	1.7	DUP (020106)	184692-002	2.4	-34%
BB1PZ100_2/06UF	184692-001	Water	6020	Silver, total	0.21	DUP (020106)	184692-002	0.96	NC
BB1PZ100_2/06UF	184692-001	Water	6020	Thallium, total	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06UF	184692-001	Water	6020	Vanadium, total	55	DUP (020106)	184692-002	62	-12%
BB1PZ100_2/06UF	184692-001	Water	6020	Zinc, total	2200	DUP (020106)	184692-002	2000	9.5%
BB1PZ100_2/06	184692-001	Water	6020	Antimony, dissolved	4.9	DUP (020106)	184692-002	9.7	**-66%**
BB1PZ100_2/06	184692-001	Water	6020	Arsenic, dissolved	3.4	DUP (020106)	184692-002	9.3	**-93%**
BB1PZ100_2/06	184692-001	Water	6020	Barium, dissolved	99	DUP (020106)	184692-002	85	15%
BB1PZ100_2/06	184692-001	Water	6020	Beryllium, dissolved	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06	184692-001	Water	6020	Cadmium, dissolved	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06	184692-001	Water	6020	Chromium, dissolved	2	DUP (020106)	184692-002	1.3	42%
BB1PZ100_2/06	184692-001	Water	6020	Cobalt, dissolved	0.32	DUP (020106)	184692-002	2.6	**-156%**
BB1PZ100_2/06	184692-001	Water	6020	Copper, dissolved	1.4	DUP (020106)	184692-002	2.1	-40%
BB1PZ100_2/06	184692-001	Water	6020	Lead, dissolved	2.2	DUP (020106)	184692-002	1.5	38%
BB1PZ100_2/06	184692-001	Water	7470A	Mercury, dissolved	8.5	DUP (020106)	184692-002	8.9	-4.6%
BB1PZ100_2/06	184692-001	Water	6020	Molybdenum, dissolved	32	DUP (020106)	184692-002	8.7	**114%**

Table 3
Summary of Field Duplicates
Baker Beach
The Presidio of San Francisco, CA

Original Sample #	Laboratory ID	Matrix	Analysis Method	Compound	Original Results	Duplicate Sample #	Laboratory ID	Duplicate Results	RPD
BB1PZ100_2/06	184692-001	Water	6020	Nickel, dissolved	11	DUP (020106)	184692-002	13	-17%
BB1PZ100_2/06	184692-001	Water	6020	Selenium, dissolved	0.63	DUP (020106)	184692-002	1.1	NC
BB1PZ100_2/06	184692-001	Water	6020	Silver, dissolved	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06	184692-001	Water	6020	Thallium, dissolved	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100_2/06	184692-001	Water	6020	Vanadium, dissolved	3.6	DUP (020106)	184692-002	8.6	**-82%**
BB1PZ100_2/06	184692-001	Water	6020	Zinc, dissolved	19	DUP (020106)	184692-002	23	-19%
BB1PZ100	184692-001	Water	300.1	Fluoride	0.13	DUP (020106)	184692-002	0.091	35%
BB1PZ100	184692-001	Water	300.1	Chloride	240	DUP (020106)	184692-002	230	4.3%
BB1PZ100	184692-001	Water	300.1	Bromide	0.9	DUP (020106)	184692-002	0.85	5.7%
BB1PZ100	184692-001	Water	300.1	Nitrate-N	ND	DUP (020106)	184692-002	ND	NA
BB1PZ100	184692-001	Water	300.1	Sulfate	140	DUP (020106)	184692-002	110	24%
BB1PZ100	184692-001	Water	310.1	Alkalinity	490	DUP (020106)	184692-002	550	-12%
BB1PZ100	184692-001	Water	160.1	Total Dissolved Solids	990	DUP (020106)	184692-002	1000	-1.0%
BB1PZ100	184692-001	Water	353.3	Nitrate+Nitrite-Nitrogen	0.14	DUP (020106)	184692-002	0.11	24%

NC: Not calculated. The absolute difference between the sample result and the duplicate sample result is less than the reporting limit.
ND: The sample result was non-detect.
N/A: Not analyzed
NA: Not applicable. Calculation of the relative percent difference between the sample result and the duplicate sample result is not applicable.
RPD: Relative percent difference
Units: ug/kg for soil PAHs; mg/kg for soil metals
ug/L for water organics and metals; mg/L for general chemistry analyses

APPENDIX D

GEOTECHNICAL SLOPE STABILITY ANALYSIS

APPENDIX D - SLOPE STABILITY NARRATIVE

Purpose of Slope Stability Analyses:

This appendix presents the results of slope stability analyses we performed to evaluate the coastal bluffs in the vicinity of Baker Beach Disturbed Areas 1, 1A, 2, and 2A. The purpose of the analyses was to assess the stability of the steep bluff slopes under existing conditions, during removal of waste fills, and after remedial actions at the site.

Material Properties:

The stability of the existing and planned slopes was evaluated using soil and rock profiles and material properties as described in the Material Properties Technical Memorandum (*MACTEC, 2005i*). Engineering properties of the fill materials, landslide debris, native soils/Colma Formation, and Franciscan bedrock were based on the results of our field investigation, laboratory testing, and engineering judgment. The soil strength parameters used in the stability analyses (including cohesion, internal angle of friction, and moist unit weight) are presented in Table 15.

Geometric Properties:

Eight subsurface profiles (A-A' through H-H') were selected for the stability analyses. The depths of soil layers and depth to bedrock within each subsurface profile was estimated and interpolated from our exploratory borings and test pits completed during our field investigation. The profiles are located as shown on Plate 2 and are presented in the cross-sections on Plates 5 through 8. The locations of the cross-sections were selected to model the steepest sections of each BBDA and to utilize the maximum amount of available subsurface information. The locations of the cross sections were also selected for stability analyses of the batteries, potential equipment and staging areas, and disturbed areas present near the base of the slopes.

Circular Failure Surface Analyses:

The computer program Slope/W (Version 2004) by Geoslope International (*2004*) was used for the evaluation of non-planar failure surfaces (Spencer's Method) in soils/rocks with cohesion. Three phases are used by the program to perform the stability analyses: 1) the Define phase, 2) the Solve phase, and 3) the Contour phase. Soil strength parameters and geometric slope properties for each slope condition were input into the Define phase of the program. In several cases, line loads were added to model construction equipment and soil stockpile loads at the slope bluff.

During the Solve phase, the most critical slope surfaces are evaluated. For circular failure surfaces, a grid and radius method of analysis is used. The grid consists of circular slip surface centers (circle axis) positioned over the critical slope area. Tangent lines are then inserted parallel to the critical slope face at various depth intervals. Each circle axis point is then evaluated with a circular slip surface that intersects each of the tangent lines. Slope/W uses limit equilibrium theory to compute the factor of safety (ratio of resisting forces to driving forces) for each of the circular failure surfaces defined by the grid and radius method.

The stability of the near-surface weathered serpentinite bedrock was evaluated using several fully-specified, block-shaped slip surface planes at various depths below the slope surface. Each fully-specified slip surface plane was optimized to search for the lowest possible factor of safety. Optimization consists of dividing the slip surface plane into a number of straight line segments, the ends

of which are adjusted to search for the lowest possible factor of safety. The process is repeated for all the points located along the entire slip surface plane. Then, the longest line segment is subdivided into two equal length parts, with a new point inserted in the middle. This process is repeated until changes in the factor of safety are within tolerance or for a maximum of 2,000 trials. Once optimization is complete, Slope/W computes an axis point close to the approximate center of rotation of the sliding mass. The position of this axis point is not sensitive to the factor of safety calculations for Spencer's method.

The Contour phase presents the results of the analyses including the output shown in the figures in this appendix.

Infinite Slope Analyses:

The Infinite Slope Method was used for evaluation of shallow surface failures of frictional materials parallel to a slope. We used the following equation to determine factors of safety by the infinite slope method (where f is the internal angle of friction and b is the slope angle):

$$F = \frac{\tan f}{\tan b}$$

Results of the infinite slope calculations are shown on the figures generated from Slope/W in this appendix.

Defining Stability:

Both Slope/W and the Infinite Slope Method calculate a factor of safety, which is the ratio of the available resistance to sliding divided by the driving forces. The higher the factor of safety, the more stable the slope. Typically, a slope with a static factor of safety greater than 1.5 indicates a relatively stable slope. For short-term conditions, such as during construction, smaller factors of safety such as 1.3 are usually acceptable. Calculated factors of safety near 1.0 indicate that the slope may be on the verge of failure. Factors of safety well below 1.0 indicate that the slope analyzed would likely be unstable. For large earthquake loads, slope stability methods often yield factors of safety less than 1.0, indicating slope "failure." However, the amount of downward and lateral slope movement during the earthquake will depend on the severity of the earthquake and the static factor of safety of the slope.

Weathered Serpentinite Analyses:

As shown in Table 15, shear strength values were estimated for weathered serpentinite based on field and laboratory data. The strength values were assumed to increase with depth. As the stability analyses were being performed, it became evident that the field and laboratory for weathered serpentinite were relatively limited. Most of the deeper samples of serpentinite were from borings drilled on flat ground behind the bluffs near or beyond the existing batteries. Relatively few samples of serpentinite were collected from any significant depths on the face of the slopes. In most cases, the strength values from laboratory tests were inconsistent with sampling blow counts that suggested much higher strengths.

To evaluate the significance of low shear strengths that might be associated with weathered serpentinite, the slope face of Cross-Section D-D' of BBDA 2A was analyzed by non-circular methods using Slope/W. Serpentinite beneath the slope, except for the unweathered outcrop area at the top of the slope, was assumed to be weathered, with strengths increasing to a depth of 25 feet in accordance with the values in

Table 15. Below 25 feet, the serpentinite was assumed to have a strength equal to that of unweathered rock.

The weathered serpentinite analysis results are summarized on the following Figures D-A through D-J. The plotted results are for failure surfaces to different depths in weathered serpentinite, both under existing conditions and after waste fill is removed. The results indicate factors of safety ranging from 1.13 to 1.50 for existing conditions. Removal of waste fill resulted in increased factors of safety, ranging from 1.38 to 1.77. This is likely caused by a reduction in driving forces that occurs when the weight of the waste fill layer is removed.

The results of the weathered serpentinite analyses led to the conclusion that the serpentinite could be represented as unweathered rock in the slope stability analyses that focus on potential failures in the fill and native soils layers that blanket the slopes above the underlying serpentinite and mélange bedrock. We also concluded that it was not necessary to assign weathered strength values to serpentinite near or behind the existing batteries because these locations are well behind the slopes and would not be a factor in determining the critical (lowest factor of safety) failure surfaces. These assumptions greatly simplified these "full-slope" stability analyses (see below).

Full-Slope Stability Analyses:

Analyses of Cross-Sections A-A' through H-H' in BBDA-1, -1A, -2 and -2A are summarized in the following Figures D-1 through D-30. The conditions analyzed included:

- Existing conditions
- Waste fill removed
- Granular fill replaced
- Equipment and soil loads during construction.

Index of Figures in Appendix D

Plate	Title
D-A	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis A; Existing Slope Conditions - Weathered Serpentinite Analysis - Failure in Sp1
D-B	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis B; afw Removed - Weathered Serpentinite Analysis - Failure in Sp1
D-C	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis C; Existing Slope Conditions - Weathered Serpentinite Analysis - Failure in Sp2
D-D	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis D; afw Removed - Weathered Serpentinite Analysis - Failure in Sp2
D-E	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis E; Existing Slope Conditions - Weathered Serpentinite Analysis - Failure in Sp3a
D-F	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis F; afw Removed - Weathered Serpentinite Analysis - Failure in Sp3a
D-G	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis G; Existing Slope Conditions - Weathered Serpentinite Analysis - Failure in Sp3b
D-H	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis H; afw Removed - Weathered Serpentinite Analysis - Failure in Sp3b
D-I	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis I; Existing Slope Conditions - Weathered Serpentinite Analysis - Failure in Sp3c
D-J	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis J; afw Removed - Weathered Serpentinite Analysis - Failure in Sp3c
D-1	Baker Beach Disturbed Area 1; Cross Section A-A' - Analysis 1A - 1C; Existing Slope Conditions
D-2	Baker Beach Disturbed Area 1; Cross Section A-A' - Analysis 2; afw and Qls Removed
D-3	Baker Beach Disturbed Area 1; Cross Section A-A' - Analysis 3; afw and Qls Removed - KJm Stability Analysis
D-4	Baker Beach Disturbed Area 1; Cross Section C-C' - Analysis 4A - 4D; Existing Slope Conditions
D-5	Baker Beach Disturbed Area 1; Cross Section C-C' - Analysis 5A - 5F; afw Removed
D-6	Baker Beach Disturbed Area 1; Cross Section C-C' - Analysis 6; afw Removed - KJm Stability Analysis
D-7	Baker Beach Disturbed Area 1; Cross Section C-C' - Analysis 7; afw Removed - ahf Stability Analysis
D-8	Baker Beach Disturbed Area 1; Cross Section C-C' - Analysis 8A - 8B; afw Removed - (Granular Fill) afr Replaced
D-9	Baker Beach Disturbed Area 1; Cross Section F-F' - Analysis 9A - 9B; Existing Slope Conditions
D-10	Baker Beach Disturbed Area 1; Cross Section H-H' - Analysis 10A - 10B; Existing Slope Conditions
D-11	Baker Beach Disturbed Area 1; Cross Section H-H' - Analysis 11A - 11C; afw Removed
D-12	Baker Beach Disturbed Area 1; Cross Section H-H' - Analysis 12; afw Removed - 100 kip Crane Load
D-13	Baker Beach Disturbed Area 1; Cross Section H-H' - Analysis 13; afw Removed - 100 kip Crane &136 kip Soil
D-14	Baker Beach Disturbed Area 1A; Cross Section G-G' - Analysis 14A-14C; Existing Slope Conditions
D-15	Baker Beach Disturbed Area 1A; Cross Section G-G' - Analysis 15; afw Removed - (Granular Fill) afr Replaced
D-16	Baker Beach Disturbed Area 1A; Cross Section G-G' - Analysis 16; afw Removed - afh1 Short Term Stability
D-17	Baker Beach Disturbed Area 2; Cross Section E-E' - Analysis 17A - 17C; Existing Slope Conditions
D-18	Baker Beach Disturbed Area 2; Cross Section E-E' - Analysis 18; afw Removed
D-19	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 19A - 19D; Existing Slope Conditions
D-20	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 20A - 20B; afw Removed
D-21	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 21; afw Removed - afh2 Short Term Stability
D-22	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 22; afw and afh2 Removed - Short Term Qcol & Qls
D-23	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 23; afw & afh2 Removed - KJm Stability Analysis
D-24	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 24; afw Removed - Qcol Stability Analysis
D-25	Baker Beach Disturbed Area 2A; Cross Section D-D' - Analysis 25; afw Removed - (Granular Fill) afr Replaced
D-26	Baker Beach Disturbed Area 2A; Cross Section B-B' - Analysis 26A - 26D; Existing Slope Conditions
D-27	Baker Beach Disturbed Area 2A; Cross Section B-B' - Analysis 27A - 27D; afw Removed
D-28	Baker Beach Disturbed Area 2A; Cross Section B-B' - Analysis 28; afw Removed - 32 kip Light Equipment Load
D-29	Baker Beach Disturbed Area 2A; Cross Section B-B' - Analysis 29; afw Removed - 100 kip Crane Load
D-30	Baker Beach Disturbed Area 2A; Cross Section B-B' - Analysis 30; afw Removed - 100 kip Crane + 136 kip Soil

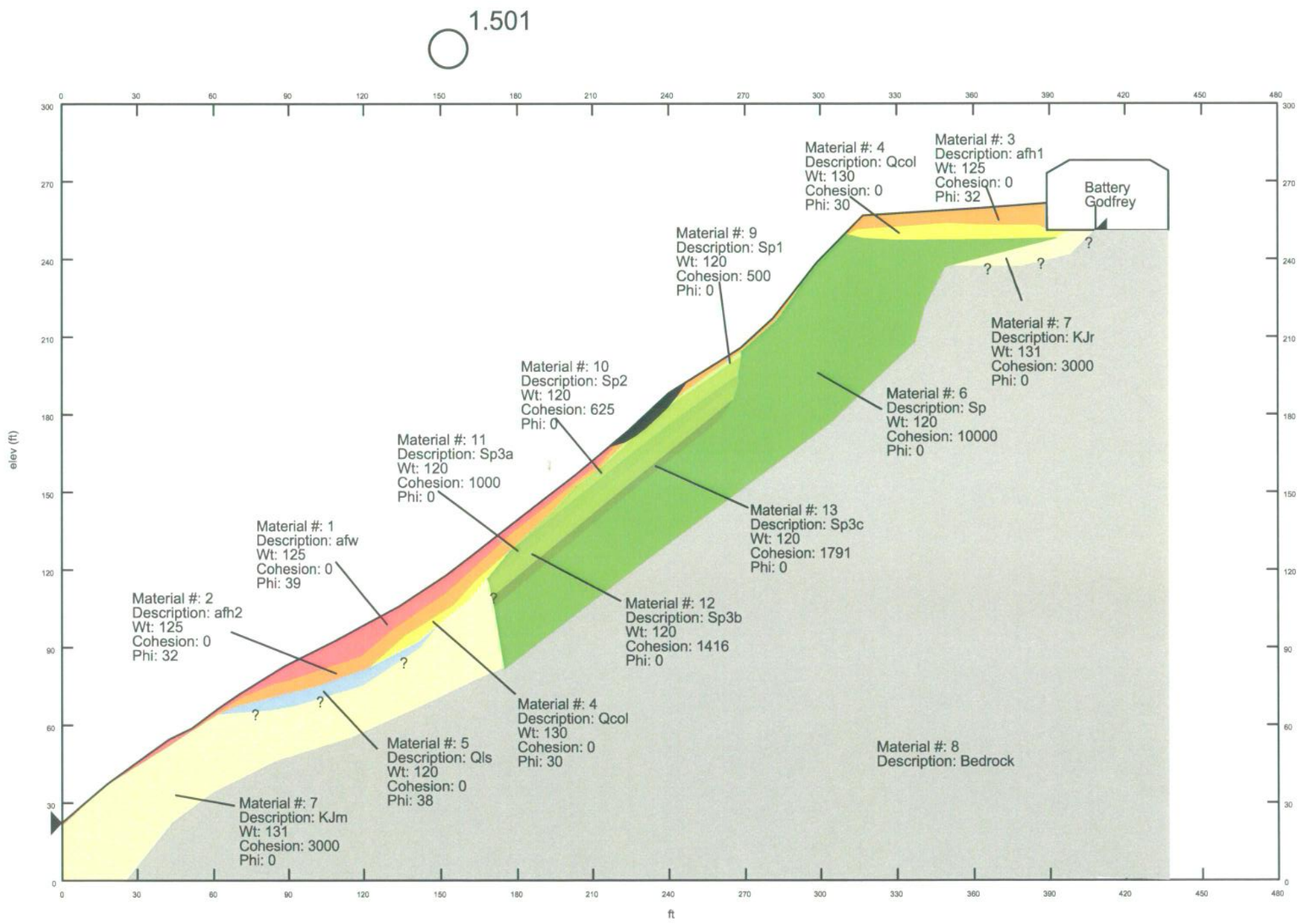

FIGURE D-A.DWG 1.0
20060607.1638

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ENGINEER: DWQ	SCALE: 1"=50'		**Baker Beach Disturbed Area 2A** Cross Section D-D' - Analysis A Existing Slope Conditions Weathered Serpentinite Analysis - Failure in Sp1
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DATE: 6/8/06	DATE: 6/8/06		

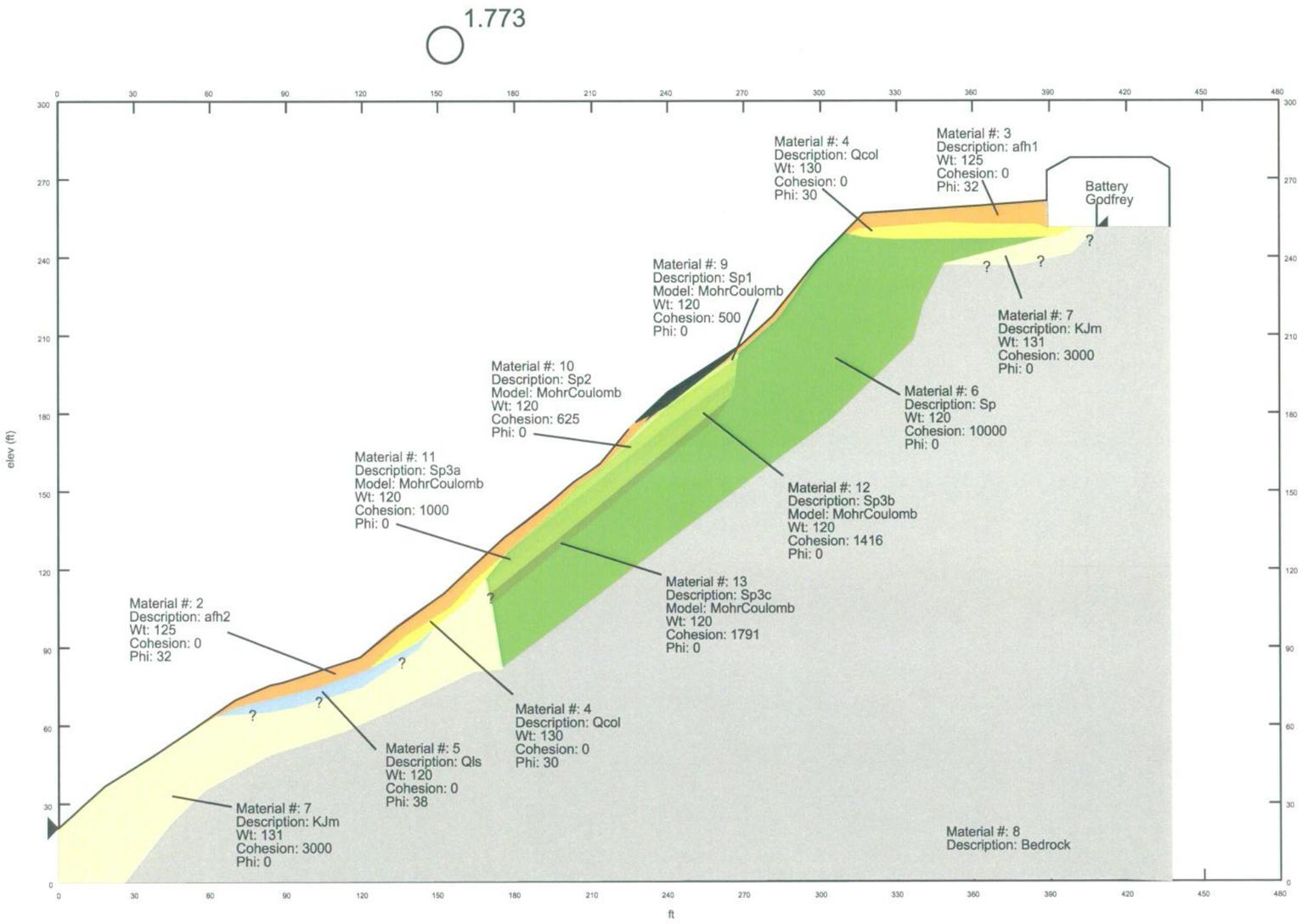

FIGURE D-B.DWG 1.0
20060607:1630

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ENGINEER: DWQ	SCALE: 1"=50'		
CHECKED:	APPROVED: DQ		
DATE: 6/8/06	DATE: 6/8/06		

MACTEC

PLATE: **D-B**

1.130

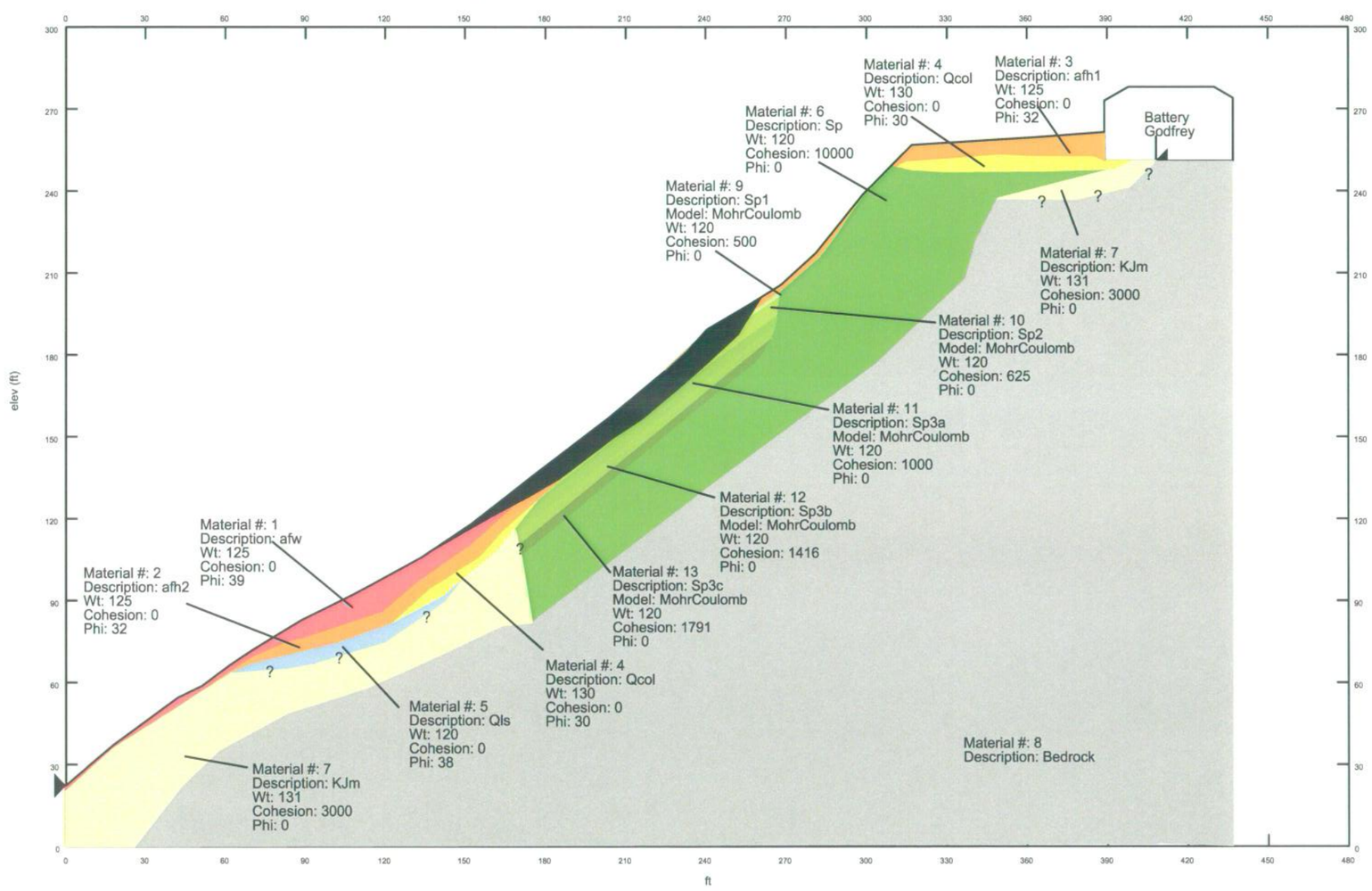

FIGURE D-C.DWG 1.0
20060607.1636

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DATE: 6/8/06	DATE: 6/7/06		

1.504

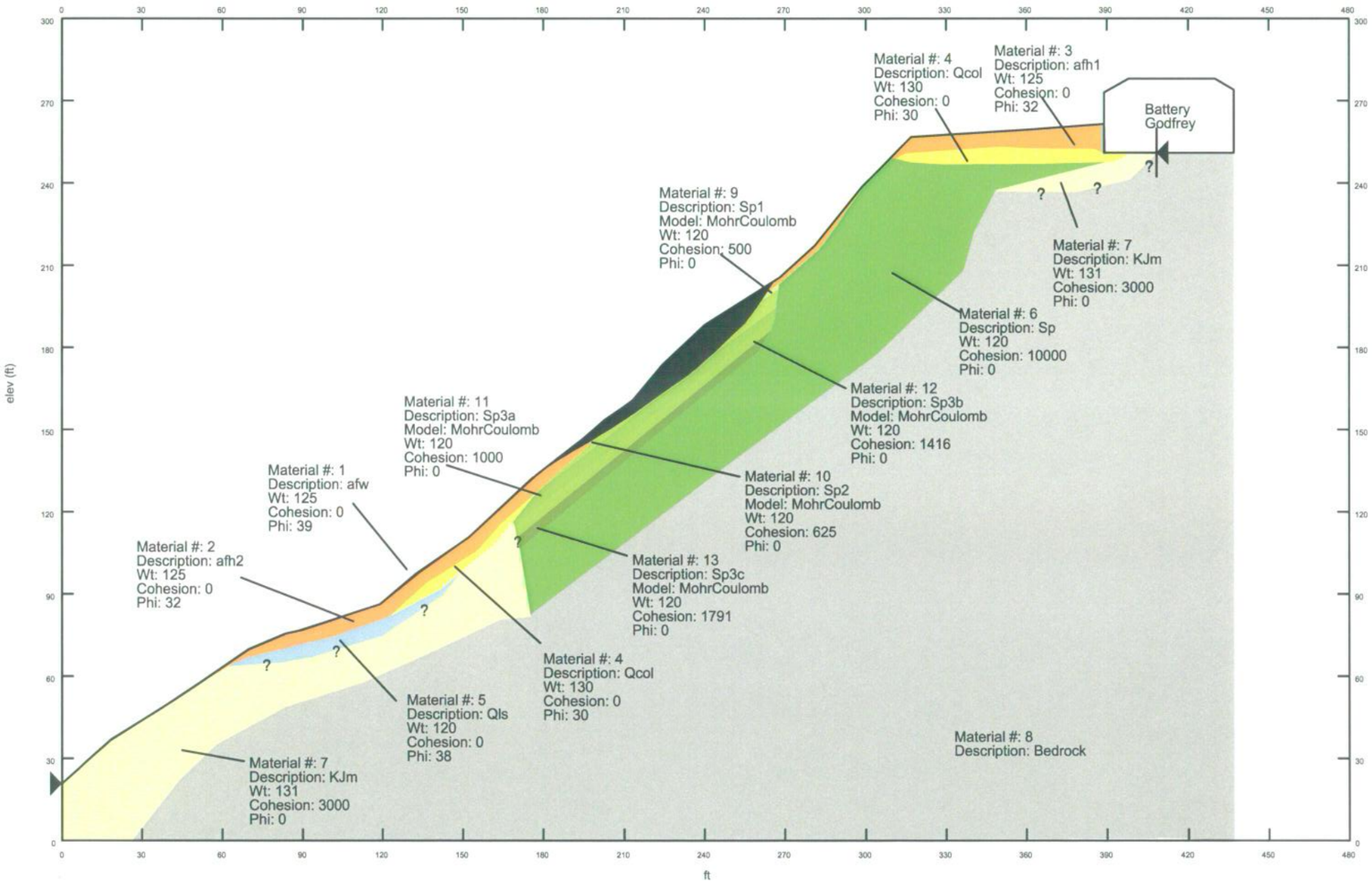

FIGURE D-D.DWG 1.0
20060608.1010

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ENGINEER: DWQ	SCALE: 1"=50'		**Baker Beach Disturbed Area 2A** Cross Section D-D' - Analysis D afw Removed Weathered Serpentinite Analysis - Failure in Sp2
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DATE: 6/8/06	DATE: 6/12/06		

1.217

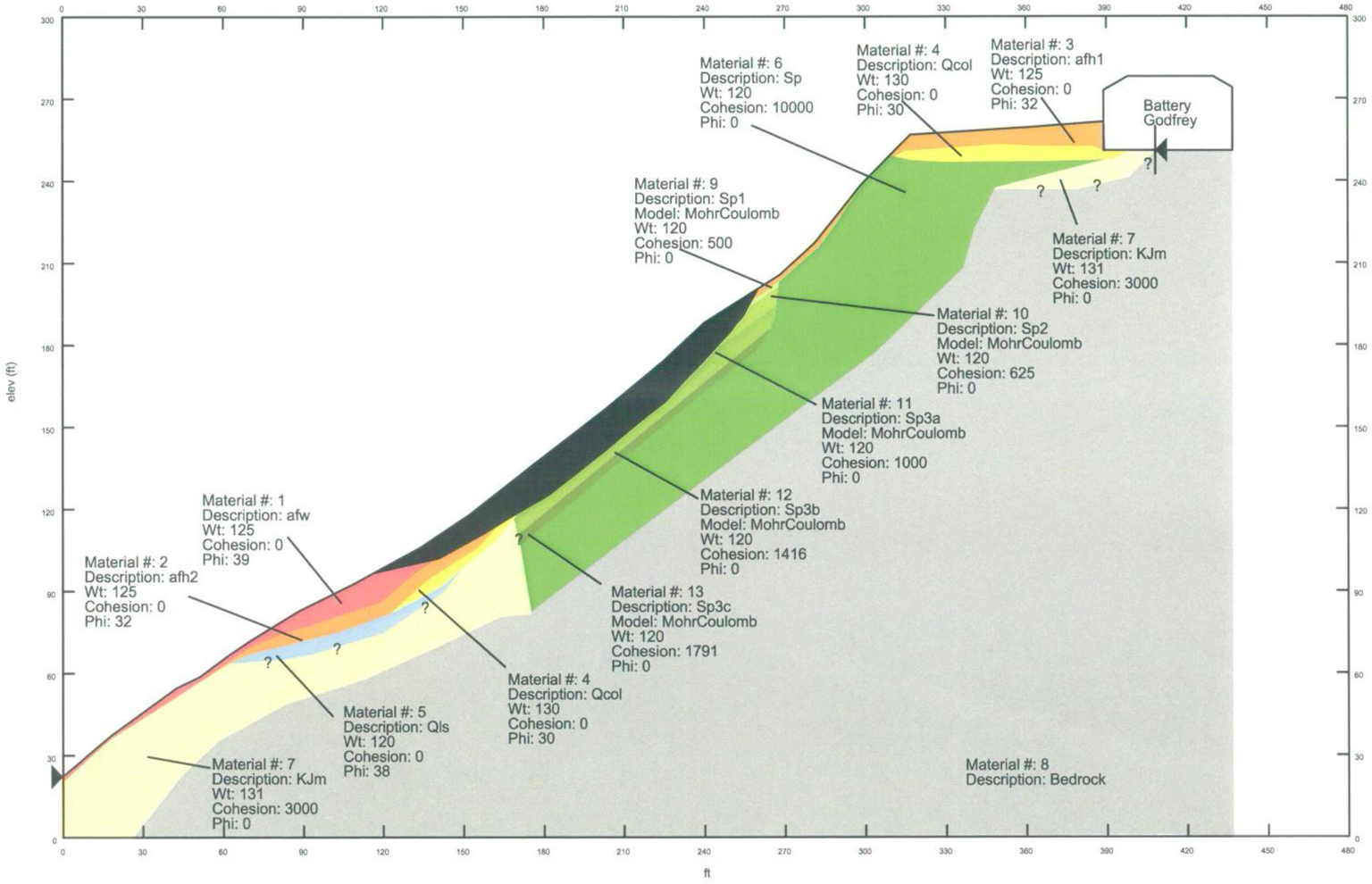

FIGURE D-E.DWG 1.0
20060608.1011

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DATE: 6/8/06	DATE: 6/7/06		

MACTEC

PLATE: **D-E**

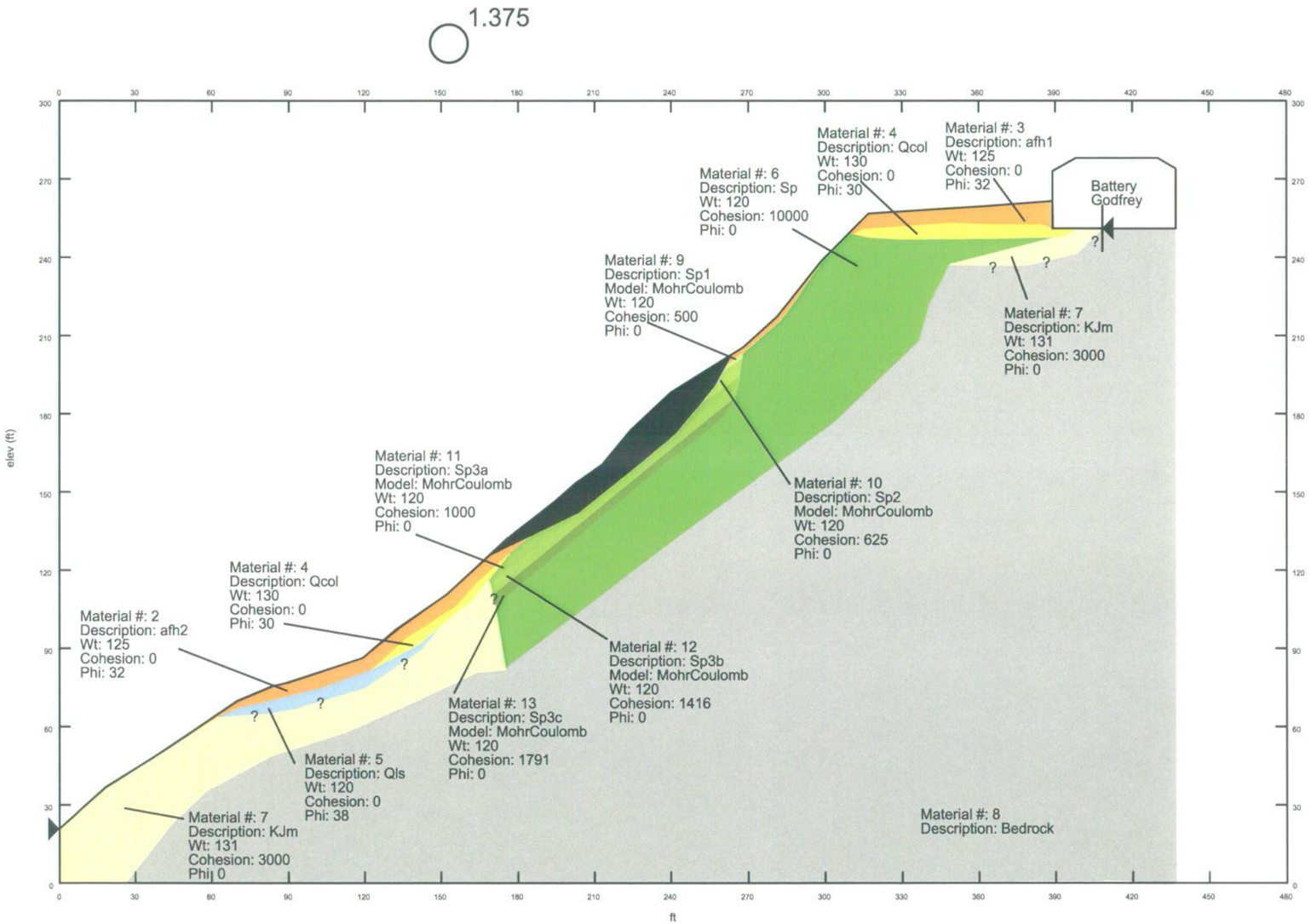

FIGURE D-F.DWG 1.0
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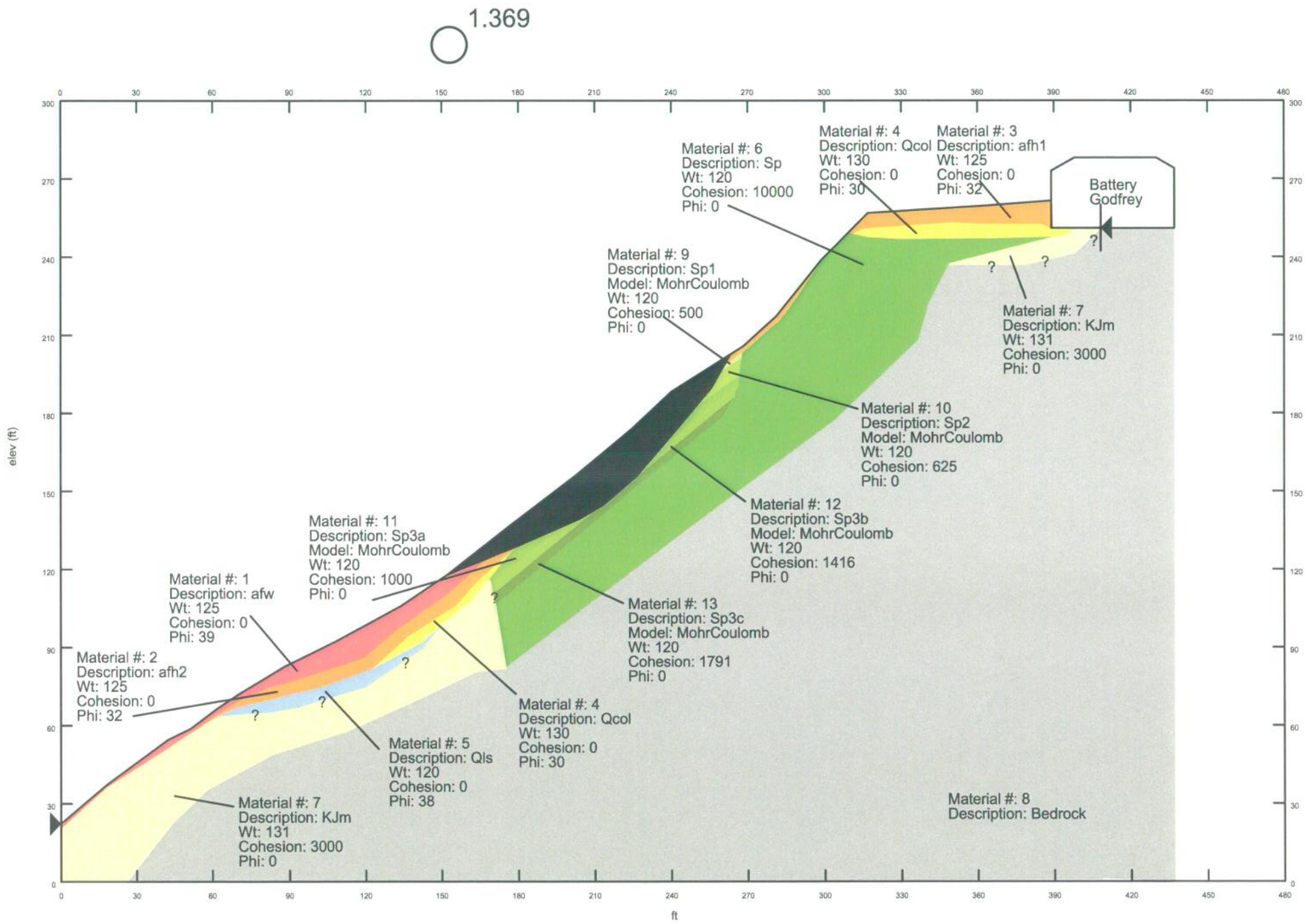

FIGURE D-G.DWG 1.0
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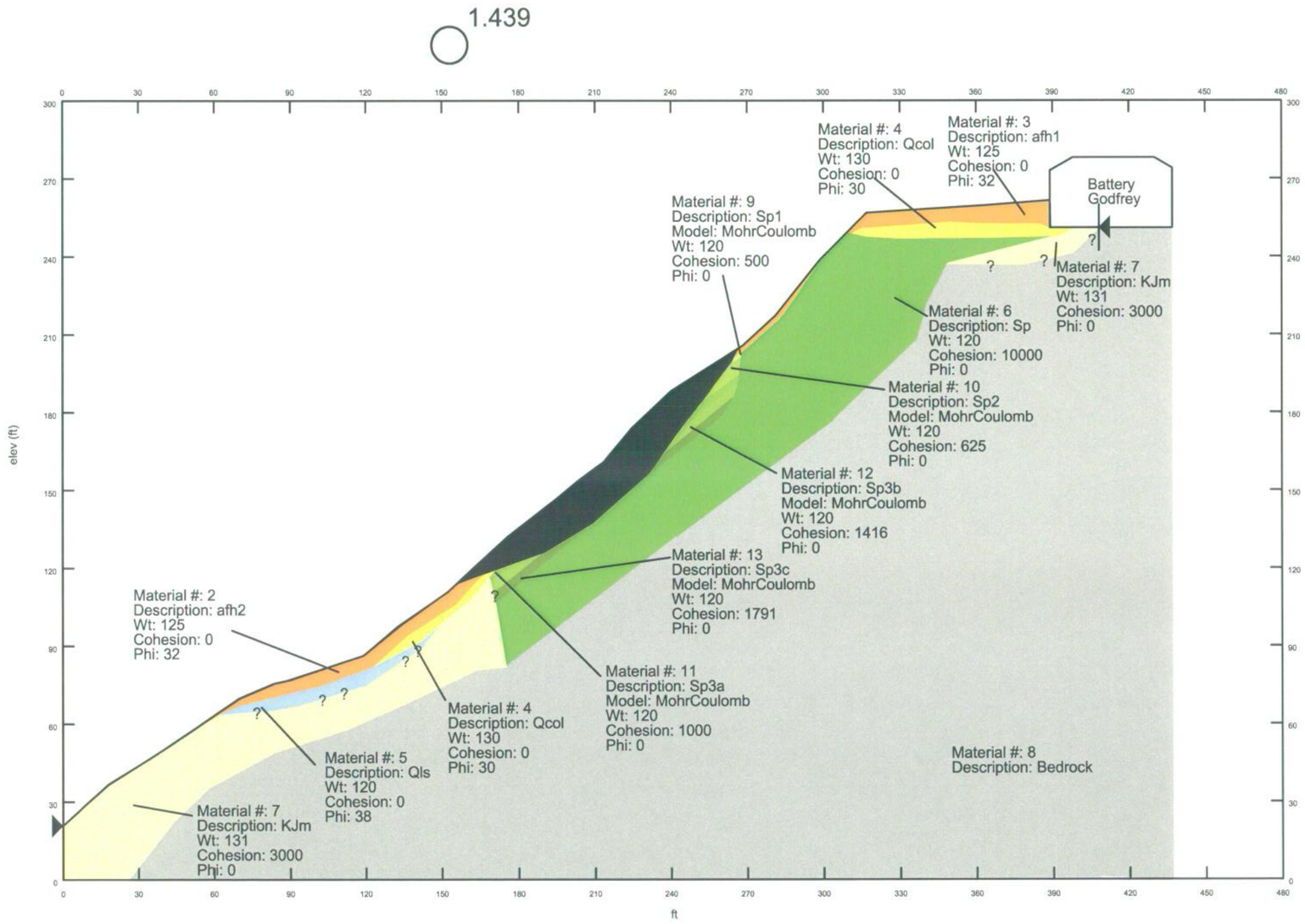

FIGURE D-H.DWG 1.0
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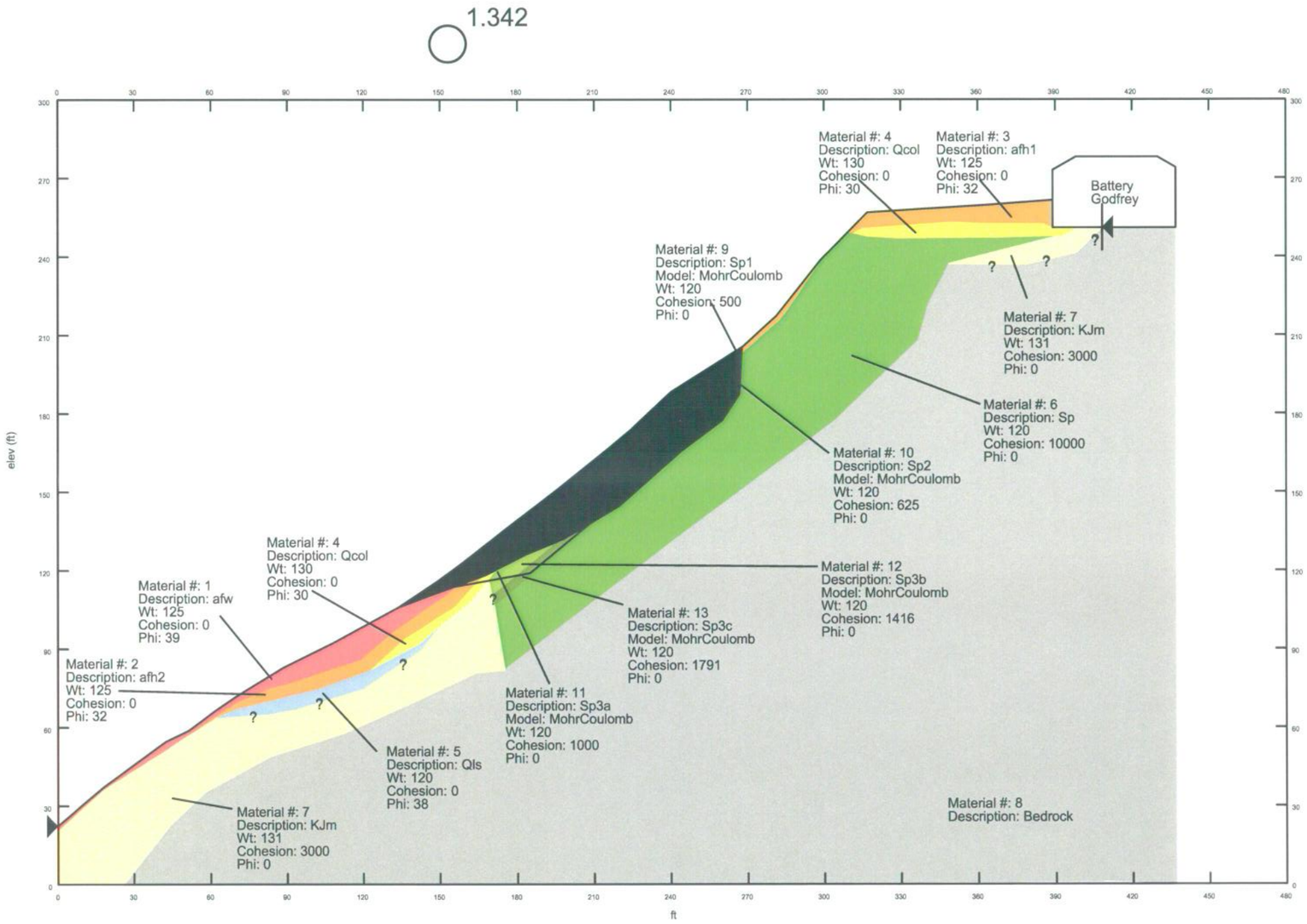

FIGURE D-I.DWG 1.0
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ENGINEER: DWQ	SCALE: 1"=50'		**Baker Beach Disturbed Area 2A** Cross Section D-D' - Analysis I Existing Slope Conditions Weathered Serpentinite Analysis-Failure in Sp3c
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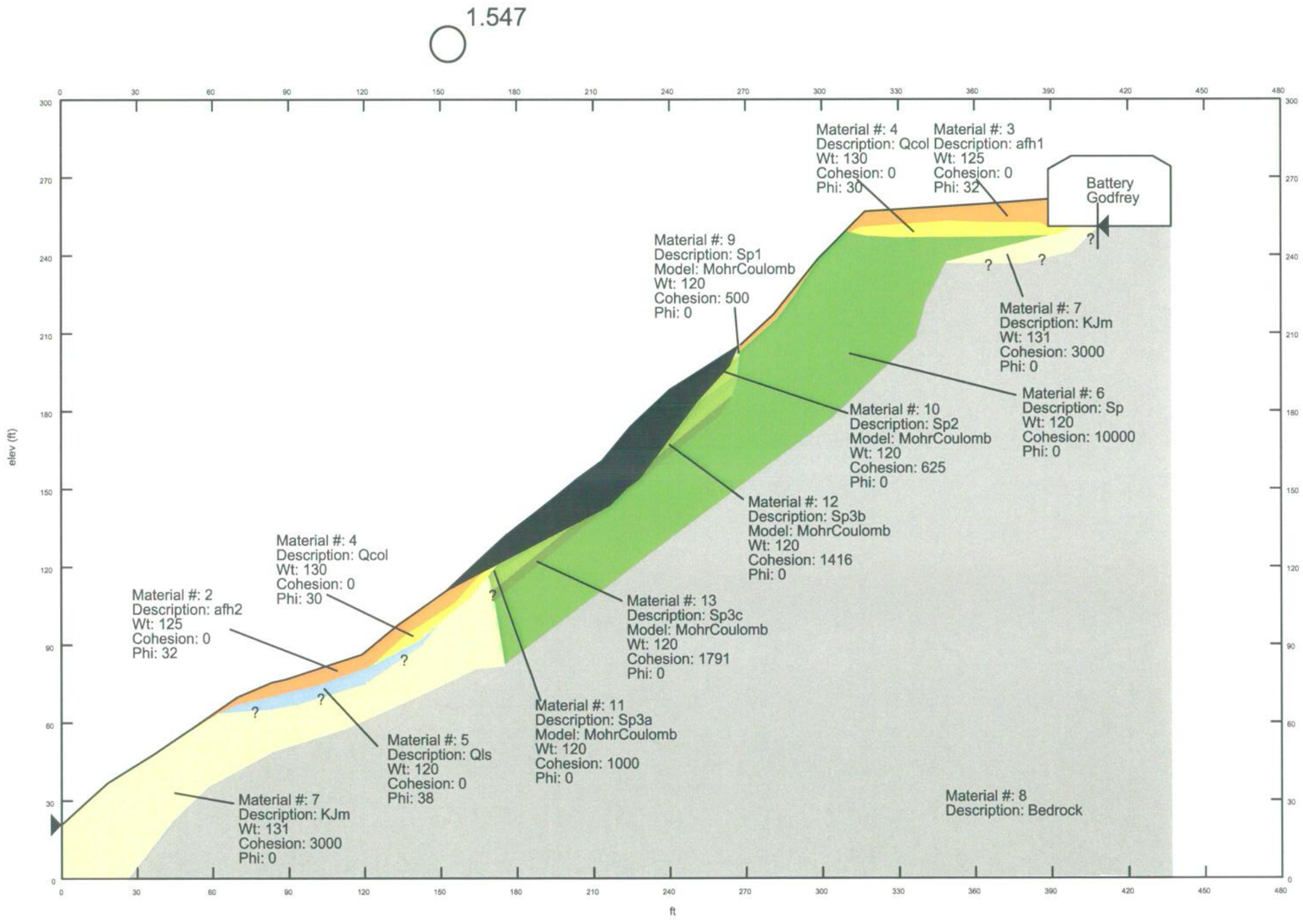

FIGURE D-J.DWG 1.0
20060608.1019

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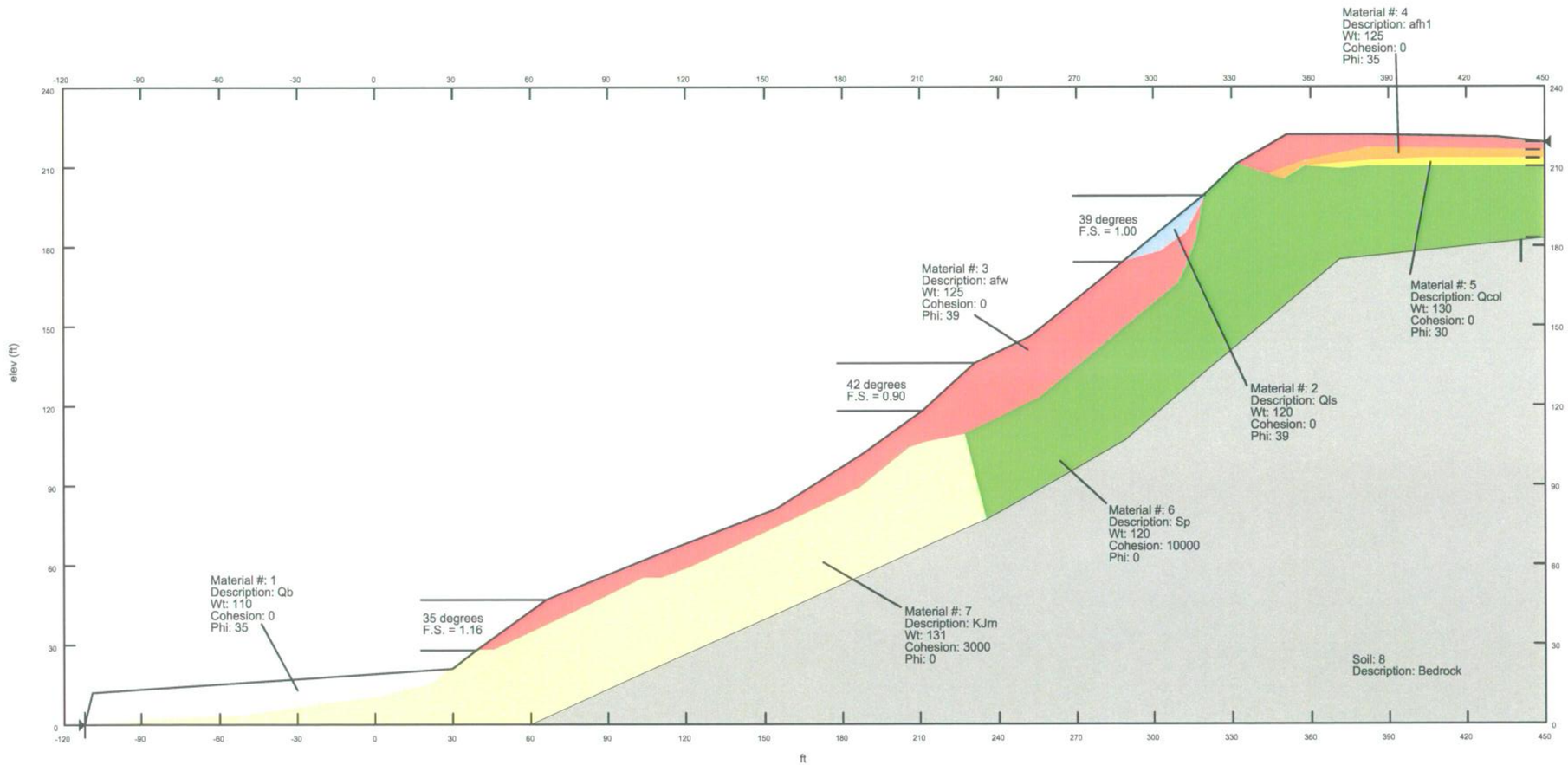

FIGURE D-1.DWG 1.0
20060508.1127

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CHECKED:	APPROVED: DQ		FIGURE: **D-1**
DATE: 6/8/06	DATE: 6/9/06		

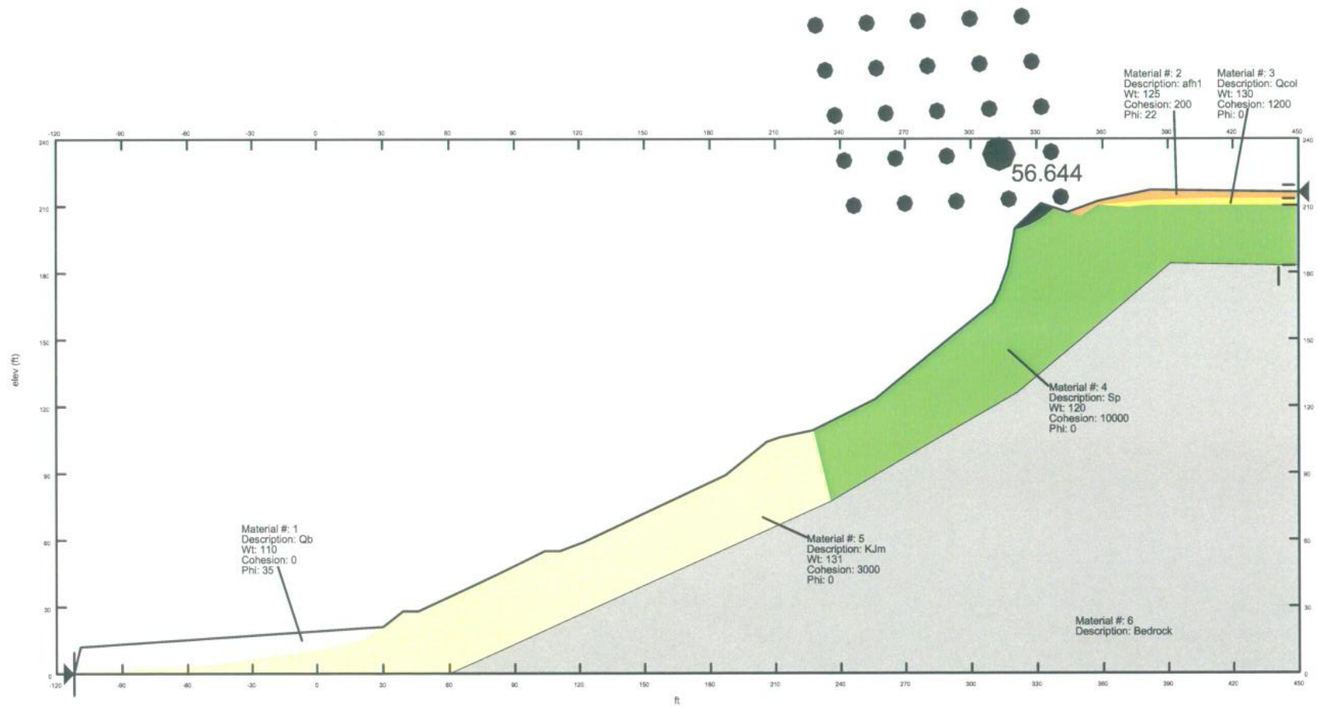

FIGURE D-2.DWG 1.0
20060607.1700

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CHECKED: JHD	APPROVED: DQ		FIGURE: **D-2**
DATE: 6/8/06	DATE: 6/8/06		

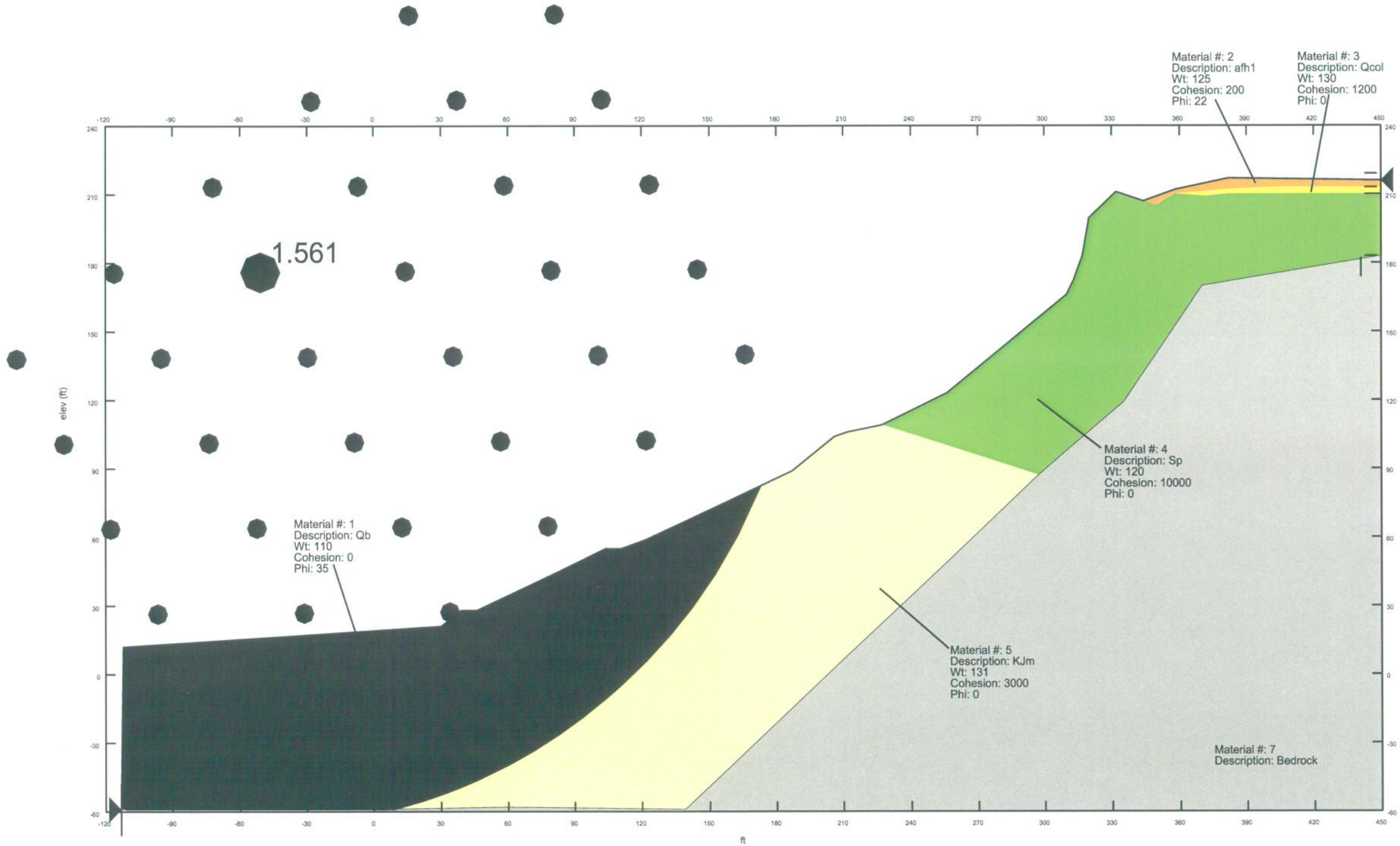

FIGURE D-3.DWG 1.0
20060607.1701

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DATE: 6/8/06	DATE: 6/8/06				

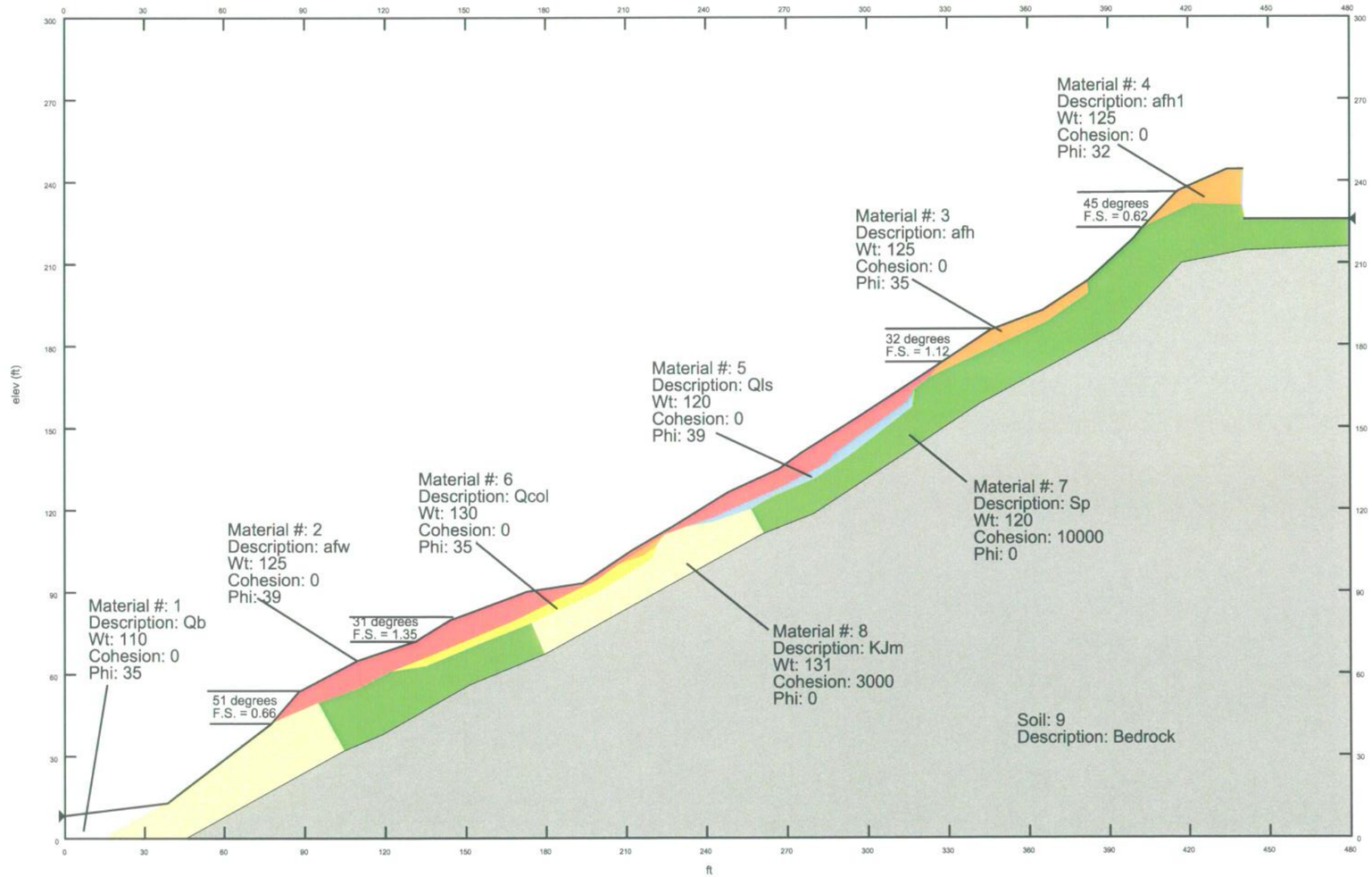

FIGURE D-4.DWG 1.0
20060608.08.34

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DATE: 6/8/06	DATE: 6/8/06		

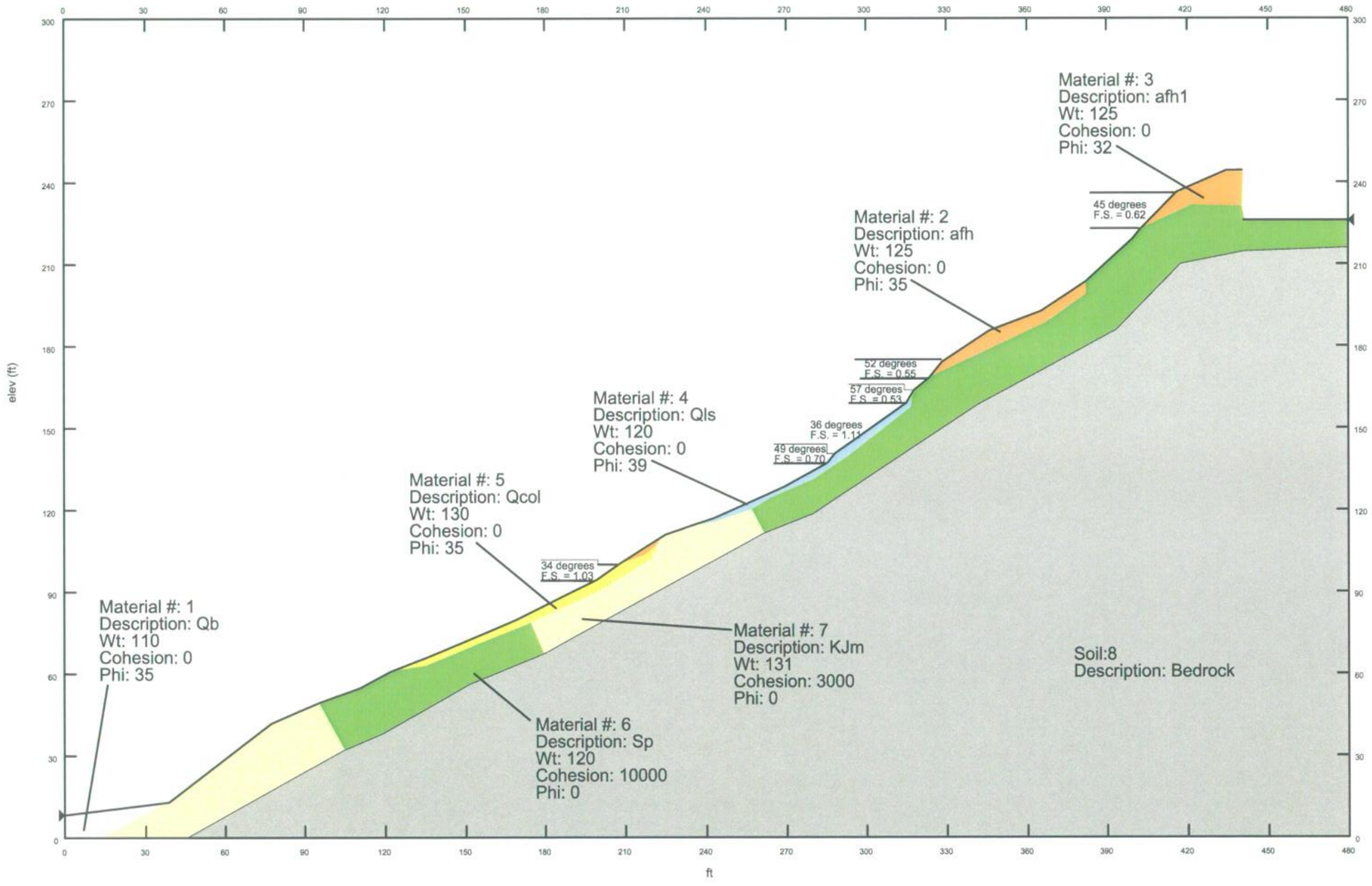


FIGURE D-5.DWG 1.0
20060608.0835

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 1 Cross Section C-C' - Analysis 5A-5F afw Removed
CHECKED:	APPROVED: DQ		FIGURE: **D-5**
DATE: 6/8/06	DATE: 6/8/06		

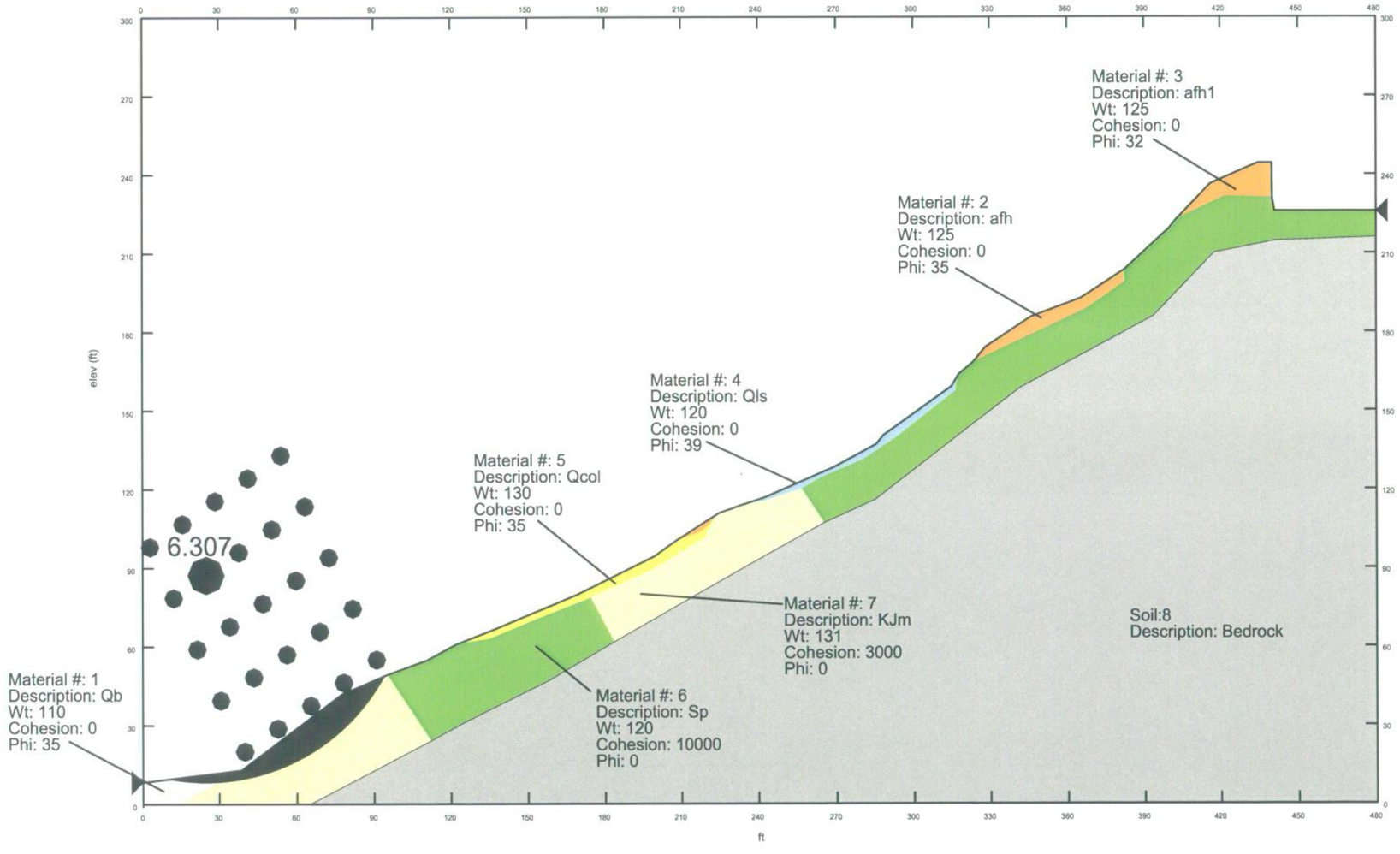


FIGURE D-6.DWG 1.0
20060508.1133

DRAWN: JHD	PROJECT NO: 57255 005105	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section C-C' - Analysis 6 afw Removed - KJm Stability Analysis
ENGINEER: DWQ	SCALE: 1"=50'		
CHECKED:	APPROVED: DQ		
DATE: 6/8/06	DATE: 6/8/06		

MACTEC

FIGURE: **D-6**

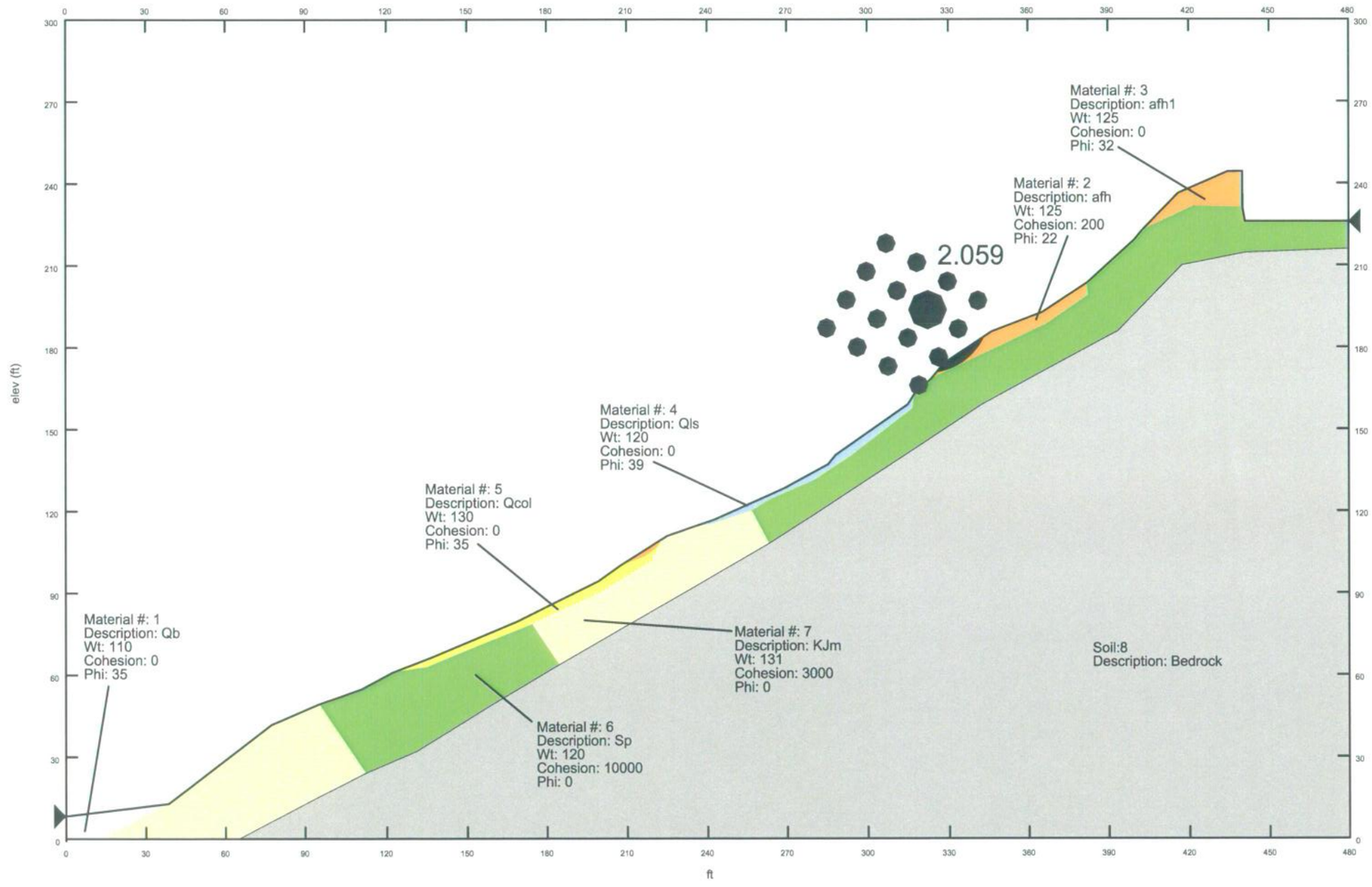


FIGURE D-7.DWG 1.0
20060508.1134

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section C-C' - Analysis 7 afw Removed - ahf Stability Analysis	FIGURE: **D-7**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/8/06				

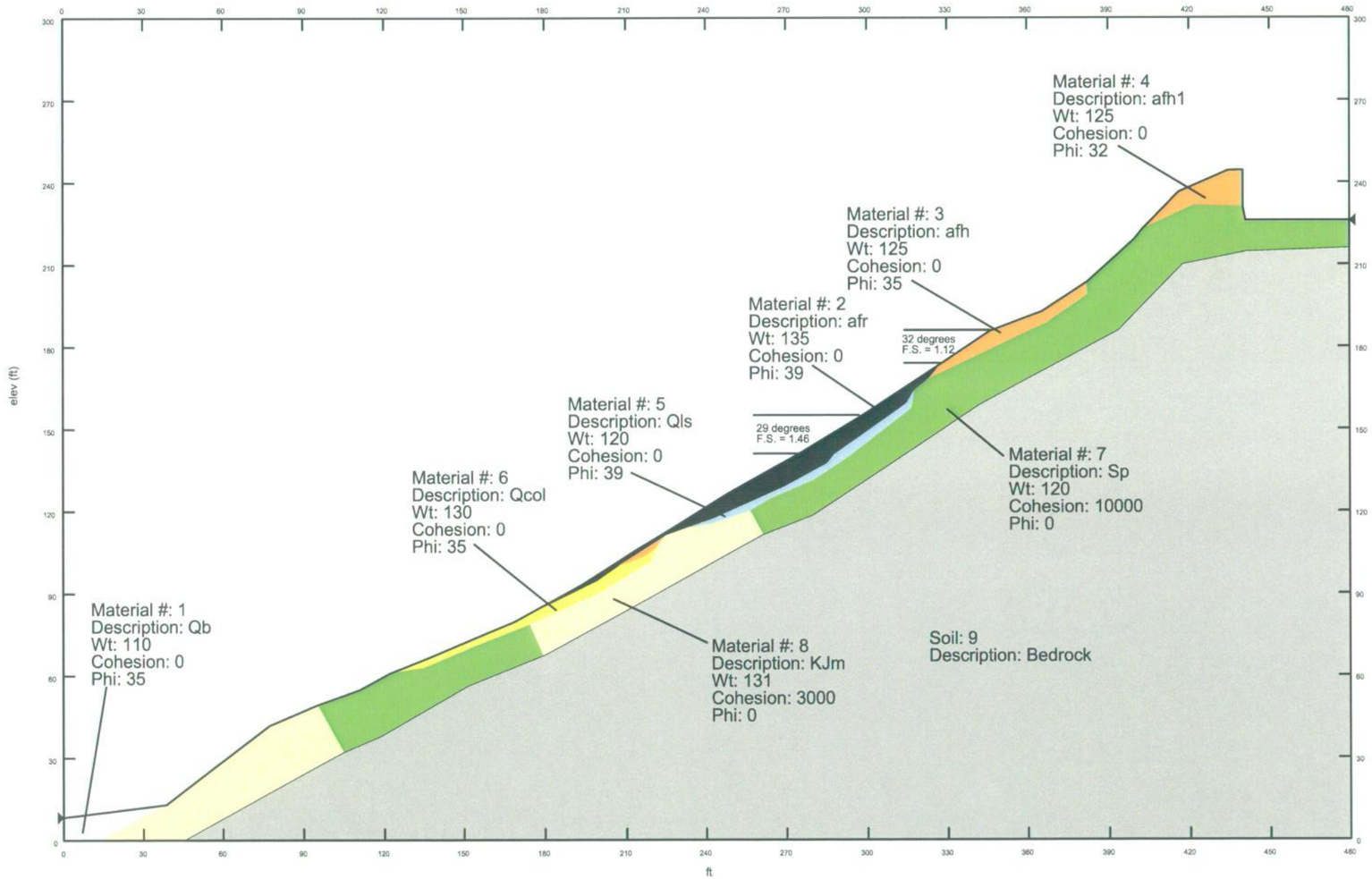


FIGURE D-8.DWG 1.0
20060508.11:36

DRAWN: JHD	PROJECT NO: 57255 005105	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section C-C' - Analysis 8A-8B afw Removed - (Granular Fill) afr Replaced
ENGINEER: DWQ	SCALE: 1"=50'		
CHECKED:	APPROVED: DQ		
DATE: 6/8/06	DATE: 6/8/06		

MACTEC

FIGURE: **D-8**

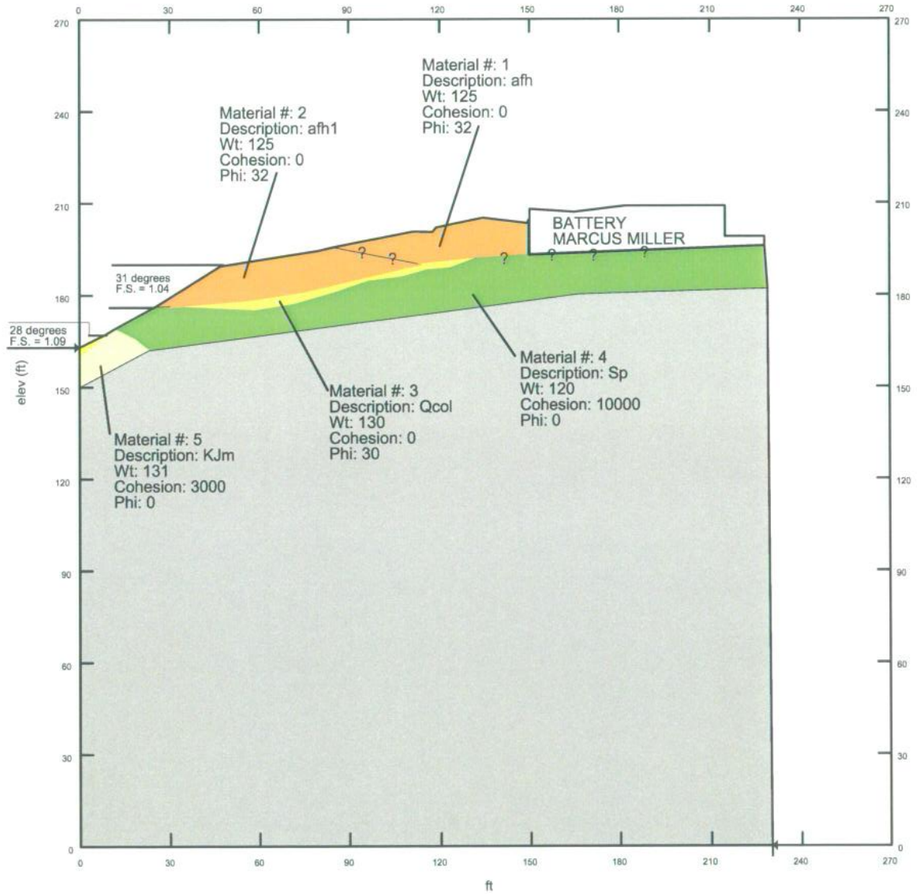
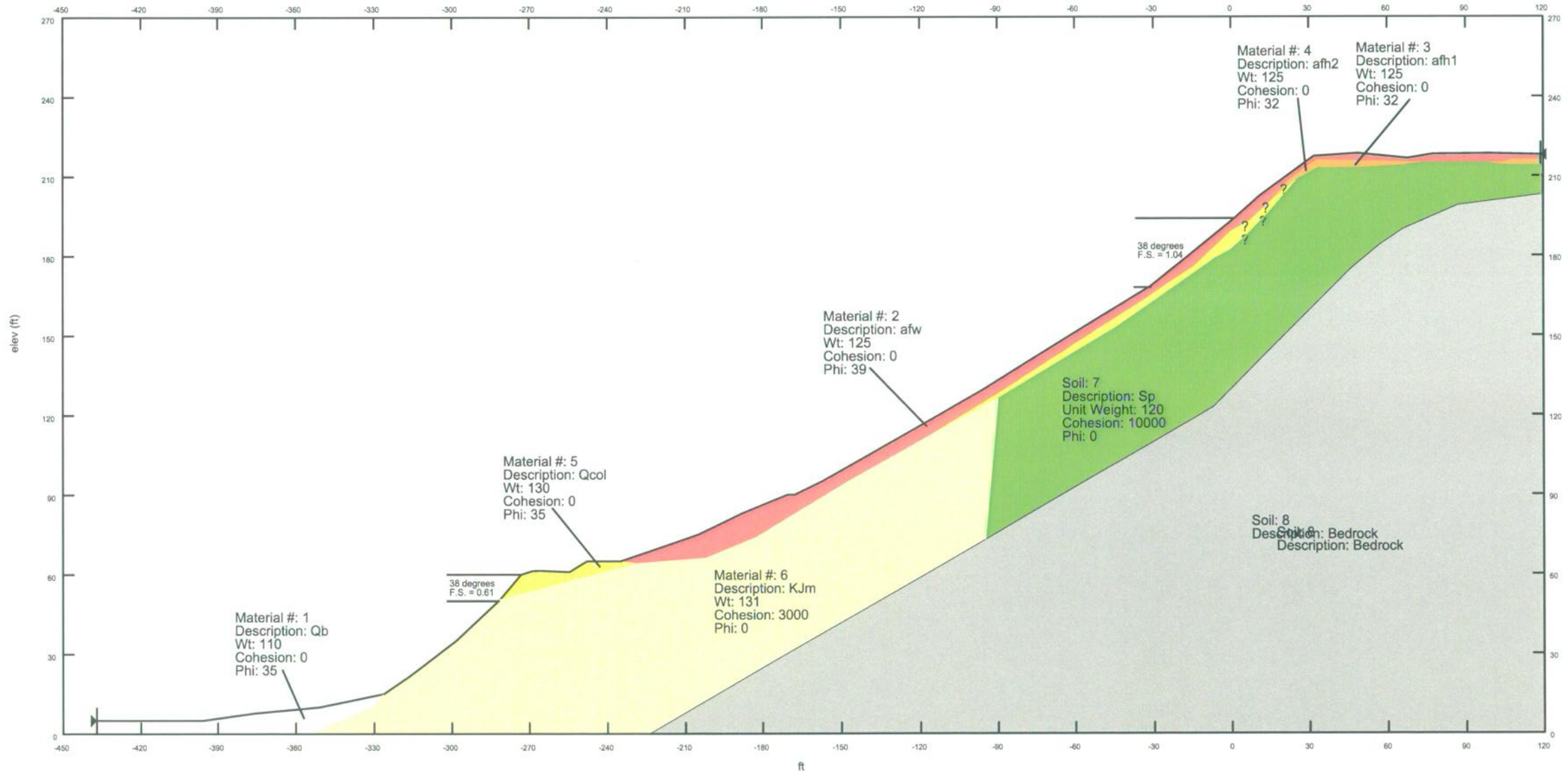


FIGURE D--9.DWG 1.0
20060508.1137

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section F-F' - Analysis 9A-9B Existing Slope Conditions	FIGURE: **D-9**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/8/06				

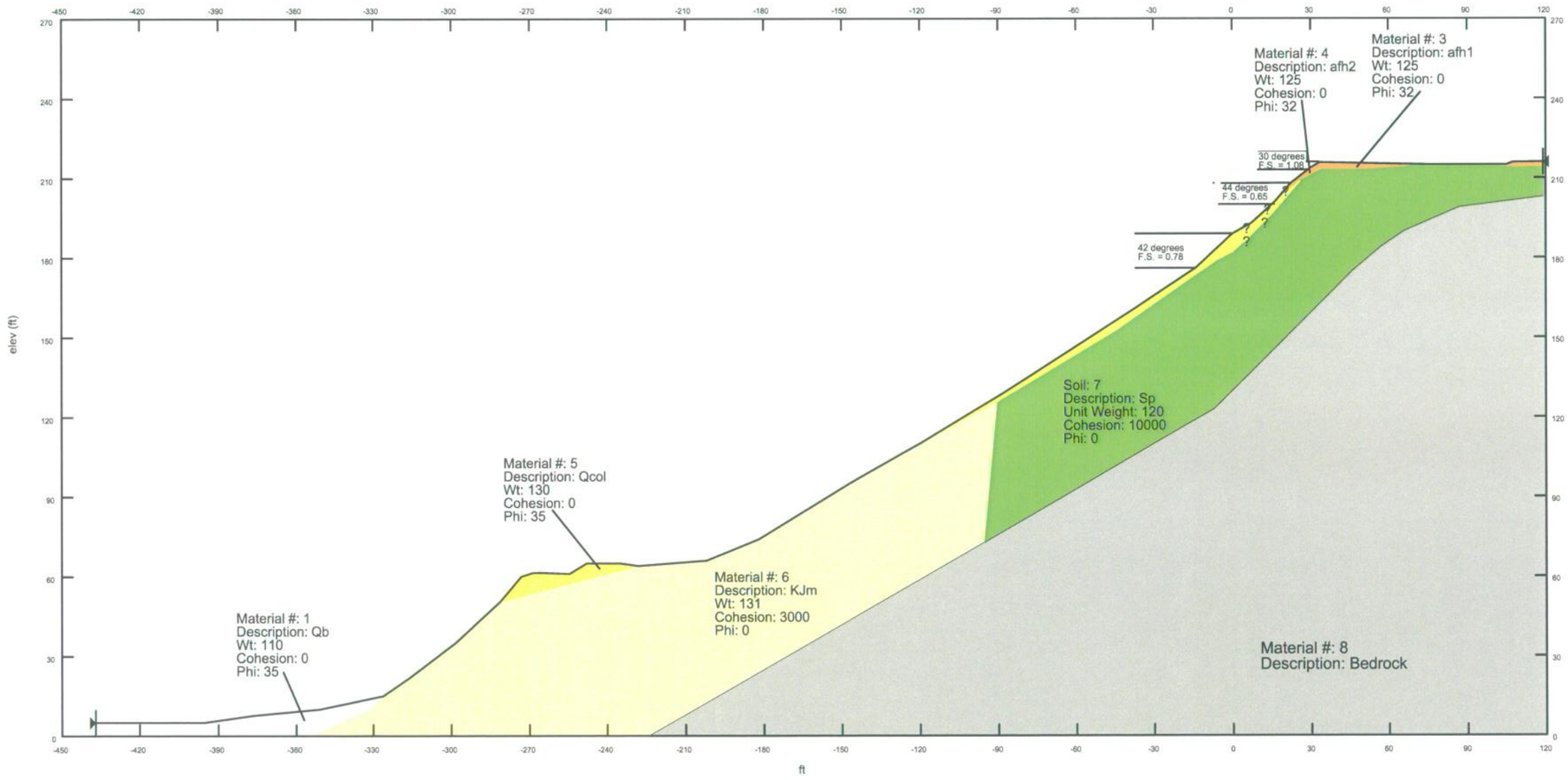


FIGURE_D-10.DWG 1.0
20060508.1140

DRAWN: JHD	PROJECT NO: 57255 005105	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section H-H' - Analysis 10A-10B Existing Slope Conditions
ENGINEER: DWQ	SCALE: 1"=50'		
CHECKED:	APPROVED: DQ		
DATE: 6/8/06	DATE: 6/8/06		

MACTEC

FIGURE: **D-10**



FIGURE_D-11.DWG 1.0
20060508.1141

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 1 Cross Section H-H' - Analysis 11A - 11C afw Removed	FIGURE: **D-11**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/9/06				

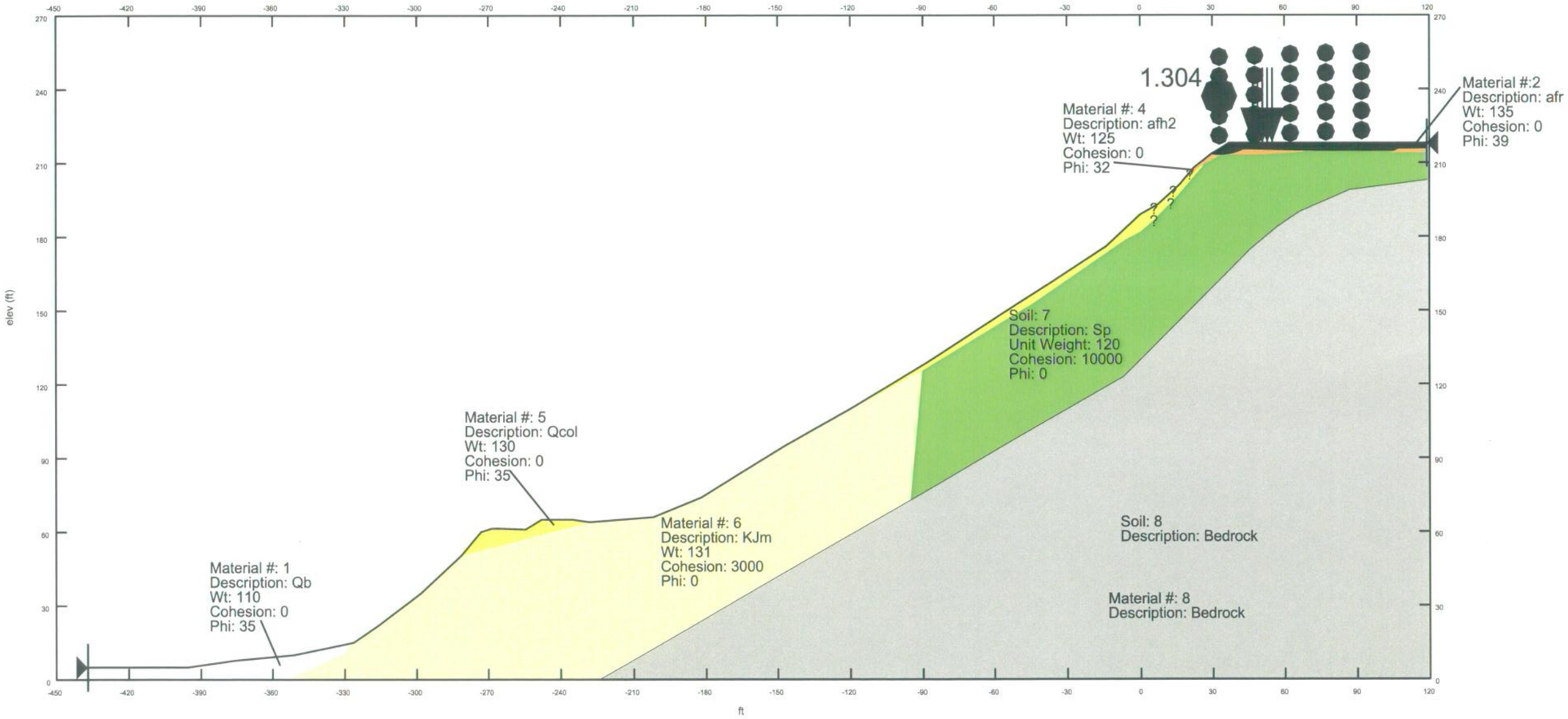


FIGURE D-12.DWG 1.0
20060508.1144

DRAWN: JHD	PROJECT NO: 57255 005105
ENGINEER: DWQ	SCALE: 1"=50'
CHECKED:	APPROVED: DQ
DATE: 6/8/06	DATE: 6/9/06

MACTEC

Field Investigation Report
Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A
Presidio of San Francisco, California

Baker Beach Disturbed Area 1
Cross Section H-H' - Analysis 12
afw Removed - 100 kip Crane Load

FIGURE:
D-12

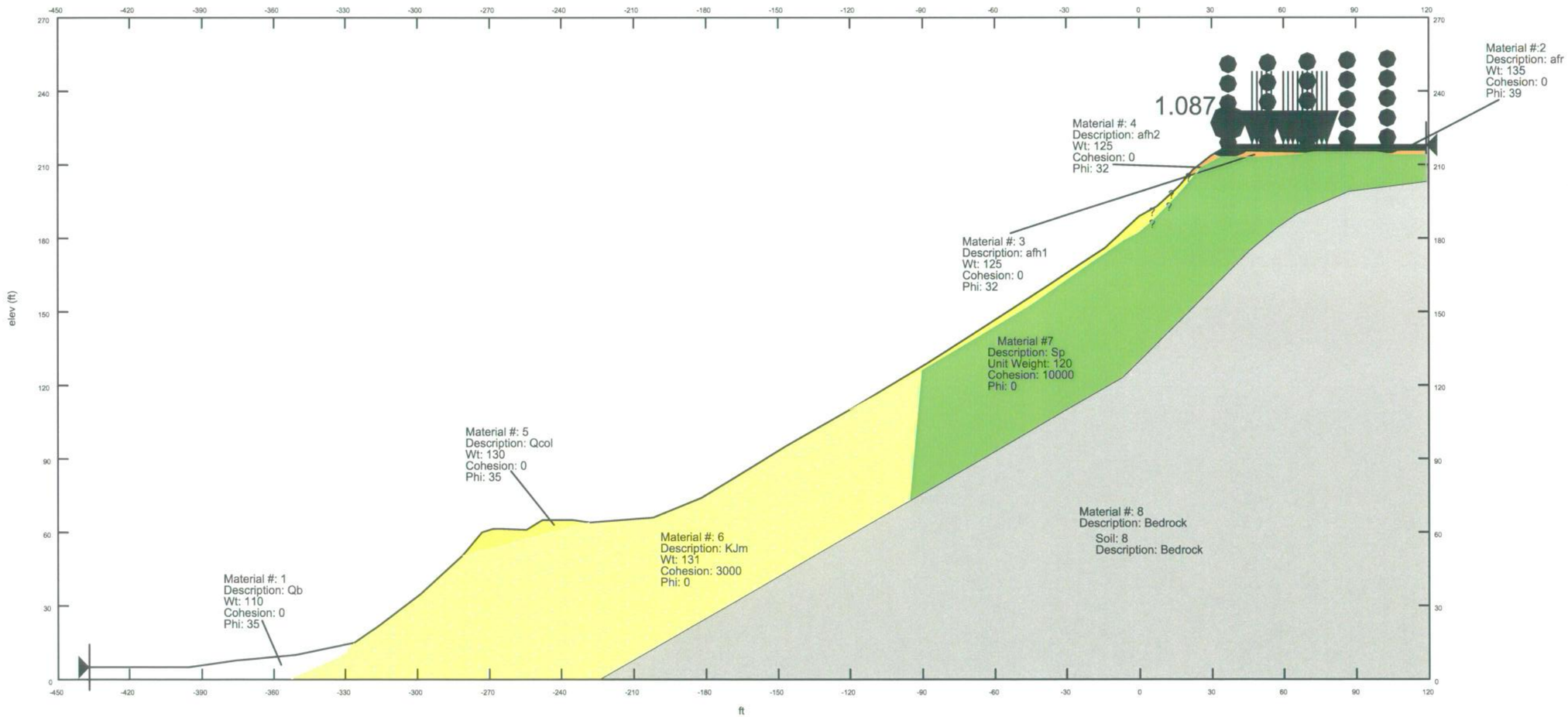
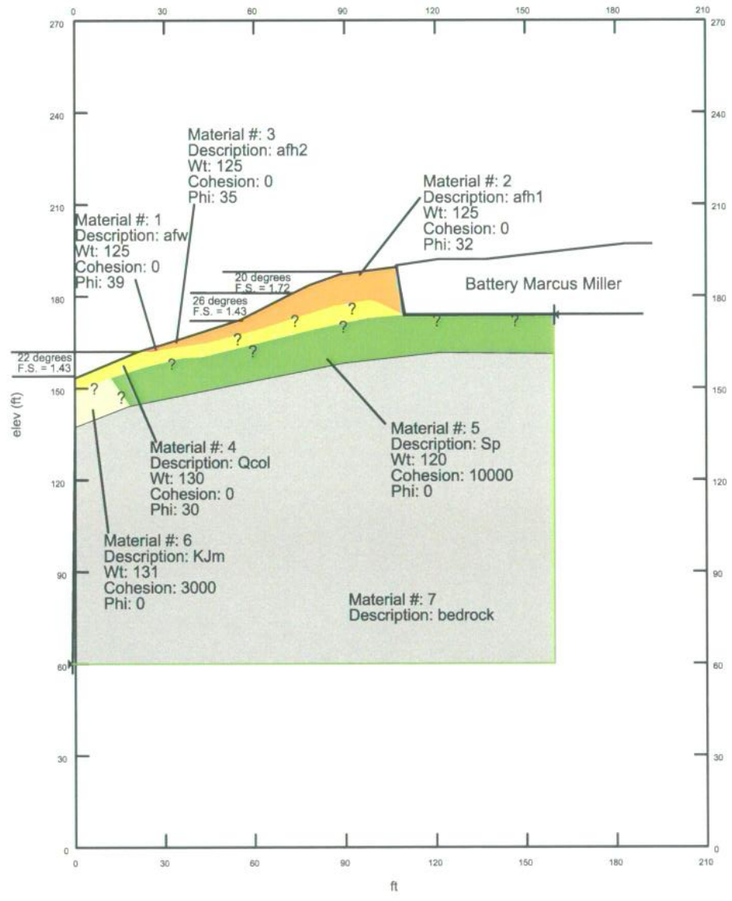


FIGURE D-13.DWG 1.0
20060508.1147

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 1 Cross Section H-H' - Analysis 13 afw Removed - 100 kip Crane & 136 kip Soil
CHECKED:	APPROVED: DQ		FIGURE: **D-13**
DATE: 6/8/06	DATE: 6/8/06		



FIGURE_D-14.DWG 1.0
20060508.1148

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 1A Cross Section G-G' - Analysis 14A - 14C Existing Slope Conditions
CHECKED:	APPROVED: DQ		FIGURE: **D-14**
DATE: 6/8/06	DATE: 6/8/06		

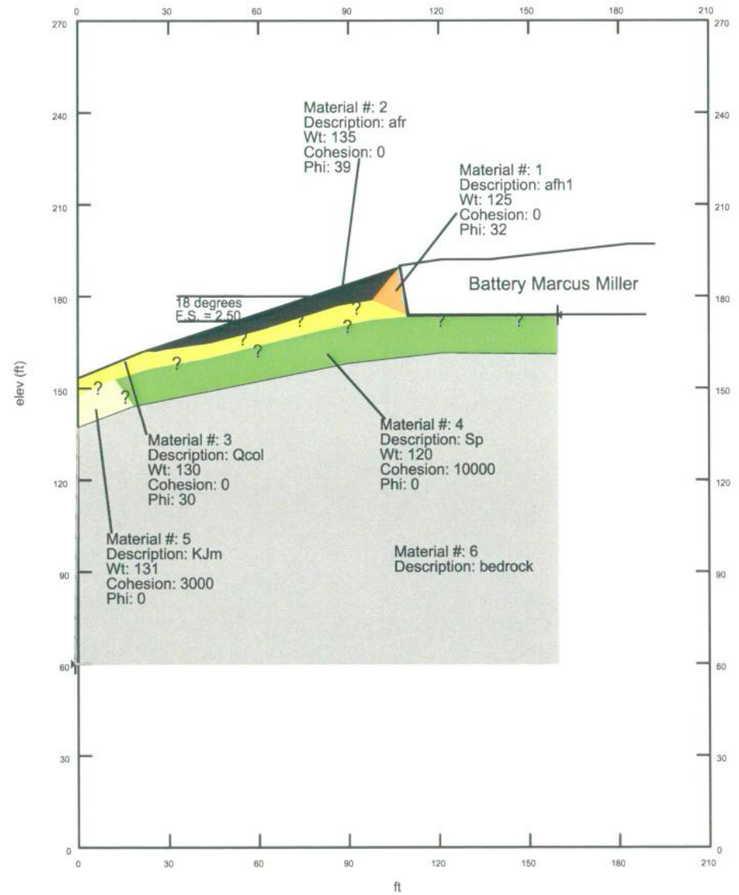


FIGURE D-15.DWG 1.0
20060508.1150

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 1A Cross Section G-G' - Analysis 15 afw Removed - (Granular Fill) afr Replaced
CHECKED:	APPROVED: DQ		FIGURE: **D-15**
DATE: 6/8/06	DATE: 6/6/06		

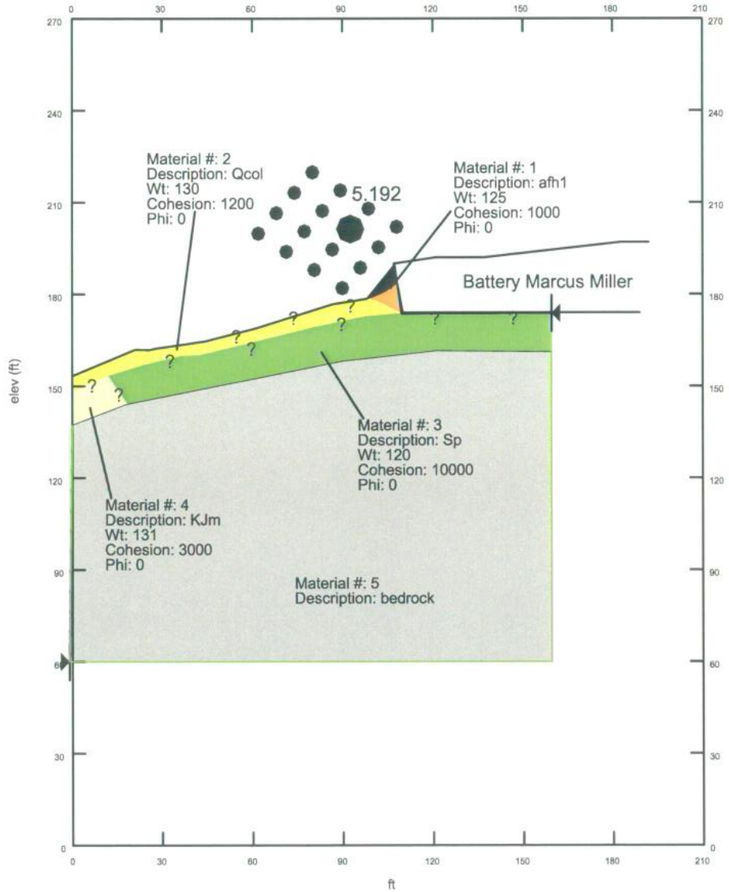


FIGURE D-16.DWG 1.0
20060608.0852

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 1A Cross Section G-G' - Analysis 16 afw Removed - afh1 Short Term Stability
CHECKED:	APPROVED: DQ		FIGURE: **D-16**
DATE: 6/8/06	DATE: 6/7/06		

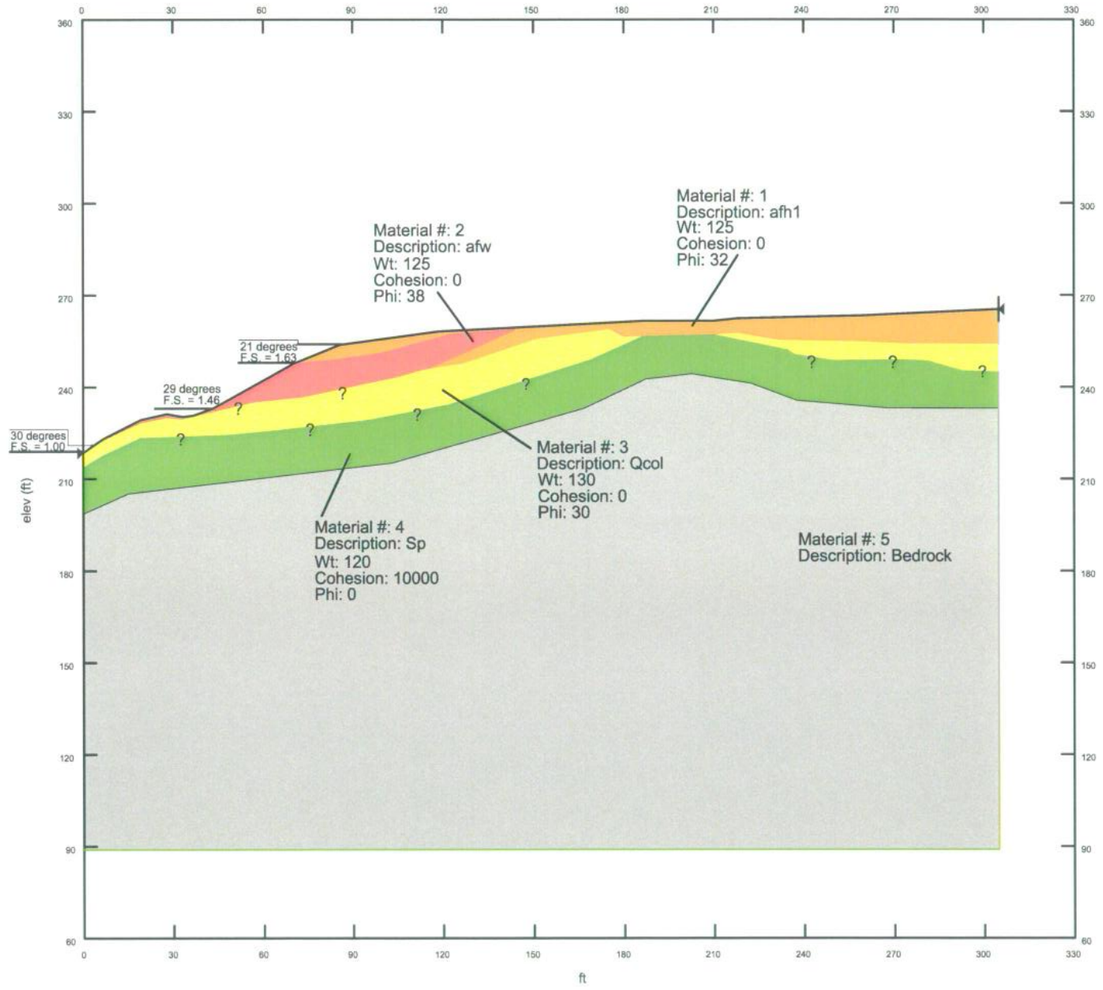


FIGURE D-17.DWG 1.0
20060608.0852

DRAWN: JHD	PROJECT NO: 57255 005105
ENGINEER: DWQ	SCALE: 1"=50'
CHECKED:	APPROVED: DQ
DATE: 6/8/06	DATE: 6/8/06

MACTEC

Field Investigation Report
Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A
Presidio of San Francisco, California

Baker Beach Disturbed Area 2
Cross Section E-E' - Analysis 17A - 17C
Existing Slope Conditions

FIGURE:
D-17

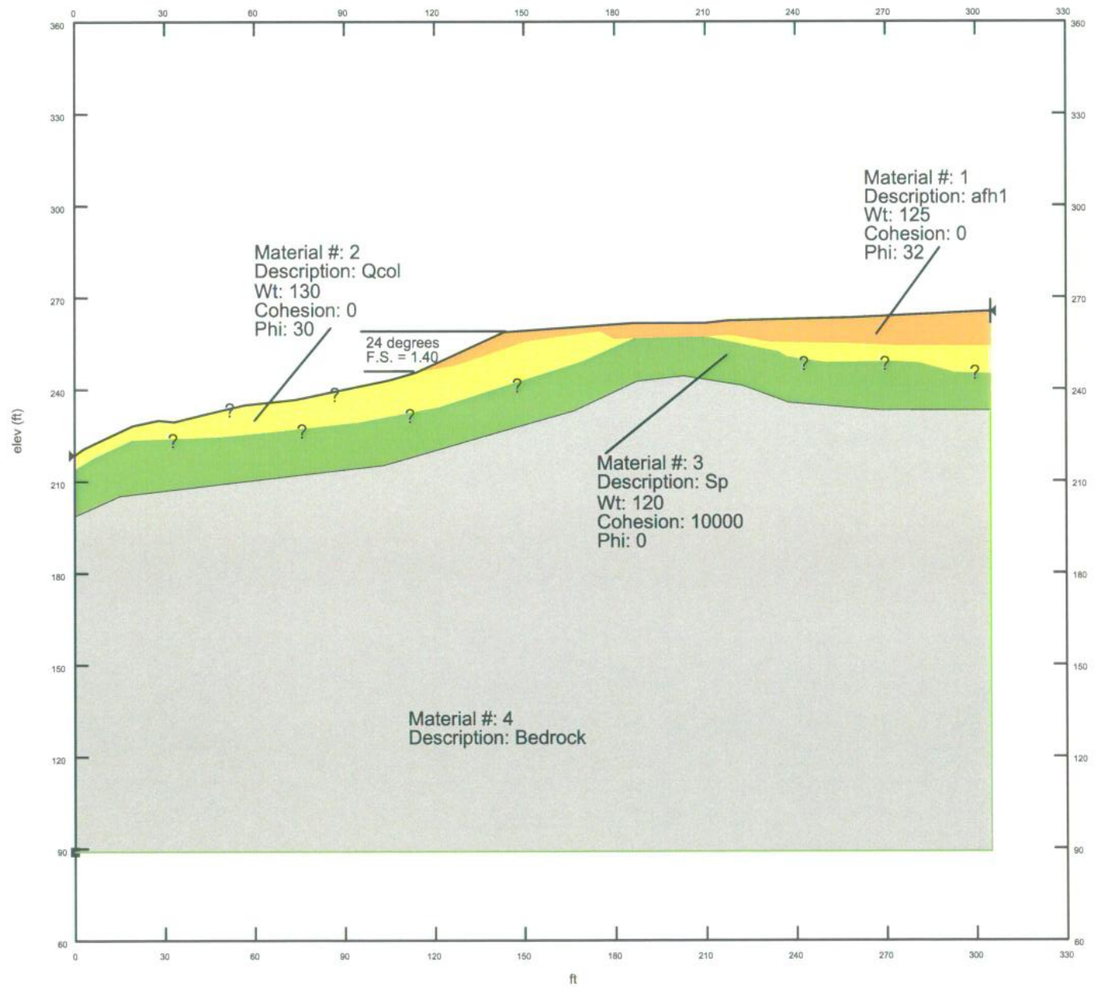


FIGURE D-18.DWG 1.0
20060608.0853

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2 Cross Section E-E' - Analysis 18 afw removed	FIGURE: **D-18**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/4/06				

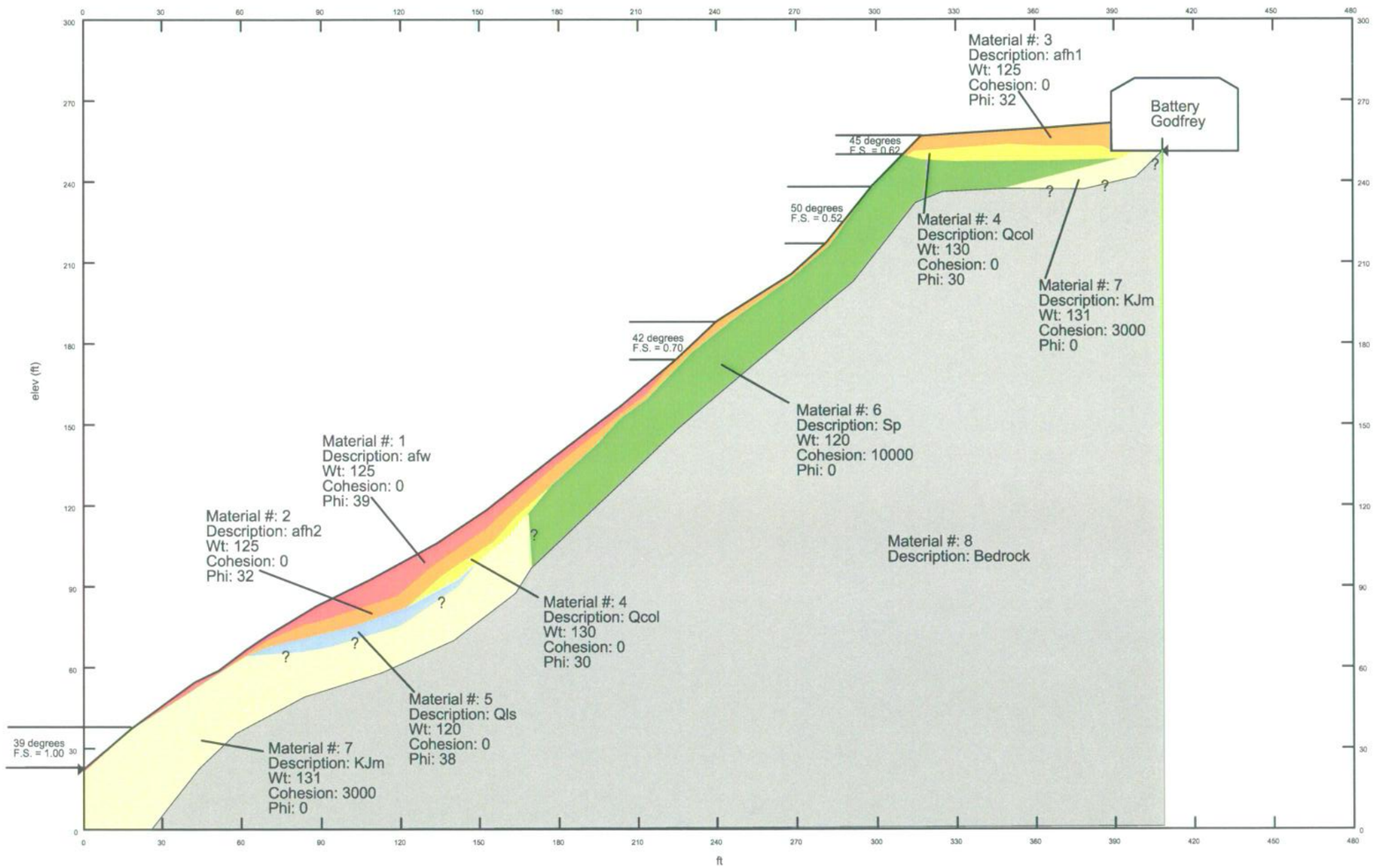


FIGURE D-19.DWG 1.0
20060608.0854

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 19A - 19D Existing Slope Conditions	FIGURE: **D-19**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/6/06				

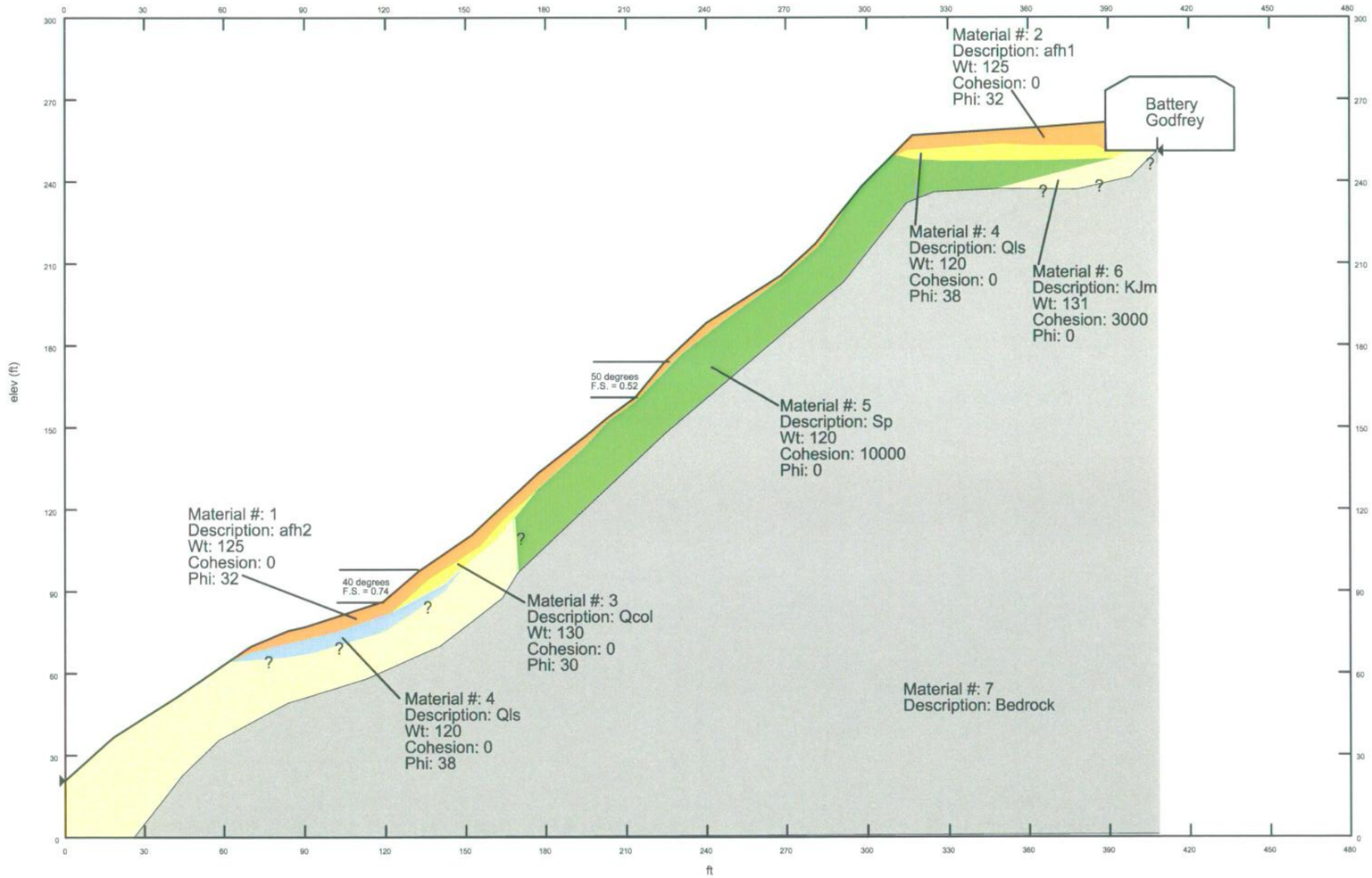


FIGURE D-20.DWG 1.0
20060608.0854

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 20A-20B afw Removed
CHECKED:	APPROVED: DQ		FIGURE: **D-20**
DATE: 6/8/06	DATE: 6/8/06		

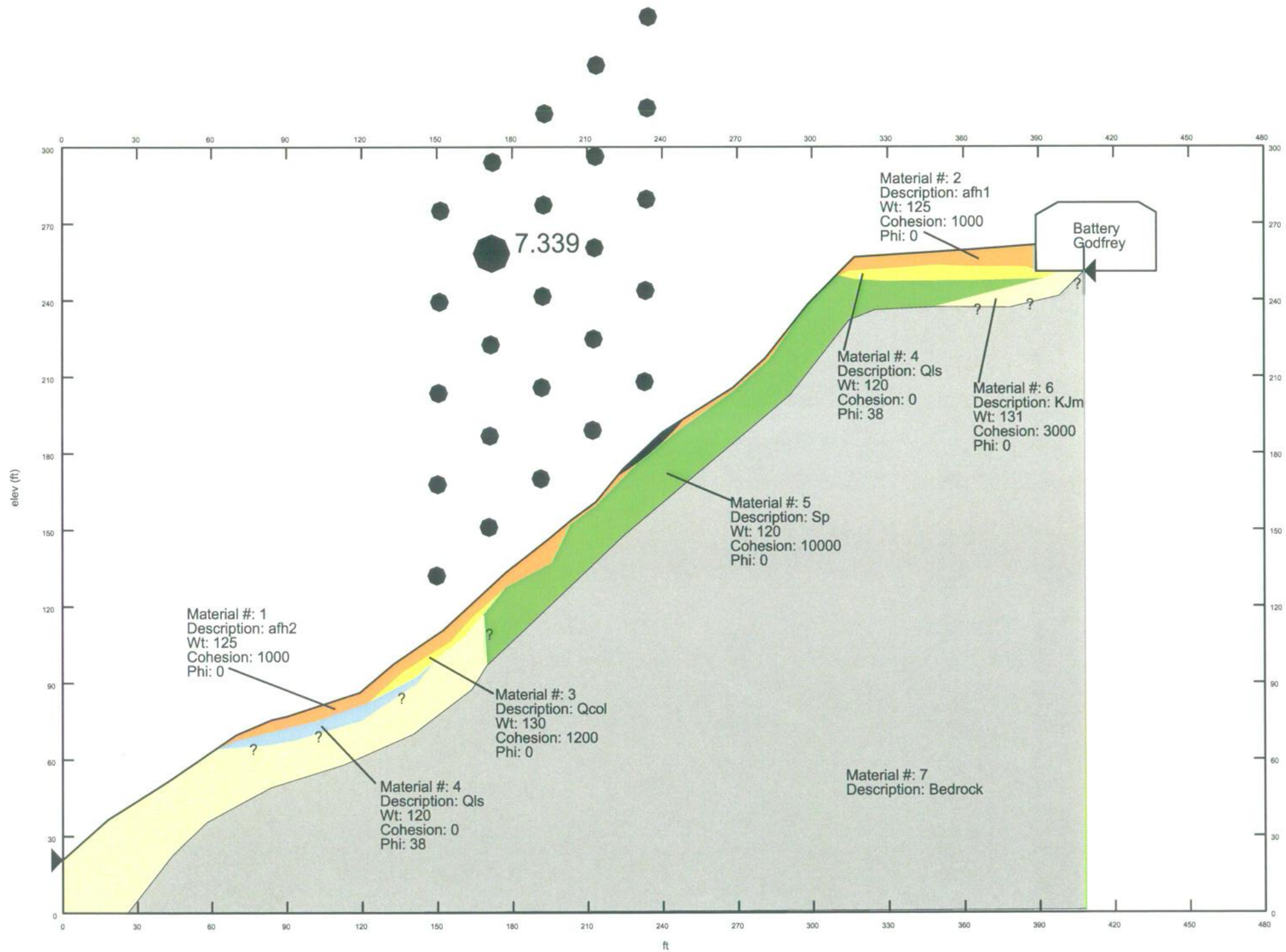


FIGURE D-21.DWG 1.0
20060608.0855

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 21 afw Removed - afh2 Short Term Stability
CHECKED:	APPROVED: DQR		FIGURE: **D-21**
DATE: 6/8/06	DATE: 6/12/06		

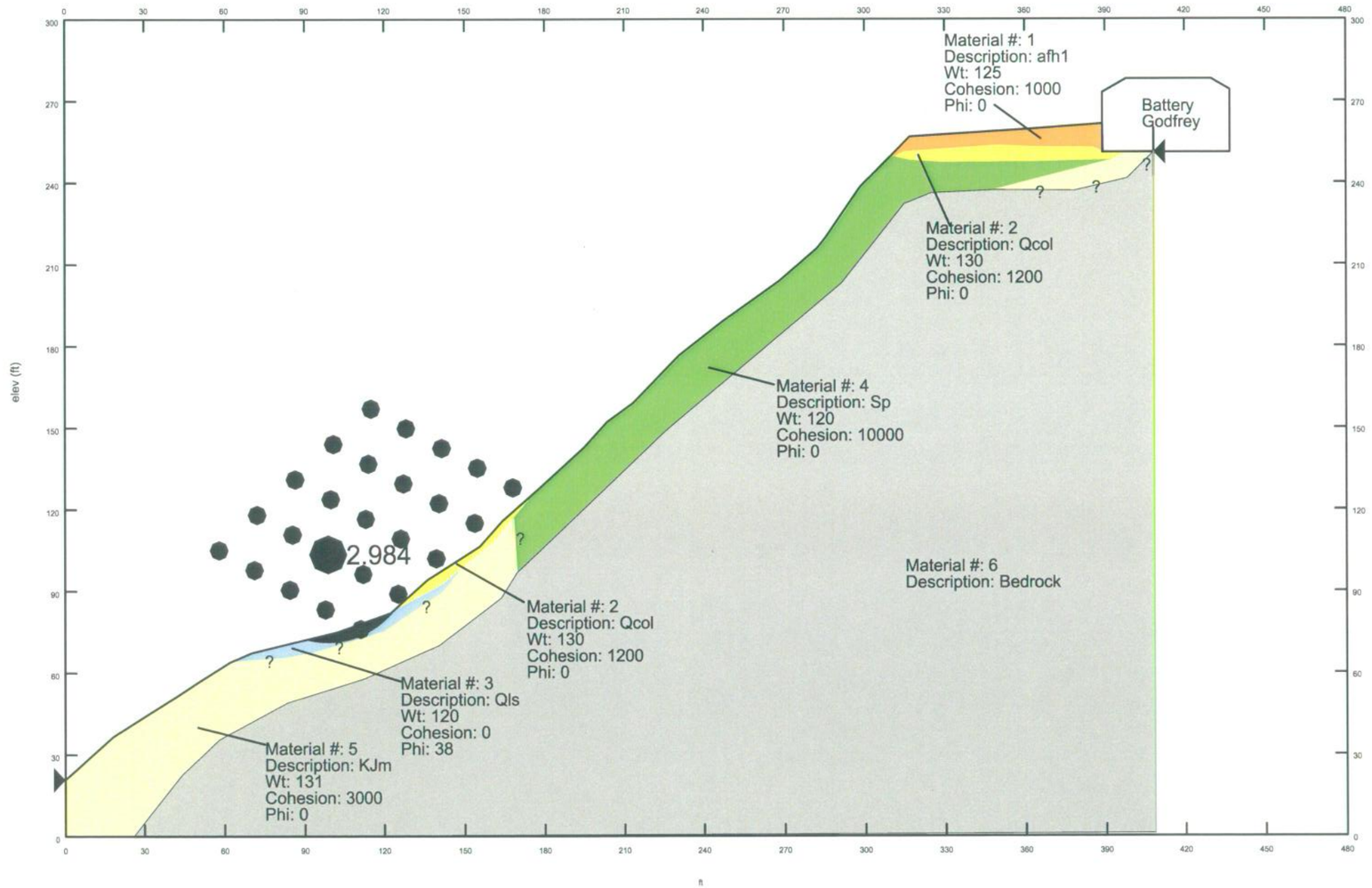


FIGURE D--22.DWG 1:0
20060608.0859

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 22 afw & afh2 Removed - Short Term Qcol & Qls	FIGURE: **D-22**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/6/06	DATE: 6/6/06				

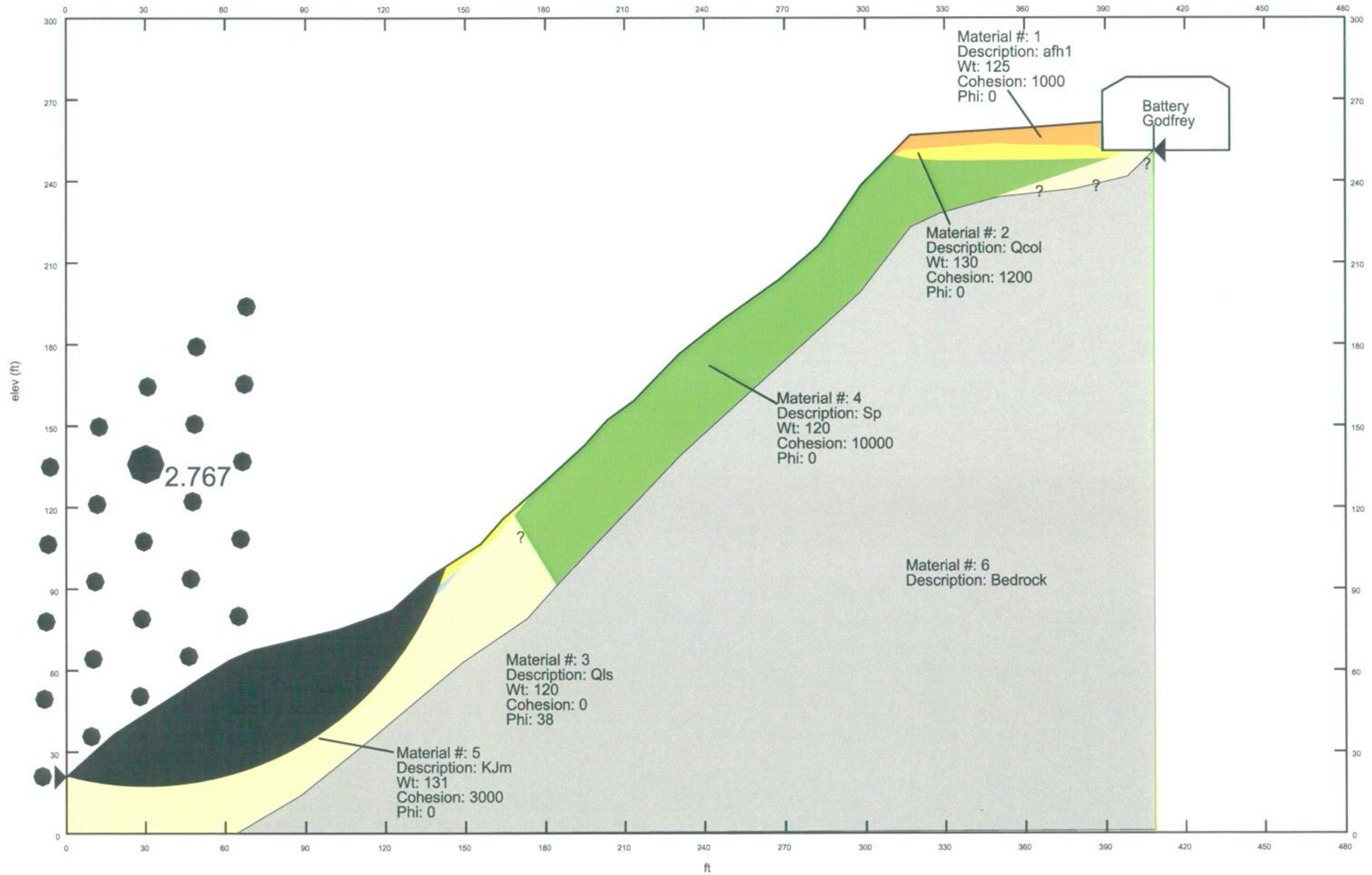


FIGURE D-23.DWG 1.0
20060608.0859

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 23 afw and afh2 Removed - KJm Stability Analysis	FIGURE: **D-23**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/8/06				

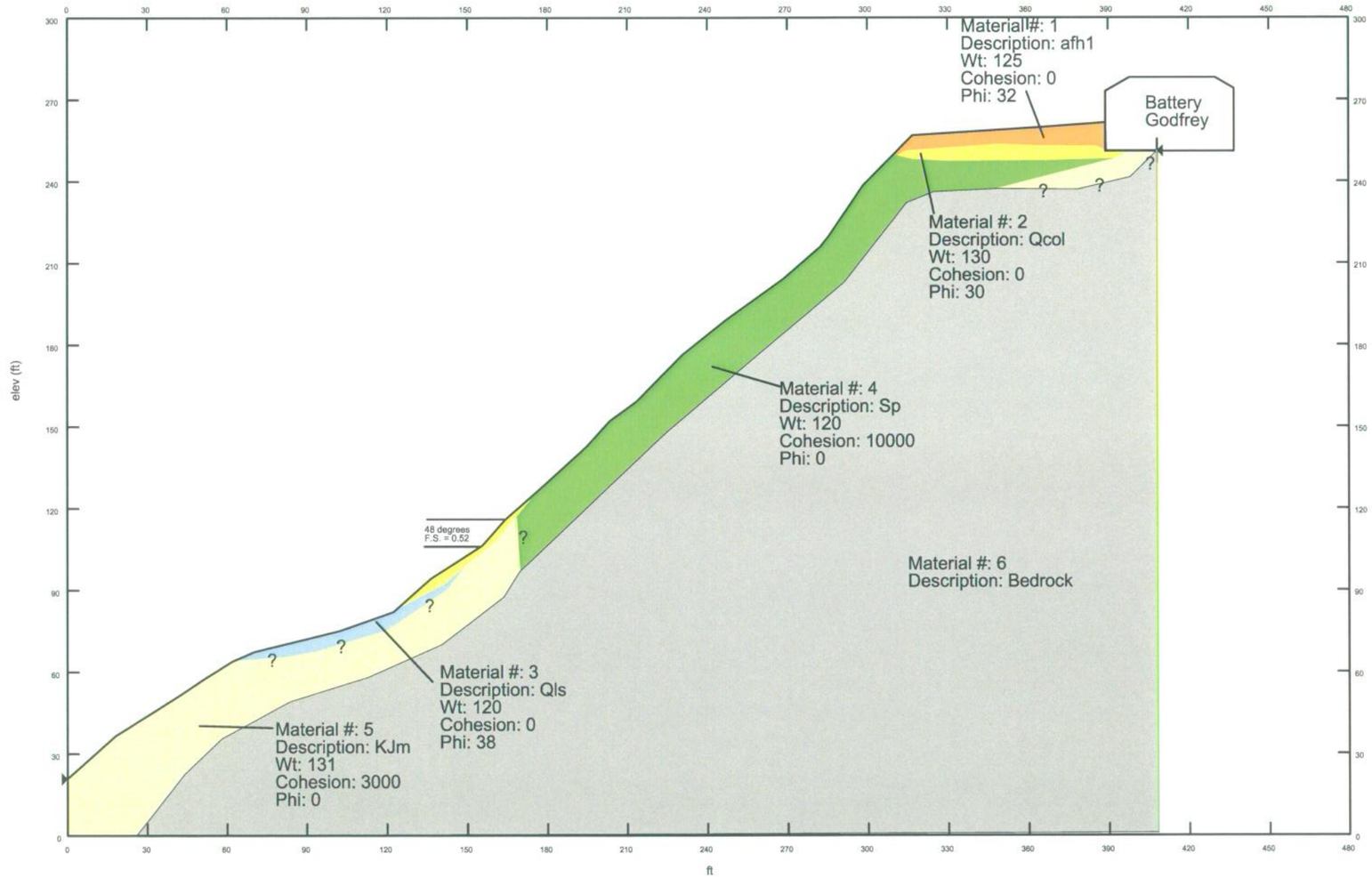


FIGURE D-24.DWG 1.0
20060608.1008

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California
ENGINEER: DWQ	SCALE: 1"=50'		Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 24 afw Removed - Qcol Stability Analysis
CHECKED:	APPROVED: DQ		FIGURE: **D-24**
DATE: 6/8/06	DATE: 6/8/06		

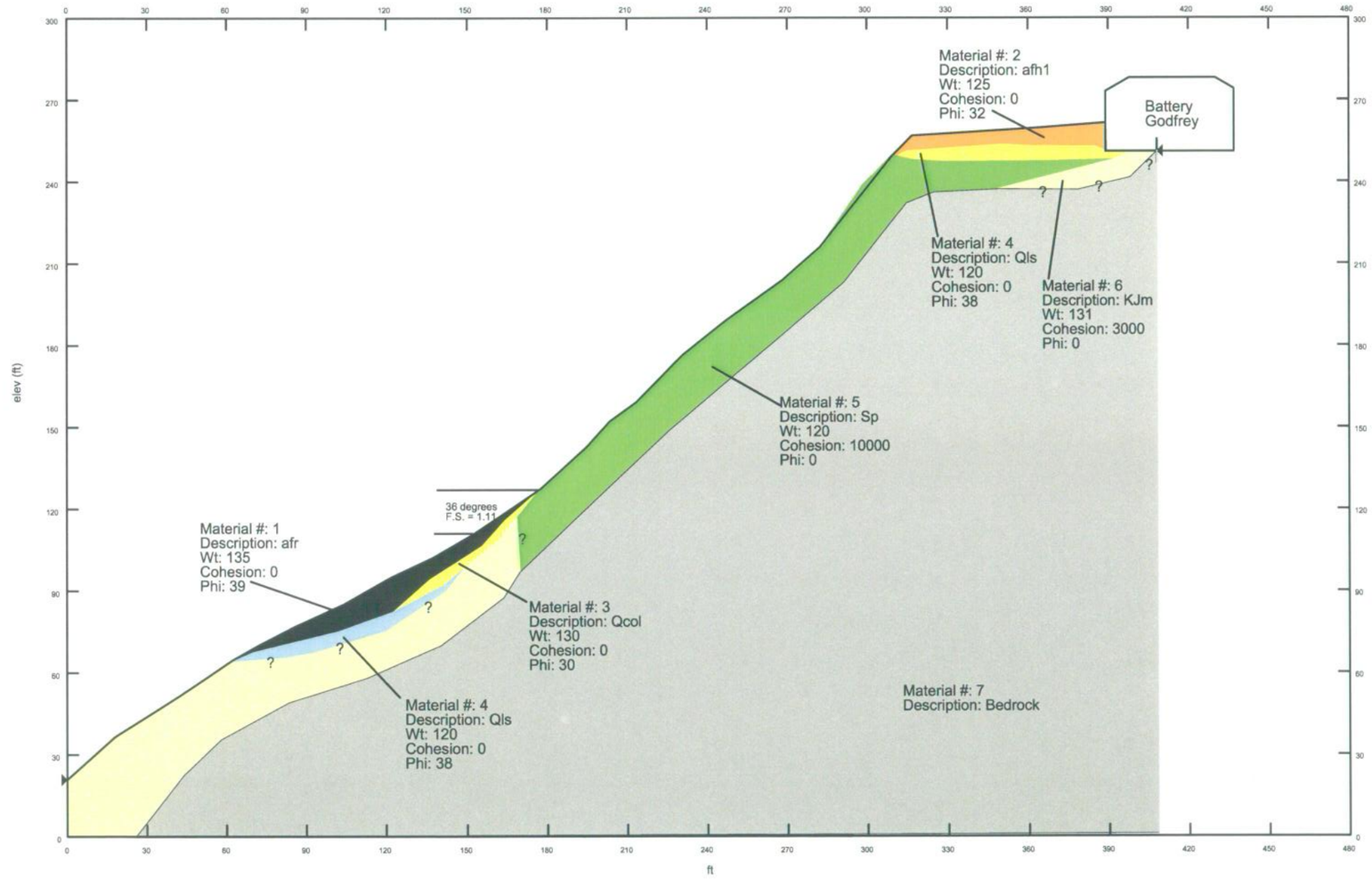


FIGURE D-25.DWG 1.0
20060608.0901

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section D-D' - Analysis 25 afw Removed - (Granular Fill) afr Replaced	FIGURE: **D-25**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/04	DATE: 6/8/04				

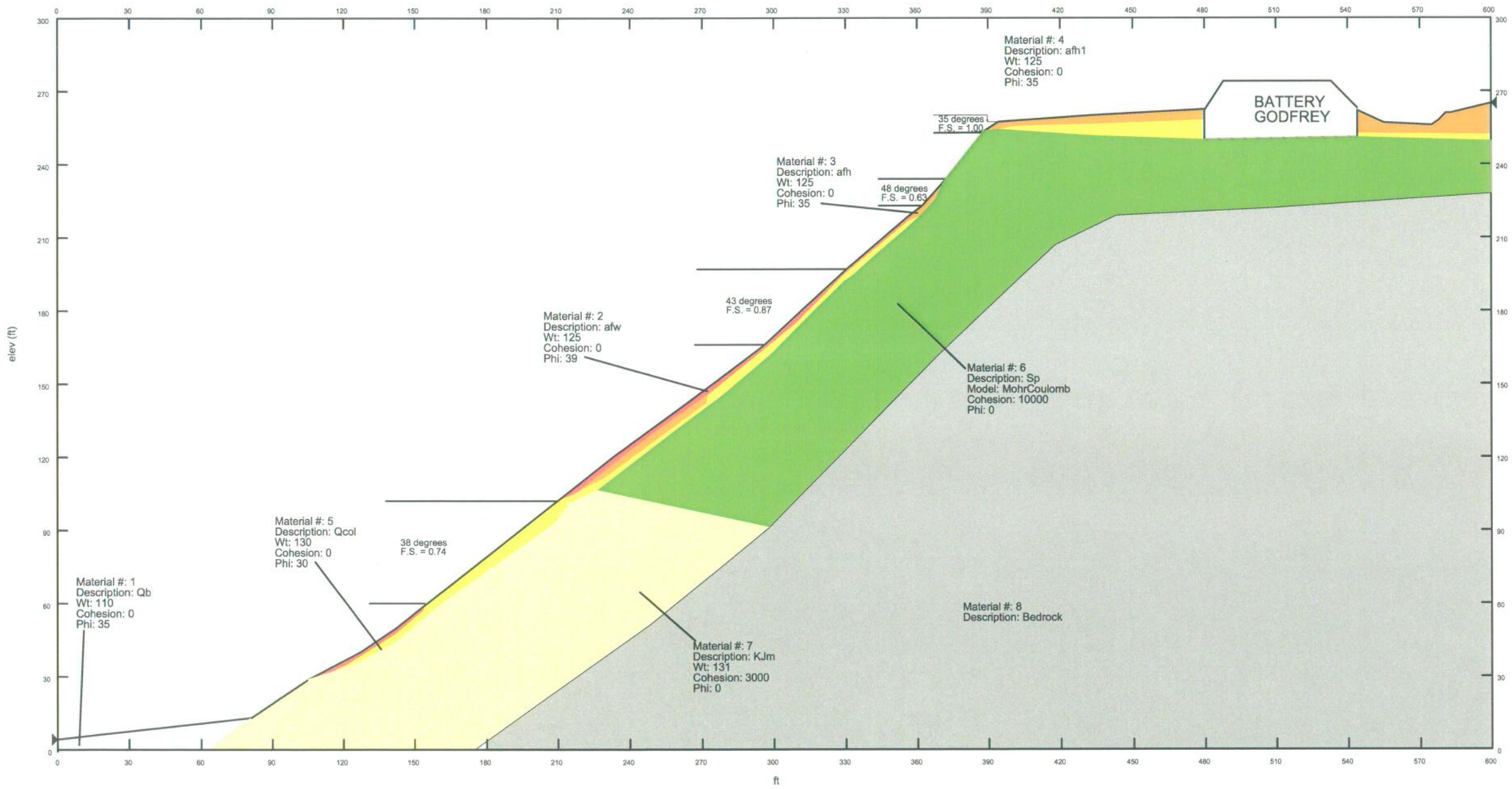


FIGURE D-26.DWG 1.0
20060608.0902

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section B-B' - Analysis 26A - 26D Existing Slope Conditions	FIGURE: **D-26**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/4/06				

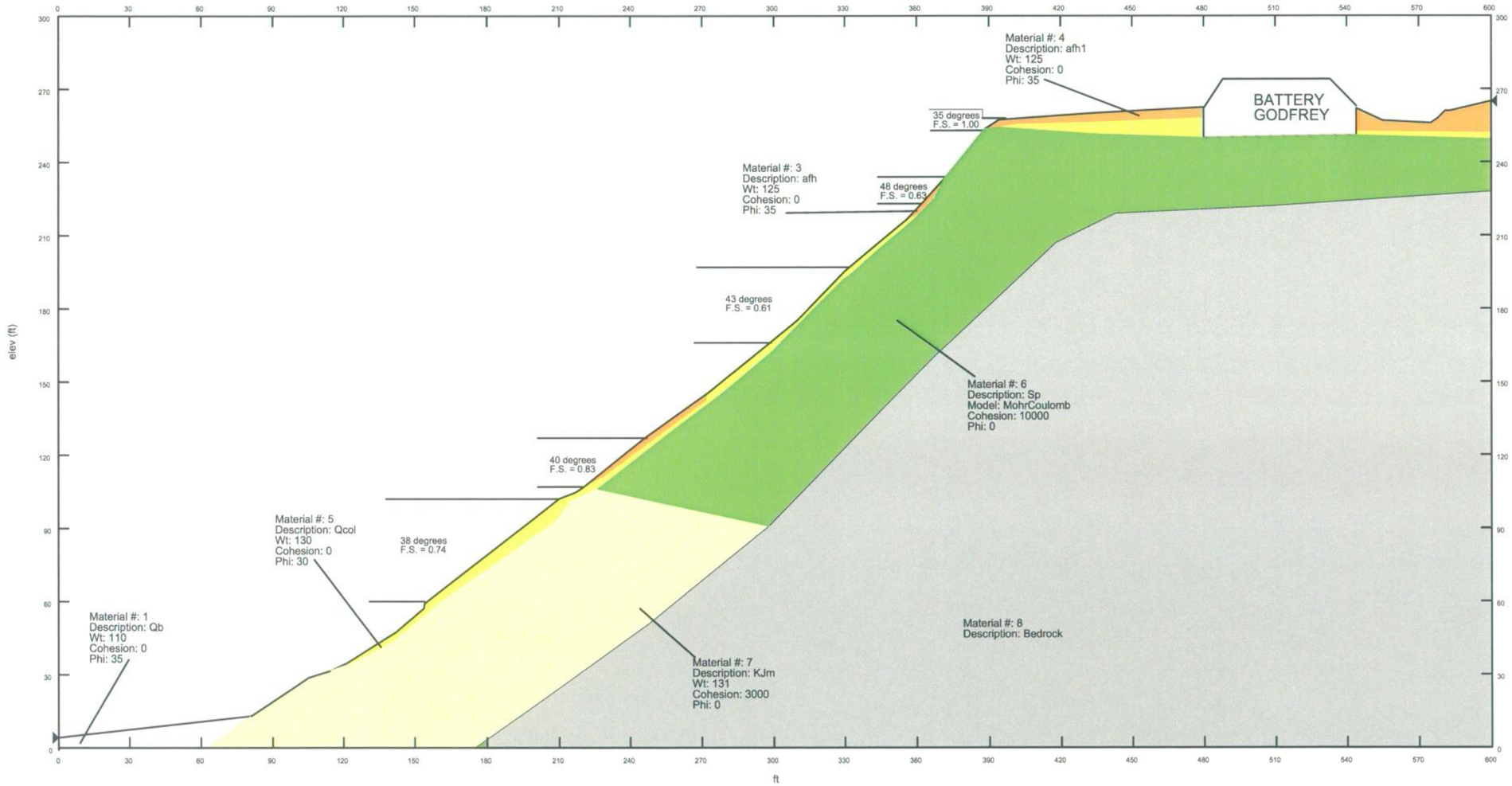


FIGURE D-27.DWG 1.0
20060608.0903

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section B-B' - Analysis 27A-27D afw Removed	FIGURE: **D-27**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/12/06				

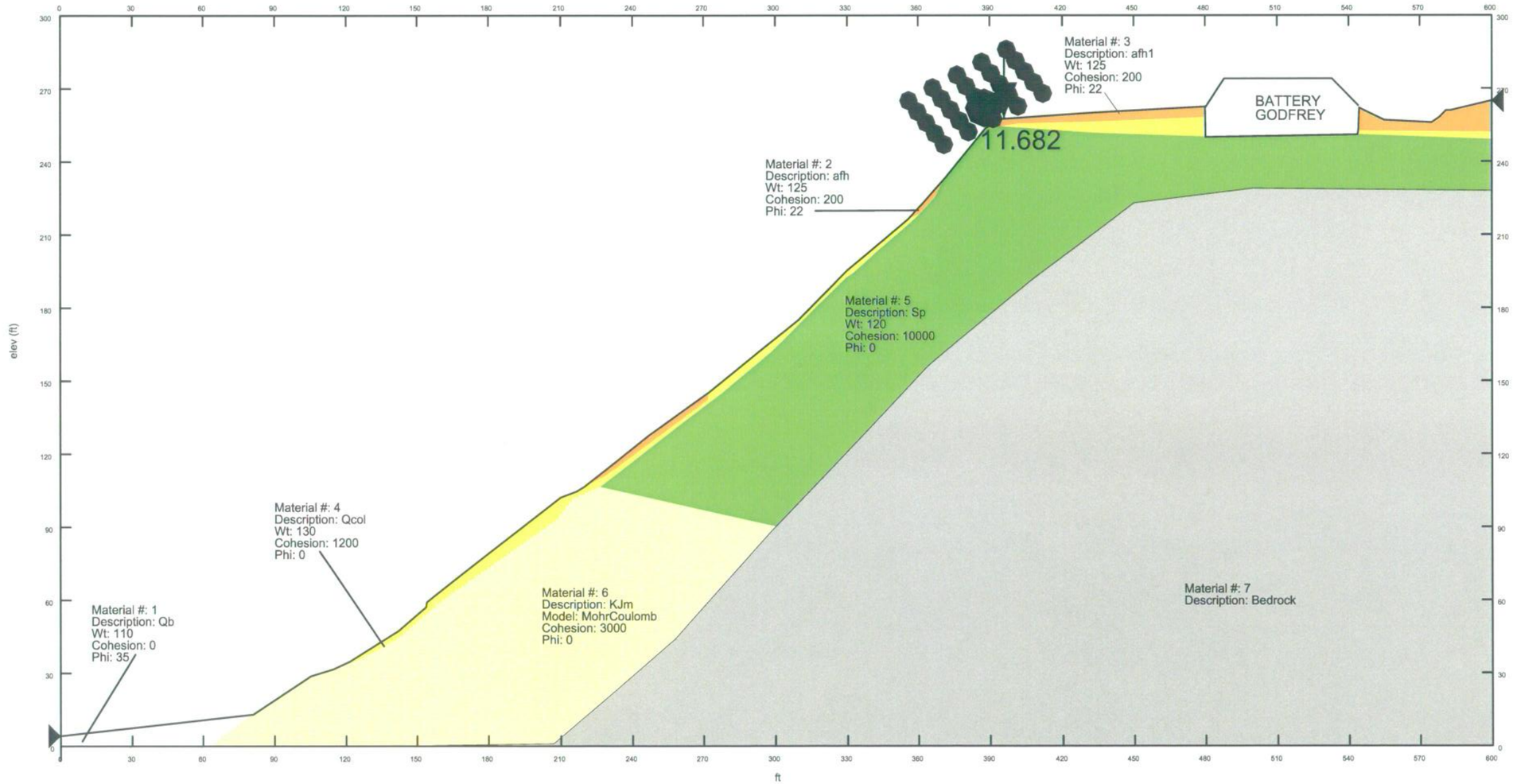


FIGURE D-28.DWG 1.0
20060508:1327

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section B-B' - Analysis 28 afw Removed - 32 kip Light Equipment Load	FIGURE: **D-28**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/8/06				

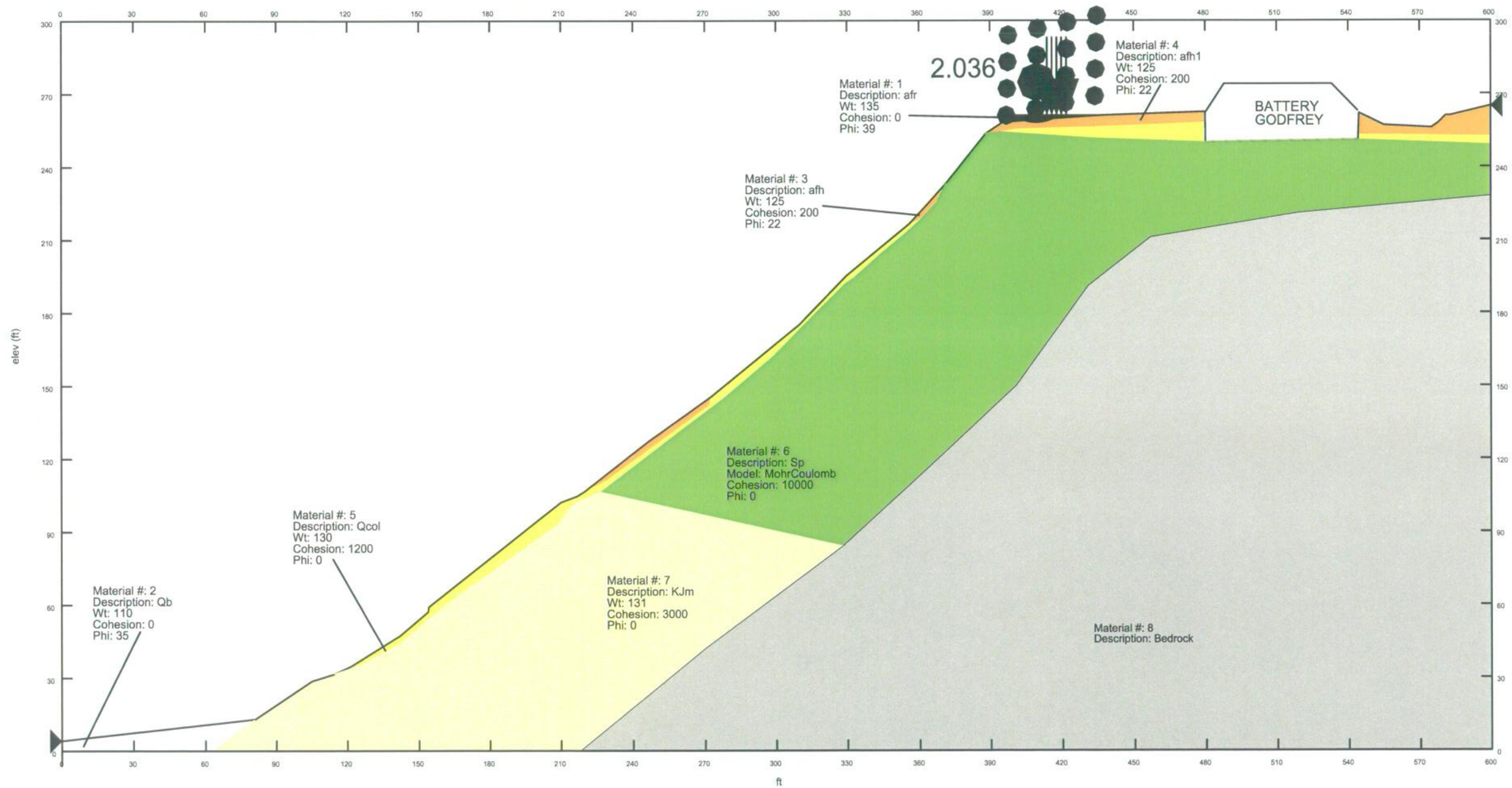


FIGURE D-29.DWG 1:0
20060608.0911

DRAWN: JHD	PROJECT NO: 57255 005105	MACTEC	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section B-B' - Analysis 29 afw Removed - 100 kip Crane Load	FIGURE: **D-29**
ENGINEER: DWQ	SCALE: 1"=50'				
CHECKED:	APPROVED: DQ				
DATE: 6/8/06	DATE: 6/8/06				

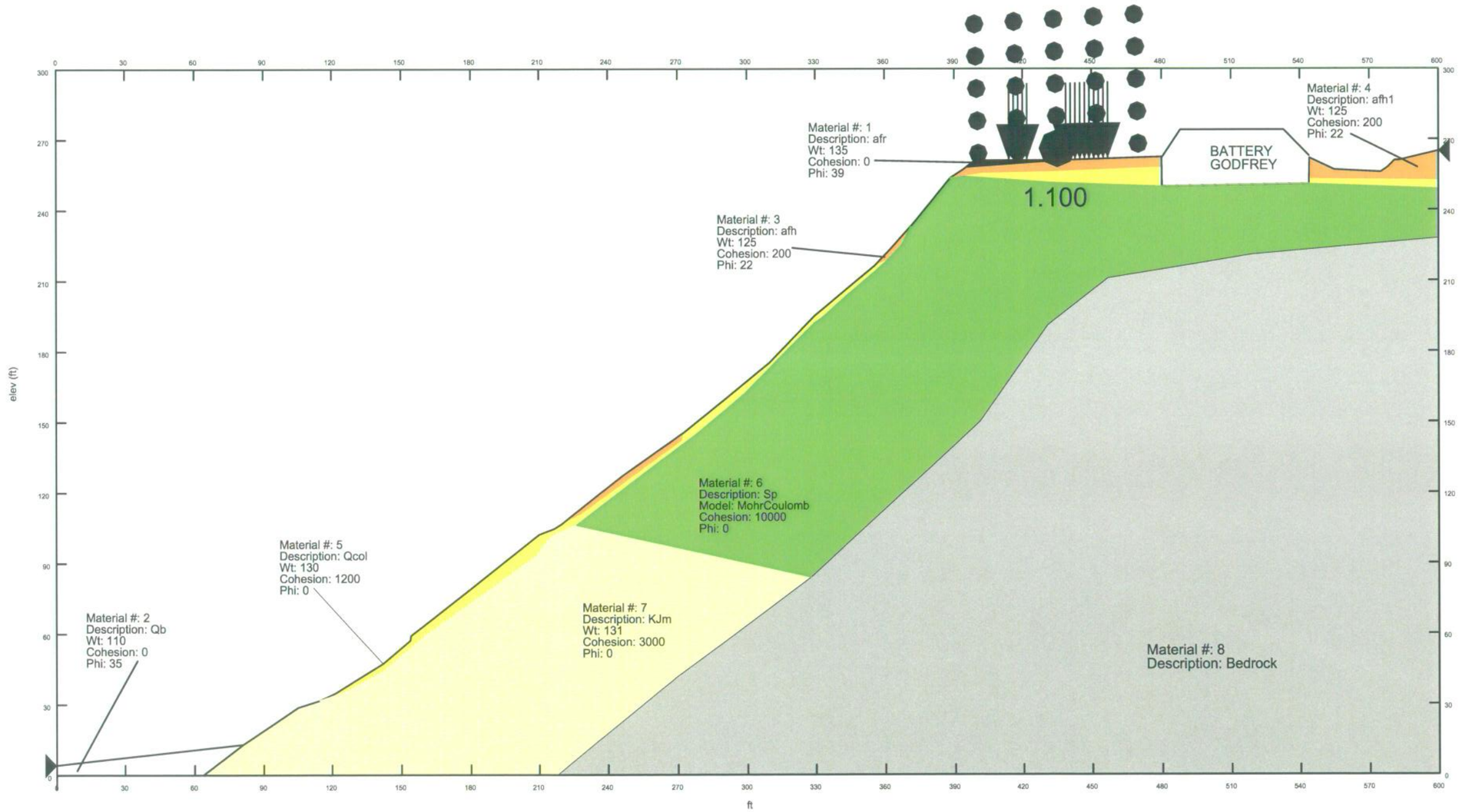


FIGURE D-30.DWG 1.0
20060608.0912

DRAWN: JHD	PROJECT NO: 57255 005105	**Field Investigation Report** Baker Beach Disturbed Areas BBDA-1,1A,2, and 2A Presidio of San Francisco, California	Baker Beach Disturbed Area 2A Cross Section B-B' - Analysis 30 afw Removed - 100 kip Crane + 136 kip Soil	FIGURE: **D-30**
ENGINEER: DWQ	SCALE: 1"=50'			
CHECKED:	APPROVED: DQ			
DATE: 6/8/06	DATE: 6/8/06			

MACTEC

APPENDIX E

DRAFT GEOTECHNICAL MEMORANDUM MATERIAL PROPERTIES

MACTEC

September 21, 2005

57255.005

Mr. George Ford
The Presidio Trust
1750 Lincoln Boulevard
San Francisco, CA 94129

Technical Memorandum
Geotechnical Material Properties for Slope Stability Analysis
Baker Beach Disturbed Areas 1, 1A, 2 and 2A
Presidio of San Francisco
San Francisco, California

Dear Mr. Ford:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to present this technical memorandum (memo) to the Presidio Trust (Trust) describing the proposed selection of geotechnical material properties to use in the slope stability analysis for Baker Beach Debris Areas (BBDAs) 1, 1A, 2, and 2A. During the meeting on April 5, 2005, with you, the National Park Service (NPS), and Dr. Ram Ramanujam of the California Department of Toxic Substances Control (DTSC), we discussed our general approach to selection of material properties for design. Because the material properties are such a critical element in the slope stability analyses, it was agreed to submit the results of the field and laboratory investigations, along with the recommended material properties and the rationale for the selection of these properties, for DTSC review before proceeding with the actual slope stability analysis.

The field investigation is nearing completion (summarized in Appendix A) in accordance with the Field Sampling Plan (FSP) dated January 27, 2005, and amended March 2, May 2, and September 8, 2005. You were provided with draft trench logs, test pit logs, boring logs, and laboratory test request forms, for your review in Data Packages #1 (April 25), #2 (May 24) and #3 (June 1). The geotechnical laboratory testing has recently been completed; however, further analytical laboratory testing is anticipated under the field investigation. For the purposes of geotechnical slope stability analysis, the completed laboratory and subsurface data has been used to update the geologic model to reflect our interpretation of the surface and subsurface conditions encountered during the field and laboratory investigation.

The purpose of this memo is to present the parameters for use in the slope stability analysis and describe how these parameters were selected. A geologic map of the site is presented, including cross sections showing the profiles that will be used in the slope stability analyses. Tables presenting the geotechnical data as well as the recommended material properties for analysis are also included.

Appendix A contains a short summary of the field exploration methods. Appendix B presents a summary of all of field and laboratory data. Appendix C presents an evaluation of the data, including data charts and recommended parameters for each slope stability analysis. Appendix D presents copies of Data Packages #1, #2, and #3.

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BACKGROUND

Soil and Bedrock Units

Initially, we performed geologic mapping as a basis for interpreting the geology of the site and developing geologic model of the site to differentiate the surface soils and bedrock exposures. Following the subsequent subsurface investigation, the geologic map was updated to reflect the occurrence of the soil and bedrock units in the subsurface and integrate with the vertical dimension of the model (geologic cross-sections). Below are short descriptions of the geologic units present at the site.

Artificial Fill

Artificial fill covers much of the site and includes historic fill as well as waste fill as described below:

Historic Fill (**afh**) – This unit is classified as human-placed fill, which contains minor amounts of historic material that was placed in conjunction with the historic batteries. The fill in general contains wood planks and bricks associated with demolition of the earlier barbettes. The unit is broken down into the following sub units:

> **Afh** – This unit is classified as human-placed fill. This fill was placed at the time of construction of the batteries (either during the West Battery period, circa 1870, or the Endicott period, circa 1890 to 1905). In general the soil materials are both clayey and sandy with a general absence of gravel and cobbles.
>
> **Afh1** – In-place historic fill associated with the removal of the previous battery structures (barbettes or Battery West) and reworked later battery construction, if still considered to have significance as a cultural resource. In general, these materials are similar to Afh, but are now in a location different from their original placement, usually adjacent to the batteries.
>
> **Afh2** – Historic fill generated during the removal of the previous battery structures but is disturbed so that it no longer represents a historical or cultural resource. These materials are similar to Afh, but are sometimes mixed with other materials, reflecting their position and movement down the slope.

Waste Fill (**afw**) – This unit is classified as containing landfill (human-placed debris) resulting from construction demolition, household waste and vegetative (organic) waste. The chemical constituents do not necessarily contribute to the engineering properties but are important from the standpoint that the contaminated materials need to be removed, and thus affect the slope stability analysis.

Native Soils

Native Soils (**Qcol**) – These deposits represent in-place, native soils and unconsolidated sediments of various origins but with similar geotechnical characteristics, collectively mapped as (**Qcol**). These include Quaternary-age Colma formation soils, as well as colluvium and residual soils that represent residual weathered bedrock. In general, these materials consist of clays, sandy clays, and clayey sands, with varying amounts of gravels and occasional cobbles and boulders.

Landslide Deposits

Landslide deposits (**Qls**) – as shown on the geologic map, these occur in broad areas within the study area, but generally are not broadly present at the ground surface in the disturbed areas. In some locations, artificial fill overlies and conceals landslide deposits and colluvium.

Bedrock

Mélange (**KJm**) – occurs predominately on the lower portions of the slopes and consists of shale, mudstone, and varying large blocks of sandstone and siltstone in a sheared matrix. These materials are inherently unstable and subject to slope instability. It is pervasively sheared and deeply weathered with little soil development, as described in literature on the Franciscan Complex. The mélange materials rest in sheared contact with serpentinite.

Serpentinite (**sp**) – this ultramafic rock dominates the upper portion of the slopes, where locally it is as steep as vertical or slightly overhanging. The rock is massive with random shears and joints. Large landslide scarps occur south and north of the debris areas and support little vegetation. The sparse vegetation that does survive consists of native plants. The serpentinite weathers to a yellow brown silty or sandy clay.

LABORATORY PROGRAM

The purpose of our geotechnical laboratory program was to develop soil and rock strength parameters to supplement field classification of the site soils, and weathered rock for use in the slope stability analysis. The field investigation and laboratory test program were performed under the joint direction of a licensed geotechnical engineer and a certified engineering geologist.

Moisture and dry density (specific to determining geotechnical unit weights, and exclusive of moisture-only samples obtained for analytical analysis) testing was performed on 72% of the samples. In addition, the soil gradation (measured by sieve and hydrometer tests) and plasticity (measured by Atterberg limits tests) were tested at a frequency such that each soil type would be tested to confirm and calibrate the material classifications performed during field logging. In addition, samples that were disturbed during handling, contained large rock clusters, or that had crimped tubing were assigned moisture tests only or were not tested.

On samples that were deemed to be relatively undisturbed, a number of laboratory strength tests were performed. These included 39 unconfined compression (UC) tests, 25 unconsolidated-undrained (UU) triaxial shear tests, 4 consolidated-undrained (CU) triaxial shear tests, and 18 direct shear tests, distributed between the various geologic units.

SELECTION OF GEOTECHNICAL PARAMETERS

In selection of the appropriate geotechnical parameters for use in our slope stability analysis, consideration of the following sources of geotechnical or geologic information were made, including:

1. Historical records (e.g., historical limits of grading and waste dumping);
2. Site topography and geomorphology (e.g., angle of repose, areas of deposition or erosion);
3. Geologic mapping (e.g., characterization and areal extent of geologic units);
4. Results of the current and former subsurface exploration programs (*Dames and Moore, 1997*), to include test pits, trenches, and borings (e.g., vertical extent of geologic units, consistency or relative density);
5. Laboratory test results (index values, unit weights, material strengths); and
6. Literature correlations between index parameters (e.g., gradation, plasticity index, SPT penetration values) and typical ranges of material properties (e.g., unit weight, shear strength).[1]

In general, our approach for evaluation of materials to select the appropriate parameters for slope stability analysis proceeded as follows:

- Collection of the available historical records, published geologic maps, and site topographic map.
- Field mapping of the site to estimate the limits of fill and natural geologic units.
- Based on these sources of information, geotechnical and geologic staff made preliminary estimates of the depth of various fill and native soil units, then designed and performed a subsurface exploration program to collect data and samples of these materials.
- Based on an initial review of the subsurface field data, a laboratory test program was performed to confirm and/or calibrate field logging, and to provide quantitative information regarding moisture content, gradation, unit weight, plasticity, and shear strength.
- Once the data was collected, we proceeded with our evaluation as follows:
- Field and geotechnical data was summarized in a single spreadsheet (shown in Appendix B).
- For each general geologic unit, we developed plots of depth versus unit weight, undrained strength (based on UU, UC, and SPT blow counts), and internal friction angle (based on SPT blow counts). Some of these plots are discussed further and included in Appendix C. Based on these plots, a selection of recommended unit weights and strengths for each geologic unit was made. Each was checked to assure that it compared well with typical ranges for that material type and was reasonable and within the lower half of the range of reported results.
- Plotting of the results of the Direct Shear (DS) and CU tests, and comparison of these results with the preliminary values selected in the preceding step. These plots refined the selection of the friction angle for the effective stress analysis of granular materials. For clayey soils, effective

[1] Primary sources of published values include Duncan et al. 1989 (*Soil Strength and Slope Stability*); EPRI 1990 (*Manual on Estimating Soil Properties for Foundation Design*); and Hoek and Bray 1987 (*Rock Slope Engineering, 3rd Ed.*).

stress strengths were selected based on the results of the DS and CU tests as well as from published correlations with the measured plasticity indices.

- An examination of each geologic cross section, and the field and laboratory data for that respective cross section, to see that the recommended values appeared reasonable and appropriate. As discussed in Appendix C, in some locations strengths must be selected that provide a stable slope under current conditions (i.e., back-calculate to a factor of safety of unity in some of the steeper debris areas).
- In some cases, such as saturated clay samples, laboratory strength tests were considered to be the most reliable values available. In granular soils, the sample disturbance is usually so great that the most reliable strength values are derived from standard penetration resistance values. For bedrock, geotechnical and engineering geological observations were particularly important in selecting material strengths. In some highly weathered materials, laboratory strength tests can be particularly useful, whereas for more intact bedrock materials, blow counts may be useful. In some instances, the most meaningful information may be that derived from careful geological descriptions of material hardness, weathering, degree of cementation, fracture patterns, and other geologic parameters. Our final selection of recommended unit weights and strengths are based on the consideration of all the available data.

Table 1 — Recommended Material Properties

Material Description	Designation for Slope Stability Analyses	Total Unit Weight (pcf)	Short Term Analysis (Total Strength Parameters)		Long Term (Effective Strength Parameters)	
			Cohesion or Undrained Strength (c, psf)	Internal Friction Angle (ϕ, deg)	Cohesion or Undrained Strength (c', psf)	Internal Friction Angle (ϕ', deg)
Waste Fill[a]	**Afw**	125	0 700	36-39[a] 0	0 0	36-39[a] 30
Historic Fill (clayey)	**afh, afh1, afh2**	125	1000-2000[b]	0	0	32
Historic Fill (sandy)	**afh, afh1, afh2**	125	200	22	0	35
Landslide Deposit	**Qls**	120	0	39	0	39
Colma Fm/Native Soils (Qcol, clayey)	**Qcol1**, 0-10 ft	130	1200	0	0	30
	Qcol2, 10-20ft	130	1200-2500	0	0	30
	Qcol3, >20ft	130	2500	0	0	30
Colma Fm/Native Soils (Qcol, sandy)	**Qcol1** to **Qcol3**	130	150	30	0	30-35[b]
Bedrock, Melange units (KJm)	**KJm**	131	3000	0	3000	0
Resistant Bedrock, including serpentinite	**sp**	120	10,000	0	10,000	0
Weathered Bedrock, including serpentinite	**sp1**, 0-5ft	120	500	0	500	0
	sp2, 5-12ft	120	500-750	0	500-750	0
	sp3, 12-25ft	120	750-2000	0	750-2000	0
	sp4, >25ft, and in prominent cliff faces	130	2500	0	2500	0
Historic Fill (clayey)	**afh, afh1, afh2**	125	800-2000[b]	0	0	32

(a) Use the higher strengths (friction angle = 36-39 degrees) where demanded by slope geometry, as explained in Appendix C.

(b) Varies by location. In some locations, an internal friction angle of 36 to 38 degrees may be demanded by topography and geomorphology, as discussed in Appendix C.

Notes:
psf - pounds per square foot; pcf - pounds per cubic foot

The preceding table presents a summary of the recommended parameters for each geologic unit. Appendix C presents additional discussion.

- Note that the recommended values for native soils (**Qcol**) are broken down into three subunits as these materials exhibit different material strength properties, depending on depth of burial. Therefore, subunit designations (**Qcol1**, **Qcol2**, **Qcol3**) for use in the slope stability analysis have been included.
- Similarly, the observed serpentinite bedrock exhibits a significant degree of variability in strength, primarily depending on degree and depth of weathering, as observed in the weaker samples obtained during drilling and by the more competent bedrock in the prominent vertical outcrops. Therefore, these materials have been grouped into four subunits (**sp1**, **sp2**, **sp3**, **sp4**), correlated to depth as indicated in Table 1.

CLOSURE

We believe this memo provides information sufficient for your review. We suggest a meeting between the Trust, NPS, DTSC, and MACTEC be scheduled to discuss your review comments on this memorandum. If you have questions, please contact Mr. Bill Godwin at 707-793-3841, or Mr. Jim French at 510-628-3234.

Yours very truly,

MACTEC Engineering & Consulting, Inc.

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Attachments:

Plate 1 Baker Beach Disturbed Areas Geologic Map
Plate 2 Cross Section A-A'
Plate 3 Cross Section B-B'
Plate 4 Cross Section C-C'
Plate 5 Cross Section D-D'
Plate 6 Cross Section E-E'
Plate 7 Cross Section F-F'
Plate 8 Cross Section G-G'
Plate 9 Cross Section H-H

Appendix A – Summary of Field Geotechnical Exploration
Appendix B – Spreadsheet of Geotechnical Data
Appendix C – Assessment of Geotechnical Properties
Appendix D – Data Packages #1, #2, and #3

Cc: Robert Boggs, DTSC
Ram Ramanuiam, DTSC
Brian Ullensvang, NPS

PLATES

Plates included in the Draft Geotechnical Memorandum have been updated and reproduced in the Field Investigation Report. Updates include addition of investigation locations near the GGBTD parking lot, deletions of sampling windows on the plan and cross-sections and other minor revisions.

For the final Field Investigation Report the figures used in the Geotechnical Memorandum will be included on CD to eliminate having to reproduce an extra volume of figures

Below is a cross-reference of figures from the Geotechnical Memorandum and where they can be found in the Field Investigation Report

Geotechnical Memorandum figures	**Field Investigation Report figures**
Plate 1 Baker Beach Debris Areas Geologic Map	Plate 2 Geologic Exploration Map
Plate 2 Cross Section A-A'	Plate 4 BBDA 1 Exploration Map and Cross-sections
Plate 3 Cross Section B-B'	Plate 7 BBDA 2A Exploration Map and Cross-sections
Plate 4 Cross Section C-C'	Plate 4 BBDA 1 Exploration Map and Cross-sections
Plate 5 Cross Section D-D'	Plate 7 BBDA 2A Exploration Map and Cross-sections
Plate 6 Cross Section E-E'	Plate 6 BBDA 2Exploration Map and Cross-sections
Plate 7 Cross Section F-F'	Plate 4 BBDA 1 Exploration Map and Cross-sections
Plate 8 Cross Section G-G'	Plate 5 BBDA 1A Exploration Map and Cross-sections
Plate 9 Cross Section H-H'	Plate 4 BBDA Exploration Map and Cross-sections

APPENDIX A

SUMMARY OF FIELD GEOTECHNICAL EXPLORATION

APPENDIX B

SPREADSHEET OF GEOTECHNICAL DATA

APPENDIX C

ASSESSMENT OF GEOTECHNICAL PROPERTIES

APPENDIX D

DATA PACKAGES #1, #2, AND #3

(APPENDICES PROVIDED ON CD)

Appendix A of the Draft Geotechnical Memorandum provided a short summary of the exploration work performed for the 2005 investigation. A more detailed description of the Field Geotechnical Investigation, including the additional investigation near the GGBHTD parking lot, can be found in Section 2 of the Field Investigation Report text. Appendix A of the Geotechnical Memorandum will be included on CD.

Appendix A: SUMMARY OF FIELD GEOTECHNICAL EXPLORATION

The geotechnical exploration program was performed based on criteria and methods described in the project Field Sampling Plan (FSP) for Baker Beach Disturbed Areas 1, 1A, 2, and 2A, dated May 2, 2005.

The work was performed in three field phases:

1. Excavation of test pits using specialized equipment (Spyder, Model No. S2 "Kaiser Kuick Fuss") operated by AIS Construction. A total of 21 test pits were excavated and logged between depths of 3 to 22 feet below ground surface. Undisturbed (Shelby tube) and grab samples were obtained for laboratory testing. The Spyder was also used to drill and install 2 piezometers in BBDA-1 using hollow-stem auger methods (HSA).

2. Cultural Resource test trenches were excavated at the top of the bluffs by EERG utilizing conventional rubber-tired backhoe equipment. A total of 10 trenches were excavated and logged by MACTEC and URS personnel from between 3 and 14 feet below ground surface. No geotechnical samples were submitted for laboratory testing.

3. Soil Borings we drilled at the top of the bluffs by conventional HSA truck-mounted drill rigs (Gregg Drilling and Testing) and by custom limited access drilling equipment (8x8 rig, Clearheart Drilling). Drive (modified California and Standard Penetration Test [SPT]) samples and undisturbed (Shelby tube) samples were obtained in a total of 15 borings, ranging in depth between 6 and 26 feet below ground surface.

Appendix B of the Draft Geotechnical Memorandum provided a draft table of completed geotechnical laboratory test results performed for the 2005 investigation. An updated table is included in Appendix C-1 of the Field Geotechnical Investigation. Appendix B of the Geotechnical Memorandum will be included on CD.

SOIL PROPERTIES								Proj. No.	57255				
BAKER BEACH 1, 1A, 2, and 2A								Data Input by:	JTN	Date: 6/7/05	WG	6/6/2005	
San Francisco Presidio								QC by:	WHG	Date: 7/5/05			
Database by MACTEC													

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Nearest Cross Section	Date	Equipment Type	Formation (2)	Description	Symbol (3)	Consistency/Relative Density (4)	Color
BB1SB110	216	BB1SB110(1.0)	1	215	1	H	5/12/2005	HSA	afw	Sandy Lean Clay	CL	Medium Stiff	Brown
BB1SB110	216	BB1SB110(2.5)	2.5	213.5	1	H	5/12/2005	HSA	afw	Sandy Lean Clay	CL	Medium Stiff	Brown
BB1SB110	216	BB1SB110(5.0)	5	211	1	H	5/12/2005	HSA	afh1	Gravel w/Sand	GW	Stiff	Reddish Brown
BB1SB110	216	BB1SB110(6.5)	6.5	209.5	1	H	5/12/2005	HSA	afh1	Sand w/Clay and Gravel	SP-SC		Brown
BB1SB110	216	BB1SB110(9.0)	9	207	1	H	5/12/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BB1SB110	216	BB1SB110(9.5)	9.5	206.5	1	H	5/12/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BB1SB110	216	BB1SB110(11.0)	11	205	1	H	5/12/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Dense	Dark Geay and Brown
BB1SB111	219	BB1SB111(0.5)	0.5	218.5	1	H	5/12/2005	HSA	afw	Sandy Lean Clay	CL	Medium Stiff	Very Dark Gray Brown
BB1SB111	219	BB1SB111(2.5)	2.5	216.5	1	H	5/12/2005	HSA	afw	Lean Clay	CL	Stiff	Dark Yellow Brown
BB1SB111	219	BB1SB111(4.0)	4	215	1	H	5/12/2005	HSA	sp	Sandy Lean Clay (Serpentinite)	CL	Very Stiff	Yellow Brown
BB1SB111	219	BB1SB111(4.5)	4.5	214.5	1	H	5/12/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BB1SB111	219	BB1SB111(7.0)	7	212	1	H	5/12/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BB1SB111	219	BB1SB111(9.0)	9	210	1	H	5/12/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Serpentinite	Brown
BB1TP100	195	BB1TP100(0.0)	0	195	1	H	4/11/2005	backhoe	afm	Clayey Sand	SC	Soft	Dark Brown
BB1TP100	195	BB1TP100(1.0)	1	194	1	H	4/11/2005	backhoe	afm	Clayey Sand	SC	Loose	Brown
BB1TP100	195	BB1TP100(4.5)	4.5	190.5	1	H	4/11/2005	backhoe	afw	Fat Clay	CH	Soft	Very Dark Brown
BB1TP101	140	BB1TP101(1.0)	1	139	1	A	4/12/2005	backhoe	afw	Sandy Lean Clay w/Gravel	CL	Medium Dense	Dark Brown
BB1TP101	140	BB1TP101(10.5)	10.5	129.5	1	A	4/12/2005	backhoe	afw	Sandy Lean Clay w/Gravel	CL	Medium Dense	Dark Brown
BB1TP102	62	BB1TP102(4.0)	4	58	1	A	4/15/2005	backhoe	afw	Clayey Gravel	GC	Loose	Very Dark Gray
BB1TP102	62	BB1TP102(10.5)	10.5	51.5	1	A	4/15/2005	backhoe	KJm	Clayey Sand w/Gravel	SC	Stiff	Black
BB1TP103	68	BB1TP103(3.0)	3	65	1	C	4/12/2005	backhoe	afw	Sand w/silt&Gravel	SP-SM	Loose - Medium Dense	Black & Brown
BB1TP103	68	BB1TP103(9.5)	9.5	58.5	1	C	4/12/2005	backhoe	Qcol/sp	Lean Clay w/Sand	C L	Soft	Brown
BB1TP104	107	BB1TP104(1.0)	1	106	1	C	4/12/2005	backhoe	afh2	Gravel w/Sand	GW	Loose - Medium Dense	Dark Grayish Brown
BB1TP105	145	BB1TP105(1.0)	1	144	1	C	4/12/2005	backhoe	afw	Silty Sand	SM	-	Brown
BB1TP105	145	BB1TP105(5.5)	5.5	139.5	1	C	4/12/2005	backhoe	afw	Sandy Lean Clay w/Gravel	CL	Medium Dense	Brown
BB1TP106	105	BB1TP106(5.0)	5	100	1	A	4/21/2005	backhoe	afw	Silty Sand w/Gravel	SM	Loose	Brown
BBSB102	190	BBSB102(0.5)	0.5	189.5	1	F	5/12/2005	HSA	afh1	Gravel w/sand	GW	Medium Dense	Reddish Brown
BBSB102	190	BBSB102(2.5)	2.5	187.5	1	F	5/12/2005	HSA	Qcol	Clayey Sand w/Gravel	SC	Medium Dense	Light Brown
BBSB102	190	BBSB102(3.5)	3.5	186.5	1	F	5/12/2005	HSA	Qcol/sp	Clayey Sand / Sand	SC/SP		Yellowish Brown/Green
BBSB102	190	BBSB102(6.0)	6	184	1	F	5/12/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Medium Dense	Olive Green
BBSB102	190	BBSB102(8.5)	8.5	181.5	1	F	5/12/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Dense	Green
BBSB102	190	BBSB102(9.0)	9	181	1	F	5/12/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Dense	Green
BBSB103	200	05BBSB103(1.0)	0	200	1	F	5/23/2005	HSA	afh	Clayey Sand	SC	Stiff	Brown
BBSB103	200	05BBSB103(1.5)	1.5	198.5	1	F	5/23/2005	HSA	afh	Clayey Sand	SC	loose	Grayish Brown
BBSB103	200	05BBSB103(3.0)	3.0	197	1	F	5/23/2005	HSA	afh	Clayey Sand	SC	Medium Dense	Dark Brown
BBSB103	200	05BBSB103(4.5)	4.5	195.5	1	F	5/23/2005	HSA	afh	Clayey Sand w/Gravel	SC	Medium Dense	Dark Brown
BBSB103	200	05BBSB103(6.5)	6.5	193.5	1	F	5/23/2005	HSA	afh / afh1	Clayey Sand	SC	Medium Dense	Greyish Black
BBSB103	200	05BBSB103(8.0)	8.0	192	1	F	5/23/2005	HSA	afh1	Clayey Sand	SC	Medium Dense	Yellowish Brown
BBSB103	200	05BBSB103(9.5)	9.5	190.5	1	F	5/23/2005	HSA	afh1	Silty Sand	SM	Medium Dense	Yellowish Brown
BBSB103	200	05BBSB103(11.5)	11.5	188.5	1	F	5/23/2005	HSA	Qcol	Silty Sand	SM	Medium Dense	Grayish Brown
BBSB103	200	05BBSB103(13.0)	13.0	187	1	F	5/23/2005	HSA	sp	Serpentinite	Serpentinite		
BBSB104	221	05BBSB104(2.0)	2	219	1		5/10/2005	HSA	Qcol	Sandy Lean Clay	CL	Very Stiff	Brown
BBSB104	221	05BBSB104(2.5)	2.5	218.5	1		5/10/2005	HSA	Qcol	Sandy Lean Clay	CL	Very Stiff	Orange Brown
BBSB104	221	05BBSB104(3.0)	3	218	1		5/10/2005	HSA	Qcol	Sandy Lean Clay	CL	Very Stiff	Orange Brown
BBSB104	221	05BBSB104(5.5)	5.5	215.5	1		5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BBSB104	221	05BBSB104(6.0)	6	215	1		5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Brown
BBSB104	221	05BBSB104(7.5)	7.5	213.5	1		5/10/2005	HSA	sp	Clayey Sand (Serpentinite)	SC		Brown
BBSB104	221	05BBSB104(9.5)	9.5	211.5	1		5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Brown
BBSB105	225	05BBSB105(1.0)	1	224	1	C	5/10/2005	HSA	afh1	Sand w/Gravel	SP	Loose	Reddish Brown
BBSB105	225	05BBSB105(1.5)	1.5	223.5	1	C	5/10/2005	HSA	Qcol	Silty Sand	SM	Medium Dense	Mottled
BBSB105	225	05BBSB105(3.0)	3	222	1	C	5/10/2005	HSA	Qcol	Silty Sand	SM	Loose	Mottled
BBSB105	225	05BBSB105(3.5)	3.5	221.5	1	C	5/10/2005	HSA	sp	Sandy Fat Clay	CH		Yellow Brown
BBSB105	225	05BBSB105(4.5)	4.5	220.5	1	C	5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Yellow Brown
BBSB105	225	05BBSB105(6.5)	6.5	218.5	1	C	5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Brown
BBSB105	225	05BBSB105(7.5)	7.5	217.5	1	C	5/10/2005	HSA	sp	Clayey Sand (Serpentinite)	SC	Hard	Brown
BBSB105	225	05BBSB105(9.0)	9	216	1	C	5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Brown
Trench 4		Trench 4(4.5)	4.5		1	A		backhoe					
Trench 4		Trench 4(6.0)	6		1	A		backhoe					

SOIL PROPERTIES								Proj. No.	57255				
BAKER BEACH 1, 1A, 2, and 2A								Data Input by:	JTN	Date: 6/7/05	WG	6/6/2005	
San Francisco Presidio								QC by:	WHG	Date: 7/5/05			
Database by MACTEC													

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Nearest Cross Section	Date	Equipment Type	Formation (2)	Description	Symbol (3)	Consistency/Relative Density (4)	Color
BB2SB100	261	BB2SB100(1.0)	1	260	2	E	5/9/2005	HSA	afh1	Gravel w/Sand	GW	Dense	Reddish Brown
BB2SB100	261	BB2SB100(2.5)	2.5	258.5	2	E	5/9/2005	HSA	afh1	Sandy Lean Clay	CL	Stiff	Brown
BB2SB100	261	BB2SB100(3.5)	3.5	257.5	2	E	5/9/2005	HSA	afh1	Sandy Lean Clay	CL	Very Stiff	Orange Brown
BB2SB100	261	BB2SB100(5.0)	5	256	2	E	5/9/2005	HSA	Qcol	Sandy Lean Clay	CL	Stiff	Brown
BB2SB100	261	BB2SB100(6.0)	6	255	2	E	5/9/2005	HSA	Qcol	Lean Clay w/Sand	CL		Brown
BB2SB100	261	BB2SB100(6.7)	6.7	254.3	2	E	5/9/2005	HSA	Qcol	Fat Clay w/Sand	CH	very stiff	B rown
BB2SB100	261	BB2SB100(8.5)	8.5	252.5	2	E	5/9/2005	HSA	Qcol	Fat Clay	CH	very stiff	Brown
BB2SB100	261	BB2SB100(9.0)	9	252	2	E	5/9/2005	HSA	Qcol	Fat Clay	CH	very stiff	Brown
BB2SB100	261	BB2SB100(10.5)	10.5	250.5	2	E	5/9/2005	HSA	Qcol	Sand	SP	Medium Dense	Olive Green
BB2SB100	261	BB2SB100(12.0)	12	249	2	E	5/9/2005	HSA	sp	Silty Sand w/Gravel (Serpentinite)	SM	Medium Dense	Green
BB2SB100	261	BB2SB100(15.0)	15	246	2	E	5/9/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Greenish Gray
BB2SB100	261	BB2SB100(16.5)	16.5	244.5	2	E	5/9/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Greenish Gray
BB2SB101	257	BB2SB101(1.0)	1	256	2	E	5/11/2005	HSA	afh1	Clayey Gravel w/Sand	GC	Medium Dense	Brown
BB2SB101	257	BB2SB101(2.0)	2	255	2	E	5/11/2005	HSA	afh1	Clayey Gravel w/Sand	GC	Loose	Brown
BB2SB101	257	BB2SB101(4.0)	4	253	2	E	5/11/2005	HSA	afw	Clayey Sand	SC	Loose	Brown
BB2SB101	257	BB2SB101(5.5)	5.5	251.5	2	E	5/11/2005	HSA	afw	Sandy Lean Clay	CL	Stiff	Black and Brown
BB2SB101	257	BB2SB101(8.5)	8.5	248.5	2	E	5/11/2005	HSA	afw	Silty Sand	SM	Stiff	Black
BB2SB101	257	BB2SB101(11.5)	11.5	245.5	2	E	5/11/2005	HSA	afw	Organic Clay	OL	Soft	Black
BB2SB101	257	BB2SB101(12.3)	12.3	244.7	2	E	5/11/2005	HSA	Qcol	Sandy Lean Clay	CL	Medium Stiff	Brown
BB2SB101	257	BB2SB101(15.0)	15	242	2	E	5/11/2005	HSA	Qcol	Sandy Fat Clay	CH	very stiff	Blue Gray
BB2SB101	257	BB2SB101(15.5)	15.5	241.5	2	E	5/11/2005	HSA	Qcol	Fat Clay	CH		Olive Gray
BB2SB101	257	BB2SB101(17.5)	17.5	239.5	2	E	5/11/2005	HSA	Qcol	Fat Clay w/Sand	CH	very stiff	Light Brown
BB2SB101	257	BB2SB101(18.0)	18	239	2	E	5/11/2005	HSA	Qcol	Fat Clay w/Sand	CH	very stiff	Light Brown
BB2SB101	257	BB2SB101(19.5)	19.5	237.5	2	E	5/11/2005	HSA	Qcol	Brown Fat Clay	CH	very stiff	Mottled Orange Brown
BB2SB101	257	BB2SB101(20.3)	20.3	236.7	2	E	5/11/2005	HSA	Qcol	Lean Clay w/Sand	CL	Medium Dense	Brown
BB2SB101	257	BB2SB101(23.0)	23	234	2	E	5/11/2005	HSA	Qcol	Fat Clay w/Sand	CH	very stiff	Olive Green
BB2SB101	257	BB2SB101(25.3)	25.3	231.7	2	E	5/11/2005	HSA	sp	Sandy Silt	ML		Gray Brown
BB2TP100	230	BB2TP100(1.5)	1.5	228.5	2	E	4/6/2005	backhoe	Qcol	Clayey Sand	SC	Soft	Red Brown
BB2TP100	230	BB2TP100(6.5)	6.5	223.5	2	E	4/6/2005	backhoe	sp	Serpentinite	Serpentinite	Serpentinite	dark Gray
BB2TP101	242	BB2TP101(4.5)	4.5	237.5	2	E	4/6/2005	backhoe	afw	Lean Clay	CL	Soft	Dark Brown
BB2TP101	242	BB2TP101(9.5)	9.5	232.5	2	E	4/6/2005	backhoe	Qcol	Sandy Lean Clay	CL	Medium Stiff	Brown
BBSB107	263	05BBSB107(0.5)	0.5	262.5	2	E	5/10/2005	HSA	afh1	Silty Sand w/Gravel	SM	Medium Dense	Brown
BBSB107	263	05BBSB107(1.0)	1	262	2	E	5/10/2005	HSA	afh1	Lean Clay	CL	very stiff	Light Brown
BBSB107	263	05BBSB107(2.5)	2.5	260.5	2	E	5/10/2005	HSA	afh1	Silty Sand	SM	Loose	Light Brown
BBSB107	263	05BBSB107(4.0)	4	259	2	E	5/10/2005	HSA	afh1	Silty Sand	SM	Medium Dense	Light Brown
BBSB107	263	05BBSB107(4.5)	4.5	258.5	2	E	5/10/2005	HSA	afh1	Lean Clay w/Sand	CL		Brown
BBSB107	263	05BBSB107(6.0)	6	257	2	E	5/10/2005	HSA	afh1	Lean Clay w/Sand	CL	very stiff	Brown
BBSB107	263	05BBSB107(8.0)	8	255	2	E	5/10/2005	HSA	afh1	Fat Clay w/Sand	CH		Orange Brown
BBSB107	263	05BBSB107(10.0)	10	253	2	E	5/10/2005	HSA	Qcol	Sandy Silt	ML	very stiff	Light Brown
BBSB107	263	05BBSB107(10.5)	10.5	252.5	2	E	5/10/2005	HSA	Qcol	Sandy Lean Clay	CL		Brown
BBSB107	263	05BBSB107(13.5)	13.5	249.5	2	E	5/10/2005	HSA	Qcol	Sand w/Silt	SP-SM	Medium Dense	Yellow Brown
BBSB107	263	05BBSB107(14.0)	14	249	2	E	5/10/2005	HSA	Qcol	Sand w/Silt	SP-SM	Medium Dense	Yellow Brown
BBSB107	263	05BBSB107(16.0)	16	247	2	E	5/10/2005	HSA	Qcol	Silty Sand	SM	Medium Dense	Brown
BBSB107	263	05BBSB107(17.0)	17	246	2	E	5/10/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Blue Gray
BBSB107	263	05BBSB107(19.5)	19.5	243.5	2	E	5/10/2005	HSA	sp	Silty Sand (Serpentinite)	SM	Dense	Green

SOIL PROPERTIES								Proj. No.	57255				
BAKER BEACH 1, 1A, 2, and 2A								Data Input by:	JTN	Date: 6/7/05	WG	6/6/2005	
San Francisco Presidio								QC by:	WHG	Date: 7/5/05			
Database by MACTEC													

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Nearest Cross Section	Date	Equipment Type	Formation (2)	Description	Symbol (3)	Consistency/Relative Density (4)	Color
BB1ATP100	168	BB1ATP100(2.5)	2.5	165.5	1A	G	4/7/2005	backhoe	afh2	Sand w/Silt	SP-SM	Medium Dense	Brown
BB1ATP100	168	BB1ATP100(4.5)	4.5	163.5	1A	G	4/7/2005	backhoe	Qcol	Silty Sand	SM	Medium Dense	Red, Tannish Dark Brown
BB1ATP101	170	BB1ATP101(2.5)	2.5	167.5	1A		4/7/2005	backhoe	afm	Silty Sand	SM	Medium Dense	Gray Brown
BB1ATP101	170	BB1ATP101(4.0)	4	166	1A		4/7/2005	backhoe	afm	Sand	SP	Medium Dense	Brown
BBSB100	175	BBSB100(2.0)	2	173	1A	G	5/13/2005	HSA	Qcol	Clayey Sand	SC	Loose	Yellow Brown
BBSB100	175	BBSB100(2.5)	2.5	172.5	1A	G	5/13/2005	HSA	Qcol	Sandy Fat Clay w/Gravel	CH	Stiff	Brown
BBSB100	175	BBSB100(3.0)	3	172	1A	G	5/13/2005	HSA	sp	Clayey Sand w/Gravel	SC		Brown
BBSB100	175	BBSB100(5.5)	5.5	169.5	1A	G	5/13/2005	HSA	sp	Clayey Sand w/Gravel	SC	Medium Dense	Gray
BBSB100	175	BBSB100(6.0)	6	169	1A	G	5/13/2005	HSA	sp	Clayey Sand w/Gravel	SC	Medium Dense	Gray
BBSB100	175	BBSB100(8.5)	8.5	166.5	1A	G	5/13/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Gray
BBSB100	175	BBSB100(9.0)	9	166	1A	G	5/13/2005	HSA	sp	Silty Sand w/ Gravel (Serpentinite)	SM	Medium Dense	Brown
BBSB101	188	BBSB101(1.0)	0	188	1A	G	5/20/2005	HSA	afh	Sandy Silt	ML		Dark Grayish Brown
BBSB101	188	BBSB101(1.5)	1.5	186.5	1A	G	5/20/2005	HSA	afh / afh2	Silt	ML		Dark Grayish Brown
BBSB101	188	BBSB101(3.0)	3.0	185	1A	G	5/20/2005	HSA	afh2	Silty Sand	SM	Loose	Dark Grayish Brown
BBSB101	188	BBSB101(6.5)	6.5	181.5	1A	G	5/20/2005	HSA	afh2	Sandy Lean Clay	CL		Very Dark Gray
BBSB101	188		7.0	181	1A	G	5/20/2005	HSA	afh2	Sandy Lean Clay	CL		Very Dark Gray
BBSB101	188	BBSB101(8.5)	8.5	179.5	1A	G	5/20/2005	HSA	afh2	Sandy Lean Clay w/Gravel	CL	Medium Stiff	Very Dark Gray
BBSB101	188	BBSB101(12.0)	12.0	176	1A	G	5/20/2005	HSA	afh2	Sandy Lean Clay w/Gravel	CL		Very Dark Gray
BBSB101	188	BBSB101(13.5)	13.5	174.5	1A	G	5/20/2005	HSA	Qcol	Sand	SP		Dark Grayish Brown
BBSB101	188	BBSB101(14.0)	14.0	174	1A	G	5/20/2005	HSA	Qcol		SP	Loose	Dark Grayish Brown
BBSB101	188	BBSB101(17.0)	17.0	171	1A	G	5/20/2005	HSA	Qcol	Clayey Sand	SC		Brown
BBSB101	188		17.5	170.5	1A	G	5/20/2005	HSA	Qcol	Lean Clay	CL		Dark Yellowish Brown
BBSB101	188		19.0	169	1A	G	5/20/2005	HSA	sp	Serpentinite	Serpentinite		Olive Gray

SOIL PROPERTIES								Proj. No.	57255				
BAKER BEACH 1, 1A, 2, and 2A								Data Input by:	JTN	Date: 6/7/05	WG	6/6/2005	
San Francisco Presidio								QC by:	WHG	Date: 7/5/05			
Database by MACTEC													

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Nearest Cross Section	Date	Equipment Type	Formation (2)	Description	Symbol (3)	Consistency/Relative Density (4)	Color
BB2ASB100	258	BB2ASB100(1.0)	1	257	2A	D	5/9/2005	HSA	afh	Gravel w/Sand	GW	Loose	Reddish Brown
BB2ASB100	258	BB2ASB100(2.5)	2.5	255.5	2A	D	5/9/2005	HSA	afh	Sand	SP	Loose	Gray Brown
BB2ASB100	258	BB2ASB100(5.5)	5.5	252.5	2A	D	5/9/2005	HSA	afh	Silt	ML	Stiff	Very Dark Gray Brown
BB2ASB100	258	BB2ASB100(6.8)	6.8	251.2	2A	D	5/9/2005	HSA	Qcol	Sandy Lean Clay	CL	Medium Stiff	Brown
BB2ASB100	258	BB2ASB100(9.5)	9.5	248.5	2A	D	5/9/2005	HSA	Qcol	Lean Clay w/Sand	CL	Stiff	Brown
BB2ASB100	258	BB2ASB100(11.5)	11.5	246.5	2A	D	5/9/2005	HSA	sp	Lean Clay w/Sand (Serpentinite)	CL	Serpentinite	Brown
BB2ASB100	258	BB2ASB100(13.0)	13	245	2A	D	5/9/2005	HSA	sp	Lean Clay w/Sand (Serpentinite)	CL	Serpentinite	Light Brown
BB2ASB100	258	BB2ASB100(14.0)	14	244	2A	D	5/9/2005	HSA	sp	(Serpentinite)	SC	Serpentinite	Brown
BB2ASB100	258	BB2ASB100(16.5)	16.5	241.5	2A	D	5/9/2005	HSA	sp	Lean Clay (Serpentinite)	CL	Serpentinite	Brown
BB2ASB100	258	BB2ASB100(18.0)	18	240	2A	D	5/9/2005	HSA	KJm	Melange	Melange	Melange	Dark Gray Brown
BB2ASB100	258	BB2ASB100(19.0)	19	239	2A	D	5/9/2005	HSA	KJm	Lean Clay w/Sand (Melange)	CL	Melange	Mottled Brown
BB2ASB100	258	BB2ASB100(21.0)	21	237	2A	D	5/9/2005	HSA	KJm	Melange	Melange	Melange	Dark Gray Brown
BB2ASB100	258	BB2ASB100(22.5)	22.5	235.5	2A	D	5/9/2005	HSA	KJm	Melange	Melange	Melange	Dark Gray Brown
BB2ASB101	256	BB2ASB101(1.0)	1	255	2A	D	5/9/2005	HSA	afh1	Clayey Sand w/Gravel	SC	Medium Dense	Brown
BB2ASB101	256	BB2ASB101(2.0)	2	254	2A	D	5/9/2005	HSA	afh1	Clay w/Sand	CL	Medium Stiff	Red Brown
BB2ASB101	256	BB2ASB101(4.5)	4.5	251.5	2A	D	5/9/2005	HSA	afh1	Lean Clay w/Sand	CL	Stiff	Brown
BB2ASB101	256	BB2ASB101(6.5)	6.5	249.5	2A	D	5/9/2005	HSA	Qcol	Silty Clayey Sand	SC-SM	Loose	Brown
BB2ASB101	256	BB2ASB101(8.0)	8	248	2A	D	5/9/2005	HSA	Qcol	Fat Clay w/Sand	CH	Stiff	Orange Brown
BB2ASB101	256	BB2ASB101(9.5)	9.5	246.5	2A	D	5/9/2005	HSA	Qcol	Fat Clay w/Sand	CH		Orange Brown
BB2ASB101	256	BB2ASB101(11.5)	11.5	244.5	2A	D	5/9/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Light Olive Gray
BB2ATP100	190	BB2ATP100(1.0)	1	189	2A	B	4/14/2005	backhoe	Qcol	Sandy Elastic Silt	MH	Soft - Medium Stiff	Brown
BB2ATP100	190	BB2ATP100(4.0)	4	186	2A	B	4/14/2005	backhoe	sp	Serpentinite	Serpentinite	Serpentinite	Greenish Gray
BB2ATP101	95	BB2ATP101(2.0)	2	93	2A	D	4/14/2005	backhoe	afw	Sandy Lean Clay	CL	Soft - Medium Stiff	Mottled Brown
BB2ATP101	95	BB2ATP101(12.0)	12	83	2A	D	4/14/2005	backhoe	afw	Clayey Sand	SC	Soft - Medium Stiff	Brown
BB2ATP102	130	BB2ATP102(2.0)	2	128	2A	B	4/15/2005	backhoe	afh2	Clayey Gravel w/Sand	GC	Loose - Medium Dense	Dark Brown
BB2ATP102	130	BB2ATP102(8.0)	8	122	2A	B	4/15/2005	backhoe	sp	Silty Sand w/Gravel (Serpentinite)	SM	Serpentinite	Blue Gray
BB2ATP103	160	BB2ATP103(1.0)	1	159	2A	D	4/13/2005	backhoe	afmh2/afw	Clayey Sand	SC	Stiff	Dark Brown
BB2ATP103	160	BB2ATP103(4.0)	4	156	2A	D	4/13/2005	backhoe	sp	Serpentinite	Serpentinite	Serpentinite	Greenish Gray
BB2ATP104	113	BB2ATP104(2.0)	2	111	2A	D	4/13/2005	backhoe	afw	Sandy Lean Clay w/Gravel	CL	Medium Stiff	Brown
BB2ATP104	113	BB2ATP104(6.0)	6	107	2A	D	4/13/2005	backhoe	afh2	Clayey Sand w/Gravel	SC	Soft - Medium Stiff	Dark Brown
BB2ATP105	50	BB2ATP105(0.5)	0.5	49.5	2A	D	4/15/2005	backhoe	KJm	Melange	Melange	Melange	Black
BB2ATP106	60	BB2ATP106(0.5)	0.5	59.5	2A	B	4/15/2005	backhoe	afw/Qls	Sandy Silt / Gravel w/Sand	ML/GW	Soft / Loose	Dark Gray / Yellowish Brown
BBSB106	258		0	258	2A	B	5/23/2005	HSA	afh	Clayey Silt	ML	Medium Stiff	Brownish Black
BBSB106	258	05BBSB106(1.0)	1.0	257	2A	B	5/23/2005	HSA	afh	Sandy Lean Clay	CL		Dark Brown
BBSB106	258		1.5	256.5	2A	B	5/23/2005	HSA	afh	Clayey Silt	ML	Medium Stiff	Black
BBSB106	258	05BBSB106(2.5)	2.5	255.5	2A	B	5/23/2005	HSA	afh		ML		
BBSB106	258	05BBSB106(3.5)	3.5	254.5	2A	B	5/23/2005	HSA	Qcol	Sandy Lean Clay	CL		Brown
BBSB106	258	05BBSB106(6.0)	6.0	252	2A	B	5/23/2005	HSA	Qcol	Sandy Lean Clay	CL		Light Brown
BBSB106	258	05BBSB106(6.5)	6.5	251.5	2A	B	5/23/2005	HSA	Qcol	Clay	CL	Hard	Dark Yellowish Orange
BBSB106	258	05BBSB106(7.0)	7.0	251	2A	B	5/23/2005	HSA	Qcol	Sandy Lean Clay	CL		Brown
BBSB106	258	05BBSB106(7.5)	7.5	250.5	2A	B	5/23/2005	HSA	Qcol	Sandy Lean Clay	CL		Light Brown
BBSB106	258	05BBSB106(8.0)	8.0	250	2A	B	5/23/2005	HSA	Qcol	Sandy Clay	CL	Hard	Dark Yellowish Orange
BBSB106	258	05BBSB106(10.0)	10.0	248	2A	B	5/23/2005	HSA	sp	Sandy Lean Clay (Serpentinite)	CL		Brown
BBSB106	258	05BBSB106(10.5)	10.5	247.5	2A	B	5/23/2005	HSA	sp	Fat Clay w/Sand (Serpentinite)	CH		Brown
BBSB106	258	05BBSB106(11.5)	11.5	246.5	2A	B	5/23/2005	HSA	sp	Silty Sand (Serpentinite)	SM		Brown
BBSB106	258	05BBSB106(13.0)	13.0	245	2A	B	5/23/2005	HSA	sp	Serpentinite	Serpentinite	Serpentinite	Olive Gray
BBSB106	258	05BBSB106(24.0)	24.0	234	2A	B	5/23/2005	HSA	sp	Silty Sand w/Gravel (Serpentinite)	SM	Serpentinite	Olive Green
BBSB101	188	BBSB101(2.5)	2.5	185.5		G	5/20/2005	HSA					

Notes:

(1) Preceeding "05" on sample number (e.g. 05BBSB106(10.0)) indicates year.
Cultural resource trench samples (e.g. Trench 4 (4.5)) were not designated in the QAPP or FSP but instead were given field sample desciptions
(2) Refer to text and Plate 1 Geologic Map for description
(3) Unified Soil Classification System (USCS) designation
(4) Consistency/Relative Density based on EPRI, August 1990
(5) Recommended hammer and sample type converstion factor
(6) Hammer energy and sample type corrected blow count

Abbreviations Key:

HSA - Hollow Stem Auger
MC - Modified California Sampler
SPT - Standard Penetration Test Sampler
N-60 - Hammer energy and sample type corrected blow count
Phi Meyerhof - Internal friction angle (Phi) based on Meherhof table in EPRI, August 1990
Su = N/8 - Shear strength relationship based on N_60, EPRI, August 1990
Eff_Stress - Effective overburden stress
C_N - Overburden correction factor
N1,60 - N60 value corrected for overburden
Su - Undrained shear strength
DD - Dry Density
TD - Total or Wet Density
LL - Liquid Limit
PL - Plastic Limit
PI - Plasticity Index
tsf - tons (2000 pounds) per square feet
ksf - kips (l000 pounds) per square feet
psf - pouds per square feet

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Sampler	Last Count	Field Blow Counts (blows/ft) SPT N	Field Blow Counts (blows/ft) Mod Cal N	Hammer Type	Energy Correction	N_60 (blows/ft) (5)	Phi Meyerhof from N (6)	Su=N/8 (ksf)	Serpentine N	Eff_Stress(psf)	C_N	$N_{1,60}$ (blows/ft)	Moisture	DD(pcf)	TD(pcf)
BB1SB110	216	BB1SB110(1.0)	1	215	1	MC			6	Auto Trip	0.8	5		0.60			1.83	9	0.07		
BB1SB110	216	BB1SB110(2.5)	2.5	213.5	1	MC			9	Auto Trip	0.8	7		0.90			1.83	13	0.154	112.3	129.5942
BB1SB110	216	BB1SB110(5.0)	5	211	1	MC			12	Auto Trip	0.8	10	35				1.83	18	0.096	100	109.6
BB1SB110	216	BB1SB110(6.5)	6.5	209.5	1	Shelby											1.83	n/a	0.096		
BB1SB110	216	BB1SB110(9.0)	9	207	1	MC			25	Auto Trip	0.8	20			20		1.83	37	0.679	57	95.703
BB1SB110	216	BB1SB110(9.5)	9.5	206.5	1	Shelby											1.83	n/a	0.53		
BB1SB110	216	BB1SB110(11.0)	11	205	1	MC			70	Auto Trip	0.8	56	45				1.83	103	0.619	58.8	95.1972
BB1SB111	219	BB1SB111(0.5)	0.5	218.5	1	MC			6	Auto Trip	0.8	5		0.60			1.83	9	0.257	98	123.186
BB1SB111	219	BB1SB111(2.5)	2.5	216.5	1	MC			15	Auto Trip	0.8	12		1.50			1.83	22	0.154	103	118.862
BB1SB111	219	BB1SB111(4.0)	4	215	1	MC			24	Auto Trip	0.8	19		2.40			1.83	35	0.698	58.4	99.1632
BB1SB111	219	BB1SB111(4.5)	4.5	214.5	1	Shelby					0	0					1.83	n/a	0.666		
BB1SB111	219	BB1SB111(7.0)	7	212	1	MC			26	Auto Trip	0.8	21			21		1.83	38	0.561	61	95.221
BB1SB111	219	BB1SB111(9.0)	9	210	1	Shelby											1.83	n/a	0.585		
BB1TP100	195	BB1TP100(0.0)	0	195	1	Shelby											1.83	n/a	0.198	104.6	125.3108
BB1TP100	195	BB1TP100(1.0)	1	194	1	Shelby											1.83	n/a	0.175	102	119.85
BB1TP100	195	BB1TP100(4.5)	4.5	190.5	1	Shelby											1.83	n/a	0.213	106	128.578
BB1TP101	140	BB1TP101(1.0)	1	139	1	Shelby											1.83	n/a	0.097	122	133.834
BB1TP101	140	BB1TP101(10.5)	10.5	129.5	1	Shelby											1.83	n/a	0.149		
BB1TP102	62	BB1TP102(4.0)	4	58	1	Shelby											1.83	n/a	0.298		
BB1TP102	62	BB1TP102(10.5)	10.5	51.5	1	Shelby											1.83	n/a	0.096	133.4	146.2064
BB1TP103	68	BB1TP103(3.0)	3	65	1	Shelby											1.83	n/a	0.065	103	109.695
BB1TP103	68	BB1TP103(9.5)	9.5	58.5	1	Shelby											1.83	n/a	0.261	98.4	124.0824
BB1TP104	107	BB1TP104(1.0)	1	106	1	Shelby											1.83	n/a	0.191		
BB1TP105	145	BB1TP105(1.0)	1	144	1	Shelby											1.83	n/a	0.175	111	130.425
BB1TP105	145	BB1TP105(5.5)	5.5	139.5	1	Shelby											1.83	n/a	0.213	69	83.697
BB1TP106	105	BB1TP106(5.0)	5	100	1	Grab											1.83	n/a	0.206		
BBSB102	190	BBSB102(0.5)	0.5	189.5	1	MC			32	Auto Trip	0.8	26	39				1.83	47	0.159	94	108.946
BBSB102	190	BBSB102(2.5)	2.5	187.5	1	MC			27	Auto Trip	0.8	22	38				1.83	40	0.166	112	130.592
BBSB102	190	BBSB102(3.5)	3.5	186.5	1	Shelby											1.83	n/a	1.373	34	80.682
BBSB102	190	BBSB102(6.0)	6	184	1	MC			34	Auto Trip	0.8	27	39				1.83	50	0.65	60.3	99.495
BBSB102	190	BBSB102(8.5)	8.5	181.5	1	MC			80	Auto Trip	0.8	64	45				1.83	117	0.132	114.2	129.2744
BBSB102	190	BBSB102(9.0)	9	181	1	MC			80	Auto Trip	0.8	64	45				1.83	117	0.14	111.4	126.996
BBSB103	200	05BBSB103(1.0)	0	200	1	MC			19	Rope & Cathead	0.7	13				339	1.61	21	0.109	108	119.772
BBSB103	200	05BBSB103(1.5)	1.5	198.5	1	SPT		9		Rope & Cathead	1	9				621	1.46	13	0.112		
BBSB103	200	05BBSB103(3.0)	3.0	197	1	Shelby										828	1.36	n/a	0.13	111.2	125.656
BBSB103	200	05BBSB103(4.5)	4.5	195.5	1	MC			40	Rope & Cathead	0.7	28				1065	1.27	36	0.129	112.8	127.3512
BBSB103	200	05BBSB103(6.5)	6.5	193.5	1	SPT		16		Rope & Cathead	1	16	37			1243	1.21	19	0.106		
BBSB103	200	05BBSB103(8.0)	8.0	192	1	MC			28	Rope & Cathead	0.7	20	37			1557	1.11	22	0.094	111.2	121.6528
BBSB103	200	05BBSB103(9.5)	9.5	190.5	1	SPT		18		Rope & Cathead	1	18	37				1.83	33	0.094		
BBSB103	200	05BBSB103(11.5)	11.5	188.5	1	Shelby											1.83	n/a	0.112	112.9	125.5448
BBSB103	200	05BBSB103(13.0)	13.0	187	1	MC	83/7"		142	Rope & Cathead	0.7	100			100		1.83	183	0.625		
BBSB104	221	05BBSB104(2.0)	2	219	1	MC			37	DH Cable	0.7	26		3.24			1.83	47	0.157	117.9	136.4103
BBSB104	221	05BBSB104(2.5)	2.5	218.5	1	MC			37	DH Cable	0.7	26		3.24			1.83	47	0.163	116.6	135.6058
BBSB104	221	05BBSB104(3.0)	3	218	1	SPT		20		DH Cable	1	20		2.50			1.83	37	0.161		
BBSB104	221	05BBSB104(5.5)	5.5	215.5	1	MC			55	DH Cable	0.7	39			39		1.83	71	0.533		
BBSB104	221	05BBSB104(6.0)	6	215	1	SPT		13		DH Cable	1	13			13		1.83	24	0.996		
BBSB104	221	05BBSB104(7.5)	7.5	213.5	1	Shelby											1.83	n/a	0.781	51.5	91.7215
BBSB104	221	05BBSB104(9.5)	9.5	211.5	1	SPT		42		DH Cable	1	42			42		1.83	77	0.657		
BBSB105	225	05BBSB105(1.0)	1	224	1	MC			13	DH Cable	0.7	9	34				1.83	17	0.158	116	134.328
BBSB105	225	05BBSB105(1.5)	1.5	223.5	1	SPT		23		DH Cable	1	23	38				1.83	42	0.174		
BBSB105	225	05BBSB105(3.0)	3	222	1	MC			21	DH Cable	0.7	15	36				1.83	27	0.991	46	91.586
BBSB105	225	05BBSB105(3.5)	3.5	221.5	1	shelby											1.83	n/a	0.735	54.6	94.731
BBSB105	225	05BBSB105(4.5)	4.5	220.5	1	SPT		16		DH Cable	1	16			16		1.83	29	0.904		
BBSB105	225	05BBSB105(6.5)	6.5	218.5	1	MC			38	DH Cable	0.7	27			27		1.83	49	0.85	48.2	89.17
BBSB105	225	05BBSB105(7.5)	7.5	217.5	1	SPT		31		DH Cable	1	31	40				1.83	57	0.855		
BBSB105	225	05BBSB105(9.0)	9	216	1	SPT	74/11"	81		DH Cable	1	81			81		1.83	148	0.857		
Trench 4		Trench 4(4.5)	4.5		1												1.83	n/a			
Trench 4		Trench 4(6.0)	6		1												1.83	n/a			

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Sampler	Last Count	Field Blow Counts (blows/ft) SPT N	Field Blow Counts (blows/ft) Mod Cal N	Hammer Type	Energy Correction	N_60 (blows/ft) (5)	Phi Meyerhof from N (6)	Su=N/8 (ksf)	Serpentine N	Eff_Stress(psf)	C_N	$N_{1,60}$ (blows/ft)	Moisture	DD(pcf)	TD(pcf)
BB2SB100	261	BB2SB100(1.0)	1	260	2	MC			64	Auto Trip	0.8	51	45				1.83	94	0.065		
BB2SB100	261	BB2SB100(2.5)	2.5	258.5	2	MC			19	Auto Trip	0.8	15		1.90			1.83	28	0.165	112.9	131.5285
BB2SB100	261	BB2SB100(3.5)	3.5	257.5	2	MC			20	Auto Trip	0.8	16		2.00			1.83	29	0.2	105.3	126.36
BB2SB100	261	BB2SB100(5.0)	5	256	2	MC			18	Auto Trip	0.8	14		1.80			1.83	26	0.152	117.4	135.2448
BB2SB100	261	BB2SB100(6.0)	6	255	2	MC			-	Auto Trip	0.8						1.83	n/a	0.189	108.8	129.3632
BB2SB100	261	BB2SB100(6.7)	6.7	254.3	2	Shelby											1.83	n/a	0.194	106.3	126.9222
BB2SB100	261	BB2SB100(8.5)	8.5	252.5	2	MC			24	Auto Trip	0.8	19		2.40			1.83	35	0.28	95.7	122.496
BB2SB100	261	BB2SB100(9.0)	9	252	2	MC			24	Auto Trip	0.8	19		2.40			1.83	35	0.21	107.5	130.075
BB2SB100	261	BB2SB100(10.5)	10.5	250.5	2	MC			33	Auto Trip	0.8	26	39				1.83	48	0.163	109	126.767
BB2SB100	261	BB2SB100(12.0)	12	249	2	MC			37	Auto Trip	0.8	30	40				1.83	54	0.252	85.3	106.7956
BB2SB100	261	BB2SB100(15.0)	15	246	2	MC			27	Auto Trip	0.8	22			22		1.83	40	0.247	90	112.23
BB2SB100	261	BB2SB100(16.5)	16.5	244.5	2	MC			23	Auto Trip	0.8	18			18		1.83	34	0.211		
BB2SB101	257	BB2SB101(1.0)	1	256	2	MC			21	Auto Trip	0.8	17	37				1.83	31	0.077	119	128.163
BB2SB101	257	BB2SB101(2.0)	2	255	2	MC			17	Auto Trip	0.8	14	36				1.83	25	0.157	109	126.113
BB2SB101	257	BB2SB101(4.0)	4	253	2	MC			14	Auto Trip	0.8	11	35				1.83	21	0.147	114.5	131.3315
BB2SB101	257	BB2SB101(5.5)	5.5	251.5	2	MC			12	Auto Trip	0.8	10		1.20			1.83	18	0.187	108.2	128.4334
BB2SB101	257	BB2SB101(8.5)	8.5	248.5	2	MC			15	Auto Trip	0.8	12	36				1.83	22	0.414	70.9	100.2526
BB2SB101	257	BB2SB101(11.5)	11.5	245.5	2	MC			5	Auto Trip	0.8	4					1.83	7	0.414	71.5	101.101
BB2SB101	257	BB2SB101(12.3)	12.3	244.7	2	Shelby											1.83	n/a	0.19	109.9	130.781
BB2SB101	257	BB2SB101(15.0)	15	242	2	MC			21	Auto Trip	0.8	17		2.10			1.83	31	0.197	109.5	131.0715
BB2SB101	257	BB2SB101(15.5)	15.5	241.5	2	Shelby											1.83	n/a			
BB2SB101	257	BB2SB101(17.5)	17.5	239.5	2	MC			29	Auto Trip	0.8	23		2.90			1.83	43	0.173	113.9	133.6047
BB2SB101	257	BB2SB101(18.0)	18	239	2	MC			29	Auto Trip	0.8	23		2.90			1.83	43	0.142	120	137.04
BB2SB101	257	BB2SB101(19.5)	19.5	237.5	2	MC			31	Auto Trip	0.8	25		3.10			1.83	45	0.176	114.3	134.4168
BB2SB101	257	BB2SB101(20.3)	20.3	236.7	2	Shelby											1.83	n/a	0.176	112.8	132.6528
BB2SB101	257	BB2SB101(23.0)	23	234	2	MC			27	Auto Trip	0.8	22		2.70			1.83	40	0.189	107.8	128.1742
BB2SB101	257	BB2SB101(25.3)	25.3	231.7	2	Shelby											1.83	n/a	0.247	87	108.489
BB2TP100	230	BB2TP100(1.5)	1.5	228.5	2	Shelby											1.83	n/a	0.148	116.4	133.6272
BB2TP100	230	BB2TP100(6.5)	6.5	223.5	2	Shelby											1.83	n/a	0.338		
BB2TP101	242	BB2TP101(4.5)	4.5	237.5	2	Shelby											1.83	n/a	0.266	79	100.014
BB2TP101	242	BB2TP101(9.5)	9.5	232.5	2	Shelby											1.83	n/a	0.169	113.6	132.7984
BBSB107	263	05BBSB107(0.5)	0.5	262.5	2	MC			37	DH Cable	0.7	26	39				1.83	47	0.072	115.5	123.816
BBSB107	263	05BBSB107(1.0)	1	262	2	MC			37	DH Cable	0.7	26		3.24			1.83	47	0.108	113	125.204
BBSB107	263	05BBSB107(2.5)	2.5	260.5	2	MC			22	DH Cable	0.7	15	36				1.83	28	0.1	118.4	130.24
BBSB107	263	05BBSB107(4.0)	4	259	2	MC			28	DH Cable	0.7	20	37				1.83	36			
BBSB107	263	05BBSB107(4.5)	4.5	258.5	2	shelby											1.83	n/a	0.162	103	119.686
BBSB107	263	05BBSB107(6.0)	6	257	2	SPT		21		DH Cable	1	21		2.63			1.83	39	0.156		
BBSB107	263	05BBSB107(8.0)	8	255	2	MC			-	DH Cable	0.7						1.83	n/a	0.164	114.9	133.7436
BBSB107	263	05BBSB107(10.0)	10	253	2	MC			23	DH Cable	0.7	16		2.01			1.83	30	0.149	111	127.539
BBSB107	263	05BBSB107(10.5)	10.5	252.5	2	shelby											1.83	n/a	0.12	114.6	128.352
BBSB107	263	05BBSB107(13.5)	13.5	249.5	2	MC			42	DH Cable	0.7	29	40				1.83	54	0.122	121	135.762
BBSB107	263	05BBSB107(14.0)	14	249	2	SPT		24		DH Cable	1	24	39				1.83	44	0.121		
BBSB107	263	05BBSB107(16.0)	16	247	2	MC			48	DH Cable	0.7	34	41				1.83	62	0.176	103.5	121.716
BBSB107	263	05BBSB107(17.0)	17	246	2	SPT		43		DH Cable	1	43			43		1.83	79	0.245		
BBSB107	263	05BBSB107(19.5)	19.5	243.5	2	MC			61	DH Cable	0.7	43	43				1.83	78	0.188	97.1	115.3548

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Sampler	Last Count	Field Blow Counts (blows/ft)		Hammer Type	Energy Correction	N_60 (blows/ft) (5)	Phi Meyerhof from N (6)	Su=N/8 (ksf)	Serpentine N	Eff_Stress(psf)	C_N	$N_{1,60}$ (blows/ft)	Moisture	DD(pcf)	TD(pcf)
								SPT N	Mod Cal N												
BB1ATP100	168	BB1ATP100(2.5)	2.5	165.5	1A	MC											1.83	n/a			
BB1ATP100	168	BB1ATP100(4.5)	4.5	163.5	1A	Shelby											1.83	n/a	0.295	91	117.845
BB1ATP101	170	BB1ATP101(2.5)	2.5	167.5	1A	MC											1.83	n/a	0.188		
BB1ATP101	170	BB1ATP101(4.0)	4	166	1A	MC											1.83	n/a	0.061	107	113.527
BBSB100	175	BBSB100(2.0)	2	173	1A	MC			16	Auto Trip	0.8	13	36				1.83	23	0.209	105	126.945
BBSB100	175	BBSB100(2.5)	2.5	172.5	1A	MC			16	Auto Trip	0.8	13		1.60			1.83	23	0.362	85.1	115.9062
BBSB100	175	BBSB100(3.0)	3	172	1A	Shelby											1.83	n/a	0.231	101.8	125.3158
BBSB100	175	BBSB100(5.5)	5.5	169.5	1A	MC			38	Auto Trip	0.8	30	40				1.83	56	0.249	97.8	122.1522
BBSB100	175	BBSB100(6.0)	6	169	1A	MC			38	Auto Trip	0.8	30	40				1.83	56			
BBSB100	175	BBSB100(8.5)	8.5	166.5	1A	MC			38	Auto Trip	0.8	30			30		1.83	56			
BBSB100	175	BBSB100(9.0)	9	166	1A	MC			38	Auto Trip	0.8	30	40				1.83	56	0.268	88.3	111.9644
BBSB101	188	BBSB101(1.0)	0	188	1A	MC			6	Rope & Cathead	0.7	4		0.53			1.83	8	0.113	112.2	124.8786
BBSB101	188	BBSB101(1.5)	1.5	186.5	1A	SPT		3		Rope & Cathead	1	3		0.38			1.83	6	0.138		
BBSB101	188	BBSB101(3.0)	3.0	185	1A	Shelby											1.83	n/a	0.115	104.3	116.2945
BBSB101	188	BBSB101(6.5)	6.5	181.5	1A	MC			12	Rope & Cathead	0.7	8		1.05			1.83	15	0.135	109.6	124.396
BBSB101	188		7.0	181	1A	SPT		10		Rope & Cathead	1	10		1.25			1.83	18			
BBSB101	188	BBSB101(8.5)	8.5	179.5	1A	Shelby											1.83	n/a	0.171	109.1	127.7561
BBSB101	188	BBSB101(12.0)	12.0	176	1A	MC			30	Rope & Cathead	0.7	21		2.63			1.83	39	0.164	110.1	128.1564
BBSB101	188	BBSB101(13.5)	13.5	174.5	1A	SPT		10		Rope & Cathead	1	10	35				1.83	18	0.044		
BBSB101	188	BBSB101(14.0)	14.0	174	1A	Shelby											1.83	n/a	0.071	103	110.313
BBSB101	188	BBSB101(17.0)	17.0	171	1A	MC			26	Rope & Cathead	0.7	18	37				1.83	33	0.203	109	131.127
BBSB101	188		17.5	170.5	1A	Spt		62		Rope & Cathead	1	62		7.75			1.83	114			
BBSB101	188		19.0	169	1A	MC	86/6"		172	Rope & Cathead	0.7	120			120		1.83	221			

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	Sampler	Last Count	Field Blow Counts (blows/ft) SPT N	Field Blow Counts (blows/ft) Mod Cal N	Hammer Type	Energy Correction	N_60 (blows/ft) (5)	Phi Meyerhof from N (6)	Su=N/8 (ksf)	Serpentine N	Eff_Stress(psf)	C_N	$N_{1,60}$ (blows/ft)	Moisture	DD(pcf)	TD(pcf)
BB2ASB100	258	BB2ASB100(1.0)	1	257	2A	MC			18	DH Cable	0.7	13	36				1.83	23	0.063		
BB2ASB100	258	BB2ASB100(2.5)	2.5	255.5	2A	MC			23	DH Cable	0.7	16	37				1.83	30	0.124		
BB2ASB100	258	BB2ASB100(5.5)	5.5	252.5	2A	MC			19	DH Cable	0.7	13		1.66			1.83	24			
BB2ASB100	258	BB2ASB100(6.8)	6.8	251.2	2A	Shelby											1.83	n/a	0.107	108	119.556
BB2ASB100	258	BB2ASB100(9.5)	9.5	248.5	2A	MC			16	DH Cable	0.7	11		1.40			1.83	21	0.198	105.6	126.5088
BB2ASB100	258	BB2ASB100(11.5)	11.5	246.5	2A	MC			26	DH Cable	0.7	18		2.28			1.83	33	0.213	105.1	127.4863
BB2ASB100	258	BB2ASB100(13.0)	13	245	2A	MC			34	DH Cable	0.7	24		2.98			1.83	44	0.209	102.6	124.0434
BB2ASB100	258	BB2ASB100(14.0)	14	244	2A	Shelby											1.83	n/a	0.158	118.1	136.7598
BB2ASB100	258	BB2ASB100(16.5)	16.5	241.5	2A	MC			25	DH Cable	0.7	18		2.19			1.83	32	0.159	111.6	129.3444
BB2ASB100	258	BB2ASB100(18.0)	18	240	2A	MC			30	DH Cable	0.7	21		2.63			1.83	39	0.166	109	127.094
BB2ASB100	258	BB2ASB100(19.0)	19	239	2A	MC			48	DH Cable	0.7	34		4.20			1.83	62	0.17	107.8	126.126
BB2ASB100	258	BB2ASB100(21.0)	21	237	2A	MC			48	DH Cable	0.7	34		4.20			1.83	62	0.098	124	136.152
BB2ASB100	258	BB2ASB100(22.5)	22.5	235.5	2A	MC			39	DH Cable	0.7	27		3.41			1.83	50	0.189	103	122.467
BB2ASB101	256	BB2ASB101(1.0)	1	255	2A	MC			21	DH Cable	0.7	15	36				1.83	27	0.093	114	124.602
BB2ASB101	256	BB2ASB101(2.0)	2	254	2A	MC			12	DH Cable	0.7	8		1.05			1.83	15	0.187	103	122.261
BB2ASB101	256	BB2ASB101(4.5)	4.5	251.5	2A	MC			17	DH Cable	0.7	12		1.49			1.83	22	0.212	102.4	124.1088
BB2ASB101	256	BB2ASB101(6.5)	6.5	249.5	2A	MC			18	DH Cable	0.7	13	36				1.83	23	0.183	108.5	128.3555
BB2ASB101	256	BB2ASB101(8.0)	8	248	2A	MC			20	DH Cable	0.7	14		1.75			1.83	26	0.243	100.5	124.9215
BB2ASB101	256	BB2ASB101(9.5)	9.5	246.5	2A	Shelby											1.83	n/a	0.595		
BB2ASB101	256	BB2ASB101(11.5)	11.5	244.5	2A	MC			43	DH Cable	0.7	30			30		1.83	55	0.448	66	95.568
BB2ATP100	190	BB2ATP100(1.0)	1	189	2A	Shelby											1.83	n/a	0.328	77	102.256
BB2ATP100	190	BB2ATP100(4.0)	4	186	2A	Shelby											1.83	n/a	0.191	101	120.291
BB2ATP101	95	BB2ATP101(2.0)	2	93	2A	Shelby											1.83	n/a	0.18	111.8	131.924
BB2ATP101	95	BB2ATP101(12.0)	12	83	2A	Shelby											1.83	n/a	0.274	94.6	120.5204
BB2ATP102	130	BB2ATP102(2.0)	2	128	2A	Shelby											1.83	n/a	0.126	104	117.104
BB2ATP102	130	BB2ATP102(8.0)	8	122	2A	Shelby											1.83	n/a	0.133	113.9	129.0487
BB2ATP103	160	BB2ATP103(1.0)	1	159	2A	Shelby											1.83	n/a	0.164	107	124.548
BB2ATP103	160	BB2ATP103(4.0)	4	156	2A	Shelby											1.83	n/a	0.081	116	125.396
BB2ATP104	113	BB2ATP104(2.0)	2	111	2A	Shelby											1.83	n/a	0.177	102	120.054
BB2ATP104	113	BB2ATP104(6.0)	6	107	2A	Shelby											1.83	n/a	0.202	105.2	126.4504
BB2ATP105	50	BB2ATP105(0.5)	0.5	49.5	2A	Shelby											1.83	n/a	0.047		
BB2ATP106	60	BB2ATP106(0.5)	0.5	59.5	2A	Shelby											1.83	n/a	0.149	117	134.433
BBSB106	258		0	258	2A	MC			20	Rope & Cathead	0.7	14		1.75			1.83	26			
BBSB106	258	05BBSB106(1.0)	1.0	257	2A	MC		20		Rope & Cathead	0.7	14		1.75					0.164	104.3	121.4052
BBSB106	258		1.5	256.5	2A	SPT		13		Rope & Cathead	1	13		1.63			1.83	24			
BBSB106	258	05BBSB106(2.5)	2.5	255.5	2A	SPT		13		Rope & Cathead	1	13		1.63					0.235		
BBSB106	258	05BBSB106(3.5)	3.5	254.5	2A	Shelby													0.142	115	131.33
BBSB106	258	05BBSB106(6.0)	6.0	252	2A	Shelby											1.83	n/a	0.187	109.6	130.0952
BBSB106	258	05BBSB106(6.5)	6.5	251.5	2A	MC			60	Rope & Cathead	0.7	42		5.25			1.83	77	0.182	109	128.838
BBSB106	258	05BBSB106(7.0)	7.0	251	2A	MC				Rope & Cathead	0.7	0							0.165	111	129.315
BBSB106	258	05BBSB106(7.5)	7.5	250.5	2A	MC		60		Rope & Cathead	0.7	42		5.25					0.163	115.2	133.9776
BBSB106	258	05BBSB106(8.0)	8.0	250	2A	SPT		32		Rope & Cathead	1	32		4.00			1.83	59	0.162		
BBSB106	258	05BBSB106(10.0)	10.0	248	2A	MC			31	Rope & Cathead	0.7	22			22		1.83	40	0.322	86	113.692
BBSB106	258	05BBSB106(10.5)	10.5	247.5	2A	MC		31		Rope & Cathead	0.7	22			22				0.597	62.3	99.4931
BBSB106	258	05BBSB106(11.5)	11.5	246.5	2A	SPT		44		Rope & Cathead	1	44			44		1.83	81			0
BBSB106	258	05BBSB106(13.0)	13.0	245	2A	SPT		63		Rope & Cathead	1	63			63		1.83	116			0
BBSB106	258	05BBSB106(24.0)	24.0	234	2A	SPT		71		Rope & Cathead	1	71			71		1.83	130	0.404		0
BBSB101	188	BBSB101(2.5)	2.5	185.5															0.04		

Notes:

(1) Preceeding "05" on sample number (e.g. 05BBSB106(10.0)) indicates year. Cultural resource trench samples (e.g. Trench 4 (4.5)) were not designated in the QAPP or FSP but instead were given field sample desciptions

(2) Refer to text and Plate 1 Geologic Map for description

(3) Unified Soil Classification System (USCS) designation

(4) Consistency/Relative Density based on EPRI, August 1990

(5) Recommended hammer and sample type converstion factor

(6) Hammer energy and sample type corrected blow count

Abbreviations Key:

HSA - Hollow Stem Auger
MC - Modified California Sampler
SPT - Standard Penetration Test Sampler
N-60 - Hammer energy and sample type corrected blow count
Phi Meyerhof - Internal friction angle (Phi) based on Meherhof table in EPRI, August 1990
Su = N/8 - Shear strength relationship based on N_60, EPRI, August 1990
Eff_Stress - Effective overburden stress
C_N - Overburden correction factor
N1,60 - N60 value corrected for overburden
Su - Undrained shear strength

DD - Dry Density
TD - Total or Wet Density
LL - Liquid Limit
PL - Plastic Limit
PI - Plasticity Index
tsf - tons (2000 pounds) per square feet
ksf - kips (l000 pounds) per square feet
psf - pouds per square feet

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	LL	PL	PI	<#200	%Clay (< 2μ)	Sieve?	Unc Compression (tsf)	UU Triaxial Strength			CU Triaxial Strength				Direct Shear		Torvane s_u (ksf)	Pocket Pen. (tsf)
													Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS		
BB1SB110	216	BB1SB110(1.0)	1	215	1																		
BB1SB110	216	BB1SB110(2.5)	2.5	213.5	1								0.2002	1.8772	0.94								
BB1SB110	216	BB1SB110(5.0)	5	211	1																		
BB1SB110	216	BB1SB110(6.5)	6.5	209.5	1				11.1														
BB1SB110	216	BB1SB110(9.0)	9	207	1																		
BB1SB110	216	BB1SB110(9.5)	9.5	206.5	1																		
BB1SB110	216	BB1SB110(11.0)	11	205	1							0.3012											
BB1SB111	219	BB1SB111(0.5)	0.5	218.5	1																		
BB1SB111	219	BB1SB111(2.5)	2.5	216.5	1																		
BB1SB111	219	BB1SB111(4.0)	4	215	1							1.8835											
BB1SB111	219	BB1SB111(4.5)	4.5	214.5	1																		
BB1SB111	219	BB1SB111(7.0)	7	212	1																		
BB1SB111	219	BB1SB111(9.0)	9	210	1	138	93	45	17.1														
BB1TP100	195	BB1TP100(0.0)	0	195	1	27	18	9				0.27025											
BB1TP100	195	BB1TP100(1.0)	1	194	1				36.9											0.113	27.6		
BB1TP100	195	BB1TP100(4.5)	4.5	190.5	1																		
BB1TP101	140	BB1TP101(1.0)	1	139	1															0.458	26.5		
BB1TP101	140	BB1TP101(10.5)	10.5	129.5	1																		
BB1TP102	62	BB1TP102(4.0)	4	58	1																		
BB1TP102	62	BB1TP102(10.5)	10.5	51.5	1							0.28275											
BB1TP103	68	BB1TP103(3.0)	3	65	1				11		200												
BB1TP103	68	BB1TP103(9.5)	9.5	58.5	1				80.1		200	0.7383											
BB1TP104	107	BB1TP104(1.0)	1	106	1																		
BB1TP105	145	BB1TP105(1.0)	1	144	1																		
BB1TP105	145	BB1TP105(5.5)	5.5	139.5	1															0.524	24.3		
BB1TP106	105	BB1TP106(5.0)	5	100	1	24	21	3	14.6		200												
BBSB102	190	BBSB102(0.5)	0.5	189.5	1																		
BBSB102	190	BBSB102(2.5)	2.5	187.5	1								0.2002	2.9927	1.50								
BBSB102	190	BBSB102(3.5)	3.5	186.5	1																		
BBSB102	190	BBSB102(6.0)	6	184	1							1.0212											
BBSB102	190	BBSB102(8.5)	8.5	181.5	1							1.9856											
BBSB102	190	BBSB102(9.0)	9	181	1							1.44255											
BBSB103	200	05BBSB103(1.0)	0	200	1	25	15	10	41.2														
BBSB103	200	05BBSB103(1.5)	1.5	198.5	1																		
BBSB103	200	05BBSB103(3.0)	3.0	197	1	31	21	10	46.1							0.31	17	0.1051	35				
BBSB103	200	05BBSB103(4.5)	4.5	195.5	1								0.2995	1.6868	0.84								
BBSB103	200	05BBSB103(6.5)	6.5	193.5	1																		
BBSB103	200	05BBSB103(8.0)	8.0	192	1				6											0.136	34		
BBSB103	200	05BBSB103(9.5)	9.5	190.5	1																		
BBSB103	200	05BBSB103(11.5)	11.5	188.5	1	NP	NP	NP	23.7											0.129	29		
BBSB103	200	05BBSB103(13.0)	13.0	187	1																		
BBSB104	221	05BBSB104(2.0)	2	219	1	28	14	14	52.8			2.1898											
BBSB104	221	05BBSB104(2.5)	2.5	218.5	1							2.1397											
BBSB104	221	05BBSB104(3.0)	3	218	1																		
BBSB104	221	05BBSB104(5.5)	5.5	215.5	1																		
BBSB104	221	05BBSB104(6.0)	6	215	1																		
BBSB104	221	05BBSB104(7.5)	7.5	213.5	1								0.8006	1.4518	0.73								
BBSB104	221	05BBSB104(9.5)	9.5	211.5	1																		
BBSB105	225	05BBSB105(1.0)	1	224	1																		
BBSB105	225	05BBSB105(1.5)	1.5	223.5	1																		
BBSB105	225	05BBSB105(3.0)	3	222	1																		
BBSB105	225	05BBSB105(3.5)	3.5	221.5	1								0.2506	1.4153	0.71								
BBSB105	225	05BBSB105(4.5)	4.5	220.5	1																		
BBSB105	225	05BBSB105(6.5)	6.5	218.5	1								0.8006	1.4992	0.75								
BBSB105	225	05BBSB105(7.5)	7.5	217.5	1																		
BBSB105	225	05BBSB105(9.0)	9	216	1																		
Trench 4		Trench 4(4.5)	4.5		1	40	19	21	84.2	38.5													
Trench 4		Trench 4(6.0)	6		1	96	34	62	73.7	60.2													

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

Exploration Location	Boring Elevation (grounsurface elevation, ft, PLLW Datum)	Sample # (1)	Sample Depth (ft, bgs)	Sample Elevation (ft, MSL)	Debris Area	LL	PL	PI	<#200	%Clay (< 2μ)	Sieve?	Unc Compression (tsf)	UU Triaxial Strength			CU Triaxial Strength				Direct Shear		Torvane s_u (ksf)	Pocket Pen. (tsf)
													Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS		
BB2SB100	261	BB2SB100(1.0)	1	260	2																		
BB2SB100	261	BB2SB100(2.5)	2.5	258.5	2								0.2002	4.5133	2.26								
BB2SB100	261	BB2SB100(3.5)	3.5	257.5	2							1.7604											
BB2SB100	261	BB2SB100(5.0)	5	256	2								0.2995	3.2719	1.64								
BB2SB100	261	BB2SB100(6.0)	6	255	2							2.28945											
BB2SB100	261	BB2SB100(6.7)	6.7	254.3	2											1.0631	33	-2.2029	60				
BB2SB100	261	BB2SB100(8.5)	8.5	252.5	2							1.7845											
BB2SB100	261	BB2SB100(9.0)	9	252	2							2.4303											
BB2SB100	261	BB2SB100(10.5)	10.5	250.5	2																		
BB2SB100	261	BB2SB100(12.0)	12	249	2							0.7996											
BB2SB100	261	BB2SB100(15.0)	15	246	2																		
BB2SB100	261	BB2SB100(16.5)	16.5	244.5	2																		
BB2SB101	257	BB2SB101(1.0)	1	256	2				16.3		y												
BB2SB101	257	BB2SB101(2.0)	2	255	2																		
BB2SB101	257	BB2SB101(4.0)	4	253	2				36.5				0.2995	0.6759	0.34								
BB2SB101	257	BB2SB101(5.5)	5.5	251.5	2							0.45425											
BB2SB101	257	BB2SB101(8.5)	8.5	248.5	2							0.69985											
BB2SB101	257	BB2SB101(11.5)	11.5	245.5	2								0.7502	0.7749	0.39								
BB2SB101	257	BB2SB101(12.3)	12.3	244.7	2	24	16	8					0.985	2.5939	1.30								
BB2SB101	257	BB2SB101(15.0)	15	242	2							1.98625											
BB2SB101	257	BB2SB101(15.5)	15.5	241.5	2																		
BB2SB101	257	BB2SB101(17.5)	17.5	239.5	2								0.9994	8.0696	4.03								
BB2SB101	257	BB2SB101(18.0)	18	239	2																		
BB2SB101	257	BB2SB101(19.5)	19.5	237.5	2							2.7406											
BB2SB101	257	BB2SB101(20.3)	20.3	236.7	2	37	19	18								0.2136	30	0.1788	41				
BB2SB101	257	BB2SB101(23.0)	23	234	2							2.32465											
BB2SB101	257	BB2SB101(25.3)	25.3	231.7	2	45	32	13															
BB2TP100	230	BB2TP100(1.5)	1.5	228.5	2								0.2002	1.9753	0.99								
BB2TP100	230	BB2TP100(6.5)	6.5	223.5	2																		
BB2TP101	242	BB2TP101(4.5)	4.5	237.5	2	25	16	9												0.038	36.5		
BB2TP101	242	BB2TP101(9.5)	9.5	232.5	2															0.779	12.9		
BBSB107	263	05BBSB107(0.5)	0.5	262.5	2								0.0994	6.1169	3.06								
BBSB107	263	05BBSB107(1.0)	1	262	2				56.8														
BBSB107	263	05BBSB107(2.5)	2.5	260.5	2								0.1498	3.8819	1.94								
BBSB107	263	05BBSB107(4.0)	4	259	2																		
BBSB107	263	05BBSB107(4.5)	4.5	258.5	2	31	17	14												0.372	12		
BBSB107	263	05BBSB107(6.0)	6	257	2																		
BBSB107	263	05BBSB107(8.0)	8	255	2							4.63485											
BBSB107	263	05BBSB107(10.0)	10	253	2																		
BBSB107	263	05BBSB107(10.5)	10.5	252.5	2							1.12835											
BBSB107	263	05BBSB107(13.5)	13.5	249.5	2																		
BBSB107	263	05BBSB107(14.0)	14	249	2																		
BBSB107	263	05BBSB107(16.0)	16	247	2								0.9994	4.5698	2.28								
BBSB107	263	05BBSB107(17.0)	17	246	2																		
BBSB107	263	05BBSB107(19.5)	19.5	243.5	2								1.3003	6.1651	3.08								

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

Database by MACTEC

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													Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS		
BB1ATP100	168	BB1ATP100(2.5)	2.5	165.5	1A																		
BB1ATP100	168	BB1ATP100(4.5)	4.5	163.5	1A																		
BB1ATP101	170	BB1ATP101(2.5)	2.5	167.5	1A																		
BB1ATP101	170	BB1ATP101(4.0)	4	166	1A															-0.061	43.8		
BBSB100	175	BBSB100(2.0)	2	173	1A																		
BBSB100	175	BBSB100(2.5)	2.5	172.5	1A							1.0253											
BBSB100	175	BBSB100(3.0)	3	172	1A								0.2506	0.7358	0.37								
BBSB100	175	BBSB100(5.5)	5.5	169.5	1A							0.52845											
BBSB100	175	BBSB100(6.0)	6	169	1A																		
BBSB100	175	BBSB100(8.5)	8.5	166.5	1A																		
BBSB100	175	BBSB100(9.0)	9	166	1A	65	45	20	17.5			0.4954											
BBSB101	188	BBSB101(1.0)	0	188	1A	20	13	7	32			0.4844											2.0
BBSB101	188	BBSB101(1.5)	1.5	186.5	1A																		
BBSB101	188	BBSB101(3.0)	3.0	185	1A				4.5											-0.034	24		
BBSB101	188	BBSB101(6.5)	6.5	181.5	1A							0.1191											
BBSB101	188		7.0	181	1A																		
BBSB101	188	BBSB101(8.5)	8.5	179.5	1A	30	14	16	49.1							0.40	23.00	0.13	33				
BBSB101	188	BBSB101(12.0)	12.0	176	1A							1.4038											
BBSB101	188	BBSB101(13.5)	13.5	174.5	1A				4.4														
BBSB101	188	BBSB101(14.0)	14.0	174	1A				10.2											0.001	32		
BBSB101	188	BBSB101(17.0)	17.0	171	1A																		
BBSB101	188		17.5	170.5	1A																		
BBSB101	188		19.0	169	1A																		

SOIL PROPERTIES

BAKER BEACH 1, 1A, 2, and 2A

San Francisco Presidio

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													Confining (ksf)	Deviator (ksf)	Su_UU	Total c (ksf)	Total phi	Effective c (ksf)	Effective phi	c_DS (ksf)	phi_DS		
BB2ASB100	258	BB2ASB100(1.0)	1	257	2A																		
BB2ASB100	258	BB2ASB100(2.5)	2.5	255.5	2A																		
BB2ASB100	258	BB2ASB100(5.5)	5.5	252.5	2A																		
BB2ASB100	258	BB2ASB100(6.8)	6.8	251.2	2A				65.3		y									0.036	27		
BB2ASB100	258	BB2ASB100(9.5)	9.5	248.5	2A								0.6005	8.0776	4.04								
BB2ASB100	258	BB2ASB100(11.5)	11.5	246.5	2A	43	21	22				2.95645											
BB2ASB100	258	BB2ASB100(13.0)	13	245	2A								0.8006	3.8672	1.93								
BB2ASB100	258	BB2ASB100(14.0)	14	244	2A							1.1176											
BB2ASB100	258	BB2ASB100(16.5)	16.5	241.5	2A							2.44645											
BB2ASB100	258	BB2ASB100(18.0)	18	240	2A																		
BB2ASB100	258	BB2ASB100(19.0)	19	239	2A							1.0644											
BB2ASB100	258	BB2ASB100(21.0)	21	237	2A																		
BB2ASB100	258	BB2ASB100(22.5)	22.5	235.5	2A																		
BB2ASB101	256	BB2ASB101(1.0)	1	255	2A				13		y												
BB2ASB101	256	BB2ASB101(2.0)	2	254	2A								0.1555	1.3965	0.70								
BB2ASB101	256	BB2ASB101(4.5)	4.5	251.5	2A								0.2995	0.97	0.49								
BB2ASB101	256	BB2ASB101(6.5)	6.5	249.5	2A	20	14	6												0.078	39		
BB2ASB101	256	BB2ASB101(8.0)	8	248	2A							2.09905											
BB2ASB101	256	BB2ASB101(9.5)	9.5	246.5	2A																		
BB2ASB101	256	BB2ASB101(11.5)	11.5	244.5	2A																		
BB2ATP100	190	BB2ATP100(1.0)	1	189	2A	53	36	17												0.025	35.8		
BB2ATP100	190	BB2ATP100(4.0)	4	186	2A																		
BB2ATP101	95	BB2ATP101(2.0)	2	93	2A				17.9		y	0.72555											
BB2ATP101	95	BB2ATP101(12.0)	12	83	2A								0.0994	0.7798	0.39								
BB2ATP102	130	BB2ATP102(2.0)	2	128	2A				17.9														
BB2ATP102	130	BB2ATP102(8.0)	8	122	2A							0.21205											
BB2ATP103	160	BB2ATP103(1.0)	1	159	2A				47.5			0.28555											
BB2ATP103	160	BB2ATP103(4.0)	4	156	2A																		
BB2ATP104	113	BB2ATP104(2.0)	2	111	2A															-0.109	38.6		
BB2ATP104	113	BB2ATP104(6.0)	6	107	2A	29	18	11					0.6005	1.0635	0.53								
BB2ATP105	50	BB2ATP105(0.5)	0.5	49.5	2A																		
BB2ATP106	60	BB2ATP106(0.5)	0.5	59.5	2A																		
BBSB106	258		0	258	2A																		
BBSB106	258	05BBSB106(1.0)	1.0	257	2A	35	23	12	50.1			1.67925											
BBSB106	258		1.5	256.5	2A																		
BBSB106	258	05BBSB106(2.5)	2.5	255.5	2A																		
BBSB106	258	05BBSB106(3.5)	3.5	254.5	2A	25	14	11												0.239	39		
BBSB106	258	05BBSB106(6.0)	6.0	252	2A							1.0774											
BBSB106	258	05BBSB106(6.5)	6.5	251.5	2A																		
BBSB106	258	05BBSB106(7.0)	7.0	251	2A	33	18	15	61.7											1.116	30		
BBSB106	258	05BBSB106(7.5)	7.5	250.5	2A								0.4995	6.4154	3.21								
BBSB106	258	05BBSB106(8.0)	8.0	250	2A																		
BBSB106	258	05BBSB106(10.0)	10.0	248	2A							1.76525											
BBSB106	258	05BBSB106(10.5)	10.5	247.5	2A															0.578	27		
BBSB106	258	05BBSB106(11.5)	11.5	246.5	2A																		
BBSB106	258	05BBSB106(13.0)	13.0	245	2A																		
BBSB106	258	05BBSB106(24.0)	24.0	234	2A	97	71	26	28.1														
BBSB101	188	BBSB101(2.5)	2.5	185.5					3.5														

Notes:

(1) Preceeding "05" on sample number (e.g. 05BBSB106(10.0)) indicates year. Cultural resource trench samples (e.g. Trench 4 (4.5)) were not designated in the QAPP or FSP but instead were given field sample desciptions

(2) Refer to text and Plate 1 Geologic Map for description

(3) Unified Soil Classification System (USCS) designation

(4) Consistency/Relative Density based on EPRI, August 1990

(5) Recommended hammer and sample type converstion factor

(6) Hammer energy and sample type corrected blow count

Abbreviations Key:

HSA - Hollow Stem Auger
MC - Modified California Sampler
SPT - Standard Penetration Test Sampler
N-60 - Hammer energy and sample type corrected blow count
Phi Meyerhof - Internal friction angle (Phi) based on Meherhof table
Su = N/8 - Shear strength relationship based on N_60, EPRI, Augu
Eff_Stress - Effective overburden stress
C_N - Overburden correction factor
N1,60 - N60 value corrected for overburden
Su - Undrained shear strength

DD - Dry Density
TD - Total or Wet Density
LL - Liquid Limit
PL - Plastic Limit
PI - Plasticity Index
tsf - tons (2000 pounds) per square feet
ksf - kips (l000 pounds) per square feet
psf - pouds per square feet

APPENDIX C

ASSESSMENT OF GEOTECHNICAL PROPERTIES

Appendix C - Assessment of Soil and Rock Engineering Properties

For the purposes of slope stability analyses, for each geologic unit we developed plots of test results versus depth for moist unit weights and strengths. These plots are included in this Appendix. In some cases, strengths will be back-calculated based on existing slope configurations, and recommended strength for resistant serpentinite is based on topography/geomorphology and literature values.

The unit weights were developed based on moisture-density tests (MDs) on "minimally disturbed" samples of soil and rock. For cohesive soils, undrained strength was estimated based a combination of Unconsolidated-Undrained Triaxial Compression Tests (UUs; ASTM-D2850) and Unconfined Compression Strength Tests (UCs; ASTM-D2166), as well a correlation of shear strength based on the energy-corrected blow counts from driven samples. The shear strength for this correlation is related to the energy corrected blow count by dividing the energy-corrected blow count by a factor of 8. Internal friction angles for cohesionless soils were developed based on a published relationships of energy-corrected blow counts with corresponding internal friction ("phi") angles (Meyerhof, as presented in *Duncan, 2005*).

Based on these plots, we have developed total strength parameters that we believe will likely control the short-term slope stability conditions that are being assessed. Long-term stability analyses are based on effective strength parameters. Given the geologic and seismic setting of the project, seismic considerations for slope stability will be a factor. These factors are discussed further in the Technical Memorandum text. A discussion of how we estimated engineering properties follows for each of the geologic units:

- **Qls** (landslide deposit) – Several landslides were mapped within the Baker Beach bluffs, as shown on Figure 1. Along Cross Section A-A' in BBDA-1, and Cross Section D-D' in BBDA-2A, the slide deposits are within areas that will be analyzed for slope stability. No tests were performed on this material. However, based in the geomorphology of the slide in BBDA-1, it is clear that it is has recently been active and that it is currently lying at its approximate angle of repose. Since the slope inclination is currently about 39 degrees, it is clear that the soil must have an internal friction angle of at least 39 degrees, or an equivalent undrained strength. In BBDA-2A, the slope inclination is at about 38 degrees, so the internal friction angle must be at least 38 degrees or an equivalent undrained strength. Strengths for **Qls** will be selected based on a back-analysis for an existing safety factor of near or slightly above unity.
- **afw (**artificial fill, waste**) -** The moist unit weight was developed based on an average of the moist unit weights shown on Plot C-1. The afw soils appear to be predominantly cohesive and therefore an undrained strength value was estimated based on a grouping of strength data as shown on Plot C-2. Long-term effective stress strength parameters were selected based on the direct shear results shown on Plot C-3.

  It should be noted that along Cross Sections A-A' and C-C' in BBDA-1, and Cross Section B-B' in BBDA-2A, there are some areas where the existing slope steepness requires strength parameters greater than the values discussed above (which were based on field blow counts and laboratory strengths). As discussed above for slide deposits (**Qls**), in local areas the assumed strength will be increased to provide a current, pre-remedial grading, safety factor of about unity. This will be an internal friction angle of up to about 39 degrees (or an equivalent undrained strength) near the landslide discussed above (under **Qls**), and about 36 to 38 degrees in BBDA-2A.

- **afh (**artificial fill, historic**) -** The moist unit weight was developed based on an approximate average of the moist density as shown on the enclosed Plot C-4. The **afh** soils appear to be a mixture of granular and cohesive soils. For clayey soils, short term (undrained) strengths were selected based on a comparison of laboratory UU and Unconfined Compression (UC) tests and field blow counts, as shown on Plot C-5. Long-term strengths were based on effective strengths from the CU tests (Plot C-6) compared with typical values.

  For the granular or cohesionless soils, short-term (total stress) strengths were selected based primarily on total stress parameters from a laboratory CU test and laboratory DS tests (Plots C-6 and C-8, respectively), and compared with comparison of field blow counts (Plot C-7). Long-term strengths were based on a comparison of field blow counts, CU effective strengths, and DS tests (Plots C-7, C-6, and C-8, respectively).

- **Qcol (**Quaternary soils, mainly Colma formation, but may include residual soils**) -** The design moist unit weight was selected based on an approximate average of the moist density as shown on the enclosed Plot C-9. The **Qcol** soils appear to be predominantly cohesive soils and therefore short-term (undrained) strength values were estimated based on a grouping of strength data as shown on Plot C-10. Long-term strengths were selected based on a conservative evaluation of the DS test results and the effective stress parameters from the CU tests (Plots C-11 and C-12, respectively).

  For areas where **Qcol** is granular, short-term strengths were selected based on DS results (Plot C-11), and compared with field blow counts (Plot C-13). Long-term strengths were selected based on field blow counts compared with typical values and the DS results.

  It should be noted that along Cross Section B-B' in BBDA-2A, the existing slope steepness requires strength parameters greater than the values discussed above (which were based on field blow counts and laboratory strengths). As discussed above for slide deposits (**Qls**), along Section B-B' the assumed strength will be increased to provide a current, pre-remedial grading, safety factor of about unity. This will be an internal friction angle of up to about 36 to 38 degrees or an equivalent undrained strength.

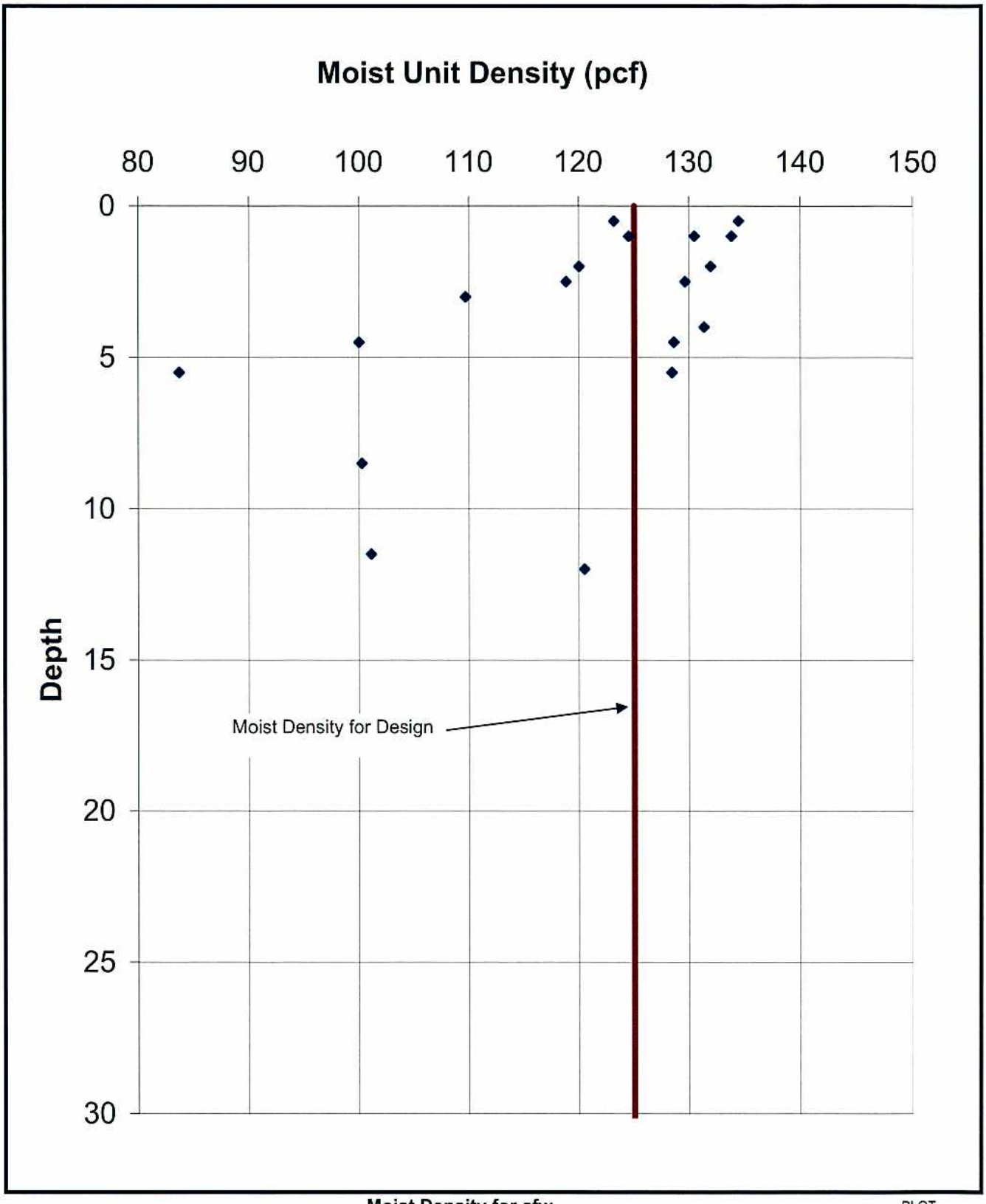
- **KJm (**Cretaceous-Jurassic Melange**) -** The design moist unit weight was selected based on an approximate average of the moist density as shown on the enclosed Plot C-14. The KJm strength can be very conservatively assumed to have a lower bound associated with the strength of the clayey matrix supporting the more resistant rocky portions of the material. Therefore, strengths were selected based on a conservative grouping of strength data as shown on the enclosed Plot C-15. (It may be noted that several lower UC shear strength values were noted in this material. We interpret these lower values to represent pre-existing and discontinuous slickensiding resulting in unrepresentative strength values when tested in an unconfined condition.)

- **sp (**serpentinite**) -** The design moist unit weight was selected based on an approximate average of the moist unit weights shown on Plot C-16. On Plot C-16, showing all of the serpentinite unit weight data, it is apparent that at shallow depths (less than 12 feet) there are two distinct data clusters (A and B). The lighter unit weights were observed in samples from borings in the level area above Disturbed Area 1; these samples appear to represent more highly-weathered and friable rock materials that dilated when sampled, so that their measured densities are not thought to be representative of their insitu densities. The heavier unit weight samples were generally taken from areas other than Area 1 and were less weathered and more competent rock materials. Therefore, we recommend a single unit weight for both materials.

  Where the **sp** rock is resistant and less weathered, the strength should be modeled as a weak rock material. Hoek and Bray (1997) indicate that the unconfined compressive strength for very weak

rock may range from 10,000 to 250,000 tons per square foot. We recommend using the low end of this range for the analysis, i.e., use a shear strength of 10,000 kips per square foot.

Where the **sp** rock is deeply weathered, the strengths from the laboratory tests may be used. The weathered **sp** strength may be conservatively modeled as a cohesive soil. Shear strength values were estimated based on a comparison of laboratory UU and UC tests and field blow counts (Plot C-17), and laboratory DS results (Plot C-18). (It may be noted that several lower UC shear strength values were noted in this material. We interpret these lower values to represent pre-existing and discontinuous fractures resulting in unrepresentative strength values when tested in an unconfined condition.)



Moist Density for afw

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-1

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED DATE
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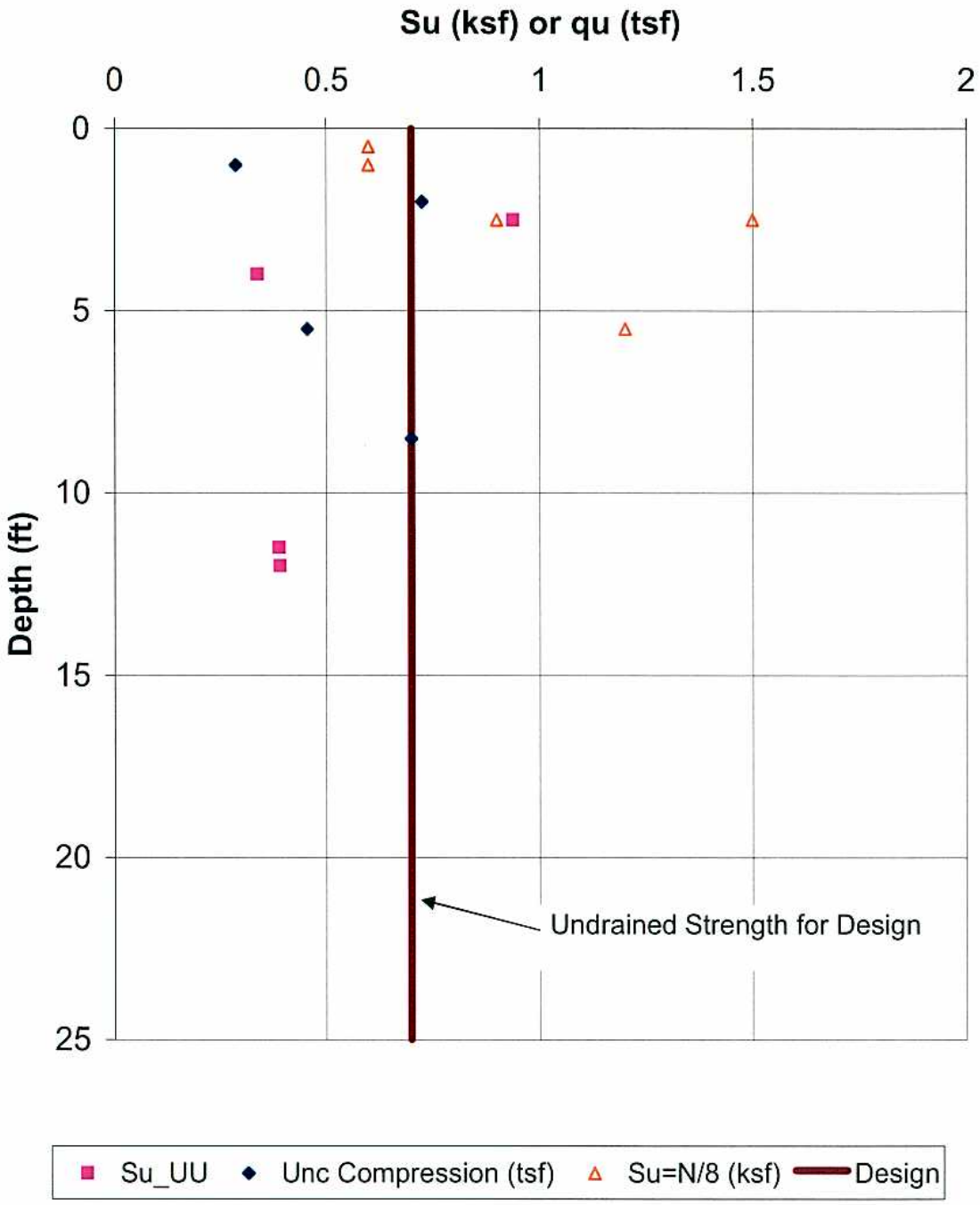

Undrained Strength Tests for afw

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-2

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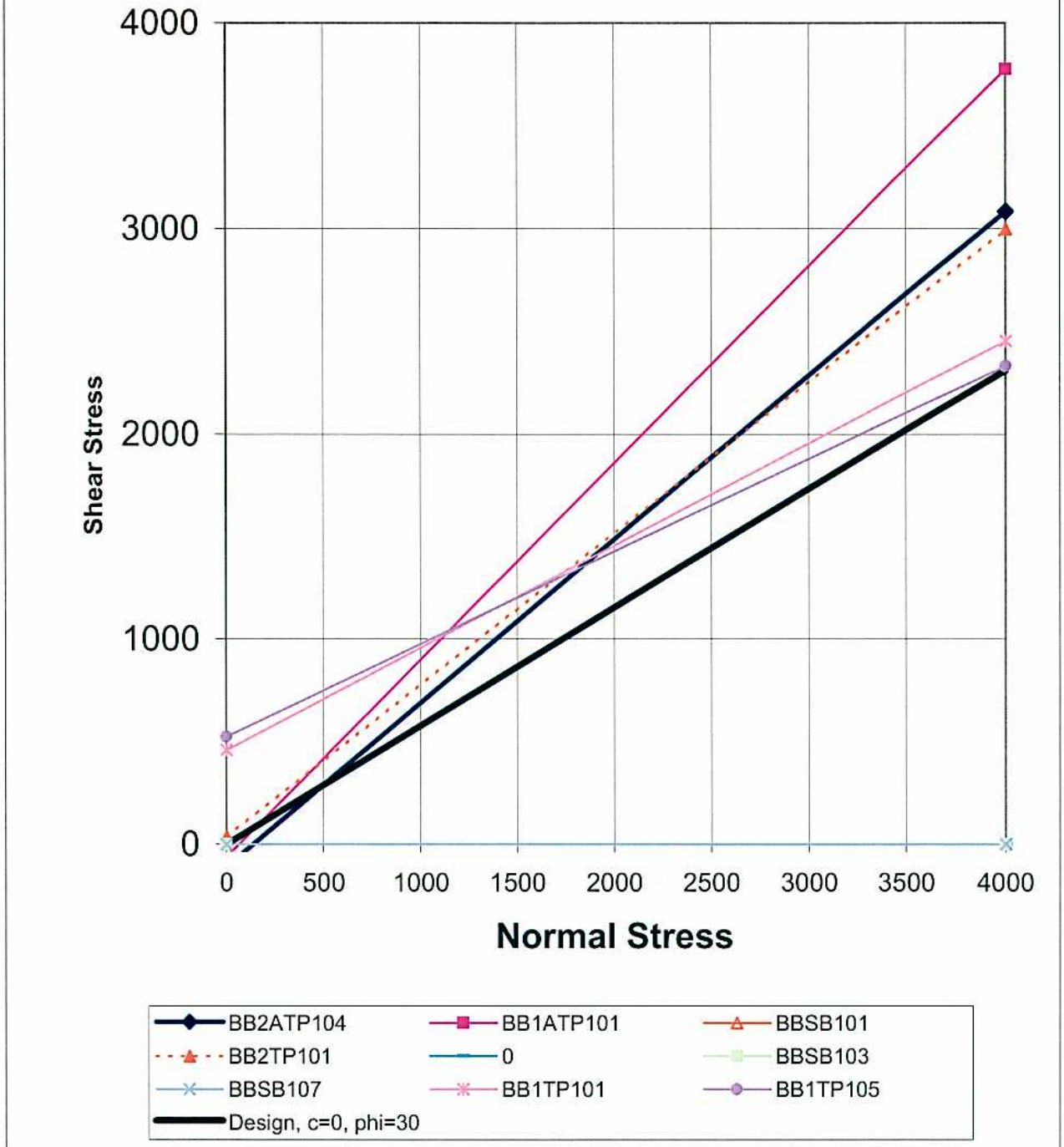

DS Test Results for afw

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-3

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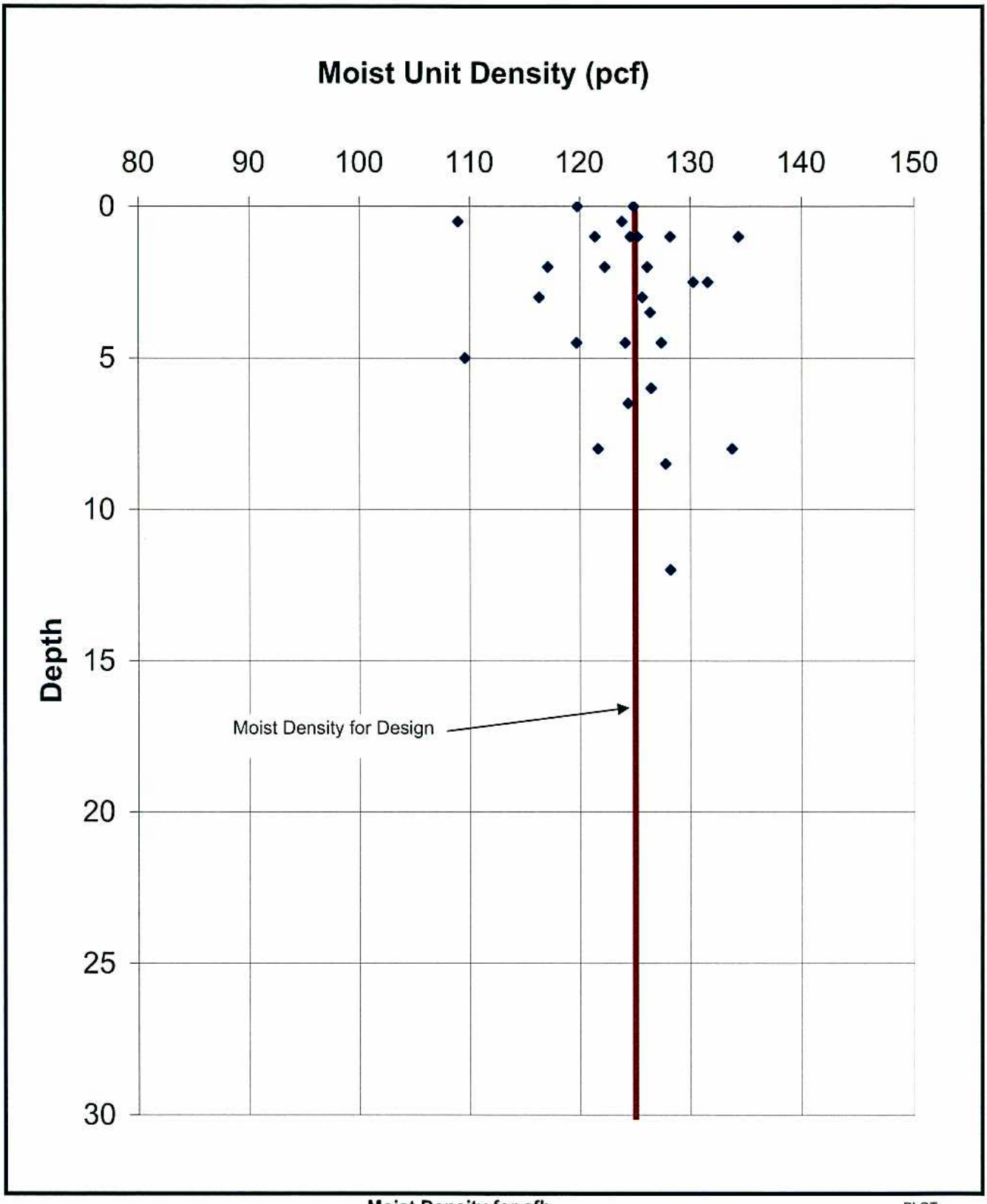

Moist Density for afh PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-4

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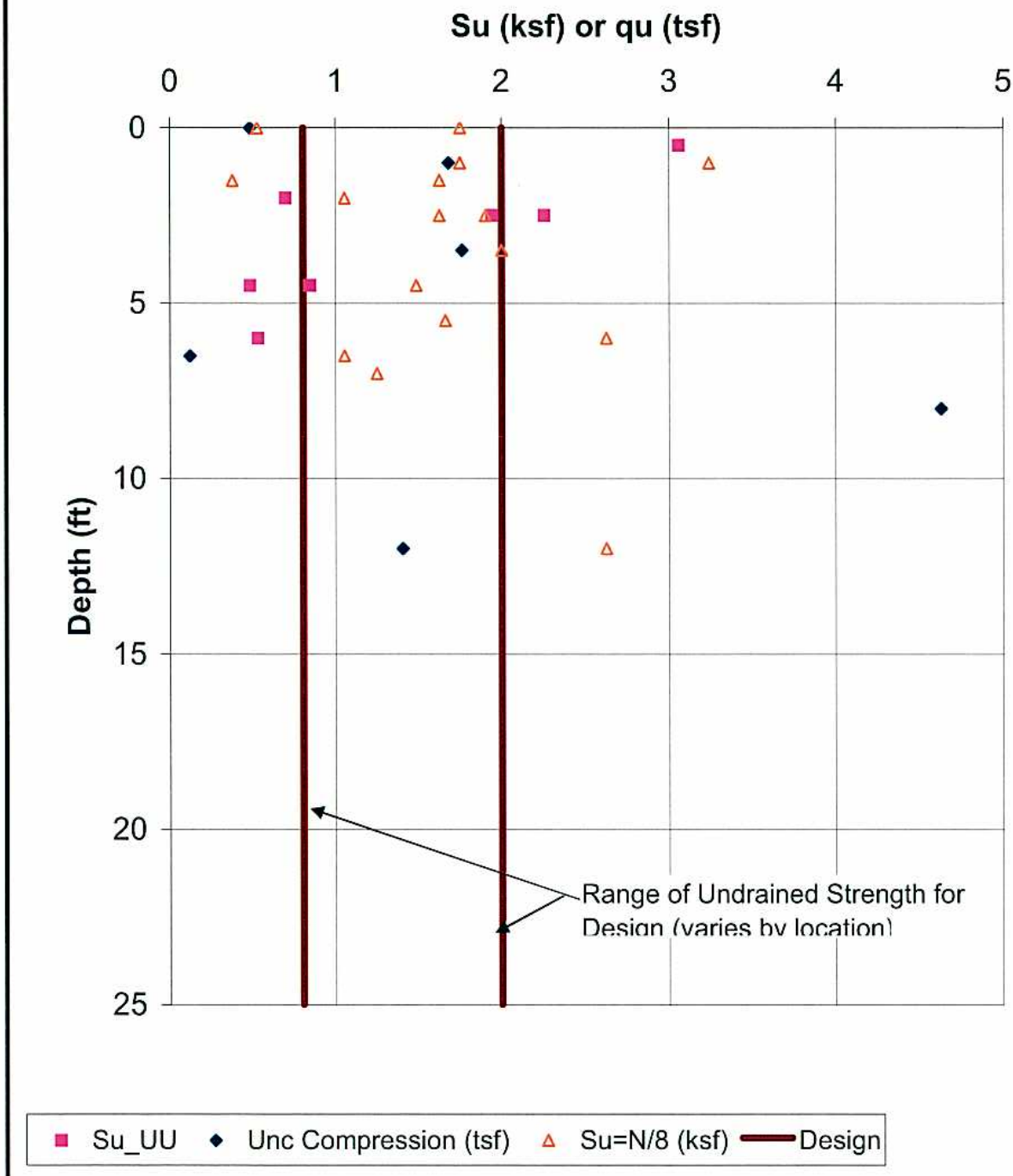

Undrained Strength Tests for afh

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-5

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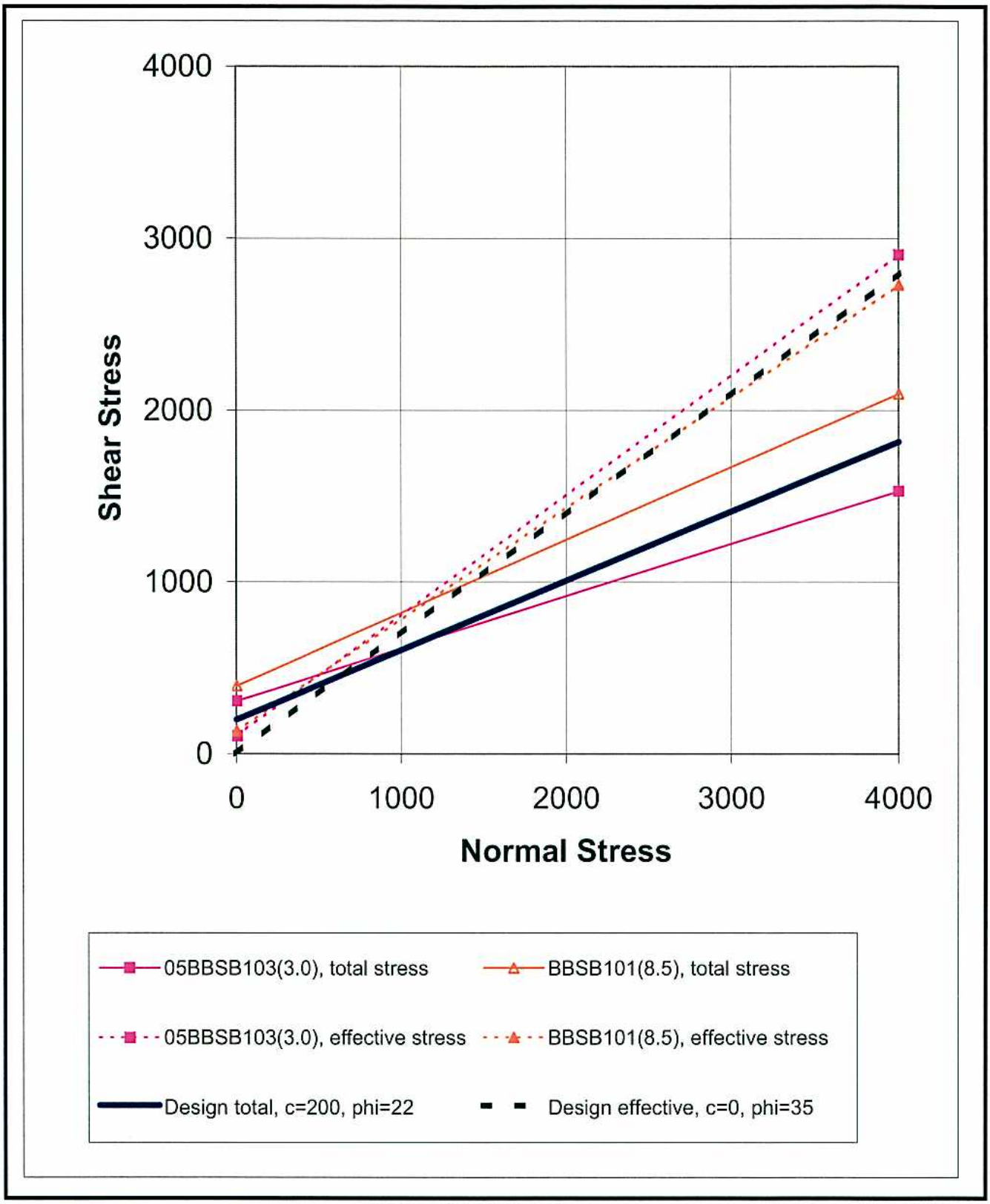

CU Test Results for afh

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-6

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED DATE
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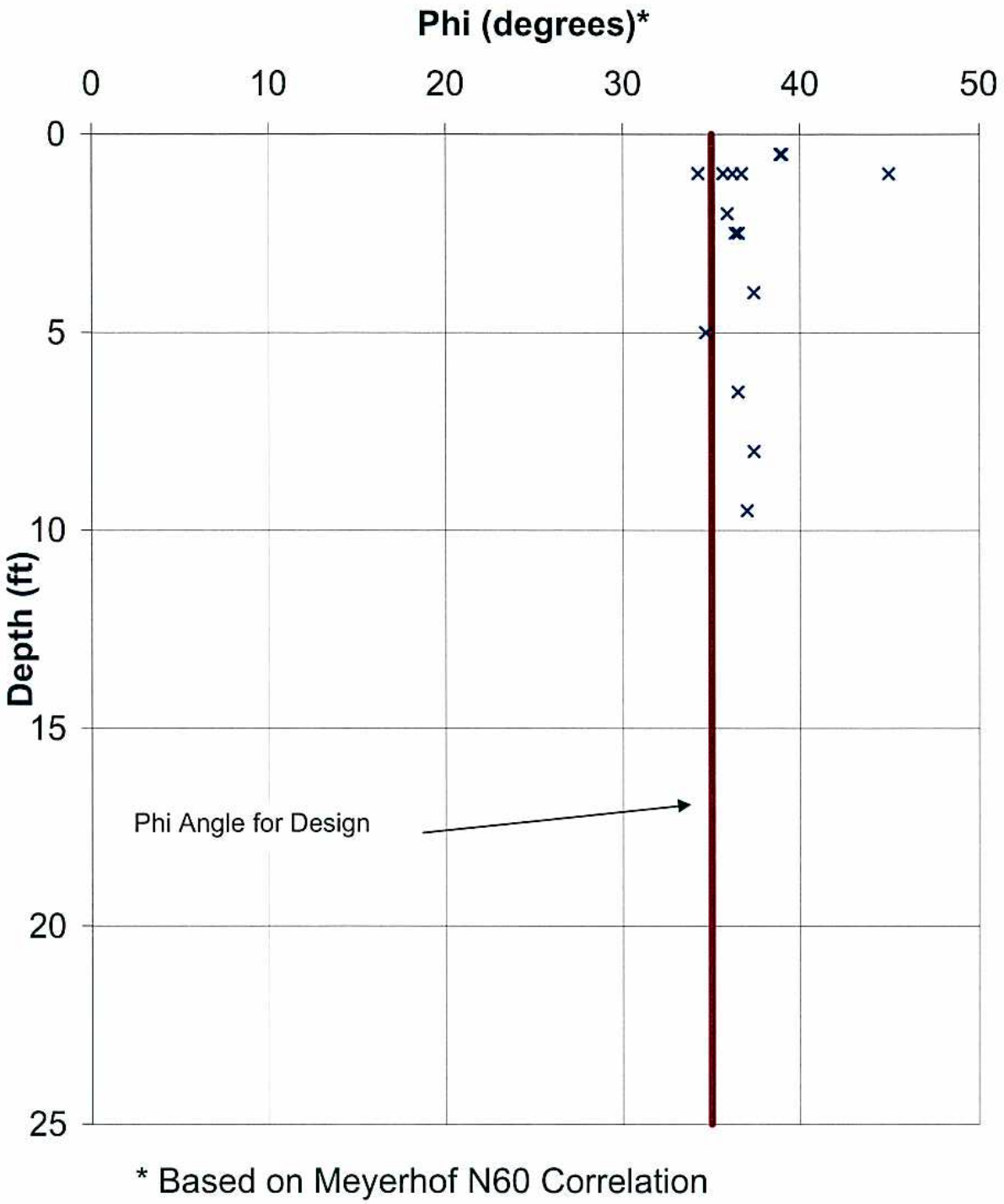

Phi for afh PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-7

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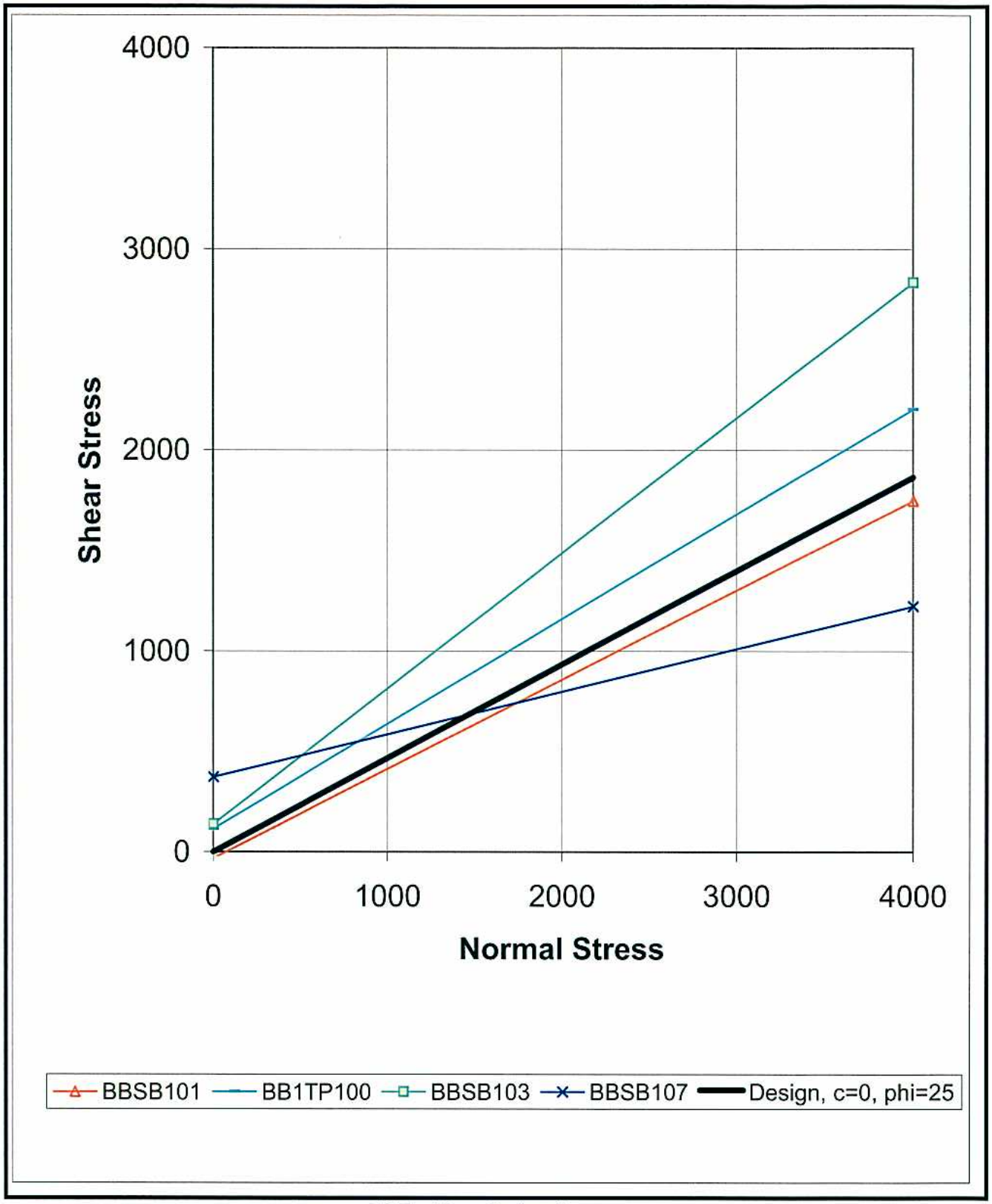

DS Test Results for afh

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-8

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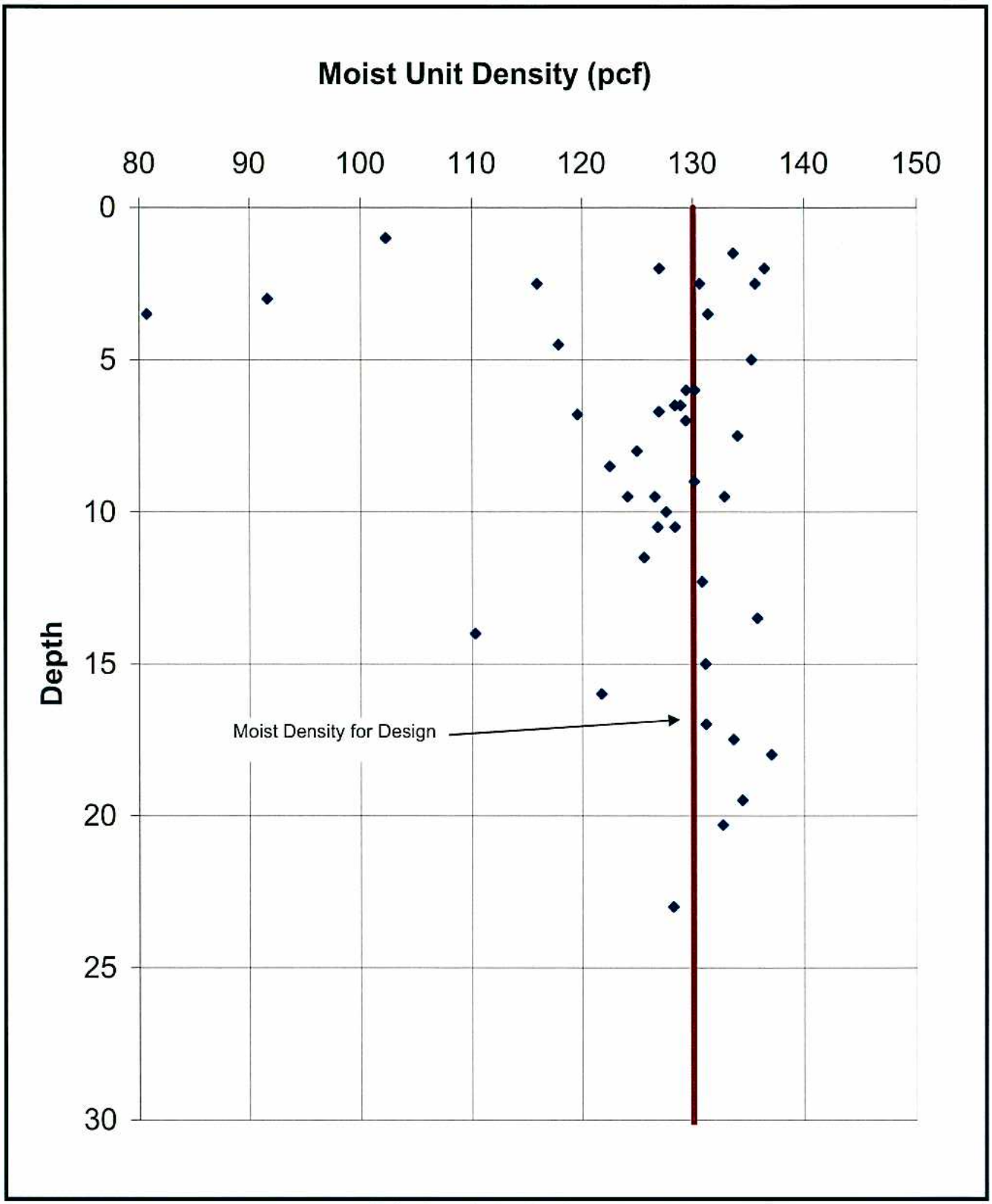

Moist Density for Qcol PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-9

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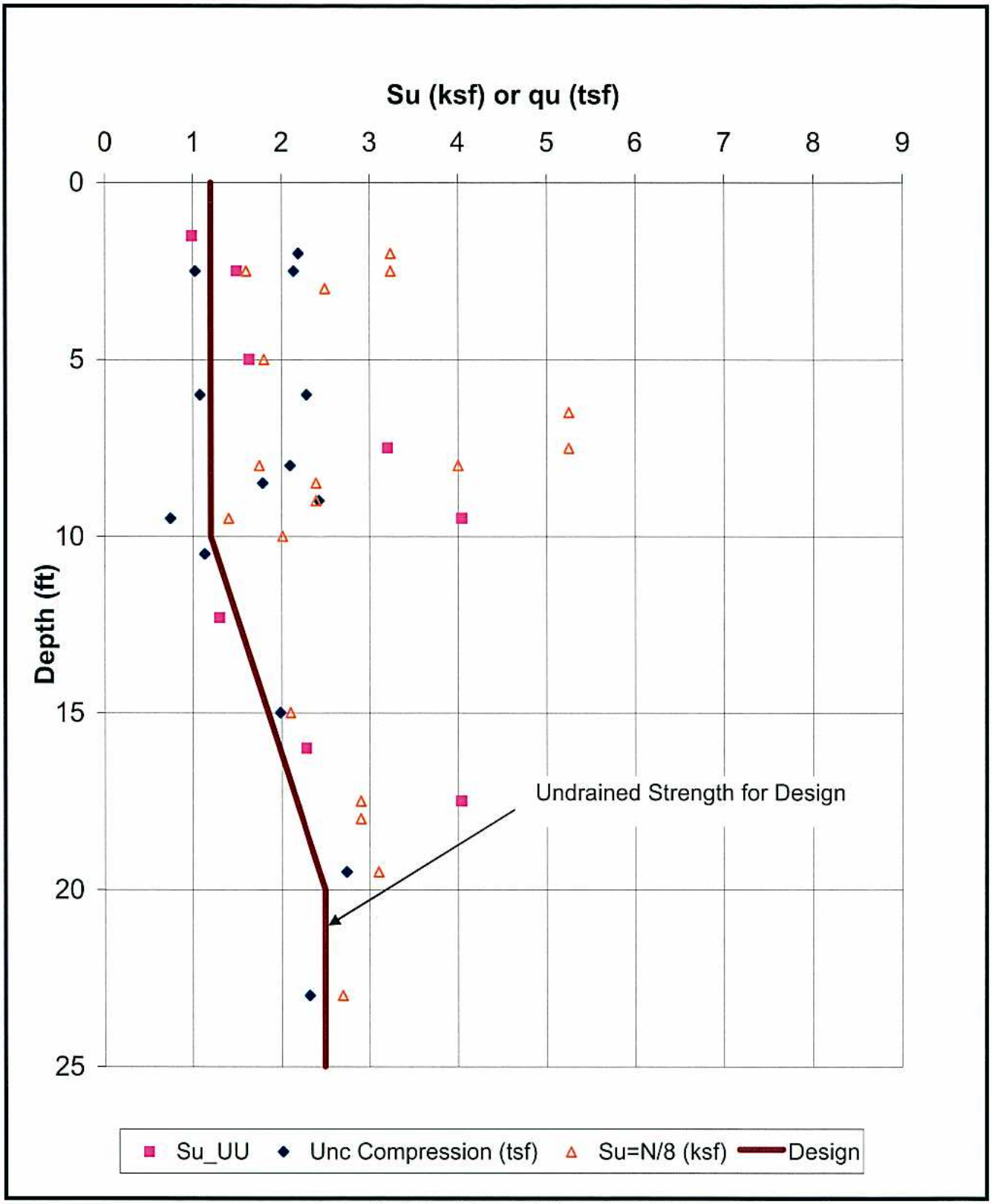

Undrained Strength Tests for Qcol PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-10

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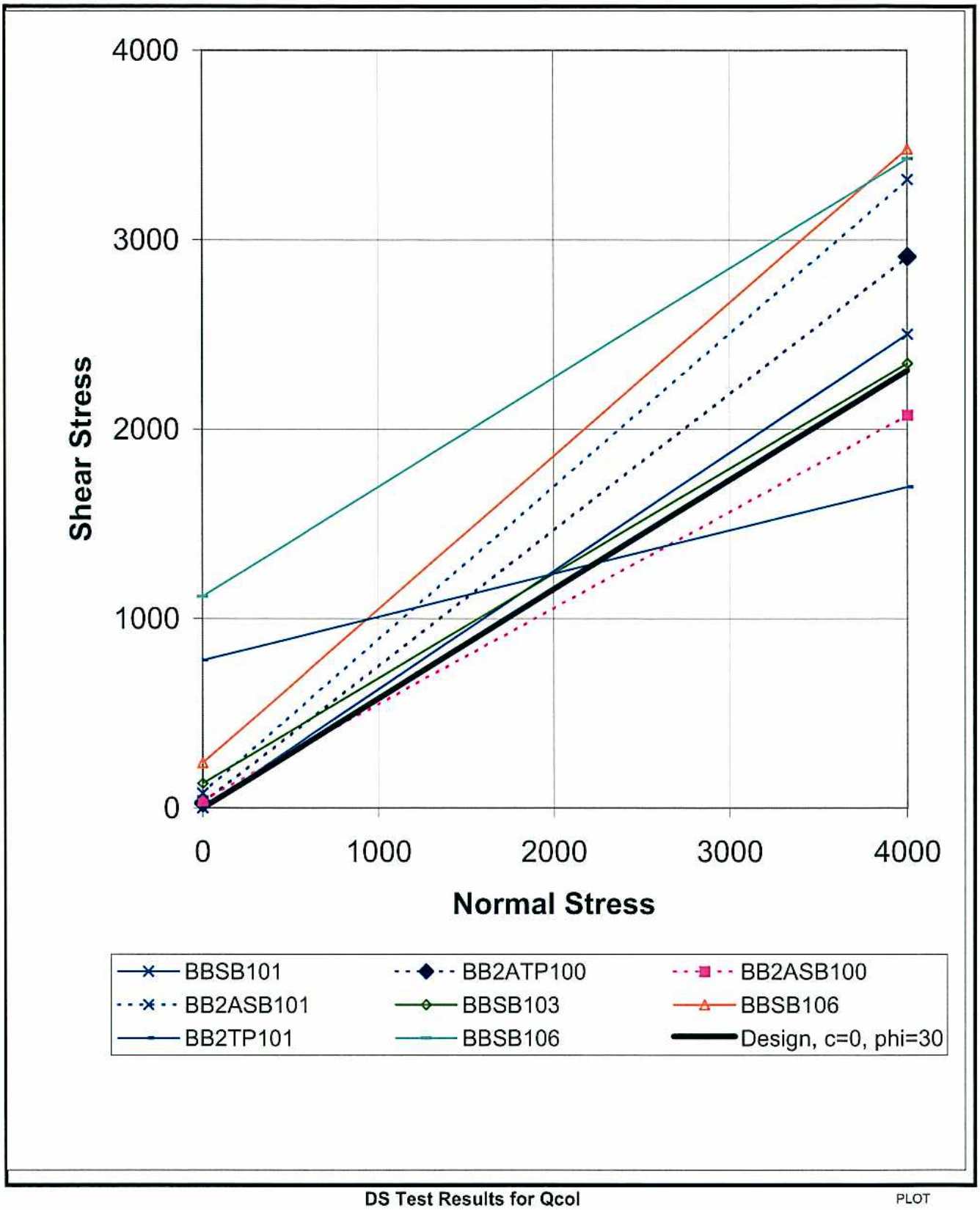

DS Test Results for Qcol

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-11

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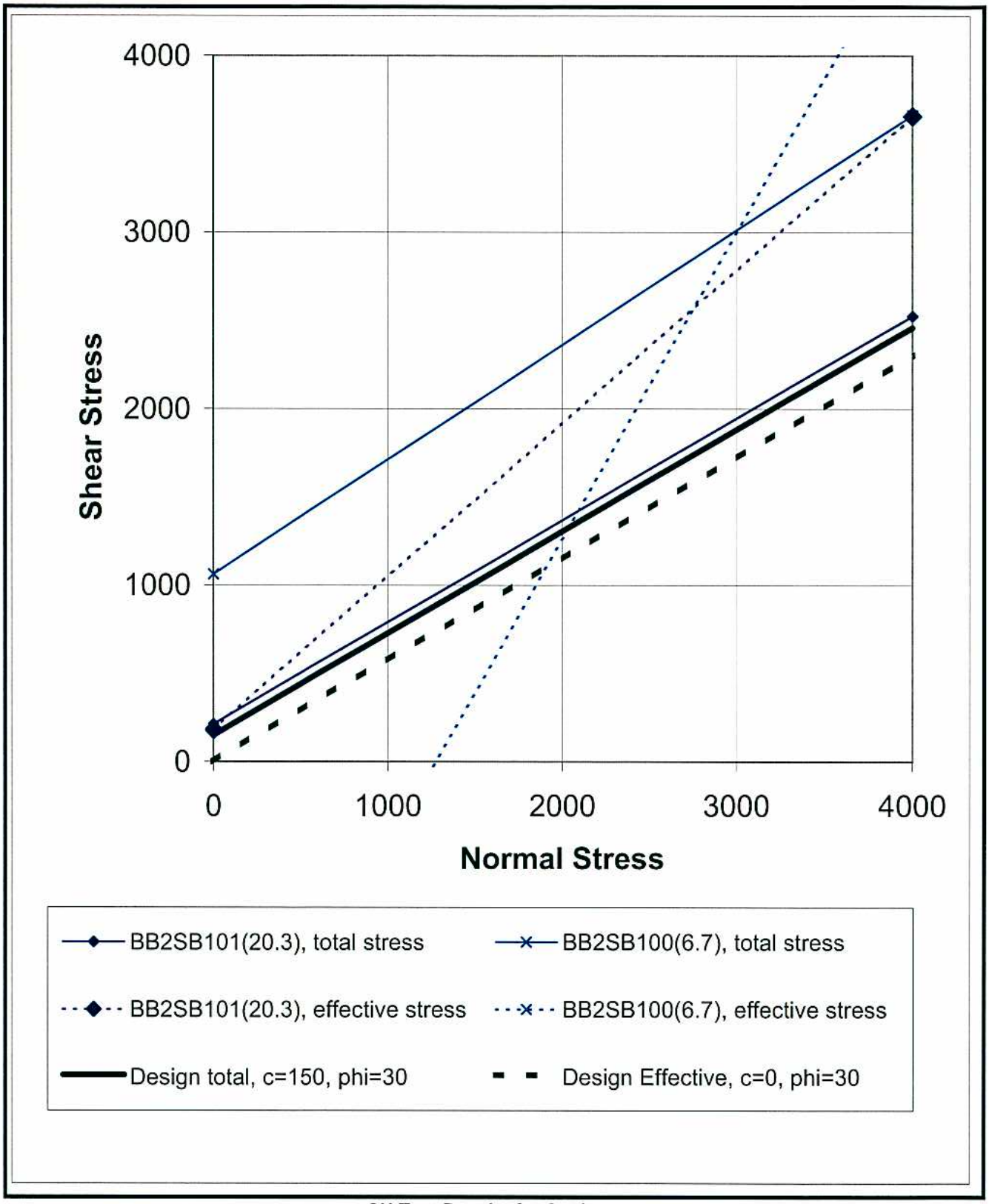

CU Test Results for Qcol

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-12

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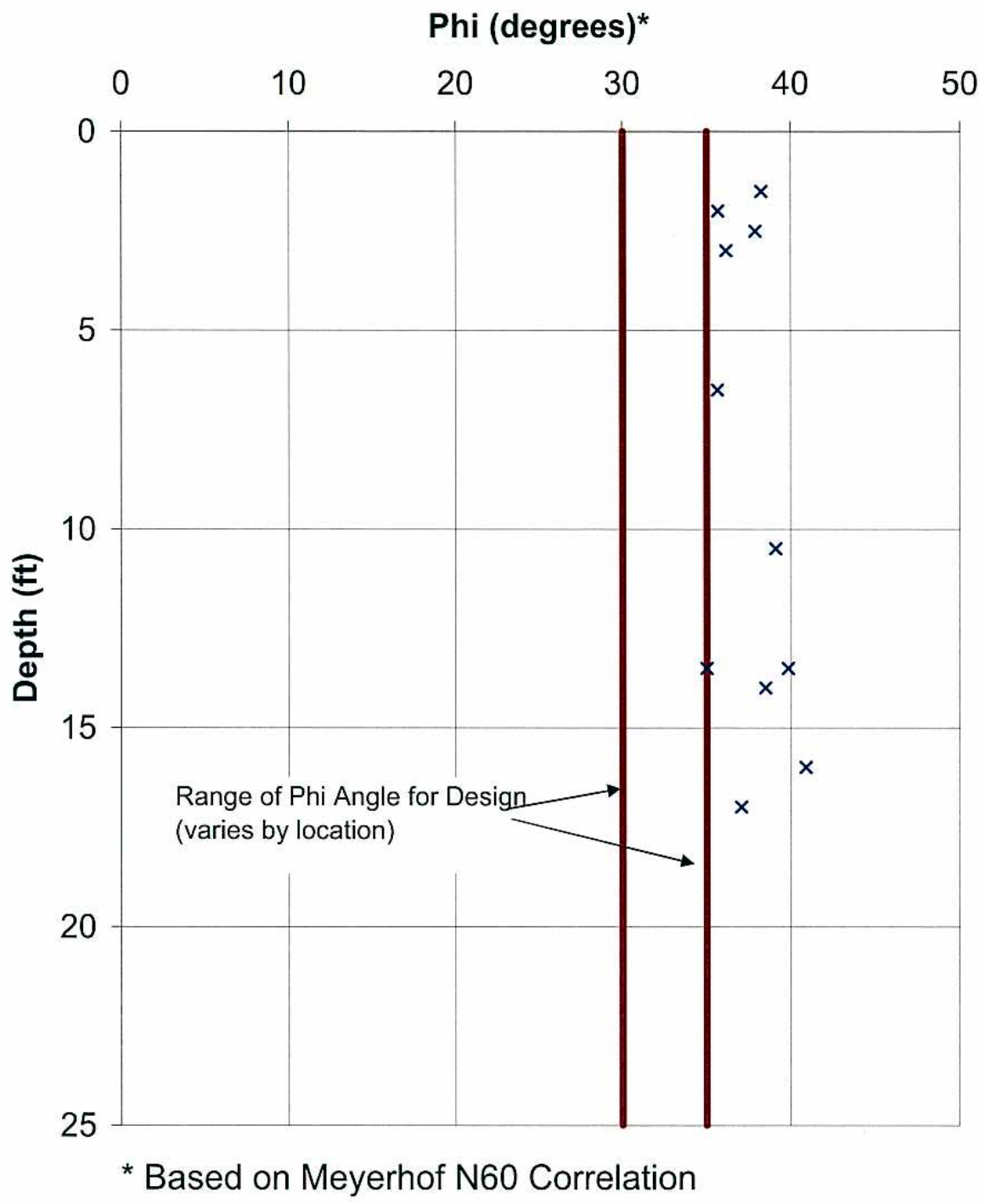

Phi for Qcol

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-13

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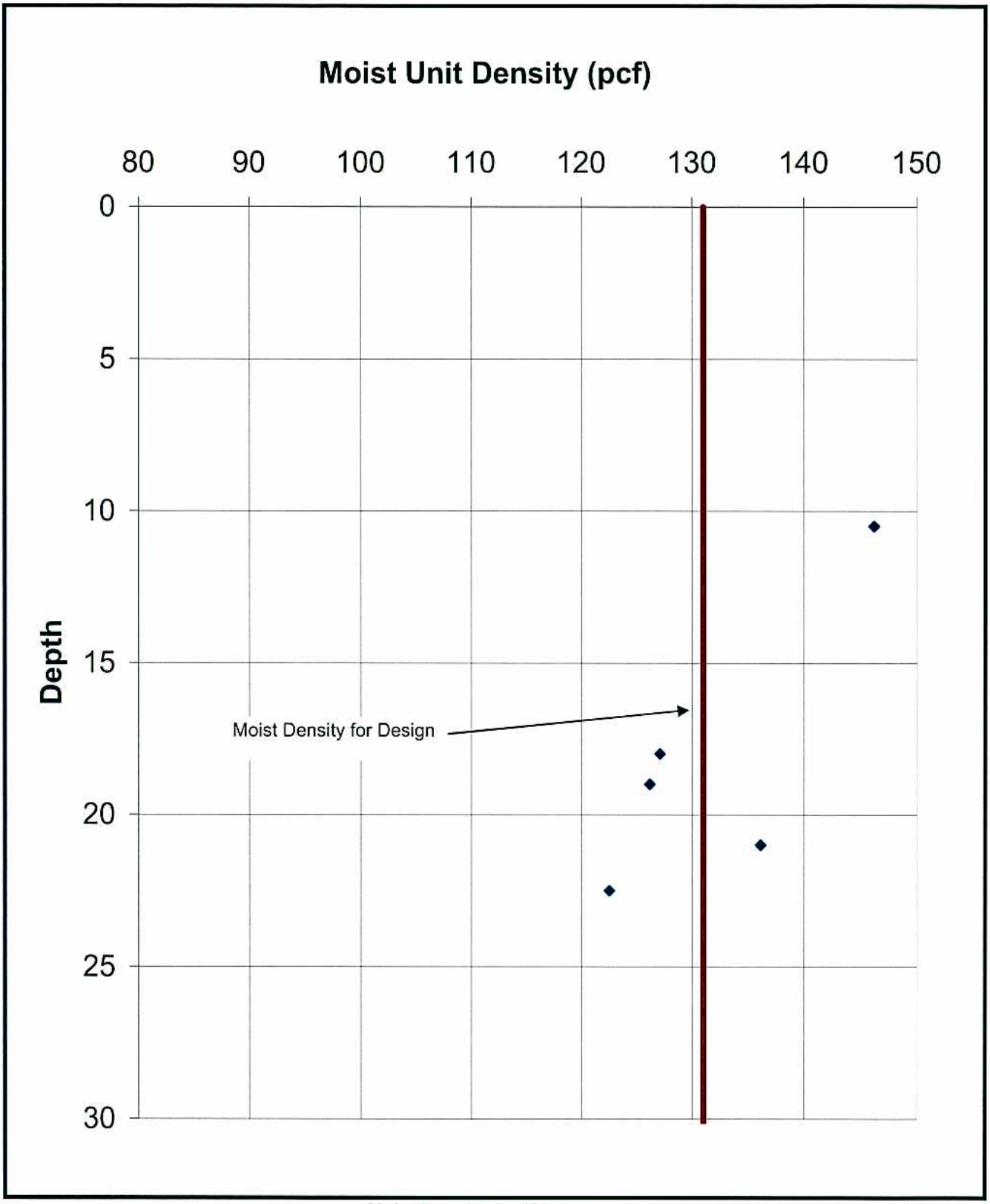

Moist Density for KJm PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-14

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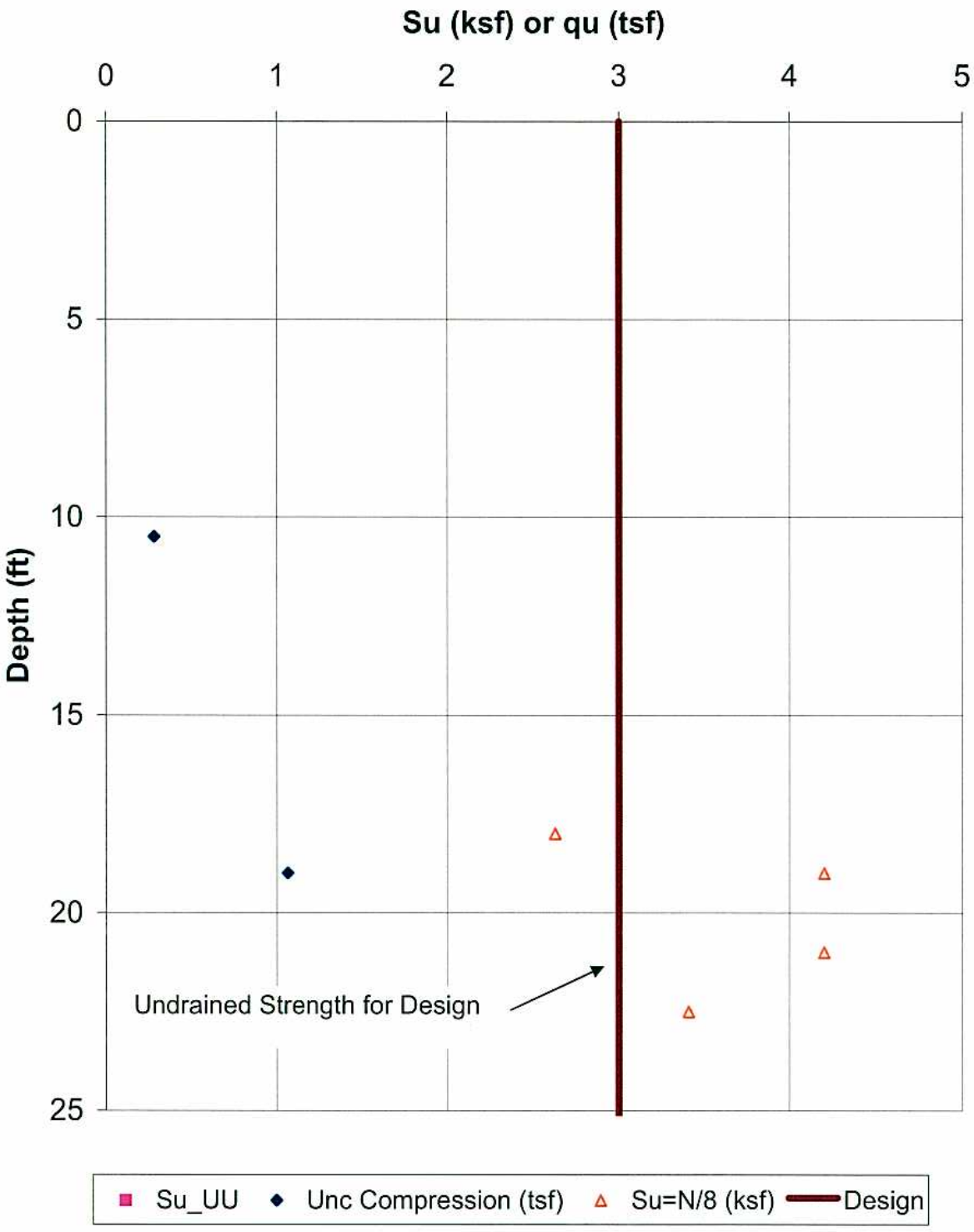

Undrained Strength Tests for KJm

PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-15

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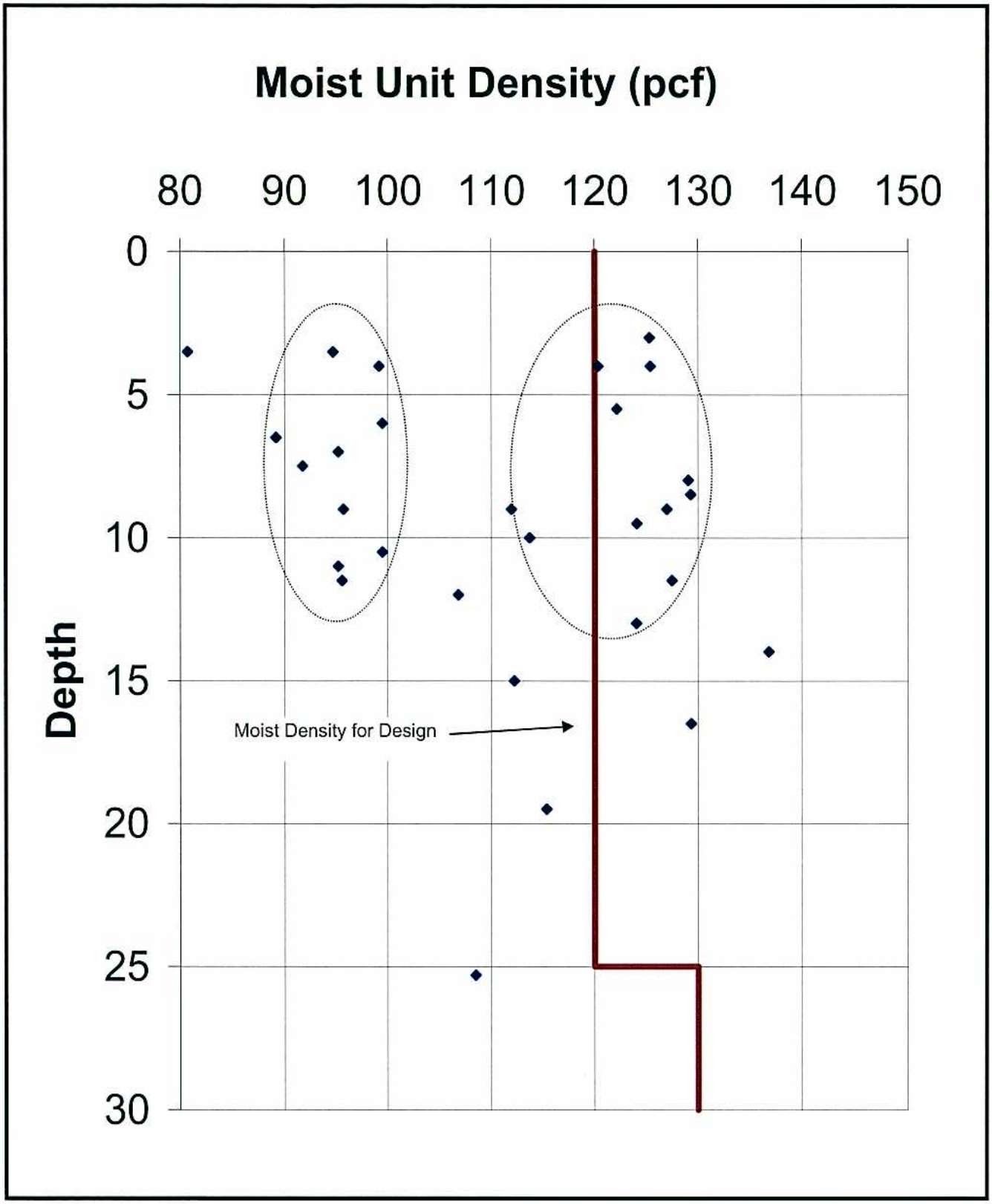

Moist Density for sp PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-16

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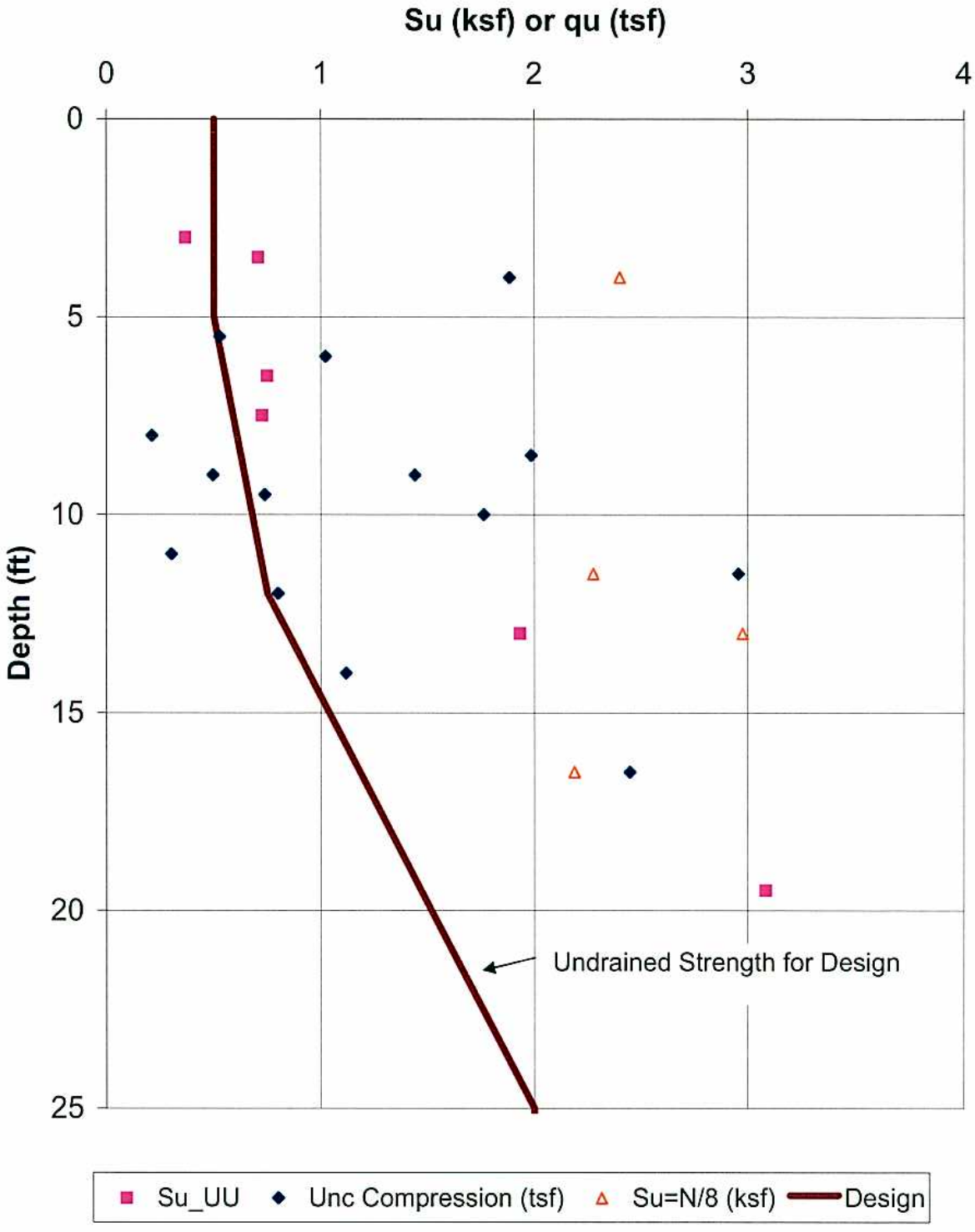

Undrained Strength Tests for sp PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
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San Francisco, California

C-17

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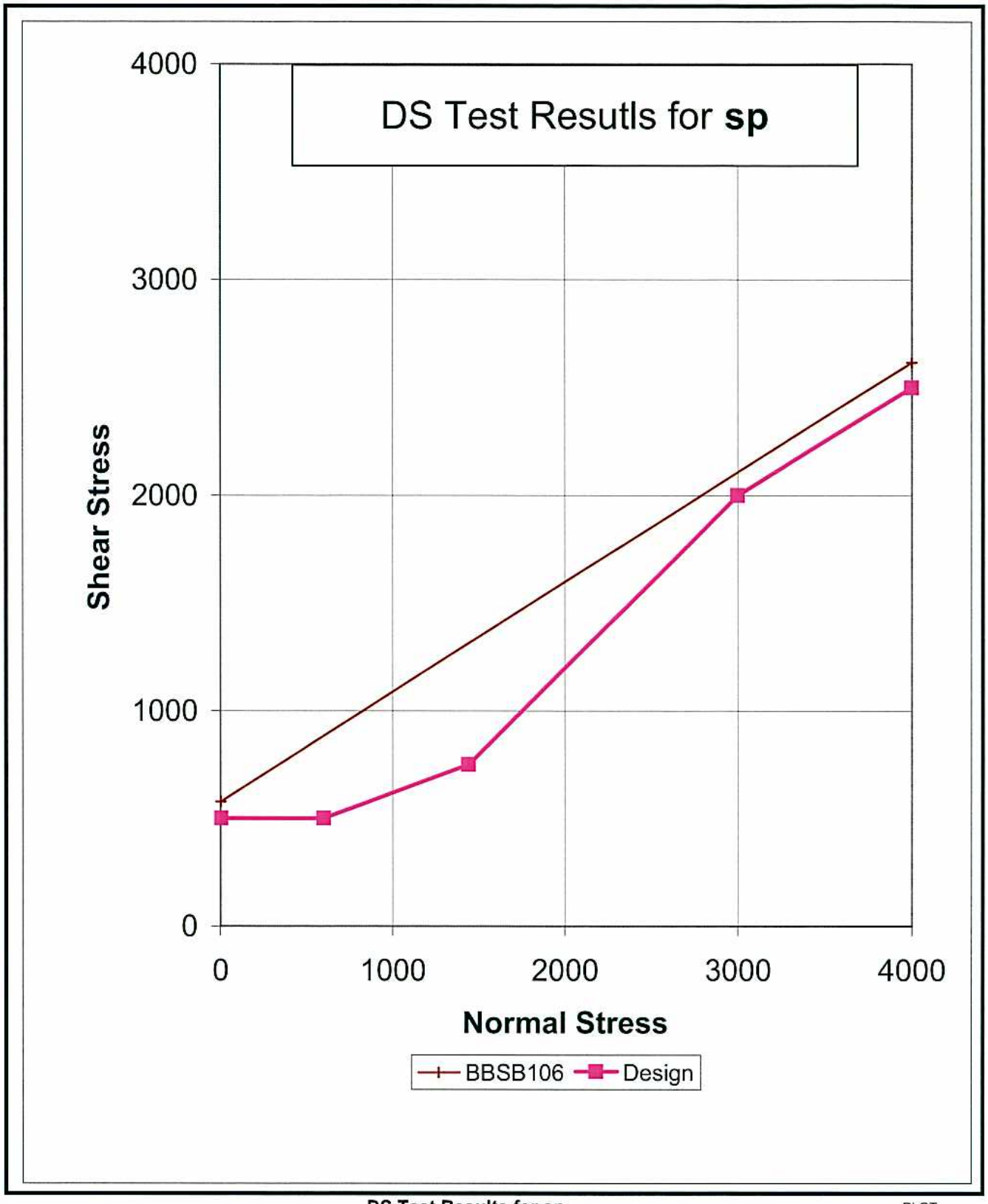


DS Test Results for sp PLOT

MACTEC

Baker Beach Debris Areas 1, 1A, 2 and 2A
Former Presidio of San Francisco
San Francisco, California

C-18

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED DATE
57255.005	JF		Aug 2005	

Appendix D of the Draft Geotechnical Memorandum provided color copies of raw field logs of test pits, test trenches and boring logs included in 3 separate data submittals. Also included were tables showing what laboratory test was assigned. The field logs have been updated and included in Appendices A, B and D and the testing program is summarized in a table in Appendix C1. Appendix D of the Geotechnical Memorandum will be included on CD.

April 25, 2005

Mr. Robert M. Boggs, Jr., P.E.
California EPA-Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2721

Subject: Baker Beach 1, 2 Field Program
Interim Data Transmittal

Dear Bob:

This letter transmits preliminary test pit logs and tables summarizing samples collected to date in the Baker Beach 1 and 2 field sampling program. We are sending these along so that you and Ram Ramanujam can stay abreast of the progress of this work. The spider excavator and crew have performed very well on the steep slopes above Baker Beach and they've had good success in pushing Shelby tube samples.

This is a preliminary data submittal so we have not required MACTEC to provide a P.E. signature and stamp. This data will be included in final form in the report of the field sampling activities which will bear a P.E.'s stamp and signature.

Please call if you have questions.

Sincerely,

George A. Ford
The Presidio Trust

Enclosure

CC: Ram Ramanujam, DTSC Sacramento
Brian Ullensvang, NPS

MACTEC

April 19, 2005

57255

Mr. George Ford
The Presidio Trust
Building 1750, Lincoln Boulevard
Presidio of San Francisco, California 94129

Baker Beach Geotechnical Investigation Debris Stability Data Package

Dear Mr. Ford:

Please find attached for your review a data package from our ongoing Baker Beach geotechnical program that constitutes our first geotechnical sample testing submittal. These samples were obtained from test pits as part of Debris Stability evaluation. The data package includes:

- Updated tables that show both proposed samples and testing (Table 2 of the most recent Field Sampling Plan) and the samples collected to date and submitted for geotech analysis;
- Preliminary test pit logs (including showing where the samples were collected)

Jim French, geotechnical engineer and Bill Godwin engineering geologist reviewed the draft test pit logs and the samples and assigned the geotechnical index and strength tests based on sample interval, sample recovery and condition and soil type. All samples intended for geotechnical testing were taken with thin-wall Shelby tubes unless noted on the table.

The tables and testing program are preliminary and may be revised as additional information is developed. Additional undisturbed samples will be obtained from soil borings and submitted for geotechnical laboratory analysis as part of our Battery and Staging Area evaluations in May.

Please contact Jim French (510) 628-3234 or Bill Godwin (707) 793-3841 if you have any questions.

Yours very truly,

MACTEC Engineering and Consulting, Inc.

Michael Jacobvitz
Senior Principal Hydrogeologist

BG/MAJ/:nlh/Data Package Letter

Enclosures

cc: file

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300 • Petaluma, CA 94954
707-793-3800 • Fax: 707-793-3900

Table 2a: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section A - A'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date													
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Tnaxial-UU	Direct Shear	Tnaxial-CU				
Provides input for:				Cohesion					x	x	x	x	x	x	x	x														
				Friction Angle					x	x		x		?	x	x														
				Density					x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date												
A-A	CLA-1	fill	1.5 to 2.5			x	2			2																					
	CLA-2	fill	1.5 to 2.5			x	2			2																					
	BBSB103	fill	1 to 5.5			x	2	1		3		3																			
	BBSB103	res soil	5.5			x	1			1	1	1																			
	BBSB103	wthtrd rk	6.5 to 15			x		2		2	1	2	1	1																	
	BBSB103	rock	15			x	1			1		1																			
	BB1TP101	fill	1 to 5.5		x		3			3								1 to 3	24	12-Apr		x					x				Normal stress 200,400,800psf
	BB1TP101	colluvium	5.5		x		1			1	1	1						10.5 to 12.5	10	12-Apr											
	BB1TP101	wthtrd rk	5.5 to 10		x		1	1	1	2	1	1	1																		
	BB1PZ100	fill	2 to 10		x		1			1																					
	BB1PZ100	colluvium	10 to 15		x			1			1				1																
	BB1PZ100	wthrd rk	15		x			1		1	1					1															
	BB1PZ101	fill	3 to 6		x		1			1																					
	BB1PZ101	wthtrd rk	6 to 10		x		1		1	1	1		1																		
	BB1PZ101	rock	10		x		1		1	1																					
	BB1TP102	fill	1 to 12		x		3	2		5		2		2				4 to 6	10	15-Apr	x										
	BB1TP102	colluvium	12		x			1		1				1				10.5 to 12	12	15-Apr		x			x						
	Total						**20**	**9**	**3**	**28**	**7**	**11**	**3**	**4**	**1**	**1**															

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
CLA-1,2- Cultural Resource Trenches
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rational for sample types and frequency are discussed in section 5.2

Table 2b: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section B - B'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:		Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
B-B	BBSB106	fill	0.5 to 6.5	x			4			4	2	4																
	BBSB106	res soil	6.5 to 8	x				1		1	1	1		1														
	BBSB106	wthred rk	8 to 17	x			2	1		3	3	3		1														
	BBSB106	rock	17 to 27	x			2	2	2	3		3	1	1		1												
	BB2ATP100	fill	1 to 5.5		x		3			3							1 to 3	24	14-Apr		x			x			x		normal stress 200,400,800psf
	BB2ATP100	colluvium	5.5 to 8		x		1			1	1	1					4 to 5	8	14-Apr		x			x					
	BB2ATP100	wthrd rk	8.0		x		1		1	1				1														
	BB2ATP101	fill	1 to 5.5		x		2	1		3	2						2 to 4	23	14-Apr		x	x		x	x				
	BB2ATP101	colluvium	5.5 to 8		x			1	1	1	1		1		1		12 to 14	25	14-Apr		x					x			confining stress 100psf
	BB2ATP101	wthrd rk	8.0		x		1		1	1																		
	BB2ATP102	fill	2 to 6.5		x		2	1		3	2	1		1			2 to 4	14	14-Apr		x	x							
	BB2ATP102	colluvium	6.5 to 9		x			1		1	1	1		1			8 to 10	24	14-Apr		x				x				
	BB2ATP102	wthrd rk	9.0		x		1			1																		
	BB2ATP105	fill	1 to 5		x			1		2	1						0.5 to 2.5	24	15-Apr		x				x				
	BB2ATP105	colluvium	5 to 7		x			1		1	1			1														
	BB2ATP105	wthrd rk	7.0		x					1																		
	Total						**19**	**10**	**5**	**30**	**15**	**14**	**2**	**7**	**1**	**1**												

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rational for sample types and frequency are discussed in section 5.2

Table 2c: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section C - C'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:	Cohesion						x	x	x	x	x	x	x	x													
			Friction Angle						x	x		x		?	x	x													
			Density						x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
C-C	BBSB105	fill	0.5 to 6.5	x			4			4	2	4		1															
	BBSB105	res soil	6.5 to 8	x				1		1	1	1		1															
	BBSB105	wthred rk	8 to 17	x			2	1		3	3	3		1															
	BBSB105	rock	17 to 27	x			2	2	2	3		3	1			1													
	BBSB104	fill	0.5 to 6.5	x			3			3		4																	
	BBSB104	res soil	6.5 to 8	x			1			1	1	1																	
	BBSB104	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1														
	BBSB104	rock	17 to 27	x			2	1	2	3	2	3				1													
	BB1TP105	fill	1 to 8		x			1		1	1	1					1 to 3	16	12-Apr		x								
	BB1TP105	colluvium	8 to 10		x		1			1	1						5.5 to 7.5	27	12-Apr		x						x		normal stress 500,1000,2000psf
	BB1TP105	wthrd rk	10.0		x		1	1		3	2	1		1															
	BB1TP104	fill	1 to 5		x			1		1	1	1		1			1 to 3	15	12-Apr	x									
	BB1TP104	colluvium	5 to 9		x		1			1		1																	
	BB1TP104	wthrd rk	9.0		x			1		2	1		1																
	BB1TP103	fill	1 to 5				1			1		1					3 to 5	17	12-Apr		x	x							
	BB1TP103	colluvium	5 to 7		x			1		1	1	1		1			9.5 to 12	27	12-Apr	x		x			x				
	BB1TP103	wthrd rk	7.0		x		1		1	1			1																
	Total						**20**	**10**	**6**	**31**	**18**	**28**	**4**	**6**	**1**	**2**													

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rational for sample types and frequency are discussed in section 5.2

Table 2d: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section D - D'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
D-D	BB2ASB100	fill	0.5 to 6.5	x			4			4	2	4																
	BB2ASB100	res soil	6.5 to 8	x				1		1	1	1		1														
	BB2ASB100	wthred rk	8 to 17	x			2	1		3	3	3		1														
	BB2ASB100	rock	17 to 27	x			2	2	2	3		3	1			1												
	BB2ASB101	fill	0.5 to 6.5	x			3			3		4																
	BB2ASB101	res soil	6.5 to 8	x			1			1	1	1																
	BB2ASB101	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1													
	BB2ASB101	rock	17 to 27	x			2	1	2	3	2	3				1												
	BB2ATP103	fill	1 to 8		x			1		1	1	1					1 to 3.5	25	13-Apr		x	x			x			
	BB2ATP103	colluvium	8 to 10		x		1			1	1						4 to 5	12	13-Apr		x							
	BB2ATP103	wthrd rk	10.0		x		1	1		3	2	1		1														
	BB2ATP104	fill	1 to 5		x			1		1	1	1		1			2 to 3.5	14	13-Apr		x					x		normal stress 250,500,1000psf
	BB2ATP104	colluvium	5 to 9		x		1			1		1					6 to 8.5	27	13-Apr		x			x		x		confining stress 600psf
	BB2ATP104	wthrd rk	9.0		x			1		2	1		1															
	BB2ATP105	fill	1 to 5				1			1		1					0.5 to 2.5	24	15-Apr		x				x			
	BB2ATP105	colluvium	5 to 7		x			1		1	1	1		1														
	BB2ATP105	wthrd rk	7.0		x		1		1	1		1	1															
	Total						**20**	**10**	**6**	**31**	**18**	**28**	**4**	**6**	**1**	**2**												

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rational for sample types and frequency are discussed in section 5.2

Table 2e: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section E - E'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:	Cohesion						x	x	x	x	x	x	x	x													
			Friction Angle						x	x		x		?	x	x													
			Density						x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
E-E	BBSB107	fill	0.5 to 6.5	x			4			4	2	4		1															
	BBSB107	res soil	6.5 to 8	x				1		1	1	1		1															
	BBSB107	wthred rk	8 to 17	x			2	1		3	3	3		1															
	BBSB107	rock	17 to 27	x			2	2	2	3		3	1			1													
	BB2SB100	fill	0.5 to 6.5			x	3			3		4																	
	BB2SB100	res soil	6.5 to 8			x	1			1	1	1																	
	BB2SB100	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1														
	BB2SB100	rock	17 to 27			x	2	1	2	3	2	3				1													
	BB2SB101	fill	0.5 to 6.5			x	4			4	2	4																	
	BB2SB101	res soil	6.5 to 8			x		1		1	1	1		1															
	BB2SB101	wthred rk	8 to 17			x	2	1		3	3	3		1															
	BB2SB101	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB2TP101	fill	1 to 5		x		1			2		1					4.5 to 5.5	16	6-Apr		x			x			x		normal stress 300,600,900psf
	BB2TP101	colluvium	5 to 7		x			1		1	1		1				9.5 to 11	15	6-Apr								x		normal stress 600,1200,1800psf
	BB2TP101	wthrd rk	7.0		x		1			2		1																	
	BB2TP100	fill			x					2							1.5 to 3	16	6-Apr		x					x			confining stress 200psf
	BB2TP100	colluvium	5 to 7		x			1		1	1	1		1	1		6.5 to 7	6	6-Apr	x									
	BB2TP100	wthrd rk	7.0		x		1		1	2			1																
	Total						**26**	**11**	**8**	**40**	**19**	**36**	**5**	**6**	**2**	**3**													

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rational for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

Table 2f: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section F - F'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU
				Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
F-F	BBSB102	fill	0.5 to 6.5	x			3			3	2	4																
	BBSB102	res soil	6.5 to 8	x				1		1	1	1		1														
	BBSB102	wthred rk	8 to 12	x			2	1		3	2	2		1														
	BBSB102	rock	12 to 20	x			2	2	2	3		3	1			1												
	BBSB103	fill	0.5 to 6.5	x			3			3		4																
	BBSB103	res soil	6.5 to 8	x			1			1	1	1																
	BBSB103	wthred rk	8 to 12	x			1		1	1	2	2	1	1	1													
	BBSB103	rock	12 to 20	x			2	1	2	3	2	3				1												
	Total						**14**	**5**	**5**	**18**	**10**	**20**	**2**	**3**	**1**	**2**												

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rational for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2g: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section G - G'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
G-G	BBSB100	fill	0.5 to 6.5	x			4			4	2	4																	
	BBSB100	res soil	6.5 to 8	x				1		1	1	1		1															
	BBSB100	wthred rk	8 to 17	x			2	1		3	3	3		1															
	BBSB100	rock	17 to 27	x			2	2	2	3		3	1			1													
	BBSB101	fill	0.5 to 6.5	x		x	3			3		4																	
	BBSB101	res soil	6.5 to 8	x		x	1			1	1	1																	
	BBSB101	wthred rk	8 to 17	x		x	1		1	1	2	3	1	1	1														
	BBSB101	rock	17 to 27	x		x	2	1	2	3	2	3				1													
	BB1ATP100	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	x									
	BB1ATP100	colluvium	5 to 7		x			1		1	1		1				4.5 to 6.5	22	7-Apr		x								
	BB1ATP100	wthrd rk	7.0		x		1			2		1																	
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**													

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rational for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2h: Proposed Laboratory Tests for Geophysical Investigation
Cross Section H - H'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU		
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
H-H	BB1SB111	fill	0.5 to 6.5			x	4			4	2	4																	
	BB1SB111	res soil	6.5 to 8			x		1		1	1	1		1															
	BB1SB111	wthred rk	8 to 17			x	2	1		3	3	3		1															
	BB1SB111	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB1SB110	fill	0.5 to 6.5			x	3			3		4																	
	BB1SB110	res soil	6.5 to 8			x	1			1	1	1																	
	BB1SB110	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1														
	BB1SB110	rock	17 to 27			x	2	1	2	3	2	3				1													
	BB1TP100	fill	1 to 5		x		1			2		1					4.5 to 6.5	24	11-Apr		x			x		x			confining stress 200psf
	BB1TP100	colluvium	5 to 7		x			1		1	1		1				0 to 2	24	11-Apr		x			x		x			normal stress 200,400,800psf
	BB1TP100	wthrd rk	7.0		x		1			2		1					1 to 3	24	11-Apr		x	x					x		
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**													

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rational for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2i: Proposed Laboratory Tests for Geotechnical Investigation
Miscellaneous Areas
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	
			Provides input for:	Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
Area 1	BBSB105	fill	0.5 to 6.5	x			4			4	2	4																
	BBSB105	res soil	6.5 to 8	x				1		1	1	1		1														
	BBSB105	wthred rk	8 to 17	x			2	1		3	3	3		1														
	BBSB105	rock	17 to 27	x			2	2	2	3		3	1			1												
Area 1	BBSB104	fill	0.5 to 6.5	x			3			3		4																
	BBSB104	res soil	6.5 to 8	x			1			1	1	1																
	BBSB104	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1													
	BBSB104	rock	17 to 27	x			2	1	2	3	2	3				1												
Area 1A	BB1ATP101	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	x								
	BB1ATP101	colluvium	5 to 7		x			1		1	1		1				4 sidewall*	6	7-Apr		x						x	normal stress 250,500,750psf
	BB1ATP101	wthrd rk	7.0		x		1			2		1																
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**												

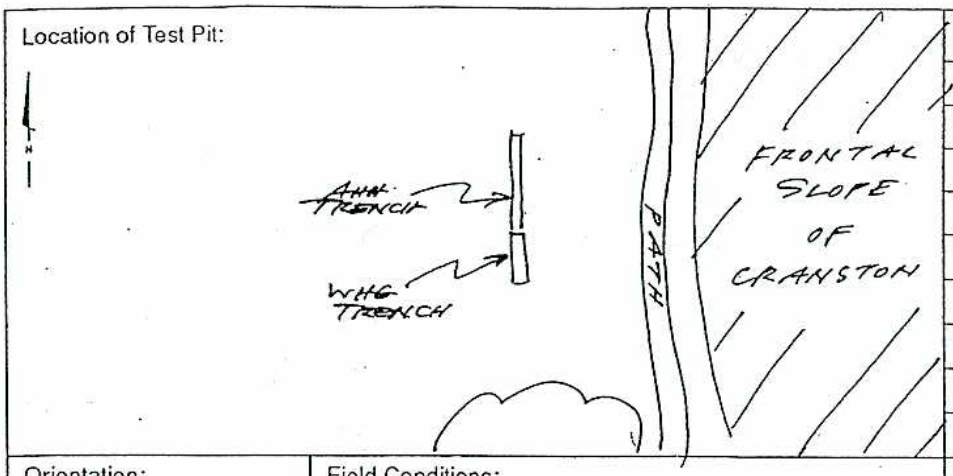
Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rational for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

HARDING LAWSON ASSOCIATES

Location of Test Pit:

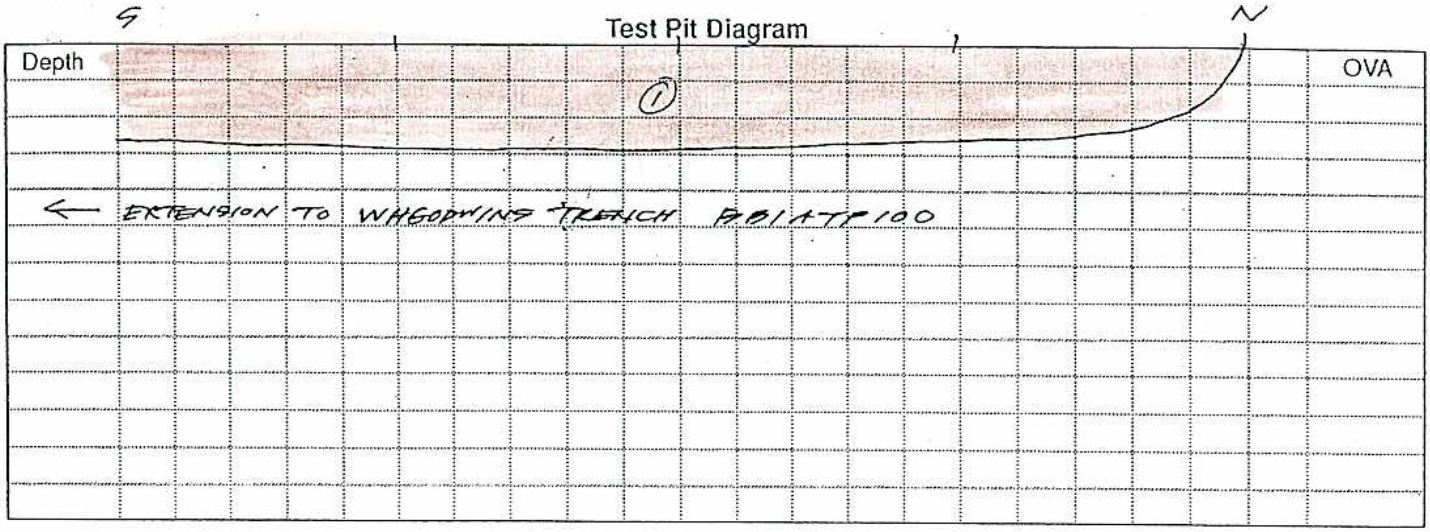


TEST PIT LOG	
Test Pit #:	BBIATP100-B
Project Name:	PRESIDIO SF BBDA
Project #:	57255.005113
Proj. Mgr.:	MA JACOBVITZ
Started - Date:	4/7/05
Time:	1200
Backfilled - Date:	4/7/05
Time:	1210
Logged by:	A H HENKE.
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram



Test Pit Descriptions

Description: (1) DARK BROWN SILTY SAND.

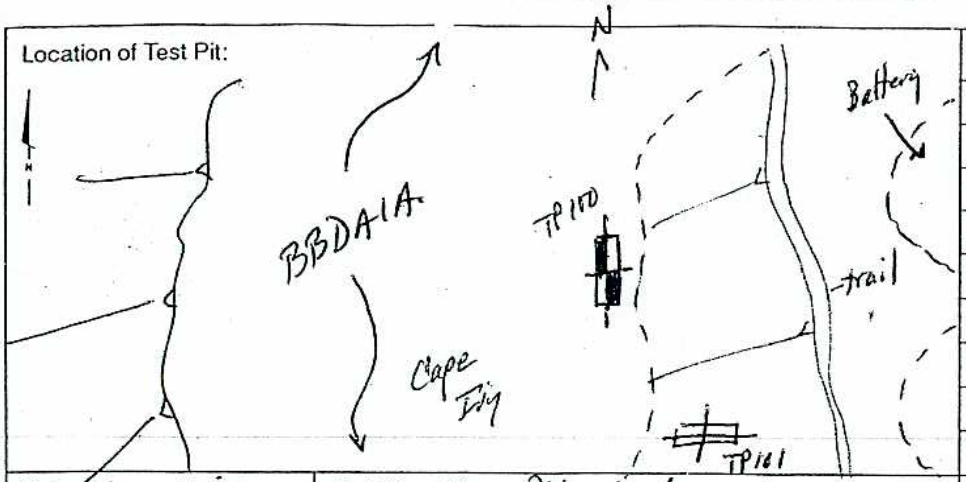
NO VISIBLE TRASH OR DEBRIS

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

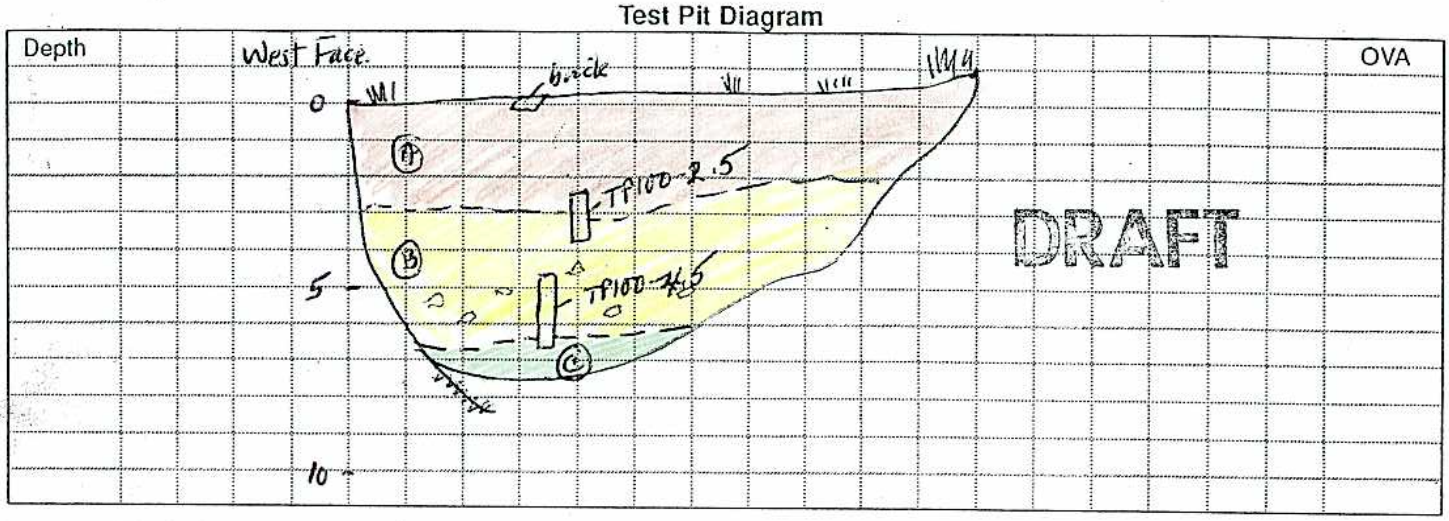


TEST PIT LOG	
Test Pit #: ~~TP100~~ BBDA1A-TP100	
Project Name: Baker Beach	
Project #: 57255	
Proj. Mgr.: M. Jacobitz	
Started - Date: 4/7/05	
Time: 10:15	
Backfilled - Date: 4/7/05	
Time: 11:00	
Logged by: B. Godleski	
Edited by:	

Orientation: N-S

Field Conditions: Ptly cloudy, calm

Test Pit Diagram



Test Pit Descriptions

Description:

(A) Medium Brown SAND w/ SILT (SP-SM), med dense, moist, fine grained, contains rootlets. 1 brick fragment, otherwise devoid of fill. (reworked dune sand?)

(B) Mottled Reddish, Tan and DK Brown SILTY SAND (SM) med dense, wet to saturated contains Reddish cemented sand fragments, zones of Fe O. otherwise mostly fine grained (Colma Fm)

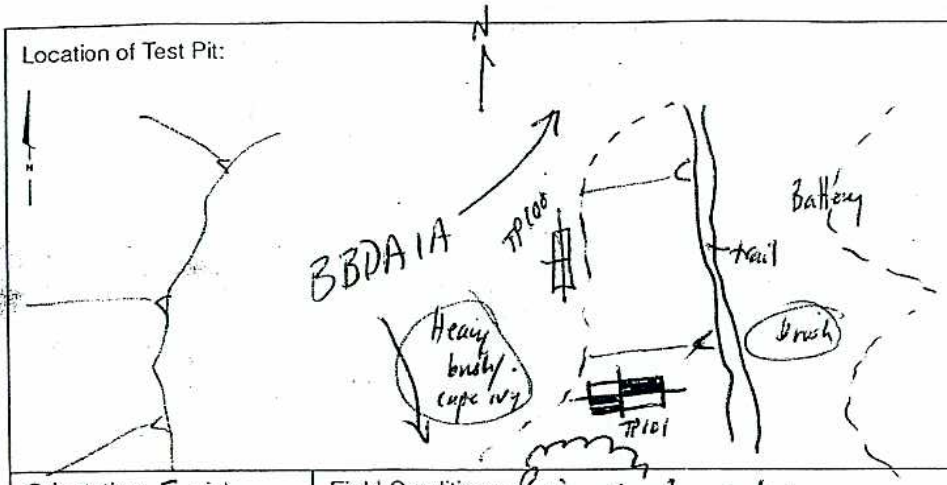
(C) Serpentinite, Blue Green, med hard, friable to strong, clay seams along fractre surfaces, other surfaces are slickensided, closely fract to crushed. (Bedrock)

Sample Numbers: TP100-~~1~~ 2.5 ~~@ 2.5~~. (Cal-med), TP100-~~2~~ 4.5 ~~@~~ (shelby 24" drive)
40/12" 18" drive

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

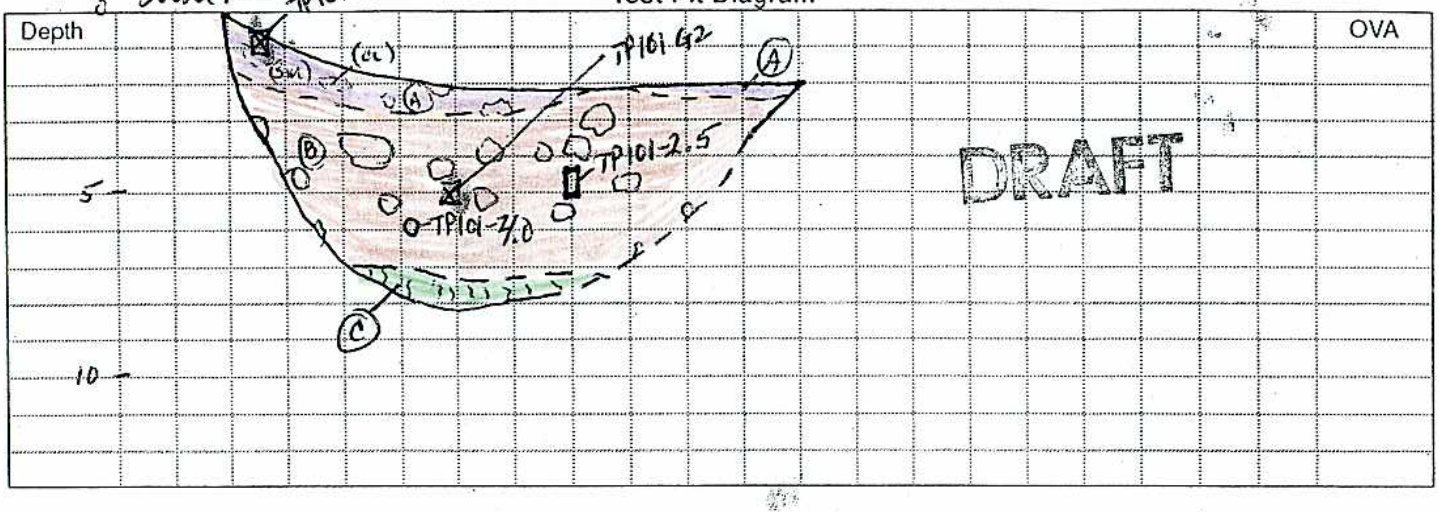


Orientation: E-W

Field Conditions: Rain, cloudy, calm

TEST PIT LOG	
Test Pit #:	BBDA1ATP101
Project Name:	Baker Beach Creek Inv.
Project #:	57255.
Proj. Mgr.:	M. Jacobitz
Started - Date:	4/6/05
Time:	8:45
Backfilled - Date:	4/6/05
Time:	10:00
Logged by:	W. Godwin
Edited by:	

Test Pit Diagram



Test Pit Descriptions

Description:

(A) medium to mottled grey w/ brown SILTY SAND (SM), med dense, damp, with clods of yellowish brown clay; abundant roots deeply within serpentinite cobbles (Fill) contains asphalt fragments

(B) medium grey SILTY SAND to SAND w/ silt (SP-SM), med. dense, uniformly fine grained, abundant serpentinite bldrs to cobbles. Contains asphalt clods to 3" ø, ~~10% by volume~~ (~~Fill?~~) 30% by vol (6"–3' ø) v. minor consistency of dense sand (Colma?)

(C) Serpentinite, hard, weak to friable, crushed, slightly wthd. fracture surfaces w/ clay coatings.

Sample Numbers: TP101-2.5 Mod-cal (45 blows/4"); TP101-7.0 sampled in sidewall (pushed)

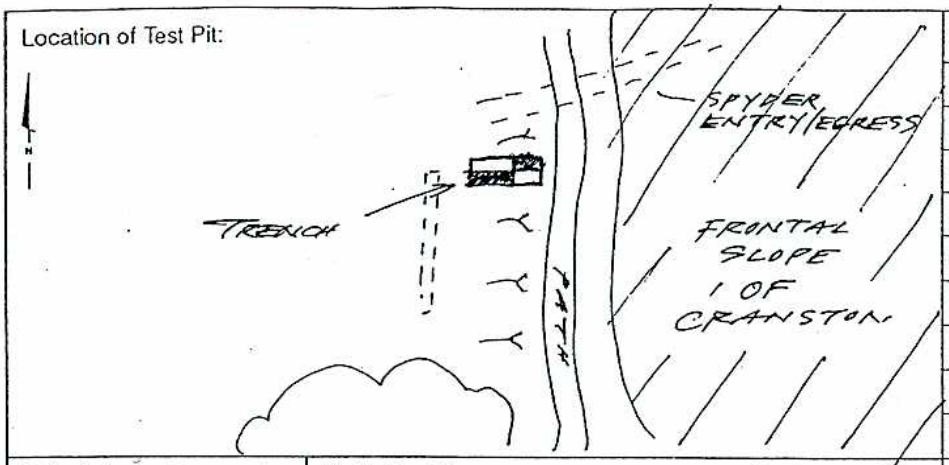
☒ Grab samples - G1 roofing matl.; G-2 sand. (Environmental)

Additional Information:

HARDING LAWSON ASSOCIATES

BBIATP102

Location of Test Pit:



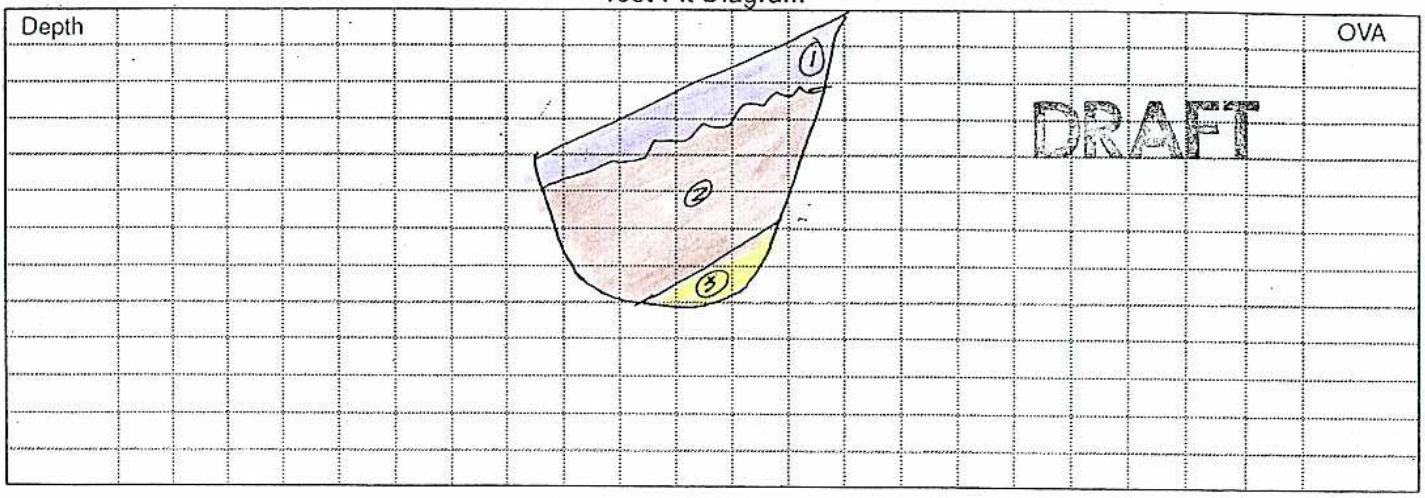
TEST PIT LOG	
Test Pit #:	BBIATP100-C
Project Name:	PRES. SF - BBDA
Project #:	57256.005113
Proj. Mgr.:	M A JACOBYITZ
Started - Date:	4/7/05
Time:	1215
Backfilled - Date:	4/7/05
Time:	1235
Logged by:	A K HENKE
Edited by:	

Orientation: E – W

Field Conditions: OVERCAST. SPRINKLES

Test Pit Diagram

W E



Test Pit Descriptions

Description: (1) CHUNKS OF TAR/SAND MIX. VERY LITTLE TO NO SOIL

(2) VERY DARK BROWN SILTY SAND (SM) (10YR 2/2) LOOSE. MOIST. 70% SAND 30% SILT. HAS CHUNKS OF COLMA MIXED IN - FILL.

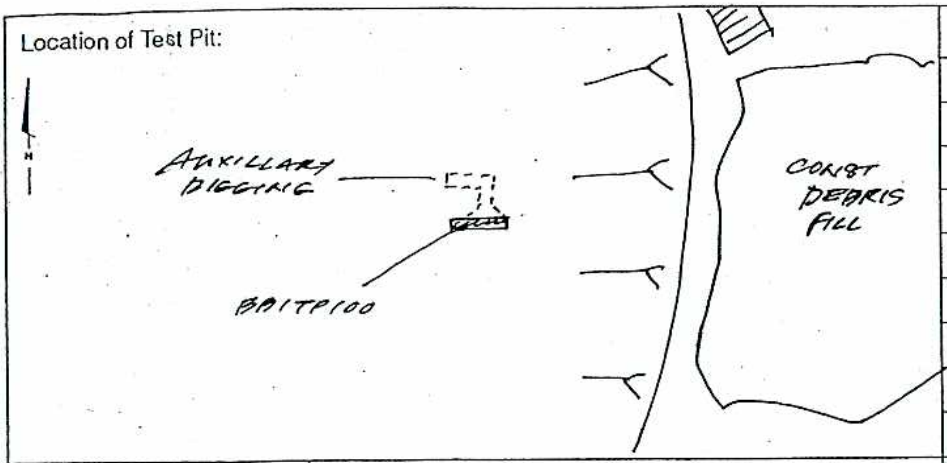
(3) VERY DARK GREYISH BROWN POORLY GRADED SAND (SP) (10YR 3/2) 90% FINE GRAINED GREY SAND. 10% SILT.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBITP100
Project Name:	PRES-SF - BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/11/05
Time:	1350
Backfilled - Date:	4/11/05
Time:	1530
Logged by:	A N HENKE
Edited by:	

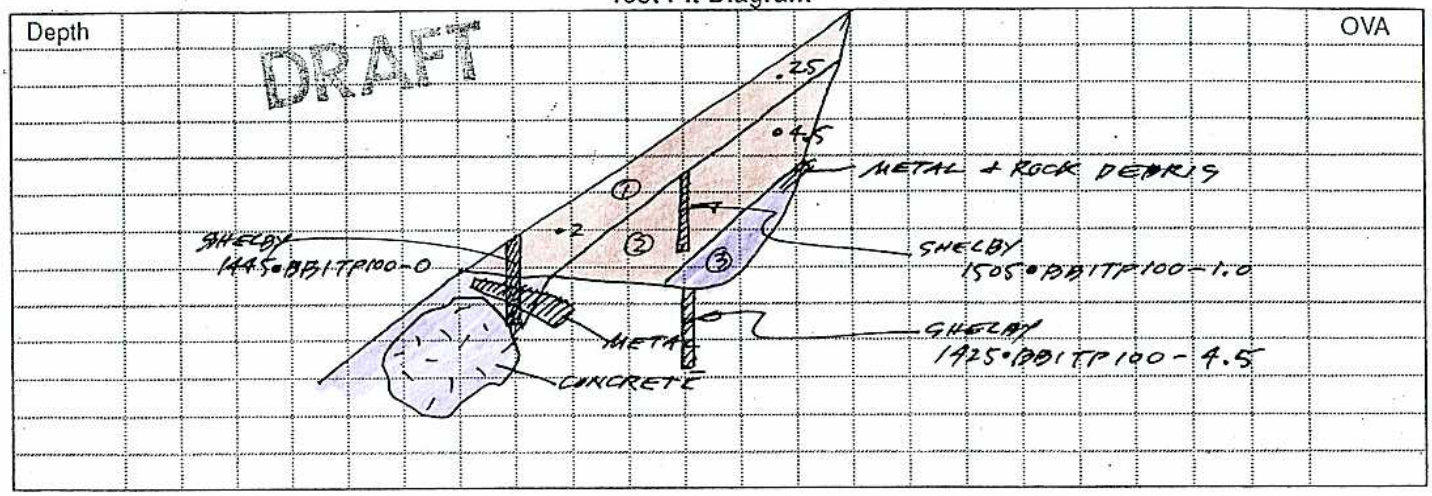
Orientation:

Field Conditions: SUNNY. WINDY.

W

Test Pit Diagram

E



Test Pit Descriptions

Description: ① DARK BROWN FAT CLAY WITH SAND (CH) (10YR 3/3) SOFT. WET 60% CLAY/FINES 20% GRAVEL (INCL. RED CHERT) 20% SAND. LITTLE REFUSE. FILL SOIL

② DARK YELLOWISH BROWN SILTY SAND (SM) (10YR 4/4). LOOSE. WET. 70% FINE SAND 30% SILT/FINES. COLMA FILL.

③ VERY DARK GREYISH BROWN SANDY FAT CLAY (CH) (10YR 3/2) SOFT. WET. 50% CLAY 30% SAND 20% SILT. WITH DEBRIS IN LAYERS. METAL, GLASS, ASPHALT, TAR WOOD, SWEATER/CLOTH FRAGMENTS, SPARK PLUG.

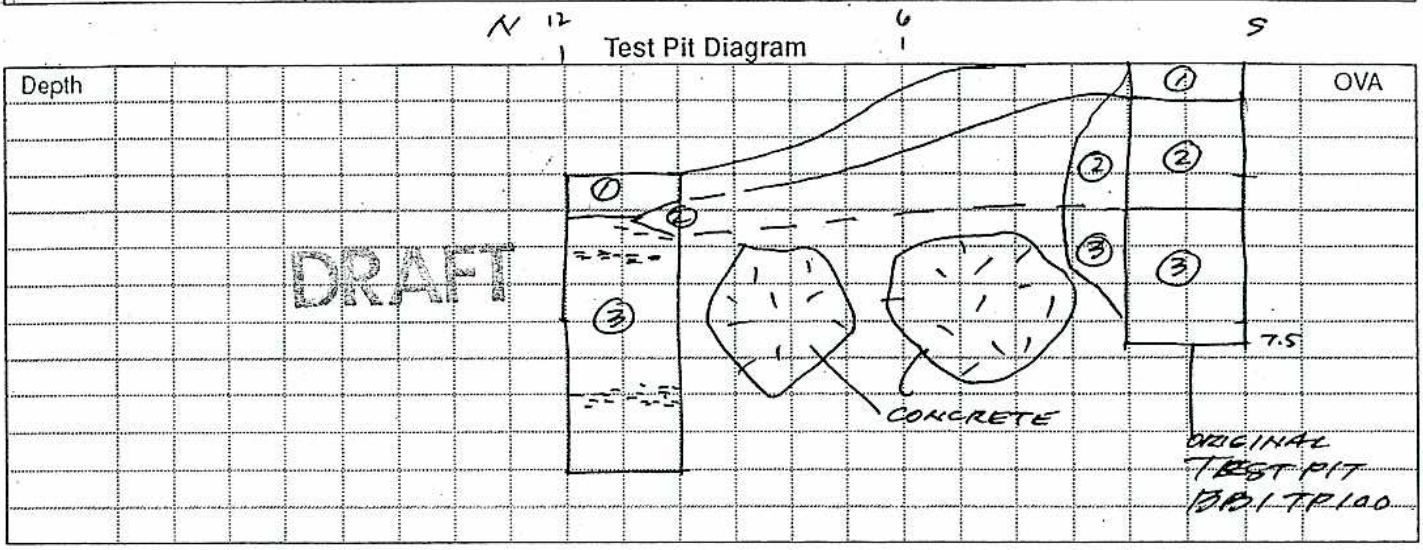
Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:	TEST PIT LOG
N-S VIEW OF BBITP100 SEE X-SECT 1	Test Pit #: BBITP100
	Project Name: PRES-SF - BBDA
	Project #: 57255.005103
	Proj. Mgr.: M A JACOBVITZ
	Started - Date: 4/11/05
	Time: 1350
	Backfilled - Date: 4/11/05
	Time: 1530
	Logged by: A M HENKE
Orientation:	Field Conditions: SUNNY WINDY
	Edited by:

Test Pit Diagram



Test Pit Descriptions

Description: BBITP100 - AUXILARY DIGGING - N-S

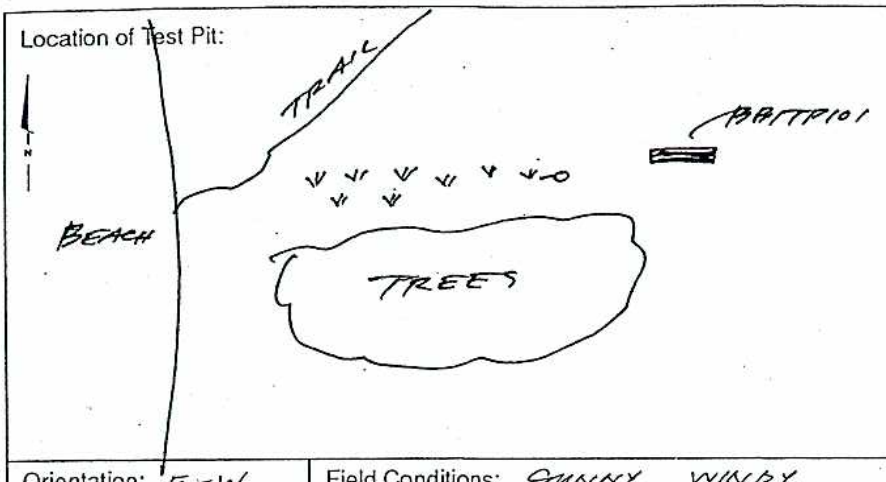
(3) DEBRIS THROUGHOUT. WOOD (SOME BURNED), TEXTILE, GLASS ASPHALT, CONCRETE, RUSTED METAL PARTS, BRICKS.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

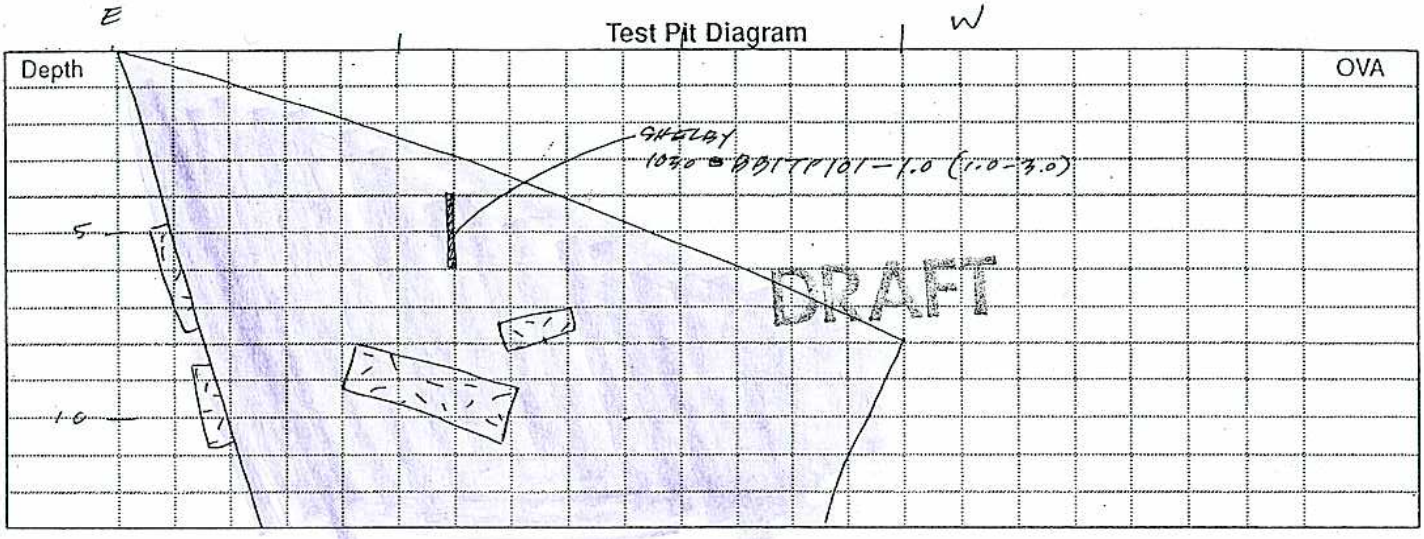


TEST PIT LOG	
Test Pit #:	BBITP101
Project Name:	PRESIDIO SF - BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/12/05
Time:	1020
Backfilled - Date:	4/12/05
Time:	1040
Logged by:	A H HENKE
Edited by:	

Orientation: E-W

Field Conditions: SUNNY WINDY

Test Pit Diagram



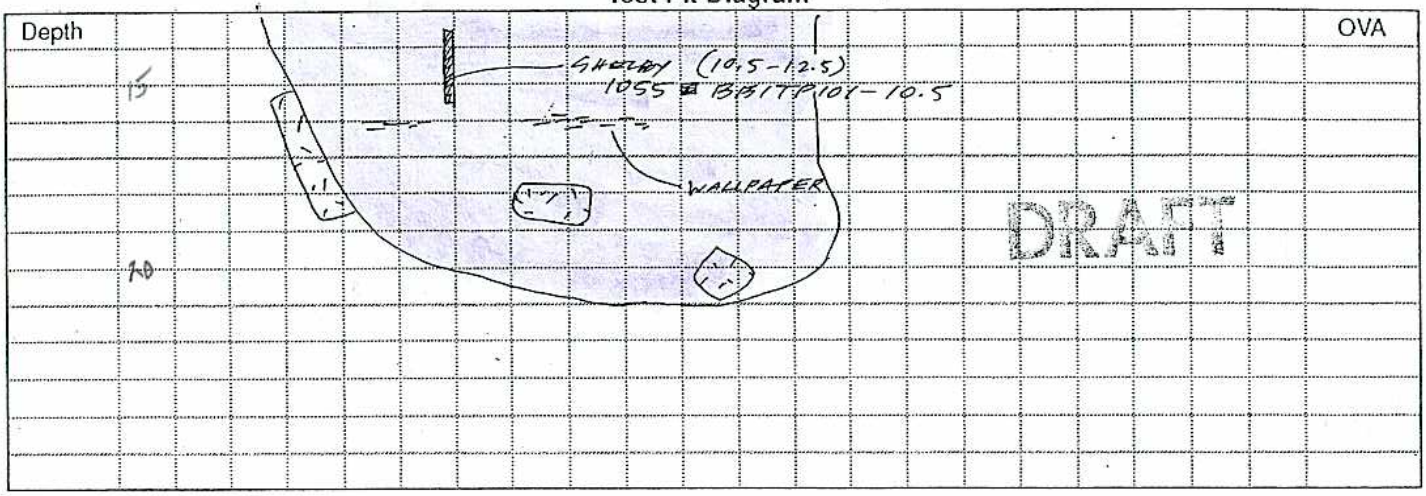
Test Pit Descriptions

Description:	DARK BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 3/3) MEDIUM DENSE MOIST. 60% SAND 30% CLAY/FINES 10% GRAVEL WITH CONCRETE AND SOME BRICK DEBRIS. LAYERS OF COLMA FILL WITHIN MATERIAL ARE SMALL & DISCONTINUOUS.
Sample Numbers:	
Additional Information:	

HARDING LAWSON ASSOCIATES

Location of Test Pit:	TEST PIT LOG
N	Test Pit #: BBITP101
	Project Name: PRES-SF-BBDA
	Project #: 57255 005103
	Proj. Mgr.: M A (JACOBVITZ
	Started - Date: 4/12/05
	Time: 1020
	Backfilled - Date: 4/12/05
CONTINUATION OF BBITP101	Time: 1140
	Logged by: A H HENKE
Orientation: E W / Field Conditions:	Edited by:

Test Pit Diagram

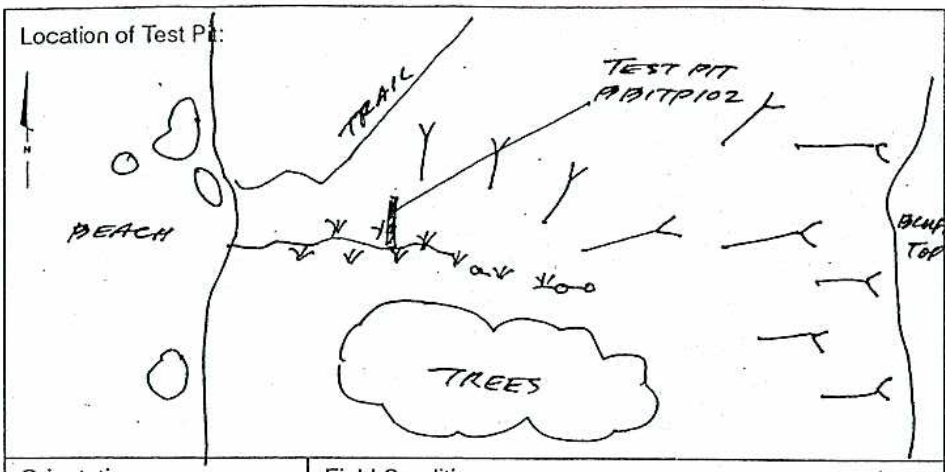


Test Pit Descriptions

Description:
Sample Numbers:
Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

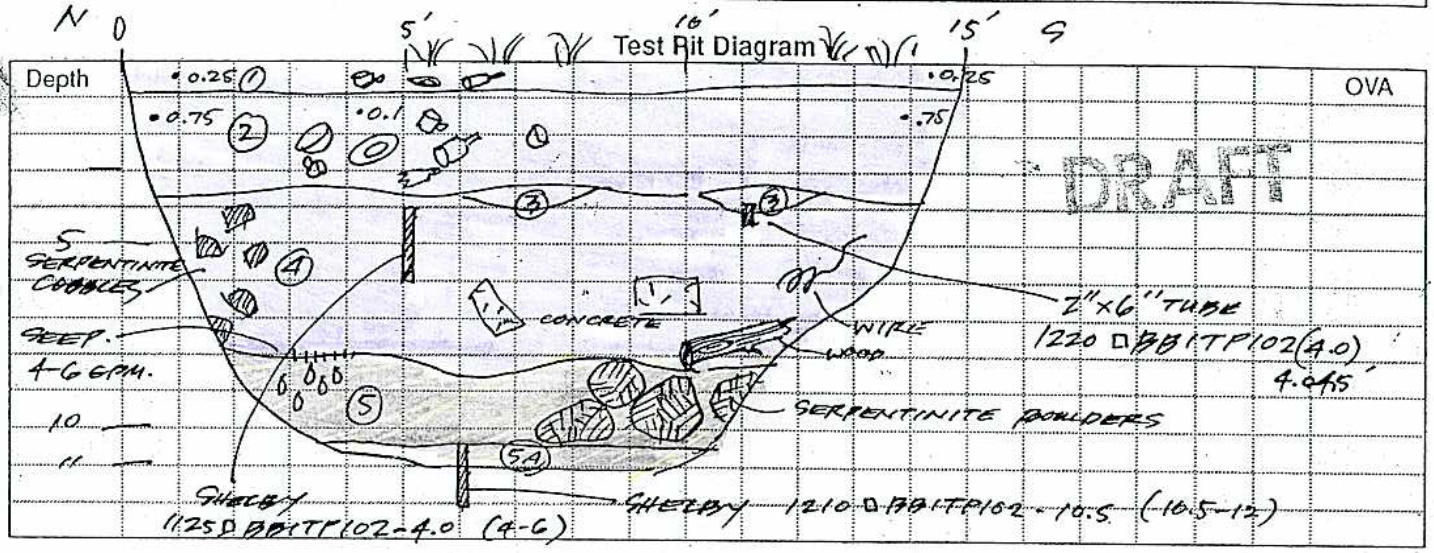


TEST PIT LOG	
Test Pit #:	BBITP102
Project Name:	PRES. SF - BBDA
Project #:	67255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/15/05
Time:	1115
Backfilled - Date:	4/15/05
Time:	1300
Logged by:	A N HENKE
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram

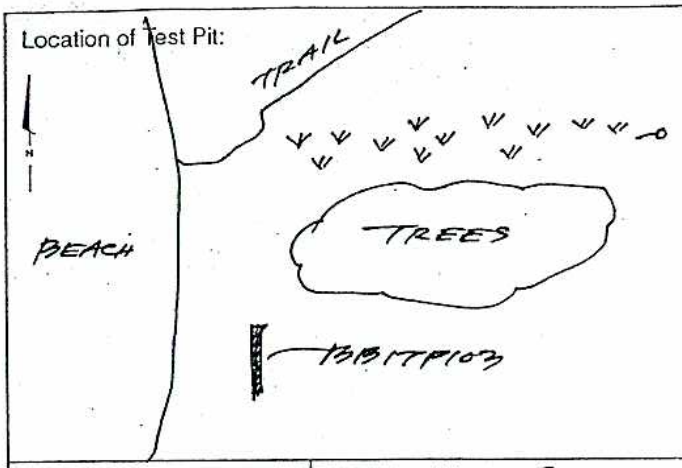


Test Pit Descriptions

Description:	① VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. WET - 60% SILT 40% SAND. REFUSE. MOSTLY HOUSE-HOLD. CHINA, GLASS, BOTTLES. SOME ② DARK GREYISH BROWN GRAVELLY LEAN CLAY (CL) (2.5Y 4/2) SOFT. WET. 60% CLAY/FINES. 30% ANGULAR GRAVEL 10% SAND. SATURATED. FILLED WITH HOUSE HOLD WASTE SOME BLACKENED BONES ③ SOME MELTED BOTTLES ④ VERY DARK GREY CLAYEY GRAVEL (GC) (2.5Y 3/0) LOOSE. WET. 70% GRAVEL/SAND/DEBRIS 30% FINES. ⑤ VERY DARK GREY SERPENTINITE MELANGE ( ) (2.5Y 3/0) MODERATELY CONSOLIDATED. MODERATELY FRACTURED. LOW TO MODERATE HARDNESS. WEAK TO FRIABLE. MODERATE TO DEEP WEATHERING. LOOKS LIKE SATURATED RUBBLE FILL - BUT
Sample Numbers:	NO WATER IS SEEPING FROM IT, SEEPS AT CONTACT WITH FILL ABOVE.
Additional Information:	(5A) AS ABOVE + HOMOGENOUS TEXTURE

HARDING LAWSON ASSOCIATES

Location of Test Pit:

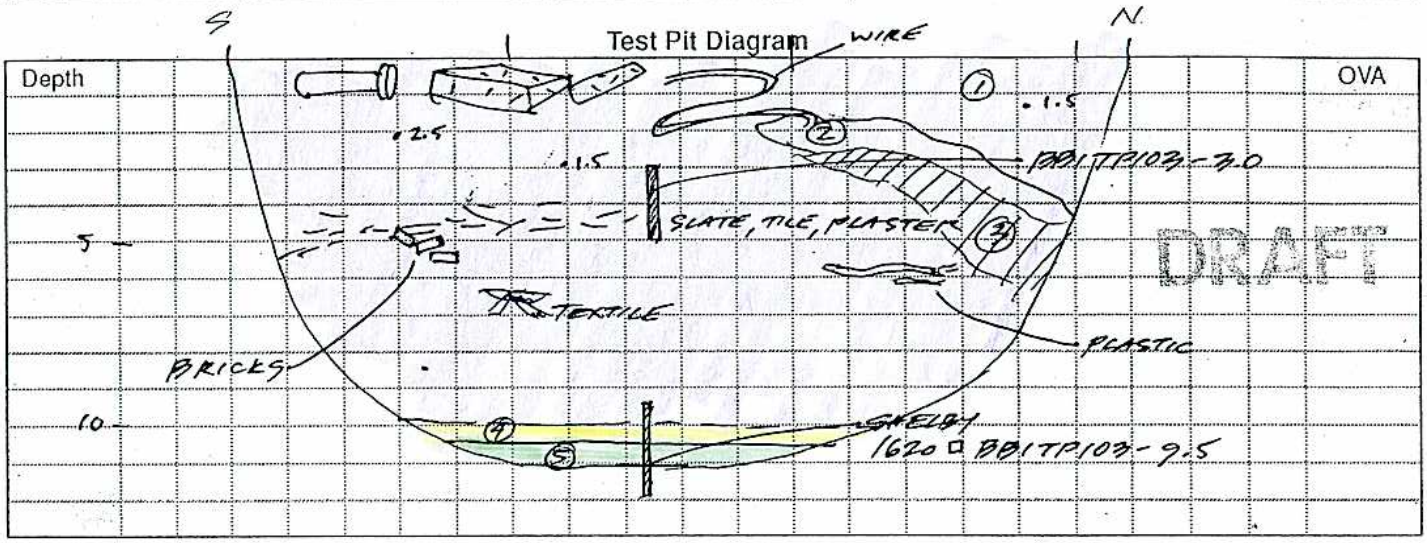


TEST PIT LOG	
Test Pit #:	BBITP103
Project Name:	PRES-SF BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/16/05
Time:	1530
Backfilled - Date:	4/16/05
Time:	1645
Logged by:	A H HENKE
Edited by:	

Orientation: S - N

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description:

(1) VERY DARK BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR) LOOSE TO MEDIUM DENSE. MOIST TO WET. 60% SAND 20% GRAVEL 20% CLAY. CONCRETE, METAL, WIRE.

(2) COLMA FILL

(3) ~~VERY DARK GREYISH BROWN~~ BLACK SANDY CLAY (CH) (10YR 2/1) ~~MED~~ ANA

(4) CLAY SOIL - DERIVED FROM SERPENTINITE OLIVE GREY LEAN CLAY (CL) (5Y 5/2) SOFT. WET. 90% CLAY 10% SERP. SAND/GRAV.

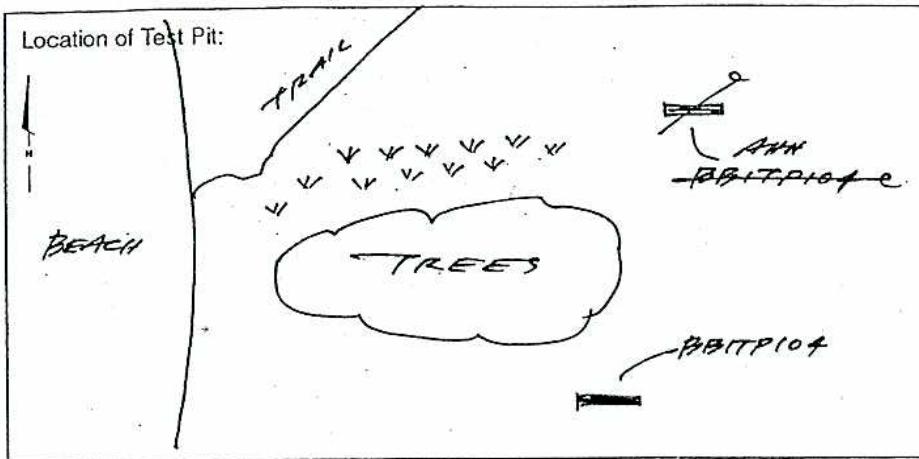
(5) SERPENTINITE GREENISH GREY SERPENTINITE (SP) (5GY5/1) MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW HARDNESS. WEAK. DEEPLY WEATHERED.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

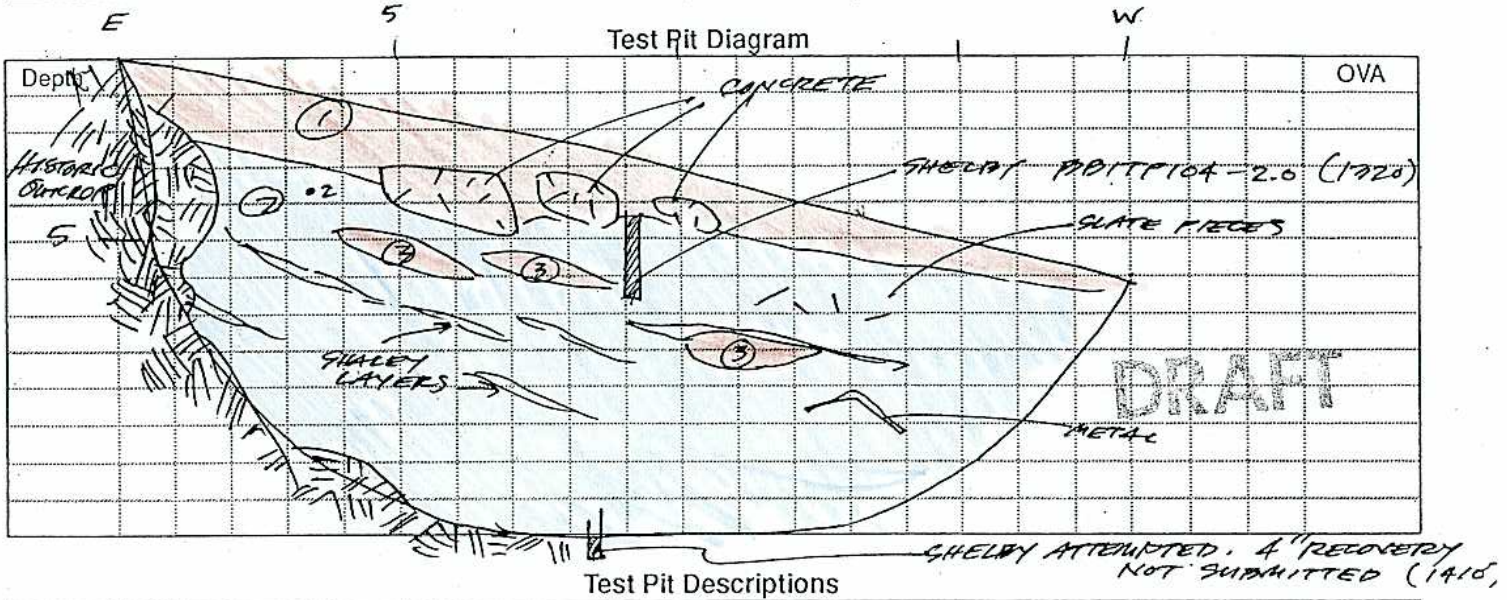


TEST PIT LOG	
Test Pit #:	BBITP104
Project Name:	PRES. SF-BBIDA
Project #:	57255 005103
Proj. Mgr.:	MA JACOBNITZ
Started - Date:	4/12/05
Time:	1315
Backfilled - Date:	4/12/05
Time:	1490
Logged by:	A H HENKE
Edited by:	

Orientation: E-W

Field Conditions: SUNNY . WINDY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN CLAYEY SAND WITH GRAVEL (SC)(10YR3/2) SOFT. WET TO MOIST. · 50% SAND 30% CLAY/FINES 20% GRAVEL

② DARK GREYISH BROWN ~~SANDY~~ WELL-GRADED GRAVEL WITH SAND (GW) ( ) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 70% GRAVEL-COBBLES (GREYWACKE+SHALE) 25% SAND 5% FINES

③ ZONES OF COCHIA-DERIVED FILL

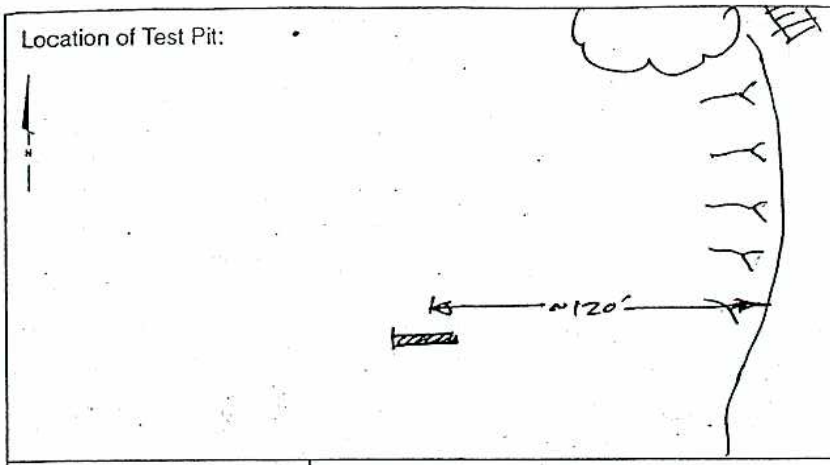
Sample Numbers:

Additional Information:

23366 01723

HARDING LAWSON ASSOCIATES

Location of Test Pit:

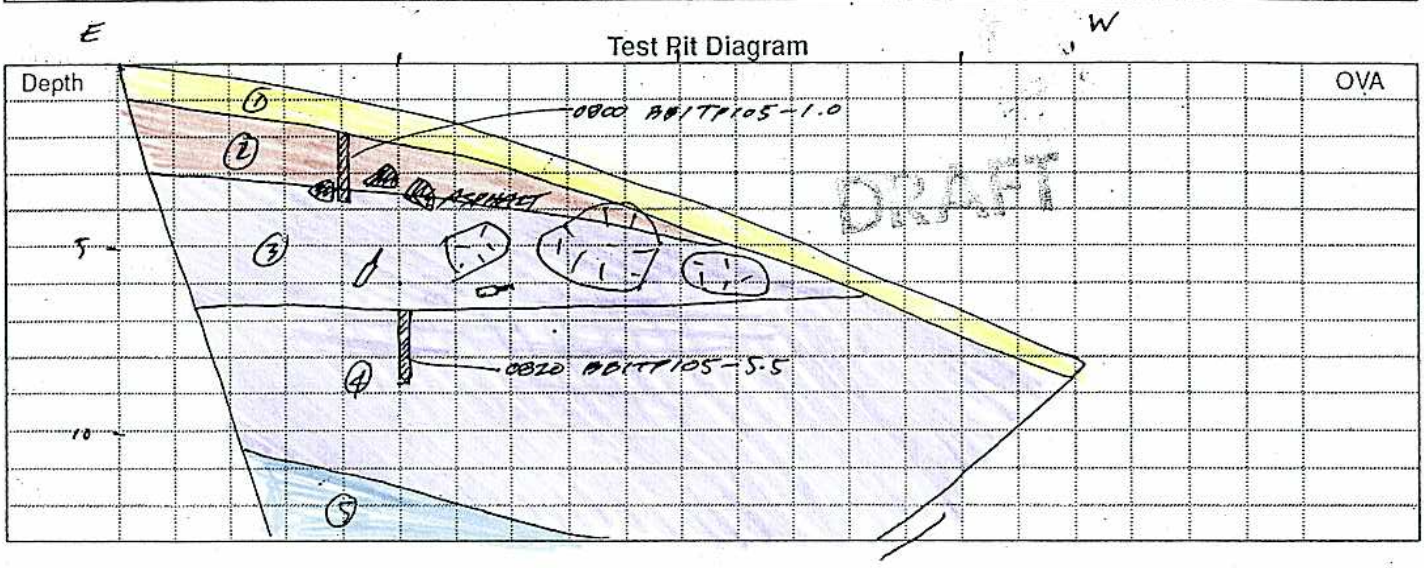


TEST PIT LOG	
Test Pit #:	BBITP105
Project Name:	PRES SF BBDA
Project #:	57255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/12/05
Time:	0750
Backfilled - Date:	4/12/05
Time:	0915
Logged by:	A H HENKE
Edited by:	

Orientation: E – W

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: (1) DK GREYISH BROWN CLAYEY GRAVEL WITH SAND (GC) (10YR3/2) ~~SOFT~~ LOOSE. WET. 60% GRAVEL 30% CLAY 10% SAND. SLOPE WASH.

(2) COLMA FILL WITH DEBRIS. SANDY. - YELLOWISH BROWN SILTY SAND (SM) (10YR5/4) 80% FINE SAND 20% SILT/FINES. FILL W/ DEBRIS

(3) VERY DARK GREYISH BROWN CLAYEY GRAVEL (GC) (10YR3/2) MEDIUM DENSE. MOIST. 60% GRAVEL 30% CLAY 10% SAND. WITH CONCRETE, ASPHALT, GLASS, BRICK, SLATE. GLASS BOTTLES

(4) YELLOWISH BROWN CLAYEY GRAVEL. (GC) (10YR5/4) MEDIUM DENSE MOIST. 50% GRAVEL 30% CLAY 20% SAND. SOME METAL, BRICK, SLATE

(5) SERPENTINITE RUBBLE FILL. LARGE COBBLES - SOME METAL GREYISH BROWN SILTY GRAVEL (GM) (2.5Y5/2) MEDIUM DENSE. MOIST. 60% GRAVEL - COBBLES. 20% SAND 20% SILT.

(6) SERPENTINITE OLIVE GREY SERPENTINITE. (Sp) (5Y5/2) MODERATELY CONSOLIDATED. CLOSELY FRACTURED. LOW HARDNESS WEAK TO MODERATELY STRONG. DEEPLY WEATHERED

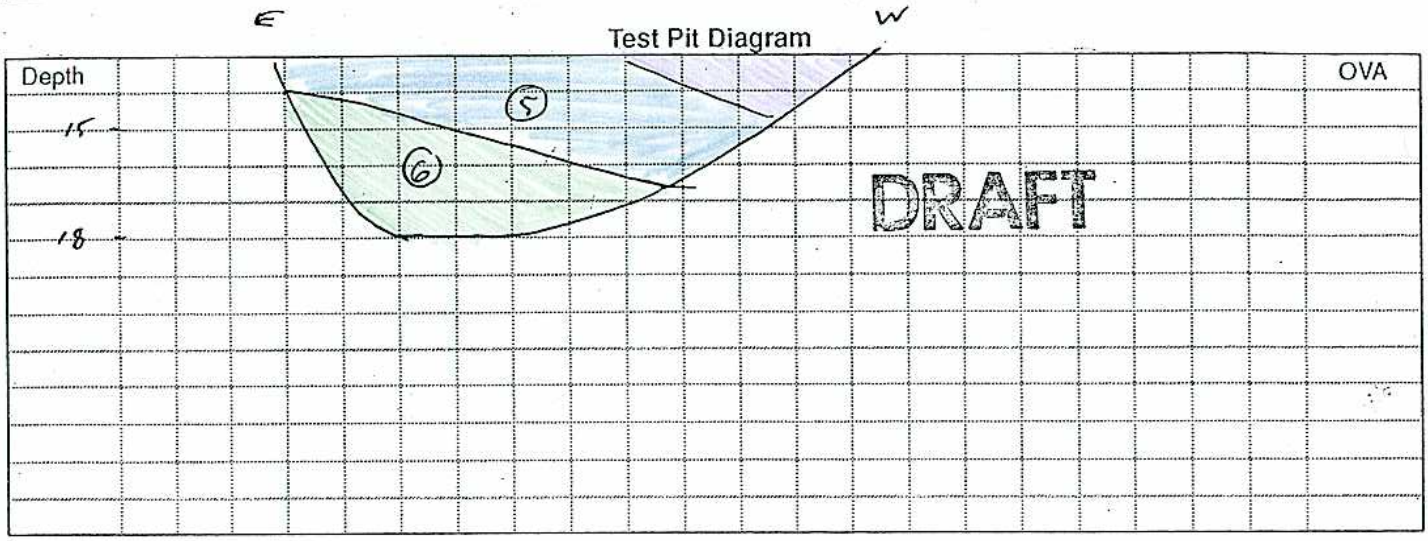
Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:	TEST PIT LOG
N	Test Pit #: BBITP105 PG 2
CONTINUATION OF BBITP105	Project Name:
	Project #:
	Proj. Mgr.:
	Started - Date:
	Time:
	Backfilled - Date:
	Time:
	Logged by:
Orientation: / Field Conditions:	Edited by:

Test Pit Diagram



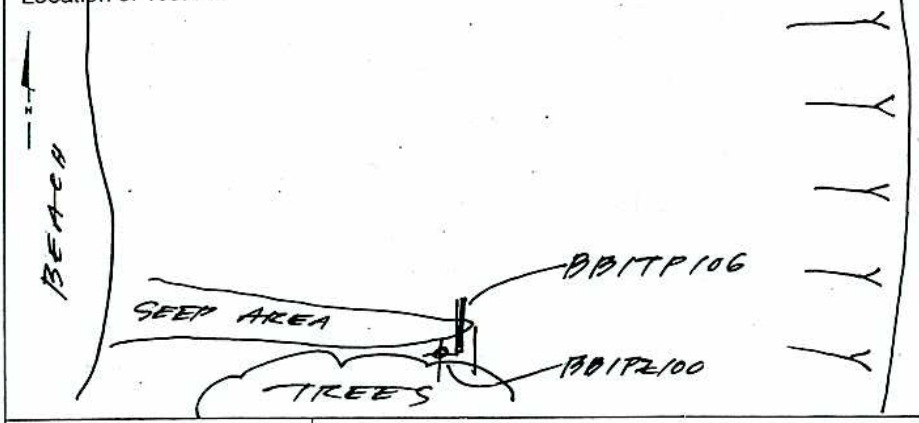
Test Pit Descriptions

Description:
Sample Numbers:
Additional Information:

HARDING LAWSON ASSOCIATES

OUT OF SCOPE - ADJACENT TO PIEZO

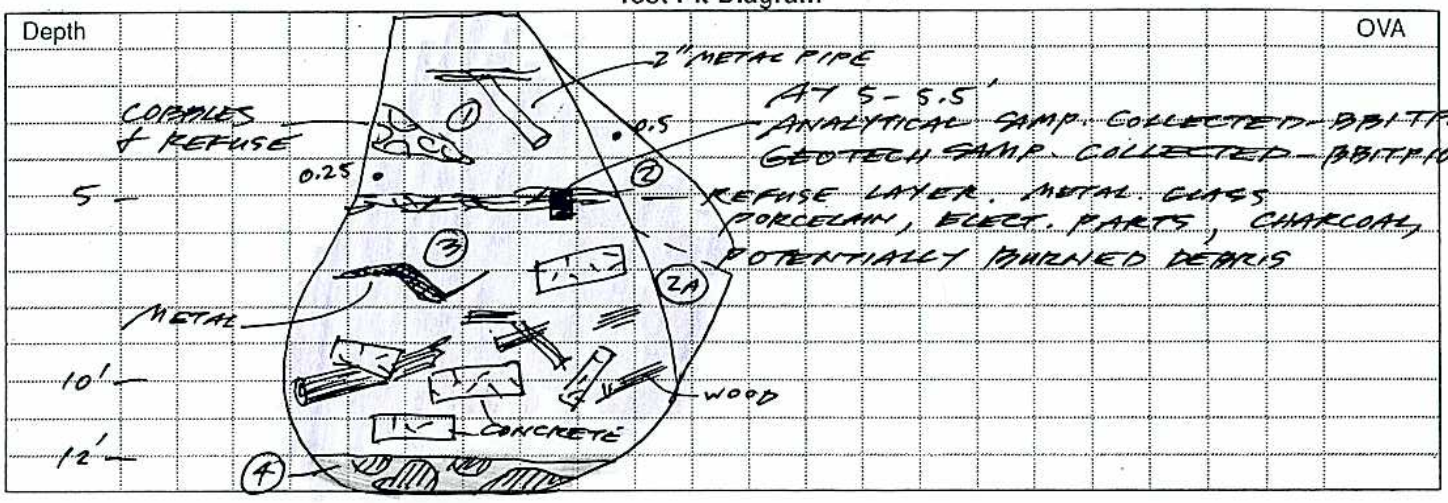
Location of Test Pit:



TEST PIT LOG	
Test Pit #:	BBITP106
Project Name:	PRESIDIO 9F BBDA
Project #:	57255 005103
Proj. Mgr.:	M A JACOBYITZ
Started - Date:	4/19/05
Time:	0830
Backfilled - Date:	4/19/05
Time:	0920
Logged by:	A H HENKE
Edited by:	

Orientation: N-S | Field Conditions: SUNNY, BREEZY

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREYISH BROWN CLAYEY GRAVEL (GC) (10YR 3/2) LOOSE. MOIST TO WET. 60% GRAVEL (ANGULAR) 30% CLAY/FINES 10% SAND. REFUSE IN LAYERS MINOR AMOUNTS OF GLASS SHARDS THROUGHOUT.

② DARK GREYISH BROWN SANDY LEAN CLAY (CL) (10YR 4/2) SOFT. MOIST. 70% CLAY/FINES 30% SAND. LITTLE TO NO REFUSE

(2A) COLOUR & MOISTURE CHANGE OLIVE GREY (5Y 4/2) WET.

③ VERY DARK GREYISH BROWN WELL-GRADED GRAVEL (GW) (10YR 3/2) LOOSE. WET. 70% GRAVEL (ANGULAR SILTSTONE)/ COBBLES (SERPENTINITE)/ CONCRETE CHUNKS.

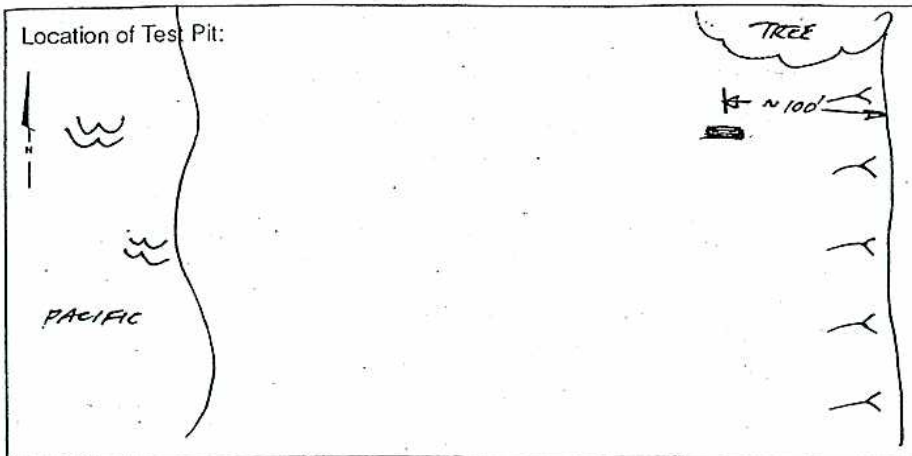
④ MELANGE WITH SERPENTINITE. DARK OLIVE GREY

Sample Numbers: MELANGE (K) (5Y 3/2) WET. MODERATELY CONSOLIDATED INTENSELY FRACTURED. LOW HARDNESS. FRIABLE TO WEAK.

Additional Information: DEEPLY WEATHERED.

HARDING LAWSON ASSOCIATES

Location of Test Pit:

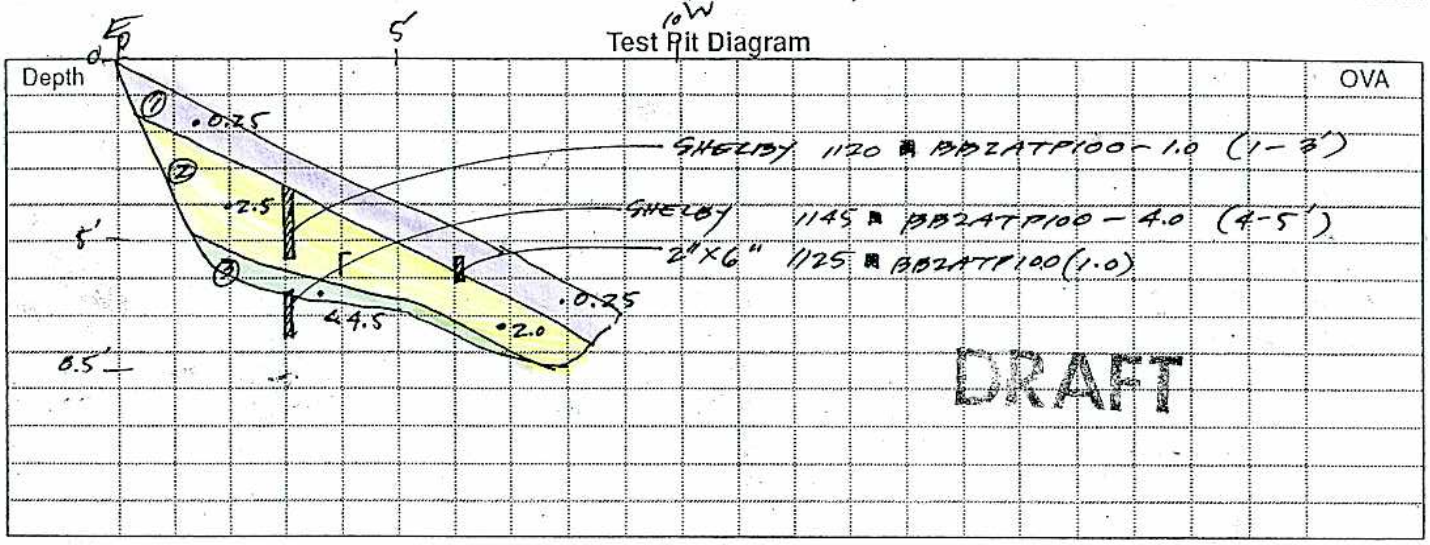


TEST PIT LOG	
Test Pit #: BB2ATP100	
Project Name: PRESIDIO SF	
Project #: 57255.005133	
Proj. Mgr.: M A JACOBVITZ	
Started - Date: 4/14/04	
Time: 1110	
Backfilled - Date: 4/14/04	
Time: 1200	
Logged by: A H HENKE	
Edited by:	

Orientation: E-W

Field Conditions: SUNNY. BREEZY

Test Pit Diagram



Test Pit Descriptions

Description: (1) VERY DARK GREY SANDY SILT (ML) (10YR 3/1) SOFT. MOIST 70% SILT/FINES 30% FINE SAND. HAS DEBRIS: WOOD BROKEN GLASS, METAL. FILL SLATE, TERRA COTTA TILE

(2) COLLUVIUM OLIVE BROWN SANDY LEAN CLAY WITH GRAVEL (CL) (2.5Y 4/3) SOFT TO MEDIUM FIRM. MOIST 60% CLAY 20% SAND 20% CLAY

(3) SERPENTINITE. GREENISH GREY SERPENTINITE (SP) (5G 5/1) INTENSELY FRACTURED. LOW HARDNESS. WEAK, LOCALLY FRIABLE. DEEPLY WEATHERED

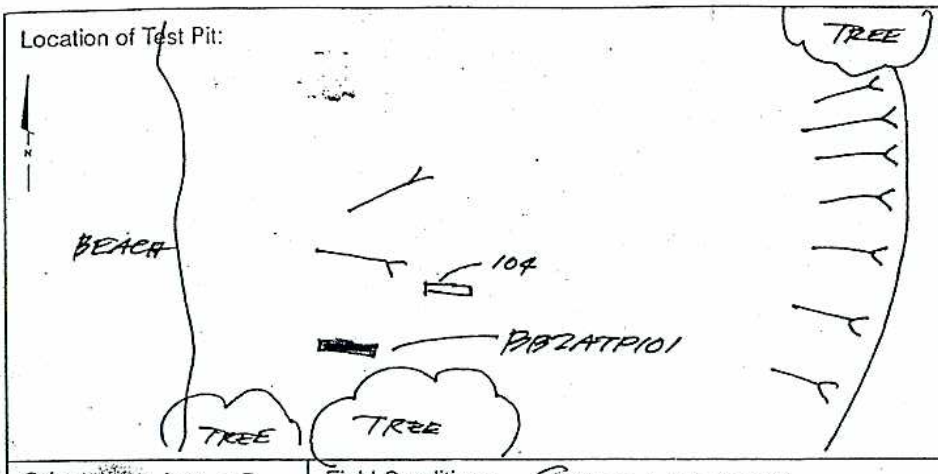
SERPENTINITE MATERIAL IS CLOSE TO THE SURFACE DOWNSLOPE OF TEST PIT. EXCAVATOR WHEEL RUTS TO ~1.5-2' BGS EXPOSE WEATHERED SERPENTINITE.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

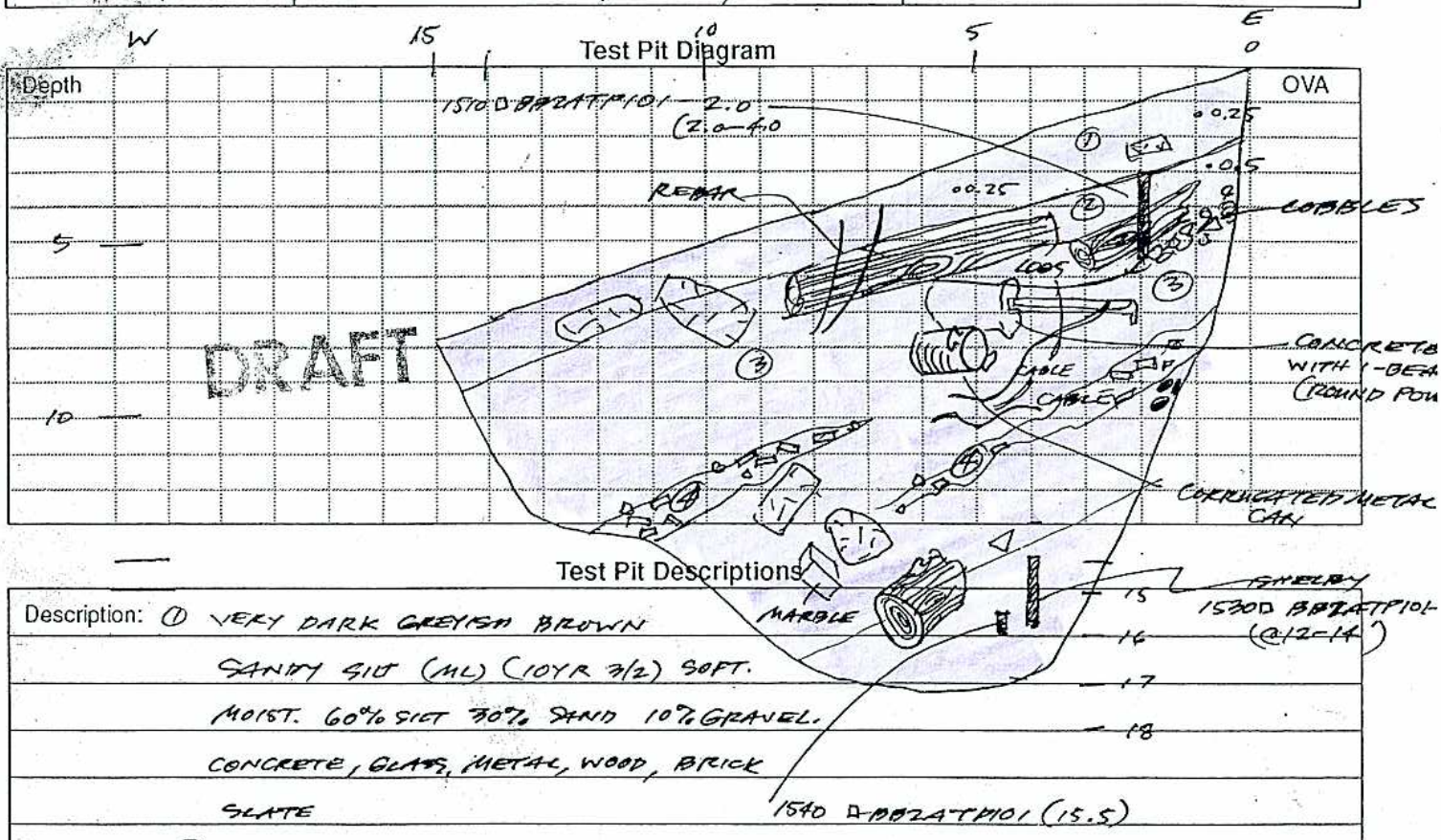


TEST PIT LOG	
Test Pit #:	BB2ATP101
Project Name:	PRES SF - BBDA
Project #:	57255 005133
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/14/05
Time:	1445
Backfilled - Date:	4/14/05
Time:	1610
Logged by:	A H HENKE
Edited by:	

Orientation: W-E

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. MOIST. 60% SILT 30% SAND 10% GRAVEL. CONCRETE, GLASS, METAL, WOOD, BRICK SLATE

② YELLOWISH BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 5/4) LOOSE. MOIST. 40% SAND 40% CLAY/FINES 20% ANGULAR GRAVEL. COBBLE ZONE AT BASE ON EAST END OF TEST PIT

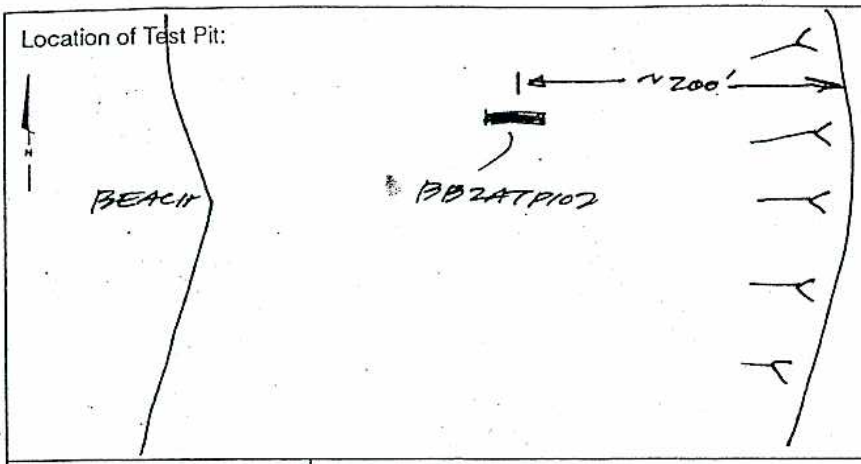
③ VERY DARK GREY GRAVELLY LEAN CLAY (CL) (10YR3/1) SOFT TO MEDIUM FIRM. MOIST TO WET AT BOTTOM. 60% CLAY/FINES 30% GRAVEL 10% SAND. WITH REFUSE. CONCRETE, WOOD, GLASS, BOTTLES. MARBLE

Sample Numbers: ④ BRICK DEBRIS ZONES. AS ABOVE WITH N 40-50% BRICK

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

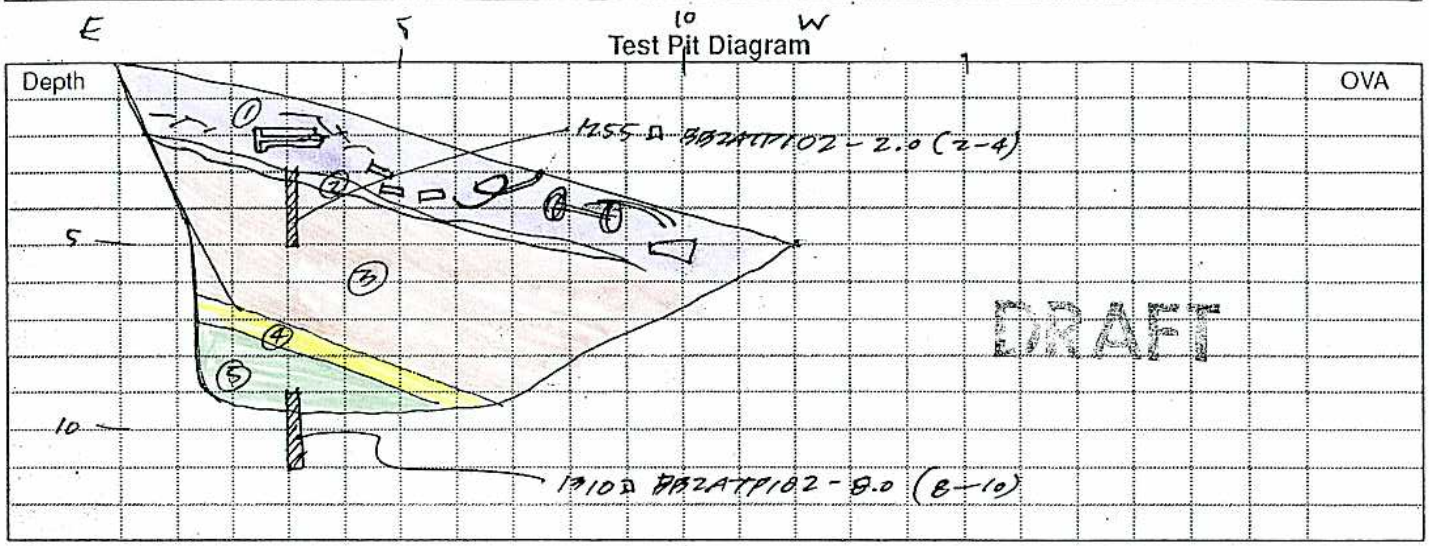


TEST PIT LOG	
Test Pit #:	BB2ATP102
Project Name:	PRES. SF
Project #:	57255.005133
Proj. Mgr.:	MATTACONITZ
Started - Date:	4/14/04
Time:	1230
Backfilled - Date:	4/14/04
Time:	1320
Logged by:	A H HENKE
Edited by:	

Orientation: E-W

Field Conditions: SUNNY BREEZY.

Test Pit Diagram



Test Pit Descriptions

Description: ① VERY DARK GREYISH BROWN SANDY SILT WITH REFUSE. ~~SP~~ (ML) (10YR3/2) SOFT. MOIST. 60% SILT. 30% SAND 10% GRAVEL & REFUSE. SLATE, METAL PARTS (LEAF SPRING, AXLE ASSEMBLY) CABLE, I-BEAM, GLASS, PORCELAIN, CONCRETE, WOOD, CHARCOAL, BRICK

② BRICK LAYER: DARK REDISH BROWN SILTY GRAVEL (GM) (2.5YR3/4) MEDIUM DENSE. MOIST. 70% BRICK FRAGMENT GRAVEL 30% SILT/SAND.

③ LOOSE GRAVEL FILL: LIGHT OLIVE BROWN WELL-GRADED GRAVEL (GW) (2.5Y 5/3) LOOSE TO MEDIUM DENSE. MOIST. 80% SILTSTONE/SHALE GRAVEL - ANGULAR

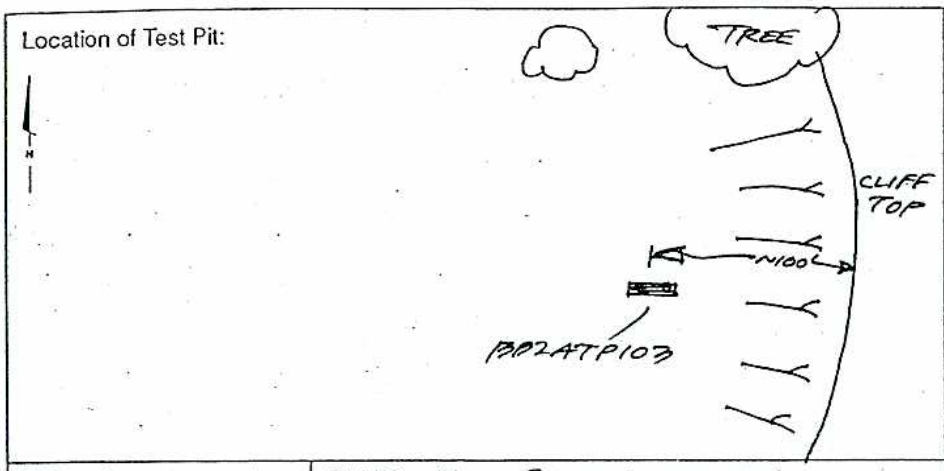
④ SERPENTINITE - DERIVED SOIL. LIGHT OLIVE BROWN LEAN CLAY (CL) (2.5Y 5/3) FIRM. MOIST. 90% CLAY 10% WEATERED GRAVEL

Sample Numbers: ⑤ SERPENTINITE GREENISH GREY SERPENTINITE (SP) (5G 5/1) MODERATELY CONSOLIDATED. INTENISELY FRACTURED. LOW HARDNESS. WEAR TO FRIABLE. DEEPLY WEATHERED

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:



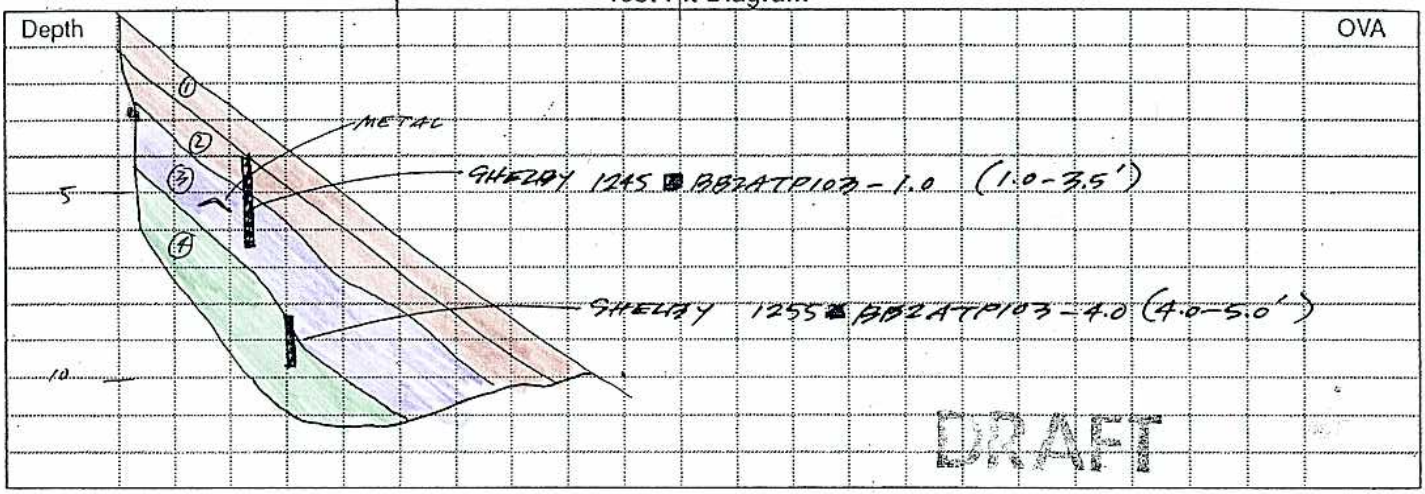
TEST PIT LOG	
Test Pit #:	BB2ATP103
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/13/05
Time:	1155
Backfilled - Date:	4/13/05
Time:	1300
Logged by:	A L HENKE
Edited by:	

Orientation: E - W

Field Conditions: SUNNY. WINDY

E W

Test Pit Diagram



Test Pit Descriptions

Description:

(1) VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. MOIST. 70% SILT 30% SAND OCCASIONAL GRAVEL - INCL. RED CHERT. FILL.

(2) (SERPENTINITE DERIVED SOIL) GREENISH GREY LEAN CLAY (CL) (5GY5/1) MEDIUM FIRM. MOIST. 90% CLAY/FINES 10% SAND. SLOPE WASH FROM OUTCROP ABOVE.

(3) VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) WITH SUB-ROUNDED INCLUSIONS OF DARK YELLOWISH BROWN LEAN CLAY (CL) (10YR 4/4). FIRM. MOIST. 70% SILT 30% SAND. SOME METAL DEBRIS. FILL.

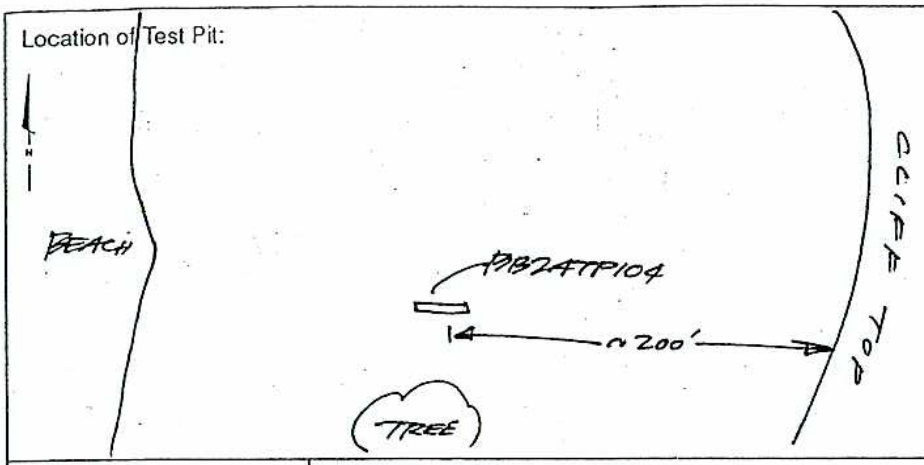
(4) (SERPENTINITE) GREENISH GREY SERPENTINITE (Sp) (5G 5/1) MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW HARDNESS. FRIABLE. DEEPLY WEATHERED.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

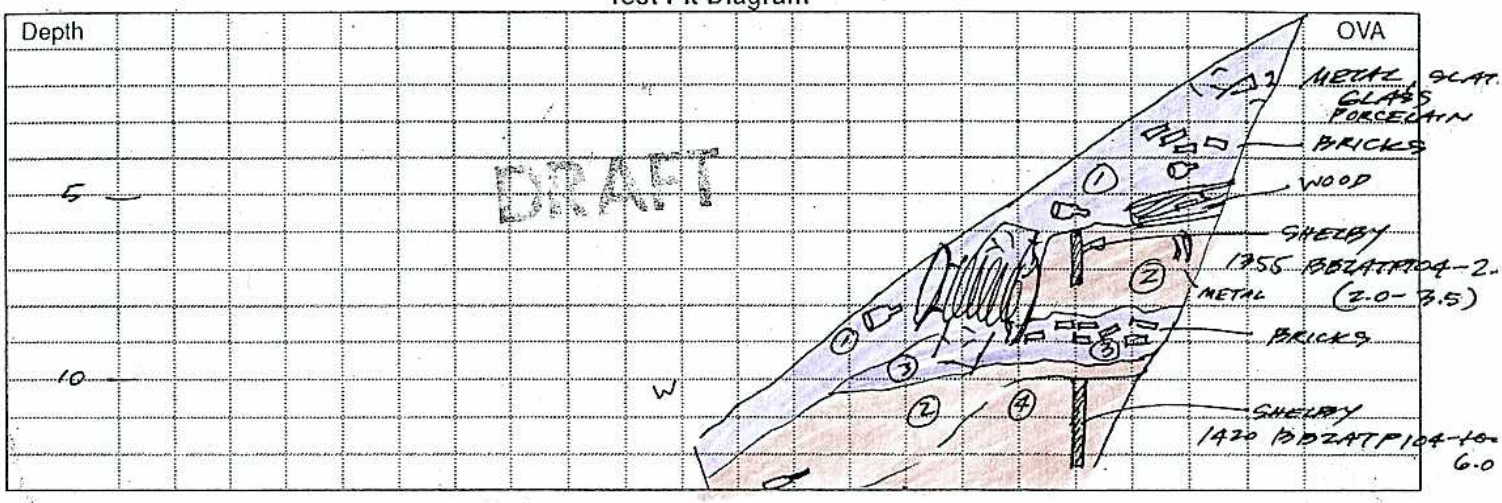


TEST PIT LOG	
Test Pit #:	BB2ATP104
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/13/05
Time:	1335
Backfilled - Date:	4/13/05
Time:	1530
Logged by:	A H HENKE
Edited by:	

Orientation: W - E

Field Conditions: SUNNY WINDY

Test Pit Diagram



Test Pit Descriptions

Description: (1) DARK GREYISH BROWN SILTY SAND WITH GRAVEL (SM) (10YR 4/2) LOOSE. MOIST. 50% SAND 30% SILT 20% GRAVEL. ABUNDANT DEBRIS: CONCRETE, BRICK, WOOD, METAL PARTS, SLATE, GLASS BOTTLES, PORCELAIN PIECES, SHEET METAL.

(2) VERY DARK GREY SANDY LEAN CLAY (CL) (10YR 3/1) FIRM. MOIST. 60% CLAY 40% SAND. SOME WOOD DEBRIS

(3) DARK BROWN SANDY CLAY WITH BRICKS (CL) (10YR 3/3) FIRM MOIST. 50% CLAY 20% SAND 30% RED BRICK, BROKEN UP.

(4) OLIVE BROWN SANDY FAT CLAY (CH) (2.5Y 4/3) SOFT-FIRM. MOIST. 70% CLAY/FINES 30% FINE SAND. TEXTURE IS IRREGULAR WEATHERED CLASTS WITHIN MATRIX, COLOUR VARIATIONS ALONG RELICT GRAIN BOUNDARIES.

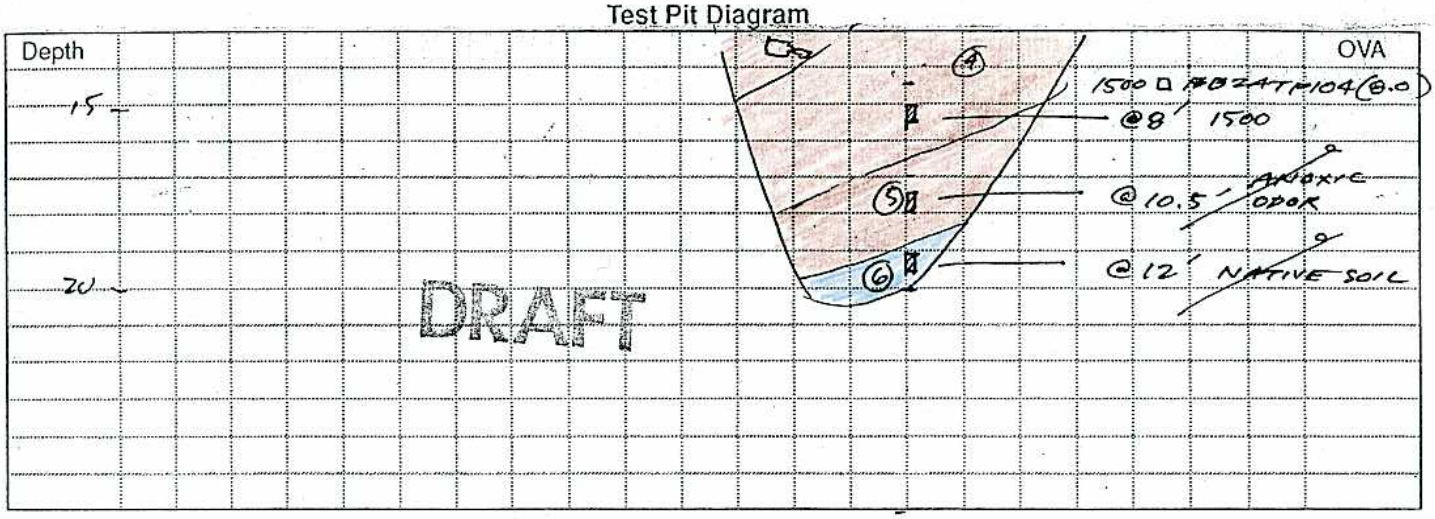
Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:	TEST PIT LOG
	Test Pit #: BD2ATP104 – PG 2
	Project Name:
	Project #:
	Proj. Mgr.:
	Started - Date:
	Time:
	Backfilled - Date:
	Time:
	Logged by:
Orientation: / Field Conditions:	Edited by:

Test Pit Diagram



Test Pit Descriptions

Description: (5) "STAINED" NATIVE (FILL)

VERY DARK GREY (SILTY) FAT CLAY WITH SAND (CH) (5Y 3/1)

SOFT. MOIST TO WET. 50% CLAY 30% SILT 20% VERY FINE SAND

(6) NATIVE SOIL (PERHAPS FILL – BASED ON OBSERVATION AT OTHER LOC

LIGHT YELLOWISH BROWN CLAYEY GRAVEL WITH SAND (GC) (10YR 6/4)

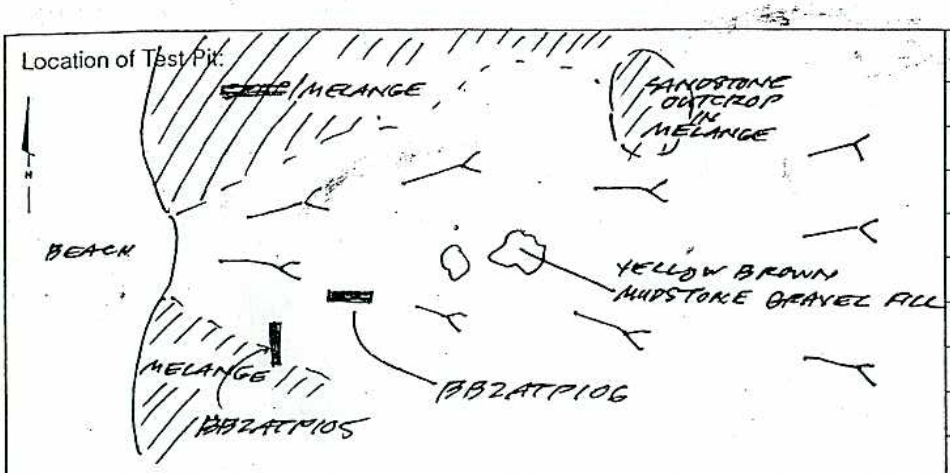
DENSE. WET. 60% FINE ANGULAR GRAVEL (SANDSTONE, SHALE, SERPENTINITE) 20% SAND 20% CLAY.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

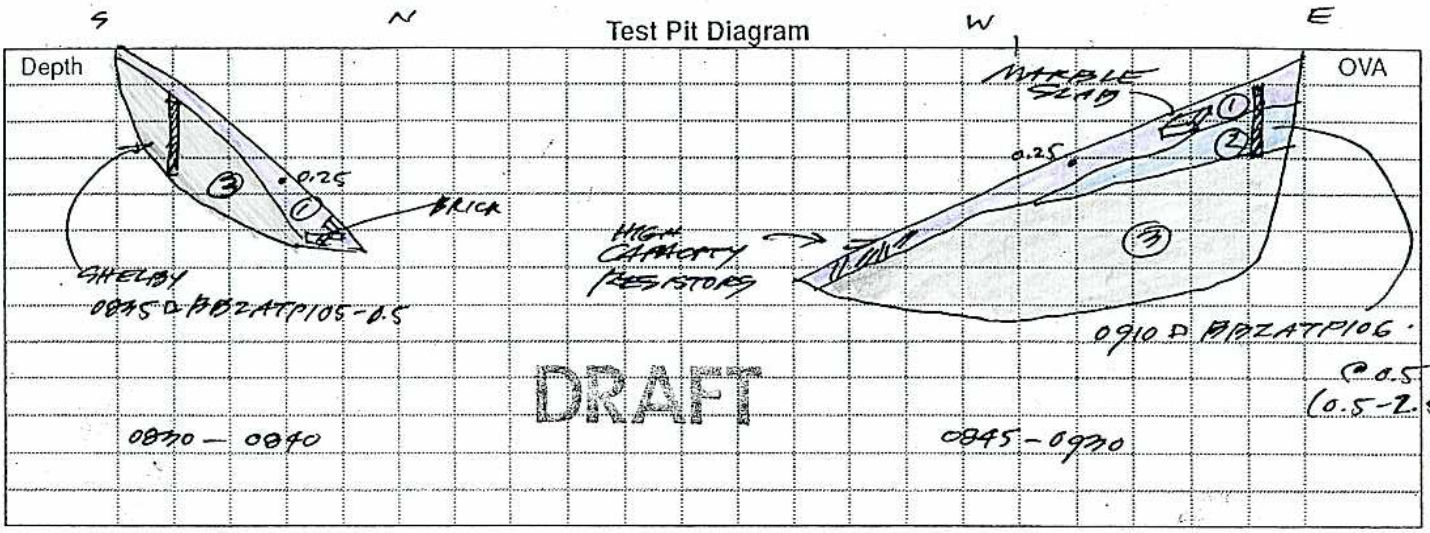


TEST PIT LOG	
Test Pit #:	BBZATP105, 106
Project Name:	PRES. SF - BBDA
Project #:	57255.005133
Proj. Mgr.:	MA JACOBYITZ
Started - Date:	4/15/05
Time:	
Backfilled - Date:	4/15/05
Time:	
Logged by:	A H HENKE
Edited by:	

Orientation:

Field Conditions:

Test Pit Diagram



Test Pit Descriptions

Description:

① VERY DARK GREY SANDY SILT (ML) (10YR 3/1) SOFT. MOIST. 60% SILT/FINES. 30% SAND 10% GRAVEL. GLASS BRICK, PIECE OF MARBLE, ELECT. PARTS.

② YELLOWISH BROWN WELL GRADED GRAVEL WITH SAND (GW) (10YR 5/4) LOOSE TO MEDIUM DENSE. MOIST TO WET. 70% ANGULAR MUDSTONE + SERPENTINITE GRAVEL. 20% SAND. 10% FINES. CLEAN FILL

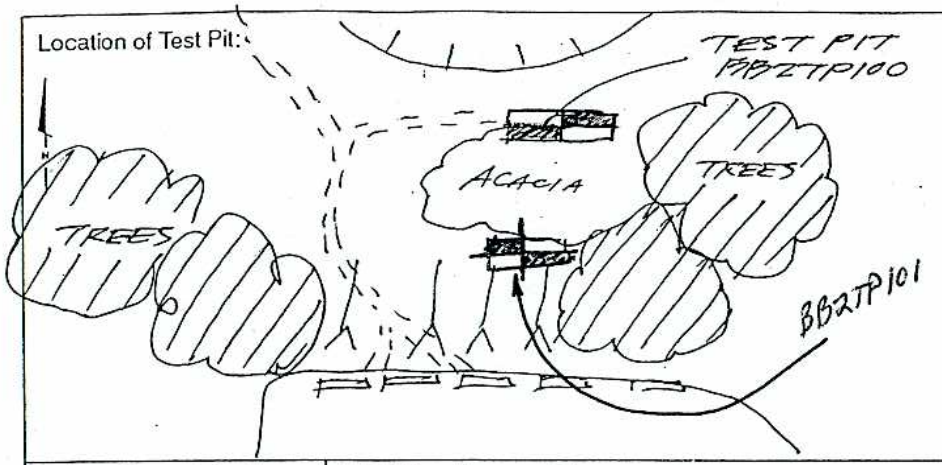
③ MELANGE. BLACK MELANGE (K) (5Y 2.5/1) MODERATELY CONSOLIDATED INTENSELY FRACTURED. LOW HARDNESS. WEAK TO FRIABLE. DEEP WEATHERING. SHEARED IN MULTIPLE ORIENTATION

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:



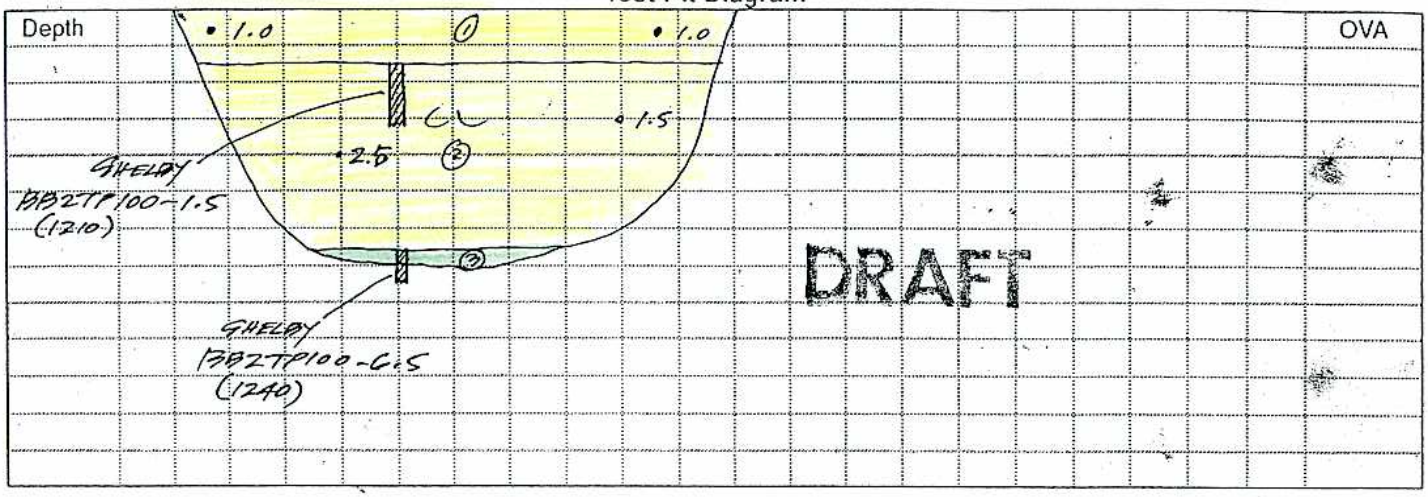
TEST PIT LOG	
Test Pit #:	BB2TP100
Project Name:	PRES-SF-BBDA
Project #:	57255.005123
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/6/05
Time:	1200
Backfilled - Date:	4/6/05
Time:	1410
Logged by:	A H HENIKE
Edited by:	

Orientation: N-S

Field Conditions: SUNNY BREEZY

N S

Test Pit Diagram



Test Pit Descriptions

Description: (1) COLUVIUM TOPSOIL — VERY DARK BROWN CLAYEY SILT (ML)(10YR 2/2) SOFT. WET. 60% SILT 30% CLAY 10% SAND NO VISIBLE REFUSE

(2) COLMA — DARK YELLOWISH BROWN SANDY SILT (ML) (10YR 4/4) SOFT WET. 60% SILT 30% VERY FINE SAND 10% CLAY. SOME OXIDE MOTTLE

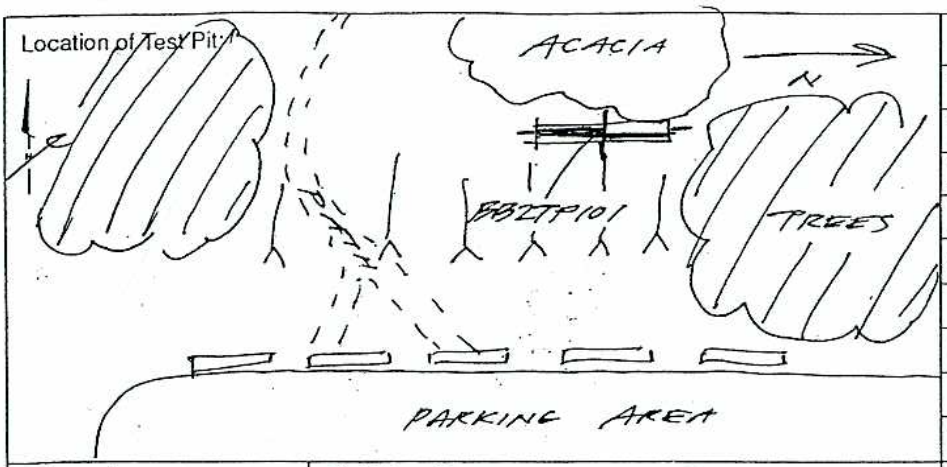
(3) SERPENTINITE — DARK GREY SERPENTINITE (SP)(5Y 4/1) WELL CONSOLIDATED. MODERATELY FRACTURED. LOW HARDNESS. WEAK TO MODERATELY STRONG. MODERATE WEATHERING.

Sample Numbers:

Additional Information:

HARDING LAWSON ASSOCIATES

Location of Test Pit:

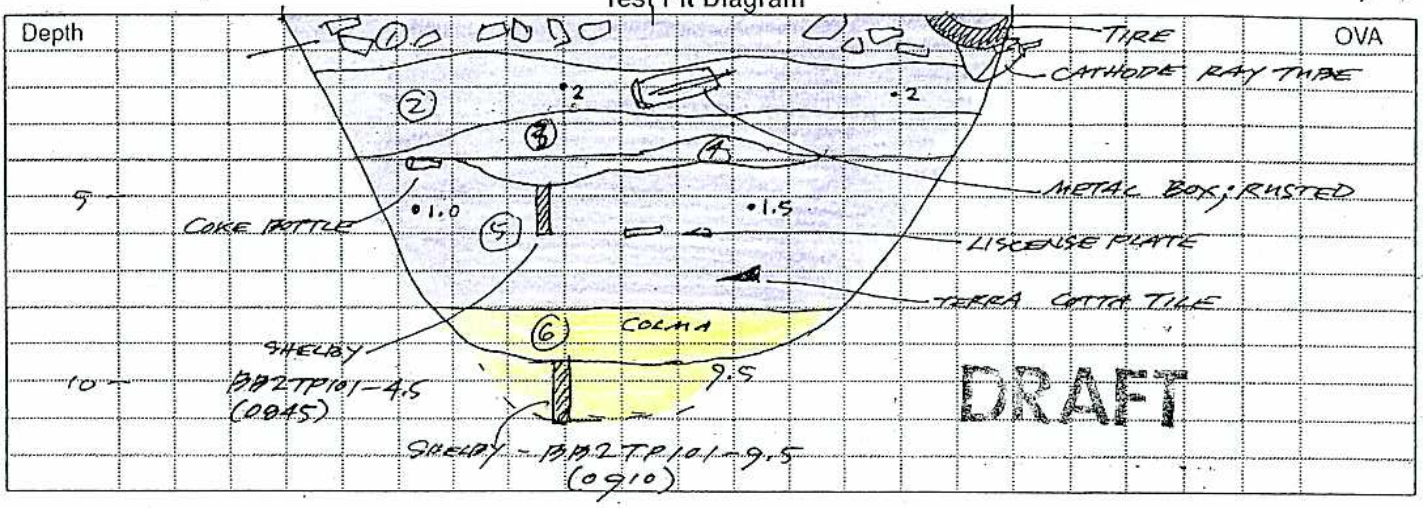


TEST PIT LOG	
Test Pit #:	BB2TP101
Project Name:	PRESIDIO SF BBDA
Project #:	57255.005123
Proj. Mgr.:	M A VACOBVITZ
Started - Date:	4/6/05
Time:	0845
Backfilled - Date:	4/6/05
Time:	1120
Logged by:	A H HENKE
Edited by:	

Orientation: N - S

Field Conditions: SUNNY. CALM

Test Pit Diagram



Test Pit Descriptions

Description: (1) ~~REFUSE~~ WASTE FILL	DARK BROWN CLAYEY GRAVEL/FILL MATERIAL (GC)(10YR 3/3) SOFT. WET. 60% ANGULAR GRAVEL & FILL (CONCRETE, TILE, GRAVEL) 30% CLAY 10% SAND. MOTTLED COLOUR.
(2) COLMA FILL	YELLOWISH BROWN SILTY CLAY. (CH)(10YR 5/4) SOFT. TO MED. DENSE. WET. 70% CLAY 30% SILT. TRACE SAND. PIECES OF COLMA IN DK. MATRIX W/ DEBRIS
(3) ~~FILL/REFUSE~~ WASTE FILL	BLACK SILTY SAND WITH REFUSE (SM)(10YR 2/1) LOOSE. MOIST. 50% REFUSE (GLASS, CHARCOAL) 30% SAND 20% SILT.
(4) SANDY SOIL	VERY DARK BROWN WELL-GRADED SAND (SW)(10YR 2/2) LOOSE. MOIST. LOOKS LIKE BEACH SAND.
(5) CLAY	VERY DARK BROWN SILTY CLAY (CH)(10YR 2/2) SOFT. WET. MASSIVE WITH SCATTERED REFUSE. 70% CLAY 30% SILT
Sample Numbers (6) COLMA	DARK YELLOWISH BROWN SANDY SILT (ML)(10YR 4/4) 60% SILT 40% VERY FINE SAND SOME OXIDE MOTTLE
Additional Information:	LOOKS DISTURBED.

MACTEC

May 24, 2005

57255 005105

Mr. Robert Boggs
California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Baker Beach Geotechnical Investigation Debris Stability Data Package No. 2

Dear Mr. Boggs:

On behalf of the Presidio Trust, enclosed please find for your review a data package from our ongoing Baker Beach geotechnical program, which constitutes our second geotechnical sample testing and first analytical sample testing submittal. Also included is the updated table showing environmental samples collected. The documents included in this transmittal are draft, and will be included in final form in the report. The report will be signed and stamped by a registered engineer. These samples were obtained from test trenches, borings, and hand augers as part of the Battery and Equipment Stability evaluation. The data package includes:

- Updated tables (2a-2i) that show both proposed samples and testing (Table 2 of the most recent Field Sampling Plan) and the samples collected to date and submitted for geotech analysis;
- Preliminary test boring and cultural resource trench logs (including showing where the samples were collected); and
- Table that shows analytical samples collected to date and submitted for analysis.

Jim French, geotechnical engineer, and Anna Henke, geologist, reviewed the draft test pit logs and the samples, and assigned the geotechnical index and strength tests based on sample interval, sample recovery and condition and soil type. All samples intended for geotechnical testing were taken with thin-wall Shelby tubes unless noted on the table.

Gary Lieberman, geologist, and Ms. Henke reviewed samples taken from cultural resource trenches and other locations.

The tables and testing program are preliminary and may be revised as additional information is developed. Additional undisturbed samples will be obtained from the remaining soil borings and submitted for geotechnical and environmental laboratory analysis as part of the limited access drill rig evaluations in May.

MACTEC Engineering and Consulting
5341 Old Redwood Highway, Suite 300 • Petaluma, CA 94954
707-793-3800 • Fax: 707-793-3900

Please contact Jim French (510) 628-3234, Gary Lieberman (707) 793-3858, or Bill Godwin (707) 793-3841 if you have any questions.

Yours very truly,

MACTEC Engineering and Consulting, Inc.

Michael Jacobvitz
Senior Principal Hydrogeologist

BG/MAJ/mlb:MB61219-F.doc-POSF

Enclosures Tables
Field Test Boring Logs
Cultural Resource Trench Logs

Cc: Mr. George Ford, The Presidio Trust
Mr. Ram Ramanujam, DTSC Sacramento
Brian Ullensvang, NPS

Sample Collection Summary Table - Through 5/13/05
Environmental Field Sampling Plan
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Area	Sample Location	Station Identification	Matrix	Sample Identification [b]	Depth		Test Method	General Water Quality Parameters	TPHg 8015M	VOCs 8260B	TPHd, TPHmo 8015M w/silica gel	PAHs 8270SIM	Title 22 Metals 6010/6020-7000	Organochlorine Pesticides 8081A	PCBs 8082	Dioxins and Furans 8290	Percent Moisture
							Water Containers	0.5LPl	3 x 40 mL VOA	3 x 40 mL VOA	2 x 1L Gl	2 x 1L Gl	0.5L Pl; Nitric Acid	2 x 1L Gl	2 x 1L Gl	2 x 1L Gl	NA
							Soil Containers	NA	3 Encr	3 Encr	Stainless Steel Tube						
Data Gap 1 - Characterize the presence and concentrations of contaminants in historical fill (earthworks) surrounding historical batteries at the site																	
South of Battery Godfrey	Trench 1	BBD2TP105	soil	BBD2TP105(11.5)	11.5-12	Primary			1	1	1	1	1	1	1		1
		BBD2TP105	soil	BBD2TP105(15)	15-15.5	Primary			1	1	1	1	1	1	1		1
		BBD2TP106*	soil	BBD2TP106(2.0)	2.0-2.5	Primary			1	1	1	1	1	1	1		1
	Trench 2	BBD2TP107*	soil	BBD2TP107(__)		Primary			1		1	1	1	1	1		X
	Trench 3	BBD2TP108	soil	BBD2TP108(4.0)	4.0-4.5	Primary			1	1	1	1[c]	1	1			1
		BBD2TP108	soil	BBD2TP108(7.0)	7.0-7.5	Primary			1	1	1	1	1	1			1
		BBD2TP108	soil	BBD2TP108(10.0)	10.0-10.5	Primary			1	1	1	1[c]	1	1			1
Between Batteries Godfrey and Marcus Miller	Trench 4	BB1TP106*	soil	BB1TP106(__)		Primary			1		1		1				X
		BB1TP107*	soil	BB1TP107(__)		Primary							1				X
	Trench 5	BB1TP106	soil	BB1TP106(6.0)	6.0-6.5	Primary			1	1	1	1	1	1	1		1
		BB1TP106	soil	BB1TP106(3.5)	3.5-4.0	Primary			1	1	1	1	1	1	1		1
		BB1TP106	soil	BB1TP106(2.5)	2.5-3.0	Primary			1	1	1	1	1	1	1		1
		BB1TP106	soil	DUP(050405)	2.5-3.0	Duplicate			1	1	1	1	1	1	1		1
		BB1TP107	soil	BB1TP107(7.0)	7.0-7.5	Primary							1				1
		BB1TP108	soil	BB1TP108(5.0)	5.0-5.5	Primary			1	1	1	1	1	1	1	1	1
	Trench 6	BB1TP109*	soil	BB1TP109(__)		Primary			1		1	1	1	1	1		X
		BB1TP109*	soil	DUPdate[a]		Duplicate			1		1	1	1	1	1		X
Data Gap 2 - Evaluate the presence and concentrations of contaminants in fill materials on the bluff top																	
Bluff top		BB1SB103*	soil	BB1SB103(__)		Primary						1	1	1	1		X
		BB1SB110	soil	BB1SB110(3.5)	3.5	Primary						1	1	1	1		1
		BBSB101	soil	BB1SB101(0.5)	05-1.0	Primary				1		1	1	1	1		1
		BBSB106	soil	BBSB106(1.0)	1-0-1.5	Primary				1		1	1	1	1		1
		BB2ASB100	soil	BB2ASB100(4.0)	4.0-4.5	Primary						1	1	1	1		1
		BB1SB113	soil	BB1SB113(0.5)	0.5	Primary						1	1		1	1	1
		BB1SB114	soil	BB1SB114(0.5)	0.5	Primary						1	1		1	1	1
Data Gap 3 - Evaluate the presence of ash and the presence and concentrations of contaminants in the vicinity of a former incinerator																	
Former Incinerator	Trench 4**	BB1TP110	soil	BB1TP110(__)		Primary						1	1			X[c]	1
		BB1TP111	soil	BB1TP111(__)		Primary						1	1			X[c]	1
Data Gap 4 - Characterize the extent of contamination in the southeast portion of BBDA 2																	
BBDA 2	South of BBSB08	BB2SB102	soil	BB2SB102(0.0)	0.0	Primary						1	1	1			1
		BB2SB102	soil	BB2SB102(2.0)	2.0	Primary						1	1	1			1

Sample Collection Summary Table - Through 5/13/05
Environmental Field Sampling Plan
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Data Gap 5 - Evaluate the presence and concentrations of contaminants in the vicinity of the former salvage/recycling yard south of Battery Godfrey

Former salvage recycling yard	South of Battery Godfrey	BBSB108	soil	BBSB108(0.0)	0.0	Primary			1	1	1	1	1		1		1
		BBSB108	soil	BBSB108(2.0)	2.0	Primary			1	1	1	1	1		1		1
		BBSB109	soil	BBSB109(0.0)	0.0	Primary			1	1	1	1	1		1		1
		BBSB109	soil	BBSB109(2.0)	2.0	Primary			1	1	1	1	1		1		1
		BBSB109	soil	DUP(050512)	0.0	Duplicate			1	1	1	1	1		1		1

Data Gap 6 - Verify that concentrations of contaminants in the seep water are still at levels protective of human health and ecological receptors

BBDA 1	Seep Area	BB1PZ101	surface water	BB1GW101		Primary		1	1	1	1	1	X[d]	1	1		
		Debris Flow		Debris Flow(0.5)	0.5												1

Data Gap 7 - The presence of contaminated soil from waste debris that has fallen to the beach has not been evaluated.

BBDA 1	Beach Area	BB1SB110***	soil	BB1SB110(__)		Primary			1	1	1	1	1		1		1
		BB1SB113	soil	BB1SB113(0.5)	0.5	Primary						1	1		1	1	1
		BB1SB114	soil	BB1SB114(0.5)	0.5	Primary						1	1		1	1	1
		BB1SB111***	soil	BB1SB111(__)		Primary			1	1	1	1	1		1		1
BBDA 2A	Beach Area	BB2ASB112	soil	BB2ASB112(0.5)	0.5	Primary			1	1	1	1	1		1		1

Test Pit Samples - Not Originally Scoped

BBDA 1	Beach Area	BB1TP106	soil	BB1TP106(5.0)	5.0	Primary			1	1	1	1	1		1	1	1
BBDA 1A	Beach Area	BB1ATP101	soil	BB1ATP101(G1)	roofing material	Primary			1	1	1	1	1		1		1
		BB1ATP101	soil	BB1ATP101(G2)	3.0	Primary			1	1	1	1	1		1		1
BBDA 2A	Beach Area	BB2ATP100	soil	BB2ATP100(1.0)	1.0	Primary			1	1	1	1	1		1		1
		BB2ATP101	soil	BB2ATP101(14.0)	14	Primary			1	1	1	1	1		1		1
		BB2ATP102	soil	BB2ATP102(4.0)	4.0	Primary			1	1	1	1	1		1	1	1
		BB2ATP104	soil	BB2ATP104(8.0)	8.0	Primary			1	1	1	1	1		1		1
Stockpile from archeological trenches			soil	SOILCOMP					1	1	1	1	1		1	1	1

[a] Sample ID will be date that duplicate sample is collected

[b] Depth as well as precise sample location will be determined in the field on the basis of the presence of observed historical fill material

[c] Samples analyzed for dioxins and furans if ash is found and sampled

[d] Both filtered (dissolved metals) and unfiltered (total metals) samples will be collected and analyzed.

[e] Extract only - hold for analysis

* Waste fill not identified in these borings; therefore, samples were not collected.

** For Trench 4 (Data Gap 3) incinerator ash was not observed; therefore, samples were not analyzed for Dioxins / Furans.

*** BB1SB110 and B1SB111 renamed BB1SB113 and B1SB114, respectively.

Piezometer sample to be collected by 5/27/05.

Table 2a: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section A - A'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:			Cohesion						x	x	x	x	x	x	x	x													
			Friction Angle						x	x		x		?	x	x													
			Density						x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
A-A	CLA-1	fill	1.5 to 2.5			x	2			2																			
	CLA-2	fill	1.5 to 2.5			x	2			2																			
	BBSB103	fill	1 to 5.5			x	2	1		3		3																	
	BBSB103	res soil	5.5			x	1			1	1	1																	
	BBSB103	wthtrd rk	6.5 to 15			x		2		2	1	2	1	1															
	BBSB103	rock	15			x	1			1		1																	
	BB1TP101	fill	1 to 5.5		x		3			3							1 to 3	24	12-Apr		1						1		Normal stress 200,400,800psf
	BB1TP101	colluvium	5.5		x		1			1	1	1					10.5 to 12.5	10	12-Apr										
	BB1TP101	wthtrd rk	5.5 to 10		x		1	1	1	2	1	1	1																
	BB1PZ100	fill	2 to 10		x		1			1																			
	BB1PZ100	colluvium	10 to 15		x			1			1				1														
	BB1PZ100	wthrd rk	15		x			1		1	1					1													
	BB1PZ101	fill	3 to 6		x		1			1																			
	BB1PZ101	wthtrd rk	6 to 10		x		1		1	1	1		1																
	BB1PZ101	rock	10		x		1		1	1																			
	BB1TP102	fill	1 to 12		x		3	2		5		2		2			4 to 6	10	15-Apr	1									
	BB1TP102	colluvium	12		x			1		1				1			10.5 to 12	12	15-Apr		1				1				
	Total						**20**	**9**	**3**	**28**	**7**	**11**	**3**	**4**	**1**	**1**				**1**	**2**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
CLA-1,2- Cultural Resource Trenches
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2b: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section B - B'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:	Cohesion						x	x	x	x	x	x	x	x													
			Friction Angle						x	x		x		?	x	x													
			Density						x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
B-B	BBSB106	fill	0.5 to 6.5	x			4			4	2	4																	
	BBSB106	res soil	6.5 to 8	x				1		1	1	1		1															
	BBSB106	wthred rk	8 to 17	x			2	1		3	3	3		1															
	BBSB106	rock	17 to 27	x			2	2	2	3		3	1	1		1													
	BB2ATP100	fill	1 to 5.5		x		3			3							1 to 3	24	14-Apr		1			1			1		normal stress 200,400,800psf
	BB2ATP100	colluvium	5.5 to 8		x		1			1	1	1					4 to 5	8	14-Apr		1			1					
	BB2ATP100	wthrd rk	8.0		x		1		1	1				1															
	BB2ATP101	fill	1 to 5.5		x		2	1		3	2						2 to 4	23	14-Apr		1	1		1	1				
	BB2ATP101	colluvium	5.5 to 8		x			1	1	1	1		1		1		12 to 14	25	14-Apr		1					1			confining stress 100psf
	BB2ATP101	wthrd rk	8.0		x		1		1	1																			
	BB2ATP102	fill	2 to 6.5		x		2	1		3	2	1		1			2 to 4	14	14-Apr		1	1							
	BB2ATP102	colluvium	6.5 to 9		x			1		1	1	1		1			8 to 10	24	14-Apr		1				1				
	BB2ATP102	wthrd rk	9.0		x		1			1																			
	BB2ATP105	fill	1 to 5		x			1		2	1						0.5 to 2.5	24	15-Apr		1				1				
	BB2ATP105	colluvium	5 to 7		x			1		1	1			1															
	BB2ATP105	wthrd rk	7.0		x					1																			
	Total						**19**	**10**	**5**	**30**	**15**	**14**	**2**	**7**	**1**	**1**				**0**	**7**	**2**	**0**	**3**	**3**	**1**	**1**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2c: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section C - C'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	#200	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:	Cohesion						x	x	x	x	x	x	x	x														
			Friction Angle						x	x		x		?	x	x														
			Density						x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
C-C	BBSB105	fill	0.5 to 6.5	x			4			4	2	4					1 to 1.5	6	10-May		1									
	BBSB105	res soil	6.5 to 8	x				1		1	1	1		1			1.5 to 3	18	10-May	1										
	BBSB105																3.5	6	10-May		1							1		confining stress 250psf
	BBSB105																3 to 4.5	18	10-May		1									
	BBSB105																4.5	18	10-May	1										
	BBSB105																6.5	6	10-May		1							1		pocket penetrometer/confining stress 800psf
	BBSB105																7.5	18	10-May	1										
	BBSB105	wthred rk	8 to 17	x			2	1		3	3	3		1			9	18	10-May	1										
	BBSB105	rock	17 to 27	x			2	2	2	3		3	1			1														
	BBSB104	fill	0.5 to 6.5	x			3			3		4					2	6	10-May		1			1	1	1				
	BBSB104																3	18	10-May	1										
	BBSB104																2.5	6	10-May		1					1				
	BBSB104																5.5	6	10-May		1									
	BBSB104																6	18	10-May	1										
	BBSB104	res soil	6.5 to 8	x			1			1	1	1					7.5 to 9.5	12	10-May		1							1		confining stress 800psf
	BBSB104	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1		9.5	18	10-May	1										
	BBSB104	rock	17 to 27	x			2	1	2	3	2	3				1														
	BB1TP105	fill	1 to 8		x			1		1	1	1					1 to 3	16	12-Apr		1									
	BB1TP105	colluvium	8 to 10		x		1			1	1						5.5 to 7.5	27	12-Apr		1							1		normal stress 500,1000,2000psf
	BB1TP105	wthrd rk	10.0		x		1	1		3	2	1		1																
	BB1TP104	fill	1 to 5		x			1		1	1	1		1			1 to 3	15	12-Apr	1										
	BB1TP104	colluvium	5 to 9		x		1			1		1																		
	BB1TP104	wthrd rk	9.0		x			1		2	1		1																	
	BB1TP103	fill	1 to 5				1			1		1					3 to 5	17	12-Apr		1	1								
	BB1TP103	colluvium	5 to 7		x			1		1	1	1		1			9.5 to 12	27	12-Apr	1		1			1					
	BB1TP103	wthrd rk	7.0		x		1		1	1			1																	
	Total						**20**	**10**	**6**	**31**	**18**	**28**	**4**	**6**	**1**	**2**				**9**	**11**	**2**	**0**		**1**	**2**	**2**	**4**	**0**		

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2d: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section D - D'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	200	Plasticity Index	Uncont Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
D-D	BB2ASB100	fill	0.5 to 6.5	x			4			4	2	4					1 to 1.5	6	9-May	1									
	BB2ASB100																2.5 to 3	6	9-May	2									
	BB2ASB100																5.5 to 6	6	9-May										
	BB2ASB100	res soil	6.5 to 8	x				1		1	1	1		1			6.8 to 7.5	9	9-May		1			1			1		normal stress 500,1000,2000psf
	BB2ASB100																9.5 to 10	6	9-May		1					1			confining stress 600psf
	BB2ASB100																11.5 to 12	6	9-May		1			1	1				
	BB2ASB100																13 to 13.5	6	9-May							1			
	BB2ASB100	wthred rk	8 to 17	x			2	1		3	3	3		1			14 to 15.5	18	9-May		1				1				
	BB2ASB100																16.5 to 17	6	9-May		1				1				
	BB2ASB100																18 to 18.5	6	9-May		1								
	BB2ASB100																19 to 19.5	6	9-May		1				1				
	BB2ASB100																21 to 21.5	6	9-May		1								
	BB2ASB100	rock	17 to 27	x			2	2	2	3		3	1			1	22.5 to 23	6	9-May		1								
	BB2ASB101	fill	0.5 to 6.5	x			3			3		4					1 to 1.5	6	9-May		1	1					1		
	BB2ASB101																2 to 2.5	6	9-May		1						1		confining stress 150psf
	BB2ASB101																4.5 to 5	6	9-May		1						1		confining stress 300psf
	BB2ASB101																6.5 to 7	6	9-May		1			1				1	normal stress 400,800,1600psf
	BB2ASB101	res soil	6.5 to 8	x			1			1	1	1					8 to 8.5	6	9-May						1				
	BB2ASB101																9.5 to 10.5	12	9-May		1						1		confining stress 1000psf
	BB2ASB101	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1														
	BB2ASB101	rock	17 to 27	x			2	1	2	3	2	3				1													
	BB2ATP103	fill	1 to 8		x			1		1	1	1					1 to 3.5	25	13-Apr		1	1				1			
	BB2ATP103	colluvium	8 to 10		x		1			1	1						4 to 5	12	13-Apr		1								
	BB2ATP103	wthrd rk	10.0		x		1	1		3	2	1		1															
	BB2ATP104	fill	1 to 5		x			1		1	1	1		1			2 to 3.5	14	13-Apr		1							1	normal stress 250,500,1000psf
	BB2ATP104	colluvium	5 to 9		x		1			1		1					6 to 8.5	27	13-Apr		1			1		1			confining stress 600psf
	BB2ATP104	wthrd rk	9.0		x			1		2	1		1																
	BB2ATP105	fill	1 to 5				1			1		1					0.5 to 2.5	24	15-Apr		1					1			
	BB2ATP105	colluvium	5 to 7		x			1		1	1	1		1															
	BB2ATP105	wthrd rk	7.0		x		1		1	1			1																
	Total						20	10	6	31	18	28	4	6	1	2				3	19	2	0	1	3	7	6	3	0	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2e: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section E - E'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Butt Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	200	Plasticity Index	Uncons Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
E-E	BBSB107	fill	0.5 to 6.5	x			4			4	2	4					0.5 to 1	6	10-May		1						1		confining stress 100psf
	BBSB107	res soil	6.5 to 8	x				1		1	1	1		1			1 to 1.5	6	10-May		1			1					
	BBSB107																2.5 to 3	6	10-May		1						1		confining stress 150psf
	BBSB107																4 to 4.5	6	10-May										
	BBSB107																4.5 to 6.1	18	10-May		1			1			1		normal stress 400,800,1600psf
	BBSB107																6 to 7.5	18	10-May	1									
	BBSB107																8 to 8.5	6	10-May		1					1			
	BBSB107																10 to 10.5	6	10-May		1								
	BBSB107																10.5 to 12.5	24	10-May		1					1			
	BBSB107																13.5 to 14	6	10-May		1					1			
	BBSB107																14 to 14.5	6	10-May	1									
	BBSB107																16 to 16.5	6	10-May		1						1		confining stress 1000psf
	BBSB107	wthred rk	8 to 17	x			2	1		3	3	3		1			17 to 18.5	18	10-May	1									
	BBSB107	rock	17 to 27	x			2	2	2	3		3	1			1	19.5 to 20	6	10-May		1						1		confining stress 1300psf
	BB2SB100	fill	0.5 to 6.5			x	3			3		4					1 to 1.5	6	9-May		1								
	BB2SB100																2.5 to 3	6	9-May	1							1		confining stress 200psf
	BB2SB100																3.5 to 4	6	9-May	1						1			
	BB2SB100																5 to 5.5	6	9-May		1						1		confining stress 300psf
	BB2SB100																6 to 6.5	6	9-May							1			
	BB2SB100	res soil	6.5 to 8			x	1			1	1	1					6.7 to 8.0	16	9-May		1							1	confining stress 420, 840, 1260psf
	BB2SB100																8.5 to 9	6	9-May		1					1			
	BB2SB100																9 to 9.5	6	9-May							1			
	BB2SB100	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1		10.5 to 11	6	9-May		1								
	BB2SB100																12 to 12.5	6	9-May		1								
	BB2SB100																15 to 15.5	6	9-May		1								
	BB2SB100																16.5 to 17	6	9-May	1									
	BB2SB100	rock	17 to 27			x	2	1	2	3	2	3				1													
	BB2SB101	fill	0.5 to 6.5			x	4			4	2	4					1 to 1.5	6	11-May		1	1							
	BB2SB101																2 to 2.5	6	11-May		1								
	BB2SB101																4 to 4.5	6	11-May		1			1			1		confining stress 300psf
	BB2SB101																5 to 5.5	6	11-May		1					1			
	BB2SB101																8 to 8.5	6	11-May		1					1			
	BB2SB101																11.5 to 12	6	11-May		1						1		
	BB2SB101																12.3 to 14	20	11-May		1			1			1		confining stress 1000psf
	BB2SB101	res soil	6.5 to 8			x		1		1	1	1		1			15 to 15.5	6	11-May		1					1			
	BB2SB101																15.5 to 17	18	11-May		1							1	Use as 3rd Pt of sample at 20.3
	BB2SB101																17.5 to 18	6	11-May		1						1		confining stress 1000psf
	BB2SB101																18 to 18.5	6	11-May		1								
	BB2SB101																19.5 to 20	6	11-May		1					1			
	BB2SB101																20.3 to 22	20	11-May		1			1				1	normal stress 1200, 2400, 3600psf
	BB2SB101	wthred rk	8 to 17			x	2	1		3	3	3		1			23 to 23.5	6	11-May							1			
	BB2SB101																25.3 to 26	9	11-May		1			1			1		confining stress 2000psf
	BB2SB101	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB2TP101	fill	1 to 5		x		1			2		1					4.5 to 5.5	16	6-Apr		1			1				1	normal stress 300,600,900psf
	BB2TP101	colluvium	5 to 7		x			1		1	1		1				9.5 to 11	15	6-Apr									1	normal stress 600,1200,1800psf
	BB2TP101	wthrd rk	7.0		x		1			2		1																	
	BB2TP100	fill			x					2							1.5 to 3	16	6-Apr		1						1		confining stress 200psf
	BB2TP100	colluvium	5 to 7		x			1		1	1	1		1	1		6.5 to 7	6	6-Apr	1									
	BB2TP100	wthrd rk	7.0		x		1		1	2			1																
	Total						**26**	**11**	**8**	**40**	**19**	**36**	**5**	**6**	**2**	**3**				**1**	**16**	**1**	**0**	**1**	**4**	**5**	**6**	**2**	**2**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
(1) Nomenclature-BBXTP-Test Pit, BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

Table 2f: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section F - F'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date										
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
				Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
F-F	BBSB102	fill	0.5 to 6.5	x			3			3	2	4					0.5 to 1	6	10-May		1							
	BBSB102																2.5 to 3	6	10-May		1					1		confining stress 200psf
	BBSB102																3.5 to 5	18	10-May		1							
	BBSB102																6 to 6.5	6	10-May		1		1					
	BBSB102	res soil	6.5 to 8	x				1		1	1	1		1			8.5 to 9	6	10-May		1		1					
	BBSB102	wthred rk	8 to 12	x			2	1		3	2	2		1			9 to 9.5	6	10-May		1		1					
	BBSB102	rock	12 to 20	x			2	2	2	3		3	1			1												
	BBSB103	fill	0.5 to 6.5	x			3			3		4																
	BBSB103	res soil	6.5 to 8	x			1			1	1	1																
	BBSB103	wthred rk	8 to 12	x			1		1	1	2	2	1	1	1													
	BBSB103	rock	12 to 20	x			2	1	2	3	2	3				1												
	Total						**14**	**5**	**5**	**18**	**10**	**20**	**2**	**3**	**1**	**2**				**0**	**6**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2g: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section G - G'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date									
G-G	BBSB100	fill	0.5 to 6.5	x			4			4	2	4					2 to 2.5	6	13-May		1							
	BBSB100																2.5 to 3	6	13-May		1				1			
	BBSB100																3 to 5	24	13-May		1				1			confining stress 400psf
	BBSB100																5.5 to 6	6	13-May		1				1			confining stress 250psf
	BBSB100																6 to 6.5	6	13-May									
	BBSB100	res soil	6.5 to 8	x				1		1	1	1		1			8.5 to 9	6	13-May									
	BBSB100	wthred rk	8 to 17	x			2	1		3	3	3		1			9 to 9.5	6	13-May		1			1	1			
	BBSB100	rock	17 to 27	x			2	2	2	3		3	1			1												
	BBSB101	fill	0.5 to 6.5	x		x	3			3		4																
	BBSB101	res soil	6.5 to 8	x		x	1			1	1	1																
	BBSB101	wthred rk	8 to 17	x		x	1		1	1	2	3	1	1	1													
	BBSB101	rock	17 to 27	x		x	2	1	2	3	2	3				1												
	BB1ATP100	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	1								
	BB1ATP100	colluvium	5 to 7		x			1		1	1		1				4.5 to 6.5	22	7-Apr		1							
	BB1ATP100	wthrd rk	7.0		x		1			2		1																
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**				**1**	**6**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2h: Proposed Laboratory Tests for Geophysical Investigation
Cross Section H - H'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
H-H	BB1SB111	fill	0.5 to 6.5			x	4			4	2	4					0.5 to 1	6	12-May		1								
	BB1SB111																2.5 to 3	6	12-May		1								
	BB1SB111																4 to 4.5	6	12-May		1				1				
	BB1SB111																4.5 to 6	18	12-May		1					1			confining stress 500psf
	BB1SB111	res soil	6.5 to 8			x		1		1	1	1		1			7 to 7.5	6	12-May		1								
	BB1SB111	wthred rk	8 to 17			x	2	1		3	3	3		1			9 to 10.5	18	12-May		1	1		1		1			confining stress 600psf
	BB1SB111	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB1SB110	fill	0.5 to 6.5			x	3			3		4					1 to 1.5	6	12-May		1				1				
	BB1SB110																2.5 to 3	6	12-May		1					1			confining stress 240psf
	BB1SB110																5 to 5.5	6	12-May		1								
	BB1SB110																6.5 to 8	18	12-May		1	1							
	BB1SB110	res soil	6.5 to 8			x	1			1	1	1					9 to 9.5	6	12-May		1								
	BB1SB110	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1		9.5 to 10.5	12	12-May		1					1			confining stress 600psf
	BB1SB110	rock	17 to 27			x	2	1	2	3	2	3				1	11 to 11.5	6	12-May		1				1				
	BB1TP100	fill	1 to 5		x		1			2		1					4.5 to 6.5	24	11-Apr		1								
	BB1TP100	colluvium	5 to 7		x			1		1	1		1				0 to 2	24	11-Apr		1			1		1			confining stress 200psf
	BB1TP100	wthrd rk	7.0		x		1			2		1					1 to 3	24	11-Apr		1	1					1		normal stress 200,400,800psf
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**				**0**	**16**	**3**	**0**	**2**	**3**	**5**	**1**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2i: Proposed Laboratory Tests for Geotechnical Investigation
Miscellaneous Areas
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	R-Value	Mechical Analysis	Hydrometer	#200	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
Area 1	BB1TP106	fill	0.5 to 6.5	x			3			3		4					5 to 6	bulk	21-Apr	1			1			1			
	BB1TP106	rock	17 to 27	x			2	1	2	3	2	3				1	0 to 1	debris flow	21-Apr	1									
Area 1	Trench 4	native soil															6	6	5-May				1	1		1			
	Trench 4	native soil															4.5	6	5-May				1	1		1			
	Merchant Rd B,C	subgrade soil															2 to 3	bulk	6-May			1							
	Merchant Rd. A	subgrade soil															2	bulk	6-May			1							
Area 1A	BB1ATP101	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	1									
	BB1ATP101	colluvium	5 to 7		x			1		1	1		1				4 sidewall*	6	7-Apr		1								1	normal stress 250,500,750psf
	BB1ATP101	wthrd rk	7.0		x		1			2		1																	
	Total						**7**	**2**	**2**	**11**	**3**	**9**	**1**	**0**	**0**	**1**				**3**	**1**	**2**	**3**	**2**	**0**	**3**	**0**	**0**	**1**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Sheet _____ of _____

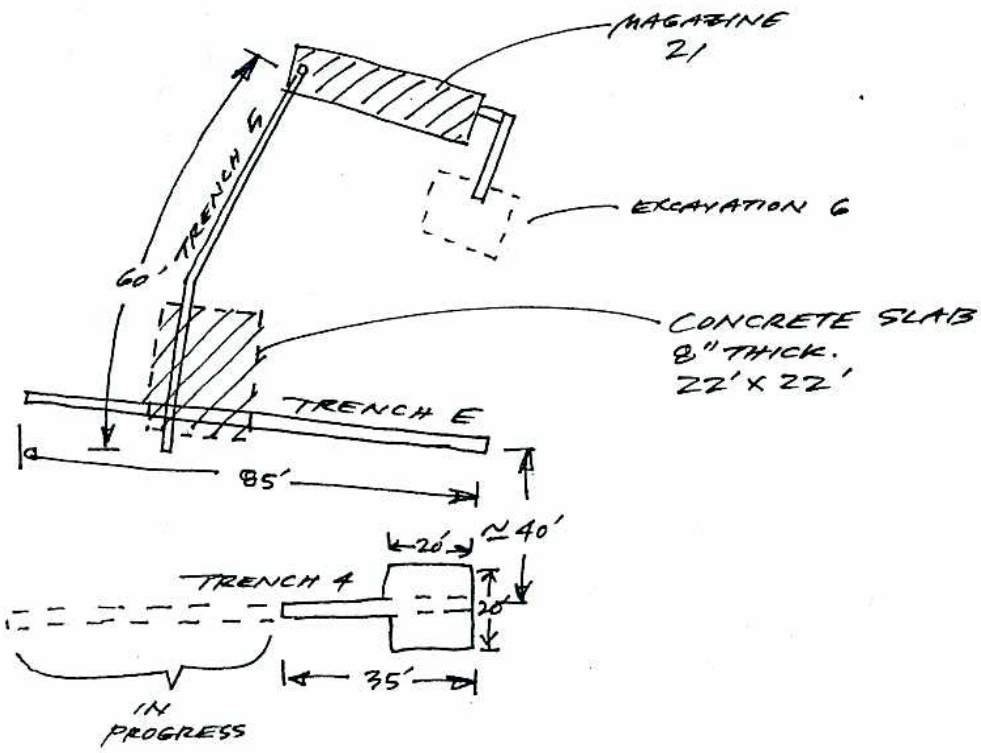
Project: PRESIDIO SF ABDA 1 - CULT REC Job No.: 57255 005102

Subject: FIELD INVESTIGATION DAILY REPORT Date: 5/6/05

Equipment Rental: _____ Company: _____ To: G A LIEBERMAN

Equipment Hours: _____ F.E. Time from: _____ to: _____ By: A H HENKE.

(outside service and expense record must be attached for any outside costs)



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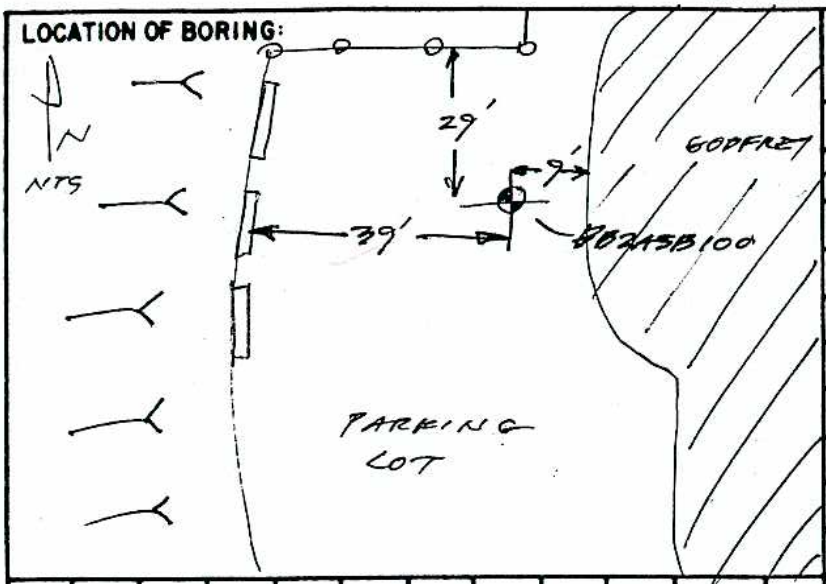
Initial

BB2ASB100

FIELD LOG OF BORING

SHEET 1 OF 2



PROJECT: PRESIDIO SF BBDA 2A EQ STAB.	BORING NO.
	TOTAL DEPTH: 23.7
JOB NO.: 57255.005132	LOGGED BY: A H HENKE
PROJ. MGR.: M A JACOBVITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG DRILLING	
DRILL RIG TYPE: HSA	
DRILLERS NAME: ERIC SANTELLUN	
SAMPLING METHODS: SPLIT BARREL - CGS	
HAMMER WT.: 140lb	DROP: 30 in.
STARTED, TIME: 0839	DATE: 5/9/05
COMPLETED, TIME: 1025	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: 1030 DATE: 5/9 BY: GREGG

SURFACE ELEV.: DATUM:

CONDITIONS: SUNNY . WINDY.

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			TIME	DEPTH IN FEET	GRAPHIC LOG	
0'	2.5" BRASS	10	6	0		NA			0839			REDDISH BROWN WELL-GRADED
		8	6	0						1	GW	GRAVEL WITH SAND (GW) (7.5YR 4/3)
		10	6	6	F	DISTURBED.						MEDIUM DENSE. MOIST. 75% CHERT
1.5'		19	6	3	P				0844	2		GRAVEL (ANGULAR) 20% SAND 5% FINES
		11	6	6	G						GP	GREYISH BROWN POORLY-GRADED
		12	6	6						3	CL	SAND (GP) (10YR 5/2) LOOSE. DRY. 95%
3'		7	6	0					0848			FINE - VERY FINE SAND 5% SILT. FILL
		9	6	6	F		Environmental Sample			4	CL	YELLOWISH BROWN LEAN CLAY
		11	6	6	G	BB2ASB100			(4.0)			(CL) (10YR 5/4) FIRM. DRY TO MOIST. 70%
4.5'	1.5" STAINLESS	8	6	0					0853	5		CLAY 20% SILT 10% V.F. SAND. FILL
		9	6	6	F							VERY DARK GREYISH BROWN SILT
		10	6	6	G					6	CL	(ML) (10YR 3/2) FIRM. DRY. 70% SILT 20%
mc	SHELBY	1.5'				FILL			0859			CLAY 10% V.F. SAND. FILL
						NATIVE				7		@ 5' - CL, AS AT 2.5'. FeO_2
		18"	10"								CL	MOTTLE. BLACK OXIDE HALOS ON RELICT GRAINS FILL
7.5	2.5 BRASS	AUGER							AUGER	8		DARK YELLOWISH BROWN SANDY
												CLAY (CL) (10YR 4/4) FIRM. MOIST. 70% CLAY/
												FINES. 30% VERY FINE SAND. NATIVE
9'	2.5 BRASS	4	6	6	G				0922	9		@ 9' - DECREASE IN SAND TO
		7	6	6							CL	LESS THAN 10%. SOME SLICKENSIDE
		9	6	6						10		TEXTURE.

FF7

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BBZA SB100

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: 57255 NO 005122 BORING NO.

PRESIDIO - SF BBZA EQ. STABILITY

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D	COND.	D.RATE			TIME	DEPTH	GRAPHIC LOG
10.5	2.5 BRASS	7	6	6	G				0933	11	
		11	6	6							CL
		15	6	6						12	
		9	6	6	G				0939		
		15	6	6						13	
		19	6	6							
	SHELBY		2'	10"					0942	14	
										15	
15.5	2.5" BRASS	8	6	6	G				0950	16	
		11	6	6							Sp
		14	6	6						17	
		11	6	6	G				0955		
		14	6	6						18	
		16	6	6							
18.5		14	6	6	G				1005	19	
		23	6	6							
		25	6	6						20	
20.0		14	6	6	G				1012		
		23	6	6						21	
		25	6	6							
21.5		11	6	6	G				1017	22	
		19	6	6							
		20	6	6						23	
23		19	6	0	/				1025		
		50	2	2	P					24	
										25	
										6	
										7	
										8	
										9	
										0	

@ 11.75(±) COLOUR CHANGE TO BROWN (10YR 4/2) PROMINANT OXIDES.

OLIVE BROWN SERPENTINITE (Sp) (2.5Y 4/3) DRY. MODERATELY CONSOLIDATED. CLOSELY FRACTURED LOW HARDNESS. WEAK TO FRIABLE DEEPLY WEATHERED.

@ 17' SHEARED MELANGE TEXTHRE.

DARK GREYISH BROWN MELANGE ( )(2.5Y 4/2) MOIST MODERATELY CONSOLIDATED. CRUSHED. SOFT (PLASTIC) DEEPLY WEATHERED.

@ 20' - MORE RESISTANT METASED/SHALE CHUNKS IN MATRIX

@ 22 - SHEARED MELANGE AS AT 17'

GREY METASED IN MELANGE MATRIX.

BOTTOM OF BORING AT 23.7

FFB

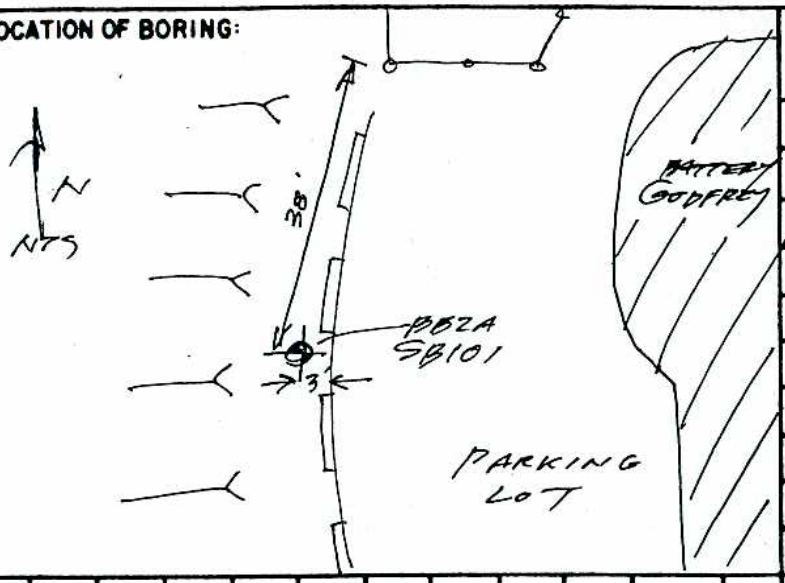
HARDING LAWSON ASSOCIATES

BBZASB101

SHEET 1 OF 2

FIELD LOG OF BORING

LOCATION OF BORING:



PROJECT: PRESIDIO SF BBZA - EQ. STABILITY	BORING NO.
	TOTAL DEPTH: 14'
JOB NO.: 57255.005132	LOGGED BY: A V HENKE
PROJ. MGR: M A JACOBVITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG DRILLING	
DRILL RIG TYPE: HSA - 8"	
DRILLERS NAME: ERIC	
SAMPLING METHODS: SPLIT BARREL - CGS	
HAMMER WT.: 140 lb	DROP: 30 IN
STARTED, TIME: 1150	DATE: 5/9/05
COMPLETED, TIME: 1231	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: 1240 DATE: 5/9 BY: GREGG

SURFACE ELEV.: DATUM:

CONDITIONS: SUNNY. WINDY

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG	
0	2.5" SPLIT SPOON	6 10	6 6	2 6	F G				1150	0	SM	VERY DARK BROWN SILTY SAND GRAVEL
		11	6	6						1	GW	WITH GRAVEL (SM) (10YR 2/2) MED. DENSE. MOIST.
1.5		5	6	2	F				1158			60% SAND 20% FINE GRAVEL. 20% SAND
		6	6	6	G					2		REDDISH BROWN WELL-GRADED GRAVEL
		4/6	6	6							CL	(GW) 5Y
										3		CHERT LENSE
3		4 5	6 6	6 6	G				1200			CLAY IS MIXTURE OF DARK
		6	6	6						4		YELLOWISH BROWN LEAN CLAY (CL)
4.5		5	6	6	G				1203			(10YR 4/4) FIRM. MOIST. 90% CLAY
		5	6	6						5		10% SAND AND VERY DARK GREYISH
		7	6	6								BROWN (CLAYEY) SILT (ML) (10YR 3/2)
6'		4	6	0					1205	6		SOFT TO FIRM. MOIST. 60% SILT
		8	6	6	G							20% CLAY 10% FINE SAND.
		10	6	6						7	ML	BLACK SILT (ML) (10YR 2/1)
7.5		7	6	3	F				1208			SOFT. MOIST. 70% SILT 20% CLAY
		9	6	6	G					8	CL	10% V. FINE QUARTZ SAND. RED OXIDES
		11	6	6								ALONG RELICT ROOTS.
9'	SHELBY		1.5'	1' CRUMPLED END					1215	9		
										10		SERP @ BOTTOM OF SHELBY

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BB2ASB101

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: 57255 | NO. 005132 | BORING NO.

PROJ. SF - BB2A - EQ. STABILITY

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE			TIME	DEPTH	GRAPHIC LOG
10.5	2.5" RING	16	6	0	/				1220	11	
	↓	19	6	6	F						
		29	6	6	G					12	SP
12		20	6	6	G				1227		
	↓	50	2	2	↓					13	
	ST. PEN	18	6	2	F				1231		
		50	4	4	↓					14	

LIGHT OLIVE GREY SERPENTINITE (SP) (5Y6/2) MODERATELY CONSOLIDATED CRUSHED. LOW HARDNESS

BOTTOM OF BORING AT 14'

FF8

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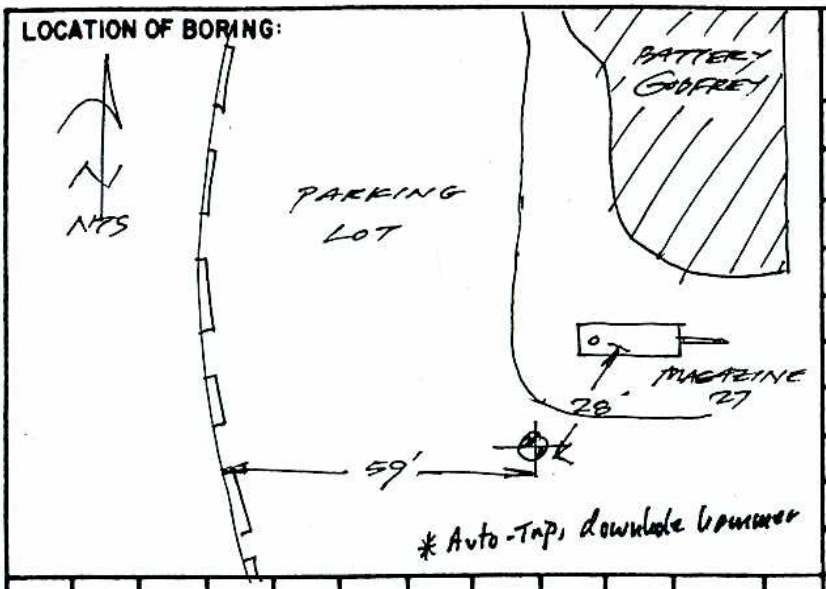
BB2SB100

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: PRESIDIO SF BBDA-2 - EQ. ST	BORING NO.
	TOTAL DEPTH: 17
JOB NO.: 57255 005132	LOGGED BY: A H AENKE with Geologist
PROJ. MGR: M A JACOBITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG DRILLING	
DRILL RIG TYPE: HSA - 8"	
DRILLERS NAME: ERIC	
SAMPLING METHODS: SPLIT BARREL - CSS	
HAMMER WT.* 140 lb	DROP: 30 in
STARTED, TIME: 1308	DATE: 5/9/05
COMPLETED, TIME: 1417	DATE:

BORING DEPTH (ft.)	17.0		
CASING DEPTH (ft.)	N/A.		
WATER DEPTH (ft.)	N/A.		
TIME:			
DATE:			

BACKFILLED, TIME: 2:30 DATE: 5/9/05 BY: Driller.

SURFACE ELEV.: DATUM: PPLW.

CONDITIONS: Breezy, mild, sunny.

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG	
0'	2.5" Brass	18	6	2	F				1308	1	GW	REDDISH BROWN WELL-GRADED
		17	6	6	G							GRAVEL WITH SAND (GW) (5YR 4/3) DENSE.
		17	6	6								MOIST. 60% ANGULAR CHERT GRAVEL
1.5		8	6	6	G				1314	2		30% CHERT SAND 10% FINES.
		9	6	6							CL	DK. MIXED CLAY FILL YELLOWISH
		10	6	6						3		BROWN & VERY DARK BROWN LEAN CLAY
3		7	6	4	F	NATIVE			1320			(CL) (10YR 4/4 TO 10YR 2/2) FIRM
		9	6	6	G					4	CL	MOIST. 70% CLAY 20% SILT 10%
		11	6	6								VERY FINE SAND.
4.5		6	6	6	G				1327	5		DARK YELLOWISH BROWN
		8	6	6								LEAN CLAY (CL) (10YR 4/4) HARD. MOIST
		10	6	6								80% CLAY 20% SILT. FeO2 MOTTLE &
6		—	6	6	G				1327	6		BLACK OXIDES AS FLECKS AND
6.5	SH	1000 psi	18"	16"	POCKET PEN.	>4.5			1339	7		ALONG FRACTURES. NATIVE
										8		
8.0	2.5 Brass	8	6	6	G				1332			Same.
		11	6	6	G							
		13	6	6	G					9		
9.5		10	6	6	F				1340			Becoming sandy @ 10 ft.
		15	6	6	G					10		Olive Green. (2.5Y 4/4) Sand, v. dense f-gr.

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BB2SB100

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE			TIME	DEPTH	GRAPHIC LOG
	↓	18	6	6	G					11	
11.5		12	6	6.4	P				1355		
		18	6	6	G					12	
	↓	19-	6	6	G.				1402		
12.5	2" SPT	8	6	6	—					13	
		12	6	6	—						
		12	6	6	—					14	SP
14.0	2.5" w/ Brass	11/6			F				1408		
	↓	13	6		G					15	
	↓	14	6		G						
15.5		8	6		—					16	
		10	6		—				1417		
	↓	13	6		13					17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										6	
										7	
										8	
										9	
										0	

PROJECT: 57255 | NO005132 | BORING NO.

PRES. SF - BBDA 2 - EQ. STABILITY

(weathered 5sf)

Olive. serpentinite (5Y 4/4). mod hard, strong, intensely fractured, mod altered (Bedrock)

Olive grey (5Y 4/2) serpentinite. low hardness, weak

Same

DK Greenish Gray (5G 4/1)

Bottom of Boring @ 17'

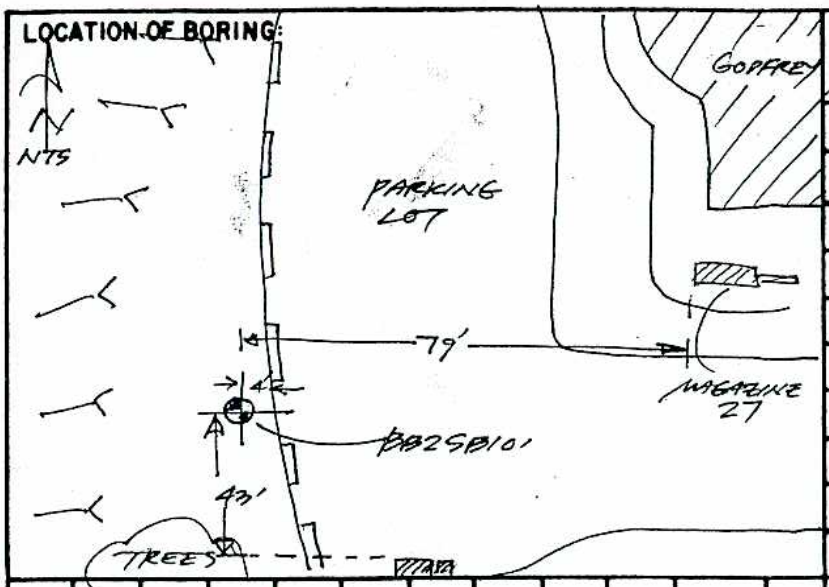
No groundwater encountered

Backfilled w/ cuttings and tamped

BB2SB101

FIELD LOG OF BORING

SHEET 1 OF 2



PROJECT: PRES.SF BB2A EQUIP. STABILITY	BORING NO.
	TOTAL DEPTH: 26.0
JOB NO.: 57255.005122	LOGGED BY: A HAENKE
PROJ. MGR.: MA JACOBVITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG	
DRILL RIG TYPE: HSA 8"	
DRILLERS NAME: ROBERT GORAGAS	
SAMPLING METHODS: 2.5" CSS, SHELBY, S.P.	
HAMMER WT.: 140 lb	DROP: 30 in
STARTED, TIME: 0847	DATE: 5/11/05
COMPLETED, TIME: 1200	DATE:
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME: 1230	DATE: 5/11/05 BY: GREGG
SURFACE ELEV.:	DATUM:
CONDITIONS: SUNNY. CALM.	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			TIME	DEPTH IN FEET	GRAPHIC LOG
0'	2.5" BRASS	10	6	3	F				0847		
		11	6	6	G					1	
		10	6	6							
1.5'	2.5"	4	6	3	F				0858	2	GW
	BRASS	7	6	6	G						
		10	6	6						3	
3'		6	6	3	F				0908		
		6	6	6	G					4	
		8	6	6							
4.5	"	4	6	3	F				0915	5	CL
		5	6	6	G						
		7	6	6						6	
6'		3	6	0					0925		
		4	6	3	F					7	
		6	6	6	F						
7.5'	SS	3	6	0					0932	8	FILL
		3	6	3	F						
		12	6	6	G	BOUNCE ON WOOD.				9	
9'	2.5" BRASS	6	6	0					0940		
		4	6	0						10	
		2	6	3	F						

DARK REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 3/3) LOOSE TO MEDIUM DENSE, MOIST. 60% ANGULAR RED CHERT GRAVEL 30% CHERT SAND 10% SILT/FINES.

VERY DARK GREYISH BROWN SANDY LEAN CLAY (CL) (10YR 3/2) SOFT. MOIST. 60% CLAY FINES 30% VERY FINE SAND 10% GRAVEL MIXED FILL. HETEROGENEOUS.

BLACK FAT CLAY WITH WOOD (CL) (5Y 2.5/1) SOFT. MOIST. 60% CLAY 30% WOOD DEBRIS. ~10% SAND. FILL. NO FULL TUBES

WOOD. ANOXIC ODOR. SLIGHT CREOSOTE APPEARANCE

HARDING LAWSON ASSOCIATES

BB2SB101

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: 57255 | NO 005122 | BORING NO.

PRES.SF · BBDA 2 - EQUIP. STABILITY

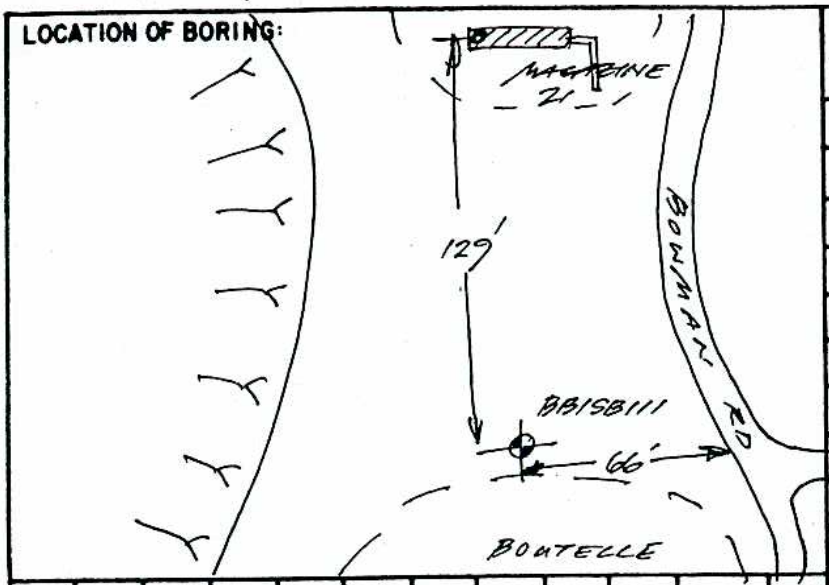
DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE				DEPTH	GRAPHIC LOG	
10.5'	2.5" BRASS	1	6	0	/				0950	11		AS ABOVE. POCKETS
	↓	2	6	0	/							OF LEAVES, GRASS, SMALL WOOD
		3	6	6	G					12		FRAGMENTS & GLASS.
12'	SHELBY		24"	20"					1000		CL	
			↓	↓		BB2SB101(12.3)				13		SHELBY - NO PLANT MATERIAL
												VISIBLE IN END OF SAMPLE. FIRM.
14'	5	6	0	/					1017	14		
	8	6	4	F								OLIVE GREY LEAN CLAY
	13	6	6	G						15	CL	(CL) (5Y 4/2) FIRM. MOIST. 90%
15.5'	SHELBY		18"	18"					1027	16		CLAY/FINES 10% VERY FINE SAND.
	↓	2	↓	↓		BB2SB101(15.5)						SOME FeO_2 MOTTLE
										17		COLOUR CHANGE TO DARK YELLOWISH BROWN
17.0'	BRASS	7	4	2	F				1043			(10YR4/4). HARD.
	↓	12	12	6	6	G				18		
AM	17	17	6	6	↓							
18.5	2.5" BRASS	7	6	2	F				1052	19		AS ABOVE. FeO_2 MOTTLE.
	↓	12	6	6	G							BLACK OXIDE FLECKS. GREY OXIDA-
		19	6	6	↓					20		TION ALONG FRACTURES. SOME
20'	SHELBY	SHELBY	24"	20"					1110			HARD GRAVEL CHUNKS IN CLAYEY
	↓	↓	↓	↓		BB2SB101(20.3)				21		MATRIX.
												AS ABOVE
22'	2.5' BRASS	7	6	3	F				1027	22		
	↓	11	6	6	G							OLIVE BROWN SANDY
		16	6	6	↓					23		LEAN CLAY (CL) (2.5Y 4/3) HARD. MOIST.
23.5	ST. PEN.	5							1042			70% CLAY 20% COARSE SAND/FINE
	↓	10								24		GRAVEL 10% VERY FINE SAND.
		15										FeO_2 & BLACK OXIDES ALONG FRACTURES.
25'		SHELBY								25		GREENISH GREY SERPENTINITE
			12"	8"					1200			(SP) (5GY 6/1) A MODERATELY CONSOLIDATED INTENSELY FRACTURED
			↓	↓		BB2SB101(25.3)				26	SP	SOFT TO LOW HARDNESS. FRIABLE
												DEEP TO MODERATE WEATHERING.
										7		MOIST.
												BOTTOM OF BORING AT 26'
										8		
										9		
										0		

HARDING LAWSON ASSOCIATES

BB1SB111

FIELD LOG OF BORING

SHEET 1 OF



PROJECT: PRESIDIO SF BBDA / EQUIP. STABILITY	BORING NO.
	TOTAL DEPTH: 10.5
JOB NO.: 57255.005102	LOGGED BY: A. M. MENKE
PROJ. MGR.: M. A. JACOBVITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG DRILLING	
DRILL RIG TYPE: HSA - 8" (MOBILE B53)	
DRILLERS NAME: ROBERT	
SAMPLING METHODS: CGS, 2.5" SHELBY	
HAMMER WT.: 140 lb	DROP: 30 in
STARTED, TIME: 0835	DATE: 5/12/05
COMPLETED, TIME: 0930	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: 0940 DATE: 5/12 BY: GREGG

SURFACE ELEV.: DATUM:

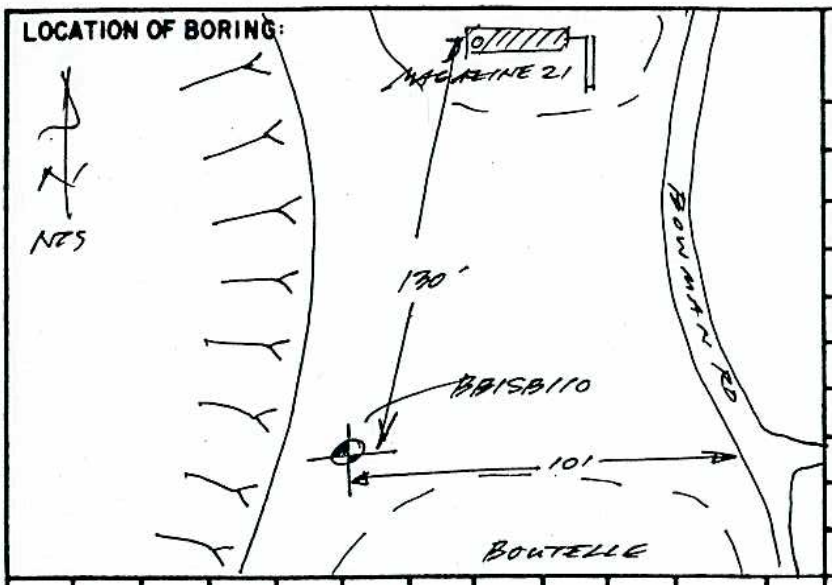
CONDITIONS: FOGGY. CALM

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			TIME	DEPTH IN FEET	GRAPHIC LOG	
0	2.5" BRASS	1 3	6 6	2 6	F G				0835	1	CL	VERY DARK GREYISH BROWN SANDY LEAN CLAY (CL) (10YR 3/2) SOFT. ANN MOIST. 60% CLAY/FINES. 30% SAND 10% ANGULAR GRAVEL. FILL
1.5		3 1	6 6	6 3	F F				0843	2		
		9 6	6 6	6 6	G					3	CL	DK. YELLOWISH BROWN LEAN CLAY (CL) (10YR 4/4) FIRM. MOIST. 90% CLAY 10% SAND
3'	SS	5 9	6 6	2 6	F G		NOT SUBMITTED ANN		0851 ENV	4	GW	DARK REDDISH BROWN CLAYEY GRAVEL WITH SAND (GW) (5YR 3/3) MEDIUM DENSE. MOIST. 60% ANGULAR CHERT GRAVEL. 20% SAND 20% CLAY/FINES FILL
4.5	SHELBY	15 100/0"	6 18"	6 18"	G				G.T. 0901	5	SP	OLIVE BROWN SERPENTINITE (SP) (2.5Y 4/4) MOIST. MODERATELY CONSOLODATED. INTENSELY FRACTURED SOFT, PLASTIC. DEEPLY WEATHERED. @7' LOW HARDNESS, FRIABLE
6'	2.5 BRASS	9 11	6 6	0 6	/ G				0912	6		
7.5	SP	15 4	6 6	6 0	/ /				S.P 0922	7		
		5 5	6 6	3 6	F G					8		
9'	SHELBY		18"	18"	G				0930	9		@9' BLUISH COLOUR
										10	SP	BOTTOM OF BORING AT 10.5'

BB1SB110

FIELD LOG OF BORING

SHEET 1 OF 2



PROJECT: PRESIDIO SF AREA 1 EQ. STABILITY	BORING NO.
	TOTAL DEPTH: 12.5'
JOB NO.: 57255 005102	LOGGED BY: AH HENKE
PROJ. MGR: MA JACAVITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG DRILLING	
DRILL RIG TYPE: HSA 8" MOBILE B53	
DRILLERS NAME: ROBERT	
SAMPLING METHODS: 2½" CSS, SHELBY	
HAMMER WT.: 140 lb	DROP: 30 in.
STARTED, TIME: 1000	DATE: 5/12/05
COMPLETED, TIME: 1111	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: 1130 DATE: 5/12 BY: GREGG

SURFACE ELEV.: DATUM:

CONDITIONS: SUNNY . CALM

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG
0'	2.5" BRASS	3	6	0					1000	1	CL
		3	6	6	G						
		3	6	6					GT.		
1.5		3	6	0					1017	2	
		4	6	6	G						
		5	6	6					GT.	3	
3'	2.5" BRASS	6	6	0					1025		
		12	6	6	G				EN.	4	SC
		17	6	6							GW
4.5	2.5" BRASS	8	6	6	F				1032	5	
		7	6	6	G						
		5	6	6						6	
6'	SHELBY		24"	18"					1038		
					G					7	
8'	2.5" BRASS	5	6	0					1048	8	
		10	6	6	G						
		15	6	6						9	
9.5'	SHELBY		12"	12"	G				1052		
										10	

BROWN SANDY LEAN CLAY (CL) (10YR4/3) SOFT. DRY. 40% CLAY 40% SAND 20% SILT FILL @2' - POCKETS OF SAND IN CLAY. MOIST. COLOUR CHANGE TO VERY DARK GREYISH BROWN (10YR3/2)

REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR3/3) MED. DENSE. MOIST. 60% ANGULAR CHERT GRAVEL 30% CHERT SAND 10% FINES.

LIGHT OLIVE BROWN SERPENTINITE (SP) (2.5Y5/4) MOIST. MODERATELY CONSOLIDATED INTENSELY FRACTURED. LOW HARDNESS FRIABLE. DEEPLY WEATHERED.

HARDING LAWSON ASSOCIATES

BB1SB110

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: 57255 | NO 005102 | BORING NO.

PRESIDIO SF - BBDA1 EQUIP STABILITY

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE			TIME	DEPTH	GRAPHIC LOG	
10.5	SPT	8	6	4	F				1106	11		
		20	6	6	G							AS ABOVE. HARDER
		50	4	4	F					12		
12	SPT	52	6						1111			BOTTOM OF BORING AT 12.5'

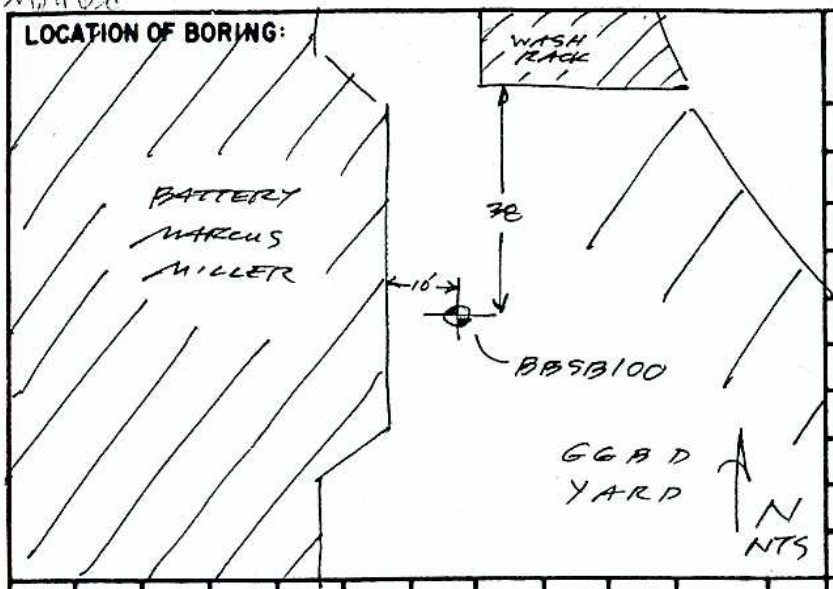
friable sheared mottled

FIELD LOG OF BORING

BBSB100

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: PRESIDIO SF BBDA/A BATTERY STAB.	BORING NO. BBSB100
JOB NO.: 57255.005	TOTAL DEPTH: 11
PROJ. MGR.: M A JACOBVITZ	LOGGED BY: A H HENKE
DRILLING CONTRACTOR: GREGG	EDITED BY:
DRILL RIG TYPE: ROBERT GORAGAS	
DRILLERS NAME: 8" HSA MOBILE B53	
SAMPLING METHODS: 2.5" CSS, SHELBY	
HAMMER WT.: 140 lb	DROP: 30 in
STARTED, TIME: 0825	DATE: 5/13/05
COMPLETED, TIME: 0950	DATE:
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	AUTO TRIP HAMMER
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS: FOGGY. CALM.	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			TIME	DEPTH IN FEET	GRAPHIC LOG
					HAND	AUGER			0825		AC
										1	GW
1.5	2.5" BRASS	7	6	3	F				0839	2	SC
		7	6	6	G						CL
		9	6	6						3	
3'	SHELBY		24"	24"	G				0850		
										4	
										5	
5	2.5" BRASS	8	6	2	F				0915		
		16	6	6	G					6	
		22	6	6							
6.5	ST. PEN	11	6	6	G	POCKET PEN			0930	7	SP
		14	6	6		>4.5					
		22	6	6						8	
8'	2.5" BRASS	12	6	2	F				0944		
		21	6	6	G					9	
	ST	17	6	6							
		10	6	6	G				0950	10	
		15	6	6							
		19	6								

ASPHALT AT SURFACE

DARK REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW)(5YR 3/3) LOOSE - MEDIUM DENSE. MOIST. 70% ANGULAR RED CHERT GRAVEL. 20% CHERT SAND 10% FINES. FILL

DARK YELLOWISH BROWN CLAYEY SAND (SC)(10YR 4/4) DENSE. MOIST. 60% FINE - VERY FINE SAND. 40% CLAY/FINES.

OLIVE BROWN GRAVELLY LEAN CLAY (CL)(2.5Y 4/4) FIRM. MOIST. 70% CLAY 30% DEGRADED SERPENTINITE GRAVEL

OLIVE GREY SERPENTINITE (SP)(5Y 4/2) MOIST. MODERATELY CONSOLIDATED. CLOSELY TO INTENSELY FRACTURED. SHEARED. TO FRIABLE. LOW HARDNESS. WEAK. DEEP TO MODERATE WEATHERING

@7' AS ABOVE. MODERATELY STRONG

@9' AS AT 4' FRIABLE SHEARED. MOTTLED.

HARDING LAWSON ASSOCIATES

BBSB100

FIELD LOG OF BORING (CONTINUED)

SHEET 2 OF 2

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE				DEPTH	GRAPHIC LOG
		19	6	6	G					11	SP

PROJECT: 57255 | NO. 005 | BORING NO.

PRES. SF - BBDA 1A BATTERY STABILITY

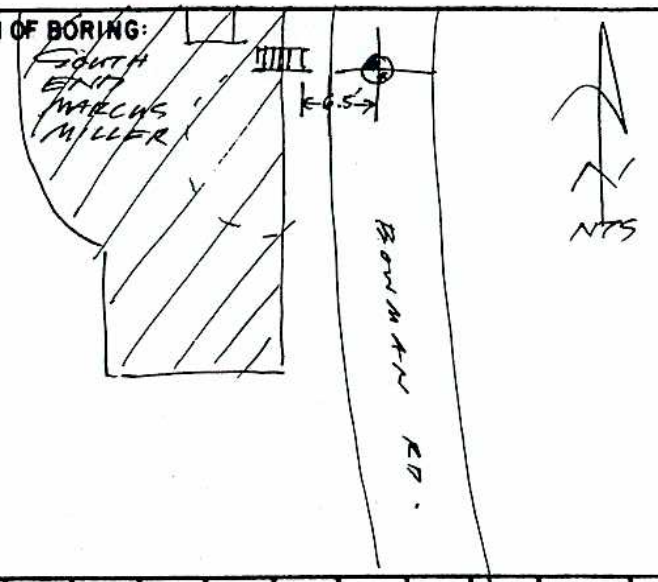
BOTTOM OF BORING AT 11'

BBSB102

FIELD LOG OF BORING

SHEET 1 OF 1

LOCATION OF BORING: SOUTH END MARCUS MILLER



PROJECT: PRESIDIO SF BBDA – BATTERY STABILITY	BORING NO.
	TOTAL DEPTH: 9.5
JOB NO.: 57255 005101	LOGGED BY: A. HENKE
PROJ. MGR: M. JACOBITZ	EDITED BY:
DRILLING CONTRACTOR: GREGG	
DRILL RIG TYPE: HSA 8" MOBILE B 53	
DRILLERS NAME: ROBERT GORACAS	
SAMPLING METHODS: 2.5" CSS, SHELBY	
HAMMER WT.: 140lb	DROP: 30in
STARTED, TIME: 1210	DATE: 5/12/05
COMPLETED, TIME: 1301	DATE:

BORING DEPTH (ft.)				
CASING DEPTH (ft.)				
WATER DEPTH (ft.)				
TIME:				
DATE:				

BACKFILLED, TIME: 1325 DATE: 5/12 BY GREGG

SURFACE ELEV.: DATUM:

CONDITIONS: SUNNY. CALM.

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			TIME	DEPTH IN FEET	GRAPHIC LOG
0	2.5" BRASS	5	6	11	F				1210	1	GW
		9	6	6	G						
	"	23	6	6							
1.5		9	6	0					1220	2	
		16	6	6	G						
		11	6	6						3	SC
3	SHELBY		24	17	F	CRUMPLED OVAL			1230		
										4	
5	2.5" BRASS	9	6	11	F				1240	5	SP
		11	6	6	G						
		23	6	6						6	
6.5	ST PEN.	15	6	6	GT				1248	7	
		32	6	6							
	4	48	6	6						8	
8	2.5" BRASS	41	6	0					1301		
		32	6	6	G					9	
	4	48	6	6							
									TMS	10	

REDDISH BROWN, WELL-GRADED GRAVEL WITH SAND (GW) (5YR 7/3) DENSE, MOIST. 60% ANGULAR RED CHERT GRAVEL. 30% CHERT SAND 10% FINES.

DARK YELLOWISH BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 4/4) DENSE. MOIST. ~50% FINE SAND ~20% CLAY (AS MATRIX) WITH ~30% ANGULAR SERPENTINITE GRAVEL MIXED IN.

OLIVE SERPENTINITE (SP) (5Y 5/3) DRY TO MOIST. MODERATELY CONSOLIDATED. INTENSELY FRACTURED SOFT - LOW HARDNESS. FRIABLE. DEEPLY WEATHERED

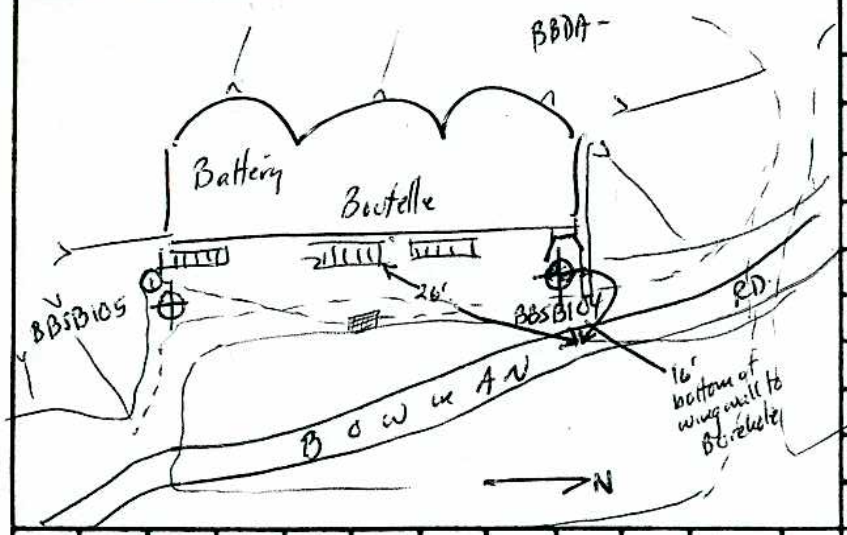
@ 8' COLOUR CHANGE TO GREENISH GREY (5GY 6/1) MODERATELY FRACTURED LOW HARDNESS WEAK

FF7

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: Presidio Baker Beach Geotech Inv.	BORING NO. BBSB104
	TOTAL DEPTH: 10.5'
JOB NO.: 57255	LOGGED BY: B. Godwin
PROJ. MGR.: M. Jacobitz	EDITED BY:
DRILLING CONTRACTOR: Gregg Drilling	
DRILL RIG TYPE: Mari M-10 Truck mount	
DRILLERS NAME: Eric	
SAMPLING METHODS: SPT/mod-Cal/shelby	
HAMMER WT.: 140# Auto Trip Ditale	DROP: 30-inch
STARTED, TIME: 11:15	DATE: 5/10/05
COMPLETED, TIME:	DATE:
BORING DEPTH (ft.): 10.5	
CASING DEPTH (ft.):	
WATER DEPTH (ft.): N/A.	
TIME:	
DATE:	
BACKFILLED, TIME: 12:45	DATE: 5/10/05 BY: Driller
SURFACE ELEV.: 220	DATUM: PLLW
CONDITIONS: clear, warm, calm (center of Bowman Rd)	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	Time			DEPTH IN FEET	GRAPHIC LOG	
	mod-Cal	11	6	0	—		11:22					Mixed concrete, chert fill and sand (fill) — No Recovery, concrete and chert rubble fill
		17	6	0	—							
		23	6	0	—					1		
		11	6	6	F						CL	Mottled yellowish, orange brown silty clay (CL) ( ), moist, stiff. (native) (colluvium?)
		15	6	6	G		11:32			2		
		22	6	6	G							
	SPT	6	6	6	T		11:44			3		Same.
		9	6	6	Bag							
		11	6	6						4	CL	
	cal-mod	14	6	6	P						SP-GP	olive to Greenish Brn Serpentinite. (Bedrock) (SP-GP), moist, med dense.
		23	6	6	G		12:02			5		@ 5ft Becoming harder, stronger and less wthrd @ 5.5ft
		32	6	6	G							
	SPT	4	6	6	Bag					6		@ 6ft Becoming friable, plastic, deeply wthrd } similar to BBSB105 @ 4.5-8.5 ft.
		6	6	6			12:10					
	shelby	7	6	6.						7		Relic bedding dipping ~ 45-50° from vertical
		PUSH psi	24"	12"	Tube		12:20			8		
	SPT	13	6							9		Green Serpentinite, weak, low hardness, deeply wthrd
		19	6	14"	Bag		12:30			10		

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:

PROJECT:	BORING NO BBSB104
	TOTAL DEPTH:
JOB NO.:	LOGGED BY:
PROJ. MGR.:	EDITED BY:
DRILLING CONTRACTOR:	
DRILL RIG TYPE:	
DRILLERS NAME:	
SAMPLING METHODS:	
HAMMER WT.:	DROP:
STARTED, TIME:	DATE:
COMPLETED, TIME:	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

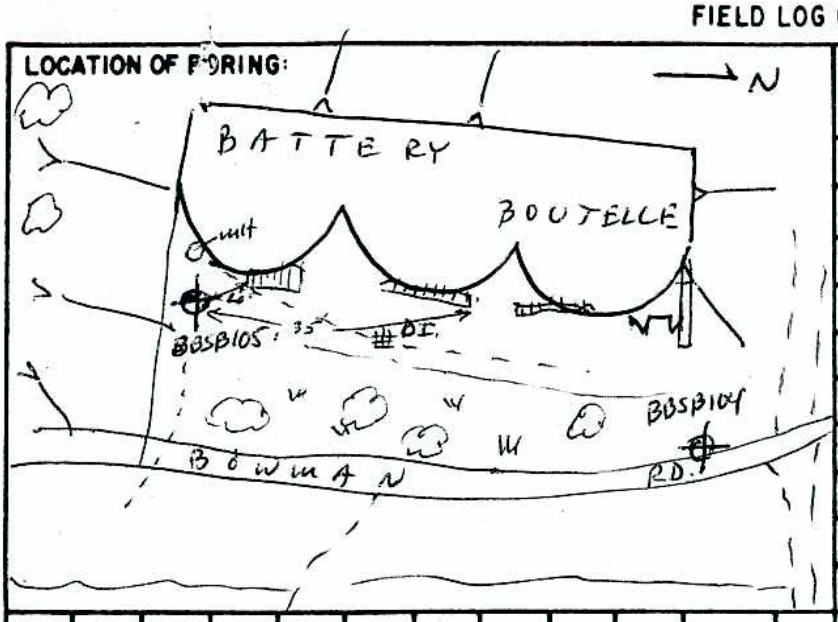
SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG	
↓	SPT	23	6	6	Bag					10.5		Serpentinite cont'd.
										11		Bottom of Boring @ 10.5 ft, No GW observed
												Borehole backfilled w/cuttings and tamped
										2		
										3		
										4		
										5		
										6		
										7		
										8		
										9		
										10		

FF7

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING SHEET 1 OF 1

LOCATION OF BORING:



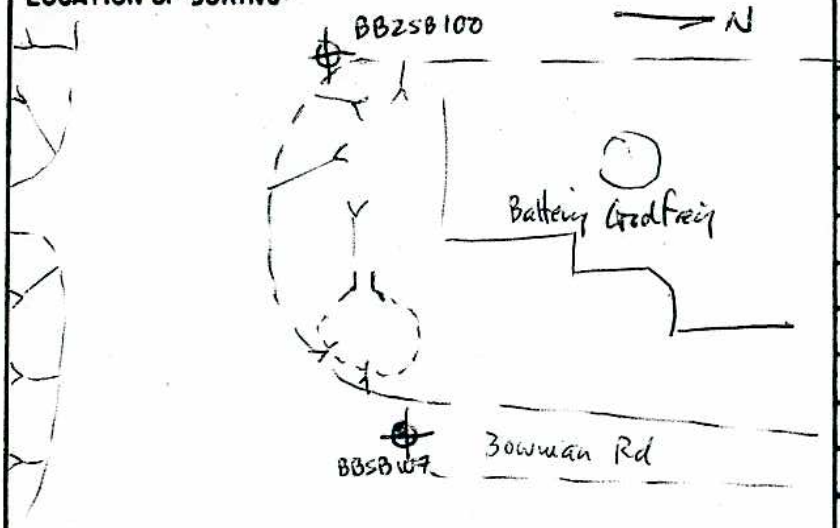
PROJECT: Presidio Baker Beach Groat. Inv.	BORING NO. BBSB105
	TOTAL DEPTH: 10.5'
JOB NO.: 57255	LOGGED BY: W Crodwick
PROJ. MGR.: M. Jacobvitz	EDITED BY:
DRILLING CONTRACTOR: Gregg Drilling	
DRILL RIG TYPE: Marl M-10 Trk-mount	
DRILLERS NAME: Eric	
SAMPLING METHODS: SPT / mod-Cal / shelby	
HAMMER WT.: 140# Auto Trip Donuhole	DROP: 30-in
STARTED, TIME: 0935	DATE: 5/10/05
COMPLETED, TIME: 1055	DATE: 5/10/05
BORING DEPTH (ft.): 10.5	
CASING DEPTH (ft.):	
WATER DEPTH (ft.): N/A.	
TIME:	
DATE:	
BACKFILLED, TIME: 11:00	DATE: 5/10/05 BY: Driller
SURFACE ELEV.: 230	DATUM: PLLW
CONDITIONS: Clear, calm, sunny.	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)	Time			DEPTH IN FEET	GRAPHIC LOG	
	mod-cal	11 6	6 6	4 6	P G		0940			1	SP	Reddish Brown ( ) Sand w/ Gravel (SP) damp, med dense (FILL) chert fragments
	SPT	7 7	6 6	6 T	G T					2	SM	mottled Red, orange and Brown ( ) Silty Sand (SM), moist, med dense (Colma Fm?)
		9 14	6 6	18 I	Bag I		0946			3	SW	grading at 3ft to olive green and brown ( ) silty Sand (SM) (residual soil)
	cal-mod SHELBY SPT	8* 10*	6 6	5 6 18	F G G		1005			4	ML	abundant FeO and MgO staining and nodules
		11* 7	6 6	6 6	G T		1015			5		med dense, damp grade to 3* Blow cts meaningless no lucky move over, push shelby 30"
		7 9	6 6	6 6	Bag I		10:25			6		(Serpentinite bedrock) @ 4' mr. vertical discontinuities, deeply wthrd (1000-1360 psi)
	cal-mod	11 18	6 6	6 6	F G		10:30			7	ML	damaged shelby tip w/ rock @ 4.5ft @ 5.5' 45° clay filled fractures, some relic bedding talc-like textrive, deeply wthrd.
	SPT	20 7	6. 6	6 5	G T					8		Beginning @ 8.5 to contain less wthrd clasts
		16 15	6 6	6 6	Bag I		10:35			9		
	SPT	16 24	6 6	4 6	I Bag		10:43			10		
		50/5"	5	6								Bottom of Borehole @ 10.4' No GW observed backfilled w/ cuttings & tamped

FF7 HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING SHEET 1 OF

LOCATION OF BORING:



PROJECT: Presidio Baker Beach	BORING NO. BBSB107
	TOTAL DEPTH: 20'
JOB NO.: 57255	LOGGED BY: B. Gadwin
PROJ. MGR.: M. Jacobitz	EDITED BY:
DRILLING CONTRACTOR: Gregg Drilling	
DRILL RIG TYPE: Mark M-10 truck mount	
DRILLERS NAME: Eric Santellan	
SAMPLING METHODS: SPT / Cal-mod / shelby	
HAMMER WT.: 140 lb	DROP: 30-in auto trip dh. hammer
STARTED, TIME: 0730	DATE: 5/10/05
COMPLETED, TIME: 0910	DATE: 5/10/05
BORING DEPTH (ft.): 20'	
CASING DEPTH (ft.):	
WATER DEPTH (ft.): N/A	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.: 265	DATUM: PLLW
CONDITIONS: Clear, calm, sunny.	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG	
	2.5" Brass	16	6	2	P		0745				sm	Dk Reddish Brown ( ), Gravelly
		18	6	6	F							silty sand (SM), damp, dense (Fill)
		19	6	6	G					1	sm	Yellowish Orange Brown ( ) silty sand (SM)
		9	6	6	P							f-grained, damp (Fill) grading to.
		11	6	6	G		0751			2		Yellow Brown ( ) Sandy silt (ML),
		11	6	6	G							moist, stiff, incl. mgo staining (native)
		11	6	6	P					3		(Colluvium?)
		13	6	6	G						ML	
	Shelby	15	6	6	G		0755			4		same, 80% fines, Lt and med Brown
												mottling, slightly porous
		~1000 psi	19"	19"	G					5		same, med brown ( )
							0803					
	SPT	6	6	6						6		
		10	6	6	Bag						CL	
		11	6	6			0805			7		Silty clay (CL)
	2.5" Brass	~~13~~	~~6~~	—	—							~~same~~, light brown ( ), moist stiff
		~~18~~	~~6~~	→	G					8		Driller re-sample 7-8.0. (Blow counts meaningless)
		19	6		G							cleanout borehole to 9.0 ft.
										9		
		8	6	6	F		8:20					
		11	6	6	G					10	ML	Light Brown Sandy silt (ML) ( )
		12	6	6	G							moist stiff

FF7

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING SHEET 2 OF ____

LOCATION OF BORING:

PROJECT:	BORING NO. BBSB107
	TOTAL DEPTH:
JOB NO.:	LOGGED BY:
PROJ. MGR.:	EDITED BY:
DRILLING CONTRACTOR:	
DRILL RIG TYPE:	
DRILLERS NAME:	
SAMPLING METHODS:	
HAMMER WT.:	DROP:
STARTED, TIME:	DATE:
COMPLETED, TIME:	DATE:
BORING DEPTH (ft.)	
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	
TIME:	
DATE:	
BACKFILLED, TIME:	DATE: BY:
SURFACE ELEV.:	DATUM:
CONDITIONS:	

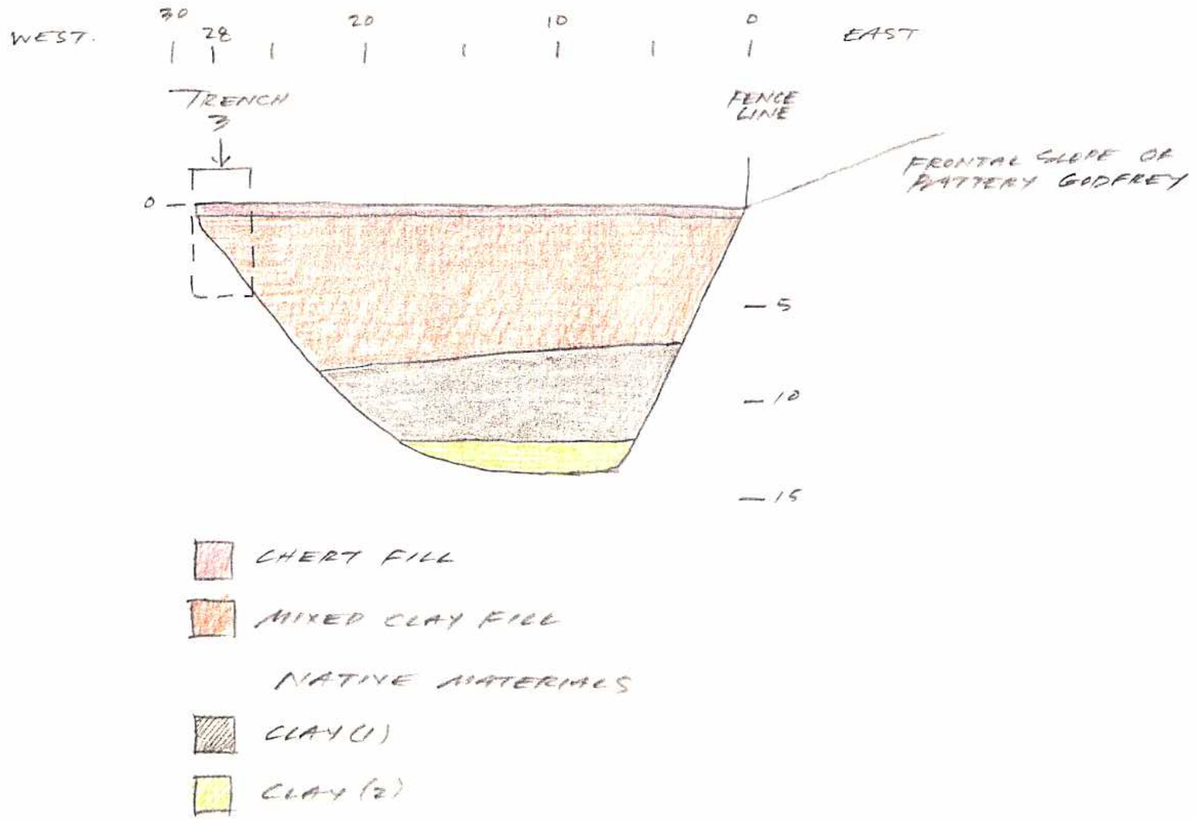
SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG	
	Shelby	1100 psi	24	24	G					10.5		grading to:
							0830			11	ML	Yellow Brown ( ) silty sand to sandy silt. moist, v. stiff, contains 5% coarse sst clasts
										12		
V	2.5" Brass	13	6	6	P						SP-SM	~~sand w/ silt~~ (SP-SM) ~~Stiff~~, v. dense. (SM), f-m grained
		20	6	6	F		0835			13		Olive Brown ( ) (Colma Fm?)
		22	6	6	G							
	SPT	8	6	6	Bag					14		~~Becoming~~
		11	6	6			0841					
		13	6	6						15	SP	med Brown ( ) Sand (SP) moist, dense
	2.5" Brass	18	6	3	P							
		23	6	6	G		0855			16		
		25	6	6	P							
	SPT	14	6		Bag					17		Blue Grey and Brown SILT (ML)
		18	6				0900					deeply wthrd Serpentinite (Bedrock)
V		25	6							18		
	2.5" Brass	20										same, Friable, crushed, deeply wthrd.
		29								19		
		32										
										20		Bottom of Boring @ 20' No GW observed

Backfilled w/ cuttings and tamped

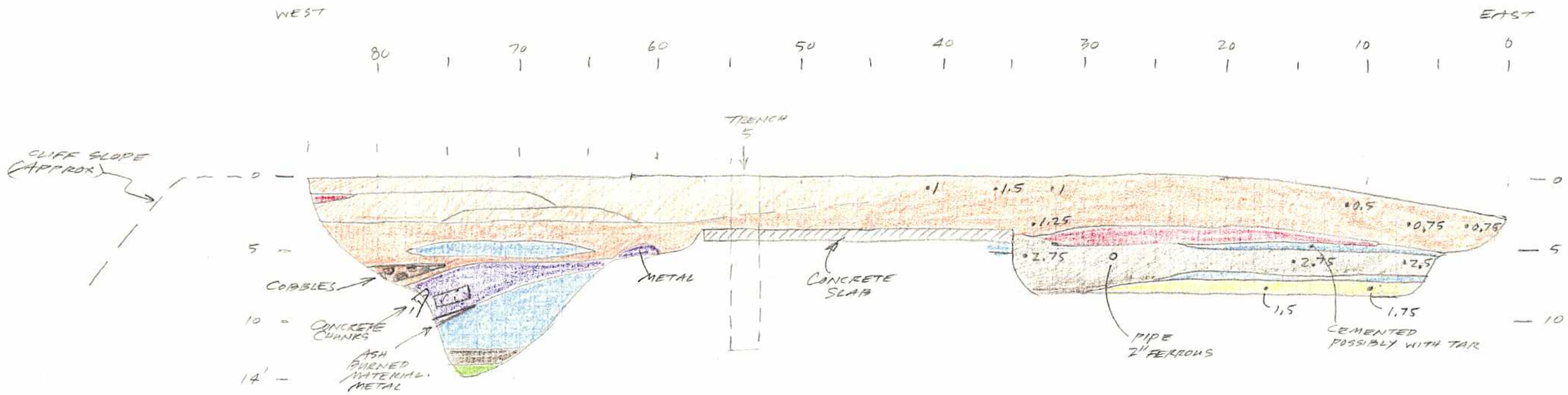
FF7

HARDING LAWSON ASSOCIATES

TRENCH A


30
28
20
10
0
WEST.
EAST
TRENCH 3
FENCE LINE
FRONTAL SLOPE OF BATTERY GODFREY
0
5
10
15
CHERT FILL
MIXED CLAY FILL
NATIVE MATERIALS
CLAY (1)
CLAY (2)

TRENCH E



MIXED CLAY FILL – DARK BROWN LEAN CLAY WITH GRAVEL (CL) (10YR 3/3) SOFT TO FIRM. MOIST. CONTAINS INCLUSIONS OF YELLOWISH BROWN CLAY (10YR 5/4) 80% CLAY 20% GRAVEL.

CHERT FILL – REDDISH BROWN WELL-GRADED GRAVEL WITH SAND (GW) (5YR 4/3) DENSE. DRY. 80% GRAVEL (ANGULAR) 15% SAND 5% FINES

SAND – DARK YELLOWISH BROWN SILTY SAND (SM) (10YR 4/4) DENSE. MOIST. 80% VERY FINE SAND 20% SILT. SOME FeO_2 STAINING IN PATCHES

GRAVEL FILL – DARK GREY TO BROWN SILTY GRAVEL WITH SAND (GM) (10YR 4/1 – 10YR 5/3) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 60% ANGULAR GRAVEL 20% SAND 20% SILT/FINES. PLACED IN LIFTS DISTINGUISHED BY COLOUR CHANGE.

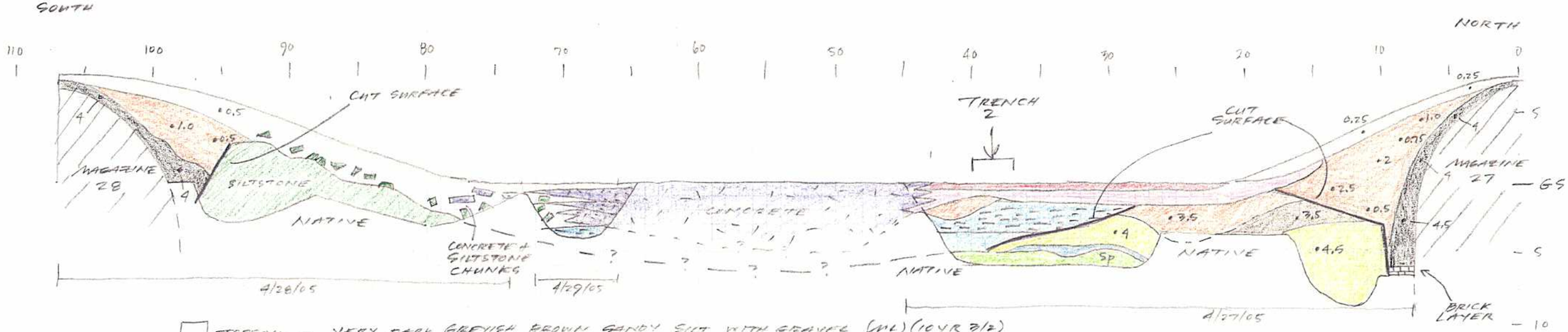
SILT – VERY DARK GREYISH BROWN (CLAYEY) SILT (ML) (10YR 3/2) HARD. DRY TO MOIST. 70% SILT. 30% CLAY. NATIVE OR DISTURBED NATIVE.

CLAY – YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/6) HARD. MOIST. 90-100% CLAY. SOME FINE SAND. FeO_2 MOTTLE AND BLACK OXIDES ALONG FRACTURES

DEBRIS FILL – GREY WELL-GRADED GRAVEL WITH SAND (GW) (2.5YN 5/0) LOOSE. DRY. 60% GRAVEL. 20% SAND. 20% DEBRIS – INCL. CONCRETE, METAL, ASH, GLASS.

SERPENTINITE

TRENCH 1



TOPSOIL – VERY DARK GREYISH BROWN SANDY SILT WITH GRAVEL (ML)(10YR 3/2) SOFT. DRY TO MOIST. GENERALLY 60% SILT 20% SAND 20% GRAVEL

MIXED CLAY FILL – MIXTURE OF YELLOWISH BROWN (10YR 5/6) AND VERY DARK BROWN (10YR 2/2) LEAN CLAY (CL) SOFT. MOIST., 80% CLAY 20% SILT. OCCASIONALLY SANDY.

CONSTRUCTION CLAY – BLACK LEAN CLAY (CL) (10YR 2/1) HARD TO VERY HARD. MOIST. 100% CLAY. COMPACTED ON SIDES OF STRUCTURES.

CONCRETE – MULTIPLE LAYERS OF CONCRETE AND CEMENT GROUT (SOME WITH COLOURING AGENTS ADDED) PRESUMED TO BE AN OLD WASH OUT AREA.

CHERT FILL (1) – DARK REDDISH BROWN WELL GRADED GRAVEL WITH SAND (GW)(5Y 3/3) DENSE. DRY. 70% GRAVEL (ANGULAR CHERT TO 1.5" Ø) 20% SAND <10% FINES

CHERT FILL (2) – AS ABOVE, BUT LIGHTER COLOUR - REDDISH GREY (5Y 5/2)

FILL SAND (1) – VERY DARK GREY POORLY GRADED SAND WITH CLAY INCLUSIONS (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. DRY TO MOIST. 70% SAND. 30% YELLOWISH BROWN CLAY.

FILL SAND (2) – VERY DARK GREY POORLY GRADED SAND (SP)(5Y 3/1) LOOSE TO MEDIUM DENSE. MOIST. 100% SAND.

NATIVE MATERIALS

SILTSTONE – OLIVE GREY SILTSTONE (5Y 5/2)( ) MODERATELY CONSOLIDATED. CLOSELY FRACTURED LOW HARDNESS. WEAK. DEEPLY WEATHERED

CLAY (1) – VERY DARK GREYISH BROWN LEAN CLAY (CL)(10YR 3/2) HARD. MOIST. 80% CLAY 15% SILT 5% VERY FINE QUARTZ SAND.

CLAY (2) – YELLOWISH BROWN LEAN CLAY (CL)(10YR 5/6) HARD. MOIST., 100% CLAY. WITH FeO_2 MOTTLE, AND BLACK OXIDATION ALONG FRACTURES. IN PLACES RESEMBLES WEATHERED ROCK.

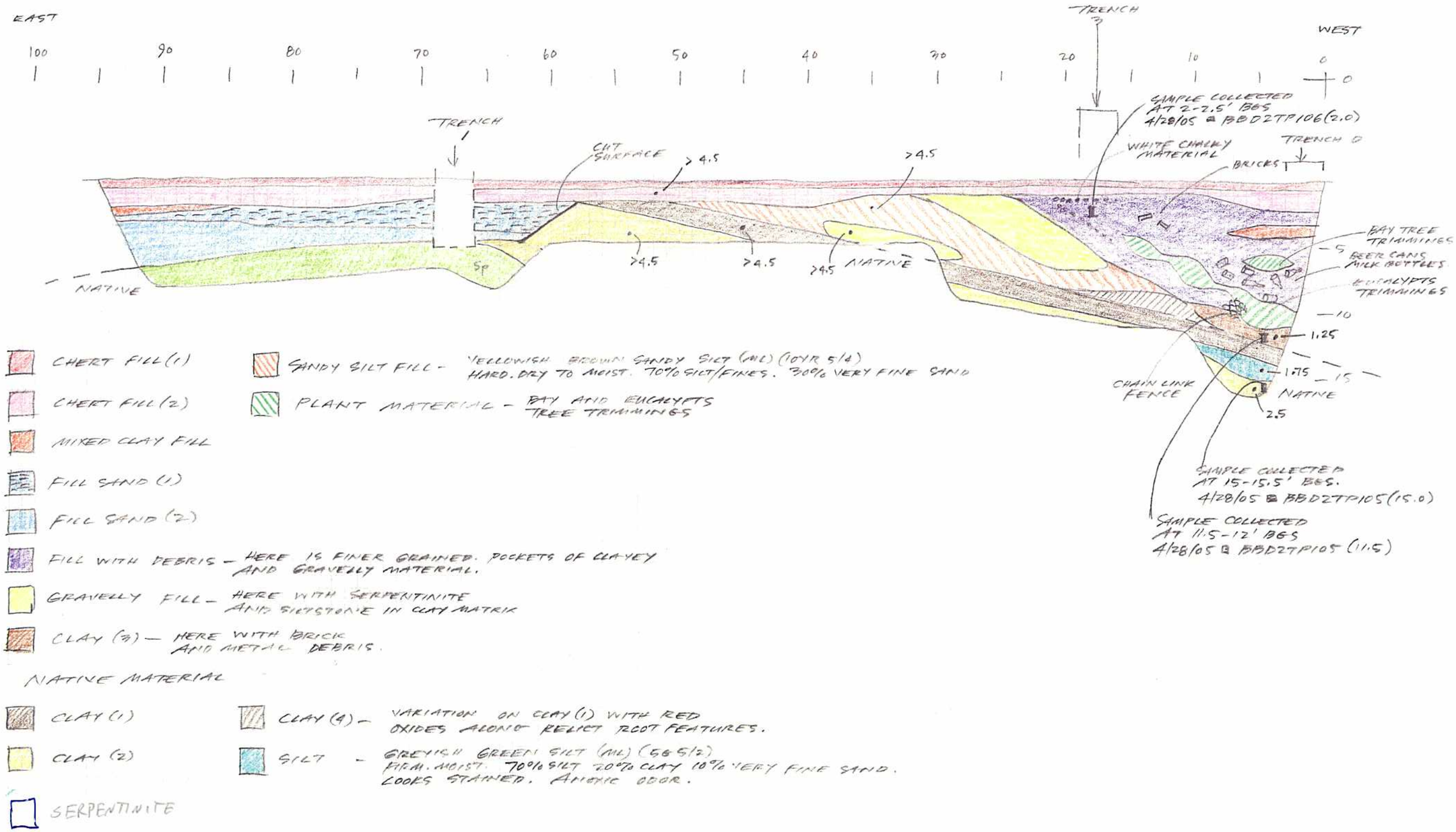
SAND – DARK GREYISH BROWN SILTY SAND (SM)(2.5Y 4/2) DENSE. WET. 60% VERY FINE SAND 40% SILT/FINES. HAS BEDDING PLANES. THIN LAMINATIONS.

SERPENTINITE – LIGHT OLIVE BROWN (2.5Y 5/3) TO GREENISH GREY (5BG 5/1). MODERATELY CONSOLIDATED. INTENSELY FRACTURED. LOW TO MODERATE HARDNESS. FRIABLE TO WEAK. DEEPLY WEATHERED.

• 4.5 – POCKET PENETROMETER

SECTIONS TRENCHED 4/27 THRU 4/29/05.
BACKFILLED 4/28 AND 4/29/05

TRENCH 2



CHERT FILL (1)

CHERT FILL (2)

MIXED CLAY FILL

FILL SAND (1)

FILL SAND (2)

FILL WITH DEBRIS – HERE IS FINER GRAINED. POCKETS OF CLAYEY AND GRAVELLY MATERIAL.

GRAVELLY FILL – HERE WITH SERPENTINITE AND SILTSTONE IN CLAY MATRIX

CLAY (3) – HERE WITH BRICK AND METAL DEBRIS.

SANDY SILT FILL – YELLOWISH BROWN SANDY SILT (ML) (10YR 5/4) HARD. DRY TO MOIST. 70% SILT/FINES. 30% VERY FINE SAND

PLANT MATERIAL – BAY AND EUCALYPTS TREE TRIMMINGS

NATIVE MATERIAL

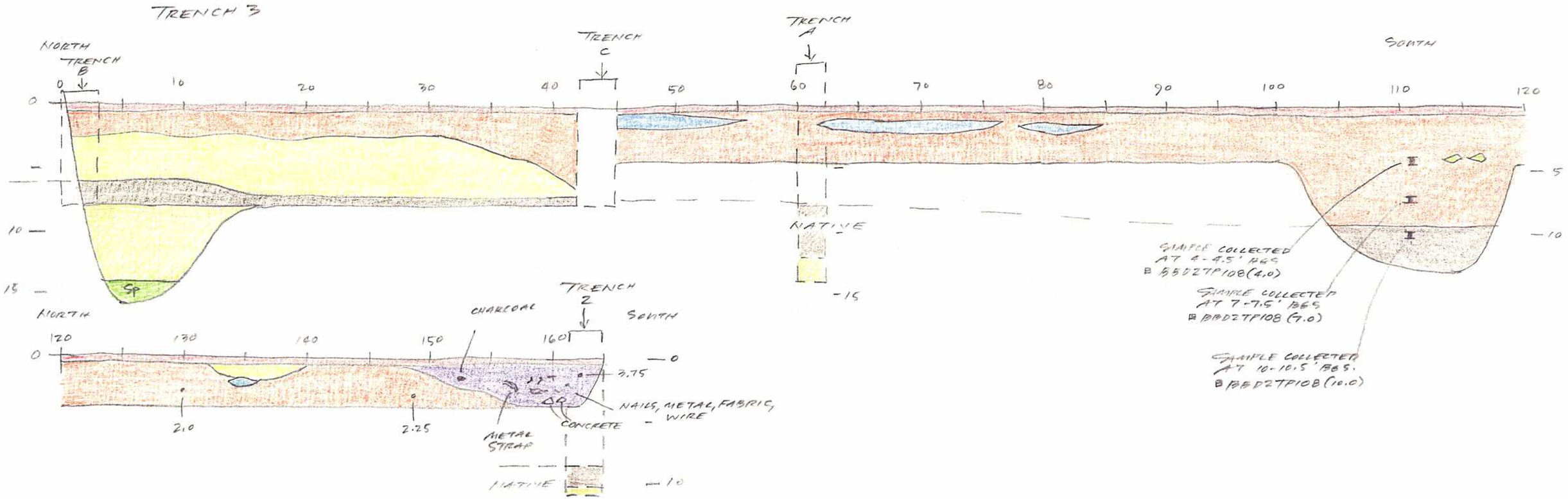
CLAY (1)

CLAY (2)

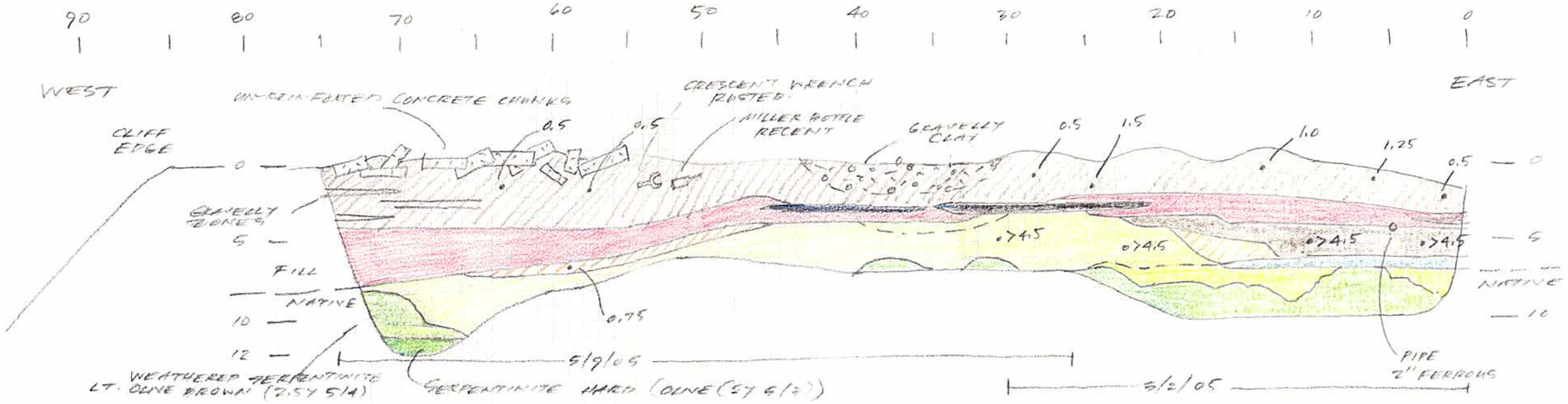
SERPENTINITE

CLAY (4) – VARIATION ON CLAY (1) WITH RED OXIDES ALONG RELICT ROOT FEATURES.

SILT – GREYISH GREEN SILT (ML) (5G 5/2) FIRM. MOIST. 70% SILT 20% CLAY 10% VERY FINE SAND. LOOKS STAINED. ANOXIC ODOR.


TRENCH 3
NORTH
TRENCH B
TRENCH C
TRENCH A
SOUTH
0
10
20
30
40
50
60
70
80
90
100
110
120
0
5
10
15
SP
NATIVE
SAMPLE COLLECTED AT 4-4.5' BGS @ BBD2TP108(4.0)
SAMPLE COLLECTED AT 7-7.5' BGS @ BBD2TP108 (7.0)
SAMPLE COLLECTED AT 10-10.5' BGS. @ BBD2TP108 (10.0)
TRENCH 2
NORTH
SOUTH
120
130
140
150
160
CHARCOAL
0
3.75
2.0
2.25
NAILS, METAL, FABRIC, WIRE
CONCRETE
METAL STRAP
NATIVE
10
15
CHERT FILL (1)
MIXED CLAY FILL
GRAVELLY FILL
FILL SAND
FILL WITH DEBRIS
NATIVE MATERIAL
CLAY (1)
CLAY (2) – HERE WITH SOME STRUCTURAL SIMILARITIES TO SERPENTINITE
SERPENTINITE

TRENCH 4



CLAY FILL – VERY DARK GREYISH BROWN SANDY CLAY (CL) (10YR 3/2) SOFT TO FIRM. MOIST. 70% CLAY/FINES. 30% SAND. OCCASIONAL GRAVEL.

OLD ROAD BED – ASPHALT + GRAVEL/SAND. OCCASIONAL NAIL

CHERT FILL – HERE WITH A THIN LAYER OF VERY DARK GREYISH BROWN COARSE ANGULAR SAND

SILT – NOT NATIVE AT THIS LOCATION. INCLUSIONS OF YELLOWISH BROWN CLAY.

SAND – YELLOWISH BROWN

CLAY – YELLOWISH BROWN CLAY

CLAY FILL – MATERIAL AS ABOVE WITH 20-30% SERPENTINITE GRAVEL + COBBLES.

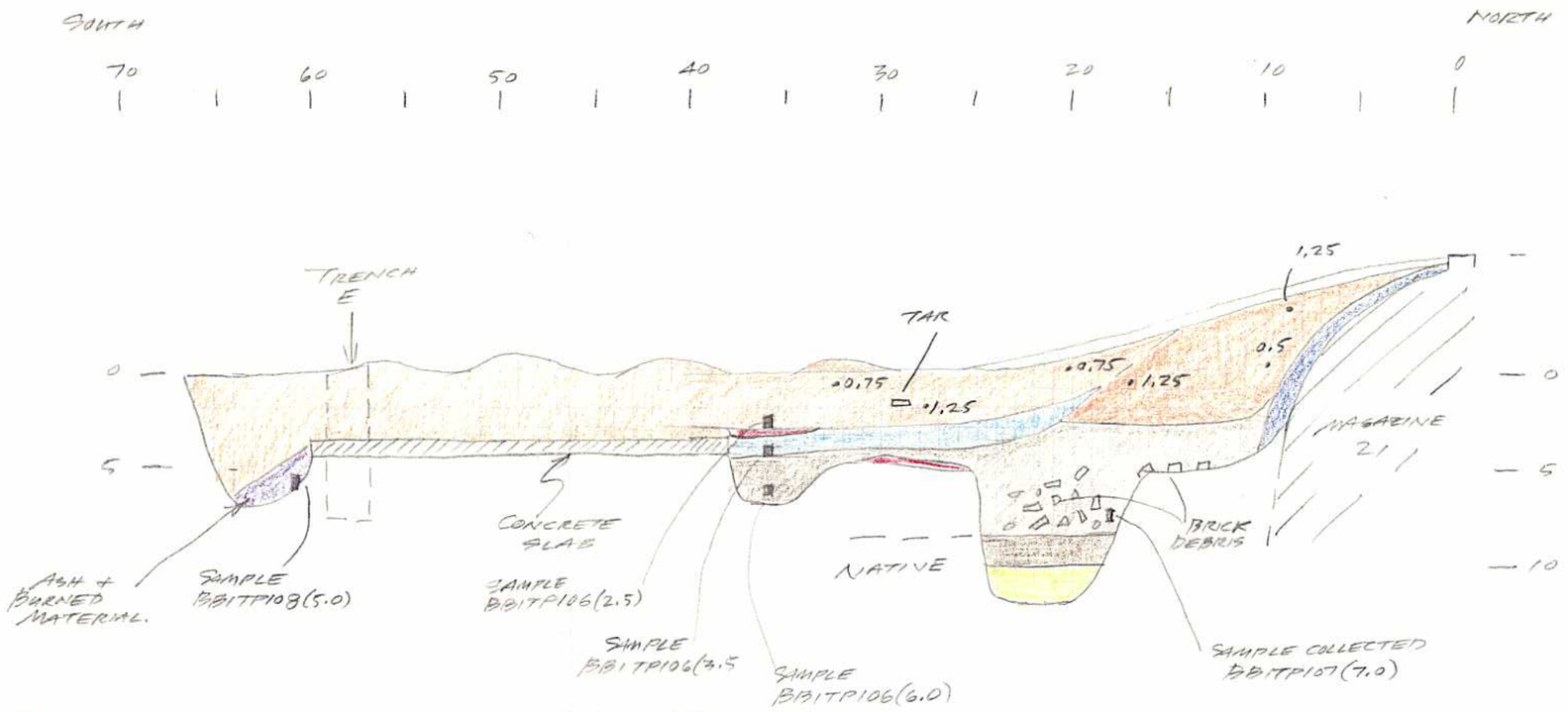
SERPENTINITE-DERIVED CLAY – COLOUR + APPEARANCE OF SERPENTINITE. HAS SLICKENSIDES. SOFT CLAY TEXTURE

SERPENTINITE

AK HENKE
MACTEC

5/2/05 – 5/9/05
PRESIDIO SF ARMY

TRENCH 5



MIXED CLAY FILL - HERE GRAVEL (20-30%) IS PRESENT IN SOUTHERN EXTENT

SAND - YELLOWISH BROWN

SILT - HERE IN BOTH NATIVE FORM, AND WITH BRICK DEBRIS

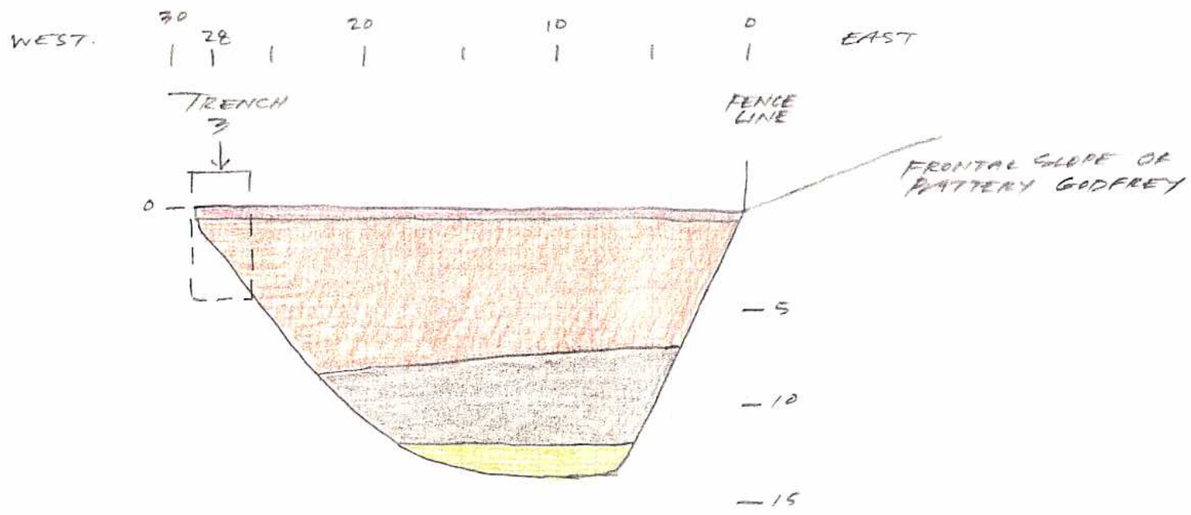
CLAY - YELLOWISH TAN CLAY

CONSTRUCTION SAND - VERY DARK GREY SILTY SAND (SM) (2.5Y N3/0) DENSE. MOIST. 80% FINE - VERY FINE SAND 20% SILT.

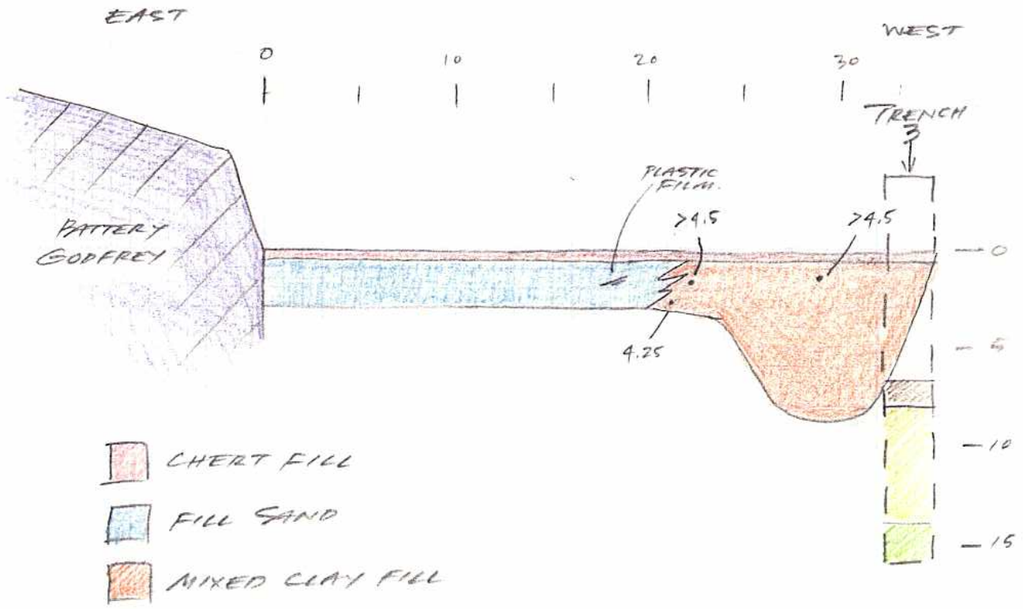
DEBRIS FILL - PRIMARILY ASH & BURNED METAL

TOPSOIL

TRENCH A


30
28
20
10
0
WEST.
EAST
TRENCH 3
FENCE LINE
FRONTAL SLOPE OF BATTERY GODFREY
0
5
10
15
CHERT FILL
MIXED CLAY FILL
NATIVE MATERIALS
CLAY (1)
CLAY (2)

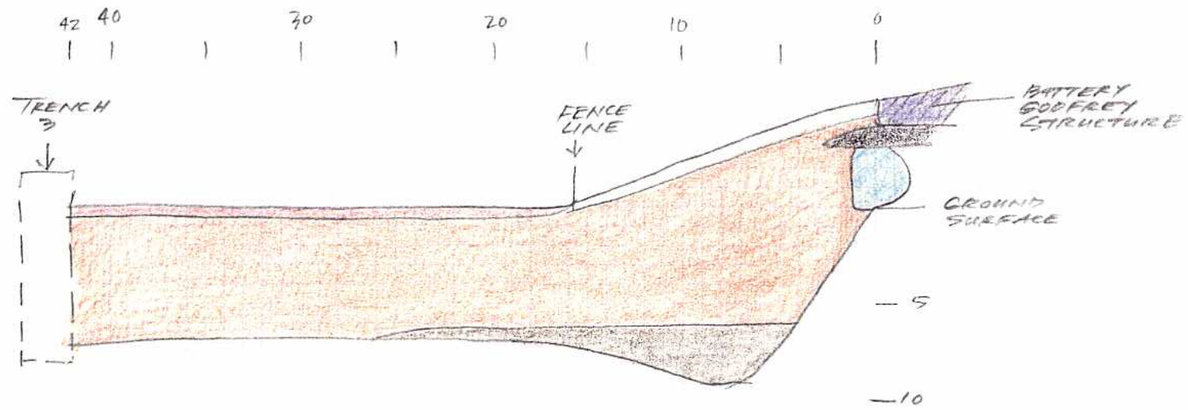
TRENCH B


EAST
WEST
0
10
20
30
TRENCH
PLASTIC FILM
>4.5
>4.5
4.25
BATTERY GODFREY
0
5
10
15
CHERT FILL
FILL SAND
MIXED CLAY FILL

TRENCH C

WEST

EAST



TOPSOIL

CHERT FILL

FILL SAND

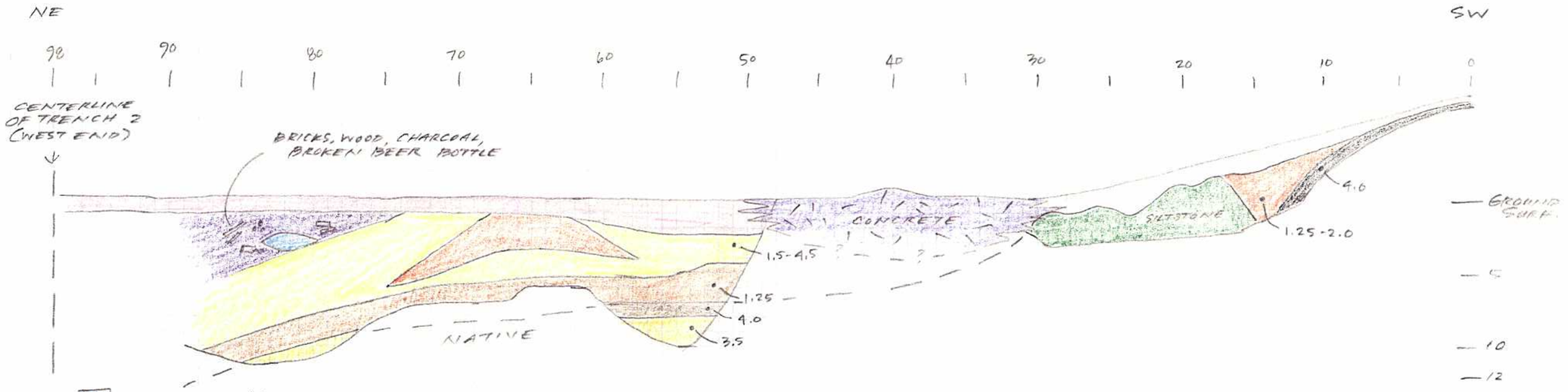
CONSTRUCTION CLAY - HERE, MORE SILTY

MIXED CLAY FILL

NATIVE MATERIAL

CLAY (1) — HERE SILTIER AND RELATIVELY SOFTER.

TRENCH D



FILL SAND (2)

TOPSOIL

CHERT FILL (2)

MIXED CLAY FILL

CONSTRUCTION CLAY

GRAVELLY FILL - LIGHT OLIVE BROWN CLAYEY GRAVEL (GC) (2.5Y 5/4) DENSE TO MEDIUM DENSE. MOIST. 80% ANGULAR SILTSTONE TO 2" ϕ. 20% CLAY/FINES. CLEAN.

FILL WITH DEBRIS - VERY DARK GREY SILTY GRAVEL WITH SAND (GM) (2.5Y N3/2) MEDIUM DENSE. DRY TO MOIST 50% GRAVEL 30% SILT 20% SAND. WITH DEBRIS.

CLAY (1) - VERY DARK GREY LEAN CLAY (CL) (10YR 3/1) FIRM. MOIST. 80% CLAY 20% SILT. TEXTURALLY DISTURBED

NATIVE MATERIALS

SILTSTONE

CLAY (1) - HERE WITH RED OXIDES ALONG RELICT ROOT FEATURES.

CLAY (2) - HERE WITH WEATHERED, DEGRADED SILTSTONE CLASTS.

TRENCHED & BACKFILLED 4/29/05

MACTEC

June 1, 2005

57255 005105

Mr. Robert Boggs
California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Baker Beach Geotechnical Investigation Debris Stability Data Package No. 3

Dear Mr. Boggs:

On behalf of the Presidio Trust, enclosed please find for your review a data package from our ongoing Baker Beach geotechnical program, which constitutes our final geotechnical sample testing submittal. Included are updated tables showing geotechnical samples collected. The documents included in this transmittal are draft, and will be included in final form in the report. The report will be signed and stamped by a registered engineer. These samples were obtained from borings as part of the Battery and Disturbed Area Stability evaluation. The data package includes:

- Updated tables (2a-2i) that show both proposed samples and testing (Table 2 of the most recent Field Sampling Plan) and the samples collected to date and submitted for geotech analysis; and

- Preliminary test borings and hand auger borings (showing where the samples were collected).

Jim French, geotechnical engineer, reviewed the draft drill logs and the samples, and assigned the geotechnical index and strength tests based on sample interval, sample recovery and condition and soil type. All samples intended for geotechnical strength testing were taken with thin-wall Shelby tubes unless noted on the table.

The tables and testing program are preliminary and may be revised as additional information is developed.

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300 • Petaluma, CA 94954
707-793-3800 • Fax: 707-793-3900

Please contact Jim French (510) 628-3234, Gary Lieberman (707) 793-3858, or Bill Godwin (707) 793-3841 if you have any questions.

Yours very truly,

MACTEC Engineering and Consulting, Inc.

Michael Jacobvitz
Senior Principal Hydrogeologist

BG/MAJ/mlb:MB61226.doc-POSF

Enclosures Tables
Field Test Boring Logs

Cc: Mr. George Ford, The Presidio Trust
Mr. Ram Ramanujam, DTSC Sacramento
Brian Ullensvang, NPS

Table 2a: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section A - A'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection									Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture Density	Mechanical Analysis	-200	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
A-A	CLA-1	fill	1.5 to 2.5			x	2			2																			
	CLA-2	fill	1.5 to 2.5			x	2			2																			
																	0 to 1.5	18	23-May		1		1		1	1			
	BBSB103	fill	1 to 5.5			x	2	1		3		3																	
																	1.5 to 3.0	18	23-May	1									
																	3.0 to 4.5	18	23-May		1	1			1			1	Confining stress 250,500psf
																	4.5 to 6.0	18	23-May		1					1			Confining stress 300psf
	BBSB103	res soil	5.5			x	1			1	1	1																	
	BBSB103	wthtrd rk	6.5 to 15			x		2		2	1	2	1	1															
																	6.5 to 8.0	18	23-May	1									
																	8.0 to 9.5	18	23-May		1	1					1		Normal stress 500, 1000, 1500psf
																	9.5 to 11.0	18	23-May	1									
																	11.5 to 13	18	23-May				1		1		1		Normal stress 750, 1500, 2250psf
																	13 to 13.6	18	23-May	1									
	BBSB103	rock	15			x	1			1		1																	
	BB1TP101	fill	1 to 5.5		x		3			3							1 to 3	24	12-Apr		1						1		Normal stress 200,400,800psf
	BB1TP101	colluvium	5.5		x		1			1	1	1					10.5 to 12.5	10	12-Apr										
	BB1TP101	wthtrd rk	5.5 to 10		x		1	1	1	2	1	1	1																
	BB1PZ100	fill	2 to 10		x		1			1																			
	BB1PZ100	colluvium	10 to 15		x			1			1				1														
	BB1PZ100	wthrd rk	15		x			1		1	1					1													
	BB1PZ101	fill	3 to 6		x		1			1																			
	BB1PZ101	wthtrd rk	6 to 10		x		1		1	1	1		1																
	BB1PZ101	rock	10		x		1		1	1																			
	BB1TP102	fill	1 to 12		x		3	2		5		2		2			4 to 6	10	15-Apr	1									
	BB1TP102	colluvium	12		x			1		1				1			10.5 to 12	12	15-Apr		1					1			
	Total						20	9	3	28	7	11	3	4	1	1				5	6	2		0	3	2	1	3	1	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
CLA-1,2- Cultural Resource Trenches
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2b: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section B - B'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	minus 200	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
B-B	BBSB106	fill	0.5 to 6.5	x			4			4	2	4																	
	BBSB106																0 to 1.5	18	23-May		1	1		1	1	1			
	BBSB106																2.5	18	23-May	1									
	BBSB106																3.5 to 5.5	24	23-May		1				1		1		normal stress 300, 600, 1200psf
	BBSB106																6 to 6.5	6	23-May		1					1			
	BBSB106	res soil	6.5 to 8	x				1		1	1	1		1			6.5 to 8	18	23-May		3		1		1		1	1		normal stress 500, 1000, 2000psf / confining s
	BBSB106	wthred rk	8 to 17	x			2	1		3	3	3		1			8 to 9.5	18	23-May	1									
	BBSB106																10 to 11.5	18	23-May		2					1		1	normal stress 600, 1200, 2400psf
	BBSB106	rock	17 to 27	x			2	2	2	3		3	1	1		1	24 to 25.5	18	23-May	1			1		1				
	BB2ATP100	fill	1 to 5.5		x		3			3							1 to 3	24	14-Apr		1				1			1	normal stress 200,400,800psf
	BB2ATP100	colluvium	5.5 to 8		x		1			1	1	1					4 to 5	8	14-Apr		1				1				
	BB2ATP100	wthrd rk	8.0		x		1		1	1				1															
	BB2ATP101	fill	1 to 5.5		x		2	1		3	2						2 to 4	23	14-Apr		1	1			1	1			
	BB2ATP101	colluvium	5.5 to 8		x			1	1	1	1		1		1		12 to 14	25	14-Apr		1						1		confining stress 100psf
	BB2ATP101	wthrd rk	8.0		x		1		1	1																			
	BB2ATP102	fill	2 to 6.5		x		2	1		3	2	1		1			2 to 4	14	14-Apr		1	1							
	BB2ATP102	colluvium	6.5 to 9		x			1		1	1	1		1			8 to 10	24	14-Apr		1					1			
	BB2ATP102	wthrd rk	9.0		x		1			1																			
	BB2ATP105	fill	1 to 5		x			1		2	1						0.5 to 2.5	24	15-Apr		1					1			
	BB2ATP105	colluvium	5 to 7		x			1		1	1			1															
	BB2ATP105	wthrd rk	7.0		x					1																			
	Total						19	10	5	30	15	14	2	7	1	1				3	15	3	2	1	7	6	2	4	0	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2c: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section C - C'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	Hydrometer	#200	Plasticity Index	Uncnf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
		Provides input for:	Cohesion						x	x	x	x	x	x	x	x														
			Friction Angle						x	x		x		?	x	x														
			Density						x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
C-C	BBSB105	fill	0.5 to 6.5	x			4			4	2	4					1 to 1.5	6	10-May		1								
	BBSB105	res soil	6.5 to 8	x				1		1	1	1		1			1.5 to 3	18	10-May	1									
	BBSB105																3.5	6	10-May		1						1		confining stress 250psf
	BBSB105																3 to 4.5	18	10-May		1								
	BBSB105																4.5	18	10-May	1									
	BBSB105																6.5	6	10-May		1						1		pocket penetrometer/confining stress 800psf
	BBSB105																7.5	18	10-May	1									
	BBSB105	wthred rk	8 to 17	x			2	1		3	3	3		1			9	18	10-May	1									
	BBSB105	rock	17 to 27	x			2	2	2	3		3	1			1													
	BBSB104	fill	0.5 to 6.5	x			3			3		4					2	6	10-May		1			1	1	1			
	BBSB104																3	18	10-May	1									
	BBSB104																2.5	6	10-May		1					1			
	BBSB104																5.5	6	10-May		1								
	BBSB104																6	18	10-May	1									
	BBSB104	res soil	6.5 to 8	x			1			1	1	1					7.5 to 9.5	12	10-May		1						1		confining stress 800psf
	BBSB104	wthred rk	8 to 17	x			1		1	1	2	3	1	1	1		9.5	18	10-May	1									
	BBSB104	rock	17 to 27	x			2	1	2	3	2	3				1													
	BB1TP105	fill	1 to 8		x			1		1	1	1					1 to 3	16	12-Apr		1								
	BB1TP105	colluvium	8 to 10		x		1			1	1						5.5 to 7.5	27	12-Apr		1						1		normal stress 500,1000,2000psf
	BB1TP105	wthrd rk	10.0		x		1	1		3	2	1		1															
	BB1TP104	fill	1 to 5		x			1		1	1	1		1			1 to 3	15	12-Apr	1									
	BB1TP104	colluvium	5 to 9		x		1			1		1																	
	BB1TP104	wthrd rk	9.0		x			1		2	1		1																
	BB1TP103	fill	1 to 5				1			1		1					3 to 5	17	12-Apr		1	1							
	BB1TP103	colluvium	5 to 7		x			1		1	1	1		1			9.5 to 12	27	12-Apr	1		1				1			
	BB1TP103	wthrd rk	7.0		x		1		1	1			1																
	Total						**20**	**10**	**6**	**31**	**18**	**28**	**4**	**6**	**1**	**2**				**9**	**11**	**2**	**0**		**1**	**2**	**2**	**4**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2d: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section D - D'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	Hydrometer	#200	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
			Provides input for:	Cohesion					x	x	x	x	x	x	x	x														
				Friction Angle					x	x		x		?	x	x														
				Density					x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
D-D	BB2ASB100	fill	0.5 to 6.5	x			4			4	2	4					1 to 1.5	6	9-May	1										
	BB2ASB100																2.5 to 3	6	9-May	2										
	BB2ASB100																5.5 to 6	6	9-May											
	BB2ASB100	res soil	6.5 to 8	x				1		1	1	1		1			6.8 to 7.5	9	9-May		1			1			1			normal stress 500,1000,2000psf
	BB2ASB100																9.5 to 10	6	9-May		1					1				confining stress 600psf
	BB2ASB100																11.5 to 12	6	9-May		1				1	1				
	BB2ASB100																13 to 13.5	6	9-May							1				
	BB2ASB100	wthred rk	8 to 17	x			2	1		3	3	3		1			14 to 15.5	18	9-May		1					1				
	BB2ASB100																16.5 to 17	6	9-May		1					1				
	BB2ASB100																18 to 18.5	6	9-May		1									
	BB2ASB100																19 to 19.5	6	9-May		1					1				
	BB2ASB100																21 to 21.5	6	9-May		1									
	BB2ASB100	rock	17 to 27	x			2	2	2	3		3	1			1	22.5 to 23	6	9-May		1									
	BB2ASB101	fill	0.5 to 6.5	x			3			3		4					1 to 1.5	6	9-May		1	1					1			confining stress 150psf
	BB2ASB101																2 to 2.5	6	9-May		1						1			confining stress 300psf
	BB2ASB101																4.5 to 5	6	9-May		1						1			normal stress 400,800,1600psf
	BB2ASB101																6.5 to 7	6	9-May		1			1				1		
	BB2ASB101	res soil	6.5 to 8	x			1			1	1	1					8 to 8.5	6	9-May							1				
	BB2ASB101																9.5 to 10.5	12	9-May		1						1			confining stress 1000psf
	BB2ASB101	wthrd rk	8 to 17	x			1		1	1	2	3	1	1	1															
	BB2ASB101	rock	17 to 27	x			2	1	2	3	2	3				1														
	BB2ATP103	fill	1 to 8		x			1		1	1	1					1 to 3.5	25	13-Apr		1	1				1				
	BB2ATP103	colluvium	8 to 10		x		1			1	1						4 to 5	12	13-Apr		1									
	BB2ATP103	wthrd rk	10.0		x		1	1		3	2	1		1																
	BB2ATP104	fill	1 to 5		x			1		1	1	1		1			2 to 3.5	14	13-Apr		1							1		normal stress 250,500,1000psf
	BB2ATP104	colluvium	5 to 9		x		1			1		1					6 to 8.5	27	13-Apr		1				1		1			confining stress 600psf
	BB2ATP104	wthrd rk	9.0		x			1		2	1		1																	
	BB2ATP105	fill	1 to 5				1			1		1					0.5 to 2.5	24	15-Apr		1					1				
	BB2ATP105	colluvium	5 to 7		x			1		1	1	1		1																
	BB2ATP105	wthrd rk	7.0		x		1		1	1			1																	
	Total						**20**	**10**	**6**	**31**	**18**	**28**	**4**	**6**	**1**	**2**				**3**	**19**	**2**	**0**	**1**	**3**	**7**	**6**	**3**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2

Table 2e: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section E - E'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection									Collected to Date													
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	Hydrometer	200	Plasticity Index	Uncon Compr Strength	Triaxial UU	Direct Shear	Triaxial-CU	
Provides input for				Cohesion					x	x	x	x	x	x	x	x														
				Friction Angle					x	x		x		7	x	x														
				Density					x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
E-E	BBSB107	fill	0.5 to 6.5	x			4			4	2	4					0.5 to 1	6	10-May		1					1			confining stress 100psf
	BBSB107	res soil	6.5 to 8	x				1		1	1	1		1			1 to 1.5	6	10-May		1		1						
	BBSB107																2.5 to 3	6	10-May		1					1			confining stress 150psf
	BBSB107																4 to 4.5	6	10-May										
	BBSB107																4.5 to 6.1	18	10-May		1				1		1		normal stress 400,800,1600psf
	BBSB107																6 to 7.5	18	10-May	1									
	BBSB107																8 to 8.5	6	10-May		1					1			
	BBSB107																10 to 10.5	6	10-May		1								
	BBSB107																10.5 to 12.5	24	10-May		1					1			
	BBSB107																13.5 to 14	6	10-May		1					1			
	BBSB107																14 to 14.5	6	10-May	1									
	BBSB107																16 to 16.5	6	10-May		1						1		confining stress 1000psf
	BBSB107	wthred rk	8 to 17	x			2	1		3	3	3		1			17 to 18.5	18	10-May	1									
	BBSB107	rock	17 to 27	x			2	2	2	3		3	1			1	19.5 to 20	6	10-May		1						1		confining stress 1300psf
	BB2SB100	fill	0.5 to 6.5			x	3			3		4					1 to 1.5	6	9-May		1								
	BB2SB100																2.5 to 3	6	9-May	1							1		confining stress 200psf
	BB2SB100																3.5 to 4	6	9-May	1						1			
	BB2SB100																5 to 5.5	6	9-May		1						1		confining stress 300psf
	BB2SB100																6 to 6.5	6	9-May							1			
	BB2SB100	res soil	6.5 to 8			x	1			1	1	1					6.7 to 8.0	16	9-May		1							1	confining stress 420, 840, 1260psf
	BB2SB100																8.5 to 9	6	9-May		1					1			
	BB2SB100																9 to 9.5	6	9-May							1			
	BB2SB100	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1		10.5 to 11	6	9-May		1								
	BB2SB100																12 to 12.5	6	9-May		1								
	BB2SB100																15 to 15.5	6	9-May		1								
	BB2SB100																16.5 to 17	6	9-May	1									
	BB2SB100	rock	17 to 27			x	2	1	2	3	2	3				1													
	BB2SB101	fill	0.5 to 6.5			x	4			4	2	4					1 to 1.5	6	11-May		1	1							
	BB2SB101																2 to 2.5	6	11-May		1								
	BB2SB101																4 to 4.5	6	11-May		1			1		1			confining stress 300psf
	BB2SB101																5 to 5.5	6	11-May		1					1			
	BB2SB101																8 to 8.5	6	11-May		1					1			
	BB2SB101																11.5 to 12	6	11-May		1						1		
	BB2SB101																12.3 to 14	20	11-May		1				1		1		confining stress 1000psf
	BB2SB101	res soil	6.5 to 8			x		1		1	1	1		1			15 to 15.5	6	11-May		1					1			
	BB2SB101																15.5 to 17	18	11-May		1							1	Use as 3rd Pt of sample at 20.3
	BB2SB101																17.5 to 18	6	11-May		1						1		confining stress 1000psf
	BB2SB101																18 to 18.5	6	11-May		1								
	BB2SB101																19.5 to 20	6	11-May		1					1			
	BB2SB101																20.3 to 22	20	11-May		1				1			1	normal stress 1200, 2400, 3600psf
	BB2SB101	wthred rk	8 to 17			x	2	1		3	3	3		1			23 to 23.5	6	11-May							1			
	BB2SB101																25.3 to 26	9	11-May		1				1		1		confining stress 2000psf
	BB2SB101	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB2TP101	fill	1 to 5		x		1			2		1					4.5 to 5.5	16	6-Apr		1				1		1		normal stress 300,600,900psf
	BB2TP101	colluvium	5 to 7		x			1		1	1		1				9.5 to 11	15	6-Apr								1		normal stress 600,1200,1800psf
	BB2TP101	wthrd rk	7.0		x		1			2		1																	
	BB2TP100	fill			x					2							1.5 to 3	16	6-Apr		1						1		confining stress 200psf
	BB2TP100	colluvium	5 to 7		x			1		1	1	1		1	1		6.5 to 7	6	6-Apr	1									
	BB2TP100	wthrd rk	7.0		x		1		1	2			1																
	Total						26	11	8	40	19	36	5	6	2	3				1	16	1	0	1	4	5	6	2	2	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

Table 2f: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section F - F'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
				Cohesion					x	x	x	x	x	x	x	x													
				Friction Angle					x	x		x		?	x	x													
				Density					x			x	x	x	x	x													
	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
F-F	BBSB102	fill	0.5 to 6.5	x			3			3	2	4					0.5 to 1	6	10-May		1								
	BBSB102																2.5 to 3	6	10-May		1					1			confining stress 200psf
	BBSB102																3.5 to 5	18	10-May		1								
	BBSB102																6 to 6.5	6	10-May		1		1						
	BBSB102	res soil	6.5 to 8	x				1		1	1	1		1			8.5 to 9	6	10-May		1		1						
	BBSB102	wthred rk	8 to 12	x			2	1		3	2	2		1			9 to 9.5	6	10-May		1		1						
	BBSB102	rock	12 to 20	x			2	2	2	3		3	1			1													
	BBSB103	fill	0.5 to 6.5	x			3			3		4																	
	BBSB103	res soil	6.5 to 8	x			1			1	1	1																	
	BBSB103	wthred rk	8 to 12	x			1		1	1	2	2	1	1	1														
	BBSB103	rock	12 to 20	x			2	1	2	3	2	3				1													
	Total						**14**	**5**	**5**	**18**	**10**	**20**	**2**	**3**	**1**	**2**				**0**	**6**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2g: Proposed Laboratory Tests for Geotechnical Investigation
Cross Section G - G'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date													
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	minus 200	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	Pocket Penetrometer	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x														
				Friction Angle					x	x		x		?	x	x														
				Density					x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
G-G	BBSB100	fill	0.5 to 6.5	x			4			4	2	4					2 to 2.5	6	13-May		1								1	
	BBSB100																2.5 to 3	6	13-May		1					1				
	BBSB100																3 to 5	24	13-May		1					1				confining stress 400psf
	BBSB100																5.5 to 6	6	13-May		1					1				confining stress 250psf
	BBSB100																6 to 6.5	6	13-May											
	BBSB100	res soil	6.5 to 8	x				1		1	1	1		1			8.5 to 9	6	13-May											
	BBSB100	wthred rk	8 to 17	x			2	1		3	3	3		1			9 to 9.5	6	13-May		1				1	1				
	BBSB100	rock	17 to 27	x			2	2	2	3		3	1			1														
	BBSB101	fill	0.5 to 6.5	x		x	3			3		4					1.5	18	20-May	1									1	
	BBSB101																1 to 1.5	6	20-May		1	1			1	1			1	
	BBSB101																2.5	18	20-May	1			1							
	BBSB101																3 to 5.5	18	20-May		1		1				1			Normal stress 300, 600, 1200psf
	BBSB101	res soil	6.5 to 8	x		x	1			1	1	1																		
	BBSB101																6.5 to 7	18	20-May		1					1				
	BBSB101	wthred rk	8 to 17	x		x	1		1	1	2	3	1	1	1		13.5	18	20-May	1			1							
	BBSB101																8.5 to 10	18	20-May		1	1			1				1	Confining stress 600, 1200, 2400psf
	BBSB101																12 to 12.5	6	20-May		1					1				
	BBSB101																14 to 16	24	20-May		1		1				1			Normal stress 750, 1500, 3000psf
	BBSB101	rock	17 to 27	x		x	2	1	2	3	2	3				1														
	BB1ATP100	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	1										
	BB1ATP100	colluvium	5 to 7		x			1		1	1		1				4.5 to 6.5	22	7-Apr		1									
	BB1ATP100	wthrd rk	7.0		x		1			2		1																		
	Total						**17**	**6**	**5**	**24**	**12**	**24**	**3**	**3**	**1**	**2**				**4**	**12**	**2**	**4**	**0**	**3**	**7**	**0**	**2**	**1**	**2**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2h: Proposed Laboratory Tests for Geophysical Investigation
Cross Section H - H'
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection										Collected to Date											
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	Mechanical Analysis	Hydrometer	Plasticity Index	Unconf Compr Strength	Triaxial-UU	Direct Shear	Triaxial-CU	
Provides input for:				Cohesion					x	x	x	x	x	x	x	x												
				Friction Angle					x	x		x		?	x	x												
				Density					x			x	x	x	x	x												
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date										
H-H	BB1SB111	fill	0.5 to 6.5			x	4			4	2	4					0.5 to 1	6	12-May		1								
	BB1SB111																2.5 to 3	6	12-May		1								
	BB1SB111																4 to 4.5	6	12-May		1				1				
	BB1SB111																4.5 to 6	18	12-May		1					1			confining stress 500psf
	BB1SB111	res soil	6.5 to 8			x		1		1	1	1		1			7 to 7.5	6	12-May		1								
	BB1SB111	wthred rk	8 to 17			x	2	1		3	3	3		1			9 to 10.5	18	12-May		1	1		1		1			confining stress 600psf
	BB1SB111	rock	17 to 27			x	2	2	2	3		3	1			1													
	BB1SB110	fill	0.5 to 6.5			x	3			3		4					1 to 1.5	6	12-May		1				1				
	BB1SB110																2.5 to 3	6	12-May		1					1			confining stress 240psf
	BB1SB110																5 to 5.5	6	12-May		1								
	BB1SB110																6.5 to 8	18	12-May		1	1							
	BB1SB110	res soil	6.5 to 8			x	1			1	1	1					9 to 9.5	6	12-May		1								
	BB1SB110	wthred rk	8 to 17			x	1		1	1	2	3	1	1	1		9.5 to 10.5	12	12-May		1					1			confining stress 600psf
	BB1SB110	rock	17 to 27			x	2	1	2	3	2	3				1	11 to 11.5	6	12-May		1				1				
	BB1TP100	fill	1 to 5		x		1			2		1					4.5 to 6.5	24	11-Apr		1								
	BB1TP100	colluvium	5 to 7		x			1		1	1		1				0 to 2	24	11-Apr		1			1		1			confining stress 200psf
	BB1TP100	wthrd rk	7.0		x		1			2		1					1 to 3	24	11-Apr		1	1					1		normal stress 200,400,800psf
	Total						17	6	5	24	12	24	3	3	1	2				0	16	3	0	2	3	5	1	0	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

Table 2i: Proposed Laboratory Tests for Geotechnical Investigation
Miscellaneous Areas
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

				Used for:			Bases of Parameter Selection											Collected to Date												
				Battery Stability	Bluff Slope Stability	Staging Area Stability	Material Classification (visual-manual)	Material Classification (Laboratory USCS)	Literature/Typical Values	Field Logging of density or consistency	Pocket Penetrometer	Field Blow Count	Laboratory Unconfined	Laboratory U-U	Laboratory C-U	Laboratory Direct Shear				Moisture	Moisture/Density	R-Value	Mechanical Analysis	Hydrometer	#200	Plasticity Index	Uncont Compr Strength	Triaxial-UU	Direct Shear	
				Cohesion					x	x	x	x	x	x	x	x														
			Provides input for:	Friction Angle					x	x		x		?	x	x														
				Density					x			x	x	x	x	x														
Stability Section	(1)Boring or Test Pit	Geologic Unit	Sample Interval (ft)														Sample Interval (ft)	Recovery (in)	Date											
Area 1	BB1TP106	fill	0.5 to 6.5	x			3			3		4					5 to 6	bulk	21-Apr	1			1			1				
	BB1TP106	rock	17 to 27	x			2	1	2	3	2	3				1	0 to 1	debris flow	21-Apr	1										
Area 1	Trench 4	native soil															6	6	5-May				1	1		1				
	Trench 4	native soil															4.5	6	5-May				1	1		1				
	Merchant Rd B,C	subgrade soil															2 to 3	bulk	6-May			1								
	Merchant Rd. A	subgrade soil															2	bulk	6-May			1								
Area 1A	BB1ATP101	fill	1 to 5		x		1			2		1					2.5 to 3*	6	7-Apr	1										
	BB1ATP101	colluvium	5 to 7		x			1		1	1		1				4 sidewall*	6	7-Apr		1									1	normal stress 250,500,750psf
	BB1ATP101	wthrd rk	7.0		x		1			2		1																		
	Total						**7**	**2**	**2**	**11**	**3**	**9**	**1**	**0**	**0**	**1**				**3**	**1**	**2**	**3**	**2**	**0**	**3**	**0**	**0**	**1**	

Note: Thickness and depth range of geologic units is approximate.
Colluvium-landslide debris and slope wash
res soil-Residual Soil
wthrd rk-Weathered Bedrock
fill-includes soil and debris
* modified California sample

Footnote: The rationale for sample types and frequency are discussed in section 5.2 Rationale for Laboratory Test Frequency and Location.

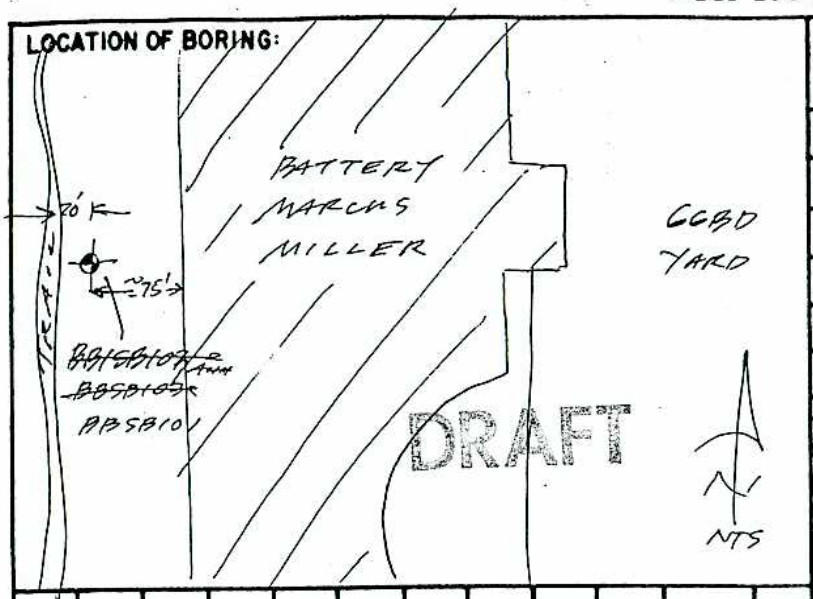
(1) Nomenclature-BBXTP-Test Pit; BBXPZXXX-Piezometer; BBXSBXX-Soil Boring

~~BBSB103~~
~~BBSB102~~

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: PRESIDIO SF BBDA BATTERY STABILITY	BORING NO. BBSB101
	TOTAL DEPTH: 19.5
JOB NO.: 57255.005101	LOGGED BY: A H HENKE
PROJ. MGR.: M A JACOBVITZ	EDITED BY:
DRILLING CONTRACTOR: CLEARHEART	
DRILL RIG TYPE: 8 x 8 HSA	
DRILLERS NAME: JAVIER	
SAMPLING METHODS: CSS, SP, SHELBY	
HAMMER WT.: 140 lb	DROP: 30 in
STARTED, TIME: 1015	DATE: 5/20/05
COMPLETED, TIME: 1400	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: 1415 DATE: 5/20 BY: CL. HEATH

SURFACE ELEV.: DATUM:

CONDITIONS: SUNNY, WINDY

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG
0	2½"	4	6	3	F				1015		
		3	6	6	G				ENV.		ML
1.5		3	6	6					GEOTECH	1	
2.5'	SP.	1	6	6	G	(BAGGIE)			1020		ML
		2	6	6						2	
		1	6	6		(BAGGIE)					SM
3'	SHELBY	30"	30"						1045	3	
										4	
										5	
5.5'	2½"	4	6	4	F				1100		
		4	6	6	G					6	CL
		8	6	6						7	
7	SP	3	6	6	G				1146		
		4	6	6						8	
		6	6	6			FILL				
8.5	SHELBY	28	28	28	G				1155	9	
										10	

DARK GREYISH BROWN SANDY SILT (ML) (10YR 4/2) SOFT. MOIST. 50% SILT FINES 30% FINE - VERY FINE SAND. ~~80%~~ 20%. ORGANICS. FILL

VERY DARK GREYISH BROWN SILT (ML) (10YR 3/2) SOFT. MOIST. 100% SILT/FINE

DARK GREYISH BROWN SILTY SAND (SM) (10YR 4/2) LOOSE. DRY TO MOIST. 80% FINE - VERY FINE SAND 20% SILT.

VERY DARK GREY SANDY LEAN CLAY (CL) (10YR 4/2) FIRM. MOIST. 50% CLAY 30% VERY FINE SAND. 20% SILT. TEXTURAL VARIATION. ROOT FIBERS.

@7' AS ABOVE. INCLUSIONS OF DARK SAND.

@8.5' - SERPENTINITE GRAVELS.

HARDING LAWSON ASSOCIATES

BBSB101

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: 57255 | NO. 005101 | BORING NO.

PRESIDIO SF BBDA

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE				DEPTH	GRAPHIC LOG
	SHELBY									11	
11'	SP 2½"	10	6	3	F				1205		CL
		14	6	6	G					12	
		16	6	6	↓		FILL				
12.5'	S.P	5	6	6	G				1220	13	SP
		5	6	6							
		5	6	6	↓	BAGGIE				14	
14'	SHELBY	3/6"	24"	24"	G				1230		
		10								15	SP
		18									
										16	
16'	2½"	5	6	0	/				1385		
		10	6	4	G		NATIVE				SC
		16	6	6	↓					17	
17.5'	S.P.	9	6	6	G				1315		CL
		12	6	6						18	
		50	6	6	↓						
19.0	2½"	86	5	2	P				1400	19	S
										0	
										1	
										2	
										3	
										4	
										5	
										6	
										7	
										8	
										9	
										0	

DRAFT

DARK GREYISH BROWN POORLY GRADED SAND (SP) (10YR 4/2) LOOSE. MOIST. 90% FINE - VERY FINE SAND. 10% SILT. (NO STRATIGRAPHY OR BEDDING)

BROWN CLAYEY SAND (SC) (10YR 4/3) LOOSE. WET. 70% VERY FINE SAND 30% CLAY/FINES.

DARK YELLOWISH BROWN LEAN CLAY (CL) (10YR 4/4 - 10YR 4/6) HARD. MOIST. 90% CLAY FINES 10% SAND. FeO_2 + BLACK OXIDES ALONG RELICT FRACTURES.

@ 19' - SERPENTINITE

OLIVE GREY SERPENTINITE (SP) (5Y 5/2) MODERATELY CONSOLIDATED. INTENSELY FRACTURED, SHEARED. LOW HARDNESS - FRIABLE. DEEPLY TO MODERATELY WEATHERED.

BOTTOM OF BORING AT 19.5'

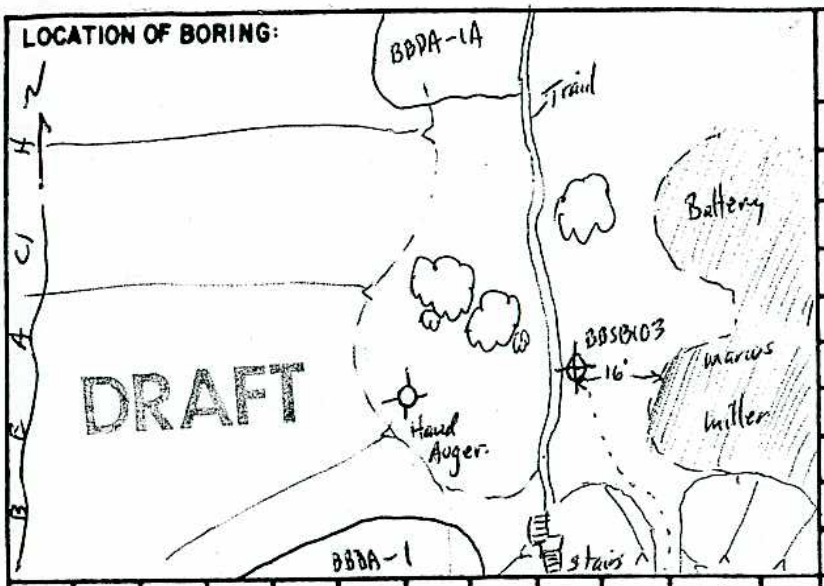
BORING BACKFILLED WITH BENT. CHIPS.

PFS

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: Presidio Baker Beach Geotech	BORING NO. BBSB103
	TOTAL DEPTH: 13.6
JOB NO.: 57255 005	LOGGED BY: B. Godwin
PROJ. MGR.:	EDITED BY:
DRILLING CONTRACTOR: Clearheart Drilling	
DRILL RIG TYPE: 8X8 Limited Access	
DRILLERS NAME: Javier Boroza / Chris Hesell	
SAMPLING METHODS: mod-Cal / SPT / Shelby	
HAMMER WT.: 140lb	DROP: 30-inch Rope-Cathead
STARTED, TIME: 0740	DATE: 5/23/05
COMPLETED, TIME: 0920	DATE: 5/23/05
BORING DEPTH (ft.) 13.6'	
CASING DEPTH (ft.)	
WATER DEPTH (ft.) N/A.	
TIME:	
DATE:	
BACKFILLED, TIME: 10:00	DATE: 5/23/05 BY: Driller
SURFACE ELEV.: 198'	DATUM: PRLW
CONDITIONS: clear, warm, breezy	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	TIME			DEPTH IN FEET	GRAPHIC LOG	
	Cal-mod	2 9	18	13	P G		0750			1	ML	Dusky Brown (5YR 2/2) SILT (ML), moist, med stiff, contains 50% organics as roots, mulch. (Fill)
	SPT	10 4			G. B					2	CL	trace med gr. sand. @1.1' mottled Greyish Brown SILTY CLAY (CL) moist, stiff, 10% med gr. sand (5YR3/2) (Fill)
		4 5	18	14	B B		0800			3		
	Shelby	– –			G.					4		
	mod-Cal	– 17	17	16	P		0815	Tip damaged		5	CL	
		17 23	18	16	G G		0823			6		Dusky Brown (5YR 2/2) Sandy Clay (CL), moist, v. stiff, contains pockets of silty sand and large serpentinite gravels to 1.5" ø (Fill)
NO	SPT	– 4	sample							7	SM	Grayish Black (N2) silty sand (SM), moist, med dense, 25% fines (Fill), sst gravel in shoe.
		7 9	18	9	B		0835			8		Dark yellowish Brown (10YR 4/2) silty sand (SM) moist, med dense, f-gr with occ clay nodules (4 yell. Brn) and 1/2" chunks
	mod-Cal	7 12	18	17	F G		0845			9		
	SPT	16 5			G					10		same. (Fill)
		7	18		B		0848					

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT:	NO.	BORING NO.
Baker Beach	57255-005	BBSB105

DEPTH	TYPE	BLOWS	DRIVEN	REC'VD.	COND.	D.RATE	Time			DEPTH	GRAPHIC LOG
		11								11	
	shelby		12"	16	refusal @ 16"		0905			12	CL
					DRAFT					13	
	mod-Cal	33 50/1"	~~50/1"~~	7" 0"	—			NR		14	
	SPT			2"				0930			
										15	
										16	
										17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	
										28	
										29	
										30	

Grayish Brown (10YR 3/2) silty sand clay (CL) moist, med stiff. native

(Driller indicates v. hard drilling @ 13 ft)

DK Greenish Serpentinite (Bedrock), hard, strong, mod cut/fld

Bottom of boring @ 13.6'

Backfilled w/ bentonite hole plug.

No Groundwater observed

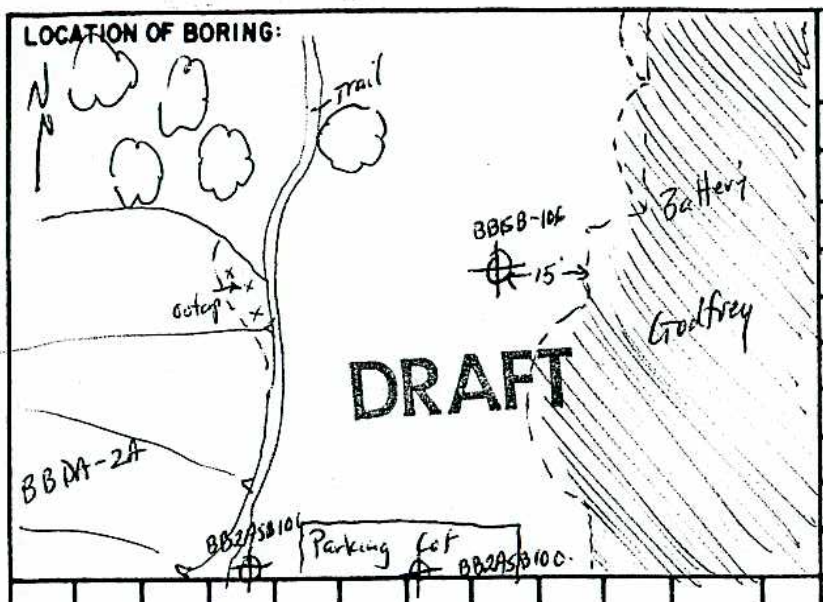
FFB

HARDING LAWSON ASSOCIATES

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: Presidio Baker Beach Geotech Inv.	BORING NO. BBSB106
	TOTAL DEPTH: 25.5'
JOB NO.: 57255 005	LOGGED BY: B. Godwin
PROJ. MGR.: M. Jacobvitz	EDITED BY:
DRILLING CONTRACTOR: Clearheart Drilling	
DRILL RIG TYPE: 8X8 Limited Access	
DRILLERS NAME: Javier Borroza / Chris Herrell	
SAMPLING METHODS: mod-Cal / SPT / Shelby	
HAMMER WT.: 140 lbs	DROP: 30-inch Rope & cat head
STARTED, TIME: 10:20	DATE: 5/23/05
COMPLETED, TIME: 12:00	DATE: 5/23/05
BORING DEPTH (ft.)	25.5'
CASING DEPTH (ft.)	
WATER DEPTH (ft.)	N/A.
TIME:	
DATE:	
BACKFILLED, TIME: 12:10	DATE: 5/23 BY: Driller
SURFACE ELEV.: 258 +/-	DATUM: PLLW
CONDITIONS: Clear, warm breezy	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	Time			DEPTH IN FEET	GRAPHIC LOG	
	mod-Cal	4 9	18	15	P G		10:25		cut sample	(E) 1	ML	Brownish Black (5YR 2/1) Clayey Silt (ml) moist, med stiff, contains abundant organics (fill)
	SPT	11			G							
		2 4	18	16	- D		10:35		split sampler	(E) 3	SM	same, grading at 2.5' to Black (N/2) SILTY CLAYEY SAND (SM) dense, moist. change at 2.8' to Red Moderate Brown (5YR 4/4)
	shelby	9			B						SM	Silty Sand (SM), moist, dense - (Fill)
		-	25	15	P P		10:38	disturbed sample	clean out	4		mottled Dark yellowish orange (10YR 6/6). Clay (CL)
	shelby				G.			to 6'	push again	5	CL	moist, med stiff (native ?)
	shelby	-	7	7	G		10:50			6		same'
	mod-cal	13 24 36	18	16	F G		11:01			7		
	SPT	7 12	18	16	B B					8		Dark Yellowish Brown orange (10YR 6/6). Sandy clay (CL), moist, v. stiff. rel (wood bdrk?)
		20			B		11:09		cleanout to 10'	9	CL	color change to moderate olive Brown (5YR 4/4)
w	mod-cal.	8			F		11:15			10	more	difficult drilling @ 9.5' FeO/MgO nodules

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: Baker Beach Geotech Inv. | NO. 57255005 | BORING NO. BBSB106

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE	Time			DEPTH	GRAPHIC LOG	
	Mod-Cal	14	18	16	G		11:15			11		Mottled Olive Grey (5YR 4/4) Serpentinite weak, low hardness, deeply wthrd
	SPT	17			G							
		9								12		
		16	18	17	B							@ 12.5'
		28					clean out, drive SPT			13		Becoming harder, mod wthrd.
	SPT	21										
		29	18							14		(advance w/ solid flight augers)
		34										
										15		
						10⁵/ft						
										16		moderately difficult drilling
										17		
						20⁵/ft						
										18		
										19		
						25⁵/ft						
										20		
						10⁵/ft						
										21		
										22		easier drilling
										23		
						10⁵/ft						
	SPT	20			B					24		mottled greenish grey (5GY 6/1)
		21	18		B		11:50			25		Serpentinite. ~~weak~~ crushed, low hardness friable deeply wthrd
		50/6"			B							
										26		Bottom of boring @ 25.5'
												No groundwater observed
										27		Backfilled w/ bentonite "hole plug"
										28		
										29		
										30		

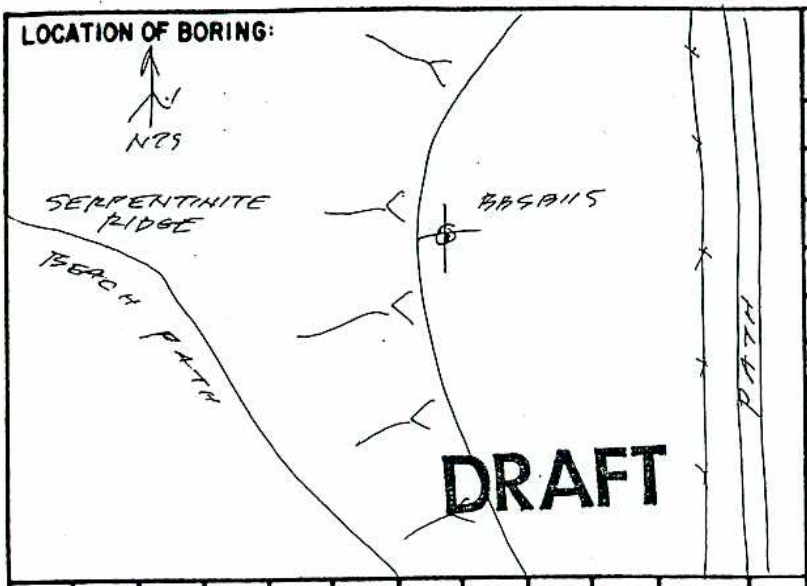
DRAFT

BBSB115

FIELD LOG OF BORING

SHEET ____ OF 2

LOCATION OF BORING:



PROJECT: PRESIDIO SF BBDA / BATTERY STABILITY	BORING NO.
	TOTAL DEPTH: 13'
JOB NO.: 57255 005	LOGGED BY: AM HENKE
PROJ. MGR.: M.A. JACOBYITZ	EDITED BY:
DRILLING CONTRACTOR: —	
DRILL RIG TYPE: HAND AUGER	
DRILLERS NAME: —	
SAMPLING METHODS: CUTTINGS	
HAMMER WT.: NA	DROP: NA
STARTED, TIME: 0800	DATE: 5/23/05
COMPLETED, TIME: 0900	DATE:

BORING DEPTH (ft.)			
CASING DEPTH (ft.)			
WATER DEPTH (ft.)			
TIME:			
DATE:			

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)				DEPTH IN FEET	GRAPHIC LOG
			HAND	AUGER						1	CL
										2	CL
										3	
										4	
									▽	5	SC
										6	
										7	SC
										8	
										9	
										10	

VERY DARK GREYISH BROWN LEAN CLAY (CL) (10YR3/2) SOFT. DRY TO MOIST. 80% CLAY 20% SILT. ~~ORG~~ TRACE ORGANICS.

AS ABOVE. INCREASED SILT CONTENT TO ≃40%. INCLUSIONS OF YELLOWISH BROWN LEAN CLAY, SOME BRICK DEBRIS.

@3' BRICK - HARD LAYER.

VERY DARK GREYISH BROWN CLAYEY SAND (SC) (10YR3/2) SOFT. MOIST TO WET. 60-70% FINE - VERY FINE SAND 30-40% CLAY/FINES

@ 5' - WET. PERCHED?

AS ABOVE. WITH INCLUSIONS OF YELLOW BROWN CLAY & BLACK SILT FILL

@10.5' - BRICK

BBSB115

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE				DEPTH	GRAPHIC LOG
				HAND AUGER						11	SC
										12	
										13	CL
										4	
										5	
										6	
										7	
										8	
										9	
										0	
										1	
										2	
										3	
										4	
										5	
										6	
										7	
										8	
										9	
										0	

DRAFT

PROJECT: 57255 | NO. 005101 | BORING NO.

SC-AS ABOVE. FILL

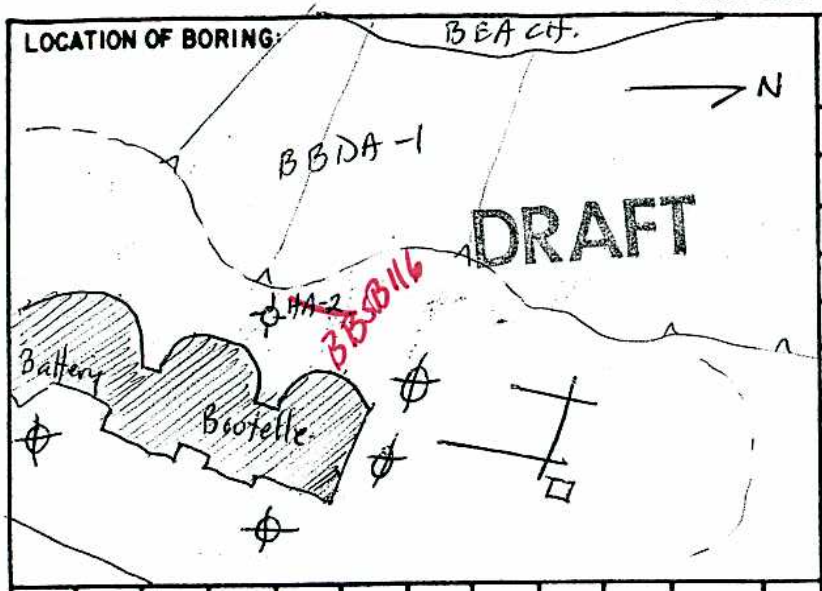
YELLOWISH BROWN LEAN CLAY (CL) (10YR4/4) FIRM. MOIST. 90% CLAY/FINES. 10% VERY FINE SAND. FeO_2, MnO_2 OXIDES ALONG FRACTURES LOOKS LIKE NATIVE

BOTTOM OF BORING AT 13'

FIELD LOG OF BORING

SHEET 1 OF 2 116

LOCATION OF BORING:



PROJECT: Presidio Baker Beach	BORING NO.: BBSB116 HA1
	TOTAL DEPTH: 13.2'
JOB NO.: 57255.505/101	LOGGED BY: B. Groderus
PROJ. MGR.: M. Jacobvitz	EDITED BY:
DRILLING CONTRACTOR: —	
DRILL RIG TYPE: Hand Auger only 4" diameter	
DRILLERS NAME: —	
SAMPLING METHODS: —	
HAMMER WT.: —	DROP: —
STARTED, TIME: 12:30	DATE: 5/23/05
COMPLETED, TIME: 1:30	DATE: 5/23/05

BORING DEPTH (ft.)	13.2		
CASING DEPTH (ft.)			
WATER DEPTH (ft.)	N/A		
TIME:	1:30		
DATE:	5/23/05		

BACKFILLED, TIME: 1:35 DATE: 5/23 BY: WGroderus

SURFACE ELEV.: ~240 DATUM: PLLW

CONDITIONS: clear, warm, breezy

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	DEPTH IN FEET	GRAPHIC LOG	
							0	SM	Medium Grey Brown Silty Sand (SM) dry loose.
							1	SC	Mottled Brn to yellow Brn Clayey Sand (SC), moist, loose.
							2	CL	Grade to Sandy Clay, med. stiff, serpentinite angular gravels 1.5 dia, wet, soft.
							3	SP	Lense of Black Gravelly Sand, recycled asphaltic concrete, no odor.
							4		
							5	SM/SC	Mottled Yellow Brown with Black Silty Sand with clay (SM/SC), loose, wet
							6		
							7		
							8	CL	Black and Yellow Brown Sandy clay (CL) soft, wet
							9		
							10	CL	color change to Reddish Brown

Hand Auger

FF7

HARDING LAWSON ASSOCIATES

BBI HA1

FIELD LOG OF BORING

SHEET 2 OF 2

LOCATION OF BORING

PROJECT: Baker Beach

BORING NO.

TOTAL DEPTH:

JOB NO.: LOGGED BY:

PROJ. MGR.: EDITED BY:

DRILLING CONTRACTOR:

DRILL RIG TYPE:

DRILLERS NAME:

SAMPLING METHODS:

HAMMER WT.: DROP:

STARTED, TIME: DATE:

COMPLETED, TIME: DATE:

BORING DEPTH (ft.)

CASING DEPTH (ft.)

WATER DEPTH (ft.)

TIME:

DATE:

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

DRAFT

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-in.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)		DEPTH IN FEET	GRAPHIC LOG	
								11		Fill
								12	SM	Reddish Brown Silty Sand (SM), wet, med dense f-m grained sand.
								13		Blade to mottled Yellow Brown Sandy Clay (CL) Bottom of boring @ 13.2' med STIFF, wet. No grd water observed contains Fe/Mg nodules Backfilled w/ cuttings (without Separation)
								14		
								15		
								6		
								7		
								8		
								9		
								10		

Hand Auger

FF7

HARDING LAWSON ASSOCIATES

APPENDIX F

BASELINE STRUCTURAL INSPECTION
(SOHA REPORT)

PRESIDIO BATTERIES

BASELINE CONDITION INSPECTION & STRUCTURAL EVALUATION

Prepared By: SOHA Engineers

For: The Presidio Trust
P.O. Box 29052
San Francisco, CA 94129-0052

8/12/05

1 Introduction 1-3

1.1 Methodology 1-3
1.1.1 Field Work 1-3
1.1.2 Condition Assessment Format 1-3
1.1.3 Evaluation 1-4
1.1.4 Resources 1-4

2 Fortification Descriptions 2-5

2.1 General 2-5

2.2 Battery Godfrey 2-6
2.2.1 Construction 2-6
2.2.2 Condition 2-7

2.3 Battery Boutelle 2-9
2.3.1 Construction 2-9
2.3.2 Condition 2-9

2.4 Battery Marcus Miller 2-11
2.4.1 Construction 2-11
2.4.2 Condition 2-11

2.5 Magazines 2-12
2.5.1 Magazines 27, 28 and 29 2-12
2.5.2 Magazine 21 2-12
2.5.3 Magazine 22 2-13

3 Battery Boutelle Assessment 3-14

3.1 Battery Boutelle Investigation 3-14

3.2 Battery Boutelle Evaluation 3-14

3.3 Battery Boutelle Recommendations 3-15

4 Condition Summary 4-15

4.1 Failure Hazards 4-16

4.2 Falling Hazards 4-16

5 Recommendations 5-17

5.1 General 5-17
5.1.1 Public Safety 5-18
5.1.2 Protection During Construction 5-18

5.2 Battery Marcus Miller 5-19

6 Next Steps 6-19

6.1 During Construction 6-19

6.2 After Construction 6-20

APPENDIX A - PHOTO LOG

Battery Godfrey
Battery Boutelle
Battery Marcus Miller
Magazines

1 INTRODUCTION

SOHA Engineers was retained by the Presidio Trust to perform a condition assessment of historic fortifications located on the coastal bluffs southwest of the Golden Gate Bridge within Fort Winfield Scott at the Presidio of San Francisco,. The assessment is intended to record the conditions of the fortifications before, during and after the Baker Beach 1, 1A, 2 and 2A Landfill Removal Project planned for the adjacent area.

This effort is not intended as an assessment of historic significance of any element of the fortifications, nor is it intended to serve as any part of a historic structures report.

Fortifications included are Battery Godfrey, Battery Boutelle, Battery Marcus Miller, and five buried brick magazines numbered 21, 22, 27, 28 and 29. There is an additional magazine incorporated in and only accessible from Battery Godfrey.

This assessment report of pre-construction conditions includes a narrative description of the construction and general condition of the fortifications, a photo log with an image and brief description of each condition noted, schematic plans sketches showing each photo locations, and a summary of items of note or considered potentially hazardous. The photo log, sketches and a CD with all photographs in digital media are included separately as Appendix A.

Also included is an assessment of the structural integrity of Battery Boutelle with specific emphasis on the horizontal cracks up to 3 inches wide along the gun pit parapets, and a discussion of possible construction loading for material removal at Gun Pit #1 at Battery Marcus Miller.

1.1 METHODOLOGY

1.1.1 Field Work

The field investigation was conducted by a two-man team comprised of an engineer and a drafting technician. Only visual means were used to locate and identify existing conditions. No finishes were removed and no stored materials or debris were moved to uncover hidden conditions. No destructive or non-destructive testing was performed to ascertain material strengths, member thickness, or reinforcement.

Access to the interior spaces of the fortifications was arranged by the Presidio Trust. Lighting, ventilation, and air quality monitoring was provided by the SOHA Engineers team. We assisted as required in providing safe access to interior spaces for Presidio Trust and National Park Service personnel and other stakeholders interested in the condition of the fortifications.

Prior to the field investigation, we reviewed available documentation (see below) regarding the history and construction of the affected fortifications (and other similar fortifications) and prepared schematic plan sketches for use in documenting conditions.

1.1.2 Condition Assessment Format

The field investigation team located and took digital photographs of all existing damage conditions noted on exposed interior and exterior surfaces. Each photograph is identified on the plan sketches by a circled number corresponding to the file number of the digital photo. Circled numbers with an arrow indicate that the condition noted is on the vertical surface to which the arrow is pointing. Circled numbers without

an arrow indicate a condition noted on a horizontal floor or ceiling soffit. Although each photograph number is unique, as the field investigation of any one structure was performed at different times, photograph numbering is not always sequential for the entire structure. For example, Battery Boutelle is recorded in photographs numbered 64 – 94, 181 – 189, and 450 – 562. The photo log is organized by structure name, with photographs in numerical order. Interior photographs are shown first, followed by exterior photographs. In the photo log, the location of each photograph is described by reference to a room letter (shown on the sketches) for interior conditions, followed by an indication of which wall is represented (north, south, east, or west) or which surface (ceiling, floor). Exterior locations are referenced to the Gun Pit number, and the appropriate feature. Additional direction (north, south, east, west, or center) following indicates which portion of the wall or surface is represented. For example:

Room A, Ceiling, Center = Room A, center portion of the ceiling.

Room B, West, North = Room B, west wall, north end.

GP-3, Parapet, North, East = Gun Pit 3, north parapet, east end.

GP-2, Apron, South, Center = Gun Pit 2, south end, center portion.

In the photo log, the magazines are included separate from the batteries except that the sketch of Magazine 22 is included with Battery Boutelle. The magazine that is attached to and only accessible from Battery Godfrey is included with Battery Godfrey.

1.1.3 Evaluation

The evaluation of the existing cracking noted in Battery Boutelle and the capacity of the structure of Gun Pit #1 at Battery Marcus Miller to carry construction loads is based on review of available data, visual observations at the site and engineering judgment. Since the available data do not include detailed information on concrete thickness and reinforcement, no calculations have been performed.

1.1.4 Resources

The following documents were used for this assessment and report:

- Seacoast Fortifications Preservation Manual; Prepared by the National Park Service.
- Report of Completed Works – Seacoast Fortifications, Battery Godfrey (Completion Report)
- Report of Completed Works – Seacoast Fortifications, Battery Boutelle (Completion Report)
- Report of Completed Works – Seacoast Fortifications, Battery Marcus Miller (Completion Report)
- Emplacement Wiring at Battery Marcus Miller, Fort Winfield Scott. File 30, Sheet 1, October 30 1908. GGNRA Archives Drawer 277, Folder 1.
- Electric Wiring at Battery Boutelle, Fort Winfield Scott. File 13, Sheet 2, June 1915. GGNRA Archives Drawer 272, Folder 3.
- Battery M. Miller. Sheet 1 of 3. GGNRA Archives Drawer 277, Folder 1.
- Battery M. Miller. Sheet 3 of 3. GGNRA Archives Drawer 277, Folder 1.
- Battery Boutelle. GGNRA Archives Drawer 272, Folder 3.

- Battery Godfrey 12in. Gun Replacements Numbers 14-15-16, Fort Point. File 21, Sheet 5, February 21 1924. GGNRA Archives Drawer 275, Folder 2.
- Gun Emplacements Numbers 12-13 For 10 in. Guns at Fort Point. Sheet 1, March 2 1891. GGNRA Archives Drawer 277, Folder 2.
- Gun Emplacements Numbers 14-15-16, For 12 in. Guns at Fort Point. File 21, Sheet 4. GGNRA Archives Drawer 275, Folder 2.
- Location of Apparatus, Battery Godfrey, Fort Winfield Scott. Drawing A-1-23. GGNRA Archives Drawer 275, Folder 2.
- Battery Godfrey. Drawing A-1-46. GGNRA Archives Drawer 275, Folder 2.
- Gun Emplacements Numbers 11-12-13, Fort Point. Drawing 94-110-6, June 30 1892. GGNRA Archives Drawer 277, Folder 2.
- Re-enforcement of Concrete. Proposed Alterations at Emplacement Number 5 Battery Cranston. Drawing 94-149-2, Sheet 2, May 10 1904. GGNRA Archives Drawer 277, Folder 2.
- Plan and Details of Platform Widening at Battery Marcus Miller, Fort Winfield Scott. File 30, Sheet 6, August 1910. GGNRA Archives Drawer 277, Folder 2.

2 FORTIFICATION DESCRIPTIONS

2.1 GENERAL

The magazines included in this assessment were originally constructed as part of Fort Winfield Scott's West Battery in the period after the Civil War. The surviving magazines are generally brick masonry arch structures covered with earth. The masonry is well-constructed and features well-detailed vaulting at arch intersections. Many wall areas have been painted or plastered. The floor of the magazines is sometimes concrete and sometimes bitumen. No drawings were located detailing the construction of the magazines.

The Endicott era batteries Boutelle, Godfrey, and Marcus Miller were originally constructed between 1891 and 1901, with modifications and repairs continuing until at least 1917. Their construction eliminated most of the West Battery fortifications on the same site. The Endicott era batteries continued to use earth cover as protection from projectiles but the structure beneath was now concrete instead of brick masonry.

No specific structural drawings were located for the original construction of the batteries included in this assessment. However, section drawings of similar batteries, and the sections included in the Completion Report sketches indicate that the original construction can typically be characterized as mass concrete at and forward of the gun pits and at the associated magazines, with a combination of earth and concrete of unknown thickness at the blast aprons or forward slopes. We were not able to determine the actual in-place construction of the aprons or forward slopes. It seems likely that there is earth and/or sand fill under the concrete at the exposed apron surfaces in some locations.

The below-grade shell rooms, powder rooms, and interior passages associated with each gun pit at batteries Godfrey and Marcus Miller feature flat-arched concrete roofs, assumed to be quite thick, and thick concrete walls and foundations. These below grade rooms are accessed from a sunken road supported by concrete retaining walls. At these batteries, the below-grade area appears to have been

enlarged after 1904 to include a hoist room below with a reinforced concrete column, beam and slab structure referred to as a splinterproof to cover the hoist mechanism above.

The Seacoast Fortifications Preservation Manual (the Manual) discusses the evolution of concrete construction during the Endicott era. Concrete of the original construction appears to be both plain (unreinforced) concrete, and reinforced concrete. Reinforcing is thought to include steel cables, steel rail sections and I-beams , and smooth or twisted steel bars. Cables and rails were often used in the mass concrete at the gun platforms and the longer span roof decks were often reinforced with steel I-beams located at the bottom of the thick section. The deck extensions and splinterproofs added to Battery Marcus Miller and the splinterproof added to Battery Godfrey after 1904 include beam, column, wall, and slab elements that are reinforced with twisted steel bars that function similarly to modern deformed reinforcing.

The Manual also describes the changes in concrete materials and mixing that occurred during the construction of the Endicott era batteries. The use of different Portland cements is discussed as is the use of large stones, broken concrete, and hardened bags of cement along with the machine-mixed or hand-mixed concrete made with sand and gravel.

Concrete surface finishes are quite varied. Interior wall and ceiling areas are typically plastered and painted. Although the manual discusses the use of bitumen flooring, all interior floors are jointed concrete. Exterior wall finishes vary from exposed board-formed pattern to a parged cement plaster coating.

The heavy mass concrete used at the gun pits was found to result in differential soil settlement beneath the foundations with respect to the magazines and other more lightly loaded rooms located adjacent. This resulted in Army engineers creating deliberate planes of weakness and separation between portions of the structures in an effort to control cracking and the water intrusion that resulted. Lead flashing was often used at such joints.

The fortifications are all located near the bluff edge, with Battery Boutelle located closest to the edge. Major excavation was typically required for foundation construction along with backfill of the completed structure.

2.2 BATTERY GODFREY

2.2.1 Construction

Battery Godfrey was constructed between 1892 and 1896. There are three gun pits, each with an associated magazine area below(shell room, powder room, hoist room and passages), and a splinterproof and telephone booth above. The splinterproof at Gun Pit #1 has been infilled with concrete masonry units to create an interior space. There are also several concrete rooms located at the north end of Gun Pit #1 identified as a store room, latrine, oil room, engine room and radiator room. These at-grade rooms, which are not covered with earth, provide access to the older buried brick magazine structure which was incorporated into Battery Godfrey. The flat concrete roof structure at these rooms is reinforced with steel I-beams.

It is known that embedded iron streetcar cables and rails were used as reinforcing for the mass concrete of the gun platform. Other sections of the original battery construction are thought to be unreinforced. The splinterproofs and telephone booths are reinforced with twisted square steel reinforcing bars.

Lead joints were noted in several areas.

The sections included with the Completion Report for Battery Godfrey indicate that mass concrete extends out beyond the parapet at the gun pits and extends even farther out west of the magazines below. The surface of the blast aprons at the gun pits and above and forward of the magazines below are typically exposed and jointed concrete, with some areas still covered with thick bitumen used as waterproofing. It appears that the apron at the gun pits extends west beyond the mass concrete below, while the apron at the magazines extends west the same distance as the mass concrete below.

The older brick magazine located north of Gun Pit #1 is constructed of brick masonry with vaulted barrel arches covered with earth.

2.2.2 Condition

Although the surface of the concrete at Battery Godfrey displays cracking, spalling, staining, powdery and solid efflorescence, offsets, rusted reinforcing, dampness, and peeling paint, no conditions were noted that would indicate any overall instability in the structure.

Of note are the circumferential cracks up to ¼ inch wide noted at the west end of the passage into the magazine areas at Gun Pits #2 and #3 (see also photos 97, 118, 119):

PHOTO 95

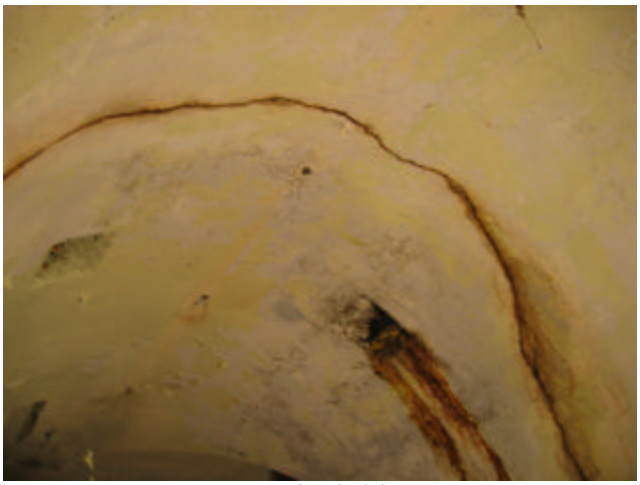


PHOTO 96

These cracks could be indicative of differential settlement between the heavier mass concrete of the magazine structure and the more lightly loaded passage area. Similar cracks were noted at Battery Marcus Miller.

Also of note are the substantial spalls and associated rusted, damaged, or missing reinforcement at the beams and columns of the splinterproofs. The photos shown below are typical of this condition:

PHOTO 241

PHOTO 243

Please see the Condition Summary section of this report for a discussion of falling or failure hazards associated with these conditions.

Rusting of the steel I-beams reinforcing the roof structures of the at-grade rooms at the north end of Battery Godfrey has typically resulted in spalling of the thin soffitt concrete cover over the bottom flange of the beams. The steel of the bottom flange is often substantially rusted and delaminated. This condition is probably associated with water intrusion through the roof concrete, which appears to have been coated with bitumen at one time.

PHOTO 179

PHOTO 180

The brick magazine connected to Battery Godfrey is in generally good condition, with areas of efflorescence at the mortar joints and clear evidence that many joints have been repointed. Continuing moisture intrusion after the repointing has resulted in spalling of the repointed joints (Photos 172, 173 and 174).

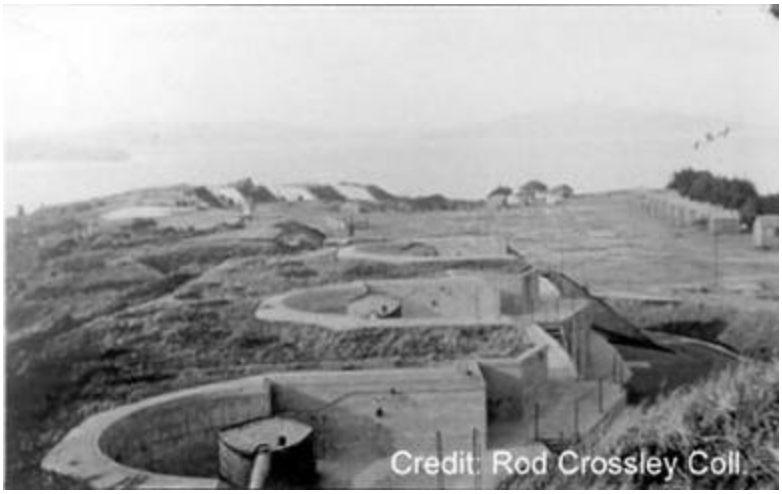
2.3 BATTERY BOUTELLE

2.3.1 Construction

Battery Boutelle was constructed from 1898-1901. There are three gun pits, each with a magazine room below and east of the gun mount. The gun mount features a steel cylinder extending down to the level of the room below. There is one additional underground room, identified as the Commanding Officer's Room, located between Gun Pits #2 and #3.

The Manual indicates that the roofs of the magazines are reinforced with steel I-beams. The concrete of the roofs appears to be at least 3 feet thick.

The apron appears to have been constructed at a later date, based on the archival photograph below, which shows the gun pits and parapet without an apron:



The section shown in the Completion Report for Battery Boutelle does not indicate any mass concrete extending beyond the west edge of the parapet at the gun pit. It appears that the apron was placed on backfill material.

2.3.2 Condition

The surface of the concrete at Battery Boutelle shows the typical damage conditions associated with age and lack of maintenance.

The major damage noted is the horizontal cracks along the tops of the parapets at each gun pit:

PHOTO 487

PHOTO 489

These cracks are up to 3 inches wide and show evidence that the portion above the crack has rotated with respect to the portion of the parapet wall below. No reinforcement was noted passing through the cracks. Please see the section "Battery Boutelle Assessment" for a discussion of this condition.

Although the Manual reports that steel I-beams were used as reinforcing for the magazine roofs, no spalling concrete was noted and the bottom flanges of the I-beams were not exposed except at the door header at the magazine at Gun Pit #1 (Photo 90).

No evidence of settlement commensurate with the size of the horizontal cracks seen in the parapet walls above was noted in the magazine rooms.

At the aprons, cracking consistent with the shape of the parapet walls below was noted in all three gun pits:

PHOTO 502

Portions of the apron between the gun pits have settled substantially, possibly due to consolidation of the backfill placed between and behind the gun pits:

Photo 545

2.4 BATTERY MARCUS MILLER

2.4.1 Construction

Battery Marcus Miller was constructed from 1891-1898 using a combination of hand mixed and machine mixed concrete. Construction and layout is very similar to that of Battery Godfrey except that there is a narrow underground passage behind (east of) the gun pits and the gun pit decks were extended to the east after 1905 using a concrete beam, column, and slab system reinforced with twisted steel reinforcing bars. The roof of the passage is reinforced with closely-spaced steel I-beams.

There are ancillary at-grade rooms labeled as spare rooms, guard room, latrine and engine room located east and north of Gun Pit #3, and an additional room north and east of Gun Pit #2. The roof structure of these rooms appears to be supported with closely spaced steel I-beams.

There is also a tower structure and catwalk with similar construction as the deck extension located above the magazine entrance at Gun Pit #2.

The layout of the mass concrete and aprons at the gun pits and magazines appears to be similar to that of Battery Godfrey. The aprons at the magazines typically feature a 6 foot by 6 foot grid of grouted joints in the concrete surface. A small area of thick bitumen surfacing remains at Gun Pit #1.

Currently, the Golden Gate Bridge District is using portions of Battery Marcus Miller for storage.

2.4.2 Condition

Although the surface of the concrete at Battery Marcus Miller displays cracking, spalling, staining, powdery and solid efflorescence, offsets, rusted reinforcing, dampness, and peeling paint, no conditions were noted that would indicate any overall instability in the structure.

The floor area at the magazine at Gun Pit #3 was wet and filled with several inches of mud. The other magazines were generally dry with patches of dampness.

Exposed, rusting steel beams were noted in the ceiling soffits of some ancillary rooms.

Of particular note is the condition of the beams, columns, and slabs of the deck extensions. In many areas, rust damage to steel reinforcing is widespread and serious:

PHOTO 612

PHOTO 711

Please see the Condition Summary section of this report for a discussion of falling or failure hazards associated with these conditions.

2.5 MAGAZINES

2.5.1 Magazines 27, 28 and 29

Magazines 27, 28 and 29 are nearly identical in construction. The buried portions include a circular vaulted masonry arch at the end of narrower arched passages. Most wall areas are plastered or whitewashed. A bitumen floor was noted in Magazine 28. The entry to each magazine consists of two brick masonry retaining walls with sloped tops ending in an arched doorway.

Only minor cracking was noted at these magazines. No evidence of instability was noted. Water intrusion was prevalent, with the floor of Magazine 27 covered with one inch of mud and the floor of Magazine #29 covered with 1 inch of damp sand.

2.5.2 Magazine 21

Magazine 21 is also a vaulted brick masonry arch structure covered with earth. There are two wide rooms, with the westernmost room longer than the other, connected to an entry passageway oriented 90 degrees from the main rooms. The floor is bitumen.

A major crack was noted in the north wall of the main vaulted room, extending up the north wall (Photo 1) and intersecting with the east wall of the room at the crown of the arch (Photo 2), then continuing as a separation at the joint along the wall and vault intersection (Photo 3) before extending into the wall pier at the passageway between the two main rooms (Photo 4):

PHOTO 1

PHOTO 2

PHOTO 3

PHOTO 4

This crack and separation appear to indicate settlement and some translation of the westernmost portion of the magazine. The location of the magazine with respect to the coastal bluff adjacent suggests that there may be some movement of the soil towards the bluff top.

2.5.3 Magazine 22

Magazine 22 is also a vaulted brick masonry arch structure covered with earth. There is one wide room at the end of a long narrow passage. The section of passage closest to the entry appears to have constructed of concrete with a flat ceiling, probably as part of modifications made along with the construction of Battery Boutelle adjacent. The floor is bitumen.

Only minor cracking was noted. There was no indication of instability or ground movement.

3 BATTERY BOUTELLE ASSESSMENT

3.1 BATTERY BOUTELLE INVESTIGATION

In addition to the condition assessment, a structural field investigation of Battery Boutelle was performed by Art Dell and Mogens Hansen on June 23, 2005 and again by Art Dell on July 15, 2005. Only visual observations were made, augmented by level measurements using a 4-foot carpenter's level.

The investigation was focused on the large horizontal cracks just below the top of the parapet at each gun pit (Photos 545–549). All other portions of the battery were carefully inspected for evidence of settlement or distress that could be related to the horizontal cracking or symptomatic of conditions that could cause such cracking.

As shown in Photos 487 and 489 included in Section 2.3.2, the horizontal cracking is irregular and does not appear to be associated with a later placement of a cap on the parapet.

At Gun Pit #1, there is a ¼ inch offset in the parapet above the crack with respect to the area below the crack, and the face of the parapet wall above the crack has rotated approximately ¼ inch in 3 feet with respect to vertical. At Gun Pit #2, where the horizontal crack is the widest, the offset is as much as ½ inch, with rotation of 2 inches in 3 feet. At Gun Pit #3, the offset is only 1/8 inch with rotation of 1 inch in 3 feet. Similar rotations were noted in the portions of the apron immediately west of the parapet.

At the aprons immediately above the parapets, cracking in the concrete was noted that closely follows the outline of the parapet walls below, as discussed in Section 2.3.2.

Substantial settlement (up to 6 inches) was noted in the aprons between the gun pits (see Photo 545 in Section 2.3.2).

3.2 BATTERY BOUTELLE EVALUATION

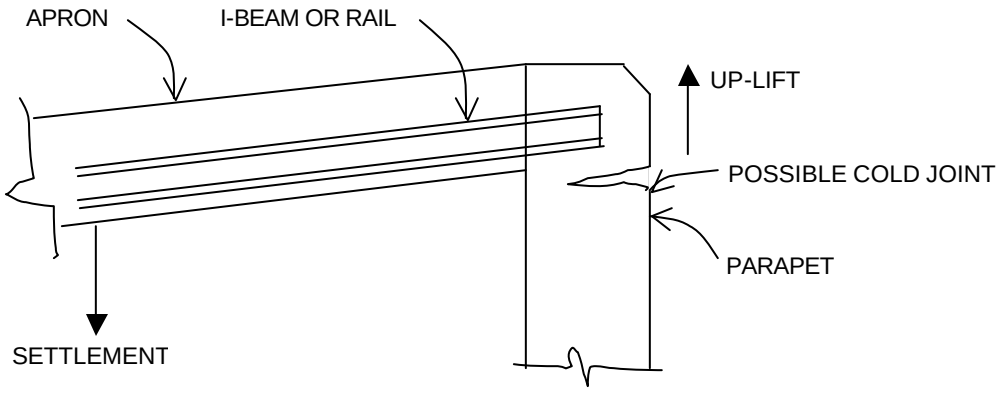
As discussed previously, it appears that the aprons were placed after completion of the battery structure (see the archival photo included in Section 2.3.1). In that photo, the octagonal outline of the west side of the parapet wall is visible.

As the construction of the battery would have required an excavation of at least 18 feet deep, it is likely that the area west of the parapet wall and beneath the concrete apron surface contains fill of substantial depth. This is distinct from the condition at the other batteries where mass concrete extends beyond the parapets.

It appears likely that the cracking is associated with settlement of the backfill under the apron or with movement of the soil mass west of the parapet towards the coastal bluff top. This is supported by the evidence of the adjacent settlement of apron elements between gun pits which are not bearing on elements with deep foundations below. However, unless the apron is tied into the top of the parapet wall with steel elements of sufficient bending capacity to overcome the weak tensile capacity of the concrete in the parapet wall, such settlement or soil movement would be more likely to simply separate the apron from the parapet wall rather than to lift up the top portion of the wall.

One possible scenario is that the apron was connected to the top of the parapet wall using steel I-beams or rail sections set into pockets chipped into the back of the parapet wall and sealed with cement grout or molten sulfur. This would result in a system stiff and strong enough to lift up the top of the parapet wall

as the soil settlement or movement brought the western edge of the apron down. The presence of a cold joint in the wall concrete would make this mechanism easier to achieve:



SECTION AT APRON/PARAPET

3.3 BATTERY BOUTELLE RECOMMENDATIONS

The scenario presented above as a possible explanation of the serious cracking at Battery Boutelle is speculative, and only based on visual observations and engineering judgment. However, it does not appear likely that the cracking is indicative of any overall instability of the structure. If it is deemed desirable to further investigate the construction of the apron and parapet to attempt to verify the scenario presented, non-destructive testing using Ground Penetrating Radar or more conventional metal detection equipment could be used to locate any embedded steel reinforcing. In addition, a 2 inch to 3 inch diameter core through the apron concrete would possibly be informative. This work could be performed by most any local Testing Agency. However, we do not feel that this effort would be justified provided the recommendations below are implemented.

It remains possible that the soil movement that has caused the cracking is not only local consolidation of backfill material but is related to movement of the block of soil adjacent to the bluff top. Evaluation of bluff stability is beyond the scope of this report. We understand that some geotechnical investigation has been performed for the proposed Landfill Removal Project. That effort may be able to give adequate assurance of the safety of the bluff.

As a further precaution, we recommend that a survey monitoring point be set in each gun pit and on each apron west of the parapet. The monitoring points should be initialized for both vertical and horizontal position. Points should be set before the start of construction, and ideally would be set some months before the start of construction to allow for more than one baseline reading, and to look for any on-going movement not associated with the construction. During construction, monitoring points should be read every two weeks whenever work is performed in the area. This work should be performed by a licensed Land Surveyor with a reading precision of 0.001 feet.

4 CONDITION SUMMARY

The following conditions were noted which could affect or be affected by the proposed construction:

- Cracking noted at Magazine 21 (see Section 2.5.2). This could be indicative of previous or on-going ground movement in the area.
- Cracking at Battery Boutelle (see Section 3). This could be indicative of previous or on-going ground movement in the area.
- Spalling at splinterproofs, tower, and deck extensions at Batteries Godfrey and Marcus Miller. Vibration from heavy equipment traffic and construction operations could result in loose concrete falling off. See below for a discussion of failure and falling hazards.

4.1 FAILURE HAZARDS

Failure hazards are conditions that could result in partial or complete collapse of a structural element, (beam, column or supported slab), under normal usage such as heavy visitor traffic. The following table lists the conditions that are considered failure hazards. It should be noted that the overall poor condition of the splinterproofs and deck extensions could also result in more wide spread element failure under seismic loading.

Failure Hazards

Photo Number	Location
0609	MARCUS MILLER, GP-3 Passage, North, East
0610	MARCUS MILLER, GP-3 Passage, North, Center
0612	MARCUS MILLER, GP-3 Passage, North, Center
0616	MARCUS MILLER, GP-3 Passage, North, West
0710	MARCUS MILLER, GP-2 Passage, East, Center
0711	MARCUS MILLER, GP-2 Passage, East, Center
0336	GODFREY, GP-2 SP, South, East

4.2 FALLING HAZARDS

Falling hazards are conditions that could present a life-safety hazard for visitors to the batteries. In all cases the hazard noted is loose concrete pieces in members such as beams, columns or slab soffits where rusting reinforcing is swelling and causing the concrete cover to spall off. Pieces that are likely to fall off are generally small, but could cause injury. The following table lists the conditions that are considered falling hazards:

Falling Hazards

Photo Number	Location
0576	MARCUS MILLER, GP-3 Passage, East, South
0596	MARCUS MILLER, GP-3 Passage, East, Center
0604	MARCUS MILLER, GP-3 Passage, North, East
0608	MARCUS MILLER, GP-3 Passage, North, East

Photo Number	Location
0609	MARCUS MILLER, GP-3 Passage, North, East
0610	MARCUS MILLER, GP-3 Passage, North, Center
0611	MARCUS MILLER, GP-3 Passage, North, Center
0612	MARCUS MILLER, GP-3 Passage, North, Center
0614	MARCUS MILLER, GP-3 Passage, North, West
0615	MARCUS MILLER, GP-3 Passage, North, West
0638	MARCUS MILLER, GP-3 SP, East, North
0685	MARCUS MILLER, GP-2 Passage, South, Center
0688	MARCUS MILLER, GP-2 Passage, East, South
0709	MARCUS MILLER, GP-2 Passage, East, Center
0716	MARCUS MILLER, GP-2 Passage, East, Center
0719	MARCUS MILLER, GP-2 Passage, East, Center
0743	MARCUS MILLER, GP-2 Passage, North, West
0771	MARCUS MILLER, GP-2 Tel.Booth, South, West
0784	MARCUS MILLER, GP-2 SP, West, North
0802	MARCUS MILLER, GP-2 Tower, East, North
0873	MARCUS MILLER, GP-1 Passage, North, West
0909	MARCUS MILLER, GP-1 SP, North, Center
0185	BOUTELLE, Room D, West, North @ door
0179	GODFREY, Room AA, Center, South, West
0180	GODFREY, Room AA, Center, North
0239	GODFREY, GP-3 SP, South, East
0240	GODFREY, GP-3 SP, South, East
0245	GODFREY, GP-3 SP, East
0249	GODFREY, GP-3 SP, North, Center
0341	GODFREY, GP-2 SP, East
0342	GODFREY, GP-2 SP, North
0343	GODFREY, GP-2 SP, North

5 RECOMMENDATIONS

5.1 GENERAL

Although serious structural concerns are few, weathering, neglect, vegetative growth and heavy visitor traffic continue to erode the exposed surfaces of the fortifications. The elements in greatest need of stabilization are the beams, columns and supported slabs of the splinterproofs and deck extensions. The

mass concrete elements, although substantially cracked and spalled, are less subject to continuing damage due to the lack of steel reinforcement.

If preservation and continued use of these historic fortifications as an interpretive site is anticipated, stabilization work should begin soon. This report, which documents 936 existing damage conditions could serve as a starting point to identify the scale of such stabilization.

5.1.1 Public Safety

Although not specifically part of the scope of this assessment, we have noted areas where the condition of the fortifications structure is such that it presents a potential hazard to the public when visiting the site. Potential structural failure hazards and hazards related to falling concrete pieces are discussed above.

One other typical and widespread condition that could present a hazard to the public is the condition and general lack of guard rails at deck edges and other abrupt drop offs. The photo below, taken at Gun Pit #2 at Battery Marcus Miller illustrates this potential hazard. In the photo it can be seen that the edge of the lowered gun pit is unprotected, as is the steel stair, stair landing, and the edge of the raised deck and deck extension. In addition, the checker plate at the stair landing is in very poor condition and is missing entirely after the end of the short landing.

PHOTO 758

5.1.2 Protection During Construction

Absent any geotechnical instability of the coastal bluffs, the proposed construction should not affect the structural integrity of the fortifications. Construction materials, equipment, and personnel should be kept away from the fortifications unless specific protection elements are installed (see below for a discussion of protection at Battery Marcus Miller.

We propose that the following measures be put in place for the construction period:

- Survey monitoring at Battery Boutelle as described in Section 4.

- Crack gauges should be installed across the existing major cracks in Magazine 21 (see Section 2.5.2). These small plastic gages are secured across the crack, and can be read visually to determine whether continuing movement is occurring.
- Splinterproofs, the tower at Battery Marcus Miller, and the areas below the deck extensions should be barricaded to protect the public from falling hazards.

5.2 BATTERY MARCUS MILLER

We understand that it is anticipated that the construction contractor may need to bring materials and equipment across the apron at Gun Pit #1. Because of the mass concrete of the magazine area below this apron and the narrow room dimensions, equipment of to 10,000 pounds can be safely supported above the apron.

However, it is not known whether the surface apron concrete is monolithic with the mass concrete below, whether it is separate from but bearing directly on the mass concrete, or whether there is a layer of soil between the top of the mass concrete and the bottom of the apron concrete. If there is a soil layer beneath a thin concrete surface, material handling equipment could cause damage to the apron itself.

We recommend that 2 to 3 inch diameter cores be drilled through the apron concrete in the proposed path of travel of such equipment to verify the existing construction. If monolithic construction is verified, or if the apron concrete appears to bear on the mass concrete below, then material handling equipment may pass over the apron, with appropriate surface protection. Surface protection should include a thin layer of soft material such a foam rubber carpet mat, covered with 3x12 rough cut Douglas Fir planks laid flat, secured with a continuous layer of ¾ inch plywood.

If a soil layer is discovered beneath the apron concrete, the protection along the path of travel should use 12x12 timber mats such as are used for crane stability in soft soils.

No materials or equipment should be stored, supported, or walked across the roofs of splinterproofs or the supported slabs of the deck extension. If it is desired to support a conveyor on any of these locations, wood or steel shoring posts should be installed immediately below the slab area, sized to carry 100% of the load to the foundation slab below.

6 NEXT STEPS

6.1 DURING CONSTRUCTION

This report will serve as the baseline for visual observations that will be taken during the construction. The survey team will compare the field conditions with the photos in the report. Changed conditions will be noted and evaluated, and any required change in construction operations will be recommended. Since the air quality in the enclosed spaces was confirmed to be adequate in this investigation, no air monitoring will be used.

Reports of the assessment during construction will be brief and focused on changed conditions only.

We will also read the crack gauges proposed to be installed in Magazine 21, review the survey monitoring reports, and make any recommendations for action.

6.2 AFTER CONSTRUCTION

At the completion of construction, we will again make a visual inspection of the batteries and prepare a brief final report outlining any changed conditions.

Reviewed: MJ

Appendix A

BATTERY: BOUTELLE

LOCATION: Room A, West CONDITION: 1/16” Vertical crack above access door to Gun Mount	 0064
LOCATION: Room A, West CONDITION: Hairline vertical crack w/Efflorescence stalactites in wall & ceiling Wood insert typical all around	 0065
LOCATION: Room A, Ceiling, Center CONDITION: 1/16” Crack across ceiling – cont. of 0065	 0066
LOCATION: Room A, North, West CONDITION: 1/16” vertical crack @ wall corner w/efflorescence + powdery efflorescence on ceiling	 0067

BATTERY: BOUTELLE

LOCATION: Room A, Ceiling, North CONDITION: Pattern cracking in plaster ceiling w/powdery efflorescence – typical North end only	 0068
LOCATION: Room A, East, Center CONDITION: Hairline horizontal + vertical crack	 0069
LOCATION: Room A, East, Center CONDITION: Efflorescence w/stalactite @ bottom of wood insert	 0070
LOCATION: Room A, East, Center @ door jamb CONDITION: 1/16” Horizontal crack across jamb & at top	 0071

BATTERY: BOUTELLE

LOCATION: Room A, East, South CONDITION: 1/16” Horizontal crack length of wall South of door	 0072
LOCATION: Room A, West, South CONDITION: Hairline horizontal crack, efflorescence w/stalactites @ pipe pen + wood insert	 0073
LOCATION: Room A, West, Center CONDITION: Efflorescence w/stalactites	 0074
LOCATION: Room B, West, Center CONDITION: 1/16” Vertical crack connected to ceiling crack w/efflorescent stalactites	 0075

BATTERY: BOUTELLE

LOCATION: Room B, Ceiling, Center West CONDITION: Ceiling cracking w/efflorescent stalactites & active water	 0076
LOCATION: Room B, Ceiling, Center CONDITION: Ceiling crack w/efflorescent stalactites all the way – cont. of 0076 Active water	 0077
LOCATION: Room B, Ceiling, West, Center CONDITION: Ceiling crack w/efflorescent stalactite + efflorescence on the wall	 0078
LOCATION: Room B, West, North CONDITION: 2 Hairline horizontal cracks Ceiling crack with efflorescence	 0079

BATTERY: BOUTELLE

LOCATION: Room B, West, North CONDITION: Damp wall 1/16” horizontal crack (cold joint?) in North wall	 0080
LOCATION: Room B, North, East CONDITION: Hairline horizontal crack North & East walls	 0081
LOCATION: Room B, East CONDITION: Active water from wall/ceiling joint	 0082
LOCATION: Room B, East, Ceiling CONDITION: Hairline horizontal crack wall 1/8” Ceiling crack through door head	 0083

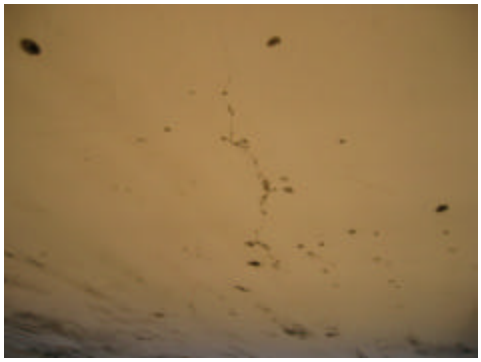
BATTERY: BOUTELLE

LOCATION: Room B, South, West CONDITION: Hairline vertical crack w/efflorescent stalactite wall, active water Hairline vertical crack alcove joint Hairline horizontal crack wall	 0084
LOCATION: Room B, South, West CONDITION: 1/16” Vertical crack alcove corner	 0085
LOCATION: Room B, Ceiling, South, West CONDITION: Ceiling crack w/efflorescence stalactites	 0086
LOCATION: Room C, Ceiling CONDITION: Hairline vertical Crack above access Also vertical hairline below (diag.)	 0087

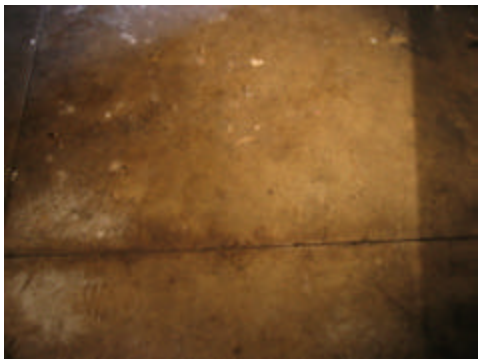
BATTERY: BOUTELLE

LOCATION: Room C, Ceiling, West, Center CONDITION: Ceiling cracks w/efflorescence stalactites	 0088
LOCATION: Room C, North CONDITION: Hairline diagonal & horizontal cracks (diag.)	 0089
LOCATION: Room C, Ceiling, East, Center CONDITION: Severe rust delam. of double steel beams @ doorhead – all concrete at head spalled off	 0090
LOCATION: Room C, Ceiling, Center CONDITION: 1/8” Crack all across ceiling Active water	 0091

BATTERY: BOUTELLE

LOCATION: Room C, East, North CONDITION: Efflorescence stains on wall	 0092
LOCATION: Room C, Ceiling, South CONDITION: Hairline ceiling crack - dry	 0093
LOCATION: Room C, West, South CONDITION: Ceiling crack w/efflorescence stalactites	 0094
LOCATION: Room D, West, Center CONDITION: Rust staining Wet @ wood insert Efflorescence Stalactites @ ceiling	 0181

BATTERY: BOUTELLE

LOCATION: Room D, East, South CONDITION: Vertical crack @ corner Spall @ rip Rot in wood insert Rust staining	 0182
LOCATION: Room D, East, Center CONDITION: Hairline diagonal crack Rust staining Rot in wood insert	 0183
LOCATION: Room D, Floor, Center CONDITION: Minor crazed cracking in floor slab	 0184
LOCATION: Room D, West, North @ door CONDITION: Horizontal separation @ door head Incipient spall May be steel beams above rusting Falling hazard	 0185

BATTERY: BOUTELLE

LOCATION: Room D, West, North CONDITION: Minor surface shrinkage cracks	 0186
LOCATION: CONDITION:	
LOCATION: CONDITION:	
LOCATION: CONDITION:	

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Deck, West, South CONDITION: Spall @ top of retaining wall	 0450
LOCATION: GP-3 Parapet, South CONDITION: 1/8" to ½" Horizontal crack @ top	 0451
LOCATION: GP-3 Parapet, Center CONDITION: ¾" Horizontal crack with 1/8" offset	 0452
LOCATION: GP-3 Parapet, Center CONDITION: Continuation of 452	 0453

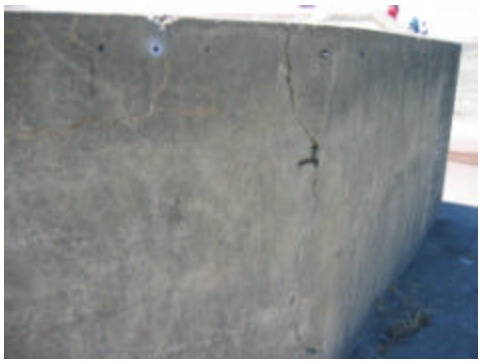
BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Parapet, North CONDITION: ¾" to 1" Horizontal crack w/1/8" offset Minor diagonal crack	 0454
LOCATION: GP-3 Parapet, South CONDITION: 1/8" Vertical crack w/efflorescence	 0455
LOCATION: GP-3 Parapet, North CONDITION: 1/8" Vertical + horizontal cracks w/efflorescence	 0456
LOCATION: GP-3 Parapet, North CONDITION: 1" Horizontal crack w/1/2" offset	 0457

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Parapet, North, East CONDITION: Horizontal pattern cracking	 0458
LOCATION: GP-3 Parapet, North, East CONDITION: Spall @ top Pattern cracking w/spalls	 0459
LOCATION: GP-3 Parapet, North, East CONDITION: Pattern cracking w/spalls	 0460
LOCATION: GP-3 Parapet, North, East, CONDITION: Pattern cracking w/efflorescence	 0461

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Parapet, North, East CONDITION: ¼" Vertical crack w/spall	 0462
LOCATION: GP-3 Parapet, North, East CONDITION: Spall with 1" offset @ vertical joint	 0463
LOCATION: GP-3 Deck, North, East CONDITION: ½" Crack w/spall + ¼" offset	 0464
LOCATION: GP-3 Deck, North, East CONDITION: Cracking + spalling @ top of stairs	 0465

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Apron, South CONDITION: Minor cracking Crack @ apparent joint @ top of wall below	 0466
LOCATION: GP-3 Apron, South CONDITION: Minor cracking Crack @ apparent joint @ top of wall below	 0467
LOCATION: GP-3 Apron, Center CONDITION: Crack @ apparent joint @ top of wall below	 0468
LOCATION: GP-3 Apron, North CONDITION: 1/8” Crack	 0469

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Apron, North CONDITION: ¼" Crack w/spall	 0470
LOCATION: GP-3 Apron, North CONDITION: ½" Crack w/spalled top	 0471
LOCATION: GP-3 Apron, North CONDITION: 4" Settlement @ South + West edge of apron segment	 0472
LOCATION: GP-3 Apron, North CONDITION: Minor cracking	 0473

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 Apron, North CONDITION: 1/8" Crack	 0474
LOCATION: GP-3 Apron, North CONDITION: ¼" Crack	 0475
LOCATION: GP-3 Apron, North CONDITION: Offset @ apron	 0476
LOCATION: GP-3, North Stair CONDITION: 1/8" Vertical + horizontal crack above door	 0477

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3 North Stair CONDITION: Large spall @ top beam	 0478
LOCATION: GP-3 North stair CONDITION: ¼" Separation at stair 1/8" Horizontal crack @ top of wall	 0479
LOCATION: GP-3 Under North Stair CONDITION: 3/8" Vertical separation Pattern cracking	 0480
LOCATION: GP-3, East Wall, South CONDITION: ¼" Horizontal crack w/spall	 0481

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-3, East Wall, Center CONDITION: Horizontal crack w/efflorescence	 0482
LOCATION: GP-3, East Wall, North CONDITION: Horizontal + diagonal crack w/efflorescence	 0483
LOCATION: GP-2 Parapet, South CONDITION: 1/8” Vertical crack	 0484
LOCATION: GP-2 Parapet, South CONDITION: 1/8” Horizontal diagonal crack	 0485

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 Parapet, South

CONDITION:

Large corner spall

0486

LOCATION: GP-2 Parapet, West, South

CONDITION:

2" Horizontal crack with ¼" offset
Hairline vertical crack w/efflorescence

0487

LOCATION: GP-2 Parapet, West, Center

CONDITION:

2" to 3" Horizontal crack with ¼" offset
Various smaller cracks + spalls above
Hairline vertical crack w/efflorescence

0488

LOCATION: GP-2 Parapet, West, North

CONDITION:

Continuation of 488

0489

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 Parapet, West, North CONDITION: 3” Horizontal crack w/1/4” offset Large spall	 0490
LOCATION: GP-2 Parapet, North CONDITION: Pattern cracking w/efflorescence at vertical crack	 0491
LOCATION: GP-2 Deck, Center CONDITION: Minor Deck Crack Ponding at plugged drain	 0492
LOCATION: GP-2 Parapet, North, East CONDITION: Large corner spalls	 0493

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 Parapet, North, East CONDITION: Large corner spall w/1/2" crack 1/8" to ¼" vertical crack Horizontal pattern cracking	 0494
LOCATION: GP-2 Upper Stair CONDITION: Spall + separation w/exposed reinforcing	 0495
LOCATION: GP-2 Upper Stair CONDITION: 1/8" Vertical crack	 0496
LOCATION: GP-2 Apron, North CONDITION: Settlement of apron section Large spall @ parapet cap	 0497

BATTERY: BOUTELLE EXTERIOR

LOCATION: Gp-2 Apron, North CONDITION: Various cracks and spalls	 0498
LOCATION: GP-2 Apron, North CONDITION: 1/8" + ¼" Cracks	 0499
LOCATION: GP-2 Apron, Center CONDITION: ¼" Crack @ apparent joint @ wall below	 0500
LOCATION: GP-2 Apron, Center CONDITION: ½" Crack w/spall, exposed reinforcing ½" Separation at apron joints other small cracks	 0501

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 Apron, Center CONDITION: ¼" to ½" Cracks Crack @ apparent joint at wall below Spall + offset @ apron joint	 0502
LOCATION: GP-2 Apron, Center CONDITION: 1/8" Transverse crack	 0503
LOCATION: GP-2 Apron, South CONDITION: Major cracking + spalling with 1" offset	 0504
LOCATION: GP-2 Apron, South CONDITION: 6" ± settlement @ apron section	 0505

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 Apron, South CONDITION: 1/8” Crack in South wall 1/8” Transverse crack Spalls at edge of settled apron	 0506
LOCATION: GP-2 Below South Stair CONDITION: 1/8” Diagonal crack	 0508 (0507 omitted)
LOCATION: GP-2 South Stair, East CONDITION: Cracking + spalling	 0509
LOCATION: GP-2 South Stair CONDITION: Spall @ stair stringer w/exposed, rusted-through rebar ½” Separation @ top	 0510

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 South Stair, East CONDITION: ¼" Diagonal crack with spall	 0511
LOCATION: GP-2 South Stair, East CONDITION: ¼" to ½" Separation @ stair	 0512
LOCATION: GP-2 North Stair, East CONDITION: 1/8" Vertical crack above door, active water	 0513
LOCATION: GP-2 North Stair CONDITION: Spall @ stair stringer Crack + spall @ beam on top of wall	 0514

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-2 East Wall CONDITION: Pattern cracking 1/8” Vertical crack in corner with staining	 0515
LOCATION: GP-2 East Wall CONDITION: Corner spall, top of wall	 0516
LOCATION: GP-1 Parapet, South CONDITION: 1/8” Horizontal + vertical cracks	 0517
LOCATION: GP-1 Parapet, South CONDITION: 1/8” Vertical crack @ bottom of vertical joint	 0518

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Parapet, South CONDITION: ¼" Horizontal cracks with spall Large corner spall	 0519
LOCATION: GP-1 Parapet, South CONDITION: ¼" Crack with spall at cap	 0520
LOCATION: GP-1 Parapet, South CONDITION: ½" Crack with spall at cap	 0521
LOCATION: GP-1 Parapet, West, South CONDITION: ¼" Crack with spall at cap	 0522

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Parapet West, Center

CONDITION:

½" to 1" Horizontal crack with ¼" offset

0523

LOCATION: GP-1 Parapet, West, North

CONDITION:

1" Horizontal crack with ¼" offset

0524

LOCATION: GP-1 Parapet, West, North

CONDITION:

Continuation of 523 + 524
1" Horizontal crack with heavy efflorescence

0525

LOCATION: GP-1 Parapet, North

CONDITION:

1" to ½" Horizontal crack with ¼" offset

0526

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Parapet, North CONDITION: Continuation of 526	 0527
LOCATION: GP-1, Parapet, North CONDITION: Pattern cracking with heavy efflorescence	 0528
LOCATION: GP-1 Parapet, North, East CONDITION: Horizontal pattern cracking	 0529
LOCATION: GP-1 Parapet, North, East CONDITION: ¼" Horizontal cracks with spalls Spalls at vertical joint	 0530

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Deck, East, North CONDITION: Spall @ wall cap	 0531
LOCATION: GP-1 Deck, East, North CONDITION: Spalling + cracking	 0532
LOCATION: GP-1 Parapet, North CONDITION: Spall @ cap ¼" Horizontal crack with spalls at cap	 0533
LOCATION: GP-1 Parapet, North CONDITION: 1/8" Horizontal crack @ cap	 0534

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Parapet, North CONDITION: ¼" Horizontal crack with spall 1/8" Horizontal crack at cap	 0535
LOCATION: GP-1 Apron, North CONDITION: 1/8" Crack	 0536
LOCATION: GP-1 Apron, North CONDITION: 1/8" Cracks (x-cracks)	 0537
LOCATION: GP-1 Apron, North CONDITION: Various cracks include crack at apparent joint at wall below	 0538

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Apron, Center CONDITION: Various cracks including ½" wide crack @ apparent joint at wall below	 0539
LOCATION: GP-1 Apron, Center CONDITION: Various cracks including ½" offset at crack at apparent joint at wall below an ½" offset at crack to east	 0540
LOCATION: GP-1 Apron, Center CONDITION: 1/8" Cracks	 0541
LOCATION: GP-1 Apron, South CONDITION: 1/8" Cracks	 0542

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Apron, South CONDITION: ½" Crack at apparent joint at wall below with 1" offset ½" Crack with 1 ½" offset spall at cap	 0543
LOCATION: GP-1 Apron, South CONDITION: 1/8" Cracks	 0544
LOCATION: GP-1 Apron, South CONDITION: 1/8" cracks Spall at corner	 0545
LOCATION: GP-1 Apron, South CONDITION: 6" ± settlement of apron section	 0546

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 Apron, South CONDITION: 1/8” Cracks	 0547
LOCATION: GP-1 Apron, South CONDITION: ¼” to ½” Transverse crack 1/8” Crack	 0548
LOCATION: GP-1 Apron, South CONDITION: 1” Crack with 1” offset at spall	 0549
LOCATION: GP-1 Apron, South CONDITION: ¼” to 1/8” Crack 1” apron settlement	 0550

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 East Wall, South CONDITION: Horizontal pattern cracking with efflorescence	 0551
LOCATION: GP-1 East Wall, South CONDITION: Crack/incipient spall at door head	 0552
LOCATION: GP-1 South Stair, South CONDITION: Spall with exposed reinforcing @ stair beam	 0553
LOCATION: GP-1 South Stair, South CONDITION: 1/8” Vertical separation at corner	 0554

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 South Stair CONDITION: Incipient spall @ stair stringer	 0555
LOCATION: GP-1 South Stair, North CONDITION: Hairline vertical crack	 0556
LOCATION: GP-1 North Stair, South CONDITION: 1/8” Vertical crack above door Spall at cap beam	 0557
LOCATION: GP-1 Deck, East CONDITION: 1/8” Soffit crack, damp	 0558

BATTERY: BOUTELLE EXTERIOR

LOCATION: GP-1 North Stair CONDITION: ¼" Diagonal crack with spalls	 0559
LOCATION: GP-1 North stair CONDITION: ¼" Horizontal crack	 0560
LOCATION: GP-1 under North stair CONDITION: ¼" Vertical separation in corner - damp	 0561
LOCATION: GP-1 under North stair CONDITION: ½" Separation @ slab	 0562

ACCESS HATCH

ALCOVE TYP.

A

B

D

DAMP

73 74 64 65 67 66 68 69 72 71 70

75 78 79 80 86 76 84 85 77 83 82 81

181 182 184 183 186 185

* CONC. SLAB
W/ JOINTS
* FLAT CONC. ROOF
* THIN CEMENT PLASTER
W/ PAINT TYPICAL

A = ROOM ID

5 = PHOTO #

N

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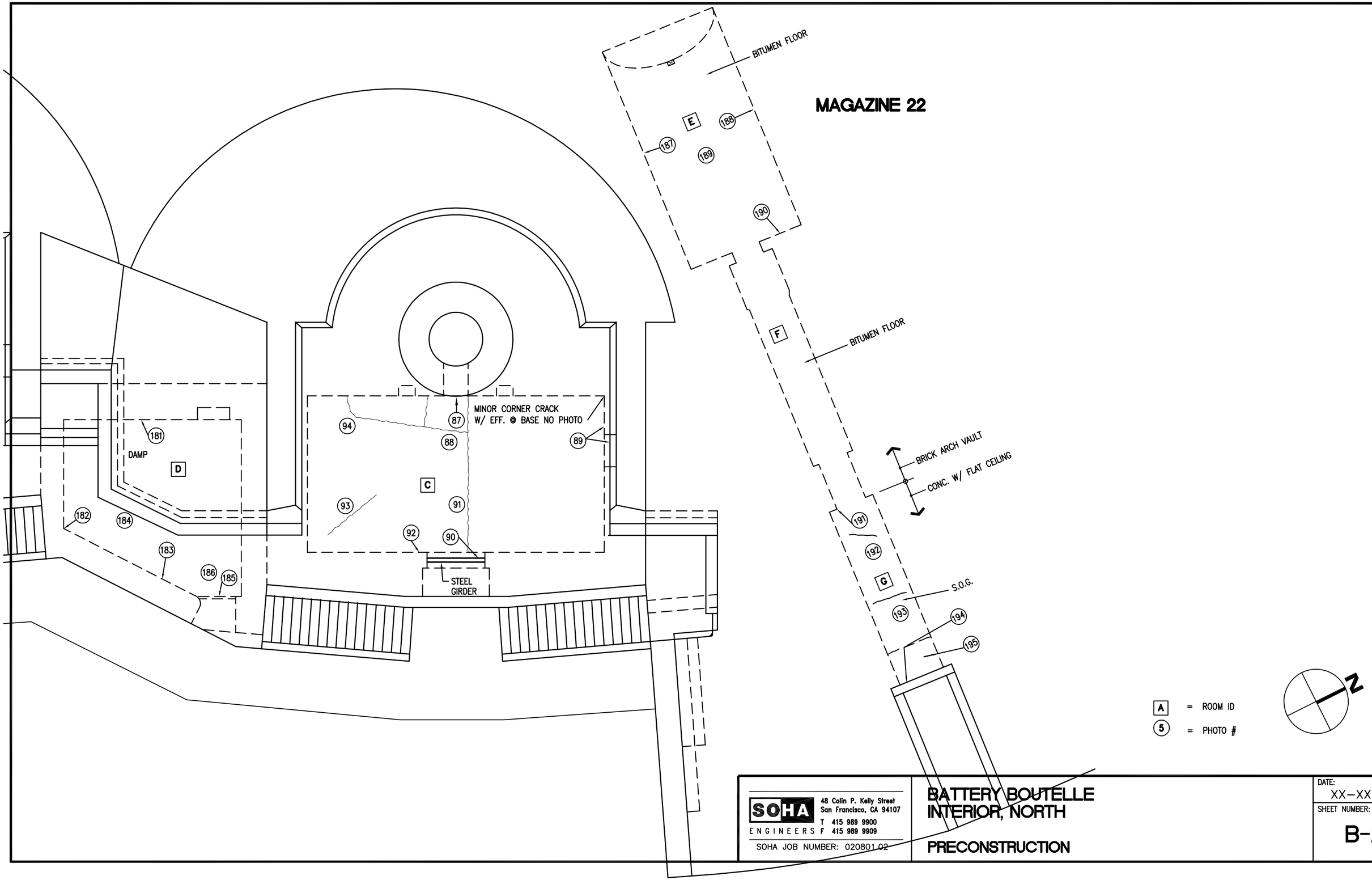
SOHA JOB NUMBER: 020801.02

BATTERY BOUTELLE INTERIOR, SOUTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: B-1



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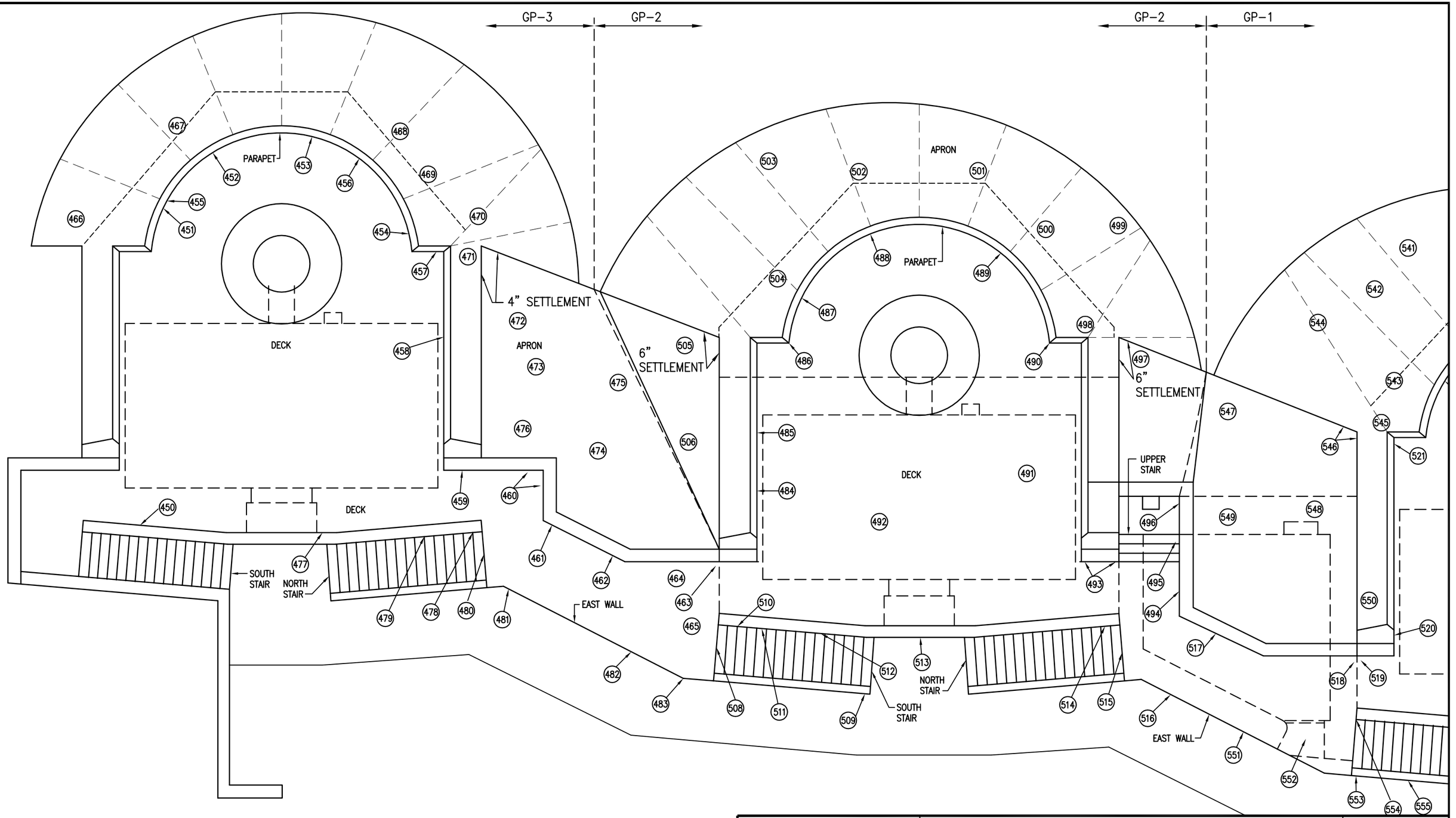
SOHA JOB NUMBER: 020801.02

BATTERY BOUTELLE INTERIOR, NORTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: B-2



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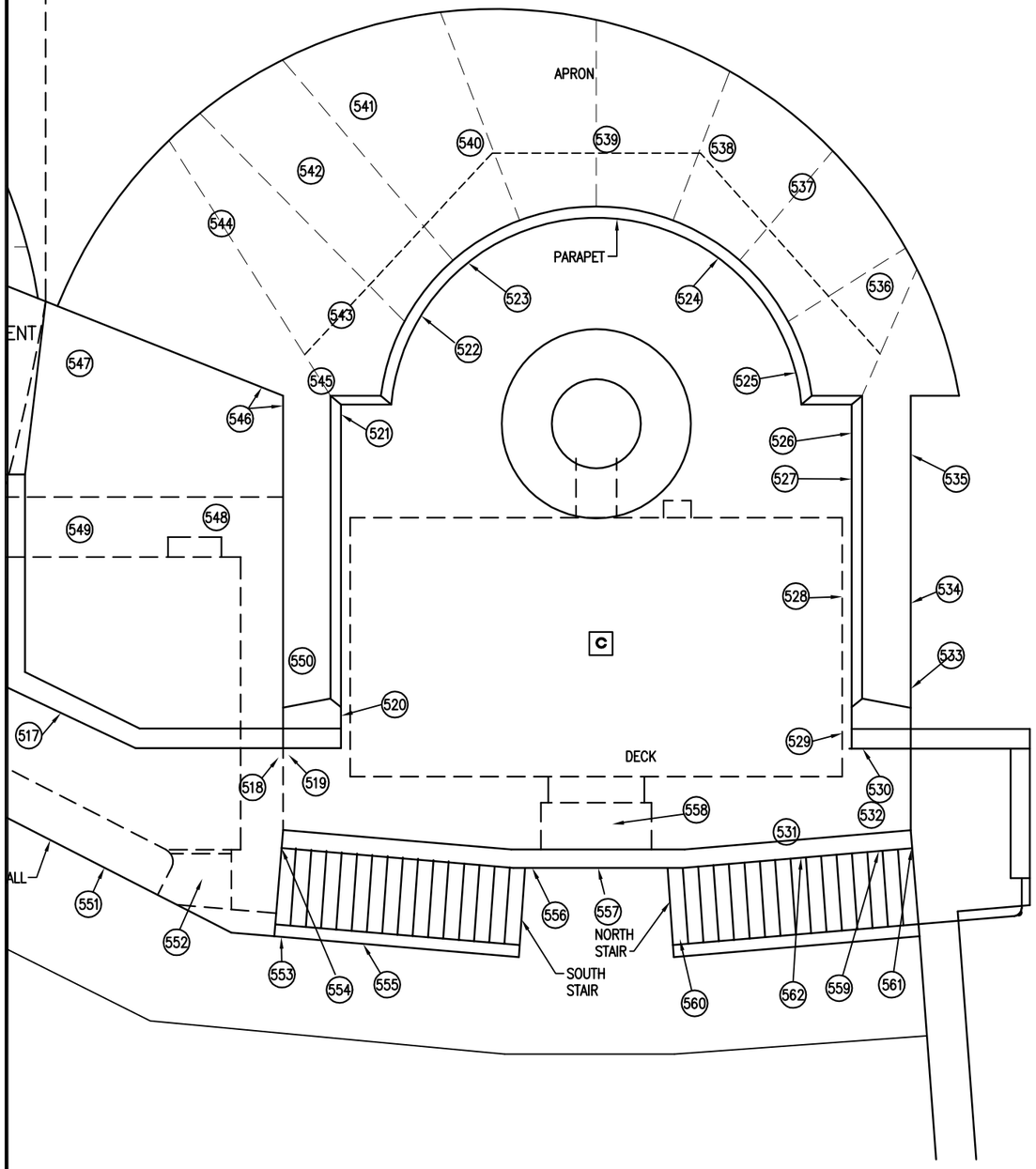
SOHA JOB NUMBER: 020801.02

BATTERY BOUTELLE EXTERIOR, SOUTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: B-3



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5 = PHOTO #

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SOHA JOB NUMBER: 020801.02

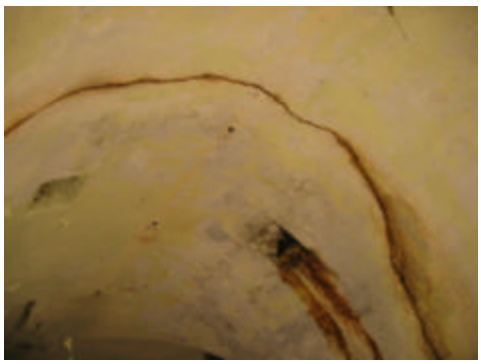
BATTERY BOUTELLE EXTERIOR, NORTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: B-4

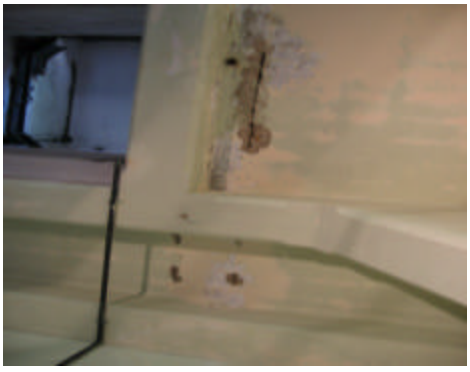
BATTERY: GODFREY

LOCATION: Room A, North, West **CONDITION:** ¼" Vertical crack in wall up & over See 96, 97 Also partially in slab	 0095
LOCATION: Room A, Ceiling, West CONDITION: ¼" Ceiling crack	 0096
LOCATION: Room A, South, West CONDITION: ½" Wall crack	 0097
LOCATION: Room A, North, West CONDITION: Effloresence w/rust stains at insert	 0098

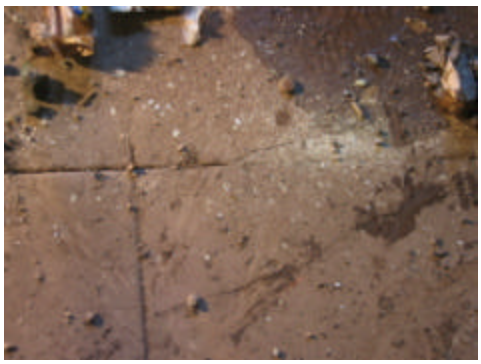
BATTERY: GODFREY

LOCATION: Room B, East, North CONDITION: Horizontal hairline crack cont.	 0099
LOCATION: Room B, East, South CONDITION: Horizontal hairline crack cont.	 0100
LOCATION: Room B, Floor, East, South CONDITION: Hairline floor crack	 0101
LOCATION: Room E, South, East CONDITION: Vertical separation at wall joint - high ceiling/low ceiling	 0102

BATTERY: GODFREY

LOCATION: Room E, South, East CONDITION: Continuation of 0103	 0103
LOCATION: Room H, Ceiling, West, Center CONDITION: Separation, cracking/spalling at edge beam	 0104
LOCATION: Room H, Ceiling, West, North CONDITION: Separation @ edge beam Vertical crack at wall corner full height	 0105
LOCATION: Room H, Ceiling, West, Center CONDITION: Spalls, exposed reinforcing	 0106

BATTERY: GODFREY

LOCATION: Room H, Ceiling, East, North CONDITION: Spall @ exposed reinforcing	 0107
LOCATION: Room H, Ceiling, East, South CONDITION: Spall @ exposed reinforcing	 0108
LOCATION: Room H, East CONDITION: 1/8” Horizontal crack @ step in wall	 0109
LOCATION: Room H, Floor, West, Center CONDITION: 1/8” Floor crack	 0110

BATTERY: GODFREY

LOCATION: Room F, Center, East CONDITION: Crack at lift rail/channel	 0111
LOCATION: Room H, Ceiling, Center CONDITION: Crack spall at bolthole in shaft beam.	 0113 (0112 omitted)
LOCATION: Room I, North CONDITION: 2 Hairline horizontal cracks	 0114
LOCATION: Room I, South CONDITION: 2 Hairline horizontal cracks	 0115

BATTERY: GODFREY

LOCATION: Room I, North, West CONDITION: Hairline pattern cracking	 0116
LOCATION: Room I, South, West CONDITION: Hairline pattern cracking in alcove	 0117
LOCATION: Room I, North, West CONDITION: Rust stain/efflorescence, active water	 0118
LOCATION: Room I, Ceiling, South, West, CONDITION: Hairline ceiling crack w/rust stain, efflorescence on wall	 0119

BATTERY: GODFREY

LOCATION: Room J, North, East CONDITION: Hairline horizontal crack w/stain	 0120
LOCATION: Room J, East CONDITION: 1/16” horizontal crack	 0121
LOCATION: Room K, West, North CONDITION: Active leak at plugged holes	 0122
LOCATION: Room K, West CONDITION: Hairline horizontal & vertical cracks	 0123

BATTERY: GODFREY

LOCATION: Room M, South, East CONDITION: Vertical separation @ joint @ wall corner Crack & spall @ top	 0124
LOCATION: Room P, South, West CONDITION: Vertical separation @ joint @ wall corner Crack & spall at top	 0125
LOCATION: Room P, West, South CONDITION: Hairline horizontal crack across	 0126
LOCATION: Room P, West, Center, North CONDITION: Horizontal separation @ beam Vertical separation @ wall corner	 0127

BATTERY: GODFREY

LOCATION: Room P, West, North CONDITION: Vertical separation w/spalls @corner (below 0127)	 0128
LOCATION: Room N, Ceiling, South CONDITION: ¼" crack @hoist rail/channel	 0129
LOCATION: Room N, Ceiling, West CONDITION: Ceiling crack w/efflorescence	 0130
LOCATION: Room N, Ceiling, South CONDITION: Ceiling crack w/efflorescence Hairline ceiling crack	 0131

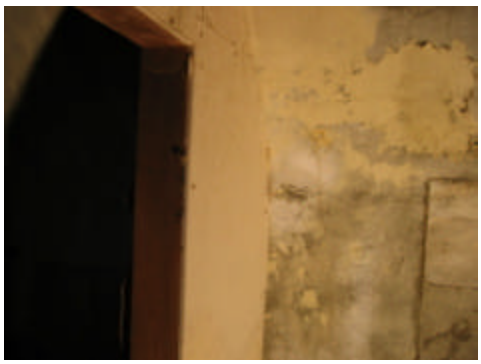
BATTERY: GODFREY

LOCATION: Room P, North, Center CONDITION: 1/16” vertical crack	 0132
LOCATION: Room O, South CONDITION: 2 Hairline horizontal cracks	 0133
LOCATION: Room P, Ceiling, East, Center CONDITION: Pattern cracking w/some efflorescence	 0134
LOCATION: Room P, South, Center CONDITION: 1/16” Horizontal crack, full height	 0135

BATTERY: GODFREY

LOCATION: Room P, Ceiling, West CONDITION: Spall in beam @ shaft	 0136
LOCATION: Room Q, North, East CONDITION: Hairline diagonal crack w/staining	 0137
LOCATION: Room Q, North, East CONDITION: Hairline horizontal crack	 0138
LOCATION: Room Q, Ceiling, East CONDITION: Horizontal crack in vault w/efflorescence stalactites	 0139

BATTERY: GODFREY

LOCATION: Room Q, South, East CONDITION: Hairline diagonal crack w/powdery efflorescence	 0140
LOCATION: Room Q, North, Center CONDITION: Hairline diagonal crack w/powdery efflorescence Hairline horizontal crack above alcove	 0141
LOCATION: Room Q, North, West CONDITION: Pattern cracking in alcove	 0142
LOCATION: Room Q, North, West CONDITION: Hairline horizontal crack	 0143

BATTERY: GODFREY

LOCATION: Room R, South CONDITION: Pattern cracking	 0144
LOCATION: Room R, East, South CONDITION: Pattern cracking w/efflorescence	 0145
LOCATION: Room R, East, South CONDITION: Pattern cracking w/efflorescence	 0146
LOCATION: Room R, Ceiling, West, North CONDITION: Pattern cracking w/1 crack across vault	 0147

BATTERY: GODFREY

LOCATION: Room R, Ceiling, West, Center CONDITION: Pattern cracking - typical	 0148
LOCATION: Room T, Ceiling, West CONDITION: Pattern cracking	 0149
LOCATION: Room S, Ceiling, East, North CONDITION: Pattern cracking w/efflorescence + active water	 0150
LOCATION: Room S, East, Center CONDITION: Hairline horizontal crack Pattern cracking	 0151

BATTERY: GODFREY

LOCATION: Room V, West CONDITION: Efflorescence on shaft wall	 0152
LOCATION: Room U, South CONDITION: Pattern cracking w/efflorescence stain	 0153
LOCATION: Room X, Ceiling, West, Center CONDITION: Large spall @ beam	 0154
LOCATION: Room X, Ceiling, West, North CONDITION: Large spall @ beam	 0156 (0155 omitted)

BATTERY: GODFREY

LOCATION: Room X, North, West CONDITION: Separation @ wall corner	 0157
LOCATION: Room X, North, West CONDITION: Vertical separation w/spalls @ joint	 0158
LOCATION: Room X, East, North CONDITION: Hairline crack	 0159
LOCATION: Room X, West, South CONDITION: Spalling plaster @ duct – water problems above	 0160

BATTERY: GODFREY

LOCATION: Room Y, Ceiling, South, West CONDITION: Large spall w/damaged reinforcing in beam	 0161
LOCATION: Room Y, Ceiling, South, Center CONDITION: Small spall, exposed reinforcing	 0162
LOCATION: Room Y, West, South CONDITION: Hairline vertical cracks, damp	 0163
LOCATION: Room Y, West, North CONDITION: Hairline diagonal crack	 0164

BATTERY: GODFREY

LOCATION: Room Y, Ceiling, East, South CONDITION: Spall w/exposed reinforcing Efflorescent stalactites	 0165
LOCATION: Room Z, Ceiling, South CONDITION: Damp ceiling, peeling paint	 0166
LOCATION: Room Z, Ceiling, North, East CONDITION: Minor spalls	 0167
LOCATION: Room BB, Ceiling, South CONDITION: Major spalls @ ceiling beams Typical photo – Falling Hazard	 0168

BATTERY: GODFREY

LOCATION: Room CC, North, center CONDITION: Hairline separation @ wall/ ceiling joint	 0169
LOCATION: Magazine, Room FF, Ceiling, Center CONDITION: Hairline longitudinal crack @ crown, full length	 0170
LOCATION: Magazine, Room EE, Ceiling, Center CONDITION: Hairline longitudinal crack @ crown	 0171
LOCATION: Magazine, Room DD, North, East CONDITION: Efflorescence in mortar joints – Popping out joints & spalling brick Typical at many repointed joints	 0172

BATTERY: GODFREY

LOCATION: Magazine, Room DD, Ceiling, North CONDITION: Hairline crack in vault hip	 0173
LOCATION: Magazine, Room DD, Ceiling, Center CONDITION: Efflorescence @ mortar joints where repointed – popping of mortar & spalling brick	 0174
LOCATION: Room GG, North, Center CONDITION: Wood insert rotting Rust staining active water	 0175 (5/6/05)
LOCATION: Room GG, East CONDITION: Plaster spalls, wood insert rot	 0176 (5/6/05)

BATTERY: GODFREY

LOCATION: Room GG, Ceiling, West CONDITION: Spall @ steel ceiling beam w/rust damage Beam has 1 ½" ± cover	 0177
LOCATION: Room AA, Center, West CONDITION: Plaster spall w/exposed aggregate and west plaster/gypsum	 0178
LOCATION: Room AA, Center, South, West CONDITION: Spall, exposed steel beams, badly rusted & delaminated Room unsafe – falling hazard	 0179
LOCATION: Room AA, Ceiling, North CONDITION: Same as above – all beams are exposed	 0180

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 West Wall, South CONDITION: Diagonal crack w/efflorescence	 0219
LOCATION: GP-3 West wall, South CONDITION: Spall @ gun mount Steps settled 6”	 0220
LOCATION: GP-3 Gun mount CONDITION: Pavement cracking w/offsets	 0221
LOCATION: GP-3 Gun Mount CONDITION: Spalling, cracking	 0222

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Telephone Booth CONDITION: Separation @ swale 1” separation @ top spall @ North wall w/exposed wire mesh	 0223
LOCATION: GP-3 Telephone Booth CONDITION: Spall @ top corner	 0224
LOCATION: GP-3 Gun Mount, East CONDITION: Cracking, spalling typical	 0225
LOCATION: GP-3 Deck, North, East CONDITION: Cracking spalling pavement	 0226

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 West Wall, North CONDITION: Low spot in paving Diagonal crack in Western wall	 0227
LOCATION: GP-3 Gun Mount, North CONDITION: Spalling	 0228
LOCATION: GP-3 West Wall, Center CONDITION: Spalls, 1/16” diagonal and horizontal crack w/offset 1/8”	 0229
LOCATION: GP-3, West Wall, North CONDITION: Cracking, spalling, separation at lead joint	 0230

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 West Wall, Center CONDITION: 1+ separation at roof slab joint w/bitumen, w vertical crack lead joint	 0231
LOCATION: GP-3 West Wall, Center CONDITION: 1/8” Horizontal crack Vertical crack at roof slab	 0232
LOCATION: GP-3 West Wall, Center CONDITION: Pavement crack w/offset 1/8” Separation at west side of steps	 0233
LOCATION: GP-3 West Wall, Center CONDITION: Large spall at corner	 0234

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Splinterproof, South, West CONDITION: Corner spall exposed reinforcing	 0235
LOCATION: GP-3 Splinterproof, South, Center CONDITION: Double corner spall exposed reinforcing	 0236
LOCATION: GP-3 Splinterproof, South, Center CONDITION: Corner spall at base, exposed reinforcing	 0237
LOCATION: GP-3 Splinterproof, South, East CONDITION: Soffit spalls, exposed reinforcing	 0238

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Splinterproof, South, East CONDITION: Beam bottom spall Exposed reinforcing Falling hazard	 0239
LOCATION: GP-3 Splinterproof, South, East CONDITION: Beam corner spall Exposed reinforcing Falling hazard	 0240
LOCATION: GP-3 Splinterproof, South, East CONDITION: Col Corner spall Exposed reinforcing	 0241
LOCATION: GP-3 Splinterproof, South, East CONDITION: Col Corner spall Exposed reinforcing	 0242

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Splinterproof, South, East CONDITION: Column & joint spall Exposed reinforcing Reinforced Rusted through	 0243
LOCATION: GP-3 Splinterproof, East CONDITION: Beam bottom & corner spalls Exposed reinforcing	 0244
LOCATION: GP-3 Splinterproof, East CONDITION: Beam bottom & corner spall Exposed reinforcing Falling hazard	 0245
LOCATION: GP-3, Splinterproof, East CONDITION: Beam corner spall Exposed reinforcing	 0246

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Splinterproof, North, East CONDITION: Column corner spall Exposed reinforcing 1 Bar rusted through	 0247
LOCATION: GP-3 Splinterproof, North, East CONDITION: Column corner spall Exposed reinforcing	 0248
LOCATION: GP-3 Splinterproof, North, Center CONDITION: Beam corner spall Exposed reinforcing Falling hazard	 0249
LOCATION: GP-3 Splinterproof, North, Center CONDITION: Column corner spall starting	 0250

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Splinterproof, North, West CONDITION: 3 corner column spall exposed reinforcing 1 bar rusted through	 0251
LOCATION: GP-3 Splinterproof, North, West CONDITION: Column corner spall Exposed reinforcing	 0252
LOCATION: GP-3 Splinterproof, Ceiling, Center CONDITION: Hairline crack in soffit	 0253
LOCATION: GP-3 West Wall, North CONDITION: Hairline Diagonal and horizontal cracks	 0254

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 West Wall, North CONDITION: Spall @ roof slab joint	 0255
LOCATION: GP-3 West Wall, North @ stair CONDITION: Spall @ roof joint	 0256
LOCATION: GP-3 West Wall, North CONDITION: Spall @ roof joint Exposed reinforcing crossing joint	 0257
LOCATION: GP-3 West Wall, North CONDITION: Large and small spalls at roof joint	 0258

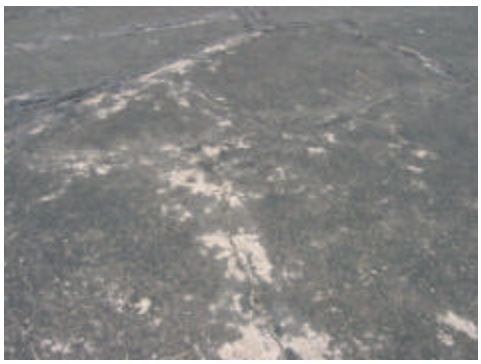
BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 West Wall, Upper Stair CONDITION: Soffitt spall Exposed reinforcing	 0259
LOCATION: GP-3 West Wall, North CONDITION: 1/8” Vertical crack roof slab Hairline vertical crack weeping Pattern cracking	 0260
LOCATION: GP-3 West wall, North CONDITION: Vertical crack roof slab Weeping at roof slab joint Pattern cracking	 0261
LOCATION: GP-3 West Wall, North CONDITION: Corner spall Missing lead joint	 0262

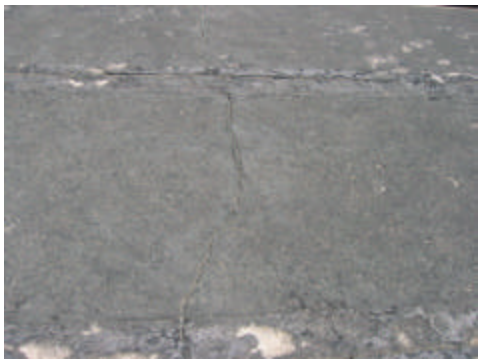
BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 North Paving CONDITION: Paving cracks	 0263
LOCATION: GP-3 Apron, North, East CONDITION: East/West cracks Thin bitumen surface	 0266 (0264-0265 omitted)
LOCATION: GP-3 Apron, North, Center CONDITION: East/West cracks	 0267
LOCATION: GP-3 Apron, North, West CONDITION: Pattern cracking in thick bitumen surface 3”+	 0268

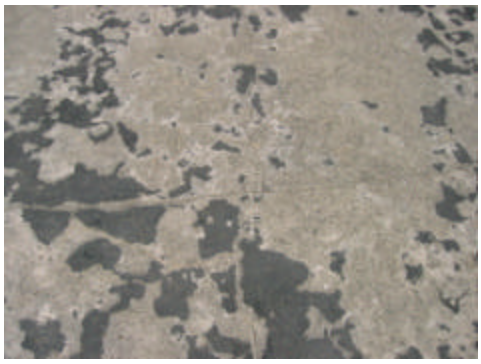
BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Apron, North, West CONDITION: Concrete spall Missing thick bitumen	 0269
LOCATION: GP-3 Apron, West, Center CONDITION: Pattern cracking in thick bitumen	 0270
LOCATION: GP-3 Apron, Center CONDITION: Tree stump w/roots into bitumen and into square hole in apron	 0271
LOCATION: GP-3 Apron, North, Center CONDITION: 1/8”-1/4” Pattern cracking in concrete	 0272

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Apron, North, East, Center CONDITION: Cracking in Bitumen, Concrete	 0273
LOCATION: GP-3 Apron, North, Center CONDITION: Joint intersection w/pattern cracking beyond	 0274
LOCATION: GP-3 Apron, East, Center CONDITION: Pattern cracking	 0275
LOCATION: GP-3 Apron, West, Center CONDITION: Pattern cracking in thick bitumen Missing bitumen @ edge	 0276

BATTERY: GODFREY EXTERIOR

LOCATION:GP-3 Apron, East, Center CONDITION: 1/16” Pattern Cracking	 0277
LOCATION: GP-3 Apron, East, South CONDITION: Major East/West Joint – see 0230 Remnant of 4” topping slab? W/thick bitumen replacement	 0278
LOCATION: GP-3 Apron, East, South CONDITION: Pattern cracking thick bitumen Bitumen/topping missing	 0279
LOCATION: GP-3 Apron, South, Center CONDITION: 1/8” to ¼” Cracking	 0280

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Apron, West, Center CONDITION: 1 ½" settlement & spall across joint	 0281
LOCATION: GP-3 Apron, West, South CONDITION: 1/8" Pattern cracking	 0282
LOCATION: GP-3 Apron, West, South CONDITION: 1/8" – ¼" Pattern cracking	 0283
LOCATION: GP-3 Apron, North, West CONDITION: Spalling and separation	 0284

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Apron, West, Center CONDITION: Horizontal and vertical cracking typical	 0285
LOCATION: GP-3 Apron, South CONDITION: Vertical cracking @ topping	 0286
LOCATION: GP-3 Apron, South CONDITION: Pattern cracking	 0287
LOCATION: GP-3 Splinterproof Roof CONDITION: Pattern cracking	 0288

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Telephone Booth CONDITION: Crack, spall in North wing wall Remainder covered in ivy	 0289
LOCATION: GP-3 Ramp area West retaining wall center CONDITION: Horizontal crack & separation at plaster cap	 0290
LOCATION: GP-3 Ramp Retaining Wall, West, Center CONDITION: Horizontal pattern cracking	 0291
LOCATION: GP-3 Ramp Retaining Wall, West, North CONDITION: Spall at pipe - weeping	 0292

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Ramp, West Retaining Wall, North CONDITION: Horizontal & diagonal pattern cracking w/efflorescence	 0293
LOCATION: GP-3 Ramp, North Retaining Wall CONDITION: Pattern cracking w/weeping	 0294
LOCATION: GP-3 Ramp, East Retaining Wall, North CONDITION: Pattern cracking w/ rust stain	 0295
LOCATION: GP-3 Ramp, East Retaining Wall, North CONDITION: 1/16” Vertical crack	 0296

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Ramp, East Retaining Wall, North CONDITION: Vertical crack w/incipient spall Spall @ wall tip Horizontal pattern cracking	 0297
LOCATION: GP-3 Ramp, East Retaining Wall, Center CONDITION: Pattern cracking - typical	 0298
LOCATION: GP-3 Ramp, East Retaining Wall, South CONDITION: Pattern cracking	 0299
LOCATION: GP-3 Ramp, Upper West Wall CONDITION: Diagonal cracks, weeping typical	 0300

BATTERY: GODFREY EXTERIOR

LOCATION: GP-3 Ramp, Upper West Wall CONDITION: Diagonal cracks weeping Vertical crack splinterproof slab	 0301
LOCATION: GP-3 Slab Above Entry to Magazine CONDITION: Horizontal crack	 0302
LOCATION: GP-2 South Stair, Upper CONDITION: 4” settlement @ top of stair	 0303
LOCATION: GP-2 West Wall, South CONDITION: ½” Horizontal crack w/ spalls – cold joint	 0304

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 West Wall, South CONDITION: 1/16” Horizontal & vertical cracks w/small spalls	 0305
LOCATION: GP-2 West Wall, South CONDITION: Spalls at recess	 0306
LOCATION: GP-2 West Wall, South CONDITION: Hairline diagonal crack with spalls	 0307
LOCATION: GP-2 West Wall, South CONDITION: 1/8” Horizontal crack w/spalls	 0308

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 West Wall, Center CONDITION: Lead joint w/various cracks and spalls	 0309
LOCATION: GP-2 West Wall, Center CONDITION: ¼" Vertical crack 2 1/16" Horizontal cracks with spalls	 0310
LOCATION: GP-2 West Wall, Center CONDITION: 1/8" Horizontal crack w/spalls	 0311
LOCATION: GP-2 West Wall, Center CONDITION: Rust stains at steel inserts 3 Hairline horizontal cracks w/spalls Spall @ lead joint	 0312

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Telephone Booth CONDITION: Major spalling & Cracking @ walls and top slab	 0313
LOCATION: GP-2 Telephone Booth CONDITION: Major spalling & cracking @ walls and top slab	 0314
LOCATION: GP-2 Telephone Booth CONDITION: Retaining wall failure	 0315
LOCATION: GP-2 Deck, South, East CONDITION: Minor slab cracking with weed growth	 0316

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Deck, South, West CONDITION: Minor slab cracking	 0317
LOCATION: GP-2 Gun Mount, South CONDITION: Major cracking & spalling	 0318
LOCATION: GP-2 Deck, East, Center CONDITION: Slab cracking with ½" offset + weed growth	 0319
LOCATION: GP-2 Gun Mount, East CONDITION: Major cracking & spalling	 0320

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Deck, East, North CONDITION: Minor slab cracking	 0321
LOCATION: GP-2 Gun Mount, North CONDITION: Major cracking + spalling Large portion of topping slab missing	 0323 (0322 omitted)
LOCATION: GP-2 Deck, West, North CONDITION: Major slab cracking with spalls, ½" offsets, weed growth	 0324
LOCATION: GP-2 Deck, North, West CONDITION: Slab cracking w/1/2" offset	 0325

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Deck, West, North CONDITION: Low spot with weed growth	 0326
LOCATION: GP-2 Gun Mount CONDITION: Major cracking + spalling	 0327
LOCATION: GP-2 West Wall, North @ stair CONDITION: Horizontal lead joint w/hairline vertical crack Horizontal separation beyond stair	 0328
LOCATION: GP-2 West Wall, North CONDITION: 1/16” Vertical crack @ cold joint/ apron joint Above – typical @ apron joints	 0329

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 West Wall, Center CONDITION: Hairline horizontal crack w/weeping	 0330
LOCATION: GP-2 Deck, North, West CONDITION: ½" offset @ slab joint	 0331
LOCATION: GP-2 Splinterproof, South, West CONDITION: Column spall w/exposed reinforcing	 0332
LOCATION: GP-2 Splinterproof, South, West CONDITION: Beam spall w/exposed reinforcing	 0333

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Splinterproof, South, Center CONDITION: Column spall w/exposed reinforcing	 0334
LOCATION: GP-2 Splinterproof, South, Center CONDITION: Incipient Column spall	 0335
LOCATION: GP-2 Splinterproof, South, East CONDITION: Full length beam bottom spall Reinforcing completely gone Failure Hazard	 0336
LOCATION: GP-2 Splinterproof, South, Center CONDITION: Spalls w/ exposed reinforcing	 0337

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Splinterproof, South, East CONDITION: Corner spalled off Spall w/exposed, damaged reinforcing	 0338
LOCATION: GP-2 Splinterproof, South, East CONDITION: Column Corner spall w/exposed reinforcing	 0339
LOCATION: GP-2 Splinterproof, South, East CONDITION: Roof slab spall w/exposed reinforcing	 0340
LOCATION: GP-2 Splinterproof, East CONDITION: Beam Bottom Spall w/exposed damaged reinforcing See 342 Falling Hazard	 0341

BATTERY: GODFREY EXTERIOR

LOCATION: GP- 2 Splinterproof, East CONDITION: BM Bottom + Side spall full length See 341 Falling Hazard	 0342
LOCATION: GP-2 Splinterproof, North CONDITION: Beam Bottom Spall w/exposed reinforcing Falling Hazard	 0343
LOCATION: GP-2 Splinterproof, South, West CONDITION: Spalls w/ exposed reinforcing	 0344
LOCATION: GP-2 Splinterproof, West, Center CONDITION: Soffit Spall w/exposed reinforcing & hairline crack in beam	 0345

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Splinterproof, West, South CONDITION: 1/16” Horizontal crack @ wall/ceiling joint	 0346
LOCATION: GP-2 Splinterproof, Roof CONDITION: Minor cracking	 0347
LOCATION: GP-2 Apron, South CONDITION: ¼” Cracking with spall	 0348
LOCATION: GP-2 Apron, South, East CONDITION: 1/8” Crack	 0349

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Apron, South, East CONDITION: 1/8” Crack w/ spalls	 0350
LOCATION: GP-2 Apron, South, West CONDITION: 1/8” Cracks	 0351
LOCATION: GP-2 Apron, West, South CONDITION: 1/8” Crack	 0352
LOCATION: GP-2 Apron, West, South CONDITION: Hairline Crack w/surface spall w/exposed mesh reinforcing	 0353

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Apron, Center CONDITION: Spall @ joint	 0354
LOCATION: GP-2 Apron, Center CONDITION: 1/8” Crack	 0355
LOCATION: GP-2 Apron, West, Center CONDITION: 1/8” Crack	 0356
LOCATION: GP-2 Apron, Center CONDITION: 1/8” Crack	 0357

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Apron, East, Center CONDITION: 1/8” Crack	 0358
LOCATION: GP-2 Apron, Center, North CONDITION: 1/8” Crack transverse to joints full length	 0359
LOCATION: GP-2 Apron, East, North CONDITION: 1/8” Crack transverse to joint, full length	 0360
LOCATION: GP-2 Apron, East, North CONDITION: Surface pattern cracking	 0361

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Apron, East, North CONDITION: Surface pattern cracking	 0362
LOCATION: GP-2 Apron, West, Center CONDITION: Large surface spall filled w/thick bitumen	 0363
LOCATION: GP-2 Apron, West, Center CONDITION: Surface pattern cracking Thick bitumen missing	 0364
LOCATION: GP-2 Apron, West, Center CONDITION: Thin topping spall w/joint or crack below	 0365

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Apron, West, North CONDITION: Surface pattern cracking	 0366
LOCATION: GP-2 Apron, West, North CONDITION: Spall @ thin topping w/crack or joint below	 0367
LOCATION: GP-2 Apron, West, North CONDITION: Thick bitumen - typical	 0368
LOCATION: GP-2 West Wall, North CONDITION: Spall below lead joint	 0369

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 North Deck, South CONDITION: 1/16” Vertical Crack + 1/8” Separation at corner	 0370
LOCATION: GP-2 North Deck, South CONDITION: Soffit Spalls w/exposed reinforcing	 0371
LOCATION: GP-2 North Deck, West, North CONDITION: Pattern Cracking	 0372
LOCATION: GP-2 North Deck, East CONDITION: Soffit spalls w/exposed reinforcing	 0373

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Ramp, West Retaining Wall, South CONDITION: Spall ¼" Horizontal crack w/3/4" offset	 0374
LOCATION: GP-2 Ramp, West Retaining Wall, South CONDITION: Hairline horizontal cracks 1/16" Vertical crack	 0375
LOCATION: GP-2 Ramp, West Retaining Wall, Center CONDITION: Pattern cracking	 0376
LOCATION: GP-2 Splinterproof Above Ramp, South, East CONDITION: Horizontal + diagonal cracks w/efflorescence	 0377

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Splinterproof Above Ramp, East CONDITION: Spalls	 0378
LOCATION: GP-2 Splinterproof Above Ramp, East CONDITION: Horizontal pattern cracking	 0379
LOCATION: GP-2 Splinterproof Above Ramp, East, North CONDITION: 1/16” Vertical crack @ roof Hairline horizontal crack	 0380
LOCATION: GP-2 Ramp, West, North CONDITION: 1/16” Horizontal crack @ top Horizontal + diagonal crack w/weeping	 0381

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Ramp, West, North CONDITION: Horizontal cracks w/efflorescence	 0382
LOCATION: GP-2 Ramp, West, North CONDITION: Spalls	 0383
LOCATION: GP-2 Ramp, West, North CONDITION: Hairline horizontal crack	 0384
LOCATION: GP-2 Ramp, East, Center CONDITION: Pattern cracking	 0385

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 Ramp, East, North CONDITION: Hairline horizontal + vertical cracks w/weeping	 0386
LOCATION: GP-2 Ramp, East, North CONDITION: Hairline horizontal cracks Rust stain @ steel embeds	 0387
LOCATION: GP-2 Ramp, East, Center CONDITION: Horizontal pattern cracking	 0388
LOCATION: GP-2 Ramp, East, South CONDITION: Spall + ¼" horizontal crack	 0389

BATTERY: GODFREY EXTERIOR

LOCATION: GP-2 East Stair, Top CONDITION: Spall @ stair ¾" offset below deck	 0390
LOCATION: GP-1 South Deck, West CONDITION: Spall @ lead joint 1/8" Horizontal crack	 0391
LOCATION: GP-1 South Deck, West CONDITION: Pattern Cracking	 0392
LOCATION: GP-1 South Deck, South CONDITION: Soffit crack w/spall, exposed reinforcing	 0393

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1South Deck, East CONDITION: 1/16” Horizontal crack @ elevated deck edge	 0394
LOCATION: GP-1 South Deck, North CONDITION: Soffit spalls, exposed reinforcing	 0395
LOCATION: GP-1 South Deck, North CONDITION: Soffit spall, exposed reinforcing	 0396
LOCATION: GP-1 South Deck, North CONDITION: Hairline horizontal + vertical cracks w/spall	 0397

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Splinterproof, South, West CONDITION: Beam spall, exposed reinforcing	 0398
LOCATION: GP-1 Splinterproof, South CONDITION: Beam spall, exposed reinforcing	 0399
LOCATION: GP-1 Splinterproof, South CONDITION: Column corner crack	 0400
LOCATION: GP-1 Splinterproof, South CONDITION: Column corner spall exposed reinforcing	 0401

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Splinterproof, East, South CONDITION: Column corner crack	 0402
LOCATION: GP-1 Splinterproof, East, South CONDITION: Beam corner spall (repaired) Exposed reinforcing	 0403
LOCATION: GP-1 Splinterproof, East CONDITION: 1/16” Slab crack	 0404
LOCATION: GP-1 Splinterproof, East, North CONDITION: Beam corner spall Column corner spall, exposed, damaged reinforcing	 0405

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Splinterproof, East, North CONDITION: ¼" Diagonal crack w/1/4" offset	 0406
LOCATION: GP-1 Splinterproof, North, East CONDITION: Column corner spall exposed reinforcing	 0407
LOCATION: GP-1 Telephone Booth CONDITION: Major cracking & spalling @ cap	 0408
LOCATION: GP-1 Splinterproof, East, North CONDITION: Roof slab corner spall	 0409

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Splinterproof, North CONDITION: Soffit spalls, exposed reinforcing	 0410
LOCATION: GP-1 Telephone Booth CONDITION: Major cracking, spalls @ cap	 0411
LOCATION: GP-1 Telephone Booth CONDITION: Major crack @ cap	 0412
LOCATION: GP-1 West Wall, South CONDITION: 1/8” Horizontal crack @ stair Lead joint	 0413

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Splinterproof Roof CONDITION: Hairline slab cracks Pattern cracking	 0414
LOCATION: GP-1 Deck, East, South CONDITION: Diagonal slab crack	 0415
LOCATION: GP-1 Deck, South, East CONDITION: Slab crack, spall, ½" offset	 0416
LOCATION: GP-1 Deck, South, Center CONDITION: Slab heave 1 ½" @ joint	 0417

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 West Wall, Center CONDITION: 1/8” Diagonal crack, probably cold joint	 0418
LOCATION: GP-1 Gun Mount, South CONDITION: Slab Heave 4” w/spall Cracking + spalls @ gun mount edge	 0419
LOCATION: GP-1 Gun Mount, South CONDITION: Major spalls gun mount + step	 0420
LOCATION: GP-1 West Wall, Center CONDITION: ¼ Horizontal crack in parapet w/spalls	 0421

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Gun Mount CONDITION: 3/8” Crack w/spalls	 0422
LOCATION: GP-1 Gun Mount, East CONDITION: Horizontal crack + spalls	 0423
LOCATION: GP-1 Deck, North, East CONDITION: Major cracks w/offsets @ deck	 0424
LOCATION: GP-1 North, Center CONDITION: Widespread slab surface spalls	 0425

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Deck, North CONDITION: Two top steps spalled off Rotation, heave of deck edge	 0426
LOCATION: GP-1 West Wall, North CONDITION: Diagonal crack @ parapet Probably cold joint	 0427
LOCATION: GP-1 West Wall, North CONDITION: Horizontal crack + spalls @ parapet joint	 0428
LOCATION: GP-1 West Wall, North CONDITION: ¼" Horizontal crack + spalls @ buttress	 0429

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Apron, South, Center CONDITION: ¼" Crack transverse to joints full length	 0430
LOCATION: GP-1 Apron, South, West CONDITION: 1/8" Crack transverse to joints full length	 0431
LOCATION: GP-1 Apron, Center, East CONDITION: ¼" Crack w/spall	 0432
LOCATION: GP-1 Apron, Center, West CONDITION: Pattern cracking - typical	 0433

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Apron, Center, West CONDITION: Spalls @ joint Pattern Cracking	 0439
LOCATION: GP-1 Apron, Center, East CONDITION: 1/8” Crack Surface spalls	 0435
LOCATION: GP-1 Apron, North, Center CONDITION: 1/8” Crack	 0436
LOCATION: GP-1 Apron, North, Center CONDITION: 1/16” Crack	 0437

BATTERY: GODFREY EXTERIOR

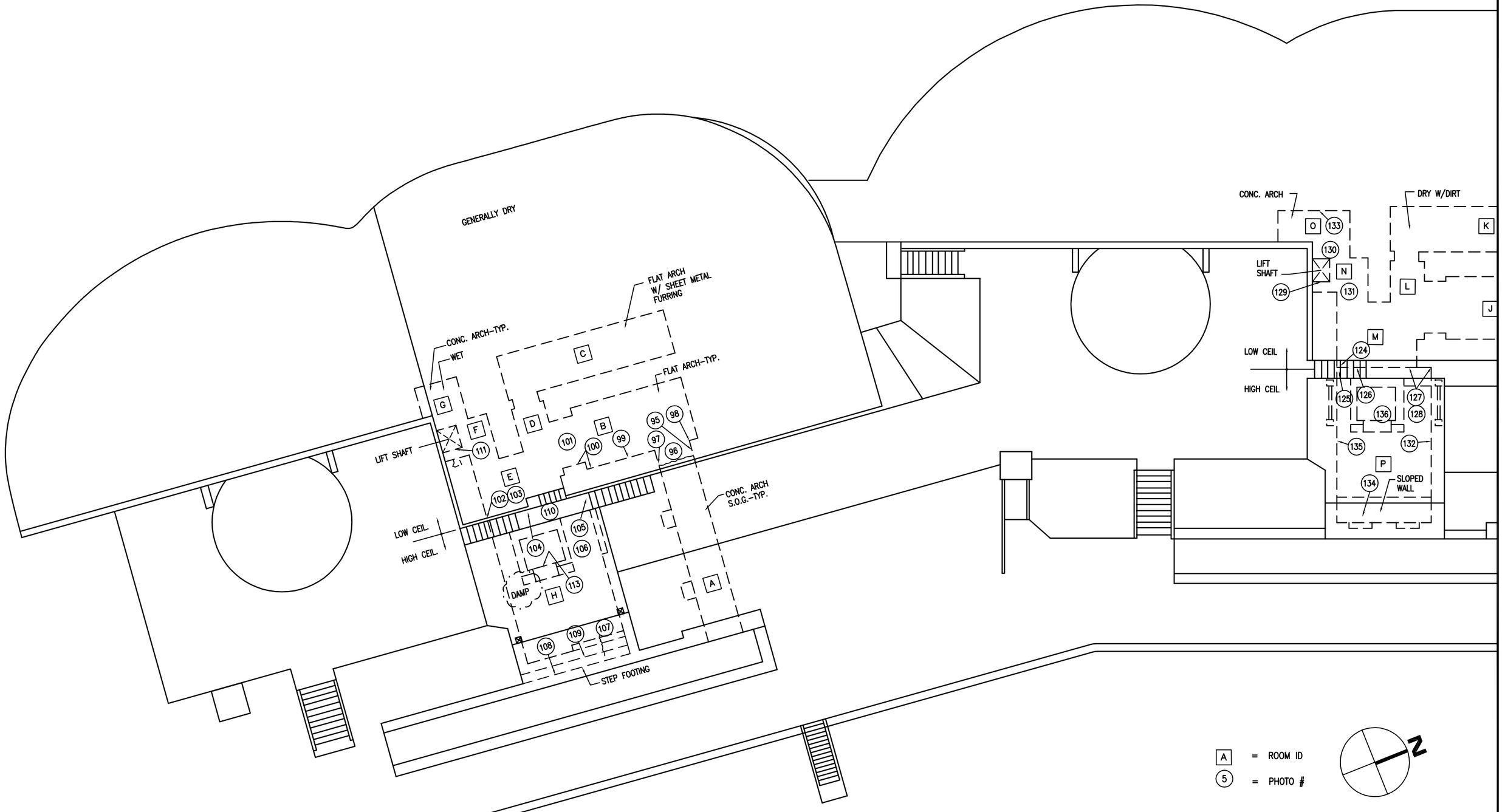
LOCATION: GP-1 North Stair CONDITION: Horizontal crack + spall	 0438
LOCATION: GP-1 North Buildings, West CONDITION: Door head spall, exposed, damaged steel beams 1/16” Horizontal crack @ corner	 0439
LOCATION: GP-1 North Buildings, North CONDITION: 1/8” Horizontal Crack @ sill	 0440
LOCATION: GP-1 North Buildings, North, East CONDITION: 3 1/16’ Horizontal cracks above door	 0441

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 North Buildings, East CONDITION: Horizontal crack @ roof slab edge	 0442
LOCATION: GP-1 Ramp, West, Center CONDITION: Pattern cracking	 0443
LOCATION: GP-1 Ramp, East, Center CONDITION: Horizontal pattern cracking	 0444
LOCATION: GP-1 Ramp, West, Center CONDITION: Diagonal cracks w/weeping	 0445

BATTERY: GODFREY EXTERIOR

LOCATION: GP-1 Ramp, West, Center CONDITION: Window head spall exposed reinforcing	 0446
LOCATION: GP-1 Ramp, West, North CONDITION: Window head spall, exposed reinforcing	 0447
LOCATION: GP-1 Ramp, West, North CONDITION: ½" Diagonal crack w/1/2" offset deck corner above – see 406	 0448
LOCATION: GP-1 Ramp, West, North CONDITION: Pattern cracking - typical	 0449



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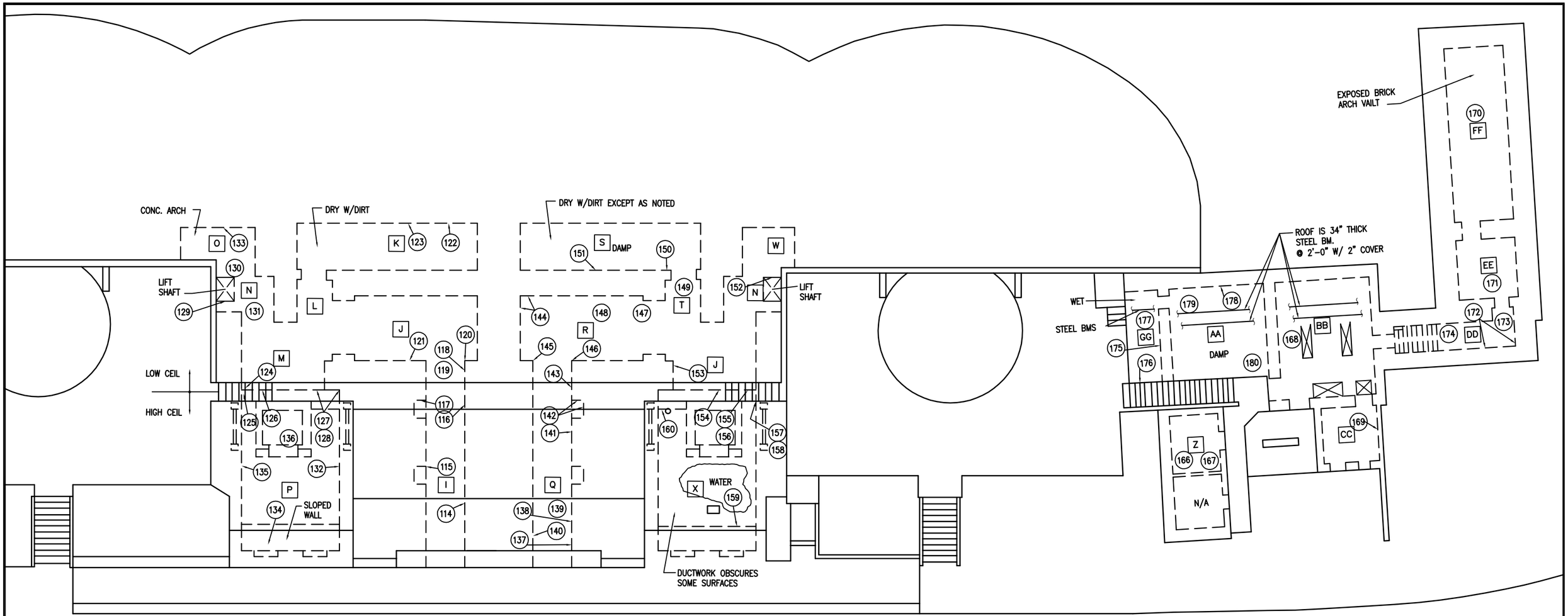
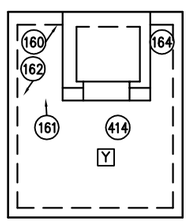
BATTERY GODFREY INTERIOR, SOUTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: G-1





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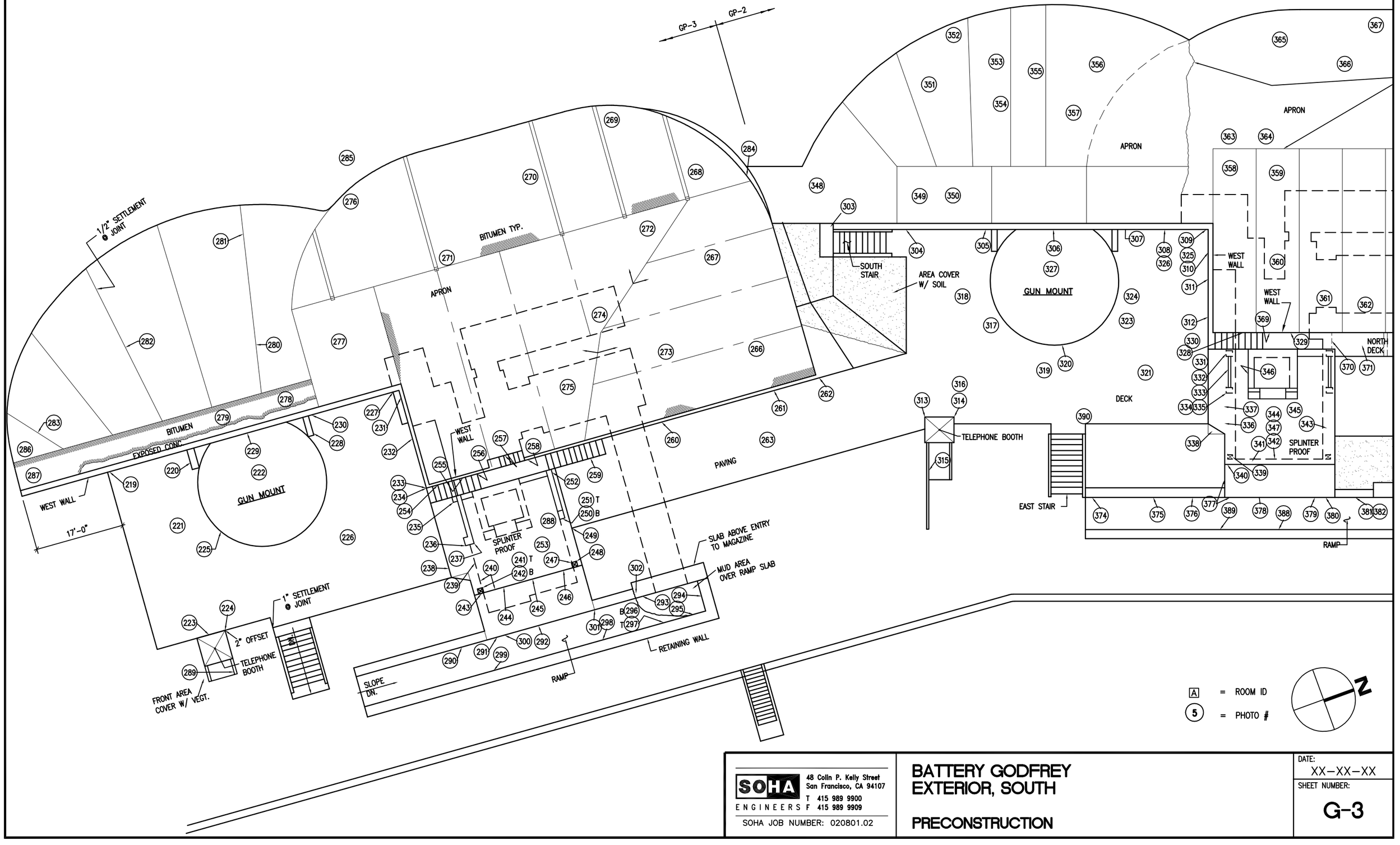
BATTERY GODFREY INTERIOR, NORTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: G-2



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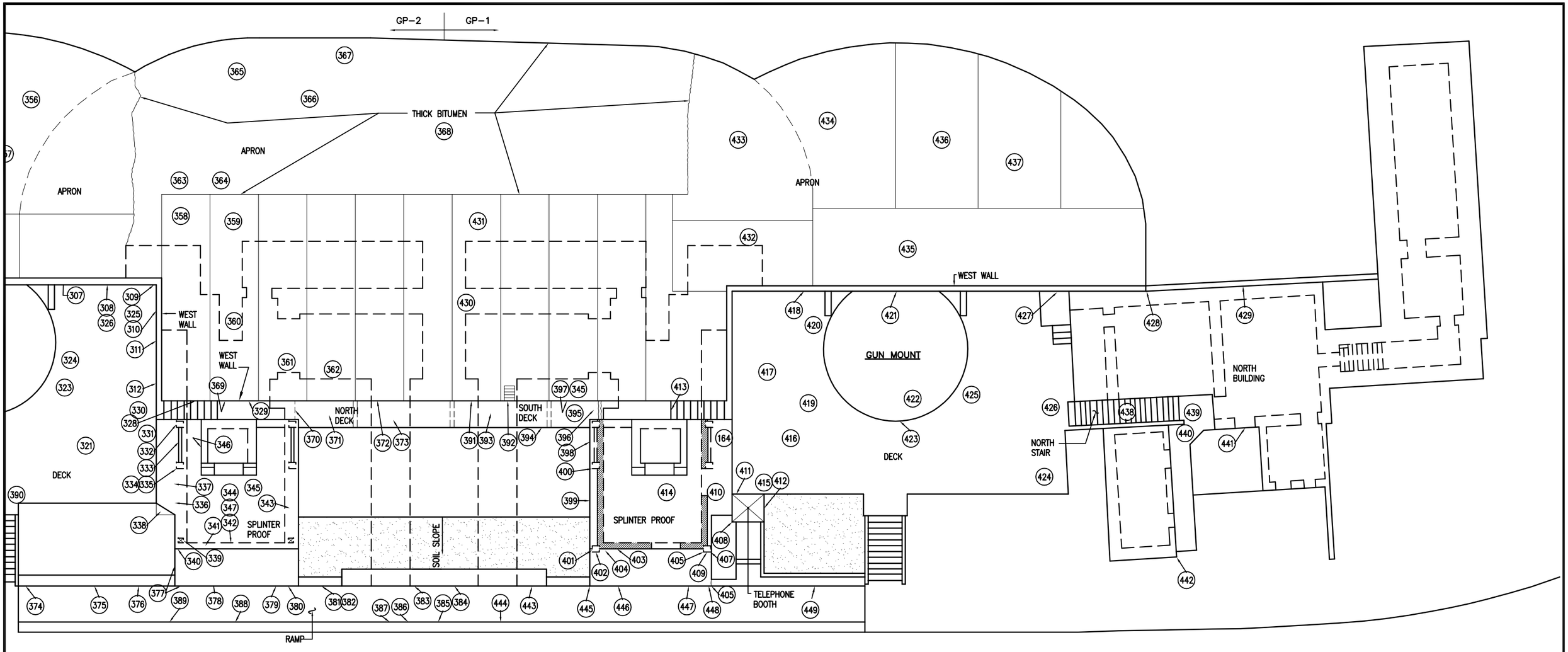
BATTERY GODFREY
EXTERIOR, SOUTH

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: G-3



Y = CMU INFILL WALLS @ SPLINTERFROOF W/ MECH. EQ. INSIDE

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BATTERY GODFREY
EXTERIOR, NORTH

PRECONSTRUCTION

DATE: XX–XX–XX

SHEET NUMBER: G-4

MAGAZINE: 21

LOCATION: Room A, North, East CONDITION: ½" Crack with 1'-8" spall extending to crown	 0001
LOCATION: Room A, East CONDITION: Continuation of crack 0001 @ crown w/spall	 0002
LOCATION: Room A, East, South CONDITION: ¾" Separation @ wall	 0003
LOCATION: Room A, East, South CONDITION: ½" Crack, separation, spall with ½" o/s to the west	 0004

MAGAZINE: 21

LOCATION: Room A, West, North CONDITION: 1/8" Crack @ vault joint other side similar but smaller	 0005
LOCATION: Room D, North CONDITION: Chipped out pocket 16" x 18" Shows very good, head bed + collar joints	 0006
LOCATION: Room D, Ceiling, West CONDITION: Small spall	 0007
LOCATION: Room A, Ceiling CONDITION: 1/16" Longitudinal crack along crown - typical	 0008

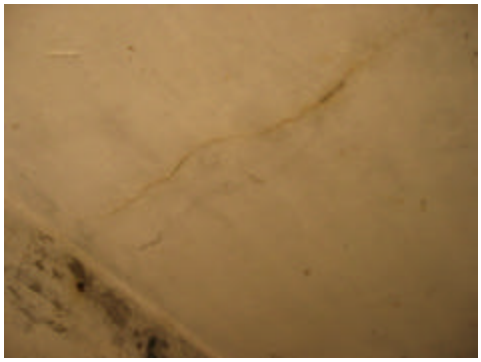
MAGAZINE: 21

LOCATION: Room C, Floor CONDITION: 1’ x 1’-0” spall in bitumen floor	 0009
LOCATION: CONDITION:	
LOCATION: CONDITION:	
LOCATION: CONDITION:	

MAGAZINE: 22 SEE BATTERY BOUTELLE FOR SKETCH

LOCATION: Room E, South, Center CONDITION: Hairline vertical crack, wider @ bottom, disappears 4'up	 0187
LOCATION: Room E, North, Center CONDITION: Hairline vertical crack 3' high Eroded surface of mortar joints @ bottom - typical	 0188
LOCATION: Room E, Ceiling, Center CONDITION: Hairline longitudinal crack @ crown	 0189
LOCATION: Room E, East, North CONDITION: Eroded mortar joints – damp - typical	 0190

MAGAZINE: 22 SEE BATTERY BOUTELLE FOR SKETCH

LOCATION: Room G, West, South CONDITION: Spall	 0191
LOCATION: Room G, Ceiling, West CONDITION: Hairline crack w/light efflorescence	 0192
LOCATION: Room G, Ceiling, Center CONDITION: Hairline crack	 0193
LOCATION: Room G, Ceiling, East CONDITION: Hairline crack @ ceiling Rust stain @ wall	 0194

MAGAZINE: 22 SEE BATTERY BOUTELLE FOR SKETCH

LOCATION: Room G, North, East CONDITION: Hairline diagonal crack	 0195
LOCATION: CONDITION:	
LOCATION: CONDITION:	
LOCATION: CONDITION:	

MAGAZINE: 27

LOCATION: Room A, West, South CONDITION: Hairline crack in vault rib	 0210
LOCATION: Room A, South CONDITION: Pattern cracking plaster typical	 0211
LOCATION: Room A, North CONDITION: Pattern cracking in plaster typical	 0212
LOCATION: Room A, Ceiling, West CONDITION: Plaster spall @ vent	 0213

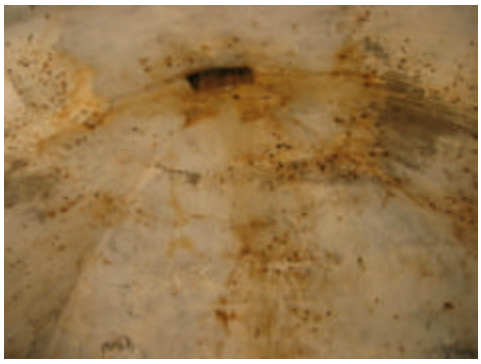
MAGAZINE: 27

LOCATION: Room C, Ceiling CONDITION: Pattern cracking typical	 0214
LOCATION: Room E, South CONDITION: ¼" Vertical crack, wider @ bottom	 0215
LOCATION: Room E, South CONDITION: 1/8" Vertical crack – continuation of 0215	 0216
LOCATION: Room E, North CONDITION: ¼" Vertical separation @ corner	 0217

MAGAZINE: 27

LOCATION: Room E, North CONDITION: 1/8” Vertical crack w/ 3/16” offset	 0218
LOCATION: CONDITION:	
LOCATION: CONDITION:	
LOCATION: CONDITION:	

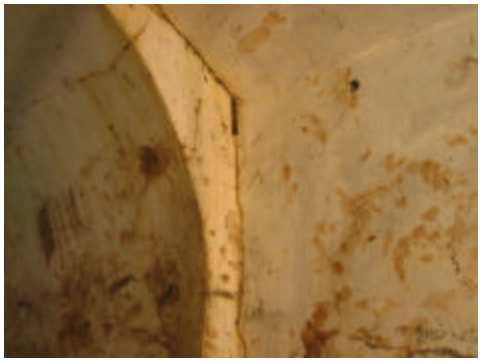
MAGAZINE: 28

LOCATION: Room A, West, Center CONDITION: Typical pattern cracking in plaster, damp at vent	 0203
LOCATION: Room B, East, South CONDITION: Vertical separation @ corner offset	 0204
LOCATION: Room B, East, South CONDITION: Vertical separation + crack @ corner offset	 0205
LOCATION: Room B, North CONDITION: ¼" Vertical crack	 0206

MAGAZINE: 28

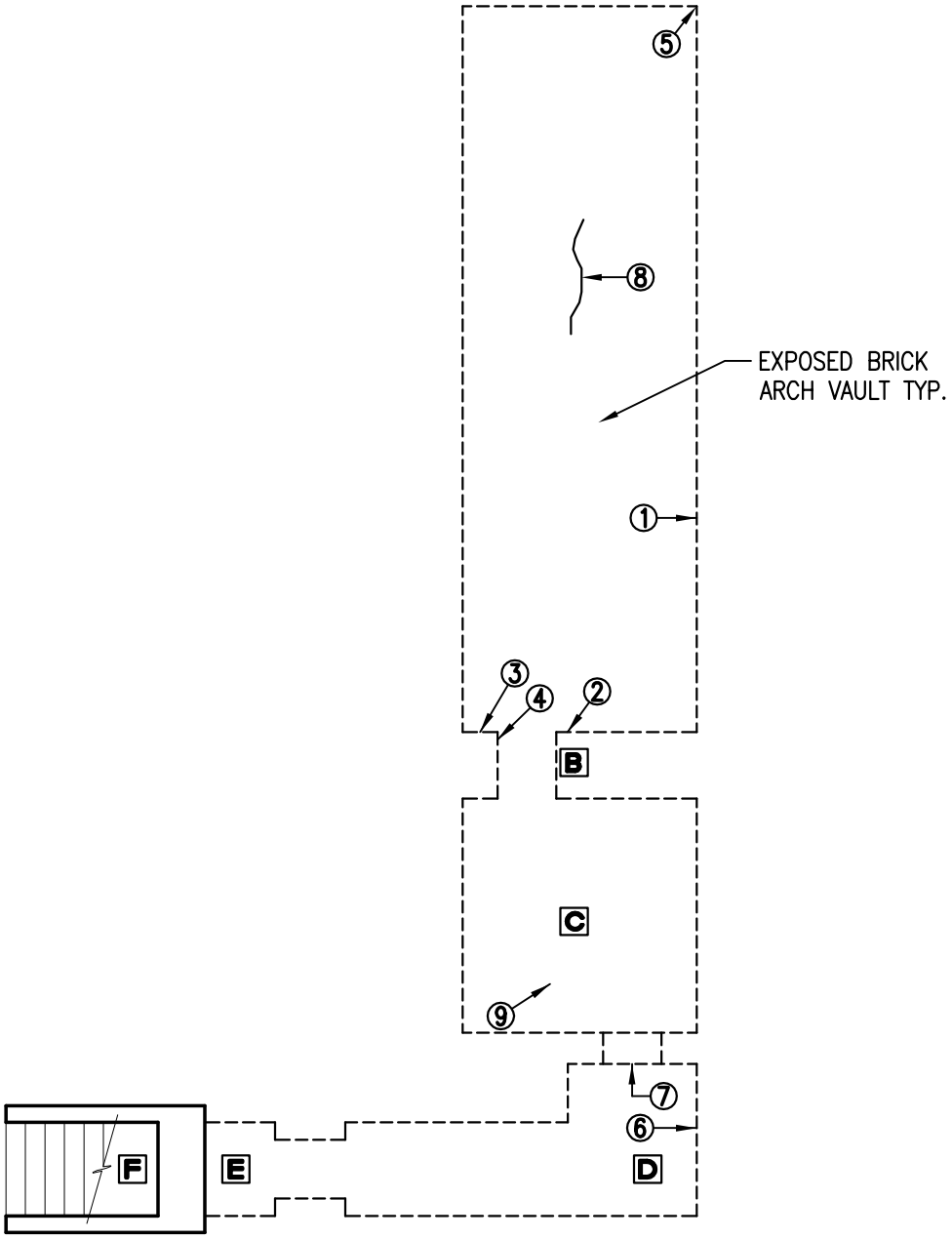
LOCATION: Room B, North CONDITION: 2-1/16" Vertical cracks w/vertical separation Continuation of 0206	 0207
LOCATION: Room B, East CONDITION: Separation @ wall/ceiling	 0208
LOCATION: Room C, Ceiling, West CONDITION: Hairline longitudinal crack w/typical pattern cracking in plaster	 0209
LOCATION: CONDITION:	

MAGAZINE: 29

LOCATION: Room A, West CONDITION: Pattern cracking in plaster typical	 0196
LOCATION: Room B, East, South CONDITION: Vertical separation w/diagonal crack	 0197
LOCATION: Room B, Ceiling, East CONDITION: Longitudinal hairline crack @ ceiling Separation @ joint E	 0198
LOCATION: Room B, East, South CONDITION: Vertical separation	 0199

MAGAZINE: 29

LOCATION: Room C, Ceiling, South CONDITION: Hairline longitudinal crack	 0200
LOCATION: Room C, Ceiling, North CONDITION: 2 Hairline longitudinal cracks	 0201
LOCATION: Room C, South CONDITION: Hairline longitudinal crack	 0202
LOCATION: CONDITION:	



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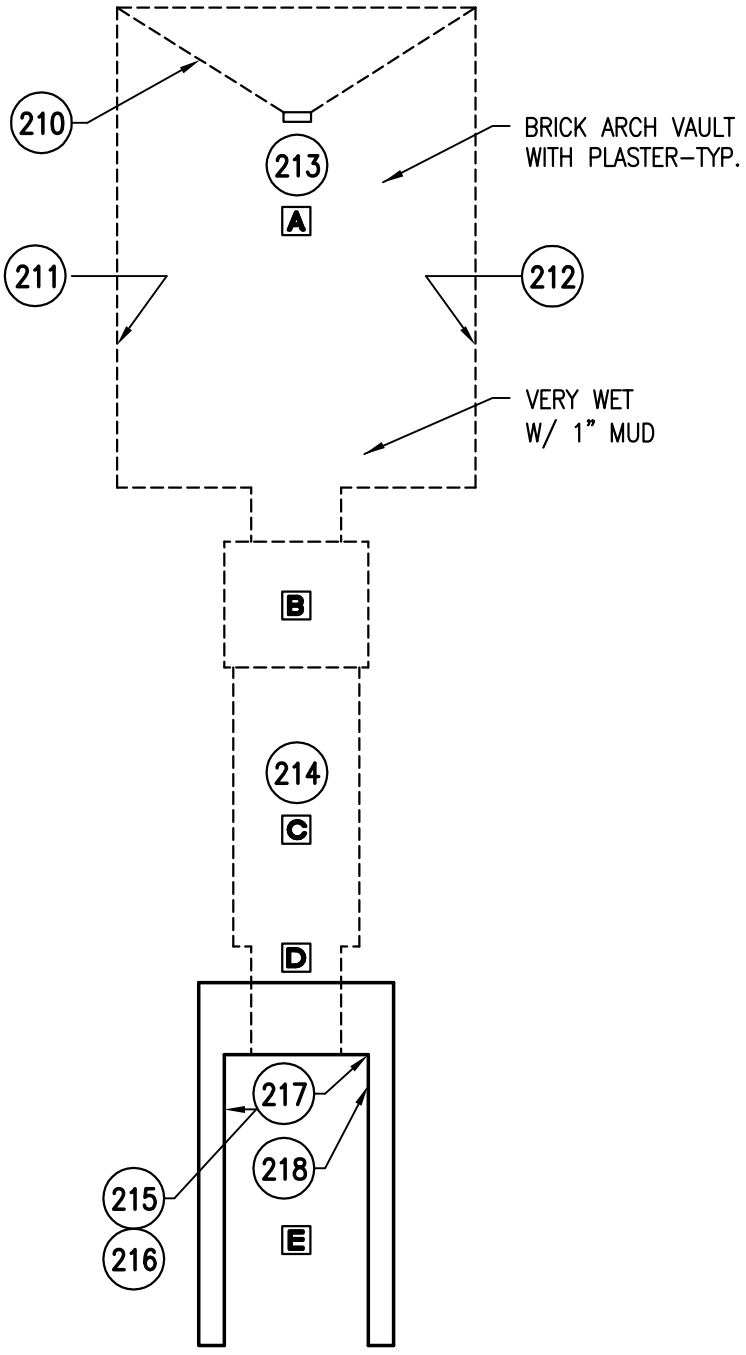
MAGAZINE 21
PRECONSTRUCTION

DATE: 05–XX–05

SHEET NUMBER: M21



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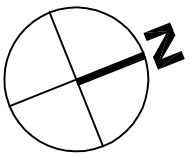

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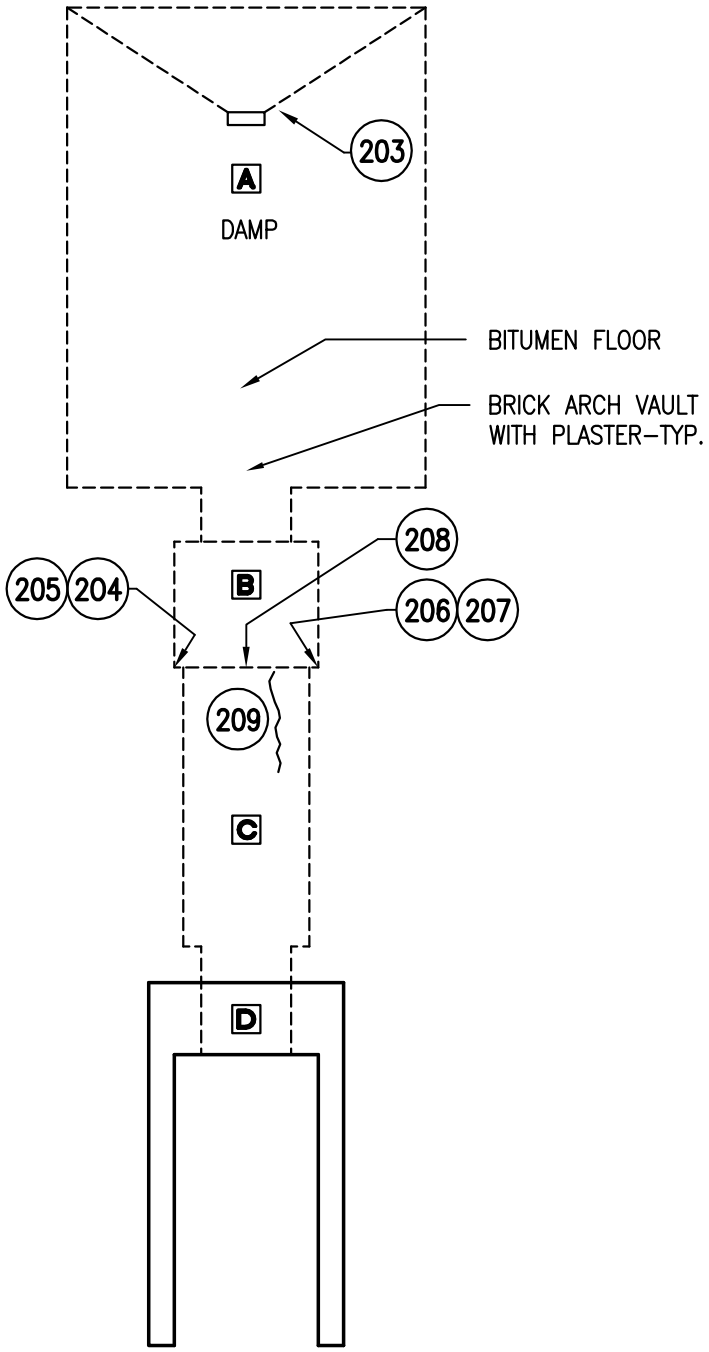
MAGAZINE 27
PRECONSTRUCTION

DATE: 05–XX–05

SHEET NUMBER: M27



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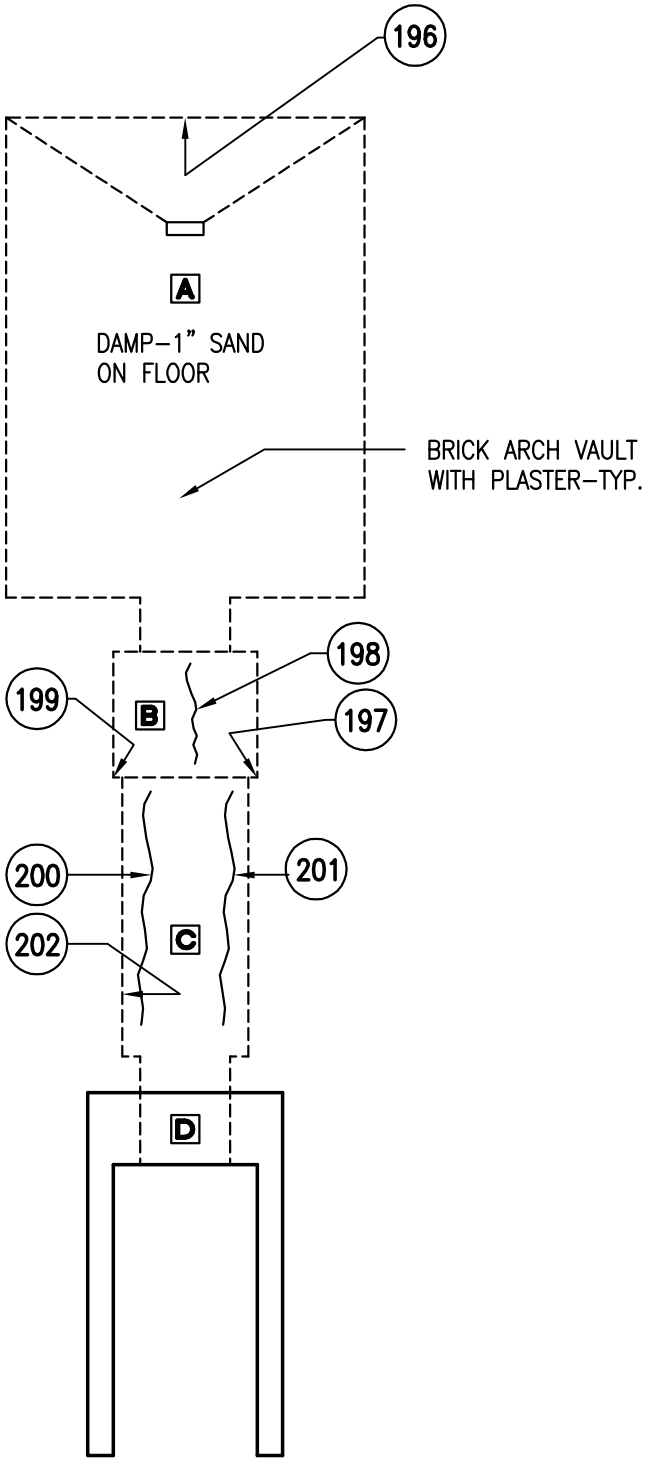
MAGAZINE 28
PRECONSTRUCTION

DATE: 05–XX–05

SHEET NUMBER: M28



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MAGAZINE 29
PRECONSTRUCTION

DATE: 05–XX–05

SHEET NUMBER: M29

BATTERY: MARCUS MILLER

LOCATION: Room A, Ceiling CONDITION: Efflorescence stalactite @ crown of conc. Arch Mud on floor	 0010
LOCATION: Room A, South CONDITION: Crack w/efflorescence, wet extends up + down See 0012	 0011
LOCATION: Room A, North CONDITION: Same as 0011 (Crack w/efflorescence, wet extends up + down)	 0012
LOCATION: Room B, Ceiling, North CONDITION: Efflorescent stalactites @ ribs of arch	 0013

BATTERY: MARCUS MILLER

LOCATION: Room B, Ceiling, East CONDITION: Longitudinal efflorescence @ arch joint	 0014
LOCATION: Room B, West CONDITION: Longitudinal efflorescence @ arch	 0015
LOCATION: Room D, Ceiling CONDITION: Spalls in concrete w/exposed rebar	 0016
LOCATION: Room D, North, Upper in Hoist Shaft CONDITION: Efflorescence/ Rust stain	 0017

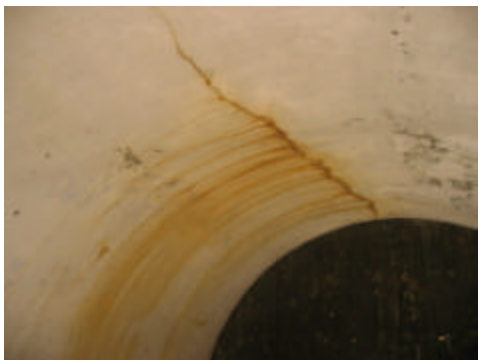
BATTERY: MARCUS MILLER

LOCATION: Room D, Ceiling, North CONDITION: Efflorescent stalactites, active drips	 0018
LOCATION: Room D, Ceiling, South CONDITION: Spall in door head	 0019
LOCATION: Room E, Ceiling, North, East CONDITION: Efflorescent stalactites	 0020
LOCATION: Room E, North, West CONDITION: Separation @ corner w/staining	 0021

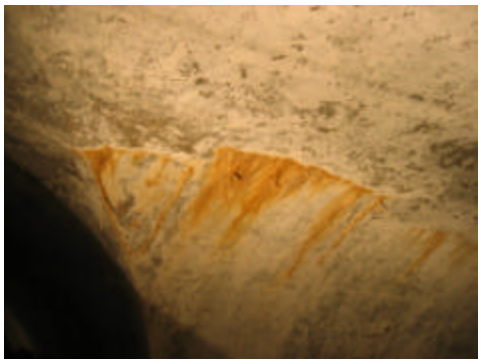
BATTERY: MARCUS MILLER

LOCATION: Room F, South, West CONDITION: Horizontal crack with corner spall – possible cold joint	 0022
LOCATION: Room F, South, East CONDITION: Horizontal separation @ cold joint	 0023
LOCATION: Room F, South, West CONDITION: 1/16” Vertical crack, cont. of horizontal cold joint, rust in embedded girder flange	 0024
LOCATION: Room F, Ceiling, South, West CONDITION: Cont. of Horizontal cold joint	 0025

BATTERY: MARCUS MILLER

LOCATION: Room F, Center, West CONDITION: 1/16” Vertical crack	 0026
LOCATION: Room F, North CONDITION: Vertical separation @ joint	 0027
LOCATION: Room F, North, East CONDITION: 1/16” Horizontal crack @ cold joint	 0028
LOCATION: Room G, Ceiling, East CONDITION: Efflorescence w/stalactites @ crown	 0029

BATTERY: MARCUS MILLER

LOCATION: Room G, North, West CONDITION: 1/16” Vertical crack in wall w/branching Damp – extends up + over	 0030
LOCATION: Room G, South, West CONDITION: 1/16” Vertical crack - same as 0030	 0031
LOCATION: Room H, Ceiling, North CONDITION: Efflorescence w/stalactites @ arch	 0032
LOCATION: Room I, Ceiling, South CONDITION: Efflorescence w/stalactites	 0033

BATTERY: MARCUS MILLER

LOCATION: Room I, Ceiling, East CONDITION: Efflorescence w/stalactites	 0034
LOCATION: Room I, Floor, North, East CONDITION: Large powdery efflorescent deposits on slab	 0035
LOCATION: Room I, West CONDITION: Powdery efflorescence on wall - typical	 0036
LOCATION: Room J, Ceiling, North CONDITION: Efflorescence w/stalactites @ ceiling + vertical crack in wall	 0037

BATTERY: MARCUS MILLER

LOCATION: Room J, South, Up Hoist Shaft CONDITION: Crazing/pattern cracking in wall	 0038
LOCATION: Room N, Ceiling, South CONDITION: Efflorescence w/stalactites @ possible patch in ceiling – damp below	 0039
LOCATION: Room N, North, West CONDITION: Pinhole efflorescence Note PVC pipe drilled into wall for storage rack	 0040
LOCATION: Room P, North, West CONDITION: Plaster spall w/powdery efflorescence behind	 0041

BATTERY: MARCUS MILLER

LOCATION: Room P, West CONDITION: Small plaster spall w/efflorescence	 0042
LOCATION: Room Q, West, Center CONDITION: Horizontal cold joint/ separation @ wall/ceiling joint	 0043
LOCATION: Room Q, East, Center CONDITION: Staining, efflorescence + powdery efflorescence near wall/ceiling joint	 0044
LOCATION: Room Q, West, Center CONDITION: Staining, efflorescence + powdery efflorescence near wall/ceiling joint	 0045

BATTERY: MARCUS MILLER

LOCATION: Room Q, West, Center CONDITION: 1/8” Vertical crack in wall – beam flange above rusted	 0046
LOCATION: Room Q, Ceiling, North, West CONDITION: Efflorescence w/stalactites on ceiling, 2 places	 0047
LOCATION: Room Q, North CONDITION: 1/16” Horizontal crack @ wall/Soffit joint typical	 0048
LOCATION: Room Q, North CONDITION: 1/16” Vertical crack @ alcove	 0049

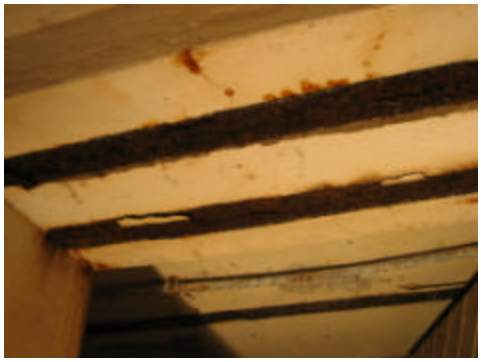
BATTERY: MARCUS MILLER

LOCATION: Room R, West CONDITION: Efflorescence @ wall/ceiling joint	 0050
LOCATION: Room R, Ceiling, South, East CONDITION: Efflorescence w/stalactites in ceiling	 0051
LOCATION: Room R, South CONDITION: Efflorescence w/stalactites @ wall/ceiling joint	 0052
LOCATION: Room S, Ceiling, Center CONDITION: Crack across ceiling Active leak	 0053

BATTERY: MARCUS MILLER

LOCATION: Room S, West, Center CONDITION: 1/16” Vertical crack (extension of ceiling crack)	 0054
LOCATION: Room S, Ceiling, North CONDITION: Crack across ceiling	 0055
LOCATION: Room S, Ceiling, North CONDITION: Crack across ceiling. (same as 0055) Active leak	 0056
LOCATION: Room U, West CONDITION: 1/16” Horizontal crack near top of wall 1” of mud	 0057

BATTERY: MARCUS MILLER

LOCATION: Room U, East CONDITION: Horizontal crack + spall @ elec. Pen. Rust on steel girder	 0058
LOCATION: Room U, Door CONDITION: Rust delam of girder in door head	 0059
LOCATION: Room T, Ceiling, South CONDITION: Severe rust w/concrete spall @ ceiling girders – typical 1” of mud	 0060
LOCATION: Room T, Ceiling, North CONDITION: Same – Active leak	 0061

BATTERY: MARCUS MILLER

LOCATION: Room T, North CONDITION: 1/16” Horizontal crack near top of wall	 0062
LOCATION: Room T, West, Door CONDITION: Vertical crack + delam. of girders	 0063
LOCATION: CONDITION:	
LOCATION: CONDITION:	

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Storage CONDITION: Hairline horizontal overt crack	 0563
LOCATION: GP-3 Passage, South, West CONDITION: ¼" Vertical crack	 0564
LOCATION: GP-3 Passage, South CONDITION: 1/8" Vertical crack 1/8" Soffit crack	 0565
LOCATION: GP-3 Passage, Ceiling, South CONDITION: Exposed rusted steel beams	 0566

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, South CONDITION: Spall with exposed damaged reinforcing Falling hazard	 0567
LOCATION: GP-3 Passage, South CONDITION: 1/8” Vertical crack	 0568
LOCATION: GP-3 Passage, South, East CONDITION: 1/8” Horizontal crack	 0569
LOCATION: GP-3 Passage, South, East CONDITION: Hairline vertical + horizontal crack	 0570

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, South CONDITION: Hairline vertical, horizontal, diagonal cracks	 0571
LOCATION: GP-3 Passage, East, South CONDITION: Column corner spall with exposed damaged reinforcing	 0572
LOCATION: GP-3 Passage, East, South CONDITION: Incipient column corner spall	 0573
LOCATION: GP-3 Passage, East, South CONDITION: Hairline vertical column cracks	 0574

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, South CONDITION: Beam corner spall with exposed damaged reinforcing & cracking beyond	 0575
LOCATION: GP-3 Passage, East, South side CONDITION: Incipient beam corner spall Falling hazard	 0576
LOCATION: GP-3 Passage, East, South CONDITION: Column corner spall, exposed reinforcing	 0577
LOCATION: GP-3 Passage, East, South CONDITION: Column corner spall, exposed reinforcing	 0578

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, South CONDITION: Hairline horizontal + diagonal cracks	 0579
LOCATION: GP-3 Passage, East, South CONDITION: Hairline horizontal + vertical cracks	 0580
LOCATION: GP-3 Passage, East, Center CONDITION: Hairline Horizontal cracks under beam and along top of wall – typical at deck beam/wall connection	 0581
LOCATION: GP-3 Passage, East, Center CONDITION: Column corner spall exposed rusted reinforcing	 0582

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, South CONDITION: 1/8” Horizontal crack and spall at cap	 0583
LOCATION: GP-3 Passage, East, Center CONDITION: Column corner spall; exposed reinforcing	 0584
LOCATION: GP-3 Passage, Ceiling, East, Center CONDITION: Hairline soffit cracks with efflorescence	 0585
LOCATION: GP-3 Passage, East, Center CONDITION: Beam corner spall with exposed rusted, reinforcing Incipient spall on other side	 0586

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, Center CONDITION: Hairline vertical crack	 0587
LOCATION: GP-3 Passage, East, Center CONDITION: Column corner spall with exposed rusted reinforcing	 0588
LOCATION: GP-3 Passage, East, Center CONDITION: 1/8” Horizontal crack with large spall at retaining wall	 0589
LOCATION: GP-3 Passage, East, Center CONDITION: Column corner spall with exposed rusted reinforcing	 0590

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, Center CONDITION: Incipient beam corner spall Falling hazard	 0591
LOCATION: GP-3 Passage, East, Center CONDITION: Hairline soffit crack	 0592
LOCATION: GP-3 Passage, East, Center CONDITION: Column corner spall with exposed rusted reinforcing	 0593
LOCATION: GP-3 Passage, East, Center CONDITION: Incipient column corner spall	 0594

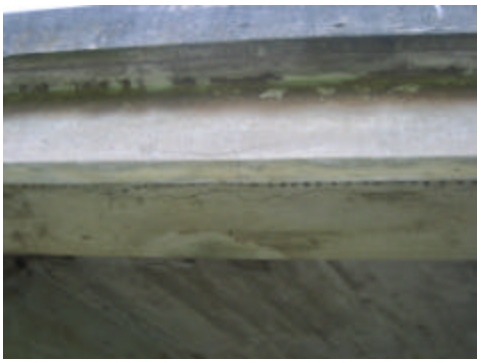
BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, Center CONDITION: Incipient Column corner spall	 0595
LOCATION: GP-3 Passage, East, Center CONDITION: Incipient beam corner spall Falling hazard	 0596
LOCATION: GP-3 Passage, East, Center CONDITION: Hairline soffit crack with efflorescence	 0597
LOCATION: GP-3 Passage, East, Center CONDITION: 1/8” Horizontal crack with spalls	 0598

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, East, North CONDITION: 1/8” Crack on S.O.G.	 0599
LOCATION: GP-3 Passage, East, North CONDITION: Hairline vertical cracks	 0600
LOCATION: GP-3 Passage, East, North CONDITION: Hairline soffit crack with efflorescence	 0601
LOCATION: GP-3 Passage, East, North CONDITION: Column corner spalls	 0602

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, North, East CONDITION: Incipient beam corner spall	 0603
LOCATION: GP-3 Passage, North, East CONDITION: Hairline soffit crack with incipient spall – falling hazard Hairline vertical cracks in beam	 0604
LOCATION: GP-3 Passage, North, East CONDITION: Pattern cracking	 0605
LOCATION: GP-3 Passage, North, East CONDITION: Incipient column corner spall	 0606

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, North, East CONDITION: Hairline beam crack	 0607
LOCATION: GP-3 Passage, North, East CONDITION: Soffit spalls with exposed damaged reinforcing Falling hazard Hairline cracks in beam	 0608
LOCATION: GP-3 Passage, North, East CONDITION: Major beam bottom spall with exposed completely damaged reinforcing – Failure hazard 1/8” Vertical crack Soffit spall with exposed damaged reinforcing Falling + Failure hazard	 0609
LOCATION: GP-3 Passage, North, Center CONDITION: Major Soffit spall with exposed damaged reinforcing Falling + Failure hazard	 0610

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, North, Center CONDITION: Beam bottom spall with exposed damaged reinforcing Falling hazard	 0611
LOCATION: GP-3 Passage, North, Center CONDITION: Major Soffit spall with exposed damaged reinforcing Falling + Failure hazard	 0612
LOCATION: GP-3 Passage, North, West CONDITION: Beam bottom spall with exposed damaged reinforcing	 0613
LOCATION: GP-3 Passage, North, West CONDITION: Major Soffit spall with exposed, damaged reinforcing Falling hazard Hairline wall crack with efflorescent stalactites	 0614

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Passage, North, West CONDITION: Soffit spall with exposed damaged reinforcing Falling hazard Spall at door head 1/8" "Stair step" wall crack	 0615
LOCATION: GP-3 Passage, North, West CONDITION: Beam bottom spall, full length with exposed, damaged, and missing reinforcing Failure hazard	 0616
LOCATION: GP-3 Passage, North, West CONDITION: ¼" Horizontal crack	 0617
LOCATION: GP-3 Passage, North, West CONDITION: 1/8" Vertical crack with efflorescence, dampness	 0618

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Parapet, South CONDITION: 1/8” to 1” Horizontal crack with spalls at cap	 0619
LOCATION: GP-3 Parapet, South CONDITION: Continuation of 619 Pattern cracking with spalls	 0620
LOCATION: GP-3 Parapet, Center CONDITION: Continuation of 620	 0621
LOCATION: GP-3 Parapet, Center CONDITION: Hairline horizontal crack @ cap - typical	 0622

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Parapet, North, Lower CONDITION: 1/8” Horizontal, vertical, diagonal cracks with efflorescence, damp	 0623
LOCATION: GP-3 Parapet, North, Upper CONDITION: 1/8” Horizontal + vertical cracks ½” Horizontal crack with spall @ cap	 0624
LOCATION: GP-3 Parapet, North CONDITION: Pattern cracking with efflorescence Spalls	 0625
LOCATION: GP-3 Parapet, North CONDITION: Pattern cracking with efflorescence	 0626

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Pit Wall, East, North CONDITION: 1/8” Horizontal crack	 0627
LOCATION: Gp-3 Pit Wall, East, South CONDITION: Pattern cracking	 0628
LOCATION: GP-3 Deck, South, East CONDITION: Spall at edge	 0629
LOCATION: GP-3 Deck, North, East CONDITION: Spall @ edge	 0630

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Deck, North, Center CONDITION: 1/8” Deck cracks	 0631
LOCATION: GP-3 Telephone Booth, East CONDITION: Cracking + spalling at cap	 0632
LOCATION: GP-3 Telephone Booth CONDITION: ¼” Vertical crack @ joint	 0633
LOCATION: GP-3 Splinterproof, West, South CONDITION: Pattern cracking with efflorescence	 0634

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Splinterproof, South CONDITION: Beam bottom spall with exposed rusted reinforcing	 0635
LOCATION: GP-3 Splinterproof, East, South CONDITION: Beam bottom spall with exposed rusted reinforcing	 0636
LOCATION: GP-3 Splinterproof, East, Center CONDITION: Column corner spalls with exposed rusted reinforcing	 0637
LOCATION: GP-3 Splinterproof, East, North CONDITION: Incipient beam corner and spall Falling hazard	 0638

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Splinterproof, East, North CONDITION: Column corner spalls with exposed, damaged reinforcing	 0639
LOCATION: GP-3 Splinterproof, North CONDITION: Column corner spall with exposed, rusted reinforcing	 0640
LOCATION: GP-3 Splinterproof, North CONDITION: Beam corner spall with exposed damaged reinforcing	 0641
LOCATION: GP-3 Splinterproof, West, North CONDITION: Pattern cracking with efflorescence	 0642

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Magazine Parapet, North CONDITION: Pattern crack with efflorescence + surface spalls	 0643
LOCATION: GP-3 Magazine Parapet, North CONDITION: Pattern cracking with efflorescence + surface spalls	 0644
LOCATION: GP-3 Magazine Parapet, North CONDITION: Pattern cracking with efflorescence, dampness	 0645
LOCATION: GP-3 Apron, South, West CONDITION: 1/8” Cracks - typical	 0646

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Apron, South, East CONDITION: 1/8” Crack	 0647
LOCATION: GP-3 Apron, South, West CONDITION: 1/8” Cracks with spalls	 0648
LOCATION: GP-3 Apron, South, East CONDITION: 1/8” Cracks	 0649
LOCATION: GP-3 Apron, South, Center CONDITION: 1/8” Cracks	 0650

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3 Apron, Center CONDITION: Grout at wide joint missing – Typical at edge of apron	 0651
LOCATION: GP-3 Apron, North CONDITION: Typical view of 6'-0" x 6'-0" grid of 1 ½" wide grouted joints	 0652
LOCATION: GP-3 North Stair, West CONDITION: ¼" Horizontal crack with spalls	 0653
LOCATION: GP-3 North Stair, Center CONDITION: ¼" Crack with spall	 0654

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3, Room T, Roof CONDITION: 1/8” Crack	 0655
LOCATION: GP-3, Room V, Roof CONDITION: 1/8” Cracks	 0656
LOCATION: GP-3, Room S, Roof CONDITION: 1/8” Crack	 0657
LOCATION: GP-3, Room S, Roof CONDITION: 1/8” Cracks	 0658

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3, Room S, North CONDITION: 1/8” Horizontal + diagonal crack with spalls	 0659
LOCATION: GP-3, Room S, North CONDITION: Hairline to 1/8” Horizontal crack	 0660
LOCATION: GP-3, Room S, East, North CONDITION: 1/8” to ¼” Horizontal cracks	 0661
LOCATION: GP-3, Room S, East, Center CONDITION: 1/8” Vertical + horizontal cracks	 0662

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3, Room S, East, South CONDITION: Hairline vertical + horizontal cracks	 0663
LOCATION: GP-3, Room S, South CONDITION: Hairline horizontal cracks	 0664
LOCATION: GP-3 Retaining Wall, North CONDITION: 1” Vertical crack with ½” offset at top	 0665
LOCATION: GP-3 Retaining Wall CONDITION: 1/8” Diagonal crack with efflorescence	 0666

LOCATION: GP-3 Retaining Wall CONDITION: 1/8” Horizontal crack	 0667
LOCATION: GP-3, Room V, North CONDITION: 1/8” Horizontal crack	 0668
LOCATION: GP-3 North Stair CONDITION: 4” Separation at step	 0669
LOCATION: GP-3, Room V, East CONDITION: Hairline diagonal cracks at door corners	 0670

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-3, Room V, East CONDITION: 1/8” Horizontal cracks 1/8” Vertical crack	 0671
LOCATION: GP-3, Room T, East CONDITION: 1/8” Horizontal cracks 1/8” Vertical crack above door	 0672
LOCATION: GP-3, Room T, East, South CONDITION: 1/8” Horizontal crack around corner	 0673
LOCATION: GP-3 Magazine Entry, South CONDITION: Pattern cracking	 0674

BATTERY: MARCUS MILLER EXTERIOR EXTERIOR

LOCATION: GP-3 Magazine Entry, South, West CONDITION: Hairline crack @ Cap Pattern cracking	 0675
LOCATION: GP-3 Magazine Entry, West CONDITION: Pattern cracking 1/8” Vertical crack with efflorescence	 0676
LOCATION: GP-3 Magazine Entry, South CONDITION: Pattern cracking with efflorescence	 0677
LOCATION: GP-2 Storage, West CONDITION: Pattern cracking with efflorescence	 0678

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Storage, North CONDITION: Pattern cracking with efflorescence	 0679
LOCATION: GP-2 Passage, South, West CONDITION: Corner spall @ wall Corner spalls @ steps	 0680
LOCATION: GP-2 Passage, South, West CONDITION: Hairline horizontal cracks with efflorescence	 0681
LOCATION: GP-2 Passage, South, West CONDITION: Slab corner spall with exposed damaged reinforcing	 0682

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, South, West CONDITION: Pattern cracking with efflorescence	 0683
LOCATION: GP-2 Passage, South, Center CONDITION: Beam bottom spall with exposed damaged reinforcing Falling hazard 1/8” Horizontal crack	 0684
LOCATION: GP-2 Passage, South, Center CONDITION: Beam corner spall with exposed damaged reinforcing Falling hazard	 0685
LOCATION: GP-2 Passage, South, Center CONDITION: Hairline to 1/8” cracking	 0686

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Storage, East CONDITION: Pattern cracking with efflorescence	 0687
LOCATION: GP-2 Passage, East, South CONDITION: Incipient beam corner spall Falling hazard	 0688
LOCATION: GP-2 Passage, East, South CONDITION: Incipient column corner spall	 0689
LOCATION: GP-2 Passage, East, South CONDITION: Column corner spall with exposed damaged reinforcing Column corner spall with exposed reinforcing	 0690

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, South CONDITION: Multiple column corner spalls with exposed damaged reinforcing	 0691
LOCATION: GP-2 Passage, East, South CONDITION: Incipient beam corner spall Hairline vertical cracks	 0692
LOCATION: GP-2 Passage, East, South CONDITION: 1/8” Beam bottom crack Hairline vertical cracks Hairline horizontal crack @ top of wall -typical	 0693
LOCATION: GP-2 Passage, East, South CONDITION: Beam corner spall with exposed damaged reinforcing	 0694

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, South CONDITION: Hairline horizontal + vertical cracks	 0695
LOCATION: GP-2 Passage, East, South CONDITION: Hairline soffit cracks	 0696
LOCATION: GP-2 Passage, East, South CONDITION: Slab corner spall	 0697
LOCATION: GP-2 Passage, East, South CONDITION: 1/8” Slab on grade cracks	 0698

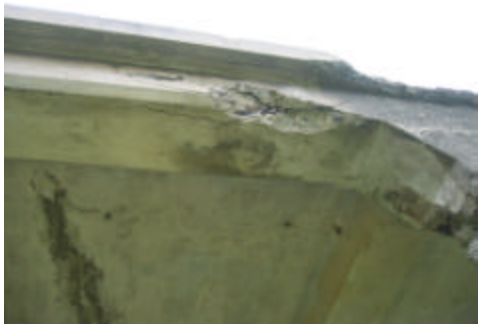
BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, South CONDITION: 1/8” Beam bottom crack Hairline soffit cracks	 0699
LOCATION: GP-2 Passage, East, South CONDITION: Incipient corner crack	 0700
LOCATION: GP-2 Passage, East, Center CONDITION: 1/8” Slab on grade crack	 0701
LOCATION: GP-2 Passage, East, Center CONDITION: Column corner spall with exposed damaged reinforcing	 0702

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, Center CONDITION: Column corner spall with exposed rusted reinforcing	 0703
LOCATION: GP-2 Passage, East, Center CONDITION: Beam bottom cracks Hairline vertical crack	 0704
LOCATION: GP-2 Passage, East, Center CONDITION: Hairline crack in beam Spall at slab corner above	 0705
LOCATION: GP-2 Passage, Center CONDITION: Incipient column corner spall	 0706

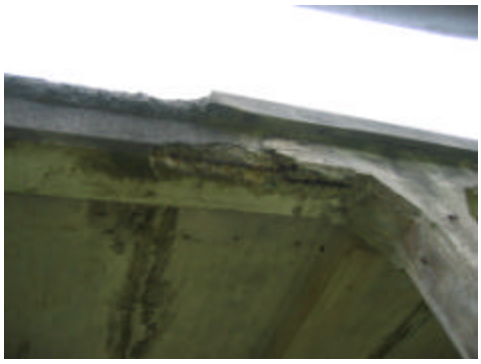
BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, Center CONDITION: Incipient column corner spall	 0707
LOCATION: GP-2 Passage, East, Center CONDITION: Column corner spall with exposed damaged reinforcing	 0708
LOCATION: GP-2 Passage, East, Center CONDITION: Beam corner spall with exposed damaged reinforcing Falling hazard	 0709
LOCATION: GP-2 Passage, East, Center CONDITION: Major column corner spalls with exposed damaged reinforcing Failure hazard	 0710

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, Center CONDITION: Major column corner spall with exposed, completely damaged reinforcing --- see 710 Failure hazard	 0711
LOCATION: GP-2 Passage, East, Center CONDITION: Column corner spall with exposed damaged reinforcing	 0712
LOCATION: GP-2 Passage, East, Center CONDITION: Hairline horizontal + vertical cracks Hairline soffitt crack Hairline beam bottom cracks	 0713
LOCATION: GP-2 Passage, East, Center CONDITION: 1/8” Horizontal crack at top Hairline horizontal crack 1/8” Vertical crack 1/8” Beam bottom crack with spalls	 0714

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, Center CONDITION: Hairline soffitt cracks with efflorescence	 0715
LOCATION: GP-2 Passage, East, Center CONDITION: Beam bottom spall with exposed damaged reinforcing Crack extending to column Falling hazard	 0716
LOCATION: GP-2 Passage, East, Center CONDITION: Incipient column corner spalls, 2 sides	 0717
LOCATION: GP-2 Passage, East wall, Center CONDITION: 1/8” Horizontal crack at top with spalls Hairline horizontal crack Hairline soffitt crack	 0718

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, Center CONDITION: Beam corner spall + incipient beam column spall – Falling hazard	 0719
LOCATION: GP-2 Passage, East, Center CONDITION: Incipient column corner spalls, two sides	 0720
LOCATION: GP-2 Passage, East, Center CONDITION: Hairline beam cracks	 0721
LOCATION: GP-2 Passage, East, North CONDITION: Hairline horizontal + vertical cracks Hairline soffitt cracks	 0722

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, North CONDITION: 2 column corner spalls with exposed rusted reinforcing	 0723
LOCATION: GP-2 Passage, East, North CONDITION: Column corner spall with exposed rusted reinforcing	 0724
LOCATION: GP-2 Passage, East, North CONDITION: Hairline beam cracks Hairline horizontal crack Hairline soffitt crack with efflorescence	 0725
LOCATION: GP-2 Passage, East, North CONDITION: Incipient beam corner spall	 0726

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East, North CONDITION: Incipient Column corner spall	 0727
LOCATION: GP-2 Passage, East, North CONDITION: Column corner spall with exposed rusted reinforcing	 0728
LOCATION: GP-2 Passage, East, North CONDITION: Column corner spall with exposed rusted reinforcing	 0729
LOCATION: GP-2 Passage, East, North CONDITION: Hairline Soffitt cracks, 1 with efflorescence	 0730

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, East wall, North side CONDITION: Beam corner spall with exposed reinforcing Hairline cracks	 0731
LOCATION: GP-2 Passage, East, North CONDITION: 1/8” Hairline crack in beam Hairline vertical cracks	 0732
LOCATION: GP-2 Passage, East, North CONDITION: Beam bottom spall with exposed rusted reinforcing	 0733
LOCATION: GP-2 Passage, North, East CONDITION: 1/8” Vertical crack Hairline horizontal crack	 0734

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, North, East CONDITION: Beam bottom spall with exposed rusted reinforcing	 0735
LOCATION: GP-2 Passage, North, East CONDITION: Soffitt spalls with exposed damaged reinforcing	 0736
LOCATION: GP-2 Passage, North CONDITION: Soffitt spalls with exposed damaged reinforcing	 0737
LOCATION: GP-2 Passage, North CONDITION: Beam bottom spall full length with exposed damaged (one missing) reinforcing	 0738

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, North CONDITION: Soffitt spalls with exposed damaged reinforcing	 0739
LOCATION: GP-2 Passage, North, West CONDITION: Beam bottom spall with exposed damaged reinforcing Hairline soffit cracks Hairline crack with efflorescent stalactites	 0740
LOCATION: GP-2 Passage, North, West CONDITION: 1/8” Diagonal crack	 0741
LOCATION: GP-3 Passage, North, West CONDITION: Beam corner spall with exposed damaged reinforcing Hairline soffit cracks Hairline cracks	 0742

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Passage, North, West CONDITION: Beam bottom spall with exposed damaged reinforcing Falling Hazard	 0743
LOCATION: GP-2 Passage, North, West CONDITION: Pattern cracking	 0744
LOCATION: GP-2 Passage, North, West CONDITION: Hairline diagonal crack with spalls	 0745
LOCATION: GP-2 Passage, North, West CONDITION: 1/8” Vertical crack with 1/8” offset	 0746

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Parapet South CONDITION: ¼" Horizontal crack with spall @ cap 1/8" + ¼" Horizontal cracks	 0747
LOCATION: GP-2 Parapet South CONDITION: 1/8" Horizontal crack Pattern cracking	 0748
LOCATION: GP-2 Parapet South Lower CONDITION: Pattern cracking	 0749
LOCATION: GP-2 Parapet South Upper CONDITION: 1/8" Vertical crack with spall Pattern cracking	 0750

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Parapet Center CONDITION: 1/8” Vertical + horizontal cracks	 0751
LOCATION: GP-2 Parapet Center CONDITION: Pattern cracking	 0752
LOCATION: GP-2 Parapet North CONDITION: Hairline horizontal + vertical cracks with efflorescence	 0753
LOCATION: GP-2 Parapet North Lower CONDITION: Hairline horizontal + vertical Cracks Pattern cracking	 0754

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Parapet Upper CONDITION: 1/8" Vertical crack with surface spall Pattern cracking	 0755
LOCATION: GP-2 Parapet North CONDITION: Pattern cracking with efflorescence ¼" Horizontal crack	 0756
LOCATION: GP-2 Parapet North CONDITION: Pattern cracking with efflorescence ¼" Horizontal crack with long spall	 0757
LOCATION: GP-2 Deck, South CONDITION: Metal stair checker plate rusted/missing Hazard	 0758

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Deck, Center CONDITION: 1/8” Deck crack	 0759
LOCATION: GP-2 Pit, Center, South CONDITION: Pit spalls	 0760
LOCATION: GP-2 Pit Wall, South CONDITION: 1/8” Diagonal crack Pattern cracking	 0761
LOCATION: GP-2 Pit Wall, South CONDITION: Pattern cracking	 0762

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Pit Wall, Center CONDITION: Hairline vertical crack Pattern cracking	 0763
LOCATION: GP-2 Pit Wall, Center CONDITION: 1/8” Horizontal crack	 0764
LOCATION: GP-2 Pit Wall, North CONDITION: ¼” Horizontal crack Hairline vertical crack	 0765
LOCATION: GP-2 Pit Wall, North CONDITION: Pattern cracking	 0766

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Parapet, North CONDITION: 1/8” Vertical + diagonal crack with spall Pattern cracking	 0767
LOCATION: GP-2 Splinterproof, West, South CONDITION: Pattern cracking with efflorescence	 0768
LOCATION: GP-2 Splinterproof, West, South CONDITION: Pattern cracking with efflorescence	 0769
LOCATION: GP-2 Telephone Booth, West CONDITION: 1/8” Vertical crack at joint Incipient corner spall at door jamb	 0770

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Telephone Booth, South, West CONDITION: Corner spall at cap Incipient corner spall at cap <u>Falling hazard</u> 1/8" to ¼" crack	 0771
LOCATION: GP-2 Telephone Booth, South CONDITION: Incipient corner spall ¼" Crack	 0772
LOCATION: GP-2 Telephone Booth East CONDITION: Corner spall @ door	 0773
LOCATION: GP-2 Telephone Booth, North, West CONDITION: Incipient corner spall ¼" to 1/8" crack @ cap	 0774

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Telephone Booth, West CONDITION: 1/8" to ¼" Vertical crack ¼" crack @ cap	 0775
LOCATION: GP-2 Splinterproof, West, South CONDITION: Beam corner spall with exposed rusted reinforcing	 0776
LOCATION: GP-2 Splinterproof, East, Center CONDITION: Column corner spalls with exposed rusted reinforcing	 0777
LOCATION: GP-2 Splinterproof, East, Center CONDITION: Column corner spall with exposed rusted reinforcing	 0778

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Splinterproof, West, Center CONDITION: ¼" Horizontal crack with spalls	 0779
LOCATION: GP-2 Splinterproof, West, Center CONDITION: Column corner spalls with exposed rusted reinforcing	 0780
LOCATION: GP-2 Splinterproof, Center CONDITION: Incipient beam corner spall Hairline soffit crack	 0781
LOCATION: GP-2 Splinterproof, West, North CONDITION: 1/8" Horizontal crack ¼" Vertical crack with spall	 0782

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Splinterproof, East, North CONDITION: Beam bottom spall with exposed rusted reinforcing	 0783
LOCATION: GP-2 Splinterproof, East, North CONDITION: Incipient beam corner + side spall with exposed rusted reinforcing Falling hazard	 0784
LOCATION: GP-2 Splinterproof, Center CONDITION: Hairline soffit spall with efflorescence	 0785
LOCATION: GP-2 Splinterproof, East, North CONDITION: Column corner spall with exposed rusted reinforcing	 0786

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Splinterproof, West CONDITION: 1/8” Vertical + Diagonal cracks Pattern cracking	 0787
LOCATION: GP-2 Magazine Parapet, South CONDITION: Pattern cracking with efflorescence	 0788
LOCATION: GP-2 Magazine Parapet, South CONDITION: Pattern cracking with efflorescence	 0789
LOCATION: GP-2 Magazine Parapet, Center CONDITION: Pattern cracking with efflorescence	 0790

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Magazine Parapet, North CONDITION: Pattern cracking with efflorescence	 0791
LOCATION: GP-2 Catwalk, South CONDITION: Spall with ¼" crack at beam	 0792
LOCATION: GP-2 Catwalk, South CONDITION: Hairline horizontal crack @ beam	 0793
LOCATION: GP-2 Catwalk, Center CONDITION: ¼" Horizontal crack/incipient spall at beam	 0794

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Catwalk, Center CONDITION: Bottom beam spall with exposed rusted steel beam	 0795
LOCATION: GP-2 Catwalk, North CONDITION: Bottom beam spall with exposed damaged steel beam	 0796
LOCATION: GP-2 Catwalk, North CONDITION: Bottom beam spall with exposed damaged steel beam	 0797
LOCATION: GP-2 Catwalk, North CONDITION: Top beam spall	 0798

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Tower, South CONDITION: Bottom beam spall with exposed rusted reinforcing	 0799
LOCATION: GP-2 Tower, South, East CONDITION: Incipient column corner spall	 0800
LOCATION: GP-2 Tower, South, East CONDITION: Corner spall with exposed rusted reinforcing	 0801
LOCATION: GP-2 Tower, East, North CONDITION: Incipient beam bottom spall Falling Hazard	 0802

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Tower, North CONDITION: Column spall with exposed rusted reinforcing	 0803
LOCATION: GP-2 Tower, North, West CONDITION: Column corner spall with exposed rusted reinforcing	 0804
LOCATION: GP-2 Catwalk, North CONDITION: Beam end spall with exposed rusted reinforcing	 0805
LOCATION: GP-2 Catwalk, North CONDITION: Soffitt spall with exposed rusted reinforcing	 0806

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Tower, North, East CONDITION: Corner spall with exposed rusted reinforcing	 0807
LOCATION: GP-2 Tower, North CONDITION: Incipient spall at door jamb	 0808
LOCATION: GP-2 Tower, West, North CONDITION: Incipient corner spall	 0809
LOCATION: GP-2 Tower, South CONDITION: Spall @ window head with exposed rusted reinforcing	 0810

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Splinterproof, Roof CONDITION: Spalls with exposed damaged reinforcing 1/8” Crack	 0811
LOCATION: GP-2 Apron, South, East CONDITION: 1/8” Cracks - typical	 0812
LOCATION: GP-2 Apron, South, West CONDITION: 1/8” Cracks	 0813
LOCATION: GP-2 Apron, South, Center CONDITION: 1/8” Cracks with spalls	 0814

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, South Center CONDITION: 1/8” Cracks	 0815
LOCATION: GP-2 Apron, South, West CONDITION: 1/8” Cracks	 0816
LOCATION: GP-2 Apron, South, East CONDITION: 1/8” Cracks - typical	 0817
LOCATION: GP-2 Apron, Center, Center CONDITION: 1/8” Cracks - typical	 0818

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, Center, West CONDITION: 1/8” Cracks	 0819
LOCATION: GP-2 Apron, Center, Center CONDITION: 1/8” Crack	 0820
LOCATION: GP-2 Apron, Center, East CONDITION: 1/8” Horizontal cracks at apron slope	 0821
LOCATION: GP-2 Apron, North, West CONDITION: 1/8” Crack	 0822

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, North, East CONDITION: Surface spalls	 0823
LOCATION: GP-2 Apron, North, East CONDITION: Cracking & surface spalls	 0824
LOCATION: GP-2 Apron, North, East CONDITION: Pattern cracking with spalls	 0825
LOCATION: GP-2 Catwalk, Center CONDITION: Spall with exposed damaged steel beam	 0826

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, North, Center CONDITION: ¼ " Cracks	 0827
LOCATION: GP-2 Apron, North, West CONDITION: 1/8" Crack	 0828
LOCATION: GP-2 Apron, North, Center CONDITION: 1/8" Crack	 0829
LOCATION: GP-2 Apron, North, East CONDITION: Pattern cracking & surface spalls	 0830

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, North, East CONDITION: Pattern cracking and surface spalls	 0831
LOCATION: GP-2 Apron, North CONDITION: Cold joint at cap	 0832
LOCATION: GP-2 Apron, North CONDITION: Cold joint at cap	 0833
LOCATION: GP-2 Apron, North CONDITION: Cold joint + surface spalls	 0834

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Apron, South, East CONDITION: Spall at cap	 0835
LOCATION: GP-2 Magazine Entry CONDITION: Pattern cracking	 0836
LOCATION: GP- 2 Magazine Entry CONDITION: Hairline horizontal + vertical cracks	 0837
LOCATION: GP-2 Magazine Entry CONDITION: Pattern cracking	 0838

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-2 Magazine Entry CONDITION: ¼" cracking at cap Pattern cracking	 0839
LOCATION: GP-2, Room W, South + East CONDITION: Hairline horizontal crack	 0840
LOCATION: GP-2, Room W, East CONDITION: Hairline horizontal crack - typical Full length	 0841
LOCATION: GP-2, Room W, Roof, East CONDITION: Spall @ gutter	 0842

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, South, West CONDITION: Hairline horizontal crack	 0843
LOCATION: GP-1 Passage, South, West CONDITION: Hairline horizontal cracks	 0844
LOCATION: GP-1 Passage, South, West CONDITION: Hairline horizontal crack with efflorescence	 0845
LOCATION: GP-1 Passage, South CONDITION: Pattern cracking w/efflorescence Soffitt crack w/efflorescent stalactites	 0846

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, South CONDITION: Hairline vertical crack	 0847
LOCATION: GP-1 Passage, South CONDITION: Hairline diagonal crack with spall @ hinge	 0848
LOCATION: GP-1 Passage, South CONDITION: Beam bottom spall with exposed damaged reinforcing	 0849
LOCATION: GP-1 Passage, East, South CONDITION: 1/8” Cracking with surface spalls	 0850

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, East, South CONDITION: Beam corner spall with exposed rusted reinforcing Incipient beam bottom spall Spall @ deck edge	 0851
LOCATION: GP-1 Passage, East, South CONDITION: Beam corner spall with exposed damaged reinforcing	 0852
LOCATION: GP-1 Passage, East, South CONDITION: ¼" Crack with spall Various hairline cracks	 0853
LOCATION: GP-1 Passage, East, South CONDITION: Incipient beam corner spall	 0854

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, East, Center CONDITION: Hairline Soffitt cracks with surface spall	 0855
LOCATION: GP-1 Passage, East, Center CONDITION: 1/8” Horizontal crack Pattern cracking w/efflorescence	 0856
LOCATION: GP-1 Passage, East, Center CONDITION: Pattern cracking	 0857
LOCATION: GP-1 Passage, East, Center CONDITION: Hairline soffitt crack with surface spall 1/8” Horizontal crack Pattern cracking	 0858

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, East, Center

CONDITION:

1/8" Horizontal cracks with efflorescence
Hairline soffit crack with surface spall
Hairline vertical crack

0859

LOCATION: GP-1 Passage, East, North

CONDITION:

Column corner spall with exposed rusted reinforcing

0860

LOCATION: GP-1 Passage, East, North

CONDITION:

Beam corner spall with exposed rusted reinforcing

0861

LOCATION: GP-1 Passage, East, North

CONDITION:

Hairline soffit cracks with surface spall

0862

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, North, East

CONDITION:

1/8" Horizontal crack
Hairline horizontal crack w/efflorescence
Hairline soffit crack w/surface spall

0863

LOCATION: GP-1 Passage, North, East

CONDITION:

Slab undermined

0864

LOCATION: GP-1 Passage, North, East

CONDITION:

Beam corner spall with exposed damaged reinforcing

0865

LOCATION: GP-1 Passage, North, East

CONDITION:

2 Beam corners spalls with exposed damaged reinforcing

0866

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, North, East

CONDITION:

Beam bottom spall with exposed damaged reinforcing
Soffit spalls with stains and exposed rusted reinforcing
Hairline Horizontal cracks in wall

0867

LOCATION: GP-1 Passage, North, East

CONDITION:

Beam bottom spall with exposed damaged reinforcing

0868

LOCATION: GP-1 Passage, North, Center

CONDITION:

Beam corner spall w/exposed damaged reinforcing
Soffit spalls w/exposed rusted reinforcing

0869

LOCATION: GP-1 Passage, North, Center

CONDITION:

1/8” Vertical crack

0870

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, North, Center CONDITION: Beam bottom spall – Falling Hazard	 0871
LOCATION: GP-1 Passage, North , West CONDITION: Soffit spall w/exposed damaged reinforcing Hairline Soffit crack ¼" Vertical crack/separation	 0872
LOCATION: GP-1 Passage, North, West CONDITION: Beam corner spall with exposed damaged reinforcing Soffit spall – Falling Hazard	 0873
LOCATION: GP-1 Passage, North, West CONDITION: Hairline horizontal crack	 0874

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Passage, North, West CONDITION: Soffit spalls with exposed damaged reinforcing	 0875
LOCATION: GP-1 Passage, North, West CONDITION: Beam bottom spall with exposed damaged reinforcing (two bars gone)	 0876
LOCATION: GP-1 Passage, North, West CONDITION: 1/8” Cracks	 0877
LOCATION: GP-1 Passage, North, West CONDITION: 1/8” Diagonal crack	 0878

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Parapet, South CONDITION: Spall at cap	 0879
LOCATION: GP-1 Parapet, South CONDITION: Pattern cracking w/efflorescence	 0880
LOCATION: GP-1 Parapet, Center CONDITION: Pattern cracking w/ efflorescence	 0881
LOCATION: GP-1 Parapet, North CONDITION: Horizontal pattern cracking w/efflorescence	 0882

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Parapet, North CONDITION: Vertical separation with spall	 0883
LOCATION: GP-1 Parapet, North, Upper CONDITION: Horizontal pattern cracking w/efflorescence	 0884
LOCATION: GP-1 Parapet, North, Lower CONDITION: Pattern cracking	 0885
LOCATION: GP-1 Parapet, North, CONDITION: Pattern cracking w/efflorescence	 0886

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Parapet, North

CONDITION:

1/8" Horizontal crack
¼" Horizontal cracks w/spall

0887

LOCATION: GP-1 Parapet, North, Center

CONDITION:

¼" Horizontal crack w/spall @ joint

0888

LOCATION: GP-1 Parapet, North, East

CONDITION:

Pattern cracking w/efflorescence

0889

LOCATION: GP-1 Pit

CONDITION:

¼" Crack

0890

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Pit Wall, East, South CONDITION: ¼" Crack @ cap Pattern cracking w/efflorescence + spalls	 0891
LOCATION: GP-1 Pit Wall, East, South CONDITION: ¼" Cracks w/spalls + efflorescence Pattern cracking	 0892
LOCATION: GP-1 Pit Wall, East, Center CONDITION: 1/8" Horizontal crack - typical	 0893
LOCATION: GP-1 Pit Wall, East, Center CONDITION: 1/8" Horizontal crack w/1/8" vertical cracks	 0894

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Pit Wall, North CONDITION: Pattern cracking w/efflorescence	 0895
LOCATION: GP-1 Deck South, East CONDITION: Incipient spall @ edge	 0896
LOCATION: GP-1 Deck, South, East CONDITION: Spall @ edge	 0897
LOCATION: GP-1 Deck, East, North CONDITION: 1/8” Crack	 0898

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Telephone Booth, South

CONDITION:

1/8" Horizontal crack
Incipient spall @ wall corner

0899

LOCATION: GP-1 Telephone Booth, East

CONDITION:

1/8" Horizontal + diagonal cracks
¼" Vertical separation @ corner w/1/8" vertical cracks

0900

LOCATION: GP-1 Main Stair

CONDITION:

Corner spall
¼" Separation/Crack @ landing

0901

LOCATION: GP-1 Telephone Booth, West

CONDITION:

Corner spall @ cap w/exposed reinforcing
1/8" Cracks

0902

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Splinterproof, West, South CONDITION: Pattern cracking w/efflorescence	 0903
LOCATION: GP-1 Splinterproof, South CONDITION: Beam corner spall w/exposed rusted reinforcing	 0904
LOCATION: GP-1 Splinterproof, South, East CONDITION: Column corner spall w/exposed rusted reinforcing	 0905
LOCATION: GP-1 Splinterproof, East, Center CONDITION: Beam corner spall w/exposed rusted reinforcing	 0906

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Splinterproof, East, Center

CONDITION:

Incipient beam bottom/corner spall

0907

LOCATION: GP-1 Splinterproof, East, North

CONDITION:

Pattern cracking @ column base
1/8" Crack w/1/4" offset @ slab

0908

LOCATION: GP-1 Splinterproof, North, Center

CONDITION:

Beam bottom spall w/exposed damaged reinforcing
Falling Hazard

0909

LOCATION: GP-1 Splinterproof, West, North

CONDITION:

Pattern cracking w/efflorescence

0910

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Parapet, North CONDITION: 1/8” Horizontal crack w/efflorescence Hairline diagonal crack @ Splinterproof beam	 0911
LOCATION: GP-1 Parapet, North CONDITION: Spalling @ cap	 0912
LOCATION: GP-1 Parapet, North CONDITION: Cracking, spalling @ cap 1/8” Diagonal crack w/spall @ face	 0913
LOCATION: GP-1 Parapet, North CONDITION: Cracking, spalling @ cap	 0914

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Far North CONDITION: 1/8” Diagonal crack	 0915
LOCATION: GP-1 Apron, North, West CONDITION: Cracking + spalling	 0916
LOCATION: GP-1 Apron, North CONDITION: Hairline crack @ ridge Hairline cracks	 0917
LOCATION: GP-1 Apron, North, East CONDITION: Hairline cracks – typical	 0918

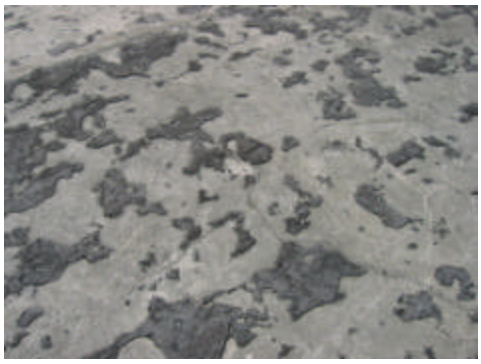
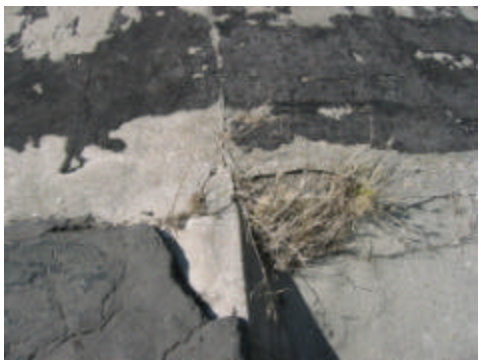
BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Apron, North, Center CONDITION: 1/8” Cracks w/spalls	 0919
LOCATION: GP-1 Apron, North, East CONDITION: 1/8” Crack w/surface spalls	 0920
LOCATION: GP-1 Apron, North, Center CONDITION: 1/8” Crack w/surface spalls	 0921
LOCATION: GP-1 Apron, Center, West CONDITION: Various cracks @ possible patch – hollow sound	 0922

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Apron, Center, West CONDITION: Spall w/cracks @ possible patch	 0923
LOCATION: GP-1 Apron, Center CONDITION: Hairline ridge crack 1/8” Cracks 1/8” Cracks crossing	 0924
LOCATION: GP-1 Apron, Center, East CONDITION: 1/8” Crack w/surface spalls	 0925
LOCATION: GP-1 Splinterproof, Roof CONDITION: Surface spall	 0926

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Apron, Center, East CONDITION: Surface cracks w/spall @ joint	 0927
LOCATION: GP-1 Apron, Center, East CONDITION: Spall along Splinterproof roof/apron joint	 0928
LOCATION: GP-1 Apron, Center CONDITION: Hairline cracks - typical	 0929
LOCATION: GP-1 Apron, Center, East CONDITION: Ridge crack w/spalls @ corner	 0930

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Apron, South, East

CONDITION:

Thick bitumen - typical

0931

LOCATION: GP-1 Magazine Entry, South

CONDITION:

1/8” Vertical crack
1/8” Cracks in slab

0932

LOCATION: GP-1 Magazine Entry, South

CONDITION:

Horizontal pattern cracking

0933

LOCATION: GP-1 Magazine Entry, West

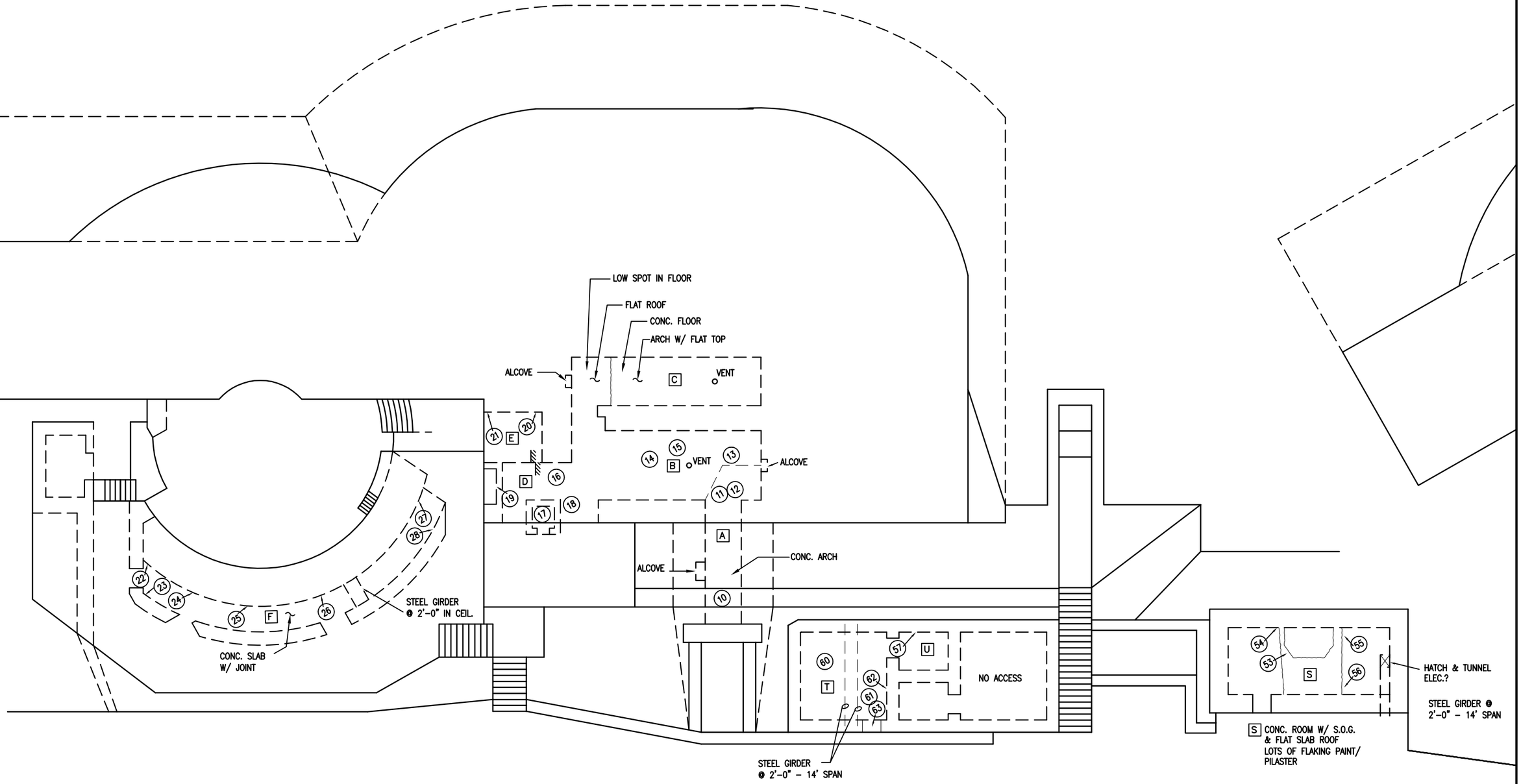
CONDITION:

Hairline horizontal + vertical cracks

0934

BATTERY: MARCUS MILLER EXTERIOR

LOCATION: GP-1 Magazine Entry, North CONDITION: Pattern cracking	 0935
LOCATION: GP-1 Magazine Entry, North CONDITION: 1/8” Vertical crack w/spalls 1/8” Slab crack	 0936
LOCATION: CONDITION:	
LOCATION: CONDITION:	



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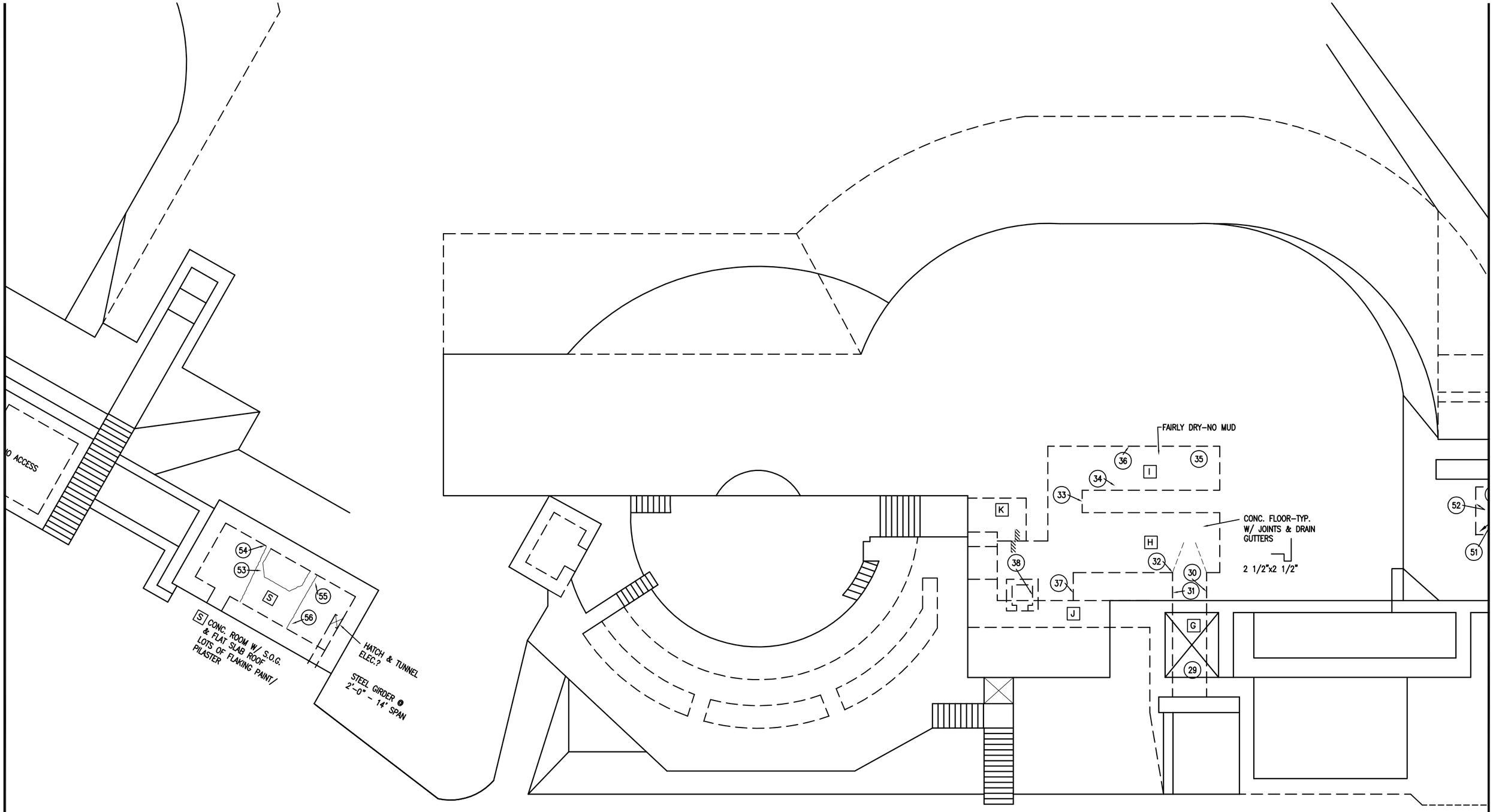
BATTERY MARCUS MILLER
INTERIOR, CENTER

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: MM-1



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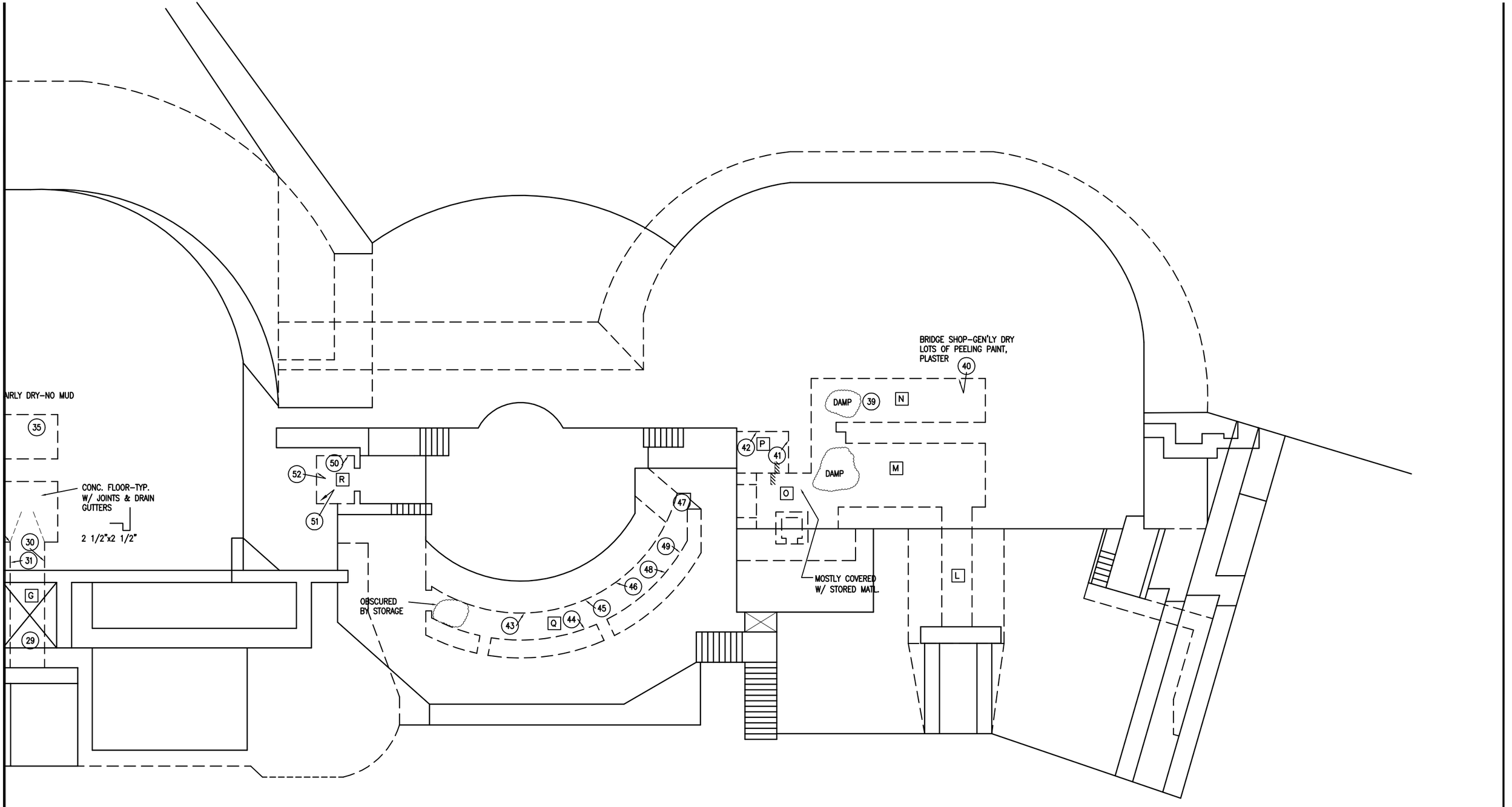
BATTERY MARCUS MILLER INTERIOR, CENTER

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: MM-2



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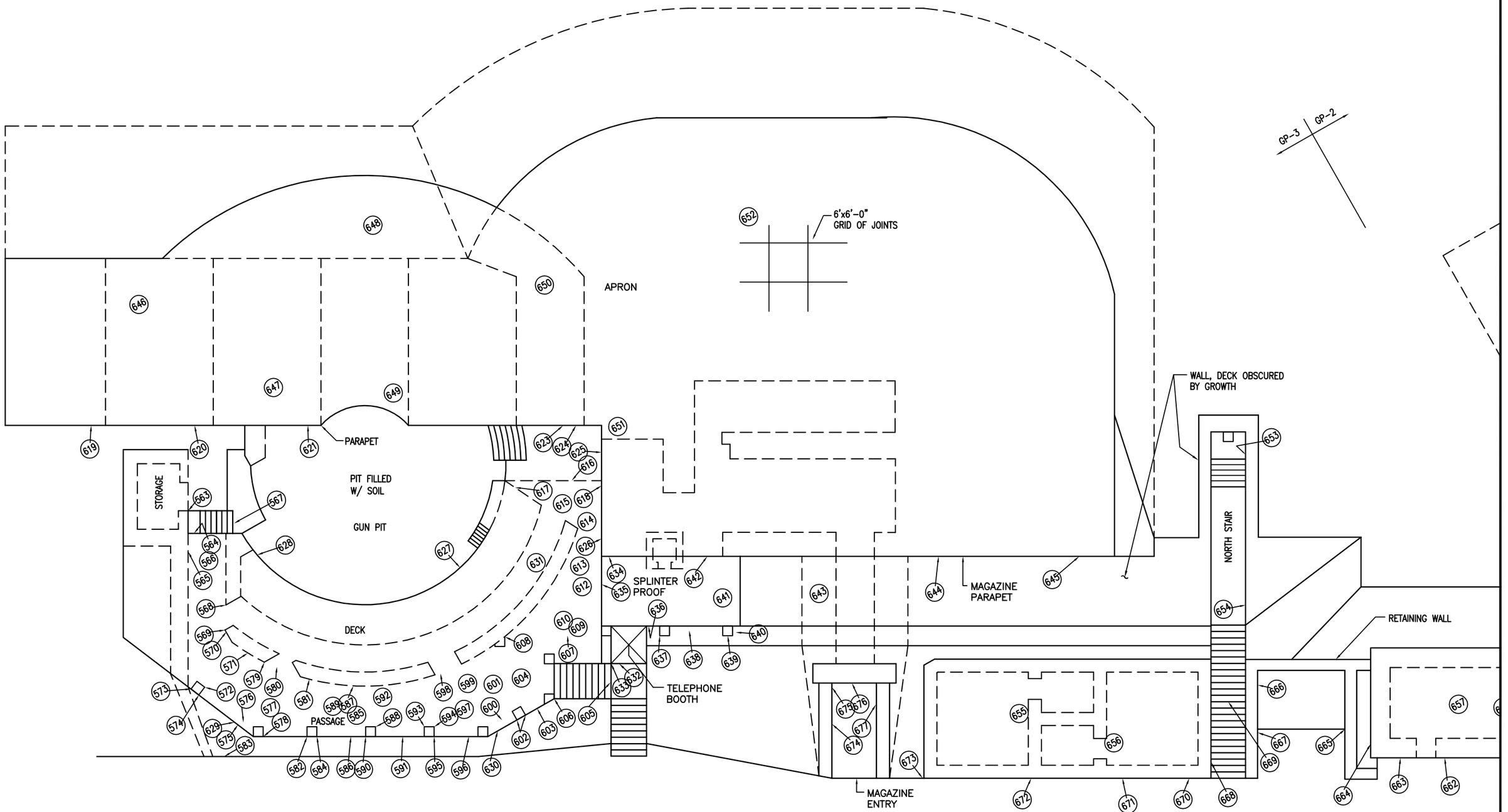
BATTERY MARCUS MILLER
INTERIOR, SOUTH

PRECONSTRUCTION

DATE: XX–XX–XX

SHEET NUMBER: MM–3



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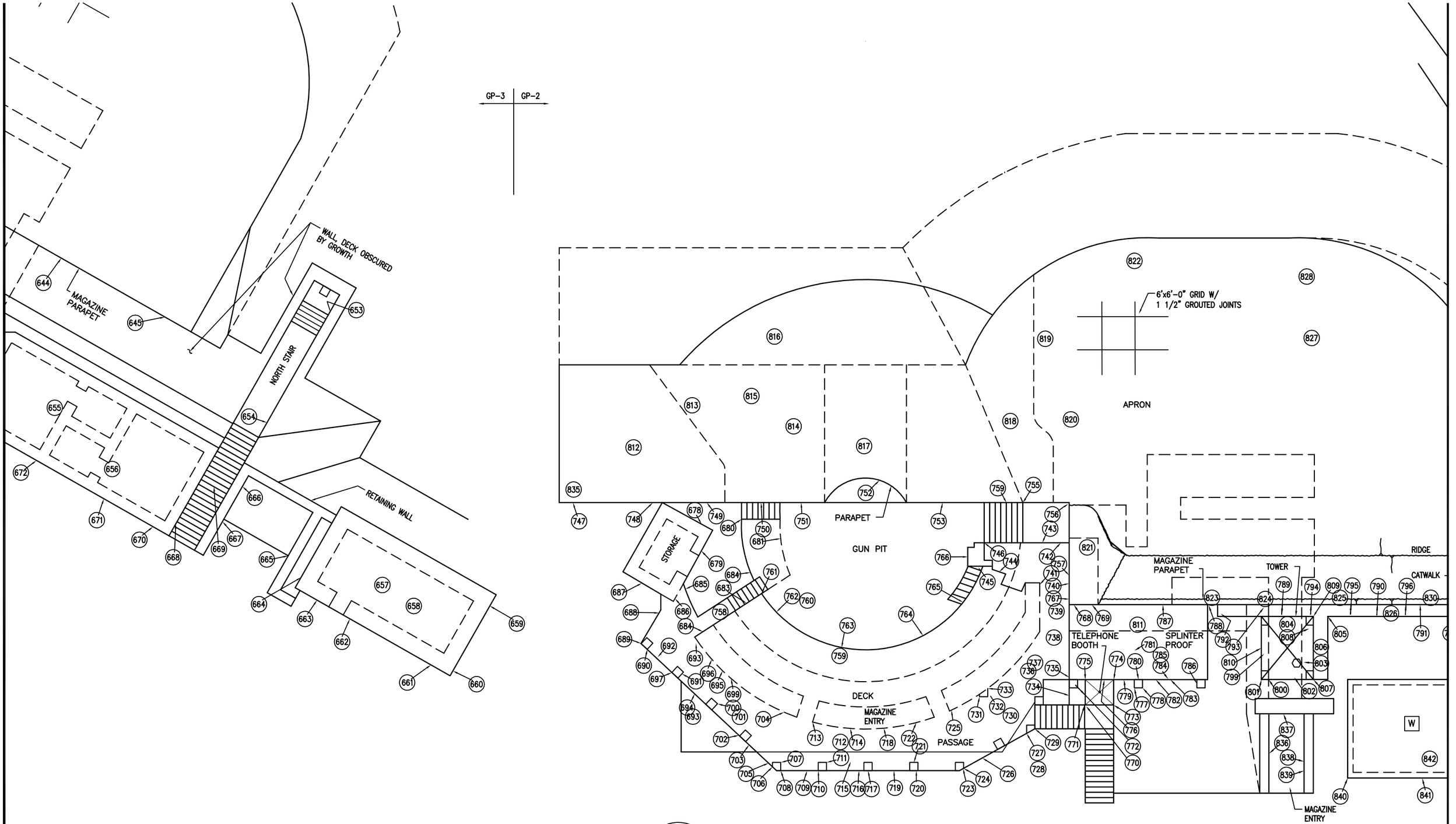
BATTERY MARCUS MILLER
SOUTH EXTERIOR

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: MM-4



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BATTERY MARCUS MILLER
EXTERIOR, CENTER

PRECONSTRUCTION

DATE: XX-XX-XX

SHEET NUMBER: MM-5

GP–3 GP–2

LIMIT

AREA COVERED WITH VEGETATION

922 HOLLOW SOUND AT PATCH

923

6'x6'–0" GRID W/ 1 1/2" GROUTED JOINTS

822 828 827

APRON

AREA COVERED WITH SOIL & VEGETATION

APRON THIN BITUMEN 916

921

829

THICK BITUMEN

931

930 887

924

RIDGE 917

919

832 879 880 881 PARAPET 882 893 884 885 878 886 929

833 STORAGE 843 849 890 PIT 877 876 875 888 895 873 874 889 872 927 928

834 895 891 845 846 892 893 894 847 848

MAGAZINE PARAPET

TOWER

CATWALK

RIDGE

925 920

912 913 914 918

AREA COVERED WITH SOILD VEGETATION

MAGAZINE PARAPET

FAR NORTH 915

903 910 911 909 926 SPLINTER PROOF

871 869 870 867 868 904 905 902 907 906 908

TELEPHONE BOOTH

899 900 901

865 866 863 898

849 896 850 857 853 856 857 858 859 DECK

852 897 854 855 PASSAGE

861 862 864 860

MAIN STAIR

934 935 933 932 936

MAGAZINE ENTRY

769 811 787 788 781 785 774 780 784 786 779 777 778 782 783 773 776 772 770 SPLINTER PROOF

792 793 810 799 789 794 809 795 790 796 830 831 823 824 825 826 804 808 805 806 803 801 800 802 807 791 797 798

W 842

837 836 838 839 840 841

MAGAZINE ENTRY

GP–2 GP–1

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BATTERY MARCUS MILLER
EXTERIOR, NORTH

PRECONSTRUCTION

DATE: XX–XX–XX

SHEET NUMBER: MM-6

APPENDIX G

GEOPHYSICAL MAPPING

APPENDIX G
GEOPHYSICAL MAPPING

Introduction

Previous investigation reports (*Dames & Moore, 1997*), which included an examination of aerial photographs spanning 1946 to 1986, and recent on-site visual inspections have identified four "disturbed areas" where buried refuse is indicated. The disturbed areas lie along the approximately 1,600-foot "Lincoln Bluff" area north of Baker Beach. The disturbed areas are characterized by hummocky terrain and partially buried refuse, including concrete rubble, rusted metal objects, and pockets of broken glass. The purpose of the geophysical investigation was to more fully assess the extent of refuse in the four disturbed areas, which are designated BBDA-1, BBDA-1A, BBDA-2, and BBDA-2A (Plate G-1), prior to developing a subsurface investigation program. In addition, a preliminary estimate of refuse quality was developed.

MACTEC performed a geophysical investigation comprised an electromagnetic (EM) terrain conductivity survey to search for zones of anomalous conductivity indicative of buried refuse. The EM survey was augmented by a global positioning system (GPS) survey to map areas of exposed refuse. EM data were collected with a Geonics EM31-D terrain conductivity meter connected to a Polycorder 720 digital data logger. Mapping of the exposed refuse was performed with a Trimble Pro-XRS GPS. The GPS also provided positioning data for the EM survey. After an initial site visit by the geophysicist on February 6, 2003, the bulk of the field work was performed on March 25, 26, and 27, 2003. This investigation was briefly described previously in the *Interim Data Report* (*MACTEC, 2003b*), and has been updated in this Field Investigation Report Appendix G below.

Electromagnetic (EM) Method

The EM method measures electrical conductivity by means of an applied electromagnetic field. The applied field causes (induces) electric currents to flow in subsurface materials. The strength of the induced current, which is measured by the EM instrument's receiver, is directly proportional to the electrical conductivity of the subsurface material. Buried refuse conducts electricity differently than the surrounding soil, and is thus indicated by anomalous conductivity readings.

Metal objects, in particular, are readily detected by the EM method because they are highly conductive compared to soil and rock and therefore produce high-amplitude EM anomalies. Domestic waste in landfill trenches is also readily detected with the EM method because decaying refuse and the associated leachate are usually more conductive than the surrounding soil. Buried construction debris (e.g., concrete, wood, brick) with little or no metal can be difficult to detect because the electrical properties of such are similar to those of soil and rock. Such debris usually produces a low-amplitude EM anomaly that is apparent only if the debris is present in quantities sufficient to displace a large volume of native soil. In general, small, isolated pockets of non-metallic refuse are difficult targets for a geophysical survey.

The EM31-D instrument used for the Baker Beach investigation consists of transmitter and receiver coils mounted on each end of a 10-foot long PVC boom; the EM31-D can measure electrical conductivity to a depth of approximately 15 feet bgs.

Field Procedures

The MACTEC geophysicist first visited the Baker Beach site to inspect the disturbed areas and establish transect locations for the EM survey. The geophysicist was accompanied by George Ford and Russell Tom of the Presidio Trust, and Tim Doherty and Laura Castellini of the National Park Service. Because of the difficult site conditions, which included steep slopes, thick vegetation, and sensitive plant species, it was agreed that the EM survey lines should be confined to maintained hiking trails, unimproved "social trails," and a limited number of transects cut through the vegetation. The geophysicist used flagging tape to mark 11 alignments through the more densely vegetated portions of Areas 1, 1A, and 2. A Presidio Trust work crew then cut shoulder-width pathways along those alignments to permit passage of the geophysicist carrying the EM survey system.

Terrain conductivity data were collected by hand-carrying the EM survey system along "meandering path" transects with an approximately 1,600- by 300-foot area (Plate G-1). The EM system collected data at 0.5-second intervals, which corresponded to a reading approximately every 2 feet. In total, approximately 31,600 line-feet, or nearly 6 miles were surveyed.

Following the EM survey, the geophysicist performed a GPS mapping survey to augment the EM conductivity data. GPS was used to map the locations of exposed debris areas and individual refuse items observed on the ground surface. Where necessary, the geophysicist used a mattock (small pick) to examine the shallow subsurface to identify areas of buried refuse. The GPS unit alone is much smaller and less cumbersome than the full EM survey system so the geophysicist was able to inspect portions of the site, particularly those with thick vegetation or steep slopes, that could not be reached with the EM system. Thus, the combined EM and GPS survey approach provided more extensive site coverage than the EM survey alone could.

Data Processing

EM and GPS data were downloaded in the field to a laptop computer as necessary (i.e., when data logger memory was full). Upon returning to the office the geophysicist used the software program DAT31W to combine the EM and GPS data into a single data file suitable for computer contouring (DAT31W operates by matching the time stamp attached to each EM and GPS data record). A color-filled contour map of terrain conductivity was produced using OASIS Montaj, a geophysical data analysis software package from GEOSOFT of Toronto, Canada. The GPS data were processed with Trimble Pathfinder Office software to produce a map of observed refuse locations. The EM contour map and refuse location map were then combined to facilitate assessment of refuse extents in the four disturbed areas.

Results

Plate G-1 shows the overall extent of refuse in the four disturbed areas, as interpreted from the EM and GPS mapping data. Disturbed area characteristics including lateral (area) and volumetric quantity estimates based on an assumed average refuse depth of 5 feet are summarized in Table 1, below. Plate G-1 also shows the locations of individual refuse items mapped with the GPS. The EM terrain conductivity data are presented on Plate G-2 as a color-filled contour map. Refuse-free areas (native soil and rock) are generally green to yellow in color while refuse generally appears as "hot" (red & pink) and "cool" (blue) colors, indicative of conductivity above and below, respectively, the background readings. The blue color usually indicates metal objects. For reasons discussed below, not all of the "hot" and "cool" colored areas on Plate G-2 are interpreted to contain refuse.

Background conductivity varies greatly across the site due to the wide variety of natural geologic conditions, which range from low-conductivity bedrock to thick soil with a high-conductivity signature

similar to that of refuse. In addition, buildings adjacent to the survey area also produced anomalous conductivity readings. Accordingly, some "hot" colored areas on Plate G-2 represent native soil conditions and some "cool color" anomalies are caused by metal structures. The background conductivity of geologic material ranged from a low of approximately 20 milliseimens per meter (mS/m) in rocky portions of the site to a high of 40 mS/m in the thick soil areas.

While metal areas are strongly evident on the EM conductivity map, certain types of refuse, notably concrete, brick, and glass, did not produce appreciable EM anomalies because they lacked sufficient conductivity contrast with the surrounding soil and rock. Such areas were delineated visually and mapped with the GPS.

The highest-amplitude EM anomalies on Plate G-2 are not associated with refuse but rather with structures at the top of the bluff, particularly Battery Boutelle and Battery Marcus Miller. It should also be noted that the high conductivity west of Battery Boutelle and Battery Marcus Miller is attributed to conductive soil and not to refuse. Conversely, it should also be noted that many portions of the interpreted refuse areas (e.g., most of Disturbed Area 2A) do not exhibit an anomalous EM response. As stated previously, this is for two reasons: 1) the refuse lacks electrical contrast with the surrounding native material. 2) the refuse area could not be surveyed with EM due to access limitations.

Table 1. Summary of Disturbed Area Characteristics

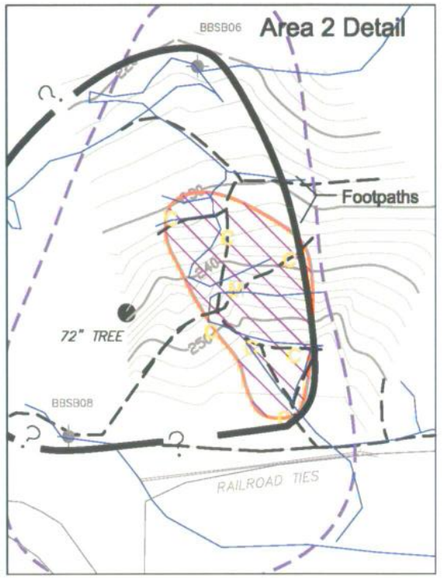
Disturbed Area	Extent	Observations	Estimated Refuse Volume (5-ft thickness assumed)
1	51,200 sq ft 1.17 acres	Greatest amount of refuse observed, including large exposed face of domestic refuse (glass & pottery). Roof slate, concrete rubble, brick, metal debris found along social trails. Large accumulation of refuse at base of slope; concrete & metal debris spills onto beach. Approx. 5-ft thick section of refuse exposed at toe of slope. Debris spilled onto beach not considered for refuse area estimate.	9,500 CY
1A	9,014 sq ft 0.20 acres	Chunks of "asphaltic concrete" (dark colored sandstone-like substance are only indication of "refuse").	1,670 CY

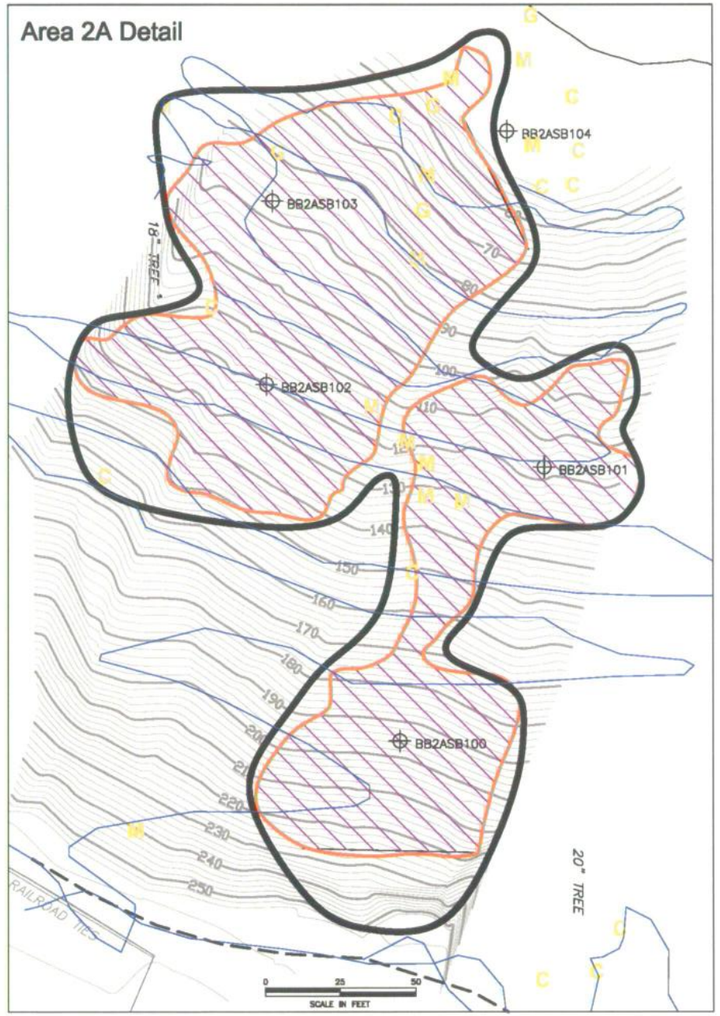
Disturbed Area	Extent	Observations	Estimated Refuse Volume (5-ft thickness assumed)
2	12,400 sq ft 0.28 acres	Partially buried concrete and metal debris observed along social trails, possibly sloughed from upslope structures. Eastern & southern boundaries blend into battery structures; refuse limits uncertain. Difficult to survey through dense vegetation.	2,300 CY
2A	28,000 sq ft 0.64 acres	Primarily wood debris (tree trunks) with concrete and minor metal. Exposed pocket of broken glass along southwest boundary indicates area's use for domestic refuse disposal. Debris spilled onto beach not considered for refuse area estimate.	5,190 CY

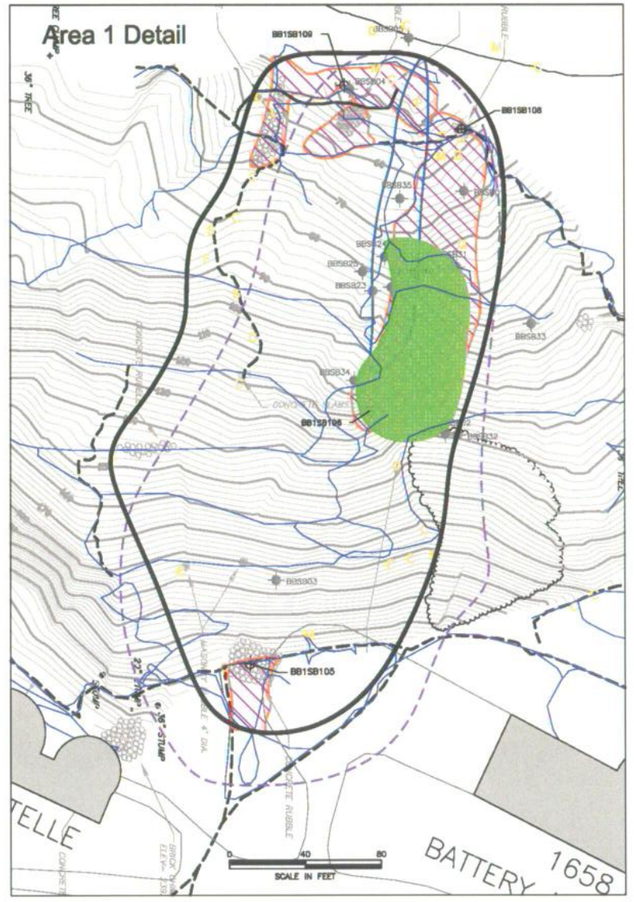
Notes:

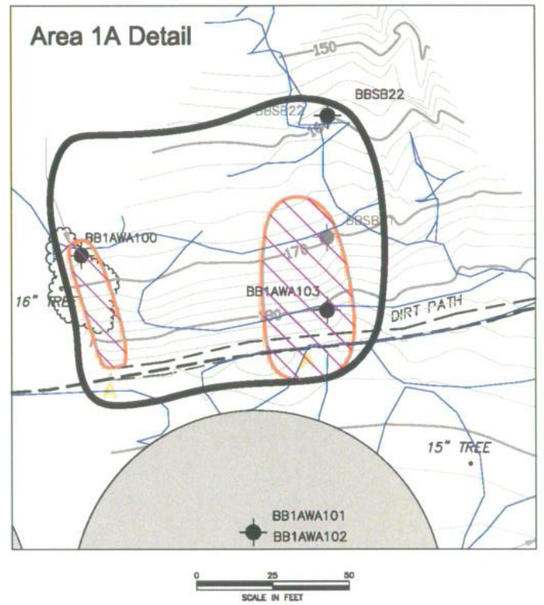
Sq ft = square feet

Cy = cubic yard(s)



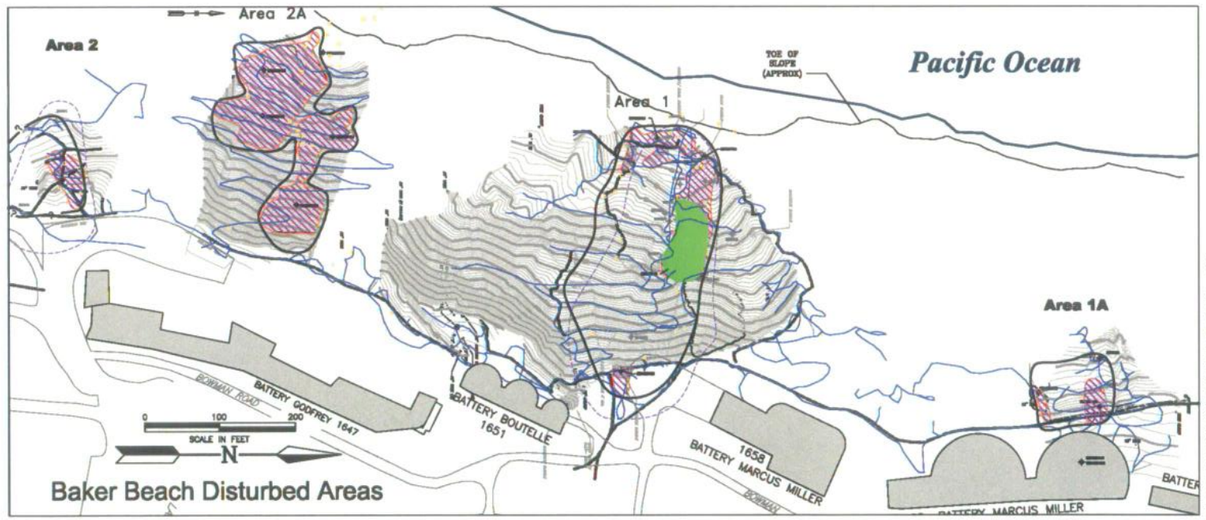






EXPLANATION

- Interpreted Extent of Refuse - from GPS and EM Survey Data
- EM31-D Terrain Conductivity Survey Transect
- Exposed Refuse - Mapped with GPS
- Observed Refuse Items: C = concrete, M = Metal, G = Glass, A= Asphalt, B = Brick, S= Roofing Slate
- Sample Location - MACTEC, 2003
- Sample Location - by others (approximate location)
- "Disturbed Area" - Dames & Moore, 1997 (approximate location)
- "Mounded Landfill Material" - Dames & Moore, 1997 (approximate location)
- "Seep Zone" - Dames & Moore, 1997
- Trail



57255210_BBDA_GEOPHYRESULTS.DWG 40.0
20060615.0937

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CHECKED: [illegible] | APPROVED: [illegible]
DATE: 6/06 | DATE: 6/06

MACTEC

Geophysical Investigation Results
Field Investigation Report
Baker Baker Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

FIGURE: G-1
SHEET: 1 OF 1
REVISION NUMBER: 2
DATE: 05/08/06

Pacific Ocean

Terrain Conductivity
(mS/m)
19 23 24 25 26 27 27 28 29 29 30 30 31 31 32 33 33 34 34 35 35 36 37 37 38 39 39 40 41 42 43 45 46 48 51 55 59 70

Area 2A

High soil conductivity area
(no refuse indicated)

Area 2

Toe of Slope (approx.)

Area 1

EM anomalies from buildings
and associated structures

Area 1A

High soil conductivity area
(no refuse indicated)

EM anomalies from buildings
and associated structures

BATTERY GODFREY 1647

BOWMAN ROAD

BATTERY BOUTELLE
1651

1658
BATTERY MARCUS MILLER

BOWMAN RD

BATTERY MARCUS MILLER

1661

LANGDON CT

MERCHANT ROAD

0 100 200
SCALE IN FEET

N

EXPLANATION

Exposed Refuse - Mapped with GPS

Interpreted Extent of Refuse - from GPS and EM Data

EM31-D Terrain Conductivity Survey Transect

"Disturbed Area" (Dames & Moore, 1997)

Observed Refuse Item
C = concrete, M = metal, W = wood
G = glass, B = brick, S = slate, A = "asphalt"

Sample Location

Trail

MACTEC

EM31 Terrain Conductivity Contour Map
Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Presidio of San Francisco, California

PLATE
G-2

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED ATE
Rws	57255 00174	MDH	09/03	

P:\Geophys\Baker Beach Landfill

APPENDIX H

BEACH DEBRIS SURVEY

MACTEC

June 1, 2005

REPORT
BAKER BEACH DEBRIS AND SAND INVESTIGATION
DISTURBED AREAS 1 AND 2A
PRESIDO OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

MACTEC Project No. 57255 00121

INTRODUCTION

This report presents the findings of MACTEC Engineering and Consulting, Inc.'s (MACTEC) debris and sand investigation at the Baker Beach Disturbed Area sites 1 and 2A (Figure G-1). The investigation objective was to document the amount of debris on the beach and to assess fluctuations in the amount of beach sand in the debris areas. The debris of interest is derived from the old, inactive refuse disposal areas (landfills) on the slope above the beach. The investigation findings will be used to prepare a beach remediation plan and to estimate the level of earthwork required to remove the debris, if deemed necessary.

The two-part investigation included a survey of beach debris and a survey of the beach sand elevation. The beach debris survey entailed GPS mapping and photographic documentation of debris items. The sand survey entailed measuring ground (sand) surface elevations at 10-foot intervals along one transect in each survey area. The investigation was conducted over one year and comprised four survey events. The first survey was performed on February 19, 2004, the second on May 10, 2004, the third on September 14, 2004, and the fourth on January 28, 2005.

RESULTS

Beach Debris Survey

The beach debris is composed mainly of concrete blocks, with minor amounts of stone, brick, and metal. Most of the debris (approximately 90%) is located below Disturbed Area 1 (Figure G-2). The beach below Disturbed Area 2A contains only 5 concrete blocks and a few small metal items (Figure G-3). Combined, the two areas contain approximately 80 concrete blocks and perhaps a dozen metal items. Most of concrete blocks are well-rounded and measure 4 feet or less in the longest dimension. Perhaps 5 or 6 concrete items are significantly larger, the most notable being a slab in Area 1 measuring approximately 9' x 9' x 2' (Figure G-4, Photo-1 & Photo-2) and an approximately 4-foot tall concrete block in Area 2A (Figure G-4, Photo-3).

In both areas, the debris is concentrated near the toe of the slope where it is nestled amongst large boulders. Most of the debris at Disturbed Area 1 occurs within a 140-foot wide zone directly below the landfill, although several concrete blocks were also found scattered along the toe of the slope north of the main debris area. In addition to debris concentrated at the toe of the slope, isolated concrete blocks were found on the beach proper, up to 40 feet away from the toe. The debris concentrated at the toe of the slope remained in view at all times; however, sand movement during the year caused some of the outlying blocks to become buried at times.

The metal debris includes pieces of small-diameter pipe (~1.5" o.d.), motor vehicle engine and drivetrain parts, and an unidentified cylindrical object approximately 5 feet long (Figure G-4, Photo-4). Additionally and of particular note are two masses of "slag" – fused masses of iron, copper, brick and glass measuring approximately 2' x 2' x 1' (Figure G-4, Photo-5). MACTEC estimates beach debris volume to be approximately 70 CY.

Panoramic photographs of the debris Area 1 are presented on FiguresG-5 through G-8. Photographs of some of the more substantial beach debris items are presented on Figure G-4. MACTEC also took photographs of other smaller debris items; however, for the sake of brevity, the other photographs are not presented with this report. These other photographs will be gladly provided upon request, but it is MACTEC's opinion that the panoramic photographs included with this report provide sufficient detail to adequately characterize the debris areas.

Beach Sand Survey

The sand surface was found to fluctuate vertically a maximum of approximately 2.5 feet along the transects. Most of the sand movement occurred in Area 1, within a 25-foot wide band from 15 to 40 feet from the toe of the slope. The sand surface fluctuation was less than 1 foot along the Area 2A transect. In both areas, the change in sand surface elevation was minimal at the toe of the slope where most of the debris is located, which allowed debris there to remain in view for all survey events. The greatest sand fluctuation was associated with a beach scarp that formed in Area 1 for the September 14, 2004 survey event. Beach profiles showing sand surface elevations for each of the survey events are presented on Figure G-9.

MACTEC recognized that the sand surface did not rise or fall evenly across the entire beach in accordance with what was measured along each transect. MACTEC observed that beach scarps and cusps formed an uneven and changing sand surface that alternately buried and uncovered debris items, particularly within a 25-foot wide band located 15 to 40 feet from the toe of the slope.

FIELD PROCEDURES

Beach Debris Survey

During the first survey event on February 19, 2004, MACTEC mapped the distribution of beach debris using a Trimble Pro-XRS dGPS system. Additionally, MACTEC used the GPS to map the toe of the slope, the location of some of the larger rocks on the beach, and the location of several photograph points. Additionally, MACTEC took panoramic photographs of the debris areas and close-up photographs of the more substantial debris items. MACTEC processed the GPS data to prepare debris location maps. MACTEC used these maps on subsequent site visits to identify newly exposed debris items. Additionally, the maps facilitated a qualitative assessment of sand movement across the entire debris area by showing which debris items remained in view and which items had become buried.

Beach Sand Survey

MACTEC first established reference points at the toe of the slope in each of the two survey areas. The points were marked by a small dot of orange spray paint and by a large nail driven flush into the soft rock. Next, the reference point elevations were obtained by using a tripod-mounted survey level to measure the elevation difference between the reference points and nearby survey points established by Chaudhary & Associates (Points 517 and 512 for Areas 1 and 2A, respectively). MACTEC then extended a tape measure from each reference point to a location 80 feet across the beach to mark the survey transects along which the elevation measurements were to be made. MACTEC used GPS to map the transect location and also measured the transect's bearing using a Brunton compass.

MACTEC then measured the relative change in the ground surface elevation at 10-foot intervals along the transect using a survey rod and a laser leveling tool mounted at the reference point. Upon returning to the office MACTEC converted the elevation difference readings into absolute elevation (Presidio Lowest Low Water, PLLW) at each measurement station and prepared the elevation profiles shown on Figure G-9.

For the three subsequent survey events, MACTEC first located the nail marking the reference point and then extended a tape measure across the beach to reestablish the transect. A Brunton compass was used to position the transects along the proper bearing. Next, the laser leveling system was installed at the reference point and the relative changes in elevation along the transects were measured as before.

We trust this report provides the information required. We can be reached at (510) 628 3227 or at RWSmith@MACTEC.com if you have any questions or require additional information.

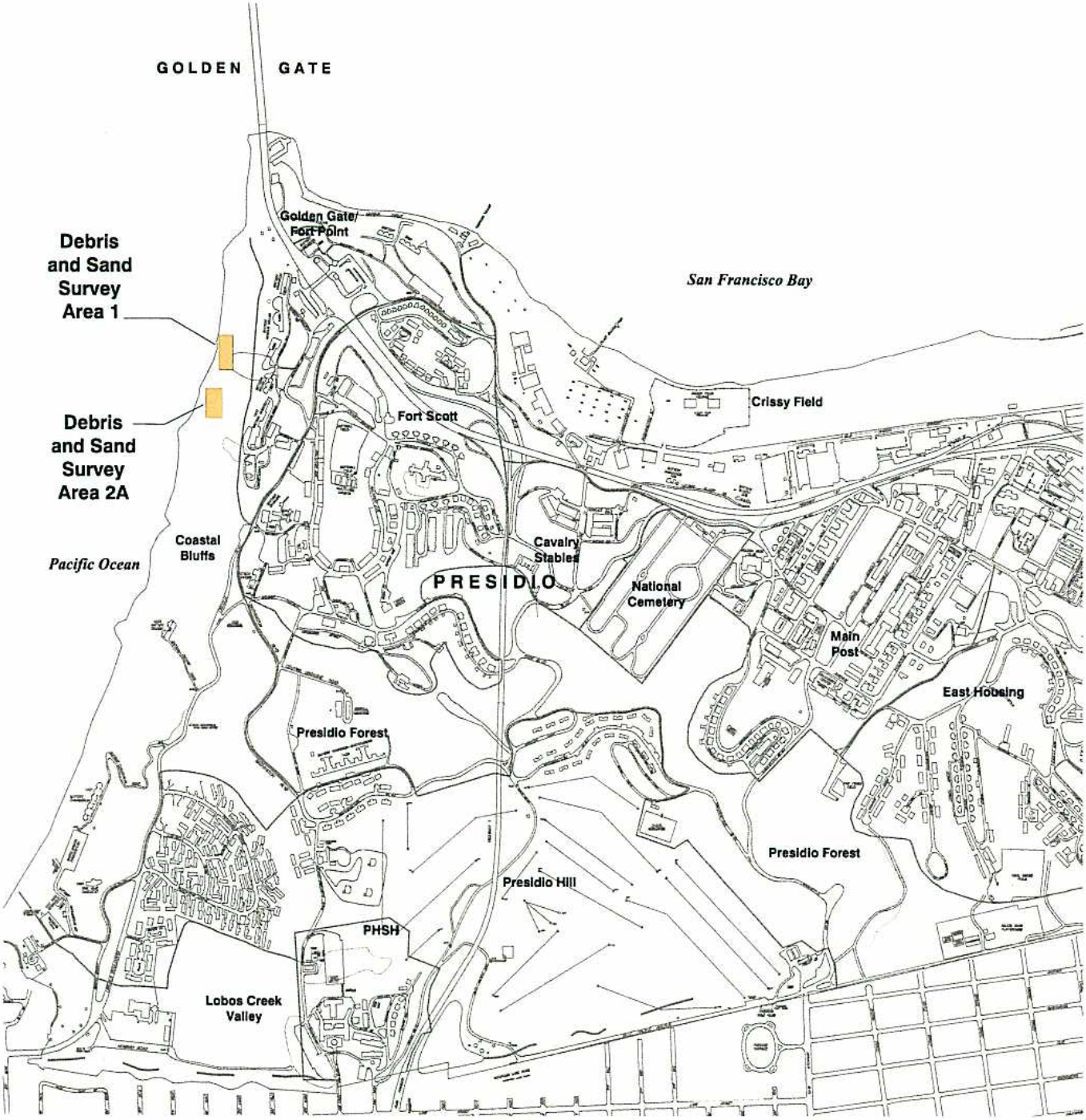
Very Truly Yours,

Roark W. Smith
Senior Geophysicist
MACTEC Engineering and Consulting, Inc.

Michael Jacobvitz
Senior Principal Hydrogeologist
MACTEC Engineering and Consulting, Inc.

Attachments:

Figure G-1	Baker Beach Investigation Areas
Figure G-2	Beach Debris Location Map, Disturbed Area 1
Figure G-3	Beach Debris Location Map, Disturbed Area 2A
Figure G-4	Significant Debris Items
Figure G-5	Debris Area 1, view from above
Figure G-6	Debris Area 1, north section
Figure G-7	Debris Area 1, middle section
Figure G-8	Debris Area 1, south section
Figure G-9	Beach Profiles, Debris Areas 1 and 2A



Reference USGS Topographic Maps, San Francisco North and Point Bonita Quadrangle, photorevised 1981.

Survey Area Map
Debris and Sand Survey
Baker Beach Disturbed Areas 1 and 2A

THE PRESIDIO TRUST

MACTEC

FIGURE **G-1**

DRAWN	PROJECT NUMBER	APPROVED	DATE
Rws	57255	RS May 6/8/06	5/05

FIGURE G-1F.DWG 40.0
20050531.1352

PACIFIC OCEAN

Beach Sand Elevation Survey Transect

80+00
70+00
60+00
50+00
40+00
30+00
20+00
10+00
00+00

Photo-10 (see Fig G-8)
Photo-9 (see Fig G-7)
Photo-8 (see Fig G-6)
Photo-1
Photo-5 (see Fig G-4)
Photo-6 (see Fig G-4)
Photo-4 (see Fig G-4)
Photo-2
Photo-7 (see Fig G-5)

Granite Block
Brick
"Slag"
Granite Block

Toe of slope
(2/19/2004)

575 (HUB)
N = 481776.52
E = 1428783.14
ELEV. = 45.75

7a
7b

BB1SB109
BB1SB108

M
C
C
C
C
C
P
C
B
M
G

60
70

0 20 40
SCALE IN FEET

EXPLANATION

- Concrete Rubble on Beach (approximate extent)
- Metal Debris on Beach (approximate extent)
- Photo-3 — Photograph Number and View Direction
- Interpreted Extent of Refuse - from GPS and EM Survey Data
- Refuse Area Mapped with GPS
- Refuse Items on Slope: C = concrete, M = Metal, G = Glass, A= Asphalt, B = Brick, S= Roofing Slate
- Sample Location - MACTEC, 2003
- Sample Location - by others (approximate location)
- 250 — Topographic Contour, Feet MLLW
- "Disturbed Area" - Dames & Moore, 1997
- "Seep Zone" - Dames & Moore, 1997

NO.	DATE	REVISIONS	BY	CHK

DRAWN: Rws | PROJECT NO:
ENGINEER: | SCALE: check graphic
CHECKED: RS | APPROVED: mag
DATE: 6/9/04 | DATE: 6-8-06

MACTEC

Beach Debris and Sand Elevation Survey Results
Baker Beach Disturbed Area 1
Presidio of San Francisco

FIGURE G-2
SHEET: OF
REVISION NUMBER: 0
DATE: 5/05

PACIFIC OCEAN

Beach Sand Elevation Survey Transect

70+00
60+00
50+00
40+00
30+00
20+00
10+00
00+00

Photo-3
(see Fig G-4)

G
M
M
G
C
BB2ASB104
M
C
C
C

Toe of slope
(2/19/2004)

512 (PLS)
N = 480869.99
E = 1428679.00
ELEV. = 54.47

EXPLANATION

- Concrete Rubble on Beach (approximate extent)
- Metal Debris on Beach
- Photo-3 — Photograph Number and View Direction
- Interpreted Extent of Refuse - from GPS and EM Survey Data
- Refuse Mapped with GPS
- Refuse Items on Slope: C = concrete, M = Metal, G = Glass, A= Asphalt, B = Brick, S= Roofing Slate
- Sample Location - MACTEC, 2003
- Sample Location - by others (approximate location)
- 250 — Topographic Contour, Feet MLLW

N

0 20 40

SCALE IN FEET

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ENGINEER:	SCALE: check graphic		
CHECKED: RS	APPROVED: MG		
DATE: 6/7/06	DATE: 6-8-06		

MACTEC

Beach Debris and Sand Elevation Survey Results
Baker Beach Disturbed Area 2
Presidio of San Francisco

FIGURE G-3
SHEET: OF
REVISION NUMBER: 0
DATE: 5/05

FIGURE G-3.DWG 2005

Photo 1: ~ 9' x 9' concrete slab, Area 1

Photo 2: ~ 9' x 9' concrete slab, looking south

Photo 3: concrete block, Area 2a

Photo 4: large metal cylinder, Area 1

Photo 5: metal "slag", Area 1

Photo 6: vehicle drivetrain, Area 1

MACTEC

Significant Debris Items
Debris and Sand Investigation
Baker Beach Disturbed Areas 1 and 2A
Presidio of San Francisco

RS/ Mcy 6/7/12

Figure
G-4

Photo-7a: Debris Area 1, view towards south, with debris items highlighted (yellow = concrete & brick; red = metal

Photo-7b: Debris Area 1, view north, with debris items highlighted (yellow = concrete & brick; red = metal)

MACTEC

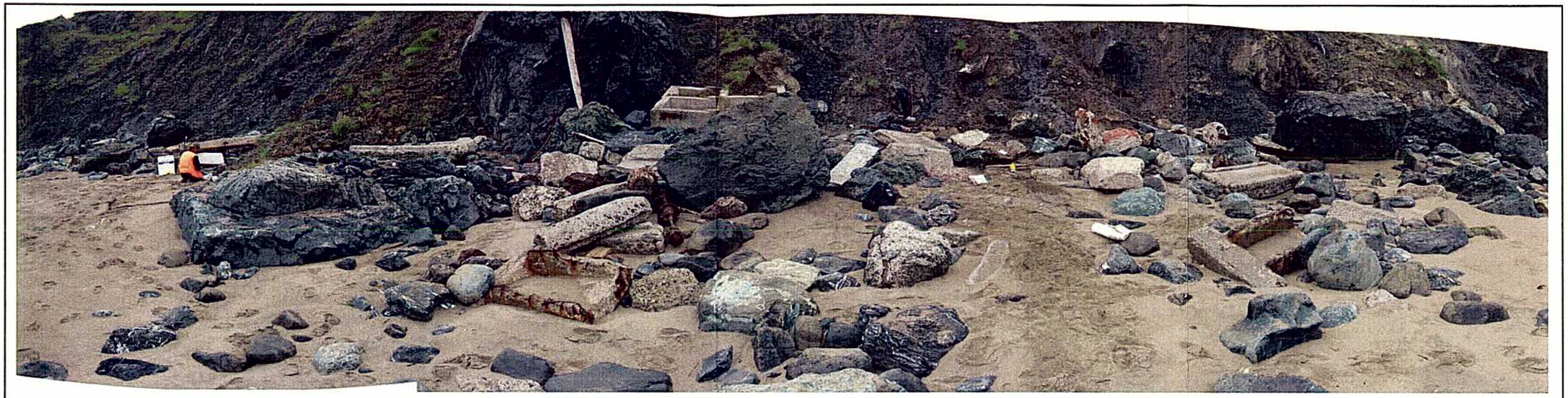
Debris Area 1, View from Above
Debris and Sand Investigation
Baker Beach Disturbed Areas 1 and 2a
Presidio of San Francisco
RS / MEJ 6/8/04

Figure
G-5

Ph-8: Debris Area 1, north section

Ph-8: As above, with debris items highlighted (yellow = concrete and brick; red = metal)

Debris Area 1, North Section **Debris and Sand Investigation** **Baker Beach Disturbed Areas 1 and 2a** **Presidio of San Francisco** RS / May 6/8/06	Figure **G-6**



P-7: Debris Area 1, middle section

P-7: As above, with debris items highlighted (yellow = concrete and brick; red = metal)

MACTEC

Debris Area 1, Middle Section Debris and Sand Investigation Baker Beach Disturbed Areas 1 and 2a Presidio of San Francisco RS/MAJ 6/9/06	Figure **G-7**

Ph-8: Debris Area 1, South Section

Ph-8: As above, with debris items highlighted (yellow = concrete and brick; red = metal)

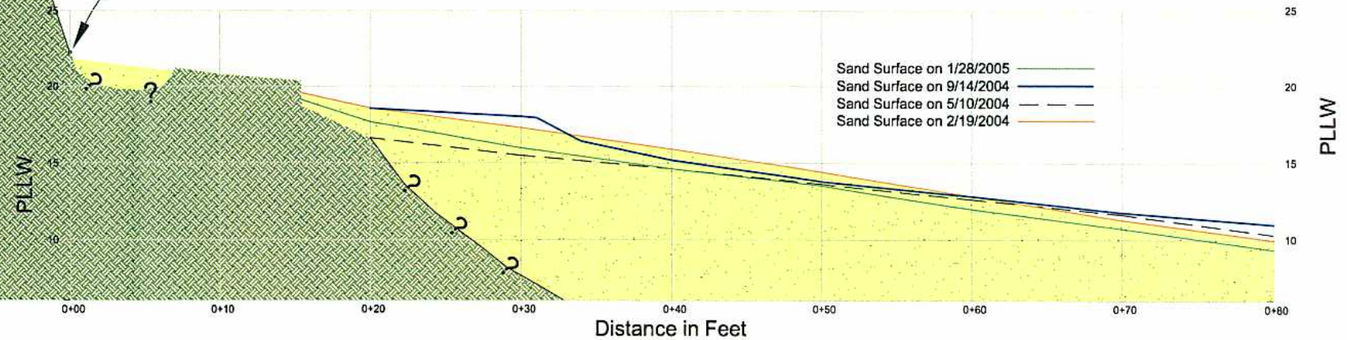
Debris Area 1, South Section North **Debris and Sand Investigation** **Baker Beach Disturbed Areas 1 and 2a** **Presidio of San Francisco** RS/Mag 6/11/04	Figure **G-8**

Point 517 (Hub)
Elev. = 45.79 ft PLLW
Chaudhary & Assoc.
2/27/2003

Point 512 (Hub)
Elev. = 54.69 ft PLLW
Chaudhary & Assoc.
2/27/2003

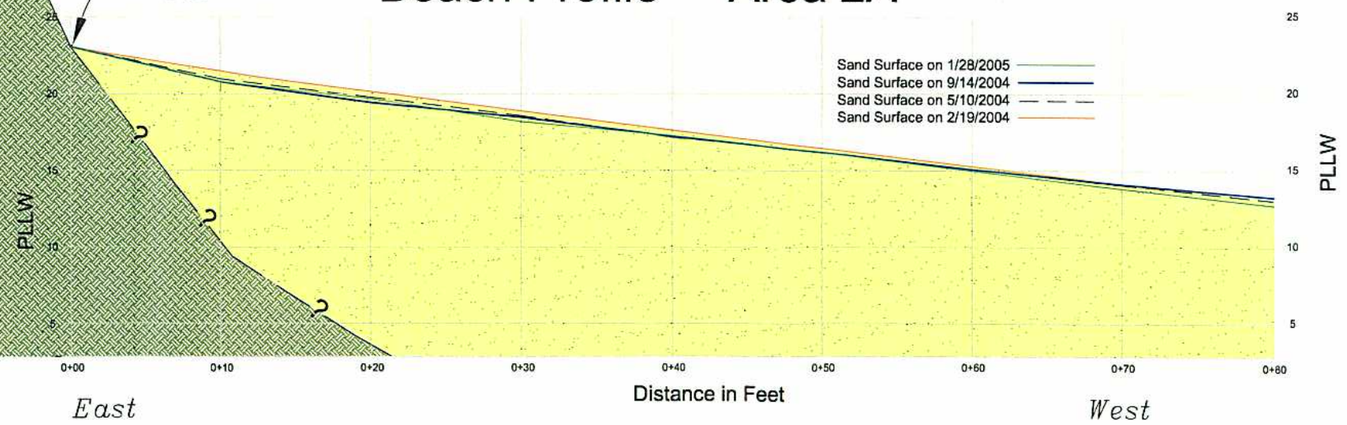
Set Nail
Elev. = 22.2 ft PLLW
MACTEC
2/19/04

Beach Profile - Area 1

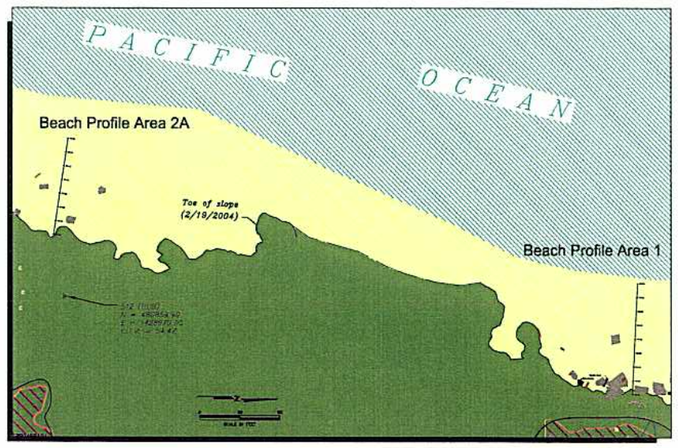


Set Nail
Elev. = 23.1 ft PLLW
MACTEC
2/19/04

Beach Profile - Area 2A



Location Map



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DATE: 6/7/04 | DATE: 6-8-04

MACTEC

Beach Debris and Sand Elevation Survey Results
Baker Beach Disturbed Areas 1 and 2A
Presidio of San Francisco

FIGURE G-9
SHEET: OF
REVISION NUMBER: 0
DATE: 5/05

FIGURE G-9.DWG 40.0

APPENDIX I

SELECTED PHOTOGRAPHS

BBDA Photos

BBDA Cultural Resources

Cultural resource trenching – Trench E

Hand excavation of entrance to Magazine 21

Trench 5 along top of Magazine 21

Trench 4 Archaeological excavation of Mortar barbette

Trench B and Trench 3

Trench 2

Trench B

Trench 3

Trench 2 adjacent to Magazine 27

Installing trench plates on Trench 3

BBDA Structural Inspection

SOHA engineering structural assessment of Magazine 21

SOHA Engineering fresh air circulation system

BBDA Hollow Stem Auger Drilling

BB2SB101 in Battery Godfrey parking lot

BBSB102 adjacent to Battery Marcus Miller on Bowman Rd.

BB1SB110 retrieving sampler

BBDA Geo Mapping

BBDA 2A within debris area

BBDA 2A

BBDA1 GPS mapping of test pits and piezometers

BBDA Limited Access Drilling

Cleared path for rig access to BBSB103

BBSB101 set up

BBSB103

BBSB103 driving sample

BBDA Test Pits

Debris Flow downslope of BB1BZ100

Drilling Piezometer BB1PZ100

BB1TP100 Driving Shelby Tube

Merchant Road test pits

Moving Spyder from BBDA2A to BBDA1 at low tide

Moving Spyder out of BBDA1

BB1PZ101 Piezometer Installation

BB2ATP104 retrieving Shelby Tube from test pit

Mobilizing Spyder from BBDA1

BBDA 1 Straw Placement for erosion control

BBDA 2A Straw for erosion control

Mobilizing Spyder into BBDA1

Test Pit BB1TP105

Test Pit BB1TP104

Test Pit BB1TP103

Test Pit BB2ATP103

BB2A moving Spyder up slope

Test Pit BB2ATP100

Test Pit BB2ATP106

APPENDIX J

GROUNDWATER SAMPLE FORMS AND SEEP CALCULATIONS

MACTEC
MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300
Petaluma, CA 94954

JOB NO. 57255 SHEET 1 OF 1
PHASE _____ TASK 005105
JOB NAME BBDA Field Investigation Report
BY Justin Hanzel-Durbin DATE 3/21/06
CHECKED BY May DATE 6-8-06

4/15/05
Field Observations 4-6 gpm at test pit BB1TP102
between 1149am & 1252pm the trench filled 3.5 ft high, with water
63min
bottom of trench,
- width = 1.5'
- height = 3.5'
- length = 10.0'

Volume = (1.5)(3.5)(10.0) = 52.5 ft^3

$$52.5\,ft^3 \left(\frac{7.48\,gal}{1\,ft^3}\right) = 392.7\,gal$$

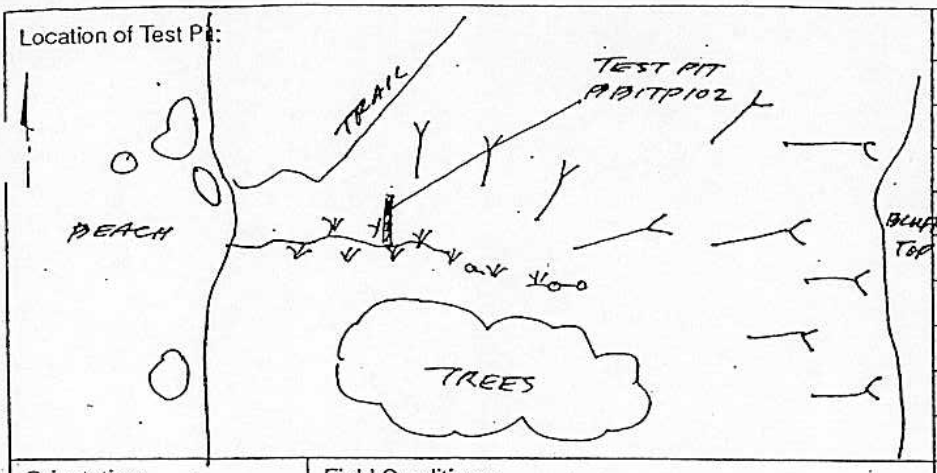
$$\text{flow rate} = \frac{\text{vol.}}{\text{time}} = \frac{392.7\,gal}{63\,min} = 6.23\,gpm$$

Seep zone is estimated to be 30' long, the trench only crossed 1/3 of the seep.

Total seep flow = 6.23 gpm (3) = **18.70 gpm**

HARDING LAWSON ASSOCIATES

Location of Test Pit:



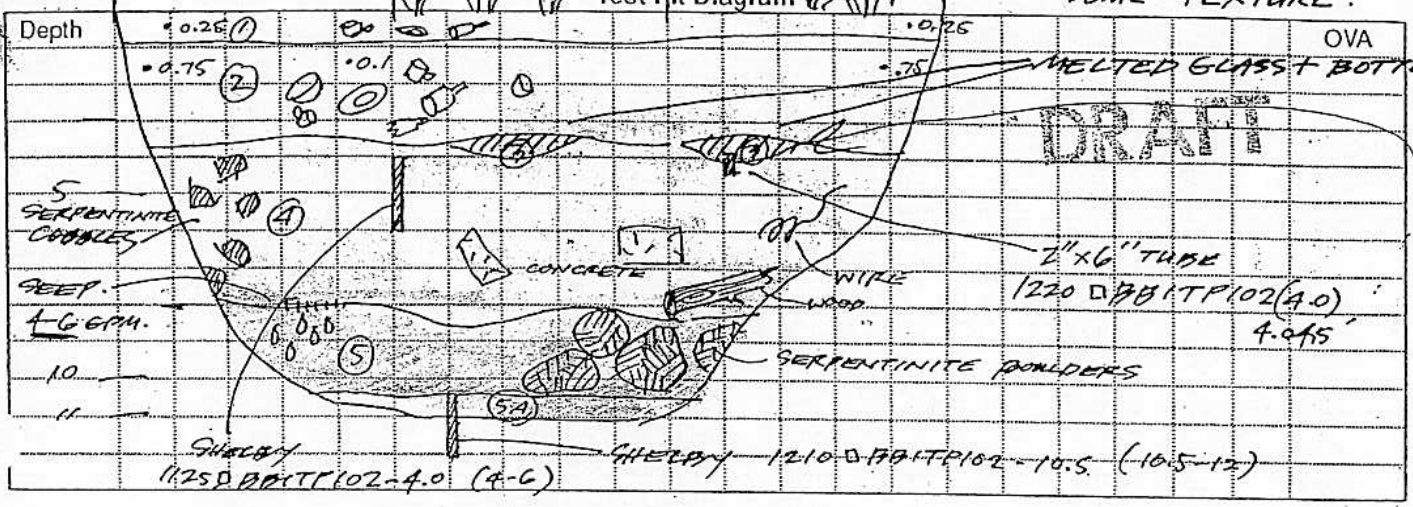
TEST PIT LOG	
Test Pit #:	BBITP102
Project Name:	PRES. SF - BBDA
Project #:	67255.005103
Proj. Mgr.:	M A JACOBVITZ
Started - Date:	4/15/05
Time:	1115
Backfilled - Date:	4/15/05
Time:	1300
Logged by:	A N HENKE
Edited by:	

Orientation:

Field Conditions:

(3) REPRESENT THIS WITH SOME TEXTURE.

Test Pit Diagram



Test Pit Descriptions

fw Description: (1) VERY DARK GREYISH BROWN SANDY SILT (ML) (10YR 3/2) SOFT. WET. 60% SILT. 40% SAND. ~~REFUSE~~ MOSTLY HOUSE HOLD REFUSE: CHINA, GLASS, BOTTLES. ~~SOME~~

lfw (2) DARK GREYISH BROWN GRAVELLY LEAN CLAY (CL) (2.5Y 4/2) SOFT. WET. 60% CLAY/FINES. 30% ANGULAR GRAVEL 10% SAND. SATURATED. FILLED WITH HOUSE HOLD WASTE SOME BLACKENED ZONES (3) SOME MELTED BOTTLES

fw (4) VERY DARK GREY CLAYEY GRAVEL (GC) (2.5Y 3/0) LOOSE. WET. 70% GRAVEL/SAND/DEBRIS 30% FINES.

jm (5) VERY DARK GREY MELANGE (Kjm) (2.5Y 3/0) MODERATELY CONSOLIDATED. MODERATELY FRACTURED. LOW TO MODERATE HARDNESS. WEAK TO FRIABLE. MODERATE TO DEEP WEATHERING. ~~LOOKS LIKE SATURATED RUBBLE FILL - BUT~~ NO WATER IS SEEPING FROM IT, SEEPS AT CONTACT WITH FILL ABOVE.

Sample Numbers:

jm Additional Information: (5A) ~~AS ABOVE~~ MELANGE WITH HOMOGENOUS TEXTURE ~~AND CLAY~~

23366 01723

mg 6-8-06

WHG

Sheet 1 of 1

CLEAN COPIES

Project: PRESIDIO SF-BBDI
Subject: FIELD INVESTIGATIO
Equipment Rental:
Equipment Hours: F.E. Time from

'A

'SC.
Job No.: 57255.005
Date: 5/27/05 - MON
To: G A LIEBERMAN
By: A H HENKE

(outside service and expense record must be attached for any outside costs)

0630 ONSITE. PREP PAPERWORK. QC FRI WORK. DRILLERS SET UP.
0650 PHONE CON: GAL - UPDATE ON FRI. ACTIVITIES. COC NEEDS CORRECTION
0705 WHG ONSITE. TRANSFER SAMPLES TO HHA. RELINQUISH COC
0800 BEGIN HAND AUGER BORING ~~BBSB106~~ BBSB115 ALONG X-SECT F-F'
0900 COMPLETE BORING TO 13'
0915 DEPART
1130 RETURN TO SITE. PKG ENVIRONMENTAL SAMPLE FROM BBSB106
1215 GPS BORINGS, RE-GPS TRENCH 2. WHG - GPS'D HAND AUGER BBSB116
1345 CALIB METERS pH ORION 250, SN 2140, STD 4,7. SLOPE 100.4.
EC YSI 33, SN 580, REDLINE. 1000@25°C KCl → 1000@24.5°C
TURB HACH 2100P SN 000 GELEX 0+0: 5.44, 10-100: 99.8, 100-1000: 486
1420 BBIPZ101 TD 12.5' BTOC, WL 4.50' BTOC TOC @ 2.7' AGS.
1445 1510 BAIL DRY @ 7 GAL
1450 BBIPZ100 TD 18.15' BTOC, WL 4.05' BTOC, TOC @ ~3.4' AGS
BAIL DRY @ 15 GAL
1540 RETURN TO BBIPZ101 - BAIL DRY @ 12 G TOTAL
1600 GPS BEACH SAND SAMP LOCATIONS
1615 RETURN TO BBIPZ101 - BAIL DRY @ 15 GAL TOTAL 11.5 VOL
1635 MOB EQUIPMENT UPSLOPE.
1700 DEPART SITE.

OUT OF SCOPE: ~~BBSB106~~ BBSB115 AND BBSB116 (HAND AUGER BORINGS)
VOC ADDED TO ANALYTE LIST FOR BBSB106.

Attachments:

Initial May 6-8-06

FF1

Harding Lawson Associates

Sheet 1 of 1

Project: PRESIDIO SF BBDA
Subject: FIELD INVESTIGATION DAILY REPORT
Equipment Rental: _____ Company: _____
Equipment Hours: _____ F.E. Time from _____ To: _____

Job No.: 57255 005103
Date: 5/27/05
To: GA LIEBERMAN
By: AH HENKE, JHD.

(outside service and expense record must be attached for any outside costs)

0930 CALIBRATE METERS
PH ORION 250 SN 2140, 4,7 STD. SLOPE 105.1
EC YSI 33 SN 500 1000 @ 25°C KCl → 850 @ 4°C
TURB HACH 2100P SN 000 GELEX: 5.33, 49.4, 475
0940 GATHER EQUIP / BOTTLES. HEAD DOWNSCOPE
0950 BBIPZ101 TD 12.5, WL 4.77, 2"Ø, PV = 7.8 GAL. BAIL 5 GAL
1020 ■ BBIPZ101 - ADDITIONAL ANALYTE DIOXINS/FURANS
1040 PACK SAMPLE ON ICE 1050 ■ TB-1 3 VOA
1105 RELINQUISH SAMPLES TO CT COURIER

OUT OF SCOPE - DIOXINS/FURANS ADDED
TO ANALYTE LIST.
- TRIP BLANK SUBMITTED.

Attachments:

Initial MAJ 6-8-06

Harding Lawson Associates

FYI : water levels at BBDA

Sheet 1 of 1

Project: PRESIDIO - SF - BBDA
Subject: FIELD INVESTIGATION DAILY REPORT
Equipment Rental: _____ Company: _____
Equipment Hours: _____ F.E. Time from _____ To: _____

Job No.: ~~55~~ 57255.005103
Date: 8/1/05
To: G A LIEBERMAN
By: A H HENKE

(outside service and expense record must be attached for any outside costs)

0730 ONSITE. MOB EQUIP / BOTTLES DOWNSLOPE.
0810 BBIPZ100 : WL 4.02' BTOC (TOC AT 2.8' AGS)
0820 BBIPZ101 : WL 5.32' BTOC (TOC AT 2.55' AGS)
0825 BAIL BBIPZ101 WITH DEDICATED POLY BAILER THAT HANGS IN WELL.
BBIPZ101 TD 12.5, WL 5.32, 2" ϕ, 1W = 3.5 GAL BAIL 5 GAL
0840 BBIPZ101. SAMPLE FOR METALS ONLY. 2 @ 500ml POLY - HNO_3. ONE FIELD FILT. 0.45μm FILTER - QED BRAND. PARAMETERS IN TRANSFER BOTTLES.
0855 CALIB METERS pH 2140 (ORION 250) 4,7 STD. SLOPE 100.4
EC YSI 33 (SN 580) 1000 @ 25°C KCl → 800 @ 17.5°C. S.C. = 984. TURB HACH 2100P (SN 000) GELEX STD. 5.04, 49.8, 514.
0930 RE-ASSEMBLE FENCE TAKEN DOWN DURING LIMITED ACCESS DRILLING.

Attachments:

Initial May 6-8-06

Harding Lawson Associates

MACTEC

GROUND-WATER SAMPLING FORM

MACTEC Engineering and Consulting
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954

Job Name 57255 005103
Job Number PRESIDIO SF - BDDA
Recorded by _____ (Signature)

Well No. BBIPZ101
Well Type: ☐ Monitor ☐ Extraction ☒ Other PIEZO
Well Material: ☒ PVC ☐ St. Steel ☐ Other _____
Date 8/1/05 Time 0840
Sampled by _____ (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): _____
Water Level Depth (WL in feet BTOC): _____
Number of Well Volumes to be purged (# Vols)
☒ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other _____

PURGE METHOD

☒ Bailer - Type: DISP. POLY
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in feet (BTOC): from _____ to _____

PURGE VOLUME CALCULATION

$(\underset{\text{TD (feet)}}{12.5} - \underset{\text{WL (feet)}}{5.32}) \times \underset{\text{D (inches)}}{2}^2 \times \underset{\text{\# Vols}}{7} \times 0.0408 = \underset{\text{Calculated Purge Volume}}{3.5}$ gallons

PURGE TIME

_____ Start _____ Stop _____ Elapsed

PURGE RATE

Initial _____ gpm Final _____ gpm

ACTUAL PURGE VOLUME

_____ gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
INITIAL	7.00	1750	14.1	34.7
2.5 GAL	7.23	1700	14.2	353
5 GAL	7.28	1700	14.2	71000

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other _____
Meter Nos.	2140	580	2140	006

Observations During Purging (Well Condition, Turbidity, Color, Odor): SILTY GREY. MILD SULFUR ODOR
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other SURFACE

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: DISP. POLY
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____

☐ Same As Above
☐ Grab - Type: _____
☐ Other - Type: _____

SAMPLE DISTRIBUTION

Sample Series: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
BBIPZ101	1@500mlP	DIS. METALS	HNO_3	C.T.	FIELD FILT *
↓	↓	TOT. METALS	↓		

* 0.45µm QED BRAND

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Maf
6-8-06

Project: PRESIDIO SF - BBDA
Job No.: 57255 005103 005117
Subject: FIELD INVESTIGATION DAILY REPORT
Date: 10/4/05
Equipment Rental: _____ Company: _____
To: G A LIEBERMAN
Equipment Hours: _____ F.E. Time from _____ To: _____
By: A H HENKE

(outside service and expense record must be attached for any outside costs)

0700 ONSITE. TP108 CONED OFF AND CLEAR. HOE ONSITE.
0715 ENRIQUE ONSITE. GGBD MOVING CARS + DEBRIS FROM TP 108 AREA. ENRIQUE MOVES HOE.
0730 MICHELLE ONSITE.
0800 VEHICLES MOVED. JIM ONSITE
0810 BEGIN BBITP108
0845 BBITP108(1.5) FILL
0915 BBITP108(6.0) NATIVE
GEORGE ONSITE. DISCUSS FILL MAT'L. EXTRA SAMPLES OF FILL WOULD BE GOOD. AT 107 + 108.
0930 BBITP108(7.0) FILL
0940 MOB BACKHOE TO BBITP107. DIG ADJACENT
0950 BBITP107(1.5) FILL
1000 RELINQUISH SAMPLES TO CT COURIER
1015 BACKFILL + COMPACT BBITP108 . WHACKER BACKFILL
1110 MOVE WEST - EXTENSION OF BBITP108
1115 BEGIN BBITP108 AUXILARY
1135 COMPLETE TEST PIT TO 8' - BACKFILL + COMPACT
1200 BEACH SAND SURVEY ARCHAEOLOGY COMPONENT - WALK AREAS 2A, 1 WITH MICHELLE
1235 WATER LEVELS BBIPZ101 5.03' BTOC
BBIPZ100 4.18' BTOC
1310 RETURN TO PARKING LOT.

Attachments:

Initial MG 6-8-06

FF1

Harding Lawson Associates

GROUND WATER SAMPLING FORM

Job Name: PRESIDIO SF - BBDA
Job Number: 57255
Recorded by: _____ (Signature)

Well No.: BBIPZ101
Well Type: ☒ Monitor ☐ Extraction ☐ Other _____
Well Material: ☒ PVC ☐ St. Steel ☐ Other _____
Date: 2/1/06 Time: _____
Sampled by: AHH, THD (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): _____
Water Level Depth (WL in feet BTOC): _____
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 Other _____

PURGE METHOD

☒ Bailer - Type: POLY
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION

$$\left(\frac{12.5}{\text{TD (feet)}} - \frac{4.67}{\text{WL (feet)}}\right) \times \frac{2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{3.8}{\text{Calculated Purge Volume}} \text{ gallons}$$

PURGE TIME

_____ Start _____ Stop _____ Elapsed

PURGE RATE

Initial _____ gpm Final _____ gpm

ACTUAL PURGE VOLUME

5 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
INITIAL	7.01	1506	12.0	71000
1 GAL	7.28	1500	12.3	204
2 GAL	7.50	1550	12.2	316
3 GAL	7.56	1600	12.4	509
4 GAL	7.57	1600	12.3	442

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
5 GAL	7.54	1600	12.5	518
Meter Nos.	2140	580	240	000

Observations During Purging (Well Condition, Turbidity, Color, Odor): GREY. SILTY. MILD SULFUR ODOR
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other SURFACE

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: POLY
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____

☐ Same As Above
☐ Grab - Type: _____
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
BBIPZ101	3 VOA	VOC	HCl	CT	MS/MSD
	2 VOA	TPH-g	HCl		
	2@1L AG	TPH-d,mo	4°C		
	↓	PAH	4°C		
	250ml P	TZZ METALS	HNO_3		TOTAL & DIS.
	~~1@1L AG~~	PEST/PCBS	4°C		
	1,1L P	TDS, Alk, Cations	4°C		
↓	250ml P	NO_2 + NO_3	H_2SO_4	↓	↓

QED BRAND 0.45µM FILTER

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

may 6-8-06

GROUND WATER SAMPLING FORM

Job Name PRESIDIO SF - BBDA
Job Number 57255
Recorded by _____ (Signature)

Well No. BB1PZ100
Well Type: ☒ Monitor ☐ Extraction ☐ Other _____
Well Material: ☐ PVC ☐ St. Steel ☐ Other _____
Date 2/1/06 Time _____
Sampled by AHH, JHD (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): _____
Water Level Depth (WL in feet BTOC): _____
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 Other _____

PURGE METHOD

☐ Bailer - Type: _____
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION

(18.15 (TD feet) - 3.48 (WL feet)) X 2 (D inches) ^{2} X 3 (# Vols) X 0.0408 = 7.2 gallons (Calculated Purge Volume)

PURGE TIME

_____ Start _____ Stop _____ Elapsed

PURGE RATE

Initial _____ gpm Final _____ gpm

ACTUAL PURGE VOLUME

5 gallons

FIELD PARAMETER MEASUREMENTS

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
INITIAL	8.06	1700	12.6	72.2
APPX 1 GAL	8.45	1550	12.6	171
2 GAL	8.61	1500	12.4	246
3 GAL	8.64	1500	12.8	180
4 GAL	8.65	1500	12.6	592

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
5 GAL	8.68	1500	13.0	460
Meter Nos.	2140	580	240	000

Observations During Purging (Well Condition, Turbidity, Color, Odor): SILTY GREY - MILD SULFUR ODOR
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other SURFACE

WELL SAMPLING

SAMPLING METHOD

☐ Same As Above
☒ Bailer - Type: POLY
☐ Grab - Type: _____
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
~~BB~~BB1PZ100	3 VOA	VOC	HCl	CT	
	2 VOA	TPH-g	HCl		
	2@1L AG	TPH-d, mo	4°C		
	↓	PAH	4°C		
	250ml P	T22 METALS	HNO_3		TOTAL & DIS.
	~~4~~@1L AG	PEST/PCBS	4°C		
	1,1L P	TDS, ALK, Cations	4°C		
	250ml P	NO_2 + NO_3	H_2SO_4	↓	

GED BRAND 0.45µm FILT.

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.
BB1PZ100	DUP(020106)

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

MGJ 6-8-06

GROUND WATER SAMPLING FORM

Job Name PRESIDIO SF – BBDA
Job Number 57255
Recorded by _____ (Signature)

Well No. BB2ASW100
Well Type: ☐ Monitor ☐ Extraction ☒ Other SEEP
Well Material: ☐ PVC ☐ St. Steel ☐ Other _____
Date 2/1/06 Time _____
Sampled by AHH, JHD (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): _____
Water Level Depth (WL in feet BTOC): _____
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 Other _____

PURGE METHOD

☐ Bailer - Type: _____
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☐ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION

$$\left(\underset{\text{TD (feet)}}{____} - \underset{\text{WL (feet)}}{____}\right) \times \underset{\text{D (inches)}}{____} \times \underset{\text{\# Vols}}{____} \times 0.0408 = \underset{\text{Calculated Purge Volume}}{____} \text{ gallons}$$

PURGE TIME

_____ Start _____ Stop _____ Elapsed

PURGE RATE

Initial _____ gpm Final _____ gpm

ACTUAL PURGE VOLUME

_____ gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other TURB
INITIAL	8.77	1500	15.7	71000

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other _____
Meter Nos.	2140	580	240	000

Observations During Purging (Well Condition, Turbidity, Color, Odor): SILTY GREY.

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other SURFACE

WELL SAMPLING

SAMPLING METHOD

☐ Bailer - Type: _____
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____

☐ Same As Above
☒ Grab - Type: COLLECTED FROM SURFACE DISCHARGE. FILTERED THROUGH POLY BAILER WITH QED 0.45µm FILT.
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
BB2ASW100	7 VOA	VOC	HCl	CT	
	2 VOA	TPH-g	HCl		
	2@1L AG	TPH-d, mo	4°C		
	V	PAH	4°C		
	250ml P	TTLC METALS	HNO_3		TOTAL & DIS.
	~~4@1L AG~~	PEST/PCBS	4°C		
	1,1L P	TDS, ALK, Cations	4°C		
	250ml P	NO_2 + NO_3	H_2SO_4		

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

MJ 6-8-06

APPENDIX K

MERCHANT ROAD REALIGNMENT GEOTECHNICAL INVESTIGATIONS

MACTEC

May 25, 2005

57255 008

Mr. George Ford
The Presidio Trust
1750 Lincoln Boulevard
P.O. Box 29052
San Francisco, California 94129-0052

Merchant Road Realignment
Geotechnical Investigations
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
Presidio of San Francisco, California

Dear Mr. Ford:

MACTEC Engineering & Consulting, Inc. (MACTEC) is pleased to submit the results of our geotechnical investigations to support design of the realignment of Merchant Road as part of the Baker Beach Disturbed Areas 1, 1A, 2 and 2A (BBDA 1, 2, 1A, and 2A) remedial design.

Background

As part of selected remediation action for the BBDA 1, 2, 1A, and 2A, portions of Merchant Road will be realigned in the vicinity of Battery Boutelle, as shown on the location map, Figure 1. The purpose of the investigations described in this letter are to obtain subsurface information for our geotechnical engineers and engineers with the Golden Gate Bridge and Transportation District (GGBTD) to support grading and pavement design. The realignment will include cuts and fills along a curved stretch of roadway between the existing Merchant Road and its intersection with Storey Avenue and Lincoln Boulevard. A paved parking lot for the GGBTD is planned along the western edge of Merchant Road, as shown on Figure 2. This report presents test pit logs, laboratory testing and the results of our infiltration studies for the new parking lot. A discussion of each of these tasks follows.

Exploratory Test Pits

As part of the realignment of Merchant Road, 3 exploratory test pits were excavated along the centerline of the realignment as shown on Plate 1. The test pit locations were marked in the field and surveyed with GPS. Nesting bird surveys were conducted and utility clearances obtained prior to excavation. The excavations were performed with a backhoe provided by EERG using a backhoe shared with the concurrent cultural resource work near Battery Boutelle. An additional test pit was excavated for an infiltration test as discussed later in this letter.

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300 • Petaluma, CA 94954
707-793-3800 • Fax: 707-793-3900

Excavation was completed on May 6, 2005. The test pits ranged in depth from 5 to 6 feet. The test pits were backfilled and wheelrolled with the backhoe equipment. The test pits were logged by our field geologist using the Unified Soil Classification System (USCS). The materials encountered are described on the test pit logs provided in Appendix A. Selected bulk samples were collected of subgrade soils for laboratory testing.

Laboratory Testing was performed by RGH Geotechnical of Santa Rosa on 2 bulk samples. The bulk samples included soils from Test Pit A and a combined sample from similar soil horizons in test pit B and C. Analysis included R-value in conformance with Caltrans test method 301. The results of the analysis are provided in Appendix B

Percolation Testing

A field infiltration test was performed at a location identified as IT-1 (see figure 1) to estimate infiltration rates for the subsurface materials at the test location. Testing was performed in general accordance with procedures for infiltration testing using ASTM Method D 3385-03, "Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer." A description of the testing procedure and the results of the test are presented in Appendix B.

We trust that this letter meets your needs by describing the work and results of this investigation. We understand that the results of the infiltration test will be forwarded to the GGBTD via the NPS. If you have any questions, please call Michael Jacobvitz at (707) 793-3853

It has been a pleasure to be of professional service to you. Please call if you have any questions or if we can be of further assistance.

Sincerely,

MACTEC Engineering and Consulting Inc.

William Godwin
Senior Engineering Geologist CEG 2199

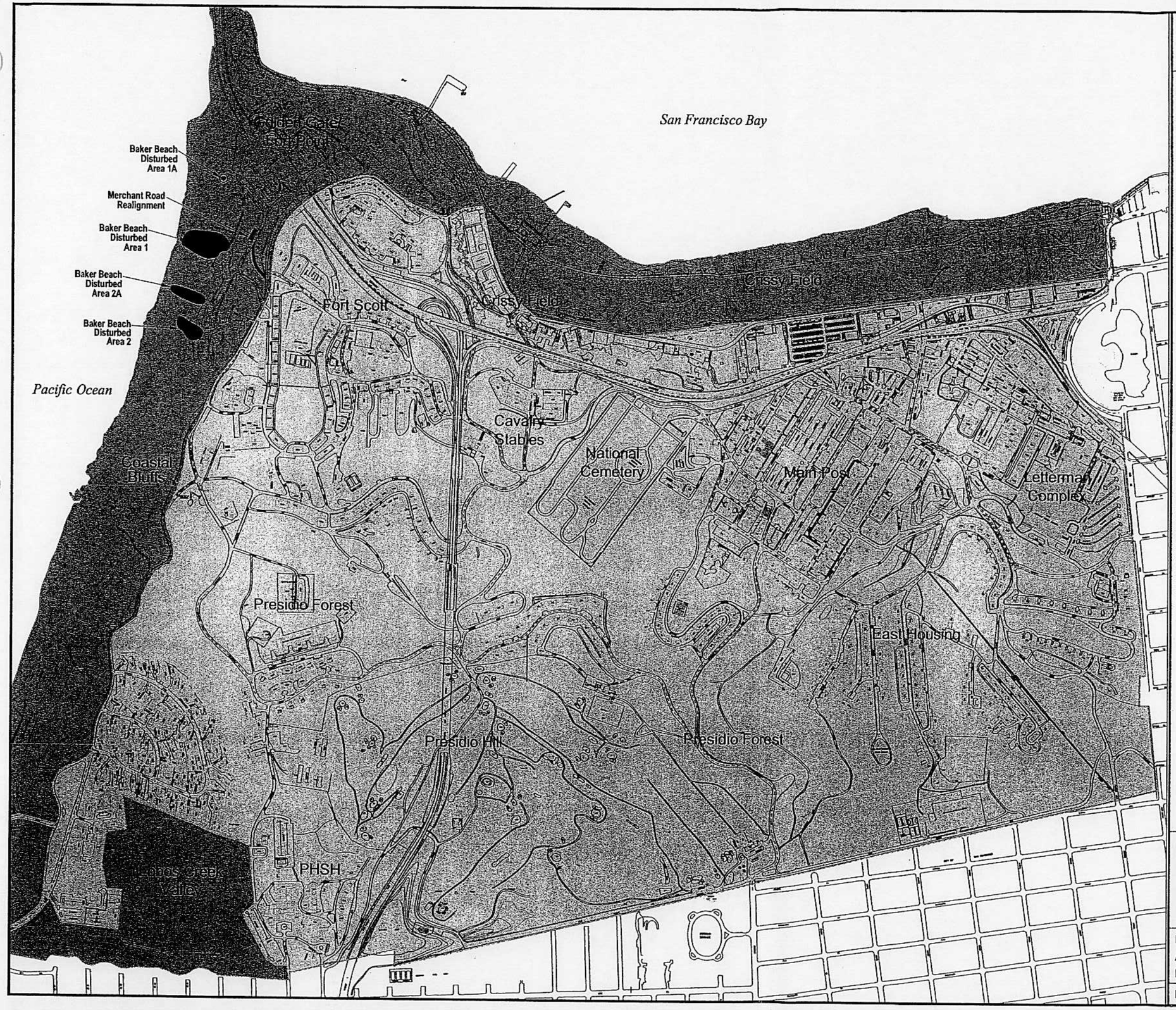
Michael Jacobvitz
Senior Principal Hydrogeologist PG 5340

WG/mlb:MB61225_Merchant Rd.doc-POSF

Attachments:

Figures 1 – Location Map
Figures 2 – Exploration Test Pits
Appendix A - Merchant Road Realignment
Appendix B - Infiltration Test Results

FIGURES



MACTEC

LEGEND

GMPA Planning Area Boundary

Designation of Areas A and B

Area A - Stewardship by the National Park Service

Area B - Stewardship by the Presidio Trust

Notes:

1. All locations are approximate.
2. Basemap developed from site plan provided by the Presidio Trust.
3. PHSH is the Public Health Service Hospital.

N

0 900 1800

Approximate Scale in Feet

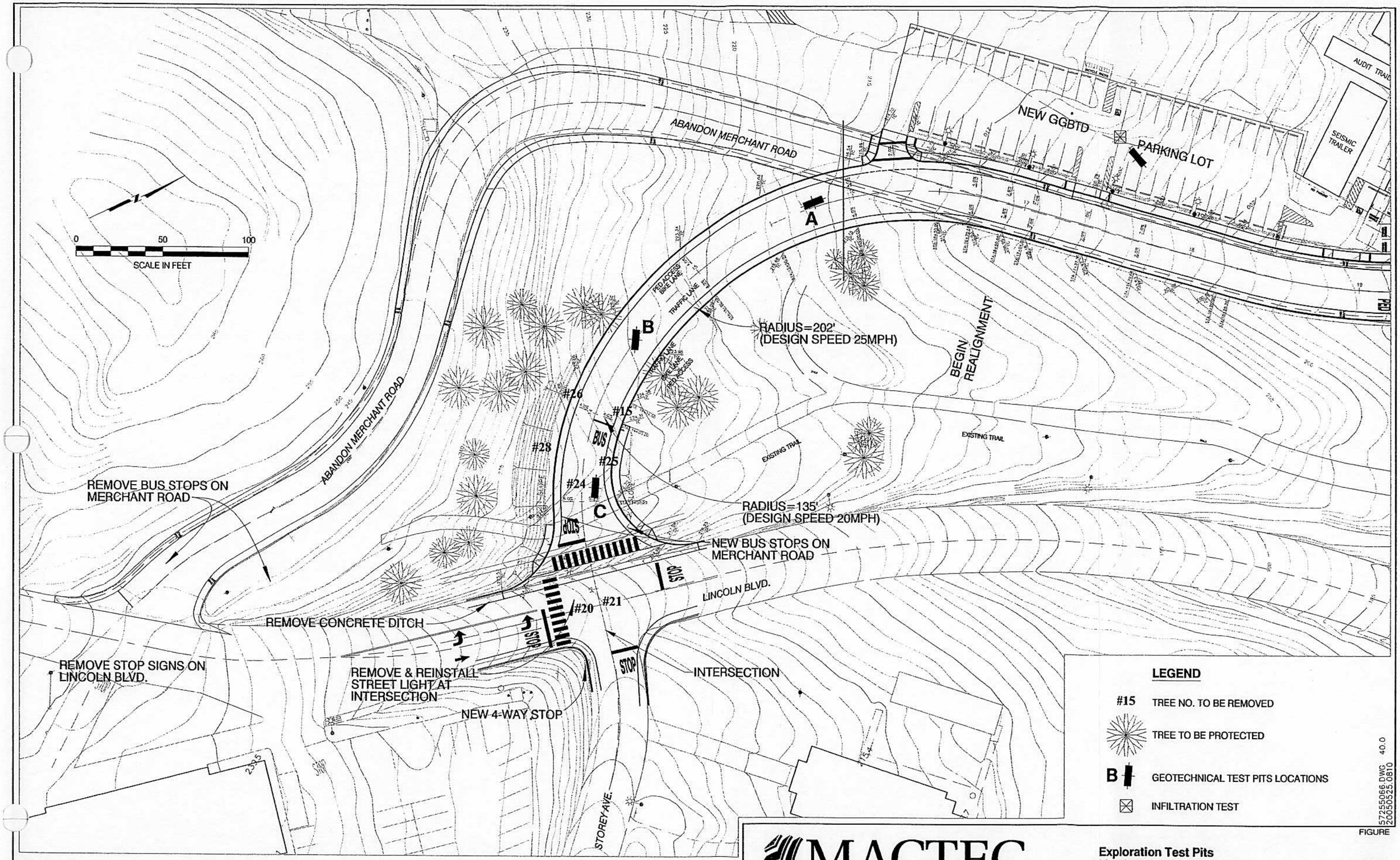
Figure modified from Main Installation Sites Feasibility Study (EKI, 2003). All locations are approximate.

Site Location Map
Presidio of San Francisco
San Francisco, California

THE PRESIDIO TRUST

DRAWN	BJV	FIGURE	1
APPROVED			
DATE	05/24/05		
PROJECT NUMBER	57255 008133		

57255 FIGURE 1 SITE LOCATION MAP.DWG 1.0
20050523:1109



FIGURE

NOTES:
REFERENCED GEOMETRIC DESIGN STANDARDS ARE FROM THE "PARK ROAD STANDARDS" DATED 7-18-84 BY THE U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARKS SERVICE AND "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2001" BY THE AMERICAN ASSOC. OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

MACTEC

Exploration Test Pits
Merchant Road Realignment
Presidio of San Francisco
San Francisco, California

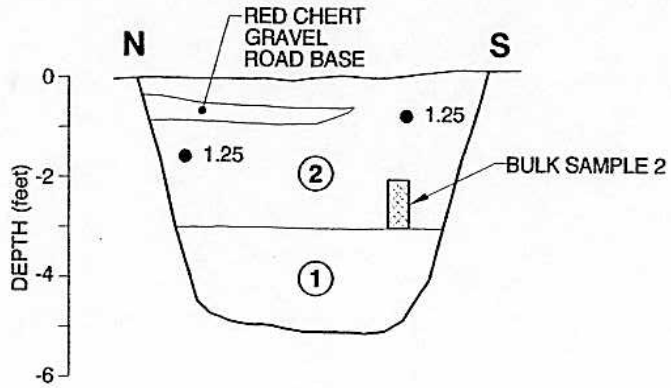
2

DRAWN	JOB NUMBER	CHECKED	CHK'D DATE	APPROVED	APPR'D DATE
CN	57255 008133		05/24/05		

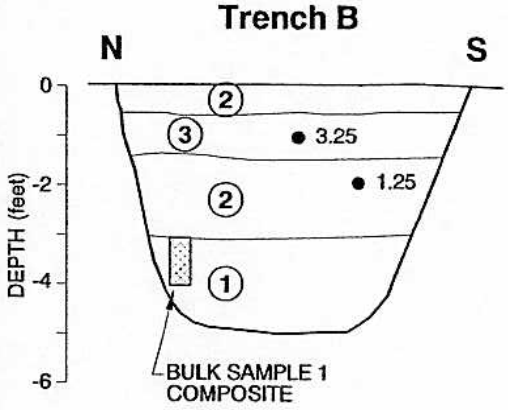
APPENDIX A

Merchant Road Realignment

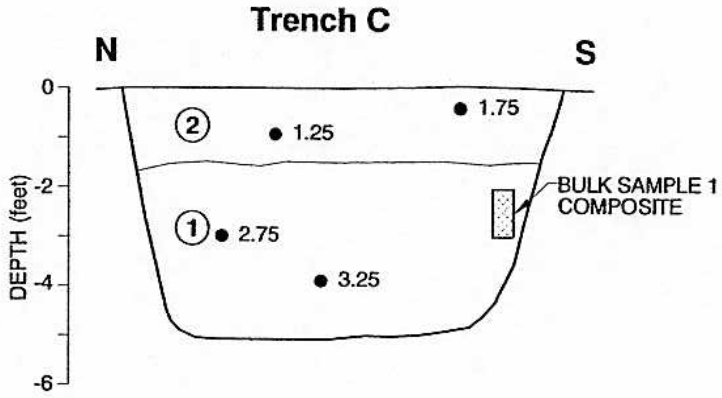
Trench A



Trench B



Trench C



1" = 4'
HORIZONTAL : VERTICAL SCALE

EXPLANATION

3.25 ● POCKET PENETROMETER IN TONS/SQUARE FOOT

(1) DARK YELLOWISH BROWN SANDY LEAN CLAY (CL) (10YR 4/4)
Firm to hard, moist, 70% clay/fines, 30% very fine sand, some iron oxide mottle and black oxide along fractures (Native)

(2) VERY DARK GRAYISH BROWN SILTY SAND (SM) (10YR 3/2)
Firm, moist, 80% silt/fines, 20% very fine sand with quartz sparkle (Fill)

(3) MIXED FILL, COMBINATION OF 2 ABOVE AND BELOW

57255057.DWG 0.0
20050523.1026

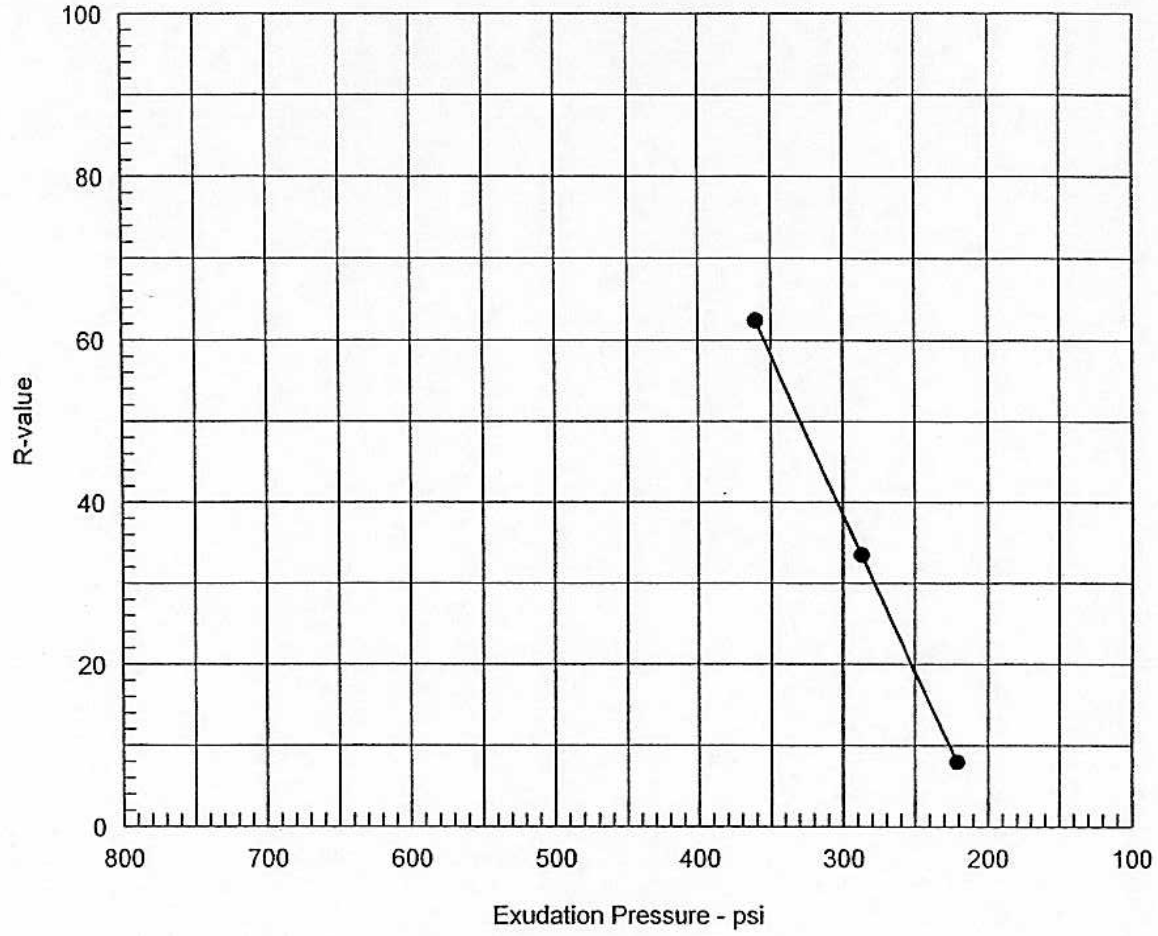
MACTEC

Test Pit Logs
Merchant Road
Presidio of San Francisco
San Francisco, California

FIGURE
A-1

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APPRV'D DATE
CN	57255 008133		05/24/05		

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psf	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	125.5	12.0	0	43	2.45	360	62	62
2	350	126.8	13.0	0	84	2.46	287	33	33
3	300	122.9	14.2	0	136	2.51	221	8	8

Test Results	Material Description
R-value at 300 psi exudation pressure = 38	Brown Silty Sand (SM)

Project No.: 57255.005102
Project: Presidio Sf BBDA1
Source of Sample: Bulk A **Depth:** 0.0'
Date: 5/12/2005

Tested by: GEF
Checked by: TMc
Remarks:

5/24/05

R-VALUE TEST REPORT

RGH CONSULTANTS, INC.

Plate A-2

RESISTANCE R-VALUE TESTING RESULTS
(Cal Test 301)

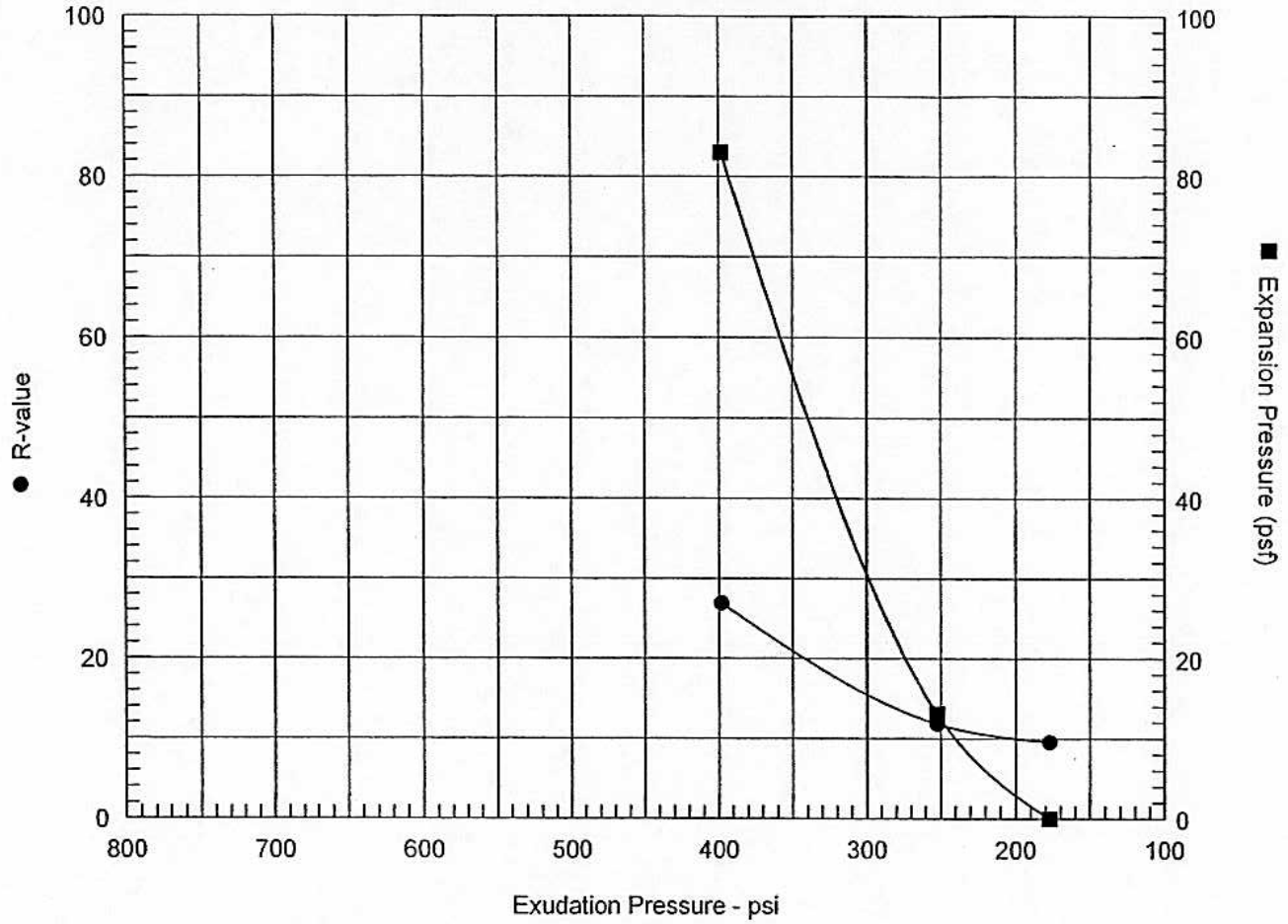
Date:	5/12/2005
Project No.:	57255.005102
Project:	Presidio Sf BBDA1
Location:	Bulk A
Depth:	0.0'
Material Description:	Brown Silty Sand (SM)
Tested by:	GEF
Checked by:	TMc
Remarks:	✓ 5/24/05

Test specimen number	1	2	3
Compaction pressure (psi):	350	350	300
Wet weight (gms):	654.8	741.1	747.2
Dry weight (gms):	595.1	667.6	666.8
Tare weight (gms):	98.8	100.1	101.3
% Moisture	12.0	13.0	14.2
Exudation load (lbs.):	4530	3610	2780
Exudation pressure (psi):	360	287	221
Total weight (gms.):	3234.0	3276.0	3278.0
Mold weight (gms.):	2098.0	2114.0	2116.0
Sample weight (gms.):	1136.0	1162.0	1162.0
Initial expansion (x10,000):	0	0	0
Final expansion (x10,000):	0	0	0
Expansion pressure (psf):	0	0	0
Ph at 2000 lbs.:	43	84	136
D turns:	4.10	4.50	5.10
R:	62	33	8
Height (in.):	2.45	2.46	2.51
Dry density (pcf):	125.5	126.8	122.9
Corrected R:	62	33	8

R-Value at 300 psi exudation pressure = 38

Expansion pressure at 300 psi = n/a psf

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psf	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	130	113.8	16.6	13	130	2.52	252	12	12
2	100	110.7	17.9	0	133	2.46	177	10	10
3	280	117.6	15.4	83	100	2.40	398	29	27

Test Results	Material Description
R-value at 300 psi exudation pressure = 15 **Exp. pressure at 300 psi exudation pressure** = 31 psf	Red Brown Sandy Lean Clay (CL)

Project No.: 57255.005102
Project: Presidio Sf BBDA1
Source of Sample: Bulks B and C **Depth:** 0.0'
Date: 5/12/2005

Tested by: GEF
Checked by: TMc
Remarks:

5/24/05

R-VALUE TEST REPORT

RGH CONSULTANTS, INC.

Plate A-3

RESISTANCE R-VALUE TESTING RESULTS
(Cal Test 301)

Date:	5/12/2005
Project No.:	57255.005102
Project:	Presidio Sf BBDA1
Location:	Bulks B and C
Depth:	0.0'
Material Description:	Red Brown Sandy Lean Clay (CL)
Tested by:	GEF
Checked by:	TMc
Remarks:	✓ W Gorian 5/24/05

Test specimen number	**1**	**2**	**3**
Compaction pressure (psi):	130	100	280
Wet weight (gms):	666.0	706.4	685.0
Dry weight (gms):	585.7	614.5	607.3
Tare weight (gms):	102.9	100.6	101.7
% Moisture:	16.6	17.9	15.4
Exudation load (lbs.):	3170	2230	5000
Exudation pressure (psi):	252	177	398
Total weight (gms.):	3115.0	3070.0	3086.0
Mold weight (gms.):	2012.0	2011.0	2012.0
Sample weight (gms.):	1103.0	1059.0	1074.0
Initial expansion (x10,000):	0	0	0
Final expansion (x10,000):	3	0	19
Expansion pressure (psf):	13	0	83
Ph at 2000 lbs.:	130	133	100
D turns:	4.30	4.80	3.70
R:	12	10	29
Height (in.):	2.52	2.46	2.40
Dry density (pcf):	113.8	110.7	117.6
Corrected R:	12	10	27

R-Value at 300 psi exudation pressure = 15

Expansion pressure at 300 psi = 31 psf

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1409

Samplers: A. H. HENKE

Lab: RGH

Job Number: 57255 005102

Name/Location: PRESIDIO SF - BLDG 1

Project Manager: M. A. JACOBVITZ Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED			
Soil	Air		Unpres.	H2SO4	HNO3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH	SAVE (-200)	HYDROMETER	ATTERBERGS	R VALUE
✓			✓					TRENCH	4 (6.0)	05	05	05	1230	SERPENTINITE-DERIVED CLAY	6'	✓	✓	✓	
✓			✓					TRENCH	4 (4.5)	05	05	05	1240	"COLMA" CLAY	4.5'	✓	✓	✓	
✓			✓					BULK	SOIL B,C	05	05	06	1340	MERCHANT RD TEST PIT B,C	2',3'				✓
✓			✓					BULK	SOIL A	05	05	06	1400	MERCHANT RD. TEST PIT A	2'				✓

ADDITIONAL INFORMATION

SAMPLE NUMBER YR	SAMPLE NUMBER SEQ	TURNAROUND TIME/ REMARKS

CHAIN OF CUSTODY RECORD

	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	A. H. HENKE	MACTEC	5/8/05 1900
Received By (Signature)	William Godwin	MACTEC	5/8/05 1905
Relinquished By (Signature)	William Godwin	MACTEC	5/9/05 9:15
Received By (Signature)	Joe Phelby	MACTEC	5/9/05 9:15
Relinquished By (Signature)	Joe Phelby	MACTEC	5/9/05 2:40
Received By (Signature)	[illegible]	RGH	5/9/05 2:40

Method of Shipment:

F1008-R (5/04)

Laboratory Copy (White) Project Office Copy (Yellow) Field or Office Copy (Pink)

APPENDIX B

Infiltration Test Results

Double-Ring Infiltrometer Test Procedure

At the infiltration test location site an 8" pad was cut then the inner and outer infiltrometer rings were driven using a backhoe. The inner and outer infiltrometer rings were driven 2 and 6 inches respectively. Separate water supplies were provided for the inner and outer infiltrometer rings in containers of known volume. The water source was from a nearby fire hydrant on Presidio Trust property. At the start of the test, water was introduced into the inner ring and annular space (outer ring). The water level was established at the same depth in both rings and was maintained at a constant level using float control valves throughout the test. The amount of water used from each container was measured and recorded at time intervals based on the observed infiltration rate.

The equipment for the infiltration test was set up on the morning of May 12, 2005, and the test started that afternoon at 1:03 pm. The infiltration test site was 17 feet upslope and south of the test pit location. The weather during the test was cool and windy with a west wind, clear skies at the start of the test but overcast by 5:00 pm that afternoon and throughout the remainder of the test. The container supplying the water to the inner ring was covered to minimize errors due to evaporation. The infiltration test concluded at 1:30 pm the following day on May 13, 2005.

Test Results

The results of the field test program are presented in Table 1 and Figure B-2 and are summarized below. The soil at the infiltration test site at the top of the cut pad (8" below ground surface) per the unified soil classification system ASTM D2488-93 is described as a mottled yellowish brown to dark grayish brown clayey sand (SC) 10YR 5/6 to 10YR 4/2, dry, very hard, 55% sand, 40% fines, and 5% gravel (fill). A backhoe was used the bucket to pound the inner and outer rings into the cut surface. Manually driving the rings with a sledgehammer was ineffective. A log of a test pit adjacent to the infiltration test is provided (Figure B-1). Infiltration rates in general were low and required long time intervals between readings.

SUMMARY OF INFILTROMETER TESTING	
TEST	INFILTRATION RATE (IN/HOUR)
IT-1	0.03

Table 1: Double Ring Infiltrometer Test Data Sheet
Baker Beach Distrubed Areas
Presidio of San Francisco, California

Baker Beach Disturbed Areas — May 12 & 13, 2005
Job Number: 57255 -008103. 008113, 008123, 008133

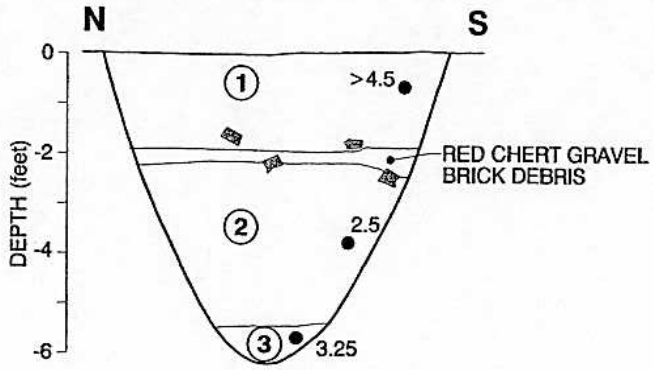
Double Ring Infiltrometer Test Data Sheet

		Area (in2)	Depth of Liquid (in)	Liquid Containers Volume/dH (in3/in)
Test Location IT-1	**Constants**			
Water Source: Fire hydrant	**Inner Ring**	111.2	12 3/4	397.61
Tested by: James Newman	**Annular Space**	289.2	12 3/4	397.61
Depth to water table:	Liquid Level maintained using: Float valve			
	Penetration of Rings: inner (2"), outer (6")			

Calculation of Infiltration rate v. time

					Inner Ring		Annular Space		Incremental Infiltration		
Trial		Time	Time elapsed (min)	Decimal hours	Reading (in)	Flow (in3)	Reading (in)	Flow (in3)	Inner	Annular	Comments
1	start	1303			1 5/8		7/8				Filling outer ring
	end	1315			1 5/8	0	10 1/4	3727.6			adjusting valve
2	start	1337			1 5/8		10 1/4				Filling inner ring
	end	1349			5	1227.2	10 1/4	0			adjusting valve
3	start	1349	0	0.00	5		10 1/4				
	end	1404	15	0.25	5 3/8	149.1	10 3/4	198.8	5.36	2.75	
4	start	1404	15	0.25	5 3/8		10 3/4				very slow infiltration
	end	1700	191	3.18	5 7/16	24.8	10 7/8	49.7	0.08	0.06	overcast and windy
5	start	1700	191	3.18	5 7/16		10 7/8				
	end	0700	1031	17.18	5 11/16	99.4	11 3/8	198.8	0.06	0.05	13-May-05
6	start	0700	1031	17.18	5 11/16		11 3/8				
	end	1330	1421	23.68	5 3/4	24.8	11 5/8	99.4	0.03	0.05	

Checked
Approved



1" = 4'
HORIZONTAL : VERTICAL SCALE

EXPLANATION

>4.5 ● POCKET PENETROMETER IN TONS/SQUARE FOOT

(1) YELLOWISH BROWN SAND YSILT (ML) (10YR 5/4)
Hard, dry, 70% silt/fines, 30% very fine sand (Fill)

(2) VERY DARK BROWN SILT WITH SAND (ML) (10YR 2/2)
Firm to hard, moist, 80% silt, 20% very fine sand with quartz (Native)

(3) YELLOWISH BROWN LEAN CLAY (CL) (10YR 5/4)
Hard, moist, 90% clay, 10% very fine sand, iron oxide mottle and black oxides on fractures (Native)

57255068.DWG 0.0
20050525.0819

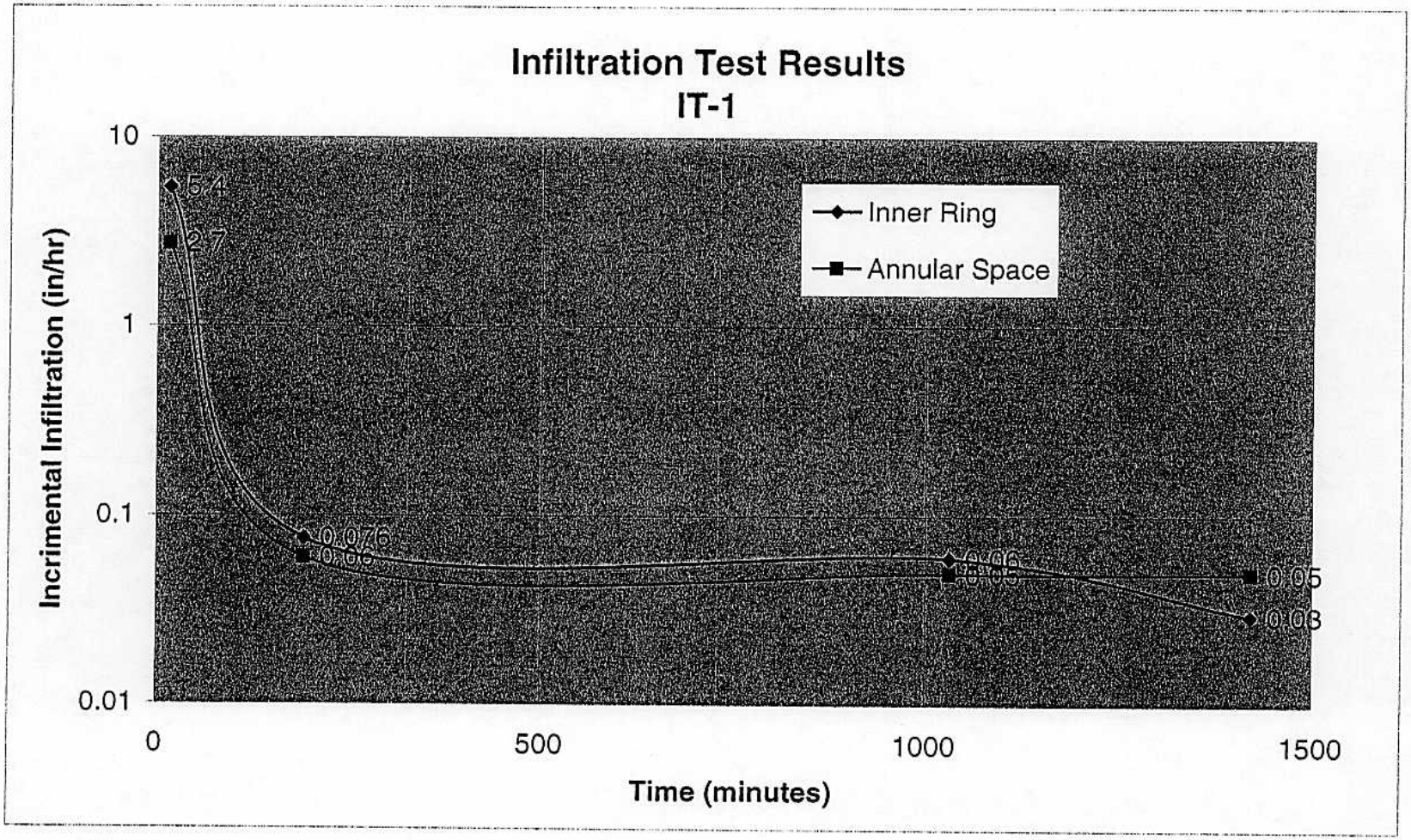
MACTEC

Infiltration Test Pit Log
Merchant Road
Presidio of San Francisco
San Franciso, California

FIGURE
B-1

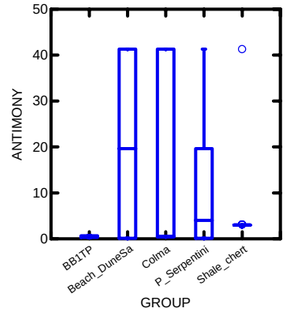
DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APPRV'D DATE
CN	57255 008133		05/24/05		

FIGURE B-2


Infiltration Test Results
IT-1
Incrimental Infiltration (in/hr)
10
1
0.1
0.01
0
500
1000
1500
Time (minutes)
Inner Ring
Annular Space
5.4
2.7
0.076
0.06
0.06
0.05
0.05
0.03

APPENDIX L

SCATTER PLOTS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Colma
P_Serpentini
Shale_chert
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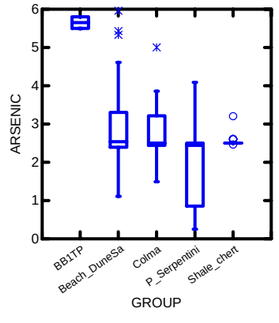
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Beach_DuneSa
Colma
P_Serpentini
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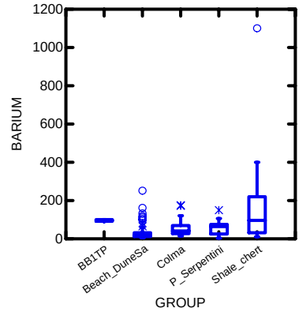
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Beach_DuneSa
Colma
P_Serpentini
Shale_chert
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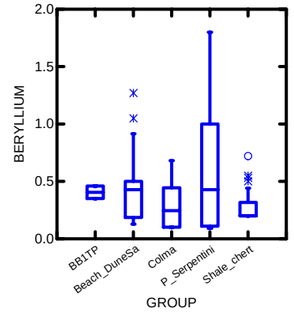
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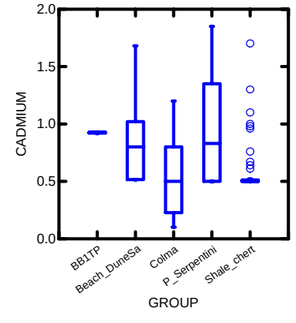
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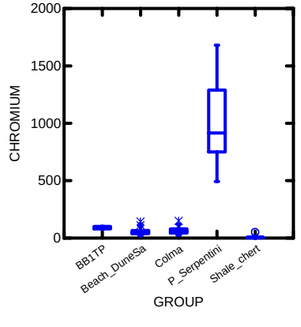
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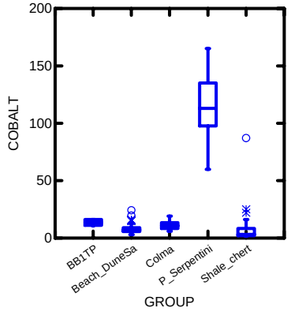
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P_Serpentini
Shale_chert
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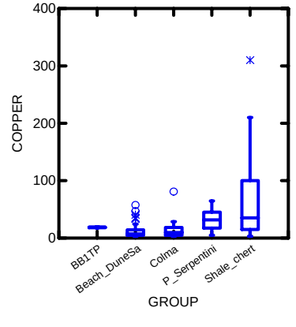
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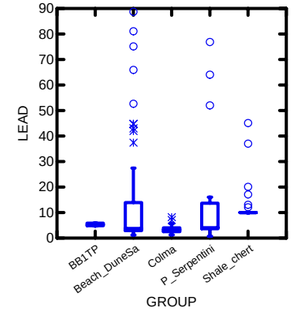
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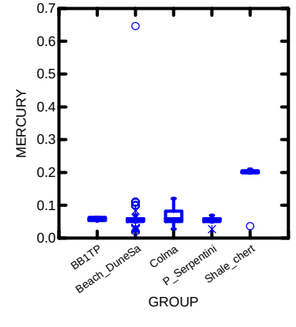
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P_Serpentini
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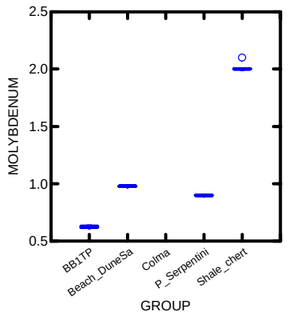
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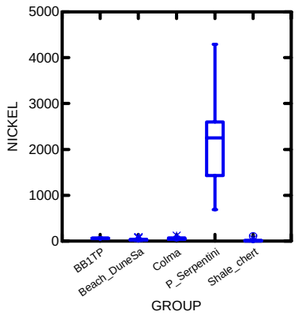
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P_Serpentini
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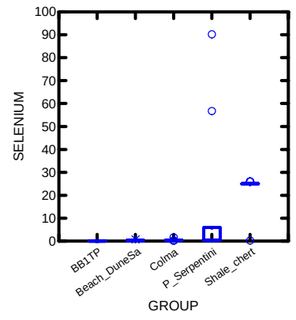
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Beach_DuneSa
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Shale_chert
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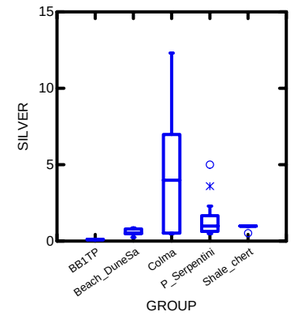
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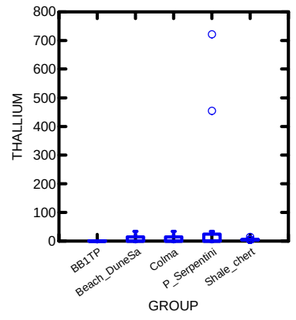
BB1TP
Beach_DuneSa
Colma
P_Serpentini
Shale_chert
GROUP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BB1TP
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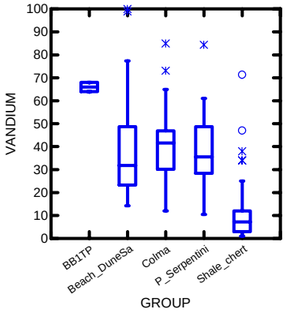
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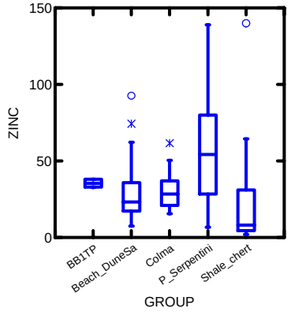
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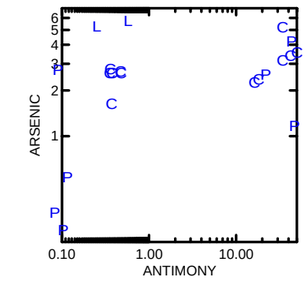
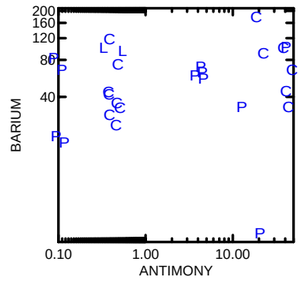
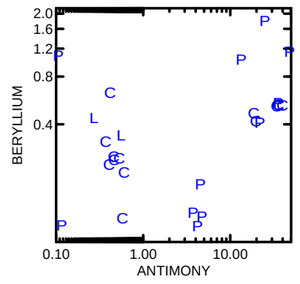
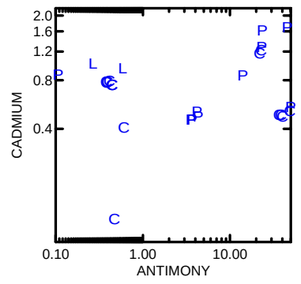
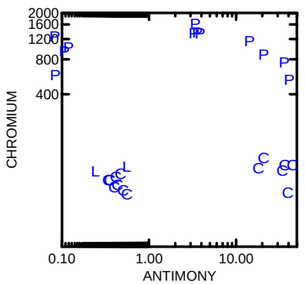
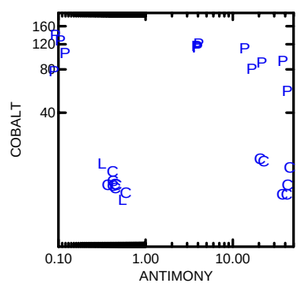


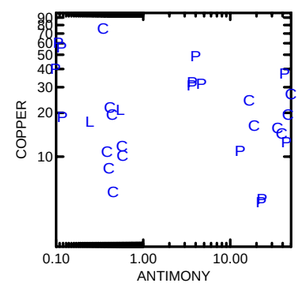


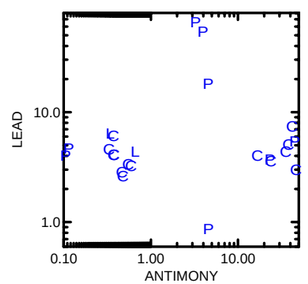


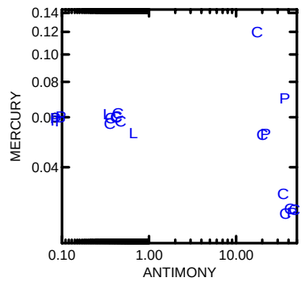


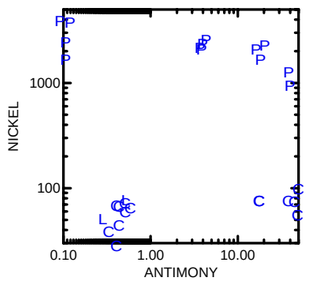


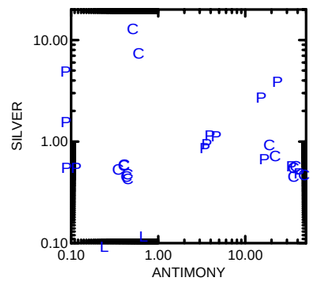


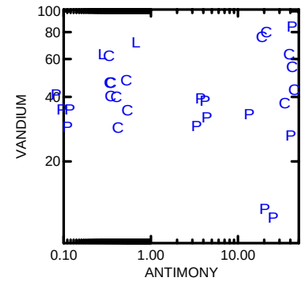


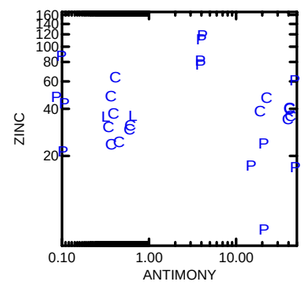




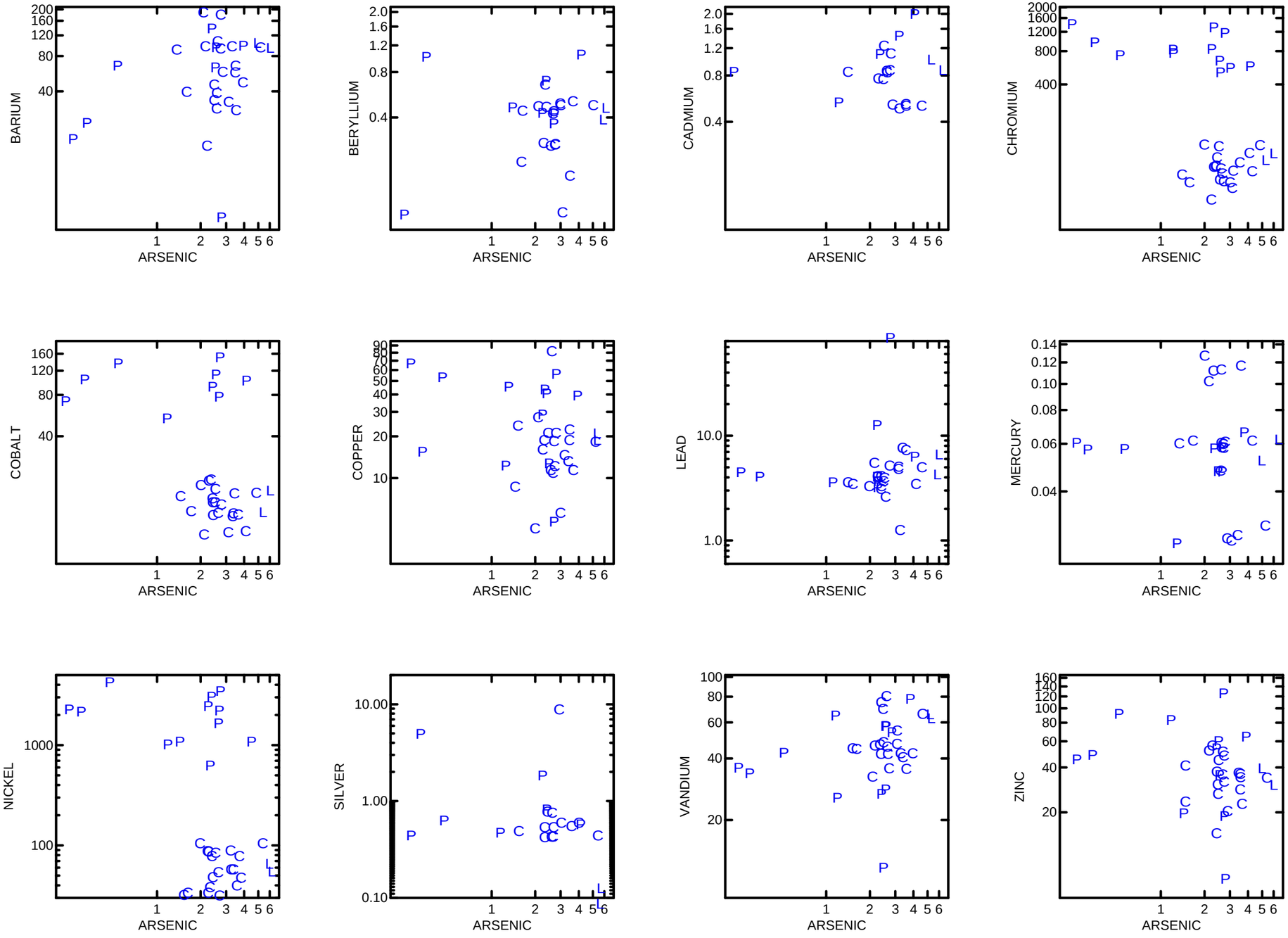




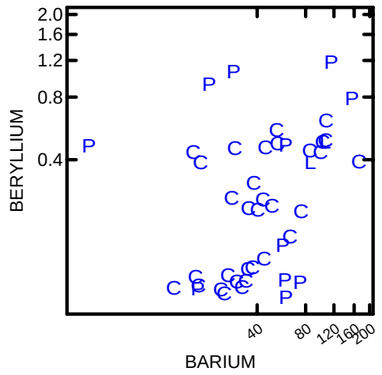


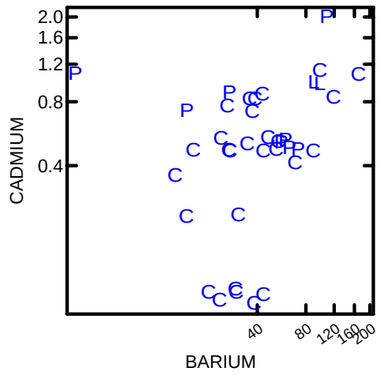


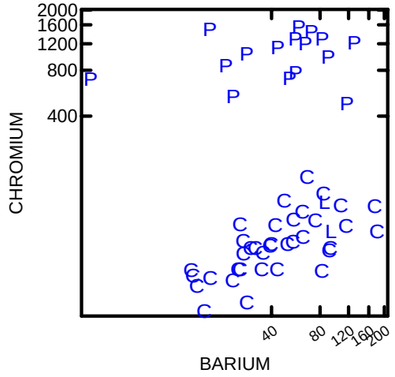
Scatter Plots Antimony – C = Colma, P = Serpentinite, L = Native soil in Undesignated Fill area – Log scale

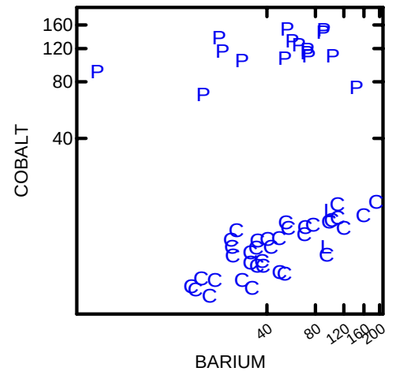


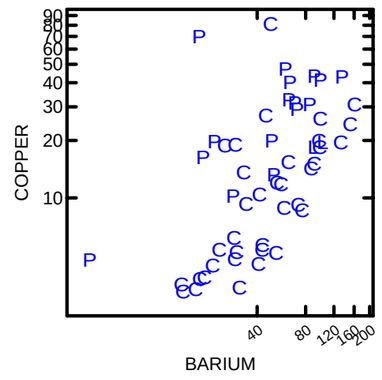
Scatter Plots Arsenic – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

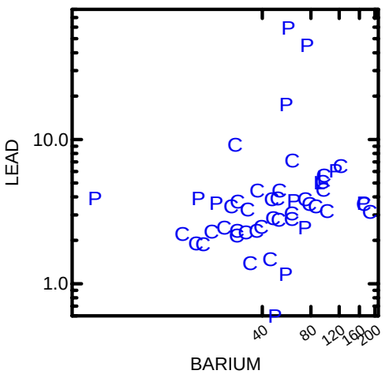


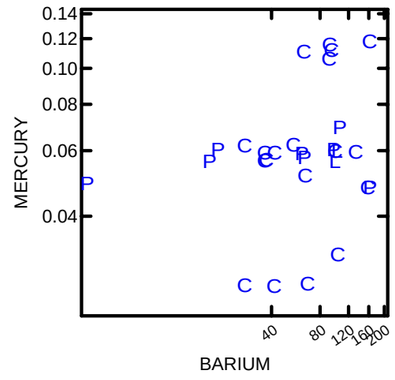


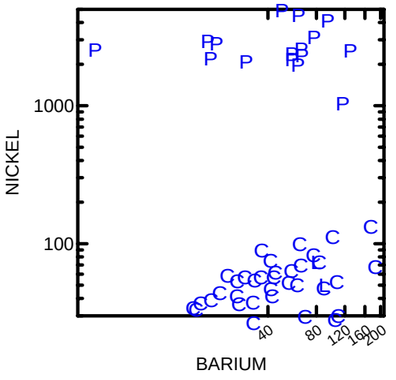


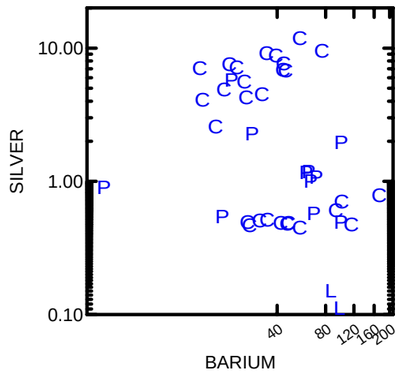


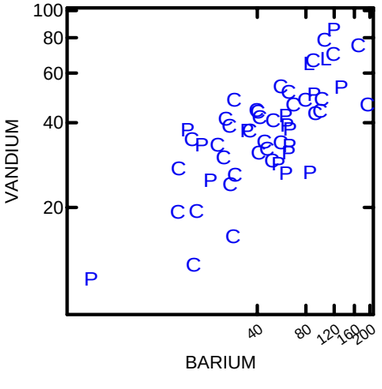


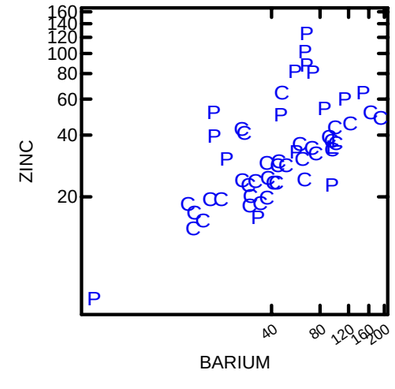




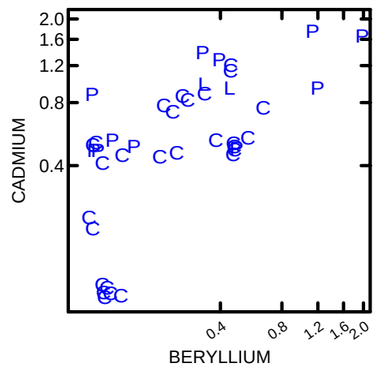


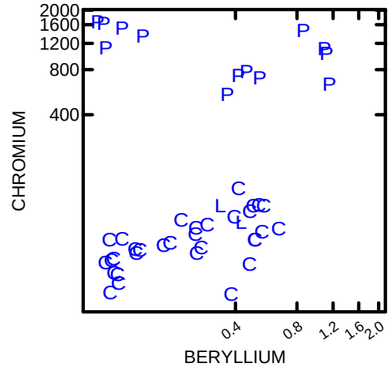


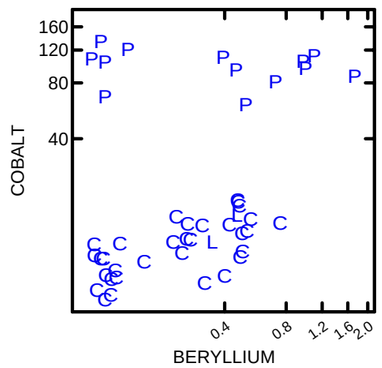


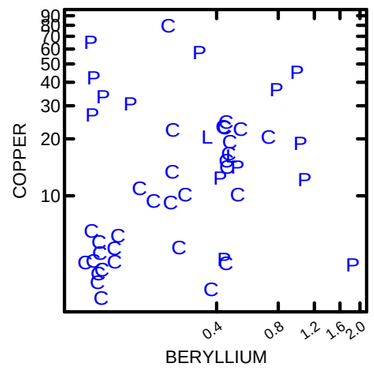


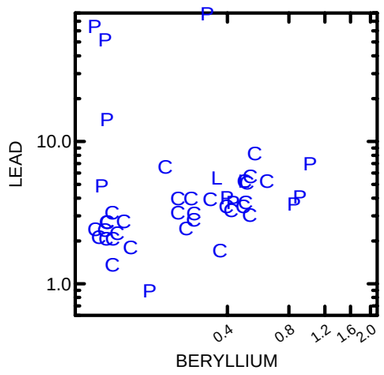
Scatter Plots Barium – C = Colma, P = Serpentinite, L = Native soil in Undesignated Fill area – Log scale

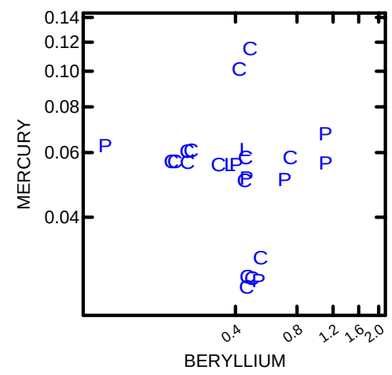


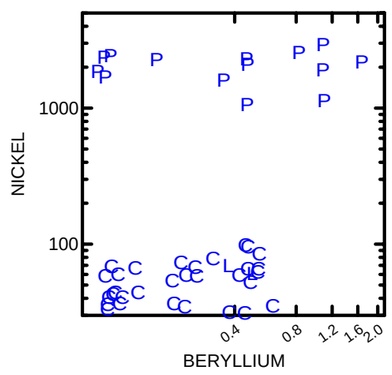


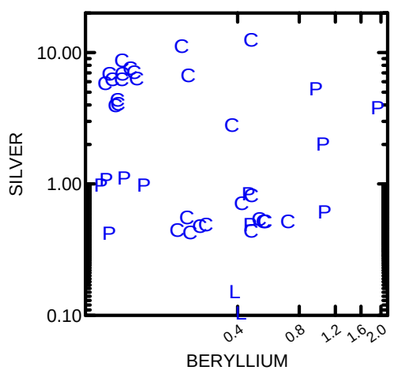


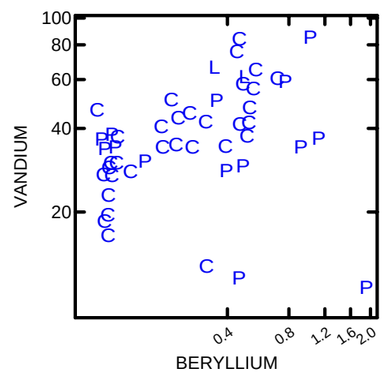


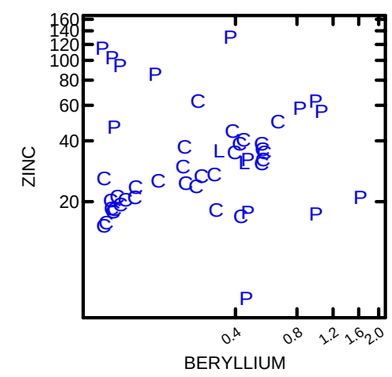




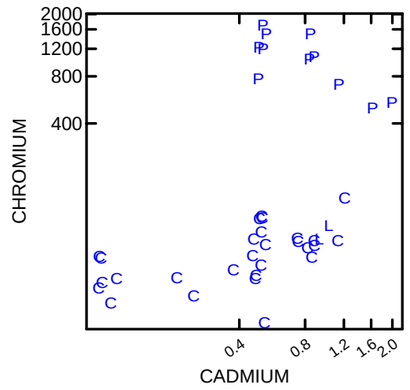


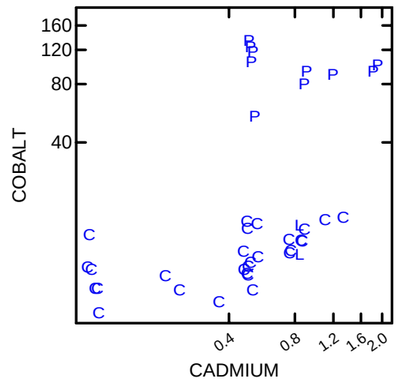


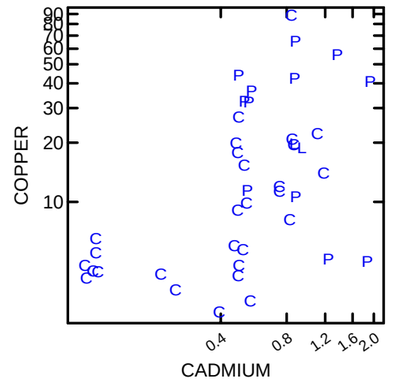


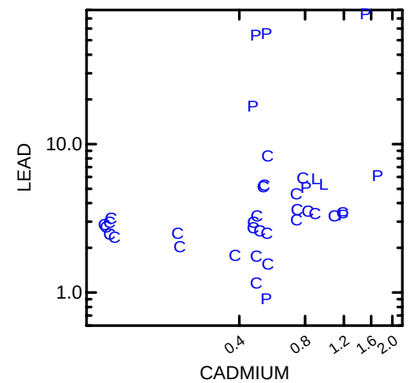


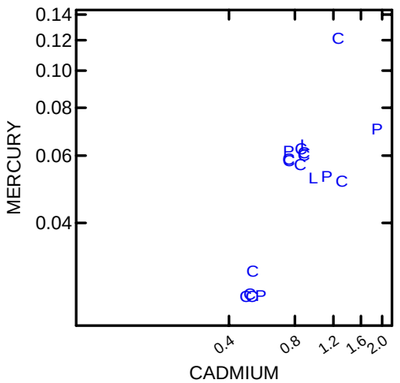
Scatter Plots Beryllium – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

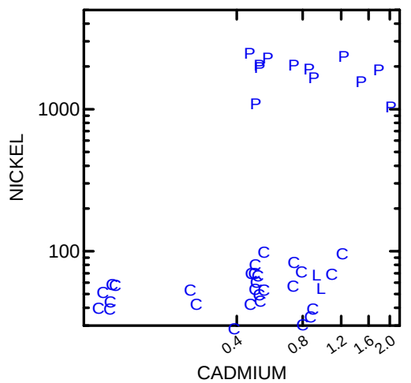


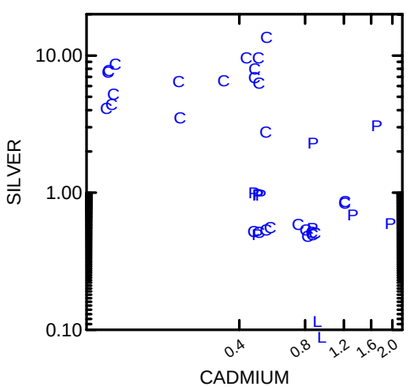


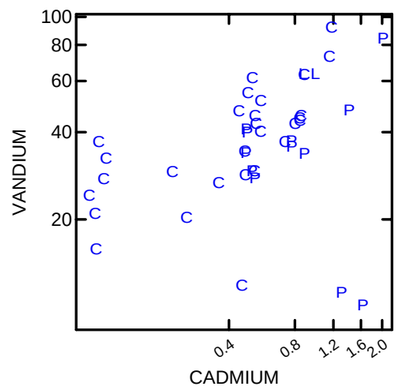


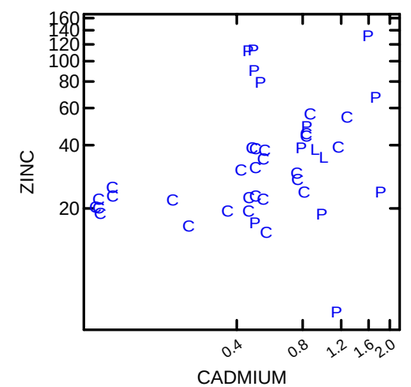




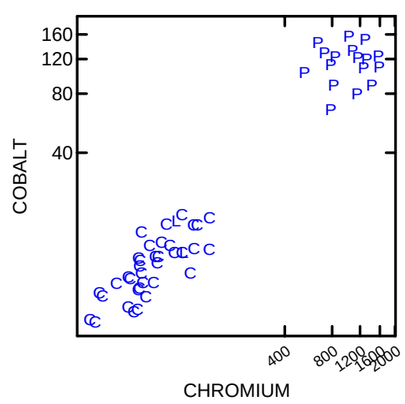


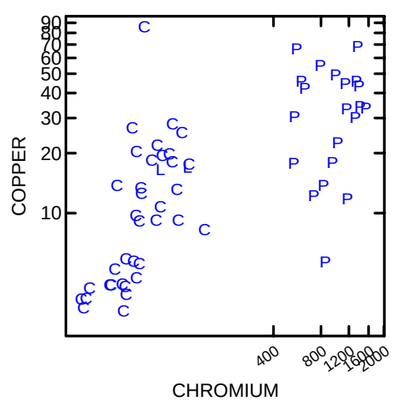


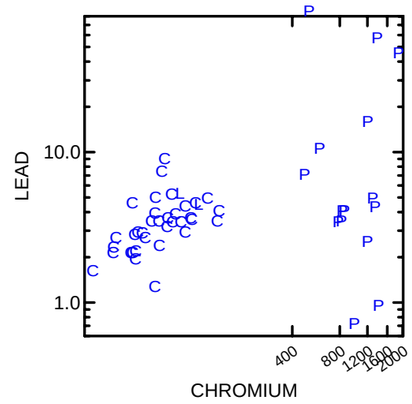


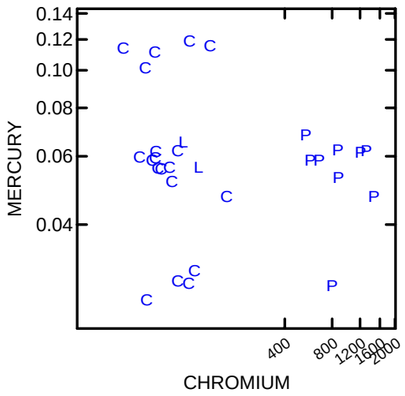


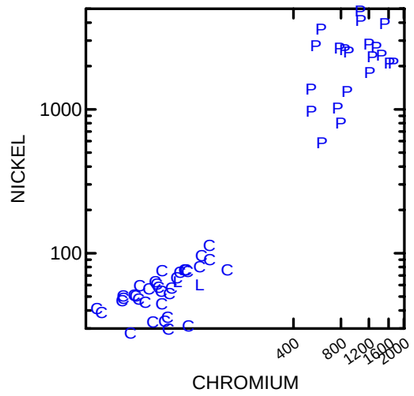
Scatter Plots Cadmium – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

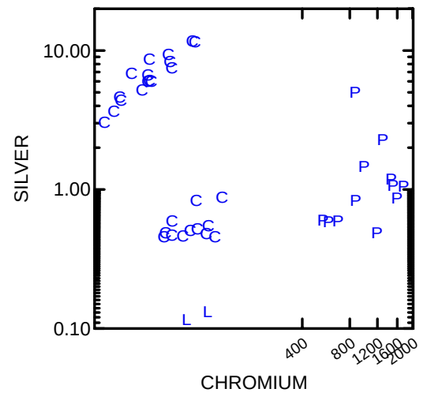


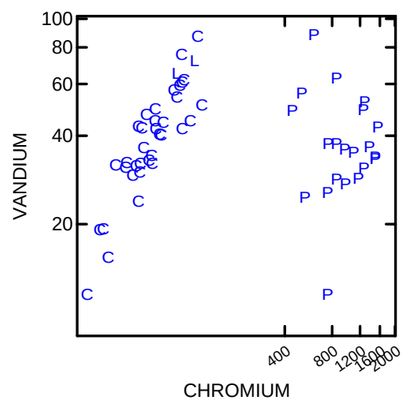


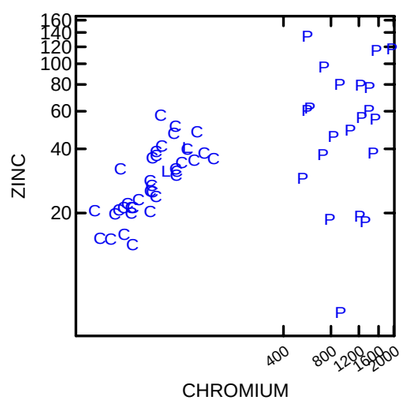




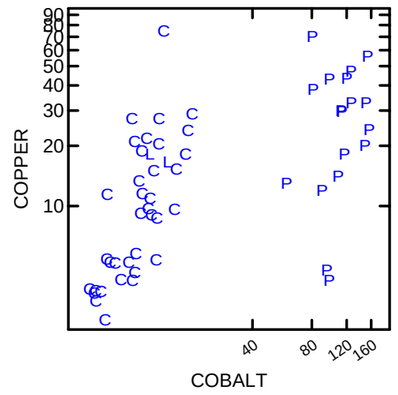


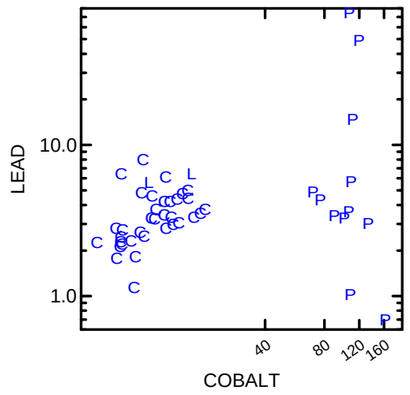


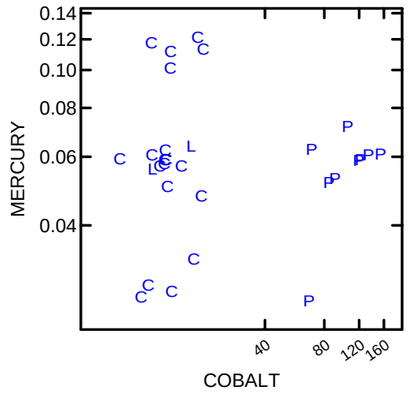


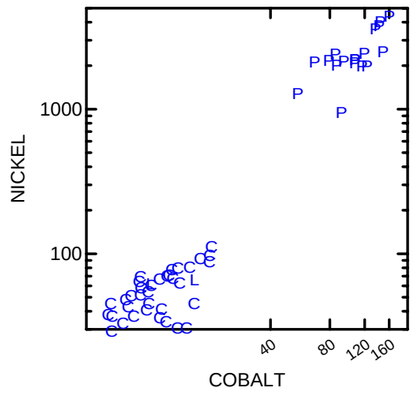


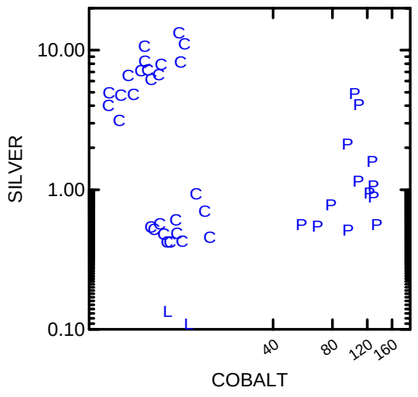
Scatter Plots Chromium – C = Colma, P = Serpentinite, L = Native soil in Undesignated Fill area – Log scale

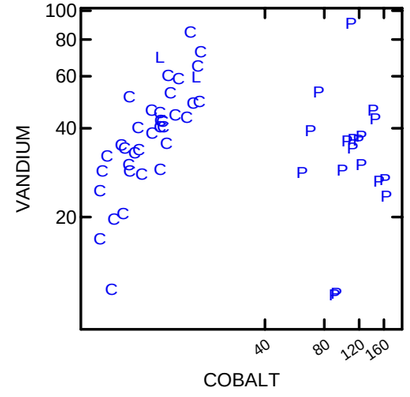


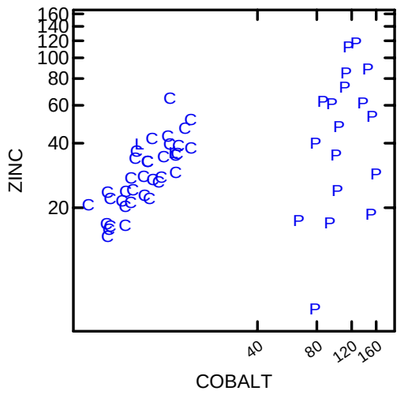




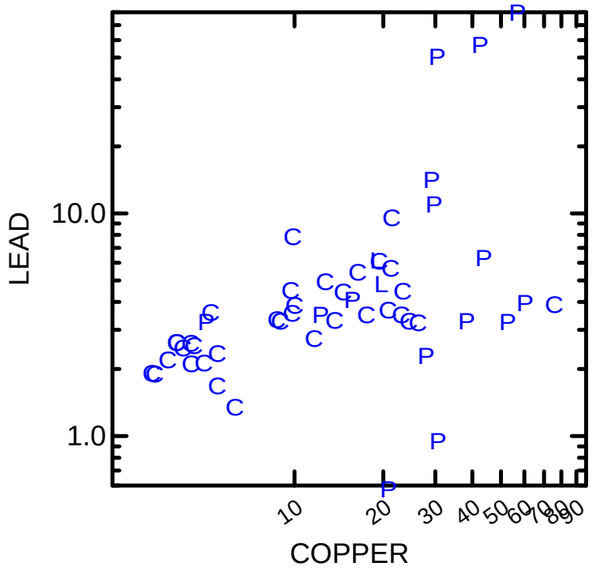


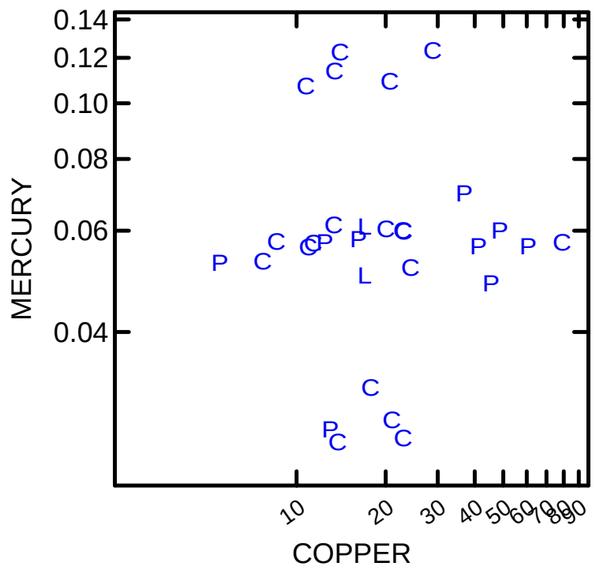


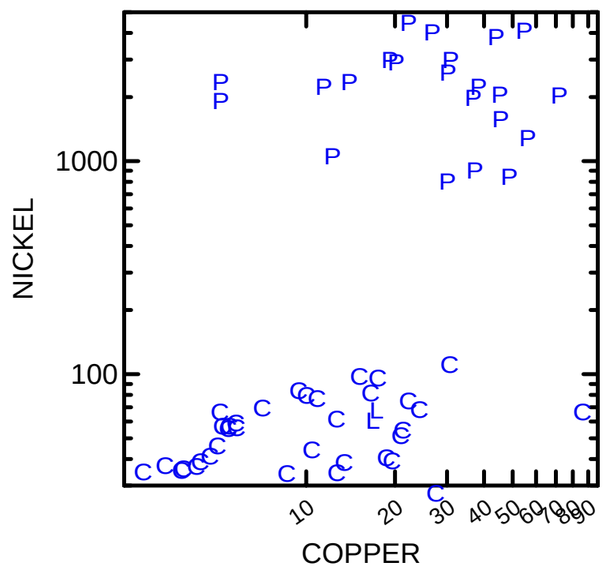


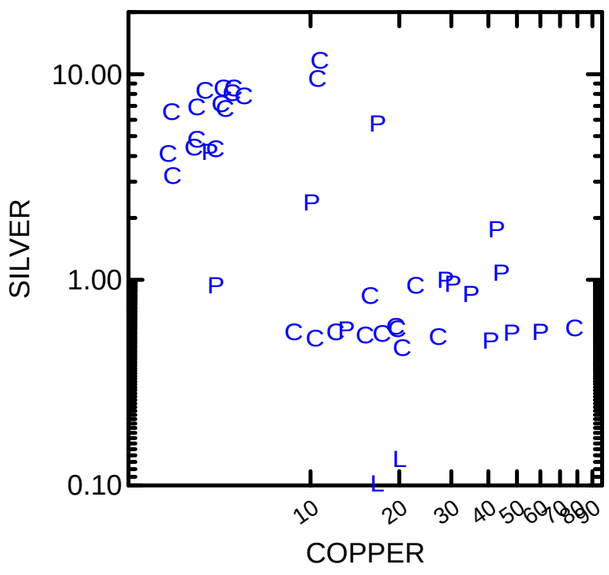


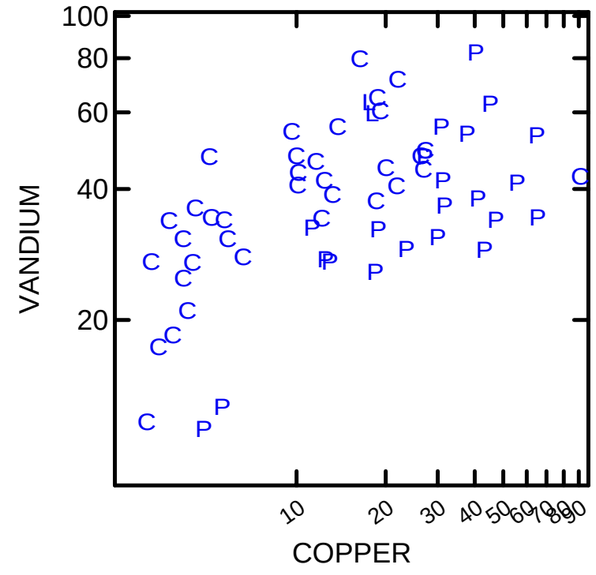
Scatter Plots Cobalt – C = Colma, P = Serpentinite, L = Native soil in undesignated fill area – Log scale

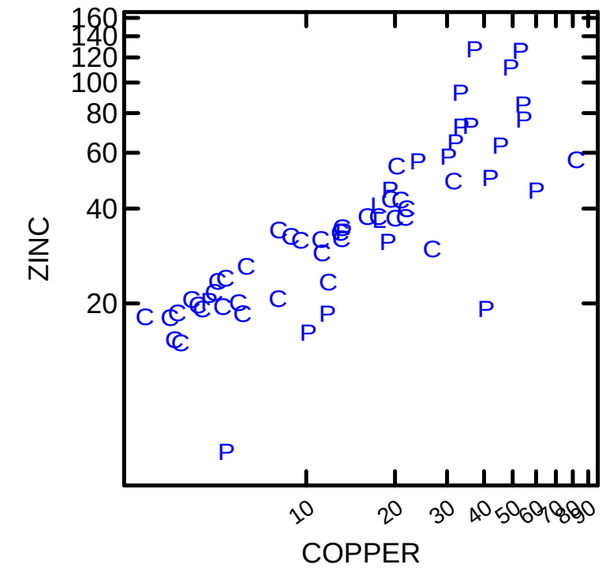




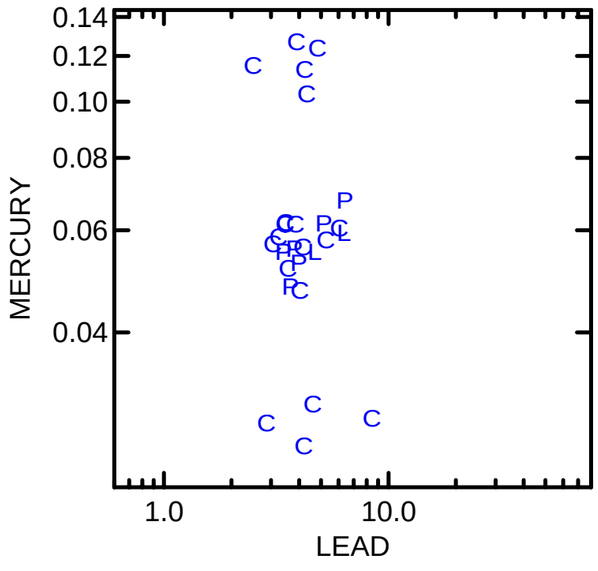


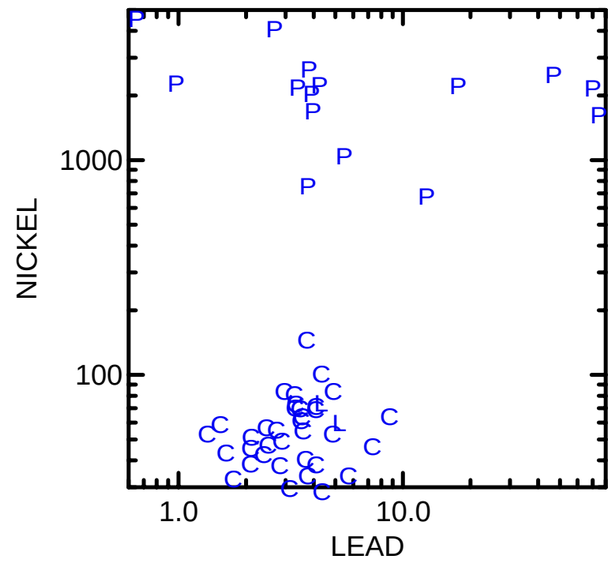


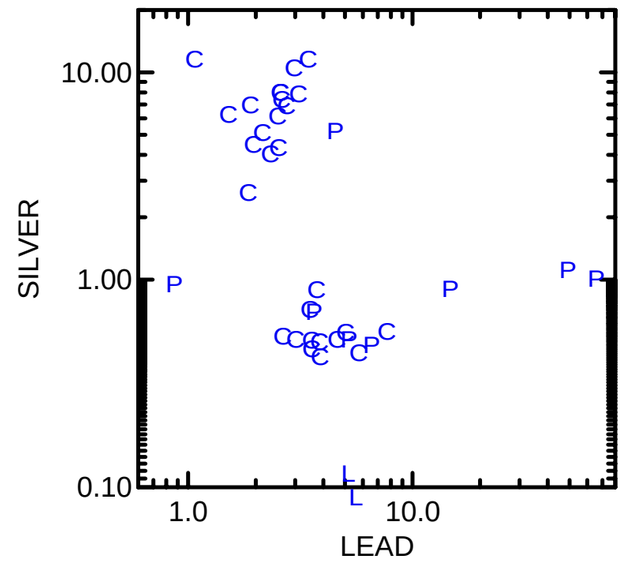


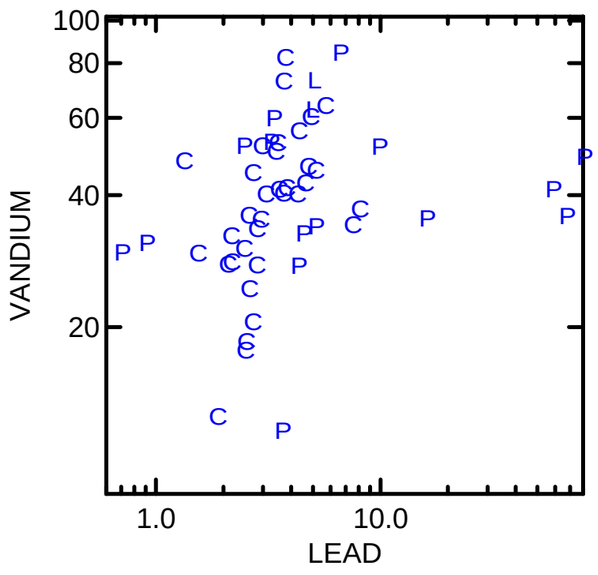


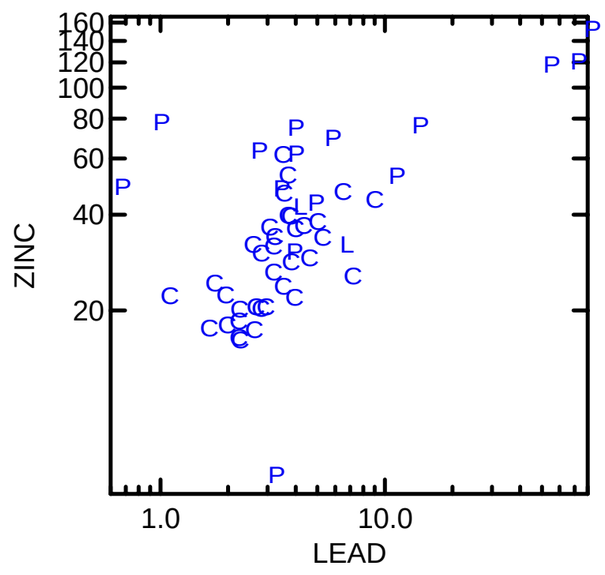
Scatter Plots Copper – C = Colma, P = Serpentinite, L = Native soil in undesignated fill area – Log scale



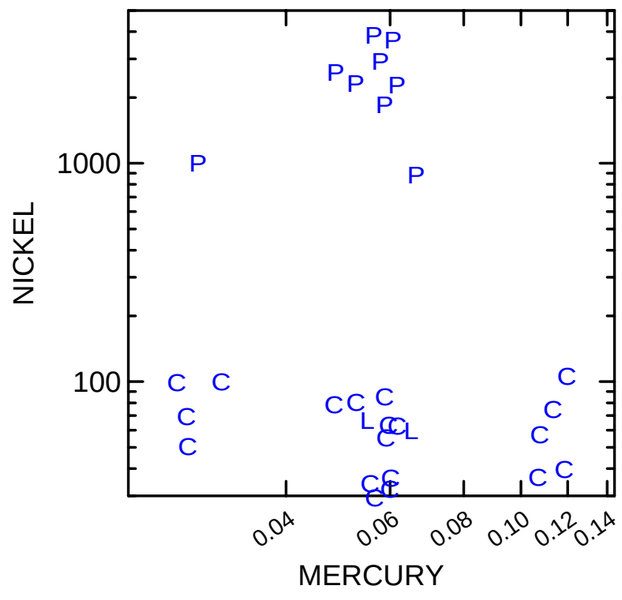


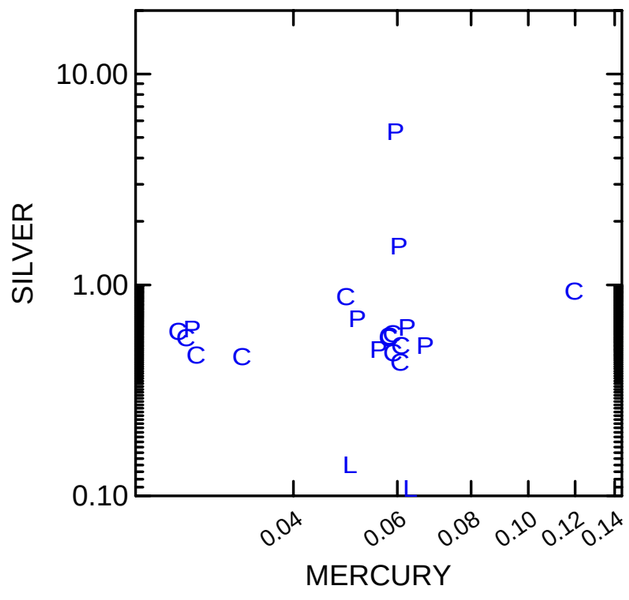


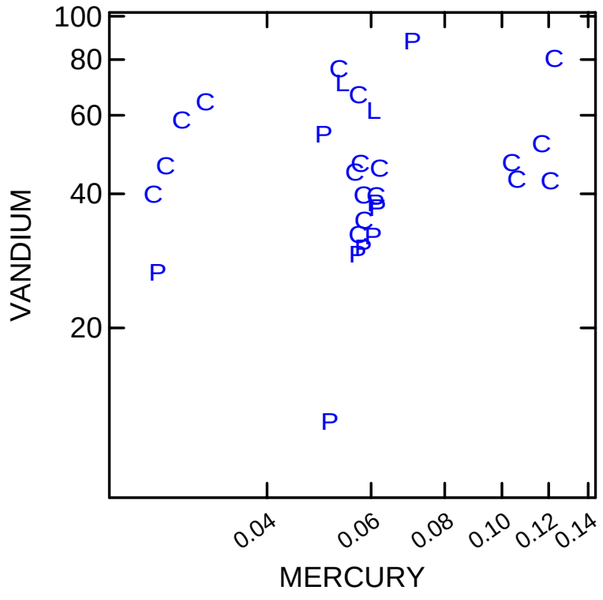


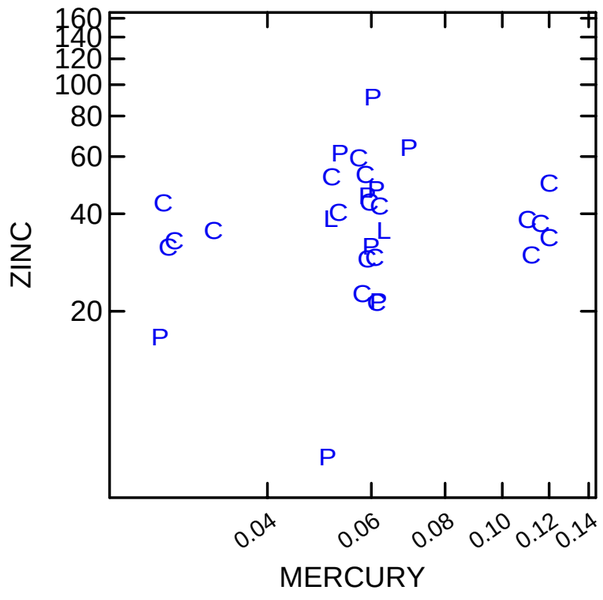


Scatter Plots Lead – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

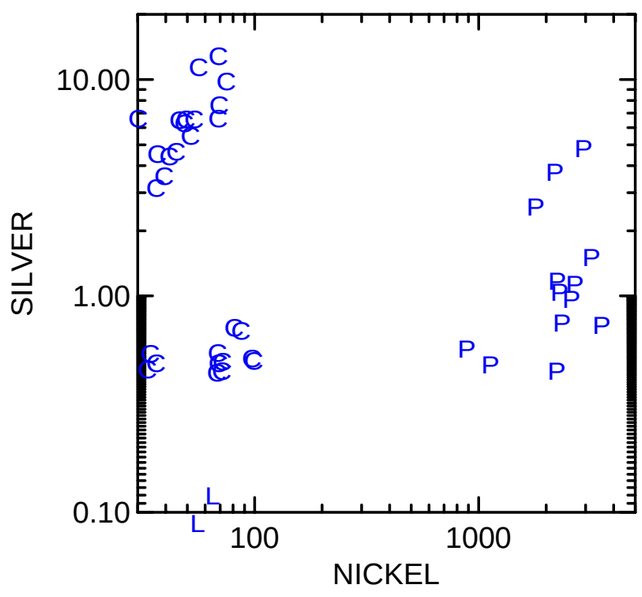


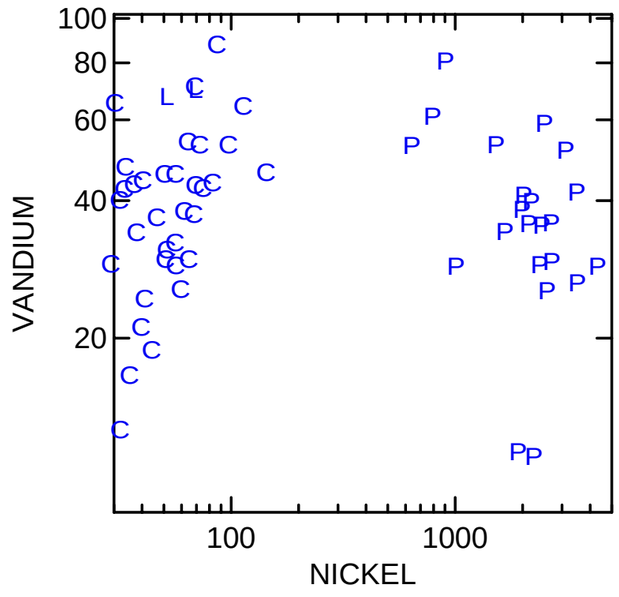


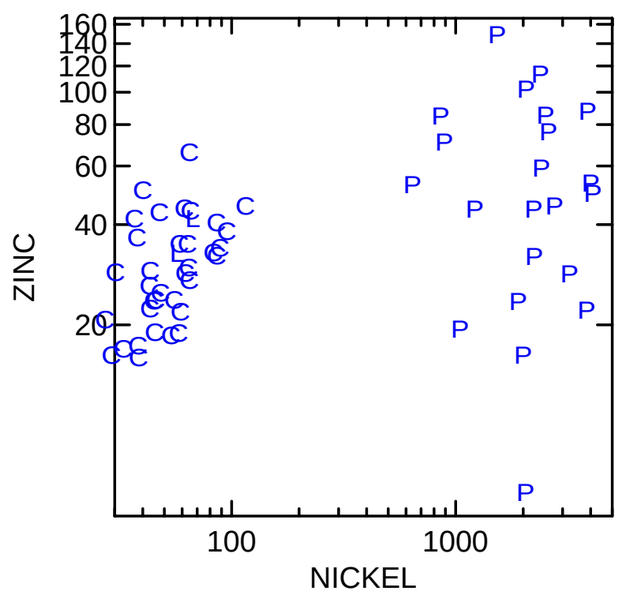




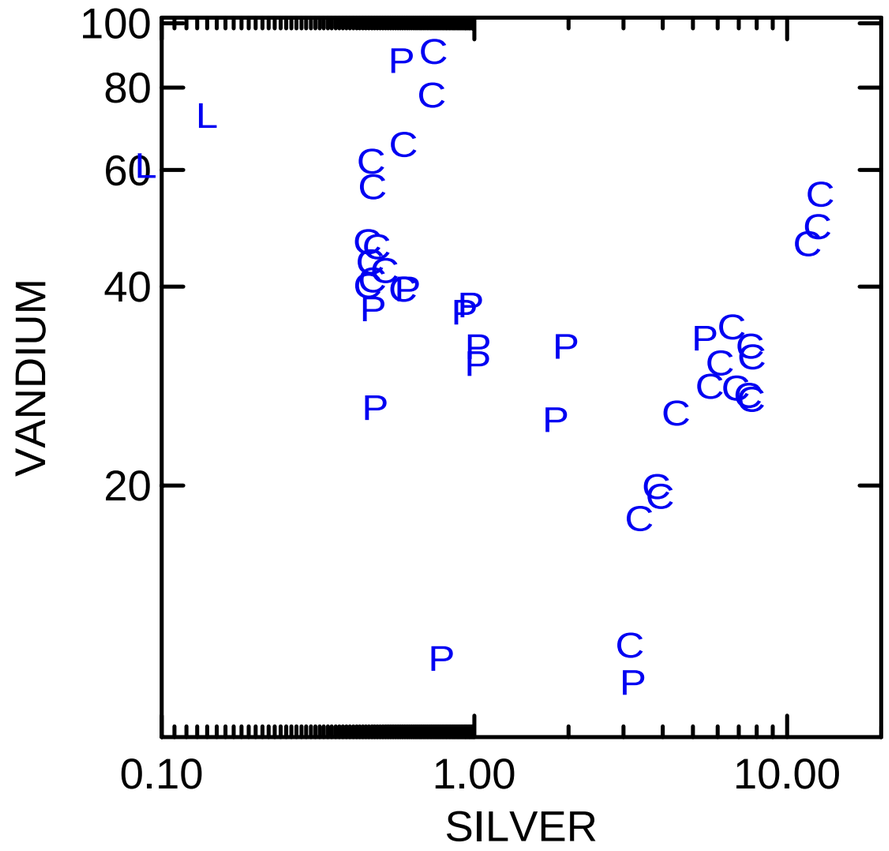
Scatter Plots Mercury – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

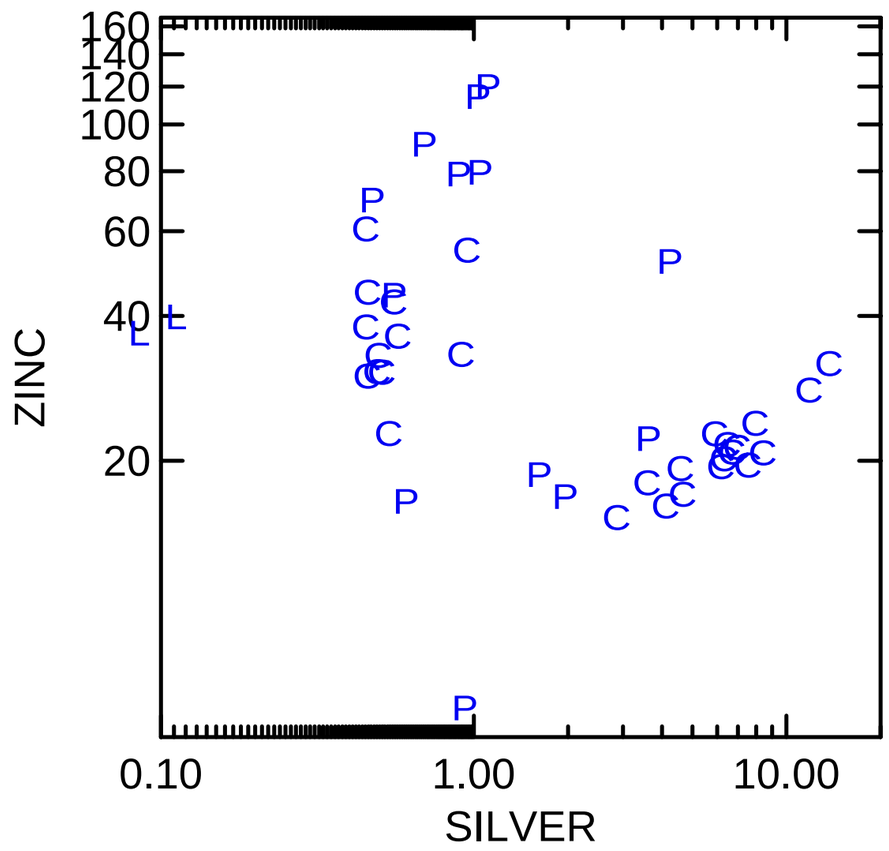




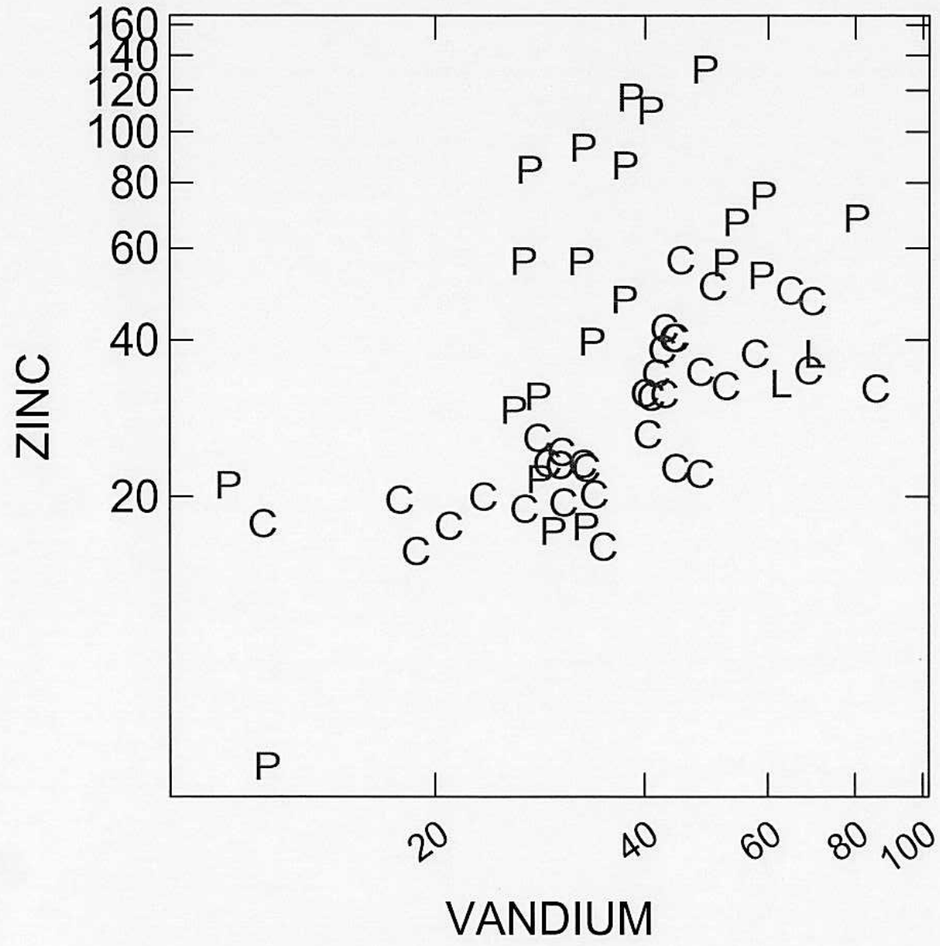


Scatter Plots Nickel – C = Colma, P = Serpentinite, L = Native soil in undesignated fill area – Log scale





Scatter Plots Silver – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale



Scatter Plots Vanadium – C = Colma, P = Serpentinite, L = Native soil in Undesignated fill area – Log scale

Checked KJH

Approved May

APPENDIX M

DISK WITH PDF OF LABORATORY ANALYTICAL REPORTS

Index of Laboratory Reports
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Field Investigation Report
Presidio of San Francisco, California

Laboratory Report Number	Sample Number
178846	BB1ATP101-G1 BB1ATP101-G2
178951	BB2ATP104(8.0) BB2ATP100(1.0) BB2ATP101(14.0) BB1TP102(4.0)
179049	BB1TP106(5.0)
179089	BBD2TP108(4.0) BBD2TP108(7.0) BBD2TP108(10.0)
179182	BBD2TP105(11.5) BBD2TP105(15.0) BBD2TP106(2.0)
179266	BB1TP109(6.0) BB1TP109(3.5) BB1TP109(2.5) DUP (050405) BB1TP107(7.0) SOILCOMP BB1TP108(5.0)
179384	BB2ASB100(4.0)
179445	BB1B110(3.5) BB2SB102(0.0) BB2SB102(2.0) BBSB108(0.0) BBSB108(2.0) BBSB109(0.0) BBSB109(2.0) DUP (050512) BB2ASB112(0.5) BB1SB113(0.5) BB1SB114(0.5)
179564	BBSB101(0.5) BB1SB103(0.5)
179603	BBSB106(0.5)
179714	BB1PZ101_5/27
180973	BB1PZ101_8/01 BB1PZ101_8/01UF
182254	BB1TP110(1.5) BB1TP110(8.0) BB1TP110(12.0) BB1TP113(3.0) BB1TP113(5.5) BB1TP111(1.5) BB1TP111(3.0) BB1TP111(6.0)

Index of Laboratory Reports
Baker Beach Disturbed Areas 1, 1A, 2, 2A
Field Investigation Report
Presidio of San Francisco, California

Laboratory Report Number	Sample Number
182357	BBSB119(2.5) BBSB119(4.5)
184678	BB2SB110(0.5) DUP020106
184679	BBSB120(1.0)
184680	BB1SB115(0.5)
184691	BB2ASW100
184692	BB1PZ100 DUP020106 BB1PZ101 TB020106
185149	BB1SB115(1.0)
185213	BB2SB110(1.0)

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 178846

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: BAKER BEACH
Location: Presidio/Baker Beach

Sample ID	Lab ID
BB1ATP101-G1	178846-001
BB1ATP101-G2	178846-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/18/05
Operations Manager

Signature: _____ Date: 5/17/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**178846**
Client:	**Mactec, Inc.**
Project:	**BAKER BEACH**
Location:	**Presidio/Baker Beach**
Request Date:	**04/12/05**
Samples Received:	**04/12/05**

This hardcopy data package contains sample and QC results for two soil samples, requested for the above referenced project on 04/12/05. The samples were received intact.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for many analytes in the ICV analyzed 04/16/05 15:47; these analytes were not detected at or above the RL in the associated samples, and affected data was qualified with "b". No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for many analytes in the MS/MSD of BB1ATP101-G2 (lab # 178846-002); the BS/BSD were within limits, and the associated RPDs were within limits. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

178846 Seq. No.: № 1327

Samplers: Bill Godwin

Lab: Curtis Tompkins

Job Number: 57255 005135

Name/Location: Baker Beach Geotechnical Investigation BBDA 1A

Project Manager: Michael Jacobuitz Recorder: William Godwin
(Signature Required)

MATRIX			# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED			
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	EPA 8270 SIM	Title 22 Metals	6010/6020 - 7000	
	X		X	WH					BB1ATP101-G1		05	04	07	0940	roofing material	surface	X	X		
	X		X	WH					BB1ATP101-G2		05	04	07	0945	soil in test pit	3'	X	X		
																				4

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		Standard 10-day TAT
		Note AFO 32,665 on invoice
		REC'D intact;

CHAIN OF CUSTODY RECORD

William Godwin	William Godwin	MACTEC	4/12/05 4:45
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Lavanna Curtis	Lavanna Curtis	Curtis Tompkins	4/12/05 4:45
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Method of Shipment:			

F1008-B (5/04)

Laboratory Copy *White* | Project Office Copy *Yellow* | Field or Office Copy *Pink*

PAH-SIM Results & QC Summary

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB1ATP101-G1	Batch#:	101384
Lab ID:	178846-001	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/23/05
Diln Fac:	20.00		

Moisture: 4%

Analyte	Result	RL	MDL
Naphthalene	ND	1,000	240
Acenaphthylene	ND	1,000	270
Acenaphthene	ND	1,000	260
Fluorene	ND	1,000	230
Phenanthrene	ND	1,000	260
Anthracene	ND	1,000	430
Fluoranthene	ND	1,000	240
Pyrene	ND	1,000	210
Benzo(a)anthracene	ND	1,000	260
Chrysene	340 J	1,000	200
Benzo(b)fluoranthene	ND	1,000	240
Benzo(k)fluoranthene	ND	1,000	320
Benzo(a)pyrene	ND	1,000	410
Indeno(1,2,3-cd)pyrene	ND	1,000	250
Dibenz(a,h)anthracene	ND	1,000	240
Benzo(g,h,i)perylene	260 J b	1,000	240

Surrogate	%REC	Limits
Nitrobenzene-d5	112	37-140
2-Fluorobiphenyl	101	38-120
Terphenyl-d14	105	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB1ATP101-G2	Batch#:	101384
Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry		

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Naphthalene	ND	5.5	0.84	1.000	04/23/05
Acenaphthylene	ND	5.5	1.6	1.000	04/23/05
Acenaphthene	ND	5.5	0.84	1.000	04/23/05
Fluorene	ND	5.5	1.2	1.000	04/23/05
Phenanthrene	ND	5.5	1.0	1.000	04/23/05
Anthracene	ND	5.5	1.3	1.000	04/23/05
Fluoranthene	ND	5.5	1.5	1.000	04/23/05
Pyrene	ND	5.5	1.2	1.000	04/23/05
Benzo(a)anthracene	ND	5.5	1.1	1.000	04/23/05
Chrysene	ND	5.5	1.1	1.000	04/23/05
Benzo(b)fluoranthene	1.2 J	5.5	1.2	1.000	04/23/05
Benzo(k)fluoranthene	0.85 J	5.5	0.65	1.000	04/23/05
Benzo(a)pyrene	ND	5.5	0.99	1.000	04/23/05
Indeno(1,2,3-cd)pyrene	ND	5.5	1.1	1.000	04/23/05
Dibenz(a,h)anthracene	ND	5.5	0.97	1.000	04/23/05
Benzo(g,h,i)perylene	1.1 J	5.5	0.96	1.000	04/23/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	104	37-140	20.00	04/21/05
2-Fluorobiphenyl	85	38-120	20.00	04/21/05
Terphenyl-d14	96	44-137	20.00	04/21/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Type:	BLANK	Basis:	as received
Lab ID:	QC291296	Batch#:	101384
Matrix:	Soil	Prepared:	04/21/05
Units:	ug/Kg		

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Naphthalene	ND	5.0	1.2	1.000	04/22/05
Acenaphthylene	ND	5.0	1.3	1.000	04/22/05
Acenaphthene	ND	5.0	1.2	1.000	04/22/05
Fluorene	ND	5.0	1.1	1.000	04/22/05
Phenanthrene	ND	5.0	1.2	1.000	04/22/05
Anthracene	ND	5.0	2.1	1.000	04/22/05
Fluoranthene	ND	5.0	1.2	1.000	04/22/05
Pyrene	ND	5.0	1.0	1.000	04/22/05
Benzo(a)anthracene	ND	5.0	1.3	1.000	04/22/05
Chrysene	ND	5.0	0.96	1.000	04/22/05
Benzo(b)fluoranthene	ND	5.0	1.2	1.000	04/22/05
Benzo(k)fluoranthene	ND	5.0	1.5	1.000	04/22/05
Benzo(a)pyrene	ND	5.0	2.0	1.000	04/22/05
Indeno(1,2,3-cd)pyrene	ND	5.0	1.2	1.000	04/22/05
Dibenz(a,h)anthracene	ND	5.0	1.2	1.000	04/22/05
Benzo(g,h,i)perylene	ND	5.0	1.2	1.000	04/22/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	93	37-140	20.00	04/21/05
2-Fluorobiphenyl	92	38-120	20.00	04/21/05
Terphenyl-d14	91	44-137	20.00	04/21/05

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Type:	LCS	Basis:	as received
Lab ID:	QC291297	Batch#:	101384
Matrix:	Soil	Prepared:	04/21/05
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits	Diln Fac	Analyzed
Acenaphthene	33.09	22.88	69	49-128	1.000	04/22/05
Pyrene	33.09	24.12	73	49-128	1.000	04/22/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	74	37-140	20.00	04/21/05
2-Fluorobiphenyl	89	38-120	20.00	04/21/05
Terphenyl-d14	85	44-137	20.00	04/21/05

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	101384
MSS Lab ID:	178835-002	Sampled:	04/09/05
Matrix:	Soil	Received:	04/09/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/22/05

Type: MS
Lab ID: QC291298

Moisture: 11%

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Acenaphthene	<1.393	37.19	24.56	66	39-138	1.000
Pyrene	<1.141	37.19	26.17	70	28-159	1.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	77	37-140	20.00
2-Fluorobiphenyl	88	38-120	20.00
Terphenyl-d14	85	44-137	20.00

Type: MSD
Lab ID: QC291299

Moisture: 11%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Acenaphthene	37.42	25.00	67	39-138	1	39	1.000
Pyrene	37.42	26.17	70	28-159	1	45	1.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	77	37-140	20.00
2-Fluorobiphenyl	84	38-120	20.00
Terphenyl-d14	82	44-137	20.00

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\041805.b\VDI07.D

Date : 18-APR-2005 16:36

Client ID: dftpp tune std

Instrument: MSBNA03.i

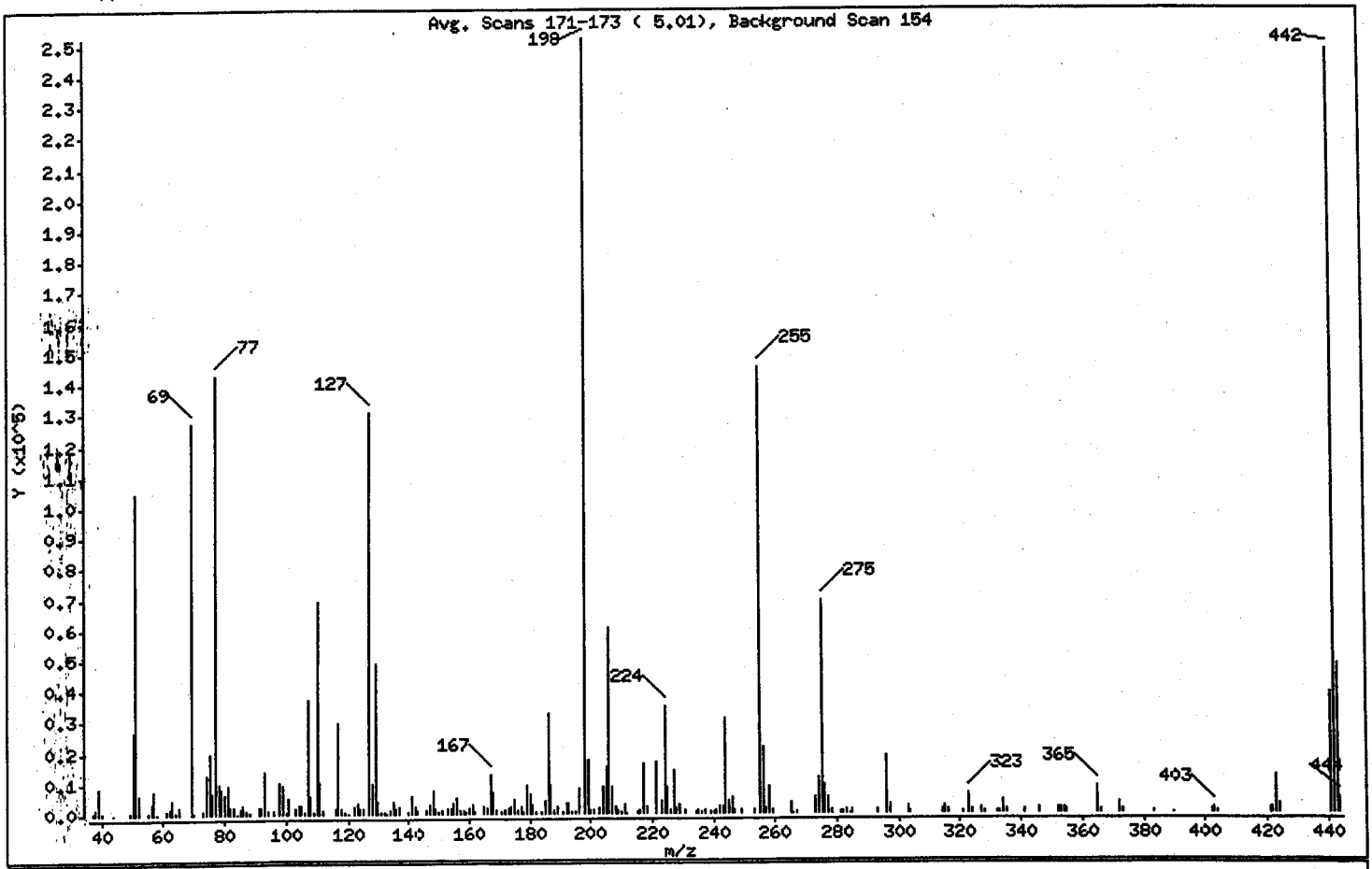
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.36
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.51
70	Less than 2.00% of mass 69	0.28 (0.55)
127	40.00 - 60.00% of mass 198	51.77
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	27.45
365	Greater than 1.00% of mass 198	3.37
441	Present, but less than mass 443	15.35
442	40.00 - 99.99% of mass 198	98.35
443	17.00 - 23.00% of mass 442	19.16 (19.49)

TUN-SIM 442

4/19/05

4/19/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\041905.b\VDJ01.D

Date : 19-APR-2005 11:16

Client ID: dftpp tune std

Instrument: MSBNA03.i

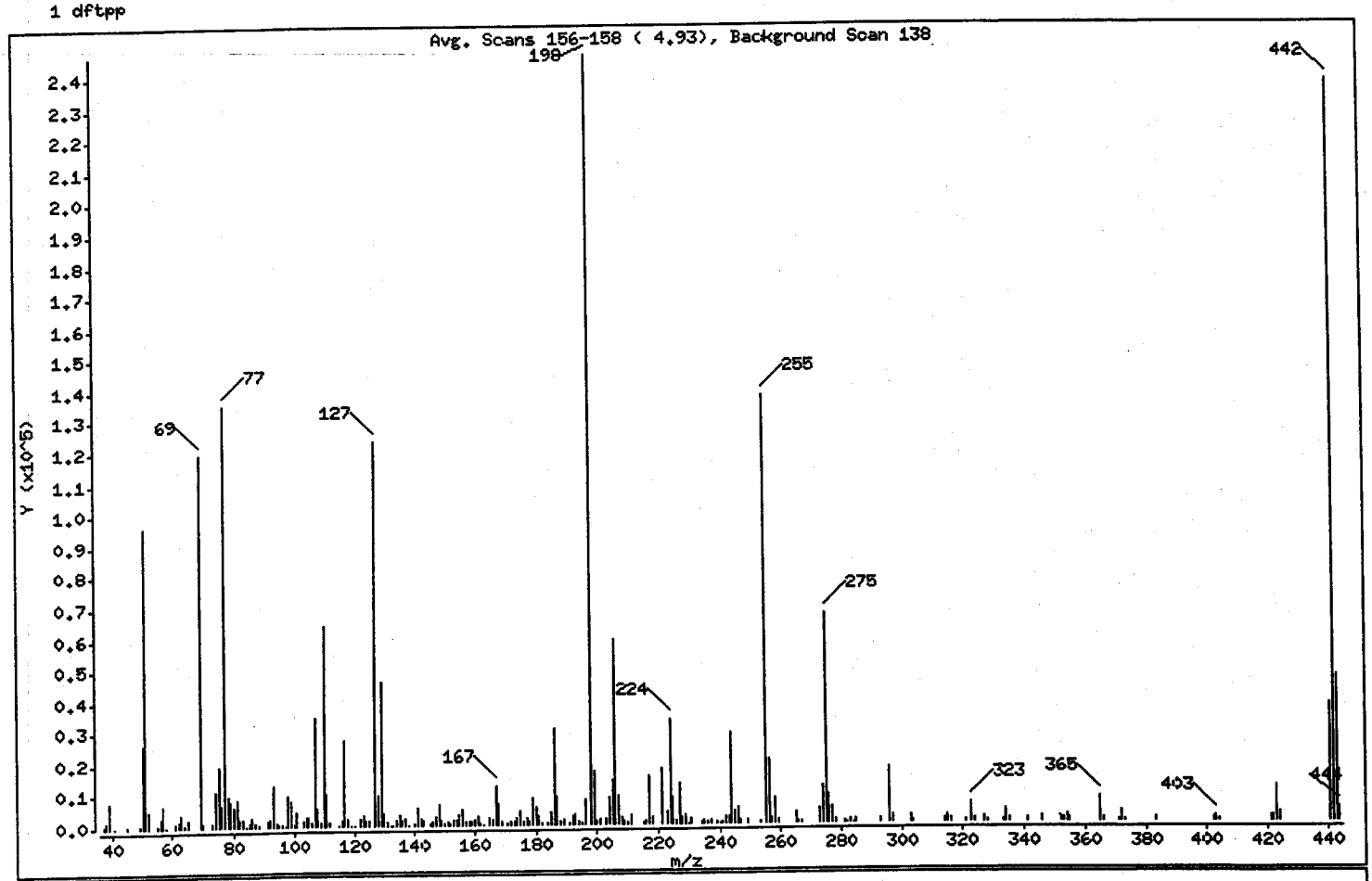
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.99
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.42
70	Less than 2.00% of mass 69	0.35 (0.72)
127	40.00 - 60.00% of mass 198	50.10
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	27.09
365	Greater than 1.00% of mass 198	3.20
441	Present, but less than mass 443	15.19
442	40.00 - 99.99% of mass 198	96.24
443	17.00 - 23.00% of mass 442	18.82 (19.55)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042105.b\VDL01.D

Date : 21-APR-2005 15:43

Client ID: dftpp tune std

Instrument: MSBNA03.i

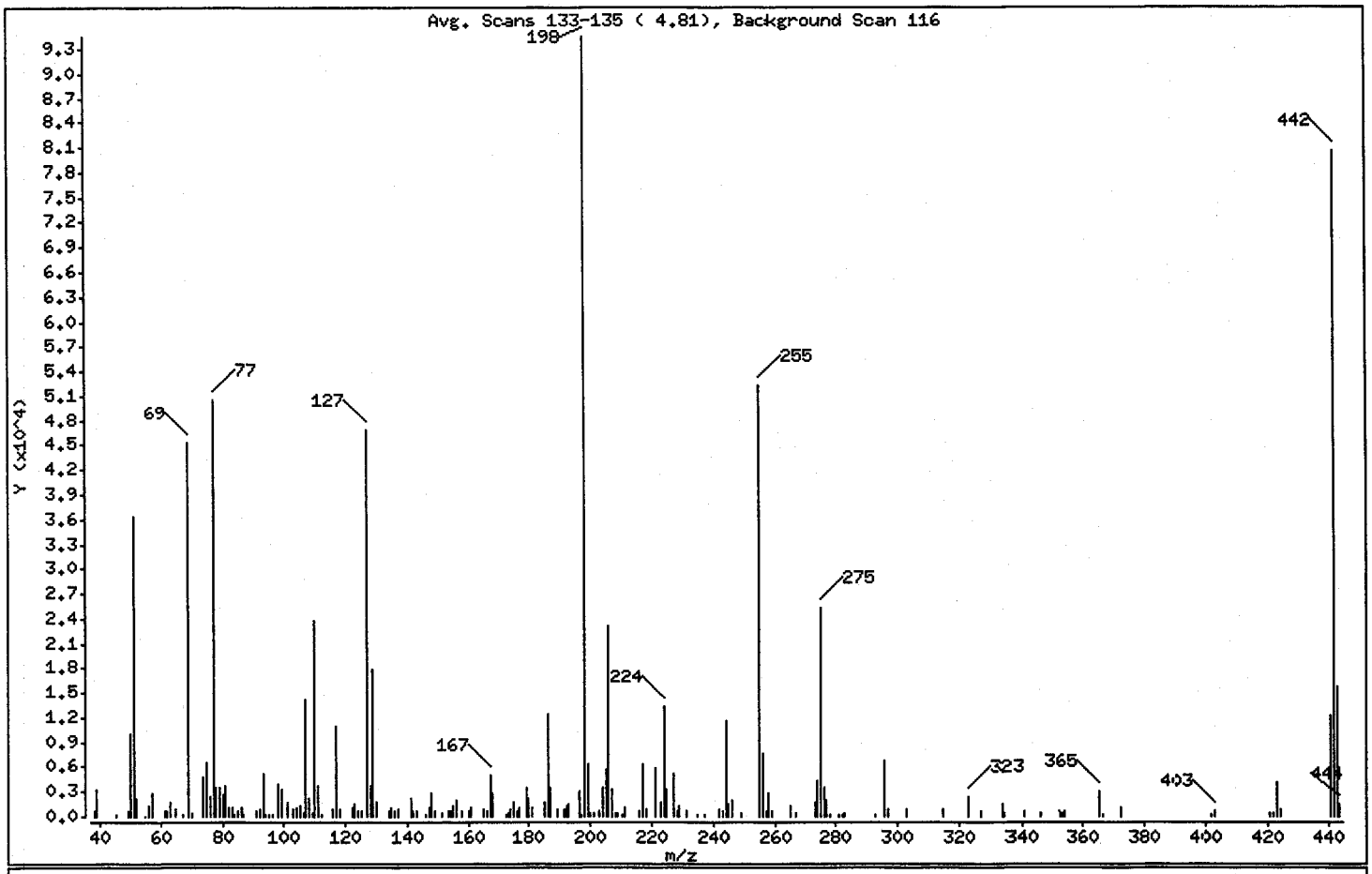
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.45
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.85
70	Less than 2.00% of mass 69	0.56 (1.18)
127	40.00 - 60.00% of mass 198	49.53
197	Less than 1.00% of mass 198	0.24
199	5.00 - 9.00% of mass 198	6.66
275	10.00 - 30.00% of mass 198	26.75
365	Greater than 1.00% of mass 198	3.12
441	Present, but less than mass 443	12.96
442	40.00 - 99.99% of mass 198	85.18
443	17.00 - 23.00% of mass 442	16.53 (19.41)

5 4/22/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

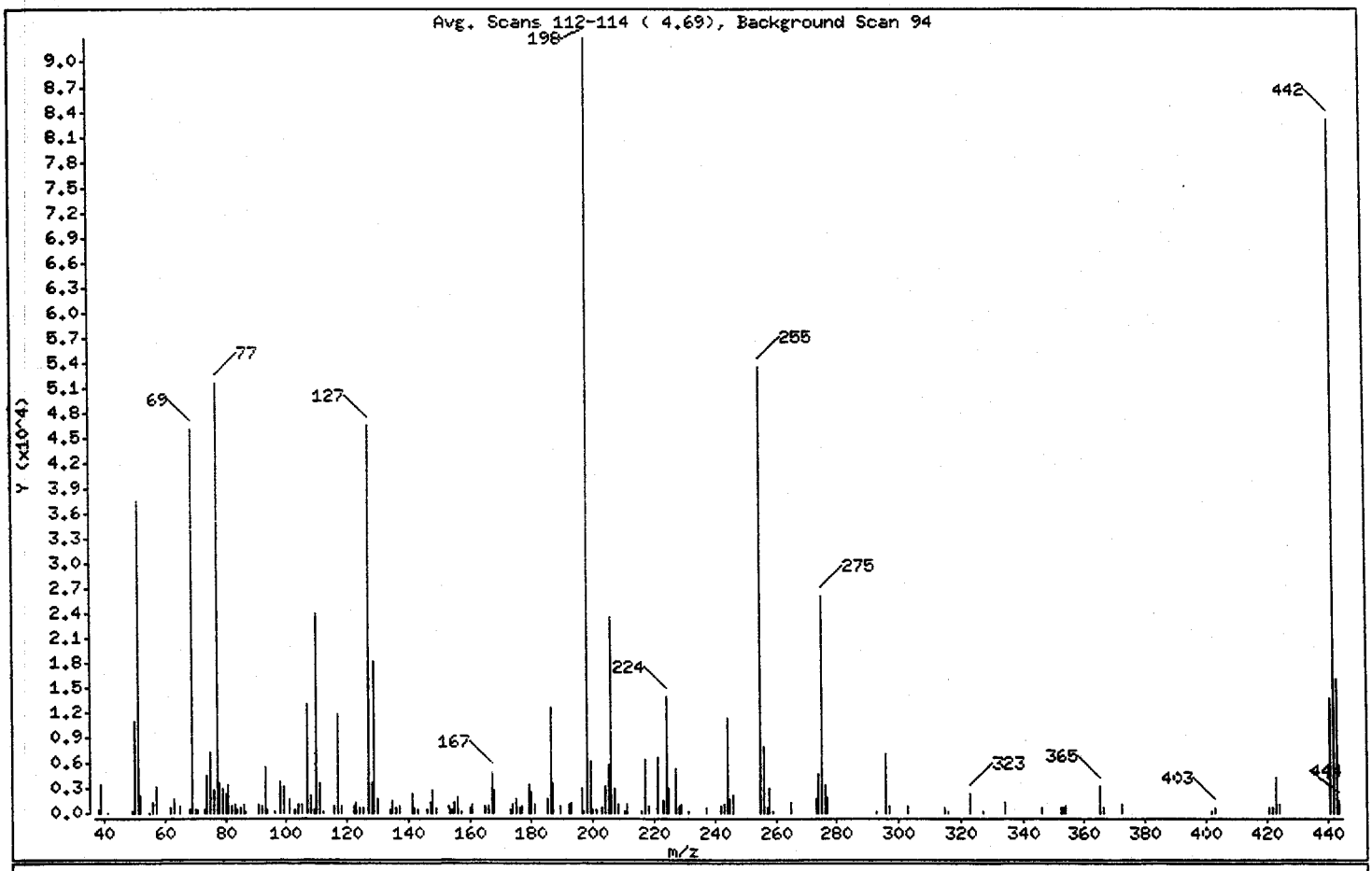
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM ECAL

1/12/10

a 04/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042305.b\VDN01.D

Date : 23-APR-2005 17:52

Client ID: dftpp tune std

Instrument: MSBNA03.i

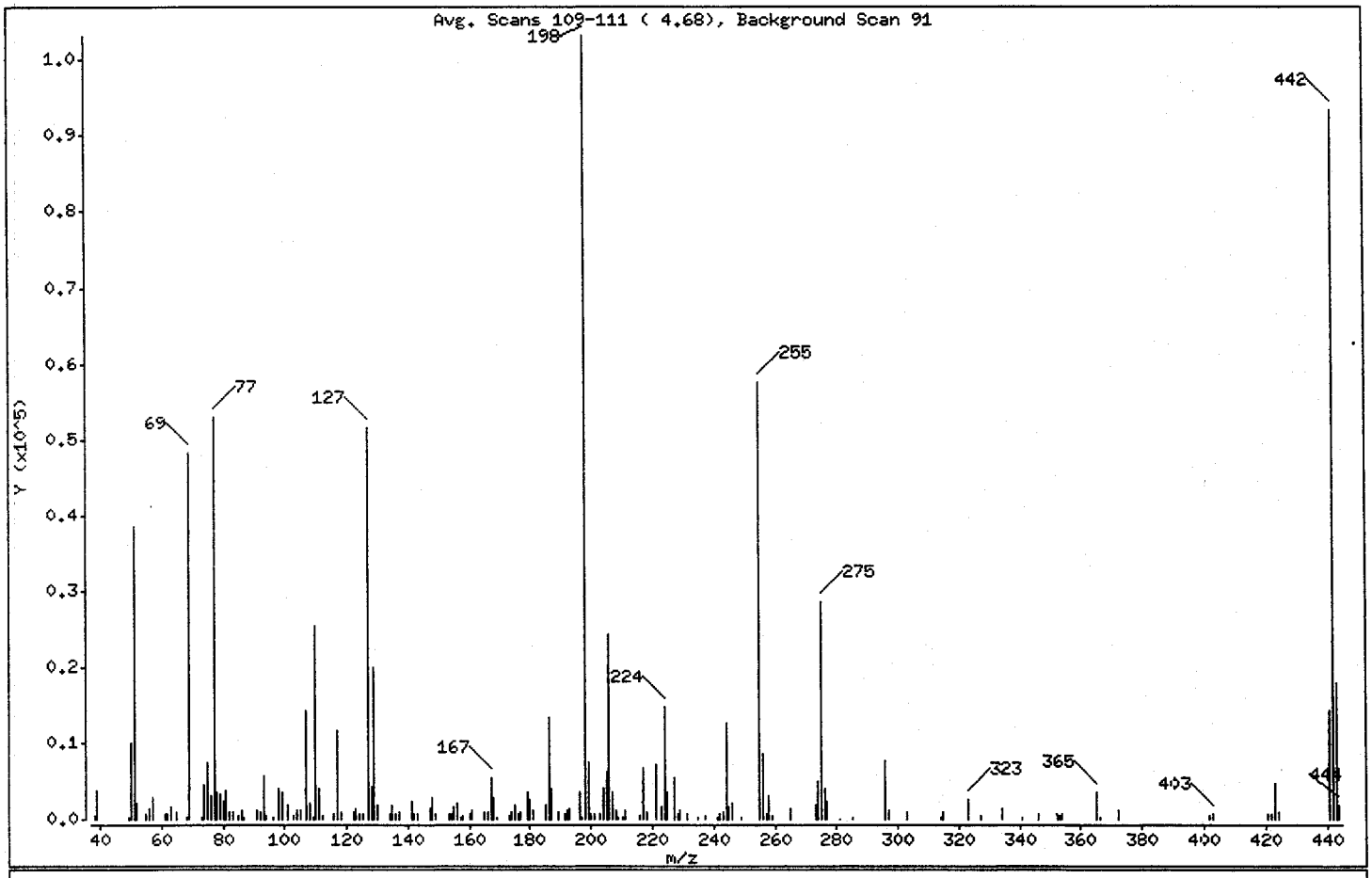
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	37.43
68	Less than 1.99% of mass 69	0.27 (0.58)
69	Mass 69 relative abundance	46.78
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.08
197	Less than 1.00% of mass 198	0.26
199	5.00 - 9.00% of mass 198	7.09
275	10.00 - 30.00% of mass 198	27.71
365	Greater than 1.00% of mass 198	3.38
441	Present, but less than mass 443	13.89
442	40.00 - 99.99% of mass 198	90.55
443	17.00 - 23.00% of mass 442	17.38 (19.19)

4/25/05

4/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\041605.b\XDG03.D

Date : 16-APR-2005 11:59

Client ID: dftpp tune std

Instrument: MSBNA05.i

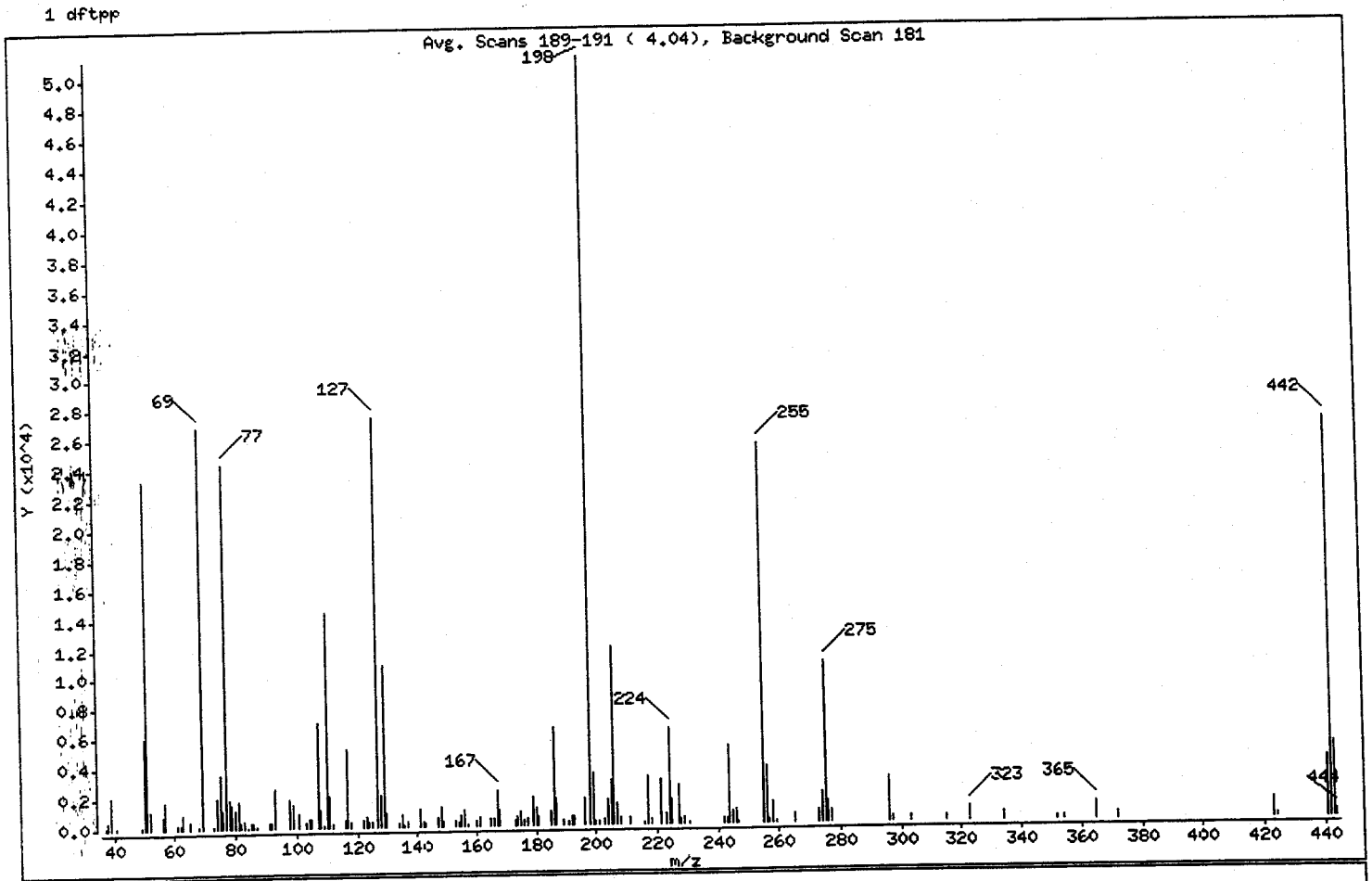
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.42
68	Less than 1.99% of mass 69	0.23 (0.44)
69	Mass 69 relative abundance	52.38
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	53.37
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	20.86
365	Greater than 1.00% of mass 198	2.40
441	Present, but less than mass 443	7.84
442	40.00 - 99.99% of mass 198	51.99
443	17.00 - 23.00% of mass 442	9.79 (18.83)

8270-SIM
BCR

4/18/05

4/18/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042105.b\XDL10.D

Date : 21-APR-2005 20:00

Client ID: dftpp tune std

Instrument: MSBNA05.i

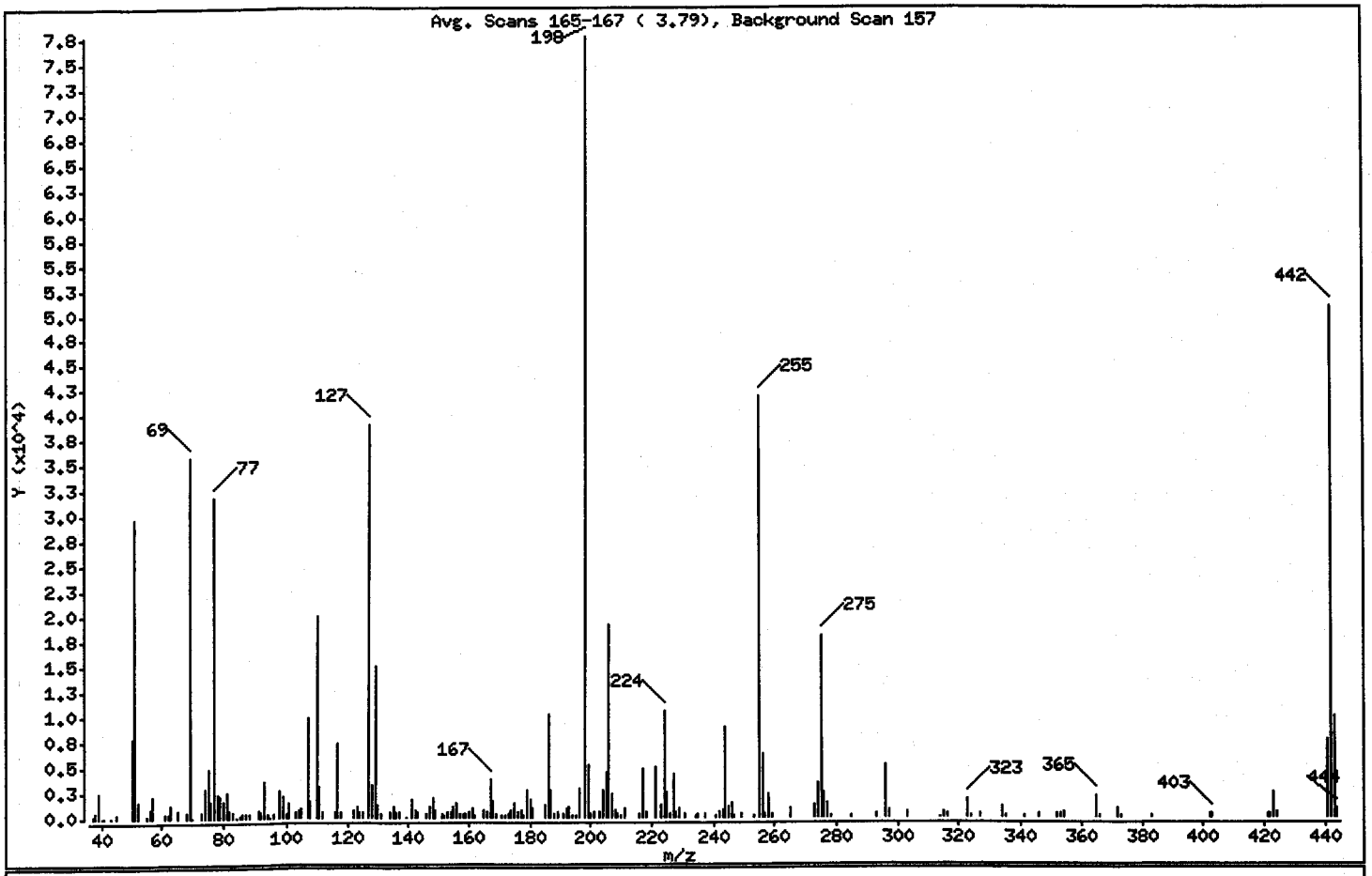
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.22
68	Less than 1.99% of mass 69	0.65 (1.42)
69	Mass 69 relative abundance	46.09
70	Less than 2.00% of mass 69	0.10 (0.22)
127	40.00 - 60.00% of mass 198	50.35
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	23.33
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	9.86
442	40.00 - 99.99% of mass 198	65.54
443	17.00 - 23.00% of mass 442	12.91 (19.70)

Ok
LLH 4/27/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042205.b\XDM01.D

Date : 22-APR-2005 15:50

Client ID: dftpp tune std

Instrument: MSBNA05.i

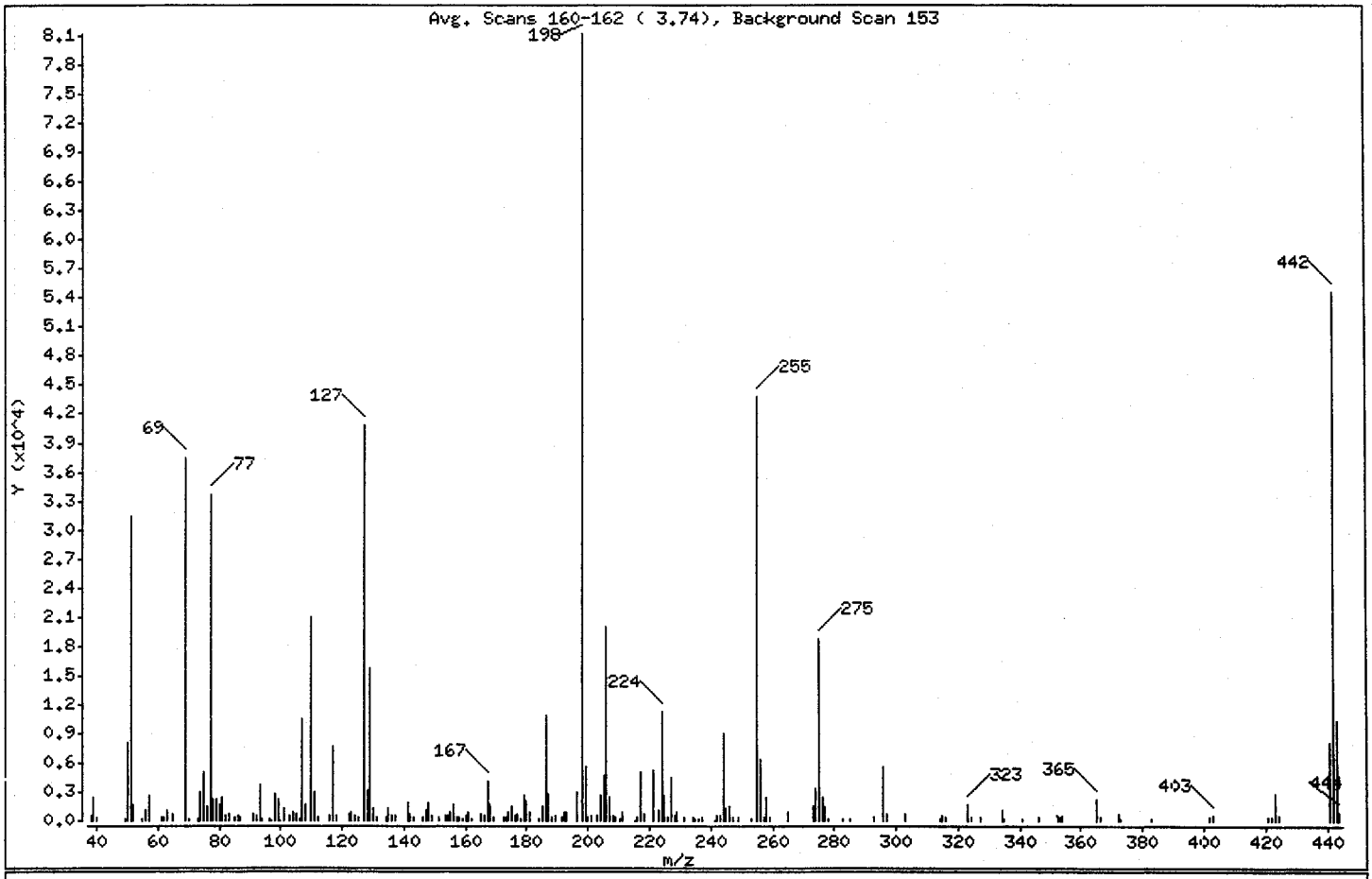
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.71
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.12
70	Less than 2.00% of mass 69	0.23 (0.49)
127	40.00 - 60.00% of mass 198	50.23
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.83
275	10.00 - 30.00% of mass 198	23.06
365	Greater than 1.00% of mass 198	2.74
441	Present, but less than mass 443	9.84
442	40.00 - 99.99% of mass 198	67.18
443	17.00 - 23.00% of mass 442	12.67 (18.87)

4/25/06

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042505.b\XDP01.D

Date : 25-APR-2005 09:51

Client ID: dftpp tune std

Instrument: MSBNA05.i

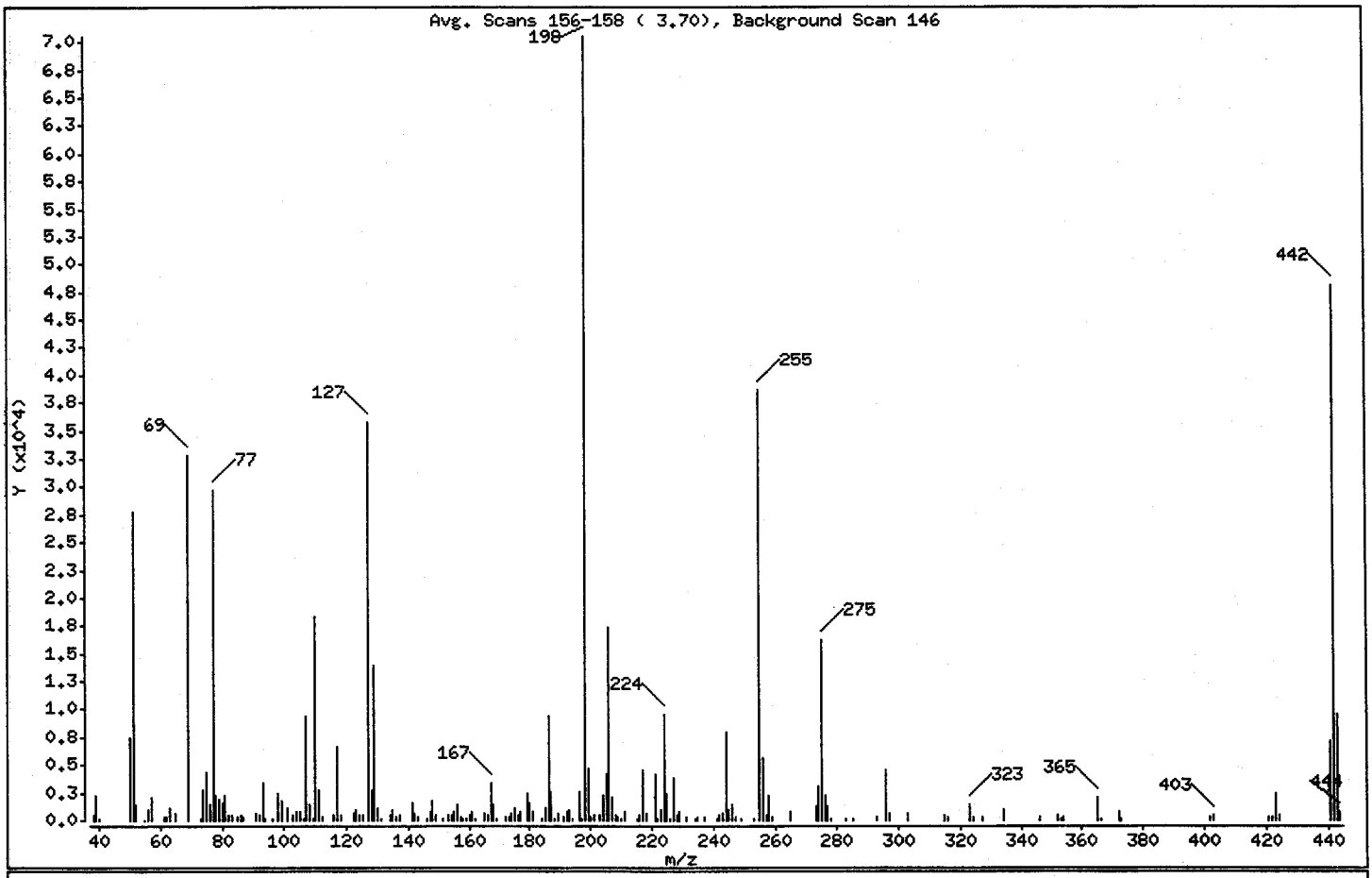
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.50
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.60
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.60
197	Less than 1.00% of mass 198	0.29
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	23.12
365	Greater than 1.00% of mass 198	2.94
441	Present, but less than mass 443	10.19
442	40.00 - 99.99% of mass 198	68.10
443	17.00 - 23.00% of mass 442	13.49 (19.80)

BNA03 8270-SIM calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525156090001 Name: 3PAHSIM Type: (normal) Date: 18-APR-2005 16:51 Inj Vol (uL): 1

manual integrations due to splitting/ dropping baseline

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdi08	525156090008	0.1ug/ml PAHDIOX	18-APR-2005 16:51	05WS0256
2	vdi09	525156090009	0.2ug/ml PAHDIOX	18-APR-2005 17:21	05WS0257
3	vdi10	525156090010	0.5ug/ml PAHDIOX	18-APR-2005 17:51	05WS0258
4	vdi11	525156090011	1.0ug/ml PAHDIOX	18-APR-2005 18:22	05WS0259
5	vdi12	525156090012	2.0ug/ml PAHDIOX	18-APR-2005 18:53	05WS0260
6	vdi13	525156090013	5.0ug/ml PAHDIOX	18-APR-2005 19:23	05WS0261
7	vdi14	525156090014	10ug/ml PAHDIOX	18-APR-2005 19:54	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4227m	0.4175m	0.4207m	0.4190	0.4092	0.3511	AVRG	R		2.458761		ng	0.4067	7	0.0500	.99	15	
Naphthalene	1.1249	1.0894	0.9810	0.9903	0.9654	1.0044	0.8762	AVRG	R		0.995510		ng	1.0045	8	0.0500	.99	15	
2-Methylnaphthalene	0.7196	0.7293	0.6460	0.6557	0.6575	0.6905	0.6228	AVRG	R		1.482647		ng	0.6745	6	0.0500	.99	15	
Acenaphthylene	1.4244	1.4870	1.3942	1.4966	1.5485	1.6636	1.5585	AVRG	R		0.662077		ng	1.5104	6	0.0500	.99	15	
Acenaphthene	1.0702	1.0930	0.9637	0.9908	0.9902	1.0449	0.9718	AVRG	R		0.982502		ng	1.0178	5	0.0500	.99	15	
Fluorene	1.2259	1.2730	1.1469	1.2019	1.2025	1.2684	1.1904	AVRG	R		0.822656		ng	1.2156	4	0.0500	.99	15	
Phenanthrene	1.0613	1.0372	0.8962	0.9172	0.9061	0.9777	0.8945	AVRG	R		1.046320		ng	0.9557	7	0.0500	.99	15	
Anthracene	0.7343	0.8518	0.7226	0.7924	0.8157	0.9111	0.8434	AVRG	R		1.234276		ng	0.8102	8	0.0500	.99	15	
Fluoranthene	1.1973	1.0984	0.9971	1.0586	1.0434	1.1228	1.0238	AVRG	R		0.928208		ng	1.0773	6	0.0500	.99	15	
Pyrene	1.2776	1.1719	1.0315	1.0680	1.0453	1.1456	1.0637	AVRG	R		0.896991		ng	1.1148	8	0.0500	.99	15	
Benzo(a)anthracene	1.0668	0.9484	0.8747	0.9276	0.9471	1.0919	1.0247	AVRG	R		1.017244		ng	0.9830	8	0.0500	.99	15	
Chrysene	1.2011	1.1212	0.9597	0.9664	0.9485	1.0372	0.9543	AVRG	R		0.973775		ng	1.0269	10	0.0500	.99	15	
Benzo(b)fluoranthene	1.4757	1.3461	1.2977	1.3610	1.3508	1.4857	1.4435	AVRG	R		0.717171		ng	1.3944	5	0.0500	.99	15	
Benzo(k)fluoranthene	1.6924	1.6767	1.3842	1.4196	1.4712	1.8093	1.5932	AVRG	R		0.633679		ng	1.5781	10	0.0500	.99	15	
Benzo(a)pyrene	1.1103	0.9861	0.9078	1.0137	1.0524	1.2955	1.2433	AVRG	R		0.919963		ng	1.0870	13	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.2123	1.1022	1.0040	1.0948	1.1627	1.4224	1.4172	AVRG	R		0.831787		ng	1.2022	13	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9335	0.8502	0.7894	0.8713	0.9137	1.1561		AVRG	R		1.088100		ng	0.9190	14	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1107	1.0053	0.8929	0.9460	0.9664	1.1733	1.1588	AVRG	R		0.965059		ng	1.0362	11	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: OK
CCV: OK

4/19/05

✓ MW 4/19/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525156090001 Name: 3PAHSIM Type: (normal) Date: 18-APR-2005 16:51 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2621	0.2491	0.2513	0.2895	0.3051	0.3216	0.3145	AVRG	R		3.511830		ng	0.2848	11	0.0500	.99	15	
2-Fluorobiphenyl	1.5082	1.5070	1.3158	1.3311	1.3170	1.3786	1.2638	AVRG	R		0.727543		ng	1.3745	7	0.0500	.99	15	
Terphenyl-d14	1.1308	0.9779	0.8462	0.8611	0.8415	0.9396	0.8540	AVRG	R		1.085080		ng	0.9216	12	0.0500	.99	15	

21

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name :
Seqnum : 525157636002 Filename : vdj02 Injected : 19-APR-2005 12:02
Calnum : 525156090001 Caldate : 18-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.186300	ng	19	30	m
Naphthalene	1.000000	0.952400	ng	-5	30	
2-Methylnaphthalene	1.000000	1.039300	ng	4	30	
Acenaphthylene	1.000000	1.022500	ng	2	30	
Acenaphthene	1.000000	1.013000	ng	1	20	
Fluorene	1.000000	1.022800	ng	2	30	
Phenanthrene	1.000000	1.018400	ng	2	30	
Anthracene	1.000000	1.070200	ng	7	30	
Fluoranthene	1.000000	1.018500	ng	2	20	
Pyrene	1.000000	1.036200	ng	4	30	
Benzo(a)anthracene	1.000000	1.031700	ng	3	30	
Chrysene	1.000000	0.928700	ng	-7	30	
Benzo(b)fluoranthene	1.000000	1.117700	ng	12	30	
Benzo(k)fluoranthene	1.000000	1.004300	ng	0	30	
Benzo(a)pyrene	1.000000	1.132300	ng	13	20	
Indeno(1,2,3-cd)pyrene	1.000000	1.018100	ng	2	30	
Dibenz(a,h)anthracene	1.000000	1.003900	ng	0	30	
Benzo(g,h,i)perylene	1.000000	1.017600	ng	2	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV

Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

m=manual integration

BNA05 8/10-3IM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

ICAL: OK
BCV: OK

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

4/25/05

4/25/06

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

24

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

BNAOT 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	xdg04	545153296004	0.1ug/mL	16-APR-2005 12:16	05WS0256
2	xdg05	545153296005	0.2ug/mL	16-APR-2005 12:46	05WS0257
3	xdg06	545153296006	0.5ug/mL	16-APR-2005 13:16	05WS0258
4	xdg07	545153296007	1.0ug/mL	16-APR-2005 13:46	05WS0259
5	xdg08	545153296008	2.0ug/mL	16-APR-2005 14:17	05WS0260
6	xdg09	545153296009	5.0ug/mL	16-APR-2005 14:47	05WS0261
7	xdg10	545153296010	10.0ug/mL	16-APR-2005 15:17	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.5083m	0.4658m	0.4593m	0.4615m	0.4155	0.3536m	AVRG	R		2.252186		ng	0.4440	12	0.0500	.99	15	
Naphthalene	1.0823	1.0470	0.9094	0.9002	0.8581	0.8558	0.7962	AVRG	R		1.085426		ng	0.9213	11	0.0500	.99	15	
2-Methylnaphthalene	0.8237	0.8179	0.7193	0.6877	0.6545	0.6353	0.5767	AVRG	R		1.424186		ng	0.7022	13	0.0500	.99	15	
Acenaphthylene	1.9176	1.9272	1.6248	1.6229	1.5218	1.5491	1.4048	AVRG	R		0.605107		ng	1.6526	12	0.0500	.99	15	
Acenaphthene	0.9780	1.0039	0.8880	0.9042	0.8745	0.8961	0.8459	AVRG	R		1.095343		ng	0.9130	6	0.0500	.99	15	
Fluorene	1.2936	1.3343	1.1044	1.0822	1.0251	1.0427	0.9742	AVRG	R		0.890969		ng	1.1224	12	0.0500	.99	15	
Phenanthrene	1.0829	1.0832	0.9129	0.9025	0.8625	0.8733	0.8045	AVRG	R		1.073340		ng	0.9317	12	0.0500	.99	15	
Anthracene	1.0124	1.0089	0.8374	0.8494	0.8074	0.8190	0.7527	AVRG	R		1.149982		ng	0.8696	12	0.0500	.99	15	
Fluoranthene	1.3463	1.3299	1.0908	1.0639	0.9777	0.9745		AVRG	R		0.884534		ng	1.1305	15	0.0500	.99	15	
Pyrene	1.6296	1.5838	1.3203	1.3448	1.2436	1.3168	1.2377	AVRG	R		0.723391		ng	1.3824	11	0.0500	.99	15	
Benzo(a)anthracene	1.4876	1.4402	1.1906	1.1967	1.1234	1.1975	1.0980	AVRG	R		0.801467		ng	1.2477	12	0.0500	.99	15	
Chrysene	1.2222	1.1905	1.0174	1.0425	1.0044	1.0843	1.0109	AVRG	R		0.924429		ng	1.0817	8	0.0500	.99	15	
Benzo(b)fluoranthene	1.5580	1.5462	1.2905	1.2678	1.2143	1.2456	1.2660	AVRG	R		0.745603		ng	1.3412	11	0.0500	.99	15	
Benzo(k)fluoranthene	1.6417	1.5304	1.2891	1.2397	1.2185	1.3772	1.2329	AVRG	R		0.734560		ng	1.3614	12	0.0500	.99	15	
Benzo(a)pyrene	1.2245m	1.3794	1.1580	1.1555	1.0869	1.1538	1.0795	AVRG	R		0.849763		ng	1.1768	9	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.6137	1.5844	1.3125	1.2617	1.2035	1.2739	1.2276	AVRG	R		0.738612		ng	1.3539	13	0.0500	.99	15	
Dibenz(a,h)anthracene	1.3595	1.3309	1.1205	1.0961	1.0463	1.1076	1.0269	AVRG	R		0.865497		ng	1.1554	12	0.0500	.99	15	
Benzo(g,h,i)perylene	1.3844	1.3455	1.1143	1.0875	1.0452	1.0883	1.0182	AVRG	R		0.865962		ng	1.1548	13	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CCAL: OK
SCV: 1,4-Dioxane ↑ both SD.
2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(b)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ both nearing limits

04/18/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.3672	0.3648	0.3381	0.3529	0.3456	0.3488	0.3162	AVRG	R		2.876322		ng	0.3477	5	0.0500	.99	15	
2-Fluorobiphenyl	1.4858	1.4656	1.2004	1.1696	1.0949	1.1500	1.0726	AVRG	R		0.810301		ng	1.2341	14	0.0500	.99	15	
Terphenyl-d14	1.1218	1.0588	0.8829	0.8901	0.8422	0.9018	0.8230	AVRG	R		1.073507		ng	0.9315	12	0.0500	.99	15	

27

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : 1.0ug/mL
Seqnum : 545153296011 Filename : xdg11 Injected : 16-APR-2005 15:47
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0244

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.315700	ng	32	30	m v+ ***
Naphthalene	1.000000	1.183700	ng	18	30	
2-Methylnaphthalene	1.000000	1.226800	ng	23	30	!v+
Acenaphthylene	1.000000	1.231800	ng	23	30	!v+
Acenaphthene	1.000000	0.943100	ng	-6	20	m
Fluorene	1.000000	1.193400	ng	19	30	
Phenanthrene	1.000000	1.261100	ng	26	30	!v+
Anthracene	1.000000	1.261900	ng	26	30	!v+
Fluoranthene	1.000000	1.194800	ng	19	20	
Pyrene	1.000000	1.203700	ng	20	30	m
Benzo(a)anthracene	1.000000	1.258100	ng	26	30	!v+
Chrysene	1.000000	1.162800	ng	16	30	
Benzo(b)fluoranthene	1.000000	1.276500	ng	28	30	!v+
Benzo(k)fluoranthene	1.000000	1.169700	ng	17	30	
Benzo(a)pyrene	1.000000	1.124600	ng	12	20	m
Indeno(1,2,3-cd)pyrene	1.000000	1.189900	ng	19	30	
Dibenz(a,h)anthracene	1.000000	1.265500	ng	27	30	!v+
Benzo(g,h,i)perylene	1.000000	1.230800	ng	23	30	!v+

ISTD (CCV=xdg02)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	31768	23536	-25.91	6.44	6.44	0.00
Naphthalene-d8	95273	82425	-13.49	7.96	7.94	-0.02
Acenaphthene-d10	52843	44789	-15.24	10.21	10.21	0.00
Phenanthrene-d10	88159	70817	-19.67	12.12	12.12	0.00
Chrysene-d12	71234	53929	-24.29	15.79	15.79	0.00
Perylene-d12	66280	47612	-28.17	17.78	17.78	0.00

4/18/05

4/18/05

!=warning +=high bias m=manual integration v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525160783002 Filename : vdl02 Injected : 21-APR-2005 16:00
Calnum : 525156090001 Caldate : 18-APR-2005 Caltype :
Standards: 05WS0257

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4067	0.4479	0.200000	0.220300	ng	10	30	0.0500	m
Naphthalene	1.0045	1.1234	0.200000	0.223700	ng	12	30	0.0500	
2-Methylnaphthalene	0.6745	0.7838	0.200000	0.232400	ng	16	30	0.0500	
Acenaphthylene	1.5104	1.6258	0.200000	0.215300	ng	8	30	0.0500	
Acenaphthene	1.0178	1.0906	0.200000	0.214300	ng	7	20	0.0500	
Fluorene	1.2156	1.2635	0.200000	0.207900	ng	4	30	0.0500	
Phenanthrene	0.9557	1.0569	0.200000	0.221200	ng	11	30	0.0500	
Anthracene	0.8102	0.8560	0.200000	0.211300	ng	6	30	0.0500	
Fluoranthene	1.0773	1.1531	0.200000	0.214100	ng	7	20	0.0500	
Pyrene	1.1148	1.2740	0.200000	0.228500	ng	14	30	0.0500	
Benzo(a)anthracene	0.9830	1.0690	0.200000	0.217500	ng	9	30	0.0500	
Chrysene	1.0269	1.1662	0.200000	0.227100	ng	14	30	0.0500	
Benzo(b)fluoranthene	1.3944	1.6278	0.200000	0.233500	ng	17	30	0.0500	
Benzo(k)fluoranthene	1.5781	1.6532	0.200000	0.209500	ng	5	30	0.0500	
Benzo(a)pyrene	1.0870	1.1313	0.200000	0.208200	ng	4	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2022	1.3132	0.200000	0.218500	ng	9	30	0.0500	
Dibenz(a,h)anthracene	0.9190	1.0665	0.200000	0.232100	ng	16	30	0.0500	
Benzo(g,h,i)perylene	1.0362	1.1522	0.200000	0.222400	ng	11	30	0.0500	
Nitrobenzene-d5	0.2848	0.2865	0.200000	0.201200	ng	1	30	0.0500	
2-Fluorobiphenyl	1.3745	1.5187	0.200000	0.221000	ng	11	30	0.0500	
Terphenyl-d14	0.9216	1.0893	0.200000	0.236400	ng	18	30	0.0500	

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : IDF : 1.0
Seqnum : 545160540012 Filename : xdl12 Injected : 21-APR-2005 20:53
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0260

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.3675	2.000000	1.655500	ng	-17	30	0.0500	
Naphthalene	0.9213	0.8106	2.000000	1.759600	ng	-12	30	0.0500	
2-Methylnaphthalene	0.7022	0.6045	2.000000	1.721800	ng	-14	30	0.0500	
Acenaphthylene	1.6526	1.5236	2.000000	1.843800	ng	-8	30	0.0500	
Acenaphthene	0.9130	0.8778	2.000000	1.923000	ng	-4	20	0.0500	
Fluorene	1.1224	1.0301	2.000000	1.835500	ng	-8	30	0.0500	
Phenanthrene	0.9317	0.8490	2.000000	1.822500	ng	-9	30	0.0500	
Anthracene	0.8696	0.8112	2.000000	1.865800	ng	-7	30	0.0500	
Fluoranthene	1.1305	0.9447	2.000000	1.671200	ng	-16	20	0.0500	
Pyrene	1.3824	1.2425	2.000000	1.797600	ng	-10	30	0.0500	
Benzo(a)anthracene	1.2477	1.1407	2.000000	1.828500	ng	-9	30	0.0500	
Chrysene	1.0817	1.0017	2.000000	1.851900	ng	-7	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.2464	2.000000	1.858700	ng	-7	30	0.0500	m
Benzo(k)fluoranthene	1.3614	1.0553	2.000000	1.550400	ng	-22	30	0.0500	!c- m
Benzo(a)pyrene	1.1768	1.2598	2.000000	2.141100	ng	7	20	0.0500	m
Indeno(1,2,3-cd)pyrene	1.3539	1.1871	2.000000	1.753600	ng	-12	30	0.0500	
Dibenz(a,h)anthracene	1.1554	0.9799	2.000000	1.696200	ng	-15	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0151	2.000000	1.758000	ng	-12	30	0.0500	
Nitrobenzene-d5	0.3477	0.3291	2.000000	1.893100	ng	-5	30	0.0500	
2-Fluorobiphenyl	1.2341	1.2190	2.000000	1.975500	ng	-1	30	0.0500	
Terphenyl-d14	0.9315	0.8448	2.000000	1.813700	ng	-9	30	0.0500	

!=warning -=low bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : IDF : 1.0
Seqnum : 545162230003 Filename : xdm03 Injected : 22-APR-2005 16:47
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0260

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.4770	2.000000	2.148700	ng	7	30	0.0500	m
Naphthalene	0.9213	0.7576	2.000000	1.644500	ng	-18	30	0.0500	
2-Methylnaphthalene	0.7022	0.5866	2.000000	1.670800	ng	-16	30	0.0500	
Acenaphthylene	1.6526	1.5088	2.000000	1.826000	ng	-9	30	0.0500	
Acenaphthene	0.9130	0.8692	2.000000	1.904200	ng	-5	20	0.0500	
Fluorene	1.1224	1.0195	2.000000	1.816600	ng	-9	30	0.0500	
Phenanthrene	0.9317	0.8141	2.000000	1.747600	ng	-13	30	0.0500	
Anthracene	0.8696	0.7859	2.000000	1.807500	ng	-10	30	0.0500	
Fluoranthene	1.1305	0.9498	2.000000	1.680300	ng	-16	20	0.0500	
Pyrene	1.3824	1.2348	2.000000	1.786500	ng	-11	30	0.0500	
Benzo(a)anthracene	1.2477	1.1233	2.000000	1.800600	ng	-10	30	0.0500	
Chrysene	1.0817	0.9704	2.000000	1.794200	ng	-10	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.1456	2.000000	1.708300	ng	-15	30	0.0500	
Benzo(k)fluoranthene	1.3614	1.5981	2.000000	2.347800	ng	17	30	0.0500	
Benzo(a)pyrene	1.1768	1.0935	2.000000	1.858400	ng	-7	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.3539	1.1661	2.000000	1.722700	ng	-14	30	0.0500	
Dibenz(a,h)anthracene	1.1554	1.0015	2.000000	1.733600	ng	-13	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0129	2.000000	1.754200	ng	-12	30	0.0500	
Nitrobenzene-d5	0.3477	0.2948	2.000000	1.695700	ng	-15	30	0.0500	
2-Fluorobiphenyl	1.2341	1.0846	2.000000	1.757600	ng	-12	30	0.0500	
Terphenyl-d14	0.9315	0.8397	2.000000	1.802900	ng	-10	30	0.0500	

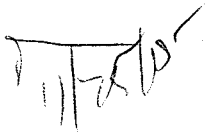
4/25/05

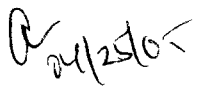
m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525163792002 Filename : vdn02 Injected : 23-APR-2005 18:11
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: 05WS0259

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4253	1.000000	1.069100	ng	7	30	0.0500	
Naphthalene	0.8875	0.9628	1.000000	1.084800	ng	8	30	0.0500	
2-Methylnaphthalene	0.6056	0.6457	1.000000	1.066100	ng	7	30	0.0500	
Acenaphthylene	1.6578	1.6000	1.000000	0.965100	ng	-3	30	0.0500	
Acenaphthene	1.0255	1.0017	1.000000	0.976700	ng	-2	20	0.0500	
Fluorene	1.2395	1.2117	1.000000	0.977600	ng	-2	30	0.0500	
Phenanthrene	0.9650	0.9224	1.000000	0.955800	ng	-4	30	0.0500	
Anthracene	0.8558	0.8261	1.000000	0.965300	ng	-3	30	0.0500	
Fluoranthene	1.0752	1.0123	1.000000	0.941600	ng	-6	20	0.0500	
Pyrene	1.1306	1.0426	1.000000	0.922200	ng	-8	30	0.0500	
Benzo(a)anthracene	1.0288	0.9594	1.000000	0.932500	ng	-7	30	0.0500	
Chrysene	1.0217	0.9506	1.000000	0.930400	ng	-7	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.1162	1.000000	0.843000	ng	-16	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.7265	1.000000	0.962000	ng	-4	30	0.0500	
Benzo(a)pyrene	1.1063	0.9930	1.000000	0.897600	ng	-10	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.0826	1.000000	0.896100	ng	-10	30	0.0500	
Dibenz(a,h)anthracene	0.9620	0.8549	1.000000	0.888700	ng	-11	30	0.0500	
Benzo(g,h,i)perylene	1.0276	0.9113	1.000000	0.886900	ng	-11	30	0.0500	
Nitrobenzene-d5	0.2512	0.2416	1.000000	0.961700	ng	-4	30	0.0500	
2-Fluorobiphenyl	1.3678	1.3291	1.000000	0.971700	ng	-3	30	0.0500	
Terphenyl-d14	0.9054	0.8757	1.000000	0.967300	ng	-3	30	0.0500	





CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : PAHDIOX IDF : 1.0
Seqnum : 545166191002 Filename : xdp02 Injected : 25-APR-2005 10:12
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0258

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.5096	0.500000	0.573900	ng	15	30	0.0500	m
Naphthalene	0.9213	0.7976	0.500000	0.432800	ng	-13	30	0.0500	
2-Methylnaphthalene	0.7022	0.6128	0.500000	0.436400	ng	-13	30	0.0500	
Acenaphthylene	1.6526	1.6914	0.500000	0.511700	ng	2	30	0.0500	
Acenaphthene	0.9130	0.8801	0.500000	0.482000	ng	-4	20	0.0500	
Fluorene	1.1224	1.0626	0.500000	0.473400	ng	-5	30	0.0500	
Phenanthrene	0.9317	0.8941	0.500000	0.479800	ng	-4	30	0.0500	
Anthracene	0.8696	0.8337	0.500000	0.479400	ng	-4	30	0.0500	
Fluoranthene	1.1305	1.0539	0.500000	0.466100	ng	-7	20	0.0500	
Pyrene	1.3824	1.3661	0.500000	0.494100	ng	-1	30	0.0500	
Benzo(a)anthracene	1.2477	1.2025	0.500000	0.481900	ng	-4	30	0.0500	
Chrysene	1.0817	1.0134	0.500000	0.468400	ng	-6	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.2255	0.500000	0.456900	ng	-9	30	0.0500	
Benzo(k)fluoranthene	1.3614	1.1904	0.500000	0.437200	ng	-13	30	0.0500	
Benzo(a)pyrene	1.1768	1.1328	0.500000	0.481300	ng	-4	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.3539	1.2062	0.500000	0.445400	ng	-11	30	0.0500	
Dibenz(a,h)anthracene	1.1554	1.0164	0.500000	0.439800	ng	-12	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0618	0.500000	0.459800	ng	-8	30	0.0500	
Nitrobenzene-d5	0.3477	0.3937	0.500000	0.566200	ng	13	30	0.0500	
2-Fluorobiphenyl	1.2341	1.1553	0.500000	0.468100	ng	-6	30	0.0500	
Terphenyl-d14	0.9315	0.8784	0.500000	0.471500	ng	-6	30	0.0500	

4/25/05

4/25/05

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Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 21-APR-2005 CCV Filename: vdl02
Sequence: 525160783 (vdl) Date Analyzed: 21-APR-2005
Instrument ID: MSBNA03 Time Analyzed: 16:00

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	57881	7.25	214714	8.96	121699	11.55	218917	13.79	209652	17.63	179169	19.42
LOWER LIMIT	28941	6.75	107357	8.46	60850	11.06	109459	13.29	104826	17.13	89585	18.92
UPPER LIMIT	115762	7.75	429428	9.46	243398	12.06	437834	14.29	419304	18.13	358338	19.92

TYPE	SAMPLE	#											
CCV		002	57881	7.25	214714	8.96	121699	11.56	218917	13.79	209652	17.63	179169	19.42
SAMPLE	178716-002	003	35550	7.25	141650	8.96	89205	11.56	161819	13.80	161133	17.63	143884	19.42
SAMPLE	178716-004	004	34597	7.25	139705	8.97	87699	11.56	155038	13.80	149111	17.63	136079	19.42
SAMPLE	178716-007	005	39416	7.25	138283	8.96	85880	11.56	151643	13.80	146019	17.63	132311	19.42
SAMPLE	178716-012	006	36922	7.25	138719	8.98	86769	11.56	150819	13.80	149151	17.63	133881	19.42
SAMPLE	178716-009	007	43373	7.25	152015	8.97	89229	11.56	144078	13.80	128528	17.64	103686	19.42
SAMPLE	178716-011	008	37230	7.25	138114	8.96	79804	11.56	130509	13.80	118936	17.64	98204	19.42
SAMPLE	178716-003	009	40227	7.25	145790	8.96	85348	11.56	138424	13.80	124585	17.64	101347	19.42
SAMPLE	178716-008	010	42207	7.25	149317	8.97	89799	11.56	148111	13.80	133136	17.64	107092	19.42
SAMPLE	178716-005	011	45081	7.25	162421	8.96	94501	11.56	150561	13.80	125908	17.64	96960	19.42
SAMPLE	178953-008	012	52141	7.25	194478	8.96	115596	11.56	177379	13.80	120178	17.65	64648*	19.46
SAMPLE	178716-006	013	43992	7.25	164408	8.97	87450	11.56	150846	13.80	133559	17.64	107184	19.42
SAMPLE	178846-002	014	47655	7.25	180874	8.96	111700	11.56	213916	13.80	193208	17.64	148506	19.42
SAMPLE	178835-003	015	47109	7.26	178379	8.97	109682	11.56	208071	13.80	192449	17.64	153531	19.42
SAMPLE	178951-003	016	45837	7.25	174122	8.96	107243	11.56	203648	13.80	193413	17.64	156421	19.42
SAMPLE	178975-011	017	47200	7.25	172776	8.96	105773	11.56	196910	13.80	179672	17.64	139238	19.42
SAMPLE	178975-010	018	44647	7.26	160030	8.97	97776	11.56	183733	13.80	173725	17.63	138703	19.42
SAMPLE	178975-008	019	47922	7.26	179118	8.97	108757	11.55	200071	13.80	184749	17.63	136727	19.42
SAMPLE	178835-001	020	46752	7.25	173679	8.97	108508	11.56	202366	13.79	192213	17.63	152027	19.42
SAMPLE	178975-012	021	47440	7.26	177214	8.97	107703	11.56	203347	13.80	193708	17.63	150584	19.42

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 21-APR-2005
Sequence: 545160540 (xdl)
Instrument ID: MSBNA05

CCV Filename: xdl12
Date Analyzed: 21-APR-2005
Time Analyzed: 20:53

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24652	6.16	89626	7.65	48797	9.91	80626	11.82	61523	15.51	56898	17.53
LOWER LIMIT	12326	5.66	44813	7.15	24399	9.41	40313	11.32	30762	15.01	28449	17.03
UPPER LIMIT	49304	6.66	179252	8.15	97594	10.41	161252	12.32	123046	16.01	113796	18.03

TYPE	SAMPLE	#										
CCV	PAHD10X	012	24652	6.16	89626	7.65	48797	9.91	80626	11.82	61523	15.51	56898	17.53
BLANK	QC291296	014	20396	6.16	78251	7.65	42834	9.91	66317	11.83	54240	15.52	44715	17.55
LCS	QC291297	016	33357	6.16	124095	7.65	73072	9.91	116803	11.83	104288	15.52	91270	17.55
MSS	178835-002	018	17311	6.16	64408	7.65	36403	9.91	55157	11.83	43688	15.52	36276	17.56
MS	QC291298	020	34038	6.16	122305	7.65	75847	9.91	118804	11.83	106235	15.53	91812	17.57
MSD	QC291299	022	33057	6.17	116770	7.65	73223	9.91	116155	11.84	103322	15.57	89301	17.62
SAMPLE	178975-009	023	19603	6.17	70232	7.67	42293	9.91	63936	11.84	51593	15.58	29741	17.66
SAMPLE	178951-002	024	19585	6.16	71047	7.65	41721	9.91	64492	11.84	52506	15.58	30283	17.66
SAMPLE	178975-001	025	19745	6.17	71178	7.67	41684	9.91	63405	11.84	51494	15.58	29641	17.66
SAMPLE	178975-003	026	19103	6.17	65134	7.67	39639	9.91	59537	11.84	47985	15.60	28050*	17.71
SAMPLE	178975-005	027	19009	6.17	63821	7.67	38207	9.91	57318	11.84	46138	15.61	26795*	17.72
SAMPLE	178975-013	028	19188	6.17	67112	7.67	26951	9.91	60007	11.84	48188	15.61	27557*	17.72
SAMPLE	178975-015	029	17801	6.17	62930	7.67	25017	9.91	54559	11.84	43414	15.63	23258*	17.79
SAMPLE	178975-002	030	33261	6.17	119589	7.67	75986	9.91	120068	11.84	105027	15.61	58163	17.75

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 22-APR-2005
Sequence: 545162230 (xdm)
Instrument ID: MSBNA05

CCV Filename: xdm03
Date Analyzed: 22-APR-2005
Time Analyzed: 16:47

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24691	6.12	97408	7.61	48545	9.84	80288	11.75	60565	15.36	52927	17.35
LOWER LIMIT	12346	5.62	48704	7.11	24273	9.34	40144	11.25	30283	14.86	26464	16.85
UPPER LIMIT	49382	6.62	194816	8.11	97090	10.34	160576	12.25	121130	15.86	105854	17.85

TYPE	SAMPLE	#											
CCV		003	24691	6.12	97408	7.61	48545	9.84	80288	11.75	60565	15.36	52927	17.35
BLANK	QC291296	004	25091	6.12	102754	7.61	53762	9.84	81347	11.74	68261	15.36	55472	17.34
LCS	QC291297	005	24699	6.12	101372	7.61	48732	9.84	69490	11.74	49175	15.36	39846	17.34
MSS	178835-002	006	14*	6.10	291*	7.61	25*	9.84	414*	11.75	141*	15.37	97*	17.35
MS	QC291298	007	23228	6.12	93681	7.61	45641	9.84	69110	11.74	49710	15.36	41310	17.34
MSD	QC291299	008	20905	6.12	85174	7.61	40649	9.84	61152	11.75	43498	15.36	35866	17.34
SAMPLE	178716-007	009	19230	6.12	59206	7.61	24186*	9.84	48796	11.75	39463	15.36	33981	17.35
SAMPLE	178716-002	010	38808	6.12	115949	7.61	52515	9.85	114346	11.75	102486	15.37	93929	17.35
SAMPLE	178716-004	011	22525	6.12	67539	7.61	28217	9.84	59909	11.75	49963	15.37	43052	17.35
SAMPLE	178716-012	012	19662	6.12	56988	7.61	24830	9.85	53082	11.75	45110	15.37	38104	17.35
SAMPLE	178951-002	013	35012	6.12	138795	7.61	79401	9.84	124852	11.75	108446	15.36	94760	17.35
SAMPLE	178975-013	014	19217	6.12	73783	7.61	40006	9.84	60876	11.75	47554	15.37	39551	17.35
SAMPLE	178951-004	015	17722	6.12	72768	7.61	37933	9.84	58684	11.75	45220	15.36	37751	17.35
SAMPLE	178951-001	016	17166	6.12	70129	7.61	37072	9.84	57085	11.75	42937	15.37	34734	17.35
SAMPLE	178846-001	017	17820	6.12	72711	7.61	37468	9.85	57204	11.75	41850	15.37	31353	17.35
SAMPLE	178975-002	018	35201	6.12	140972	7.61	80875	9.84	126751	11.75	107473	15.37	82940	17.35
SAMPLE	178975-009	019	20870	6.12	84593	7.61	44640	9.84	67479	11.75	52593	15.37	36723	17.35
SAMPLE	178975-001	020	20382	6.12	80897	7.61	42522	9.84	63529	11.75	46973	15.37	26427*	17.36
SAMPLE	178975-003	021	18174	6.12	62837	7.61	35433	9.85	53842	11.75	38226	15.40	18555*	17.38

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 23-APR-2005
Sequence: 525163792 (vdn)
Instrument ID: MSBNA03

CCV Filename: vdn02
Date Analyzed: 23-APR-2005
Time Analyzed: 18:11

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	50367	7.15	190555	8.85	107863	11.45	212860	13.67	218183	17.52	195655	19.30
LOWER LIMIT	25184	6.65	95278	8.35	53932	10.95	106430	13.17	109092	17.02	97828	18.80
UPPER LIMIT	100734	7.65	381110	9.35	215726	11.95	425720	14.17	436366	18.02	391310	19.80

TYPE	SAMPLE	#										
CCV		002	50367	7.15	190555	8.85	107863	11.45	212860	13.67	218183	17.52	195655	19.30
BLANK	QC291422	003	49601	7.16	196139	8.85	119967	11.45	233337	13.67	221643	17.52	184344	19.30
LCS	QC291423	004	49148	7.16	203520	8.85	116600	11.44	229438	13.67	222786	17.52	191519	19.30
MSS	178981-007	005	52743	7.16	211229	8.85	121996	11.45	237807	13.67	240036	17.52	208810	19.30
MS	QC291424	006	50799	7.16	200800	8.85	118652	11.45	226809	13.67	222085	17.52	194763	19.30
MSD	QC291425	007	47712	7.16	192855	8.85	110887	11.45	215886	13.67	216297	17.52	192802	19.30
SAMPLE	178846-002	008	51856	7.16	208146	8.85	123813	11.45	228044	13.67	217946	17.52	195521	19.30
SAMPLE	178835-001	009	50645	7.16	207865	8.85	120878	11.45	220022	13.67	172613	17.52	144094	19.31
SAMPLE	178835-003	010	50604	7.16	201882	8.85	118474	11.45	213765	13.67	160885	17.52	135518	19.31
SAMPLE	178951-003	011	52509	7.16	214830	8.85	123498	11.45	229222	13.67	203153	17.52	166653	19.31
SAMPLE	178975-005	012	42987	7.15	158137	8.85	93447	11.45	167845	13.67	126261	17.53	104968	19.31
SAMPLE	178975-015	013	45801	7.16	175021	8.85	103411	11.45	187718	13.67	133539	17.53	92334*	19.32
SAMPLE	178975-008	014	46325	7.16	176732	8.85	104883	11.45	173696	13.67	131584	17.53	86322*	19.32
SAMPLE	178975-010	015	50046	7.16	136159	8.87	82024	11.46	158234	13.69	155630	17.54	108616	19.32
SAMPLE	178975-011	016	51352	7.16	180145	8.85	102540	11.45	169396	13.69	130471	17.54	84884*	19.33
SAMPLE	178975-012	017	49717	7.16	196420	8.85	119888	11.45	210989	13.67	154826	17.53	89105*	19.32
SAMPLE	178975-018	018	44665	7.16	173069	8.86	101931	11.45	187712	13.67	138335	17.53	83640*	19.31
SAMPLE	178975-017	019	44676	7.16	168542	8.85	101621	11.45	184999	13.67	135880	17.53	83199*	19.31
SAMPLE	178975-020	020	45901	7.16	176040	8.85	107040	11.45	197452	13.67	137387	17.53	71656*	19.31
SAMPLE	178975-022	021	45668	7.16	174584	8.85	106394	11.45	196985	13.67	140968	17.53	71429*	19.31
SAMPLE	178975-019	022	43914	7.16	169158	8.85	102849	11.45	195010	13.67	143111	17.52	72704*	19.31

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-APR-2005
Sequence: 545166191 (xdp)
Instrument ID: MSBNA05

CCV Filename: xdp02
Date Analyzed: 25-APR-2005
Time Analyzed: 10:12

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24976	6.07	96386	7.55	48851	9.79	74387	11.69	56552	15.30	48506	17.27
LOWER LIMIT	12488	5.57	48193	7.06	24426	9.29	37194	11.19	28276	14.80	24253	16.77
UPPER LIMIT	49952	6.57	192772	8.06	97702	10.29	148774	12.19	113104	15.80	97012	17.77

TYPE	SAMPLE	#										
CCV	PAHDIOX	002	24976	6.07	96386	7.56	48851	9.79	74387	11.69	56552	15.30	48506	17.27
MSS	178835-002	005	30317	6.07	128370	7.56	71172	9.79	109683	11.69	88703	15.30	75396	17.27

BNA05 8 VOC SIM Calibration

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545153296 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 16-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used >LR
001	xdg01	CCV				16-APR-2005 10:56	1.0	1.0	21		1	1 ?t 13:NO2BZD=12.8892
002	xdg02	CCV				16-APR-2005 11:33	1.0	1.0	21		1	1 ?t cc- 3:NO2BZD=11.112
003	xdg03	TUN	NP NL			16-APR-2005 11:59	1.0	1.0				2
004	xdg04	ICAL	0.1ug/mL			16-APR-2005 12:16	1.0	1.0				3
005	xdg05	ICAL	0.2ug/mL			16-APR-2005 12:46	1.0	1.0				4
006	xdg06	ICAL	0.5ug/mL			16-APR-2005 13:16	1.0	1.0				5
007	xdg07	ICAL	1.0ug/mL			16-APR-2005 13:46	1.0	1.0				6
008	xdg08	CCV	2.0ug/mL			16-APR-2005 14:17	1.0	1.0			1	7
009	xdg09	ICAL	5.0ug/mL			16-APR-2005 14:47	1.0	1.0				8
010	xdg10	ICAL	10.0ug/mL			16-APR-2005 15:17	1.0	1.0				1
011	xdg11	ICV	1.0ug/mL			16-APR-2005 15:47	1.0	1.0	1		1	9
012	xdg12	BLANK	QC290649	101215	Soil	16-APR-2005 16:17	1.0	0.03297			1	10
013	xdg13	LCS	QC290650	101215	Soil	16-APR-2005 16:47	1.0	0.0333			1	10
014	xdg14	SAMPLE	178762-005	101215	Soil	16-APR-2005 17:18	2.0	0.03309			1	10
015	xdg15	SAMPLE	178762-006	101215	Soil	16-APR-2005 17:48	1.0	0.03324			1	10
016	xdg16	SAMPLE	178762-009	101215	Soil	16-APR-2005 18:18	1.0	0.03282			1	10
017	xdg17	SAMPLE	178762-008	101215	Soil	16-APR-2005 18:48	2.0	0.0331		1	1	10
018	xdg18	SAMPLE	178762-010	101215	Soil	16-APR-2005 19:19	2.0	0.03311			1	10
019	xdg19	SAMPLE	178762-011	101215	Soil	16-APR-2005 19:49	1.0	0.03317			1	10
020	xdg20	X	ENDBLANK			16-APR-2005 20:19	1.0					
021	xdg21	X	ENDBLANK			16-APR-2005 20:42	1.0					
022	xdg22	X	ENDBLANK			16-APR-2005 20:52	1.0					

ICAL: OK
CCV: 1,4-Dioxane ↑ Cal's OK
- 2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(b)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ but meeting limits

Stds used: 1=05WS0262 2=05WS0188 3=05WS0256 4=05WS0257 5=05WS0258 6=05WS0259 7=05WS0260 8=05WS0261 9=05WS0244 10=S266
Flags used: -=low bias ?t=missing tune cc=CCV CCC failure

Analyst: _____ Date: 4/18/05

4/18/05

BNA03 8270-SIM 8CAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525156090 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 18-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vdi01	TUN	NP NL	Tuning		18-APR-2005 09:30	1.0	1.0				1	
002	vdi02	TUN	NP NL			18-APR-2005 09:57	1.0	1.0				1	
003	vdi03	CCV		updating Group RTs		18-APR-2005 10:13	1.0	1.0	10		1	2 cc+	1:BZD=578.342
005	vdi05	CCV				18-APR-2005 12:19	1.0	1.0	14		1	3 cc+	13:BZBF=13.5198
006	vdi06	CCV				18-APR-2005 14:06	1.0	1.0	1		1	4	
007	vdi07	TUN	DFTPP 50NG			18-APR-2005 16:36	1.0	1.0				1	
008	vdi08	ICAL	0.1ug/ml PAH			18-APR-2005 16:51	1.0	1.0				5	
009	vdi09	ICAL	0.2ug/ml PAH			18-APR-2005 17:21	1.0	1.0				6	
010	vdi10	ICAL	0.5ug/ml PAH			18-APR-2005 17:51	1.0	1.0				7	
011	vdi11	ICAL	1.0ug/ml PAH			18-APR-2005 18:22	1.0	1.0				4	
012	vdi12	ICAL	2.0ug/ml PAH			18-APR-2005 18:53	1.0	1.0				8	
013	vdi13	ICAL	5.0ug/ml PAH			18-APR-2005 19:23	1.0	1.0				9	
014	vdi14	ICAL	10ug/ml PAHD			18-APR-2005 19:54	1.0	1.0				3	
015	vdi15	ICV	1.0ug/ml SIM	not used		18-APR-2005 20:25	1.0	1.0	7		1	10	
016	vdi16	BLANK	QC290558	101191	Water	18-APR-2005 20:55	1.0	0.001			1	11 not used	
017	vdi17	BS	QC290559	101191	Water	18-APR-2005 21:25	1.0	0.001		1	1	11 spk	
018	vdi18	BSD	QC290560	101191	Water	18-APR-2005 21:56	1.0	0.001		1	1	11 spk	
019	vdi19	BLANK	QC290561	101191	Filtra	18-APR-2005 22:27	1.0	0.001			1	11	
020	vdi20	LCS	QC290562	101191	Filtra	18-APR-2005 22:58	1.0	0.001		11	1	11 spk	
021	vdi21	SAMPLE	178797-001	101191	Filtra	18-APR-2005 23:29	1.0	0.001			1	11 spk	
022	vdi22	SAMPLE	178797-002	101191	Filtra	18-APR-2005 23:59	1.0	0.001176			1	11 spk	
023	vdi23	SAMPLE	178797-004	101191	Filtra	19-APR-2005 00:30	1.0	0.00125			1	11 spk	
024	vdi24	SAMPLE	178797-005	101191	Filtra	19-APR-2005 01:00	1.0	0.001			1	11 spk	
025	vdi25	SAMPLE	178797-006	101191	Filtra	19-APR-2005 01:31	1.0	0.001			1	11 spk	
026	vdi26	SAMPLE	178770-001	101191	Filtra	19-APR-2005 02:02	1.0	0.0009804			1	11 spk	
027	vdi27	SAMPLE	178770-002	101191	Filtra	19-APR-2005 02:32	1.0	0.001		1	1	11 spk	
028	vdi28	SAMPLE	178770-003	101191	Filtra	19-APR-2005 03:03	1.0	0.0009524			1	11 spk	
029	vdi29	SAMPLE	178770-004	101191	Filtra	19-APR-2005 03:34	1.0	0.0009709			1	11 spk	
030	vdi30	SAMPLE	178770-005	101191	Filtra	19-APR-2005 04:05	1.0	0.0009615			1	11 spk	

Stds used: 1=05WS0188 2=S240 3=05WS0262 4=05WS0259 5=05WS0256 6=05WS0257 7=05WS0258 8=05WS0260 9=05WS0261 10=05WS0244 11=05WS02

Flags used: +=high bias <<t=out of clock cc=CCV CCC failure spk=5% spike rule

Analyst: _____ Date: 4/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525156090 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 18-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
031	vdi31	SAMPLE	178770-007	101191	Filtra	19-APR-2005 04:35	1.0	0.0009804		1	11 spk not used	
032	vdi32	SAMPLE	178770-008	101191	Filtra	19-APR-2005 05:06	1.0	0.0009524	19	1	11 spk <<t ✓	
033	vdi33	X	END BLANK			19-APR-2005 05:37	1.0					
034	vdi34	X	END BLANK			19-APR-2005 06:09	1.0					
035	vdi35	X	END BLANK			19-APR-2005 06:39	1.0					

41

Stds used: 1=05WS0188 2=S240 3=05WS0262 4=05WS0259 5=05WS0256 6=05WS0257 7=05WS0258 8=05WS0260 9=05WS0261 10=05WS0244 11=05WS02!
Flags used: +=high bias <<t=out of clock cc=CCV CCC failure spk=5% spike rule

Analyst: _____ Date: 4/19/05

BNA03 8270-SIM ICV

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525157636 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 19-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	vdj01	TUN	NP NL			19-APR-2005 11:16	1.0					1	
002	vdj02	ICV				19-APR-2005 12:02	1.0		1			2	

42

Stds used: 1=05WS0188 2=S345

Analyst: _____ Date: 4/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525160783 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 21-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	vdl01	TUN	NP NL			21-APR-2005 15:43	1.0	1.0			1	
002	vdl02	CCV				21-APR-2005 16:00	1.0	1.0		1	2	
003	vdl03	SAMPLE	178716-002	101276	Soil	21-APR-2005 16:31	250.0	0.3309	1	1	3	1:MTNPH2=11.8173
004	vdl04	SAMPLE	178716-004	101276	Soil	21-APR-2005 17:01	200.0	0.3308	1	1	3	1:MTNPH2=11.3213
005	vdl05	SAMPLE	178716-007	101276	Soil	21-APR-2005 17:32	300.0	0.3324	1	1	3	1:MTNPH2=10.2956
006	vdl06	SAMPLE	178716-012	101276	Soil	21-APR-2005 18:02	200.0	0.3296	1	1	3	1:MTNPH2=12.6561
007	vdl07	SAMPLE	178716-009	101276	Soil	21-APR-2005 18:33	20.0	0.1643		1	3	
008	vdl08	SAMPLE	178716-011	101276	Soil	21-APR-2005 19:04	20.0	0.1641		1	3	
009	vdl09	SAMPLE	178716-003	101276	Soil	21-APR-2005 19:34	20.0	0.1651		1	3	
010	vdl10	SAMPLE	178716-008	101276	Soil	21-APR-2005 20:05	25.0	0.03309		1	3	
011	vdl11	SAMPLE	178716-005	101276	Soil	21-APR-2005 20:35	5.0	0.3309		1	3	
012	vdl12	SAMPLE	178953-008	101276	Soil	21-APR-2005 21:06	1.0	0.03323	19	1	3 sh	
013	vdl13	SAMPLE	178716-006	101276	Soil	21-APR-2005 21:38	20.0	0.03281		1	3	
014	vdl14	SAMPLE	178846-002	101384	Soil	21-APR-2005 22:09	20.0	0.03313		1	3	
015	vdl15	SAMPLE	178835-003	101384	Soil	21-APR-2005 22:40	20.0	0.03291		1	3	
016	vdl16	SAMPLE	178951-003	101384	Soil	21-APR-2005 23:11	20.0	0.03298		1	3	
017	vdl17	SAMPLE	178975-011	101384	Soil	21-APR-2005 23:42	20.0	0.03323		1	3	
018	vdl18	SAMPLE	178975-010	101384	Soil	22-APR-2005 00:13	20.0	0.0328		1	3	
019	vdl19	SAMPLE	178975-008	101384	Soil	22-APR-2005 00:44	20.0	0.03306		1	3	
020	vdl20	SAMPLE	178835-001	101384	Soil	22-APR-2005 01:14	20.0	0.033		1	3	
021	vdl21	SAMPLE	178975-012	101384	Soil	22-APR-2005 01:46	20.0	0.03319		1	3	
022	vdl22	X	ENDBLANK			22-APR-2005 02:11	1.0					
023	vdl23	X	ENDBLANK			22-APR-2005 02:22	1.0					
024	vdl24	X	ENDBLANK			22-APR-2005 02:33	1.0					

CCV: Ok
ICAL: Ok
ICV: Ok

Stds used: 1=05WS0188 2=05WS0257 3=05WS0254
Flags used: sh=out of sample hold

Analyst: _____ Date: 4/22/05 J. Hoffman 4/22/05

SURR only

MB/LCS/MSS/MSD/MSP

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545160540 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 21-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	xdl01	TUN	DFTTP 50NG			21-APR-2005 11:40	1.0	1.0				1	
002	xdl02	CCV	8270			21-APR-2005 12:04	1.0	1.0	4		1	2	
003	xdl03	BLANK	QC291165	101347	Soil	21-APR-2005 12:42	1.0	0.03312	1		1	3 Benzo(b).conf.	
004	xdl04	SAMPLE	178881-016	101253	Soil	21-APR-2005 13:18	15000	0.0668			1	3 Combine	
005	xdl05	SAMPLE	178888-001	101271	Water	21-APR-2005 13:55	25.0	0.0009901			1	3	
006	xdl06	SAMPLE	178888-005	101271	Water	21-APR-2005 14:31	10.0	0.001087	1	1	1	3 RR / n-nitrosodimethylamine	
007	xdl07	SAMPLE	178888-011	101271	Water	21-APR-2005 15:08	10.0	0.001		1	1	3	
008	xdl08	SAMPLE	178824-006	101347	Soil	21-APR-2005 16:25	5.0	0.03295		1	1	3 Benzo(b)conf.	
009	xdl09	SAMPLE	178950-001	101347	Miscel	21-APR-2005 17:01	25.0	0.3323			1	3	
010	xdl10	TUN	NP NL			21-APR-2005 20:00	1.0	1.0				1	
011	xdl11	X	05WS0260			21-APR-2005 20:17	1.0						
012	xdl12	CCV	PAHDIOX			21-APR-2005 20:53	1.0	1.0			1	4	
013	xdl13	X	QC291296	101384	Soil	21-APR-2005 21:24	1.0	0.03321			1	3 3:NO2BZD=30.1660	
014	xdl14	BLANK	QC291296	101384	Soil	21-APR-2005 21:54	20.0	0.03321	1		1	3 SURR only	
015	xdl15	X	QC291297	101384	Soil	21-APR-2005 22:25	1.0	0.03309			1	3 spk 3:NO2BZD=32.6766	
016	xdl16	LCS	QC291297	101384	Soil	21-APR-2005 22:56	20.0	0.03309			1	3 SURR only	
017	xdl17	X	178835-002	101384	Soil	21-APR-2005 23:26	1.0	0.0331			1	3 3:NO2BZD=33.2682	
018	xdl18	MSS	178835-002	101384	Soil	21-APR-2005 23:57	20.0	0.0331			1	3 SURR only	
019	xdl19	X	QC291298	101384	Soil	22-APR-2005 00:28	1.0	0.0331			1	3 3:NO2BZD=31.7543	
020	xdl20	MS	QC291298	101384	Soil	22-APR-2005 00:58	20.0	0.0331			1	3 SURR only	
021	xdl21	X	QC291299	101384	Soil	22-APR-2005 01:29	1.0	0.0333			1	3 3:NO2BZD=35.3218	
022	xdl22	MSD	QC291299	101384	Soil	22-APR-2005 02:00	20.0	0.0333			1	3 SURR only	
023	xdl23	SAMPLE	178975-009	101384	Soil	22-APR-2005 02:31	20.0	0.08317			1	3	
024	xdl24	SAMPLE	178951-002	101384	Soil	22-APR-2005 03:02	20.0	0.03305			1	3	
025	xdl25	SAMPLE	178975-001	101384	Soil	22-APR-2005 03:33	20.0	0.03289			1	3	
026	xdl26	SAMPLE	178975-003	101384	Soil	22-APR-2005 04:04	20.0	0.03317			1	3	
027	xdl27	SAMPLE	178975-005	101384	Soil	22-APR-2005 04:35	20.0	0.03279			1	3	
028	xdl28	SAMPLE	178975-013	101384	Soil	22-APR-2005 05:06	20.0	0.03288		1	1	3 RR w/ #285	
029	xdl29	SAMPLE	178975-015	101384	Soil	22-APR-2005 05:37	20.0	0.033		1	1	3 RR w/ DIV	

Stds used: 1=05WS0188 2=S239 3=04SS401 4=05WS0260
Flags used: spk=5% spike rule

8270 ICAL: Benzidine failed (M)
ICV: 4-Nitroaniline ↑ / 4,6-Dinitro-2-methylphenol ↑
WL: 3-Nitroaniline ↑ / Aniline ↑ / Benzidine ↑
CCV XDL02 = n-nitrosodimethylamine ↑ / bis(2-chloroisopropyl) ether ↑ / Azobenzene ↑
WL = bis(2-chloroethyl)ether ↑ / n-Nitroso-di n-propylamine ↑ / 2-Nitroaniline ↑ / 4,6-Dinitro-2-methylphenol ↑

Analyst: _____ Date: 4/22/05

Page 1 of 2

PAHDIOX ICAL: pk
ICV = 1,4-Dioxane ↑
WL = 2-Methylnaphthalene ↑ / Acenaphthylene ↑ / Phenanthrene ↑ / Anthracene ↑ / Benzo(a)anthracene ↑ / Benzo(k)Phenanthrene ↑ / Dibenz(a,h)anthracene ↑ / Benzo(ghi)perylene ↑

CCV XDL112 = WL = Benzo(k)fluoranthene ↑

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545160540 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 21-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC SPK uL	Stds Used	>LR
030	xdl30	SAMPLE	178975-002	101384	Soil	22-APR-2005 06:08	20.0	0.08286	1	3 RR20X RV	
031	xdl31	X	ENDBLANK			22-APR-2005 06:31	1.0				
032	xdl32	X	ENDBLANK			22-APR-2005 06:42	1.0				
033	xdl33	X	ENDBLANK			22-APR-2005 06:52	1.0				

Stds used: 1=05WS0188 2=S239 3=04SS401 4=05WS0260
Flags used: spk=5% spike rule

Analyst: _____ Date: 4/27/05

VSNA03 8270 SIM CALIBRATION

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/25/05

04/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545162230 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	xdm01	TUN	DFTTP 50NG			22-APR-2005 15:50	1.0	1.0				1	
002	xdm02	CCV				22-APR-2005 16:08	1.0	1.0	8		1	2 cc+	6:BZGHIP=328.036
003	xdm03	CCV				22-APR-2005 16:47	1.0	1.0			1	2	
004	xdm04	BLANK	QC291296	101384	Soil	22-APR-2005 17:16	1.0	0.03321	3		1	3	3:NO2BZD=25.3846
005	xdm05	LCS	QC291297	101384	Soil	22-APR-2005 17:46	1.0	0.03309	3		1	3	3:NO2BZD=25.1746
006	xdm06	MSS	178835-002	101384	Soil	22-APR-2005 18:17	1.0	0.0331	4		1	3	4:PHEN2F=47236.7
007	xdm07	MS	QC291298	101384	Soil	22-APR-2005 18:47	1.0	0.0331	3	13	1	3	3:NO2BZD=23.9923
008	xdm08	MSD	QC291299	101384	Soil	22-APR-2005 19:18	1.0	0.0333	3	14	1	3	3:NO2BZD=23.9323
009	xdm09	SAMPLE	178716-007	101276	Soil	22-APR-2005 19:49	500.0	0.3324			1	3	
010	xdm10	SAMPLE	178716-002	101276	Soil	22-APR-2005 20:23	400.0	0.3309			1	3	
011	xdm11	SAMPLE	178716-004	101276	Soil	22-APR-2005 20:55	400.0	0.3308			1	3	
012	xdm12	SAMPLE	178716-012	101276	Soil	22-APR-2005 21:27	400.0	0.3296	1		1	3	1:MTNPH2=18.4905
013	xdm13	SAMPLE	178951-002	101384	Soil	22-APR-2005 21:59	20.0	0.03305	1		1	3	
014	xdm14	SAMPLE	178975-013	101384	Soil	22-APR-2005 22:31	20.0	0.03288			1	3	
015	xdm15	SAMPLE	178951-004	101384	Soil	22-APR-2005 23:02	20.0	0.03306	2		1	3	
016	xdm16	SAMPLE	178951-001	101384	Soil	22-APR-2005 23:34	20.0	0.03293	1		1	3	
017	xdm17	SAMPLE	178846-001	101384	Soil	23-APR-2005 00:07	20.0	0.3292	1		1	3	
018	xdm18	SAMPLE	178975-002	101384	Soil	23-APR-2005 00:39	20.0	0.08286			1	3	
019	xdm19	SAMPLE	178975-009	101384	Soil	23-APR-2005 01:11	5.0	0.08317			1	3	
020	xdm20	SAMPLE	178975-001	101384	Soil	23-APR-2005 01:43	2.0	0.03289	3		1	3	3:NO2BZD=14.1465
021	xdm21	SAMPLE	178975-003	101384	Soil	23-APR-2005 02:15	2.0	0.03317	3		1	3	3:NO2BZD=21.2115
022	xdm22	X	ENDBLANK			23-APR-2005 02:38	1.0						
023	xdm23	X	ENDBLANK			23-APR-2005 02:48	1.0						
024	xdm24	X	ENDBLANK			23-APR-2005 02:59	1.0						

CCV: Ok
ICAL: Ok
SCV: 1,4-Dioxane ↑ 6m/s ID.
~~2-Methylnaphthalene↑, Acenaphthene~~ ↑ 4/25/05

Stds used: 1=05WS0188 2=05WS0260 3=S266
Flags used: +=high bias cc=CCV CCC failure

Analyst: _____ Date: 4/25/05

Page 1 of 1

4/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525163792 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 23-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	vdn01	TUN	NP NL			23-APR-2005 17:52	1.0	1.0			1	
002	vdn02	CCV				23-APR-2005 18:11	1.0	1.0		1	2	
003	vdn03	BLANK	QC291422	101417	Soil	23-APR-2005 18:44	1.0	0.03365		1	3	
004	vdn04	LCS	QC291423	101417	Soil	23-APR-2005 19:15	1.0	0.03368		1	3	
005	vdn05	MSS	178981-007	101417	Soil	23-APR-2005 19:47	1.0	0.03369		1	3	
006	vdn06	MS	QC291424	101417	Soil	23-APR-2005 20:20	1.0	0.03366		1	3	
007	vdn07	MSD	QC291425	101417	Soil	23-APR-2005 20:51	1.0	0.03324		1	3	
008	vdn08	SAMPLE	178846-002	101384	Soil	23-APR-2005 21:24	1.0	0.03313	3	1	3	3:NO2BZD=39.6926
009	vdn09	SAMPLE	178835-001	101384	Soil	23-APR-2005 21:56	1.0	0.033	3	1	3	3:NO2BZD=39.2246
010	vdn10	SAMPLE	178835-003	101384	Soil	23-APR-2005 22:30	1.0	0.03291	3	1	3	3:NO2BZD=36.8739
011	vdn11	SAMPLE	178951-003	101384	Soil	23-APR-2005 23:01	1.0	0.03298	3	1	3	3:NO2BZD=38.5640
012	vdn12	SAMPLE	178975-005	101384	Soil	23-APR-2005 23:34	10.0	0.03279		1	3	
013	vdn13	SAMPLE	178975-015	101384	Soil	24-APR-2005 00:06	10.0	0.033		1	3	
014	vdn14	SAMPLE	178975-008	101384	Soil	24-APR-2005 00:39	10.0	0.03306	3	1	3	3:NO2BZD=21.8781
015	vdn15	SAMPLE	178975-010	101384	Soil	24-APR-2005 01:12	1.0	0.0328	4	1	3	4:NO2BZD=34.1915
016	vdn16	SAMPLE	178975-011	101384	Soil	24-APR-2005 01:44	1.0	0.03323	3	1	3	3:NO2BZD=43.6759
017	vdn17	SAMPLE	178975-012	101384	Soil	24-APR-2005 02:17	1.0	0.03319	3	1	3	3:NO2BZD=39.9191
018	vdn18	SAMPLE	178975-018	101417	Soil	24-APR-2005 02:49	10.0	0.03304		1	3	
019	vdn19	SAMPLE	178975-017	101417	Soil	24-APR-2005 03:22	10.0	0.0331		1	3	
020	vdn20	SAMPLE	178975-020	101417	Soil	24-APR-2005 03:54	10.0	0.03322		1	3	
021	vdn21	SAMPLE	178975-022	101417	Soil	24-APR-2005 04:27	10.0	0.03322		1	3	
022	vdn22	SAMPLE	178975-019	101417	Soil	24-APR-2005 04:59	20.0	0.033		1	3	
023	vdn23	X	ENDBLANK			24-APR-2005 05:32	1.0					
024	vdn24	X	ENDBLANK			24-APR-2005 05:57	1.0					
025	vdn25	X	ENDBLANK			24-APR-2005 06:08	1.0					

CCV: Ok
ICAL: Ok
ICV: Ok

Stds used: 1=05WS0188 2=05WS0259 3=05WS0254

Analyst: _____ Date: 4/25/05

C 04/25/05

MSS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545166191 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 25-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	xdp01	TUN	DFTTP 50NG			25-APR-2005 09:51	1.0	1.0			1	
002	xdp02	CCV	PAHDIOX			25-APR-2005 10:12	1.0	1.0		1	2	
003	xdp03	CCV	8270			25-APR-2005 10:45	1.0	1.0	3	1	3 cc+ not used	
004	xdp04	X	178835-002	101384	Soil	25-APR-2005 11:23	1.0	0.0331		1	4 did not finish run	3:NO2BZD=23.7605
005	xdp05	MSS	178835-002	101384	Soil	25-APR-2005 12:42	1.0	0.0331	3	1	4	3:NO2BZD=21.6672

* ICAL = ok
* ICV = Methylcyclohexane ↑ (M)
LR = 2-Methylnaphthalene ↑ / Acenaphthylene ↑ / Phenanthrene ↑ / Anthracene ↑ / Benzo(a)anthracene ↑ / Benzo(k)fluoranthene ↑ / Dibenz(ah)anthracene ↑ / Benzo(ghi)perylene ↑.
* CCV: ok

4/25/05

Stds used: 1=05WS0188 2=05WS0258 3=S239 4=S266
Flags used: +=high bias cc=CCV CCC failure

Analyst: CH Date: 4/25/05

Curtis & Tompkins Laboratories Sample Preparation Summary 21-APR-2005 19:45

Batch Number : 101384
Date Extracted: 21-APR-2005
Extracted by : Junn Masongsong
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S211B
Spike #2 ID : S212B
Spike #3 ID : S168A
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178835-001			Blasland, Bouck & Lee	Soil	30.3	g	1	0.033003	1		1	0	0	8270-SIM		
178835-002			Blasland, Bouck & Lee	Soil	30.21	g	1	0.033102	1		1	0	0	8270-SIM		MSS
178835-003			Blasland, Bouck & Lee	Soil	30.39	g	1	0.032906	1		1	0	0	8270-SIM		
178846-001			Mactec, Inc.	Soil	30.38	g	10	0.329164	1		1	0	0	8270-SIM		
178846-002			Mactec, Inc.	Soil	30.18	g	1	0.033135	1		1	0	0	8270-SIM		
178951-001			Mactec, Inc.	Soil	30.37	g	1	0.032927	1		1	0	0	8270-SIM		
178951-002			Mactec, Inc.	Soil	30.26	g	1	0.033047	1		1	0	0	8270-SIM		
178951-003			Mactec, Inc.	Soil	30.32	g	1	0.032982	1		1	0	0	8270-SIM		
178951-004			Mactec, Inc.	Soil	30.25	g	1	0.033058	1		1	0	0	8270-SIM		
178975-001			MWH	Soil	30.4	g	1	0.032895	1		1	0	0	8270-SIM		
178975-002			MWH	Soil	30.17	g	2.5	0.082864	1		1	0	0	8270-SIM		
178975-003			MWH	Soil	30.15	g	1	0.033167	1		1	0	0	8270-SIM		
178975-005			MWH	Soil	30.5	g	1	0.032787	1		1	0	0	8270-SIM		
178975-008			MWH	Soil	30.25	g	1	0.033058	1		1	0	0	8270-SIM		
178975-009			MWH	Soil	30.06	g	2.5	0.083167	1		1	0	0	8270-SIM		
178975-010			MWH	Soil	30.49	g	1	0.032798	1		1	0	0	8270-SIM		
178975-011			MWH	Soil	30.09	g	1	0.033234	1		1	0	0	8270-SIM		
178975-012			MWH	Soil	30.13	g	1	0.033190	1		1	0	0	8270-SIM		
178975-013			MWH	Soil	30.41	g	1	0.032884	1		1	0	0	8270-SIM		
178975-015			MWH	Soil	30.3	g	1	0.033003	1		1	0	0	8270-SIM		
QC291296	MB			Soil	30.11	g	1	0.033212	1		1	0	0	8270-SIM		
QC291297	LCS			Soil	30.22	g	1	0.033091	1		1	1	.1	8270-SIM		
QC291298	MS	of 178835-002		Soil	30.21	g	1	0.033102	1		1	1	.1	8270-SIM		178835-002
QC291299	MSD	of 178835-002		Soil	30.03	g	1	0.033300	1		1	1	.1	8270-SIM		178835-002

Prep Chemist: _____ Reviewed By: _____ Date: 25Apr05

Relinquished By: _____ Received By: _____ Date: 4/25/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 12 of 100

LIMS Batch No: 101384
LIMS Analysis SIM
Extracted by: JM
Date Extracted: 21 Apr 05

Extraction Method:
☒ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	178835-001	30.30	1.0		
	-002	30.21	↓		MSS
	-003	30.39	↓		
	178846-001	30.38	10.0		wouldn't conc further
5	-002	30.18	1.0		
	178951-001	30.37	↓		
	-002	30.26	↓		
	-003	30.32	↓		
	-004	30.25	↓		
10	178975-001	30.40	↓		
	-002	30.17	2.5		wouldn't conc further
	-003	30.15	1.0		
	-005	30.50	↓		
	-008	30.25	↓		
15	-009	30.06	2.5		wouldn't conc further
	-010	30.49	1.0		
	-011	30.09	↓		
	-012	30.13	↓		
	-013	30.41	↓		
20	-015	30.30	↓		
	MB 042912 96	30.11	↓		
	LCS 97	30.22	↓		
	MS 98	30.21	↓		
	MSD 99	30.03	↓		
			JM 4/21/05		

* Accidentally used 8270 Surrogate instead of 8270-SIM Surrogate

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44256	JM 4/21/05
Samples were dried with baked, CH_2Cl_2-rinsed ~~granular~~ powdered Na_2SO_4	EM44135453	
1.0 mL of surrogate solution was added to all samples	S211B*	
1.0/0.1 mL of matrix spiking solution was added to all spikes	S212B / S168A	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM45005	
Acetone	EM45019	
Samples were: ☒ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM44135453	
Concentrated: ☒ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

Extraction Chemist / Date

Continued from page ___
Continued on page ___

Reviewed by / Date 25 Apr 05

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
MS	50.03	TEHM	178833-027A
MSD	50.21		↓
LCS	50.08		EM44258
MB	50.08		↓
178594-001A	30.27	8270	misc.
178687-024A	50.28	TEHM	
↓ -042B	50.35	↓	
178841-001A	50.02	TEHM	
178824-001A	50.20	TEHM	
-002	50.07		
-003	50.18		
-004	50.01		
-005	50.49		
-006 ✓	50.50		
178836-001A	50.06	TEHM	
-002A	50.04		MSS
SL 4/10 ~~MST~~ MS	50.19		178835-002A
-MSD	50.37		↓
-LCS	50.12		EM44258
-MB	50.21		↓ ✓
-003A	50.13		
178835-001A	30.30 ✓	8270.SIM	
-002A	30.21 ✓		MSS
-MS	30.21 ✓		178835-002A ✓
-MSD	30.03 ✓		↓
-LCS	30.22 ✓		EM44258
-MB	30.11 ✓		↓
-003A	30.39 ✓		
178851-001B	50.38	TEH	
-002	50.34		
-003	50.14		
-004 ✓	50.26		
-005A	50.03		MSS
-MS	50.43		178851-005A
-MSD	50.00		↓
-LCS	50.22		EM44258

Continued on Page

SAMPLE ID	WEIGHT (g)	ANALYSIS	COMMENTS
178738-001	30.43	8270	MISC./COMP A,B,C
178846-001A	30.38	8270-SIM	
-002	30.18		
178847-001A	50.26	TEHM	
-002	50.04		
-005	50.38		
-006	50.06		
-007	50.33		
-008	50.29		
-009	50.38		
-010	50.19		MSS
-MS	50.44		178847-010A
-MSD	50.34		
-LCS	50.40		EM49258
-MB	50.21		
-011A	50.00		
-012	50.31		
-013	50.22		
-014	50.04		
-015	50.10		
-016	50.09		
-017	50.22		
-018	50.38		

Continued on Page

Signed 4/13/05 Date

Read and Understood By

Signed Date

METALS RESULTS & QC SUMMARY

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178846	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio/Baker Beach
Field ID:	BB1ATP101-G1	Basis:	dry
Lab ID:	178846-001	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg		

Moisture: 4%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.61	0.27	0.064	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	3.0	0.27	0.088	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	21	0.27	0.027	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.13 J	0.27	0.056	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.15 J	0.27	0.012	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	46	2.7	0.56	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	4.7	0.27	0.0037	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	6.7	0.27	0.10	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	8.6	0.27	0.0087	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.021	0.019	0.0036	1.000	101179	04/14/05	04/14/05	METHOD	EPA 7471A
Molybdenum	0.42	0.27	0.0056	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	38	0.32	0.32	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.26 J	0.27	0.10	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.043 J	0.27	0.0034	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.12 J	0.27	0.013	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	21	0.27	0.16	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	21	0.27	0.059	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178846	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio/Baker Beach
Field ID:	BB1ATP101-G2	Basis:	dry
Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg		

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.27 J	0.27	0.066	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	2.6	0.27	0.091	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	28	0.27	0.028	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.13 J	0.27	0.058	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.13 J	0.27	0.012	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	100	2.7	0.57	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	11	0.27	0.0038	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	28	0.27	0.11	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	8.1	0.27	0.0090	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	ND	0.024	0.0047	1.000	101179	04/14/05	04/14/05	METHOD	EPA 7471A
Molybdenum	0.33	0.27	0.0058	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	69	3.3	3.3	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.26 J	0.27	0.11	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.018 J	0.27	0.0036	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.13 J	0.27	0.014	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	66	2.7	1.6	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	36	0.27	0.061	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC290496	Batch#:	101179
Matrix:	Soil	Prepared:	04/14/05
Units:	mg/Kg	Analyzed:	04/14/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC291742	Batch#:	101496
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	05/09/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	0.25	0.056

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101179
Units:	mg/Kg	Prepared:	04/14/05
Basis:	as received	Analyzed:	04/14/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC290497	0.5000	0.4960	99	75-125		
BSD	QC290498	0.5000	0.5130	103	75-125	3	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BB1ATP101-G2	Batch#:	101179
MSS Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg	Prepared:	04/14/05
Basis:	dry	Analyzed:	04/14/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC290499	0.02320	0.5387	0.5710	102	75-125	9%		
MSD	QC290500		0.5495	0.5857	102	75-125	9%	1	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101496
Units:	mg/Kg	Prepared:	04/27/05
Basis:	as received	Analyzed:	05/09/05
Diln Fac:	5.000		

Type: BS Lab ID: QC291743

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	23.09	92	75-125
Arsenic	25.00	23.76	95	75-125
Barium	25.00	23.36	93	75-125
Beryllium	25.00	23.63	95	75-125
Cadmium	25.00	25.98	104	75-125
Chromium	25.00	23.88	96	75-125
Cobalt	25.00	24.19	97	75-125
Copper	25.00	25.50	102	75-125
Lead	25.00	24.00	96	75-125
Molybdenum	25.00	24.35	97	75-125
Nickel	25.00	24.89	100	75-125
Selenium	25.00	24.11	96	75-125
Silver	25.00	25.24	101	75-125
Thallium	25.00	23.15	93	75-125
Vanadium	25.00	23.66	95	75-125
Zinc	25.00	24.61	98	75-125

Type: BSD Lab ID: QC291744

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.47	94	75-125	2	30
Arsenic	25.00	23.81	95	75-125	0	30
Barium	25.00	23.09	92	75-125	1	30
Beryllium	25.00	23.74	95	75-125	0	30
Cadmium	25.00	25.74	103	75-125	1	30
Chromium	25.00	23.81	95	75-125	0	30
Cobalt	25.00	24.25	97	75-125	0	30
Copper	25.00	25.54	102	75-125	0	30
Lead	25.00	24.10	96	75-125	0	30
Molybdenum	25.00	24.32	97	75-125	0	30
Nickel	25.00	24.95	100	75-125	0	30
Selenium	25.00	24.04	96	75-125	0	30
Silver	25.00	25.21	101	75-125	0	30
Thallium	25.00	23.64	95	75-125	2	30
Vanadium	25.00	23.71	95	75-125	0	30
Zinc	25.00	24.58	98	75-125	0	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Field ID:	BB1ATP101-G2	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	05/10/05

Type: MS Moisture: 9%
Lab ID: QC291745

Analyte	MSS Result	Spiked	Result	%REC	Limits	Dil'n Fac
Antimony	0.2681	25.68	9.156	35 *	75-125	5.000
Arsenic	2.626	25.68	24.21	84	75-125	5.000
Barium	28.47	25.68	48.81	79	75-125	50.00
Beryllium	0.1321	25.68	22.76	88	75-125	5.000
Cadmium	0.1278	25.68	24.26	94	75-125	5.000
Chromium	103.5	25.68	126.8	91 NM	75-125	50.00
Cobalt	10.73	25.68	37.89	106	75-125	5.000
Copper	28.23	25.68	35.11	27 *	75-125	5.000
Lead	8.077	25.68	26.35	71 *	75-125	5.000
Molybdenum	0.3315	25.68	22.55	87	75-125	5.000
Nickel	68.52	25.68	96.28	108	75-125	50.00
Selenium	0.2638	25.68	21.77	84	75-125	5.000
Silver	0.01765	25.68	23.53	92	75-125	5.000
Thallium	0.1303	25.68	22.55	87	75-125	5.000
Vanadium	65.66	25.68	89.09	91	75-125	50.00
Zinc	35.66	25.68	46.98	44 *	75-125	5.000

Type: MSD Moisture: 9%
Lab ID: QC291746

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dil'n Fac
Antimony	20.81	7.405	34 *	75-125	0	30	5.000
Arsenic	20.81	20.15	84	75-125	1	30	5.000
Barium	20.81	42.17	66 *	75-125	5	30	50.00
Beryllium	20.81	18.32	87	75-125	1	30	5.000
Cadmium	20.81	19.78	94	75-125	0	30	5.000
Chromium	20.81	126.9	113 NM	75-125	4	30	50.00
Cobalt	20.81	29.10	88	75-125	12	30	5.000
Copper	20.81	25.84	-12 *	75-125	21	30	5.000
Lead	20.81	20.90	62 *	75-125	8	30	5.000
Molybdenum	20.81	18.41	87	75-125	0	30	5.000
Nickel	20.81	85.58	82	75-125	6	30	50.00
Selenium	20.81	17.61	83	75-125	0	30	5.000
Silver	20.81	19.28	93	75-125	1	30	5.000
Thallium	20.81	18.32	87	75-125	0	30	5.000
Vanadium	20.81	80.17	70 *	75-125	5	30	50.00
Zinc	20.81	39.73	20 *	75-125	8	30	5.000

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178846	Location:	Presidio/Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Field ID:	BB1ATP101-G2	Basis:	dry
Type:	Serial Dilution	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Lab ID:	QC291747	Received:	04/12/05
Matrix:	Soil	Analyzed:	05/10/05
Units:	mg/Kg		

Moisture: 9%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim	Diln Fac
Antimony	0.2681	0.2747		0.3727 J	1.374		10	25.00
Arsenic	2.626	0.2747		2.658	1.374		10	25.00
Barium	28.47	0.2747		27.87	1.374	2	10	25.00
Beryllium	0.1321	0.2747	ND		1.374		10	25.00
Cadmium	0.1278	0.2747		0.1395 J	1.374		10	25.00
Chromium	103.5	2.747		100.8	6.868	3	10	250.0
Cobalt	10.73	0.2747		10.71	1.374	0	10	25.00
Copper	28.23	0.2747		28.54	1.374	1	10	25.00
Lead	8.077	0.2747		7.868	1.374	3	10	25.00
Molybdenum	0.3315	0.2747		0.3497 J	6.868	5	10	25.00
Nickel	68.52	3.259		68.24	27.47		10	250.0
Selenium	0.2638	0.2747		1.206 J	1.374		10	25.00
Silver	0.01765	0.2747	ND		1.374		10	25.00
Thallium	0.1303	0.2747		0.1752 J	1.374		10	25.00
Vanadium	65.66	2.747		62.03	13.74		10	250.0
Zinc	35.66	0.2747		36.21	5.495	2	10	25.00

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 178846 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
178846-001	MET04	04/14/05 13:25	1.0										+							
178846-001	MET05	05/10/05 00:29	5.0	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+
178846-001	MET05	05/10/05 03:01	50.0						+											
178846-002	MET04	04/14/05 12:32	1.0										+							
178846-002	MET05	05/10/05 00:00	5.0	+	+	+	+	+		+	+	+		+		+	+	+		+
178846-002	MET05	05/10/05 02:31	50.0						+						+				+	
QC290496	MET04	04/14/05 12:26	1.0										+							
QC290497	MET04	04/14/05 12:28	1.0										+							
QC290498	MET04	04/14/05 12:30	1.0										+							
QC290499	MET04	04/14/05 12:34	1.0										+							
QC290500	MET04	04/14/05 12:37	1.0										+							
QC291742	MET05	05/09/05 23:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291743	MET05	05/09/05 23:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291744	MET05	05/09/05 23:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291745	MET05	05/10/05 00:12	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291745	MET05	05/10/05 02:43	50.0			+			+						+				+	
QC291746	MET05	05/10/05 00:18	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291746	MET05	05/10/05 02:49	50.0			+			+						+				+	
QC291747	MET05	05/10/05 00:06	25.0	+	+	+	+	+		+	+	+		+		+	+	+		+
QC291747	MET05	05/10/05 02:37	250.0						+						+				+	
QC291748	MET05	05/10/05 00:23	5.0	+	+	+	+	+		+	+	+		+		+	+	+		+
QC291748	MET05	05/10/05 02:55	50.0						+						+				+	

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid	: MET05	Instid	: MET05
Seqnum	: 55186547111	Seqnum	: 55186547115
Filename	: e0913111	Filename	: e0913115
IDF	: 5.0	IDF	: 5.0
PDF	: 50.0	PDF	: 50.0
Run type	: MSS	Run type	: PDS
Samplenum	: 178846-002	Samplenum	: QC291748
Matrix	: Soil	Matrix	: Soil
Batchnum	: 101496	Batchnum	: 101496
Inj	: 10-MAY-2005 00:00	Inj	: 10-MAY-2005 00:23
Units	: ug/L		

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.9760	100.0	91.52	91	75-125	u
Arsenic	9.560	100.0	103.9	94	75-125	u
Barium	103.6	100.0	195.0	91	75-125	u
Beryllium	0.4808	100.0	96.62	96	75-125	u
Cadmium	0.4652	100.0	104.9	104	75-125	u
Calcium	11330	10000	19640	83	75-125	y
Chromium	*** usable MSS data not found ***					
Cobalt	39.04	100.0	138.1	99	75-125	u
Copper	102.8	100.0	121.6	**19***	75-125	u
Iron	*** usable MSS data not found ***					
Lead	29.40	100.0	106.2	77	75-125	u
Magnesium	8856	10000	17790	89	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	1.207	100.0	99.70	98	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1252	10000	10240	90	75-125	
Selenium	0.9604	100.0	96.42	95	75-125	u
Silver	0.06424	100.0	101.9	102	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.4742	100.0	96.76	96	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	129.8	100.0	182.6	**53***	75-125	u

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	320352	-16.41
Scandium	566573	539934	-4.70
Germanium	161713	144243	-10.80
Indium	1281904	1209012	-5.69
Bismuth	1275587	1160840	-9.00

u=use y=RL raised
Page 1 of 1

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid	: MET05	Instid	: MET05
Seqnum	: 55186547137	Seqnum	: 55186547141
Filename	: e0913137	Filename	: e0913141
IDF	: 50.0	IDF	: 50.0
PDF	: 50.0	PDF	: 50.0
Run type	: MSS	Run type	: PDS
Samplenum	: 178846-002	Samplenum	: QC291748
Matrix	: Soil	Matrix	: Soil
Batchnum	: 101496	Batchnum	: 101496
Inj	: 10-MAY-2005 02:31	Inj	: 10-MAY-2005 02:55
Units	: ug/L		

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	10.00	8.656	87	75-125	
Arsenic	0.9588	10.00	10.08	91	75-125	
Barium	10.12	10.00	18.42	83	75-125	
Beryllium	ND	10.00	9.382	94	75-125	
Cadmium	0.05072	10.00	10.77	107	75-125	
Calcium	1170	1000	2056	89	75-125	y
Chromium	37.66	10.00	45.92	83	75-125	u y
Cobalt	3.798	10.00	13.27	95	75-125	
Copper	10.26	10.00	12.29	**20***	75-125	
Iron	9214	1000	9894	68	75-125	: y
Lead	2.916	10.00	9.714	**68***	75-125	
Magnesium	966.4	1000	2060	109	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	ND	10.00	9.734	97	75-125	
Nickel	24.94	10.00	30.54	**56***	75-125	u
Potassium	154.6	1000	1130	98	75-125	
Selenium	0.4678	10.00	9.690	92	75-125	
Silver	ND	10.00	10.48	105	75-125	
Sodium	ND	1000	998.8	100	75-125	
Thallium	ND	10.00	8.488	85	75-125	
Vanadium	23.90	10.00	32.46	86	75-125	u
Zinc	*** usable MSS data not found ***					

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	301271	-21.39
Scandium	566573	431776	-23.79
Germanium	161713	126413	-21.83
Indium	1281904	1137692	-11.25
Bismuth	1275587	1123206	-11.95

:=recovery not meaningful u=use y=RL raised

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e0913001	TUN	tune			09-MAY-2005 13:07	1.0	1.0				1	
003	e0913003	ICALBLK	std-blk			09-MAY-2005 13:18	1.0	1.0				2	
004	e0913004	ICAL	cs1			09-MAY-2005 13:23	1.0	1.0				3	
005	e0913005	ICAL	cs2			09-MAY-2005 13:28	1.0	1.0				4	
006	e0913006	ICAL	cs3			09-MAY-2005 13:33	1.0	1.0				5	
007	e0913007	ICAL	cs4			09-MAY-2005 13:39	1.0	1.0				6	
008	e0913008	ICAL	cs5			09-MAY-2005 13:44	1.0	1.0				7	
009	e0913009	ICAL	cs6			09-MAY-2005 13:49	1.0	1.0				8	
010	e0913010	ICV				09-MAY-2005 13:54	1.0	1.0			1	9	
012	e0913012	ICB				09-MAY-2005 14:06	1.0	1.0	1		1	2	
013	e0913013	ICSA				09-MAY-2005 14:12	1.0	1.0			1	10 2	7:CA=295200
014	e0913014	ICSAB				09-MAY-2005 14:17	1.0	1.0			1	11 2	12:CA=295000
016	e0913016	SER	QC291792	101506	Water	09-MAY-2005 14:29	5.0	1.0		1	1	2	
017	e0913017	MS	QC291790	101506	Water	09-MAY-2005 14:35	2.0	1.0			1	2	
018	e0913018	MSD	QC291791	101506	Water	09-MAY-2005 14:41	2.0	1.0			1	2	
019	e0913019	SAMPLE	179075-004	101506	Water	09-MAY-2005 14:47	2.0	1.0			1	2	
020	e0913020	SAMPLE	179075-006	101506	Water	09-MAY-2005 14:52	5.0	1.0			1	2	
021	e0913021	SAMPLE	179075-007	101506	Water	09-MAY-2005 14:58	2.0	1.0			1	2	
022	e0913022	SAMPLE	179075-011	101506	Water	09-MAY-2005 15:04	2.0	1.0	1		1	2	
023	e0913023	SAMPLE	179075-012	101506	Water	09-MAY-2005 15:10	2.0	1.0			1	2	
025	e0913025	CCV				09-MAY-2005 15:22	1.0	1.0			1	12 2	
027	e0913027	CCB				09-MAY-2005 15:33	1.0	1.0	1		1	2	
028	e0913028	SAMPLE	179075-013	101506	Water	09-MAY-2005 15:39	2.0	1.0			1	2	
029	e0913029	SAMPLE	179075-018	101506	Water	09-MAY-2005 15:45	2.0	1.0			1	2	
031	e0913031	CCV				09-MAY-2005 15:57	1.0	1.0			1	13 2	
033	e0913033	CCB				09-MAY-2005 16:09	1.0	1.0			1	2	
034	e0913034	ICSA				09-MAY-2005 16:15	1.0	1.0			1	10 2	7:CA=292900
035	e0913035	ICSAB				09-MAY-2005 16:21	1.0	1.0			1	11 2	11:CA=292500
037	e0913037	MSS	179132-001	101641	Filtra	09-MAY-2005 16:32	10.0	1.0			1	2	
038	e0913038	SER	QC292313	101641	Filtra	09-MAY-2005 16:52	50.0	1.0			1	2	
039	e0913039	MS	QC292311	101641	Filtra	09-MAY-2005 16:58	10.0	1.0		1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/15

49

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e0913040	MSD	QC292312	101641	Filtra	09-MAY-2005 17:04	10.0	1.0		2	1	2	
041	e0913041	SAMPLE	179132-006	101641	Filtra	09-MAY-2005 17:10	10.0	1.0			1	2	
042	e0913042	SAMPLE	179132-015	101641	Filtra	09-MAY-2005 17:16	5.0	1.0			1	2	2:NA=39280.0
043	e0913043	SAMPLE	179132-016	101641	Filtra	09-MAY-2005 17:22	50.0	1.0			1	2	
044	e0913044	SAMPLE	179132-017	101641	Filtra	09-MAY-2005 17:27	10.0	1.0			1	2	
046	e0913046	CCV				09-MAY-2005 17:39	1.0	1.0			1	12 2	
047	e0913047	X	rinse			09-MAY-2005 17:45	1.0					2	
048	e0913048	CCB				09-MAY-2005 17:51	1.0	1.0	1		1	2	
049	e0913049	SAMPLE	179132-018	101641	Filtra	09-MAY-2005 17:57	50.0	1.0			1	2	
050	e0913050	SAMPLE	179132-019	101641	Filtra	09-MAY-2005 18:03	5.0	1.0			1	2	3:CA=48920.0
051	e0913051	SAMPLE	179132-020	101641	Filtra	09-MAY-2005 18:09	5.0	1.0			1	2	1:NA=21860.0
052	e0913052	X	RINSE	101506		09-MAY-2005 18:14	1.0					2	
053	e0913053	BLANK	QC292136	101595	Water	09-MAY-2005 18:20	1.0	1.0			1	2	
054	e0913054	BS	QC292137	101595	Water	09-MAY-2005 18:26	1.0	1.0			1	2	
055	e0913055	BSD	QC292138	101595	Water	09-MAY-2005 18:32	1.0	1.0			1	2	
056	e0913056	MSS	179161-001	101595	Water	09-MAY-2005 18:38	1.0	1.0	2		1	2	2:CA=22330.0
057	e0913057	SER	QC292141	101595	Water	09-MAY-2005 18:44	5.0	1.0			1	2	
058	e0913058	MS	QC292139	101595	Water	09-MAY-2005 18:50	1.0	1.0	2		1	2	4:CA=32120.0
059	e0913059	MSD	QC292140	101595	Water	09-MAY-2005 18:56	1.0	1.0	2		1	2	4:CA=31200.0
061	e0913061	CCV				09-MAY-2005 19:07	1.0	1.0			1	12 2	
062	e0913062	X	rinse			09-MAY-2005 19:13	1.0					2	
063	e0913063	CCB				09-MAY-2005 19:19	1.0	1.0	1		1	2	
064	e0913064	PDS	QC292142	101595	Water	09-MAY-2005 19:25	1.0	1.0	2		1	14 2	4:CA=30950.0
065	e0913065	MSS	179161-001	101595	Water	09-MAY-2005 19:31	5.0	1.0			1	2	
066	e0913066	SER	QC292141	101595	Water	09-MAY-2005 19:37	25.0	1.0			1	2	
067	e0913067	MS	QC292139	101595	Water	09-MAY-2005 19:42	5.0	1.0			1	2	
068	e0913068	MSD	QC292140	101595	Water	09-MAY-2005 19:48	5.0	1.0			1	2	
069	e0913069	SAMPLE	179132-021	101595	Filtra	09-MAY-2005 19:54	1.0	1.0			1	2	3:NA=185600
070	e0913070	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:00	1.0	1.0	1		1	2	5:NA=111100
071	e0913071	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:06	5.0	1.0			1	2	1:NA=21880.0
073	e0913073	CCV				09-MAY-2005 20:18	1.0	1.0			1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
074	e0913074	X	rinse	101595		09-MAY-2005 20:24	1.0				2	
075	e0913075	CCB				09-MAY-2005 20:30	1.0	1.0		1	2	
076	e0913076	ICSA				09-MAY-2005 20:35	1.0	1.0		1	10 2	7:CA=288400
077	e0913077	ICSAB				09-MAY-2005 20:41	1.0	1.0		1	11 2	10:CA=282500
079	e0913079	TUN	tune			09-MAY-2005 20:53	1.0	1.0			1	
081	e0913081	SAMPLE	179176-001	101595	Water	09-MAY-2005 21:03	2.0	1.0		1	2	
082	e0913082	SAMPLE	179141-007	101595	Water	09-MAY-2005 21:09	5.0	1.0		1	2	4:MG=98600.0
083	e0913083	SAMPLE	179141-010	101595	Water	09-MAY-2005 21:15	10.0	1.0		1	2	
084	e0913084	SAMPLE	179141-013	101595	Water	09-MAY-2005 21:21	10.0	1.0		1	2	1:NA=62100.0
085	e0913085	SAMPLE	179141-019	101595	Water	09-MAY-2005 21:27	2.0	1.0		1	2	5:NA=63300.0
086	e0913086	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:33	2.0	1.0	2	1	2	2:AL=1888.50
087	e0913087	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:39	20.0	1.0		1	2	
088	e0913088	SAMPLE	179156-002	101595	Water	09-MAY-2005 21:45	2.0	1.0	2	1	2	2:AL=503.500
090	e0913090	CCV				09-MAY-2005 21:57	1.0	1.0		1	12 2	
091	e0913091	X	rinse			09-MAY-2005 22:02	1.0				2	
092	e0913092	CCB				09-MAY-2005 22:08	1.0	1.0		1	2	
093	e0913093	SAMPLE	179156-003	101595	Water	09-MAY-2005 22:14	5.0	1.0		1	2	
094	e0913094	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:20	2.0	1.0	4	1	2	4:FE=23515.0
095	e0913095	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:26	100.0	1.0		1	2	
096	e0913096	SAMPLE	179162-001	101595	Filtra	09-MAY-2005 22:32	1.0	1.0		1	2	3:MG=563000
097	e0913097	SAMPLE	179162-002	101595	Filtra	09-MAY-2005 22:38	1.0	1.0		1	2	3:MG=474700
098	e0913098	SAMPLE	179162-003	101595	Filtra	09-MAY-2005 22:44	1.0	1.0		1	2	3:MG=429100
099	e0913099	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:50	10.0	1.0	3	1	2	2:NA=207100
100	e0913100	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:56	100.0	1.0	2	1	2	
101	e0913101	ICSA				09-MAY-2005 23:02	1.0	1.0		1	10 2	7:CA=286700
102	e0913102	ICSAB				09-MAY-2005 23:07	1.0	1.0		1	11 2	9:CA=285000
104	e0913104	CCV				09-MAY-2005 23:19	1.0	1.0		1	12 2	
105	e0913105	X	rinse			09-MAY-2005 23:25	1.0				2	
106	e0913106	CCB				09-MAY-2005 23:31	1.0	1.0	3	1	2	
107	e0913107	X	rinse	101595		09-MAY-2005 23:36	1.0				2	
108	e0913108	BLANK	QC291742	101496	Soil	09-MAY-2005 23:42	5.0	50.0	1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e0913109	BS	QC291743	101496	Soil	09-MAY-2005 23:48	5.0	50.0	1		1	2	
110	e0913110	BSD	QC291744	101496	Soil	09-MAY-2005 23:54	5.0	50.0	1		1	2	
111	e0913111	MSS	178846-002	101496	Soil	10-MAY-2005 00:00	5.0	50.0	7		1	2	6:FE=90920.0
112	e0913112	SER	QC291747	101496	Soil	10-MAY-2005 00:06	25.0	50.0		2	1	2	2:AL=4268.00
113	e0913113	MS	QC291745	101496	Soil	10-MAY-2005 00:12	5.0	46.73	1	1	1	2	7:FE=105040
114	e0913114	MSD	QC291746	101496	Soil	10-MAY-2005 00:18	5.0	37.88	2	2	1	2	8:FE=121700
115	e0913115	PDS	QC291748	101496	Soil	10-MAY-2005 00:23	5.0	50.0		16	1	15 16 2	6:FE=95900.0
116	e0913116	SAMPLE	178846-001	101496	Soil	10-MAY-2005 00:29	5.0	51.02	1		1	2	4:FE=31640.0
117	e0913117	SAMPLE	178951-001	101496	Soil	10-MAY-2005 00:35	5.0	42.74	6		1	2	10:FE=73240.0
119	e0913119	CCV				10-MAY-2005 00:47	1.0	1.0			1	12 2	
120	e0913120	X	rinse			10-MAY-2005 00:52	1.0					2	
121	e0913121	CCB				10-MAY-2005 00:58	1.0	1.0	1		1	2	
122	e0913122	SAMPLE	178951-002	101496	Soil	10-MAY-2005 01:04	5.0	37.04	5		1	2	9:MG=302200
123	e0913123	SAMPLE	178951-003	101496	Soil	10-MAY-2005 01:10	5.0	44.25	6		1	2	10:FE=92160.0
124	e0913124	SAMPLE	178951-004	101496	Soil	10-MAY-2005 01:16	5.0	31.45	8		1	2	13:FE=333400
125	e0913125	SAMPLE	179049-001	101496	Soil	10-MAY-2005 01:21	5.0	50.51	9		1	2	11:ZN=189860
126	e0913126	SAMPLE	179076-040	101496	Soil	10-MAY-2005 01:27	5.0	33.78			1	2	5:CA=1095000
127	e0913127	SAMPLE	179076-041	101496	Soil	10-MAY-2005 01:33	5.0	35.97	1		1	2	5:FE=129460
128	e0913128	SAMPLE	179076-042	101496	Soil	10-MAY-2005 01:39	5.0	33.33			1	2	5:FE=137140
129	e0913129	SAMPLE	179076-043	101496	Soil	10-MAY-2005 01:45	5.0	50.51	1		1	2	8:FE=76140.0
130	e0913130	SAMPLE	179089-001	101496	Soil	10-MAY-2005 01:50	5.0	41.32	5		1	2	7:FE=89300.0
131	e0913131	SAMPLE	179089-002	101496	Soil	10-MAY-2005 01:56	5.0	47.17	5		1	2	7:FE=99780.0
133	e0913133	CCV				10-MAY-2005 02:08	1.0	1.0			1	12 2	
134	e0913134	X	rinse			10-MAY-2005 02:14	1.0					2	
135	e0913135	CCB				10-MAY-2005 02:20	1.0	1.0	4		1	2	
136	e0913136	SAMPLE	179089-003	101496	Soil	10-MAY-2005 02:26	5.0	48.54	2		1	2	4:FE=64480.0
137	e0913137	MSS	178846-002	101496	Soil	10-MAY-2005 02:31	50.0	50.0	3		1	2	1:AL=2188.00
138	e0913138	SER	QC291747	101496	Soil	10-MAY-2005 02:37	250.0	50.0		1	1	2	1:AL=428.000
139	e0913139	MS	QC291745	101496	Soil	10-MAY-2005 02:43	50.0	46.73		1	1	2	1:AL=2346.00
140	e0913140	MSD	QC291746	101496	Soil	10-MAY-2005 02:49	50.0	37.88		3	1	2	1:AL=2810.00
141	e0913141	PDS	QC291748	101496	Soil	10-MAY-2005 02:55	50.0	50.0		15	1	15 2	1:AL=2034.00

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 8/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
142	e0913142	SAMPLE	178846-001	101496	Soil	10-MAY-2005 03:01	50.0	51.02	1		1	2	1:AL=1128.60
143	e0913143	SAMPLE	178951-001	101496	Soil	10-MAY-2005 03:07	50.0	42.74	1		1	2	1:AL=3446.00
144	e0913144	SAMPLE	178951-002	101496	Soil	10-MAY-2005 03:13	50.0	37.04	3		1	2	5:MG=39900.0
145	e0913145	SAMPLE	178951-003	101496	Soil	10-MAY-2005 03:19	50.0	44.25	1		1	2	2:AL=4054.00
147	e0913147	CCV				10-MAY-2005 03:31	1.0	1.0			1	12 2	
148	e0913148	X	rinse			10-MAY-2005 03:36	1.0					2	
149	e0913149	CCB				10-MAY-2005 03:42	1.0	1.0	3		1	2	
150	e0913150	SAMPLE	178951-004	101496	Soil	10-MAY-2005 03:48	50.0	31.45	5		1	2	7:FE=32960.0
151	e0913151	SAMPLE	179049-001	101496	Soil	10-MAY-2005 03:54	50.0	50.51	4		1	2	5:MN=53920.0
152	e0913152	SAMPLE	179076-040	101496	Soil	10-MAY-2005 04:00	50.0	33.78			1	2	3:CA=114320
153	e0913153	SAMPLE	179076-041	101496	Soil	10-MAY-2005 04:06	50.0	35.97			1	2	2:AL=3606.00
154	e0913154	SAMPLE	179076-042	101496	Soil	10-MAY-2005 04:12	50.0	33.33			1	2	2:AL=5556.00
155	e0913155	SAMPLE	179076-043	101496	Soil	10-MAY-2005 04:18	50.0	50.51	1		1	2	3:AL=2670.00
156	e0913156	SAMPLE	179089-001	101496	Soil	10-MAY-2005 04:24	50.0	41.32	2		1	2	1:AL=5494.00
157	e0913157	SAMPLE	179089-002	101496	Soil	10-MAY-2005 04:29	50.0	47.17	2		1	2	1:AL=6630.00
158	e0913158	SAMPLE	179089-003	101496	Soil	10-MAY-2005 04:35	50.0	48.54	2		1	2	1:AL=4162.00
160	e0913160	BLANK	QC292252	101627	Soil	10-MAY-2005 04:47	5.0	50.0	2		1	2	
162	e0913162	CCV				10-MAY-2005 04:59	1.0	1.0	1		1	12 2	
163	e0913163	X	rinse			10-MAY-2005 05:05	1.0					2	
164	e0913164	CCB				10-MAY-2005 05:11	1.0	1.0	1		1	2	
165	e0913165	BS	QC292253	101627	Soil	10-MAY-2005 05:17	5.0	50.0	2		1	2	1:AL=240.800
166	e0913166	BSD	QC292254	101627	Soil	10-MAY-2005 05:23	5.0	50.0	2		1	2	1:AL=240.400
167	e0913167	MSS	179182-001	101627	Soil	10-MAY-2005 05:29	5.0	54.95	7		1	2	6:FE=62860.0
168	e0913168	SER	QC292257	101627	Soil	10-MAY-2005 05:34	25.0	54.95		2	1	2	2:AL=5716.00
169	e0913169	MS	QC292255	101627	Soil	10-MAY-2005 05:40	5.0	47.62	2	1	1	2	8:FE=75280.0
170	e0913170	MSD	QC292256	101627	Soil	10-MAY-2005 05:46	5.0	44.64	3	1	1	2	9:FE=97560.0
171	e0913171	PDS	QC292258	101627	Soil	10-MAY-2005 05:52	5.0	54.95	2	14	1	15 16 2	8:FE=67740.0
172	e0913172	SAMPLE	179182-002	101627	Soil	10-MAY-2005 05:58	5.0	49.02	4		1	2	6:FE=101560
173	e0913173	SAMPLE	179182-003	101627	Soil	10-MAY-2005 06:04	5.0	48.54	6		1	2	9:FE=66860.0
174	e0913174	SAMPLE	179167-001	101627	Soil	10-MAY-2005 06:09	5.0	46.30	5		1	2	6:FE=67820.0
176	e0913176	CCV				10-MAY-2005 06:21	1.0	1.0			1	12 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/16/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
177	e0913177	X	rinse			10-MAY-2005 06:27	1.0					2	
178	e0913178	CCB				10-MAY-2005 06:33	1.0	1.0	2		1	2	
179	e0913179	MSS	179182-001	101627	Soil	10-MAY-2005 06:39	50.0	54.95	3		1	2	2:AL=2926.00
180	e0913180	SER	QC292257	101627	Soil	10-MAY-2005 06:45	250.0	54.95		1	1	2	1:AL=573.600
181	e0913181	MS	QC292255	101627	Soil	10-MAY-2005 06:51	50.0	47.62		1	1	2	1:AL=3788.00
182	e0913182	MSD	QC292256	101627	Soil	10-MAY-2005 06:57	50.0	44.64		2	1	2	2:AL=3612.00
183	e0913183	SAMPLE	179182-002	101627	Soil	10-MAY-2005 07:03	50.0	49.02	1		1	2	1:AL=5238.00
185	e0913185	SAMPLE	179167-001	101627	Soil	10-MAY-2005 07:15	50.0	46.30			1	2	
186	e0913186	ICSA				10-MAY-2005 07:20	1.0	1.0			1	10 2	7:CA=277800
187	e0913187	ICSAB				10-MAY-2005 07:26	1.0	1.0			1	11 2	8:CA=286000
189	e0913189	CCV				10-MAY-2005 07:38	1.0	1.0			1	13 2	
190	e0913190	X	rinse blank			10-MAY-2005 07:44	1.0					2	
191	e0913191	CCB				10-MAY-2005 07:50	1.0	1.0	2		1	2	

72

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Melissa Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e0913004	55186547004	cs1	09-MAY-2005 13:23	S395
2	e0913005	55186547005	cs2	09-MAY-2005 13:28	S396
3	e0913006	55186547006	cs3	09-MAY-2005 13:33	S397
4	e0913007	55186547007	cs4	09-MAY-2005 13:39	S398
5	e0913008	55186547008	cs5	09-MAY-2005 13:44	S393
6	e0913009	55186547009	cs6	09-MAY-2005 13:49	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Aluminum		10.153	6.0829	0.9673	0.4588	0.4944	BLNK	R	-12.7573	2.210067		ug/L	3.6312	0.995	0.995	
Antimony	0.3589	0.3024	0.2578	0.2436	0.2337	0.2478	BLNK	R	-0.08506	4.084564		ug/L	0.2740	0.999	0.995	
Arsenic		0.3774	0.4193	0.3947	0.3766	0.3829	BLNK	R	-0.04706	2.621125		ug/L	0.3902	1.000	0.995	
Barium	0.2018	0.1403	0.1156	0.0928	0.0876	0.0901	BLNK	R	-0.25603	11.18257		ug/L	0.1214	1.000	0.995	
Beryllium	0.1783	0.1683	0.1540	0.1500	0.1445	0.1457	BLNK	R	-0.02094	6.876203		ug/L	0.1568	1.000	0.995	
Cadmium	0.7744	0.6967	0.5455	0.4842	0.4426	0.4420	BLNK	R	-0.13603	2.263259		ug/L	0.5642	1.000	0.995	
Calcium		0.0313	0.0234	0.0172	0.0161	0.0160	BLNK	R	-49.5055	62.77004		ug/L	0.0208	1.000	0.995	
Chromium		4.3383	3.2151	2.3460	2.1587	2.1661	BLNK	R	-0.42265	0.463105		ug/L	2.8448	1.000	0.995	
Cobalt	3.2625	3.0795	2.8275	2.6959	2.6101	2.6044	BLNK	R	-0.02149	0.383819		ug/L	2.8466	1.000	0.995	
Copper		0.8868	0.8511	0.7268	0.6781	0.6740	BLNK	R	-0.08651	1.482419		ug/L	0.7634	1.000	0.995	
Iron		0.1044	0.0819	0.0669	0.0641	0.0622	BLNK	R	-31.6243	16.01468		ug/L	0.0759	1.000	0.995	
Lead	1.0478	0.9807	0.8986	0.8612	0.8597	0.8871	BLNK	R	-0.03139	1.134540		ug/L	0.9225	1.000	0.995	
Magnesium		0.0678	0.0611	0.0610	0.0564	0.0576	BLNK	R	-5.71639	17.44594		ug/L	0.0608	1.000	0.995	
Manganese	4.5105	3.9500	3.4588	3.1803	3.0599	3.0148	BLNK	R	-0.08146	0.330840		ug/L	3.5290	1.000	0.995	
Molybdenum		1.1483	0.9339	0.8415	0.8048	0.8208	BLNK	R	-0.20816	1.224575		ug/L	0.9099	1.000	0.995	
Nickel	0.8173	0.7070	0.6359	0.6107	0.5632	0.5597	BLNK	R	-0.05945	1.784754		ug/L	0.6490	1.000	0.995	
Potassium		1.8843	1.2006	0.5984	0.5120	0.5175	BLNK	R	-123.524	1.950804		ug/L	0.9426	1.000	0.995	
Selenium		0.0701	0.0480	0.0293	0.0252	0.0252	BLNK	R	-0.73536	39.87147		ug/L	0.0396	1.000	0.995	
Silver	2.6099	2.4138	2.2920	2.2287	2.0847	2.1087	BLNK	R	-0.01765	0.475304		ug/L	2.2896	1.000	0.995	
Sodium		1.2550	0.9547	0.6219	0.5523	0.5624	BLNK	R	-52.6365	1.789812		ug/L	0.7893	1.000	0.995	

73

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

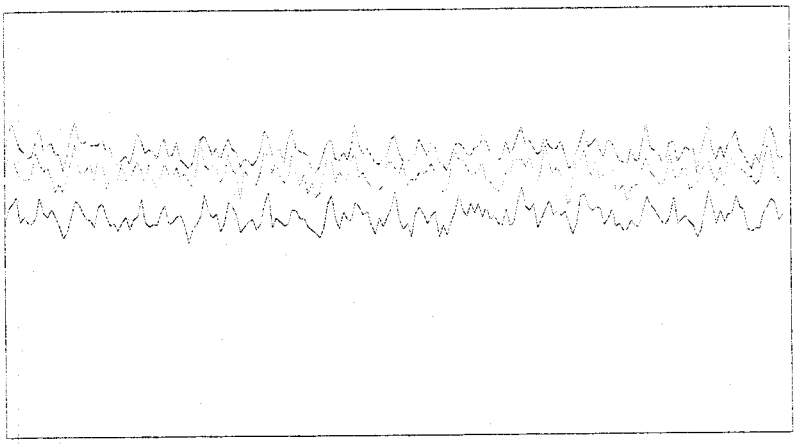
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.7544	0.6500	0.6312	0.6727	0.6795	BLNK	R	-0.05163	1.475366		ug/L	0.6776	1.000	0.995	
Vanadium		3.5450	2.9111	2.4600	2.4296	2.4164	BLNK	R	-0.17808	0.413830		ug/L	2.7524	1.000	0.995	
Zinc		1.5046	1.2129	0.4952	0.4057	0.3983	BLNK	R	-1.28422	2.520165		ug/L	0.8033	1.000	0.995	

74

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



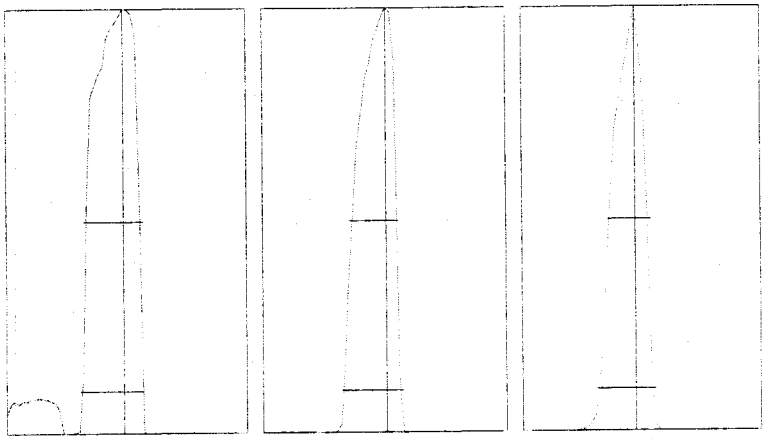
m/z:	7	89	205
Range:	20,000	50,000	100,000
Count:	10,232	32,303	56,142
Mean:	10247.6	33410.8	61381.1
RSD%:	5.00	3.85	4.60
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.40%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	20.9	18.2	22.1



m/z:	7	89	205
Height:	10,325	33,774	69,064
Axis:	7.00	89.05	204.95
W-50%:	0.75	0.60	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.02 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 09, 2005 10:41:58
Printed : May 09, 2005 10:42:06

Temp.p$$

P/A Factor Tuning Report

Acquired:May 9 2005 11:06 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087637
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097864
45	Sc	0.093351
51	V	0.097956
52	Cr	0.099998
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101675
57	Fe	0.104597
59	Co	0.105141
60	Ni	Sensitivity too low
63	Cu	0.107023
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105980
95	Mo	Sensitivity too low
98	Mo	0.104137
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.114003
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.114449
118	(In)	Sensitivity too low
121	Sb	0.113109
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119372
166	Er	Sensitivity too low

205	Tl	0.127188
206	(Pb)	0.123052
207	(Pb)	0.122974
208	Pb	0.126240
209	Bi	0.125409
232	Th	0.127801
238	U	0.128284

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

Temp.p$$

P/A Factor Tuning Report

Acquired:May 9 2005 11:19 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087424
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097829
45	Sc	0.093447
51	V	0.097709
52	Cr	0.099861
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101644
57	Fe	0.104280
59	Co	0.104935
60	Ni	Sensitivity too low
63	Cu	0.107045
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106140
95	Mo	Sensitivity too low
98	Mo	0.103609
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113603
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.113939
118	(In)	0.112751
121	Sb	0.112520
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119176
166	Er	Sensitivity too low

205	Tl	0.126386
206	(Pb)	0.122394
207	(Pb)	0.121301
208	Pb	0.125098
209	Bi	0.124741
232	Th	0.127048
238	U	0.126846

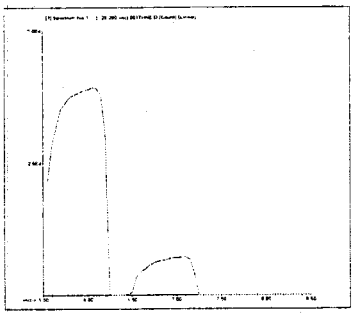
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

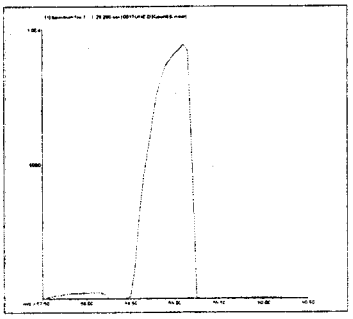
Data File: C:\ICPCHEM\1\DATA\05E0913a.B\001TUNE.D
Date Acquired: May 9 2005 01:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

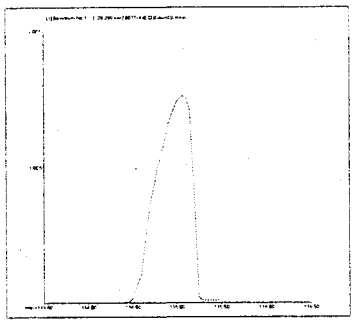
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.43	5.00	
115 In	1.12	5.00	
205 Tl	0.90	5.00	



7 Li
Mass Calib.
Actual: 7.10
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

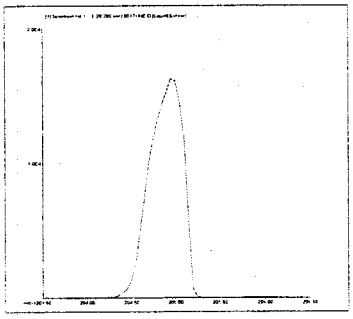


115 In
Mass Calib.

Actual:	115.10	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl
Mass Calib.

Actual:	204.95	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 9 2005 01:12 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 09 2005 00:27 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01962	ppb	37.67	0.01962	1.00	
23 Na	-43.94	ppb	0.73	-43.94	1.00	
26 Mg	3.398	ppb	8.82	3.398	1.00	
27 Al	1.878	ppb	10.47	1.878	1.00	
39 K	-29.44	ppb	4.05	-29.44	1.00	
44 Ca	3.364	ppb	40.01	3.364	1.00	
51 V	0.07676	ppb	20.02	0.07676	1.00	
52 Cr	0.01954	ppb	87.56	0.01954	1.00	
55 Mn	0.004327	ppb	145.09	0.004327	1.00	
57 Fe	6.129	ppb	10.02	6.129	1.00	
59 Co	0.007675	ppb	55.04	0.007675	1.00	
60 Ni	0.01296	ppb	122.07	0.01296	1.00	
65 Cu	0.005624	ppb	130.71	0.005624	1.00	
66 Zn	0.1207	ppb	61.64	0.1207	1.00	
75 As	-0.0005196	ppb	13986.00	-0.00052	1.00	
82 Se	0.1292	ppb	181.97	0.1292	1.00	
95 Mo	0.2682	ppb	12.30	0.2682	1.00	
109 Ag	-0.0006557	ppb	128.85	-0.000656	1.00	
111 Cd	-0.01698	ppb	93.52	-0.01698	1.00	
121 Sb	0.02757	ppb	87.81	0.02757	1.00	
137 Ba	-0.01029	ppb	188.92	-0.01029	1.00	
205 Tl	-0.001022	ppb	423.19	-0.001022	1.00	
208 Pb	0.005026	ppb	28.45	0.005026	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	385913.31	1.24	---	#VALUE!	30 - 200	
45 Sc	579813.31	0.74	---	#VALUE!	30 - 200	
72 Ge	166277.11	0.91	---	#VALUE!	30 - 200	

115 In	1301750.40	0.98	---	#VALUE!	30 - 200
209 Bi	1283374.90	1.15	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\003CAL
Date Acquired: May 9 2005 01:18 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 00:27 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	383255.50	P	2928.00	0.76
9	Be	23.33	P	8.82	37.80
23	Na	333306.69	P	15010.00	4.50
26	Mg	3714.44	P	313.40	8.44
27	Al	65416.66	P	2181.00	3.33
39	K	717550.00	P	14920.00	2.08
44	Ca	8939.10	P	442.70	4.95
45	Sc	566573.31	P	5196.00	0.92
51	V	1393.93	P	609.90	43.75
52	Cr	2952.22	P	110.80	3.75
55	Mn	796.67	P	60.09	7.54
57	Fe	6386.67	P	64.29	1.01
59	Co	181.11	P	21.69	11.98
60	Ni	107.78	P	12.62	11.71
65	Cu	188.87	P	29.87	15.82
66	Zn	1647.80	P	70.03	4.25
72	Ge	161712.41	P	1363.00	0.84
75	As	58.31	P	44.00	75.46
82	Se	59.65	P	7.11	11.92
95	Mo	550.00	P	46.67	8.49
109	Ag	120.00	P	17.32	14.43
111	Cd	194.55	P	36.43	18.73
115	In	1281904.00	A	17700.00	1.38
121	Sb	534.44	P	93.95	17.58
137	Ba	586.67	P	40.96	6.98
205	Tl	893.33	P	106.00	11.87
208	Pb	705.56	P	51.78	7.34
209	Bi	1275587.00	A	13700.00	1.07
232	Th	740.00	P	63.33	8.56
238	U	246.67	P	14.53	5.89

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\004CALI.D\004CALI.D#
Date Acquired: May 9 2005 01:23 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	381658.91	P	6406.00	1.68
9 Be	340.00	P	15.28	4.49
23 Na	503082.19	P	5102.00	1.01
26 Mg	21435.55	P	425.80	1.99
27 Al	63396.66	P	201.20	0.32
39 K	921026.63	A	5986.00	0.65
44 Ca	14123.80	P	67.58	0.48
45 Sc	574345.63	P	9099.00	1.58
51 V	3325.88	P	223.90	6.73
52 Cr	5065.56	P	13.88	0.27
55 Mn	3686.67	P	35.12	0.95
57 Fe	12066.67	P	67.66	0.56
59 Co	2666.67	P	26.46	0.99
60 Ni	667.78	P	27.15	4.07
65 Cu	806.57	P	72.65	9.01
66 Zn	2573.44	P	59.26	2.30
72 Ge	163487.59	P	2285.00	1.40
75 As	510.06	P	86.56	16.97
82 Se	105.78	P	12.66	11.97
95 Mo	1196.67	P	138.90	11.61
109 Ag	2133.33	P	63.60	2.98
111 Cd	633.08	P	23.33	3.69
115 In	1290959.00	A	17010.00	1.32
121 Sb	2316.67	P	178.40	7.70
137 Ba	1302.22	P	32.03	2.46
205 Tl	5216.67	P	221.70	4.25
208 Pb	6642.22	P	126.00	1.90
209 Bi	1268362.00	A	24950.00	1.97
232 Th	2925.56	P	186.80	6.39
238 U	5856.67	P	60.83	1.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	381658.88	1.68	383255.53	99.6	30 - 200	
45 Sc	574345.56	1.58	566573.31	101.4	30 - 200	
72 Ge	163487.55	1.40	161712.45	101.1	30 - 200	
115 In	1290959.40	1.32	1281904.10	100.7	30 - 200	
209 Bi	1268362.10	1.97	1275586.80	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\005CALI.D\005CALI.D#
Date Acquired: May 9 2005 01:28 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	388543.31	P	6704.00	1.73
9 Be	654.44	P	69.95	10.69
23 Na	720465.63	M	53520.00	7.43
26 Mg	38891.11	P	203.40	0.52
27 Al	58248.88	P	605.70	1.04
39 K	1081261.00	A	8068.00	0.75
44 Ca	17968.38	P	26.04	0.14
45 Sc	573872.19	P	9184.00	1.60
51 V	5801.79	P	456.80	7.87
52 Cr	7103.33	P	123.50	1.74
55 Mn	6466.67	P	174.90	2.70
57 Fe	17103.33	P	175.70	1.03
59 Co	5042.22	P	75.82	1.50
60 Ni	1157.78	P	80.02	6.91
65 Cu	1453.17	P	100.90	6.94
66 Zn	2464.64	P	93.12	3.78
72 Ge	163775.59	P	2296.00	1.40
75 As	618.01	P	97.53	15.78
82 Se	114.84	P	18.26	15.90
95 Mo	1880.00	P	58.59	3.12
109 Ag	3953.33	P	100.70	2.55
111 Cd	1141.54	P	83.62	7.33
115 In	1302916.00	A	31930.00	2.45
121 Sb	3942.22	P	265.00	6.72
137 Ba	1827.78	P	89.46	4.89
205 Tl	9710.00	P	346.70	3.57
208 Pb	12620.00	P	375.60	2.98
209 Bi	1286918.00	A	14760.00	1.15
232 Th	5670.00	P	387.00	6.83
238 U	12016.67	P	179.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	388543.31	1.73	383255.53	101.4	30 - 200	
45 Sc	573872.19	1.60	566573.31	101.3	30 - 200	
72 Ge	163775.55	1.40	161712.45	101.3	30 - 200	
115 In	1302916.10	2.45	1281904.10	101.6	30 - 200	
209 Bi	1286917.50	1.15	1275586.80	100.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\006CALI.D\006CALI.D#
Date Acquired: May 9 2005 01:33 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	378866.69	P	1012.00	0.27
9 Be	1166.67	P	61.73	5.29
23 Na	1059123.00	A	15230.00	1.44
26 Mg	67734.44	P	290.70	0.43
27 Al	67477.78	P	900.40	1.33
39 K	1331844.00	A	11740.00	0.88
44 Ca	25958.08	P	633.30	2.44
45 Sc	554661.13	P	3920.00	0.71
51 V	9309.37	P	328.70	3.53
52 Cr	10281.11	P	180.30	1.75
55 Mn	11060.00	P	97.13	0.88
57 Fe	26186.67	P	47.02	0.18
59 Co	9041.11	P	56.80	0.63
60 Ni	2033.33	P	64.29	3.16
65 Cu	2721.94	P	83.82	3.08
66 Zn	3879.23	P	176.70	4.56
72 Ge	159886.91	P	1054.00	0.66
75 As	1340.70	P	49.37	3.68
82 Se	153.36	P	34.90	22.76
95 Mo	2985.56	P	137.30	4.60
109 Ag	7330.00	P	229.40	3.13
111 Cd	1744.86	P	131.90	7.56
115 In	1284396.00	A	7356.00	0.57
121 Sb	6622.22	P	85.27	1.29
137 Ba	2970.00	P	170.70	5.75
205 Tl	16626.67	P	280.50	1.69
208 Pb	22985.55	P	449.20	1.95
209 Bi	1278827.00	A	11910.00	0.93
232 Th	10770.00	P	415.30	3.86
238 U	21516.67	P	439.50	2.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	378866.66	0.27	383255.53	98.9	30 - 200	
45 Sc	554661.06	0.71	566573.31	97.9	30 - 200	
72 Ge	159886.89	0.66	161712.45	98.9	30 - 200	
115 In	1284395.60	0.57	1281904.10	100.2	30 - 200	
209 Bi	1278826.80	0.93	1275586.80	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\007CALI.D\007CALI.D#
Date Acquired: May 9 2005 01:39 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	373440.00	P	5622.00	1.51
9 Be	11201.11	P	320.10	2.86
23 Na	6985478.00	A	53770.00	0.77
26 Mg	685156.31	M	30550.00	4.46
27 Al	108658.90	P	2111.00	1.94
39 K	6721495.00	A	84880.00	1.26
44 Ca	193138.09	P	3493.00	1.81
45 Sc	561696.63	P	11480.00	2.04
51 V	79563.28	P	2277.00	2.86
52 Cr	75866.66	P	1479.00	1.95
55 Mn	102837.80	P	878.60	0.85
57 Fe	216431.09	P	1686.00	0.78
59 Co	87177.78	P	954.10	1.09
60 Ni	19746.67	P	52.92	0.27
65 Cu	23500.52	P	320.00	1.36
66 Zn	16014.54	P	280.90	1.75
72 Ge	161695.59	P	2721.00	1.68
75 As	12764.13	P	285.60	2.24
82 Se	947.73	P	37.30	3.94
95 Mo	27211.11	P	262.30	0.96
109 Ag	72074.44	P	1428.00	1.98
111 Cd	15658.37	P	351.50	2.24
115 In	1268975.00	A	8228.00	0.65
121 Sb	61817.78	P	996.20	1.61
137 Ba	23555.55	P	440.50	1.87
205 Tl	159404.41	P	4573.00	2.87
208 Pb	217473.30	P	3833.00	1.76
209 Bi	1262652.00	A	23180.00	1.84
232 Th	111372.20	P	5385.00	4.84
238 U	210833.30	P	4958.00	2.35

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	373440.00	1.51	383255.53	97.4	30 - 200	
45 Sc	561696.63	2.04	566573.31	99.1	30 - 200	
72 Ge	161695.55	1.68	161712.45	100.0	30 - 200	
115 In	1268975.10	0.65	1281904.10	99.0	30 - 200	
209 Bi	1262651.90	1.84	1275586.80	99.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#
Date Acquired: May 9 2005 01:44 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:41 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	384265.50	P	6338.00	1.65
9 Be	111040.00	P	2223.00	2.00
23 Na	64779380.00	A	914800.00	1.41
26 Mg	6611233.00	A	56080.00	0.85
27 Al	538136.63	P	10100.00	1.88
39 K	60055780.00	A	1021000.00	1.70
44 Ca	1886489.00	A	35790.00	1.90
45 Sc	586510.00	P	11090.00	1.89
51 V	815436.81	M	11310.00	1.39
52 Cr	724518.88	P	7612.00	1.05
55 Mn	1026897.00	A	2574.00	0.25
57 Fe	2150757.00	A	11590.00	0.54
59 Co	875879.50	M	8110.00	0.93
60 Ni	189035.59	P	2981.00	1.58
65 Cu	227604.91	P	3232.00	1.42
66 Zn	136166.41	P	2085.00	1.53
72 Ge	167832.00	P	2983.00	1.78
75 As	126410.40	P	2488.00	1.97
82 Se	8468.64	P	100.50	1.19
95 Mo	270137.81	P	4754.00	1.76
109 Ag	699755.50	P	12720.00	1.82
111 Cd	148551.20	P	2298.00	1.55
115 In	1290516.00	A	11120.00	0.86
121 Sb	603296.63	P	12550.00	2.08
137 Ba	226022.20	P	2894.00	1.28
205 Tl	1674851.00	A	11330.00	0.68
208 Pb	2140513.00	A	22340.00	1.04
209 Bi	1244905.00	A	17460.00	1.40
232 Th	1933230.00	A	52040.00	2.69
238 U	2220371.00	A	13630.00	0.61

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	384265.53	1.65	383255.53	100.3	30 - 200	
45 Sc	586510.00	1.89	566573.31	103.5	30 - 200	
72 Ge	167832.00	1.78	161712.45	103.8	30 - 200	
115 In	1290516.10	0.86	1281904.10	100.7	30 - 200	
209 Bi	1244904.60	1.40	1275586.80	97.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#
Date Acquired: May 9 2005 01:49 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:46 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	387304.41	P	3457.00	0.89
9 Be	225693.30	P	2890.00	1.28
23 Na	130728600.00	A	458100.00	0.35
26 Mg	13381630.00	A	23150.00	0.17
27 Al	1149083.00	A	7759.00	0.68
39 K	120280500.00	A	1180000.00	0.98
44 Ca	3707841.00	A	36990.00	1.00
45 Sc	581156.63	P	9439.00	1.62
51 V	1624804.00	A	13860.00	0.85
52 Cr	1456411.00	A	13430.00	0.92
55 Mn	2026948.00	A	17110.00	0.84
57 Fe	4180162.00	A	10860.00	0.26
59 Co	1751228.00	A	15420.00	0.88
60 Ni	376336.69	P	1881.00	0.50
65 Cu	453202.41	P	3241.00	0.72
66 Zn	267803.59	P	2351.00	0.88
72 Ge	168117.09	P	2754.00	1.64
75 As	257446.70	P	3322.00	1.29
82 Se	16928.90	P	229.50	1.36
95 Mo	551943.31	P	6031.00	1.09
109 Ag	1417878.00	A	14610.00	1.03
111 Cd	297226.69	P	3533.00	1.19
115 In	1269237.00	A	11470.00	0.90
121 Sb	1257868.00	A	10450.00	0.83
137 Ba	457220.00	P	5570.00	1.22
205 Tl	3305613.00	A	41840.00	1.27
208 Pb	4316318.00	A	84220.00	1.95
209 Bi	1216527.00	A	29690.00	2.44
232 Th	4542415.00	A	78550.00	1.73
238 U	4488659.00	A	82940.00	1.85

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	387304.44	0.89	383255.53	101.1	30 - 200	
45 Sc	581156.63	1.62	566573.31	102.6	30 - 200	
72 Ge	168117.11	1.64	161712.45	104.0	30 - 200	
115 In	1269236.80	0.90	1281904.10	99.0	30 - 200	
209 Bi	1216526.80	2.44	1275586.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 09, 2005 13:51
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e0913a.b\003calb.d\	003calb.d#	May 9 2005 01:18 pm
2	...hem\1\data\05e0913a.b\004cali.d\	004cali.d#	May 9 2005 01:23 pm
3	...hem\1\data\05e0913a.b\005cali.d\	005cali.d#	May 9 2005 01:28 pm
4	...hem\1\data\05e0913a.b\006cali.d\	006cali.d#	May 9 2005 01:33 pm
5	...hem\1\data\05e0913a.b\007cali.d\	007cali.d#	May 9 2005 01:39 pm
6	...hem\1\data\05e0913a.b\008cali.d\	008cali.d#	May 9 2005 01:44 pm
7	...hem\1\data\05e0913a.b\009cali.d\	009cali.d#	May 9 2005 01:49 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.454E-1*X +3.046E-3(blank)	---	ppb
Na	23	45	Y = 5.587E-1*X +2.941E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.732E-2*X +3.277E-1(blank)	---	ppb
Al	27	45	Y = 4.525E-1*X +5.772E+0(blank)	---	ppb
K	39	45	Y = 5.126E-1*X +6.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.593E-2*X +7.887E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.416E+0*X +4.303E-1(blank)	---	ppb
Cr	52	72	Y = 2.159E+0*X +9.127E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.023E+0*X +2.462E-1(blank)	---	ppb
Fe	57	72	Y = 6.244E-2*X +1.975E+0(blank)	---	ppb
Co	59	72	Y = 2.605E+0*X +5.598E-2(blank)	---	ppb
Ni	60	72	Y = 5.603E-1*X +3.331E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.746E-1*X +5.836E-2(blank)	---	ppb
Zn	66	72	Y = 3.968E-1*X +5.096E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.815E-1*X +1.796E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.508E-2*X +1.844E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.166E-1*X +1.700E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.104E+0*X +3.713E-2(blank)	---	ppb
Cd	111	72	Y = 4.418E-1*X +6.010E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.448E-1*X +2.082E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.942E-2*X +2.290E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.778E-1*X +3.499E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.767E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547010 Filename : e0913010 Injected : 09-MAY-2005 13:54
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	95.24000	ug/L	-5	10	
Antimony	100.0000	98.46000	ug/L	-2	10	
Arsenic	100.0000	100.5000	ug/L	1	10	
Barium	100.0000	98.32000	ug/L	-2	10	
Beryllium	100.0000	98.59000	ug/L	-1	10	
Cadmium	100.0000	101.9000	ug/L	2	10	
Calcium	10000.00	10110.00	ug/L	1	10	
Chromium	100.0000	100.1000	ug/L	0	10	
Cobalt	100.0000	100.3000	ug/L	0	10	
Copper	100.0000	101.2000	ug/L	1	10	
Iron	10000.00	10260.00	ug/L	3	10	
Lead	100.0000	98.27000	ug/L	-2	10	
Magnesium	10000.00	10060.00	ug/L	1	10	
Manganese	100.0000	101.6000	ug/L	2	10	
Molybdenum	100.0000	100.6000	ug/L	1	10	
Nickel	100.0000	101.7000	ug/L	2	10	
Potassium	10000.00	10060.00	ug/L	1	10	
Selenium	100.0000	102.1000	ug/L	2	10	
Silver	100.0000	100.9000	ug/L	1	10	
Sodium	10000.00	10090.00	ug/L	1	10	
Thallium	100.0000	100.5000	ug/L	1	10	
Vanadium	100.0000	101.3000	ug/L	1	10	
Zinc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	397821	3.80
Scandium	566573	593270	4.71
Germanium	161713	169142	4.59
Indium	1281904	1313906	2.50
Bismuth	1275587	1269056	-0.51

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547012 Filename : e0913012 Injected : 09-MAY-2005 14:06
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.380300	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547013 Filename : e0913013 Injected : 09-MAY-2005 14:12
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55186547001	09-MAY-2005	2.391000	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	0.555400	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	0.891700	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	[0.0090]	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	[0.0932]	0.250000	ug/L	
Chromium	55186547001	09-MAY-2005	1.188000	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	2.679000	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	1.476000	0.500000	ug/L	
Lead	55186547001	09-MAY-2005	1.227000	0.250000	ug/L	
Manganese	55186547001	09-MAY-2005	1.022000	0.250000	ug/L	
Nickel	55186547001	09-MAY-2005	1.305000	0.250000	ug/L	
Selenium	55186547001	09-MAY-2005	[0.4896]	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	[0.1480]	0.250000	ug/L	
Thallium	55186547001	09-MAY-2005	[0.1242]	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	[0.1340]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.928000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89980	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	295200	ug/L	98
Iron	55186547001	09-MAY-2005	250000	241600	ug/L	97
Magnesium	55186547001	09-MAY-2005	100000	93590	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1902	ug/L	95
Potassium	55186547001	09-MAY-2005	100000	96440	ug/L	96
Sodium	55186547001	09-MAY-2005	250000	227100	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547014 Filename : e0913014 Injected : 09-MAY-2005 14:17
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88800.00	ug/L	-11		
Arsenic	100.0000	109.0000	ug/L	9	20	
Cadmium	100.0000	98.83000	ug/L	-1	20	
Calcium	300000.0	295000.0	ug/L	-2		
Chromium	200.0000	215.5000	ug/L	8	20	
Cobalt	200.0000	210.2000	ug/L	5	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	247100.0	ug/L	-1		
Magnesium	100000.0	91970.00	ug/L	-8		
Manganese	200.0000	217.9000	ug/L	9	20	
Molybdenum	2000.000	1929.000	ug/L	-4		
Nickel	200.0000	201.8000	ug/L	1	20	
Potassium	100000.0	95150.00	ug/L	-5		
Selenium	100.0000	101.5000	ug/L	2	20	
Silver	50.00000	48.38000	ug/L	-3	20	
Sodium	250000.0	224200.0	ug/L	-10		
Vanadium	200.0000	220.6000	ug/L	10	20	
Zinc	100.0000	101.8000	ug/L	2	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	598407	5.62
Germanium	161713	166732	3.10

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547025 Filename : e0913025 Injected : 09-MAY-2005 15:22
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4842	150.0000	147.8000	ug/L	-1	10	
Antimony	0.2740	0.2317	150.0000	141.9000	ug/L	-5	10	
Arsenic	0.3902	0.3709	150.0000	145.8000	ug/L	-3	10	
Barium	0.1214	0.0872	150.0000	146.0000	ug/L	-3	10	
Beryllium	0.1568	0.1417	150.0000	146.1000	ug/L	-3	10	
Cadmium	0.5642	0.4444	150.0000	150.7000	ug/L	0	10	
Calcium	0.0208	0.0157	15000.00	14730.00	ug/L	-2	10	
Chromium	2.8448	2.1412	150.0000	148.3000	ug/L	-1	10	
Cobalt	2.8466	2.5911	150.0000	149.2000	ug/L	-1	10	
Copper	0.7634	0.6613	150.0000	147.0000	ug/L	-2	10	
Iron	0.0759	0.0618	15000.00	14820.00	ug/L	-1	10	
Lead	0.9225	0.8510	150.0000	144.8000	ug/L	-3	10	
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
Manganese	3.5290	2.9760	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.9099	0.8045	150.0000	147.6000	ug/L	-2	10	
Nickel	0.6490	0.5499	150.0000	147.1000	ug/L	-2	10	
Potassium	0.9426	0.5046	15000.00	14640.00	ug/L	-2	10	
Selenium	0.0396	0.0248	150.0000	147.4000	ug/L	-2	10	
Silver	2.2896	2.1088	150.0000	150.3000	ug/L	0	10	
Sodium	0.7893	0.5501	15000.00	14720.00	ug/L	-2	10	
Thallium	0.6776	0.6635	150.0000	146.8000	ug/L	-2	10	
Vanadium	2.7524	2.4032	150.0000	149.0000	ug/L	-1	10	
Zinc	0.8033	0.3903	150.0000	146.3000	ug/L	-2	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	373026	-2.67
Scandium	566573	561004	-0.98
Germanium	161713	161836	0.08
Indium	1281904	1264407	-1.36
Bismuth	1275587	1249023	-2.08

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547027 Filename : e0913027 Injected : 09-MAY-2005 15:33
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.260000	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547031 Filename : e0913031 Injected : 09-MAY-2005 15:57
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4676	100.0000	90.59000	ug/L	-9	10	
Antimony	0.2740	0.2331	100.0000	95.12000	ug/L	-5	10	
Arsenic	0.3902	0.3791	100.0000	99.32000	ug/L	-1	10	
Barium	0.1214	0.0880	100.0000	98.19000	ug/L	-2	10	
Beryllium	0.1568	0.1450	100.0000	99.70000	ug/L	0	10	
Cadmium	0.5642	0.4516	100.0000	102.1000	ug/L	2	10	
Calcium	0.0208	0.0164	10000.00	10220.00	ug/L	2	10	
Chromium	2.8448	2.1583	100.0000	99.53000	ug/L	0	10	
Cobalt	2.8466	2.5857	100.0000	99.22000	ug/L	-1	10	
Copper	0.7634	0.6794	100.0000	100.6000	ug/L	1	10	
Iron	0.0759	0.0645	10000.00	10300.00	ug/L	3	10	
Lead	0.9225	0.8645	100.0000	98.05000	ug/L	-2	10	
Magnesium	0.0608	0.0583	10000.00	10160.00	ug/L	2	10	
Manganese	3.5290	3.1243	100.0000	103.3000	ug/L	3	10	
Molybdenum	0.9099	0.8182	100.0000	99.98000	ug/L	0	10	
Nickel	0.6490	0.5662	100.0000	101.0000	ug/L	1	10	
Potassium	0.9426	0.5241	10000.00	10100.00	ug/L	1	10	
Selenium	0.0396	0.0255	100.0000	100.9000	ug/L	1	10	
Silver	2.2896	2.1286	100.0000	101.2000	ug/L	1	10	
Sodium	0.7893	0.5663	10000.00	10080.00	ug/L	1	10	
Thallium	0.6776	0.6851	100.0000	101.0000	ug/L	1	10	
Vanadium	2.7524	2.4000	100.0000	99.14000	ug/L	-1	10	
Zinc	0.8033	0.4049	100.0000	100.8000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	368057	-3.97
Scandium	566573	555167	-2.01
Germanium	161713	161141	-0.35
Indium	1281904	1267241	-1.14
Bismuth	1275587	1237819	-2.96

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55186547033
Standards: 05WS0207

Run Name :
Filename : e0913033

Injected : 09-MAY-2005 16:09

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.1836]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547034 Filename : e0913034 Injected : 09-MAY-2005 16:15
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55186547001	09-MAY-2005	2.217000	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	0.647500	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	0.803400	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	[0.0110]	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	[0.1070]	0.250000	ug/L	
Chromium	55186547001	09-MAY-2005	1.182000	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	2.621000	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	1.499000	0.500000	ug/L	
Lead	55186547001	09-MAY-2005	1.185000	0.250000	ug/L	
Manganese	55186547001	09-MAY-2005	1.014000	0.250000	ug/L	
Nickel	55186547001	09-MAY-2005	1.330000	0.250000	ug/L	
Selenium	55186547001	09-MAY-2005	[0.3223]	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	[0.1382]	0.250000	ug/L	
Thallium	55186547001	09-MAY-2005	[0.0349]	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	[0.0894]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	90860	ug/L	91
Calcium	55186547001	09-MAY-2005	300000	292900	ug/L	98
Iron	55186547001	09-MAY-2005	250000	237700	ug/L	95
Magnesium	55186547001	09-MAY-2005	100000	94090	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1944	ug/L	97
Potassium	55186547001	09-MAY-2005	100000	96540	ug/L	97
Sodium	55186547001	09-MAY-2005	250000	226900	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547035 Filename : e0913035 Injected : 09-MAY-2005 16:21
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	89450.00	ug/L	-11		
Arsenic	100.0000	106.2000	ug/L	6	20	
Cadmium	100.0000	98.87000	ug/L	-1	20	
Calcium	300000.0	292500.0	ug/L	-3		
Chromium	200.0000	206.3000	ug/L	3	20	
Cobalt	200.0000	204.6000	ug/L	2	20	
Copper	200.0000	192.8000	ug/L	-4	20	
Iron	250000.0	237800.0	ug/L	-5		
Magnesium	100000.0	93040.00	ug/L	-7		
Manganese	200.0000	208.6000	ug/L	4	20	
Molybdenum	2000.000	1917.000	ug/L	-4		
Nickel	200.0000	196.3000	ug/L	-2	20	
Potassium	100000.0	95100.00	ug/L	-5		
Selenium	100.0000	99.09000	ug/L	-1	20	
Silver	50.00000	48.47000	ug/L	-3	20	
Sodium	250000.0	223600.0	ug/L	-11		
Vanadium	200.0000	212.9000	ug/L	6	20	
Zinc	100.0000	98.57000	ug/L	-1	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	566613	0.01
Germanium	161713	163447	1.07

CONTINUING CALIBRATION REPORT
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nstid : MET05 Run Name : IDF : 1.0
eqnum : 55186547046 Filename : e0913046 Injected : 09-MAY-2005 17:39
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4749	150.0000	144.7000	ug/L	-4	10	
Antimony	0.2740	0.2250	150.0000	137.7000	ug/L	-8	10	
Arsenic	0.3902	0.3648	150.0000	143.4000	ug/L	-4	10	
Barium	0.1214	0.0853	150.0000	142.9000	ug/L	-5	10	
Beryllium	0.1568	0.1391	150.0000	143.4000	ug/L	-4	10	
Cadmium	0.5642	0.4459	150.0000	151.2000	ug/L	1	10	
Calcium	0.0208	0.0155	15000.00	14550.00	ug/L	-3	10	
Chromium	2.8448	2.1136	150.0000	146.4000	ug/L	-2	10	
Cobalt	2.8466	2.5472	150.0000	146.6000	ug/L	-2	10	
Copper	0.7634	0.6531	150.0000	145.1000	ug/L	-3	10	
Iron	0.0759	0.0620	15000.00	14850.00	ug/L	-1	10	
Lead	0.9225	0.8358	150.0000	142.2000	ug/L	-5	10	
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
Manganese	3.5290	2.9806	150.0000	147.8000	ug/L	-1	10	
Molybdenum	0.9099	0.7972	150.0000	146.2000	ug/L	-3	10	
Nickel	0.6490	0.5403	150.0000	144.6000	ug/L	-4	10	
Potassium	0.9426	0.5038	15000.00	14620.00	ug/L	-3	10	
Selenium	0.0396	0.0247	150.0000	147.1000	ug/L	-2	10	
Silver	2.2896	2.1293	150.0000	151.8000	ug/L	1	10	
Sodium	0.7893	0.5550	15000.00	14850.00	ug/L	-1	10	
Thallium	0.6776	0.6552	150.0000	144.9000	ug/L	-3	10	
Vanadium	2.7524	2.3700	150.0000	146.9000	ug/L	-2	10	
Zinc	0.8033	0.3843	150.0000	144.0000	ug/L	-4	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	371734	-3.01
Scandium	566573	544232	-3.94
Germanium	161713	158308	-2.11
Indium	1281904	1276514	-0.42
Bismuth	1275587	1283726	0.64

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Instid : MET05 Run Name :
Seqnum : 55186547048 Filename : e0913048 Injected : 09-MAY-2005 17:51
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.2093]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	0.559700	0.500000	ug/L	ib ***
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547061 Filename : e0913061 Injected : 09-MAY-2005 19:07
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4622	150.0000	140.5000	ug/L	-6	10	
Antimony	0.2740	0.2246	150.0000	137.5000	ug/L	-8	10	
Arsenic	0.3902	0.3614	150.0000	142.1000	ug/L	-5	10	
Barium	0.1214	0.0850	150.0000	142.2000	ug/L	-5	10	
Beryllium	0.1568	0.1384	150.0000	142.7000	ug/L	-5	10	
Cadmium	0.5642	0.4352	150.0000	147.6000	ug/L	-2	10	
Calcium	0.0208	0.0155	15000.00	14580.00	ug/L	-3	10	
Chromium	2.8448	2.1179	150.0000	146.7000	ug/L	-2	10	
Cobalt	2.8466	2.5818	150.0000	148.6000	ug/L	-1	10	
Copper	0.7634	0.6536	150.0000	145.3000	ug/L	-3	10	
Iron	0.0759	0.0622	15000.00	14900.00	ug/L	-1	10	
Lead	0.9225	0.8200	150.0000	139.5000	ug/L	-7	10	
Magnesium	0.0608	0.0556	15000.00	14530.00	ug/L	-3	10	
Manganese	3.5290	3.0047	150.0000	149.0000	ug/L	-1	10	
Molybdenum	0.9099	0.7924	150.0000	145.3000	ug/L	-3	10	
Nickel	0.6490	0.5423	150.0000	145.1000	ug/L	-3	10	
Potassium	0.9426	0.4942	15000.00	14340.00	ug/L	-4	10	
Selenium	0.0396	0.0243	150.0000	144.8000	ug/L	-3	10	
Silver	2.2896	2.0791	150.0000	148.2000	ug/L	-1	10	
Sodium	0.7893	0.5429	15000.00	14520.00	ug/L	-3	10	
Thallium	0.6776	0.6486	150.0000	143.5000	ug/L	-4	10	
Vanadium	2.7524	2.3733	150.0000	147.1000	ug/L	-2	10	
Zinc	0.8033	0.3850	150.0000	144.3000	ug/L	-4	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	364584	-4.87
Scandium	566573	549159	-3.07
Germanium	161713	158082	-2.25
Indium	1281904	1258859	-1.80
Bismuth	1275587	1233783	-3.28

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Instid : MET05 Run Name :
Seqnum : 55186547063 Filename : e0913063 Injected : 09-MAY-2005 19:19
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.274200	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	[0.2043]	1.000000	ug/L	

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Page 1 of 1

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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547073 Filename : e0913073 Injected : 09-MAY-2005 20:18
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4673	100.0000	90.51000	ug/L	-9	10	
Antimony	0.2740	0.2288	100.0000	93.37000	ug/L	-7	10	
Arsenic	0.3902	0.3666	100.0000	96.04000	ug/L	-4	10	
Barium	0.1214	0.0856	100.0000	95.47000	ug/L	-5	10	
Beryllium	0.1568	0.1387	100.0000	95.34000	ug/L	-5	10	
Cadmium	0.5642	0.4496	100.0000	101.6000	ug/L	2	10	
Calcium	0.0208	0.0159	10000.00	9930.000	ug/L	-1	10	
Chromium	2.8448	2.1183	100.0000	97.68000	ug/L	-2	10	
Cobalt	2.8466	2.5411	100.0000	97.51000	ug/L	-2	10	
Copper	0.7634	0.6660	100.0000	98.64000	ug/L	-1	10	
Iron	0.0759	0.0640	10000.00	10220.00	ug/L	2	10	
Lead	0.9225	0.8380	100.0000	95.05000	ug/L	-5	10	
Magnesium	0.0608	0.0574	10000.00	10010.00	ug/L	0	10	
Manganese	3.5290	3.0535	100.0000	100.9000	ug/L	1	10	
Molybdenum	0.9099	0.8014	100.0000	97.93000	ug/L	-2	10	
Nickel	0.6490	0.5555	100.0000	99.08000	ug/L	-1	10	
Potassium	0.9426	0.5068	10000.00	9764.000	ug/L	-2	10	
Selenium	0.0396	0.0248	100.0000	98.04000	ug/L	-2	10	
Silver	2.2896	2.1066	100.0000	100.1000	ug/L	0	10	
Sodium	0.7893	0.5618	10000.00	10000.00	ug/L	0	10	
Thallium	0.6776	0.6543	100.0000	96.49000	ug/L	-4	10	
Vanadium	2.7524	2.3544	100.0000	97.26000	ug/L	-3	10	
Zinc	0.8033	0.3978	100.0000	98.96000	ug/L	-1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	380148	-0.81
Scandium	566573	554670	-2.10
Germanium	161713	160863	-0.53
Indium	1281904	1296859	1.17
Bismuth	1275587	1288713	1.03

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Instid : MET05
Seqnum : 55186547075
Standards: 05WS0207

Run Name :
Filename : e0913075 Injected : 09-MAY-2005 20:30

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.1410]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547076 Filename : e0913076 Injected : 09-MAY-2005 20:35
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55186547001	09-MAY-2005	2.164000	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	0.849800	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	0.754800	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	[0.0173]	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	0.402000	0.250000	ug/L	
Chromium	55186547001	09-MAY-2005	1.676000	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	3.095000	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	1.990000	0.500000	ug/L	
Lead	55186547001	09-MAY-2005	1.152000	0.250000	ug/L	
Manganese	55186547001	09-MAY-2005	1.476000	0.250000	ug/L	
Nickel	55186547001	09-MAY-2005	1.796000	0.250000	ug/L	
Selenium	55186547001	09-MAY-2005	1.035000	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	0.275200	0.250000	ug/L	
Thallium	55186547001	09-MAY-2005	[0.0729]	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	[0.5942]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.645000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89710	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	288400	ug/L	96
Iron	55186547001	09-MAY-2005	250000	232000	ug/L	93
Magnesium	55186547001	09-MAY-2005	100000	92800	ug/L	93
Molybdenum	55186547001	09-MAY-2005	2000	1916	ug/L	96
Potassium	55186547001	09-MAY-2005	100000	95190	ug/L	95
Sodium	55186547001	09-MAY-2005	250000	224900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547077 Filename : e0913077 Injected : 09-MAY-2005 20:41
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88680.00	ug/L	-11		
Arsenic	100.0000	104.0000	ug/L	4	20	
Cadmium	100.0000	100.3000	ug/L	0	20	
Calcium	300000.0	282500.0	ug/L	-6		
Chromium	200.0000	200.5000	ug/L	0	20	
Cobalt	200.0000	199.2000	ug/L	0	20	
Copper	200.0000	188.4000	ug/L	-6	20	
Iron	250000.0	229700.0	ug/L	-8		
Magnesium	100000.0	91480.00	ug/L	-9		
Manganese	200.0000	202.9000	ug/L	1	20	
Molybdenum	2000.000	1934.000	ug/L	-3		
Nickel	200.0000	191.1000	ug/L	-4	20	
Potassium	100000.0	92990.00	ug/L	-7		
Selenium	100.0000	97.83000	ug/L	-2	20	
Silver	50.00000	49.27000	ug/L	-1	20	
Sodium	250000.0	220800.0	ug/L	-12		
Vanadium	200.0000	205.6000	ug/L	3	20	
Zinc	100.0000	94.58000	ug/L	-5	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	524903	-7.35
Germanium	161713	152927	-5.43

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547090 Filename : e0913090 Injected : 09-MAY-2005 21:57
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4441	150.0000	134.5000	ug/L	-10	10	
Antimony	0.2740	0.2267	150.0000	138.8000	ug/L	-7	10	
Arsenic	0.3902	0.3603	150.0000	141.6000	ug/L	-6	10	
Barium	0.1214	0.0859	150.0000	143.8000	ug/L	-4	10	
Beryllium	0.1568	0.1381	150.0000	142.4000	ug/L	-5	10	
Cadmium	0.5642	0.4419	150.0000	149.9000	ug/L	0	10	
Calcium	0.0208	0.0155	15000.00	14560.00	ug/L	-3	10	
Chromium	2.8448	2.1134	150.0000	146.4000	ug/L	-2	10	
Cobalt	2.8466	2.5717	150.0000	148.0000	ug/L	-1	10	
Copper	0.7634	0.6520	150.0000	144.9000	ug/L	-3	10	
Iron	0.0759	0.0625	15000.00	14970.00	ug/L	0	10	
Lead	0.9225	0.8374	150.0000	142.5000	ug/L	-5	10	
Magnesium	0.0608	0.0558	15000.00	14600.00	ug/L	-3	10	
Manganese	3.5290	3.0052	150.0000	149.1000	ug/L	-1	10	
Molybdenum	0.9099	0.7996	150.0000	146.7000	ug/L	-2	10	
Nickel	0.6490	0.5407	150.0000	144.7000	ug/L	-4	10	
Potassium	0.9426	0.4972	15000.00	14430.00	ug/L	-4	10	
Selenium	0.0396	0.0244	150.0000	145.0000	ug/L	-3	10	
Silver	2.2896	2.1172	150.0000	150.9000	ug/L	1	10	
Sodium	0.7893	0.5486	15000.00	14680.00	ug/L	-2	10	
Thallium	0.6776	0.6532	150.0000	144.5000	ug/L	-4	10	
Vanadium	2.7524	2.3781	150.0000	147.4000	ug/L	-2	10	
Zinc	0.8033	0.3860	150.0000	144.6000	ug/L	-4	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	332344	-13.28
Scandium	566573	500594	-11.65
Germanium	161713	147515	-8.78
Indium	1281904	1196146	-6.69
Bismuth	1275587	1218836	-4.45

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Instid : MET05 Run Name :
Seqnum : 55186547092 Filename : e0913092 Injected : 09-MAY-2005 22:08
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.1935]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547101 Filename : e0913101 Injected : 09-MAY-2005 23:02
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55186547001	09-MAY-2005	2.055000	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	0.835800	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	0.760600	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	[0.0340]	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	0.389700	0.250000	ug/L	
Chromium	55186547001	09-MAY-2005	1.686000	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	3.051000	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	1.977000	0.500000	ug/L	
Lead	55186547001	09-MAY-2005	1.131000	0.250000	ug/L	
Manganese	55186547001	09-MAY-2005	1.590000	0.250000	ug/L	
Nickel	55186547001	09-MAY-2005	1.808000	0.250000	ug/L	
Selenium	55186547001	09-MAY-2005	0.814200	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	0.292200	0.250000	ug/L	
Thallium	55186547001	09-MAY-2005	[0.0177]	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	[0.5981]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.873000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	88230	ug/L	88
Calcium	55186547001	09-MAY-2005	300000	286700	ug/L	96
Iron	55186547001	09-MAY-2005	250000	236400	ug/L	95
Magnesium	55186547001	09-MAY-2005	100000	91370	ug/L	91
Molybdenum	55186547001	09-MAY-2005	2000	1844	ug/L	92
Potassium	55186547001	09-MAY-2005	100000	92300	ug/L	92
Sodium	55186547001	09-MAY-2005	250000	220800	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547102 Filename : e0913102 Injected : 09-MAY-2005 23:07
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88090.00	ug/L	-12		
Arsenic	100.0000	100.6000	ug/L	1	20	
Cadmium	100.0000	94.17000	ug/L	-6	20	
Calcium	300000.0	285000.0	ug/L	-5		
Chromium	200.0000	196.3000	ug/L	-2	20	
Cobalt	200.0000	196.8000	ug/L	-2	20	
Copper	200.0000	185.2000	ug/L	-7	20	
Iron	250000.0	232200.0	ug/L	-7		
Magnesium	100000.0	91520.00	ug/L	-8		
Manganese	200.0000	205.7000	ug/L	3	20	
Molybdenum	2000.000	1829.000	ug/L	-9		
Nickel	200.0000	188.6000	ug/L	-6	20	
Potassium	100000.0	92260.00	ug/L	-8		
Selenium	100.0000	94.08000	ug/L	-6	20	
Silver	50.00000	46.16000	ug/L	-8	20	
Sodium	250000.0	221600.0	ug/L	-11		
Vanadium	200.0000	202.2000	ug/L	1	20	
Zinc	100.0000	93.46000	ug/L	-7	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	588738	3.91
Germanium	161713	171175	5.85

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547104 Filename : e0913104 Injected : 09-MAY-2005 23:19
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4816	150.0000	146.9000	ug/L	-2	10	
Antimony	0.2740	0.2208	150.0000	135.2000	ug/L	-10	10	
Arsenic	0.3902	0.3531	150.0000	138.8000	ug/L	-7	10	
Barium	0.1214	0.0838	150.0000	140.2000	ug/L	-7	10	
Beryllium	0.1568	0.1379	150.0000	142.2000	ug/L	-5	10	
Cadmium	0.5642	0.4284	150.0000	145.3000	ug/L	-3	10	
Calcium	0.0208	0.0155	15000.00	14510.00	ug/L	-3	10	
Chromium	2.8448	2.0770	150.0000	143.9000	ug/L	-4	10	
Cobalt	2.8466	2.5468	150.0000	146.6000	ug/L	-2	10	
Copper	0.7634	0.6408	150.0000	142.4000	ug/L	-5	10	
Iron	0.0759	0.0615	15000.00	14750.00	ug/L	-2	10	
Lead	0.9225	0.8210	150.0000	139.7000	ug/L	-7	10	
Magnesium	0.0608	0.0544	15000.00	14220.00	ug/L	-5	10	
Manganese	3.5290	2.9731	150.0000	147.5000	ug/L	-2	10	
Molybdenum	0.9099	0.7836	150.0000	143.7000	ug/L	-4	10	
Nickel	0.6490	0.5339	150.0000	142.9000	ug/L	-5	10	
Potassium	0.9426	0.4881	15000.00	14160.00	ug/L	-6	10	
Selenium	0.0396	0.0238	150.0000	141.7000	ug/L	-6	10	
Silver	2.2896	2.0654	150.0000	147.2000	ug/L	-2	10	
Sodium	0.7893	0.5389	15000.00	14410.00	ug/L	-4	10	
Thallium	0.6776	0.6459	150.0000	142.9000	ug/L	-5	10	
Vanadium	2.7524	2.3446	150.0000	145.4000	ug/L	-3	10	
Zinc	0.8033	0.3778	150.0000	141.5000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	354034	-7.62
Scandium	566573	572106	0.98
Germanium	161713	167746	3.73
Indium	1281904	1353822	5.61
Bismuth	1275587	1244487	-2.44

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Instid : MET05 Run Name :
Seqnum : 55186547106 Filename : e0913106 Injected : 09-MAY-2005 23:31
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.266100	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	[7.8940]	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	[16.540]	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	0.509500	0.500000	ug/L	ib ***
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	152.9000	50.00000	ug/L	ib ***
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	[0.1644]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547119 Filename : e0913119 Injected : 10-MAY-2005 00:47
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
Antimony	0.2740	0.2207	150.0000	135.1000	ug/L	-10	10	
Arsenic	0.3902	0.3591	150.0000	141.1000	ug/L	-6	10	
Barium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
Beryllium	0.1568	0.1365	150.0000	140.8000	ug/L	-6	10	
Cadmium	0.5642	0.4429	150.0000	150.2000	ug/L	0	10	
Calcium	0.0208	0.0154	15000.00	14440.00	ug/L	-4	10	
Chromium	2.8448	2.0623	150.0000	142.8000	ug/L	-5	10	
Cobalt	2.8466	2.5430	150.0000	146.4000	ug/L	-2	10	
Copper	0.7634	0.6440	150.0000	143.1000	ug/L	-5	10	
Iron	0.0759	0.0607	15000.00	14540.00	ug/L	-3	10	
Lead	0.9225	0.8229	150.0000	140.0000	ug/L	-7	10	
Magnesium	0.0608	0.0556	15000.00	14540.00	ug/L	-3	10	
Manganese	3.5290	2.9299	150.0000	145.3000	ug/L	-3	10	
Molybdenum	0.9099	0.7959	150.0000	146.0000	ug/L	-3	10	
Nickel	0.6490	0.5358	150.0000	143.4000	ug/L	-4	10	
Potassium	0.9426	0.4978	15000.00	14440.00	ug/L	-4	10	
Selenium	0.0396	0.0240	150.0000	143.0000	ug/L	-5	10	
Silver	2.2896	2.1147	150.0000	150.8000	ug/L	1	10	
Sodium	0.7893	0.5374	15000.00	14380.00	ug/L	-4	10	
Thallium	0.6776	0.6584	150.0000	145.7000	ug/L	-3	10	
Vanadium	2.7524	2.3251	150.0000	144.1000	ug/L	-4	10	
Zinc	0.8033	0.3749	150.0000	140.4000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	327369	-14.58
Scandium	566573	503498	-11.13
Germanium	161713	148418	-8.22
Indium	1281904	1233456	-3.78
Bismuth	1275587	1161755	-8.92

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Instid : MET05 Run Name :
Seqnum : 55186547121 Filename : e0913121 Injected : 10-MAY-2005 00:58
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.291700	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547133 Filename : e0913133 Injected : 10-MAY-2005 02:08
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4738	150.0000	144.3000	ug/L	-4	10	
Antimony	0.2740	0.2193	150.0000	134.3000	ug/L	-10	10	
Arsenic	0.3902	0.3574	150.0000	140.5000	ug/L	-6	10	
Barium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
Beryllium	0.1568	0.1362	150.0000	140.5000	ug/L	-6	10	
Cadmium	0.5642	0.4611	150.0000	156.4000	ug/L	4	10	
Calcium	0.0208	0.0155	15000.00	14540.00	ug/L	-3	10	
Chromium	2.8448	2.0076	150.0000	139.0000	ug/L	-7	10	
Cobalt	2.8466	2.4868	150.0000	143.1000	ug/L	-5	10	
Copper	0.7634	0.6376	150.0000	141.7000	ug/L	-6	10	
Iron	0.0759	0.0605	15000.00	14510.00	ug/L	-3	10	
Lead	0.9225	0.8171	150.0000	139.0000	ug/L	-7	10	
Magnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
Manganese	3.5290	2.9991	150.0000	148.8000	ug/L	-1	10	
Molybdenum	0.9099	0.8080	150.0000	148.2000	ug/L	-1	10	
Nickel	0.6490	0.5282	150.0000	141.3000	ug/L	-6	10	
Potassium	0.9426	0.5000	15000.00	14510.00	ug/L	-3	10	
Selenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
Silver	2.2896	2.1831	150.0000	155.6000	ug/L	4	10	
Sodium	0.7893	0.5438	15000.00	14550.00	ug/L	-3	10	
Thallium	0.6776	0.6476	150.0000	143.3000	ug/L	-4	10	
Vanadium	2.7524	2.2899	150.0000	142.0000	ug/L	-5	10	
Zinc	0.8033	0.3800	150.0000	142.4000	ug/L	-5	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	290486	-24.21
Scandium	566573	426922	-24.65
Germanium	161713	127442	-21.19
Indium	1281904	1121490	-12.51
Bismuth	1275587	1113799	-12.68

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Instid : MET05 Run Name :
Seqnum : 55186547135 Filename : e0913135 Injected : 10-MAY-2005 02:20
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.275900	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	[12.110]	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	[0.2292]	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	3.056000	0.250000	ug/L	ib ***
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	0.556300	0.500000	ug/L	ib ***
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	2.229000	1.000000	ug/L	ib ***

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547147 Filename : e0913147 Injected : 10-MAY-2005 03:31
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4614	150.0000	140.2000	ug/L	-7	10	
Antimony	0.2740	0.2218	150.0000	135.8000	ug/L	-9	10	
Arsenic	0.3902	0.3599	150.0000	141.5000	ug/L	-6	10	
Barium	0.1214	0.0840	150.0000	140.6000	ug/L	-6	10	
Beryllium	0.1568	0.1372	150.0000	141.5000	ug/L	-6	10	
Cadmium	0.5642	0.4655	150.0000	157.9000	ug/L	5	10	
Calcium	0.0208	0.0156	15000.00	14620.00	ug/L	-3	10	
Chromium	2.8448	2.0299	150.0000	140.6000	ug/L	-6	10	
Cobalt	2.8466	2.5088	150.0000	144.4000	ug/L	-4	10	
Copper	0.7634	0.6448	150.0000	143.3000	ug/L	-4	10	
Iron	0.0759	0.0605	15000.00	14490.00	ug/L	-3	10	
Lead	0.9225	0.8192	150.0000	139.4000	ug/L	-7	10	
Magnesium	0.0608	0.0568	15000.00	14850.00	ug/L	-1	10	
Manganese	3.5290	2.9146	150.0000	144.6000	ug/L	-4	10	
Molybdenum	0.9099	0.8154	150.0000	149.6000	ug/L	0	10	
Nickel	0.6490	0.5336	150.0000	142.8000	ug/L	-5	10	
Potassium	0.9426	0.5096	15000.00	14790.00	ug/L	-1	10	
Selenium	0.0396	0.0243	150.0000	144.3000	ug/L	-4	10	
Silver	2.2896	2.1995	150.0000	156.8000	ug/L	5	10	
Sodium	0.7893	0.5477	15000.00	14650.00	ug/L	-2	10	
Thallium	0.6776	0.6668	150.0000	147.5000	ug/L	-2	10	
Vanadium	2.7524	2.3045	150.0000	142.9000	ug/L	-5	10	
Zinc	0.8033	0.3761	150.0000	140.9000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	295190	-22.98
Scandium	566573	430569	-24.00
Germanium	161713	127088	-21.41
Indium	1281904	1117565	-12.82
Bismuth	1275587	1051484	-17.57

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547149 Filename : e0913149 Injected : 10-MAY-2005 03:42
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.2246]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	[0.1014]	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	1.195000	0.250000	ug/L	ib ***
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	0.517200	0.500000	ug/L	ib ***
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	1.043000	1.000000	ug/L	ib ***

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

nstid : MET05 Run Name : IDF : 1.0
eqnum : 55186547162 Filename : e0913162 Injected : 10-MAY-2005 04:59
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
Antimony	0.2740	0.2169	150.0000	132.8000	ug/L	-11	10	c- ***
Arsenic	0.3902	0.3587	150.0000	141.0000	ug/L	-6	10	
Barium	0.1214	0.0817	150.0000	136.8000	ug/L	-9	10	
Beryllium	0.1568	0.1363	150.0000	140.6000	ug/L	-6	10	
Cadmium	0.5642	0.4600	150.0000	156.0000	ug/L	4	10	
Calcium	0.0208	0.0156	15000.00	14610.00	ug/L	-3	10	
Chromium	2.8448	2.0237	150.0000	140.2000	ug/L	-7	10	
Cobalt	2.8466	2.5161	150.0000	144.8000	ug/L	-3	10	
Copper	0.7634	0.6437	150.0000	143.0000	ug/L	-5	10	
Iron	0.0759	0.0607	15000.00	14560.00	ug/L	-3	10	
Lead	0.9225	0.8290	150.0000	141.0000	ug/L	-6	10	
Magnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
Manganese	3.5290	2.9288	150.0000	145.3000	ug/L	-3	10	
Molybdenum	0.9099	0.8142	150.0000	149.3000	ug/L	0	10	
Nickel	0.6490	0.5312	150.0000	142.2000	ug/L	-5	10	
Potassium	0.9426	0.5043	15000.00	14630.00	ug/L	-2	10	
Selenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
Silver	2.2896	2.1764	150.0000	155.2000	ug/L	3	10	
Sodium	0.7893	0.5422	15000.00	14510.00	ug/L	-3	10	
Thallium	0.6776	0.6898	150.0000	152.6000	ug/L	2	10	
Vanadium	2.7524	2.3205	150.0000	143.9000	ug/L	-4	10	
Zinc	0.8033	0.3758	150.0000	140.8000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	290333	-24.25
Scandium	566573	433501	-23.49
Germanium	161713	127988	-20.85
Indium	1281904	1129581	-11.88
Bismuth	1275587	973668	-23.67

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Page 1 of 1

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547164 Filename : e0913164 Injected : 10-MAY-2005 05:11
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.2283]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	[0.0799]	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	0.855700	0.250000	ug/L	ib ***
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	[0.8803]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55186547176 Filename : e0913176 Injected : 10-MAY-2005 06:21
Calnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4688	150.0000	142.6000	ug/L	-5	10	
Antimony	0.2740	0.2225	150.0000	136.2000	ug/L	-9	10	
Arsenic	0.3902	0.3706	150.0000	145.7000	ug/L	-3	10	
Barium	0.1214	0.0831	150.0000	139.1000	ug/L	-7	10	
Beryllium	0.1568	0.1415	150.0000	146.0000	ug/L	-3	10	
Cadmium	0.5642	0.4668	150.0000	158.4000	ug/L	6	10	
Calcium	0.0208	0.0159	15000.00	14930.00	ug/L	0	10	
Chromium	2.8448	2.0775	150.0000	143.9000	ug/L	-4	10	
Cobalt	2.8466	2.5922	150.0000	149.2000	ug/L	-1	10	
Copper	0.7634	0.6615	150.0000	147.0000	ug/L	-2	10	
Iron	0.0759	0.0623	15000.00	14940.00	ug/L	0	10	
Lead	0.9225	0.8454	150.0000	143.8000	ug/L	-4	10	
Magnesium	0.0608	0.0568	15000.00	14860.00	ug/L	-1	10	
Manganese	3.5290	2.9983	150.0000	148.7000	ug/L	-1	10	
Molybdenum	0.9099	0.8280	150.0000	151.9000	ug/L	1	10	
Nickel	0.6490	0.5492	150.0000	147.0000	ug/L	-2	10	
Potassium	0.9426	0.5165	15000.00	14990.00	ug/L	0	10	
Selenium	0.0396	0.0247	150.0000	147.2000	ug/L	-2	10	
Silver	2.2896	2.2155	150.0000	157.9000	ug/L	5	10	
Sodium	0.7893	0.5489	15000.00	14680.00	ug/L	-2	10	
Thallium	0.6776	0.7149	150.0000	158.2000	ug/L	5	10	
Vanadium	2.7524	2.3822	150.0000	147.7000	ug/L	-2	10	
Zinc	0.8033	0.3834	150.0000	143.6000	ug/L	-4	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	282773	-26.22
Scandium	566573	434472	-23.32
Germanium	161713	127616	-21.08
Indium	1281904	1110413	-13.38
Bismuth	1275587	869999	-31.80

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Instid : MET05 Run Name :
Seqnum : 55186547178 Filename : e0913178 Injected : 10-MAY-2005 06:33
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	0.256600	0.250000	ug/L	ib ***
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	[0.0781]	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	0.907700	0.250000	ug/L	ib ***
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	[0.7570]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55186547186 Filename : e0913186 Injected : 10-MAY-2005 07:20
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55186547001	09-MAY-2005	1.989000	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	0.989200	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	0.727600	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	[0.0237]	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	0.365700	0.250000	ug/L	
Chromium	55186547001	09-MAY-2005	1.624000	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	2.991000	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	1.871000	0.500000	ug/L	
Lead	55186547001	09-MAY-2005	1.225000	0.250000	ug/L	
Manganese	55186547001	09-MAY-2005	2.276000	0.250000	ug/L	
Nickel	55186547001	09-MAY-2005	1.822000	0.250000	ug/L	
Selenium	55186547001	09-MAY-2005	0.993000	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	0.288600	0.250000	ug/L	
Thallium	55186547001	09-MAY-2005	[0.0578]	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	[0.6500]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	4.768000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	88650	ug/L	89
Calcium	55186547001	09-MAY-2005	300000	277800	ug/L	93
Iron	55186547001	09-MAY-2005	250000	220600	ug/L	88
Magnesium	55186547001	09-MAY-2005	100000	90820	ug/L	91
Molybdenum	55186547001	09-MAY-2005	2000	1959	ug/L	98
Potassium	55186547001	09-MAY-2005	100000	93220	ug/L	93
Sodium	55186547001	09-MAY-2005	250000	217200	ug/L	87

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

nstid : MET05 Run Name :
eqnum : 55186547187 Filename : e0913187 Injected : 10-MAY-2005 07:26
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	91030.00	ug/L	-9		
Arsenic	100.0000	103.0000	ug/L	3	20	
Cadmium	100.0000	105.6000	ug/L	6	20	
Calcium	300000.0	286000.0	ug/L	-5		
Chromium	200.0000	195.5000	ug/L	-2	20	
Cobalt	200.0000	197.1000	ug/L	-1	20	
Copper	200.0000	186.4000	ug/L	-7	20	
Iron	250000.0	223800.0	ug/L	-10		
Magnesium	100000.0	93160.00	ug/L	-7		
Manganese	200.0000	196.7000	ug/L	-2	20	
Molybdenum	2000.000	1995.000	ug/L	0		
Nickel	200.0000	188.2000	ug/L	-6	20	
Potassium	100000.0	96400.00	ug/L	-4		
Selenium	100.0000	97.03000	ug/L	-3	20	
Silver	50.00000	51.53000	ug/L	3	20	
Sodium	250000.0	222600.0	ug/L	-11		
Vanadium	200.0000	201.1000	ug/L	1	20	
Zinc	100.0000	92.34000	ug/L	-8	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	407477	-28.08
Germanium	161713	122547	-24.22

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

nstid : MET05 Run Name : IDF : 1.0
eqnum : 55186547189 Filename : e0913189 Injected : 10-MAY-2005 07:38
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.5127	100.0000	100.5000	ug/L	1	10	
Antimony	0.2740	0.2253	100.0000	91.93000	ug/L	-8	10	
Arsenic	0.3902	0.3668	100.0000	96.09000	ug/L	-4	10	
Barium	0.1214	0.0850	100.0000	94.77000	ug/L	-5	10	
Beryllium	0.1568	0.1390	100.0000	95.53000	ug/L	-4	10	
Cadmium	0.5642	0.4837	100.0000	109.3000	ug/L	9	10	
Calcium	0.0208	0.0162	10000.00	10120.00	ug/L	1	10	
Chromium	2.8448	2.0567	100.0000	94.82000	ug/L	-5	10	
Cobalt	2.8466	2.4820	100.0000	95.24000	ug/L	-5	10	
Copper	0.7634	0.6631	100.0000	98.22000	ug/L	-2	10	
Iron	0.0759	0.0631	10000.00	10070.00	ug/L	1	10	
Lead	0.9225	0.8048	100.0000	91.27000	ug/L	-9	10	
Magnesium	0.0608	0.0576	10000.00	10040.00	ug/L	0	10	
Manganese	3.5290	2.9534	100.0000	97.63000	ug/L	-2	10	
Molybdenum	0.9099	0.8451	100.0000	103.3000	ug/L	3	10	
Nickel	0.6490	0.5474	100.0000	97.64000	ug/L	-2	10	
Potassium	0.9426	0.5191	10000.00	10000.00	ug/L	0	10	
Selenium	0.0396	0.0250	100.0000	99.01000	ug/L	-1	10	
Silver	2.2896	2.2723	100.0000	108.0000	ug/L	8	10	
Sodium	0.7893	0.5530	10000.00	9845.000	ug/L	-2	10	
Thallium	0.6776	0.6745	100.0000	99.47000	ug/L	-1	10	
Vanadium	2.7524	2.2699	100.0000	93.76000	ug/L	-6	10	
Zinc	0.8033	0.3931	100.0000	97.78000	ug/L	-2	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	273038	-28.76
Scandium	566573	415113	-26.73
Germanium	161713	125004	-22.70
Indium	1281904	1128861	-11.94
Bismuth	1275587	1063109	-16.66

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Instid : MET05 Run Name :
Seqnum : 55186547191 Filename : e0913191 Injected : 10-MAY-2005 07:50
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Antimony	55186547001	09-MAY-2005	[0.1481]	0.250000	ug/L	
Arsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Barium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Beryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Cadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Calcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Chromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Cobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Copper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	[11.110]	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	[0.0886]	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	1.281000	0.250000	ug/L	ib ***
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	1.070000	1.000000	ug/L	ib ***

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Page 1 of 1

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 14:50

Batch Number : 101496
Date Extracted: 27-APR-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178846-001			Mactec, Inc.	Soil	.98	g	50	51.020408	1					T26/ICP		
178846-002			Mactec, Inc.	Soil	1	g	50	50.000000	1					T26/ICP		mss
178951-001			Mactec, Inc.	Soil	1.17	g	50	42.735043	1					T26/ICP		
178951-002			Mactec, Inc.	Soil	1.35	g	50	37.037037	1					T26/ICP		
178951-003			Mactec, Inc.	Soil	1.13	g	50	44.247788	1					T26/ICP		
178951-004			Mactec, Inc.	Soil	1.59	g	50	31.446541	1					T26/ICP		
179049-001			Mactec, Inc.	Soil	.99	g	50	50.505051	1					T26/ICP		
179076-040			Fugro West, Inc.	Soil	1.48	g	50	33.783784	1					PB		
179076-041			Fugro West, Inc.	Soil	1.39	g	50	35.971223	1					PB		
179076-042			Fugro West, Inc.	Soil	1.5	g	50	33.333333	1					PB		
179076-043			Fugro West, Inc.	Soil	.99	g	50	50.505051	1					PB		
179089-001			Mactec, Inc.	Soil	1.21	g	50	41.322314	1					T26/ICP		
179089-002			Mactec, Inc.	Soil	1.06	g	50	47.169811	1					T26/ICP		
179089-003			Mactec, Inc.	Soil	1.03	g	50	48.543689	1					T26/ICP		
QC291742	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC291743	BS			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291744	BSD			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291745	MS	of 178846-002		Soil	1.07	g	50	46.728972	1		.25	.25		ICAP		
QC291746	MSD	of 178846-002		Soil	1.32	g	50	37.878788	1		.25	.25		ICAP		
QC291747	SER	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		
QC291748	PDS	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		

137

Prep Chemist: [signature] 5/3/05 Reviewed By: [signature] Date: 5/9/05

Relinquished By: [signature] Received By: [signature] Date: 5/9/05

Soil Digestion for ICP & ICP-MS | Curtis & Tompkins, Ltd.

LIMS Batch #: 101496
Date Digested: 4/26/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2103
Page 84

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK QC 291742		Ø	50.0	Y	
*	BS 291743					
*	BSD 291744					
*	178816-002MS	A	1.07			
*	-002MSD		1.32			
	001		0.98			
	002		1.00			MSS
	178951-001	A	1.17			
	-002		1.35			
10	-003		1.13			
	-004		1.59			
	179049-001	B	0.99			
	179076-010	A	1.48			
	-011		1.39			
15	-012		1.50			
	-013		0.99			
	179081-001	A	1.21			
	-002		1.06			
	-003		1.03			
20						

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	93.4°C	VV 4/26/05
0.25 mL of spike solution was added to all spikes	045227 *	
	045228 *	
1:1 HNO3	AH0416-042105	
concentrated HNO3	AH0416 - JTBaker	
3mL 30% hydrogen peroxide	43287414 J.T.B.	
concentrated HCl	BD1038 - JTBaker	
☒ filtered thru' Whatman # 541		

4/26/05
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

MW 5/8/05
Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	383256	566573	161713	1281904	1275587	1961549
LOWER LIMIT	114977	169972	48514	384571	382676	588465
UPPER LIMIT	459907	679888	194055	1538285	1530704	2353859

TYPE	SAMPLE	#						
ICB		012	398133	574338	165050	1295852	1262491	1986107
ICSA		013	346568	585480	165964	1206572	1034302	1885660
SER	QC291792	016	360601	574226	166189	1313972	1264223	1992797
MS	QC291790	017	357271	563392	161951	1250233	1207732	1944941
MSD	QC291791	018	360728	566869	163110	1255236	1222275	1952234
SAMPLE	179075-004	019	367478	568523	164798	1288704	1247558	1958562
SAMPLE	179075-006	020	367643	563823	163071	1287136	1263627	1974646
SAMPLE	179075-007	021	366643	570946	164159	1283858	1243530	1953644
SAMPLE	179075-011	022	373348	566936	165290	1287274	1246271	1978536
SAMPLE	179075-012	023	363108	562751	161001	1275896	1251362	1958231
CCV		025	373026	561004	161836	1264407	1249023	1999038
CCB		027	374726	557619	161013	1301082	1256526	1972729
SAMPLE	179075-013	028	367557	543752	158800	1252376	1225482	1956790
SAMPLE	179075-018	029	370487	555821	161480	1276264	1250542	1955957
CCV		031	368057	555167	161141	1267241	1237819	1955994
CCB		033	379843	559887	159132	1300645	1273674	1985667
ICSA		034	335479	563166	161577	1218668	1087887	1960268
MSS	179132-001	037	363368	580241	168272	1326575	1254419	2023380
SER	QC292313	038	380880	570299	165743	1338897	1303881	2013562
MS	QC292311	039	364544	555633	160719	1290844	1270339	1998090
MSD	QC292312	040	393580	609664	174058	1420429	1365235	2194455
SAMPLE	179132-006	041	389358	581682	167543	1348341	1299880	2079257
SAMPLE	179132-015	042	377470	565529	162974	1314638	1278674	2034845
SAMPLE	179132-016	043	400273	584930	170556	1374132	1362137	2079434
SAMPLE	179132-017	044	398669	576126	167928	1364855	1355156	2097381
CCV		046	371734	544232	158308	1276514	1283726	2019984
CCB		048	390733	573322	164831	1351990	1325322	2052989
BLANK	QC292136	053	406942	576746	165847	1344710	1337139	2051303

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

TYPE	SAMPLE	#						
CCV		061	364584	549159	158082	1258859	1233783	1958603
CCB		063	387047	566878	163345	1316900	1277659	2010396
CCV		073	380148	554670	160863	1296859	1288713	2034156
CCB		075	397508	581142	167853	1366726	1319500	2068160
ICSA		076	328713	543652	158612	1217096	1122198	1981217
CCV		090	332344	500594	147515	1196146	1218836	1910741
CCB		092	336386	514294	147596	1252830	1252315	1919669
ICSA		101	354346	616516	175729	1330694	1060028	1998550
CCV		104	354034	572106	167746	1353822	1244487	2034989
CCB		106	345220	541652	158905	1326647	1266398	1989079
BLANK	QC291742	108	321933	507433	147220	1247176	1219502	1887856
CCV		119	327369	503498	148418	1233456	1161755	1910155
CCB		121	351012	546596	158826	1340551	1260259	2008652
CCV		133	290486	426922	127442	1121490	1113799	1786266
CCB		135	290358	415531	122110	1105488	1103286	1719875
CCV		147	295190	430569	127088	1117565	1051484	1730252
CCB		149	306470	438276	128199	1164919	1098012	1755235
BLANK	QC292252	160	295062	433876	128080	1150518	1056366	1733581
CCV		162	290333	433501	127988	1129581	973668	1716457
CCB		164	298951	437758	128840	1159844	1020075	1716228
CCV		176	282773	434472	127616	1110413	869999	1663666
CCB		178	311364	475987	137998	1239853	1003583	1800998
ICSA		186	266251	437644	127903	1099918	861462	1734148
CCV		189	273038	415113	125004	1128861	1063109	1747302
CCB		191	280867	413918	123256	1141761	1086930	1735234

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45150480 Instrument: MET04 HydraAA HG Analyzer Begun: 14-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101179	ICALBLK	Std01Rep1				14-APR-2005 12:00	1.0	1.0									
002	101179	ICAL	Std02Rep1				14-APR-2005 12:03	1.0	1.0									
003	101179	ICAL	Std03Rep1				14-APR-2005 12:05	1.0	1.0									
004	101179	ICAL	Std04Rep1				14-APR-2005 12:07	1.0	1.0									
005	101179	ICAL	Std05Rep1				14-APR-2005 12:10	1.0	1.0									
006	101179	ICAL	Std06Rep1				14-APR-2005 12:12	1.0	1.0									
007	101179	ICV					14-APR-2005 12:21	1.0	1.0	2	5.000	45150480001	4.860		ug/L	97		
008	101179	ICB					14-APR-2005 12:23	1.0	1.0			45150480001	[0.03100]	0.20	ug/L			
009	101179	BLANK	QC290496		101179	Soil	14-APR-2005 12:26	1.0	100.0			45150480001	ND	0.020	mg/Kg			u
010	101179	BS	QC290497		101179	Soil	14-APR-2005 12:28	1.0	100.0		0.5000	45150480001	0.4960	0.020	mg/Kg	99		u
011	101179	BSD	QC290498		101179	Soil	14-APR-2005 12:30	1.0	100.0		0.5000	45150480001	0.5130	0.020	mg/Kg	103	3	u
012	101179	MSS	178846-002		101179	Soil	14-APR-2005 12:32	1.0	111.1			45150480001	ND	0.022	mg/Kg			u
013	101179	MS	QC290499	178846-002	101179	Soil	14-APR-2005 12:34	1.0	98.04		0.4902	45150480001	0.5196	0.020	mg/Kg	102		u
014	101179	MSD	QC290500	178846-002	101179	Soil	14-APR-2005 12:37	1.0	100.0		0.5000	45150480001	0.5330	0.020	mg/Kg	102	1	u
015	101179	X					14-APR-2005 12:40	1.0										
016	101179	SAMPLE	178726-002		101179	Miscel	14-APR-2005 12:42	1.0	86.21			45150480001	0.021	0.017	mg/Kg			u
017	101179	SAMPLE	178726-003		101179	Miscel	14-APR-2005 12:44	1.0	89.29			45150480001	ND	0.018	mg/Kg			u
018	101179	SAMPLE	178726-005		101179	Miscel	14-APR-2005 12:46	1.0	113.6			45150480001	0.029	0.023	mg/Kg			u
019	101179	CCV					14-APR-2005 12:49	1.0	1.0	3	2.500	45150480001	2.580		ug/L	103		
020	101179	CCB					14-APR-2005 12:51	1.0	1.0			45150480001	ND	0.20	ug/L			
021	101179	SAMPLE	178726-006		101179	Miscel	14-APR-2005 12:54	1.0	102.0			45150480001	ND	0.020	mg/Kg			u
022	101179	SAMPLE	178726-008		101179	Miscel	14-APR-2005 12:56	1.0	119.0			45150480001	ND	0.024	mg/Kg			u
023	101179	SAMPLE	178726-009		101179	Miscel	14-APR-2005 12:58	1.0	113.6			45150480001	ND	0.023	mg/Kg			u
024	101179	SAMPLE	178726-011		101179	Miscel	14-APR-2005 13:01	1.0	119.0			45150480001	ND	0.024	mg/Kg			u
025	101179	SAMPLE	178726-012		101179	Miscel	14-APR-2005 13:03	1.0	96.15			45150480001	0.028	0.019	mg/Kg			u
026	101179	SAMPLE	178726-013		101179	Miscel	14-APR-2005 13:05	1.0	94.34			45150480001	ND	0.019	mg/Kg			u
027	101179	SAMPLE	178726-014		101179	Miscel	14-APR-2005 13:08	1.0	96.15			45150480001	ND	0.019	mg/Kg			u
028	101179	SAMPLE	178726-017		101179	Miscel	14-APR-2005 13:10	1.0	113.6			45150480001	0.068	0.023	mg/Kg			u
029	101179	SAMPLE	178726-018		101179	Miscel	14-APR-2005 13:13	1.0	108.7			45150480001	ND	0.022	mg/Kg			u
030	101179	SAMPLE	178729-001		101179	Miscel	14-APR-2005 13:15	1.0	90.91			45150480001	ND	0.018	mg/Kg			u
031	101179	CCV					14-APR-2005 13:18	1.0	1.0	4	5.000	45150480001	4.800		ug/L	96		
032	101179	CCB					14-APR-2005 13:20	1.0	1.0			45150480001	ND	0.20	ug/L			
033	101179	SAMPLE	178729-002		101179	Miscel	14-APR-2005 13:22	1.0	90.91			45150480001	ND	0.018	mg/Kg			u
034	101179	SAMPLE	178846-001		101179	Soil	14-APR-2005 13:25	1.0	90.91			45150480001	0.020	0.018	mg/Kg			u
035	101179	SAMPLE	178861-001		101179	Miscel	14-APR-2005 13:27	1.0	102.0			45150480001	ND	0.020	mg/Kg			u
036	101179	CCV					14-APR-2005 13:29	1.0	1.0	5	7.500	45150480001	7.320		ug/L	98		
037	101179	CCB					14-APR-2005 13:31	1.0	1.0			45150480001	ND	0.20	ug/L			

F41

Stds used: 1=S298 2=S300 3=S301 4=S302 5=S303
Flags used: u=use

Analyst: Andrea Marin Date: 4/14/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45150480002 Name: Type: SOIL Date: 14-APR-2005 12:00 Inj Vol (uL): 2000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101179	45150480002	Std02Rep1	14-APR-2005 12:03	S298 (500X)
2	101179	45150480003	Std03Rep1	14-APR-2005 12:05	S298 (200X)
3	101179	45150480004	Std04Rep1	14-APR-2005 12:07	S298 (50X)
4	101179	45150480005	Std05Rep1	14-APR-2005 12:10	S298 (20X)
5	101179	45150480006	Std06Rep1	14-APR-2005 12:12	S298 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	68455	45566	41591	42155	42994	LINR	R	-0.02813	2.345E-5		ug/L	48152	1.000	.99	

142

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		12:00:58 14 Apr 05			HG
Hg	.000	ppb	1645						
		Bkgd 1	9643040						
*** Standard: 2 Rep: 1				Seq: 2		12:03:05 14 Apr 05			HG
Hg	.200	ppb	13691						
		Bkgd 1	9642628						
*** Standard: 3 Rep: 1				Seq: 3		12:05:12 14 Apr 05			HG
Hg	.500	ppb	22783						
		Bkgd 1	9637281						
*** Standard: 4 Rep: 1				Seq: 4		12:07:30 14 Apr 05			HG
Hg	2.00	ppb	83182						
		Bkgd 1	9637302						
*** Standard: 5 Rep: 1				Seq: 5		12:10:12 14 Apr 05			HG
Hg	5.00	ppb	210776						
		Bkgd 1	9639714						
*** Standard: 6 Rep: 1				Seq: 6		12:12:38 14 Apr 05			HG
Hg	10.0	ppb	429935						
		Bkgd 1	9636412						
*** Check Standard: 2			Ck2S300	Seq: 7		12:21:14 14 Apr 05			HG
Line	Flag		Intensities						
Hg			208366						
		Bkgd 1	9634090						
*** Check Standard: 1			Ck1ICB	Seq: 8		12:23:47 14 Apr 05			HG
Line	Flag		Intensities						
Hg			2504						
		Bkgd 1	9634630						
*** Sample ID: qc290496				Seq: 9		12:26:16 14 Apr 05			HG
			101179,1						
Hg	.008	ppb	1555						
		Bkgd 1	9633860						

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: qc290497 Seq: 10 12:28:16 14 Apr 05 HG
101179,1
Hg 4.96 ppb 212858
Bkgd 1 9631299

*** Sample ID: qc290498 Seq: 11 12:30:17 14 Apr 05 HG
101179,1
Hg 5.13 ppb 220138
Bkgd 1 9623510

*** Sample ID: 178846-002 Seq: 12 12:32:17 14 Apr 05 HG
101179,1
Hg .190 ppb 9284
Bkgd 1 9623248

*** Sample ID: qc290499 Seq: 13 12:34:48 14 Apr 05 HG
101179,1
Hg 5.30 ppb 227342
Bkgd 1 9626048

*** Sample ID: qc290500 Seq: 14 12:37:11 14 Apr 05 HG
101179,1
Hg 5.33 ppb 228373
Bkgd 1 9623282

*** Sample ID: qc290501 Seq: 15 12:40:29 14 Apr 05 HG
101179,1
Hg .127 ppb 6605
Bkgd 1 9622218

AM 4/14/05

*** Sample ID: 178726-002 Seq: 16 12:42:36 14 Apr 05 HG
101179,1
Hg .249 ppb 11829
Bkgd 1 9622421

*** Sample ID: 178726-003 Seq: 17 12:44:42 14 Apr 05 HG
101179,1
Hg -.096 ppb -2893
Bkgd 1 9619090

POST-RUN REPORT

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: 178726-005          Seq:  18     12:46:58 14 Apr 05   HG
                           101179,1
Hg    .255    ppb       12068
              Bkgd 1    9622939                                          =
                                                                         =
*** Check Standard: 3  Ck3S301     Seq:  19     12:49:50 14 Apr 05   HG
Line  Flag             Intensities
Hg                     111211
              Bkgd 1    9616279                                          =
                                                                         =
*** Check Standard: 6  Ck6CCB      Seq:  20     12:51:51 14 Apr 05   HG
Line  Flag             Intensities
Hg                     -3333
              Bkgd 1    9610285                                          =
                                                                         =
*** Sample ID: 178726-006          Seq:  21     12:54:04 14 Apr 05   HG
                           101179,1
Hg   -.143    ppb       -4902
              Bkgd 1    9610447                                          =
                                                                         =
===============================================================================
*** Sample ID: 178726-008          Seq:  22     12:56:07 14 Apr 05   HG
                           101179,1
Hg   -.140    ppb       -4756
              Bkgd 1    9607839                                          =
                                                                         =
===============================================================================
*** Sample ID: 178726-009          Seq:  23     12:58:52 14 Apr 05   HG
                           101179,1
Hg    .064    ppb       3929
              Bkgd 1    9609445                                          =
                                                                         =
===============================================================================
*** Sample ID: 178726-011          Seq:  24     13:01:08 14 Apr 05   HG
                           101179,1
Hg   -.186    ppb       -6742
              Bkgd 1    9609594                                          =
                                                                         =
===============================================================================
*** Sample ID: 178726-012          Seq:  25     13:03:11 14 Apr 05   HG
                           101179,1
Hg    .290    ppb       13569
              Bkgd 1    9616034                                          =
                                                                         =
===============================================================================
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 178726-013				Seq: 26	13:05:59 14 Apr 05	HG		
			101179,1					
Hg	.079	ppb	4589					
		Bkgd 1	9613697					
*** Sample ID: 178726-014				Seq: 27	13:08:37 14 Apr 05	HG		
			101179,1					
Hg	-.005	ppb	988					
		Bkgd 1	9614519					
*** Sample ID: 178726-017				Seq: 28	13:10:42 14 Apr 05	HG		
			101179,1					
Hg	.596	ppb	26611					
		Bkgd 1	9618570					
*** Sample ID: 178726-018				Seq: 29	13:13:27 14 Apr 05	HG		
			101179,1					
Hg	.029	ppb	2431					
		Bkgd 1	9618626					
*** Sample ID: 178729-001				Seq: 30	13:15:40 14 Apr 05	HG		
			101179,1					
Hg	.126	ppb	6574					
		Bkgd 1	9619151					
*** Check Standard: 5			Ck5S302	Seq: 31	13:18:13 14 Apr 05	HG		
Line	Flag		Intensities					
Hg			206090					
		Bkgd 1	9617494					
*** Check Standard: 6			Ck6CCB	Seq: 32	13:20:18 14 Apr 05	HG		
Line	Flag		Intensities					
Hg			-493					
		Bkgd 1	9615052					
*** Sample ID: 178729-002				Seq: 33	13:22:24 14 Apr 05	HG		
			101179,1					
Hg	-.010	ppb	776					
		Bkgd 1	9611779					

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: 178846-001          Seq:  34     13:25:02 14 Apr 05   HG
                          101179,1
Hg    .225    ppb       10810
              Bkgd 1    9612839                                          =
                                                                         =
===============================================================================
*** Sample ID: 178861-001          Seq:  35     13:27:08 14 Apr 05   HG
                          101179,1
Hg   -.007    ppb       881
              Bkgd 1    9612807                                          =
                                                                         =
*** Check Standard: 4  Ck4S303     Seq:  36     13:29:13 14 Apr 05   HG
Line  Flag             Intensities
Hg                     313331
              Bkgd 1    9612221                                          =
                                                                         =
*** Check Standard: 6  Ck6CCB      Seq:  37     13:31:19 14 Apr 05   HG
Line  Flag             Intensities
Hg                     -7464
              Bkgd 1    9605729                                          =
                                                                         =
```

Curtis & Tompkins Laboratories Sample Preparation Summary 14-APR-2005 12:02

Batch Number : 101179
Date Extracted: 14-APR-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S298
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178726-002			GWF Power Systems	Miscell.	.58	g	50	86.206897	1					T26/HG		
178726-003			GWF Power Systems	Miscell.	.56	g	50	89.285714	1					T26/HG		
178726-005			GWF Power Systems	Miscell.	.44	g	50	113.636364	1					T26/HG		
178726-006			GWF Power Systems	Miscell.	.49	g	50	102.040816	1					T26/HG		
178726-008			GWF Power Systems	Miscell.	.42	g	50	119.047619	1					T26/HG		
178726-009			GWF Power Systems	Miscell.	.44	g	50	113.636364	1					T26/HG		
178726-011			GWF Power Systems	Miscell.	.42	g	50	119.047619	1					T26/HG		
178726-012			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
178726-013			GWF Power Systems	Miscell.	.53	g	50	94.339623	1					T26/HG		
178726-014			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
178726-017			GWF Power Systems	Miscell.	.44	g	50	113.636364	1					T26/HG		
178726-018			GWF Power Systems	Miscell.	.46	g	50	108.695652	1					T26/HG		
178729-001			City of Livermore	Miscell.	.55	g	50	90.909091	1					HG		
178729-002			City of Livermore	Miscell.	.55	g	50	90.909091	1					HG		
178846-001			Mactec, Inc.	Soil	.55	g	50	90.909091	1					T26/HG		
178846-002			Mactec, Inc.	Soil	.45	g	50	111.111111	1					T26/HG		
178861-001			Tosco Refining Company Carbon	Miscell.	.49	g	50	102.040816	1					T26/HG		
QC290496	MB			Soil	.5	g	50	100.000000	1					HG		
QC290497	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC290498	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC290499	MS	of 178846-002		Soil	.51	g	50	98.039216	1		2.5			HG		
QC290500	MSD	of 178846-002		Soil	.5	g	50	100.000000	1		2.5			HG		
QC290501	SER	of 178846-002		Soil	.45	g	50	111.111111	1					HG		
QC290502	PDS	of 178846-002		Soil	.45	g	50	111.111111	1		2.5			HG		

148

Prep Chemist: Andrés Marin Reviewed By: ~ Date: 4-14-05

Relinquished By: Andrés Marin Received By: Andrés Date: 4/14/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 10179
Date Digested: 4/14/05
Digested by: AM

Digestion Method
☒ EPA 7471A
☐ ____

BK 2086
Page 52

Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
MB	0.5	50	N	
BS	0.5			
BSD	0.5			
178726-002 A	.58			
3 A	.56			
5 A	.44			
6 A	.49			
8 A	.42			
9 A	.44			
11 A	.42			
12 A	.52			
13 A	0.53			
14 A	.52		↓	
17 A	.44		Y	
18 A	0.46		N	
178729-001 A	.55		Y	
2 A	0.55		Y	
178861-001 A	.49		Y	
178846-001 A	.55	↓	N	
~~X~~ AM 4/14				
178846-002 A MSS	.45	50	N	
MS	.51	↓	↓	
MSD	.50			

Digestion of Samples & Standards:	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	S298	AM 4/14/05
ICAL Source WS#	S298	
ICV / CCV WS#	S300,01,02,03	
Time ON / Temperature ON	10:50 AM 95°C	
Time OFF/ Temperature OFF	11:20 AM 95°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 041405	
5% $KMnO_4$	K 040605	
5% $K_2S_2O_8$	~~K~~ AM 4/14 —	
NaCl.hydroxylamine hydrochloride	Hy 032405	
Stannous Chloride	$SnCl_2$ 041105	
☐ filtered thru' 0.45 um syringe filter	JNN 60231 Millipore	AM 4/14/05

Andrei Marin

Continued from page ____

Continued on page 149

A Carlyon 4/14/05

Reviewed by / Date

Percent Moisture Summary Report

Batch: 101162
Date: 04/14/05
Method: CLP SOW 390
Analyst: RSM

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
178841-001	15.0857	22.2306	20.6880	78	22
178846-001	15.3515	23.8757	23.5065	96	4
178846-002	15.3512	22.4912	21.8533	91	9
178851-001	15.6677	22.5347	22.1560	94	6
178851-002	15.2219	22.6650	22.2901	95	5
178851-003	15.1797	22.7030	22.3227	95	5
178851-004	15.6308	22.4827	22.1126	95	5
178851-005	15.1362	22.7423	22.2310	93	7
178851-006	15.4742	22.5172	22.2448	96	4
178851-007	15.0302	22.3830	22.0041	95	5
178851-008	15.4188	22.7551	22.2228	93	7
QC290432 of 178851-008	15.4703	22.3847	21.8319	92	8
			RPD:	0.8%	9.7%

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 178951

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: BAKER BEACH
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB2ATP104(8.0)	178951-001
BB2ATP100(1.0)	178951-002
BB2ATP101(14.0)	178951-003
BB1TP102(4.0)	178951-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/18/05
Operations Manager

Signature: _____ Date: 5/18/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**178951**
Client:	**Mactec, Inc.**
Project:	**BAKER BEACH**
Location:	**Presidio / Baker Beach**
Request Date:	**04/18/05**
Samples Received:	**04/18/05**

This hardcopy data package contains sample and QC results for four soil samples, requested for the above referenced project on 04/18/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High responses were observed for bromomethane and Freon 113 in the CCV analyzed 04/20/05 16:26; these analytes were not detected at or above the RL in the associated samples. High response was observed for Freon 113 in the CCV analyzed 04/20/05 08:49; this analyte was not detected at or above the RL in the associated sample. High recoveries were observed for trichloroethene in the MS/MSD for batch 101317; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. High surrogate recoveries were observed for bromofluorobenzene in a number of samples. Methylene chloride was detected above the RL in BB2ATP100(1.0) (lab # 178951-002) and BB2ATP101(14.0) (lab # 178951-003); this analyte is a common laboratory contaminant. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for many analytes in the ICV analyzed 04/16/05 15:47; these analytes were not detected at or above the RL in the associated samples, and affected data was qualified with "b". No other analytical problems were encountered.

PCBs (EPA 8082):
High surrogate recoveries were observed for decachlorobiphenyl and TCMX in BB1TP102(4.0) (lab # 178951-004); no target analytes were detected in the sample. No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for many analytes in the MS/MSD of BB1ATP101-G2 (lab # 178846-002); the BS/BSD were within limits, and the associated RPDs were within limits. High RPD was observed for mercury in the MS/MSD for batch 101291; the parent sample was not a project sample, and the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**178951**
Client:	**Mactec, Inc.**
Project:	**BAKER BEACH**
Location:	**Presidio / Baker Beach**
Request Date:	**04/18/05**
Samples Received:	**04/18/05**

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Dioxins and Furans (EPA 8290):
Eno River Labs, LLC in Durham, NC performed the analysis. Please see the Eno River Labs, LLC case narrative.

Chain of Custody

178951

~~Harding ESE~~
~~A MACTEC COMPANY~~
~~90 Digital Drive~~
~~Novato, CA 94949~~
~~(415) 883-0112~~
5341 OLD REDWOOD HWY
PETALUMA, CA 94954
(707)

CHAIN OF CUSTODY FORM

Seq. No.: Nº 010544

Lab: CURTIS TOMPKINS

Samplers: A H HENKE

Job Number: 57255.005133

Name/Location: PRESIDIO SF BRDA

Project Manager: M A JACOBITZ

Recorder: (Signature Required)

MATRIX			#CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION	
Water	Soil	Air	Unpres	H_2SO_4	HNO_3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH
	✓		1					BB2ATP104(8.0)		05	04	13	1500	BB2ATP104	8-8.5'
	✓		1				*	BB2ATP100(1.0)		05	04	14	1125	BB2ATP100	1-1.5'
	✓		1					BB2ATP101(14.0)		05	04	14	1540	BB2ATP101	14-14.5'
	✓		1					BB1TP102(4.0)		05	04	15	1220	BB1TP102	4-4.5'

| ANALYSIS REQUESTED | | | | |

TVH Results & QC Summary

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101257
Units:	mg/Kg	Received:	04/18/05
Diln Fac:	1.000	Analyzed:	04/18/05

Field ID:	BB2ATP104(8.0)	Basis:	dry
Type:	SAMPLE	Moisture:	19%
Lab ID:	178951-001	Sampled:	04/13/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	1.3	0.14

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	65-135

Field ID:	BB2ATP100(1.0)	Basis:	dry
Type:	SAMPLE	Moisture:	27%
Lab ID:	178951-002	Sampled:	04/14/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	1.5	0.16

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	113	65-135

Field ID:	BB2ATP101(14.0)	Basis:	dry
Type:	SAMPLE	Moisture:	21%
Lab ID:	178951-003	Sampled:	04/14/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	1.3	0.15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	116	65-135

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101257
Units:	mg/Kg	Received:	04/18/05
Diln Fac:	1.000	Analyzed:	04/18/05

Field ID:	BB1TP102(4.0)	Basis:	dry
Type:	SAMPLE	Moisture:	32%
Lab ID:	178951-004	Sampled:	04/15/05

Analyte	Result	RL	MDL
Gasoline C7-C12	0.18 J	1.6	0.17

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	65-135

Type:	BLANK	Basis:	as received
Lab ID:	QC290837		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	1.0	0.11

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	109	65-135

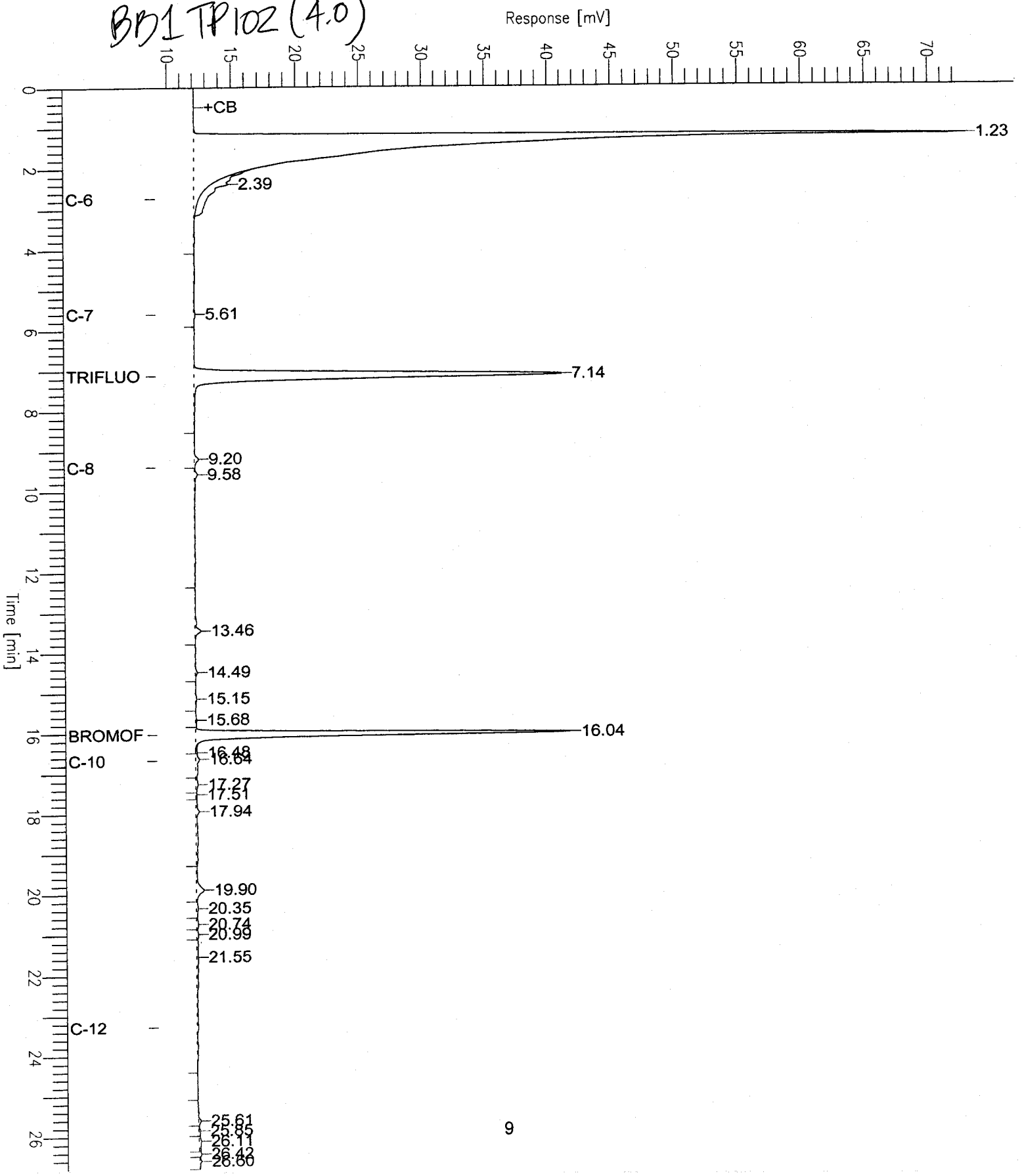
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC19 TVH 'X' Data File (FID)

Sample Name : 178951-004,101257,tvh
FileName : G:\GC19\DATA\108X016.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 9 mV

Sample #: a Page 1 of 1
Date : 4/18/05 09:17 PM
Time of Injection: 4/18/05 08:50 PM
Low Point : 9.05 mV High Point : 72.97 mV
Plot Scale: 63.9 mV

BD1 TP102 (4.0)

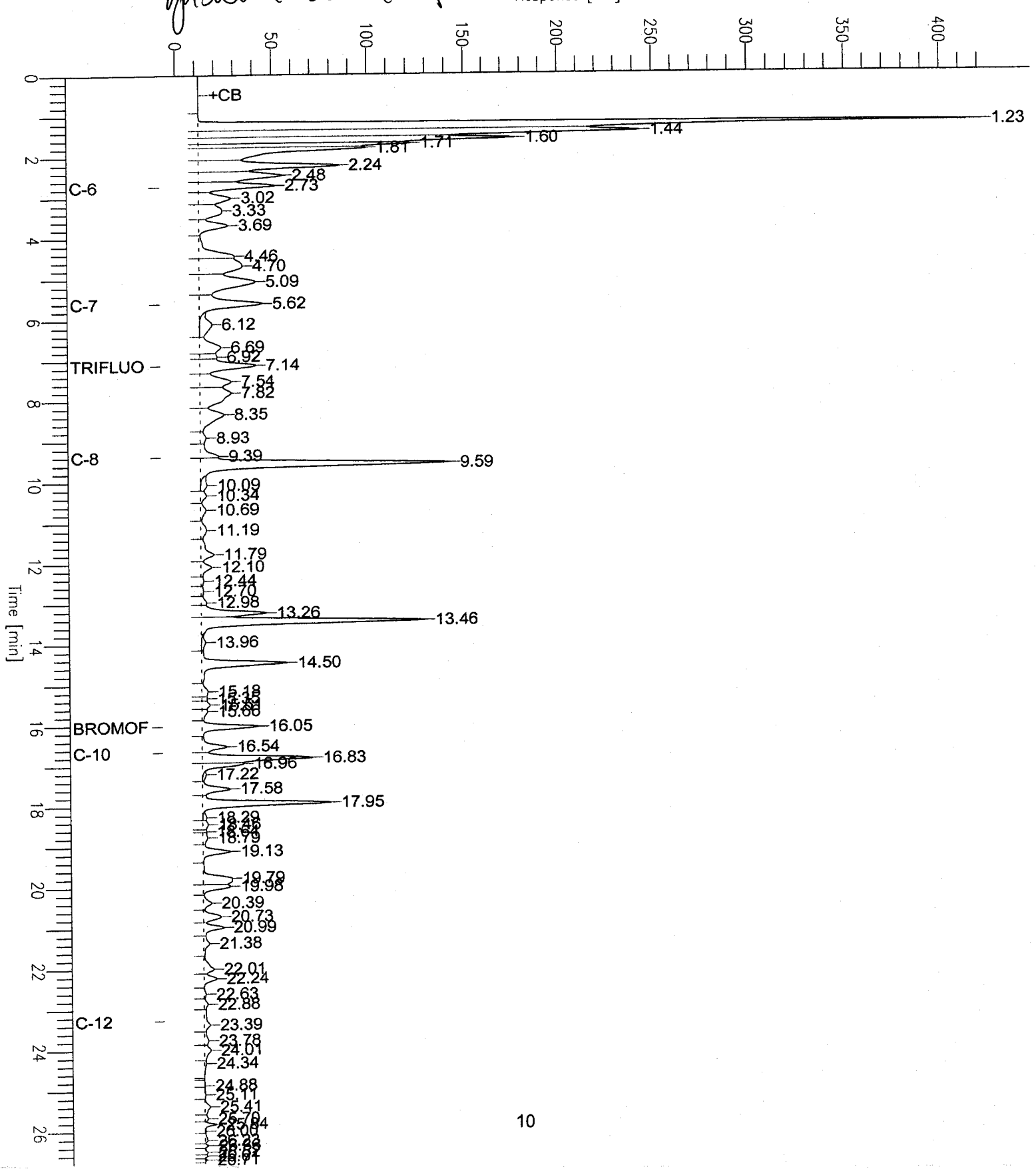


GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc290838,101257,S247,5/5000
FileName : G:\GC19\DATA\108X002.raw
Method : TVHBTXE
Start Time : 0.00 min
End Time : 26.80 min
Scale Factor: 1.0
Plot Offset: -8 mV

Sample #:
Date : 4/18/05 01:16 PM
Time of Injection: 4/18/05 12:49 PM
Low Point : -8.40 mV
High Point : 422.03 mV
Plot Scale: 430.4 mV

Gasoline Standard



Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC290838	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101257
Units:	mg/Kg	Analyzed:	04/18/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.63	106	75-125

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	109	65-135

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Field ID:	BB2ATP104(8.0)	Diln Fac:	1.000
MSS Lab ID:	178951-001	Batch#:	101257
Matrix:	Soil	Sampled:	04/13/05
Units:	mg/Kg	Received:	04/18/05
Basis:	dry	Analyzed:	04/18/05

Type: MS Moisture: 19%
Lab ID: QC290851

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1402	13.13	9.107	69	65-135

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	120	65-135

Type: MSD Moisture: 19%
Lab ID: QC290852

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	13.13	9.462	72	65-135	4	35

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	117	65-135

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 178951 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 344466119001 Name: tvh Type: (normal) Date: 18-NOV-2004 19:46 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_005	344466119005	tvh1	18-NOV-2004 19:46	04WS1982 (1000X), 04WS1966 (5000X)
2	323_006	344466119006	tvh2	18-NOV-2004 20:20	04WS1983 (1000X), 04WS1966 (5000X)
3	323_007	344466119007	tvh3	18-NOV-2004 20:54	04WS1984 (1000X), 04WS1966 (5000X)
4	323_008	344466119008	tvh4	18-NOV-2004 21:27	04WS1985 (2000X), 04WS1966 (5000X)
5	323_009	344466119009	tvh5	18-NOV-2004 22:02	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	X	737.22	634.99	621.54	791.38	779.53	AVRG	R		0.001403		ng	712.93	11	0.995	20	

13

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 178951 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC19 Calname : tvh
Calnum : 344466119001 Caldate : 18-NOV-2004 Caltype :

ICV 344466119011 (323_011) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	X	344466119011	18-NOV-2004	10000.0 11032	ng	10

INITIAL CALIBRATION REPORT FOR 178951 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 345035125001 Name: tft/bfb Type: (normal) Date: 24-JAN-2005 13:07 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	024_005	345035125005	tft/bfb 1	24-JAN-2005 13:07	04WS2267 (5000X)
2	024_006	345035125006	tft/bfb 2	24-JAN-2005 13:41	04WS2268 (5000X)
3	024_008	345035125008	tft/bfb 4	24-JAN-2005 14:49	04WS2270 (5000X)
4	024_009	345035125009	tft/bfb 5	24-JAN-2005 15:31	04WS2271 (5000X)
5	024_011	345035125011	tft/bfb 3	24-JAN-2005 16:40	04WS2269 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Bromofluorobenzene (FID)	X	471.78	450.41	431.06	409.61	436.75	AVRG	R		0.002273		ng	439.92	5	0.995	20	

15

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 178951 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC19	X	345156255002	18-APR-2005 12:49	344466119001	18-NOV-2004	712.93	757.60	10000	10627	ng	6	15	u
GC19	X	345156255013	18-APR-2005 19:07	344466119001	18-NOV-2004	712.93	771.54	15000	16233	ng	8	15	
GC19	X	345156255014	18-APR-2005 19:42	344466119001	18-NOV-2004	712.93	777.02	15000	16348	ng	9	15	
GC19	X	345156255023	19-APR-2005 00:51	344466119001	18-NOV-2004	712.93	783.98	5000.0	5498.3	ng	10	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 178951 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC19	X	345156255001	18-APR-2005 12:15	345035125001	24-JAN-2005	439.92	487.07	450.00	498.23	ng	11	15	
GC19	X	345156255002	18-APR-2005 12:49	345035125001	24-JAN-2005	439.92	478.66	450.00	489.63	ng	9	15	u
GC19	X	345156255011	18-APR-2005 17:59	345035125001	24-JAN-2005	439.92	533.61	450.00	545.84	ng	**21**	15	c+
GC19	X	345156255022	19-APR-2005 00:17	345035125001	24-JAN-2005	439.92	452.59	450.00	462.96	ng	3	15	

IN-House
QC Limits

BFB-FID-S
66-148 %Rec.

+=high bias c=CCV u=use
Page 1 of 1

PROJECT 56 6 CLG Kgmx 4 Gal

Notebook No. BK 1991

Continued From Page 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 344466119 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 18-NOV-2004
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	323_001	CCV/LCS	QC272899	96649	Water	18-NOV-2004 16:39	1.0				1 2 Mtxs	
002	323_002	CCV	minsp	96649		18-NOV-2004 17:13	1.0				3 2	
003	323_003	X	ib			18-NOV-2004 18:38	1.0				2	
004	323_004	X	ib			18-NOV-2004 19:12	1.0				2	
005	323_005	ICAL	tvh1			18-NOV-2004 19:46	1.0				4 2 PASSIVE	
006	323_006	ICAL	tvh2			18-NOV-2004 20:20	1.0				5 2	
007	323_007	ICAL	tvh3			18-NOV-2004 20:54	1.0				6 2	
008	323_008	ICAL	tvh4			18-NOV-2004 21:27	1.0				7 2	
009	323_009	ICAL	tvh5			18-NOV-2004 22:02	1.0				7 2	
010	323_010	X	ib			18-NOV-2004 22:36	1.0				2	
011	323_011	ICV	tvh			18-NOV-2004 23:10	1.0	5000			1 2 PASS	
012	323_012	X	crbmrk			18-NOV-2004 23:44	1.0				8 9 2	
013	323_013	X	ib			19-NOV-2004 00:18	1.0				2	
014	323_014	X				19-NOV-2004 06:53	1.0				2	
015	323_015	ICAL	tft/bfb 1			19-NOV-2004 07:27	1.0				10 PASSIVE	
016	323_016	ICAL	tft/bfb 2			19-NOV-2004 08:05	1.0				11	
017	323_017	ICAL	tft/bfb 3			19-NOV-2004 08:47	1.0				12	
018	323_018	ICAL	tft/bfb 4			19-NOV-2004 09:29	1.0				13	
019	323_019	ICAL	tft/bfb 5			19-NOV-2004 10:16	1.0				14	

Stds used: 1=04WS2194 2=04WS1966 3=04WS1162 4=04WS1982 5=04WS1983 6=04WS1984 7=04WS1985 8=02SS420 9=02SS421 10=04WS1886 11=04WS1887 12=04WS1888 13=04WS1889 14=04WS1890

Analyst: Date: 11.19.04

Page 1 of 1

11.19.04

Signed

Date 11/19/04 18

Read and Understood By

Signed

Date 11/19/04

Continued on Page 1

Signed

Date 1/25/05

Signed

Date 01/25/05

Read and Understood By

Continued on Page

PROJECT 16 GCA Sequence log Book Notebook No. BK1981

Continued From Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 345035125 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 24-JAN-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
001	024_001	X	ib			24-JAN-2005 09:25	1.0					1	
002	024_002	X	QC280420	98560	Water	24-JAN-2005 09:59	1.0					2 1 Not Used	
003	024_003	X	QC280421	98560	Water	24-JAN-2005 10:33	1.0	2	5000			3 1	
004	024_004	X	QC280419	98560	Water	24-JAN-2005 11:08	1.0	17	5000			1	
005	024_005	ICAL	tft/bfb 1			24-JAN-2005 13:07	1.0					4 pass	
006	024_006	ICAL	tft/bfb 2			24-JAN-2005 13:41	1.0					5	
007	024_007	X	tft/bfb 3			24-JAN-2005 14:15	1.0					6 Not used	
008	024_008	ICAL	tft/bfb 4			24-JAN-2005 14:49	1.0					7 pass	
009	024_009	ICAL	tft/bfb 5			24-JAN-2005 15:31	1.0					8	
010	024_010	X	ib			24-JAN-2005 16:06	1.0					1	
011	024_011	ICAL	tft/bfb 3			24-JAN-2005 16:40	1.0					6 pass	

Stds used: 1=05WS0068 2=04WS2416 3=04WS2408 4=04WS2267 5=04WS2268 6=04WS2269 7=04WS2270 8=04WS2271

Analyst: _____ Date: 1/25/05

Page 1 of 1

1/25/05

PROJECT 52 GC19 Sample Log

Notebook No. BL 2081

Continued From Page 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 345156255 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 18-APR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	core ID pH	Stds Used	>LR
001	108_001	CCV/LCS	QC290839	101257	Soil	18-APR-2005 12:15	1.0	4	3	5000			1 2 (all)	
002	108_002	CCV/LCS	QC290838	101257	Soil	18-APR-2005 12:49	1.0		1	5000			3 2	
003	108_003	BLANK	QC290837	101257	Soil	18-APR-2005 13:24	1.0	4		5000			2	
004	108_004	SAMPLE	178943-005	101257	Soil	18-APR-2005 13:58	1.0			5000	Comp		2	
005	108_005	MSS	178951-001	101257	Soil	18-APR-2005 14:33	1.0	2		5000	A		2	
006	108_006	MS	QC290851	101257	Soil	18-APR-2005 15:07	1.0		1	5000			3 2 (as)	
007	108_007	MSD	QC290852	101257	Soil	18-APR-2005 15:42	1.0		1	5000			3 2	
008	108_008	SAMPLE	178951-002	101257	Soil	18-APR-2005 16:16	1.0			5000			2	
009	108_009	SAMPLE	178958-001	101257	Soil	18-APR-2005 16:50	1.0			5000			2	
010	108_010	SAMPLE	178959-001	101257	Soil	18-APR-2005 17:24	1.0	1	1	5000			2	
011	108_011	CCV	mbtxe	101257		18-APR-2005 17:59	1.0	4		5000			1 2 (as)	
012	108_012	X	mbtxe	101257		18-APR-2005 18:33	1.0						1 2 not used	
013	108_013	CCV	tvh	101257		18-APR-2005 19:07	1.0			5000			3 2 (as)	
014	108_014	CCV	tvh	101257		18-APR-2005 19:42	1.0			5000			3 2	
015	108_015	SAMPLE	178951-003	101257	Soil	18-APR-2005 20:16	1.0			5000	A		2	
016	108_016	SAMPLE	178951-004	101257	Soil	18-APR-2005 20:50	1.0			5000	A		2	
017	108_017	SAMPLE	178961-007	101257	Soil	18-APR-2005 21:24	1.0			5000	Comp		2	
018	108_018	SAMPLE	178964-007	101257	Soil	18-APR-2005 21:59	1.0			5000			2	
019	108_019	SAMPLE	178964-008	101257	Soil	18-APR-2005 22:33	1.0			5000			2	
020	108_020	SAMPLE	178964-009	101257	Soil	18-APR-2005 23:08	1.0			5000			2	
021	108_021	X	mbtxe	101257		18-APR-2005 23:42	1.0			5000			1 2 not used	
022	108_022	CCV	mbtxe	101257		19-APR-2005 00:17	1.0	3		5000			1 2 (as)	
023	108_023	CCV	tvh	101257		19-APR-2005 00:51	1.0			5000			3 2	
024	108_024	CCV	tvh	101257		19-APR-2005 01:26	1.0			5000			3 2	

Stand for QC-Fen Lot# 128974-a1001/64

Stds used: 1=S282 2=S224 3=S247

Analyst: _____ Date: 4/19/05

Page 1 of 1

4/19/05

Signed _____ Date 4/19/05

Signed _____ Date 4/19/05

Read and Understood By

Continued on Page

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101257
Date Started: 18-APR-2005
Batched by : Jason Poulton

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
178943-005			Geomatrix Consulta	Soil	BTXE, TVH	21-APR-2005
178951-001			Mactec, Inc.	Soil	TVH	29-APR-2005
178951-002			Mactec, Inc.	Soil	TVH	29-APR-2005
178951-003			Mactec, Inc.	Soil	TVH	29-APR-2005
178951-004			Mactec, Inc.	Soil	TVH	29-APR-2005
178958-001			Consolidated Waste	Soil	BTXE, TVH	29-APR-2005
178959-001			Consolidated Waste	Soil	BTXE, TVH	29-APR-2005
178961-007			Questa Engineering	Soil	BTXE, TVH	22-APR-2005
178964-007			CH2M Hill	Soil	TVH	22-APR-2005
178964-008			CH2M Hill	Soil	TVH	22-APR-2005
178964-009			CH2M Hill	Soil	TVH	22-APR-2005
QC290837	MB			Soil		
QC290838	LCS			Soil		
QC290839	LCS			Soil		
QC290851	MS	of 178951-001		Soil		
QC290852	MSD	of 178951-001		Soil		

Sample ID	Weight (g)	Cap (?)	Wall Bag (?)	Turbid & Dirty
178943-001 A	3.08	Yes	No	On 4-18-05
-002 A	2.97			
-003 A	3.06			
-004 A	3.04			
-018 Cap	0.92			
MS of 178943-005 Cap	0.98			
MSD of 178943-005 Cap	0.96			
178951-001 A	0.97	No	No	On 4-19
MS of 178951-001 A	0.94			
MSD of 178951-001 A	0.94			
178951-002 A	0.93			
-003 A	0.96			
-004 A	0.93			
178958-001 A	0.92			
178959-001 A	0.92	No	No	On 4-19
178961-007 Cap	0.94	Yes	No	On 4-19
178964-001 A	3.00			
-002 A	3.01			
-007 Cap	0.98			
-003 A	3.09			
-004 A	3.06			
-006 Cap	0.96			
-005 A	2.93			
-006 A	3.07			
-009 Cap	1.04			
178967-001 A	2.99	Yes	No	On 4-19 05
-002 A	3.01			
-003 A	2.91			
-004 A	3.07			
-017 Cap	0.92			
-005 A	3.06			
-006 A	3.09			
-007 A	3.02			
-008 A	3.05			
-018 Cap	1.01			
MS of 178967-018 Cap	0.96			

Continued on Page

Read and Understood By

Signed Date 4/19/05 22 Signed Date

TEH results & QC Summary

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg	Prepared:	04/21/05
Batch#:	101361		

Field ID:	BB2ATP104(8.0)	Diln Fac:	50.00
Type:	SAMPLE	Sampled:	04/13/05
Lab ID:	178951-001	Analyzed:	05/19/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	19%		

Analyte	Result	RL	MDL
Diesel C12-C24	150 H Y	62	26
Motor Oil C24-C36	1,900	310	77

Surrogate	%REC	Limits
Hexacosane	DO	65-135

Field ID:	BB2ATP100(1.0)	Diln Fac:	3.000
Type:	SAMPLE	Sampled:	04/14/05
Lab ID:	178951-002	Analyzed:	05/19/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	27%		

Analyte	Result	RL	MDL
Diesel C12-C24	47 H Y	4.1	1.7
Motor Oil C24-C36	490	20	5.1

Surrogate	%REC	Limits
Hexacosane	114	65-135

Field ID:	BB2ATP101(14.0)	Diln Fac:	1.000
Type:	SAMPLE	Sampled:	04/14/05
Lab ID:	178951-003	Analyzed:	05/19/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	21%		

Analyte	Result	RL	MDL
Diesel C12-C24	26 H Y	1.3	0.53
Motor Oil C24-C36	140	6.3	1.6

Surrogate	%REC	Limits
Hexacosane	106	65-135

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

13.1

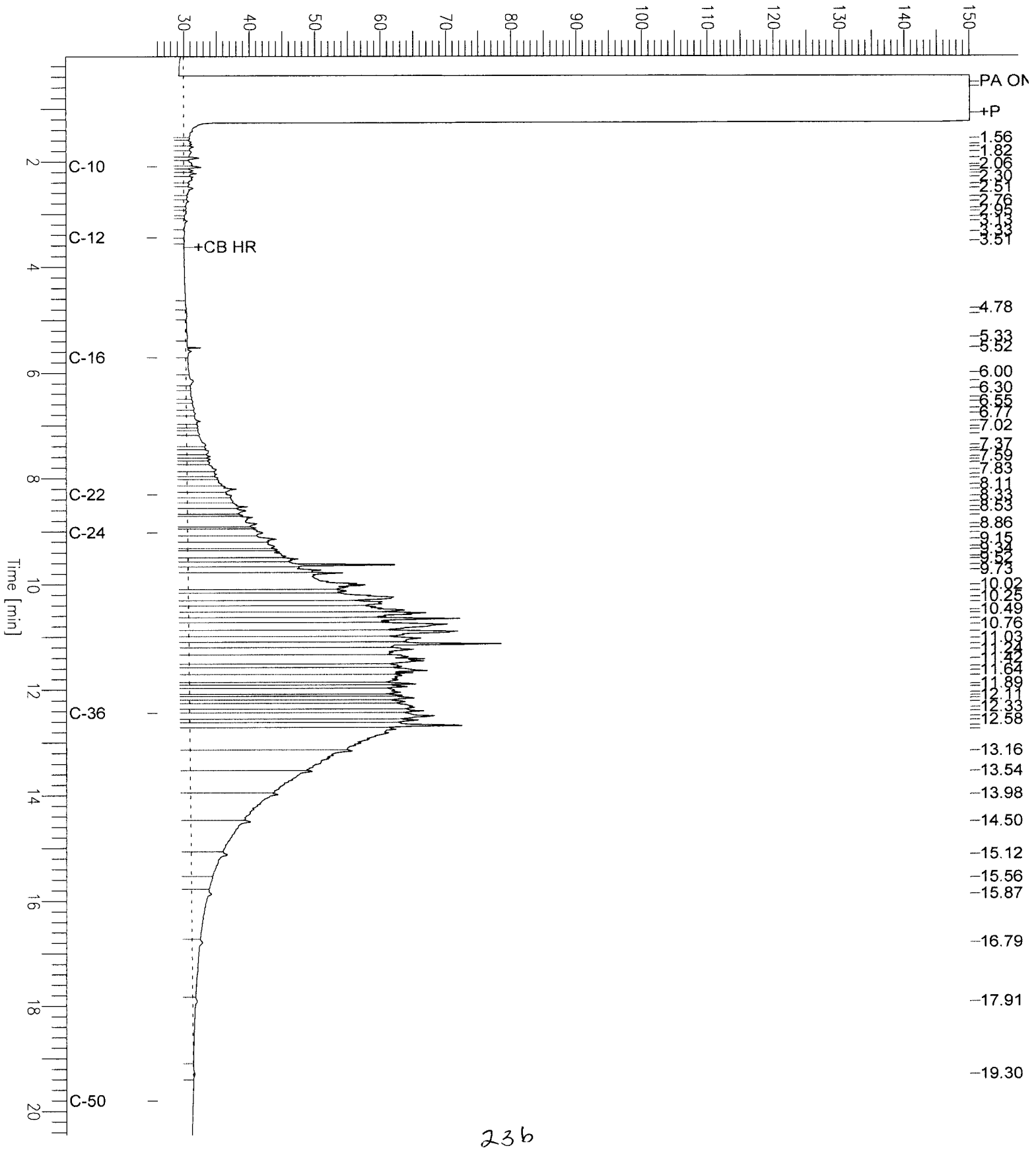
Chromatogram

ABS 5/19/05

Sample Name : 179851-001sg,101361
FileName : G:\GC11\CHA\139A006.RAW
Method : ATEH136S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 26 mV

Sample #: 101361 Page 1 of 1
Date : 5/19/05 06:22 PM
Time of Injection: 5/19/05 05:59 PM
Low Point : 25.83 mV High Point : 150.07 mV
Plot Scale: 124.2 mV

BB2 ATP 184 (8.0)

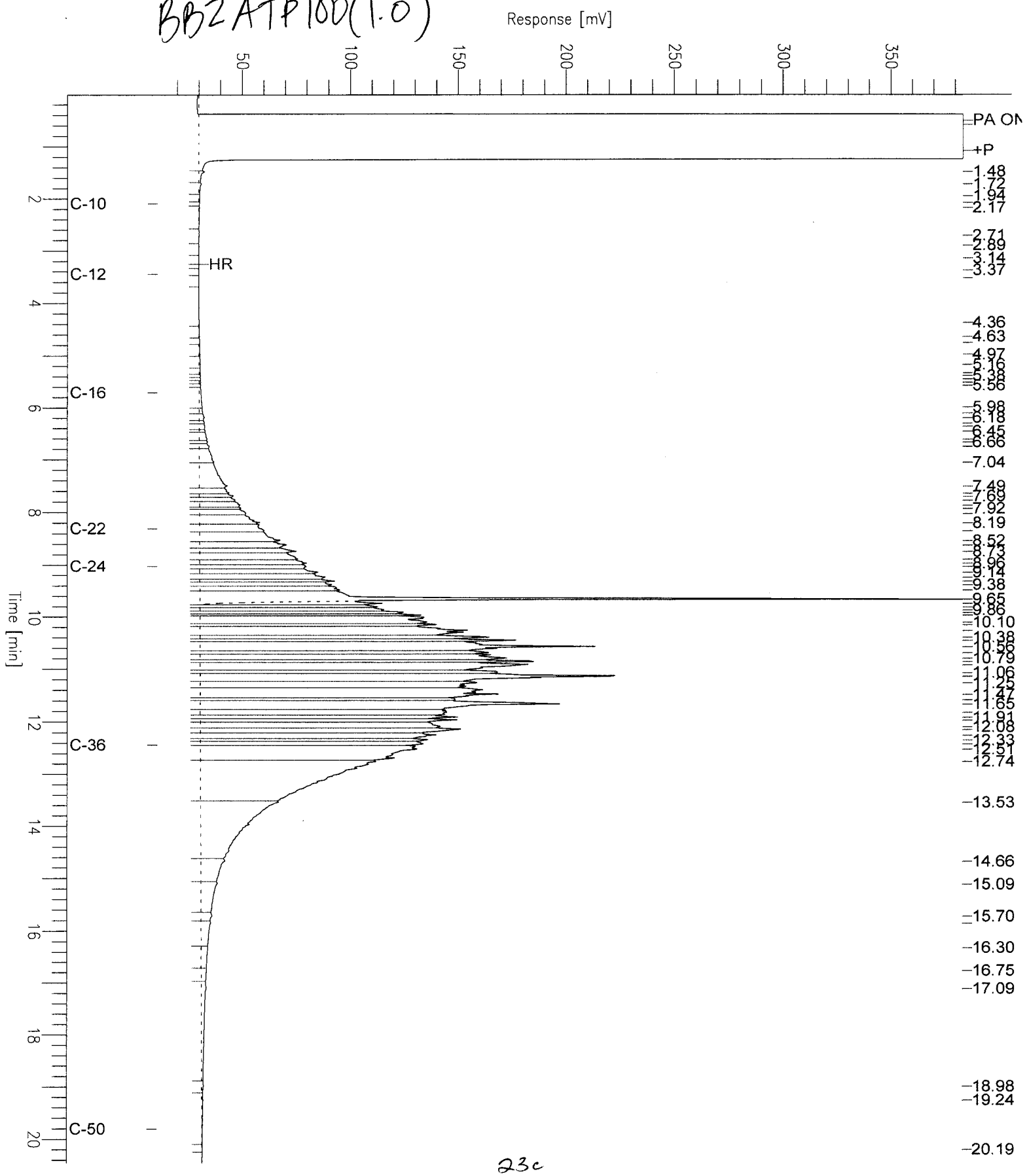


Chromatogram

Sample Name : 178951-002sg,101361
FileName : G:\GC11\CHA\139A008.RAW
Method : ATEH136S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 101361 Page 1 of 1
Date : 5/20/05 08:41 AM
Time of Injection: 5/19/05 06:57 PM
Low Point : 10.70 mV High Point : 383.56 mV
Plot Scale: 372.9 mV

BB2 ATP 100 (1.0)

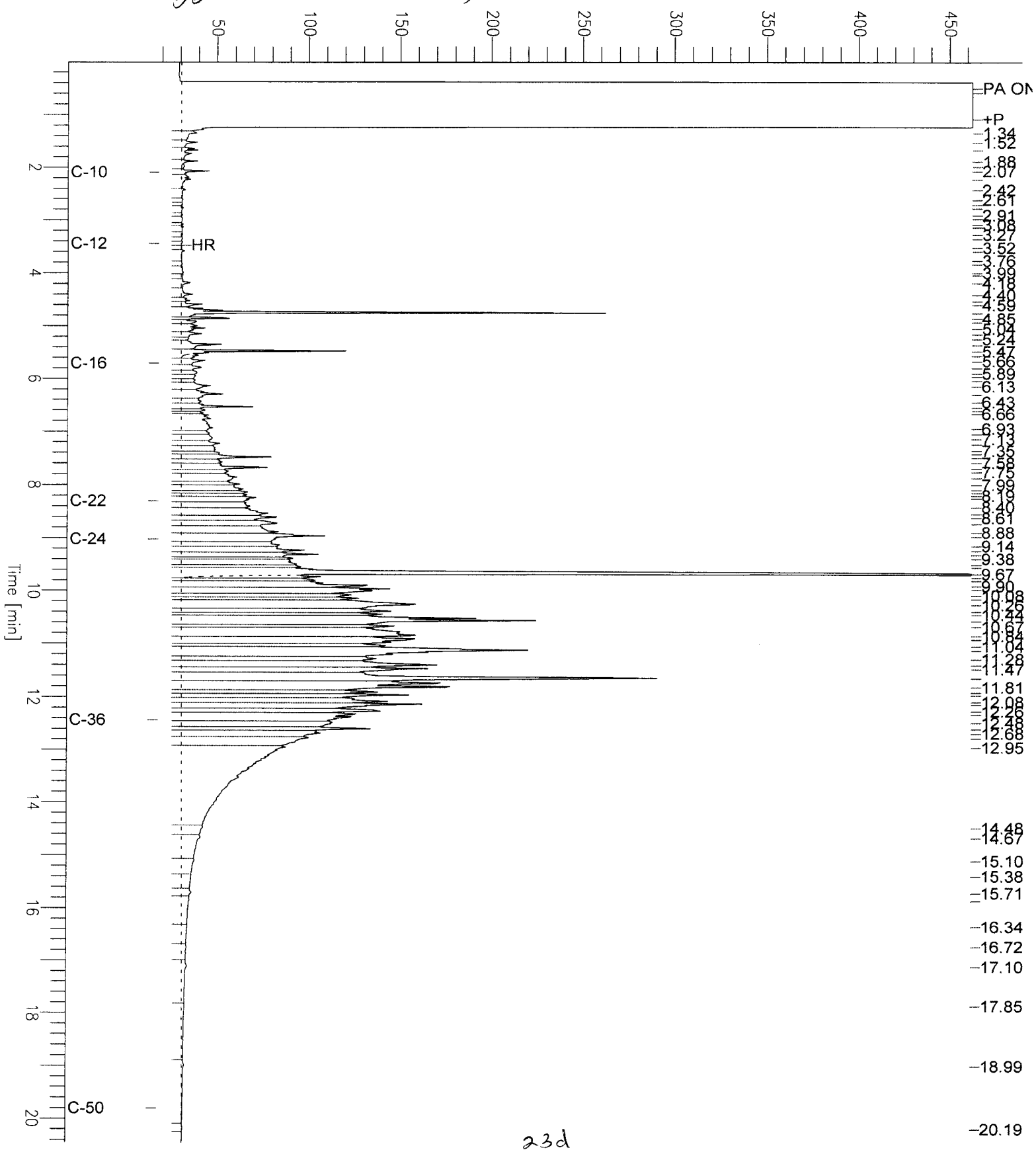


Chromatogram

Sample Name : 178951-003sg,101361
FileName : G:\GC11\CHA\139A009.RAW
Method : ATEH136S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 101361 Page 1 of 1
Date : 5/20/05 08:41 AM
Time of Injection: 5/19/05 07:27 PM
Low Point : 18.05 mV High Point : 462.58 mV
Plot Scale: 444.5 mV

BB2 ATP 101 (14.0)



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg	Prepared:	04/21/05
Batch#:	101361		

Field ID:	BB1TP102(4.0)	Diln Fac:	1.000
Type:	SAMPLE	Sampled:	04/15/05
Lab ID:	178951-004	Analyzed:	05/19/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	32%		

Analyte	Result	RL	MDL
Diesel C12-C24	31 H Y	1.5	0.61
Motor Oil C24-C36	180	7.4	1.8

Surrogate	%REC	Limits
Hexacosane	113	65-135

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC291221	Analyzed:	05/23/05
Basis:	as received	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	ND	0.99	0.29
Motor Oil C24-C36	ND	5.0	1.5

Surrogate	%REC	Limits
Hexacosane	84	65-135

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

13.1

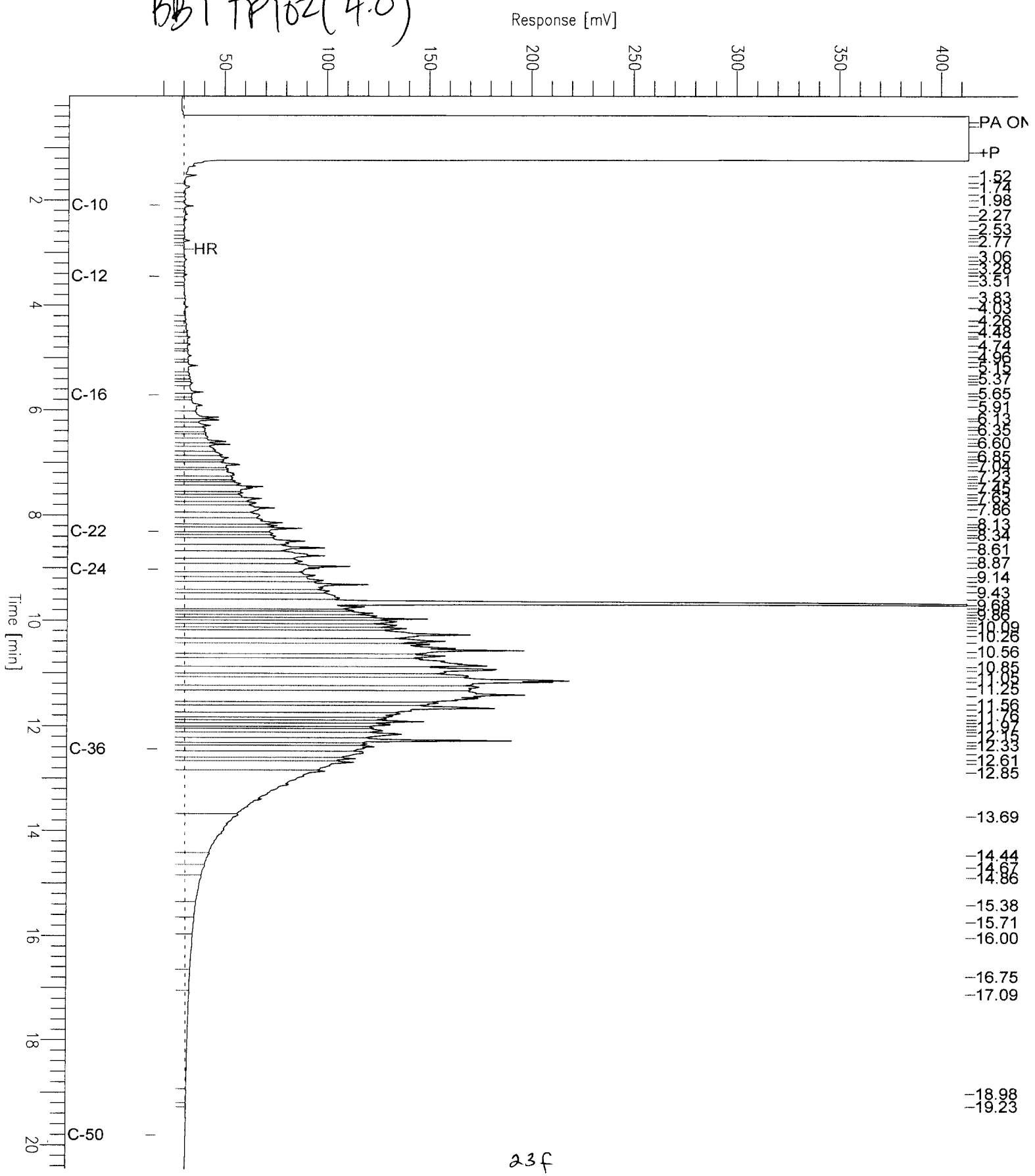
23e

Chromatogram

Sample Name : 178951-004sg,101361
FileName : G:\GC11\CHA\139A010.RAW
Method : ATEH136S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 101361 Page 1 of 1
Date : 5/20/05 08:43 AM
Time of Injection: 5/19/05 07:56 PM
Low Point : 17.99 mV High Point : 413.57 mV
Plot Scale: 395.6 mV

BB1 TP102(4.0)



Chromatogram

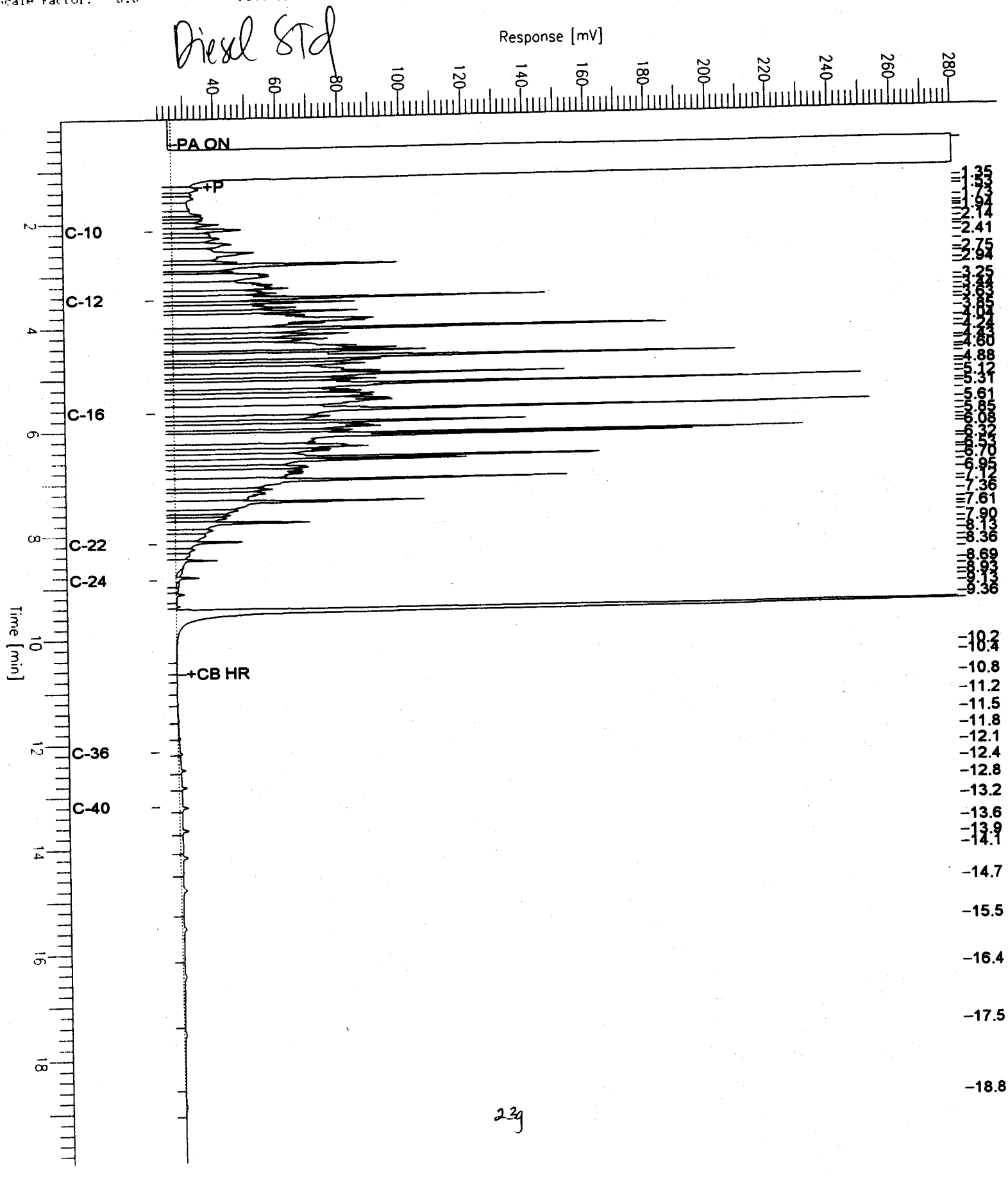
Sample Name : ccv,S72,dsl
FileName : G:\GC17\CHA\110A003.RAW
Method : ATEH103.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 19.97 min
Plot Offset: 20 mV

Sample #: 500mg/L
Date : 4/20/05 02:35 PM
Time of Injection: 4/20/05 11:27 AM
Low Point : 20.27 mV
Plot Scale: 260.1 mV

High Point : 280.34 mV

Diesel STD



Chromatogram

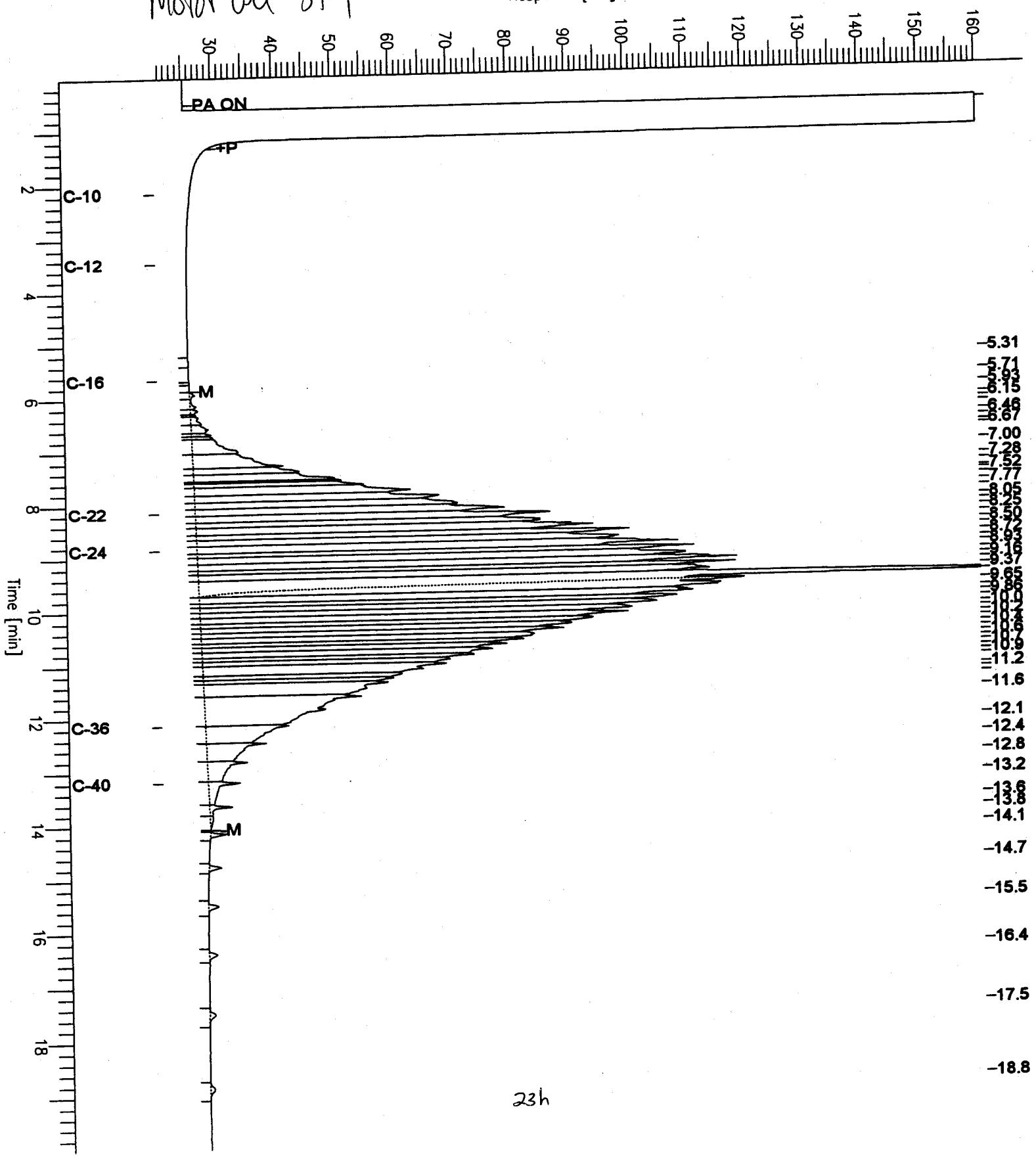
ample Name : ccv,S294,mo
ileName : G:\GC17\CHA\110A004.RAW
ethod : ATEH103.MTH
tart Time : 0.01 min
cale Factor: 0.0

End Time : 19.99 min
Plot Offset: 20 mV

Sample #: 500mg/L
Date : 4/20/05 02:36 PM
Time of Injection: 4/20/05 11:55 AM
Low Point : 20.22 mV
Plot Scale: 139.9 mV

High Point : 160.12 mV

Motor Oil Std



23h

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291222	Batch#:	101361
Matrix:	Soil	Prepared:	04/21/05
Units:	mg/Kg	Analyzed:	05/23/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	49.86	37.95	76	65-135

Surrogate	%REC	Limits
Hexacosane	96	65-135

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	BAKER BEACH	Analysis:	EPA 8015B
Field ID:	BB2ATP100(1.0)	Diln Fac:	1.000
MSS Lab ID:	178951-002	Batch#:	101361
Matrix:	Soil	Sampled:	04/14/05
Units:	mg/Kg	Received:	04/18/05
Basis:	dry	Prepared:	04/21/05

Type:	MS	Analyzed:	05/23/05
Lab ID:	QC291223	Cleanup Method:	EPA 3630C
Moisture:	27%		

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	46.55	68.32	110.4	93	65-135

Surrogate	%REC	Limits
Hexacosane	76	65-135

Type:	MSD	Analyzed:	05/24/05
Lab ID:	QC291224	Cleanup Method:	EPA 3630C
Moisture:	27%		

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	68.38	153.4	156 *	65-135	33	35

Surrogate	%REC	Limits
Hexacosane	127	65-135

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409001 Name: dsl Type: (normal) Date: 08-APR-2005 22:28 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	098a003	115142409003	dsl10	08-APR-2005 22:28	05WS0167
2	098a004	115142409004	dsl100	08-APR-2005 22:58	05WS0169
3	098a005	115142409005	dsl250	08-APR-2005 23:27	05WS0170
4	098a006	115142409006	dsl500	08-APR-2005 23:57	05WS0171
5	098a007	115142409007	dsl1000	09-APR-2005 00:26	05WS0172
6	098a008	115142409008	dsl2500	09-APR-2005 00:56	05WS0173
7	098a009	115142409009	dsl5000	09-APR-2005 01:26	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C12-C24	31936	29082	27372	27820	27482	28189	27577	AVRG R		3.510E-5		mg/L	28494	6	0.995	20	

2 3 4

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instid : GC11A Calname : dsl
Calnum : 115142409001 Caldate : 08-APR-2005 Caltype :

ICV 115142409011 (098a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C12-C24	A	115142409011	09-APR-2005	500.00	454.87	mg/L	-9

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409003 Name: hxcs Type: (normal) Date: 09-APR-2005 06:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	098a020	115142409020	hex5	09-APR-2005 06:52	S112
2	098a021	115142409021	hex10	09-APR-2005 07:22	S113
3	098a022	115142409022	hex25	09-APR-2005 07:51	S114
4	098a023	115142409023	hex50	09-APR-2005 08:21	S115
5	098a024	115142409024	hex75	09-APR-2005 08:50	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Hexacosane	31483	30572	30285	30096	33263	AVRG R		3.211E-5		mg/L	31140	4	0.995	20	

233

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115156062001 Name: Motor Oil Type: (normal) Date: 19-APR-2005 02:03 Inj Vol (uL): 3

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	108a020	115156062020	mo50	19-APR-2005 02:03	04WS2172
2	108a021	115156062021	mo250	19-APR-2005 02:33	04WS2173
3	108a022	115156062022	mo500	19-APR-2005 03:03	04WS2174
4	108a023	115156062023	mo1000	19-APR-2005 03:33	04WS2175
5	108a024	115156062024	mo2500	19-APR-2005 04:02	04WS2176
6	108a025	115156062025	mo5000	19-APR-2005 04:32	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Motor Oil C24-C36	17587	18506	17605	19906	18788	16157	AVRG R		5.527E-5		mg/L	18091	7	0.995 20	

231

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: CW
Calnum: 145147550001 Name: Hexacosane Type: (normal) Date: 13-APR-2005 01:01 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102b019	145147550019	hex5	13-APR-2005 01:01	s112
2	102b020	145147550020	hex10	13-APR-2005 01:30	s113
3	102b021	145147550021	hex25	13-APR-2005 01:58	s114
4	102b022	145147550022	hex50	13-APR-2005 02:26	s115
5	102b023	145147550023	hex75	13-APR-2005 02:55	s116

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	24111	24621	24792	26302	24569	AVRG	R		4.019E-5		mg/L	24879	3	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: MCH
Calnum: 145199395001 Name: Type: (normal) Date: 18-MAY-2005 13:29 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	138b003	145199395003	dsl10	18-MAY-2005 13:29	S430
2	138b004	145199395004	dsl100	18-MAY-2005 13:57	S429
3	138b005	145199395005	dsl250	18-MAY-2005 14:25	S427
4	138b006	145199395006	dsl500	18-MAY-2005 14:53	S426
5	138b007	145199395007	dsl1000	18-MAY-2005 15:21	S425
6	138b008	145199395008	dsl2500	18-MAY-2005 15:49	S424
7	138b009	145199395009	dsl5000	18-MAY-2005 16:17	S423

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C12-C24	15910	18901	21360	21681	22121	24072	24310	AVRG R		4.718E-5		mg/L	21194	14	0.995	20	

23 P

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instid : GC13B Calname :
Calnum : 145199395001 Caldate : 18-MAY-2005 Caltype :

ICV 145199395011 (138b011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C12-C24	B	145199395011	18-MAY-2005	500.00	459.41	mg/L	-8

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MMP
Calnum: 165006306001 Name: 004ical Type: (normal) Date: 04-JAN-2005 12:08 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	004b005	165006306005	hex5	04-JAN-2005 12:08	04WS2042
2	004b006	165006306006	hex10	04-JAN-2005 12:37	04WS2043
3	004b007	165006306007	hex25	04-JAN-2005 13:06	04WS2044
4	004b008	165006306008	hex50	04-JAN-2005 13:34	04WS2045
5	004b009	165006306009	hex75	04-JAN-2005 14:03	04WS2046

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Hexacosane	27389	26541	25481	24701	25964	AVRG R		3.844E-5		mg/L	26015	4	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MMP
Calnum: 165007836001 Name: dsl Type: (normal) Date: 05-JAN-2005 16:55 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	005b008	165007836008	dsl10	05-JAN-2005 16:55	04WS2298
2	005b009	165007836009	dsl100	05-JAN-2005 17:24	04WS2299
3	005b010	165007836010	dsl250	05-JAN-2005 17:53	04WS2300
4	005b011	165007836011	dsl500	05-JAN-2005 18:22	05WS0019
5	005b012	165007836012	dsl1000	05-JAN-2005 18:51	04WS2302
6	005b013	165007836013	dsl2500	05-JAN-2005 19:19	04WS2303
7	005b014	165007836014	dsl5000	05-JAN-2005 19:48	04WS2297

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Diesel C12-C24	21264	22207	22415	21106	21750	21498	22485	AVRG R		4.583E-5		mg/L	21818	3	0.995 20	

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Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instid : GC15B Calname : dsl
Calnum : 165007836001 Caldate : 05-JAN-2005 Caltype :

ICV 165007836023 (005b023) standards: 04WS2006

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C12-C24	B	165007836023	06-JAN-2005	500.00	460.74	mg/L	-8

INITIAL CALIBRATION REPORT FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MCH
Calnum: 165176306001 Name: mocal Type: (normal) Date: 02-MAY-2005 15:28 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	122b006	165176306006	mo50	02-MAY-2005 15:28	04WS2172
2	122b007	165176306007	mo250	02-MAY-2005 15:57	04WS2173
3	122b008	165176306008	mo500	02-MAY-2005 16:26	04WS2174
4	122b009	165176306009	mo1000	02-MAY-2005 16:55	04WS2175
5	122b010	165176306010	mo2500	02-MAY-2005 17:24	04WS2176
6	122b011	165176306011	mo5000	02-MAY-2005 17:53	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	14202	16324	16853	15412	12924	11182	AVRG R		6.905E-5		mg/L	14483	15	0.995	20	

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Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C12-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115200848003	19-MAY-2005 12:26	115142409001	08-APR-2005	28494	26325	1000.0	923.89	mg/L	-8	15	
GC11A	A	115200848011	19-MAY-2005 20:26	115142409001	08-APR-2005	28494	26138	250.00	229.33	mg/L	-8	15	
GC13B	B	145207880003	24-MAY-2005 09:37	145199395001	18-MAY-2005	21194	18619	500.00	439.26	mg/L	-12	15	
GC13B	B	145207880010	24-MAY-2005 14:58	145199395001	18-MAY-2005	21194	19420	1000.0	916.32	mg/L	-8	15	
GC15B	B	165206489008	23-MAY-2005 13:03	165007836001	05-JAN-2005	21818	22426	1000.0	1027.9	mg/L	3	15	
GC15B	B	165206489016	23-MAY-2005 22:11	165007836001	05-JAN-2005	21818	22203	250.00	254.42	mg/L	2	15	

CONTINUING CALIBRATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115200848004	19-MAY-2005 12:56	115156062001	19-APR-2005	18091	19732	500.00	545.34	mg/L	9	15	
GC11A	A	115200848012	19-MAY-2005 20:55	115156062001	19-APR-2005	18091	19250	500.00	532.01	mg/L	6	15	
GC15B	B	165206489009	23-MAY-2005 13:56	165176306001	02-MAY-2005	14483	16024	500.00	553.23	mg/L	11	15	
GC15B	B	165206489015	23-MAY-2005 21:42	165176306001	02-MAY-2005	14483	15847	500.00	547.11	mg/L	9	15	

CONTINUING CALIBRATION SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115200848003	19-MAY-2005 12:26	115142409003	09-APR-2005	31140	27953	50.000	44.883	mg/L	-10	15	
GC11A	A	115200848011	19-MAY-2005 20:26	115142409003	09-APR-2005	31140	30154	50.000	48.416	mg/L	-3	15	
GC13B	B	145207880003	24-MAY-2005 09:37	145147550001	13-APR-2005	24879	23765	50.000	47.761	mg/L	-4	15	
GC13B	B	145207880010	24-MAY-2005 14:58	145147550001	13-APR-2005	24879	26158	50.000	52.571	mg/L	5	15	
GC15B	B	165206489008	23-MAY-2005 13:03	165006306001	04-JAN-2005	26015	27937	50.000	53.694	mg/L	7	15	
GC15B	B	165206489015	23-MAY-2005 21:42	165006306001	04-JAN-2005	26015	28351	50.000	54.490	mg/L	9	15	

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SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 165006306 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 04-JAN-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	004b001	X	primer			04-JAN-2005 09:06	1.0						
002	004b002	X	ib			04-JAN-2005 09:34	1.0						
003	004b003	X	paint f.p.			04-JAN-2005 10:29	1.0						
004	004b004	X	ib			04-JAN-2005 10:58	1.0						
005	004b005	ICAL	hex5			04-JAN-2005 12:08	1.0					1	
006	004b006	ICAL	hex10			04-JAN-2005 12:37	1.0					2	
007	004b007	ICAL	hex25			04-JAN-2005 13:06	1.0					3	
008	004b008	ICAL	hex50			04-JAN-2005 13:34	1.0					4	
009	004b009	ICAL	hex75			04-JAN-2005 14:03	1.0					5	
010	004b010	X	ib			04-JAN-2005 14:32	1.0						
011	004b011	CCV	dsl			04-JAN-2005 15:01	1.0		3			6	
012	004b012	CCV	mo			04-JAN-2005 15:29	1.0	1	3			7	

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Stds used: 1=04WS2042 2=04WS2043 3=04WS2044 4=04WS2045 5=04WS2046 6=04WS2406 7=04WS2365

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 165007836 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 05-JAN-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
003	005b003	CCV	dsl			05-JAN-2005 10:08	1.0	4	3			1	
004	005b004	CCV	mo			05-JAN-2005 10:36	1.0	1	3			2	
005	005b005	X	tank check #			05-JAN-2005 15:21	1.0						
006	005b006	X	tank check 2			05-JAN-2005 15:50	1.0						
007	005b007	X	ib			05-JAN-2005 16:27	1.0						
008	005b008	ICAL	dsl10			05-JAN-2005 16:55	1.0					3	
009	005b009	ICAL	dsl100			05-JAN-2005 17:24	1.0					4	
010	005b010	ICAL	dsl250			05-JAN-2005 17:53	1.0					5	
011	005b011	ICAL	dsl500			05-JAN-2005 18:22	1.0					6	
012	005b012	ICAL	dsl1000			05-JAN-2005 18:51	1.0					7	
013	005b013	ICAL	dsl2500			05-JAN-2005 19:19	1.0					8	
014	005b014	ICAL	dsl5000			05-JAN-2005 19:48	1.0					9	
015	005b015	X	ib			05-JAN-2005 20:17	1.0						
016	005b016	ICAL	mo50			05-JAN-2005 20:46	1.0					10	
017	005b017	ICAL	mo250			05-JAN-2005 21:14	1.0					11	
018	005b018	ICAL	mo500			05-JAN-2005 21:43	1.0					12	
019	005b019	ICAL	mo1000			05-JAN-2005 22:12	1.0					13	
020	005b020	ICAL	mo2500			05-JAN-2005 22:41	1.0					14	
021	005b021	ICAL	mo5000			05-JAN-2005 23:10	1.0					15	
022	005b022	X	ib			05-JAN-2005 23:39	1.0						
023	005b023	ICV	dsl			06-JAN-2005 00:08	1.0		3			16	
024	005b024	X	ib			06-JAN-2005 00:36	1.0						
025	005b025	CCV	dsl			06-JAN-2005 01:05	1.0		3			1	
026	005b026	CCV	mo			06-JAN-2005 01:34	1.0		3			2	

Stds used: 1=04WS2358 2=04WS2365 3=04WS2298 4=04WS2299 5=04WS2300 6=05WS0019 7=04WS2302 8=04WS2303 9=04WS2297 10=04WS2172 11=04WS2173 12=04WS2174 13=04WS2175 14=04WS2176 15=04WS2169 16=04WS2006

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 115142409 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 08-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	098a001	X	primer			08-APR-2005 21:29	1.0						
002	098a002	X	ib			08-APR-2005 21:58	1.0						
003	098a003	ICAL	dsl10			08-APR-2005 22:28	1.0					1	
004	098a004	ICAL	dsl100			08-APR-2005 22:58	1.0					2	
005	098a005	ICAL	dsl250			08-APR-2005 23:27	1.0					3	
006	098a006	ICAL	dsl500			08-APR-2005 23:57	1.0					4	
007	098a007	ICAL	dsl1000			09-APR-2005 00:26	1.0					5	
008	098a008	ICAL	dsl2500			09-APR-2005 00:56	1.0					6	
009	098a009	ICAL	dsl5000			09-APR-2005 01:26	1.0					7	
010	098a010	X	ib			09-APR-2005 01:56	1.0						
011	098a011	ICV	dsl			09-APR-2005 02:25	1.0		3			8	
012	098a012	X	ib			09-APR-2005 02:55	1.0						
013	098a013	ICAL	mo50			09-APR-2005 03:25	1.0					9	
014	098a014	ICAL	mo250			09-APR-2005 03:54	1.0					10	
015	098a015	ICAL	mo500			09-APR-2005 04:24	1.0					11	
016	098a016	ICAL	mo1000			09-APR-2005 04:54	1.0					12	
017	098a017	ICAL	mo2500			09-APR-2005 05:23	1.0					13	
018	098a018	ICAL	mo5000			09-APR-2005 05:53	1.0					14	
019	098a019	X	ib			09-APR-2005 06:22	1.0						
020	098a020	ICAL	hex5			09-APR-2005 06:52	1.0					15	
021	098a021	ICAL	hex10			09-APR-2005 07:22	1.0					16	
022	098a022	ICAL	hex25			09-APR-2005 07:51	1.0					17	
023	098a023	ICAL	hex50			09-APR-2005 08:21	1.0					18	
024	098a024	ICAL	hex75			09-APR-2005 08:50	1.0					19	
025	098a025	X	ib			09-APR-2005 09:20	1.0						
026	098a026	X	c12-60			09-APR-2005 09:49	1.0						
027	098a027	X	c10-16			09-APR-2005 10:19	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 145147550 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	102b001	X	primer			12-APR-2005 11:10	1.0					
002	102b002	X	ib			12-APR-2005 11:38	1.0					
003	102b003	CCV	dsl			12-APR-2005 12:06	1.0				1	
004	102b004	CCV	mo			12-APR-2005 12:34	1.0				2	
005	102b005	X	ib			12-APR-2005 15:11	1.0					
006	102b006	CCV	dsl			12-APR-2005 15:39	1.0	3			1	
007	102b007	CCV	mo			12-APR-2005 16:07	1.0	3			2	
008	102b008	X	ib			12-APR-2005 19:52	1.0					
009	102b009	ICAL	dsl10			12-APR-2005 20:20	1.0				3	
010	102b010	ICAL	dsl100			12-APR-2005 20:48	1.0				4	
011	102b011	ICAL	dsl250			12-APR-2005 21:16	1.0				5	
012	102b012	ICAL	dsl500			12-APR-2005 21:44	1.0				6	
013	102b013	ICAL	dsl1000			12-APR-2005 22:12	1.0				7	
014	102b014	ICAL	dsl2500			12-APR-2005 22:40	1.0				8	
015	102b015	ICAL	dsl5000			12-APR-2005 23:09	1.0				9	
016	102b016	X	ib			12-APR-2005 23:37	1.0					
017	102b017	ICV	dsl			13-APR-2005 00:05	1.0				10	
018	102b018	X	ib			13-APR-2005 00:33	1.0					
019	102b019	ICAL	hex5			13-APR-2005 01:01	1.0				11	
020	102b020	ICAL	hex10			13-APR-2005 01:30	1.0				12	
021	102b021	ICAL	hex25			13-APR-2005 01:58	1.0				13	
022	102b022	ICAL	hex50			13-APR-2005 02:26	1.0				14	
023	102b023	ICAL	hex75			13-APR-2005 02:55	1.0				15	
024	102b024	X	ib			13-APR-2005 03:23	1.0					
025	102b025	CCV	dsl			13-APR-2005 03:51	1.0	3			16	

23 a 5

Stds used: 1=S72 2=S294 3=05WS0167 4=05WS0169 5=05WS0170 6=05WS0171 7=05WS0172 8=05WS0173 9=05WS0174 10=S110 11=S112 12=S113 13=S114 14=S115 15=S116 16=S167

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 115156062 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 18-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	108a001	X	primer			18-APR-2005 09:02	1.0					
002	108a002	X	ib			18-APR-2005 09:32	1.0					
003	108a003	X	CCV			18-APR-2005 10:31	1.0	1.0		3	1	
004	108a004	X	CCV			18-APR-2005 11:01	1.0	1.0		3	2	
005	108a005	X	primer			18-APR-2005 15:13	1.0					
006	108a006	X	ib			18-APR-2005 15:42	1.0					
007	108a007	CCV	mo			18-APR-2005 16:11	1.0	1.0	1	3	2	
008	108a008	CCV	dsl			18-APR-2005 16:42	1.0	1.0		3	3	
009	108a009	BLANK	QC290563 S	101192	Water	18-APR-2005 20:34	1.0	0.005	8	3		
010	108a010	SAMPLE	178716-010	101236	Soil	18-APR-2005 21:04	100.0	0.3992		3		
011	108a011	SAMPLE	178716-012	101236	Soil	18-APR-2005 21:34	200.0	0.1987		3		
012	108a012	SAMPLE	178716-006	101236	Soil	18-APR-2005 22:04	10.0	0.09998		3		
013	108a013	SAMPLE	178716-007	101236	Soil	18-APR-2005 22:34	25.0	0.09982		3		
014	108a014	SAMPLE	178716-011	101236	Soil	18-APR-2005 23:04	50.0	0.09986		3		
015	108a015	SAMPLE	178716-008	101236	Soil	18-APR-2005 23:34	25.0	0.09944		3		
016	108a016	CCV	dsl			19-APR-2005 00:04	1.0	1.0		3	4	
017	108a017	CCV	mo			19-APR-2005 00:34	1.0	1.0	1	3	2	
018	108a018	X	ccv			19-APR-2005 01:04	1.0				4	
019	108a019	X	ib			19-APR-2005 01:33	1.0					
020	108a020	ICAL	mo50			19-APR-2005 02:03	1.0	1.0			5	
021	108a021	ICAL	mo250			19-APR-2005 02:33	1.0	1.0			6	
022	108a022	ICAL	mo500			19-APR-2005 03:03	1.0	1.0			7	
023	108a023	ICAL	mo1000			19-APR-2005 03:33	1.0	1.0			8	
024	108a024	ICAL	mo2500			19-APR-2005 04:02	1.0	1.0			9	
025	108a025	ICAL	mo5000			19-APR-2005 04:32	1.0	1.0			10	
026	108a026	X	ib			19-APR-2005 05:02	1.0					
027	108a027	CCV	mo			19-APR-2005 05:31	1.0	1.0		3	2	

Stds used: 1=S72 2=S294 3=S167 4=S295 5=04WS2172 6=04WS2173 7=04WS2174 8=04WS2175 9=04WS2176 10=04WS2169

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 165176306 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 02-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	122b001	X	primer			02-MAY-2005 10:26	1.0					
002	122b002	X	ib			02-MAY-2005 10:54	1.0					
003	122b003	CCV	dsl			02-MAY-2005 11:23	1.0	1.0		3	1	
004	122b004	CCV	mo			02-MAY-2005 11:52	1.0	1.0	4	3	2	
005	122b005	X	ib			02-MAY-2005 15:00	1.0					
006	122b006	ICAL	mo50			02-MAY-2005 15:28	1.0	1.0			3	
007	122b007	ICAL	mo250			02-MAY-2005 15:57	1.0	1.0			4	
008	122b008	ICAL	mo500			02-MAY-2005 16:26	1.0	1.0			5	
009	122b009	ICAL	mo1000			02-MAY-2005 16:55	1.0	1.0			6	
010	122b010	ICAL	mo2500			02-MAY-2005 17:24	1.0	1.0			7	
011	122b011	ICAL	mo5000			02-MAY-2005 17:53	1.0	1.0			8	
012	122b012	X	ib			02-MAY-2005 18:21	1.0					
013	122b013	CCV	mo			02-MAY-2005 18:50	1.0	1.0	2	3	2	
014	122b014	CCV	dsl			02-MAY-2005 19:19	1.0	1.0		3	9	
015	122b015	X	ib			02-MAY-2005 19:48	1.0					
016	122b016	BLANK	QC292291	101637	Soil	02-MAY-2005 20:17	1.0	0.1000	8	3		
017	122b017	MDL	177896-001	101637	Soil	02-MAY-2005 20:46	1.0	0.1000		3		
018	122b018	MDL	177896-002	101637	Soil	02-MAY-2005 21:15	1.0	0.1000		3		
019	122b019	MDL	177896-003	101637	Soil	02-MAY-2005 21:44	1.0	0.1000		3		
020	122b020	MDL	177896-004	101637	Soil	02-MAY-2005 22:12	1.0	0.1000		3		
021	122b021	MDL	177896-005	101637	Soil	02-MAY-2005 22:41	1.0	0.1000		3		
022	122b022	MDL	177896-006	101637	Soil	02-MAY-2005 23:10	1.0	0.1000		3		
023	122b023	MDL	177896-007	101637	Soil	02-MAY-2005 23:39	1.0	0.1000		3		
024	122b024	MDL	177896-008	101637	Soil	03-MAY-2005 00:08	1.0	0.1000		3		
025	122b025	CCV	dsl			03-MAY-2005 00:36	1.0	1.0		3	10	
026	122b026	X	ccv			03-MAY-2005 01:05	1.0				10	

23 cd

Stds used: 1=S467 2=S442 3=04WS2172 4=04WS2173 5=04WS2174 6=04WS2175 7=04WS2176 8=04WS2169 9=S295 10=S351

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 145199395 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 18-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	138b001	X	primer			18-MAY-2005 11:15	1.0					
002	138b002	X	ib			18-MAY-2005 11:43	1.0					
003	138b003	ICAL	dsl10			18-MAY-2005 13:29	1.0				1	
004	138b004	ICAL	dsl100			18-MAY-2005 13:57	1.0				2	
005	138b005	ICAL	dsl250			18-MAY-2005 14:25	1.0				3	
006	138b006	ICAL	dsl500			18-MAY-2005 14:53	1.0				4	
007	138b007	ICAL	dsl1000			18-MAY-2005 15:21	1.0				5	
008	138b008	ICAL	dsl2500			18-MAY-2005 15:49	1.0				6	
009	138b009	ICAL	dsl5000			18-MAY-2005 16:17	1.0				7	
010	138b010	X	ib			18-MAY-2005 17:19	1.0					
011	138b011	ICV	dsl			18-MAY-2005 17:47	1.0	3			8	

23 ae

Stds used: 1=S430 2=S429 3=S427 4=S426 5=S425 6=S424 7=S423 8=S110

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 115200848 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 19-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	139a001	X	primer			19-MAY-2005 11:28	1.0					
002	139a002	X	ib			19-MAY-2005 11:57	1.0					
003	139a003	CCV	dsl			19-MAY-2005 12:26	1.0	1.0		3	1	
004	139a004	CCV	mo			19-MAY-2005 12:56	1.0	1.0	1	3	2	
005	139a005	X	dsl			19-MAY-2005 13:25	1.0	1.0		3	1	
006	139a006	SAMPLE	178951-001 S	101361	Soil	19-MAY-2005 17:59	50.0	0.09982		3		
007	139a007	SAMPLE	179467-019	102153	Soil	19-MAY-2005 18:28	3.0	0.09956		3		
008	139a008	MSS	178951-002 S	101361	Soil	19-MAY-2005 18:57	3.0	0.09962	8	3		
009	139a009	SAMPLE	178951-003 S	101361	Soil	19-MAY-2005 19:27	1.0	0.09966		3		
010	139a010	SAMPLE	178951-004 S	101361	Soil	19-MAY-2005 19:56	1.0	0.09998		3		
011	139a011	CCV	dsl			19-MAY-2005 20:26	1.0	1.0		3	3	
012	139a012	CCV	mo			19-MAY-2005 20:55	1.0	1.0	1	3	2	
013	139a013	X	ccv			19-MAY-2005 21:24	1.0				3	

23 of

Stds used: 1=S295 2=S442 3=S351

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 165206489 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 23-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	143b001	X	primer			23-MAY-2005 09:29	1.0						
002	143b002	X	ib			23-MAY-2005 09:57	1.0						
003	143b003	CCV	dsl			23-MAY-2005 10:26	1.0	1.0			3	1	
004	143b004	CCV	mo			23-MAY-2005 10:55	1.0	1.0	1		3	2	
005	143b005	X				23-MAY-2005 11:37	1.0						
006	143b006	CHECK	tank			23-MAY-2005 12:06	1.0						
007	143b007	MSS	179503-012 S	102246	Soil	23-MAY-2005 12:34	10.0	0.09992	9		3	2:BUNKC:=6662.63	
008	143b008	CCV	dsl			23-MAY-2005 13:03	1.0	1.0			3	3	
009	143b009	CCV	mo			23-MAY-2005 13:56	1.0	1.0	1		3	2	
010	143b010	LCS	QC291222 S	101361	Soil	23-MAY-2005 19:18	1.0	0.09972			3		
011	143b011	BLANK	QC291221 S	101361	Soil	23-MAY-2005 19:47	1.0	0.09923	8		3		
012	143b012	MS	QC291223 S	101361	Soil	23-MAY-2005 20:16	1.0	0.09974			3	2:BUNKC:=5836.46	
013	143b013	MSD	QC291224 S	101361	Soil	23-MAY-2005 20:44	1.0	0.09984		3	3		
014	143b014	X	dsl			23-MAY-2005 21:13	1.0					4	
015	143b015	CCV	mo			23-MAY-2005 21:42	1.0	1.0	1		3	2	
016	143b016	CCV	dsl			23-MAY-2005 22:11	1.0	1.0			3	4	

33 ag

Stds used: 1=S467 2=S653 3=S665 4=S351

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 145207880 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 24-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	144b001	X	primer			24-MAY-2005 08:40	1.0						
002	144b002	X	ib			24-MAY-2005 09:08	1.0						
003	144b003	CCV	dsl			24-MAY-2005 09:37	1.0	1.0			3	1	
004	144b004	CCV	mo			24-MAY-2005 10:05	1.0	1.0			3	2	
005	144b005	BLANK	QC294618 S	102247	Water	24-MAY-2005 10:41	1.0	0.005	10		3		
006	144b006	BS	QC294619 S	102247	Water	24-MAY-2005 11:09	1.0	0.005			3		
007	144b007	BSD	QC294620 S	102247	Water	24-MAY-2005 11:37	1.0	0.005			3		
008	144b008	X	QC291224 S	101361	Soil	24-MAY-2005 12:05	1.0	0.09984		1	3		
009	144b009	MSD	QC291224 S	101361	Soil	24-MAY-2005 13:31	1.0	0.09984		1	3		
010	144b010	CCV	dsl			24-MAY-2005 14:58	1.0	1.0			3	3	
011	144b011	CCV	mo			24-MAY-2005 15:27	1.0	1.0			3	2	
012	144b012	BLANK	QC294804 S	102298	Water	24-MAY-2005 18:01	1.0	0.005	10		3		
013	144b013	BS	QC294805 S	102298	Water	24-MAY-2005 18:29	1.0	0.005			3		
014	144b014	BSD	QC294806 S	102298	Water	24-MAY-2005 18:58	1.0	0.005			3		
015	144b015	BS	QC294802 S	102297	Water	24-MAY-2005 19:26	1.0	0.005			3		
016	144b016	BSD	QC294803 S	102297	Water	24-MAY-2005 19:54	1.0	0.005			3		
017	144b017	SAMPLE	179536-001 S	102298	Water	24-MAY-2005 20:22	1.0	0.005			3		
018	144b018	SAMPLE	179580-001 S	102298	Water	24-MAY-2005 20:50	1.0	0.005			3		
019	144b019	SAMPLE	179580-002 S	102298	Water	24-MAY-2005 21:18	1.0	0.005			3		
020	144b020	SAMPLE	179580-003 S	102298	Water	24-MAY-2005 21:47	1.0	0.005			3		
021	144b021	SAMPLE	179580-004 S	102298	Water	24-MAY-2005 22:15	1.0	0.005			3		
022	144b022	CCV	dsl			24-MAY-2005 22:43	1.0	1.0			3	4	
023	144b023	CCV	mo			24-MAY-2005 23:11	1.0	1.0			3	2	
024	144b024	X	ccv			24-MAY-2005 23:39	1.0					4	
025	144b025	SAMPLE	179580-005 S	102298	Water	25-MAY-2005 00:07	1.0	0.005			3		
026	144b026	SAMPLE	179529-024	102298	Water	25-MAY-2005 00:35	1.0	0.005			3		
027	144b027	SAMPLE	179529-025	102298	Water	25-MAY-2005 01:03	1.0	0.005			3		
028	144b028	SAMPLE	179529-026	102298	Water	25-MAY-2005 01:31	1.0	0.005			3		
029	144b029	SAMPLE	179529-027	102298	Water	25-MAY-2005 02:00	1.0	0.005			3		
030	144b030	SAMPLE	179529-028	102298	Water	25-MAY-2005 02:28	1.0	0.005			3		
031	144b031	SAMPLE	179529-029	102298	Water	25-MAY-2005 02:56	1.0	0.005			3		

Stds used: 1=S467 2=S653 3=S665 4=S652

SEQUENCE SUMMARY FOR 178951 TEH Soil
Curtis & Tompkins Laboratories

Sequence: 145207880 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 24-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
032	144b032	SAMPLE	179529-030	102298	Water	25-MAY-2005 03:25	1.0	0.005	3		
033	144b033	SAMPLE	179529-032	102298	Water	25-MAY-2005 03:53	1.0	0.005	3		
034	144b034	CCV	dsl			25-MAY-2005 04:21	1.0	1.0	3	1	
035	144b035	CCV	mo			25-MAY-2005 04:50	1.0	1.0	3	2	
036	144b036	X	ccv			25-MAY-2005 05:18	1.0			1	

Stds used: 1=S467 2=S653 3=S665 4=S652

Curtis & Tompkins Laboratories Sample Preparation Summary 21-APR-2005 16:01

Batch Number : 101361
Date Extracted: 21-APR-2005
Extracted by : Jessie O'Brien Mee
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S253B
Spike #2 ID : S305C
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178786-001			Weiss Associates	Soil	50.32	g	5	0.099364	1	1	0		TEHM		
178786-004			Weiss Associates	Soil	50.3	g	10	0.198807	1	1	0		TEHM		
178870-001			Questa Engineering Corporation	Soil	50.28	g	5	0.099443	1	1	0		TEHM		
178870-002			Questa Engineering Corporation	Soil	50.45	g	5	0.099108	1	1	0		TEHM		
178870-003			Questa Engineering Corporation	Soil	50.01	g	5	0.099980	1	1	0		TEHM		
178870-004			Questa Engineering Corporation	Soil	50.26	g	5	0.099483	1	1	0		TEHM		
178870-005			Questa Engineering Corporation	Soil	50.23	g	5	0.099542	1	1	0		TEHM		
178870-006			Questa Engineering Corporation	Soil	50.01	g	5	0.099980	1	1	0		TEHM		
178870-007			Questa Engineering Corporation	Soil	50.22	g	5	0.099562	1	1	0		TEHM		
178943-005			Geomatrix Consultants	Soil	50.23	g	5	0.099542	1	1	0		TEH		
178951-001			Mactec, Inc.	Soil	50.29	g	5	0.099423	1	1	0		TEH		
178951-002			Mactec, Inc.	Soil	50.19	g	5	0.099621	1	1	0		TEH		MSS
178951-003			Mactec, Inc.	Soil	50.17	g	5	0.099661	1	1	0		TEH		
178951-004			Mactec, Inc.	Soil	50.01	g	5	0.099980	1	1	0		TEH		
178961-007			Questa Engineering Corporation	Soil	50.37	g	5	0.099265	1	1	0		TEHM		
178964-007			CH2M Hill	Soil	50.25	g	5	0.099502	1	1	0		TEHM		
178967-017			CH2M Hill	Soil	50.08	g	5	0.099840	1	1	0		TEHM		
178967-018			CH2M Hill	Soil	50.06	g	5	0.099880	1	1	0		TEHM		
178967-019			CH2M Hill	Soil	50.41	g	5	0.099187	1	1	0		TEHM		
178967-020			CH2M Hill	Soil	50.3	g	5	0.099404	1	1	0		TEHM		
QC291221	MB			Soil	50.39	g	5	0.099226	1	1	0		TEH		
QC291222	LCS			Soil	50.14	g	5	0.099721	1	1	1		TEH		
QC291223	MS	of 178951-002		Soil	50.13	g	5	0.099741	1	1	1		TEH		
QC291224	MSD	of 178951-002		Soil	50.08	g	5	0.099840	1	1	1		TEH		

23 aj

Should be 50.09

Fixed in LIMS
mmp 4/22/05

Prep Chemist: Jessie Mee Reviewed By: [signature] Date: 4/21/05

Relinquished By: [signature] 4/21/05 Received By: [signature] Date: 4.21.05

Curtis & Tompkins Laboratories Sample Preparation Summary 22-APR-2005 15:31

Batch Number : 101361
Date Extracted: 21-APR-2005
Extracted by : Jessie O'Brien Mee
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S253B
Spike #2 ID : S305C
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init w/v	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178786-001			Weiss Associates	Soil	50.32	g	5	0.099364	1		1	0		TEHM		
178786-004			Weiss Associates	Soil	50.3	g	10	0.198807	1		1	0		TEHM		
178870-001			Questa Engineering Corporation	Soil	50.28	g	5	0.099443	1		1	0		TEHM		
178870-002			Questa Engineering Corporation	Soil	50.45	g	5	0.099108	1		1	0		TEHM		
178870-003			Questa Engineering Corporation	Soil	50.01	g	5	0.099980	1		1	0		TEHM		
178870-004			Questa Engineering Corporation	Soil	50.26	g	5	0.099483	1		1	0		TEHM		
178870-005			Questa Engineering Corporation	Soil	50.23	g	5	0.099542	1		1	0		TEHM		
178870-006			Questa Engineering Corporation	Soil	50.01	g	5	0.099980	1		1	0		TEHM		
178870-007			Questa Engineering Corporation	Soil	50.22	g	5	0.099562	1		1	0		TEHM		
178943-005			Geomatrix Consultants	Soil	50.23	g	5	0.099542	1		1	0		TEH		
178951-001			Mactec, Inc.	Soil	50.09	g	5	0.099820	1		1	0		TEH		
178951-002			Mactec, Inc.	Soil	50.19	g	5	0.099621	1		1	0		TEH		MSS
178951-003			Mactec, Inc.	Soil	50.17	g	5	0.099661	1		1	0		TEH		
178951-004			Mactec, Inc.	Soil	50.01	g	5	0.099980	1		1	0		TEH		
178961-007			Questa Engineering Corporation	Soil	50.37	g	5	0.099265	1		1	0		TEHM		
178964-007			CH2M Hill	Soil	50.25	g	5	0.099502	1		1	0		TEHM		
178967-017			CH2M Hill	Soil	50.08	g	5	0.099840	1		1	0		TEHM		
178967-018			CH2M Hill	Soil	50.06	g	5	0.099880	1		1	0		TEHM		
178967-019			CH2M Hill	Soil	50.41	g	5	0.099187	1		1	0		TEHM		
178967-020			CH2M Hill	Soil	50.3	g	5	0.099404	1		1	0		TEHM		
QC291221	MB			Soil	50.39	g	5	0.099226	1		1	0		TEH		
QC291222	LCS			Soil	50.14	g	5	0.099721	1		1	1		TEH		
QC291223	MS	of 178951-002		Soil	50.13	g	5	0.099741	1		1	1		TEH		
QC291224	MSD	of 178951-002		Soil	50.08	g	5	0.099840	1		1	1		TEH		

23 of 48

Prep Chemist:_____ Reviewed By: _____ Date: _____

Relinquished By:_____ Received By: _____ Date: _____

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2119

LIMS Batch No: 101361
LIMS Analysis TEH
Extracted by: JOM
Date Extracted: 21 Apr 05

Extraction Method:
☒ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	178786-001	50.32	5.0		*
	↓ -004	50.30	10.0		filtered 2X; wouldn't conc further
	178870-001	50.28	5.0		↓
	↓ -002	50.45	↓		
5	-003	50.01			
	-004	50.26			
	-005	50.23			
	-006	50.01			
	↓ -007	50.22			
10	178943-005	50.23			
	178951-001	50.09			
	↓ -002	50.19			MSS
	-003	50.17			
	↓ -004	50.01			
15	178961-007	50.37			
	178964-007	50.25			
	178967-017	50.08			
	↓ -018	50.06			
	-019	50.41			
20	↓ -020	50.30			
	MB QC291221	50.39			*
	LCS ↓ 22	50.14			↓
	MS ↓ 23	50.13			178951-002 ✓
	MSD ↓ 24	50.08	↓		↓ JOM 21Apr05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44256	JOM 21 Apr 05
Samples were dried with CH2Cl2-rinsed ~~granular~~ powdered Na2SO4	EM44135453 JOM 4/21/05	↓
1.0 mL of TEH_SURR surrogate solution was added to all samples	S253B/C*	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	S305C	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all	CH_2Cl_2 EM45005	
	Acetone EM45019	
Samples were: ☐ sonicated 3 times ☒ placed on shaker table at:	0900	↓
taken off shaker table at:	1110	SHD 4/20/05
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM44135453	↓
Concentrated to volumes as noted above	✓	

Jessica Mee 21Apr05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

SFK for SHD 04/21/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SHD
Cleanup Date: 5/19/05

Benchbook # **BK2130**
Page 14

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179444-001	102150	1.0	1.0	
-002				
-003				
-004				
-005				
-006				
-007				
-008				
-009				
-010				
179471-001				
179472-002				
-003				
-004				
-005				
-006				
179479-003				
-004				
179502-001				
-002				
178951-001	101361			
-002				
-003				
-004				
	SHD 5/19/05			
MB 294250	102150	1.0	1.0	Added to log after "Z"-out from Sg'ed 5/19 SHD
BS 51				
BSD 52				

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	SHD 5/19/05
☑ Extracts were cleaned up using 1.0 g cartridges	Supelco #3812	
Extracts were eluted with 2.0 mL CH_2Cl_2	✓	
Concentrated to volumes as noted above	✓	

5/19/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

5/20/05
Reviewed by / Date

23 am

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SFK
Cleanup Date: 05/23/05

Benchbook # **BK2130**
Page 17

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
MB QC291221	101361	1.0	1.0	
LCS 291222				
MS 291223				
MSD 291224				
MB QC 294618	102247			
LCS 294619				
LCSD 294620				
179489-022				
-023				
-024				
-025				
-026				
-027				
179503-027				
-028				
-032				
179527-001				
-002				
-003				

JM 5/23/05

	Mfg & Lot # / Time / Program	Initials / Date
☑ Extracts were cleaned up using C&T assembled 1.8 g columns	TTS V37332	SFK 05/23/05
☐ Extracts were cleaned up using ____ g cartridges	NA	
Extracts were eluted with 4.0 mL CH_2Cl_2	EM44624	
Concentrated to volumes as noted above	✓	

05/23/05
Extraction Chemist / Date

Continued from page —
Continued on page —

23 May 05
Reviewed by / Date

23 an

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SPK
Cleanup Date: 05/24/05

Benchbook # **BK2130**
Page 19

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179503-027	R247	0.5	0.5	
-028				
-032				
MSD QC291224	101361	1.0	1.0	

JDH 5/24/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	NA	NA
☒ Extracts were cleaned up using 1.0 g cartridges	SP3812 Supelco	SPK 05/24/05
Extracts were eluted with 7.0 mL CH_2Cl_2	Em44344	
Concentrated to volumes as noted above	✓	✓

05/24/05
Extraction Chemist / Date

Continued from page ____
Continued on page E

23 a o

Jessie Mee 24 May 05
Reviewed by / Date

Project SOIL AUQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178958-001A	50.04	TEHM	
178959-001A	50.14	TEHM	
178960-001A	50.32	TEHM	
-004	50.30	↓	
178918-001A	15.12	PCB	
178961-007	50.37	TEHM	comp 001A 002A 003A 004A 005A 006A
178964-007	50.25	TEHM	comp 001A, 002A
-008	50.07	↓	003A, 004A
-009	50.17	↓	005A, 006A
178967-017	50.08	TEHM	comp 001A 002A 003A 004A
-018	50.06	↓	005A 006A 007A 008A
-019	50.41	↓	009A 010A 011A 012A
-020	50.30	↓	013A 014A 015A 016A
178967-017	30.24	8100	comp 001A 002A 003A 004A
-018	30.25	↓	005A 006A 007A 008A
-019	30.09	↓	009A 010A 011A 012A
-020	30.15	↓	013A 014A 015A 016A

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4/19/05

Date

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Signed

Date

SAMPLE ID	WEIGHT (g)	ANALYSIS	COMMENTS
178738-001	30.43	8270	MISC./COMP A,B,C
178846-001A	30.38	8270-SIM	
-002	30.18	↓	
178847-001A	50.26	TEHM	
-002	50.04		
-005	50.38		
-006	50.06		
-007	50.33		
-008	50.29		
-009	50.38		
-010	50.19		MSS
-MS	50.44		178847-010A
-MSD	50.34		↓
-LCS	50.40		EM49258
-MB	50.21		↓
-011A	50.00		
-012	50.37		
-013	50.22		
-014	50.04		
-015	50.10		
-016	50.09		
-017	50.22		
-018	50.38		
178869-001A	50.35	TEHM	
178871-001A	50.15	TEHM	
178870-001A	50.28	TEHM	
-002	50.45		
-003	50.01		
-004	50.26		
-005	50.23		
-006	50.01		
-007	50.22		

Continued on Page

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Signed	Date	Signed	Date
[signature]	4/13/05		

62 Project SOIL AQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (g)	ANALYSIS	COMMENTS
ALL BATCHES	50.13	TEHM	EM44258
MB	50.06	↓	↓
178918-001A	50.29	TEH	
178898-001A	50.01	TEHM	
-002	50.13	↓	
-003	50.26	↓	
178918-001A	15.13	PCB	
178880-001C	15.21	PCB	
-002	15.03	↓	
178860-001C	15.23	8081	
-002	15.08	↓	
178943-005	50.23	TEH	COMP 001A,002A,003A,004A
178851-001A	15.10	8081	
-002	15.00	↓	
-003	15.05		
-004	15.13		
-005	15.22		
-006	15.16		
MB	15.23	↓	EM44258

Continued on Page

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4/18/05

Date

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Date

23 a r

168 Project SOIL ALIQUOT KFC088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178951-002A	50.19g	TEH	MSS
MB	50.39	↓	EM144258
LCS	50.14	↓	↓
MS	50.13g	↓	178951-002A
MSD	50.08g	↓	↓

Continued on Page

Signed 4/21/05 Date

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Signed Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
17895-001A	15.11	PCB	
-002	15.21		
-003	15.18		
-004	15.03		
17895-001A	30.37	8270-SIM	
-002	30.26		
-003	30.32		
-004	30.25		
17895-001A	50.09	TEAM	
~~-002~~	50.48		sample of different weight used
-003	50.17		
-004	50.01		

-JOM 21 Apr 05

Continued on Page

4/18/05

Read and Understood By

Signed Date Signed Date

23 at

VOCs results & QC Summary

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Field ID:	BB2ATP104(8.0)	Diln Fac:	0.9259
Lab ID:	178951-001	Batch#:	101317
Matrix:	Soil	Sampled:	04/13/05
Units:	ug/Kg	Received:	04/18/05
Basis:	dry	Analyzed:	04/20/05

Moisture: 19%

Analyte	Result	RL	MDL
Chloromethane	ND	11	2.8
Vinyl Chloride	ND	11	3.2
Bromomethane	ND	11	2.7
Chloroethane	ND	11	3.2
Acetone	9.5 J	23	3.9
Freon 113	ND	5.7	1.7
1,1-Dichloroethene	ND	5.7	1.9
Methylene Chloride	ND	23	4.9
Carbon Disulfide	ND	5.7	5.0
MTBE	ND	5.7	0.9
Vinyl Acetate	ND	57	0.8
1,1-Dichloroethane	ND	5.7	1.4
2-Butanone	ND	11	1.7
Chloroform	ND	5.7	1.5
1,1,1-Trichloroethane	ND	5.7	1.7
Carbon Tetrachloride	ND	5.7	1.4
1,2-Dichloroethane	ND	5.7	0.9
Benzene	ND	5.7	1.3
Trichloroethene	ND	5.7	1.2
1,2-Dichloropropane	ND	5.7	1.0
Bromodichloromethane	ND	5.7	0.7
4-Methyl-2-Pentanone	ND	11	1.1
cis-1,3-Dichloropropene	ND	5.7	0.8
Toluene	ND	5.7	1.2
trans-1,3-Dichloropropene	ND	5.7	0.7
1,1,2-Trichloroethane	ND	5.7	1.0
2-Hexanone	ND	11	0.9
Tetrachloroethene	ND	5.7	1.2
Dibromochloromethane	ND	5.7	0.7
Chlorobenzene	ND	5.7	1.9
Ethylbenzene	ND	5.7	1.4
m,p-Xylenes	ND	5.7	2.6
o-Xylene	ND	5.7	1.3
Styrene	ND	5.7	1.1
Bromoform	ND	5.7	0.5
1,1,2,2-Tetrachloroethane	ND	5.7	0.7
1,2-Dichloroethene (total)	ND	5.7	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	70-121
Toluene-d8	100	84-138
Bromofluorobenzene	124 *	59-113

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Field ID:	BB2ATP100(1.0)	Diln Fac:	0.9615
Lab ID:	178951-002	Batch#:	101317
Matrix:	Soil	Sampled:	04/14/05
Units:	ug/Kg	Received:	04/18/05
Basis:	dry	Analyzed:	04/20/05

Moisture: 27%

Analyte	Result	RL	MDL
Chloromethane	ND	13	3.3
Vinyl Chloride	ND	13	3.7
Bromomethane	ND	13	3.1
Chloroethane	ND	13	3.7
Acetone	ND	26	4.5
Freon 113	ND	6.6	1.9
1,1-Dichloroethene	ND	6.6	2.2
Methylene Chloride	110	26	5.7
Carbon Disulfide	ND	6.6	5.7
MTBE	ND	6.6	1.1
Vinyl Acetate	ND	66	0.9
1,1-Dichloroethane	ND	6.6	1.6
2-Butanone	ND	13	1.9
Chloroform	ND	6.6	1.7
1,1,1-Trichloroethane	ND	6.6	1.9
Carbon Tetrachloride	ND	6.6	1.6
1,2-Dichloroethane	ND	6.6	1.0
Benzene	ND	6.6	1.6
Trichloroethene	ND	6.6	1.4
1,2-Dichloropropane	ND	6.6	1.2
Bromodichloromethane	ND	6.6	0.8
4-Methyl-2-Pentanone	ND	13	1.3
cis-1,3-Dichloropropene	ND	6.6	0.9
Toluene	ND	6.6	1.4
trans-1,3-Dichloropropene	ND	6.6	0.9
1,1,2-Trichloroethane	ND	6.6	1.2
2-Hexanone	ND	13	1.0
Tetrachloroethene	ND	6.6	1.4
Dibromochloromethane	ND	6.6	0.8
Chlorobenzene	ND	6.6	2.2
Ethylbenzene	ND	6.6	1.6
m,p-Xylenes	ND	6.6	3.0
o-Xylene	ND	6.6	1.5
Styrene	ND	6.6	1.3
Bromoform	ND	6.6	0.6
1,1,2,2-Tetrachloroethane	ND	6.6	0.8
1,2-Dichloroethene (total)	ND	6.6	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	109	70-121
Toluene-d8	101	84-138
Bromofluorobenzene	127 *	59-113

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Field ID:	BB2ATP101(14.0)	Diln Fac:	0.9259
Lab ID:	178951-003	Batch#:	101317
Matrix:	Soil	Sampled:	04/14/05
Units:	ug/Kg	Received:	04/18/05
Basis:	dry	Analyzed:	04/20/05

Moisture: 21%

Analyte	Result	RL	MDL
Chloromethane	ND	12	2.9
Vinyl Chloride	ND	12	3.3
Bromomethane	ND	12	2.8
Chloroethane	ND	12	3.3
Acetone	ND	23	4.0
Freon 113	ND	5.9	1.7
1,1-Dichloroethene	ND	5.9	1.9
Methylene Chloride	64	23	5.1
Carbon Disulfide	ND	5.9	5.1
MTBE	ND	5.9	0.9
Vinyl Acetate	ND	59	0.8
1,1-Dichloroethane	ND	5.9	1.4
2-Butanone	ND	12	1.7
Chloroform	ND	5.9	1.5
1,1,1-Trichloroethane	ND	5.9	1.7
Carbon Tetrachloride	ND	5.9	1.4
1,2-Dichloroethane	ND	5.9	0.9
Benzene	ND	5.9	1.4
Trichloroethene	ND	5.9	1.2
1,2-Dichloropropane	ND	5.9	1.0
Bromodichloromethane	ND	5.9	0.7
4-Methyl-2-Pentanone	ND	12	1.1
cis-1,3-Dichloropropene	ND	5.9	0.8
Toluene	ND	5.9	1.2
trans-1,3-Dichloropropene	ND	5.9	0.8
1,1,2-Trichloroethane	ND	5.9	1.1
2-Hexanone	ND	12	0.9
Tetrachloroethene	ND	5.9	1.2
Dibromochloromethane	ND	5.9	0.7
Chlorobenzene	ND	5.9	1.9
Ethylbenzene	ND	5.9	1.4
m,p-Xylenes	ND	5.9	2.7
o-Xylene	ND	5.9	1.3
Styrene	ND	5.9	1.1
Bromoform	ND	5.9	0.5
1,1,2,2-Tetrachloroethane	ND	5.9	0.7
1,2-Dichloroethene (total)	ND	5.9	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	70-121
Toluene-d8	104	84-138
Bromofluorobenzene	126 *	59-113

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Field ID:	BB1TP102(4.0)	Diln Fac:	0.9615
Lab ID:	178951-004	Batch#:	101317
Matrix:	Soil	Sampled:	04/15/05
Units:	ug/Kg	Received:	04/18/05
Basis:	dry	Analyzed:	04/20/05

Moisture: 32%

Analyte	Result	RL	MDL
Chloromethane	ND	14	3.5
Vinyl Chloride	ND	14	4.0
Bromomethane	ND	14	3.4
Chloroethane	ND	14	4.0
Acetone	16 J	28	4.8
Freon 113	ND	7.1	2.1
1,1-Dichloroethene	ND	7.1	2.3
Methylene Chloride	ND	28	6.1
Carbon Disulfide	ND	7.1	6.2
MTBE	ND	7.1	1.1
Vinyl Acetate	ND	71	1.0
1,1-Dichloroethane	ND	7.1	1.7
2-Butanone	2.3 J	14	2.1
Chloroform	ND	7.1	1.9
1,1,1-Trichloroethane	ND	7.1	2.0
Carbon Tetrachloride	ND	7.1	1.7
1,2-Dichloroethane	ND	7.1	1.1
Benzene	ND	7.1	1.7
Trichloroethene	ND	7.1	1.5
1,2-Dichloropropane	ND	7.1	1.2
Bromodichloromethane	ND	7.1	0.9
4-Methyl-2-Pentanone	ND	14	1.3
cis-1,3-Dichloropropene	ND	7.1	1.0
Toluene	ND	7.1	1.5
trans-1,3-Dichloropropene	ND	7.1	0.9
1,1,2-Trichloroethane	ND	7.1	1.3
2-Hexanone	ND	14	1.1
Tetrachloroethene	ND	7.1	1.5
Dibromochloromethane	ND	7.1	0.9
Chlorobenzene	ND	7.1	2.3
Ethylbenzene	ND	7.1	1.7
m,p-Xylenes	ND	7.1	3.3
o-Xylene	ND	7.1	1.6
Styrene	ND	7.1	1.4
Bromoform	ND	7.1	0.6
1,1,2,2-Tetrachloroethane	ND	7.1	0.9
1,2-Dichloroethene (total)	ND	7.1	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	70-121
Toluene-d8	101	84-138
Bromofluorobenzene	125 *	59-113

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC291071	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101317
Units:	ug/Kg	Analyzed:	04/20/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	60.00	63.51	106	65-135
Benzene	60.00	54.46	91	65-135
Trichloroethene	60.00	57.96	97	65-135
Toluene	60.00	55.07	92	65-135
Chlorobenzene	60.00	51.38	86	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	70-121
Toluene-d8	99	84-138
Bromofluorobenzene	101	59-113

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291072	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101317
Units:	ug/Kg	Analyzed:	04/20/05

Analyte	Result	RL	MDL
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.8
Vinyl Acetate	ND	50	0.7
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
Chloroform	ND	5.0	1.3
1,1,1-Trichloroethane	ND	5.0	1.4
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.8
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.9
Bromodichloromethane	ND	5.0	0.6
4-Methyl-2-Pentanone	ND	10	0.9
cis-1,3-Dichloropropene	ND	5.0	0.7
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.7
1,1,2-Trichloroethane	ND	5.0	0.9
2-Hexanone	ND	10	0.8
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.6
Chlorobenzene	ND	5.0	1.7
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	1.0
Bromoform	ND	5.0	0.4
1,1,2,2-Tetrachloroethane	ND	5.0	0.6
1,2-Dichloroethene (total)	ND	5.0	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	70-121
Toluene-d8	102	84-138
Bromofluorobenzene	118 *	59-113

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9615
MSS Lab ID:	178983-001	Batch#:	101317
Matrix:	Soil	Sampled:	04/18/05
Units:	ug/Kg	Received:	04/19/05
Basis:	as received	Analyzed:	04/20/05

Type: MS Lab ID: QC291093

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<1.589	57.69	68.68	119	65-135
Benzene	<1.134	57.69	53.94	94	65-135
Trichloroethene	<1.009	57.69	93.36	162 *	65-135
Toluene	<0.9906	57.69	53.93	93	65-135
Chlorobenzene	<1.589	57.69	47.84	83	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	70-121
Toluene-d8	105	84-138
Bromofluorobenzene	103	59-113

Type: MSD Lab ID: QC291094

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	57.69	69.88	121	65-135	2	35
Benzene	57.69	52.95	92	65-135	2	35
Trichloroethene	57.69	93.83	163 *	65-135	1	35
Toluene	57.69	53.60	93	65-135	1	35
Chlorobenzene	57.69	48.39	84	65-135	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	70-121
Toluene-d8	103	84-138
Bromofluorobenzene	104	59-113

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	BAKER BEACH	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291095	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101317
Units:	ug/Kg	Analyzed:	04/20/05

Analyte	Result	RL	MDL
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.8
Vinyl Acetate	ND	50	0.7
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
Chloroform	ND	5.0	1.3
1,1,1-Trichloroethane	ND	5.0	1.4
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.8
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.9
Bromodichloromethane	ND	5.0	0.6
4-Methyl-2-Pentanone	ND	10	0.9
cis-1,3-Dichloropropene	ND	5.0	0.7
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.7
1,1,2-Trichloroethane	ND	5.0	0.9
2-Hexanone	ND	10	0.8
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.6
Chlorobenzene	ND	5.0	1.7
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	1.0
Bromoform	ND	5.0	0.4
1,1,2,2-Tetrachloroethane	ND	5.0	0.6
1,2-Dichloroethene (total)	ND	5.0	

Surrogate	%REC		Limits
1,2-Dichloroethane-d4	103		70-121
Toluene-d8	99		84-138
Bromofluorobenzene	124	*	59-113

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

10.0

8260/60X 5 ICAL

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\031505.b\FCF03.D

Date : 15-MAR-2005 13:12

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

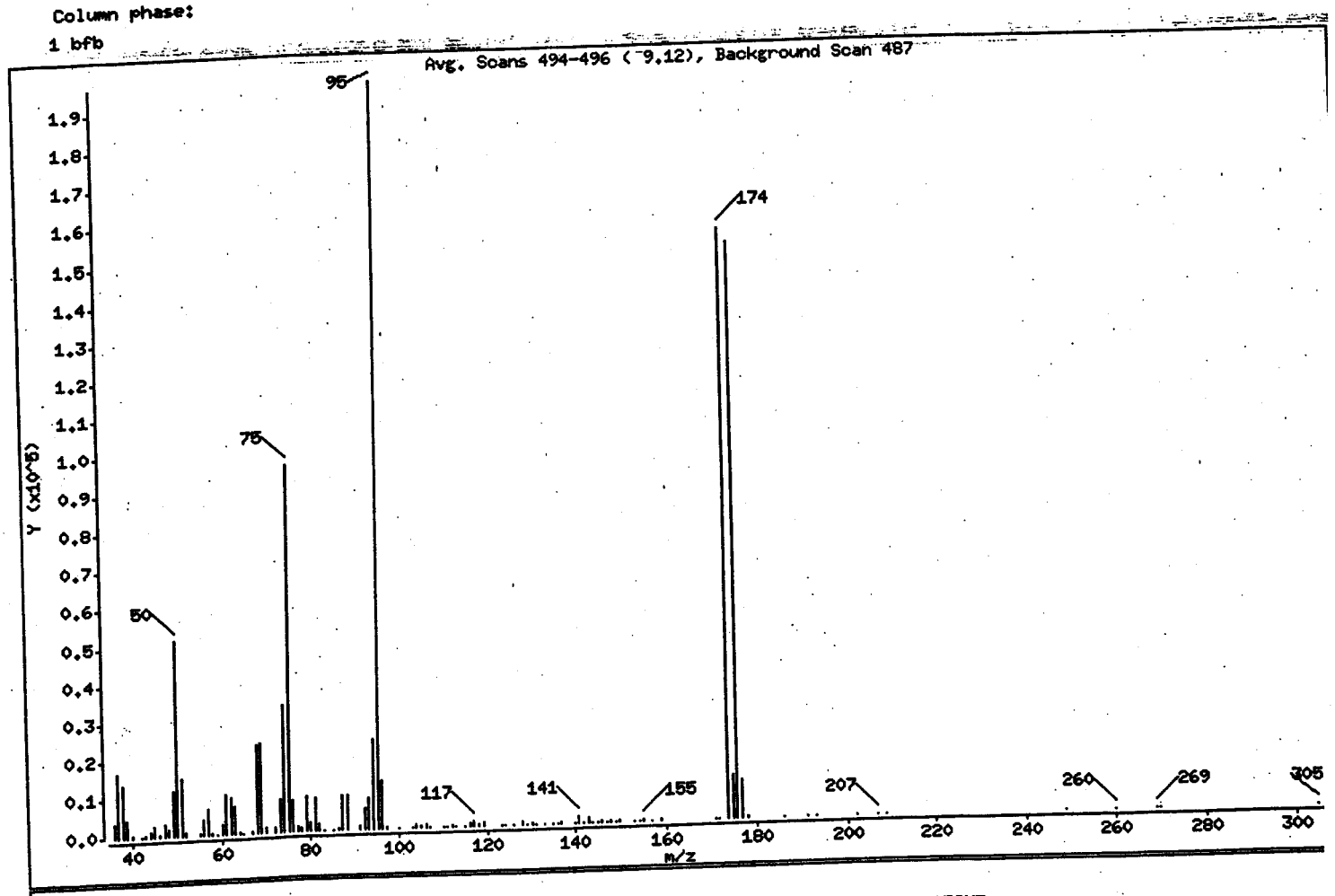
Operator: BO

Volume Injected (uL): 1.0

Column diameter: 2.00

Column phase:

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.29
75	30.00 - 60.00% of mass 95	49.30
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	79.13
175	5.00 - 9.00% of mass 174	5.71 (7.22)
176	95.01 - 100.99% of mass 174	77.25 (97.62)
177	5.00 - 9.00% of mass 176	5.12 (6.63)

BO 3/16/05

03/17

8260/605 5 ICV

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\031605.b\FCG0E.D

Date : 16-MAR-2005 09:14

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

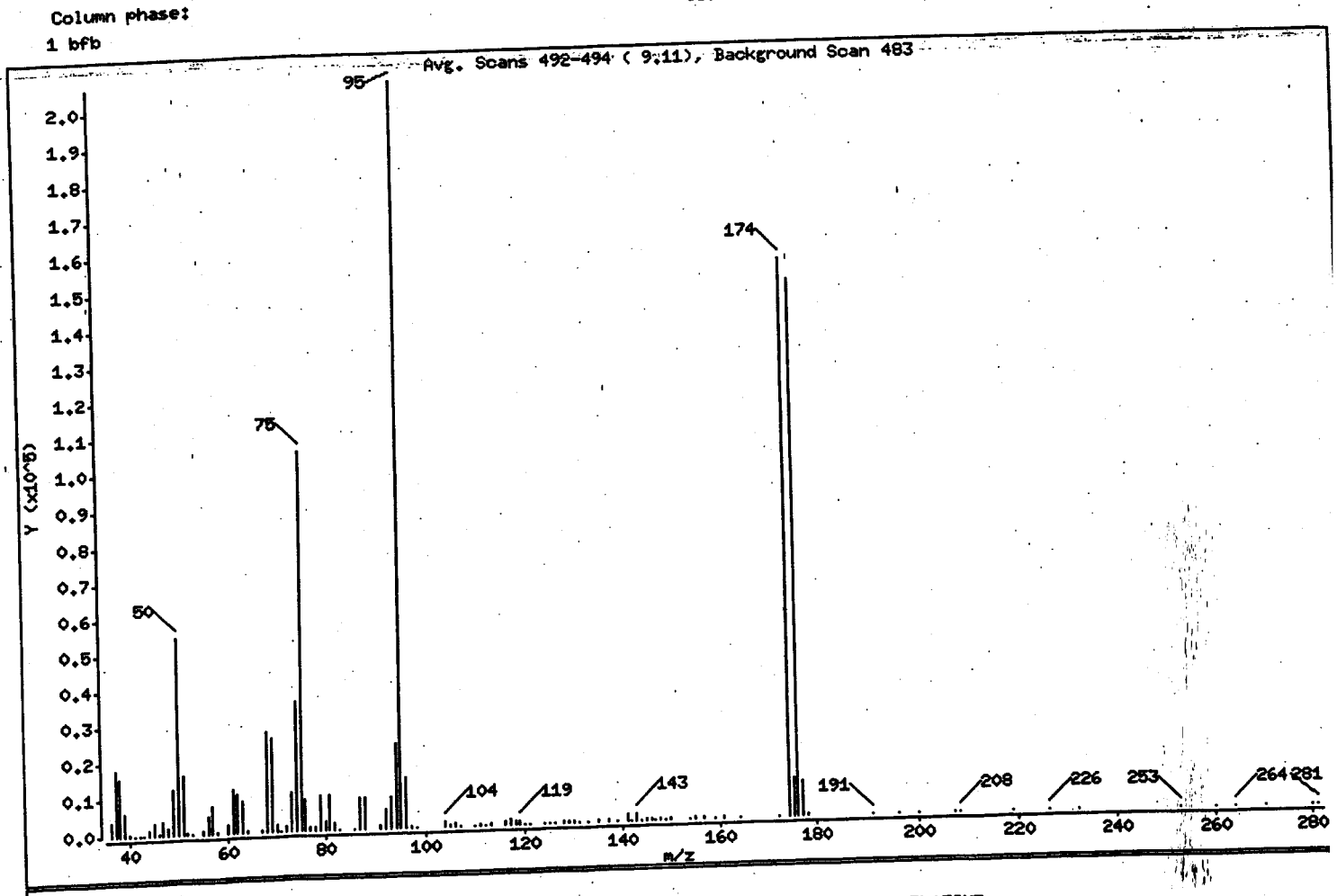
Operator: BO

Volume Injected (uL): 1.0

Column diameter: 2.00

Column phase:

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.56
75	30.00 - 60.00% of mass 95	50.84
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	74.92
175	5.00 - 9.00% of mass 174	4.99 (6.66)
176	95.01 - 100.99% of mass 174	72.24 (96.42)
177	5.00 - 9.00% of mass 176	4.71 (6.52)

MS116/05

03/17

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\042005.b\FDK01.D

Date : 20-APR-2005 08:29

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

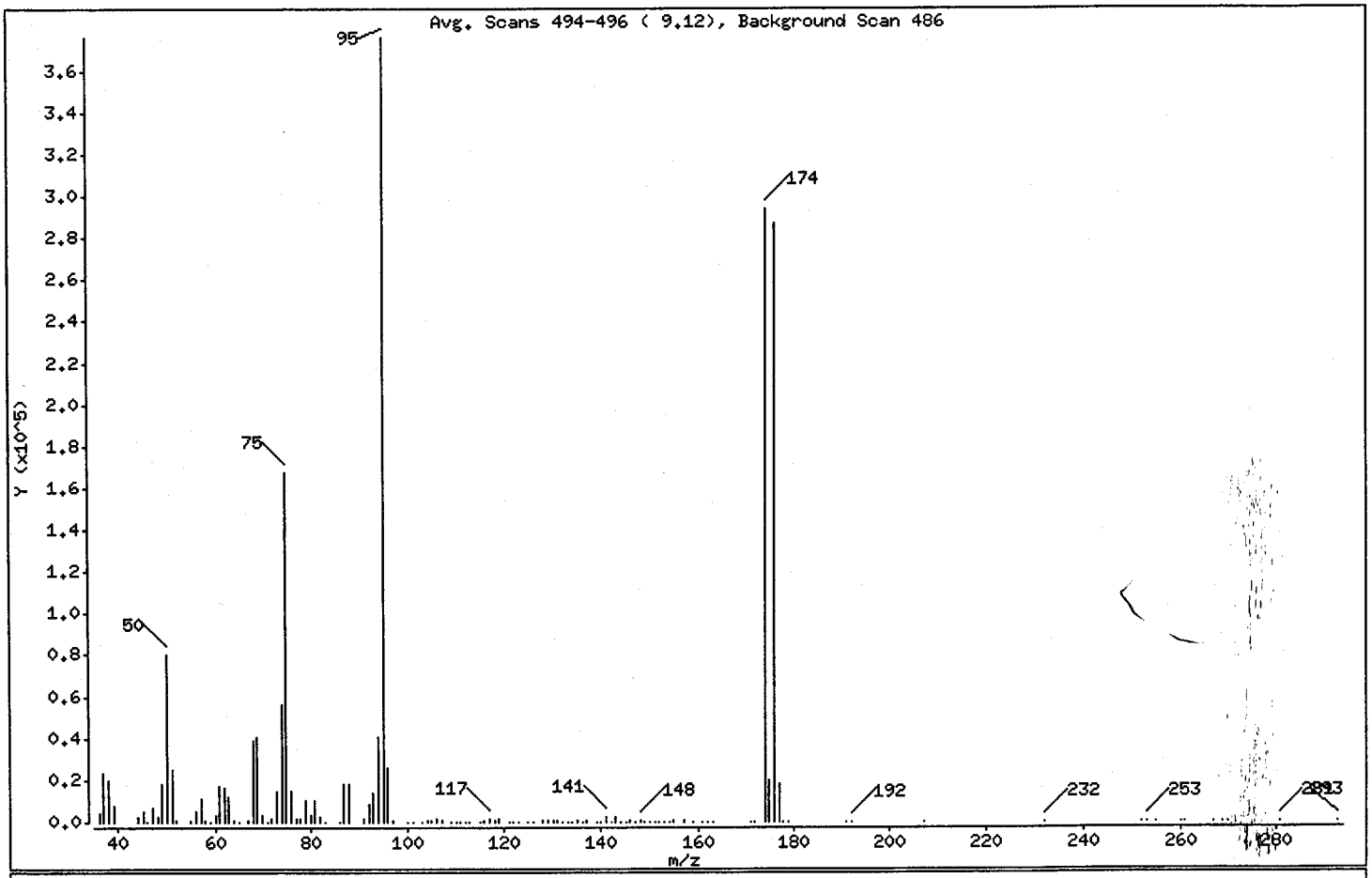
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.35
75	30.00 - 60.00% of mass 95	44.56
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	78.10
175	5.00 - 9.00% of mass 174	5.38 (6.89)
176	95.01 - 100.99% of mass 174	76.28 (97.67)
177	5.00 - 9.00% of mass 176	4.73 (6.20)

a
04/21/05

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\042005.b\FDK14.D

Date : 20-APR-2005 16:05

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

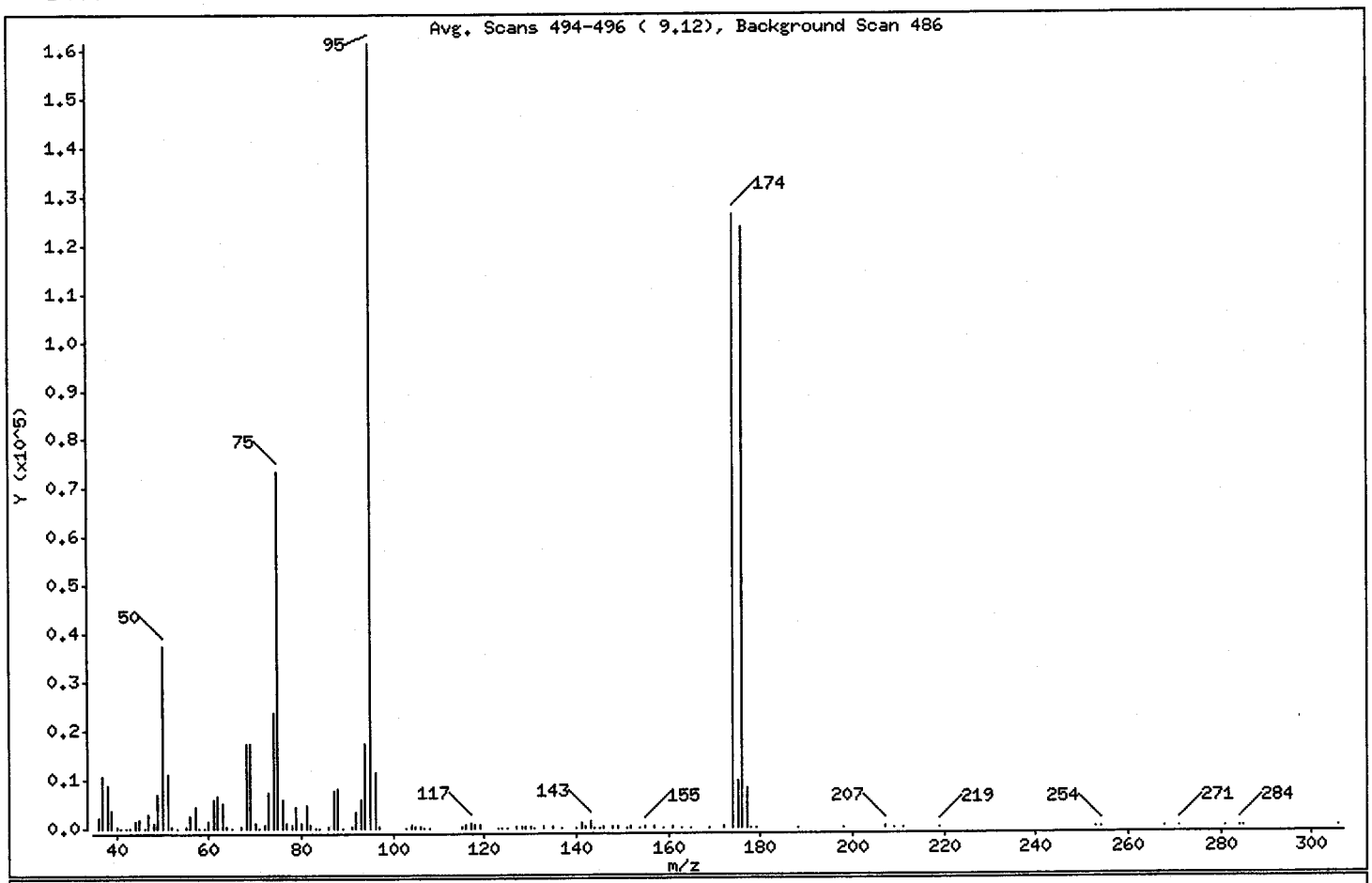
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.18
75	30.00 - 60.00% of mass 95	45.59
96	5.00 - 9.00% of mass 95	7.05
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	78.07
175	5.00 - 9.00% of mass 174	5.97 (7.64)
176	95.01 - 100.99% of mass 174	76.49 (97.98)
177	5.00 - 9.00% of mass 176	4.95 (6.47)

04/24/05

8260/60X 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455107246001 Name: 826GOX6S Type: SOIL Date: 15-MAR-2005 14:06 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	fcf05	455107246005	5PPB	15-MAR-2005 14:06	04SS331 (100000X), 05WS0191D (50000X), 05WS0176 (1000X)
2	fcf06	455107246006	10PPB	15-MAR-2005 14:42	04SS331 (50000X), 05WS0191D (25000X), 05WS0176 (1000X)
3	fcf07	455107246007	20PPB	15-MAR-2005 15:16	04SS331 (25000X), 05WS0191D (12500X), 05WS0176 (1000X)
4	fcf08	455107246008	50PPB	15-MAR-2005 15:50	04SS331 (10000X), 05WS0191D (5000X), 05WS0176 (1000X)
5	fcf09	455107246009	60PPB	15-MAR-2005 16:25	04SS331 (8333X), 05WS0191D (4167X), 05WS0176 (1000X)
6	fcf10	455107246010	75PPB	15-MAR-2005 16:59	04SS331 (6667X), 05WS0191D (3333X), 05WS0176 (1000X)
7	fcf11	455107246011	100PPB	15-MAR-2005 17:33	04SS331 (5000X), 05WS0191D (2500X), 05WS0176 (1000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.6594	0.6957	0.7072	0.6953	0.6873	0.6393	0.6131	AVRG R		1.490184		ug/L	0.6711	5	0.0500	0.99	15	
Chloromethane	1.2235	1.2435	1.2018	1.1376	1.1136	1.0467	0.9831	AVRG R		0.880511		ug/L	1.1357	8	0.1000	0.99	15	
Vinyl Chloride	0.8431	0.8722	0.8662	0.8617	0.8409	0.7856	0.7389	AVRG R		1.205107		ug/L	0.8298	6	0.0500	0.99	15	
Bromomethane	0.4384	0.4136	0.4093	0.3940	0.4221	0.3978	0.4021	AVRG R		2.432880		ug/L	0.4110	4	0.0500	0.99	15	
Chloroethane	0.4488	0.4491	0.4285	0.4091	0.4236	0.3872	0.3754	AVRG R		2.395853		ug/L	0.4174	7	0.0500	0.99	15	
Trichlorofluoromethane	0.7759	0.7797	0.7600	0.7542	0.7373	0.7114	0.6919	AVRG R		1.343472		ug/L	0.7443	4	0.0500	0.99	15	
Acetone		0.3725	0.3888	0.4053	0.3145	0.3081	0.2712	AVRG R		2.912222		ug/L	0.3434	15	0.0500	0.99	15	
Freon 113	0.4676	0.4227	0.4420	0.4344	0.4478	0.4454	0.4308	AVRG R		2.264844		ug/L	0.4415	3	0.0500	0.99	15	
1,1-Dichloroethene	0.4345	0.4416	0.4417	0.4469	0.4603	0.4517	0.4353	AVRG R		2.249306		ug/L	0.4446	2	0.0500	0.99	15	
Methylene Chloride		0.7229	0.6322	0.6428	0.6026	0.6157	0.5775	AVRG R		1.581558		ug/L	0.6323	8	0.0500	0.99	15	
Carbon Disulfide	1.7646	1.6193	1.6634	1.6096	1.6309	1.6003	1.5023	AVRG R		0.614554		ug/L	1.6272	5	0.0500	0.99	15	
MTBE	1.5609	1.5254	1.5876	1.6192	1.5253	1.5426	1.4870	AVRG R		0.645272		ug/L	1.5497	3	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.5366	0.5358	0.5221	0.5279	0.5289	0.5213	0.5072	AVRG R		1.902322		ug/L	0.5257	2	0.0500	0.99	15	
Vinyl Acetate	1.4879	1.5280	1.6535	1.7164	1.5620	1.6109	1.5083	AVRG R		0.632517		ug/L	1.5810	5	0.0500	0.99	15	
1,1-Dichloroethane	1.0835	1.1099	1.1092	1.1098	1.0922	1.0689	1.0177	AVRG R		0.922122		ug/L	1.0845	3	0.1000	0.99	15	
2-Butanone	-	0.4403	0.4973	0.5475	0.4586	0.4626	0.4227	AVRG R		2.120851		ug/L	0.4715	10	0.0500	0.99	15	
2,2-Dichloropropane	0.7450	0.7191	0.7279	0.7387	0.7489	0.7467	0.7280	AVRG R		1.358097		ug/L	0.7363	2	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5602	0.5795	0.5626	0.5721	0.5568	0.5454	0.5326	AVRG R		1.790663		ug/L	0.5585	3	0.0500	0.99	15	
Chloroform	0.9702	0.9393	0.9266	0.9252	0.9098	0.8899	0.8547	AVRG R		1.091075		ug/L	0.9165	4	0.0500	0.99	15	

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

* ICAL - OK
- NAPH @ 75 ppb, QUAD
* ICV - Cyclohexn ↓

03/16/05

03/17

8260/60x S ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455107246001 Name: 826GOX6S Type: SOIL Date: 15-MAR-2005 14:06 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	Units	avg	%RSD	r^2 MinRF	MnR^2	MxRSD	Flags
Bromochloromethane	0.2800	0.2633	0.2759	0.2911	0.2739	0.2851	0.2773	AVRG	R		3.596131		ug/L	0.2781	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.7619	0.7081	0.7107	0.7108	0.7283	0.7356	0.7074	AVRG	R		1.382603		ug/L	0.7233	3	0.0500	0.99	15	
1,1-Dichloropropene	0.4738	0.4378	0.4534	0.4542	0.4861	0.4908	0.4874	AVRG	R		2.131948		ug/L	0.4691	4	0.0500	0.99	15	
Carbon Tetrachloride	0.3433	0.3400	0.3457	0.3577	0.3855	0.3954	0.4031	AVRG	R		2.722996		ug/L	0.3672	7	0.0500	0.99	15	
1,2-Dichloroethane	0.5260	0.5068	0.5040	0.5012	0.4859	0.4912	0.4692	AVRG	R		2.009018		ug/L	0.4978	4	0.0500	0.99	15	
Benzene	1.3081	1.3061	1.3003	1.2599	1.2998	1.2680	1.2332	AVRG	R		0.779915		ug/L	1.2822	2	0.0500	0.99	15	
Trichloroethene	0.3278	0.3219	0.3325	0.3203	0.3384	0.3377	0.3398	AVRG	R		3.019345		ug/L	0.3312	2	0.0500	0.99	15	
1,2-Dichloropropane	0.4049	0.4098	0.4159	0.4241	0.4283	0.4287	0.4198	AVRG	R		2.387926		ug/L	0.4188	2	0.0500	0.99	15	
Bromodichloromethane	0.3968	0.3903	0.3922	0.4149	0.4086	0.4089	0.4077	AVRG	R		2.482753		ug/L	0.4028	2	0.0500	0.99	15	
Dibromomethane	0.2522	0.2400	0.2521	0.2534	0.2404	0.2424	0.2361	AVRG	R		4.077825		ug/L	0.2452	3	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.4890	0.5651	0.6005	0.5487	0.5627	0.5454	AVRG	R		1.811968		ug/L	0.5519	7	0.0500	0.99	15	
Tetramethyl THF	0.9648	0.9655	1.0103	1.0258	0.9869	0.9781	0.9226	AVRG	R		1.021306		ug/L	0.9791	3	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.5436	0.5328	0.5412	0.5584	0.5557	0.5547	0.5528	AVRG	R		1.823262		ug/L	0.5485	2	0.0500	0.99	15	
Toluene	0.8216	0.8044	0.8171	0.7882	0.8259	0.8135	0.7851	AVRG	R		1.237658		ug/L	0.8080	2	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4942	0.4679	0.4916	0.5023	0.4969	0.4960	0.4929	AVRG	R		2.033838		ug/L	0.4917	2	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1574	0.1573	0.1647	0.1689	0.1612	0.1650	0.1622	AVRG	R		6.157896		ug/L	0.1624	3	0.0500	0.99	15	
2-Hexanone		0.4436	0.5354	0.5637	0.5080	0.5210	0.4949	AVRG	R		1.956551		ug/L	0.5111	8	0.0500	0.99	15	
1,3-Dichloropropane	0.5916	0.5706	0.6049	0.6116	0.5913	0.5983	0.5920	AVRG	R		1.682565		ug/L	0.5943	2	0.0500	0.99	15	
Tetrachloroethene	0.3723	0.3480	0.3574	0.3589	0.3847	0.3863	0.3945	AVRG	R		2.690179		ug/L	0.3717	5	0.0500	0.99	15	
Dibromochloromethane	0.3637	0.3476	0.3727	0.3850	0.3859	0.3896	0.4068	AVRG	R		2.640178		ug/L	0.3788	5	0.0500	0.99	15	
1,2-Dibromoethane	0.3265	0.3082	0.3296	0.3360	0.3259	0.3272	0.3298	AVRG	R		3.065896		ug/L	0.3262	3	0.0500	0.99	15	
Chlorobenzene	1.0400	1.0581	1.0613	1.0198	1.0593	1.0345	1.0178	AVRG	R		0.960119		ug/L	1.0415	2	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3088	0.3035	0.3146	0.3236	0.3279	0.3331	0.3447	AVRG	R		3.102598		ug/L	0.3223	4	0.0500	0.99	15	
Ethylbenzene	1.7907	1.7722	1.8090	1.7239	1.7920	1.7123	1.6371	AVRG	R		0.572028		ug/L	1.7482	3	0.0500	0.99	15	
m,p-Xylenes	0.6785	0.6760	0.7077	0.6725	0.7120	0.6950	0.6711	AVRG	R		1.454491		ug/L	0.6875	2	0.0500	0.99	15	
o-Xylene	0.6148	0.6472	0.6645	0.6587	0.6854	0.6816	0.6807	AVRG	R		1.510929		ug/L	0.6618	4	0.0500	0.99	15	
Styrene	1.0292	1.0943	1.1581	1.1546	1.1762	1.1616	1.1368	AVRG	R		0.884875		ug/L	1.1301	5	0.0500	0.99	15	
Bromoform	0.2495	0.2456	0.2729	0.2878	0.2806	0.2891	0.2959	AVRG	R		3.643031		ug/L	0.2745	7	0.1000	0.99	15	
Isopropylbenzene	3.6400	3.3795	3.4543	3.2394	3.4552	3.2712	3.2007	AVRG	R		0.296105		ug/L	3.3772	5	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	1.2273	1.0578	1.1120	1.1267	1.0606	1.0427	1.0403	AVRG	R		0.912959		ug/L	1.0953	6	0.3000	0.99	15	
1,2,3-Trichloropropane	0.3009	0.2576	0.2973	0.2987	0.2933	0.2952	0.3001	AVRG	R		3.426240		ug/L	0.2919	5	0.0500	0.99	15	
Propylbenzene	4.6585	4.3518	4.4347	4.0702	4.3470	4.0521	3.8723	AVRG	R		0.235005		ug/L	4.2552	6	0.0500	0.99	15	

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/60X S ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455107246001 Name: 826GOX6S Type: SOIL Date: 15-MAR-2005 14:06 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	Units	avg	%RSD	MinRF	Mn r^2	Mx%RSD	Flags
Bromobenzene	0.9429	0.8475	0.8557	0.8612	0.8997	0.8855	0.9155	AVRG R		1.127556		ug/L	0.8869	4	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.8630	2.6669	2.7795	2.6258	2.7906	2.7300	2.6881	AVRG R		0.365651		ug/L	2.7349	3	0.0500	0.99	15	
2-Chlorotoluene	3.0905	2.8889	2.8813	2.7443	2.8944	2.7728	2.7093	AVRG R		0.350326		ug/L	2.8545	5	0.0500	0.99	15	
4-Chlorotoluene	2.8122	2.6316	2.6625	2.4870	2.6097	2.4879	2.4499	AVRG R		0.385872		ug/L	2.5915	5	0.0500	0.99	15	
tert-Butylbenzene	2.3076	2.1270	2.2379	2.1817	2.3263	2.2832	2.2720	AVRG R		0.444847		ug/L	2.2480	3	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.4805	2.4947	2.5178	2.4880	2.6293	2.5677	2.5386	AVRG R		0.395110		ug/L	2.5309	2	0.0500	0.99	15	
sec-Butylbenzene	3.6702	3.4943	3.6579	3.4717	3.7172	3.5361	3.4098	AVRG R		0.280479		ug/L	3.5653	3	0.0500	0.99	15	
para-Isopropyl Toluene	2.5167	2.4452	2.6310	2.5764	2.8035	2.7386	2.7301	AVRG R		0.379579		ug/L	2.6345	5	0.0500	0.99	15	
1,3-Dichlorobenzene	1.6582	1.5523	1.5561	1.5123	1.5763	1.5390	1.5601	AVRG R		0.639020		ug/L	1.5649	3	0.0500	0.99	15	
1,4-Dichlorobenzene	1.6958	1.6005	1.5844	1.5438	1.6090	1.5720	1.5850	AVRG R		0.625530		ug/L	1.5986	3	0.0500	0.99	15	
n-Butylbenzene	2.1149	2.1549	2.3940	2.3759	2.5920	2.5432	2.5323	AVRG R		0.418983		ug/L	2.3867	8	0.0500	0.99	15	
1,2-Dichlorobenzene	1.5433	1.4374	1.4406	1.4078	1.4693	1.4416	1.4749	AVRG R		0.685275		ug/L	1.4593	3	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2036	0.2039	0.2260	0.2249	0.2181	0.2243	0.2229	AVRG R		4.593917		ug/L	0.2177	5	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.5598	0.6186	0.6869	0.7415	0.8035	0.8299	0.8567	AVRG R		1.373396		ug/L	0.7281	15	0.0500	0.99	15	
Hexachlorobutadiene	0.4374	0.4271	0.4331	0.4230	0.4944	0.5035	0.5321	AVRG R		2.153455		ug/L	0.4644	10	0.0500	0.99	15	
Naphthalene	0.9778	1.1116	1.3826	1.5065	1.5590	1.6803		QUAD R	1.492899	0.728652	-0.00114	ug/L	1.3697	1.000	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.5420	0.5711	0.6491	0.6966	0.7417	0.7838	0.8229	AVRG R		1.456124		ug/L	0.6868	15	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0777	0.0720	0.0875	0.0897	0.0784	0.0828	0.0780	AVRG R		12.36427		ug/L	0.0809	8	0.0050	0.99	15	
Isopropyl Ether (DIPE)	2.4623	2.5086	2.5790	2.5759	2.4536	2.4395	2.3184	AVRG R		0.403756		ug/L	2.4767	4	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.7410	1.7204	1.8148	1.8576	1.7787	1.7784	1.7052	AVRG R		0.564689		ug/L	1.7709	3	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	1.0441	1.0316	1.0720	1.0933	1.0584	1.0675	1.0377	AVRG R		0.945356		ug/L	1.0578	2	0.0500	0.99	15	
Cyclohexanone	0.2792	0.2424	0.2853	0.2845	0.2381	0.2215	0.1953	AVRG R		4.008774		ug/L	0.2495	14	0.0050	0.99	15	
Ethanol	0.0117	0.0121	0.0142	0.0139	0.0125	0.0128	0.0118	AVRG R		78.71862		ug/L	0.0127	8	5.0E-4	0.99	15	
Isopropanol	0.0595	0.0596	0.0701	0.0708	0.0633	0.0656	0.0607	AVRG R		15.56887		ug/L	0.0642	7	0.0050	0.99	15	
Tetrahydrofuran	0.2533	0.2429	0.2771	0.2720	0.2377	0.2375	0.2132	AVRG R		4.037475		ug/L	0.2477	9	0.0050	0.99	15	
Dibromofluoromethane	0.5753	0.5781	0.5716	0.5879	0.5526	0.5575	0.5487	AVRG R		1.762508		ug/L	0.5674	3	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.4095	0.4099	0.4069	0.4101	0.3877	0.3944	0.3910	AVRG R		2.491593		ug/L	0.4013	2	0.0500	0.99	15	
Trifluorotoluene	0.4297	0.4339	0.4490	0.4440	0.4793	0.4807	0.4839	AVRG R		2.187190		ug/L	0.4572	5	0.0500	0.99	15	
Toluene-d8	1.0953	1.1120	1.0947	1.0939	1.0870	1.0820	1.0647	AVRG R		0.917473		ug/L	1.0900	1	0.0500	0.99	15	
Bromofluorobenzene	1.2795	1.1736	1.1653	1.1589	1.1604	1.1550	1.1740	AVRG R		0.846777		ug/L	1.1809	4	0.0500	0.99	15	

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/60x 5 ICal

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06
Seqnum : 455107246012
Calnum : 455107246001
Standards: 05WS0359A (5000X), 05WS0176 (1000X)

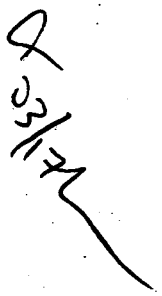
Run Name : 50PPB
Filename : fcf12
Caldate : 15-MAR-2005

Injected : 15-MAR-2005 18:08
Caltype : SOIL

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	45.14720	ug/L	-10	30	
Chloromethane	50.00000	43.55240	ug/L	-13	30	
Vinyl Chloride	50.00000	44.25290	ug/L	-11	20	
Bromomethane	50.00000	53.51580	ug/L	7	30	
Chloroethane	50.00000	47.89990	ug/L	-4	30	
Trichlorofluoromethane	50.00000	53.96040	ug/L	8	30	

ISTD (ICAL-fcf08)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	926122	922340	-0.41	12.47	12.47	0.00
1,4-Difluorobenzene	1477194	1432246	-3.04	13.79	13.79	0.00
Chlorobenzene-d5	1244528	1197732	-3.76	18.43	18.43	0.01
1,4-Dichlorobenzene-d4	603489	526627	-12.74	21.26	21.26	0.00

BO 3/16/05



8260/60X SICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 50PPB Injected : 16-MAR-2005 11:3
Seqnum : 455108524006 Filename : fcg06
Calnum : 455107246001 Caldate : 15-MAR-2005 Caltype : SOIL
Standards: 05WS0115D (5000X), 05WS0232C (5000X), 05WS0176 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Acetone	50.00000	42.29120	ug/L	-15	40	
Freon 113	50.00000	56.45750	ug/L	13	30	
1,1-Dichloroethene	50.00000	49.91130	ug/L	0	20	
Methylene Chloride	50.00000	49.23070	ug/L	-2	30	
Carbon Disulfide	50.00000	54.55850	ug/L	9	30	
MTBE	50.00000	47.67110	ug/L	-5	30	
trans-1,2-Dichloroethene	50.00000	48.55960	ug/L	-3	30	
Vinyl Acetate	50.00000	46.63040	ug/L	-7	40	
1,1-Dichloroethane	50.00000	48.85290	ug/L	-2	30	
2-Butanone	50.00000	51.92560	ug/L	4	40	
2,2-Dichloropropane	50.00000	52.08730	ug/L	4	30	
cis-1,2-Dichloroethene	50.00000	49.11450	ug/L	-2	30	
Chloroform	50.00000	49.31000	ug/L	-1	20	
Bromochloromethane	50.00000	47.84350	ug/L	-4	30	
1,1,1-Trichloroethane	50.00000	51.25540	ug/L	3	30	
1,1-Dichloropropene	50.00000	51.96430	ug/L	4	30	
Carbon Tetrachloride	50.00000	53.59790	ug/L	7	30	
1,2-Dichloroethane	50.00000	51.27070	ug/L	3	30	
Benzene	50.00000	49.29200	ug/L	-1	30	
Trichloroethene	50.00000	50.23990	ug/L	0	30	
1,2-Dichloropropane	50.00000	46.74580	ug/L	-7	20	
Bromodichloromethane	50.00000	56.59360	ug/L	13	30	
Dibromomethane	50.00000	48.90160	ug/L	-2	30	
4-Methyl-2-Pentanone	50.00000	55.67440	ug/L	11	40	
Tetramethyl THF	50.00000	54.93130	ug/L	10	30	
cis-1,3-Dichloropropene	50.00000	50.99060	ug/L	2	30	
Toluene	50.00000	48.23070	ug/L	-4	20	
trans-1,3-Dichloropropene	50.00000	48.32370	ug/L	-3	30	
1,1,2-Trichloroethane	50.00000	49.34620	ug/L	-1	30	
2-Hexanone	50.00000	54.52830	ug/L	9	40	
1,3-Dichloropropane	50.00000	49.02960	ug/L	-2	30	
Tetrachloroethene	50.00000	49.33570	ug/L	-1	30	
Dibromochloromethane	50.00000	51.48860	ug/L	3	30	
1,2-Dibromoethane	50.00000	48.80710	ug/L	-2	30	
Chlorobenzene	50.00000	47.60190	ug/L	-5	30	
1,1,1,2-Tetrachloroethane	50.00000	48.96350	ug/L	-2	30	
Ethylbenzene	50.00000	49.37620	ug/L	-1	20	
m,p-Xylenes	100.0000	97.13950	ug/L	-3	30	
o-Xylene	50.00000	48.68750	ug/L	-3	30	
Styrene	50.00000	49.11290	ug/L	-2	30	
Bromoform	50.00000	49.60980	ug/L	-1	30	
Isopropylbenzene	50.00000	46.34740	ug/L	-7	30	
1,1,2,2-Tetrachloroethane	50.00000	48.33060	ug/L	-3	30	
1,2,3-Trichloropropane	50.00000	52.11920	ug/L	4	30	
Propylbenzene	50.00000	50.49210	ug/L	1	30	
Bromobenzene	50.00000	49.39230	ug/L	-1	30	
1,3,5-Trimethylbenzene	50.00000	50.92850	ug/L	2	30	

-=low bias v=ICV

Page 1 of 2

3/16/05

8260/60 x 5 ICV

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 50PPB Injected : 16-MAR-2005 11:33
Seqnum : 455108524006 Filename : fcg06 Caltype : SOIL
Calnum : 455107246001 Caldate : 15-MAR-2005
Standards: 05WS0115D (5000X), 05WS0232C (5000X), 05WS0176 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
2-Chlorotoluene	50.00000	51.33460	ug/L	3	30	
4-Chlorotoluene	50.00000	50.01490	ug/L	0	30	
tert-Butylbenzene	50.00000	49.76120	ug/L	0	30	
1,2,4-Trimethylbenzene	50.00000	50.85950	ug/L	2	30	
sec-Butylbenzene	50.00000	50.46790	ug/L	1	30	
para-Isopropyl Toluene	50.00000	49.36470	ug/L	-1	30	
1,3-Dichlorobenzene	50.00000	47.84970	ug/L	-4	30	
1,4-Dichlorobenzene	50.00000	48.71530	ug/L	-3	30	
n-Butylbenzene	50.00000	53.76830	ug/L	8	30	
1,2-Dichlorobenzene	50.00000	48.99220	ug/L	-2	30	
1,2-Dibromo-3-Chloropropane	50.00000	52.47320	ug/L	5	30	
1,2,4-Trichlorobenzene	50.00000	53.16130	ug/L	6	30	
Hexachlorobutadiene	50.00000	51.28420	ug/L	3	30	
Naphthalene	50.00000	50.32420	ug/L	1	30	
1,2,3-Trichlorobenzene	50.00000	52.91910	ug/L	6	30	
tert-Butyl Alcohol (TBA)	250.0000	291.2399	ug/L	16	30	
Isopropyl Ether (DIPE)	50.00000	52.16180	ug/L	4	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	53.79480	ug/L	8	30	
Methyl tert-Amyl Ether (TAME)	50.00000	46.21860	ug/L	-8	30	
Cyclohexanone	500.0000	115.5735	ug/L	-77	30	v- ***
Ethanol	5000.000	5221.766	ug/L	4	30	
Isopropanol	500.0000	554.5069	ug/L	11	30	
Tetrahydrofuran	500.0000	535.5817	ug/L	7	30	

ISTD (ICAL=fcf08)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	926122	879114	-5.08	12.47	12.47	0.00
1,4-Difluorobenzene	1477194	1333353	-9.74	13.79	13.79	0.00
Chlorobenzene-d5	1244528	1126122	-9.51	18.43	18.43	0.01
1,4-Dichlorobenzene-d4	603489	511814	-15.19	21.26	21.25	-0.01

-=low bias v=ICV
Page 2 of 2

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 60PPB IDF : 1.0
Seqnum : 455158929002 Filename : fdk02 Injected : 20-APR-2005 08:49
Calnum : 455107246001 Caldate : 15-MAR-2005 Caltype : SOIL
Standards: S215C (4167X), S139D (4167X), S285A (4167X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.6711	0.7394	60.00000	66.10880	ug/L	10	30	0.0500	
Chloromethane	1.1357	1.0969	60.00000	57.94830	ug/L	-3	30	0.1000	
Vinyl Chloride	0.8298	0.8092	60.00000	58.50920	ug/L	-2	20	0.0500	
Bromomethane	0.4110	0.4669	60.00000	68.14920	ug/L	14	30	0.0500	
Chloroethane	0.4174	0.4240	60.00000	60.94630	ug/L	2	30	0.0500	
Trichlorofluoromethane	0.7443	0.9207	60.00000	74.21910	ug/L	**24**	30	0.0500	!c+
Acetone	0.3434	0.2695	60.00000	47.08650	ug/L	-22	40	0.0500	
Freon 113	0.4415	0.5328	60.00000	72.40430	ug/L	**21**	30	0.0500	!c+
1,1-Dichloroethene	0.4446	0.4706	60.00000	63.51330	ug/L	6	20	0.0500	
Methylene Chloride	0.6323	0.6319	60.00000	59.96490	ug/L	0	30	0.0500	
Carbon Disulfide	1.6272	1.8805	60.00000	69.34050	ug/L	16	30	0.0500	
MTBE	1.5497	1.4951	60.00000	57.88470	ug/L	-4	30	0.0500	
trans-1,2-Dichloroethene	0.5257	0.5143	60.00000	58.70030	ug/L	-2	30	0.0500	
Vinyl Acetate	1.5810	1.3652	60.00000	51.81090	ug/L	-14	40	0.0500	
1,1-Dichloroethane	1.0845	1.0048	60.00000	55.59550	ug/L	-7	30	0.1000	
2-Butanone	0.4715	0.4348	60.00000	55.33340	ug/L	-8	40	0.0500	
2,2-Dichloropropane	0.7363	0.7171	60.00000	58.43410	ug/L	-3	30	0.0500	
cis-1,2-Dichloroethene	0.5585	0.5440	60.00000	58.44730	ug/L	-3	30	0.0500	
Chloroform	0.9165	0.8422	60.00000	55.13470	ug/L	-8	20	0.0500	
Bromochloromethane	0.2781	0.2612	60.00000	56.34890	ug/L	-6	30	0.0500	
1,1,1-Trichloroethane	0.7233	0.6997	60.00000	58.04740	ug/L	-3	30	0.0500	
1,1-Dichloropropene	0.4691	0.4515	60.00000	57.74980	ug/L	-4	30	0.0500	
Carbon Tetrachloride	0.3672	0.3874	60.00000	63.29710	ug/L	5	30	0.0500	
1,2-Dichloroethane	0.4978	0.4394	60.00000	52.96410	ug/L	-12	30	0.0500	
Benzene	1.2822	1.1638	60.00000	54.45880	ug/L	-9	30	0.0500	
Trichloroethene	0.3312	0.3199	60.00000	57.96150	ug/L	-3	30	0.0500	
1,2-Dichloropropane	0.4188	0.3656	60.00000	52.38310	ug/L	-13	20	0.0500	
Bromodichloromethane	0.4028	0.4194	60.00000	62.48060	ug/L	4	30	0.0500	
Dibromomethane	0.2452	0.2245	60.00000	54.93970	ug/L	-8	30	0.0500	
4-Methyl-2-Pentanone	0.5519	0.5257	60.00000	57.14800	ug/L	-5	40	0.0500	
Tetramethyl THF	0.9791	0.9112	60.00000	55.83690	ug/L	-7	30	0.0500	
cis-1,3-Dichloropropene	0.5485	0.5030	60.00000	55.02860	ug/L	-8	30	0.0500	
Toluene	0.8080	0.7415	60.00000	55.06690	ug/L	-8	20	0.0500	
trans-1,3-Dichloropropene	0.4917	0.4209	60.00000	51.36190	ug/L	-14	30	0.0500	
1,1,2-Trichloroethane	0.1624	0.1519	60.00000	56.11100	ug/L	-6	30	0.0500	
2-Hexanone	0.5111	0.4455	60.00000	52.29760	ug/L	-13	40	0.0500	
1,3-Dichloropropane	0.5943	0.5152	60.00000	52.01270	ug/L	-13	30	0.0500	
Tetrachloroethene	0.3717	0.3302	60.00000	53.29810	ug/L	-11	30	0.0500	
Dibromochloromethane	0.3788	0.3512	60.00000	55.63610	ug/L	-7	30	0.0500	
1,2-Dibromoethane	0.3262	0.3110	60.00000	57.20660	ug/L	-5	30	0.0500	
Chlorobenzene	1.0415	0.8919	60.00000	51.38150	ug/L	-14	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3223	0.2716	60.00000	50.56210	ug/L	-16	30	0.0500	
Ethylbenzene	1.7482	1.4707	60.00000	50.47830	ug/L	-16	20	0.0500	
m,p-Xylenes	0.6875	0.5771	120.0000	100.7178	ug/L	-16	30	0.0500	
o-Xylene	0.6618	0.5788	60.00000	52.47190	ug/L	-13	30	0.0500	
Styrene	1.1301	0.9781	60.00000	51.93020	ug/L	-13	30	0.0500	

!=warning +=high bias -=low bias c=CCV

04/21/05

4/20/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 60PPB IDF : 1.0
Seqnum : 455158929002 Filename : fdk02 Injected : 20-APR-2005 08:49
Calnum : 455107246001 Caldate : 15-MAR-2005 Caltype : SOIL
Standards: S215C (4167X), S139D (4167X), S285A (4167X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.2745	0.2562	60.00000	56.00650	ug/L	-7	30	0.1000	
Isopropylbenzene	3.3772	2.5885	60.00000	45.98820	ug/L	**-23**	30	0.0500	!c-
1,1,2,2-Tetrachloroethane	1.0953	0.9173	60.00000	50.24750	ug/L	-16	30	0.3000	
1,2,3-Trichloropropane	0.2919	0.2471	60.00000	50.79220	ug/L	-15	30	0.0500	
Propylbenzene	4.2552	3.4309	60.00000	48.37610	ug/L	-19	30	0.0500	
Bromobenzene	0.8869	0.7435	60.00000	50.29880	ug/L	-16	30	0.0500	
1,3,5-Trimethylbenzene	2.7349	2.2431	60.00000	49.21080	ug/L	-18	30	0.0500	
2-Chlorotoluene	2.8545	2.3884	60.00000	50.20250	ug/L	-16	30	0.0500	
4-Chlorotoluene	2.5915	2.1710	60.00000	50.26320	ug/L	-16	30	0.0500	
tert-Butylbenzene	2.2480	1.8366	60.00000	49.01920	ug/L	-18	30	0.0500	
1,2,4-Trimethylbenzene	2.5309	2.1600	60.00000	51.20520	ug/L	-15	30	0.0500	
sec-Butylbenzene	3.5653	2.8706	60.00000	48.30900	ug/L	-19	30	0.0500	
para-Isopropyl Toluene	2.6345	2.0952	60.00000	47.71840	ug/L	-20	30	0.0500	
1,3-Dichlorobenzene	1.5649	1.3213	60.00000	50.65990	ug/L	-16	30	0.0500	
1,4-Dichlorobenzene	1.5986	1.3171	60.00000	49.43200	ug/L	-18	30	0.0500	
n-Butylbenzene	2.3867	2.0104	60.00000	50.53820	ug/L	-16	30	0.0500	
1,2-Dichlorobenzene	1.4593	1.2014	60.00000	49.39740	ug/L	-18	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2177	0.1847	60.00000	50.90900	ug/L	-15	30	0.0500	
1,2,4-Trichlorobenzene	0.7281	0.6401	60.00000	52.74650	ug/L	-12	30	0.0500	
Hexachlorobutadiene	0.4644	0.3688	60.00000	47.65270	ug/L	**-21**	30	0.0500	!c-
Naphthalene	1.3697	1.2695	60.00000	50.36980	ug/L	-16	30	0.0500	
1,2,3-Trichlorobenzene	0.6868	0.5920	60.00000	51.72030	ug/L	-14	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0809	0.0966	300.0000	358.3040	ug/L	19	30	0.0050	
Isopropyl Ether (DIPE)	2.4767	2.5606	60.00000	62.03190	ug/L	3	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.7709	1.9179	60.00000	64.98150	ug/L	8	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0578	0.9385	60.00000	53.23310	ug/L	-11	30	0.0500	
Cyclohexanone	0.2495	0.0530	600.0000	127.4192	ug/L	-79	30	0.0050	c- ***
Ethanol	0.0127	0.0135	6000.000	6363.150	ug/L	6	30	5.0E-4	
Isopropanol	0.0642	0.0686	600.0000	641.0693	ug/L	7	30	0.0050	
Tetrahydrofuran	0.2477	0.2500	600.0000	605.5453	ug/L	1	30	0.0050	
Dibromofluoromethane	0.5674	0.5694	50.00000	50.17440	ug/L	0	30	0.0500	
1,2-Dichloroethane-d4	0.4013	0.3904	50.00000	48.63580	ug/L	-3	30	0.0500	
Toluene-d8	1.0900	1.0818	50.00000	49.62380	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.1809	1.1925	50.00000	50.48810	ug/L	1	30	0.0500	

ISTD (ICAL=fcf08)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	926122	883419	-4.61	12.47	12.46	-0.01
1,4-Difluorobenzene	1477194	1407191	-4.74	13.79	13.78	-0.01
Chlorobenzene-d5	1244528	1284576	3.22	18.43	18.42	-0.01
1,4-Dichlorobenzene-d4	603489	635373	5.28	21.26	21.25	-0.01

!=warning +=high bias -=low bias c=CCV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 40PPB IDF : 1.0
Seqnum : 455158929015 Filename : fdk15 Injected : 20-APR-2005 16:26
Calnum : 455107246001 Caldate : 15-MAR-2005 Caltype : SOIL
Standards: S283 (12500X), S297B (12500X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.6711	0.8554	40.00000	50.98910	ug/L	**27**	30	0.0500	!c+
Chloromethane	1.1357	1.0850	40.00000	38.21470	ug/L	-4	30	0.1000	
Vinyl Chloride	0.8298	0.8252	40.00000	39.77650	ug/L	-1	20	0.0500	
Bromomethane	0.4110	0.5952	40.00000	57.92370	ug/L	**45**	30	0.0500	c+ ***
Chloroethane	0.4174	0.3990	40.00000	38.24240	ug/L	-4	30	0.0500	
Trichlorofluoromethane	0.7443	0.8655	40.00000	46.51010	ug/L	16	30	0.0500	
Acetone	0.3434	0.3136	40.00000	36.53380	ug/L	-9	40	0.0500	
Freon 113	0.4415	0.5727	40.00000	51.88380	ug/L	**30**	30	0.0500	!c+
1,1-Dichloroethene	0.4446	0.4432	40.00000	39.87620	ug/L	0	20	0.0500	
Methylene Chloride	0.6323	0.5946	40.00000	37.61610	ug/L	-6	30	0.0500	
Carbon Disulfide	1.6272	1.5549	40.00000	38.22230	ug/L	-4	30	0.0500	
MTBE	1.5497	1.3755	40.00000	35.50210	ug/L	-11	30	0.0500	
trans-1,2-Dichloroethene	0.5257	0.5063	40.00000	38.52440	ug/L	-4	30	0.0500	
Vinyl Acetate	1.5810	1.6881	40.00000	42.70930	ug/L	7	40	0.0500	
1,1-Dichloroethane	1.0845	1.0233	40.00000	37.74390	ug/L	-6	30	0.1000	
2-Butanone	0.4715	0.4357	40.00000	36.96440	ug/L	-8	40	0.0500	
2,2-Dichloropropane	0.7363	0.7365	40.00000	40.01010	ug/L	0	30	0.0500	
cis-1,2-Dichloroethene	0.5585	0.5415	40.00000	38.78310	ug/L	-3	30	0.0500	
Chloroform	0.9165	0.8625	40.00000	37.64200	ug/L	-6	20	0.0500	
Bromochloromethane	0.2781	0.2784	40.00000	40.04240	ug/L	0	30	0.0500	
1,1,1-Trichloroethane	0.7233	0.6998	40.00000	38.70080	ug/L	-3	30	0.0500	
1,1-Dichloropropene	0.4691	0.4672	40.00000	39.84000	ug/L	0	30	0.0500	
Carbon Tetrachloride	0.3672	0.3933	40.00000	42.84040	ug/L	7	30	0.0500	
1,2-Dichloroethane	0.4978	0.4615	40.00000	37.08350	ug/L	-7	30	0.0500	
Benzene	1.2822	1.2391	40.00000	38.65420	ug/L	-3	30	0.0500	
Trichloroethene	0.3312	0.3336	40.00000	40.28900	ug/L	1	30	0.0500	
1,2-Dichloropropane	0.4188	0.4001	40.00000	38.21240	ug/L	-4	20	0.0500	
Bromodichloromethane	0.4028	0.3979	40.00000	39.51470	ug/L	-1	30	0.0500	
Dibromomethane	0.2452	0.2362	40.00000	38.53450	ug/L	-4	30	0.0500	
4-Methyl-2-Pentanone	0.5519	0.5370	40.00000	38.91830	ug/L	-3	40	0.0500	
Tetramethyl THF	0.9791	0.9681	40.00000	39.54760	ug/L	-1	30	0.0500	
cis-1,3-Dichloropropene	0.5485	0.5280	40.00000	38.50570	ug/L	-4	30	0.0500	
Toluene	0.8080	0.8061	40.00000	39.90820	ug/L	0	20	0.0500	
trans-1,3-Dichloropropene	0.4917	0.4737	40.00000	38.53870	ug/L	-4	30	0.0500	
1,1,2-Trichloroethane	0.1624	0.1592	40.00000	39.20700	ug/L	-2	30	0.0500	
2-Hexanone	0.5111	0.4837	40.00000	37.85580	ug/L	-5	40	0.0500	
1,3-Dichloropropane	0.5943	0.5761	40.00000	38.76980	ug/L	-3	30	0.0500	
Tetrachloroethene	0.3717	0.3805	40.00000	40.94380	ug/L	2	30	0.0500	
Dibromochloromethane	0.3788	0.3967	40.00000	41.89540	ug/L	5	30	0.0500	
1,2-Dibromoethane	0.3262	0.3333	40.00000	40.87160	ug/L	2	30	0.0500	
Chlorobenzene	1.0415	1.0482	40.00000	40.25680	ug/L	1	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3223	0.3217	40.00000	39.92440	ug/L	0	30	0.0500	
Ethylbenzene	1.7482	1.7131	40.00000	39.19750	ug/L	-2	20	0.0500	
m,p-Xylenes	0.6875	0.6754	80.00000	78.58480	ug/L	-2	30	0.0500	
o-Xylene	0.6618	0.6586	40.00000	39.80670	ug/L	0	30	0.0500	
Styrene	1.1301	1.1299	40.00000	39.99250	ug/L	0	30	0.0500	

!=warning +=high bias c=CCV

mw 4/20/05

04/21/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 40PPB IDF : 1.0
Seqnum : 455158929015 Filename : fdk15 Injected : 20-APR-2005 16:26
Calnum : 455107246001 Caldate : 15-MAR-2005 Caltype : SOIL
Standards: S283 (12500X), S297B (12500X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.2745	0.2914	40.00000	42.46290	ug/L	6	30	0.1000	
Isopropylbenzene	3.3772	3.3894	40.00000	40.14490	ug/L	0	30	0.0500	
1,1,2,2-Tetrachloroethane	1.0953	1.1288	40.00000	41.22110	ug/L	3	30	0.3000	
1,2,3-Trichloropropane	0.2919	0.2855	40.00000	39.13000	ug/L	-2	30	0.0500	
Propylbenzene	4.2552	4.0996	40.00000	38.53690	ug/L	-4	30	0.0500	
Bromobenzene	0.8869	0.9023	40.00000	40.69760	ug/L	2	30	0.0500	
1,3,5-Trimethylbenzene	2.7349	2.6535	40.00000	38.81090	ug/L	-3	30	0.0500	
2-Chlorotoluene	2.8545	2.8171	40.00000	39.47640	ug/L	-1	30	0.0500	
4-Chlorotoluene	2.5915	2.6102	40.00000	40.28850	ug/L	1	30	0.0500	
tert-Butylbenzene	2.2480	2.2024	40.00000	39.18990	ug/L	-2	30	0.0500	
1,2,4-Trimethylbenzene	2.5309	2.5006	40.00000	39.52050	ug/L	-1	30	0.0500	
sec-Butylbenzene	3.5653	3.3286	40.00000	37.34470	ug/L	-7	30	0.0500	
para-Isopropyl Toluene	2.6345	2.5371	40.00000	38.52110	ug/L	-4	30	0.0500	
1,3-Dichlorobenzene	1.5649	1.5866	40.00000	40.55530	ug/L	1	30	0.0500	
1,4-Dichlorobenzene	1.5986	1.5873	40.00000	39.71660	ug/L	-1	30	0.0500	
n-Butylbenzene	2.3867	2.2419	40.00000	37.57340	ug/L	-6	30	0.0500	
1,2-Dichlorobenzene	1.4593	1.4749	40.00000	40.42880	ug/L	1	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2177	0.2050	40.00000	37.67230	ug/L	-6	30	0.0500	
1,2,4-Trichlorobenzene	0.7281	0.6708	40.00000	36.85250	ug/L	-8	30	0.0500	
Hexachlorobutadiene	0.4644	0.4003	40.00000	34.47830	ug/L	-14	30	0.0500	
Naphthalene	1.3697	1.3706	40.00000	38.00830	ug/L	-5	30	0.0500	
1,2,3-Trichlorobenzene	0.6868	0.6172	40.00000	35.94730	ug/L	-10	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0809	0.0799	400.0000	394.9552	ug/L	-1	30	0.0050	
Isopropyl Ether (DIPE)	2.4767	2.2868	40.00000	36.93300	ug/L	-8	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.7709	1.5678	40.00000	35.41380	ug/L	-11	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0578	0.8571	40.00000	32.41170	ug/L	-19	30	0.0500	
Cyclohexanone	0.2495	0.2394	400.0000	383.8227	ug/L	-4	30	0.0050	
Ethanol	0.0127	0.0115	4000.000	3617.969	ug/L	-10	30	5.0E-4	
Isopropanol	0.0642	0.0557	400.0000	347.0465	ug/L	-13	30	0.0050	
Tetrahydrofuran	0.2477	0.2138	400.0000	345.2301	ug/L	-14	30	0.0050	
Dibromofluoromethane	0.5674	0.5494	50.00000	48.41480	ug/L	-3	30	0.0500	
1,2-Dichloroethane-d4	0.4013	0.3779	50.00000	47.08180	ug/L	-6	30	0.0500	
Trifluorotoluene	0.4572	0.5176	40.00000	45.28440	ug/L	13	30	0.0500	
Toluene-d8	1.0900	1.0786	50.00000	49.48070	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.1809	1.1729	50.00000	49.66110	ug/L	-1	30	0.0500	

ISTD (ICAL=fcf08)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	926122	979023	5.71	12.47	12.46	-0.01
1,4-Difluorobenzene	1477194	1523908	3.16	13.79	13.78	-0.01
Chlorobenzene-d5	1244528	1317669	5.88	18.43	18.42	-0.01
1,4-Dichlorobenzene-d4	603489	621231	2.94	21.26	21.25	-0.01

!=warning +=high bias c=CCV

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 20-APR-2005
Sequence: 455158929 (fdk)
Instrument ID: MSVOA06

ICAL Filename: fcf08
Date Analyzed: 15-MAR-2005
Time Analyzed: 15:50

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	926122	12.47	1477194	13.79	1244528	18.43	603489	21.26
LOWER LIMIT	463061	11.97	738597	13.29	622264	17.93	301745	20.76
UPPER LIMIT	1852244	12.97	2954388	14.29	2489056	18.93	1206978	21.76

TYPE	SAMPLE	#								
CCV/LCS	QC291071	002	883419	12.46	1407191	13.78	1284576	18.42	635373	21.25
BLANK	QC291072	003	823543	12.46	1310264	13.78	1240432	18.42	500018	21.26
MSS	178983-001	004	766179	12.46	1256548	13.79	1163580	18.43	471412	21.26
MS	QC291093	005	771205	12.45	1257740	13.78	1195470	18.42	595498	21.25
MSD	QC291094	006	826878	12.45	1354574	13.77	1275813	18.41	617575	21.25
SAMPLE	178983-002	007	767813	12.46	1230775	13.78	1190559	18.41	494220	21.25
SAMPLE	178983-003	008	783464	12.46	1275106	13.78	1201849	18.42	486974	21.25
SAMPLE	178983-004	009	771999	12.46	1245905	13.77	1189989	18.42	463417	21.26
SAMPLE	178983-005	010	714792	12.46	1167470	13.78	1124906	18.42	477421	21.25
SAMPLE	178983-006	011	683751	12.45	1156083	13.78	1094274	18.42	439964	21.25
CCV	40PPB	015	979023	12.46	1523908	13.78	1317669	18.42	621231	21.25
BLANK	QC291095	017	844448	12.46	1372108	13.78	1185807	18.42	426431	21.26
SAMPLE	178951-001	018	797118	12.46	1317559	13.78	1154787	18.42	415824	21.25
SAMPLE	178951-002	019	784320	12.45	1299148	13.78	1155628	18.42	407825	21.25
SAMPLE	178951-003	020	707373	12.46	1150940	13.78	1069492	18.41	387082	21.26
SAMPLE	178951-004	021	733643	12.45	1236637	13.78	1082072	18.42	390581	21.25
SAMPLE	178950-001	022	788268	12.45	1274258	13.78	1168880	18.42	610302	21.25

8260/60K 5 ICAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455107246 Instrument: MSVOA06 HP GCMS VOA 06
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

Begun: 15-MAR-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	fcf01	X	IB			15-MAR-2005 11:26	1.0				1	
002	fcf02	X	IB			15-MAR-2005 12:00	1.0				1	
003	fcf03	TUN	BFB			15-MAR-2005 13:12	1.0				2	
004	fcf04	X	CALIB IB			15-MAR-2005 13:31	1.0				1	
005	fcf05	ICAL	5PPB			15-MAR-2005 14:06	1.0				3 4 1	
006	fcf06	ICAL	10PPB			15-MAR-2005 14:42	1.0				3 4 1	
007	fcf07	ICAL	20PPB			15-MAR-2005 15:16	1.0				3 4 1	
008	fcf08	ICAL	50PPB			15-MAR-2005 15:50	1.0				3 4 1	
009	fcf09	ICAL	60PPB			15-MAR-2005 16:25	1.0				3 4 1	
010	fcf10	ICAL	75PPB			15-MAR-2005 16:59	1.0				3 4 1	
011	fcf11	ICAL	100PPB			15-MAR-2005 17:33	1.0				3 4 1	
012	fcf12	ICV	50PPB GAS			15-MAR-2005 18:08	1.0	5000			5 1	

48

(*) Seq. Stopped, A.S. jammed

+ ICAL - OK
- NADH & 75 ppb, QUAD

* ICV - Cyclohexanone ↓, see FC606 for ICV (N5V0A, 60X)

Stds used: 1=05WS0176 2=04WS2425 3=04SS331 4=05WS0191D 5=05WS0359A

Analyst: RAR Date: 3/16/05

Page 1 of 1

3/16/05

8260/60X S ICV

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455108524 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 16-MAR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fcg01	X	IB			16-MAR-2005 08:44	1.0						1	
002	fcg02	TUN	BFB			16-MAR-2005 09:14	1.0						2	
003	fcg03	CCV	40PPB			16-MAR-2005 09:32	1.0			5000			3 4 1	
004	fcg04	BS	QC286221	100121	Soil	16-MAR-2005 10:24	1.0	76	1	5000			5 6 7 1	
005	fcg05	BSD	QC286222	100121	Soil	16-MAR-2005 10:58	1.0	76		5000			5 6 7 1	
006	fcg06	ICV	50PPB			16-MAR-2005 11:33	1.0	1		5000			8 7 1	
007	fcg07	X	IB			16-MAR-2005 12:07	1.0						1	
008	fcg08	BLANK	QC286223	100121	Soil	16-MAR-2005 12:42	1.0	1	1	5000			1	

46

Stds used: 1=05WS0176 2=04WS2425 3=04SS331 4=05WS0191D 5=05WS0359B 6=05WS0115C 7=05WS0232C 8=05WS0115D

Analyst: BLO Date: 3/16/05

Page 1 of 1

3/17/05

1 - 7

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455158929 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 20-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fdk01	TUN	BFB			20-APR-2005 08:29	1.0						1	
002	fdk02	CCV/LCS	QC291071	101317	Soil	20-APR-2005 08:49	1.0	1		5000			2 3 4 5	
003	fdk03	BLANK	QC291072	101317	Soil	20-APR-2005 09:23	1.0	1	1	5000			5	
004	fdk04	MSS	178983-001	101317	Soil	20-APR-2005 10:01	0.9615	1	2	5000	A		5 DBFM ↓, narrate matrix effect	
005	fdk05	MS	QC291093	101317	Soil	20-APR-2005 10:36	0.9615	1	3	5000			5 2 3 4	
006	fdk06	MSD	QC291094	101317	Soil	20-APR-2005 11:10	0.9615	1	4	5000			5 2 3 4	
007	fdk07	SAMPLE	178983-002	101317	Soil	20-APR-2005 12:02	1.0	1	2	5000			5	
008	fdk08	SAMPLE	178983-003	101317	Soil	20-APR-2005 12:36	0.9615	1	3	5000			5 BFB↑ - NO	
009	fdk09	SAMPLE	178983-004	101317	Soil	20-APR-2005 13:11	1.0	1	3	5000			5 ↓	
010	fdk10	SAMPLE	178983-005	101317	Soil	20-APR-2005 13:45	0.9091	1	2	5000			5	
011	fdk11	SAMPLE	178983-006	101317	Soil	20-APR-2005 14:20	0.9259	1	3	5000			5 BFB↑ - NO	
012	fdk12	X	BFB			20-APR-2005 15:01	1.0						1	
013	fdk13	X	60PPB			20-APR-2005 15:22	1.0			5000			6 7 5 cc+	1:BRME=105.029
014	fdk14	TUN	BFB			20-APR-2005 16:05	1.0						1	
015	fdk15	CCV	40PPB			20-APR-2005 16:26	1.0	1		5000			6 7 5	
016	fdk16	X	IB			20-APR-2005 17:00	1.0						5	
017	fdk17	BLANK	QC291095	101317	Soil	20-APR-2005 17:35	1.0		2	5000			5	
018	fdk18	SAMPLE	178951-001	101317	Soil	20-APR-2005 18:10	0.9259		2	5000	A		5 BFB↑, associated analytes ND	
019	fdk19	SAMPLE	178951-002	101317	Soil	20-APR-2005 18:44	0.9615		2	5000			5 ↓	
020	fdk20	SAMPLE	178951-003	101317	Soil	20-APR-2005 19:19	0.9259		2	5000			5	
021	fdk21	SAMPLE	178951-004	101317	Soil	20-APR-2005 19:54	0.9615		2	5000			5	
022	fdk22	SAMPLE	178950-001 M	101317	Miscel	20-APR-2005 20:28	1000	1	1	5000			5 RR 1000x	1:NAPH=78.8814
023	fdk23	X	IB			20-APR-2005 21:03	1.0						5	
024	fdk24	X	IB			20-APR-2005 21:38	1.0						5	
025	fdk25	X	IB			20-APR-2005 22:13	1.0						5	
026	fdk26	X	6A			20-APR-2005 22:47	1.0						5	
027	fdk27	X	6B			20-APR-2005 23:22	1.0						5	

Stds used: 1=04WS2425 2=S215C 3=S139D 4=S285A 5=S95 6=S283 7=S297B
Flags used: +=high bias cc=CCV CCC failure

* ICAL - OK
* ICV - Cyclohexane
* CCV: FDK02 - Cyclohexane, USALE - TCFM↑, Fr 113↑, Hexadecane↓; Isopropylbenz.↓
FDK15 - BrME↑, USALE - Fr 121↑, Fr 113↑

Analyst: [illegible] Date: 4/21/05

04/26

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 4/20/05

Prepped by: VK

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date	
1	178881-13	1.5	A		3	~~PR~~ 3.3X Mollie			
2	14	1.5	|		|	~~PR~~ 3.3X Mollie			
3	22	2.0	|		|	~~PR~~ 2.5X Mollie			
4	23	2.0	|		|	~~PR~~ 2.5X PCE			
5	16	0.001/100	|		|	~~PR~~ 100,000X ~~MSS/MS/MSD~~ VK 4/20			
6	17	0.001/50	|		↓	~~PR~~ 50,000X			
7	178847-11	0.05	|		3	~~PR~~ 100X			
8	17	0.01	↓		↓	~~PR~~ 500X			
9	178964-7	5.0	A		↓	comp 1+2 MSS/MS/MSD			M
10	~~8~~	~~5.2~~	|			~~comp 3+4 MSS/MS/MSD~~	CANCELED		
11	9	5.4	↓			~~comp 5+6~~ VK 4/20			N
12	178983-1	5.2	A		6	MSS/MS/MSD			
13	-2	5.0	|		|				
14	-3	5.2	|		|				
15	-4	5.0	|		|				
16	-5	5.5	|		|				
17	-6	5.4	↓		|				
18	178950-1	0.005	A		|	1000X			L
19	178951-1	5.4	|		|	~~MSS/MS/MSD~~ A C E VK 4/20			
21	3	5.4	|		|				
22	4	5.2	↓		↓				
23	178881-22	1.1	↓		3	~~PR~~ 5X			
24									
25									
26	178854-1		A		3	Freezer Blank			

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	178982-1	4.7	C		~~3~~			
2	2	5.0	|		|			
3	3	4.8	|		|			
4	4	5.6	↓		↓			
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

F:/home/terri/templates/Soilprepsheet.xls

PAH-SIM Results & QC Summary

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB2ATP104(8.0)	Batch#:	101384
Lab ID:	178951-001	Sampled:	04/13/05
Matrix:	Soil	Received:	04/18/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/22/05
Diln Fac:	20.00		

Moisture: 19%

Analyte	Result	RL	MDL
Naphthalene	41 J	120	29
Acenaphthylene	ND	120	32
Acenaphthene	ND	120	30
Fluorene	ND	120	28
Phenanthrene	ND	120	30
Anthracene	ND	120	51
Fluoranthene	ND	120	28
Pyrene	ND	120	25
Benzo(a)anthracene	ND	120	31
Chrysene	ND	120	24
Benzo(b)fluoranthene	62 J b	120	29
Benzo(k)fluoranthene	42 J	120	38
Benzo(a)pyrene	ND	120	48
Indeno(1,2,3-cd)pyrene	ND	120	29
Dibenz(a,h)anthracene	ND	120	29
Benzo(g,h,i)perylene	ND	120	29

Surrogate	%REC	Limits
Nitrobenzene-d5	84	37-140
2-Fluorobiphenyl	72	38-120
Terphenyl-d14	84	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB2ATP100(1.0)	Batch#:	101384
Lab ID:	178951-002	Sampled:	04/14/05
Matrix:	Soil	Received:	04/18/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/22/05
Diln Fac:	20.00		

Moisture: 27%

Analyte	Result	RL	MDL
Naphthalene	ND	140	32
Acenaphthylene	ND	140	35
Acenaphthene	ND	140	34
Fluorene	ND	140	31
Phenanthrene	ND	140	34
Anthracene	ND	140	57
Fluoranthene	38 J	140	31
Pyrene	42 J	140	28
Benzo(a)anthracene	ND	140	35
Chrysene	35 J	140	26
Benzo(b)fluoranthene	ND	140	32
Benzo(k)fluoranthene	ND	140	42
Benzo(a)pyrene	ND	140	54
Indeno(1,2,3-cd)pyrene	ND	140	32
Dibenz(a,h)anthracene	ND	140	32
Benzo(g,h,i)perylene	33 J b	140	32

Surrogate	%REC	Limits
Nitrobenzene-d5	64	37-140
2-Fluorobiphenyl	67	38-120
Terphenyl-d14	78	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB2ATP101(14.0)	Batch#:	101384
Lab ID:	178951-003	Sampled:	04/14/05
Matrix:	Soil	Received:	04/18/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry		

Moisture: 21%

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Naphthalene	1.4 J	6.3	0.96	1.000	04/23/05
Acenaphthylene	3.7 J	6.3	1.8	1.000	04/23/05
Acenaphthene	ND	6.3	0.96	1.000	04/23/05
Fluorene	1.7 J	6.3	1.4	1.000	04/23/05
Phenanthrene	8.6	6.3	1.2	1.000	04/23/05
Anthracene	2.3 J	6.3	1.5	1.000	04/23/05
Fluoranthene	18	6.3	1.7	1.000	04/23/05
Pyrene	21	6.3	1.4	1.000	04/23/05
Benzo(a)anthracene	8.6	6.3	1.3	1.000	04/23/05
Chrysene	14	6.3	1.2	1.000	04/23/05
Benzo(b)fluoranthene	11	6.3	1.4	1.000	04/23/05
Benzo(k)fluoranthene	11	6.3	0.75	1.000	04/23/05
Benzo(a)pyrene	13	6.3	1.1	1.000	04/23/05
Indeno(1,2,3-cd)pyrene	9.2	6.3	1.2	1.000	04/23/05
Dibenz(a,h)anthracene	4.6 J	6.3	1.1	1.000	04/23/05
Benzo(g,h,i)perylene	11	6.3	1.1	1.000	04/23/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	106	37-140	20.00	04/21/05
2-Fluorobiphenyl	87	38-120	20.00	04/21/05
Terphenyl-d14	97	44-137	20.00	04/21/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	BB1TP102(4.0)	Batch#:	101384
Lab ID:	178951-004	Sampled:	04/15/05
Matrix:	Soil	Received:	04/18/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/22/05
Diln Fac:	20.00		

Moisture: 32%

Analyte	Result	RL	MDL
Naphthalene	ND	150	34
Acenaphthylene	ND	150	38
Acenaphthene	ND	150	36
Fluorene	ND	150	33
Phenanthrene	77 J b	150	36
Anthracene	ND	150	61
Fluoranthene	96 J	150	34
Pyrene	100 J	150	30
Benzo(a)anthracene	ND	150	37
Chrysene	53 J	150	28
Benzo(b)fluoranthene	ND	150	35
Benzo(k)fluoranthene	ND	150	45
Benzo(a)pyrene	ND	150	58
Indeno(1,2,3-cd)pyrene	ND	150	35
Dibenz(a,h)anthracene	ND	150	34
Benzo(g,h,i)perylene	36 J b	150	35

Surrogate	%REC	Limits
Nitrobenzene-d5	85	37-140
2-Fluorobiphenyl	73	38-120
Terphenyl-d14	85	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Type:	BLANK	Basis:	as received
Lab ID:	QC291296	Batch#:	101384
Matrix:	Soil	Prepared:	04/21/05
Units:	ug/Kg		

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Naphthalene	ND	5.0	1.2	1.000	04/22/05
Acenaphthylene	ND	5.0	1.3	1.000	04/22/05
Acenaphthene	ND	5.0	1.2	1.000	04/22/05
Fluorene	ND	5.0	1.1	1.000	04/22/05
Phenanthrene	ND	5.0	1.2	1.000	04/22/05
Anthracene	ND	5.0	2.1	1.000	04/22/05
Fluoranthene	ND	5.0	1.2	1.000	04/22/05
Pyrene	ND	5.0	1.0	1.000	04/22/05
Benzo(a)anthracene	ND	5.0	1.3	1.000	04/22/05
Chrysene	ND	5.0	0.96	1.000	04/22/05
Benzo(b)fluoranthene	ND	5.0	1.2	1.000	04/22/05
Benzo(k)fluoranthene	ND	5.0	1.5	1.000	04/22/05
Benzo(a)pyrene	ND	5.0	2.0	1.000	04/22/05
Indeno(1,2,3-cd)pyrene	ND	5.0	1.2	1.000	04/22/05
Dibenz(a,h)anthracene	ND	5.0	1.2	1.000	04/22/05
Benzo(g,h,i)perylene	ND	5.0	1.2	1.000	04/22/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	93	37-140	20.00	04/21/05
2-Fluorobiphenyl	92	38-120	20.00	04/21/05
Terphenyl-d14	91	44-137	20.00	04/21/05

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Type:	LCS	Basis:	as received
Lab ID:	QC291297	Batch#:	101384
Matrix:	Soil	Prepared:	04/21/05
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits	Diln Fac	Analyzed
Acenaphthene	33.09	22.88	69	49-128	1.000	04/22/05
Pyrene	33.09	24.12	73	49-128	1.000	04/22/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	74	37-140	20.00	04/21/05
2-Fluorobiphenyl	89	38-120	20.00	04/21/05
Terphenyl-d14	85	44-137	20.00	04/21/05

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	BAKER BEACH	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	101384
MSS Lab ID:	178835-002	Sampled:	04/09/05
Matrix:	Soil	Received:	04/09/05
Units:	ug/Kg	Prepared:	04/21/05
Basis:	dry	Analyzed:	04/22/05

Type: MS Moisture: 11%
Lab ID: QC291298

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Acenaphthene	<1.393	37.19	24.56	66	39-138	1.000
Pyrene	<1.141	37.19	26.17	70	28-159	1.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	77	37-140	20.00
2-Fluorobiphenyl	88	38-120	20.00
Terphenyl-d14	85	44-137	20.00

Type: MSD Moisture: 11%
Lab ID: QC291299

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Acenaphthene	37.42	25.00	67	39-138	1	39	1.000
Pyrene	37.42	26.17	70	28-159	1	45	1.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	77	37-140	20.00
2-Fluorobiphenyl	84	38-120	20.00
Terphenyl-d14	82	44-137	20.00

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\041805.b\VDI07.D

Date : 18-APR-2005 16:36

Client ID: dftpp tune std

Instrument: MSBNA03.i

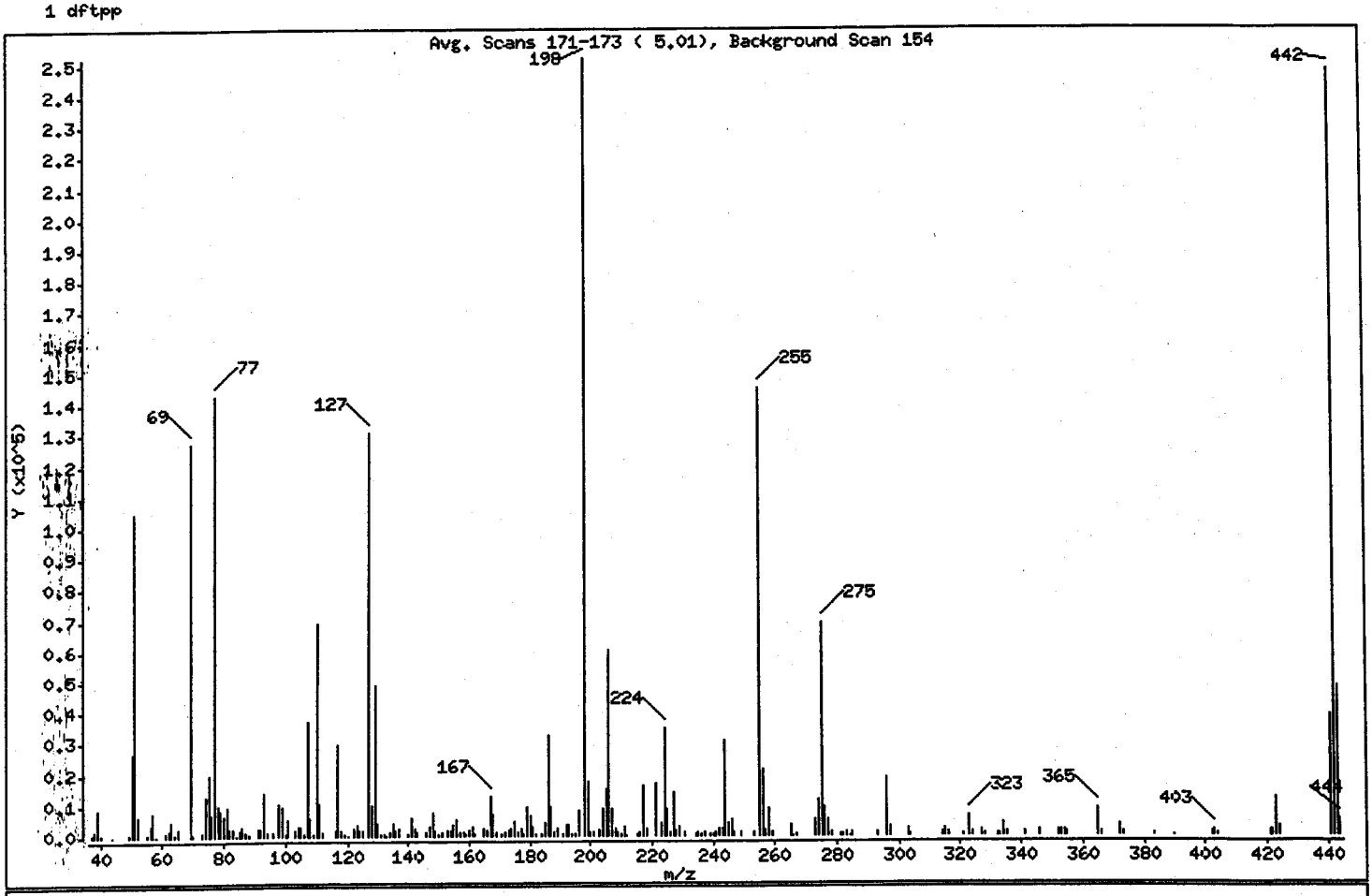
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.36
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.51
70	Less than 2.00% of mass 69	0.28 (0.55)
127	40.00 - 60.00% of mass 198	51.77
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	27.45
365	Greater than 1.00% of mass 198	3.37
441	Present, but less than mass 443	15.35
442	40.00 - 99.99% of mass 198	98.35
443	17.00 - 23.00% of mass 442	19.16 (19.49)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\041905.b\VDJ01.D

Date : 19-APR-2005 11:16

Client ID: dftpp tune std

Instrument: MSBNA03.i

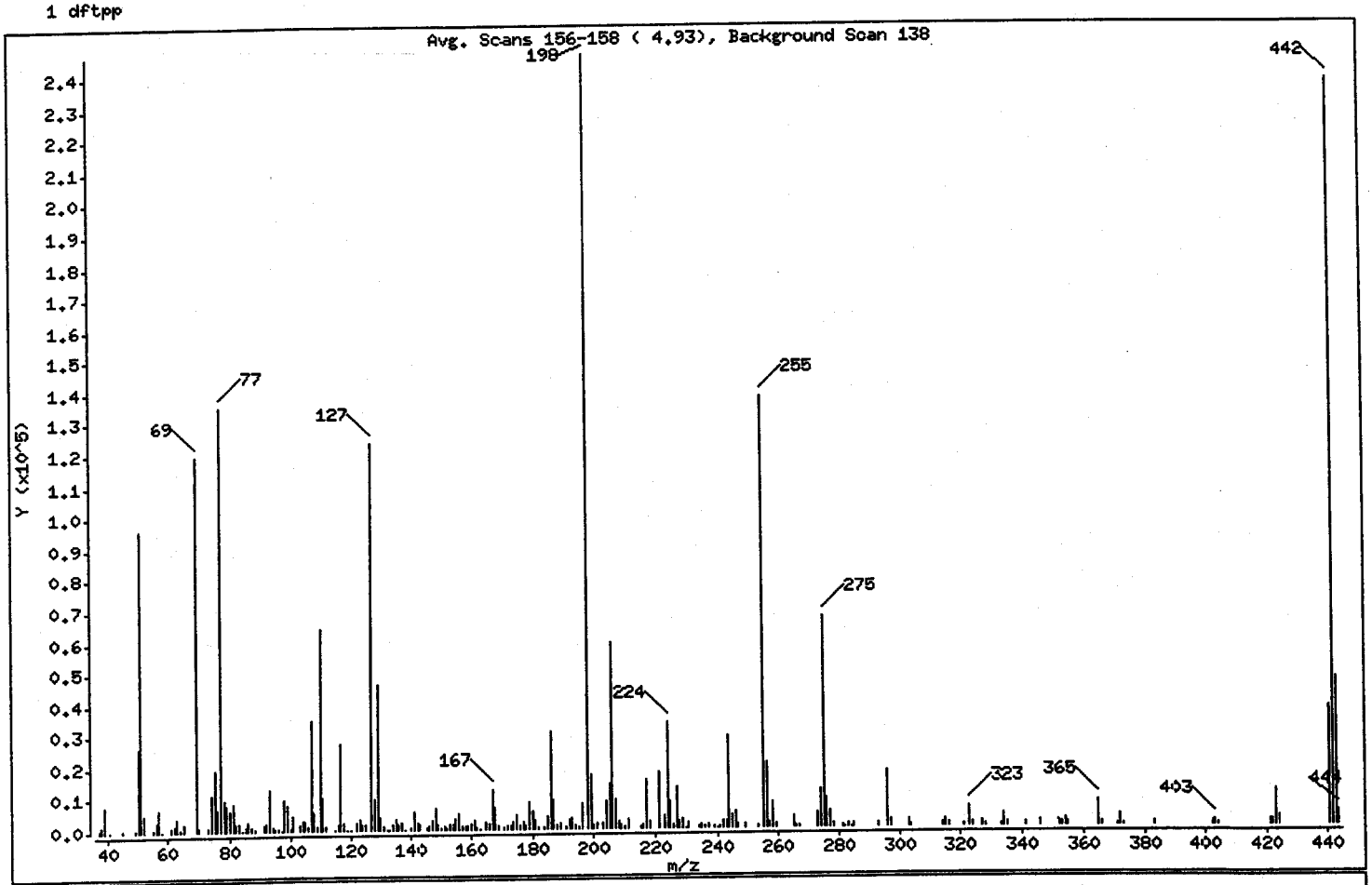
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.99
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.42
70	Less than 2.00% of mass 69	0.35 (0.72)
127	40.00 - 60.00% of mass 198	50.10
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	27.09
365	Greater than 1.00% of mass 198	3.20
441	Present, but less than mass 443	15.19
442	40.00 - 99.99% of mass 198	96.24
443	17.00 - 23.00% of mass 442	18.82 (19.55)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042105.b\VDL01.D

Date : 21-APR-2005 15:43

Client ID: dftpp tune std

Instrument: MSBNA03.i

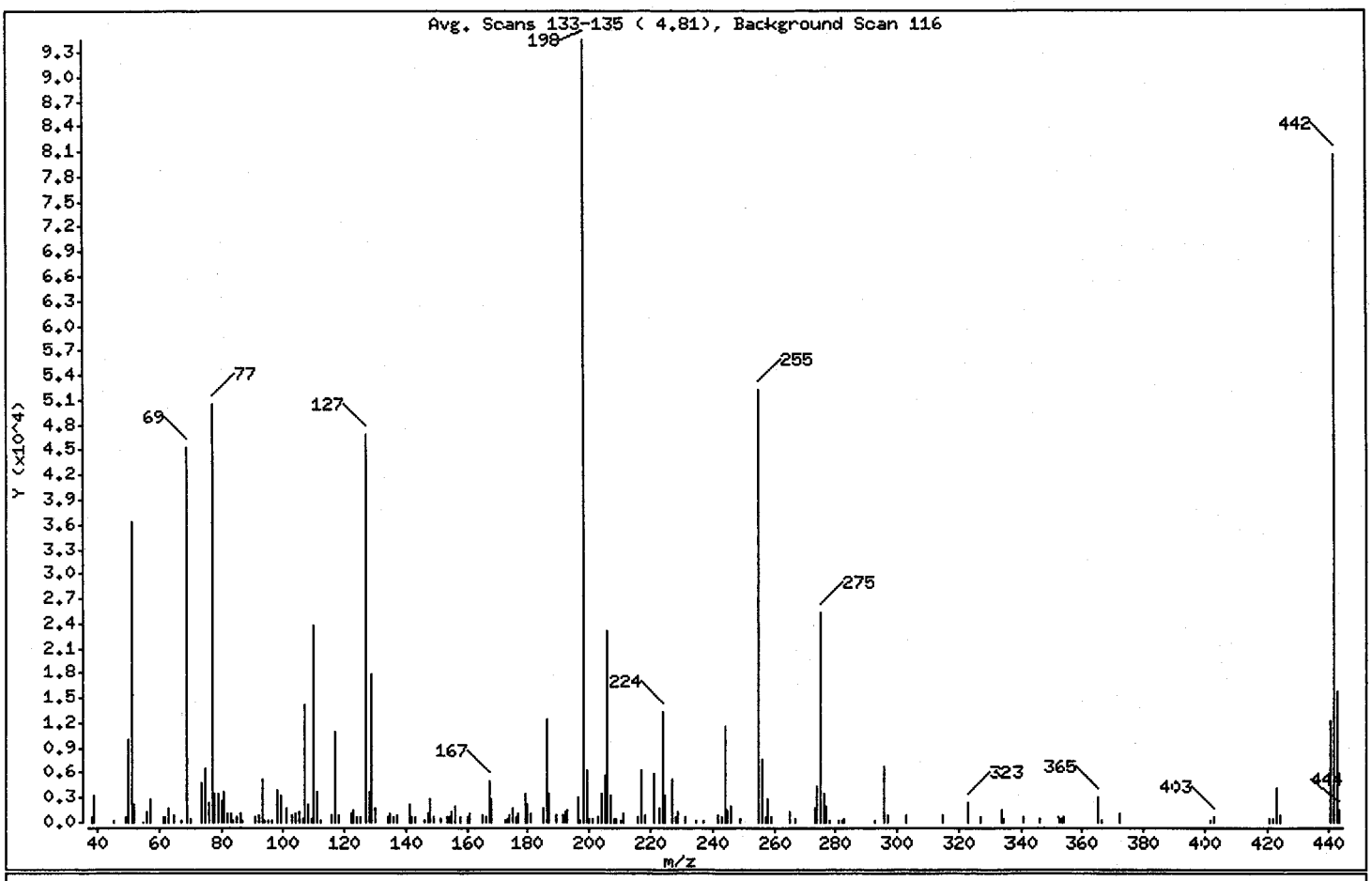
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.45
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.85
70	Less than 2.00% of mass 69	0.56 (1.18)
127	40.00 - 60.00% of mass 198	49.53
197	Less than 1.00% of mass 198	0.24
199	5.00 - 9.00% of mass 198	6.66
275	10.00 - 30.00% of mass 198	26.75
365	Greater than 1.00% of mass 198	3.12
441	Present, but less than mass 443	12.96
442	40.00 - 99.99% of mass 198	65.18
443	17.00 - 23.00% of mass 442	16.53 (19.41)

4/22/05

Data File: \\GCMSSERVER\DI\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

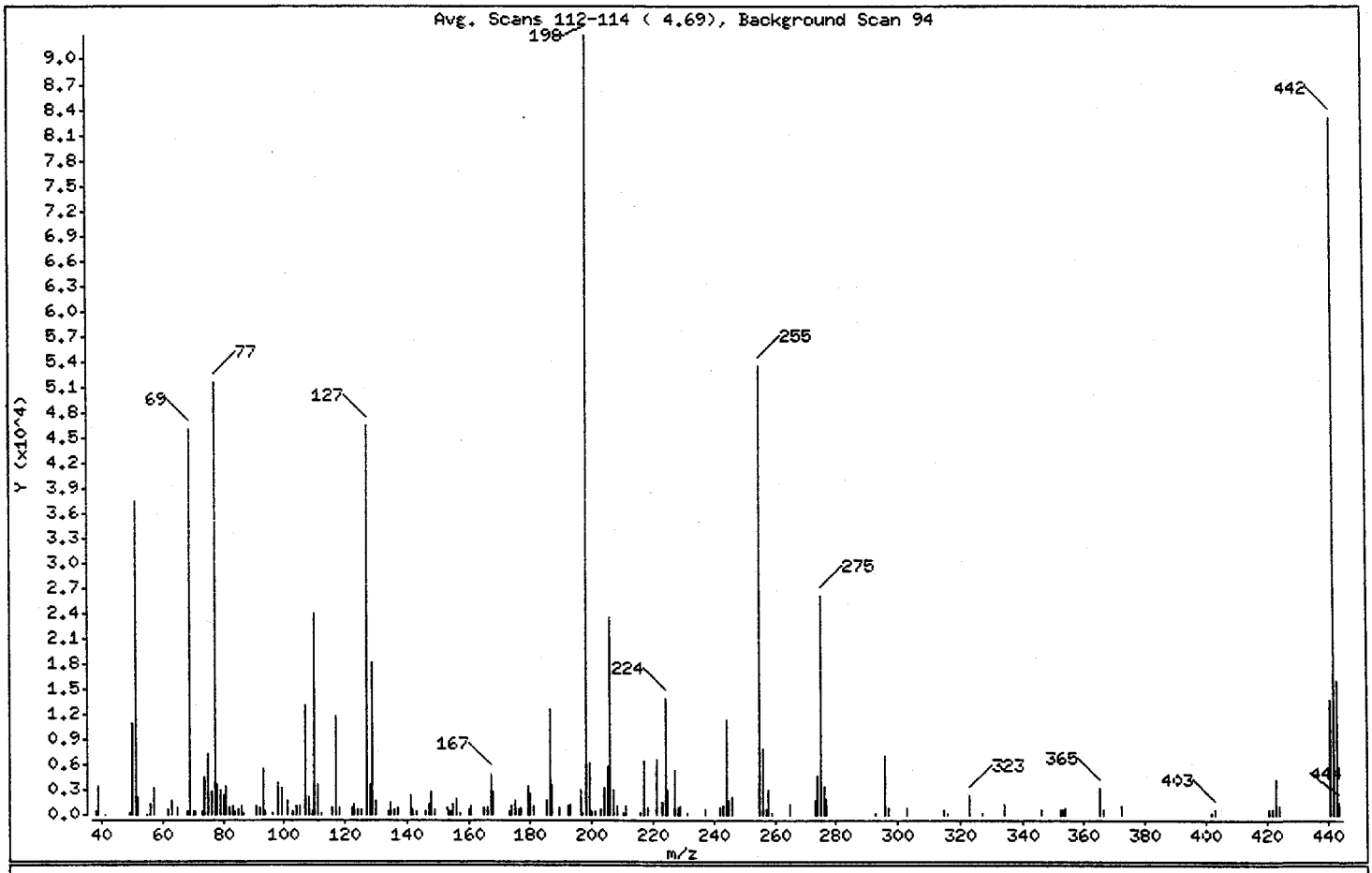
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM ECAL

4/27/05

a 04/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042305.b\VDN01.D

Date : 23-APR-2005 17:52

Client ID: dftpp tune std

Instrument: MSBNA03.i

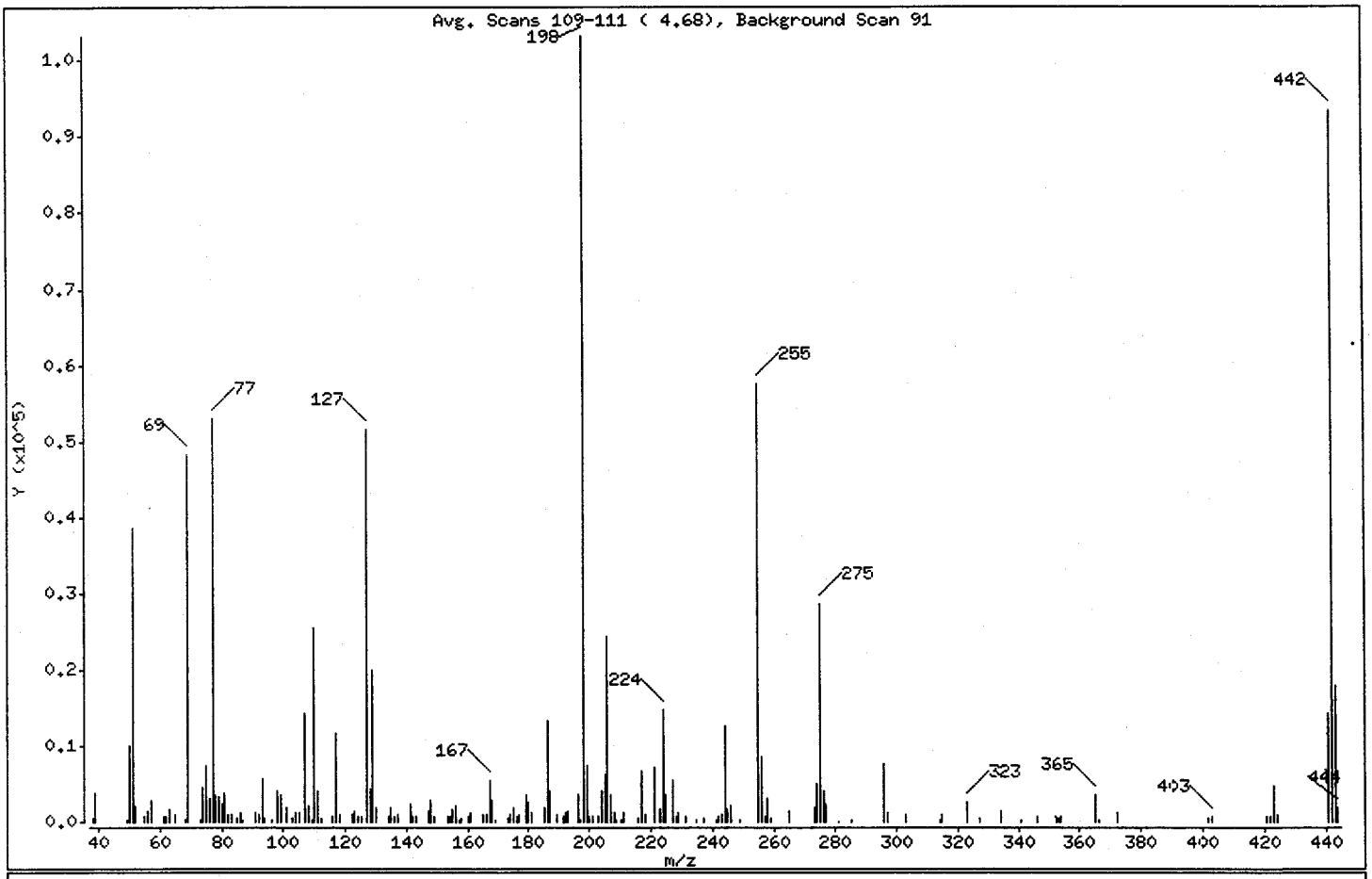
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	37.43
68	Less than 1.99% of mass 69	0.27 (0.58)
69	Mass 69 relative abundance	46.78
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.08
197	Less than 1.00% of mass 198	0.26
199	5.00 - 9.00% of mass 198	7.09
275	10.00 - 30.00% of mass 198	27.71
365	Greater than 1.00% of mass 198	3.38
441	Present, but less than mass 443	13.89
442	40.00 - 99.99% of mass 198	90.55
443	17.00 - 23.00% of mass 442	17.38 (19.19)

4/25/05

a 04/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\041605.b\XDG03.D

Date : 16-APR-2005 11:59

Client ID: dftpp tune std

Instrument: MSBNA05.i

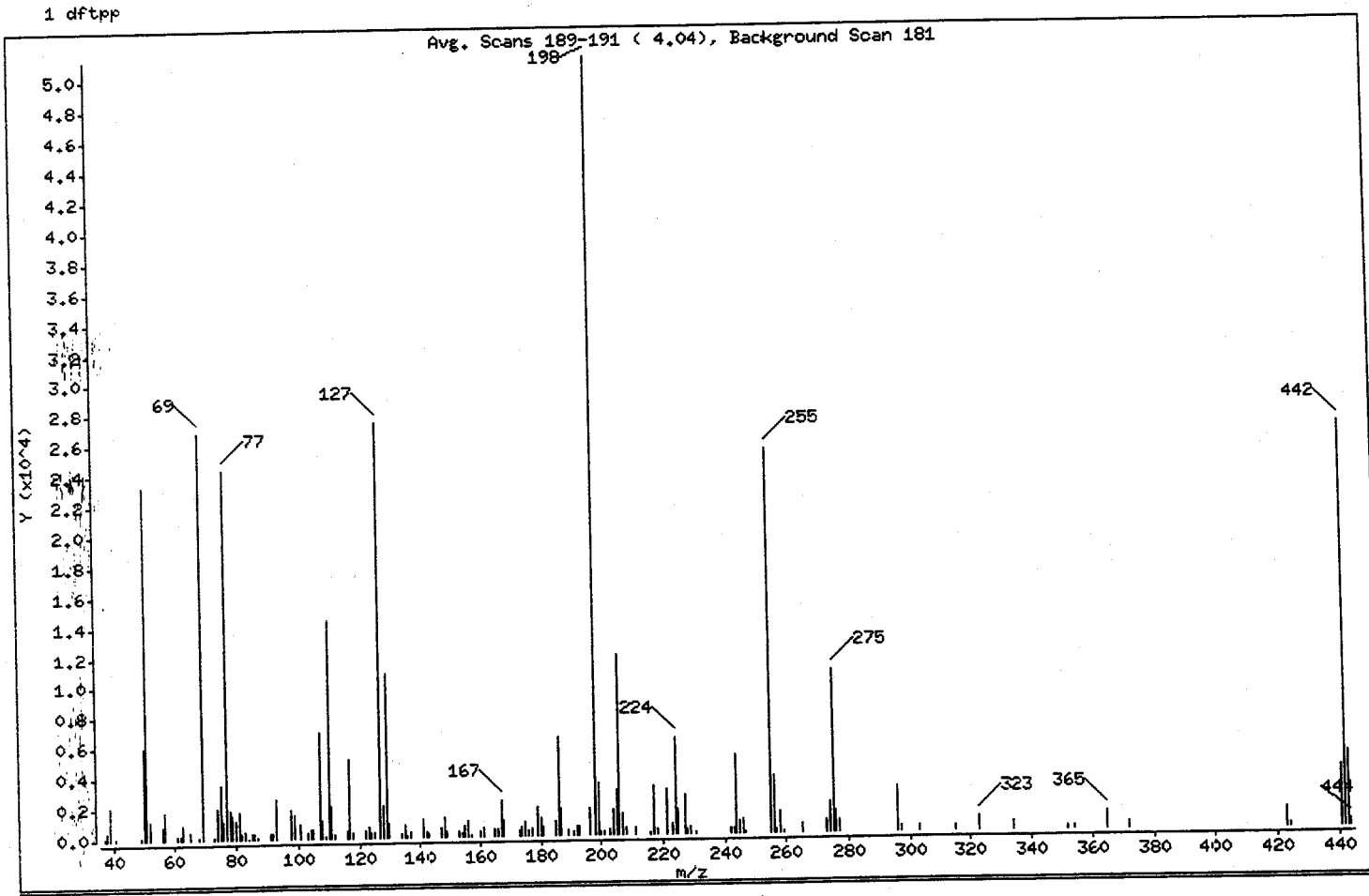
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.42
68	Less than 1.99% of mass 69	0.23 (0.44)
69	Mass 69 relative abundance	52.38
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	53.37
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	20.86
365	Greater than 1.00% of mass 198	2.40
441	Present, but less than mass 443	7.84
442	40.00 - 99.99% of mass 198	51.99
443	17.00 - 23.00% of mass 442	9.79 (18.83)

8270-SIM ECR

4/18/05

4/18/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042105.b\XDL10.D

Date : 21-APR-2005 20:00

Client ID: dftpp tune std

Instrument: MSBNA05.i

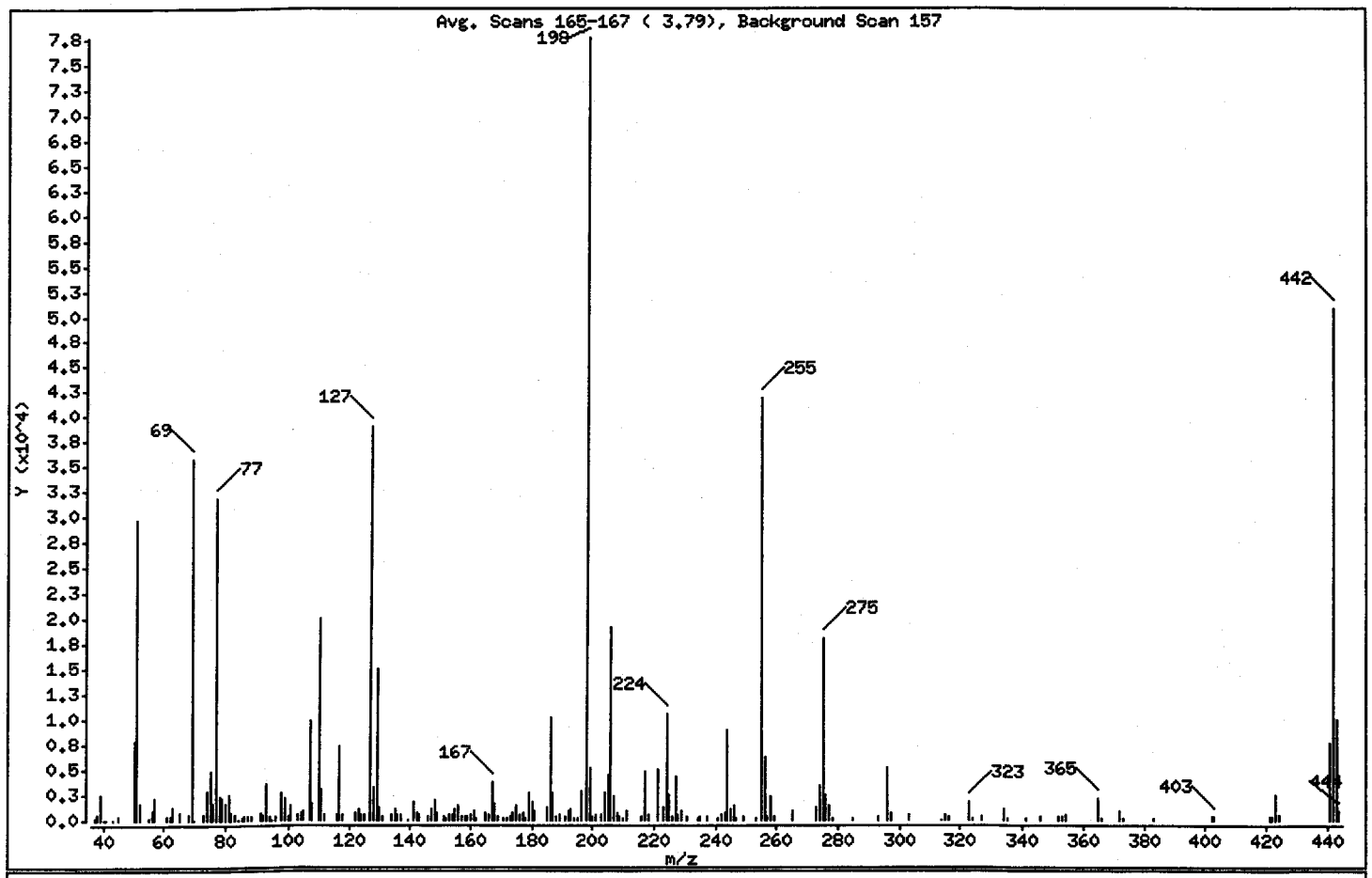
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.22
68	Less than 1.99% of mass 69	0.65 (1.42)
69	Mass 69 relative abundance	46.09
70	Less than 2.00% of mass 69	0.10 (0.22)
127	40.00 - 60.00% of mass 198	50.35
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	23.33
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	9.86
442	40.00 - 99.99% of mass 198	65.54
443	17.00 - 23.00% of mass 442	12.91 (19.70)

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042205.b\XDM01.D

Date : 22-APR-2005 15:50

Client ID: dftpp tune std

Instrument: MSBNA05.i

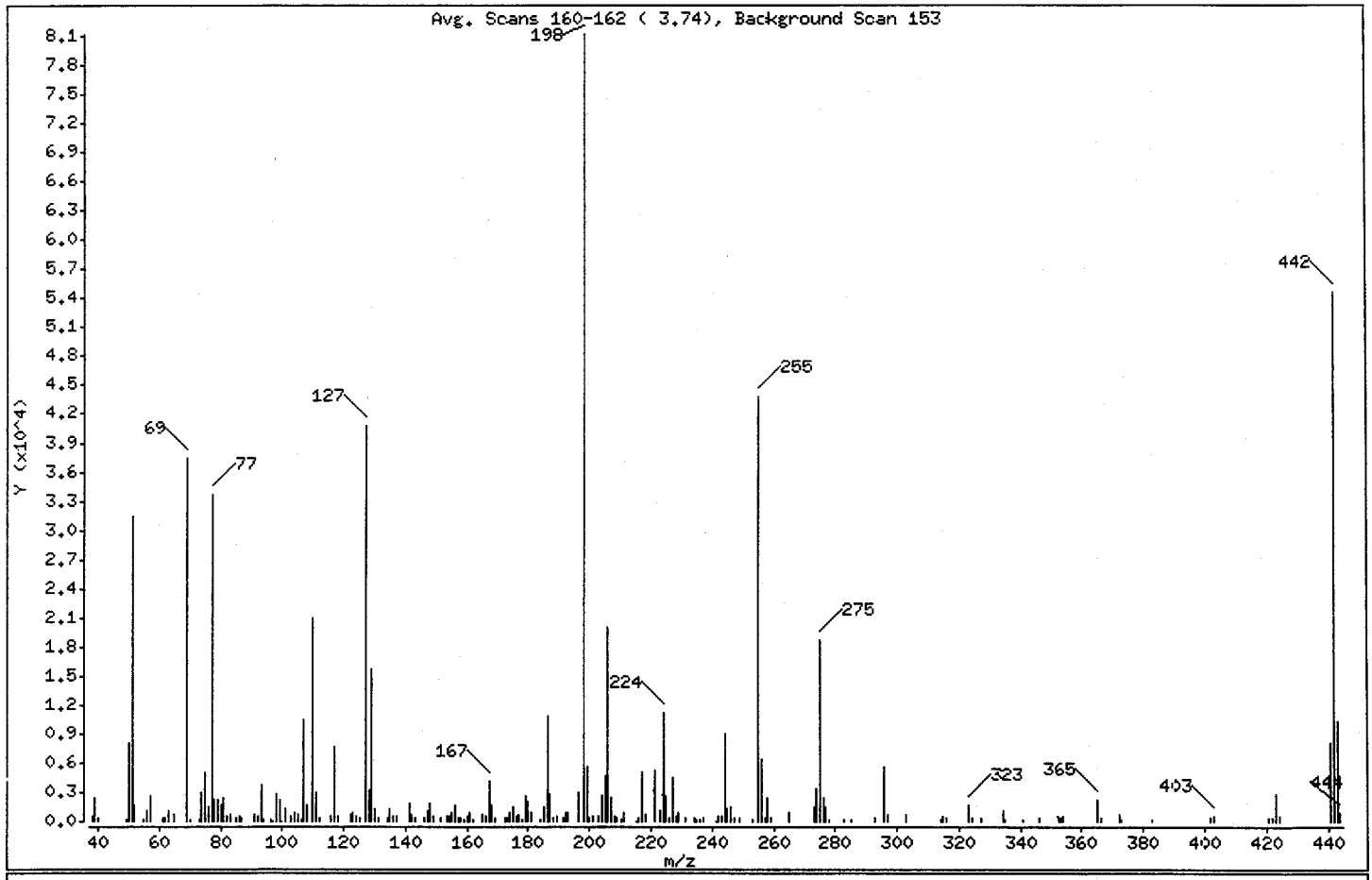
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.71
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.12
70	Less than 2.00% of mass 69	0.23 (0.49)
127	40.00 - 60.00% of mass 198	50.23
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.83
275	10.00 - 30.00% of mass 198	23.06
365	Greater than 1.00% of mass 198	2.74
441	Present, but less than mass 443	9.84
442	40.00 - 99.99% of mass 198	67.18
443	17.00 - 23.00% of mass 442	12.67 (18.87)

4/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042505.b\XDP01.D

Date : 25-APR-2005 09:51

Client ID: dftpp tune std

Instrument: MSBNA05.i

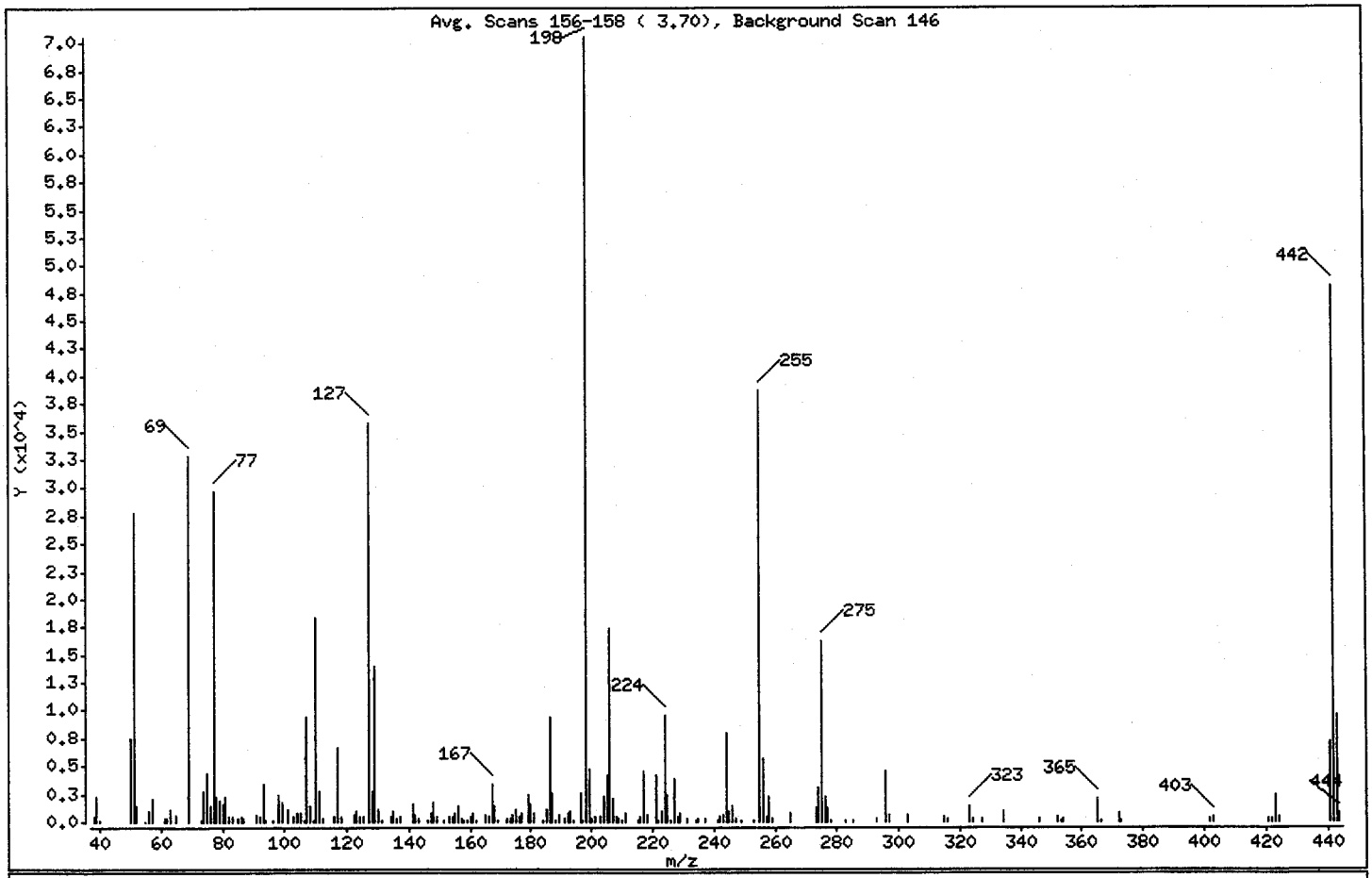
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.50
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.60
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.60
197	Less than 1.00% of mass 198	0.29
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	23.12
365	Greater than 1.00% of mass 198	2.94
441	Present, but less than mass 443	10.19
442	40.00 - 99.99% of mass 198	68.10
443	17.00 - 23.00% of mass 442	13.49 (19.80)

BNA03 8270-SIM calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525156090001 Name: 3PAHSIM Type: (normal) Date: 18-APR-2005 16:51 Inj Vol (uL): 1

manual integrations due to splitting/ dropping baseline

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	vdi08	525156090008	0.1ug/ml PAHDIOX	18-APR-2005 16:51	05WS0256
2	vdi09	525156090009	0.2ug/ml PAHDIOX	18-APR-2005 17:21	05WS0257
3	vdi10	525156090010	0.5ug/ml PAHDIOX	18-APR-2005 17:51	05WS0258
4	vdi11	525156090011	1.0ug/ml PAHDIOX	18-APR-2005 18:22	05WS0259
5	vdi12	525156090012	2.0ug/ml PAHDIOX	18-APR-2005 18:53	05WS0260
6	vdi13	525156090013	5.0ug/ml PAHDIOX	18-APR-2005 19:23	05WS0261
7	vdi14	525156090014	10ug/ml PAHDIOX	18-APR-2005 19:54	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4227m	0.4175m	0.4207m	0.4190	0.4092	0.3511	AVRG	R		2.458761		ng	0.4067	7	0.0500	.99	15	
Naphthalene	1.1249	1.0894	0.9810	0.9903	0.9654	1.0044	0.8762	AVRG	R		0.995510		ng	1.0045	8	0.0500	.99	15	
2-Methylnaphthalene	0.7196	0.7293	0.6460	0.6557	0.6575	0.6905	0.6228	AVRG	R		1.482647		ng	0.6745	6	0.0500	.99	15	
Acenaphthylene	1.4244	1.4870	1.3942	1.4966	1.5485	1.6636	1.5585	AVRG	R		0.662077		ng	1.5104	6	0.0500	.99	15	
Acenaphthene	1.0702	1.0930	0.9637	0.9908	0.9902	1.0449	0.9718	AVRG	R		0.982502		ng	1.0178	5	0.0500	.99	15	
Fluorene	1.2259	1.2730	1.1469	1.2019	1.2025	1.2684	1.1904	AVRG	R		0.822656		ng	1.2156	4	0.0500	.99	15	
Phenanthrene	1.0613	1.0372	0.8962	0.9172	0.9061	0.9777	0.8945	AVRG	R		1.046320		ng	0.9557	7	0.0500	.99	15	
Anthracene	0.7343	0.8518	0.7226	0.7924	0.8157	0.9111	0.8434	AVRG	R		1.234276		ng	0.8102	8	0.0500	.99	15	
Fluoranthene	1.1973	1.0984	0.9971	1.0586	1.0434	1.1228	1.0238	AVRG	R		0.928208		ng	1.0773	6	0.0500	.99	15	
Pyrene	1.2776	1.1719	1.0315	1.0680	1.0453	1.1456	1.0637	AVRG	R		0.896991		ng	1.1148	8	0.0500	.99	15	
Benzo(a)anthracene	1.0668	0.9484	0.8747	0.9276	0.9471	1.0919	1.0247	AVRG	R		1.017244		ng	0.9830	8	0.0500	.99	15	
Chrysene	1.2011	1.1212	0.9597	0.9664	0.9485	1.0372	0.9543	AVRG	R		0.973775		ng	1.0269	10	0.0500	.99	15	
Benzo(b)fluoranthene	1.4757	1.3461	1.2977	1.3610	1.3508	1.4857	1.4435	AVRG	R		0.717171		ng	1.3944	5	0.0500	.99	15	
Benzo(k)fluoranthene	1.6924	1.6767	1.3842	1.4196	1.4712	1.8093	1.5932	AVRG	R		0.633679		ng	1.5781	10	0.0500	.99	15	
Benzo(a)pyrene	1.1103	0.9861	0.9078	1.0137	1.0524	1.2955	1.2433	AVRG	R		0.919963		ng	1.0870	13	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.2123	1.1022	1.0040	1.0948	1.1627	1.4224	1.4172	AVRG	R		0.831787		ng	1.2022	13	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9335	0.8502	0.7894	0.8713	0.9137	1.1561		AVRG	R		1.088100		ng	0.9190	14	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1107	1.0053	0.8929	0.9460	0.9664	1.1733	1.1588	AVRG	R		0.965059		ng	1.0362	11	0.0500	.99	15	

ICAL: OK
CCV: OK

4/19/05

✓ MW 4/19/05

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525156090001 Name: 3PAHSIM Type: (normal) Date: 18-APR-2005 16:51 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2621	0.2491	0.2513	0.2895	0.3051	0.3216	0.3145	AVRG	R		3.511830		ng	0.2848	11	0.0500	.99	15	
2-Fluorobiphenyl	1.5082	1.5070	1.3158	1.3311	1.3170	1.3786	1.2638	AVRG	R		0.727543		ng	1.3745	7	0.0500	.99	15	
Terphenyl-d14	1.1308	0.9779	0.8462	0.8611	0.8415	0.9396	0.8540	AVRG	R		1.085080		ng	0.9216	12	0.0500	.99	15	

70

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name :
Seqnum : 525157636002 Filename : vdj02 Injected : 19-APR-2005 12:02
Calnum : 525156090001 Caldate : 18-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.186300	ng	19	30	m
Naphthalene	1.000000	0.952400	ng	-5	30	
2-Methylnaphthalene	1.000000	1.039300	ng	4	30	
Acenaphthylene	1.000000	1.022500	ng	2	30	
Acenaphthene	1.000000	1.013000	ng	1	20	
Fluorene	1.000000	1.022800	ng	2	30	
Phenanthrene	1.000000	1.018400	ng	2	30	
Anthracene	1.000000	1.070200	ng	7	30	
Fluoranthene	1.000000	1.018500	ng	2	20	
Pyrene	1.000000	1.036200	ng	4	30	
Benzo(a)anthracene	1.000000	1.031700	ng	3	30	
Chrysene	1.000000	0.928700	ng	-7	30	
Benzo(b)fluoranthene	1.000000	1.117700	ng	12	30	
Benzo(k)fluoranthene	1.000000	1.004300	ng	0	30	
Benzo(a)pyrene	1.000000	1.132300	ng	13	20	
Indeno(1,2,3-cd)pyrene	1.000000	1.018100	ng	2	30	
Dibenz(a,h)anthracene	1.000000	1.003900	ng	0	30	
Benzo(g,h,i)perylene	1.000000	1.017600	ng	2	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV
Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

m=manual integration
Page 1 of 1

BNA05 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: OK
BCAL: OK

4/25/05

4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

73

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

BNA05 8270 -SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	xdg04	545153296004	0.1ug/mL	16-APR-2005 12:16	05WS0256
2	xdg05	545153296005	0.2ug/mL	16-APR-2005 12:46	05WS0257
3	xdg06	545153296006	0.5ug/mL	16-APR-2005 13:16	05WS0258
4	xdg07	545153296007	1.0ug/mL	16-APR-2005 13:46	05WS0259
5	xdg08	545153296008	2.0ug/mL	16-APR-2005 14:17	05WS0260
6	xdg09	545153296009	5.0ug/mL	16-APR-2005 14:47	05WS0261
7	xdg10	545153296010	10.0ug/mL	16-APR-2005 15:17	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.5083m	0.4658m	0.4593m	0.4615m	0.4155	0.3536m	AVRG	R		2.252186		ng	0.4440	12	0.0500	.99	15	
Naphthalene	1.0823	1.0470	0.9094	0.9002	0.8581	0.8558	0.7962	AVRG	R		1.085426		ng	0.9213	11	0.0500	.99	15	
2-Methylnaphthalene	0.8237	0.8179	0.7193	0.6877	0.6545	0.6353	0.5767	AVRG	R		1.424186		ng	0.7022	13	0.0500	.99	15	
Acenaphthylene	1.9176	1.9272	1.6248	1.6229	1.5218	1.5491	1.4048	AVRG	R		0.605107		ng	1.6526	12	0.0500	.99	15	
Acenaphthene	0.9780	1.0039	0.8880	0.9042	0.8745	0.8961	0.8459	AVRG	R		1.095343		ng	0.9130	6	0.0500	.99	15	
Fluorene	1.2936	1.3343	1.1044	1.0822	1.0251	1.0427	0.9742	AVRG	R		0.890969		ng	1.1224	12	0.0500	.99	15	
Phenanthrene	1.0829	1.0832	0.9129	0.9025	0.8625	0.8733	0.8045	AVRG	R		1.073340		ng	0.9317	12	0.0500	.99	15	
Anthracene	1.0124	1.0089	0.8374	0.8494	0.8074	0.8190	0.7527	AVRG	R		1.149982		ng	0.8696	12	0.0500	.99	15	
Fluoranthene	1.3463	1.3299	1.0908	1.0639	0.9777	0.9745		AVRG	R		0.884534		ng	1.1305	15	0.0500	.99	15	
Pyrene	1.6296	1.5838	1.3203	1.3448	1.2436	1.3168	1.2377	AVRG	R		0.723391		ng	1.3824	11	0.0500	.99	15	
Benzo(a)anthracene	1.4876	1.4402	1.1906	1.1967	1.1234	1.1975	1.0980	AVRG	R		0.801467		ng	1.2477	12	0.0500	.99	15	
Chrysene	1.2222	1.1905	1.0174	1.0425	1.0044	1.0843	1.0109	AVRG	R		0.924429		ng	1.0817	8	0.0500	.99	15	
Benzo(b)fluoranthene	1.5580	1.5462	1.2905	1.2678	1.2143	1.2456	1.2660	AVRG	R		0.745603		ng	1.3412	11	0.0500	.99	15	
Benzo(k)fluoranthene	1.6417	1.5304	1.2891	1.2397	1.2185	1.3772	1.2329	AVRG	R		0.734560		ng	1.3614	12	0.0500	.99	15	
Benzo(a)pyrene	1.2245m	1.3794	1.1580	1.1555	1.0869	1.1538	1.0795	AVRG	R		0.849763		ng	1.1768	9	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.6137	1.5844	1.3125	1.2617	1.2035	1.2739	1.2276	AVRG	R		0.738612		ng	1.3539	13	0.0500	.99	15	
Dibenz(a,h)anthracene	1.3595	1.3309	1.1205	1.0961	1.0463	1.1076	1.0269	AVRG	R		0.865497		ng	1.1554	12	0.0500	.99	15	
Benzo(g,h,i)perylene	1.3844	1.3455	1.1143	1.0875	1.0452	1.0883	1.0182	AVRG	R		0.865962		ng	1.1548	13	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CCRi: Ok
CCV: 1,4-Dioxane ↑ by 8%.
2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(b)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ but meeting limits

4/18/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.3672	0.3648	0.3381	0.3529	0.3456	0.3488	0.3162	AVRG	R		2.876322		ng	0.3477	5	0.0500	.99	15	
2-Fluorobiphenyl	1.4858	1.4656	1.2004	1.1696	1.0949	1.1500	1.0726	AVRG	R		0.810301		ng	1.2341	14	0.0500	.99	15	
Terphenyl-d14	1.1218	1.0588	0.8829	0.8901	0.8422	0.9018	0.8230	AVRG	R		1.073507		ng	0.9315	12	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : 1.0ug/mL
Seqnum : 545153296011 Filename : xdg11 Injected : 16-APR-2005 15:47
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0244

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.315700	ng	32	30	m v+ ***
Naphthalene	1.000000	1.183700	ng	18	30	
2-Methylnaphthalene	1.000000	1.226800	ng	23	30	!v+
Acenaphthylene	1.000000	1.231800	ng	23	30	!v+
Acenaphthene	1.000000	0.943100	ng	-6	20	m
Fluorene	1.000000	1.193400	ng	19	30	
Phenanthrene	1.000000	1.261100	ng	26	30	!v+
Anthracene	1.000000	1.261900	ng	26	30	!v+
Fluoranthene	1.000000	1.194800	ng	19	20	
Pyrene	1.000000	1.203700	ng	20	30	m
Benzo(a)anthracene	1.000000	1.258100	ng	26	30	!v+
Chrysene	1.000000	1.162800	ng	16	30	
Benzo(b)fluoranthene	1.000000	1.276500	ng	28	30	!v+
Benzo(k)fluoranthene	1.000000	1.169700	ng	17	30	
Benzo(a)pyrene	1.000000	1.124600	ng	12	20	m
Indeno(1,2,3-cd)pyrene	1.000000	1.189900	ng	19	30	
Dibenz(a,h)anthracene	1.000000	1.265500	ng	27	30	!v+
Benzo(g,h,i)perylene	1.000000	1.230800	ng	23	30	!v+

ISTD (CCV=xdg02)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	31768	23536	-25.91	6.44	6.44	0.00
Naphthalene-d8	95273	82425	-13.49	7.96	7.94	-0.02
Acenaphthene-d10	52843	44789	-15.24	10.21	10.21	0.00
Phenanthrene-d10	88159	70817	-19.67	12.12	12.12	0.00
Chrysene-d12	71234	53929	-24.29	15.79	15.79	0.00
Perylene-d12	66280	47612	-28.17	17.78	17.78	0.00

4/18/05

!=warning +=high bias m=manual integration v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525160783002 Filename : vdl02 Injected : 21-APR-2005 16:00
Calnum : 525156090001 Caldate : 18-APR-2005 Caltype :
Standards: 05WS0257

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF	Flags
1,4-Dioxane	0.4067	0.4479	0.200000	0.220300	ng	10	30	0.0500	m
Naphthalene	1.0045	1.1234	0.200000	0.223700	ng	12	30	0.0500	
2-Methylnaphthalene	0.6745	0.7838	0.200000	0.232400	ng	16	30	0.0500	
Acenaphthylene	1.5104	1.6258	0.200000	0.215300	ng	8	30	0.0500	
Acenaphthene	1.0178	1.0906	0.200000	0.214300	ng	7	20	0.0500	
Fluorene	1.2156	1.2635	0.200000	0.207900	ng	4	30	0.0500	
Phenanthrene	0.9557	1.0569	0.200000	0.221200	ng	11	30	0.0500	
Anthracene	0.8102	0.8560	0.200000	0.211300	ng	6	30	0.0500	
Fluoranthene	1.0773	1.1531	0.200000	0.214100	ng	7	20	0.0500	
Pyrene	1.1148	1.2740	0.200000	0.228500	ng	14	30	0.0500	
Benzo(a)anthracene	0.9830	1.0690	0.200000	0.217500	ng	9	30	0.0500	
Chrysene	1.0269	1.1662	0.200000	0.227100	ng	14	30	0.0500	
Benzo(b)fluoranthene	1.3944	1.6278	0.200000	0.233500	ng	17	30	0.0500	
Benzo(k)fluoranthene	1.5781	1.6532	0.200000	0.209500	ng	5	30	0.0500	
Benzo(a)pyrene	1.0870	1.1313	0.200000	0.208200	ng	4	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2022	1.3132	0.200000	0.218500	ng	9	30	0.0500	
Dibenz(a,h)anthracene	0.9190	1.0665	0.200000	0.232100	ng	16	30	0.0500	
Benzo(g,h,i)perylene	1.0362	1.1522	0.200000	0.222400	ng	11	30	0.0500	
Nitrobenzene-d5	0.2848	0.2865	0.200000	0.201200	ng	1	30	0.0500	
2-Fluorobiphenyl	1.3745	1.5187	0.200000	0.221000	ng	11	30	0.0500	
Terphenyl-d14	0.9216	1.0893	0.200000	0.236400	ng	18	30	0.0500	

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : IDF : 1.0
Seqnum : 545160540012 Filename : xdl12 Injected : 21-APR-2005 20:53
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0260

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.3675	2.000000	1.655500	ng	-17	30	0.0500	
Naphthalene	0.9213	0.8106	2.000000	1.759600	ng	-12	30	0.0500	
2-Methylnaphthalene	0.7022	0.6045	2.000000	1.721800	ng	-14	30	0.0500	
Acenaphthylene	1.6526	1.5236	2.000000	1.843800	ng	-8	30	0.0500	
Acenaphthene	0.9130	0.8778	2.000000	1.923000	ng	-4	20	0.0500	
Fluorene	1.1224	1.0301	2.000000	1.835500	ng	-8	30	0.0500	
Phenanthrene	0.9317	0.8490	2.000000	1.822500	ng	-9	30	0.0500	
Anthracene	0.8696	0.8112	2.000000	1.865800	ng	-7	30	0.0500	
Fluoranthene	1.1305	0.9447	2.000000	1.671200	ng	-16	20	0.0500	
Pyrene	1.3824	1.2425	2.000000	1.797600	ng	-10	30	0.0500	
Benzo(a)anthracene	1.2477	1.1407	2.000000	1.828500	ng	-9	30	0.0500	
Chrysene	1.0817	1.0017	2.000000	1.851900	ng	-7	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.2464	2.000000	1.858700	ng	-7	30	0.0500	m
Benzo(k)fluoranthene	1.3614	1.0553	2.000000	1.550400	ng	-22	30	0.0500	!c- m
Benzo(a)pyrene	1.1768	1.2598	2.000000	2.141100	ng	7	20	0.0500	m
Indeno(1,2,3-cd)pyrene	1.3539	1.1871	2.000000	1.753600	ng	-12	30	0.0500	
Dibenz(a,h)anthracene	1.1554	0.9799	2.000000	1.696200	ng	-15	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0151	2.000000	1.758000	ng	-12	30	0.0500	
Nitrobenzene-d5	0.3477	0.3291	2.000000	1.893100	ng	-5	30	0.0500	
2-Fluorobiphenyl	1.2341	1.2190	2.000000	1.975500	ng	-1	30	0.0500	
Terphenyl-d14	0.9315	0.8448	2.000000	1.813700	ng	-9	30	0.0500	

!=warning -=low bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : IDF : 1.0
Seqnum : 545162230003 Filename : xdm03 Injected : 22-APR-2005 16:47
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0260

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.4770	2.000000	2.148700	ng	7	30	0.0500	m
Naphthalene	0.9213	0.7576	2.000000	1.644500	ng	-18	30	0.0500	
2-Methylnaphthalene	0.7022	0.5866	2.000000	1.670800	ng	-16	30	0.0500	
Acenaphthylene	1.6526	1.5088	2.000000	1.826000	ng	-9	30	0.0500	
Acenaphthene	0.9130	0.8692	2.000000	1.904200	ng	-5	20	0.0500	
Fluorene	1.1224	1.0195	2.000000	1.816600	ng	-9	30	0.0500	
Phenanthrene	0.9317	0.8141	2.000000	1.747600	ng	-13	30	0.0500	
Anthracene	0.8696	0.7859	2.000000	1.807500	ng	-10	30	0.0500	
Fluoranthene	1.1305	0.9498	2.000000	1.680300	ng	-16	20	0.0500	
Pyrene	1.3824	1.2348	2.000000	1.786500	ng	-11	30	0.0500	
Benzo(a)anthracene	1.2477	1.1233	2.000000	1.800600	ng	-10	30	0.0500	
Chrysene	1.0817	0.9704	2.000000	1.794200	ng	-10	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.1456	2.000000	1.708300	ng	-15	30	0.0500	
Benzo(k)fluoranthene	1.3614	1.5981	2.000000	2.347800	ng	17	30	0.0500	
Benzo(a)pyrene	1.1768	1.0935	2.000000	1.858400	ng	-7	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.3539	1.1661	2.000000	1.722700	ng	-14	30	0.0500	
Dibenz(a,h)anthracene	1.1554	1.0015	2.000000	1.733600	ng	-13	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0129	2.000000	1.754200	ng	-12	30	0.0500	
Nitrobenzene-d5	0.3477	0.2948	2.000000	1.695700	ng	-15	30	0.0500	
2-Fluorobiphenyl	1.2341	1.0846	2.000000	1.757600	ng	-12	30	0.0500	
Terphenyl-d14	0.9315	0.8397	2.000000	1.802900	ng	-10	30	0.0500	

4/7/05

4/25/05

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525163792002 Filename : vdn02 Injected : 23-APR-2005 18:11
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: 05WS0259

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4253	1.000000	1.069100	ng	7	30	0.0500	
Naphthalene	0.8875	0.9628	1.000000	1.084800	ng	8	30	0.0500	
2-Methylnaphthalene	0.6056	0.6457	1.000000	1.066100	ng	7	30	0.0500	
Acenaphthylene	1.6578	1.6000	1.000000	0.965100	ng	-3	30	0.0500	
Acenaphthene	1.0255	1.0017	1.000000	0.976700	ng	-2	20	0.0500	
Fluorene	1.2395	1.2117	1.000000	0.977600	ng	-2	30	0.0500	
Phenanthrene	0.9650	0.9224	1.000000	0.955800	ng	-4	30	0.0500	
Anthracene	0.8558	0.8261	1.000000	0.965300	ng	-3	30	0.0500	
Fluoranthene	1.0752	1.0123	1.000000	0.941600	ng	-6	20	0.0500	
Pyrene	1.1306	1.0426	1.000000	0.922200	ng	-8	30	0.0500	
Benzo(a)anthracene	1.0288	0.9594	1.000000	0.932500	ng	-7	30	0.0500	
Chrysene	1.0217	0.9506	1.000000	0.930400	ng	-7	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.1162	1.000000	0.843000	ng	-16	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.7265	1.000000	0.962000	ng	-4	30	0.0500	
Benzo(a)pyrene	1.1063	0.9930	1.000000	0.897600	ng	-10	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.0826	1.000000	0.896100	ng	-10	30	0.0500	
Dibenz(a,h)anthracene	0.9620	0.8549	1.000000	0.888700	ng	-11	30	0.0500	
Benzo(g,h,i)perylene	1.0276	0.9113	1.000000	0.886900	ng	-11	30	0.0500	
Nitrobenzene-d5	0.2512	0.2416	1.000000	0.961700	ng	-4	30	0.0500	
2-Fluorobiphenyl	1.3678	1.3291	1.000000	0.971700	ng	-3	30	0.0500	
Terphenyl-d14	0.9054	0.8757	1.000000	0.967300	ng	-3	30	0.0500	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : PAHDIOX IDF : 1.0
Seqnum : 545166191002 Filename : xdp02 Injected : 25-APR-2005 10:12
Calnum : 545153296002 Caldate : 16-APR-2005 Caltype :
Standards: 05WS0258

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.5096	0.500000	0.573900	ng	15	30	0.0500	m
Naphthalene	0.9213	0.7976	0.500000	0.432800	ng	-13	30	0.0500	
2-Methylnaphthalene	0.7022	0.6128	0.500000	0.436400	ng	-13	30	0.0500	
Acenaphthylene	1.6526	1.6914	0.500000	0.511700	ng	2	30	0.0500	
Acenaphthene	0.9130	0.8801	0.500000	0.482000	ng	-4	20	0.0500	
Fluorene	1.1224	1.0626	0.500000	0.473400	ng	-5	30	0.0500	
Phenanthrene	0.9317	0.8941	0.500000	0.479800	ng	-4	30	0.0500	
Anthracene	0.8696	0.8337	0.500000	0.479400	ng	-4	30	0.0500	
Fluoranthene	1.1305	1.0539	0.500000	0.466100	ng	-7	20	0.0500	
Pyrene	1.3824	1.3661	0.500000	0.494100	ng	-1	30	0.0500	
Benzo(a)anthracene	1.2477	1.2025	0.500000	0.481900	ng	-4	30	0.0500	
Chrysene	1.0817	1.0134	0.500000	0.468400	ng	-6	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.2255	0.500000	0.456900	ng	-9	30	0.0500	
Benzo(k)fluoranthene	1.3614	1.1904	0.500000	0.437200	ng	-13	30	0.0500	
Benzo(a)pyrene	1.1768	1.1328	0.500000	0.481300	ng	-4	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.3539	1.2062	0.500000	0.445400	ng	-11	30	0.0500	
Dibenz(a,h)anthracene	1.1554	1.0164	0.500000	0.439800	ng	-12	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0618	0.500000	0.459800	ng	-8	30	0.0500	
Nitrobenzene-d5	0.3477	0.3937	0.500000	0.566200	ng	13	30	0.0500	
2-Fluorobiphenyl	1.2341	1.1553	0.500000	0.468100	ng	-6	30	0.0500	
Terphenyl-d14	0.9315	0.8784	0.500000	0.471500	ng	-6	30	0.0500	

4/29/05

m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 21-APR-2005 CCV Filename: vdl02
Sequence: 525160783 (vdl) Date Analyzed: 21-APR-2005
Instrument ID: MSBNA03 Time Analyzed: 16:00

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	57881	7.25	214714	8.96	121699	11.55	218917	13.79	209652	17.63	179169	19.42
LOWER LIMIT	28941	6.75	107357	8.46	60850	11.06	109459	13.29	104826	17.13	89585	18.92
UPPER LIMIT	115762	7.75	429428	9.46	243398	12.06	437834	14.29	419304	18.13	358338	19.92

TYPE	SAMPLE	#											
CCV		002	57881	7.25	214714	8.96	121699	11.56	218917	13.79	209652	17.63	179169	19.42
SAMPLE	178716-002	003	35550	7.25	141650	8.96	89205	11.56	161819	13.80	161133	17.63	143884	19.42
SAMPLE	178716-004	004	34597	7.25	139705	8.97	87699	11.56	155038	13.80	149111	17.63	136079	19.42
SAMPLE	178716-007	005	39416	7.25	138283	8.96	85880	11.56	151643	13.80	146019	17.63	132311	19.42
SAMPLE	178716-012	006	36922	7.25	138719	8.98	86769	11.56	150819	13.80	149151	17.63	133881	19.42
SAMPLE	178716-009	007	43373	7.25	152015	8.97	89229	11.56	144078	13.80	128528	17.64	103686	19.42
SAMPLE	178716-011	008	37230	7.25	138114	8.96	79804	11.56	130509	13.80	118936	17.64	98204	19.42
SAMPLE	178716-003	009	40227	7.25	145790	8.96	85348	11.56	138424	13.80	124585	17.64	101347	19.42
SAMPLE	178716-008	010	42207	7.25	149317	8.97	89799	11.56	148111	13.80	133136	17.64	107092	19.42
SAMPLE	178716-005	011	45081	7.25	162421	8.96	94501	11.56	150561	13.80	125908	17.64	96960	19.42
SAMPLE	178953-008	012	52141	7.25	194478	8.96	115596	11.56	177379	13.80	120178	17.65	64648*	19.46
SAMPLE	178716-006	013	43992	7.25	164408	8.97	87450	11.56	150846	13.80	133559	17.64	107184	19.42
SAMPLE	178846-002	014	47655	7.25	180874	8.96	111700	11.56	213916	13.80	193208	17.64	148506	19.42
SAMPLE	178835-003	015	47109	7.26	178379	8.97	109682	11.56	208071	13.80	192449	17.64	153531	19.42
SAMPLE	178951-003	016	45837	7.25	174122	8.96	107243	11.56	203648	13.80	193413	17.64	156421	19.42
SAMPLE	178975-011	017	47200	7.25	172776	8.96	105773	11.56	196910	13.80	179672	17.64	139238	19.42
SAMPLE	178975-010	018	44647	7.26	160030	8.97	97776	11.56	183733	13.80	173725	17.63	138703	19.42
SAMPLE	178975-008	019	47922	7.26	179118	8.97	108757	11.55	200071	13.80	184749	17.63	136727	19.42
SAMPLE	178835-001	020	46752	7.25	173679	8.97	108508	11.56	202366	13.79	192213	17.63	152027	19.42
SAMPLE	178975-012	021	47440	7.26	177214	8.97	107703	11.56	203347	13.80	193708	17.63	150584	19.42

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 21-APR-2005
Sequence: 545160540 (xdl)
Instrument ID: MSBNA05

CCV Filename: xdl12
Date Analyzed: 21-APR-2005
Time Analyzed: 20:53

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24652	6.16	89626	7.65	48797	9.91	80626	11.82	61523	15.51	56898	17.53
LOWER LIMIT	12326	5.66	44813	7.15	24399	9.41	40313	11.32	30762	15.01	28449	17.03
UPPER LIMIT	49304	6.66	179252	8.15	97594	10.41	161252	12.32	123046	16.01	113796	18.03

TYPE	SAMPLE	#										
CCV	PAHMIX	012	24652	6.16	89626	7.65	48797	9.91	80626	11.82	61523	15.51	56898	17.53
BLANK	QC291296	014	20396	6.16	78251	7.65	42834	9.91	66317	11.83	54240	15.52	44715	17.55
LCS	QC291297	016	33357	6.16	124095	7.65	73072	9.91	116803	11.83	104288	15.52	91270	17.55
MSS	178835-002	018	17311	6.16	64408	7.65	36403	9.91	55157	11.83	43688	15.52	36276	17.56
MS	QC291298	020	34038	6.16	122305	7.65	75847	9.91	118804	11.83	106235	15.53	91812	17.57
MSD	QC291299	022	33057	6.17	116770	7.65	73223	9.91	116155	11.84	103322	15.57	89301	17.62
SAMPLE	178975-009	023	19603	6.17	70232	7.67	42293	9.91	63936	11.84	51593	15.58	29741	17.66
SAMPLE	178951-002	024	19585	6.16	71047	7.65	41721	9.91	64492	11.84	52506	15.58	30283	17.66
SAMPLE	178975-001	025	19745	6.17	71178	7.67	41684	9.91	63405	11.84	51494	15.58	29641	17.66
SAMPLE	178975-003	026	19103	6.17	65134	7.67	39639	9.91	59537	11.84	47985	15.60	28050*	17.71
SAMPLE	178975-005	027	19009	6.17	63821	7.67	38207	9.91	57318	11.84	46138	15.61	26795*	17.72
SAMPLE	178975-013	028	19188	6.17	67112	7.67	26951	9.91	60007	11.84	48188	15.61	27557*	17.72
SAMPLE	178975-015	029	17801	6.17	62930	7.67	25017	9.91	54559	11.84	43414	15.63	23258*	17.79
SAMPLE	178975-002	030	33261	6.17	119589	7.67	75986	9.91	120068	11.84	105027	15.61	58163	17.75

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 22-APR-2005
Sequence: 545162230 (xdm)
Instrument ID: MSBNA05

CCV Filename: xdm03
Date Analyzed: 22-APR-2005
Time Analyzed: 16:47

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24691	6.12	97408	7.61	48545	9.84	80288	11.75	60565	15.36	52927	17.35
LOWER LIMIT	12346	5.62	48704	7.11	24273	9.34	40144	11.25	30283	14.86	26464	16.85
UPPER LIMIT	49382	6.62	194816	8.11	97090	10.34	160576	12.25	121130	15.86	105854	17.85

TYPE	SAMPLE	#										
CCV		003	24691	6.12	97408	7.61	48545	9.84	80288	11.75	60565	15.36	52927	17.35
BLANK	QC291296	004	25091	6.12	102754	7.61	53762	9.84	81347	11.74	68261	15.36	55472	17.34
LCS	QC291297	005	24699	6.12	101372	7.61	48732	9.84	69490	11.74	49175	15.36	39846	17.34
MSS	178835-002	006	14*	6.10	291*	7.61	25*	9.84	414*	11.75	141*	15.37	97*	17.35
MS	QC291298	007	23228	6.12	93681	7.61	45641	9.84	69110	11.74	49710	15.36	41310	17.34
MSD	QC291299	008	20905	6.12	85174	7.61	40649	9.84	61152	11.75	43498	15.36	35866	17.34
SAMPLE	178716-007	009	19230	6.12	59206	7.61	24186*	9.84	48796	11.75	39463	15.36	33981	17.35
SAMPLE	178716-002	010	38808	6.12	115949	7.61	52515	9.85	114346	11.75	102486	15.37	93929	17.35
SAMPLE	178716-004	011	22525	6.12	67539	7.61	28217	9.84	59909	11.75	49963	15.37	43052	17.35
SAMPLE	178716-012	012	19662	6.12	56988	7.61	24830	9.85	53082	11.75	45110	15.37	38104	17.35
SAMPLE	178951-002	013	35012	6.12	138795	7.61	79401	9.84	124852	11.75	108446	15.36	94760	17.35
SAMPLE	178975-013	014	19217	6.12	73783	7.61	40006	9.84	60876	11.75	47554	15.37	39551	17.35
SAMPLE	178951-004	015	17722	6.12	72768	7.61	37933	9.84	58684	11.75	45220	15.36	37751	17.35
SAMPLE	178951-001	016	17166	6.12	70129	7.61	37072	9.84	57085	11.75	42937	15.37	34734	17.35
SAMPLE	178846-001	017	17820	6.12	72711	7.61	37468	9.85	57204	11.75	41850	15.37	31353	17.35
SAMPLE	178975-002	018	35201	6.12	140972	7.61	80875	9.84	126751	11.75	107473	15.37	82940	17.35
SAMPLE	178975-009	019	20870	6.12	84593	7.61	44640	9.84	67479	11.75	52593	15.37	36723	17.35
SAMPLE	178975-001	020	20382	6.12	80897	7.61	42522	9.84	63529	11.75	46973	15.37	26427*	17.36
SAMPLE	178975-003	021	18174	6.12	62837	7.61	35433	9.85	53842	11.75	38226	15.40	18555*	17.38

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 23-APR-2005 CCV Filename: vdn02
Sequence: 525163792 (vdn) Date Analyzed: 23-APR-2005
Instrument ID: MSBNA03 Time Analyzed: 18:11

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	50367	7.15	190555	8.85	107863	11.45	212860	13.67	218183	17.52	195655	19.30
LOWER LIMIT	25184	6.65	95278	8.35	53932	10.95	106430	13.17	109092	17.02	97828	18.80
UPPER LIMIT	100734	7.65	381110	9.35	215726	11.95	425720	14.17	436366	18.02	391310	19.80

TYPE	SAMPLE	#											
CCV		002	50367	7.15	190555	8.85	107863	11.45	212860	13.67	218183	17.52	195655	19.30
BLANK	QC291422	003	49601	7.16	196139	8.85	119967	11.45	233337	13.67	221643	17.52	184344	19.30
LCS	QC291423	004	49148	7.16	203520	8.85	116600	11.44	229438	13.67	222786	17.52	191519	19.30
MSS	178981-007	005	52743	7.16	211229	8.85	121996	11.45	237807	13.67	240036	17.52	208810	19.30
MS	QC291424	006	50799	7.16	200800	8.85	118652	11.45	226809	13.67	222085	17.52	194763	19.30
MSD	QC291425	007	47712	7.16	192855	8.85	110887	11.45	215886	13.67	216297	17.52	192802	19.30
SAMPLE	178846-002	008	51856	7.16	208146	8.85	123813	11.45	228044	13.67	217946	17.52	195521	19.30
SAMPLE	178835-001	009	50645	7.16	207865	8.85	120878	11.45	220022	13.67	172613	17.52	144094	19.31
SAMPLE	178835-003	010	50604	7.16	201882	8.85	118474	11.45	213765	13.67	160885	17.52	135518	19.31
SAMPLE	178951-003	011	52509	7.16	214830	8.85	123498	11.45	229222	13.67	203153	17.52	166653	19.31
SAMPLE	178975-005	012	42987	7.15	158137	8.85	93447	11.45	167845	13.67	126261	17.53	104968	19.31
SAMPLE	178975-015	013	45801	7.16	175021	8.85	103411	11.45	187718	13.67	133539	17.53	92334*	19.32
SAMPLE	178975-008	014	46325	7.16	176732	8.85	104883	11.45	173696	13.67	131584	17.53	86322*	19.32
SAMPLE	178975-010	015	50046	7.16	136159	8.87	82024	11.46	158234	13.69	155630	17.54	108616	19.32
SAMPLE	178975-011	016	51352	7.16	180145	8.85	102540	11.45	169396	13.69	130471	17.54	84884*	19.33
SAMPLE	178975-012	017	49717	7.16	196420	8.85	119888	11.45	210989	13.67	154826	17.53	89105*	19.32
SAMPLE	178975-018	018	44665	7.16	173069	8.86	101931	11.45	187712	13.67	138335	17.53	83640*	19.31
SAMPLE	178975-017	019	44676	7.16	168542	8.85	101621	11.45	184999	13.67	135880	17.53	83199*	19.31
SAMPLE	178975-020	020	45901	7.16	176040	8.85	107040	11.45	197452	13.67	137387	17.53	71656*	19.31
SAMPLE	178975-022	021	45668	7.16	174584	8.85	106394	11.45	196985	13.67	140968	17.53	71429*	19.31
SAMPLE	178975-019	022	43914	7.16	169158	8.85	102849	11.45	195010	13.67	143111	17.52	72704*	19.31

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-APR-2005
Sequence: 545166191 (xdp)
Instrument ID: MSBNA05

CCV Filename: xdp02
Date Analyzed: 25-APR-2005
Time Analyzed: 10:12

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24976	6.07	96386	7.55	48851	9.79	74387	11.69	56552	15.30	48506	17.27
LOWER LIMIT	12488	5.57	48193	7.06	24426	9.29	37194	11.19	28276	14.80	24253	16.77
UPPER LIMIT	49952	6.57	192772	8.06	97702	10.29	148774	12.19	113104	15.80	97012	17.77

TYPE	SAMPLE	#										
CCV	PAHDIOX	002	24976	6.07	96386	7.56	48851	9.79	74387	11.69	56552	15.30	48506	17.27
MSS	178835-002	005	30317	6.07	128370	7.56	71172	9.79	109683	11.69	88703	15.30	75396	17.27

87

BNA05 8270 SIM Continuation

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545153296 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 16-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used >LR
001	xdg01	CCV				16-APR-2005 10:56	1.0	1.0	21		1	1 ?t 13:NO2BZD=12.8892
002	xdg02	CCV				16-APR-2005 11:33	1.0	1.0	21		1	1 ?t cc- 3:NO2BZD=11.112
003	xdg03	TUN	NP NL			16-APR-2005 11:59	1.0	1.0				2
004	xdg04	ICAL	0.1ug/mL			16-APR-2005 12:16	1.0	1.0				3
005	xdg05	ICAL	0.2ug/mL			16-APR-2005 12:46	1.0	1.0				4
006	xdg06	ICAL	0.5ug/mL			16-APR-2005 13:16	1.0	1.0				5
007	xdg07	ICAL	1.0ug/mL			16-APR-2005 13:46	1.0	1.0				6
008	xdg08	CCV	2.0ug/mL			16-APR-2005 14:17	1.0	1.0			1	7
009	xdg09	ICAL	5.0ug/mL			16-APR-2005 14:47	1.0	1.0				8
010	xdg10	ICAL	10.0ug/mL			16-APR-2005 15:17	1.0	1.0				1
011	xdg11	ICV	1.0ug/mL			16-APR-2005 15:47	1.0	1.0	1		1	9
012	xdg12	BLANK	QC290649	101215	Soil	16-APR-2005 16:17	1.0	0.03297			1	10
013	xdg13	LCS	QC290650	101215	Soil	16-APR-2005 16:47	1.0	0.0333			1	10
014	xdg14	SAMPLE	178762-005	101215	Soil	16-APR-2005 17:18	2.0	0.03309			1	10
015	xdg15	SAMPLE	178762-006	101215	Soil	16-APR-2005 17:48	1.0	0.03324			1	10
016	xdg16	SAMPLE	178762-009	101215	Soil	16-APR-2005 18:18	1.0	0.03282			1	10
017	xdg17	SAMPLE	178762-008	101215	Soil	16-APR-2005 18:48	2.0	0.0331		1	1	10
018	xdg18	SAMPLE	178762-010	101215	Soil	16-APR-2005 19:19	2.0	0.03311			1	10
019	xdg19	SAMPLE	178762-011	101215	Soil	16-APR-2005 19:49	1.0	0.03317			1	10
020	xdg20	X	ENDBLANK			16-APR-2005 20:19	1.0					
021	xdg21	X	ENDBLANK			16-APR-2005 20:42	1.0					
022	xdg22	X	ENDBLANK			16-APR-2005 20:52	1.0					

ICAL: OK
CCV: 1,4-Dioxane ↑ Cal's OK
- 2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(b)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ but meeting limits

Stds used: 1=05WS0262 2=05WS0188 3=05WS0256 4=05WS0257 5=05WS0258 6=05WS0259 7=05WS0260 8=05WS0261 9=05WS0244 10=S266
Flags used: -=low bias ?t=missing tune cc=CCV CCC failure

Analyst: _____ Date: 4/18/05

4/18/05

BNA03 8270-SIM QCAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525156090 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 18-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vdi01	TUN	NP NL			18-APR-2005 09:30	1.0	1.0				1	
002	vdi02	TUN	NP NL			18-APR-2005 09:57	1.0	1.0				1	
003	vdi03	CCV				18-APR-2005 10:13	1.0	1.0	10		1	2 cc+	1:BZD=578.342
005	vdi05	CCV				18-APR-2005 12:19	1.0	1.0	14		1	3 cc+	13:BZBF=13.5198
006	vdi06	CCV				18-APR-2005 14:06	1.0	1.0	1		1	4	
007	vdi07	TUN	DFTPP 50NG			18-APR-2005 16:36	1.0	1.0				1	
008	vdi08	ICAL	0.1ug/ml PAH			18-APR-2005 16:51	1.0	1.0				5	
009	vdi09	ICAL	0.2ug/ml PAH			18-APR-2005 17:21	1.0	1.0				6	
010	vdi10	ICAL	0.5ug/ml PAH			18-APR-2005 17:51	1.0	1.0				7	
011	vdi11	ICAL	1.0ug/ml PAH			18-APR-2005 18:22	1.0	1.0				4	
012	vdi12	ICAL	2.0ug/ml PAH			18-APR-2005 18:53	1.0	1.0				8	
013	vdi13	ICAL	5.0ug/ml PAH			18-APR-2005 19:23	1.0	1.0				9	
014	vdi14	ICAL	10ug/ml PAHD			18-APR-2005 19:54	1.0	1.0				3	
015	vdi15	ICV	1.0ug/ml SIM			18-APR-2005 20:25	1.0	1.0	7		1	10	
016	vdi16	BLANK	QC290558	101191	Water	18-APR-2005 20:55	1.0	0.001			1	11	
017	vdi17	BS	QC290559	101191	Water	18-APR-2005 21:25	1.0	0.001		1	1	11 spk	
018	vdi18	BSD	QC290560	101191	Water	18-APR-2005 21:56	1.0	0.001		1	1	11 spk	
019	vdi19	BLANK	QC290561	101191	Filtra	18-APR-2005 22:27	1.0	0.001			1	11	
020	vdi20	LCS	QC290562	101191	Filtra	18-APR-2005 22:58	1.0	0.001		11	1	11 spk	
021	vdi21	SAMPLE	178797-001	101191	Filtra	18-APR-2005 23:29	1.0	0.001			1	11 spk	
022	vdi22	SAMPLE	178797-002	101191	Filtra	18-APR-2005 23:59	1.0	0.001176			1	11 spk	
023	vdi23	SAMPLE	178797-004	101191	Filtra	19-APR-2005 00:30	1.0	0.00125			1	11 spk	
024	vdi24	SAMPLE	178797-005	101191	Filtra	19-APR-2005 01:00	1.0	0.001			1	11 spk	
025	vdi25	SAMPLE	178797-006	101191	Filtra	19-APR-2005 01:31	1.0	0.001			1	11 spk	
026	vdi26	SAMPLE	178770-001	101191	Filtra	19-APR-2005 02:02	1.0	0.0009804			1	11 spk	
027	vdi27	SAMPLE	178770-002	101191	Filtra	19-APR-2005 02:32	1.0	0.001		1	1	11 spk	
028	vdi28	SAMPLE	178770-003	101191	Filtra	19-APR-2005 03:03	1.0	0.0009524			1	11 spk	
029	vdi29	SAMPLE	178770-004	101191	Filtra	19-APR-2005 03:34	1.0	0.0009709			1	11 spk	
030	vdi30	SAMPLE	178770-005	101191	Filtra	19-APR-2005 04:05	1.0	0.0009615			1	11 spk	

Typing updating Group RTs

not used

not used

Stds used: 1=05WS0188 2=S240 3=05WS0262 4=05WS0259 5=05WS0256 6=05WS0257 7=05WS0258 8=05WS0260 9=05WS0261 10=05WS0244 11=05WS025

Flags used: +=high bias <<t=out of clock cc=CCV CCC failure spk=5% spike rule

Analyst: _____ Date: 4/19/05

BNA03 8270-SIM ICV

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525157636 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 19-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	vdj01	TUN	NP NL			19-APR-2005 11:16	1.0				1	
002	vdj02	ICV				19-APR-2005 12:02	1.0	1			2	

Stds used: 1=05WS0188 2=S345

Analyst: _____ Date: 4/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525160783 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 21-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	vdl01	TUN	NP NL			21-APR-2005 15:43	1.0	1.0			1	
002	vdl02	CCV				21-APR-2005 16:00	1.0	1.0		1	2	
003	vdl03	SAMPLE	178716-002	101276	Soil	21-APR-2005 16:31	250.0	0.3309	1	1	3	1:MTNPH2=11.8173
004	vdl04	SAMPLE	178716-004	101276	Soil	21-APR-2005 17:01	200.0	0.3308	1	1	3	1:MTNPH2=11.3213
005	vdl05	SAMPLE	178716-007	101276	Soil	21-APR-2005 17:32	300.0	0.3324	1	1	3	1:MTNPH2=10.2956
006	vdl06	SAMPLE	178716-012	101276	Soil	21-APR-2005 18:02	200.0	0.3296	1	1	3	1:MTNPH2=12.6561
007	vdl07	SAMPLE	178716-009	101276	Soil	21-APR-2005 18:33	20.0	0.1643		1	3	
008	vdl08	SAMPLE	178716-011	101276	Soil	21-APR-2005 19:04	20.0	0.1641		1	3	
009	vdl09	SAMPLE	178716-003	101276	Soil	21-APR-2005 19:34	20.0	0.1651		1	3	
010	vdl10	SAMPLE	178716-008	101276	Soil	21-APR-2005 20:05	25.0	0.03309		1	3	
011	vdl11	SAMPLE	178716-005	101276	Soil	21-APR-2005 20:35	5.0	0.3309		1	3	
012	vdl12	SAMPLE	178953-008	101276	Soil	21-APR-2005 21:06	1.0	0.03323	19	1	3 sh	
013	vdl13	SAMPLE	178716-006	101276	Soil	21-APR-2005 21:38	20.0	0.03281		1	3	
014	vdl14	SAMPLE	178846-002	101384	Soil	21-APR-2005 22:09	20.0	0.03313		1	3	
015	vdl15	SAMPLE	178835-003	101384	Soil	21-APR-2005 22:40	20.0	0.03291		1	3	
016	vdl16	SAMPLE	178951-003	101384	Soil	21-APR-2005 23:11	20.0	0.03298		1	3	
017	vdl17	SAMPLE	178975-011	101384	Soil	21-APR-2005 23:42	20.0	0.03323		1	3	
018	vdl18	SAMPLE	178975-010	101384	Soil	22-APR-2005 00:13	20.0	0.0328		1	3	
019	vdl19	SAMPLE	178975-008	101384	Soil	22-APR-2005 00:44	20.0	0.03306		1	3	
020	vdl20	SAMPLE	178835-001	101384	Soil	22-APR-2005 01:14	20.0	0.033		1	3	
021	vdl21	SAMPLE	178975-012	101384	Soil	22-APR-2005 01:46	20.0	0.03319		1	3	
022	vdl22	X	ENDBLANK			22-APR-2005 02:11	1.0					
023	vdl23	X	ENDBLANK			22-APR-2005 02:22	1.0					
024	vdl24	X	ENDBLANK			22-APR-2005 02:33	1.0					

CCV: Ok
ICAL: Ok
CCV: Ok

Stds used: 1=05WS0188 2=05WS0257 3=05WS0254
Flags used: sh=out of sample hold

Analyst: _____ Date: 4/22/05 J. Little 4/22/05

Surr only (-2)

MB | LCS | MSS | MS | MSD

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545160540 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 21-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	xdl01	TUN	DFTTP 50NG			21-APR-2005 11:40	1.0	1.0				1	
002	xdl02	CCV	8270			21-APR-2005 12:04	1.0	1.0	4		1	2	
003	xdl03	BLANK	QC291165	101347	Soil	21-APR-2005 12:42	1.0	0.03312	1		1	3 Benzo(b). conf.	
004	xdl04	SAMPLE	178881-016	101253	Soil	21-APR-2005 13:18	15000	0.0668			1	3 Combine	
005	xdl05	SAMPLE	178888-001	101271	Water	21-APR-2005 13:55	25.0	0.0009901			1	3	
006	xdl06	SAMPLE	178888-005	101271	Water	21-APR-2005 14:31	10.0	0.001087	1	1	1	3 RR / n-nitrosodimethylamine	
007	xdl07	SAMPLE	178888-011	101271	Water	21-APR-2005 15:08	10.0	0.001		1	1	3	
008	xdl08	SAMPLE	178824-006	101347	Soil	21-APR-2005 16:25	5.0	0.03295		1	1	3 ~~Acenaphthene~~ Benzo(b)conf.	
009	xdl09	SAMPLE	178950-001	101347	Miscel	21-APR-2005 17:01	25.0	0.3323			1	3	
010	xdl10	TUN	NP NL			21-APR-2005 20:00	1.0	1.0				1	
011	xdl11	X	05WS0260			21-APR-2005 20:17	1.0						
012	xdl12	CCV	PAHDIOX			21-APR-2005 20:53	1.0	1.0			1	4	
013	xdl13	X	QC291296	101384	Soil	21-APR-2005 21:24	1.0	0.03321			1	3 3:NO2BZD=30.1660	
014	xdl14	BLANK	QC291296	101384	Soil	21-APR-2005 21:54	20.0	0.03321	1		1	3 Surr only	
015	xdl15	X	QC291297	101384	Soil	21-APR-2005 22:25	1.0	0.03309			1	3 spk 3:NO2BZD=32.6766	
016	xdl16	LCS	QC291297	101384	Soil	21-APR-2005 22:56	20.0	0.03309			1	3 Surr only	
017	xdl17	X	178835-002	101384	Soil	21-APR-2005 23:26	1.0	0.0331			1	3 3:NO2BZD=33.2682	
018	xdl18	MSS	178835-002	101384	Soil	21-APR-2005 23:57	20.0	0.0331			1	3 Surr only	
019	xdl19	X	QC291298	101384	Soil	22-APR-2005 00:28	1.0	0.0331			1	3 3:NO2BZD=31.7543	
020	xdl20	MS	QC291298	101384	Soil	22-APR-2005 00:58	20.0	0.0331			1	3 Surr only	
021	xdl21	X	QC291299	101384	Soil	22-APR-2005 01:29	1.0	0.0333			1	3 3:NO2BZD=35.3218	
022	xdl22	MSD	QC291299	101384	Soil	22-APR-2005 02:00	20.0	0.0333			1	3 Surr only	
023	xdl23	SAMPLE	178975-009	101384	Soil	22-APR-2005 02:31	20.0	0.08317			1	3	
024	xdl24	SAMPLE	178951-002	101384	Soil	22-APR-2005 03:02	20.0	0.03305			1	3	
025	xdl25	SAMPLE	178975-001	101384	Soil	22-APR-2005 03:33	20.0	0.03289			1	3	
026	xdl26	SAMPLE	178975-003	101384	Soil	22-APR-2005 04:04	20.0	0.03317			1	3	
027	xdl27	SAMPLE	178975-005	101384	Soil	22-APR-2005 04:35	20.0	0.03279			1	3	
028	xdl28	SAMPLE	178975-013	101384	Soil	22-APR-2005 05:06	20.0	0.03288		1	1	3 RR 70% #28↑	
029	xdl29	SAMPLE	178975-015	101384	Soil	22-APR-2005 05:37	20.0	0.033		1	1	3 RR 70% DIV	

Stds used: 1=05WS0188 2=S239 3=04SS401 4=05WS0260
Flags used: spk=5% spike rule

8270 ICAL: Benzidine failed (M)
ICV: 4-Nitroaniline ↑ / 4,6-Dinitro-2-methylphenol ↑
WL: 3-Nitroaniline ↑ / Aniline ↑ / Benzidine ↑
CCV XDL02 = n-nitrosodimethylamine ↑ / bis(2-chloroisopropyl)ether ↑ / Azobenzene ↑
WL = bis(2-chloroethyl)ether ↑ / n-Nitroso-di-n-propylamine ↑ / 2-Nitroaniline ↑ / 4,6-Dinitro-2-methylphenol ↑

Analyst: _____ Date: 4/22/05

Page 1 of 2

PAHDIOX
ICAL: rr
ICV = 1,4-Dioxane ↑
WL = 2-Methylnaphthalene ↑ / Acenaphthylene ↑ / Phenanthrene ↑ / Anthracene ↑ / Benzo(a)anthracene ↑ / Benzo(k)Phenanthrene ↑ / Dibenz(a,h)anthracene ↑ / Benzo(ghi)perylene ↑

CCV XDL112 = WL = Benzo(b)fluoranthene ↑

MSNA03 8270 SIM CALIBRATION

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

4/28/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545162230 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	xdm01	TUN	DFTTP 50NG			22-APR-2005 15:50	1.0	1.0				1	
002	xdm02	CCV				22-APR-2005 16:08	1.0	1.0	8		1	2	cc+ 6:BZGHIP=328.036
003	xdm03	CCV				22-APR-2005 16:47	1.0	1.0			1	2	
004	xdm04	BLANK	QC291296	101384	Soil	22-APR-2005 17:16	1.0	0.03321	3		1	3	3:NO2BZD=25.3846
005	xdm05	LCS	QC291297	101384	Soil	22-APR-2005 17:46	1.0	0.03309	3		1	3	3:NO2BZD=25.1746
006	xdm06	MSS	178835-002	101384	Soil	22-APR-2005 18:17	1.0	0.0331	4		1	3	4:PHEN2F=47236.7
007	xdm07	MS	QC291298	101384	Soil	22-APR-2005 18:47	1.0	0.0331	3	13	1	3	3:NO2BZD=23.9923
008	xdm08	MSD	QC291299	101384	Soil	22-APR-2005 19:18	1.0	0.0333	3	14	1	3	3:NO2BZD=23.9323
009	xdm09	SAMPLE	178716-007	101276	Soil	22-APR-2005 19:49	500.0	0.3324			1	3	
010	xdm10	SAMPLE	178716-002	101276	Soil	22-APR-2005 20:23	400.0	0.3309			1	3	
011	xdm11	SAMPLE	178716-004	101276	Soil	22-APR-2005 20:55	400.0	0.3308			1	3	
012	xdm12	SAMPLE	178716-012	101276	Soil	22-APR-2005 21:27	400.0	0.3296	1		1	3	1:MTNPH2=18.4905
013	xdm13	SAMPLE	178951-002	101384	Soil	22-APR-2005 21:59	20.0	0.03305	1		1	3	
014	xdm14	SAMPLE	178975-013	101384	Soil	22-APR-2005 22:31	20.0	0.03288			1	3	
015	xdm15	SAMPLE	178951-004	101384	Soil	22-APR-2005 23:02	20.0	0.03306	2		1	3	
016	xdm16	SAMPLE	178951-001	101384	Soil	22-APR-2005 23:34	20.0	0.03293	1		1	3	
017	xdm17	SAMPLE	178846-001	101384	Soil	23-APR-2005 00:07	20.0	0.3292	1		1	3	
018	xdm18	SAMPLE	178975-002	101384	Soil	23-APR-2005 00:39	20.0	0.08286			1	3	
019	xdm19	SAMPLE	178975-009	101384	Soil	23-APR-2005 01:11	5.0	0.08317			1	3	
020	xdm20	SAMPLE	178975-001	101384	Soil	23-APR-2005 01:43	2.0	0.03289	3		1	3	3:NO2BZD=14.1465
021	xdm21	SAMPLE	178975-003	101384	Soil	23-APR-2005 02:15	2.0	0.03317	3		1	3	3:NO2BZD=21.2115
022	xdm22	X	ENDBLANK			23-APR-2005 02:38	1.0						
023	xdm23	X	ENDBLANK			23-APR-2005 02:48	1.0						
024	xdm24	X	ENDBLANK			23-APR-2005 02:59	1.0						

CCV: OK
ICAL: OK
SCV: 1,4-Dioxane ↑ bias in D. ~~2-Methylnaphthalene ↑, Acenaphthylene~~ 4/25/05

Stds used: 1=05WS0188 2=05WS0260 3=S266
Flags used: +=high bias cc=CCV CCC failure

Analyst: _____ Date: 4/25/05

Page 1 of 1

4/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525163792 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 23-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	vdn01	TUN	NP NL			23-APR-2005 17:52	1.0	1.0			1	
002	vdn02	CCV				23-APR-2005 18:11	1.0	1.0		1	2	
003	vdn03	BLANK	QC291422	101417	Soil	23-APR-2005 18:44	1.0	0.03365		1	3	
004	vdn04	LCS	QC291423	101417	Soil	23-APR-2005 19:15	1.0	0.03368		1	3	
005	vdn05	MSS	178981-007	101417	Soil	23-APR-2005 19:47	1.0	0.03369		1	3	
006	vdn06	MS	QC291424	101417	Soil	23-APR-2005 20:20	1.0	0.03366		1	3	
007	vdn07	MSD	QC291425	101417	Soil	23-APR-2005 20:51	1.0	0.03324		1	3	
008	vdn08	SAMPLE	178846-002	101384	Soil	23-APR-2005 21:24	1.0	0.03313	3	1	3	3:NO2BZD=39.6926
009	vdn09	SAMPLE	178835-001	101384	Soil	23-APR-2005 21:56	1.0	0.033	3	1	3	3:NO2BZD=39.2246
010	vdn10	SAMPLE	178835-003	101384	Soil	23-APR-2005 22:30	1.0	0.03291	3	1	3	3:NO2BZD=36.8739
011	vdn11	SAMPLE	178951-003	101384	Soil	23-APR-2005 23:01	1.0	0.03298	3	1	3	3:NO2BZD=38.5640
012	vdn12	SAMPLE	178975-005	101384	Soil	23-APR-2005 23:34	10.0	0.03279		1	3	
013	vdn13	SAMPLE	178975-015	101384	Soil	24-APR-2005 00:06	10.0	0.033		1	3	
014	vdn14	SAMPLE	178975-008	101384	Soil	24-APR-2005 00:39	10.0	0.03306	3	1	3	3:NO2BZD=21.8781
015	vdn15	SAMPLE	178975-010	101384	Soil	24-APR-2005 01:12	1.0	0.0328	4	1	3	4:NO2BZD=34.1915
016	vdn16	SAMPLE	178975-011	101384	Soil	24-APR-2005 01:44	1.0	0.03323	3	1	3	3:NO2BZD=43.6759
017	vdn17	SAMPLE	178975-012	101384	Soil	24-APR-2005 02:17	1.0	0.03319	3	1	3	3:NO2BZD=39.9191
018	vdn18	SAMPLE	178975-018	101417	Soil	24-APR-2005 02:49	10.0	0.03304		1	3	
019	vdn19	SAMPLE	178975-017	101417	Soil	24-APR-2005 03:22	10.0	0.0331		1	3	
020	vdn20	SAMPLE	178975-020	101417	Soil	24-APR-2005 03:54	10.0	0.03322		1	3	
021	vdn21	SAMPLE	178975-022	101417	Soil	24-APR-2005 04:27	10.0	0.03322		1	3	
022	vdn22	SAMPLE	178975-019	101417	Soil	24-APR-2005 04:59	20.0	0.033		1	3	
023	vdn23	X	ENDBLANK			24-APR-2005 05:32	1.0					
024	vdn24	X	ENDBLANK			24-APR-2005 05:57	1.0					
025	vdn25	X	ENDBLANK			24-APR-2005 06:08	1.0					

CCV: Ok
ICAL: Ok
SCV: Ok

Stds used: 1=05WS0188 2=05WS0259 3=05WS0254

Analyst: _____ Date: 4/25/05

C 04/25/05

MSS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545166191 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 25-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	xdp01	TUN	DFTTP 50NG			25-APR-2005 09:51	1.0	1.0			1	
002	xdp02	CCV	PAHDIOX			25-APR-2005 10:12	1.0	1.0		1	2	
003	xdp03	CCV	8270			25-APR-2005 10:45	1.0	1.0	3	1	3 cc+ not used	
004	xdp04	X	178835-002	101384	Soil	25-APR-2005 11:23	1.0	0.0331		1	4 didn't finish run	3:NO2BZD=23.7605
005	xdp05	MSS	178835-002	101384	Soil	25-APR-2005 12:42	1.0	0.0331	3	1	4	3:NO2BZD=21.6672

* ICAL = ok
* ICV = 1,4 Dioxane ↑ (M)
  WL = 2-Methylnaphthalene ↑ / Acenaphthylene ↑ / Phenanthrene ↑ / Anthracene ↑ / Benzo(a)anthracene ↑ / Benzo(k)fluoranthene ↑ / Dibenz(ah)anthracene ↑ / Benzo(ghi)perylene ↑.
* CCV: ok

96

4/25/05

Stds used: 1=05WS0188 2=05WS0258 3=S239 4=S266
Flags used: +=high bias cc=CCV CCC failure

Analyst: CH Date: 4/25/05

Curtis & Tompkins Laboratories Sample Preparation Summary 21-APR-2005 19:45

Batch Number : 101384
Date Extracted: 21-APR-2005
Extracted by : Junn Masongsong
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S211B
Spike #2 ID : S212B
Spike #3 ID : S168A
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178835-001			Blasland, Bouck & Lee	Soil	30.3	g	1	0.033003	1	1	0	0	8270-SIM		
178835-002			Blasland, Bouck & Lee	Soil	30.21	g	1	0.033102	1	1	0	0	8270-SIM		MSS
178835-003			Blasland, Bouck & Lee	Soil	30.39	g	1	0.032906	1	1	0	0	8270-SIM		
178846-001			Mactec, Inc.	Soil	30.38	g	10	0.329164	1	1	0	0	8270-SIM		
178846-002			Mactec, Inc.	Soil	30.18	g	1	0.033135	1	1	0	0	8270-SIM		
178951-001			Mactec, Inc.	Soil	30.37	g	1	0.032927	1	1	0	0	8270-SIM		
178951-002			Mactec, Inc.	Soil	30.26	g	1	0.033047	1	1	0	0	8270-SIM		
178951-003			Mactec, Inc.	Soil	30.32	g	1	0.032982	1	1	0	0	8270-SIM		
178951-004			Mactec, Inc.	Soil	30.25	g	1	0.033058	1	1	0	0	8270-SIM		
178975-001			MWH	Soil	30.4	g	1	0.032895	1	1	0	0	8270-SIM		
178975-002			MWH	Soil	30.17	g	2.5	0.082864	1	1	0	0	8270-SIM		
178975-003			MWH	Soil	30.15	g	1	0.033167	1	1	0	0	8270-SIM		
178975-005			MWH	Soil	30.5	g	1	0.032787	1	1	0	0	8270-SIM		
178975-008			MWH	Soil	30.25	g	1	0.033058	1	1	0	0	8270-SIM		
178975-009			MWH	Soil	30.06	g	2.5	0.083167	1	1	0	0	8270-SIM		
178975-010			MWH	Soil	30.49	g	1	0.032798	1	1	0	0	8270-SIM		
178975-011			MWH	Soil	30.09	g	1	0.033234	1	1	0	0	8270-SIM		
178975-012			MWH	Soil	30.13	g	1	0.033190	1	1	0	0	8270-SIM		
178975-013			MWH	Soil	30.41	g	1	0.032884	1	1	0	0	8270-SIM		
178975-015			MWH	Soil	30.3	g	1	0.033003	1	1	0	0	8270-SIM		
QC291296	MB			Soil	30.11	g	1	0.033212	1	1	0	0	8270-SIM		
QC291297	LCS			Soil	30.22	g	1	0.033091	1	1	1	.1	8270-SIM		
QC291298	MS	of 178835-002		Soil	30.21	g	1	0.033102	1	1	1	.1	8270-SIM		178835-002
QC291299	MSD	of 178835-002		Soil	30.03	g	1	0.033300	1	1	1	.1	8270-SIM		178835-002

Prep Chemist: _____ Reviewed By: _____ Date: 25Apr05

Relinquished By: _____ Received By: _____ Date: 4/25/05

LIMS Batch No: 101384
LIMS Analysis SIM
Extracted by: JM
Date Extracted: 21 Apr 05

Extraction Method:
☒ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	178835-001	30.30	1.0		
	-002	30.21	↓		MSS
	-003	30.39	↓		
	178846-001	30.38	10.0		wouldn't conc further
5	-002	30.18	1.0		
	178951-001	30.37	↓		
	-002	30.26	↓		
	-003	30.32	↓		
	-004	30.25	↓		
10	178975-001	30.40	↓		
	-002	30.17	2.5		wouldn't conc further
	-003	30.15	1.0		
	-005	30.50	↓		
	-008	30.25	↓		
15	-009	30.06	2.5		wouldn't conc further
	-010	30.49	1.0		
	-011	30.09	↓		
	-012	30.13	↓		
	-013	30.41	↓		
20	-015	30.30	↓		
	MB 0429296	30.11	↓		
	LCS 97	30.22	↓		
	MS 98	30.21	↓		
	MSD 99	30.03	↓		
			JM 4/21/05		

* Accidentally used 8270 Surrogate instead of 8270-SIM Surrogate

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44258	JM 4/21/05
Samples were dried with baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM44135453	
1.0 mL of surrogate solution was added to all samples	S211B*	
1.0/0.1 mL of matrix spiking solution was added to all spikes	S212B/S168A	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM45005	
Acetone	EM45019	
Samples were: ☒ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM44135453	
Concentrated: ☒ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	✓

Extraction Chemist / Date

Continued from page ___
Continued on page ___

Jennie Mc 25Apr05
Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178951-001A	15.11	PCB	
-002	15.21		
-003	15.18		
-004	15.03		
178951-001A	30.37	8270-SIM	
-002	30.26		
-003	30.32		
-004	30.25		
178951-001A	50.09	TEHM	
-002	50.48		
-003	50.17		
-004	50.01		

Continued on Page

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
MS	50.03	TEHM	178833-027A
MSD	50.21	↓	↓
LCS	50.08	↓	EM44258
MB	50.08	↓	↓
178594-001A	30.27	8270	misc.
178687-024A	50.28	TEHM	
↓ -027B	50.35	↓	
178841-001A	50.02	TEHM	
178824-001A	50.20	TEHM	
-002	50.07	↓	
-003	50.18	↓	
-004	50.01	↓	
-005	50.49	↓	
-006	50.50	↓	
178835-001A	50.06	TEHM	
-002A	50.04	↓	MSS
-MS (SL 4/10)	50.19	↓	178835-002A
-MSD	50.37	↓	↓
-LCS	50.12	↓	EM44258
-MB	50.21	↓	↓
-003A	50.13	↓	
178835-001A	30.30 ✓	8270-SIM	
-002A	30.21 ✓	↓	MSS
-MS	30.21 ✓	↓	178835-002A ✓
-MSD	30.03 ✓	↓	↓
-LCS	30.22 ✓	↓	EM44258
-MB	30.11 ✓	↓	↓
-003A	30.39 ✓	↓	
178851-001B	50.38	TEH	
-002	50.34	↓	
-003	50.14	↓	
-004	50.26	↓	
-005A	50.03	↓	MSS
-MS	50.43	↓	178851-005A
-MSD	50.00	↓	↓
-LCS	50.22	↓	EM44258

Continued on Page

Read and Understood By

SC — 4/13/05 — 100

Signed — Date — Signed — Date

PCBs Results & QC Summary

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	BAKER BEACH	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101475
Units:	ug/Kg	Received:	04/18/05
Diln Fac:	1.000	Prepared:	04/26/05

Field ID:	BB2ATP104(8.0)	Moisture:	19%
Type:	SAMPLE	Sampled:	04/13/05
Lab ID:	178951-001	Analyzed:	04/27/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	2.5
Aroclor-1221	ND	24	12
Aroclor-1232	ND	12	8.3
Aroclor-1242	ND	12	4.1
Aroclor-1248	ND	12	3.0
Aroclor-1254	ND	12	4.8
Aroclor-1260	11 J	12	2.7

Surrogate	%REC	Limits
TCMX	107	65-135
Decachlorobiphenyl	93	65-135

Field ID:	BB2ATP100(1.0)	Moisture:	27%
Type:	SAMPLE	Sampled:	04/14/05
Lab ID:	178951-002	Analyzed:	04/27/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	2.8
Aroclor-1221	ND	26	13
Aroclor-1232	ND	13	9.2
Aroclor-1242	ND	13	4.5
Aroclor-1248	ND	13	3.3
Aroclor-1254	ND	13	5.3
Aroclor-1260	ND	13	3.0

Surrogate	%REC	Limits
TCMX	95	65-135
Decachlorobiphenyl	114	65-135

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	BAKER BEACH	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101475
Units:	ug/Kg	Received:	04/18/05
Diln Fac:	1.000	Prepared:	04/26/05

Field ID:	BB2ATP101(14.0)	Moisture:	21%
Type:	SAMPLE	Sampled:	04/14/05
Lab ID:	178951-003	Analyzed:	04/27/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	2.6
Aroclor-1221	ND	24	12
Aroclor-1232	ND	12	8.5
Aroclor-1242	ND	12	4.2
Aroclor-1248	ND	12	3.1
Aroclor-1254	ND	12	4.9
Aroclor-1260	11 J	12	2.8

Surrogate	%REC	Limits
TCMX	107	65-135
Decachlorobiphenyl	132	65-135

Field ID:	BB1TP102(4.0)	Moisture:	32%
Type:	SAMPLE	Sampled:	04/15/05
Lab ID:	178951-004	Analyzed:	04/27/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	3.0
Aroclor-1221	ND	28	15
Aroclor-1232	ND	14	10
Aroclor-1242	ND	14	4.9
Aroclor-1248	ND	14	3.6
Aroclor-1254	ND	14	5.8
Aroclor-1260	ND	14	3.2

Surrogate	%REC	Limits
TCMX	143 *	65-135
Decachlorobiphenyl	171 *	65-135

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	BAKER BEACH	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101475
Units:	ug/Kg	Received:	04/18/05
Diln Fac:	1.000	Prepared:	04/26/05

Type:	BLANK	Analyzed:	04/26/05
Lab ID:	QC291651	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	2.0
Aroclor-1221	ND	19	9.9
Aroclor-1232	ND	9.5	6.7
Aroclor-1242	ND	9.5	3.3
Aroclor-1248	ND	9.5	2.4
Aroclor-1254	ND	9.5	3.9
Aroclor-1260	ND	9.5	2.2

Surrogate	%REC	Limits
TCMX	92	65-135
Decachlorobiphenyl	81	65-135

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	BAKER BEACH	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291652	Batch#:	101475
Matrix:	Soil	Prepared:	04/26/05
Units:	ug/Kg	Analyzed:	04/26/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1242	166.0	150.3	91	65-135

Surrogate	%REC	Limits
TCMX	101	65-135
Decachlorobiphenyl	96	65-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	BAKER BEACH	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	101475
MSS Lab ID:	178982-003	Sampled:	04/19/05
Matrix:	Soil	Received:	04/19/05
Units:	ug/Kg	Prepared:	04/26/05
Basis:	dry	Analyzed:	04/26/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC291653
Moisture: 12%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1242	<3.761	189.1	182.3	96	65-135

Surrogate	%REC	Limits
TCMX	105	65-135
Decachlorobiphenyl	89	65-135

Type: MSD
Lab ID: QC291654
Moisture: 12%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1242	188.6	170.2	90	65-135	7	35

Surrogate	%REC	Limits
TCMX	98	65-135
Decachlorobiphenyl	87	65-135

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_003	255150953003	pcb10_2	14-APR-2005 19:53	05WS0223
2	104_004	255150953004	pcb25_5	14-APR-2005 20:19	05WS0030
3	104_005	255150953005	pcb100_20	14-APR-2005 20:46	S157
4	104_006	255150953006	pcb250_50	14-APR-2005 21:13	S40
5	104_007	255150953007	pcb500_100	14-APR-2005 21:39	S100
6	104_008	255150953008	pcb750_150	14-APR-2005 22:06	S101
7	104_009	255150953009	pcb1K_200	14-APR-2005 22:33	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	311.44	297.35	273.50	254.34	241.44	229.07	225.17	AVRG	R		0.003820		pg	261.76	13	.99	20	
Aroclor-1016 Peak # 2	A	603.96	577.15	537.33	491.67	466.16	439.80	437.20	AVRG	R		0.001970		pg	507.61	13	.99	20	
Aroclor-1016 Peak # 3	A	773.55	721.22	695.67	645.78	645.19	624.02	597.23	AVRG	R		0.001489		pg	671.81	9	.99	20	
Aroclor-1016 Peak # 4	A	480.47	454.81	435.41	389.02	374.89	358.64	350.10	AVRG	R		0.002462		pg	406.19	12	.99	20	
Aroclor-1016 Peak # 5	A	365.11	369.58	341.88	307.56	295.86	281.48	275.12	AVRG	R		0.003130		pg	319.51	12	.99	20	
Aroclor-1260 Peak # 1	A	1358.9	1344.3	1171.9	1074.2	1035.6	989.70	1003.5	AVRG	R		8.774E-4		pg	1139.7	14	.99	20	
Aroclor-1260 Peak # 2	A	1346.9	1260.9	1086.4	1018.4	923.32	877.93	946.53	AVRG	R		9.383E-4		pg	1065.8	17	.99	20	
Aroclor-1260 Peak # 3	A	926.98	809.08	719.65	621.25	594.43	561.70	576.48	AVRG	R		0.001455		pg	687.08	20	.99	20	
Aroclor-1260 Peak # 4	A	642.42	570.82	608.36	550.05	531.16	498.62	512.26	AVRG	R		0.001789		pg	559.10	9	.99	20	
Aroclor-1260 Peak # 5	A	1699.1	1627.8	1500.5	1403.3	1409.3	1373.6	1481.2	AVRG	R		6.670E-4		pg	1499.3	8	.99	20	
TCMX	A	15744	15150	14219	13524	13267	12725	12857	AVRG	R		7.181E-5		pg	13926	8	.99	20	
Decachlorobiphenyl	A	9633.0	8471.8	8393.8	7724.9	8610.1	8390.1	9192.4	AVRG	R		1.159E-4		pg	8630.9	7	.99	20	
Aroclor-1016 Peak # 1	B	377.75	391.61	371.84	340.90	313.43	311.37	306.48	AVRG	R		0.002901		pg	344.77	10	.99	20	
Aroclor-1016 Peak # 2	B	832.44	805.50	737.73	667.22	611.91	611.72	600.39	AVRG	R		0.001438		pg	695.27	14	.99	20	
Aroclor-1016 Peak # 3	B	1768.4	1730.4	1566.4	1416.5	1316.9	1301.7	1263.3	AVRG	R		6.754E-4		pg	1480.5	14	.99	20	
Aroclor-1016 Peak # 4	B	735.21	675.00	625.42	561.73	518.83	522.53	511.89	AVRG	R		0.001687		pg	592.94	15	.99	20	
Aroclor-1016 Peak # 5	B	513.59	501.84	488.09	416.51	387.49	389.27	381.87	AVRG	R		0.002274		pg	439.81	13	.99	20	
Aroclor-1260 Peak # 1	B	969.42	944.36	875.52	745.20	711.37	698.33	677.23	AVRG	R		0.001245		pg	803.06	15	.99	20	
Aroclor-1260 Peak # 2	B	1398.9	1347.1	1246.3	1084.9	1039.3	1022.3	1004.4	AVRG	R		8.596E-4		pg	1163.3	14	.99	20	

107

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	970.39	955.89	857.34	742.61	731.27	720.26	707.50	AVRG	R		0.001231		pg	812.18	14	.99	20	
Aroclor-1260 Peak # 4	B	808.55	813.70	731.17	642.53	622.80	609.49	599.52	AVRG	R		0.001450		pg	689.68	14	.99	20	
Aroclor-1260 Peak # 5	B	457.61	430.44	403.91	354.82	343.78	338.70	335.24	AVRG	R		0.002627		pg	380.64	13	.99	20	
TCMX	B	20555	20240	18611	17309	15585	15486	15237	AVRG	R		5.690E-5		pg	17575	13	.99	20	
Decachlorobiphenyl	B	9988.0	9388.0	8258.3	7593.2	8005.8	8552.6	8411.5	AVRG	R		1.163E-4		pg	8599.6	10	.99	20	

108

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :

ICV 255150953011 (104_011) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255150953011	14-APR-2005	250.00	275.76	pg	10	15
Aroclor-1260	A	255150953011	14-APR-2005	250.00	266.52	pg	7	15
Aroclor-1016	B	255150953011	14-APR-2005	250.00	274.23	pg	10	15
Aroclor-1260	B	255150953011	14-APR-2005	250.00	278.29	pg	11	15

INITIAL CALIBRATION REPORT FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953002 Name: Type: (normal) Date: 15-APR-2005 00:19 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_013	255150953013	ar1254	15-APR-2005 00:19	S39

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	390.89	AVRG	R		0.002558		pg	390.89	0	.99	20	
Aroclor-1254 Peak # 2	A	549.73	AVRG	R		0.001819		pg	549.73	0	.99	20	
Aroclor-1254 Peak # 3	A	423.39	AVRG	R		0.002362		pg	423.39	0	.99	20	
Aroclor-1254 Peak # 4	A	728.11	AVRG	R		0.001373		pg	728.11	0	.99	20	
Aroclor-1254 Peak # 5	A	643.80	AVRG	R		0.001553		pg	643.80	0	.99	20	
Aroclor-1254 Peak # 1	B	351.39	AVRG	R		0.002846		pg	351.39	0	.99	20	
Aroclor-1254 Peak # 2	B	635.56	AVRG	R		0.001573		pg	635.56	0	.99	20	
Aroclor-1254 Peak # 3	B	744.74	AVRG	R		0.001343		pg	744.74	0	.99	20	
Aroclor-1254 Peak # 4	B	567.27	AVRG	R		0.001763		pg	567.27	0	.99	20	
Aroclor-1254 Peak # 5	B	1049.6	AVRG	R		9.527E-4		pg	1049.6	0	.99	20	

110

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255156384001 Name: Type: (normal) Date: 18-APR-2005 16:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	108_004	255156384004	ar1242	18-APR-2005 16:53	S8

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1242 Peak # 1	A	242.26	AVRG	R		0.004128		pg	242.26	0	.99	20	
Aroclor-1242 Peak # 2	A	425.84	AVRG	R		0.002348		pg	425.84	0	.99	20	
Aroclor-1242 Peak # 3	A	534.54	AVRG	R		0.001871		pg	534.54	0	.99	20	
Aroclor-1242 Peak # 4	A	344.78	AVRG	R		0.002900		pg	344.78	0	.99	20	
Aroclor-1242 Peak # 5	A	284.35	AVRG	R		0.003517		pg	284.35	0	.99	20	
Aroclor-1242 Peak # 1	B	297.41	AVRG	R		0.003362		pg	297.41	0	.99	20	
Aroclor-1242 Peak # 2	B	543.41	AVRG	R		0.001840		pg	543.41	0	.99	20	
Aroclor-1242 Peak # 3	B	1133.0	AVRG	R		8.826E-4		pg	1133.0	0	.99	20	
Aroclor-1242 Peak # 4	B	453.78	AVRG	R		0.002204		pg	453.78	0	.99	20	
Aroclor-1242 Peak # 5	B	345.78	AVRG	R		0.002892		pg	345.78	0	.99	20	

111

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	265.05	pg	6	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	225.68	pg	-10	15	
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	103.96	pg	4	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	91.856	pg	-8	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	494.66	pg	-1	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	430.13	pg	-14	15	
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	266.19	pg	6	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	234.37	pg	-6	15	

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1242

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923005	26-APR-2005 16:41	255156384001	18-APR-2005			250.00	252.87	pg	1	15	
GC22	B	255167923005	26-APR-2005 16:41	255156384001	18-APR-2005			250.00	241.82	pg	-3	15	
GC22	A	255167923022	27-APR-2005 02:22	255156384001	18-APR-2005			250.00	252.17	pg	1	15	
GC22	B	255167923022	27-APR-2005 02:22	255156384001	18-APR-2005			250.00	236.63	pg	-5	15	
GC22	A	255167923054	27-APR-2005 19:28	255156384001	18-APR-2005			250.00	236.95	pg	-5	15	
GC22	B	255167923054	27-APR-2005 19:28	255156384001	18-APR-2005			250.00	216.02	pg	-14	15	

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1254

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923038	27-APR-2005 09:27	255150953002	15-APR-2005			250.00	283.97	pg	14	15	
GC22	B	255167923038	27-APR-2005 09:27	255150953002	15-APR-2005			250.00	199.71	pg	**-20**	15	c- ***
GC22	A	255167923051	27-APR-2005 15:13	255150953002	15-APR-2005			250.00	275.79	pg	10	15	
GC22	B	255167923051	27-APR-2005 15:13	255150953002	15-APR-2005			250.00	214.96	pg	-14	15	

Ch B used

-=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	259.11	pg	4	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	208.22	pg	**-17**	15	c- ***
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	98.028	pg	-2	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	85.554	pg	-14	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	472.21	pg	-6	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	378.86	pg	**-24**	15	c- ***
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	249.35	pg	0	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	204.63	pg	**-18**	15	c- ***

Ch A used

mean 4/26/05

-=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	13926	14380	50.000	51.627	pg	3	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	17575	17172	50.000	48.854	pg	-2	15	
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	13926	14452	20.000	20.755	pg	4	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	17575	17757	20.000	20.207	pg	1	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	13926	14389	100.00	103.32	pg	3	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	17575	16590	100.00	94.397	pg	-6	15	
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	13926	14234	50.000	51.103	pg	2	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	17575	18138	50.000	51.601	pg	3	15	

CONTINUING CALIBRATION SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	8630.9	8282.2	50.000	47.980	pg	-4	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	8599.6	7483.2	50.000	43.509	pg	-13	15	
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	8630.9	7778.0	20.000	18.024	pg	-10	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	8599.6	7571.2	20.000	17.608	pg	-12	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	8630.9	8281.5	100.00	95.952	pg	-4	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	8599.6	6983.3	100.00	81.204	pg	**-19**	15	c-
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	8630.9	7665.0	50.000	44.404	pg	-11	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	8599.6	7193.4	50.000	41.824	pg	**-16**	15	c-

Ch. A used

max 1 h/l

-=low bias c=CCV

SEQUENCE SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255150953 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
002	104_002	X	hex			14-APR-2005 19:26	1.0					
003	104_003	ICAL	pcb10_2			14-APR-2005 19:53	1.0				1	
004	104_004	ICAL	pcb25_5			14-APR-2005 20:19	1.0				2	
005	104_005	ICAL	pcb100_20			14-APR-2005 20:46	1.0				3	
006	104_006	ICAL	pcb250_50			14-APR-2005 21:13	1.0				4	
007	104_007	ICAL	pcb500_100			14-APR-2005 21:39	1.0				5	
008	104_008	ICAL	pcb750_150			14-APR-2005 22:06	1.0				6	
009	104_009	ICAL	pcb1K_200			14-APR-2005 22:33	1.0				7	
011	104_011	ICV	accu_1660			14-APR-2005 23:26	1.0	1			8	
012	104_012	X	icv			14-APR-2005 23:52	1.0				8	
013	104_013	CCV/ICAL	ar1254			15-APR-2005 00:19	1.0	1			9	

mm 4/29/05

118

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255156384 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 18-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	108_002	CCV	pcb250_50			18-APR-2005 14:24	1.0	1.0			1	1	
003	108_003	X	ccv			18-APR-2005 14:50	1.0					1	
004	108_004	CCV/ICAL	ar1242			18-APR-2005 16:53	1.0	1.0			1	2	
005	108_005	X	ccv			18-APR-2005 17:19	1.0					2	
006	108_006	CCV	ar1254			18-APR-2005 17:46	1.0	1.0			1	3	
008	108_008	BLANK	QC290722	101231	Soil	18-APR-2005 20:21	1.0	0.6653	2		1		
009	108_009	LCS	QC290730	101231	Soil	18-APR-2005 20:48	1.0	0.6664			1		
010	108_010	SAMPLE	178777-001	101231	Soil	18-APR-2005 21:15	1.0	0.6625	2		1		
011	108_011	SAMPLE	178777-002	101231	Soil	18-APR-2005 21:41	1.0	0.6618	3		1	2:PCB101=2263.81	
012	108_012	MSS	178777-004	101231	Soil	18-APR-2005 22:08	1.0	0.6607	2		1		
013	108_013	SAMPLE	178777-005	101231	Soil	18-APR-2005 22:34	1.0	0.6625	2		1		
014	108_014	SAMPLE	178777-006	101231	Soil	18-APR-2005 23:01	1.0	0.6662	2		1		
015	108_015	MSS	178777-003	101231	Soil	18-APR-2005 23:28	1.0	0.6627	2		1	2:PCB101=3386.46	
016	108_016	MS	QC290731	101231	Soil	18-APR-2005 23:54	1.0	0.6633			1	2:PCB101=6019.05	
017	108_017	MSD	QC290732	101231	Soil	19-APR-2005 00:21	1.0	0.664			1	2:PCB101=6528.57	
019	108_019	CCV	pcb500_100			19-APR-2005 01:14	1.0	1.0	1		1	4	
020	108_020	X	ccv			19-APR-2005 01:41	1.0					4	
021	108_021	CCV	ar1242			19-APR-2005 02:07	1.0	1.0			1	2	
022	108_022	X	ccv			19-APR-2005 02:34	1.0					2	
023	108_023	CCV	ar1254			19-APR-2005 03:01	1.0	1.0	1		1	3	
025	108_025	SAMPLE	178777-007	101231	Soil	19-APR-2005 03:54	1.0	0.657	2	2	1		
026	108_026	SAMPLE	178777-008	101231	Soil	19-APR-2005 04:20	1.0	0.6658	2		1		
027	108_027	SAMPLE	178777-009	101231	Soil	19-APR-2005 04:47	1.0	0.6592	2		1		
028	108_028	SAMPLE	178777-010	101231	Soil	19-APR-2005 05:14	1.0	0.6603	2	2	1		
029	108_029	SAMPLE	178777-011	101231	Soil	19-APR-2005 05:40	1.0	0.6605	2		1		
030	108_030	SAMPLE	178777-012	101231	Soil	19-APR-2005 06:07	1.0	0.6645	2		1		
032	108_032	X	pcb100_20			19-APR-2005 07:00	1.0					5	
033	108_033	CCV	pcb100_20			19-APR-2005 07:27	1.0	1.0	1		1	5	

Stds used: 1=S40 2=S8 3=S39 4=S100 5=S157

SEQUENCE SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255167923 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 26-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	116_002	X	pcb250_50			26-APR-2005 14:43	1.0	1.0		1	1	
003	116_003	X	ccv			26-APR-2005 15:09	1.0				1	
004	116_004	CCV	ccv			26-APR-2005 15:55	1.0	1.0	1	1	1	
005	116_005	CCV	ar1242			26-APR-2005 16:41	1.0	1.0		1	2	
006	116_006	X	ccv			26-APR-2005 17:08	1.0				2	
009	116_009	BLANK	QC291700	101489	Oil	26-APR-2005 20:36	1.0	50.0	1	1		
010	116_010	BLANK	QC291651	101475	Soil	26-APR-2005 21:03	1.0	0.6588	1	1		
011	116_011	LCS	QC291652	101475	Soil	26-APR-2005 21:29	1.0	0.664		1		
012	116_012	BS	QC291701	101489	Oil	26-APR-2005 21:56	1.0	50.0		1		
013	116_013	BSD	QC291702	101489	Oil	26-APR-2005 22:22	1.0	50.0		1		
014	116_014	MS	QC291653	101475	Soil	26-APR-2005 22:49	1.0	0.6658		1		
015	116_015	MSD	QC291654	101475	Soil	26-APR-2005 23:16	1.0	0.664		1		
016	116_016	SAMPLE	179086-001	101489	Oil	26-APR-2005 23:42	1.0	49.93	1	1		
017	116_017	SAMPLE	179086-002	101489	Oil	27-APR-2005 00:09	1.0	49.85	1	1		
018	116_018	SAMPLE	179086-003	101489	Oil	27-APR-2005 00:35	1.0	49.82	1	1		120
020	116_020	CCV	pcb100_20			27-APR-2005 01:29	1.0	1.0		1	3	
021	116_021	X	ccv			27-APR-2005 01:55	1.0				3	
022	116_022	CCV	ar1242			27-APR-2005 02:22	1.0	1.0		1	2	
023	116_023	X	ccv			27-APR-2005 02:48	1.0				2	
026	116_026	SAMPLE	178964-009	101475	Soil	27-APR-2005 04:08	1.0	0.6766	1	1		
027	116_027	SAMPLE	179011-001	101475	Soil	27-APR-2005 04:35	1.0	0.6596	1	1		
028	116_028	SAMPLE	179012-001	101475	Soil	27-APR-2005 05:01	1.0	0.6579	1	1		
029	116_029	SAMPLE	179014-001	101475	Soil	27-APR-2005 05:28	1.0	0.6618	1	1		
030	116_030	SAMPLE	179019-005	101475	Soil	27-APR-2005 05:55	1.0	0.664	1	1		
031	116_031	SAMPLE	179019-007	101475	Soil	27-APR-2005 06:21	1.0	0.6734	1	1		
032	116_032	SAMPLE	179024-001	101475	Soil	27-APR-2005 06:48	1.0	0.678	1	1		
033	116_033	SAMPLE	179029-001	101475	Soil	27-APR-2005 07:14	1.0	0.6575	1	1		
034	116_034	MSS	178982-004	101475	Soil	27-APR-2005 07:41	1.0	0.6562	1	1		
036	116_036	CCV	pcb500_100			27-APR-2005 08:34	1.0	1.0	1	1	4	
037	116_037	X	ccv			27-APR-2005 09:01	1.0				4	
038	116_038	CCV	ccv			27-APR-2005 09:27	1.0	1.0	1	1	5	

Stds used: 1=S40 2=S8 3=S157 4=S100 5=S39

SEQUENCE SUMMARY FOR 178951 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255167923 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 26-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	116_040	SAMPLE	178982-001	101475	Soil	27-APR-2005 10:20	1.0	0.664	2		1		
041	116_041	SAMPLE	178982-002	101475	Soil	27-APR-2005 10:47	1.0	0.6609	2		1		
042	116_042	MSS	178982-003	101475	Soil	27-APR-2005 11:14	1.0	0.6627	1		1		
043	116_043	SAMPLE	178951-001	101475	Soil	27-APR-2005 11:40	1.0	0.6618	2		1		
044	116_044	SAMPLE	178951-002	101475	Soil	27-APR-2005 12:07	1.0	0.6575	2		1		
045	116_045	SAMPLE	178951-003	101475	Soil	27-APR-2005 12:33	1.0	0.6588	2		1		
046	116_046	SAMPLE	178951-004	101475	Soil	27-APR-2005 13:00	1.0	0.6653	2	2	1		
047	116_047	SAMPLE	179049-001	101475	Soil	27-APR-2005 13:27	1.0	0.6588	2		1		
049	116_049	CCV	pcb250_50			27-APR-2005 14:20	1.0	1.0	1		1	1	
050	116_050	X	ccv			27-APR-2005 14:46	1.0					1	
051	116_051	CCV	ccv			27-APR-2005 15:13	1.0	1.0			1	5	
053	116_053	X	ar1242			27-APR-2005 19:02	1.0					2	
054	116_054	CCV	ccv			27-APR-2005 19:28	1.0	1.0			1	2	
058	116_058	BLANK	QC291840	101518	Soil	27-APR-2005 21:15	1.0	0.6667	1		1		
059	116_059	LCS	QC291844	101518	Soil	27-APR-2005 21:41	1.0	0.6618			1		121
060	116_060	SAMPLE	179022-001	101518	Soil	27-APR-2005 22:08	1.0	0.6645	1		1		
061	116_061	SAMPLE	179076-002	101518	Soil	27-APR-2005 22:34	1.0	0.6649	1		1		
062	116_062	SAMPLE	179076-004	101518	Soil	27-APR-2005 23:01	1.0	0.6583	1		1		
063	116_063	SAMPLE	179076-005	101518	Soil	27-APR-2005 23:28	1.0	0.6649	1		1		
064	116_064	SAMPLE	179076-007	101518	Soil	27-APR-2005 23:54	1.0	0.6662	1		1		
065	116_065	SAMPLE	179076-009	101518	Soil	28-APR-2005 00:21	1.0	0.6566	1		1		
066	116_066	MS	QC291845	101518	Soil	28-APR-2005 00:47	1.0	0.6653			1		
067	116_067	MSD	QC291846	101518	Soil	28-APR-2005 01:14	1.0	0.6596			1		
069	116_069	CCV	pcb100_20			28-APR-2005 02:07	1.0	1.0			1	3	
070	116_070	X	ccv			28-APR-2005 02:34	1.0					3	
072	116_072	CCV	ar1242			28-APR-2005 03:27	1.0	1.0			1	2	
073	116_073	X	ccv			28-APR-2005 03:54	1.0					2	

Stds used: 1=S40 2=S8 3=S157 4=S100 5=S39

Curtis & Tompkins Laboratories Sample Preparation Summary

29-APR-2005 13:45

Batch Number : 101475
Date Extracted: 26-APR-2005
Extracted by : Jessie O'Brien Mee
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S284A
Spike #3 ID : 04SS445E
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178777-013			Environmental Quality Manageme	Soil	15.07	g	10	0.663570	1	.02	0	0	8081	3665A	
178951-001			Mactec, Inc.	Soil	15.11	g	10	0.661813	1	.04	0	0	PCB	3665A	
178951-002			Mactec, Inc.	Soil	15.21	g	10	0.657462	1	.02	0	0	PCB	3665A	
178951-003			Mactec, Inc.	Soil	15.18	g	10	0.658762	1	.02	0	0	PCB	3665A	
178951-004			Mactec, Inc.	Soil	15.03	g	10	0.665336	1	.02	0	0	PCB	3665A	
178964-009			CH2M Hill	Soil	14.78	g	10	0.676590	1	.02	0	0	PCB	3665A	
178982-001			Tetra Tech FW	Soil	15.06	g	10	0.664011	1	.02	0	0	8081, PCB	3665A	
178982-002			Tetra Tech FW	Soil	15.13	g	10	0.660939	1	.02	0	0	8081, PCB	3665A	PCB MSS
178982-003			Tetra Tech FW	Soil	15.09	g	10	0.662691	1	.02	0	0	8081, PCB	3665A	8081 MSS
178982-004			Tetra Tech FW	Soil	15.24	g	10	0.656168	1	.02	0	0	8081, PCB	3665A	
179011-001			CH2M Hill Constructors Inc.	Soil	15.16	g	10	0.659631	1	.02	0	0	8081, PCB	3665A	
179012-001			CH2M Hill Constructors Inc.	Soil	15.2	g	10	0.657895	1	.02	0	0	8081, PCB	3665A	
179014-001			CH2M Hill Constructors Inc.	Soil	15.11	g	10	0.661813	1	.02	0	0	8081, PCB	3665A	
179019-005			CH2M Hill	Soil	15.06	g	10	0.664011	1	.02	0	0	PCB	3665A	
179019-007			CH2M Hill	Soil	14.85	g	10	0.673401	1	.02	0	0	PCB	3665A	
179024-001			CH2M Hill	Soil	14.75	g	10	0.677966	1	.02	0	0	PCB	3665A	
179029-001			CH2M Hill Constructors Inc.	Soil	15.21	g	10	0.657462	1	.02	0	0	8081, PCB	3665A	
179049-001			Mactec, Inc.	Soil	15.18	g	10	0.658762	1	.02	0	0	PCB	3665A	
QC291651	MB			Soil	15.18	g	10	0.658762	1	.02	0	0	PCB	3665A	
QC291652	LCS			Soil	15.06	g	10	0.664011	1	.02	.025	0	PCB	3665A	
QC291653	MS	of 178982-003		Soil	15.02	g	10	0.665779	1	.02	.025	0	PCB	3665A	
QC291654	MSD	of 178982-003		Soil	15.06	g	10	0.664011	1	.02	.025	0	PCB	3665A	
QC291658	LCS			Soil	15.17	g	10	0.659196	1	.02	0	.025	8081		
QC291659	MS	of 178982-004		Soil	15	g	10	0.666667	1	.02	0	.025	8081		
QC291660	MSD	of 178982-004		Soil	15.03	g	10	0.665336	1	.02	0	.025	8081		

Prep Chemist: SK for JM

Reviewed By: [signature] Date: 04/29/05

Relinquished By: SK for JM

Received By: [signature] Date: 4/29/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

LIMS Batch No: 101475
LIMS Analysis PCB
Extracted by: JOM
Date Extracted: 26 Apr 05

☐ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☒ EPA 3545 PFE (ASE Method# 10)
☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	178951-001	15.11	10.0	possible double surr
	-002	15.21		
	-003	15.18		~~MSS~~ JOM 26Apr05
	-004	15.03		~~MSS~~ JOM 26Apr 05
5	178964-009	14.78		
	178982-001	15.06		
	-002	15.13		
	-003	15.09		MSS
	-004	15.24		
10	179011-001	15.16		
	179012-001	15.20		
	179014-001	15.11		
	179019-005	15.06		
	-007	14.85		
15	179024-001	14.75		
	179029-001	15.21		
	179049-001	15.18	JOM 26Apr05	
	MB QC291651	15.04	1B	
	LCS 52	15.0		
20	MS 53	15.02		178982-003B
	MSD 54	15.0		
	JOM 26 Apr 05			

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44258	JOM 26Apr05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Donex 040603	
0.020 mL of surrogate solution was added to all samples	S258B	
0.035 mL of spike solution AR1242 was added to all spikes	S284A	
1:1 CH_2Cl_2 (lot# EM45005):Acetone(lot# EM45019) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
PFE (ASE) / soxhlets on at:	N/A	
PFE (ASE) / soxhlets off at:	↓	
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4		
Concentrated to volumes noted above after exchange to Hexane Lot#	CN801	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	JTBA49034	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	↓

Jessie Mee 26 Apr 05
Extraction Chemist / Date

Continued from page _____
Continued on page 123

07/26/05
Reviewed by / Date

Project SOIL ALIQUOT P1V088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178951-001A	15.11	PCB	
-002	15.21		
-003	15.18		
-004	15.03		
178951-001A	30.37	8270-SIM	
-002	30.26		
-003	30.32		
-004	30.25		
178951-001A	50.09	TEHM	
-002	50.48		
-003	50.17		
-004	50.01		

Continued on Pa

Signed

4/18/05

Date

Read and Understood By

Signed

Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
178982-001B	50.14	TEH	
-002	50.20		
-003	50.00		
-004	50.23		
178982-001B	15.03	PCB	
-002	15.07		
-003	15.09		MSS
-MS	15.02		178982-003B
-MSD	15.06		↓
-LCS	15.06		EM44258
-MB	15.18		↓
-004B	15.05		
178982-001B	15.06	8081	
-002	15.13		
~~-003~~ Not used Jon 4/26/05	~~15.12~~		
-004	15.24		MSS
~~-MS~~ Not used Jon 4/26/05	~~15.00~~		178982-004B
~~-MSD~~	15.03		↓
-LCS	15.17		EM44258
-MB	15.04		↓
179011-001B	15.03	PCB	
179011-001B	15.16	8081	
179012-001B	15.13	PCB	
179012-001B	15.20	8081	
179014-001B	15.22	PCB	
179014-001B	15.11	8081	
179029-001B	30.09	8270	
179029-001B	15.07	PCB	
179029-001B	15.21	8081	
179049-001B	50.27	TEH	
179049-001B	15.18	PCB	
179049-001B	30.38	8270-SIM	MSS
-MS	30.34		179049-001B
-MSD	30.04		↓
-LCS	30.12		EM44258
-MB	30.41		↓

Continued on Page

Signed — Date 4/25/05 — Read and Understood By: Signed — Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
MB	15.02	PCB	EM44258
LCS	14.88		↓
MS	14.90		178964-009
MSD	14.97		↓
178964-009	14.78		MSS / COMP OF 005 + 006
179019-005A	15.06		
179019-007A	14.85		
179024-001	14.75		ACAS: 175869-001
MB	30.15	PCB	EM44258
LCS	29.90		↓
MS	29.72		179022-001
MSD	29.65		↓
179022-001	30.05		MSS / COMP OF A, B, + C
MB	29.88	8081	EM44258
LCS	29.64		↓
MS	30.29		179022-001
MSD	29.92		↓
179022-001	29.94		MSS / COMP OF A, B, + C
MB	30.15	8310	EM44258
LCS	29.85		↓
MS	30.18		179030-004~~D~~
MSD	29.68		↓
050 179030-001D	29.84		
-002	30.38		
-003	29.86		
-004	36.19		MSS
-005	30.43		
-006	36.46		
-008	29.65		
-009	29.68		

Continued on Page

Read and Understood By

Signed 4/24/07 Date

Signed Date

Confirmation Report for 178951 PCB Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
178951-001	BB2ATP104(8.0)	Aroclor-1260	11.48 J	6.817	51	-41
178951-003	BB2ATP101(14.0)	Aroclor-1260	10.96 J	8.495	25	-22

J=estimated

REPORTING SUMMARY FOR 178951 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
178951-001	Aroclor-1016	GC22	A	04/27/05 11:40
178951-001	Aroclor-1221	GC22	A	04/27/05 11:40
178951-001	Aroclor-1232	GC22	A	04/27/05 11:40
178951-001	Aroclor-1242	GC22	A	04/27/05 11:40
178951-001	Aroclor-1248	GC22	A	04/27/05 11:40
178951-001	Aroclor-1254	GC22	A	04/27/05 11:40
178951-001	Aroclor-1260	GC22	A	04/27/05 11:40
178951-001	TCMX	GC22	A	04/27/05 11:40
178951-001	Decachlorobiphenyl	GC22	A	04/27/05 11:40
178951-002	Aroclor-1016	GC22	A	04/27/05 12:07
178951-002	Aroclor-1221	GC22	A	04/27/05 12:07
178951-002	Aroclor-1232	GC22	A	04/27/05 12:07
178951-002	Aroclor-1242	GC22	A	04/27/05 12:07
178951-002	Aroclor-1248	GC22	A	04/27/05 12:07
178951-002	Aroclor-1254	GC22	A	04/27/05 12:07
178951-002	Aroclor-1260	GC22	A	04/27/05 12:07
178951-002	TCMX	GC22	A	04/27/05 12:07
178951-002	Decachlorobiphenyl	GC22	A	04/27/05 12:07
178951-003	Aroclor-1016	GC22	A	04/27/05 12:33
178951-003	Aroclor-1221	GC22	A	04/27/05 12:33
178951-003	Aroclor-1232	GC22	A	04/27/05 12:33
178951-003	Aroclor-1242	GC22	A	04/27/05 12:33
178951-003	Aroclor-1248	GC22	A	04/27/05 12:33
178951-003	Aroclor-1254	GC22	A	04/27/05 12:33
178951-003	Aroclor-1260	GC22	A	04/27/05 12:33
178951-003	TCMX	GC22	A	04/27/05 12:33
178951-003	Decachlorobiphenyl	GC22	A	04/27/05 12:33
178951-004	Aroclor-1016	GC22	A	04/27/05 13:00
178951-004	Aroclor-1221	GC22	A	04/27/05 13:00
178951-004	Aroclor-1232	GC22	A	04/27/05 13:00
178951-004	Aroclor-1242	GC22	A	04/27/05 13:00
178951-004	Aroclor-1248	GC22	A	04/27/05 13:00
178951-004	Aroclor-1254	GC22	A	04/27/05 13:00
178951-004	Aroclor-1260	GC22	A	04/27/05 13:00
178951-004	TCMX	GC22	A	04/27/05 13:00
178951-004	Decachlorobiphenyl	GC22	A	04/27/05 13:00
QC291651	Aroclor-1016	GC22	A	04/26/05 21:03
QC291651	Aroclor-1221	GC22	A	04/26/05 21:03
QC291651	Aroclor-1232	GC22	A	04/26/05 21:03
QC291651	Aroclor-1242	GC22	A	04/26/05 21:03
QC291651	Aroclor-1248	GC22	A	04/26/05 21:03
QC291651	Aroclor-1254	GC22	A	04/26/05 21:03
QC291651	Aroclor-1260	GC22	A	04/26/05 21:03
QC291651	TCMX	GC22	A	04/26/05 21:03
QC291651	Decachlorobiphenyl	GC22	A	04/26/05 21:03
QC291652	Aroclor-1242	GC22	A	04/26/05 21:29
QC291652	TCMX	GC22	A	04/26/05 21:29
QC291652	Decachlorobiphenyl	GC22	A	04/26/05 21:29

REPORTING SUMMARY FOR 178951 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC291653	Aroclor-1242	GC22	A	04/26/05 22:49
QC291653	TCMX	GC22	A	04/26/05 22:49
QC291653	Decachlorobiphenyl	GC22	A	04/26/05 22:49
QC291654	Aroclor-1242	GC22	A	04/26/05 23:16
QC291654	TCMX	GC22	A	04/26/05 23:16
QC291654	Decachlorobiphenyl	GC22	A	04/26/05 23:16

METALS RESULTS & QC SUMMARY

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178951	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB2ATP104(8.0)	Basis:	dry
Lab ID:	178951-001	Sampled:	04/13/05
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg		

Moisture: 19%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.1	0.26	0.063	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	3.4	0.26	0.087	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	180	2.6	0.27	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.23 J	0.26	0.055	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.67	0.26	0.012	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	100	2.6	0.55	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	13	0.26	0.0037	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	92	2.6	1.0	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	110	2.6	0.087	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.57	0.44	0.084	20.00	101291	04/19/05	04/19/05	METHOD	EPA 7471A
Molybdenum	0.58	0.26	0.0055	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	140	3.1	3.1	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.31	0.26	0.10	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	2.3	0.26	0.0034	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.075 J	0.26	0.013	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	43	0.26	0.15	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	270	2.6	0.59	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178951	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB2ATP100(1.0)	Basis:	dry
Lab ID:	178951-002	Sampled:	04/14/05
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg		

Moisture: 27%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.50	0.25	0.061	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	2.3	0.25	0.084	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	49	2.5	0.26	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.13 J	0.25	0.053	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.071 J	0.25	0.011	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	790	25	5.3	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	73	2.5	0.035	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	21	0.25	0.098	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	11	0.25	0.0084	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.33	0.025	0.0049	1.000	101291	04/19/05	04/19/05	METHOD	EPA 7471A
Molybdenum	0.30	0.25	0.0053	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	1,600	30	30	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.23 J	0.25	0.098	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.033 J	0.25	0.0033	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.034 J	0.25	0.013	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	14	0.25	0.15	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	36	0.25	0.057	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178951	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB2ATP101(14.0)	Basis:	dry
Lab ID:	178951-003	Sampled:	04/14/05
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg		

Moisture: 21%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.63	0.28	0.067	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	3.8	0.28	0.092	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	110	2.8	0.28	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.31	0.28	0.059	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.40	0.28	0.012	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	160	2.8	0.59	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	24	0.28	0.0039	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	70	2.8	1.1	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	60	2.8	0.092	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.17	0.019	0.0037	1.000	101291	04/19/05	04/19/05	METHOD	EPA 7471A
Molybdenum	0.65	0.28	0.0059	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	260	3.3	3.3	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.37	0.28	0.11	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.68	0.28	0.0036	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.060 J	0.28	0.014	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	48	0.28	0.16	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	110	2.8	0.63	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	178951	Project#:	BAKER BEACH
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP102(4.0)	Basis:	dry
Lab ID:	178951-004	Sampled:	04/15/05
Matrix:	Soil	Received:	04/18/05
Units:	mg/Kg		

Moisture: 32%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.3	0.23	0.056	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	18	0.23	0.076	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	550	23	2.3	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.35	0.23	0.048	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	2.9	0.23	0.010	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	380	2.3	0.48	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	45	2.3	0.032	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	260	2.3	0.89	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	3,200	23	0.76	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.43	0.033	0.0063	1.000	101291	04/19/05	04/19/05	METHOD	EPA 7471A
Molybdenum	4.4	0.23	0.0049	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	780	27	27	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.42	0.23	0.090	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	12	0.23	0.0030	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.055 J	0.23	0.012	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	72	2.3	1.4	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	2,700	23	5.2	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC290967	Batch#:	101291
Matrix:	Soil	Prepared:	04/19/05
Units:	mg/Kg	Analyzed:	04/19/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC291742	Batch#:	101496
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	05/09/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	0.25	0.056

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101291
Units:	mg/Kg	Prepared:	04/19/05
Basis:	as received	Analyzed:	04/19/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC290968	0.5000	0.4730	95	75-125		
BSD	QC290969	0.5000	0.4680	94	75-125	1	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1,000
Field ID:	ZZZZZZZZZZ	Batch#:	101291
MSS Lab ID:	178893-001	Sampled:	03/17/05
Matrix:	Soil	Received:	03/18/05
Units:	mg/Kg	Prepared:	04/19/05
Basis:	dry	Analyzed:	04/19/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC290970	225.8	0.5508	196.1	DO NM	75-125	11%		
MSD	QC290971		0.5618	307.9	DO NM	75-125	11%	44 *	30

*= Value outside of QC limits; see narrative
DO= Diluted Out
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101496
Units:	mg/Kg	Prepared:	04/27/05
Basis:	as received	Analyzed:	05/09/05
Diln Fac:	5.000		

Type: BS Lab ID: QC291743

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	23.09	92	75-125
Arsenic	25.00	23.76	95	75-125
Barium	25.00	23.36	93	75-125
Beryllium	25.00	23.63	95	75-125
Cadmium	25.00	25.98	104	75-125
Chromium	25.00	23.88	96	75-125
Cobalt	25.00	24.19	97	75-125
Copper	25.00	25.50	102	75-125
Lead	25.00	24.00	96	75-125
Molybdenum	25.00	24.35	97	75-125
Nickel	25.00	24.89	100	75-125
Selenium	25.00	24.11	96	75-125
Silver	25.00	25.24	101	75-125
Thallium	25.00	23.15	93	75-125
Vanadium	25.00	23.66	95	75-125
Zinc	25.00	24.61	98	75-125

Type: BSD Lab ID: QC291744

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.47	94	75-125	2	30
Arsenic	25.00	23.81	95	75-125	0	30
Barium	25.00	23.09	92	75-125	1	30
Beryllium	25.00	23.74	95	75-125	0	30
Cadmium	25.00	25.74	103	75-125	1	30
Chromium	25.00	23.81	95	75-125	0	30
Cobalt	25.00	24.25	97	75-125	0	30
Copper	25.00	25.54	102	75-125	0	30
Lead	25.00	24.10	96	75-125	0	30
Molybdenum	25.00	24.32	97	75-125	0	30
Nickel	25.00	24.95	100	75-125	0	30
Selenium	25.00	24.04	96	75-125	0	30
Silver	25.00	25.21	101	75-125	0	30
Thallium	25.00	23.64	95	75-125	2	30
Vanadium	25.00	23.71	95	75-125	0	30
Zinc	25.00	24.58	98	75-125	0	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Field ID:	BB1ATP101-G2	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	05/10/05

Type: MS Moisture: 9%
Lab ID: QC291745

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.2681	25.68	9.156	35 *	75-125	5.000
Arsenic	2.626	25.68	24.21	84	75-125	5.000
Barium	28.47	25.68	48.81	79	75-125	50.00
Beryllium	0.1321	25.68	22.76	88	75-125	5.000
Cadmium	0.1278	25.68	24.26	94	75-125	5.000
Chromium	103.5	25.68	126.8	91 NM	75-125	50.00
Cobalt	10.73	25.68	37.89	106	75-125	5.000
Copper	28.23	25.68	35.11	27 *	75-125	5.000
Lead	8.077	25.68	26.35	71 *	75-125	5.000
Molybdenum	0.3315	25.68	22.55	87	75-125	5.000
Nickel	68.52	25.68	96.28	108	75-125	50.00
Selenium	0.2638	25.68	21.77	84	75-125	5.000
Silver	0.01765	25.68	23.53	92	75-125	5.000
Thallium	0.1303	25.68	22.55	87	75-125	5.000
Vanadium	65.66	25.68	89.09	91	75-125	50.00
Zinc	35.66	25.68	46.98	44 *	75-125	5.000

Type: MSD Moisture: 9%
Lab ID: QC291746

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	20.81	7.405	34 *	75-125	0	30	5.000
Arsenic	20.81	20.15	84	75-125	1	30	5.000
Barium	20.81	42.17	66 *	75-125	5	30	50.00
Beryllium	20.81	18.32	87	75-125	1	30	5.000
Cadmium	20.81	19.78	94	75-125	0	30	5.000
Chromium	20.81	126.9	113 NM	75-125	4	30	50.00
Cobalt	20.81	29.10	88	75-125	12	30	5.000
Copper	20.81	25.84	-12 *	75-125	21	30	5.000
Lead	20.81	20.90	62 *	75-125	8	30	5.000
Molybdenum	20.81	18.41	87	75-125	0	30	5.000
Nickel	20.81	85.58	82	75-125	6	30	50.00
Selenium	20.81	17.61	83	75-125	0	30	5.000
Silver	20.81	19.28	93	75-125	1	30	5.000
Thallium	20.81	18.32	87	75-125	0	30	5.000
Vanadium	20.81	80.17	70 *	75-125	5	30	50.00
Zinc	20.81	39.73	20 *	75-125	8	30	5.000

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	BAKER BEACH	Analysis:	EPA 6020
Field ID:	BB1ATP101-G2	Basis:	dry
Type:	Serial Dilution	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Lab ID:	QC291747	Received:	04/12/05
Matrix:	Soil	Analyzed:	05/10/05
Units:	mg/Kg		

Moisture: 9%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim	Diln Fac
Antimony	0.2681	0.2747		0.3727 J	1.374		10	25.00
Arsenic	2.626	0.2747		2.658	1.374		10	25.00
Barium	28.47	0.2747		27.87	1.374	2	10	25.00
Beryllium	0.1321	0.2747	ND		1.374		10	25.00
Cadmium	0.1278	0.2747		0.1395 J	1.374		10	25.00
Chromium	103.5	2.747		100.8	6.868	3	10	250.0
Cobalt	10.73	0.2747		10.71	1.374	0	10	25.00
Copper	28.23	0.2747		28.54	1.374	1	10	25.00
Lead	8.077	0.2747		7.868	1.374	3	10	25.00
Molybdenum	0.3315	0.2747		0.3497 J	6.868	5	10	25.00
Nickel	68.52	3.259		68.24	27.47		10	250.0
Selenium	0.2638	0.2747		1.206 J	1.374		10	25.00
Silver	0.01765	0.2747	ND		1.374		10	25.00
Thallium	0.1303	0.2747		0.1752 J	1.374		10	25.00
Vanadium	65.66	2.747		62.03	13.74		10	250.0
Zinc	35.66	0.2747		36.21	5.495	2	10	25.00

J= Estimated value
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547111	Seqnum : 55186547115
Filename : e0913111	Filename : e0913115
IDF : 5.0	IDF : 5.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 00:00	Inj : 10-MAY-2005 00:23
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.9760	100.0	91.52	91	75-125	u
Arsenic	9.560	100.0	103.9	94	75-125	u
Barium	103.6	100.0	195.0	91	75-125	u
Beryllium	0.4808	100.0	96.62	96	75-125	u
Cadmium	0.4652	100.0	104.9	104	75-125	u
Calcium	11330	10000	19640	83	75-125	y
Chromium	*** usable MSS data not found ***					
Cobalt	39.04	100.0	138.1	99	75-125	u
Copper	102.8	100.0	121.6	**19***	75-125	u
Iron	*** usable MSS data not found ***					
Lead	29.40	100.0	106.2	77	75-125	u
Magnesium	8856	10000	17790	89	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	1.207	100.0	99.70	98	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1252	10000	10240	90	75-125	
Selenium	0.9604	100.0	96.42	95	75-125	u
Silver	0.06424	100.0	101.9	102	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.4742	100.0	96.76	96	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	129.8	100.0	182.6	**53***	75-125	u

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	320352	-16.41
Scandium	566573	539934	-4.70
Germanium	161713	144243	-10.80
Indium	1281904	1209012	-5.69
Bismuth	1275587	1160840	-9.00

u=use y=RL raised

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547137	Seqnum : 55186547141
Filename : e0913137	Filename : e0913141
IDF : 50.0	IDF : 50.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 02:31	Inj : 10-MAY-2005 02:55
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	10.00	8.656	87	75-125	
Arsenic	0.9588	10.00	10.08	91	75-125	
Barium	10.12	10.00	18.42	83	75-125	
Beryllium	ND	10.00	9.382	94	75-125	
Cadmium	0.05072	10.00	10.77	107	75-125	
Calcium	1170	1000	2056	89	75-125	y
Chromium	37.66	10.00	45.92	83	75-125	u y
Cobalt	3.798	10.00	13.27	95	75-125	
Copper	10.26	10.00	12.29	**20***	75-125	
Iron	9214	1000	9894	68	75-125	: y
Lead	2.916	10.00	9.714	**68***	75-125	
Magnesium	966.4	1000	2060	109	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	ND	10.00	9.734	97	75-125	
Nickel	24.94	10.00	30.54	**56***	75-125	u
Potassium	154.6	1000	1130	98	75-125	
Selenium	0.4678	10.00	9.690	92	75-125	
Silver	ND	10.00	10.48	105	75-125	
Sodium	ND	1000	998.8	100	75-125	
Thallium	ND	10.00	8.488	85	75-125	
Vanadium	23.90	10.00	32.46	86	75-125	u
Zinc	*** usable MSS data not found ***					

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	301271	-21.39
Scandium	566573	431776	-23.79
Germanium	161713	126413	-21.83
Indium	1281904	1137692	-11.25
Bismuth	1275587	1123206	-11.95

:=recovery not meaningful u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 178951 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
178951-001	MET04	04/19/05 16:36	1.0																	
178951-001	MET04	04/19/05 17:13	20.0										+							
178951-001	MET05	05/10/05 00:35	5.0	+	+		+	+		+				+		+	+	+	+	
178951-001	MET05	05/10/05 03:07	50.0			+			+		+	+			+					
178951-001	MET05	05/10/05 14:18	50.0																	+
178951-002	MET04	04/19/05 17:02	1.0										+							
178951-002	MET05	05/10/05 01:04	5.0	+	+		+	+			+	+		+		+	+	+	+	
178951-002	MET05	05/10/05 03:13	50.0			+				+										
178951-002	MET05	05/10/05 14:24	5.0																	+
178951-002	MET05	05/10/05 14:30	500.0						+						+					
178951-003	MET04	04/19/05 17:05	1.0										+							
178951-003	MET05	05/10/05 01:10	5.0	+	+		+	+		+				+		+	+	+	+	
178951-003	MET05	05/10/05 03:19	50.0			+			+		+	+			+					
178951-003	MET05	05/10/05 15:30	50.0																	+
178951-004	MET04	04/19/05 17:07	1.0										+							
178951-004	MET05	05/10/05 01:16	5.0	+	+		+	+						+		+	+	+		
178951-004	MET05	05/10/05 03:48	50.0						+	+	+								+	
178951-004	MET05	05/10/05 15:36	500.0			+						+			+					+
QC290967	MET04	04/19/05 15:39	1.0										+							
QC290968	MET04	04/19/05 15:41	1.0										+							
QC290969	MET04	04/19/05 15:44	1.0										+							
QC290970	MET04	04/19/05 15:54	20.0																	
QC290970	MET04	04/19/05 17:31	1000										+							
QC290971	MET04	04/19/05 15:58	100.0																	
QC290971	MET04	04/19/05 17:34	1000										+							
QC291742	MET05	05/09/05 23:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291743	MET05	05/09/05 23:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291744	MET05	05/09/05 23:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291745	MET05	05/10/05 00:12	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291745	MET05	05/10/05 02:43	50.0			+			+						+				+	
QC291746	MET05	05/10/05 00:18	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291746	MET05	05/10/05 02:49	50.0			+			+						+				+	
QC291747	MET05	05/10/05 00:06	25.0	+	+	+	+	+		+	+	+		+		+	+	+		+
QC291747	MET05	05/10/05 02:37	250.0						+						+				+	

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 178951 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
QC291748	MET05	05/10/05 00:23	5.0	+	+	+	+	+		+	+	+		+		+	+	+		+	
QC291748	MET05	05/10/05 02:55	50.0						+						+				+		

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e0913001	TUN	tune			09-MAY-2005 13:07	1.0	1.0				1	
003	e0913003	ICALBLK	std-blk			09-MAY-2005 13:18	1.0	1.0				2	
004	e0913004	ICAL	cs1			09-MAY-2005 13:23	1.0	1.0				3	
005	e0913005	ICAL	cs2			09-MAY-2005 13:28	1.0	1.0				4	
006	e0913006	ICAL	cs3			09-MAY-2005 13:33	1.0	1.0				5	
007	e0913007	ICAL	cs4			09-MAY-2005 13:39	1.0	1.0				6	
008	e0913008	ICAL	cs5			09-MAY-2005 13:44	1.0	1.0				7	
009	e0913009	ICAL	cs6			09-MAY-2005 13:49	1.0	1.0				8	
010	e0913010	ICV				09-MAY-2005 13:54	1.0	1.0			1	9	
012	e0913012	ICB				09-MAY-2005 14:06	1.0	1.0	1		1	2	
013	e0913013	ICSA				09-MAY-2005 14:12	1.0	1.0			1	10 2	7:CA=295200
014	e0913014	ICSAB				09-MAY-2005 14:17	1.0	1.0			1	11 2	12:CA=295000
016	e0913016	SER	QC291792	101506	Water	09-MAY-2005 14:29	5.0	1.0		1	1	2	
017	e0913017	MS	QC291790	101506	Water	09-MAY-2005 14:35	2.0	1.0			1	2	
018	e0913018	MSD	QC291791	101506	Water	09-MAY-2005 14:41	2.0	1.0			1	2	
019	e0913019	SAMPLE	179075-004	101506	Water	09-MAY-2005 14:47	2.0	1.0			1	2	
020	e0913020	SAMPLE	179075-006	101506	Water	09-MAY-2005 14:52	5.0	1.0			1	2	146
021	e0913021	SAMPLE	179075-007	101506	Water	09-MAY-2005 14:58	2.0	1.0			1	2	
022	e0913022	SAMPLE	179075-011	101506	Water	09-MAY-2005 15:04	2.0	1.0	1		1	2	
023	e0913023	SAMPLE	179075-012	101506	Water	09-MAY-2005 15:10	2.0	1.0			1	2	
025	e0913025	CCV				09-MAY-2005 15:22	1.0	1.0			1	12 2	
027	e0913027	CCB				09-MAY-2005 15:33	1.0	1.0	1		1	2	
028	e0913028	SAMPLE	179075-013	101506	Water	09-MAY-2005 15:39	2.0	1.0			1	2	
029	e0913029	SAMPLE	179075-018	101506	Water	09-MAY-2005 15:45	2.0	1.0			1	2	
031	e0913031	CCV				09-MAY-2005 15:57	1.0	1.0			1	13 2	
033	e0913033	CCB				09-MAY-2005 16:09	1.0	1.0			1	2	
034	e0913034	ICSA				09-MAY-2005 16:15	1.0	1.0			1	10 2	7:CA=292900
035	e0913035	ICSAB				09-MAY-2005 16:21	1.0	1.0			1	11 2	11:CA=292500
037	e0913037	MSS	179132-001	101641	Filtra	09-MAY-2005 16:32	10.0	1.0			1	2	
038	e0913038	SER	QC292313	101641	Filtra	09-MAY-2005 16:52	50.0	1.0			1	2	
039	e0913039	MS	QC292311	101641	Filtra	09-MAY-2005 16:58	10.0	1.0		1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e0913040	MSD	QC292312	101641	Filtra	09-MAY-2005 17:04	10.0	1.0		2	1	2	
041	e0913041	SAMPLE	179132-006	101641	Filtra	09-MAY-2005 17:10	10.0	1.0			1	2	
042	e0913042	SAMPLE	179132-015	101641	Filtra	09-MAY-2005 17:16	5.0	1.0			1	2	2:NA=39280.0
043	e0913043	SAMPLE	179132-016	101641	Filtra	09-MAY-2005 17:22	50.0	1.0			1	2	
044	e0913044	SAMPLE	179132-017	101641	Filtra	09-MAY-2005 17:27	10.0	1.0			1	2	
046	e0913046	CCV				09-MAY-2005 17:39	1.0	1.0			1	12 2	
047	e0913047	X	rinse			09-MAY-2005 17:45	1.0					2	
048	e0913048	CCB				09-MAY-2005 17:51	1.0	1.0	1		1	2	
049	e0913049	SAMPLE	179132-018	101641	Filtra	09-MAY-2005 17:57	50.0	1.0			1	2	
050	e0913050	SAMPLE	179132-019	101641	Filtra	09-MAY-2005 18:03	5.0	1.0			1	2	3:CA=48920.0
051	e0913051	SAMPLE	179132-020	101641	Filtra	09-MAY-2005 18:09	5.0	1.0			1	2	1:NA=21860.0
052	e0913052	X	RINSE	101506		09-MAY-2005 18:14	1.0					2	
053	e0913053	BLANK	QC292136	101595	Water	09-MAY-2005 18:20	1.0	1.0			1	2	
054	e0913054	BS	QC292137	101595	Water	09-MAY-2005 18:26	1.0	1.0			1	2	
055	e0913055	BSD	QC292138	101595	Water	09-MAY-2005 18:32	1.0	1.0			1	2	
056	e0913056	MSS	179161-001	101595	Water	09-MAY-2005 18:38	1.0	1.0	2		1	2	2:CA=22330.0
057	e0913057	SER	QC292141	101595	Water	09-MAY-2005 18:44	5.0	1.0			1	2	
058	e0913058	MS	QC292139	101595	Water	09-MAY-2005 18:50	1.0	1.0	2		1	2	4:CA=32120.0
059	e0913059	MSD	QC292140	101595	Water	09-MAY-2005 18:56	1.0	1.0	2		1	2	4:CA=31200.0
061	e0913061	CCV				09-MAY-2005 19:07	1.0	1.0			1	12 2	
062	e0913062	X	rinse			09-MAY-2005 19:13	1.0					2	
063	e0913063	CCB				09-MAY-2005 19:19	1.0	1.0	1		1	2	
064	e0913064	PDS	QC292142	101595	Water	09-MAY-2005 19:25	1.0	1.0	2		1	14 2	4:CA=30950.0
065	e0913065	MSS	179161-001	101595	Water	09-MAY-2005 19:31	5.0	1.0			1	2	
066	e0913066	SER	QC292141	101595	Water	09-MAY-2005 19:37	25.0	1.0			1	2	
067	e0913067	MS	QC292139	101595	Water	09-MAY-2005 19:42	5.0	1.0			1	2	
068	e0913068	MSD	QC292140	101595	Water	09-MAY-2005 19:48	5.0	1.0			1	2	
069	e0913069	SAMPLE	179132-021	101595	Filtra	09-MAY-2005 19:54	1.0	1.0			1	2	3:NA=185600
070	e0913070	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:00	1.0	1.0	1		1	2	5:NA=111100
071	e0913071	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:06	5.0	1.0			1	2	1:NA=21880.0
073	e0913073	CCV				09-MAY-2005 20:18	1.0	1.0			1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
074	e0913074	X	rinse	101595		09-MAY-2005 20:24	1.0				2	
075	e0913075	CCB				09-MAY-2005 20:30	1.0	1.0		1	2	
076	e0913076	ICSA				09-MAY-2005 20:35	1.0	1.0		1	10 2	7:CA=288400
077	e0913077	ICSAB				09-MAY-2005 20:41	1.0	1.0		1	11 2	10:CA=282500
079	e0913079	TUN	tune			09-MAY-2005 20:53	1.0	1.0			1	
081	e0913081	SAMPLE	179176-001	101595	Water	09-MAY-2005 21:03	2.0	1.0		1	2	
082	e0913082	SAMPLE	179141-007	101595	Water	09-MAY-2005 21:09	5.0	1.0		1	2	4:MG=98600.0
083	e0913083	SAMPLE	179141-010	101595	Water	09-MAY-2005 21:15	10.0	1.0		1	2	
084	e0913084	SAMPLE	179141-013	101595	Water	09-MAY-2005 21:21	10.0	1.0		1	2	1:NA=62100.0
085	e0913085	SAMPLE	179141-019	101595	Water	09-MAY-2005 21:27	2.0	1.0		1	2	5:NA=63300.0
086	e0913086	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:33	2.0	1.0	2	1	2	2:AL=1888.50
087	e0913087	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:39	20.0	1.0		1	2	
088	e0913088	SAMPLE	179156-002	101595	Water	09-MAY-2005 21:45	2.0	1.0	2	1	2	2:AL=503.500
090	e0913090	CCV				09-MAY-2005 21:57	1.0	1.0		1	12 2	
091	e0913091	X	rinse			09-MAY-2005 22:02	1.0				2	
092	e0913092	CCB				09-MAY-2005 22:08	1.0	1.0		1	2	
093	e0913093	SAMPLE	179156-003	101595	Water	09-MAY-2005 22:14	5.0	1.0		1	2	
094	e0913094	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:20	2.0	1.0	4	1	2	4:FE=23515.0
095	e0913095	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:26	100.0	1.0		1	2	
096	e0913096	SAMPLE	179162-001	101595	Filtra	09-MAY-2005 22:32	1.0	1.0		1	2	3:MG=563000
097	e0913097	SAMPLE	179162-002	101595	Filtra	09-MAY-2005 22:38	1.0	1.0		1	2	3:MG=474700
098	e0913098	SAMPLE	179162-003	101595	Filtra	09-MAY-2005 22:44	1.0	1.0		1	2	3:MG=429100
099	e0913099	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:50	10.0	1.0	3	1	2	2:NA=207100
100	e0913100	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:56	100.0	1.0	2	1	2	
101	e0913101	ICSA				09-MAY-2005 23:02	1.0	1.0		1	10 2	7:CA=286700
102	e0913102	ICSAB				09-MAY-2005 23:07	1.0	1.0		1	11 2	9:CA=285000
104	e0913104	CCV				09-MAY-2005 23:19	1.0	1.0		1	12 2	
105	e0913105	X	rinse			09-MAY-2005 23:25	1.0				2	
106	e0913106	CCB				09-MAY-2005 23:31	1.0	1.0	3	1	2	
107	e0913107	X	rinse	101595		09-MAY-2005 23:36	1.0				2	
108	e0913108	BLANK	QC291742	101496	Soil	09-MAY-2005 23:42	5.0	50.0	1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: [signature] Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e0913109	BS	QC291743	101496	Soil	09-MAY-2005 23:48	5.0	50.0	1		1	2	
110	e0913110	BSD	QC291744	101496	Soil	09-MAY-2005 23:54	5.0	50.0	1		1	2	
111	e0913111	MSS	178846-002	101496	Soil	10-MAY-2005 00:00	5.0	50.0	7		1	2	6:FE=90920.0
112	e0913112	SER	QC291747	101496	Soil	10-MAY-2005 00:06	25.0	50.0		2	1	2	2:AL=4268.00
113	e0913113	MS	QC291745	101496	Soil	10-MAY-2005 00:12	5.0	46.73	1	1	1	2	7:FE=105040
114	e0913114	MSD	QC291746	101496	Soil	10-MAY-2005 00:18	5.0	37.88	2	2	1	2	8:FE=121700
115	e0913115	PDS	QC291748	101496	Soil	10-MAY-2005 00:23	5.0	50.0		16	1	15 16 2	6:FE=95900.0
116	e0913116	SAMPLE	178846-001	101496	Soil	10-MAY-2005 00:29	5.0	51.02	1		1	2	4:FE=31640.0
117	e0913117	SAMPLE	178951-001	101496	Soil	10-MAY-2005 00:35	5.0	42.74	6		1	2	10:FE=73240.0
119	e0913119	CCV				10-MAY-2005 00:47	1.0	1.0			1	12 2	
120	e0913120	X	rinse			10-MAY-2005 00:52	1.0					2	
121	e0913121	CCB				10-MAY-2005 00:58	1.0	1.0	1		1	2	
122	e0913122	SAMPLE	178951-002	101496	Soil	10-MAY-2005 01:04	5.0	37.04	5		1	2	9:MG=302200
123	e0913123	SAMPLE	178951-003	101496	Soil	10-MAY-2005 01:10	5.0	44.25	6		1	2	10:FE=92160.0
124	e0913124	SAMPLE	178951-004	101496	Soil	10-MAY-2005 01:16	5.0	31.45	8		1	2	13:FE=333400
125	e0913125	SAMPLE	179049-001	101496	Soil	10-MAY-2005 01:21	5.0	50.51	9		1	2	11:ZN=189860
126	e0913126	SAMPLE	179076-040	101496	Soil	10-MAY-2005 01:27	5.0	33.78			1	2	5:CA=1095000
127	e0913127	SAMPLE	179076-041	101496	Soil	10-MAY-2005 01:33	5.0	35.97	1		1	2	5:FE=129460
128	e0913128	SAMPLE	179076-042	101496	Soil	10-MAY-2005 01:39	5.0	33.33			1	2	5:FE=137140
129	e0913129	SAMPLE	179076-043	101496	Soil	10-MAY-2005 01:45	5.0	50.51	1		1	2	8:FE=76140.0
130	e0913130	SAMPLE	179089-001	101496	Soil	10-MAY-2005 01:50	5.0	41.32	5		1	2	7:FE=89300.0
131	e0913131	SAMPLE	179089-002	101496	Soil	10-MAY-2005 01:56	5.0	47.17	5		1	2	7:FE=99780.0
133	e0913133	CCV				10-MAY-2005 02:08	1.0	1.0			1	12 2	
134	e0913134	X	rinse			10-MAY-2005 02:14	1.0					2	
135	e0913135	CCB				10-MAY-2005 02:20	1.0	1.0	4		1	2	
136	e0913136	SAMPLE	179089-003	101496	Soil	10-MAY-2005 02:26	5.0	48.54	2		1	2	4:FE=64480.0
137	e0913137	MSS	178846-002	101496	Soil	10-MAY-2005 02:31	50.0	50.0	3		1	2	1:AL=2188.00
138	e0913138	SER	QC291747	101496	Soil	10-MAY-2005 02:37	250.0	50.0		1	1	2	1:AL=428.000
139	e0913139	MS	QC291745	101496	Soil	10-MAY-2005 02:43	50.0	46.73		1	1	2	1:AL=2346.00
140	e0913140	MSD	QC291746	101496	Soil	10-MAY-2005 02:49	50.0	37.88		3	1	2	1:AL=2810.00
141	e0913141	PDS	QC291748	101496	Soil	10-MAY-2005 02:55	50.0	50.0		15	1	15 2	1:AL=2034.00

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 8/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
142	e0913142	SAMPLE	178846-001	101496	Soil	10-MAY-2005 03:01	50.0	51.02	1		1	2	1:AL=1128.60
143	e0913143	SAMPLE	178951-001	101496	Soil	10-MAY-2005 03:07	50.0	42.74	1		1	2	1:AL=3446.00
144	e0913144	SAMPLE	178951-002	101496	Soil	10-MAY-2005 03:13	50.0	37.04	3		1	2	5:MG=39900.0
145	e0913145	SAMPLE	178951-003	101496	Soil	10-MAY-2005 03:19	50.0	44.25	1		1	2	2:AL=4054.00
147	e0913147	CCV				10-MAY-2005 03:31	1.0	1.0			1	12 2	
148	e0913148	X	rinse			10-MAY-2005 03:36	1.0					2	
149	e0913149	CCB				10-MAY-2005 03:42	1.0	1.0	3		1	2	
150	e0913150	SAMPLE	178951-004	101496	Soil	10-MAY-2005 03:48	50.0	31.45	5		1	2	7:FE=32960.0
151	e0913151	SAMPLE	179049-001	101496	Soil	10-MAY-2005 03:54	50.0	50.51	4		1	2	5:MN=53920.0
152	e0913152	SAMPLE	179076-040	101496	Soil	10-MAY-2005 04:00	50.0	33.78			1	2	3:CA=114320
153	e0913153	SAMPLE	179076-041	101496	Soil	10-MAY-2005 04:06	50.0	35.97			1	2	2:AL=3606.00
154	e0913154	SAMPLE	179076-042	101496	Soil	10-MAY-2005 04:12	50.0	33.33			1	2	2:AL=5556.00
155	e0913155	SAMPLE	179076-043	101496	Soil	10-MAY-2005 04:18	50.0	50.51	1		1	2	3:AL=2670.00
156	e0913156	SAMPLE	179089-001	101496	Soil	10-MAY-2005 04:24	50.0	41.32	2		1	2	1:AL=5494.00
157	e0913157	SAMPLE	179089-002	101496	Soil	10-MAY-2005 04:29	50.0	47.17	2		1	2	1:AL=6630.00
158	e0913158	SAMPLE	179089-003	101496	Soil	10-MAY-2005 04:35	50.0	48.54	2		1	2	1:AL=4162.0
160	e0913160	BLANK	QC292252	101627	Soil	10-MAY-2005 04:47	5.0	50.0	2		1	2	
162	e0913162	CCV				10-MAY-2005 04:59	1.0	1.0	1		1	12 2	
163	e0913163	X	rinse			10-MAY-2005 05:05	1.0					2	
164	e0913164	CCB				10-MAY-2005 05:11	1.0	1.0	1		1	2	
165	e0913165	BS	QC292253	101627	Soil	10-MAY-2005 05:17	5.0	50.0	2		1	2	1:AL=240.800
166	e0913166	BSD	QC292254	101627	Soil	10-MAY-2005 05:23	5.0	50.0	2		1	2	1:AL=240.400
167	e0913167	MSS	179182-001	101627	Soil	10-MAY-2005 05:29	5.0	54.95	7		1	2	6:FE=62860.0
168	e0913168	SER	QC292257	101627	Soil	10-MAY-2005 05:34	25.0	54.95		2	1	2	2:AL=5716.00
169	e0913169	MS	QC292255	101627	Soil	10-MAY-2005 05:40	5.0	47.62	2	1	1	2	8:FE=75280.0
170	e0913170	MSD	QC292256	101627	Soil	10-MAY-2005 05:46	5.0	44.64	3	1	1	2	9:FE=97560.0
171	e0913171	PDS	QC292258	101627	Soil	10-MAY-2005 05:52	5.0	54.95	2	14	1	15 16 2	8:FE=67740.0
172	e0913172	SAMPLE	179182-002	101627	Soil	10-MAY-2005 05:58	5.0	49.02	4		1	2	6:FE=101560
173	e0913173	SAMPLE	179182-003	101627	Soil	10-MAY-2005 06:04	5.0	48.54	6		1	2	9:FE=66860.0
174	e0913174	SAMPLE	179167-001	101627	Soil	10-MAY-2005 06:09	5.0	46.30	5		1	2	6:FE=67820.0
176	e0913176	CCV				10-MAY-2005 06:21	1.0	1.0			1	12 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/16/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
177	e0913177	X	rinse			10-MAY-2005 06:27	1.0					2	
178	e0913178	CCB				10-MAY-2005 06:33	1.0	1.0	2		1	2	
179	e0913179	MSS	179182-001	101627	Soil	10-MAY-2005 06:39	50.0	54.95	3		1	2	2:AL=2926.00
180	e0913180	SER	QC292257	101627	Soil	10-MAY-2005 06:45	250.0	54.95		1	1	2	1:AL=573.600
181	e0913181	MS	QC292255	101627	Soil	10-MAY-2005 06:51	50.0	47.62		1	1	2	1:AL=3788.00
182	e0913182	MSD	QC292256	101627	Soil	10-MAY-2005 06:57	50.0	44.64		2	1	2	2:AL=3612.00
183	e0913183	SAMPLE	179182-002	101627	Soil	10-MAY-2005 07:03	50.0	49.02	1		1	2	1:AL=5238.00
185	e0913185	SAMPLE	179167-001	101627	Soil	10-MAY-2005 07:15	50.0	46.30			1	2	
186	e0913186	ICSA				10-MAY-2005 07:20	1.0	1.0			1	10 2	7:CA=277800
187	e0913187	ICSAB				10-MAY-2005 07:26	1.0	1.0			1	11 2	8:CA=286000
189	e0913189	CCV				10-MAY-2005 07:38	1.0	1.0			1	13 2	
190	e0913190	X	rinse blank			10-MAY-2005 07:44	1.0					2	
191	e0913191	CCB				10-MAY-2005 07:50	1.0	1.0	2		1	2	

151

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Melissa Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e0913004	55186547004	cs1	09-MAY-2005 13:23	S395
2	e0913005	55186547005	cs2	09-MAY-2005 13:28	S396
3	e0913006	55186547006	cs3	09-MAY-2005 13:33	S397
4	e0913007	55186547007	cs4	09-MAY-2005 13:39	S398
5	e0913008	55186547008	cs5	09-MAY-2005 13:44	S393
6	e0913009	55186547009	cs6	09-MAY-2005 13:49	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		10.153	6.0829	0.9673	0.4588	0.4944	BLNK	R	-12.7573	2.210067		ug/L	3.6312	0.995	0.995	
Antimony	0.3589	0.3024	0.2578	0.2436	0.2337	0.2478	BLNK	R	-0.08506	4.084564		ug/L	0.2740	0.999	0.995	
Arsenic		0.3774	0.4193	0.3947	0.3766	0.3829	BLNK	R	-0.04706	2.621125		ug/L	0.3902	1.000	0.995	
Barium	0.2018	0.1403	0.1156	0.0928	0.0876	0.0901	BLNK	R	-0.25603	11.18257		ug/L	0.1214	1.000	0.995	
Beryllium	0.1783	0.1683	0.1540	0.1500	0.1445	0.1457	BLNK	R	-0.02094	6.876203		ug/L	0.1568	1.000	0.995	
Cadmium	0.7744	0.6967	0.5455	0.4842	0.4426	0.4420	BLNK	R	-0.13603	2.263259		ug/L	0.5642	1.000	0.995	
Calcium		0.0313	0.0234	0.0172	0.0161	0.0160	BLNK	R	-49.5055	62.77004		ug/L	0.0208	1.000	0.995	
Chromium		4.3383	3.2151	2.3460	2.1587	2.1661	BLNK	R	-0.42265	0.463105		ug/L	2.8448	1.000	0.995	
Cobalt	3.2625	3.0795	2.8275	2.6959	2.6101	2.6044	BLNK	R	-0.02149	0.383819		ug/L	2.8466	1.000	0.995	
Copper		0.8868	0.8511	0.7268	0.6781	0.6740	BLNK	R	-0.08651	1.482419		ug/L	0.7634	1.000	0.995	
Iron		0.1044	0.0819	0.0669	0.0641	0.0622	BLNK	R	-31.6243	16.01468		ug/L	0.0759	1.000	0.995	
Lead	1.0478	0.9807	0.8986	0.8612	0.8597	0.8871	BLNK	R	-0.03139	1.134540		ug/L	0.9225	1.000	0.995	
Magnesium		0.0678	0.0611	0.0610	0.0564	0.0576	BLNK	R	-5.71639	17.44594		ug/L	0.0608	1.000	0.995	
Manganese	4.5105	3.9500	3.4588	3.1803	3.0599	3.0148	BLNK	R	-0.08146	0.330840		ug/L	3.5290	1.000	0.995	
Molybdenum		1.1483	0.9339	0.8415	0.8048	0.8208	BLNK	R	-0.20816	1.224575		ug/L	0.9099	1.000	0.995	
Nickel	0.8173	0.7070	0.6359	0.6107	0.5632	0.5597	BLNK	R	-0.05945	1.784754		ug/L	0.6490	1.000	0.995	
Potassium		1.8843	1.2006	0.5984	0.5120	0.5175	BLNK	R	-123.524	1.950804		ug/L	0.9426	1.000	0.995	
Selenium		0.0701	0.0480	0.0293	0.0252	0.0252	BLNK	R	-0.73536	39.87147		ug/L	0.0396	1.000	0.995	
Silver	2.6099	2.4138	2.2920	2.2287	2.0847	2.1087	BLNK	R	-0.01765	0.475304		ug/L	2.2896	1.000	0.995	
Sodium		1.2550	0.9547	0.6219	0.5523	0.5624	BLNK	R	-52.6365	1.789812		ug/L	0.7893	1.000	0.995	

152

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

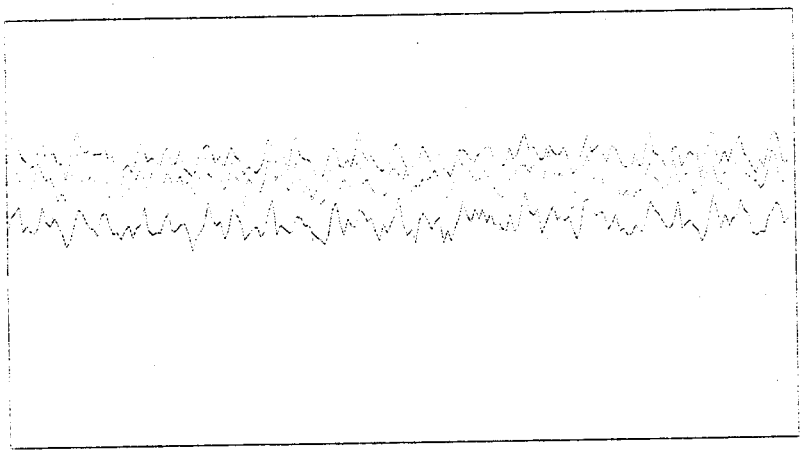
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.7544	0.6500	0.6312	0.6727	0.6795	BLNK	R	-0.05163	1.475366		ug/L	0.6776	1.000	0.995	
Vanadium		3.5450	2.9111	2.4600	2.4296	2.4164	BLNK	R	-0.17808	0.413830		ug/L	2.7524	1.000	0.995	
Zinc		1.5046	1.2129	0.4952	0.4057	0.3983	BLNK	R	-1.28422	2.520165		ug/L	0.8033	1.000	0.995	

153

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



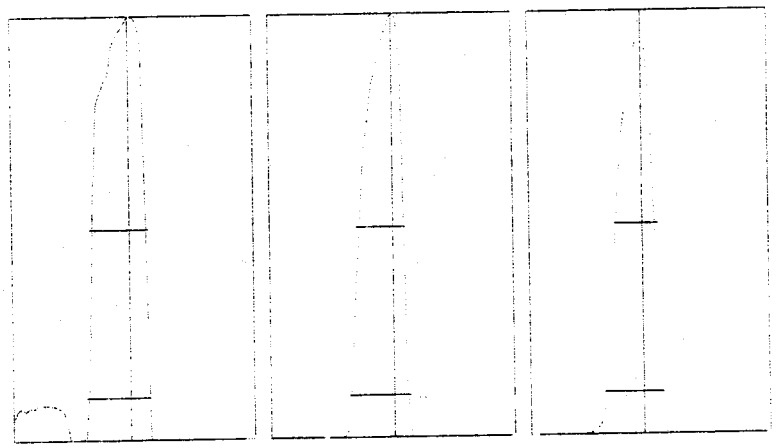
m/z:	7	89	205
Range:	20,000	50,000	100,000
Count:	10,232	32,303	56,142
Mean:	10247.6	33410.8	61381.1
RSD%:	5.00	3.85	4.60
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.40%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	20.9	18.2	22.1



m/z:	7	89	205
Height:	10,325	33,774	69,064
Axis:	7.00	89.05	204.95
W-50%:	0.75	0.60	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.02 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 09, 2005 10:41:58
Printed : May 09, 2005 10:42:06

P/A Factor Tuning Report

Acquired:May 9 2005 11:06 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087637
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097864
45	Sc	0.093351
51	V	0.097956
52	Cr	0.099998
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101675
57	Fe	0.104597
59	Co	0.105141
60	Ni	Sensitivity too low
63	Cu	0.107023
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105980
95	Mo	Sensitivity too low
98	Mo	0.104137
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.114003
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.114449
118	(In)	Sensitivity too low
121	Sb	0.113109
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119372
166	Er	Sensitivity too low

205	Tl	0.127188
206	(Pb)	0.123052
207	(Pb)	0.122974
208	Pb	0.126240
209	Bi	0.125409
232	Th	0.127801
238	U	0.128284

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 9 2005 11:19 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087424
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097829
45	Sc	0.093447
51	V	0.097709
52	Cr	0.099861
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101644
57	Fe	0.104280
59	Co	0.104935
60	Ni	Sensitivity too low
63	Cu	0.107045
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106140
95	Mo	Sensitivity too low
98	Mo	0.103609
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113603
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.113939
118	(In)	0.112751
121	Sb	0.112520
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119176
166	Er	Sensitivity too low

205	Tl	0.126386
206	(Pb)	0.122394
207	(Pb)	0.121301
208	Pb	0.125098
209	Bi	0.124741
232	Th	0.127048
238	U	0.126846

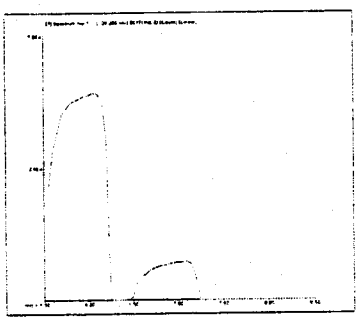
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

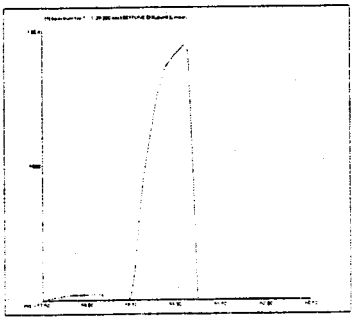
Data File: C:\ICPCHEM\1\DATA\05E0913a.B\001TUNE.D
Date Acquired: May 9 2005 01:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

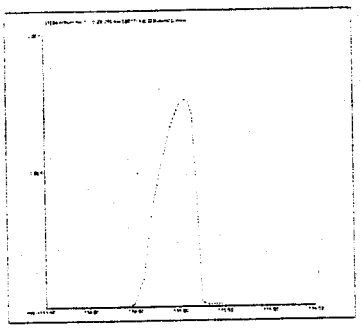
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.43	5.00	
115 In	1.12	5.00	
205 Tl	0.90	5.00	



7 Li
Mass Calib.
Actual: 7.10
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



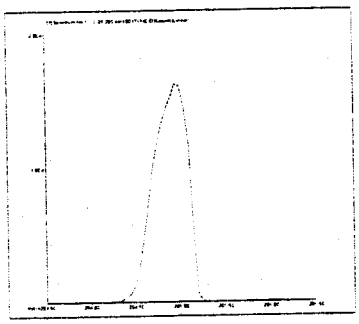
115 In

Mass Calib.

Actual:	115.10	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	204.95	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 9 2005 01:12 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 09 2005 00:27 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01962	ppb	37.67	0.01962	1.00	
23 Na	-43.94	ppb	0.73	-43.94	1.00	
26 Mg	3.398	ppb	8.82	3.398	1.00	
27 Al	1.878	ppb	10.47	1.878	1.00	
39 K	-29.44	ppb	4.05	-29.44	1.00	
44 Ca	3.364	ppb	40.01	3.364	1.00	
51 V	0.07676	ppb	20.02	0.07676	1.00	
52 Cr	0.01954	ppb	87.56	0.01954	1.00	
55 Mn	0.004327	ppb	145.09	0.004327	1.00	
57 Fe	6.129	ppb	10.02	6.129	1.00	
59 Co	0.007675	ppb	55.04	0.007675	1.00	
60 Ni	0.01296	ppb	122.07	0.01296	1.00	
65 Cu	0.005624	ppb	130.71	0.005624	1.00	
66 Zn	0.1207	ppb	61.64	0.1207	1.00	
75 As	-0.0005196	ppb	13986.00	-0.00052	1.00	
82 Se	0.1292	ppb	181.97	0.1292	1.00	
95 Mo	0.2682	ppb	12.30	0.2682	1.00	
109 Ag	-0.0006557	ppb	128.85	-0.000656	1.00	
111 Cd	-0.01698	ppb	93.52	-0.01698	1.00	
121 Sb	0.02757	ppb	87.81	0.02757	1.00	
137 Ba	-0.01029	ppb	188.92	-0.01029	1.00	
205 Tl	-0.001022	ppb	423.19	-0.001022	1.00	
208 Pb	0.005026	ppb	28.45	0.005026	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	385913.31	1.24	---	#VALUE!	30 - 200	
45 Sc	579813.31	0.74	---	#VALUE!	30 - 200	
72 Ge	166277.11	0.91	---	#VALUE!	30 - 200	

115 In	1301750.40	0.98	---	#VALUE!	30 - 200
209 Bi	1283374.90	1.15	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E0913a.B\003CAL
Date Acquired:	May 9 2005 01:18 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 09 2005 00:27 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	383255.50	P	2928.00	0.76
9	Be	23.33	P	8.82	37.80
23	Na	333306.69	P	15010.00	4.50
26	Mg	3714.44	P	313.40	8.44
27	Al	65416.66	P	2181.00	3.33
39	K	717550.00	P	14920.00	2.08
44	Ca	8939.10	P	442.70	4.95
45	Sc	566573.31	P	5196.00	0.92
51	V	1393.93	P	609.90	43.75
52	Cr	2952.22	P	110.80	3.75
55	Mn	796.67	P	60.09	7.54
57	Fe	6386.67	P	64.29	1.01
59	Co	181.11	P	21.69	11.98
60	Ni	107.78	P	12.62	11.71
65	Cu	188.87	P	29.87	15.82
66	Zn	1647.80	P	70.03	4.25
72	Ge	161712.41	P	1363.00	0.84
75	As	58.31	P	44.00	75.46
82	Se	59.65	P	7.11	11.92
95	Mo	550.00	P	46.67	8.49
109	Ag	120.00	P	17.32	14.43
111	Cd	194.55	P	36.43	18.73
115	In	1281904.00	A	17700.00	1.38
121	Sb	534.44	P	93.95	17.58
137	Ba	586.67	P	40.96	6.98
205	Tl	893.33	P	106.00	11.87
208	Pb	705.56	P	51.78	7.34
209	Bi	1275587.00	A	13700.00	1.07
232	Th	740.00	P	63.33	8.56
238	U	246.67	P	14.53	5.89

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\004CALI.D\004CALI.D#
Date Acquired: May 9 2005 01:23 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	381658.91	P	6406.00	1.68
9 Be	340.00	P	15.28	4.49
23 Na	503082.19	P	5102.00	1.01
26 Mg	21435.55	P	425.80	1.99
27 Al	63396.66	P	201.20	0.32
39 K	921026.63	A	5986.00	0.65
44 Ca	14123.80	P	67.58	0.48
45 Sc	574345.63	P	9099.00	1.58
51 V	3325.88	P	223.90	6.73
52 Cr	5065.56	P	13.88	0.27
55 Mn	3686.67	P	35.12	0.95
57 Fe	12066.67	P	67.66	0.56
59 Co	2666.67	P	26.46	0.99
60 Ni	667.78	P	27.15	4.07
65 Cu	806.57	P	72.65	9.01
66 Zn	2573.44	P	59.26	2.30
72 Ge	163487.59	P	2285.00	1.40
75 As	510.06	P	86.56	16.97
82 Se	105.78	P	12.66	11.97
95 Mo	1196.67	P	138.90	11.61
109 Ag	2133.33	P	63.60	2.98
111 Cd	633.08	P	23.33	3.69
115 In	1290959.00	A	17010.00	1.32
121 Sb	2316.67	P	178.40	7.70
137 Ba	1302.22	P	32.03	2.46
205 Tl	5216.67	P	221.70	4.25
208 Pb	6642.22	P	126.00	1.90
209 Bi	1268362.00	A	24950.00	1.97
232 Th	2925.56	P	186.80	6.39
238 U	5856.67	P	60.83	1.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	381658.88	1.68	383255.53	99.6	30 - 200	
45 Sc	574345.56	1.58	566573.31	101.4	30 - 200	
72 Ge	163487.55	1.40	161712.45	101.1	30 - 200	
115 In	1290959.40	1.32	1281904.10	100.7	30 - 200	
209 Bi	1268362.10	1.97	1275586.80	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\005CALI.D\005CALI.D#
Date Acquired: May 9 2005 01:28 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	388543.31	P	6704.00	1.73
9 Be	654.44	P	69.95	10.69
23 Na	720465.63	M	53520.00	7.43
26 Mg	38891.11	P	203.40	0.52
27 Al	58248.88	P	605.70	1.04
39 K	1081261.00	A	8068.00	0.75
44 Ca	17968.38	P	26.04	0.14
45 Sc	573872.19	P	9184.00	1.60
51 V	5801.79	P	456.80	7.87
52 Cr	7103.33	P	123.50	1.74
55 Mn	6466.67	P	174.90	2.70
57 Fe	17103.33	P	175.70	1.03
59 Co	5042.22	P	75.82	1.50
60 Ni	1157.78	P	80.02	6.91
65 Cu	1453.17	P	100.90	6.94
66 Zn	2464.64	P	93.12	3.78
72 Ge	163775.59	P	2296.00	1.40
75 As	618.01	P	97.53	15.78
82 Se	114.84	P	18.26	15.90
95 Mo	1880.00	P	58.59	3.12
109 Ag	3953.33	P	100.70	2.55
111 Cd	1141.54	P	83.62	7.33
115 In	1302916.00	A	31930.00	2.45
121 Sb	3942.22	P	265.00	6.72
137 Ba	1827.78	P	89.46	4.89
205 Tl	9710.00	P	346.70	3.57
208 Pb	12620.00	P	375.60	2.98
209 Bi	1286918.00	A	14760.00	1.15
232 Th	5670.00	P	387.00	6.83
238 U	12016.67	P	179.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	388543.31	1.73	383255.53	101.4	30 - 200	
45 Sc	573872.19	1.60	566573.31	101.3	30 - 200	
72 Ge	163775.55	1.40	161712.45	101.3	30 - 200	
115 In	1302916.10	2.45	1281904.10	101.6	30 - 200	
209 Bi	1286917.50	1.15	1275586.80	100.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\006CALI.D\006CALI.D#
Date Acquired: May 9 2005 01:33 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	378866.69	P	1012.00	0.27
9 Be	1166.67	P	61.73	5.29
23 Na	1059123.00	A	15230.00	1.44
26 Mg	67734.44	P	290.70	0.43
27 Al	67477.78	P	900.40	1.33
39 K	1331844.00	A	11740.00	0.88
44 Ca	25958.08	P	633.30	2.44
45 Sc	554661.13	P	3920.00	0.71
51 V	9309.37	P	328.70	3.53
52 Cr	10281.11	P	180.30	1.75
55 Mn	11060.00	P	97.13	0.88
57 Fe	26186.67	P	47.02	0.18
59 Co	9041.11	P	56.80	0.63
60 Ni	2033.33	P	64.29	3.16
65 Cu	2721.94	P	83.82	3.08
66 Zn	3879.23	P	176.70	4.56
72 Ge	159886.91	P	1054.00	0.66
75 As	1340.70	P	49.37	3.68
82 Se	153.36	P	34.90	22.76
95 Mo	2985.56	P	137.30	4.60
109 Ag	7330.00	P	229.40	3.13
111 Cd	1744.86	P	131.90	7.56
115 In	1284396.00	A	7356.00	0.57
121 Sb	6622.22	P	85.27	1.29
137 Ba	2970.00	P	170.70	5.75
205 Tl	16626.67	P	280.50	1.69
208 Pb	22985.55	P	449.20	1.95
209 Bi	1278827.00	A	11910.00	0.93
232 Th	10770.00	P	415.30	3.86
238 U	21516.67	P	439.50	2.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	378866.66	0.27	383255.53	98.9	30 - 200	
45 Sc	554661.06	0.71	566573.31	97.9	30 - 200	
72 Ge	159886.89	0.66	161712.45	98.9	30 - 200	
115 In	1284395.60	0.57	1281904.10	100.2	30 - 200	
209 Bi	1278826.80	0.93	1275586.80	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\007CALI.D\007CALI.D#
Date Acquired: May 9 2005 01:39 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	373440.00	P	5622.00	1.51
9 Be	11201.11	P	320.10	2.86
23 Na	6985478.00	A	53770.00	0.77
26 Mg	685156.31	M	30550.00	4.46
27 Al	108658.90	P	2111.00	1.94
39 K	6721495.00	A	84880.00	1.26
44 Ca	193138.09	P	3493.00	1.81
45 Sc	561696.63	P	11480.00	2.04
51 V	79563.28	P	2277.00	2.86
52 Cr	75866.66	P	1479.00	1.95
55 Mn	102837.80	P	878.60	0.85
57 Fe	216431.09	P	1686.00	0.78
59 Co	87177.78	P	954.10	1.09
60 Ni	19746.67	P	52.92	0.27
65 Cu	23500.52	P	320.00	1.36
66 Zn	16014.54	P	280.90	1.75
72 Ge	161695.59	P	2721.00	1.68
75 As	12764.13	P	285.60	2.24
82 Se	947.73	P	37.30	3.94
95 Mo	27211.11	P	262.30	0.96
109 Ag	72074.44	P	1428.00	1.98
111 Cd	15658.37	P	351.50	2.24
115 In	1268975.00	A	8228.00	0.65
121 Sb	61817.78	P	996.20	1.61
137 Ba	23555.55	P	440.50	1.87
205 Tl	159404.41	P	4573.00	2.87
208 Pb	217473.30	P	3833.00	1.76
209 Bi	1262652.00	A	23180.00	1.84
232 Th	111372.20	P	5385.00	4.84
238 U	210833.30	P	4958.00	2.35

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	373440.00	1.51	383255.53	97.4	30 - 200	
45 Sc	561696.63	2.04	566573.31	99.1	30 - 200	
72 Ge	161695.55	1.68	161712.45	100.0	30 - 200	
115 In	1268975.10	0.65	1281904.10	99.0	30 - 200	
209 Bi	1262651.90	1.84	1275586.80	99.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#
Date Acquired: May 9 2005 01:44 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:41 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	384265.50	P	6338.00	1.65
9 Be	111040.00	P	2223.00	2.00
23 Na	64779380.00	A	914800.00	1.41
26 Mg	6611233.00	A	56080.00	0.85
27 Al	538136.63	P	10100.00	1.88
39 K	60055780.00	A	1021000.00	1.70
44 Ca	1886489.00	A	35790.00	1.90
45 Sc	586510.00	P	11090.00	1.89
51 V	815436.81	M	11310.00	1.39
52 Cr	724518.88	P	7612.00	1.05
55 Mn	1026897.00	A	2574.00	0.25
57 Fe	2150757.00	A	11590.00	0.54
59 Co	875879.50	M	8110.00	0.93
60 Ni	189035.59	P	2981.00	1.58
65 Cu	227604.91	P	3232.00	1.42
66 Zn	136166.41	P	2085.00	1.53
72 Ge	167832.00	P	2983.00	1.78
75 As	126410.40	P	2488.00	1.97
82 Se	8468.64	P	100.50	1.19
95 Mo	270137.81	P	4754.00	1.76
109 Ag	699755.50	P	12720.00	1.82
111 Cd	148551.20	P	2298.00	1.55
115 In	1290516.00	A	11120.00	0.86
121 Sb	603296.63	P	12550.00	2.08
137 Ba	226022.20	P	2894.00	1.28
205 Tl	1674851.00	A	11330.00	0.68
208 Pb	2140513.00	A	22340.00	1.04
209 Bi	1244905.00	A	17460.00	1.40
232 Th	1933230.00	A	52040.00	2.69
238 U	2220371.00	A	13630.00	0.61

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	384265.53	1.65	383255.53	100.3	30 - 200	
45 Sc	586510.00	1.89	566573.31	103.5	30 - 200	
72 Ge	167832.00	1.78	161712.45	103.8	30 - 200	
115 In	1290516.10	0.86	1281904.10	100.7	30 - 200	
209 Bi	1244904.60	1.40	1275586.80	97.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures
0 :ISTD Failures

--- :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: **Pass**

ISTD: **Pass**

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#
Date Acquired: May 9 2005 01:49 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:46 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	387304.41	P	3457.00	0.89
9 Be	225693.30	P	2890.00	1.28
23 Na	130728600.00	A	458100.00	0.35
26 Mg	13381630.00	A	23150.00	0.17
27 Al	1149083.00	A	7759.00	0.68
39 K	120280500.00	A	1180000.00	0.98
44 Ca	3707841.00	A	36990.00	1.00
45 Sc	581156.63	P	9439.00	1.62
51 V	1624804.00	A	13860.00	0.85
52 Cr	1456411.00	A	13430.00	0.92
55 Mn	2026948.00	A	17110.00	0.84
57 Fe	4180162.00	A	10860.00	0.26
59 Co	1751228.00	A	15420.00	0.88
60 Ni	376336.69	P	1881.00	0.50
65 Cu	453202.41	P	3241.00	0.72
66 Zn	267803.59	P	2351.00	0.88
72 Ge	168117.09	P	2754.00	1.64
75 As	257446.70	P	3322.00	1.29
82 Se	16928.90	P	229.50	1.36
95 Mo	551943.31	P	6031.00	1.09
109 Ag	1417878.00	A	14610.00	1.03
111 Cd	297226.69	P	3533.00	1.19
115 In	1269237.00	A	11470.00	0.90
121 Sb	1257868.00	A	10450.00	0.83
137 Ba	457220.00	P	5570.00	1.22
205 Tl	3305613.00	A	41840.00	1.27
208 Pb	4316318.00	A	84220.00	1.95
209 Bi	1216527.00	A	29690.00	2.44
232 Th	4542415.00	A	78550.00	1.73
238 U	4488659.00	A	82940.00	1.85

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	387304.44	0.89	383255.53	101.1	30 - 200	
45 Sc	581156.63	1.62	566573.31	102.6	30 - 200	
72 Ge	168117.11	1.64	161712.45	104.0	30 - 200	
115 In	1269236.80	0.90	1281904.10	99.0	30 - 200	
209 Bi	1216526.80	2.44	1275586.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 09, 2005 13:51
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e0913a.b\003calb.d\	003calb.d#	May 9 2005 01:18 pm
2	...hem\1\data\05e0913a.b\004cali.d\	004cali.d#	May 9 2005 01:23 pm
3	...hem\1\data\05e0913a.b\005cali.d\	005cali.d#	May 9 2005 01:28 pm
4	...hem\1\data\05e0913a.b\006cali.d\	006cali.d#	May 9 2005 01:33 pm
5	...hem\1\data\05e0913a.b\007cali.d\	007cali.d#	May 9 2005 01:39 pm
6	...hem\1\data\05e0913a.b\008cali.d\	008cali.d#	May 9 2005 01:44 pm
7	...hem\1\data\05e0913a.b\009cali.d\	009cali.d#	May 9 2005 01:49 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.454E-1*X +3.046E-3(blank)	---	ppb
Na	23	45	Y = 5.587E-1*X +2.941E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.732E-2*X +3.277E-1(blank)	---	ppb
Al	27	45	Y = 4.525E-1*X +5.772E+0(blank)	---	ppb
K	39	45	Y = 5.126E-1*X +6.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.593E-2*X +7.887E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.416E+0*X +4.303E-1(blank)	---	ppb
Cr	52	72	Y = 2.159E+0*X +9.127E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.023E+0*X +2.462E-1(blank)	---	ppb
Fe	57	72	Y = 6.244E-2*X +1.975E+0(blank)	---	ppb
Co	59	72	Y = 2.605E+0*X +5.598E-2(blank)	---	ppb
Ni	60	72	Y = 5.603E-1*X +3.331E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.746E-1*X +5.836E-2(blank)	---	ppb
Zn	66	72	Y = 3.968E-1*X +5.096E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.815E-1*X +1.796E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.508E-2*X +1.844E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.166E-1*X +1.700E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.104E+0*X +3.713E-2(blank)	---	ppb
Cd	111	72	Y = 4.418E-1*X +6.010E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.448E-1*X +2.082E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.942E-2*X +2.290E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.778E-1*X +3.499E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.767E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547010 Filename : e0913010 Injected : 09-MAY-2005 13:54
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S399

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
luminum	100.0000	95.24000	ug/L	-5	10	
ntimony	100.0000	98.46000	ug/L	-2	10	
rsenic	100.0000	100.5000	ug/L	1	10	
arium	100.0000	98.32000	ug/L	-2	10	
eryllium	100.0000	98.59000	ug/L	-1	10	
admium	100.0000	101.9000	ug/L	2	10	
alcium	10000.00	10110.00	ug/L	1	10	
hromium	100.0000	100.1000	ug/L	0	10	
obalt	100.0000	100.3000	ug/L	0	10	
opper	100.0000	101.2000	ug/L	1	10	
ron	10000.00	10260.00	ug/L	3	10	
ead	100.0000	98.27000	ug/L	-2	10	
agnesium	10000.00	10060.00	ug/L	1	10	
anganese	100.0000	101.6000	ug/L	2	10	
olybdenum	100.0000	100.6000	ug/L	1	10	
ickel	100.0000	101.7000	ug/L	2	10	
otassium	10000.00	10060.00	ug/L	1	10	
elenium	100.0000	102.1000	ug/L	2	10	
ilver	100.0000	100.9000	ug/L	1	10	
odium	10000.00	10090.00	ug/L	1	10	
hallium	100.0000	100.5000	ug/L	1	10	
anadium	100.0000	101.3000	ug/L	1	10	
inc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	397821	3.80
Scandium	566573	593270	4.71
Germanium	161713	169142	4.59
Indium	1281904	1313906	2.50
Bismuth	1275587	1269056	-0.51

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɛqnum : 55186547012 Filename : e0913012 Injected : 09-MAY-2005 14:06
ɔandards: 05WS0207

ınalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.380300	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɜarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɜeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔalcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɔhromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɔobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔopper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547013 Filename : e0913013 Injected : 09-MAY-2005 14:12
:andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.391000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.555400	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.891700	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0090]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.0932]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.188000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.679000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.476000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.227000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.022000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.305000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.4896]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1480]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.1242]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.1340]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.928000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89980	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	295200	ug/L	98
Iron	55186547001	09-MAY-2005	250000	241600	ug/L	97
Magnesium	55186547001	09-MAY-2005	100000	93590	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1902	ug/L	95
Potassium	55186547001	09-MAY-2005	100000	96440	ug/L	96
Sodium	55186547001	09-MAY-2005	250000	227100	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

nstid : MET05 Run Name :
eqnum : 55186547014 Filename : e0913014 Injected : 09-MAY-2005 14:17
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88800.00	ug/L	-11		
Arsenic	100.0000	109.0000	ug/L	9	20	
Cadmium	100.0000	98.83000	ug/L	-1	20	
Calcium	300000.0	295000.0	ug/L	-2		
Chromium	200.0000	215.5000	ug/L	8	20	
Cobalt	200.0000	210.2000	ug/L	5	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	247100.0	ug/L	-1		
Magnesium	100000.0	91970.00	ug/L	-8		
Manganese	200.0000	217.9000	ug/L	9	20	
Molybdenum	2000.000	1929.000	ug/L	-4		
Nickel	200.0000	201.8000	ug/L	1	20	
Potassium	100000.0	95150.00	ug/L	-5		
Selenium	100.0000	101.5000	ug/L	2	20	
Silver	50.00000	48.38000	ug/L	-3	20	
Sodium	250000.0	224200.0	ug/L	-10		
Vanadium	200.0000	220.6000	ug/L	10	20	
Zinc	100.0000	101.8000	ug/L	2	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	598407	5.62
Germanium	161713	166732	3.10

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid	: MET05	Run Name	:	IDF	: 1.0
ɛqnum	: 55186547025	Filename	: e0913025	Injected	: 09-MAY-2005 15:22
ılnum	: 55186547001	Caldate	: 09-MAY-2005	Caltype	:
ɔandards: S403, 05WS0207					

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4842	150.0000	147.8000	ug/L	-1	10	
Antimony	0.2740	0.2317	150.0000	141.9000	ug/L	-5	10	
Arsenic	0.3902	0.3709	150.0000	145.8000	ug/L	-3	10	
Barium	0.1214	0.0872	150.0000	146.0000	ug/L	-3	10	
Beryllium	0.1568	0.1417	150.0000	146.1000	ug/L	-3	10	
Cadmium	0.5642	0.4444	150.0000	150.7000	ug/L	0	10	
Calcium	0.0208	0.0157	15000.00	14730.00	ug/L	-2	10	
Chromium	2.8448	2.1412	150.0000	148.3000	ug/L	-1	10	
Cobalt	2.8466	2.5911	150.0000	149.2000	ug/L	-1	10	
Copper	0.7634	0.6613	150.0000	147.0000	ug/L	-2	10	
Iron	0.0759	0.0618	15000.00	14820.00	ug/L	-1	10	
Lead	0.9225	0.8510	150.0000	144.8000	ug/L	-3	10	
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
Manganese	3.5290	2.9760	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.9099	0.8045	150.0000	147.6000	ug/L	-2	10	
Nickel	0.6490	0.5499	150.0000	147.1000	ug/L	-2	10	
Potassium	0.9426	0.5046	15000.00	14640.00	ug/L	-2	10	
Selenium	0.0396	0.0248	150.0000	147.4000	ug/L	-2	10	
Silver	2.2896	2.1088	150.0000	150.3000	ug/L	0	10	
Sodium	0.7893	0.5501	15000.00	14720.00	ug/L	-2	10	
Thallium	0.6776	0.6635	150.0000	146.8000	ug/L	-2	10	
Vanadium	2.7524	2.4032	150.0000	149.0000	ug/L	-1	10	
Zinc	0.8033	0.3903	150.0000	146.3000	ug/L	-2	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	373026	-2.67
Scandium	566573	561004	-0.98
Germanium	161713	161836	0.08
Indium	1281904	1264407	-1.36
Bismuth	1275587	1249023	-2.08

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɜqnum : 55186547027 Filename : e0913027 Injected : 09-MAY-2005 15:33
:andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.260000	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɜarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɜeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
:hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɔead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

istid : MET05 Run Name : IDF : 1.0
:qnum : 55186547031 Filename : e0913031 Injected : 09-MAY-2005 15:57
ilnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
:andards: S400, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
.luminum	3.6312	0.4676	100.0000	90.59000	ug/L	-9	10	
ntimony	0.2740	0.2331	100.0000	95.12000	ug/L	-5	10	
rsenic	0.3902	0.3791	100.0000	99.32000	ug/L	-1	10	
arium	0.1214	0.0880	100.0000	98.19000	ug/L	-2	10	
eryllium	0.1568	0.1450	100.0000	99.70000	ug/L	0	10	
admium	0.5642	0.4516	100.0000	102.1000	ug/L	2	10	
alcium	0.0208	0.0164	10000.00	10220.00	ug/L	2	10	
hromium	2.8448	2.1583	100.0000	99.53000	ug/L	0	10	
obalt	2.8466	2.5857	100.0000	99.22000	ug/L	-1	10	
opper	0.7634	0.6794	100.0000	100.6000	ug/L	1	10	
ron	0.0759	0.0645	10000.00	10300.00	ug/L	3	10	
ead	0.9225	0.8645	100.0000	98.05000	ug/L	-2	10	
agnesium	0.0608	0.0583	10000.00	10160.00	ug/L	2	10	
anganese	3.5290	3.1243	100.0000	103.3000	ug/L	3	10	
olybdenum	0.9099	0.8182	100.0000	99.98000	ug/L	0	10	
Nickel	0.6490	0.5662	100.0000	101.0000	ug/L	1	10	
Potassium	0.9426	0.5241	10000.00	10100.00	ug/L	1	10	
Selenium	0.0396	0.0255	100.0000	100.9000	ug/L	1	10	
Silver	2.2896	2.1286	100.0000	101.2000	ug/L	1	10	
Sodium	0.7893	0.5663	10000.00	10080.00	ug/L	1	10	
Thallium	0.6776	0.6851	100.0000	101.0000	ug/L	1	10	
Vanadium	2.7524	2.4000	100.0000	99.14000	ug/L	-1	10	
Zinc	0.8033	0.4049	100.0000	100.8000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	368057	-3.97
Scandium	566573	555167	-2.01
Germanium	161713	161141	-0.35
Indium	1281904	1267241	-1.14
Bismuth	1275587	1237819	-2.96

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547033 Filename : e0913033 Injected : 09-MAY-2005 16:09
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1836]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547034 Filename : e0913034 Injected : 09-MAY-2005 16:15
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.217000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.647500	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.803400	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0110]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.1070]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.182000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.621000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.499000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.185000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.014000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.330000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.3223]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1382]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0349]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.0894]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	90860	ug/L	91
Calcium	55186547001	09-MAY-2005	300000	292900	ug/L	98
Iron	55186547001	09-MAY-2005	250000	237700	ug/L	95
Magnesium	55186547001	09-MAY-2005	100000	94090	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1944	ug/L	97
Potassium	55186547001	09-MAY-2005	100000	96540	ug/L	97
Sodium	55186547001	09-MAY-2005	250000	226900	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
eqnum : 55186547035 Filename : e0913035 Injected : 09-MAY-2005 16:21
ılnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
:andards: S402, 05WS0207

ınalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ılluminum	100000.0	89450.00	ug/L	-11		
ırsenic	100.0000	106.2000	ug/L	6	20	
:admium	100.0000	98.87000	ug/L	-1	20	
:alcium	300000.0	292500.0	ug/L	-3		
:hromium	200.0000	206.3000	ug/L	3	20	
:obalt	200.0000	204.6000	ug/L	2	20	
:opper	200.0000	192.8000	ug/L	-4	20	
Iron	250000.0	237800.0	ug/L	-5		
Magnesium	100000.0	93040.00	ug/L	-7		
Manganese	200.0000	208.6000	ug/L	4	20	
Molybdenum	2000.000	1917.000	ug/L	-4		
Nickel	200.0000	196.3000	ug/L	-2	20	
Potassium	100000.0	95100.00	ug/L	-5		
Selenium	100.0000	99.09000	ug/L	-1	20	
Silver	50.00000	48.47000	ug/L	-3	20	
Sodium	250000.0	223600.0	ug/L	-11		
Vanadium	200.0000	212.9000	ug/L	6	20	
Zinc	100.0000	98.57000	ug/L	-1	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	566613	0.01
Germanium	161713	163447	1.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
gnum : 55186547046 Filename : e0913046 Injected : 09-MAY-2005 17:39
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4749	150.0000	144.7000	ug/L	-4	10	
itimony	0.2740	0.2250	150.0000	137.7000	ug/L	-8	10	
senic	0.3902	0.3648	150.0000	143.4000	ug/L	-4	10	
rium	0.1214	0.0853	150.0000	142.9000	ug/L	-5	10	
eryllium	0.1568	0.1391	150.0000	143.4000	ug/L	-4	10	
admium	0.5642	0.4459	150.0000	151.2000	ug/L	1	10	
alcium	0.0208	0.0155	15000.00	14550.00	ug/L	-3	10	
romium	2.8448	2.1136	150.0000	146.4000	ug/L	-2	10	
balt	2.8466	2.5472	150.0000	146.6000	ug/L	-2	10	
pper	0.7634	0.6531	150.0000	145.1000	ug/L	-3	10	
ron	0.0759	0.0620	15000.00	14850.00	ug/L	-1	10	
ead	0.9225	0.8358	150.0000	142.2000	ug/L	-5	10	
agnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
anganese	3.5290	2.9806	150.0000	147.8000	ug/L	-1	10	
olybdenum	0.9099	0.7972	150.0000	146.2000	ug/L	-3	10	
ickel	0.6490	0.5403	150.0000	144.6000	ug/L	-4	10	
otassium	0.9426	0.5038	15000.00	14620.00	ug/L	-3	10	
elenium	0.0396	0.0247	150.0000	147.1000	ug/L	-2	10	
ilver	2.2896	2.1293	150.0000	151.8000	ug/L	1	10	
odium	0.7893	0.5550	15000.00	14850.00	ug/L	-1	10	
hallium	0.6776	0.6552	150.0000	144.9000	ug/L	-3	10	
anadium	2.7524	2.3700	150.0000	146.9000	ug/L	-2	10	
inc	0.8033	0.3843	150.0000	144.0000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	371734	-3.01
candium	566573	544232	-3.94
ermanium	161713	158308	-2.11
ndium	1281904	1276514	-0.42
ismuth	1275587	1283726	0.64

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547048 Filename : e0913048 Injected : 09-MAY-2005 17:51
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.2093]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.559700	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

itid : MET05 Run Name : IDF : 1.0
jnum : 55186547061 Filename : e0913061 Injected : 09-MAY-2005 19:07
.num : 55186547001 Caldate : 09-MAY-2005 Caltype :
indards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4622	150.0000	140.5000	ug/L	-6	10	
.timony	0.2740	0.2246	150.0000	137.5000	ug/L	-8	10	
senic	0.3902	0.3614	150.0000	142.1000	ug/L	-5	10	
rium	0.1214	0.0850	150.0000	142.2000	ug/L	-5	10	
eryllium	0.1568	0.1384	150.0000	142.7000	ug/L	-5	10	
dmium	0.5642	0.4352	150.0000	147.6000	ug/L	-2	10	
lcium	0.0208	0.0155	15000.00	14580.00	ug/L	-3	10	
romium	2.8448	2.1179	150.0000	146.7000	ug/L	-2	10	
balt	2.8466	2.5818	150.0000	148.6000	ug/L	-1	10	
pper	0.7634	0.6536	150.0000	145.3000	ug/L	-3	10	
on	0.0759	0.0622	15000.00	14900.00	ug/L	-1	10	
ad	0.9225	0.8200	150.0000	139.5000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14530.00	ug/L	-3	10	
anganese	3.5290	3.0047	150.0000	149.0000	ug/L	-1	10	
olybdenum	0.9099	0.7924	150.0000	145.3000	ug/L	-3	10	
ickel	0.6490	0.5423	150.0000	145.1000	ug/L	-3	10	
otassium	0.9426	0.4942	15000.00	14340.00	ug/L	-4	10	
elenium	0.0396	0.0243	150.0000	144.8000	ug/L	-3	10	
ilver	2.2896	2.0791	150.0000	148.2000	ug/L	-1	10	
odium	0.7893	0.5429	15000.00	14520.00	ug/L	-3	10	
hallium	0.6776	0.6486	150.0000	143.5000	ug/L	-4	10	
anadium	2.7524	2.3733	150.0000	147.1000	ug/L	-2	10	
inc	0.8033	0.3850	150.0000	144.3000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	364584	-4.87
candium	566573	549159	-3.07
ermanium	161713	158082	-2.25
ndium	1281904	1258859	-1.80
ismuth	1275587	1233783	-3.28

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
gnum : 55186547063 Filename : e0913063 Injected : 09-MAY-2005 19:19
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
.uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
itimony	55186547001	09-MAY-2005	0.274200	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
aromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.2043]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547073 Filename : e0913073 Injected : 09-MAY-2005 20:18
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S400, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4673	100.0000	90.51000	ug/L	-9	10	
ntimony	0.2740	0.2288	100.0000	93.37000	ug/L	-7	10	
rsenic	0.3902	0.3666	100.0000	96.04000	ug/L	-4	10	
arium	0.1214	0.0856	100.0000	95.47000	ug/L	-5	10	
eryllium	0.1568	0.1387	100.0000	95.34000	ug/L	-5	10	
admium	0.5642	0.4496	100.0000	101.6000	ug/L	2	10	
alcium	0.0208	0.0159	10000.00	9930.000	ug/L	-1	10	
hromium	2.8448	2.1183	100.0000	97.68000	ug/L	-2	10	
obalt	2.8466	2.5411	100.0000	97.51000	ug/L	-2	10	
opper	0.7634	0.6660	100.0000	98.64000	ug/L	-1	10	
ron	0.0759	0.0640	10000.00	10220.00	ug/L	2	10	
ead	0.9225	0.8380	100.0000	95.05000	ug/L	-5	10	
agnesium	0.0608	0.0574	10000.00	10010.00	ug/L	0	10	
anganese	3.5290	3.0535	100.0000	100.9000	ug/L	1	10	
olybdenum	0.9099	0.8014	100.0000	97.93000	ug/L	-2	10	
ickel	0.6490	0.5555	100.0000	99.08000	ug/L	-1	10	
otassium	0.9426	0.5068	10000.00	9764.000	ug/L	-2	10	
elenium	0.0396	0.0248	100.0000	98.04000	ug/L	-2	10	
ilver	2.2896	2.1066	100.0000	100.1000	ug/L	0	10	
odium	0.7893	0.5618	10000.00	10000.00	ug/L	0	10	
hallium	0.6776	0.6543	100.0000	96.49000	ug/L	-4	10	
anadium	2.7524	2.3544	100.0000	97.26000	ug/L	-3	10	
Zinc	0.8033	0.3978	100.0000	98.96000	ug/L	-1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	380148	-0.81
Scandium	566573	554670	-2.10
Germanium	161713	160863	-0.53
Indium	1281904	1296859	1.17
Bismuth	1275587	1288713	1.03

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

.stid : MET05 Run Name :
:qnum : 55186547075 Filename : e0913075 Injected : 09-MAY-2005 20:30
.andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1410]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547076 Filename : e0913076 Injected : 09-MAY-2005 20:35
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.164000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.849800	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.754800	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0173]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.402000	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.676000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	3.095000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.990000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.152000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.476000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.796000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	1.035000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.275200	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0729]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.5942]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.645000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	89710	ug/L	90
alcium	55186547001	09-MAY-2005	300000	288400	ug/L	96
ron	55186547001	09-MAY-2005	250000	232000	ug/L	93
agnesium	55186547001	09-MAY-2005	100000	92800	ug/L	93
olybdenum	55186547001	09-MAY-2005	2000	1916	ug/L	96
otassium	55186547001	09-MAY-2005	100000	95190	ug/L	95
odium	55186547001	09-MAY-2005	250000	224900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547077 Filename : e0913077 Injected : 09-MAY-2005 20:41
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

ıalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88680.00	ug/L	-11		
rsenic	100.0000	104.0000	ug/L	4	20	
admium	100.0000	100.3000	ug/L	0	20	
alcium	300000.0	282500.0	ug/L	-6		
hromium	200.0000	200.5000	ug/L	0	20	
obalt	200.0000	199.2000	ug/L	0	20	
opper	200.0000	188.4000	ug/L	-6	20	
ron	250000.0	229700.0	ug/L	-8		
agnesium	100000.0	91480.00	ug/L	-9		
anganese	200.0000	202.9000	ug/L	1	20	
olybdenum	2000.000	1934.000	ug/L	-3		
ickel	200.0000	191.1000	ug/L	-4	20	
otassium	100000.0	92990.00	ug/L	-7		
elenium	100.0000	97.83000	ug/L	-2	20	
ilver	50.00000	49.27000	ug/L	-1	20	
odium	250000.0	220800.0	ug/L	-12		
anadium	200.0000	205.6000	ug/L	3	20	
inc	100.0000	94.58000	ug/L	-5	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	524903	-7.35
ermanium	161713	152927	-5.43

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547090 Filename : e0913090 Injected : 09-MAY-2005 21:57
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4441	150.0000	134.5000	ug/L	-10	10	
ntimony	0.2740	0.2267	150.0000	138.8000	ug/L	-7	10	
rsenic	0.3902	0.3603	150.0000	141.6000	ug/L	-6	10	
arium	0.1214	0.0859	150.0000	143.8000	ug/L	-4	10	
eryllium	0.1568	0.1381	150.0000	142.4000	ug/L	-5	10	
admium	0.5642	0.4419	150.0000	149.9000	ug/L	0	10	
alcium	0.0208	0.0155	15000.00	14560.00	ug/L	-3	10	
hromium	2.8448	2.1134	150.0000	146.4000	ug/L	-2	10	
obalt	2.8466	2.5717	150.0000	148.0000	ug/L	-1	10	
opper	0.7634	0.6520	150.0000	144.9000	ug/L	-3	10	
ron	0.0759	0.0625	15000.00	14970.00	ug/L	0	10	
ead	0.9225	0.8374	150.0000	142.5000	ug/L	-5	10	
lagnesium	0.0608	0.0558	15000.00	14600.00	ug/L	-3	10	
langanese	3.5290	3.0052	150.0000	149.1000	ug/L	-1	10	
lolybdenum	0.9099	0.7996	150.0000	146.7000	ug/L	-2	10	
lickel	0.6490	0.5407	150.0000	144.7000	ug/L	-4	10	
otassium	0.9426	0.4972	15000.00	14430.00	ug/L	-4	10	
elenium	0.0396	0.0244	150.0000	145.0000	ug/L	-3	10	
ilver	2.2896	2.1172	150.0000	150.9000	ug/L	1	10	
odium	0.7893	0.5486	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.6532	150.0000	144.5000	ug/L	-4	10	
anadium	2.7524	2.3781	150.0000	147.4000	ug/L	-2	10	
inc	0.8033	0.3860	150.0000	144.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	332344	-13.28
candium	566573	500594	-11.65
ermanium	161713	147515	-8.78
ndium	1281904	1196146	-6.69
ismuth	1275587	1218836	-4.45

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stid : MET05 Run Name :
qnum : 55186547092 Filename : e0913092 Injected : 09-MAY-2005 22:08
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1935]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

;tid : MET05 Run Name :
ɟnum : 55186547101 Filename : e0913101 Injected : 09-MAY-2005 23:02
ındards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	2.055000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.835800	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.760600	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	[0.0340]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	0.389700	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.686000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	3.051000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.977000	0.500000	ug/L	
ad	55186547001	09-MAY-2005	1.131000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.590000	0.250000	ug/L	
ckel	55186547001	09-MAY-2005	1.808000	0.250000	ug/L	
lenium	55186547001	09-MAY-2005	0.814200	0.500000	ug/L	
lver	55186547001	09-MAY-2005	0.292200	0.250000	ug/L	
allium	55186547001	09-MAY-2005	[0.0177]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.5981]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.873000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88230	ug/L	88
alcium	55186547001	09-MAY-2005	300000	286700	ug/L	96
ron	55186547001	09-MAY-2005	250000	236400	ug/L	95
agnesium	55186547001	09-MAY-2005	100000	91370	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1844	ug/L	92
otassium	55186547001	09-MAY-2005	100000	92300	ug/L	92
odium	55186547001	09-MAY-2005	250000	220800	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547102 Filename : e0913102 Injected : 09-MAY-2005 23:07
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

nalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88090.00	ug/L	-12		
rsenic	100.0000	100.6000	ug/L	1	20	
admium	100.0000	94.17000	ug/L	-6	20	
alcium	300000.0	285000.0	ug/L	-5		
hromium	200.0000	196.3000	ug/L	-2	20	
obalt	200.0000	196.8000	ug/L	-2	20	
opper	200.0000	185.2000	ug/L	-7	20	
ron	250000.0	232200.0	ug/L	-7		
agnesium	100000.0	91520.00	ug/L	-8		
anganese	200.0000	205.7000	ug/L	3	20	
olybdenum	2000.000	1829.000	ug/L	-9		
ickel	200.0000	188.6000	ug/L	-6	20	
otassium	100000.0	92260.00	ug/L	-8		
elenium	100.0000	94.08000	ug/L	-6	20	
ilver	50.00000	46.16000	ug/L	-8	20	
odium	250000.0	221600.0	ug/L	-11		
anadium	200.0000	202.2000	ug/L	1	20	
inc	100.0000	93.46000	ug/L	-7	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	588738	3.91
Germanium	161713	171175	5.85

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547104 Filename : e0913104 Injected : 09-MAY-2005 23:19
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4816	150.0000	146.9000	ug/L	-2	10	
ntimony	0.2740	0.2208	150.0000	135.2000	ug/L	-10	10	
rsenic	0.3902	0.3531	150.0000	138.8000	ug/L	-7	10	
arium	0.1214	0.0838	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1379	150.0000	142.2000	ug/L	-5	10	
admium	0.5642	0.4284	150.0000	145.3000	ug/L	-3	10	
alcium	0.0208	0.0155	15000.00	14510.00	ug/L	-3	10	
hromium	2.8448	2.0770	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5468	150.0000	146.6000	ug/L	-2	10	
opper	0.7634	0.6408	150.0000	142.4000	ug/L	-5	10	
ron	0.0759	0.0615	15000.00	14750.00	ug/L	-2	10	
ead	0.9225	0.8210	150.0000	139.7000	ug/L	-7	10	
agnesium	0.0608	0.0544	15000.00	14220.00	ug/L	-5	10	
anganese	3.5290	2.9731	150.0000	147.5000	ug/L	-2	10	
olybdenum	0.9099	0.7836	150.0000	143.7000	ug/L	-4	10	
ickel	0.6490	0.5339	150.0000	142.9000	ug/L	-5	10	
otassium	0.9426	0.4881	15000.00	14160.00	ug/L	-6	10	
elenium	0.0396	0.0238	150.0000	141.7000	ug/L	-6	10	
ilver	2.2896	2.0654	150.0000	147.2000	ug/L	-2	10	
odium	0.7893	0.5389	15000.00	14410.00	ug/L	-4	10	
hallium	0.6776	0.6459	150.0000	142.9000	ug/L	-5	10	
anadium	2.7524	2.3446	150.0000	145.4000	ug/L	-3	10	
inc	0.8033	0.3778	150.0000	141.5000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	354034	-7.62
Scandium	566573	572106	0.98
Germanium	161713	167746	3.73
Indium	1281904	1353822	5.61
Bismuth	1275587	1244487	-2.44

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stid : MET05 Run Name :
qnum : 55186547106 Filename : e0913106 Injected : 09-MAY-2005 23:31
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.266100	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[7.8940]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	[16.540]	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.509500	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	152.9000	50.00000	ug/L	ib ***
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.1644]	1.000000	ug/L	

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stid : MET05 Run Name : IDF : 1.0
gnum : 55186547119 Filename : e0913119 Injected : 10-MAY-2005 00:47
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
ntimony	0.2740	0.2207	150.0000	135.1000	ug/L	-10	10	
rsenic	0.3902	0.3591	150.0000	141.1000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1365	150.0000	140.8000	ug/L	-6	10	
admium	0.5642	0.4429	150.0000	150.2000	ug/L	0	10	
alcium	0.0208	0.0154	15000.00	14440.00	ug/L	-4	10	
hromium	2.8448	2.0623	150.0000	142.8000	ug/L	-5	10	
obalt	2.8466	2.5430	150.0000	146.4000	ug/L	-2	10	
opper	0.7634	0.6440	150.0000	143.1000	ug/L	-5	10	
ron	0.0759	0.0607	15000.00	14540.00	ug/L	-3	10	
ead	0.9225	0.8229	150.0000	140.0000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14540.00	ug/L	-3	10	
anganese	3.5290	2.9299	150.0000	145.3000	ug/L	-3	10	
olybdenum	0.9099	0.7959	150.0000	146.0000	ug/L	-3	10	
ickel	0.6490	0.5358	150.0000	143.4000	ug/L	-4	10	
otassium	0.9426	0.4978	15000.00	14440.00	ug/L	-4	10	
elenium	0.0396	0.0240	150.0000	143.0000	ug/L	-5	10	
ilver	2.2896	2.1147	150.0000	150.8000	ug/L	1	10	
odium	0.7893	0.5374	15000.00	14380.00	ug/L	-4	10	
hallium	0.6776	0.6584	150.0000	145.7000	ug/L	-3	10	
anadium	2.7524	2.3251	150.0000	144.1000	ug/L	-4	10	
inc	0.8033	0.3749	150.0000	140.4000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	327369	-14.58
Scandium	566573	503498	-11.13
Germanium	161713	148418	-8.22
Indium	1281904	1233456	-3.78
Bismuth	1275587	1161755	-8.92

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stid : MET05 Run Name :
qnum : 55186547121 Filename : e0913121 Injected : 10-MAY-2005 00:58
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.291700	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547133 Filename : e0913133 Injected : 10-MAY-2005 02:08
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4738	150.0000	144.3000	ug/L	-4	10	
ntimony	0.2740	0.2193	150.0000	134.3000	ug/L	-10	10	
rsenic	0.3902	0.3574	150.0000	140.5000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1362	150.0000	140.5000	ug/L	-6	10	
admium	0.5642	0.4611	150.0000	156.4000	ug/L	4	10	
alcium	0.0208	0.0155	15000.00	14540.00	ug/L	-3	10	
hromium	2.8448	2.0076	150.0000	139.0000	ug/L	-7	10	
obalt	2.8466	2.4868	150.0000	143.1000	ug/L	-5	10	
opper	0.7634	0.6376	150.0000	141.7000	ug/L	-6	10	
ron	0.0759	0.0605	15000.00	14510.00	ug/L	-3	10	
ead	0.9225	0.8171	150.0000	139.0000	ug/L	-7	10	
lagnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
langanese	3.5290	2.9991	150.0000	148.8000	ug/L	-1	10	
lolybdenum	0.9099	0.8080	150.0000	148.2000	ug/L	-1	10	
Nickel	0.6490	0.5282	150.0000	141.3000	ug/L	-6	10	
Potassium	0.9426	0.5000	15000.00	14510.00	ug/L	-3	10	
Selenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
Silver	2.2896	2.1831	150.0000	155.6000	ug/L	4	10	
Sodium	0.7893	0.5438	15000.00	14550.00	ug/L	-3	10	
Thallium	0.6776	0.6476	150.0000	143.3000	ug/L	-4	10	
Vanadium	2.7524	2.2899	150.0000	142.0000	ug/L	-5	10	
Zinc	0.8033	0.3800	150.0000	142.4000	ug/L	-5	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	290486	-24.21
Scandium	566573	426922	-24.65
Germanium	161713	127442	-21.19
Indium	1281904	1121490	-12.51
Bismuth	1275587	1113799	-12.68

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547135 Filename : e0913135 Injected : 10-MAY-2005 02:20
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	0.275900	0.250000	ug/L	ib ***
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[12.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.2292]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	3.056000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.556300	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	2.229000	1.000000	ug/L	ib ***

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547147 Filename : e0913147 Injected : 10-MAY-2005 03:31
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4614	150.0000	140.2000	ug/L	-7	10	
ntimony	0.2740	0.2218	150.0000	135.8000	ug/L	-9	10	
rsenic	0.3902	0.3599	150.0000	141.5000	ug/L	-6	10	
arium	0.1214	0.0840	150.0000	140.6000	ug/L	-6	10	
eryllium	0.1568	0.1372	150.0000	141.5000	ug/L	-6	10	
admium	0.5642	0.4655	150.0000	157.9000	ug/L	5	10	
alcium	0.0208	0.0156	15000.00	14620.00	ug/L	-3	10	
hromium	2.8448	2.0299	150.0000	140.6000	ug/L	-6	10	
obalt	2.8466	2.5088	150.0000	144.4000	ug/L	-4	10	
opper	0.7634	0.6448	150.0000	143.3000	ug/L	-4	10	
ron	0.0759	0.0605	15000.00	14490.00	ug/L	-3	10	
ead	0.9225	0.8192	150.0000	139.4000	ug/L	-7	10	
agnesium	0.0608	0.0568	15000.00	14850.00	ug/L	-1	10	
anganese	3.5290	2.9146	150.0000	144.6000	ug/L	-4	10	
olybdenum	0.9099	0.8154	150.0000	149.6000	ug/L	0	10	
ickel	0.6490	0.5336	150.0000	142.8000	ug/L	-5	10	
otassium	0.9426	0.5096	15000.00	14790.00	ug/L	-1	10	
elenium	0.0396	0.0243	150.0000	144.3000	ug/L	-4	10	
ilver	2.2896	2.1995	150.0000	156.8000	ug/L	5	10	
odium	0.7893	0.5477	15000.00	14650.00	ug/L	-2	10	
hallium	0.6776	0.6668	150.0000	147.5000	ug/L	-2	10	
anadium	2.7524	2.3045	150.0000	142.9000	ug/L	-5	10	
inc	0.8033	0.3761	150.0000	140.9000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	295190	-22.98
candium	566573	430569	-24.00
ermanium	161713	127088	-21.41
ndium	1281904	1117565	-12.82
ismuth	1275587	1051484	-17.57

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Curtis & Tompkins Laboratories

:tid : MET05 Run Name :
ɲnum : 55186547149 Filename : e0913149 Injected : 10-MAY-2005 03:42
ındards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.2246]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.1014]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.195000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.517200	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	1.043000	1.000000	ug/L	ib ***

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
gnum : 55186547162
num : 55186547001
ndards: S403, 05WS0207

Run Name :
Filename : e0913162
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 04:59
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
timony	0.2740	0.2169	150.0000	132.8000	ug/L	-11	10	c- ***
senic	0.3902	0.3587	150.0000	141.0000	ug/L	-6	10	
rium	0.1214	0.0817	150.0000	136.8000	ug/L	-9	10	
ryllium	0.1568	0.1363	150.0000	140.6000	ug/L	-6	10	
dmium	0.5642	0.4600	150.0000	156.0000	ug/L	4	10	
lcium	0.0208	0.0156	15000.00	14610.00	ug/L	-3	10	
romium	2.8448	2.0237	150.0000	140.2000	ug/L	-7	10	
balt	2.8466	2.5161	150.0000	144.8000	ug/L	-3	10	
pper	0.7634	0.6437	150.0000	143.0000	ug/L	-5	10	
ron	0.0759	0.0607	15000.00	14560.00	ug/L	-3	10	
ead	0.9225	0.8290	150.0000	141.0000	ug/L	-6	10	
agnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
anganese	3.5290	2.9288	150.0000	145.3000	ug/L	-3	10	
olybdenum	0.9099	0.8142	150.0000	149.3000	ug/L	0	10	
ickel	0.6490	0.5312	150.0000	142.2000	ug/L	-5	10	
otassium	0.9426	0.5043	15000.00	14630.00	ug/L	-2	10	
elenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
ilver	2.2896	2.1764	150.0000	155.2000	ug/L	3	10	
odium	0.7893	0.5422	15000.00	14510.00	ug/L	-3	10	
hallium	0.6776	0.6898	150.0000	152.6000	ug/L	2	10	
anadium	2.7524	2.3205	150.0000	143.9000	ug/L	-4	10	
inc	0.8033	0.3758	150.0000	140.8000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	290333	-24.25
candium	566573	433501	-23.49
ermanium	161713	127988	-20.85
ndium	1281904	1129581	-11.88
ismuth	1275587	973668	-23.67

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547164 Filename : e0913164 Injected : 10-MAY-2005 05:11
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.2283]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0799]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.855700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.8803]	1.000000	ug/L	

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547176 Filename : e0913176 Injected : 10-MAY-2005 06:21
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4688	150.0000	142.6000	ug/L	-5	10	
ntimony	0.2740	0.2225	150.0000	136.2000	ug/L	-9	10	
rsenic	0.3902	0.3706	150.0000	145.7000	ug/L	-3	10	
arium	0.1214	0.0831	150.0000	139.1000	ug/L	-7	10	
eryllium	0.1568	0.1415	150.0000	146.0000	ug/L	-3	10	
admium	0.5642	0.4668	150.0000	158.4000	ug/L	6	10	
alcium	0.0208	0.0159	15000.00	14930.00	ug/L	0	10	
hromium	2.8448	2.0775	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5922	150.0000	149.2000	ug/L	-1	10	
opper	0.7634	0.6615	150.0000	147.0000	ug/L	-2	10	
ron	0.0759	0.0623	15000.00	14940.00	ug/L	0	10	
ead	0.9225	0.8454	150.0000	143.8000	ug/L	-4	10	
agnesium	0.0608	0.0568	15000.00	14860.00	ug/L	-1	10	
anganese	3.5290	2.9983	150.0000	148.7000	ug/L	-1	10	
olybdenum	0.9099	0.8280	150.0000	151.9000	ug/L	1	10	
ickel	0.6490	0.5492	150.0000	147.0000	ug/L	-2	10	
otassium	0.9426	0.5165	15000.00	14990.00	ug/L	0	10	
elenium	0.0396	0.0247	150.0000	147.2000	ug/L	-2	10	
ilver	2.2896	2.2155	150.0000	157.9000	ug/L	5	10	
odium	0.7893	0.5489	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.7149	150.0000	158.2000	ug/L	5	10	
anadium	2.7524	2.3822	150.0000	147.7000	ug/L	-2	10	
inc	0.8033	0.3834	150.0000	143.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	282773	-26.22
Scandium	566573	434472	-23.32
Germanium	161713	127616	-21.08
Indium	1281904	1110413	-13.38
Bismuth	1275587	869999	-31.80

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547178 Filename : e0913178 Injected : 10-MAY-2005 06:33
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.256600	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0781]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.907700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.7570]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547186 Filename : e0913186 Injected : 10-MAY-2005 07:20
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	1.989000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.989200	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.727600	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0237]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	0.365700	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.624000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	2.991000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.871000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.225000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	2.276000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.822000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	0.993000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.288600	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0578]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.6500]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	4.768000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88650	ug/L	89
alcium	55186547001	09-MAY-2005	300000	277800	ug/L	93
ron	55186547001	09-MAY-2005	250000	220600	ug/L	88
agnesium	55186547001	09-MAY-2005	100000	90820	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1959	ug/L	98
otassium	55186547001	09-MAY-2005	100000	93220	ug/L	93
odium	55186547001	09-MAY-2005	250000	217200	ug/L	87

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547187
num : 55186547001
ndards: S402, 05WS0207

Run Name :
Filename : e0913187
Caldate : 09-MAY-2005

Injected : 10-MAY-2005 07:26
Caltype :

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	100000.0	91030.00	ug/L	-9		
senic	100.0000	103.0000	ug/L	3	20	
dmium	100.0000	105.6000	ug/L	6	20	
lcium	300000.0	286000.0	ug/L	-5		
romium	200.0000	195.5000	ug/L	-2	20	
balt	200.0000	197.1000	ug/L	-1	20	
pper	200.0000	186.4000	ug/L	-7	20	
ron	250000.0	223800.0	ug/L	-10		
gnesium	100000.0	93160.00	ug/L	-7		
nganese	200.0000	196.7000	ug/L	-2	20	
olybdenum	2000.000	1995.000	ug/L	0		
ckel	200.0000	188.2000	ug/L	-6	20	
otassium	100000.0	96400.00	ug/L	-4		
elenium	100.0000	97.03000	ug/L	-3	20	
lver	50.00000	51.53000	ug/L	3	20	
odium	250000.0	222600.0	ug/L	-11		
anadium	200.0000	201.1000	ug/L	1	20	
inc	100.0000	92.34000	ug/L	-8	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	407477	-28.08
ermanium	161713	122547	-24.22

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547189
num : 55186547001
ndards: S400, 05WS0207

Run Name :
Filename : e0913189
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 07:38
Caltype :

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.5127	100.0000	100.5000	ug/L	1	10	
timony	0.2740	0.2253	100.0000	91.93000	ug/L	-8	10	
senic	0.3902	0.3668	100.0000	96.09000	ug/L	-4	10	
rium	0.1214	0.0850	100.0000	94.77000	ug/L	-5	10	
ryllium	0.1568	0.1390	100.0000	95.53000	ug/L	-4	10	
dmium	0.5642	0.4837	100.0000	109.3000	ug/L	9	10	
lcium	0.0208	0.0162	10000.00	10120.00	ug/L	1	10	
romium	2.8448	2.0567	100.0000	94.82000	ug/L	-5	10	
balt	2.8466	2.4820	100.0000	95.24000	ug/L	-5	10	
pper	0.7634	0.6631	100.0000	98.22000	ug/L	-2	10	
on	0.0759	0.0631	10000.00	10070.00	ug/L	1	10	
ad	0.9225	0.8048	100.0000	91.27000	ug/L	-9	10	
gnesium	0.0608	0.0576	10000.00	10040.00	ug/L	0	10	
nganese	3.5290	2.9534	100.0000	97.63000	ug/L	-2	10	
lybdenum	0.9099	0.8451	100.0000	103.3000	ug/L	3	10	
ckel	0.6490	0.5474	100.0000	97.64000	ug/L	-2	10	
tassium	0.9426	0.5191	10000.00	10000.00	ug/L	0	10	
lenium	0.0396	0.0250	100.0000	99.01000	ug/L	-1	10	
lver	2.2896	2.2723	100.0000	108.0000	ug/L	8	10	
dium	0.7893	0.5530	10000.00	9845.000	ug/L	-2	10	
allium	0.6776	0.6745	100.0000	99.47000	ug/L	-1	10	
nadium	2.7524	2.2699	100.0000	93.76000	ug/L	-6	10	
nc	0.8033	0.3931	100.0000	97.78000	ug/L	-2	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	273038	-28.76
candium	566573	415113	-26.73
ermanium	161713	125004	-22.70
ndium	1281904	1128861	-11.94
ismuth	1275587	1063109	-16.66

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547191 Filename : e0913191 Injected : 10-MAY-2005 07:50
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1481]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[11.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0886]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.281000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	1.070000	1.000000	ug/L	ib ***

b=instrument blank
age 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	e1012001	TUN	tune			10-MAY-2005 12:49	1.0	1.0			1	
003	e1012003	ICALBLK	std-blk			10-MAY-2005 13:00	1.0	1.0			2	
004	e1012004	ICAL	cs1			10-MAY-2005 13:05	1.0	1.0			3	
005	e1012005	ICAL	cs2			10-MAY-2005 13:10	1.0	1.0			4	
006	e1012006	ICAL	cs3			10-MAY-2005 13:17	1.0	1.0			5	
007	e1012007	ICAL	cs4			10-MAY-2005 13:22	1.0	1.0			6	
008	e1012008	ICAL	cs5			10-MAY-2005 13:27	1.0	1.0			7	
009	e1012009	ICAL	cs6			10-MAY-2005 13:32	1.0	1.0			8	
010	e1012010	ICV				10-MAY-2005 13:37	1.0	1.0		1	9	
012	e1012012	ICB				10-MAY-2005 13:49	1.0	1.0	1	1	2	
013	e1012013	ICSA				10-MAY-2005 13:55	1.0	1.0		1	10 2	7:CA=291100
014	e1012014	ICSAB				10-MAY-2005 14:01	1.0	1.0		1	11 2	11:CA=291200
017	e1012017	SAMPLE	178951-001	101496	Soil	10-MAY-2005 14:18	50.0	42.74		1	2	1:AL=3114.00
018	e1012018	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:24	5.0	37.04	4	1	2	9:MG=296200
019	e1012019	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:30	500.0	37.04		1	2	1:AL=350.000
020	e1012020	SAMPLE	179156-002	101595	Water	10-MAY-2005 14:37	10.0	1.0		1	2	
021	e1012021	SAMPLE	179076-043	101496	Soil	10-MAY-2005 14:43	500.0	50.51		1	2	1:AL=253.400
022	e1012022	SAMPLE	179141-013	101595	Water	10-MAY-2005 14:49	5.0	1.0		1	2	1:NA=115080
023	e1012023	SAMPLE	179127-001	101595	Water	10-MAY-2005 14:55	100.0	1.0	3	1	2	2:NA=22790.0
026	e1012026	CCV				10-MAY-2005 15:12	1.0	1.0		1	12 2	
028	e1012028	CCB				10-MAY-2005 15:24	1.0	1.0		1	2	
029	e1012029	SAMPLE	178951-003	101496	Soil	10-MAY-2005 15:30	50.0	44.25		1	2	2:AL=3654.00
030	e1012030	SAMPLE	178951-004	101496	Soil	10-MAY-2005 15:36	500.0	31.45		1	2	1:AL=607.600
031	e1012031	SAMPLE	179049-001	101496	Soil	10-MAY-2005 15:41	500.0	50.51	1	1	2	2:MN=5308.00
032	e1012032	SAMPLE	179089-001	101496	Soil	10-MAY-2005 15:47	5.0	41.32	4	1	2	7:FE=90420.0
033	e1012033	SAMPLE	179089-001	101596	Soil	10-MAY-2005 15:53	20.0				2	
034	e1012034	SAMPLE	179089-002	101496	Soil	10-MAY-2005 15:59	5.0	47.17	4	1	2	7:FE=103220
035	e1012035	SAMPLE	179089-003	101496	Soil	10-MAY-2005 16:05	5.0	48.54	2	1	2	5:FE=66160.0
036	e1012036	SAMPLE	179049-001	101496	Soil	10-MAY-2005 16:13	10000	50.51		1	2	1:MN=250.000
037	e1012037	SAMPLE	179127-001	101595	Water	10-MAY-2005 16:19	200.0	1.0	2	1	2	1:AL=280.850
039	e1012039	CCV				10-MAY-2005 16:31	1.0	1.0		1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: _____ Date: 8/10/15

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 10-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
041	e1012041	CCB				10-MAY-2005 16:43	1.0	1.0	1	2	
042	e1012042	ICSA				10-MAY-2005 16:49	1.0	1.0	1	10 2	7:CA=276800
043	e1012043	ICSAB				10-MAY-2005 16:55	1.0	1.0	1	11 2	7:CA=286800

217

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: Mei Wu Date: 5/19/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1012004	55187969004	cs1	10-MAY-2005 13:05	S395
2	e1012005	55187969005	cs2	10-MAY-2005 13:10	S396
3	e1012006	55187969006	cs3	10-MAY-2005 13:17	S397
4	e1012007	55187969007	cs4	10-MAY-2005 13:22	S398
5	e1012008	55187969008	cs5	10-MAY-2005 13:27	S393
6	e1012009	55187969009	cs6	10-MAY-2005 13:32	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		10.712	6.7709	0.9517	0.5028	0.4918	BLNK	R	-4.36033	2.074629		ug/L	3.8858	0.995	0.995	
Antimony	0.2876	0.2546	0.2225	0.2090	0.2095	0.2169	BLNK	R	-0.07018	4.644182		ug/L	0.2334	1.000	0.995	
Arsenic		0.5280	0.3905	0.3570	0.3513	0.3478	BLNK	R	-0.06208	2.870332		ug/L	0.3949	1.000	0.995	
Barium	0.1811	0.1329	0.1026	0.0805	0.0779	0.0785	BLNK	R	-0.13224	12.77536		ug/L	0.1089	1.000	0.995	
Beryllium	0.1422	0.1503	0.1315	0.1298	0.1284	0.1277	BLNK	R	-0.01571	7.822782		ug/L	0.1350	1.000	0.995	
Cadmium	0.6908	0.5645	0.4479	0.3915	0.3804	0.3756	BLNK	R	-0.18387	2.658232		ug/L	0.4751	1.000	0.995	
Calcium		0.0292	0.0217	0.0157	0.0153	0.0149	BLNK	R	-24.2569	66.90677		ug/L	0.0193	1.000	0.995	
Chromium		4.4142	3.2286	2.2557	2.1569	2.1311	BLNK	R	-0.45918	0.469384		ug/L	2.8373	1.000	0.995	
Cobalt	2.9198	3.0251	2.7510	2.6694	2.6432	2.5722	BLNK	R	-0.01120	0.386636		ug/L	2.7635	1.000	0.995	
Copper		0.9153	0.8357	0.7088	0.6748	0.6600	BLNK	R	-0.09059	1.509025		ug/L	0.7589	1.000	0.995	
Iron		0.1071	0.0832	0.0635	0.0619	0.0599	BLNK	R	-31.0829	16.61212		ug/L	0.0751	1.000	0.995	
Lead	1.1466	0.9977	0.8528	0.7971	0.8192	0.8245	BLNK	R	-0.06798	1.215023		ug/L	0.9063	1.000	0.995	
Magnesium		0.0668	0.0595	0.0618	0.0571	0.0561	BLNK	R	-2.50535	17.75619		ug/L	0.0603	1.000	0.995	
Manganese	6.0529	4.9653	3.9083	3.0542	2.9805	2.8773	BLNK	R	-0.28682	0.345649		ug/L	3.9731	1.000	0.995	
Molybdenum		0.9309	0.8085	0.7393	0.7267	0.7260	BLNK	R	-0.13871	1.378359		ug/L	0.7863	1.000	0.995	
Nickel	0.7661	0.7323	0.6352	0.5875	0.5661	0.5600	BLNK	R	-0.04388	1.782278		ug/L	0.6412	1.000	0.995	
Potassium		1.8070	1.1493	0.5781	0.5076	0.4975	BLNK	R	-114.749	2.015438		ug/L	0.9079	1.000	0.995	
Selenium		0.0836	0.0431	0.0267	0.0241	0.0234	BLNK	R	-0.78675	42.61011		ug/L	0.0402	1.000	0.995	
Silver	2.1378	2.2080	1.9436	1.8861	1.8337	1.8223	BLNK	R	-0.01410	0.548069		ug/L	1.9719	1.000	0.995	
Sodium		0.9207	0.7354	0.5808	0.5484	0.5349	BLNK	R	-18.6668	1.861918		ug/L	0.6640	1.000	0.995	

218

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

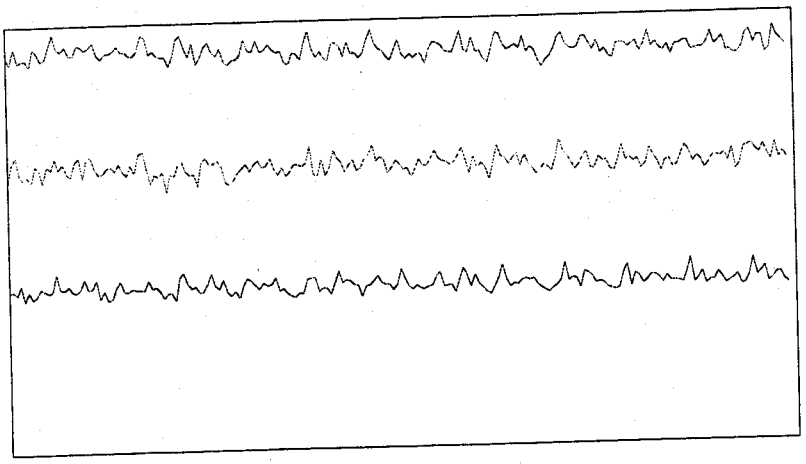
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Thallium		0.6780	0.5820	0.5790	0.6469	0.6384	BLNK	R	-0.04548	1.563002		ug/L	0.6249	1.000	0.995	
Vanadium		3.4462	2.8673	2.4337	2.4514	2.4088	BLNK	R	-0.14209	0.414034		ug/L	2.7215	1.000	0.995	
Zinc		1.7561	1.7658	0.4600	0.3762	0.3604	BLNK	R	-1.56063	2.775817		ug/L	0.9437	0.999	0.995	

219

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



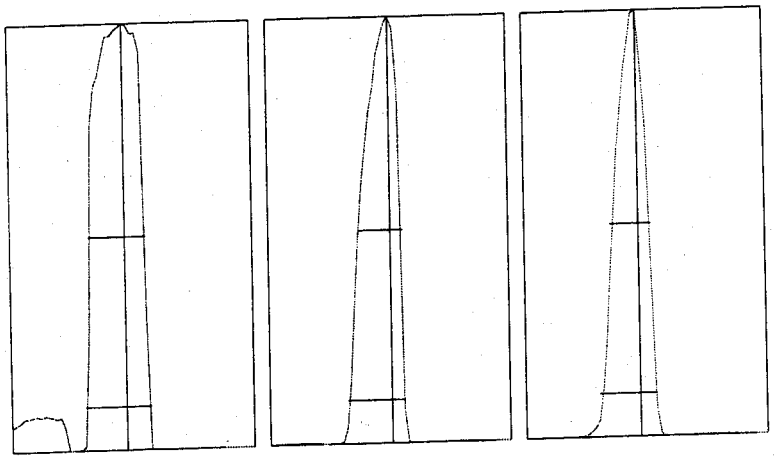
m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	18,256	46,074	65,738
Mean:	19091.0	46502.0	66216.5
RSD%:	4.00	1.97	2.80
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.38%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	17.5	15.0	21.0



m/z:	7	89	205
Height:	19,050	46,889	75,835
Axis:	6.95	89.05	204.95
W-50%:	0.70	0.55	0.50
W-10%:	0.800	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===

RF Power:	1240 W
RF Matching:	1.7 V
Smpl Depth:	8 mm
Torch-H:	-0.2 mm
Torch-V:	-0.1 mm
Carrier Gas:	1.05 L/min
Makeup Gas:	0 L/min
Optional Gas:	--- %
PeriPump1:	0.1 rps
PeriPump2:	--- rps
S/C Temp:	2 degC

===Ion Lenses===

Extract 1:	-137 V
Extract 2:	-111 V
Einzel 1,3:	-100 V
Einzel 2:	-1 V
Omega Bias:	-38 V
Omega (+):	-2 V
Omega (-):	3 V
QP Focus:	5 V
Plate Bias:	-5 V

===Q-Pole Parameters===

AMU Gain:	130
AMU Offset:	126
Axis Gain:	1.0002
Axis Offset:	-0.01
QP Bias:	0 V

===Detector Parameters===

Discriminator:	9 mV
Analog HV:	2060 V
Pulse HV:	1820 V

Generated : May 10, 2005 10:16:54
Printed : May 10, 2005 10:17:00

P/A Factor Tuning Report

Acquired:May 10 2005 10:54 am

Mass[amu]	Element	P/A Factor
6	Li	0.065328
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086211
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096429
45	Sc	0.092462
51	V	0.096363
52	Cr	0.098525
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100421
57	Fe	0.103034
59	Co	0.103706
60	Ni	Sensitivity too low
63	Cu	0.106752
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105166
95	Mo	Sensitivity too low
98	Mo	0.103164
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112480
111	Cd	Sensitivity too low
114	Cd	0.110373
115	In	0.113433
118	(In)	0.111893
121	Sb	0.111500
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118093
166	Er	Sensitivity too low

205	Tl	0.124899
206	(Pb)	0.121288
207	(Pb)	0.120314
208	Pb	0.123932
209	Bi	0.123651
232	Th	0.124893
238	U	0.125077

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 10 2005 11:04 am

Mass[amu]	Element	P/A Factor
6	Li	0.065273
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086619
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097059
45	Sc	0.092805
51	V	0.096569
52	Cr	0.098962
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100792
57	Fe	0.103564
59	Co	0.104107
60	Ni	Sensitivity too low
63	Cu	0.107010
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105253
95	Mo	0.101878
98	Mo	0.103856
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113070
111	Cd	Sensitivity too low
114	Cd	0.110939
115	In	0.113128
118	(In)	0.109043
121	Sb	0.111760
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117772
166	Er	Sensitivity too low

205	Tl	0.125493
206	(Pb)	0.121742
207	(Pb)	0.120976
208	Pb	0.123902
209	Bi	0.123656
232	Th	0.125815
238	U	0.125933

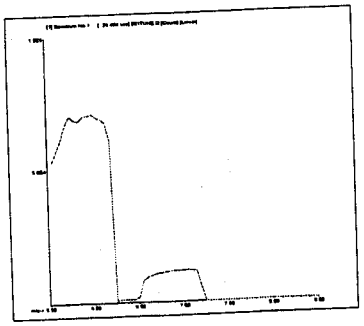
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

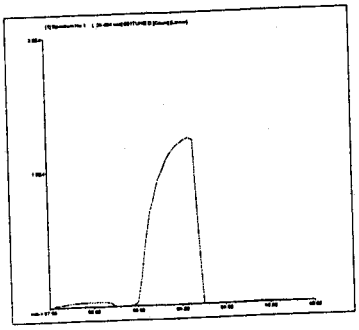
6020 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\001TUNE.D
Date Acquired: May 10 2005 12:49 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

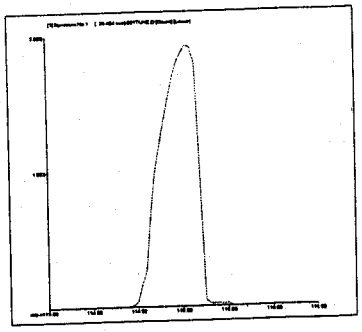
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	0.49	5.00	
115 In	0.64	5.00	
205 Tl	1.44	5.00	





7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



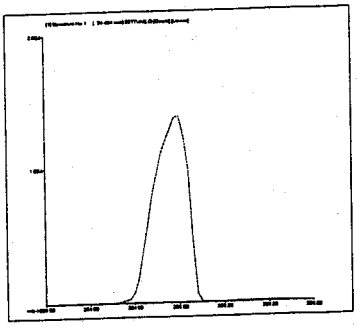
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 10 2005 12:54 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 10 2005 00:04 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.	RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.03116 ppb	13.47	-0.03116	1.00	
23 Na	-12.11 ppb	31.16	-12.11	1.00	
26 Mg	-0.7713 ppb	63.69	-0.7713	1.00	
27 Al	3.72 ppb	10.04	3.72	1.00	
39 K	-41.84 ppb	3.19	-41.84	1.00	
44 Ca	5.716 ppb	16.40	5.716	1.00	
51 V	-0.0507 ppb	122.86	-0.0507	1.00	
52 Cr	-0.0812 ppb	13.76	-0.0812	1.00	
55 Mn	0.3018 ppb	10.06	0.3018	1.00	
57 Fe	2.672 ppb	11.55	2.672	1.00	
59 Co	-0.03714 ppb	6.06	-0.03714	1.00	
60 Ni	-0.05275 ppb	8.79	-0.05275	1.00	
65 Cu	-0.05798 ppb	29.13	-0.05798	1.00	
66 Zn	0.09554 ppb	71.04	0.09554	1.00	
75 As	-0.1104 ppb	57.17	-0.1104	1.00	
82 Se	-0.01301 ppb	235.74	-0.01301	1.00	
95 Mo	0.09857 ppb	16.24	0.09857	1.00	
109 Ag	-0.04607 ppb	5.47	-0.04607	1.00	
111 Cd	-0.0972 ppb	19.23	-0.0972	1.00	
121 Sb	-0.04399 ppb	39.83	-0.04399	1.00	
137 Ba	-0.03554 ppb	40.35	-0.03554	1.00	
205 Tl	0.02596 ppb	84.32	0.02596	1.00	
208 Pb	-0.03851 ppb	17.54	-0.03851	1.00	
232 Th	---- ppb	--------	----	1.00	
238 U	---- ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	701103.94	0.68	---	#VALUE!	30 - 200	
45 Sc	896386.63	0.38	---	#VALUE!	30 - 200	
72 Ge	232681.11	0.54	---	#VALUE!	30 - 200	

115 In	1690578.80	0.96	---	#VALUE!	30 - 200
209 Bi	1183699.40	0.85	---	#VALUE!	30 - 200

ISTD Ref File : ---

3 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\003CAL
Date Acquired:	May 10 2005 01:00 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 00:04 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean	SD	RSD(%)
6	Li	719657.81 A	1702.00	0.24
9	Be	28.89 P	16.78	58.09
23	Na	191925.59 M	34060.00	17.75
26	Mg	2700.00 P	33.33	1.23
27	Al	40218.89 P	360.30	0.90
39	K	1089581.00 A	16580.00	1.52
44	Ca	6938.21 P	112.10	1.62
45	Sc	956826.81 A	7899.00	0.83
51	V	1659.68 P	209.80	12.64
52	Cr	4728.89 P	75.82	1.60
55	Mn	4010.00 P	235.40	5.87
57	Fe	9043.33 P	236.80	2.62
59	Co	140.00 P	12.02	8.59
60	Ni	118.89 P	25.89	21.78
65	Cu	289.99 P	40.96	14.13
66	Zn	2717.79 P	39.77	1.46
72	Ge	241692.41 P	1586.00	0.66
75	As	105.24 P	208.40	198.02
82	Se	89.31 P	24.05	26.93
95	Mo	486.67 P	92.44	19.00
109	Ag	124.44 P	27.95	22.46
111	Cd	334.51 P	37.33	11.16
115	In	1803737.00 A	16320.00	0.90
121	Sb	545.56 P	141.30	25.90
137	Ba	373.33 P	26.46	7.09
205	Tl	736.67 P	41.63	5.65
208	Pb	1416.67 P	93.87	6.63
209	Bi	1265991.00 A	5816.00	0.46
232	Th	861.11 P	40.32	4.68
238	U	110.00 P	35.12	31.93

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\004CALI.D\004CALI.D#
Date Acquired:	May 10 2005 01:05 pm
Operator:	
Sample Name:	cs1,s395
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 01:02 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698350.88	A	6692.00	0.96
9 Be	496.67	P	35.12	7.07
23 Na	459327.69	P	6024.00	1.31
26 Mg	31054.44	P	502.00	1.62
27 Al	93782.22	P	830.90	0.89
39 K	1369872.00	A	5473.00	0.40
44 Ca	19080.93	P	410.00	2.15
45 Sc	892146.31	A	6087.00	0.68
51 V	4264.46	P	707.70	16.60
52 Cr	7424.44	P	228.90	3.08
55 Mn	6994.44	P	21.43	0.31
57 Fe	16501.11	P	274.70	1.66
59 Co	3374.44	P	85.14	2.52
60 Ni	885.56	P	59.29	6.70
65 Cu	1263.20	P	130.50	10.33
66 Zn	4297.93	P	123.40	2.87
72 Ge	231121.80	P	1849.00	0.80
75 As	549.50	P	161.80	29.45
82 Se	144.18	P	16.91	11.73
95 Mo	1257.78	P	105.50	8.39
109 Ag	2470.00	P	123.40	5.00
111 Cd	798.47	P	49.72	6.23
115 In	1673006.00	A	20080.00	1.20
121 Sb	2406.67	P	135.40	5.63
137 Ba	1514.44	P	80.30	5.30
205 Tl	4577.78	P	174.80	3.82
208 Pb	6927.78	P	179.90	2.60
209 Bi	1208287.00	A	21020.00	1.74
232 Th	1888.89	P	86.43	4.58
238 U	4665.56	P	234.30	5.02

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698350.94	0.96	719657.81	97.0	30 - 200	
45 Sc	892146.31	0.68	956826.81	93.2	30 - 200	
72 Ge	231121.77	0.80	241692.44	95.6	30 - 200	
115 In	1673006.30	1.20	1803736.80	92.8	30 - 200	
209 Bi	1208286.90	1.74	1265990.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\005CALI.D\005CALI.D#
Date Acquired: May 10 2005 01:10 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:07 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699010.81	A	14880.00	2.13
9 Be	1051.11	P	49.14	4.68
23 Na	832864.81	A	6232.00	0.75
26 Mg	60425.55	P	720.90	1.19
27 Al	96897.78	P	996.90	1.03
39 K	1634566.00	A	15450.00	0.95
44 Ca	26390.43	P	462.80	1.75
45 Sc	904599.88	A	4884.00	0.54
51 V	7922.10	P	171.70	2.17
52 Cr	10147.78	P	89.46	0.88
55 Mn	11415.56	P	427.00	3.74
57 Fe	24631.11	P	240.60	0.98
59 Co	6954.44	P	102.90	1.48
60 Ni	1683.33	P	23.09	1.37
65 Cu	2104.18	P	30.25	1.44
66 Zn	4036.97	P	66.59	1.65
72 Ge	229885.30	P	1072.00	0.47
75 As	1213.81	P	32.47	2.68
82 Se	192.06	P	15.31	7.97
95 Mo	2140.00	P	16.67	0.78
109 Ag	5075.56	P	92.52	1.82
111 Cd	1297.52	P	68.34	5.27
115 In	1696747.00	A	14150.00	0.83
121 Sb	4321.11	P	244.10	5.65
137 Ba	2255.56	P	26.94	1.19
205 Tl	8311.11	P	287.20	3.46
208 Pb	12226.67	P	136.90	1.12
209 Bi	1225669.00	A	21630.00	1.76
232 Th	3423.33	P	308.90	9.02
238 U	9805.55	P	143.70	1.47

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699010.75	2.13	719657.81	97.1	30 - 200	
45 Sc	904599.88	0.54	956826.81	94.5	30 - 200	
72 Ge	229885.33	0.47	241692.44	95.1	30 - 200	
115 In	1696747.10	0.83	1803736.80	94.1	30 - 200	
209 Bi	1225669.40	1.76	1265990.80	96.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\006CALI.D\006CALI.D#
Date Acquired: May 10 2005 01:17 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	703836.13	A	3699.00	0.53
9 Be	1851.11	P	13.88	0.75
23 Na	1331068.00	A	6839.00	0.51
26 Mg	107675.50	P	791.70	0.74
27 Al	122551.10	P	412.70	0.34
39 K	2080276.00	A	26130.00	1.26
44 Ca	39283.22	P	200.20	0.51
45 Sc	905068.38	A	9445.00	1.04
51 V	13224.89	P	690.50	5.22
52 Cr	14888.89	P	391.00	2.63
55 Mn	18022.22	P	243.20	1.35
57 Fe	38377.78	P	577.80	1.51
59 Co	12686.67	P	241.30	1.90
60 Ni	2928.89	P	121.20	4.14
65 Cu	3853.98	P	85.66	2.22
66 Zn	8142.76	P	243.30	2.99
72 Ge	230570.70	P	1520.00	0.66
75 As	1800.98	P	39.83	2.21
82 Se	198.82	P	29.94	15.06
95 Mo	3728.89	P	128.80	3.45
109 Ag	8963.33	P	243.90	2.72
111 Cd	2065.61	P	160.80	7.78
115 In	1690616.00	A	19740.00	1.17
121 Sb	7525.56	P	220.70	2.93
137 Ba	3467.78	P	59.29	1.71
205 Tl	13907.78	P	496.50	3.57
208 Pb	20371.11	P	279.70	1.37
209 Bi	1194525.00	A	11760.00	0.98
232 Th	5810.00	P	316.30	5.44
238 U	16753.33	P	317.20	1.89

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	703836.13	0.53	719657.81	97.8	30 - 200	
45 Sc	905068.38	1.04	956826.81	94.6	30 - 200	
72 Ge	230570.67	0.66	241692.44	95.4	30 - 200	
115 In	1690615.60	1.17	1803736.80	93.7	30 - 200	
209 Bi	1194524.50	0.98	1265990.80	94.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\007CALI.D\007CALI.D#
Date Acquired: May 10 2005 01:22 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698230.13	A	4940.00	0.71
9 Be	18122.22	P	154.40	0.85
23 Na	10502480.00	A	101600.00	0.97
26 Mg	1116637.00	A	6260.00	0.56
27 Al	172081.09	P	447.80	0.26
39 K	10453720.00	A	104000.00	0.99
44 Ca	283507.19	P	3509.00	1.24
45 Sc	904146.31	A	8540.00	0.94
51 V	112371.20	P	2790.00	2.48
52 Cr	104144.40	P	1065.00	1.02
55 Mn	141006.70	P	1407.00	1.00
57 Fe	293033.31	P	4126.00	1.41
59 Co	123247.80	P	2094.00	1.70
60 Ni	27125.55	P	528.40	1.95
65 Cu	32724.14	P	529.20	1.62
66 Zn	21234.47	P	100.10	0.47
72 Ge	230841.80	P	2197.00	0.95
75 As	16483.39	P	428.10	2.60
82 Se	1235.04	P	32.56	2.64
95 Mo	34135.56	P	585.50	1.72
109 Ag	87083.33	P	1895.00	2.18
111 Cd	18076.90	P	723.00	4.00
115 In	1672252.00	A	12460.00	0.75
121 Sb	69888.88	P	1077.00	1.54
137 Ba	26923.33	P	410.40	1.52
205 Tl	138774.41	P	5630.00	4.06
208 Pb	190987.80	P	4471.00	2.34
209 Bi	1198065.00	A	34230.00	2.86
232 Th	74003.33	P	1018.00	1.38
238 U	170760.00	P	4648.00	2.72

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698230.13	0.71	719657.81	97.0	30 - 200	
45 Sc	904146.31	0.94	956826.81	94.5	30 - 200	
72 Ge	230841.77	0.95	241692.44	95.5	30 - 200	
115 In	1672252.10	0.75	1803736.80	92.7	30 - 200	
209 Bi	1198064.60	2.86	1265990.80	94.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\008CALI.D\008CALI.D#
Date Acquired: May 10 2005 01:27 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699749.88	A	8396.00	1.20
9 Be	179666.70	P	1754.00	0.98
23 Na	100785300.00	A	653100.00	0.65
26 Mg	10492970.00	A	80140.00	0.76
27 Al	924061.81	A	12600.00	1.36
39 K	93293584.00	A	766800.00	0.82
44 Ca	2805459.00	A	39840.00	1.42
45 Sc	918942.69	A	7217.00	0.79
51 V	1144253.00	A	25920.00	2.27
52 Cr	1006779.00	A	18680.00	1.86
55 Mn	1391212.00	A	24870.00	1.79
57 Fe	2888783.00	A	37060.00	1.28
59 Co	1233744.00	A	10770.00	0.87
60 Ni	264221.09	P	2341.00	0.89
65 Cu	314983.09	P	6123.00	1.94
66 Zn	175570.20	P	1374.00	0.78
72 Ge	233375.80	P	940.20	0.40
75 As	163957.50	P	2287.00	1.39
82 Se	11253.83	P	103.20	0.92
95 Mo	339165.50	P	3375.00	1.00
109 Ag	855902.19	P	13560.00	1.58
111 Cd	177562.20	P	2959.00	1.67
115 In	1662089.00	A	15180.00	0.91
121 Sb	696540.00	P	10150.00	1.46
137 Ba	258810.00	P	4673.00	1.81
205 Tl	1514719.00	A	25830.00	1.71
208 Pb	1918263.00	A	19400.00	1.01
209 Bi	1170810.00	A	7189.00	0.61
232 Th	1603621.00	A	73670.00	4.59
238 U	1870409.00	A	82290.00	4.40

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699749.94	1.20	719657.81	97.2	30 - 200	
45 Sc	918942.69	0.79	956826.81	96.0	30 - 200	
72 Ge	233375.77	0.40	241692.44	96.6	30 - 200	
115 In	1662089.30	0.91	1803736.80	92.1	30 - 200	
209 Bi	1170810.50	0.61	1265990.80	92.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\009CALI.D\009CALI.D#
Date Acquired:	May 10 2005 01:32 pm
Operator:	
Sample Name:	cs6,s394
Misc Info:	
Vial Number:	1107
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 01:29 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	696458.81	A	2195.00	0.32
9 Be	355763.31	P	4299.00	1.21
23 Na	195593790.00	A	1676000.00	0.86
26 Mg	20520950.00	A	125100.00	0.61
27 Al	1798230.00	A	9012.00	0.50
39 K	181916700.00	A	1782000.00	0.98
44 Ca	5445574.00	A	41320.00	0.76
45 Sc	914124.38	A	3346.00	0.37
51 V	2229676.00	A	37870.00	1.70
52 Cr	1972506.00	A	17300.00	0.88
55 Mn	2663152.00	A	19950.00	0.75
57 Fe	5545234.00	A	47970.00	0.87
59 Co	2380822.00	A	22700.00	0.95
60 Ni	518287.69	P	5007.00	0.97
65 Cu	610870.63	P	3499.00	0.57
66 Zn	333554.81	P	3904.00	1.17
72 Ge	231395.59	P	1736.00	0.75
75 As	321932.81	P	2251.00	0.70
82 Se	21699.04	P	318.60	1.47
95 Mo	671982.19	P	15500.00	2.31
109 Ag	1686766.00	A	26260.00	1.56
111 Cd	347695.91	P	6167.00	1.77
115 In	1627808.00	A	29630.00	1.82
121 Sb	1412049.00	A	9677.00	0.69
137 Ba	510754.41	P	8315.00	1.63
205 Tl	2929376.00	A	45530.00	1.55
208 Pb	3783427.00	A	65130.00	1.72
209 Bi	1147209.00	A	19820.00	1.73
232 Th	3720604.00	A	23790.00	0.64
238 U	3700491.00	A	29660.00	0.80

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	696458.75	0.32	719657.81	96.8	30 - 200	
45 Sc	914124.44	0.37	956826.81	95.5	30 - 200	
72 Ge	231395.56	0.75	241692.44	95.7	30 - 200	
115 In	1627807.60	1.82	1803736.80	90.2	30 - 200	
209 Bi	1147209.40	1.73	1265990.80	90.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 10, 2005 13:34
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1012a.b\003calb.d\	003calb.d#	May 10 2005 01:00 pm
2	...hem\1\data\05e1012a.b\004cali.d\	004cali.d#	May 10 2005 01:05 pm
3	...hem\1\data\05e1012a.b\005cali.d\	005cali.d#	May 10 2005 01:10 pm
4	...hem\1\data\05e1012a.b\006cali.d\	006cali.d#	May 10 2005 01:17 pm
5	...hem\1\data\05e1012a.b\007cali.d\	007cali.d#	May 10 2005 01:22 pm
6	...hem\1\data\05e1012a.b\008cali.d\	008cali.d#	May 10 2005 01:27 pm
7	...hem\1\data\05e1012a.b\009cali.d\	009cali.d#	May 10 2005 01:32 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.278E-1*X +2.008E-3(blank)	---	ppb
Na	23	45	Y = 5.371E-1*X +1.003E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.632E-2*X +1.411E-1(blank)	---	ppb
Al	27	45	Y = 4.820E-1*X +2.102E+0(blank)	---	ppb
K	39	45	Y = 4.962E-1*X +5.694E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.495E-2*X +3.625E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.415E+0*X +3.432E-1(blank)	---	ppb
Cr	52	72	Y = 2.130E+0*X +9.783E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.893E+0*X +8.298E-1(blank)	---	ppb
Fe	57	72	Y = 6.020E-2*X +1.871E+0(blank)	---	ppb
Co	59	72	Y = 2.586E+0*X +2.896E-2(blank)	---	ppb
Ni	60	72	Y = 5.611E-1*X +2.462E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.627E-1*X +6.003E-2(blank)	---	ppb
Zn	66	72	Y = 3.603E-1*X +5.622E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.484E-1*X +2.163E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.347E-2*X +1.846E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 7.255E-1*X +1.006E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.825E+0*X +2.572E-2(blank)	---	ppb
Cd	111	72	Y = 3.762E-1*X +6.917E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.153E-1*X +1.511E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 7.828E-2*X +1.035E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.398E-1*X +2.910E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.230E-1*X +5.595E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969010
Calnum : 55187969001
Standards: S399

Run Name :
Filename : e1012010
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 13:37
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	102.7000	ug/L	3	10	
Antimony	100.0000	98.25000	ug/L	-2	10	
Arsenic	100.0000	100.5000	ug/L	1	10	
Barium	100.0000	98.57000	ug/L	-1	10	
Beryllium	100.0000	99.06000	ug/L	-1	10	
Cadmium	100.0000	101.4000	ug/L	1	10	
Calcium	10000.00	10180.00	ug/L	2	10	
Chromium	100.0000	100.4000	ug/L	0	10	
Cobalt	100.0000	101.7000	ug/L	2	10	
Copper	100.0000	101.8000	ug/L	2	10	
Iron	10000.00	10170.00	ug/L	2	10	
Lead	100.0000	99.03000	ug/L	-1	10	
Magnesium	10000.00	10150.00	ug/L	2	10	
Manganese	100.0000	101.6000	ug/L	2	10	
Molybdenum	100.0000	100.2000	ug/L	0	10	
Nickel	100.0000	99.80000	ug/L	0	10	
Potassium	10000.00	10070.00	ug/L	1	10	
Selenium	100.0000	101.5000	ug/L	2	10	
Silver	100.0000	100.6000	ug/L	1	10	
Sodium	10000.00	10140.00	ug/L	1	10	
Thallium	100.0000	101.1000	ug/L	1	10	
Vanadium	100.0000	100.3000	ug/L	0	10	
Zinc	100.0000	102.6000	ug/L	3	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	724674	0.70
Scandium	956827	924461	-3.38
Germanium	241692	233548	-3.37
Indium	1803737	1679520	-6.89
Bismuth	1265991	1183198	-6.54

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969012
Standards: 05WS0207

Run Name :
Filename : e1012012

Injected : 10-MAY-2005 13:49

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	0.327900	0.250000	ug/L	ib ***
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[12.610]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969013
Standards: S401, 05WS0207

Run Name :
Filename : e1012013

Injected : 10-MAY-2005 13:55

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.360000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	1.056000	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.964200	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0126]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	0.385600	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.854000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	3.136000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	2.143000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.195000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	1.415000	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.978000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	0.729100	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	0.272700	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.1355]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.7444]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	4.254000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	83970	ug/L	84
Calcium	55187969001	10-MAY-2005	300000	291100	ug/L	97
Iron	55187969001	10-MAY-2005	250000	236500	ug/L	95
Magnesium	55187969001	10-MAY-2005	100000	93180	ug/L	93
Molybdenum	55187969001	10-MAY-2005	2000	1899	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	94190	ug/L	94
Sodium	55187969001	10-MAY-2005	250000	220600	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969014
Calnum : 55187969001
Standards: S402, 05WS0207

Run Name :
Filename : e1012014
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 14:01
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	82720.00	ug/L	-17		
Arsenic	100.0000	107.3000	ug/L	7	20	
Cadmium	100.0000	97.02000	ug/L	-3	20	
Calcium	300000.0	291200.0	ug/L	-3		
Chromium	200.0000	202.6000	ug/L	1	20	
Cobalt	200.0000	201.4000	ug/L	1	20	
Copper	200.0000	192.3000	ug/L	-4	20	
Iron	250000.0	236700.0	ug/L	-5		
Magnesium	100000.0	92020.00	ug/L	-8		
Manganese	200.0000	207.8000	ug/L	4	20	
Molybdenum	2000.000	1904.000	ug/L	-5		
Nickel	200.0000	193.8000	ug/L	-3	20	
Potassium	100000.0	93640.00	ug/L	-6		
Selenium	100.0000	98.99000	ug/L	-1	20	
Silver	50.00000	47.93000	ug/L	-4	20	
Sodium	250000.0	219600.0	ug/L	-12		
Vanadium	200.0000	208.2000	ug/L	4	20	
Zinc	100.0000	97.23000	ug/L	-3	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	869228	-9.16
Germanium	241692	222192	-8.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969026
Calnum : 55187969001
Standards: S403, 05WS0207

Run Name :
Filename : e1012026
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 15:12
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4635	150.0000	139.9000	ug/L	-7	10	
Antimony	0.2334	0.2062	150.0000	143.6000	ug/L	-4	10	
Arsenic	0.3949	0.3410	150.0000	146.7000	ug/L	-2	10	
Barium	0.1089	0.0757	150.0000	144.9000	ug/L	-3	10	
Beryllium	0.1350	0.1251	150.0000	146.7000	ug/L	-2	10	
Cadmium	0.4751	0.3607	150.0000	143.7000	ug/L	-4	10	
Calcium	0.0193	0.0147	15000.00	14720.00	ug/L	-2	10	
Chromium	2.8373	2.0713	150.0000	145.4000	ug/L	-3	10	
Cobalt	2.7635	2.5246	150.0000	146.4000	ug/L	-2	10	
Copper	0.7589	0.6495	150.0000	146.9000	ug/L	-2	10	
Iron	0.0751	0.0588	15000.00	14610.00	ug/L	-3	10	
Lead	0.9063	0.8028	150.0000	146.2000	ug/L	-3	10	
Magnesium	0.0603	0.0535	15000.00	14240.00	ug/L	-5	10	
Manganese	3.9731	2.8529	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.7863	0.7031	150.0000	145.2000	ug/L	-3	10	
Nickel	0.6412	0.5444	150.0000	145.5000	ug/L	-3	10	
Potassium	0.9079	0.4849	15000.00	14540.00	ug/L	-3	10	
Selenium	0.0402	0.0229	150.0000	145.8000	ug/L	-3	10	
Silver	1.9719	1.7857	150.0000	146.8000	ug/L	-2	10	
Sodium	0.6640	0.5123	15000.00	14290.00	ug/L	-5	10	
Thallium	0.6249	0.6323	150.0000	148.2000	ug/L	-1	10	
Vanadium	2.7215	2.3631	150.0000	146.6000	ug/L	-2	10	
Zinc	0.9437	0.3538	150.0000	145.8000	ug/L	-3	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	664033	-7.73
Scandium	956827	929219	-2.89
Germanium	241692	235124	-2.72
Indium	1803737	1649355	-8.56
Bismuth	1265991	1123687	-11.24

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969028
Standards: 05WS0207

Run Name :
Filename : e1012028

Injected : 10-MAY-2005 15:24

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.2432]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	[0.0701]	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[8.2720]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969039
Calnum : 55187969001
Standards: S400, 05WS0207

Run Name :
Filename : e1012039
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 16:31
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4979	100.0000	98.94000	ug/L	-1	10	
Antimony	0.2334	0.2072	100.0000	96.16000	ug/L	-4	10	
Arsenic	0.3949	0.3473	100.0000	99.63000	ug/L	0	10	
Barium	0.1089	0.0771	100.0000	98.34000	ug/L	-2	10	
Beryllium	0.1350	0.1269	100.0000	99.29000	ug/L	-1	10	
Cadmium	0.4751	0.3872	100.0000	102.7000	ug/L	3	10	
Calcium	0.0193	0.0153	10000.00	10220.00	ug/L	2	10	
Chromium	2.8373	2.1399	100.0000	99.98000	ug/L	0	10	
Cobalt	2.7635	2.6100	100.0000	100.9000	ug/L	1	10	
Copper	0.7589	0.6661	100.0000	100.4000	ug/L	0	10	
Iron	0.0751	0.0611	10000.00	10120.00	ug/L	1	10	
Lead	0.9063	0.8236	100.0000	100.0000	ug/L	0	10	
Magnesium	0.0603	0.0560	10000.00	9942.000	ug/L	-1	10	
Manganese	3.9731	2.9336	100.0000	101.1000	ug/L	1	10	
Molybdenum	0.7863	0.7370	100.0000	101.4000	ug/L	1	10	
Nickel	0.6412	0.5586	100.0000	99.51000	ug/L	0	10	
Potassium	0.9079	0.5059	10000.00	10080.00	ug/L	1	10	
Selenium	0.0402	0.0240	100.0000	101.5000	ug/L	2	10	
Silver	1.9719	1.8761	100.0000	102.8000	ug/L	3	10	
Sodium	0.6640	0.5306	10000.00	9860.000	ug/L	-1	10	
Thallium	0.6249	0.6496	100.0000	101.5000	ug/L	2	10	
Vanadium	2.7215	2.4411	100.0000	100.9000	ug/L	1	10	
Zinc	0.9437	0.3683	100.0000	100.7000	ug/L	1	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	618084	-14.11
Scandium	956827	826860	-13.58
Germanium	241692	211718	-12.40
Indium	1803737	1585924	-12.08
Bismuth	1265991	1137926	-10.12

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969041
Standards: 05WS0207

Run Name :
Filename : e1012041

Injected : 10-MAY-2005 16:43

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.1232]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[7.3160]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[20.830]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969042
Standards: S401, 05WS0207

Run Name :
Filename : e1012042

Injected : 10-MAY-2005 16:49

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.084000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	0.708900	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.851300	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0141]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	[0.1545]	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.223000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	2.494000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	1.475000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.100000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	0.771300	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.369000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	[0.4094]	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	[0.1428]	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.0358]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.2481]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	2.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	78490	ug/L	78
Calcium	55187969001	10-MAY-2005	300000	276800	ug/L	92
Iron	55187969001	10-MAY-2005	250000	223700	ug/L	89
Magnesium	55187969001	10-MAY-2005	100000	86300	ug/L	86
Molybdenum	55187969001	10-MAY-2005	2000	1901	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	89540	ug/L	90
Sodium	55187969001	10-MAY-2005	250000	205000	ug/L	82

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969043
Calnum : 55187969001
Standards: S402, 05WS0207

Run Name :
Filename : e1012043
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 16:55
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	80920.00	ug/L	-19		
Arsenic	100.0000	103.6000	ug/L	4	20	
Cadmium	100.0000	98.05000	ug/L	-2	20	
Calcium	300000.0	286800.0	ug/L	-4		
Chromium	200.0000	193.2000	ug/L	-3	20	
Cobalt	200.0000	190.2000	ug/L	-5	20	
Copper	200.0000	181.4000	ug/L	-9	20	
Iron	250000.0	225400.0	ug/L	-10		
Magnesium	100000.0	89150.00	ug/L	-11		
Manganese	200.0000	193.7000	ug/L	-3	20	
Molybdenum	2000.000	1933.000	ug/L	-3		
Nickel	200.0000	183.5000	ug/L	-8	20	
Potassium	100000.0	92940.00	ug/L	-7		
Selenium	100.0000	96.54000	ug/L	-3	20	
Silver	50.00000	48.60000	ug/L	-3	20	
Sodium	250000.0	210800.0	ug/L	-16		
Vanadium	200.0000	198.2000	ug/L	-1	20	
Zinc	100.0000	90.26000	ug/L	-10	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	792702	-17.15
Germanium	241692	203815	-15.67

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 14:50

Batch Number : 101496
Date Extracted: 27-APR-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178846-001			Mactec, Inc.	Soil	.98	g	50	51.020408	1					T26/ICP		
178846-002			Mactec, Inc.	Soil	1	g	50	50.000000	1					T26/ICP		mss
178951-001			Mactec, Inc.	Soil	1.17	g	50	42.735043	1					T26/ICP		
178951-002			Mactec, Inc.	Soil	1.35	g	50	37.037037	1					T26/ICP		
178951-003			Mactec, Inc.	Soil	1.13	g	50	44.247788	1					T26/ICP		
178951-004			Mactec, Inc.	Soil	1.59	g	50	31.446541	1					T26/ICP		
179049-001			Mactec, Inc.	Soil	.99	g	50	50.505051	1					T26/ICP		
179076-040			Fugro West, Inc.	Soil	1.48	g	50	33.783784	1					PB		
179076-041			Fugro West, Inc.	Soil	1.39	g	50	35.971223	1					PB		
179076-042			Fugro West, Inc.	Soil	1.5	g	50	33.333333	1					PB		
179076-043			Fugro West, Inc.	Soil	.99	g	50	50.505051	1					PB		
179089-001			Mactec, Inc.	Soil	1.21	g	50	41.322314	1					T26/ICP		
179089-002			Mactec, Inc.	Soil	1.06	g	50	47.169811	1					T26/ICP		
179089-003			Mactec, Inc.	Soil	1.03	g	50	48.543689	1					T26/ICP		
QC291742	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC291743	BS			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291744	BSD			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291745	MS	of 178846-002		Soil	1.07	g	50	46.728972	1		.25	.25		ICAP		
QC291746	MSD	of 178846-002		Soil	1.32	g	50	37.878788	1		.25	.25		ICAP		
QC291747	SER	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		
QC291748	PDS	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		

254

Prep Chemist: [signature] 5.3.05 Reviewed By: [signature] Date: 5/3/05

Relinquished By: [signature] Received By: [signature] Date: 5/3/05

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 101496
Date Digested: 4/26/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2103
Page 84

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK QC 291742		Ø	50.0	Y	
*	BS 291743					
*	BSD 291744					
*	178816-002MS	A	1.07			
*	-002MSD		1.32			
	001		0.98			
	002		1.00			MSS
	178951-001	A	1.17			
	-002		1.35			
10	-003		1.13			
	-004		1.59			
	179049-001	B	0.99			
	179076-040	A	1.48			
	-041		1.39			
15	-042		1.50			
	-043		0.99			
	179089-001	A	1.21			
	-002		1.06			
	-003		1.03			
20						

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	93.4°C	VV 4/26/05
0.25 mL of spike solution was added to all spikes	045727 *	
	045728 *	
1:1 HNO3	AH8016-042105	
concentrated HNO3	AH8046 - JTBaker	
3mL 30% hydrogen peroxide	43287414 - V.W.R	
concentrated HCl	801038 - JTBaker	
☒ filtered thru' Whatman # 541		

Extraction Chemist / Date

255
Continued from page Ø
Continued on page Ø

Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	383256	566573	161713	1281904	1275587	1961549
LOWER LIMIT	114977	169972	48514	384571	382676	588465
UPPER LIMIT	459907	679888	194055	1538285	1530704	2353859

TYPE	SAMPLE	#						
ICB		012	398133	574338	165050	1295852	1262491	1986107
ICSA		013	346568	585480	165964	1206572	1034302	1885660
SER	QC291792	016	360601	574226	166189	1313972	1264223	1992797
MS	QC291790	017	357271	563392	161951	1250233	1207732	1944941
MSD	QC291791	018	360728	566869	163110	1255236	1222275	1952234
SAMPLE	179075-004	019	367478	568523	164798	1288704	1247558	1958562
SAMPLE	179075-006	020	367643	563823	163071	1287136	1263627	1974646
SAMPLE	179075-007	021	366643	570946	164159	1283858	1243530	1953644
SAMPLE	179075-011	022	373348	566936	165290	1287274	1246271	1978536
SAMPLE	179075-012	023	363108	562751	161001	1275896	1251362	1958231
CCV		025	373026	561004	161836	1264407	1249023	1999038
CCB		027	374726	557619	161013	1301082	1256526	1972729
SAMPLE	179075-013	028	367557	543752	158800	1252376	1225482	1956790
SAMPLE	179075-018	029	370487	555821	161480	1276264	1250542	1955957
CCV		031	368057	555167	161141	1267241	1237819	1955994
CCB		033	379843	559887	159132	1300645	1273674	1985667
ICSA		034	335479	563166	161577	1218668	1087887	1960268
MSS	179132-001	037	363368	580241	168272	1326575	1254419	2023380
SER	QC292313	038	380880	570299	165743	1338897	1303881	2013562
MS	QC292311	039	364544	555633	160719	1290844	1270339	1998090
MSD	QC292312	040	393580	609664	174058	1420429	1365235	2194455
SAMPLE	179132-006	041	389358	581682	167543	1348341	1299880	2079257
SAMPLE	179132-015	042	377470	565529	162974	1314638	1278674	2034845
SAMPLE	179132-016	043	400273	584930	170556	1374132	1362137	2079434
SAMPLE	179132-017	044	398669	576126	167928	1364855	1355156	2097381
CCV		046	371734	544232	158308	1276514	1283726	2019984
CCB		048	390733	573322	164831	1351990	1325322	2052989
BLANK	QC292136	053	406942	576746	165847	1344710	1337139	2051303

256

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

TYPE	SAMPLE	#						
CCV		061	364584	549159	158082	1258859	1233783	1958603
CCB		063	387047	566878	163345	1316900	1277659	2010396
CCV		073	380148	554670	160863	1296859	1288713	2034156
CCB		075	397508	581142	167853	1366726	1319500	2068160
ICSA		076	328713	543652	158612	1217096	1122198	1981217
CCV		090	332344	500594	147515	1196146	1218836	1910741
CCB		092	336386	514294	147596	1252830	1252315	1919669
ICSA		101	354346	616516	175729	1330694	1060028	1998550
CCV		104	354034	572106	167746	1353822	1244487	2034989
CCB		106	345220	541652	158905	1326647	1266398	1989079
BLANK	QC291742	108	321933	507433	147220	1247176	1219502	1887856
CCV		119	327369	503498	148418	1233456	1161755	1910155
CCB		121	351012	546596	158826	1340551	1260259	2008652
CCV		133	290486	426922	127442	1121490	1113799	1786266
CCB		135	290358	415531	122110	1105488	1103286	1719875
CCV		147	295190	430569	127088	1117565	1051484	1730252
CCB		149	306470	438276	128199	1164919	1098012	1755235
BLANK	QC292252	160	295062	433876	128080	1150518	1056366	1733581
CCV		162	290333	433501	127988	1129581	973668	1716457
CCB		164	298951	437758	128840	1159844	1020075	1716228
CCV		176	282773	434472	127616	1110413	869999	1663666
CCB		178	311364	475987	137998	1239853	1003583	1800998
ICSA		186	266251	437644	127903	1099918	861462	1734148
CCV		189	273038	415113	125004	1128861	1063109	1747302
CCB		191	280867	413918	123256	1141761	1086930	1735234

257

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005
Sequence: 55187969 (e1012)
Instrument ID: MET05

ICALBLK Filename: e1012003
Date Analyzed: 10-MAY-2005
Time Analyzed: 13:00

	IS1 (LI READING)	IS2 (SC READING)	IS3 (GE READING)	IS4 (IN READING)	IS5 (BI READING)	IS6 (TB READING)
ICALBLK STD	719658	956827	241692	1803737	1265991	2281899
LOWER LIMIT	215897	287048	72508	541121	379797	684570
UPPER LIMIT	863589	1148192	290031	2164484	1519189	2738279

TYPE	SAMPLE	#						
ICB		012	712709	916999	228138	1690859	1215197	2197753
ICSA		013	629058	901590	225056	1508287	991906	2062292
SAMPLE	178951-001	017	653026	890522	228240	1674047	1213023	2174446
SAMPLE	178951-002	018	622557	1131762	216440	1513159	1056537	2091502
SAMPLE	178951-002	019	666065	884232	227704	1670852	1206732	2175138
SAMPLE	179156-002	020	670040	893672	229908	1658303	1148477	2114972
SAMPLE	179076-043	021	681177	904249	229505	1645155	1169916	2111839
SAMPLE	179141-013	022	656556	922910	228869	1620694	1069712	2099409
SAMPLE	179127-001	023	692427	937373	235115	1707105	1169855	2181533
CCV		026	664033	929219	235124	1649355	1123687	2126752
CCB		028	685876	922069	233240	1707399	1189703	2142381
SAMPLE	178951-003	029	690300	974177	239059	1712926	1201680	2179279
SAMPLE	178951-004	030	687869	946272	236592	1700682	1156930	2110386
SAMPLE	179049-001	031	668755	913591	232519	1634499	1101671	2040530
SAMPLE	179089-001	032	663602	1162729*	231096	1645486	1135062	2172600
SAMPLE	179089-002	034	647549	1147533	219515	1579078	1140361	2135996
SAMPLE	179089-003	035	635380	971456	211907	1586246	1164627	2121389
SAMPLE	179049-001	036	619394	828272	211681	1604933	1178732	2095415
SAMPLE	179127-001	037	621213	822592	211321	1596592	1173582	2084737
CCV		039	618084	826860	211718	1585924	1137926	2118222
CCB		041	622750	818589	210138	1580701	1114455	2022076
ICSA		042	569684	831662	206070	1497884	1013382	2100172

258

* = Outside QC Limits

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45157870 Instrument: MET04 HydraAA HG Analyzer Begun: 19-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101291	X	Std01Rep1				19-APR-2005 15:10	1.0	1.0									
002	101291	X	Std02Rep1				19-APR-2005 15:12	1.0	1.0									
003	101291	X	Std03Rep1				19-APR-2005 15:14	1.0	1.0									
004	101291	X	Std04Rep1				19-APR-2005 15:16	1.0	1.0									
005	101291	ICALBLK	Std01Rep1				19-APR-2005 15:19	1.0	1.0									
006	101291	ICAL	Std02Rep1				19-APR-2005 15:21	1.0	1.0									
007	101291	ICAL	Std03Rep1				19-APR-2005 15:24	1.0	1.0									
008	101291	ICAL	Std04Rep1				19-APR-2005 15:27	1.0	1.0									
009	101291	ICAL	Std05Rep1				19-APR-2005 15:30	1.0	1.0									
010	101291	ICAL	Std06Rep1				19-APR-2005 15:32	1.0	1.0									
011	101291	ICV					19-APR-2005 15:34	1.0	1.0	2	5.000	45157870001	4.700		ug/L	94		
012	101291	ICB					19-APR-2005 15:37	1.0	1.0			45157870001	[0.07700]	0.20	ug/L			
013	101291	BLANK	QC290967		101291	Soil	19-APR-2005 15:39	1.0	100.0			45157870001	ND	0.020	mg/Kg			u
014	101291	BS	QC290968		101291	Soil	19-APR-2005 15:41	1.0	100.0		0.5000	45157870001	0.4730	0.020	mg/Kg	95		u
015	101291	BSD	QC290969		101291	Soil	19-APR-2005 15:44	1.0	100.0		0.5000	45157870001	0.4680	0.020	mg/Kg	94	1	u
016	101291	MSS	178893-001		101291	Soil	19-APR-2005 15:46	20.0	100.0			45157870001	140 >LR	0.40	mg/Kg			>LR b*
017	101291	MS	QC290970	178893-001	101291	Soil	19-APR-2005 15:54	20.0	98.04									
018	101291	MSD	QC290971	178893-001	101291	Soil	19-APR-2005 15:58	100.0	100.0									
019	101291	SAMPLE	178872-001		101291	Soil	19-APR-2005 16:01	1.0	111.1			45157870001	0.098	0.022	mg/Kg			u
020	101291	SAMPLE	178872-002		101291	Soil	19-APR-2005 16:03	10.0	102.0			45157870001	ND	0.20	mg/Kg			
021	101291	SAMPLE	178872-003		101291	Soil	19-APR-2005 16:05	1.0	102.0			45157870001	0.57	0.020	mg/Kg			
022	101291	SAMPLE	178872-004		101291	Soil	19-APR-2005 16:08	10.0	98.04			45157870001	0.47	0.20	mg/Kg			u
023	101291	CCV					19-APR-2005 16:10	1.0	1.0	3	2.500	45157870001	2.550		ug/L	102		
024	101291	CCB					19-APR-2005 16:13	1.0	1.0			45157870001	[0.1020]	0.20	ug/L			
025	101291	SAMPLE	178872-005		101291	Soil	19-APR-2005 16:15	10.0	96.15			45157870001	0.24	0.19	mg/Kg			u
026	101291	SAMPLE	178872-006		101291	Soil	19-APR-2005 16:17	10.0	86.21			45157870001	0.56	0.17	mg/Kg			u
027	101291	SAMPLE	178872-007		101291	Soil	19-APR-2005 16:19	10.0	111.1			45157870001	0.44	0.22	mg/Kg			u
028	101291	SAMPLE	178872-008		101291	Soil	19-APR-2005 16:21	10.0	108.7			45157870001	0.53	0.22	mg/Kg			u
029	101291	SAMPLE	178893-002		101291	Soil	19-APR-2005 16:23	1.0	104.2			45157870001	0.083	0.021	mg/Kg			u
030	101291	SAMPLE	178893-003		101291	Soil	19-APR-2005 16:26	1.0	106.4			45157870001	0.49	0.021	mg/Kg			u
031	101291	SAMPLE	178918-001		101291	Soil	19-APR-2005 16:28	1.0	106.4			45157870001	0.29	0.021	mg/Kg			u
032	101291	SAMPLE	178928-001		101291	Miscel	19-APR-2005 16:30	1.0	111.1			45157870001	14 >LR	0.022	mg/Kg			! >LR c
033	101291	SAMPLE	178950-001		101291	Miscel	19-APR-2005 16:34	1.0	106.4			45157870001	1.5 >LR	0.021	mg/Kg			>LR b*
034	101291	SAMPLE	178951-001		101291	Soil	19-APR-2005 16:36	1.0	89.29			45157870001	5.2 >LR	0.018	mg/Kg			>LR b*
035	101291	CCV					19-APR-2005 16:58	1.0	1.0	4	5.000	45157870001	5.100		ug/L	102		
036	101291	CCB					19-APR-2005 17:00	1.0	1.0			45157870001	ND	0.20	ug/L			
037	101291	SAMPLE	178951-002		101291	Soil	19-APR-2005 17:02	1.0	92.59			45157870001	0.24	0.019	mg/Kg			u
038	101291	SAMPLE	178951-003		101291	Soil	19-APR-2005 17:05	1.0	76.92			45157870001	0.13	0.015	mg/Kg			u
039	101291	SAMPLE	178951-004		101291	Soil	19-APR-2005 17:07	1.0	111.1			45157870001	0.30	0.022	mg/Kg			u
040	101291	SAMPLE	178928-001		101291	Miscel	19-APR-2005 17:09	100.0	111.1			45157870001	680 >LR	2.2	mg/Kg			>LR b*
041	101291	SAMPLE	178950-001		101291	Miscel	19-APR-2005 17:11	5.0	106.4			45157870001	1.5	0.11	mg/Kg			u
042	101291	SAMPLE	178951-001		101291	Soil	19-APR-2005 17:13	20.0	89.29			45157870001	0.46	0.36	mg/Kg			u

Stds used: 1=S327 2=S329 3=S332 4=S333 5=S335
Flags used: !=calc err :=recovery not meaningful >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: Andrian O Date: 4/20/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45157870 Instrument: MET04 HydraAA HG Analyzer Begun: 19-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
043	101291	SAMPLE	178928-001		101291	Miscel	19-APR-2005 17:27	1000	111.1			45157870001	930	22	mg/Kg			u
044	101291	MSS	178893-001		101291	Soil	19-APR-2005 17:29	1000	100.0			45157870001	200	20	mg/Kg			u
045	101291	MS	QC290970	178893-001	101291	Soil	19-APR-2005 17:31	1000	98.04		0.4902	45157870001	174.5	20	mg/Kg DO			: u
046	101291	MSD	QC290971	178893-001	101291	Soil	19-APR-2005 17:34	1000	100.0		0.5000	45157870001	274.0	20	mg/Kg DO	44*		: u
047	101291	CCV					19-APR-2005 17:37	1.0	1.0	5	7.500	45157870001	6.730		ug/L	90		
048	101291	CCB					19-APR-2005 17:39	1.0	1.0			45157870001	[0.01900]	0.20	ug/L			

260

Stds used: 1=S327 2=S329 3=S332 4=S333 5=S335
Flags used: !=calc err :=recovery not meaningful >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: [signature] Date: 4/20/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45157870002 Name: Type: SOIL Date: 19-APR-2005 15:19 Inj Vol (uL): 2000

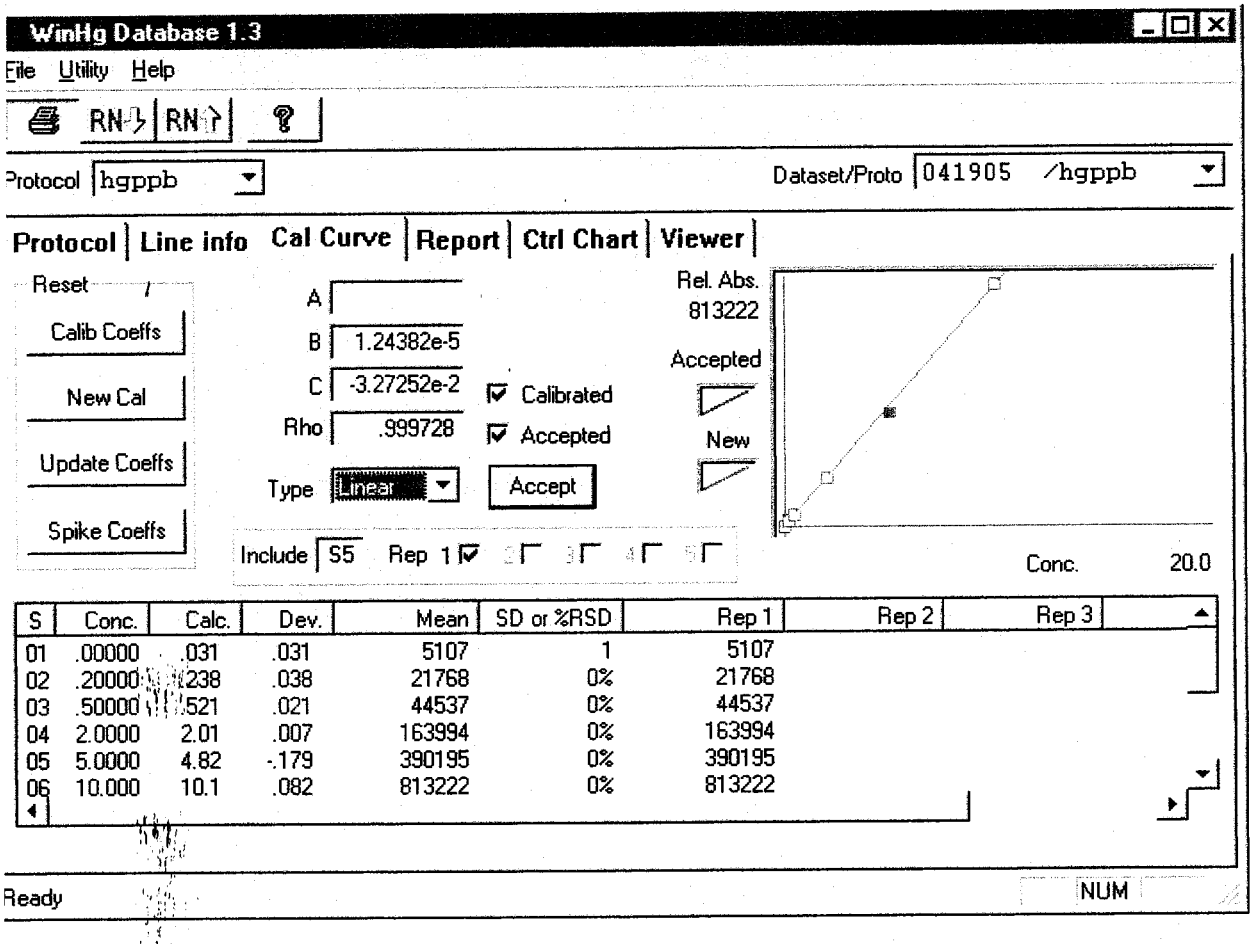
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101291	45157870006	Std02Rep1	19-APR-2005 15:21	S327 (500X)
2	101291	45157870007	Std03Rep1	19-APR-2005 15:24	S327 (200X)
3	101291	45157870008	Std04Rep1	19-APR-2005 15:27	S327 (50X)
4	101291	45157870009	Std05Rep1	19-APR-2005 15:30	S327 (20X)
5	101291	45157870010	Std06Rep1	19-APR-2005 15:32	S327 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Mercury	108840	89074	81997	78039	81322	LINR	R	-0.03273	1.244E-5		ug/L	87854	0.999	.99	

261

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 041905 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 1.24382e-5
C -3.27252e-2
Rho .999728
Type Linear
Calibrated
Accepted
Accept
Include S5 Rep 1
Rel. Abs.
813222
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .031 .031 5107 1 5107
02 .20000 .238 .038 21768 0% 21768
03 .50000 .521 .021 44537 0% 44537
04 2.0000 2.01 .007 163994 0% 163994
05 5.0000 4.82 -.179 390195 0% 390195
06 10.000 10.1 .082 813222 0% 813222
Ready
NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 37		15:19:27 19 Apr 05			HG
Hg	.000	ppb	5107						
		Bkgd 1	10451578						
*** Standard: 2 Rep: 1				Seq: 38		15:21:52 19 Apr 05			HG
Hg	.200	ppb	21768						
		Bkgd 1	10458249						
*** Standard: 3 Rep: 1				Seq: 39		15:24:38 19 Apr 05			HG
Hg	.500	ppb	44537						
		Bkgd 1	10457745						
*** Standard: 4 Rep: 1				Seq: 40		15:27:36 19 Apr 05			HG
Hg	2.00	ppb	163994						
		Bkgd 1	10462456						
*** Standard: 5 Rep: 1				Seq: 41		15:30:20 19 Apr 05			HG
Hg	5.00	ppb	390195						
		Bkgd 1	10461592						
*** Standard: 6 Rep: 1				Seq: 42		15:32:26 19 Apr 05			HG
Hg	10.0	ppb	813222						
		Bkgd 1	10455420						
*** Check Standard: 2			Ck2S329	Seq: 43		15:34:45 19 Apr 05			HG
Line	Flag		Intensities						
Hg			380219						
		Bkgd 1	10448976						
*** Check Standard: 1			Ck1ICB	Seq: 44		15:37:01 19 Apr 05			HG
Line	Flag		Intensities						
Hg			8829						
		Bkgd 1	10451130						
*** Sample ID: qc290967				Seq: 45		15:39:04 19 Apr 05			HG
			101291,1						
Hg	.026	ppb	4719						
		Bkgd 1	10457161						

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: qc290968				Seq: 46	15:41:36 19 Apr 05	HG			
				101291,1					
Hg	4.73	ppb	382836						
		Bkgd 1	10466668						=
									=
*** Sample ID: qc290969				Seq: 47	15:44:12 19 Apr 05	HG			
				101291,1					
Hg	4.68	ppb	379186						
		Bkgd 1	10463631						=
									=
*** Sample ID: 178893-001				Seq: 48	15:46:24 19 Apr 05	HG			
				101291,20					
Hg	67.7	ppb	5448262						
		Bkgd 1	10456925						=
									=
*** Sample ID: qc290970				Seq: 49	15:54:27 19 Apr 05	HG			
				101291,20					
Hg	33.9	ppb	2725933						
		Bkgd 1	10454389						=
									=
*** Sample ID: qc290971				Seq: 50	15:58:43 19 Apr 05	HG			
				101291,100					
Hg	21.9	ppb	1765271						
		Bkgd 1	10464538						=
									=
*** Sample ID: 178872-001				Seq: 51	16:01:10 19 Apr 05	HG			
				101291,1					
Hg	.880	ppb	73412						
		Bkgd 1	10462836						=
									=
*** Sample ID: 178872-002				Seq: 52	16:03:17 19 Apr 05	HG			
				101291,10					
Hg	.139	ppb	13790						
		Bkgd 1	10466535						=
									=
*** Sample ID: 178872-003				Seq: 53	16:05:36 19 Apr 05	HG			
				101291,1					
Hg	5.59	ppb	452219						
		Bkgd 1	10471973						=
									=

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: 178872-004          Seq:  54     16:08:27 19 Apr 05   HG
                              101291,10
Hg    .477    ppb       40973
              Bkgd 1    10467641                                          =
                                                                          =
*** Check Standard: 3  Ck3S332     Seq:  55     16:10:37 19 Apr 05   HG
Line  Flag             Intensities
Hg                     207316
              Bkgd 1    10467550                                          =
                                                                          =
*** Check Standard: 6  Ck6CCB      Seq:  56     16:13:03 19 Apr 05   HG
Line  Flag             Intensities
Hg                     10840
              Bkgd 1    10465500                                          =
                                                                          =
*** Sample ID: 178872-005          Seq:  57     16:15:06 19 Apr 05   HG
                              101291,10
Hg    .253    ppb       22933
              Bkgd 1    10464333                                          =
                                                                          =
===============================================================================
*** Sample ID: 178872-006          Seq:  58     16:17:22 19 Apr 05   HG
                              101291,10
Hg    .647    ppb       54660
              Bkgd 1    10470218                                          =
                                                                          =
===============================================================================
*** Sample ID: 178872-007          Seq:  59     16:19:39 19 Apr 05   HG
                              101291,10
Hg    .397    ppb       34538
              Bkgd 1    10471359                                          =
                                                                          =
===============================================================================
*** Sample ID: 178872-008          Seq:  60     16:21:40 19 Apr 05   HG
                              101291,10
Hg    .488    ppb       41865
              Bkgd 1    10472013                                          =
                                                                          =
===============================================================================
*** Sample ID: 178893-002          Seq:  61     16:23:52 19 Apr 05   HG
                              101291,1
Hg    .792    ppb       66337
              Bkgd 1    10474136                                          =
                                                                          =
===============================================================================
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 178893-003				Seq: 62	16:26:00 19 Apr 05				HG
			101291,1						
Hg	4.58	ppb	370661						
		Bkgd 1	10475147						=
									=
*** Sample ID: 178918-001				Seq: 63	16:28:24 19 Apr 05				HG
			101291,1						
Hg	2.73	ppb	221918						
		Bkgd 1	10473895						=
									=
*** Sample ID: 178928-001				Seq: 64	16:30:38 19 Apr 05				HG
			101291,1						
Hg	128.	ppb	10273487						
		Bkgd 1	10464305						=
									=
*** Sample ID: 178950-001				Seq: 65	16:34:40 19 Apr 05				HG
			101291,1						
Hg	14.0	ppb	1126683						
		Bkgd 1	8169927						=
									=
*** Sample ID: 178951-001				Seq: 66	16:36:47 19 Apr 05				HG
			101291,1						
Hg	58.1	ppb	4674704						
		Bkgd 1	8986975						=
									=
*** Check Standard: 5			Ck5S333	Seq: 68	16:58:17 19 Apr 05				HG
Line	Flag		Intensities						
Hg			412515						
		Bkgd 1	10182905						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 69	17:00:28 19 Apr 05				HG
Line	Flag		Intensities						
Hg			-9528						
		Bkgd 1	10128052						=
									=
*** Sample ID: 178951-002				Seq: 70	17:02:47 19 Apr 05				HG
			101291,1						
Hg	2.64	ppb	214700						
		Bkgd 1	10166010						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 178951-003 Seq: 71 17:05:11 19 Apr 05 HG
101291,1

Hg	1.70	ppb	138961	
		Bkgd 1	10249104	= =

*** Sample ID: 178951-004 Seq: 72 17:07:28 19 Apr 05 HG
101291,1

Hg	2.66	ppb	216827	
		Bkgd 1	10281333	= =

*** Sample ID: 178928-001 Seq: 73 17:09:30 19 Apr 05 HG
101291,100

Hg	61.5	ppb	4946595	
		Bkgd 1	10296494	= =

*** Sample ID: 178950-001 Seq: 74 17:11:38 19 Apr 05 HG
101291,5

Hg	2.81	ppb	228556	
		Bkgd 1	10284708	= =

*** Sample ID: 178951-001 Seq: 75 17:13:44 19 Apr 05 HG
101291,20

Hg	.258	ppb	23349	
		Bkgd 1	10322501	= =

*** Sample ID: 178928-001 Seq: 76 17:27:11 19 Apr 05 HG
101291,1000

Hg	8.33	ppb	672548	
		Bkgd 1	10344463	= =

*** Sample ID: 178893-001 Seq: 77 17:29:14 19 Apr 05 HG
101291,1000

Hg	2.01	ppb	164253	
		Bkgd 1	10361925	= =

*** Sample ID: qc290970 Seq: 78 17:31:17 19 Apr 05 HG
101291,1000

Hg	1.78	ppb	145752	
		Bkgd 1	10368985	= =

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: qc290971				Seq: 79		17:34:04 19 Apr 05			HG
			101291,1000						
Hg	2.74	ppb	223247						
		Bkgd 1	10376558						=
									=
*** Check Standard: 4			Ck4S335	Seq: 80		17:37:40 19 Apr 05			HG
Line Flag			Intensities						
Hg			543955						
		Bkgd 1	10386425						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 81		17:39:49 19 Apr 05			HG
Line Flag			Intensities						
Hg			4183						
		Bkgd 1	10353508						=
									=

Curtis & Tompkins Laboratories — Sample Preparation Summary — 19-APR-2005 11:13

Batch Number : 101291
Date Extracted: 19-APR-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S327
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178872-001			Iris Environmental	Soil	.45	g	50	111.111111	1					T26/HG		
178872-002			Iris Environmental	Soil	.49	g	50	102.040816	1					T26/HG		
178872-003			Iris Environmental	Soil	.49	g	50	102.040816	1					T26/HG		
178872-004			Iris Environmental	Soil	.51	g	50	98.039216	1					T26/HG		
178872-005			Iris Environmental	Soil	.52	g	50	96.153846	1					T26/HG		
178872-006			Iris Environmental	Soil	.58	g	50	86.206897	1					T26/HG		
178872-007			Iris Environmental	Soil	.45	g	50	111.111111	1					T26/HG		
178872-008			Iris Environmental	Soil	.46	g	50	108.695652	1					T26/HG		
178893-001			URS Corporation	Soil	.5	g	50	100.000000	1					HG		
178893-002			URS Corporation	Soil	.48	g	50	104.166667	1					HG		
178893-003			URS Corporation	Soil	.47	g	50	106.382979	1					HG		
178918-001			Stellar Environmental Solution	Soil	.47	g	50	106.382979	1					T26/HG		
178928-001			ConocoPhillips Company	Miscell.	.45	g	50	111.111111	1					HG		
178950-001			ConocoPhillips Company	Miscell.	.47	g	50	106.382979	1					T26/HG		
178951-001			Mactec, Inc.	Soil	.56	g	50	89.285714	1					T26/HG		
178951-002			Mactec, Inc.	Soil	.54	g	50	92.592593	1					T26/HG		
178951-003			Mactec, Inc.	Soil	.65	g	50	76.923077	1					T26/HG		
178951-004			Mactec, Inc.	Soil	.45	g	50	111.111111	1					T26/HG		
QC290967	MB			Soil	.5	g	50	100.000000	1					HG		
QC290968	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC290969	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC290970	MS	of 178893-001		Soil	.51	g	50	98.039216	1		2.5			HG		
QC290971	MSD	of 178893-001		Soil	.5	g	50	100.000000	1		2.5			HG		
QC290972	SER	of 178893-001		Soil	.5	g	50	100.000000	1					HG		
QC290973	PDS	of 178893-001		Soil	.5	g	50	100.000000	1					HG		

269

Prep Chemist: Andrés M

Reviewed By: K Carlyon Date: 4/19/05

Relinquished By: Andrés M

Received By: Andrés M Date: 4/19/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 101291

Date Digested: 4/19/05

Digested by: AM

Digestion Method

☑ EPA 7471A

☐ _____

BK 2086

Page 54

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	178872-001 A	.45	50	✓	
	2 A	.49		✓	
	3 A	.49		✓	
	4 A	.51		✓	
5	5 A	.52		✓	
	6 A	.58		✓	
	7 A	.45		✓	
	8 A	.46		✓	
	178918-001 A	.47			
10	178928-001 A	.45		✓	
	178893-001 B MSS	.50			$ Fairly Homogenous Francis-com Clay
	x4 A	.40			
	Pan 4 3 8 A	.47			
	178950-001	.47		✓	
15	178951-061	.56		✓	
	2	.54			
	3	.65			
	4	.45			
	178893-001 MS	.51			
20	178893-001 MSD	.50			
	MB			✓	
	BS				
	BSD				

Reagent ID/ LIMS# / Time	Initials / Date
5327	AM 4/19
5327	
5329, 332, 333, 335	
10:10 AM 15°C	
10:40 AM 15°C	
BD 3833	
AR 041905	
K 041805	
—	
Hy 041805	
SnCl2 041805	
3MN6231 Millipore	AM 4/19/05

2.5 mL of spike solution was added to all spikes

Digestion of Samples & Standards:

ICAL Source WS#

ICV / CCV WS#

Time ON / Temperature ON

Time OFF/ Temperature OFF

concentrated H_2SO_4

Aqua Regia Acids (HNO3+ HCl)

5% $KMnO_4$

5% $K_2S_2O_8$

NaCl.hydroxylamine hydrochloride

Stannous Chloride

☐ filtered thru' 0.45 um syringe filter

Andrei Marin 4/19/05

Prep Chemist / Date

Continued from page 270 1

Continued on page /

Reviewed by / Date 4/19/05

MOISTURE

Curtis & Tompkins, Ltd.

Moisture

Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	101383
Matrix:	Soil	Received:	04/18/05
Units:	%	Analyzed:	04/22/05
Diln Fac:	1.000		

Field ID	Lab ID	Result	RL	Sampled
BB2ATP104(8.0)	178951-001	19	1	04/13/05
BB2ATP100(1.0)	178951-002	27	1	04/14/05
BB2ATP101(14.0)	178951-003	21	1	04/14/05
BB1TP102(4.0)	178951-004	32	1	04/15/05

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	178951	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	BAKER BEACH	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	101383
MSS Lab ID:	178986-001	Sampled:	04/03/05
Lab ID:	QC291295	Received:	04/20/05
Matrix:	Soil	Analyzed:	04/22/05

MSS Result	Result	RL	RPD	Lim
<1.000	<1.000	1.000	110 *	15

*= Value outside of QC limits; see narrative
RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 101383
Date: 04/22/05
Method: CLP SOW 390
Analyst: TD

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
178949-001	11.0872	18.5496	18.5318	100	0
178951-001	11.1373	17.8239	16.5780	81	19
178951-002	11.0251	17.3886	15.6812	73	27
178951-003	11.1102	18.3626	16.8460	79	21
178951-004	11.0875	17.4780	15.4467	68	32
178982-001	15.1315	23.4103	22.4089	88	12
178982-002	15.3022	22.2057	21.5076	90	10
178982-003	15.5351	24.4646	23.4182	88	12
178982-004	15.2979	22.7927	21.7775	86	14
178986-001	15.5860	21.9943	21.9758	100	0
179011-001	15.8143	21.7067	20.5929	81	19
179012-001	15.7511	21.4739	20.0955	76	24
179014-001	15.8976	21.8570	20.6770	80	20
179022-001	11.2620	17.4448	14.2962	49	51
QC291295	15.0078	22.0852	22.0814	100	0
of 178986-001			RPD:	0.2%	137.3%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101383
Date Started: 21-APR-2005
Batched by : Travis Durham

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
178949-001		Shaw Environmental	Soil	MOISTURE	29-APR-2005
178951-001		Mactec, Inc.	Soil	MOISTURE	29-APR-2005
178951-002		Mactec, Inc.	Soil	MOISTURE	29-APR-2005
178951-003		Mactec, Inc.	Soil	MOISTURE	29-APR-2005
178951-004		Mactec, Inc.	Soil	MOISTURE	29-APR-2005
178982-001		Tetra Tech FW	Soil	MOISTURE	02-MAY-2005
178982-002		Tetra Tech FW	Soil	MOISTURE	02-MAY-2005
178982-003		Tetra Tech FW	Soil	MOISTURE	02-MAY-2005
178982-004		Tetra Tech FW	Soil	MOISTURE	02-MAY-2005
178986-001		Shaw Environmental	Soil	MOISTURE	02-MAY-2005
179011-001		CH2M Hill Construc	Soil	MOISTURE	02-MAY-2005
179012-001		CH2M Hill Construc	Soil	MOISTURE	02-MAY-2005
179014-001		CH2M Hill Construc	Soil	MOISTURE	02-MAY-2005
179022-001		Montezuma Wetlands	Soil	MOISTURE	27-APR-2005
QC291295	SDUP of 178986-001		Soil	MOISTURE	

4/21/05 # 101383

SAMPLE	B.L.	Dish#	TARE wt.	Initial wt.	Final wt.	Comments
BLANK	/	HH	11.2192		11.2181	
178951 -	1	A CCC	11.1373	17.8239	16.5780	
	2	12B	11.0251	17.3886	15.6812	
	3	FFF	11.1102	18.3626	16.8460	
	4	B113	11.0875	17.4780	15.9467	
178949 -	1	A B100	11.0872	18.5496	18.5318	
179022 -	1	CA T.D. JP	11.2620	17.4448	14.2962	
179014 -	1	A EEE	15.8976	T.P. 19.21.8570	20.6770	
179012 -	1	B PPP	15.7511	21.4739	20.0955	
179011 -	1	B LOY	15.8143	21.7067	20.5929	
178982 -	1	B A	15.1315	23.4103	22.4089	
	2	T.P. AB 146	15.3022	22.2057	21.5076	
	3	18	15.5351	24.4646	23.4182	
	4	24	15.2979	22.7927	21.7775	
178986 -	1	A 39	15.5860	21.9943	21.9758	
DUP -	1	141	15.0078	22.0852	22.0614	

OVEN TEMP 8 105°
TIME IN: 5:00 p.m.
TIME OUT: 8:35 A.M.

ON 4/22/05

Continued on Page

Read and Understood By

Grace Dunbar 4/21/05 376
Signed Date

Signed Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 2/28/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	2-28-05	RSM		103°C	4-4-05	RSM
103°C	3-1-05	RSM		104°C	4-5-05	RSM
105°C	3-2-05	RSM		105°C	4-6-05	RSM
103°C	3-3-05	RSM		103°C	4-7-05	RSM
105°C	3-4-05	RSM		103°C	4-8-05	RSM
103°C	3-7-05	RSM		105°C	4-11-05	RSM
103°C	~~3-8-05~~	RSM		103°C	4-12-05	RSM
104°C	3-9-05	RSM		104°C	4-13-05	RSM
104°C	3-10-05	RSM		104°C	4-14-05	RSM
104°C	3-11-05	RSM		105°C	4-15-05	RSM
103°C	3-13-05	KLA		104°C	4-18-05	RSM
103°C	3-14-05	RSM		104°C	4-19-05	RSM
103°C	3-15-05	RSM		105°C	4-20-05	RSM
103°C	3-16-05	RSM		105°C	4-21-05	RSM
103	3-17-05	KLA		103°C	4-22-05	RSM
103°C	3-28-05	RSM				
105°C	3-29-05	RSM				
103°C	3-30-05	RSM				
105°C	3-31-05	RSM				
105°C	4-1-05	RSM				
103°C	4-3-05	RSM				

62
PROJECT METTLER AE-200 BALANCE Notebook No. 0752
Continued From Page ϕ

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RGM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RGM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date

Signed Date

Dioxins & Furans Results & QC Summary

ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio/Baker Beach

Project Summary 64980
Method 8290
Concentrations shown in pg/g

	BLANK	BB1TP102 (4.0)
Total TEQ	**2.1**	**11.7**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 0.8	0.44 J
1,2,3,7,8-PeCDD	< 0.8	1.3 J
1,2,3,4,7,8-HxCDD	< 0.8	1.2 J
1,2,3,6,7,8-HxCDD	< 0.8	2.8 J
1,2,3,7,8,9-HxCDD	< 0.9	3.8 J
1,2,3,4,6,7,8-HpCDD	< 1.3	53.3
1,2,3,4,6,7,8,9-OCDD	2.6 J	222
2,3,7,8-TCDF	< 0.6	7.0 C
1,2,3,7,8-PeCDF	< 0.6	6.3
2,3,4,7,8-PeCDF	< 0.6	8.3
1,2,3,4,7,8-HxCDF	< 0.6	20.4
1,2,3,6,7,8-HxCDF	< 0.6	6.6
2,3,4,6,7,8-HxCDF	< 0.6	6.6
1,2,3,7,8,9-HxCDF	< 0.8	0.87 J
1,2,3,4,6,7,8-HpCDF	< 0.7	33.8
1,2,3,4,7,8,9-HpCDF	< 1.0	4.7 J
1,2,3,4,6,7,8,9-OCDF	< 1.4	67.2
Total TCDD	< 0.8	[29.7]
Total PeCDD	< 0.8	[18.0]
Total HxCDD	< 0.8	47.3
Total HpCDD	< 1.3	111
Total TCDF	< 0.6	[168] X
Total PeCDF	< 0.6	[124] X
Total HxCDF	< 0.6	[79.3] X
Total HpCDF	< 0.9	57.3
Extraction Date	4/21/2005	4/21/2005
Analysis Date	4/28/2005	4/28/2005
Primary Filename	U027504	U027511
Confirm Filename	N/A	P052061
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -Sample Specific Detection Limits reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1
Printed: 05/03/05 18:58

ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio/Baker Beach

Project Summary 64980
Method 8290
Concentrations shown in pg/g

	BLANK	BB1TP102 (4.0)
Total TEQ	**2.1**	**11.7**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 0.8	0.44 J
1,2,3,7,8-PeCDD	< 0.8	1.3 J
1,2,3,4,7,8-HxCDD	< 0.8	1.2 J
1,2,3,6,7,8-HxCDD	< 0.8	2.8 J
1,2,3,7,8,9-HxCDD	< 0.9	3.8 J
1,2,3,4,6,7,8-HpCDD	< 1.3	53.3
1,2,3,4,6,7,8,9-OCDD	2.6 J	222
2,3,7,8-TCDF	< 0.6	7.0 C
1,2,3,7,8-PeCDF	< 0.6	6.3
2,3,4,7,8-PeCDF	< 0.6	8.3
1,2,3,4,7,8-HxCDF	< 0.6	20.4
1,2,3,6,7,8-HxCDF	< 0.6	6.6
2,3,4,6,7,8-HxCDF	< 0.6	6.6
1,2,3,7,8,9-HxCDF	< 0.8	0.87 J
1,2,3,4,6,7,8-HpCDF	< 0.7	33.8
1,2,3,4,7,8,9-HpCDF	< 1.0	4.7 J
1,2,3,4,6,7,8,9-OCDF	< 1.4	67.2
Total TCDD	< 0.8	[29.7]
Total PeCDD	< 0.8	[18.0]
Total HxCDD	< 0.8	47.3
Total HpCDD	< 1.3	111
Total TCDF	< 0.6	[168] X
Total PeCDF	< 0.6	[124] X
Total HxCDF	< 0.6	[79.3] X
Total HpCDF	< 0.9	57.3
Extraction Date	4/21/2005	4/21/2005
Analysis Date	4/28/2005	4/28/2005
Primary Filename	U027504	U027511
Confirm Filename	N/A	P052061
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -Sample Specific Detection Limits reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1
Printed: 05/03/05 18:58

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CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-p-dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	May 3, 2005
Client ID:	Curtis & Tompkins
P.O. Number:	178951
Project Number:	64980

Eno River Labs, LLC has acquired the assets of Triangle Laboratories, Inc. and will continue its operations.

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Rev. 04/12/04

Overview

The sample and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during sample handling will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analysis of the soil sample.

Quality Control Samples

A laboratory method blank was prepared along with each batch of samples.

A laboratory control spike (LCS) sample was extracted and analyzed along with the sample. A report summarizing the analyte recoveries for this sample is included in the data package.

Matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Curtis & Tompkins analytical data by Eno River Labs, LLC was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: One soil sample was received from Curtis & Tompkins at 6°C in good condition on April 19, 2005 and stored in a refrigerator at 4°C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: Several analyte recoveries in the MS and MSD and the associated relative percent differences (RPDs) are outside the QC limits. These variances are due to high levels of these analytes in the native sample. When the amount in the native sample approaches more than one-forth the spiked analyte level, statistical analysis becomes unreliable and percent recoveries and RPDs can not be assessed using the QC samples.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the laboratory blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

EMPC stands for **E**stimated **M**aximum **P**ossible **C**oncentration. A dioxin or furan analyte is quantitated as an EMPC when the detected analyte meets the retention time criteria of a dioxin or furan, but not the isotopic ratio criteria. Interferences, such as PCBs, may co-elute or cause quantitative interference, causing a peak ratio to be outside criteria. Low level peaks that are close to the detection limits can be significantly affected by instrument and chemical noise, causing the ratio to be outside criteria. As a result, the reported value(s) should be considered estimated at the highest level possible.

The analytical results presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the results. Should Curtis & Tompkins have any questions or comments regarding this data package, please feel free to contact our customer service at (919) 281-4013.

Released by,

Kenneth Varley

Report Preparation Chemist
Eno River Labs, LLC

The total number of pages in the data package is : _____ .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the amount of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When

the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ENO RIVER LABS

ACCREDITED IN ACCORDANCE WITH nelac
FL-E87769 NJ-NC851

ENO RIVER LABS, LLC
LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). Secondary NELAP Certificate: **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of Alabama, Department of Environmental Management. Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires July 31, 2005.

State of Alaska, Department of Environmental Conservation. Certificate #NC1706-05. EPA 1613B, Dioxin (2378-TCDD). Expires December 21, 2005.

State of Arizona, Department of Health Services. Certificate #AZ0423. Drinking Water for Dioxin, Dioxins in Waste Water and Solid or Hazardous Waste. Expires May 25, 2005.

State of Arkansas, Department of Environmental Quality. Certificate # 04-060-0. Dioxins and Furans. Expires September 1, 2005.

State of California, Department of Health Services, Certificate No. I-2583. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires March 31, 2006.

State of Colorado, Department of Public Health and Environment. SDWA, Dioxin by EPA 1613. Expires April 30, 2005.

State of Connecticut, Department of Health Services. Registration # PH-0117. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires September 30, 2005.

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Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Georgia Department of Environmental Quality. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles; reciprocity based on FL-DOH NELAP Certificate, expires June 30, 2005.

Georgia Department of Natural Resources, ID # 953. SDWA 2,3,7,8-TCDD (Dioxin) by Method 1613B. Expires July 31, 2005.

Hawaii Department of Health. Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes. Expires June 30, 2005.

Idaho Department of Health and Welfare. Dioxin in drinking water, EPA Method 1613. Expires July 31, 2004. Renewal pending.

Secondary NELAP Certificate: Illinois Environmental Protection Agency. Accreditation Number #200007, Certificate #001168; Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Organic, Methods 1613; Hazardous and Solid Waste, Organic, Methods 8280A and 8290. Expires 30 September 2005.

Indiana Department of Health. Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01. Expires July 31, 2005.

Secondary NELAP Certificate: State of Kansas. Certificate # E-10215. Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Methods 1613; Hazardous and Solid Waste, Methods 8280A and 8290. Expires July 31, 2005.

Commonwealth of Kentucky, Department for Environmental Protection. Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires December 31, 2005.

Secondary NELAP Certificate: State of Louisiana Department of Environmental Quality. Certificate # 01979. CAA, TO-9A and TO-13A; **CWA**, Method 1613 PCDDs/PCDFs; **RCRA**, Methods 8280A & 8290 PCDDs/PCDFs; Misc. Methods 1613, 8280A & 8290. Expires 30 June 2005.

Secondary NELAP Certificate: State of Louisiana Department of Health & Hospitals. Certificate # LA040020. SDWA, Dioxin (2,3,7,8-TCDD) in Drinking Water. Expires December 31, 2005.

Maine Department of Human Services. Certification #: NC140. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF. Expires May 30, 2005.

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Maryland Department of Health and Mental Hygiene. Certification # 235, SOC 2 (Dioxin). Expires September 30, 2005.

Commonwealth of Massachusetts, Department of Environmental Protection, does not require Certification for Drinking Water Dioxin/Furan analysis.

State of Michigan, Department of Environmental Quality. SDWA; 2,3,7,8 TCDD by Method 1613. Expires July 31, 2005.

Minnesota Department of Health. The certification program in MN does not include dioxins/furans for CWA, SDWA of RCRA. See U.S. EPA Region V.

Mississippi State Department of Health. Dioxin in drinking water. No expiration date.

State of Montana Department of Public Health and Human Services. Dioxin in drinking water. December 31, 2004.

State of Nebraska Department of Health and Human Services. Reciprocal certification with the Florida DOH NELAP Certification. **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water. Expires June 30, 2005.

State of Nevada, Division of Environmental Protection. Lab Certificate No. NC140-2004-75. SDWA, Method 1613B, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613B, expires July 31, 2005.

Primary NELAP Certificate: **State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA**, Methods 0023A and MM5 (Sampling Train). Secondary NELAP Certificate: **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of New Mexico, Environment Department. Safe Drinking Water Act; 2,3,7,8-TCDD by Method 1613. Expires June 30, 2005.

Secondary NELAP Certificate: New York State Department of Health, LAB ID #11026. Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 26053; **Non-Potable Water**, 2,3,7,8-TCDD, EPA 1613, Serial # 26054. Expires 1 April, 2006.

State of North Carolina, Department of Health and Human Services. Certificate # 37751. Dioxin in drinking water. Expires July 31, 2005.

North Dakota State Department of Health. Certificate # R-076. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF; **RCRA**, Methods 8280A/8290, PCDD/PCDF. Expires July 31, 2005.

Ohio EPA. Ohio does not offer out-of-state lab certifications; certification by EPA Region 5 is honored. Ohio EPA #29382, Analyst #9999.

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Oklahoma Department of Environmental Quality. Laboratory #9951. 2,3,7,8 TCDD (Dioxin). Expires August 31, 2005.

Secondary NELAP Certificate: **Oregon Environmental Laboratory Accreditation Program, Certificate No:-NC200001-002. SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA,** Methods 8280/8290, PCDD/PCDFs. Expires January 31, 2006.

Pennsylvania Department of Environmental Protection. 2,3,7,8 TCDD (Dioxin) in Drinking water, EPA 1613 . Expires July 9, 2005.

State of Tennessee. Department of Environment and Conservation. ID #02992. Dioxin in Drinking water. Expires July 30, 2005.

Texas Natural Resource Conservation Commission. Certification Number: TX264-2002A. SDWA: Chemistry, Dioxin (2378-TCDD), EPA 1613. Expires March 31, 2006.

U.S. EPA Region V. 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613B. Expires February 03, 2006. [Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin]

U.S. EPA Region VIII, for the State of Wyoming. EPA Method 1613 for Dioxin in drinking water. Expires 20 October 2005.

U.S. Navy, NFESC IR QA; NFESC 413. Acceptance to perform samples analysis; water and solids by EPA Methods 8280A, 8290 and 1613B. Expires April 21, 2006.

Secondary NELAP Certificate: **State of Utah, Department of Health. ID # TRIA, Account # 9195445729 SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF & totals; RCRA, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613B. Expires June 30, 2005.

State of Washington, Department of Ecology. Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613, 8280, and 8290 in potable and non-potable water. Expires February 8, 2005.

State of West Virginia, Department of Health & Human Resources. Certificate No. 9923C. 2,3,7,8-TCDD (Dioxin), 1613B. Expires December 31, 2005.

State of Wisconsin, Department of Natural Resources. Laboratory ID Number 999869530. Certified for 2,3,7,8-TCDD (Dioxin) in drinking water and for PCDD/PCDF. Expires August 31, 2005.

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State of Wyoming, see U.S. EPA Region VIII above.

PHARMACEUTICAL

Clinical Laboratory Improvement Amendments (CLIA) Registration. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration. Certificate for the Acceptance of Human Specimens for the purposes of performing laboratory examinations or procedures - Chemistry, Toxicology, HCFA. Expires May 30, 2005.

U.S. Dept of Justice, Drug Enforcement Agency (DEA). Registration number RE0317811. Controlled substance registration for schedules 1,2,3,3N,4,5. Expires 8/31/05.

N.C. Department of Health and Human Services. Registration number NC-PE 0000 2493. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6. Expires 10/31/2005.

Food & Drug Administration (FDA) Registration. ID #'s 001500 3004570112. Annual registration of drug establishment.

OTHER

U.S. Department of Agriculture Soil Permit. Permit No. S-68701. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis. Expires September 30, 2009.

U.S. EPA Large Quantity Hazardous Waste Generator. EPA ID #NCR000137232. Permit indicates that the laboratory is a large generator of hazardous waste. No expiration date.

U.S. Fish and Wildlife Permit. Number LE027890-1. Authorization to import/export wildlife and/or wildlife products. Expires April 30, 2005.

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ENO RIVER LABS, LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 64980
Matrix: ASH
Method: 8290

Isomer	U027507 ID: 402-11-3 Sample (pg/g)	U027508 ID: 402-11-3MS With Spike (pg/g)	Percent Recovery	U027509 ID: 402-11-3MSD Spike Dup (pg/g)	Percent Recovery	Relative Percent Difference
2378-TCDD	3.8	42.0	96.8	44.9	103	6.21
12378-PeCDD	7.4	188	91.8	189	90.8	1.10
123478-HxCDD	4.9	216	107	211	103	3.81
123678-HxCDD	9.1	194	93.9	196	93.4	0.53
123789-HxCDD	11.2	220	106	226	107	0.94
1234678-HpCDD	121	362	122	447	163	28.8
OCDD	300	771	120	965	166	32.2
2378-TCDF	85.5	120	87.8	169	209	81.7
12378-PeCDF	27.8	224	99.8	231	102	2.18
23478-PeCDF	38.5	247	106	258	110	3.70
123478-HxCDF	59.5	259	101	296	118	15.5
123678-HxCDF	30.2	239	106	257	113	6.39
234678-HxCDF	36.8	217	91.6	255	109	17.3
123789-HxCDF	2.1	214	108	220	109	0.92
1234678-HpCDF	105	340	119	391	143	18.3
1234789-HpCDF	10.0	213	103	209	99.5	3.46
OCDF	56.3	444	98.4	464	102	3.59

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: KLV Date: 05/03/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

ENO RIVER LABS, LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS

Project: 64980
Matrix: SAND
Method: 8290

Isomer	U027504 ID: BLANK Sample (pg/g)	U027510 ID: LCS With Spike (pg/g)	Percent Recovery
2378-TCDD	ND	39.0	97.4
12378-PeCDD	ND	189	94.5
123478-HxCDD	ND	254	127
123678-HxCDD	ND	203	101
123789-HxCDD	ND	206	103
1234678-HpCDD	ND	213	107
OCDD	2.6	391	97.0
2378-TCDF	ND	35.9	89.8
12378-PeCDF	ND	211	105
23478-PeCDF	ND	219	109
123478-HxCDF	ND	193	96.5
123678-HxCDF	ND	215	108
234678-HxCDF	ND	200	99.8
123789-HxCDF	ND	209	105
1234678-HpCDF	ND	223	112
1234789-HpCDF	ND	206	103
OCDF	ND	375	93.7

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: PAB Date: 05/03/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

ENO RIVER LABS

TOXICITY EQUIVALENTS REPORT

TLI Project: **64980**
Client Sample: **BLANK**

Toxicity Equivalents Report
Analysis File: **U027504**

Client Project:	**Presidio/Baker Beach**			ICal:	**UF5O284**
Sample Matrix:	**SAND**	Date Received:	**04/19/05**	Spike File:	**SPMIT32S**
TLI ID:	**BLANK**	Date Extracted:	**04/21/05**	1st CCal:	**U050274**
		Date Analyzed:	**04/28/05**	End CCal:	**U027514**
Sample Size:	**10.000 g**	Dilution Factor:	**1**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**U027504**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**n/a**

Analytes	Conc. (pg/g)		TEF		Equivalent
2,3,7,8-TCDD	{0.8}	x	1.	=	0.8
1,2,3,7,8-PeCDD	{0.8}	x	0.5	=	0.4
1,2,3,4,7,8-HxCDD	{0.8}	x	0.1	=	0.08
1,2,3,6,7,8-HxCDD	{0.8}	x	0.1	=	0.08
1,2,3,7,8,9-HxCDD	{0.9}	x	0.1	=	0.09
1,2,3,4,6,7,8-HpCDD	{1.3}	x	0.01	=	0.013
1,2,3,4,6,7,8,9-OCDD	2.6	x	0.001	=	0.0026
TOTAL PCDD					1.5
2,3,7,8-TCDF	{0.6}	x	0.1	=	0.06
1,2,3,7,8-PeCDF	{0.6}	x	0.05	=	0.03
2,3,4,7,8-PeCDF	{0.6}	x	0.5	=	0.3
1,2,3,4,7,8-HxCDF	{0.6}	x	0.1	=	0.06
1,2,3,6,7,8-HxCDF	{0.6}	x	0.1	=	0.06
2,3,4,6,7,8-HxCDF	{0.6}	x	0.1	=	0.06
1,2,3,7,8,9-HxCDF	{0.8}	x	0.1	=	0.08
1,2,3,4,6,7,8-HpCDF	{0.7}	x	0.01	=	0.007
1,2,3,4,7,8,9-HpCDF	{1.0}	x	0.01	=	0.010
1,2,3,4,6,7,8,9-OCDF	{1.4}	x	0.001	=	0.0014
TOTAL PCDF					0.7

Total EPA TEFs, 1989a	**TEQ**	**2.1 pg/g**

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.09, MILES 4.22.39

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Printed: 18:56 05/03/05

TLI Project: **64980**
Client Sample: **BB1TP102 (4.0)**

Toxicity Equivalents Report
Analysis File: **U027511**

Client Project:	**Presidio/Baker Beach**			ICal:	**UF5O284**
Sample Matrix:	**SOIL**	Date Received:	**04/19/05**	Spike File:	**SPMIT322**
TLI ID:	**401-94-1**	Date Extracted:	**04/21/05**	1st CCal:	**U050274**
		Date Analyzed:	**04/28/05**	End CCal:	**U027514**
Sample Size:	**13.020 g**	Dilution Factor:	**1**	% Moisture:	**21.9**
Dry Weight:	**10.169 g**	Blank File:	**U027504**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**78.1**

Analytes	Conc. (pg/g)		TEF		Equivalent
2,3,7,8-TCDD	0.44	x	1.	=	0.44
1,2,3,7,8-PeCDD	1.3	x	0.5	=	0.65
1,2,3,4,7,8-HxCDD	1.2	x	0.1	=	0.12
1,2,3,6,7,8-HxCDD	2.8	x	0.1	=	0.28
1,2,3,7,8,9-HxCDD	3.8	x	0.1	=	0.38
1,2,3,4,6,7,8-HpCDD	53.3	x	0.01	=	0.533
1,2,3,4,6,7,8,9-OCDD	222	x	0.001	=	0.222
TOTAL PCDD					2.63
2,3,7,8-TCDF	7.0	x	0.1	=	0.70
1,2,3,7,8-PeCDF	6.3	x	0.05	=	0.32
2,3,4,7,8-PeCDF	8.3	x	0.5	=	4.2
1,2,3,4,7,8-HxCDF	20.4	x	0.1	=	2.04
1,2,3,6,7,8-HxCDF	6.6	x	0.1	=	0.66
2,3,4,6,7,8-HxCDF	6.6	x	0.1	=	0.66
1,2,3,7,8,9-HxCDF	0.87	x	0.1	=	0.087
1,2,3,4,6,7,8-HpCDF	33.8	x	0.01	=	0.338
1,2,3,4,7,8,9-HpCDF	4.7	x	0.01	=	0.047
1,2,3,4,6,7,8,9-OCDF	67.2	x	0.001	=	0.0672
TOTAL PCDF					9.1

Total EPA TEFs, 1989a	**TEQ**	**11.7 pg/g**

GRY_TEF v1.09, MILES 4.22 39

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SAMPLE DATA

Lab Project: **64980** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BLANK** Analysis File: **U027504**

Client Project:	**Presidio/Baker Beach**			ICal:	**UF5O284**
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
Lab ID:	**BLANK**	Date Extracted:	**04/21/2005**	1st CCal:	**U050274**
		Date Analyzed:	**04/28/2005**	End CCal:	**U027514**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**U027504**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**n/a**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.8				
1,2,3,7,8-PeCDD	ND	0.8				
1,2,3,4,7,8-HxCDD	ND	0.8				
1,2,3,6,7,8-HxCDD	ND	0.8				
1,2,3,7,8,9-HxCDD	ND	0.9				
1,2,3,4,6,7,8-HpCDD	ND	1.3				
1,2,3,4,6,7,8,9-OCDD	2.6			0.82	41:21	J
2,3,7,8-TCDF	ND	0.6				
1,2,3,7,8-PeCDF	ND	0.6				
2,3,4,7,8-PeCDF	ND	0.6				
1,2,3,4,7,8-HxCDF	ND	0.6				
1,2,3,6,7,8-HxCDF	ND	0.6				
2,3,4,6,7,8-HxCDF	ND	0.6				
1,2,3,7,8,9-HxCDF	ND	0.8				
1,2,3,4,6,7,8-HpCDF	ND	0.7				
1,2,3,4,7,8,9-HpCDF	ND	1.0				
1,2,3,4,6,7,8,9-OCDF	ND	1.4				

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	ND		0.8		
Total PeCDD	ND		0.8		
Total HxCDD	ND		0.8		
Total HpCDD	ND		1.3		
Total TCDF	ND		0.6		
Total PeCDF	ND		0.6		
Total HxCDF	ND		0.6		
Total HpCDF	ND		0.9		

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 13:18 04/30/2005

Lab Project: **64980** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BLANK** Analysis File: **U027504**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	42.0	21.0	40%-135%	0.72	26:14	V___
$^{13}C_{12}$-2,3,7,8-TCDD	42.7	21.3	40%-135%	0.87	26:56	V___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	54.5	27.3	40%-135%	1.47	30:08	V___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	65.8	32.9	40%-135%	1.46	31:10	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	49.5	24.8	40%-135%	0.50	33:42	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	55.3	27.6	40%-135%	1.22	34:23	V___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	62.6	31.3	40%-135%	0.41	36:38	V___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	63.5	31.8	40%-135%	1.01	37:41	V___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	142	35.6	40%-135%	0.85	41:19	V___

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	56.3	28.1	40%-135%	1.48	30:50	V___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	49.1	24.5	40%-135%	0.50	33:36	V___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	60.1	30.0	40%-135%	1.23	34:18	V___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	65.9	33.0	40%-135%	0.41	38:11	V___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	3.8	19.1	40%-135%	26:57	V___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	54.4	27.2	40%-135%	0.50	34:59	V___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	52.2	26.1	40%-135%	0.50	34:11	V___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.84	26:46	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.24	34:42	___

Data Reviewer: Pat 04/30/2005

MIT3_PSR v1.00, LARS 6.25.06

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Initial ....Date...

Data Review By: PAB 4/29/05

Calculated Noise Height: 0.94

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U027504B.dbf
04/29/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	5.10	2.54	2.56				
	DC	WL		25:12	RO	1.13	10.11			0.961			
				25:51		0.86	13.23	6.12	7.11	0.985			
				26:14		0.72	2,459.79	1,026.35	1,433.44	1.000	13C12-2378-TCDF	IS0	
						Height	649.21	270.18	379.03				
316-318			2 Peaks				2,473.02						
---------- Above: TCDF / TCDD Follows ----------													
TCDD						0.65-0.89				0.900-1.041			
320-322	DC	NL				Height	2.94	1.64	1.30				
	DC	SN		24:52	RO	1.42	4.12			0.923	1379-TCDD		AN
	DC	SN		25:12	RO	3.21	3.96			0.936			
	DC	SN		26:01	RO	1.39	3.15			0.966			
	DC	SN		26:08	RO	0.37	3.49			0.970			
	DC	SN		26:13	RO	0.40	2.83			0.973			
320-322			0 Peaks				0.00						
37Cl-TCDD										0.926-1.074			
328	DC	NL				Height	1.35	1.35					
	DC	SN		25:05			1.57			0.931			
				25:36			9.48	9.48		0.950			
	DC	SN		25:43			2.14			0.955			
	DC	SN		25:54			1.86			0.962			
	DC	SN		25:58			2.05			0.964			
	DC	SN		26:09			1.54			0.971			
	DC	SN		26:15			1.11			0.975			
	DC	SN		26:17			1.29			0.976			
	DC	SN		26:28			2.30			0.983			
	DC	SN		26:39			2.70			0.989			
				26:57			184.13	184.13		1.001	37Cl-TCDD		CLS
				27:16			2.58	2.58		1.012			
	DC	SN		27:22			2.15			1.016			
	DC	SN		27:38			3.54			1.026			
	DC	SN		27:42			1.60			1.028			
	DC	SN		27:55			1.09			1.037			
	DC	SN		27:59			1.18			1.039			
	DC	SN		28:05			1.11			1.043			
	DC	SN		28:09			1.99			1.045			
	DC	SN		28:17			2.12			1.050			
	DC	SN		28:32			4.61			1.059			
328			3 Peaks				196.19						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-TCDD				0.65-0.89						0.926-1.074			
332-334	DC	NL		Height			3.82	2.38	1.44				
				26:46		0.84	9,259.80	4,231.51	5,028.29	0.994	13C12-1234-TCDD	RS1	
				26:56		0.87	1,995.08	925.36	1,069.72	1.000	13C12-2378-TCDD	IS1	
				Height			549.58	247.68	301.90				
332-334			2 Peaks				11,254.88						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.928-1.060			
340-342	DC	NL		Height			2.22	1.16	1.06				
	DC	SN	28:42	RO	3.90		3.06			0.952			
	DC	SN	28:58	RO	1.04		8.26			0.961			
	DC	SN	29:07	RO	3.14		3.19			0.966			
	DC	SN	29:12	RO	2.43		4.11			0.969			
	DC	SN	29:23	RO	1.96		8.01			0.975			
	DC	SN	29:50	RO	0.57		3.36			0.990			
	DC	SN	30:08		1.61		4.94			1.000	12378-PeCDF	AN	
	DC	SN	30:16	RO	0.92		3.41			1.004			
	DC	SN	30:28	RO	0.42		4.52			1.011			
	DC	SN	30:44	RO	0.38		3.55			1.020			
	DC	SN	31:12	RO	0.30		2.52			1.035			
340-342			0 Peaks				0.00						
13C12-PeCDF				1.32-1.78						0.867-1.133			
352-354	DC	NL		Height			1.51	0.73	0.78				
	DC	SN	29:28	RO	1.21		3.44			0.978			
	DC	SN	29:46		1.75		12.66			0.988			
			30:08		1.47		2,236.73	1,331.66	905.07	1.000	13C12-PeCDF 123	IS2	
			Height				657.05	382.59	274.46				
			30:26		1.58		24.64	15.09	9.55	1.010			
			30:50		1.48		2,270.53	1,353.26	917.27	1.023	13C12-PeCDF 234	SUR1	
	DC	SN	31:12	RO	0.54		3.64			1.035			
			31:48		1.32		29.78	16.93	12.85	1.055			
352-354			4 Peaks				4,561.68						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.937-1.020			
356-358	DC	NL		Height			1.43	0.88	0.55				
	DC	WL	29:12	RO	0.32		1.14			0.937			
	DC	SN	29:28	RO	1.24		1.48			0.945			
	DC	SN	29:41	RO	0.79		1.86			0.952			
	DC	SN	29:50	RO	0.86		1.37			0.957			
	DC	SN	30:19	RO	1.91		2.73			0.973			
	DC	SN	30:28	RO	1.19		4.05			0.978			
	DC	SN	30:34	RO	0.71		2.24			0.981			
	DC	SN	30:37		1.66		1.65			0.982			
	DC	SN	30:44	RO	2.22		2.22			0.986			
	DC	SN	30:50	RO	0.61		3.22			0.989			
	DC	SN	31:11	RO	1.92		5.13			1.001	12378-PeCDD	AN	
	DC	SN	31:22		1.76		3.23			1.006			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
356-358		0 Peaks					0.00						
13C12-PeCDD				1.32-1.78					0.872-1.128				
368-370	DC	NL				Height	0.79	0.49	0.30				
	DC	SN		29:17		1.73	2.24			0.940			
	DC	SN		29:37	RO	0.96	0.79			0.950			
	DC	SN		30:01	RO	2.84	5.79			0.963			
	DC	SN		30:08	RO	1.09	3.93			0.967			
	DC	SN		30:15	RO	1.24	6.94			0.971			
	DC	SN		30:37	RO	0.72	2.94			0.982			
	DC	SN		30:49	RO	0.83	2.17			0.989			
				31:10		1.46	1,701.86	1,009.06	692.80	1.000	13C12-PeCDD 123	IS3	
						Height	550.53	321.71	228.82				
	DC	SN		31:28	RO	2.83	3.39			1.010			
	DC	SN		31:31	RO	1.20	2.45			1.011			
	DC	SN		31:43	RO	6.23	1.79			1.018			
	DC	SN		31:50	RO	0.67	1.92			1.021			
368-370		1 Peak					1,701.86						

---------- Above: PeCDD / HxCDF Follows ----------

HxCDF				1.05-1.43					0.963-1.045				
374-376	DC	NL				Height	0.64	0.36	0.28				
	DC	SN		32:34	RO	3.83	0.52			0.966			
	DC	SN		32:41	RO	0.96	1.21			0.970			
	DC	SN		32:59	RO	1.97	1.75			0.979			
	DC	SN		33:12	RO	3.15	0.92			0.985			
	DC	SN		33:14	RO	4.98	1.30			0.986			
	DC	SN		33:22	RO	0.48	1.10			0.990			
	DC	SN		33:26	RO	0.36	1.70			0.992			
	DC	SN		33:39	RO	0.43	0.65			0.999			
	DC	SN		33:43	RO	2.93	0.67			1.000	123678-HxCDF	AN	
	DC	SN		33:53	RO	3.14	0.63			1.005			
	DC	SN		34:08	RO	1.71	1.55			1.013			
	DC	SN		34:28	RO	2.84	1.14			1.023			
	DC	SN		34:37	RO	0.94	1.08			1.027			
	DC	SN		34:48	RO	2.49	0.87			1.033			
	DC	SN		35:11		1.21	1.35			1.044			
	DC	WH		35:19	RO	4.47	0.43			1.048			
	DC	WH		35:25	RO	1.76	0.76			1.051			
374-376		0 Peaks					0.00						
13C12-HxCDF				0.43-0.59					0.881-1.119				
384-386	DC	NL				Height	0.72	0.23	0.49				
	DC	SN		32:38		0.52	1.95			0.968			
	DC	SN		32:46		0.54	3.98			0.972			
				33:36		0.50	2,063.82	685.81	1,378.01	0.997	13C12-HxCDF 478	SUR2	
				33:42		0.50	2,144.39	715.53	1,428.86	1.000	13C12-HxCDF 678	IS4	
						Height	705.96	239.10	466.86				
				34:11		0.50	2,139.40	714.16	1,425.24	1.014	13C12-HxCDF 234	ALT2	
	DC	SN		34:22	RO	1.12	5.10			1.020			
	DC	SN		34:35	RO	0.69	5.27			1.026			

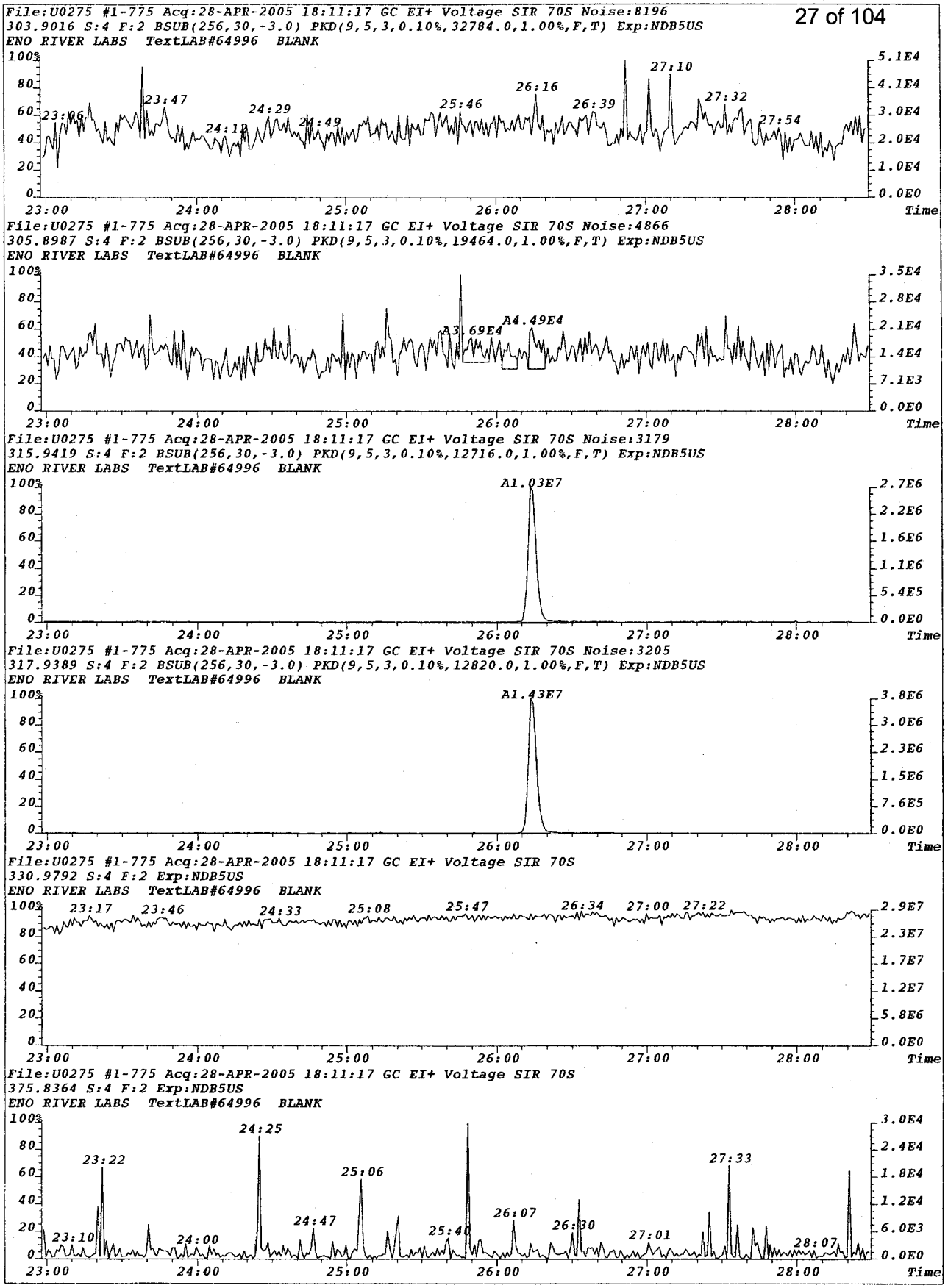
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				34:59		0.50	1,671.53	554.71	1,116.82	1.038	13C12-HxCDF 789	ALT1	
	DC	SN		35:12	RO	0.39	3.49			1.045			
	DC	SN		35:16	RO	0.35	1.92			1.046			
384-386				4 Peaks			8,019.14						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD						1.05-1.43				0.958-1.013			
390-392	DC	NL				Height	0.41	0.16	0.25				
	DC	SN		33:09	RO	0.95	0.96			0.964			
	DC	SN		33:13	RO	2.15	0.76			0.966			
	DC	SN		33:21	RO	1.65	1.66			0.970			
	DC	SN		33:23	RO	3.52	1.37			0.971			
	DC	SN		33:30	RO	3.44	0.20			0.974			
	DC	SN		33:36	RO	1.85	1.52			0.977			
	DC	SN		33:49	RO	0.90	0.99			0.984			
	DC	SN		34:07	RO	0.30	0.31			0.992			
	DC	SN		34:11	RO	2.75	1.64			0.994			
	DC	SN		34:26	RO	0.91	2.58			1.001	123678-HxCDD		AN
	DC	WH		35:03		1.34	1.43			1.019			
390-392				0 Peaks			0.00						
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404	DC	NL				Height	0.71	0.39	0.32				
				33:46	RO	0.80	7.05	3.90	4.89	0.982			
				34:18		1.23	1,583.31	874.60	708.71	0.998	13C12-HxCDD 478		SUR3
				34:23		1.22	1,645.56	903.63	741.93	1.000	13C12-HxCDD 678		IS5
						Height	520.08	280.19	239.89				
				34:42		1.24	5,137.20	2,842.68	2,294.52	1.009	13C12-HxCDD 789		RS2
402-404				4 Peaks			8,373.12						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF						0.88-1.20				0.996-1.047			
408-410	DC	NL				Height	0.26	0.18	0.08				
	DC	SN		36:40	RO	1.83	4.90			1.001	1234678-HpCDF		AN
	DC	SN		37:15	RO	9.00	0.41			1.017			
	DC	SN		37:37	RO	0.69	2.20			1.027			
	DC	SN		37:43	RO	2.94	4.00			1.030			
	DC	SN		37:54	RO	3.73	0.53			1.035			
	DC	WH		38:37		1.00	0.20			1.054			
408-410				0 Peaks			0.00						
13C12-HpCDF						0.37-0.51				0.945-1.109			
418-420	DC	NL				Height	0.20	0.14	0.06				
				36:38		0.41	1,415.99	414.49	1,001.50	1.000	13C12-HpCDF 678		IS6
						Height	409.86	118.63	291.23				
	DC	SN		36:58	RO	0.56	3.53			1.009			
	DC	SN		37:14	RO	0.66	3.86			1.016			
				38:11		0.41	1,163.90	336.27	827.63	1.042	13C12-HpCDF 789		SUR4
418-420				2 Peaks			2,579.89						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20				0.975-1.004			
424-426	DC	NL				Height	0.11	0.08	0.03				
	DC	SN		37:15	RO	0.61	0.59			0.989			
	DC	SN		37:31		1.05	1.21			0.996			
	DC	SN		37:38	RO	0.08	0.43			0.999			
	DC	WH		38:02		1.14	0.92			1.009			
	DC	WH		38:12	RO	3.34	1.57			1.014			
424-426			0	Peaks			0.00						
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	0.43	0.34	0.09				
	DC	SN		37:18	RO	0.21	0.53			0.990			
				37:41		1.01	1,438.66	721.46	717.20	1.000	13C12-HpCDD 678 IS7		
						Height	373.86	187.19	186.67				
	DC	SN		37:58		0.93	4.33			1.008			
436-438			1	Peak			1,438.66						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02				0.903-1.097			
442-444	DC	NL				Height	0.35	0.17	0.18				
	DC	WL		35:38		1.00	1.46			0.862			
	DC	WL		36:02	RO	0.14	0.66			0.872			
	DC	WL		36:41	RO	2.09	3.04			0.888			
	DC	WL		36:53		0.80	1.55			0.893			
	DC	WL		37:05	RO	0.52	1.36			0.898			
	DC	WL		37:12		0.88	1.77			0.900			
	DC	SN		37:22	RO	1.77	0.91			0.904			
	DC	SN		37:26	RO	0.13	0.45			0.906			
	DC	SN		37:55	RO	1.72	1.66			0.918			
	DC	SN		38:18		0.85	0.98			0.927			
	DC	SN		38:46	RO	0.59	0.55			0.938			
	DC	SN		38:56	RO	0.18	1.27			0.942			
	DC	SN		39:42	RO	1.55	0.96			0.961			
	DC	SN		39:55	RO	0.47	1.55			0.966			
	DC	SN		40:11	RO	1.88	1.12			0.973			
	DC	SN		40:53		1.02	1.15			0.990			
	DC	SN		41:00	RO	1.07	0.85			0.992			
	DC	SN		41:06	RO	1.13	0.74			0.995			
	DC	SN		41:19		0.83	1.15			1.000			
	DC	SN		41:33		0.96	4.42			1.006	OCDF		AN
	DC	SN		41:48		0.97	0.59			1.012			
	DC	SN		42:08		0.96	3.14			1.020			
	DC	SN		42:34	RO	1.56	0.81			1.030			
	DC	SN		42:52		0.90	2.54			1.038			
	DC	SN		42:59	RO	0.63	2.21			1.040			
	DC	SN		43:51	RO	0.27	0.38			1.061			
	DC	SN		43:56		0.88	1.09			1.063			
	DC	SN		44:08	RO	1.53	0.57			1.068			
	DC	SN		44:35	RO	0.25	0.59			1.079			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
442-444		0	Peaks				0.00						
OCDD				0.76-1.02						0.903-1.097			
458-460	DC	NL		Height			0.04	0.03	0.01				
	DC	WL	35:38	RO		1.77	1.00			0.862			
	DC	WL	35:47	RO		0.44	0.59			0.866			
	DC	WL	36:02	RO		2.00	1.61			0.872			
	DC	WL	36:13	RO		0.48	0.98			0.877			
	DC	WL	36:30	RO		1.03	1.21			0.883			
	DC	WL	36:39	RO		1.61	1.66			0.887			
	DC	WL	36:58	RO		0.61	0.49			0.895			
	DC	SN	37:25	RO		1.03	3.16			0.906			
	DC	SN	37:40			0.97	1.69			0.912			
	DC	SN	38:08	RO		3.75	0.30			0.923			
	DC	SN	38:21			0.85	0.37			0.928			
	DC	SN	39:32	RO		1.46	0.74			0.957			
	DC	SN	39:41	RO		0.70	0.34			0.960			
	DC	SN	40:24	RO		10.64	0.21			0.978			
	DC	SN	40:33	RO		1.13	0.60			0.981			
			41:21			0.82	15.20	6.86	8.34	1.001	OCDD	AN	J
	DC	SN	41:33	RO		0.44	1.17			1.006			
	DC	SN	42:55	RO		1.72	0.74			1.039			
	DC	SN	43:11	RO		0.42	0.59			1.045			
	DC	SN	43:38			0.81	0.76			1.056			
	DC	SN	43:55	RO		0.50	0.89			1.063			
	DC	SN	44:24	RO		0.65	0.93			1.075			
	DC	SN	44:42	RO		1.65	0.70			1.082			
	DC	SN	44:49	RO		0.39	0.55			1.085			
458-460		1	Peak				15.20						
13C12-OCDD				0.76-1.02						0.952-1.048			
470-472	DC	NL		Height			0.02	0.02	0.00				
	DC	WL	35:48	RO		3.71	1.25			0.866			
			41:19			0.85	2,274.30	1,045.18	1,229.12	1.000	13C12-OCDD	1S8	
				Height			515.98	230.59	285.39				
	DC	SN	41:52	RO		1.16	1.42			1.013			
	DC	SN	41:57			1.01	1.55			1.015			
470-472		1	Peak				2,274.30						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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23:06
23:47
24:18
24:29
24:49
25:46
26:16
26:39
27:10
27:32
27:54
Time
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305.8987 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,19464.0,1.00%,F,T) Exp:NDB5US
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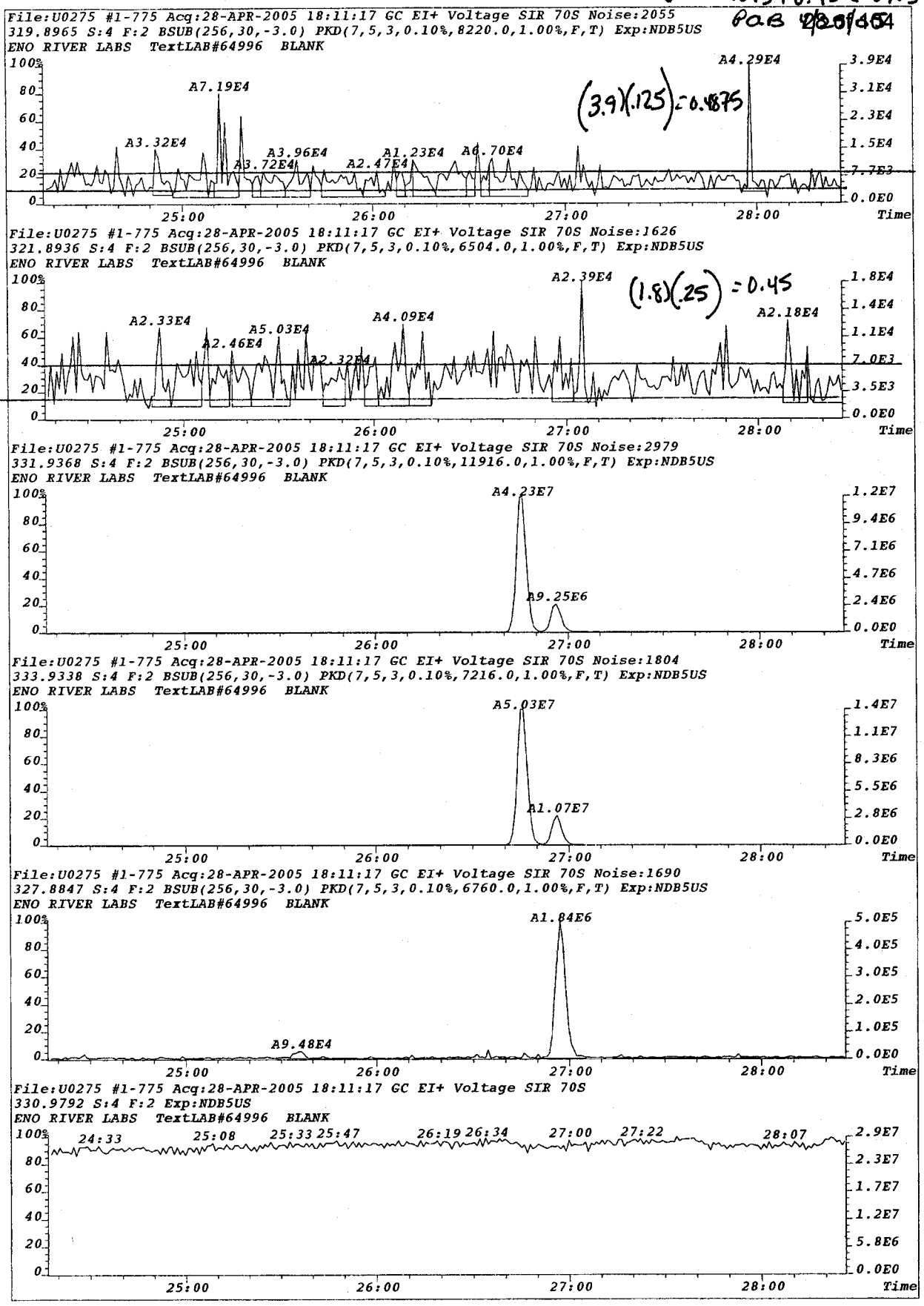
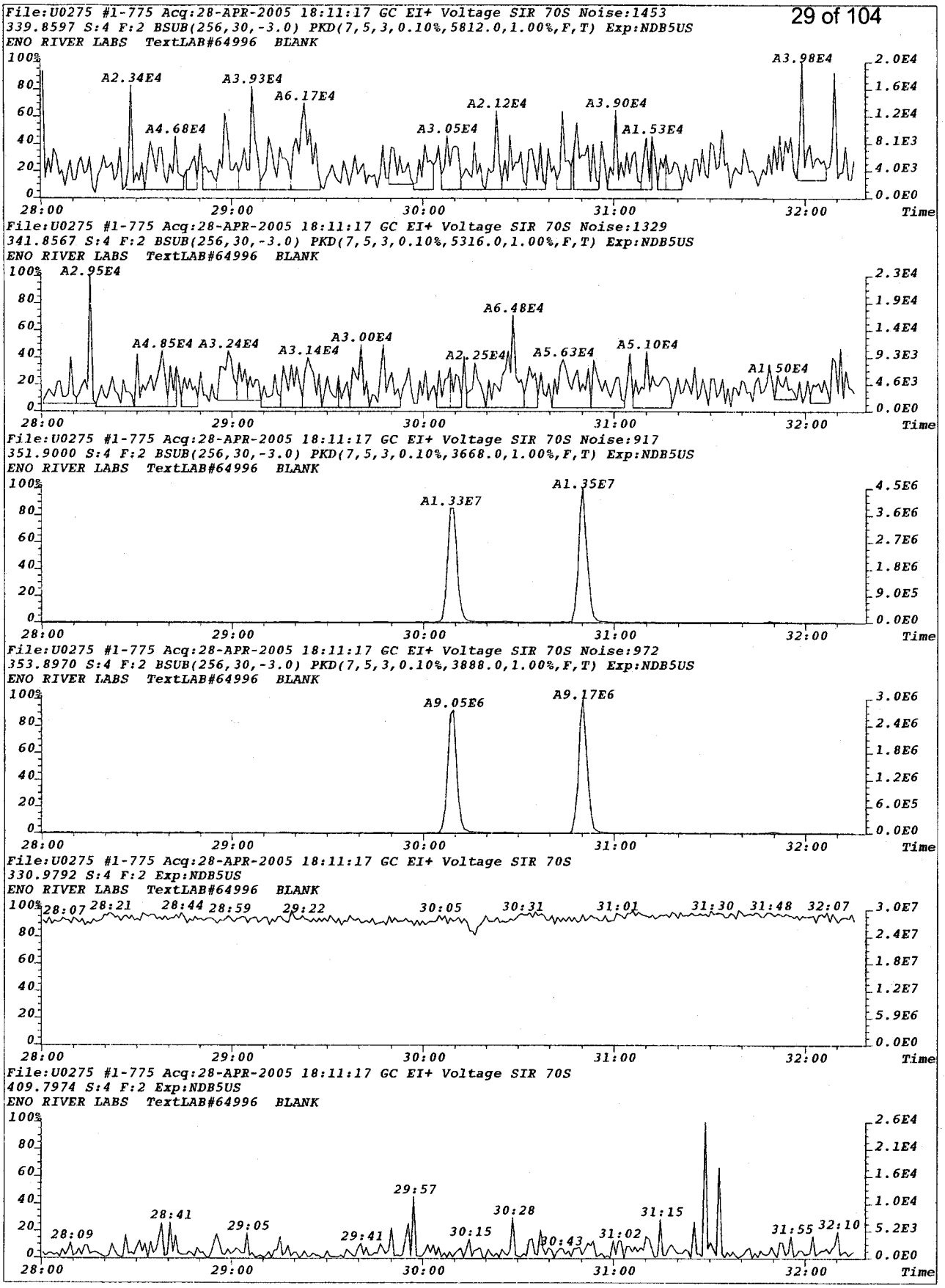
A3.69E4
A4.49E4
Time
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:3179
315.9419 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,12716.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.03E7
Time
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:3205
317.9389 S:4 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,12820.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.43E7
Time
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
23:17
23:46
24:33
25:08
25:47
26:34
27:00
27:22
Time
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
375.8364 S:4 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
23:10
23:22
24:00
24:25
24:47
25:06
25:40
26:07
26:30
27:01
27:33
28:07
Time

N = 0.4875 + 0.45 = 0.9375

PAB 4/28/05

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A2.34E4
A4.68E4
A3.93E4
A6.17E4
A3.05E4
A2.12E4
A3.90E4
A1.53E4
A3.98E4
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:1329
341.8567 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5316.0,1.00%,F,T) Exp:NDB5US
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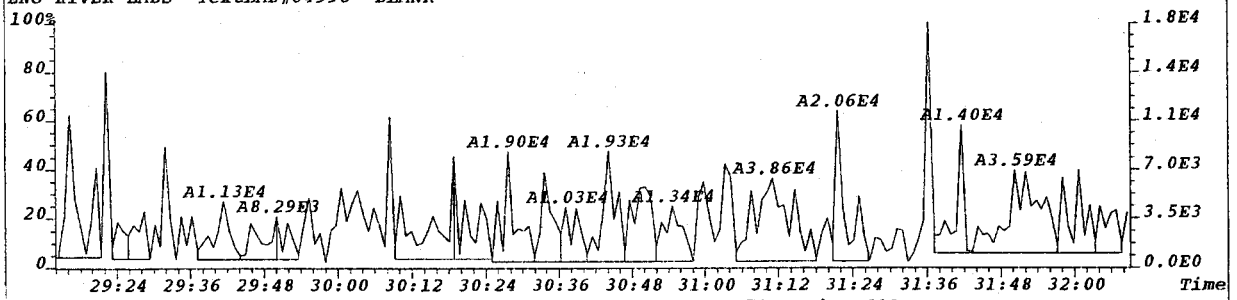
A2.95E4
A4.85E4
A3.24E4
A3.14E4
A3.00E4
A2.25E4
A6.48E4
A5.63E4
A5.10E4
A1.50E4
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:917
351.9000 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3668.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.33E7
A1.35E7
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:972
353.8970 S:4 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3888.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A9.05E6
A9.17E6
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
28:07
28:21
28:44
28:59
29:22
30:05
30:31
31:01
31:30
31:48
32:07
File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
409.7974 S:4 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
28:09
28:41
29:05
29:41
29:57
30:15
30:28
30:43
31:02
31:15
31:55
32:10
100%
80
60
40
20
0
28:00
29:00
30:00
31:00
32:00
Time
2.0E4
1.6E4
1.2E4
8.1E3
4.0E3
0.0E0
2.3E4
1.9E4
1.4E4
9.3E3
4.6E3
0.0E0
4.5E6
3.6E6
2.7E6
1.8E6
9.0E5
0.0E0
3.0E6
2.4E6
1.8E6
1.2E6
6.0E5
0.0E0
3.0E7
2.4E7
1.8E7
1.2E7
5.9E6
0.0E0
2.6E4
2.1E4
1.6E4
1.0E4
5.2E3
0.0E0

File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:1102
355.8546 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4408.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:692
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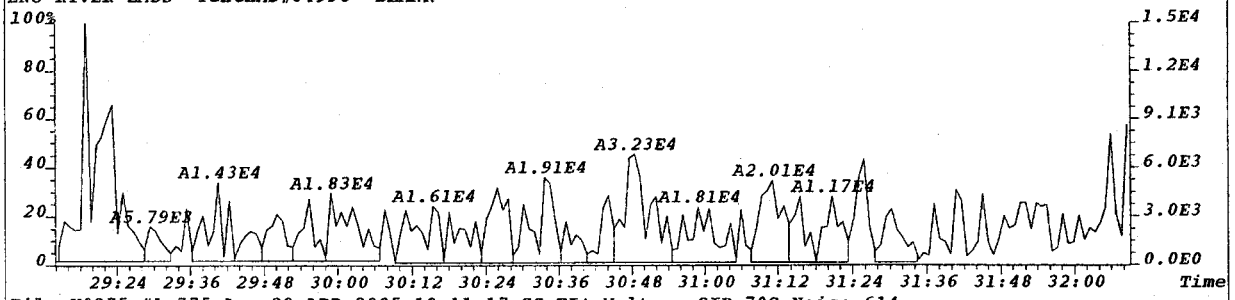

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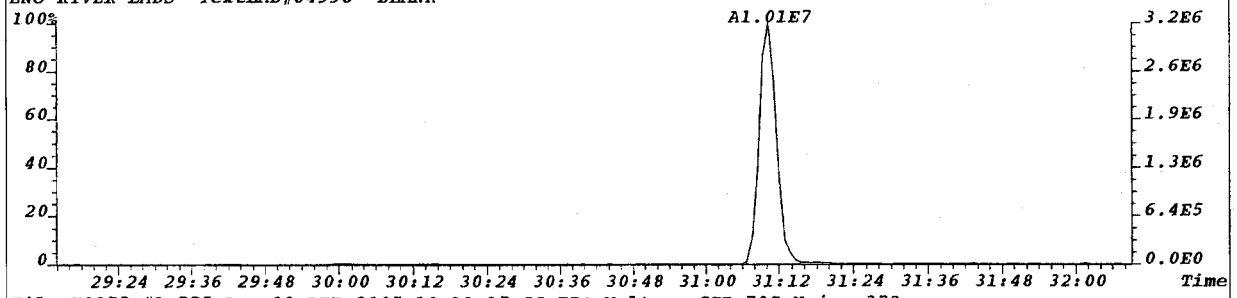
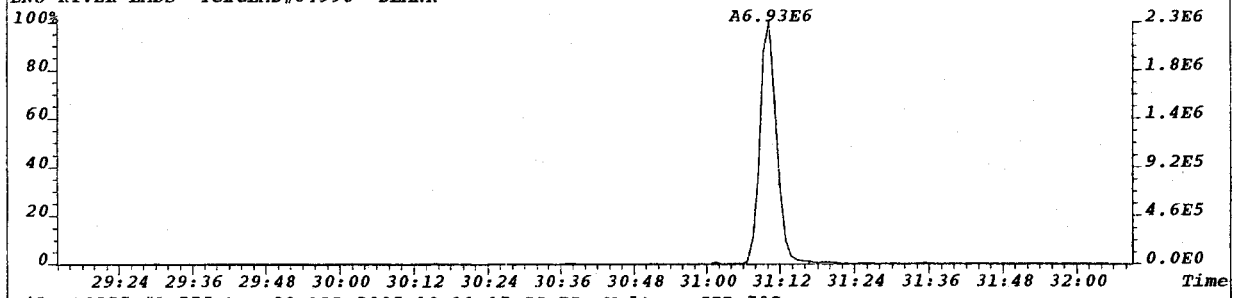
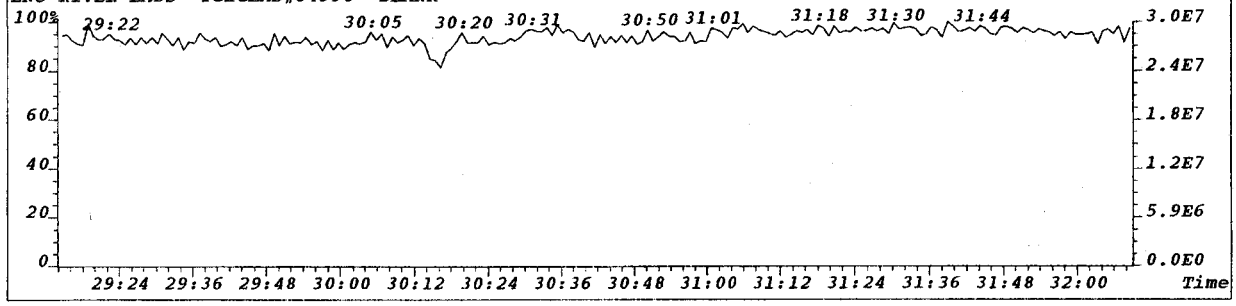
367.8949 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,2456.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK

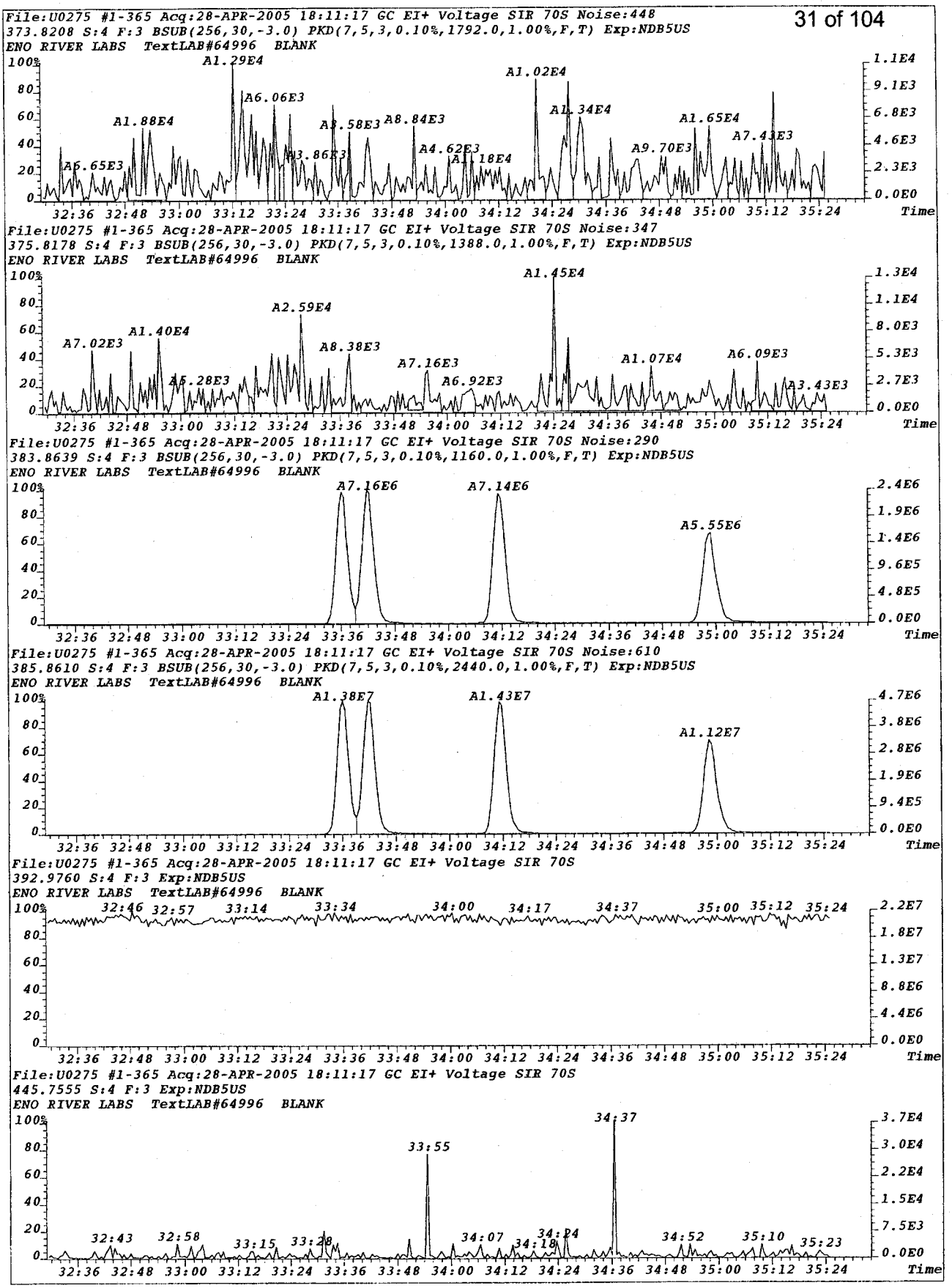


File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:372
369.8919 S:4 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1488.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK

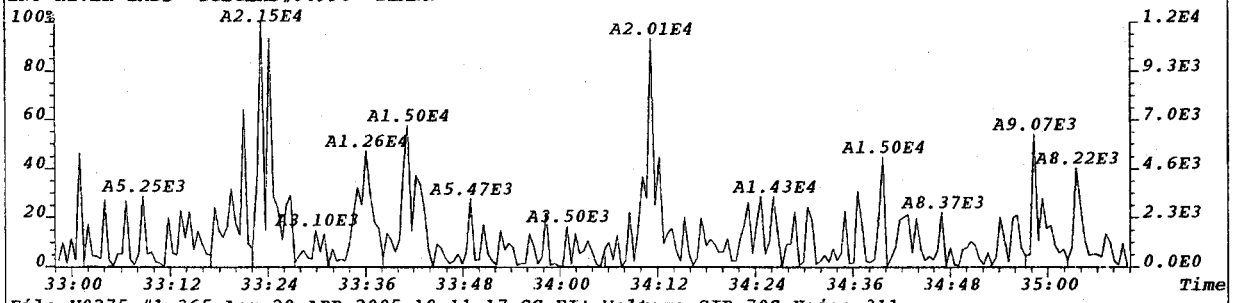


File:U0275 #1-775 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
330.9792 S:4 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK




File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:448
373.8208 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1792.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.29E4
A6.06E3
A1.88E4
A3.58E3
A8.84E3
A1.02E4
A1.34E4
A1.65E4
A7.43E3
A6.65E3
A3.86E3
A4.62E3
A1.18E4
A9.70E3
File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:347
375.8178 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1388.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.45E4
A2.59E4
A1.40E4
A7.02E3
A8.38E3
A7.16E3
A5.28E3
A6.92E3
A1.07E4
A6.09E3
A3.43E3
File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:290
383.8639 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1160.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A7.16E6
A7.14E6
A5.55E6
File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:610
385.8610 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2440.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.38E7
A1.43E7
A1.12E7
File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
392.9760 S:4 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
445.7555 S:4 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
34:37
33:55
Time

File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:204
389.8156 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,816.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:311
391.8127 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1244.0,1.00%,F,T) Exp:NDB5US
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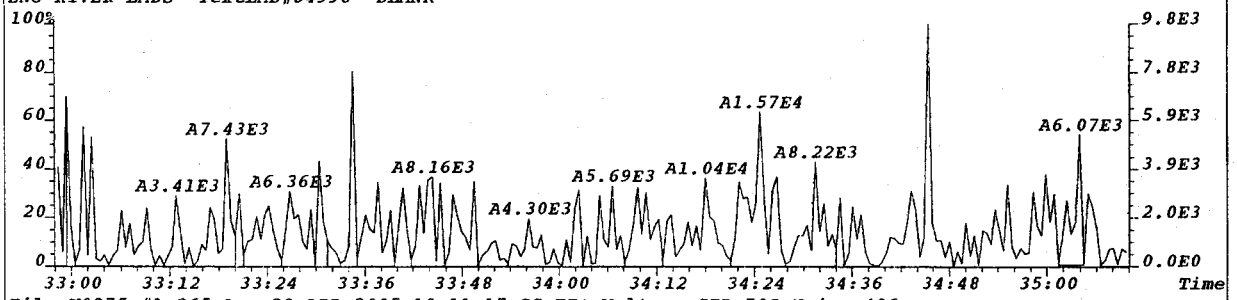

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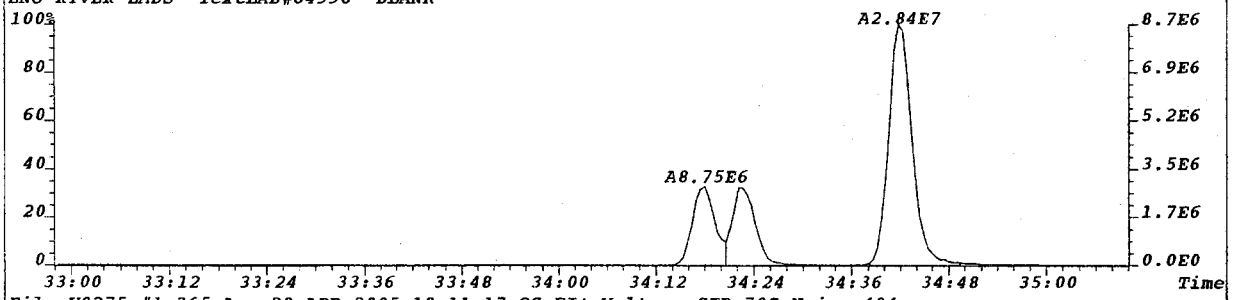
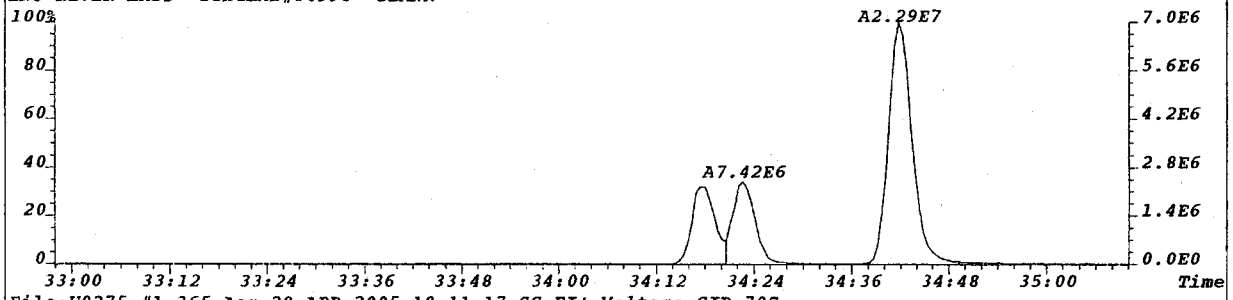
401.8558 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1944.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:404
403.8529 S:4 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1616.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-365 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
392.9760 S:4 F:3 Exp:NDB5US
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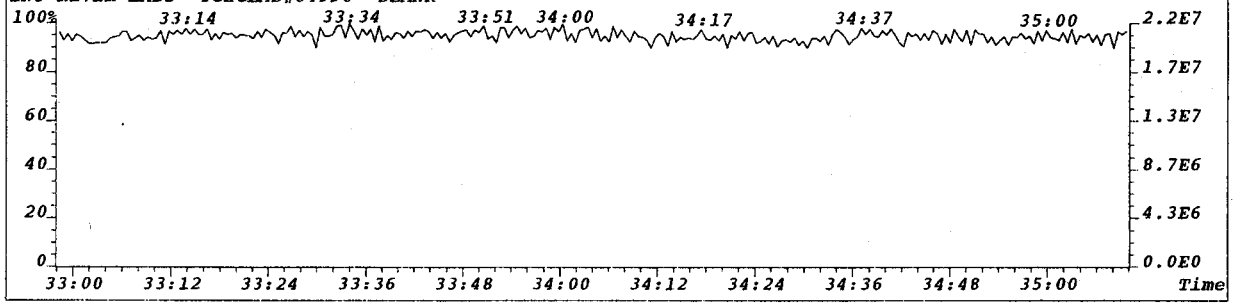
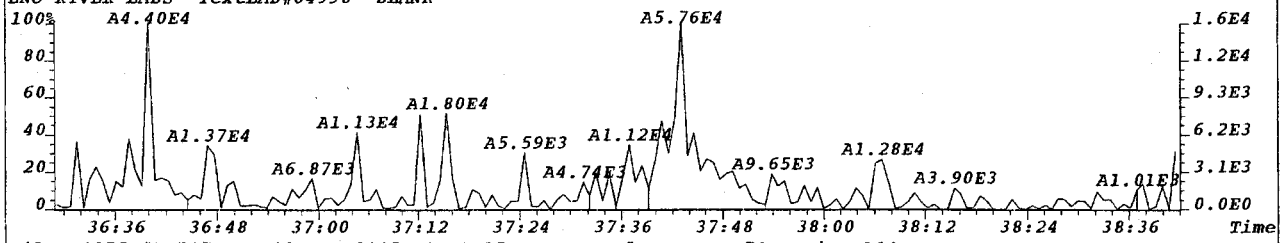


File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:221
407.7818 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,884.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:104
409.7789 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,416.0,1.00%,F,T) Exp:NDB5US
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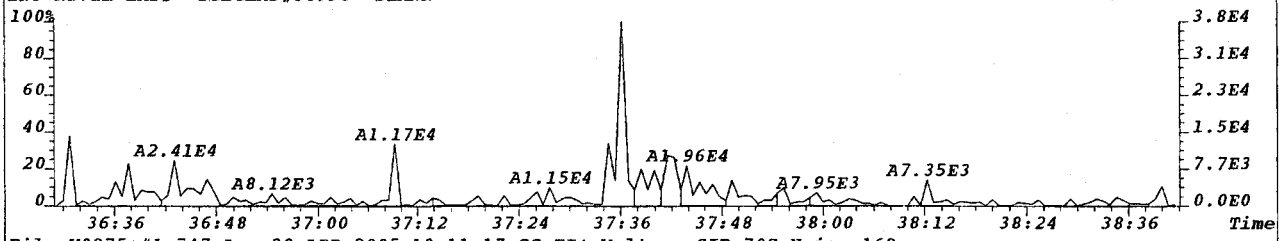

File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:169
417.8253 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,676.0,1.00%,F,T) Exp:NDB5US
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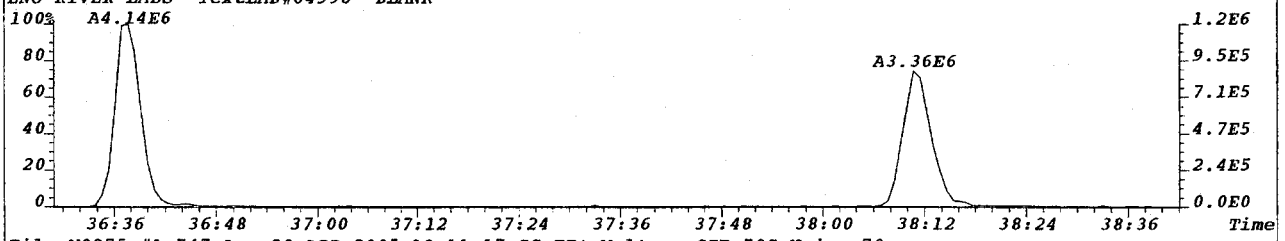
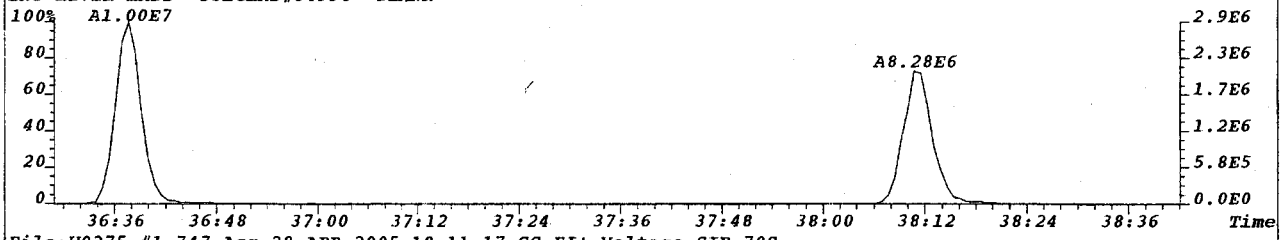


File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:70
419.8220 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,280.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
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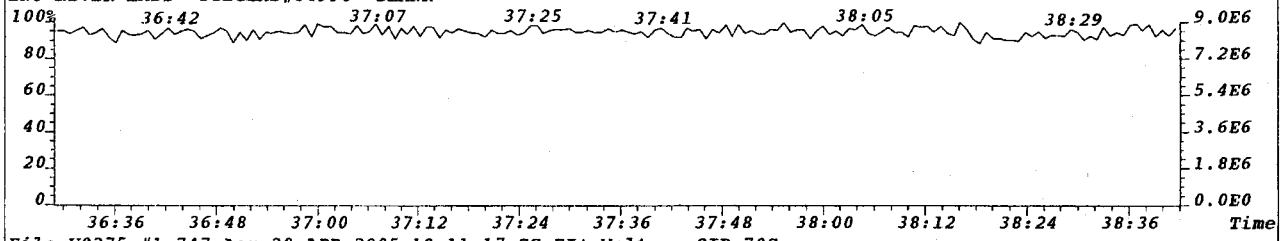
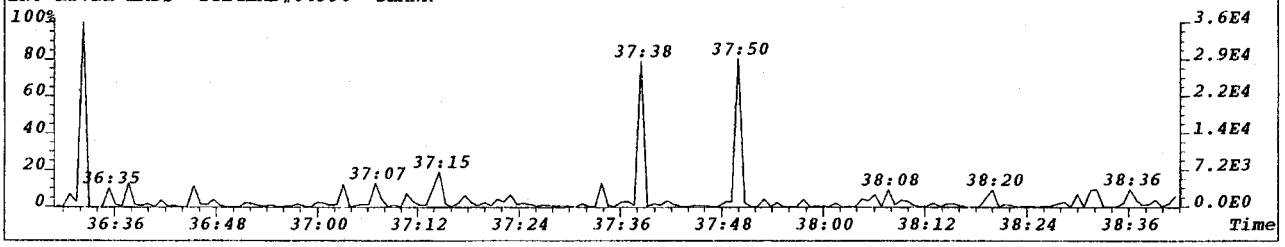


File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
479.7165 S:4 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:98
423.7766 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,392.0,1.00%,F,T) Exp:NDB5US
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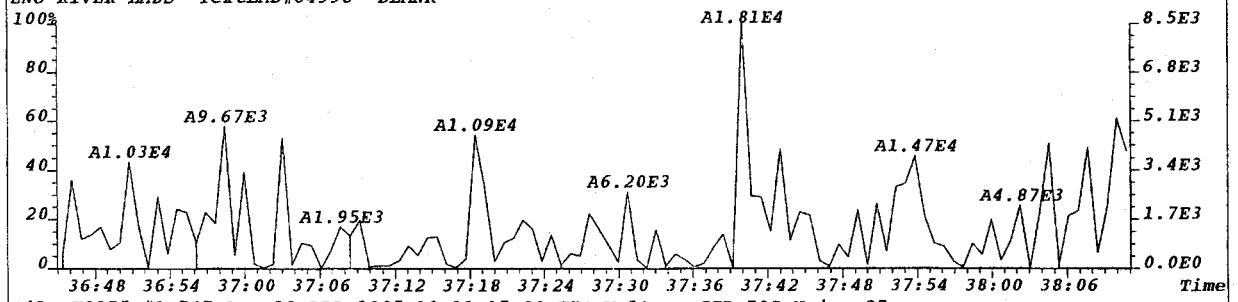

File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:37
425.7737 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,148.0,1.00%,F,T) Exp:NDB5US
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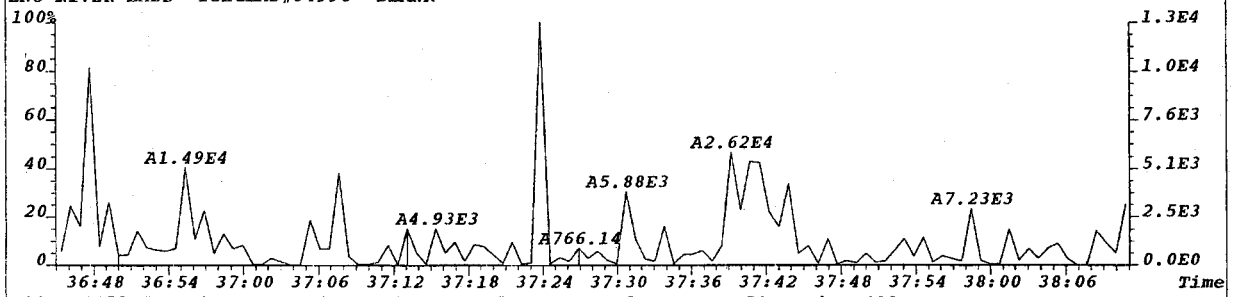
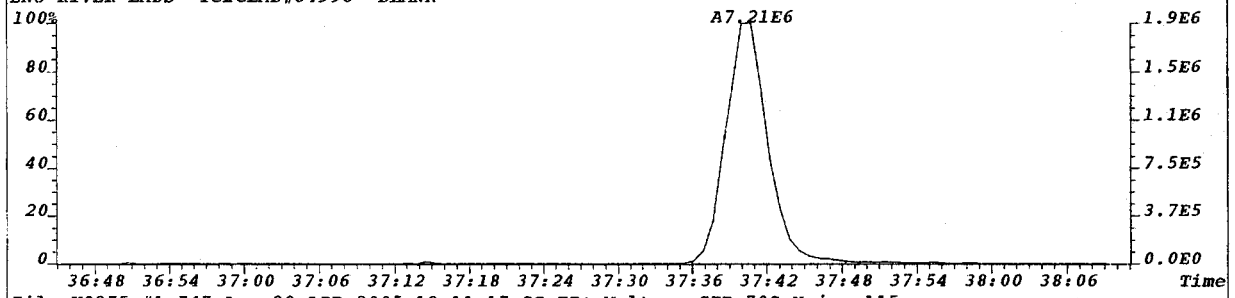


File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:429
435.8169 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1716.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:115
437.8140 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,460.0,1.00%,F,T) Exp:NDB5US
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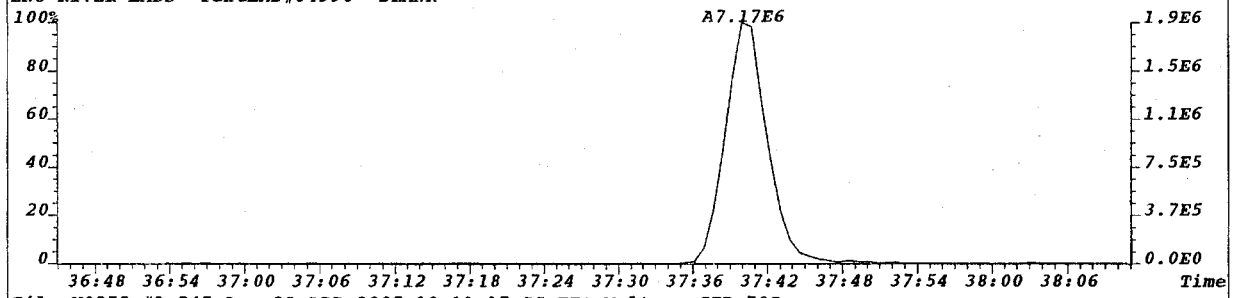

File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
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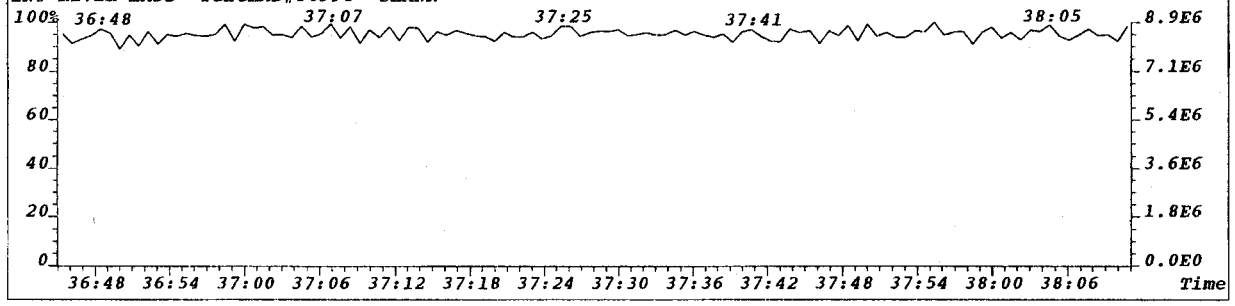

File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:210
441.7428 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,840.0,1.00%,F,T) Exp:NDB5US
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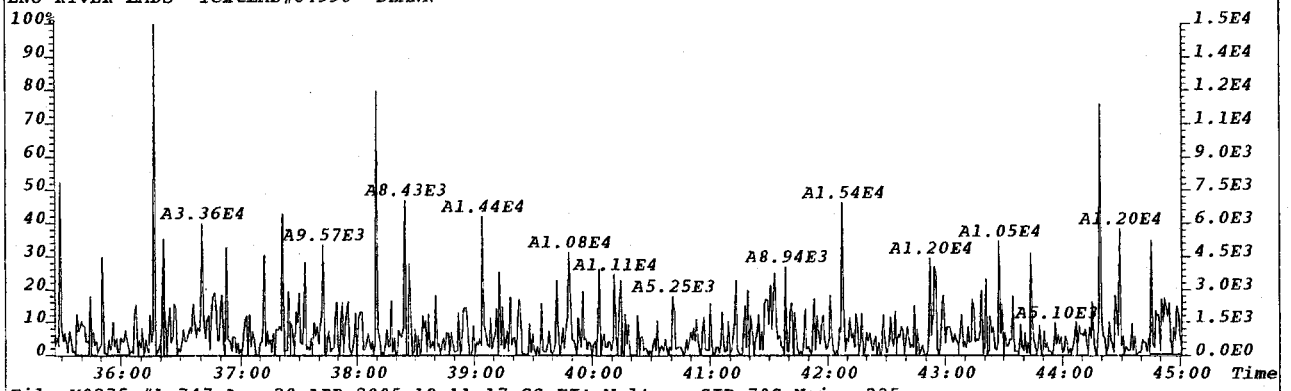

File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:225
443.7399 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,900.0,1.00%,F,T) Exp:NDB5US
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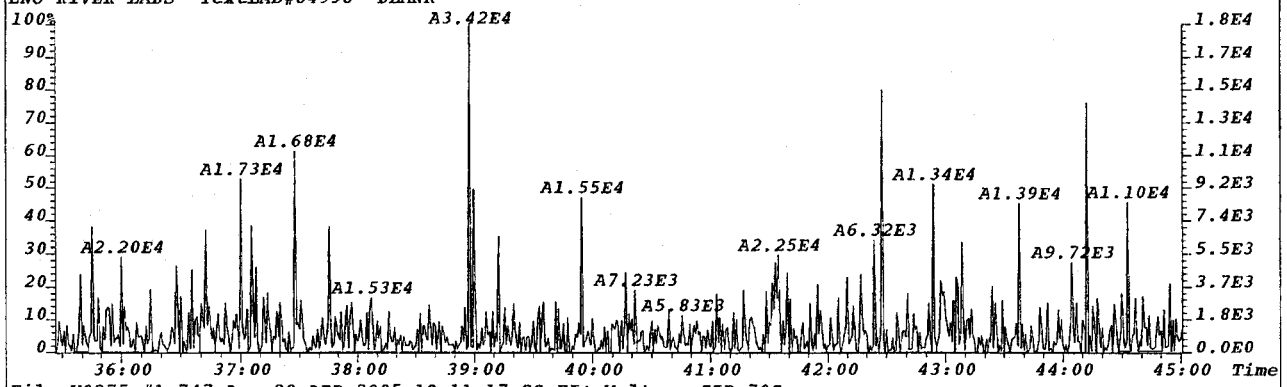
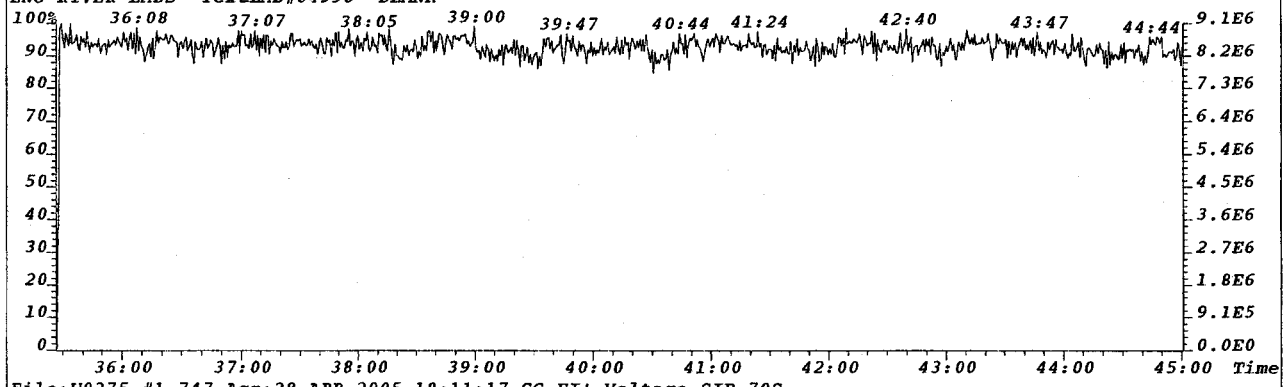
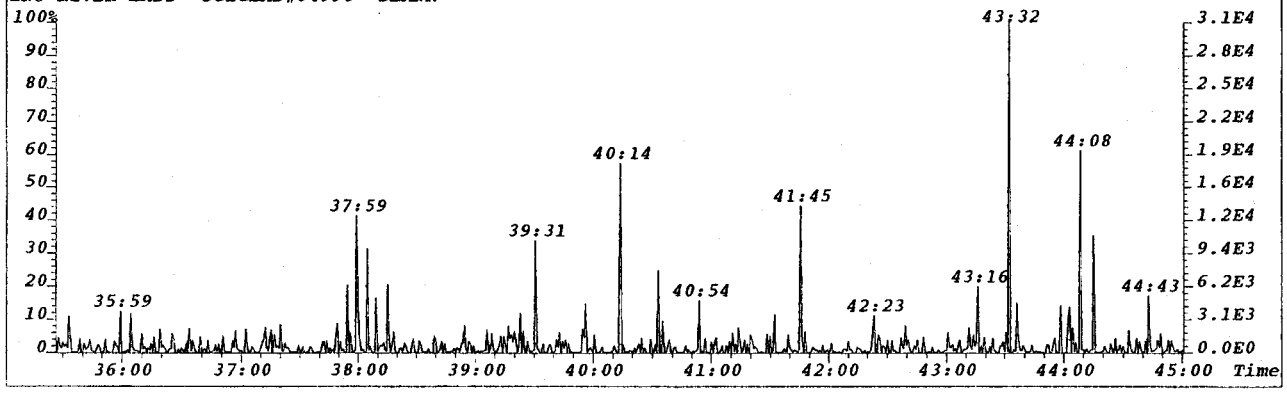
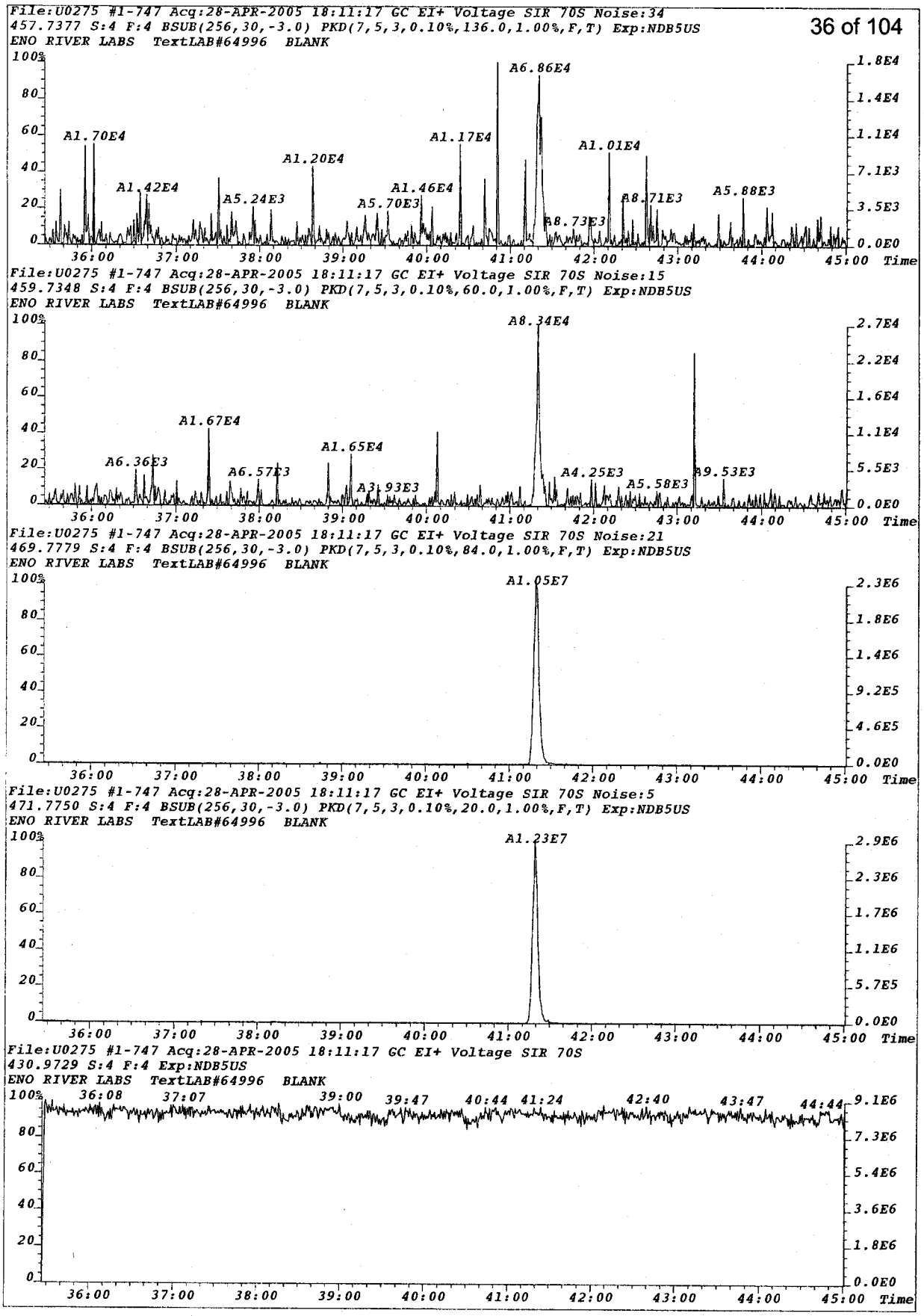


File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK



File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
513.6775 S:4 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK

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457.7377 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,136.0,1.00%,F,T) Exp:NDB5US
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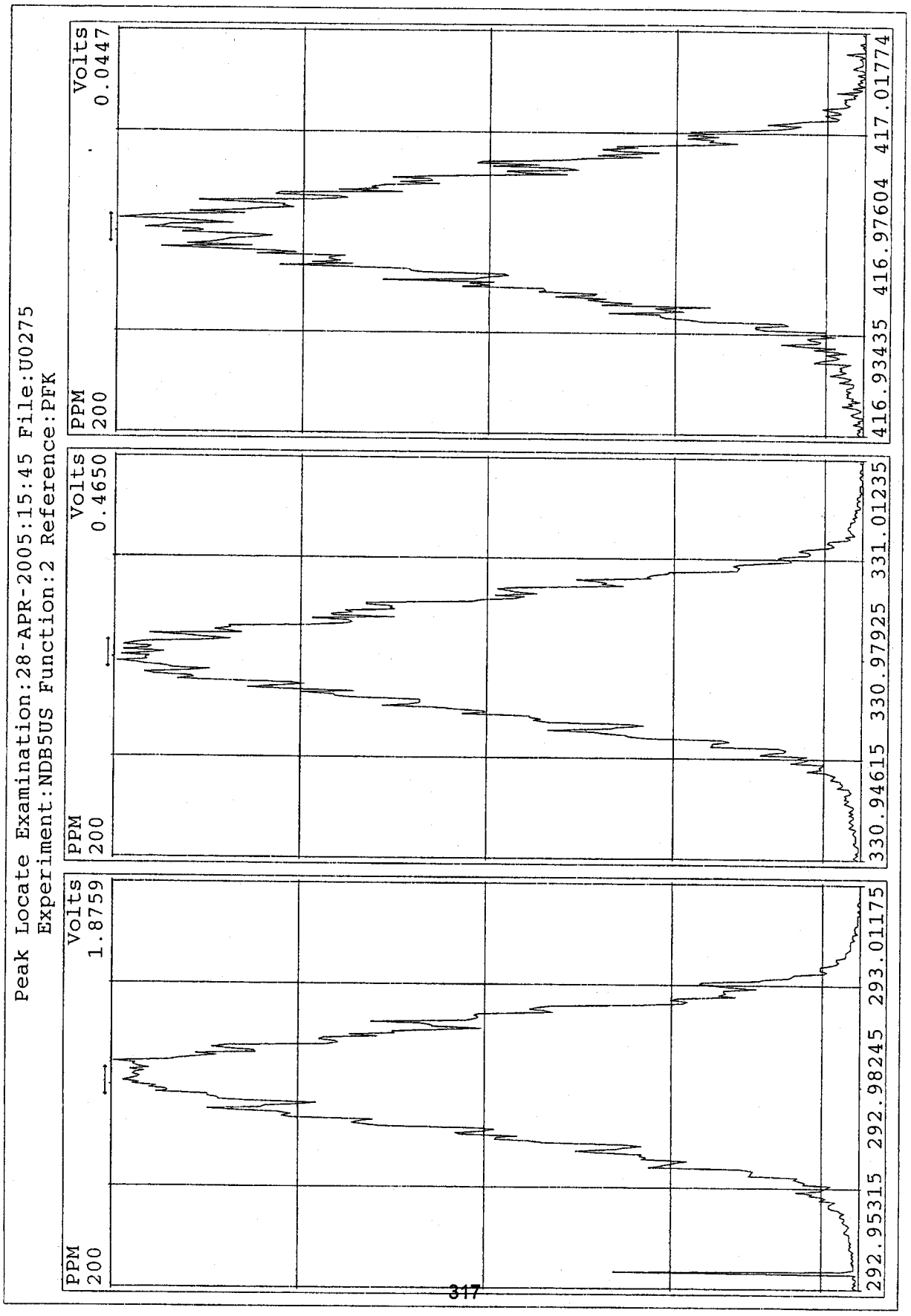
A6.86E4
A1.70E4
A1.17E4
A1.01E4
A1.20E4
A1.42E4
A1.46E4
A5.24E3
A5.70E3
A8.73E3
A8.71E3
A5.88E3
File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:15
459.7348 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,60.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A8.34E4
A1.67E4
A1.65E4
A6.36E3
A6.57E3
A3.93E3
A4.25E3
A5.58E3
A9.53E3
File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:21
469.7779 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,84.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.05E7
File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S Noise:5
471.7750 S:4 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
A1.23E7
File:U0275 #1-747 Acq:28-APR-2005 18:11:17 GC EI+ Voltage SIR 70S
430.9729 S:4 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 BLANK
36:08
37:07
39:00
39:47
40:44
41:24
42:40
43:47
44:44
Time


Peak Locate Examination:28-APR-2005:15:45 File:U0275
Experiment:NDB5US Function:2 Reference:PFK
PPM
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Volts
1.8759
292.95315 292.98245 293.01175
PPM
200
Volts
0.4650
330.94615 330.97925 331.01235
PPM
200
Volts
0.0447
416.93435 416.97604 417.01774

Lab Project: **64980** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BB1TP102 (4.0)** Analysis File: **U027511**

Client Project:	**Presidio/Baker Beach**			ICal:	**UF5O284**
Sample Matrix:	**SOIL**	Date Received:	**04/19/2005**	Spike File:	**SPMIT322**
Lab ID:	**401-94-1**	Date Extracted:	**04/21/2005**	1st CCal:	**U050274**
		Date Analyzed:	**04/28/2005**	End CCal:	**U027514**
Sample Size:	**13.020 g**	Dilution Factor:	**n/a**	% Moisture:	**21.9**
Dry Weight:	**10.169 g**	Blank File:	**U027504**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**78.1**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	0.44			0.73	26:58	J__
1,2,3,7,8-PeCDD	1.3			1.36	31:11	J__
1,2,3,4,7,8-HxCDD	1.2			1.11	34:18	J__
1,2,3,6,7,8-HxCDD	2.8			1.38	34:24	J__
1,2,3,7,8,9-HxCDD	3.8			1.25	34:42	J__
1,2,3,4,6,7,8-HpCDD	53.3			1.02	37:42	___
1,2,3,4,6,7,8,9-OCDD	222			0.83	41:20	___
2,3,7,8-TCDF	23.3			0.71	26:17	___
1,2,3,7,8-PeCDF	6.3			1.54	30:09	___
2,3,4,7,8-PeCDF	8.3			1.59	30:51	___
1,2,3,4,7,8-HxCDF	20.4			1.31	33:36	___
1,2,3,6,7,8-HxCDF	6.6			1.32	33:43	___
2,3,4,6,7,8-HxCDF	6.6			1.35	34:12	___
1,2,3,7,8,9-HxCDF	0.87			1.24	34:59	J__
1,2,3,4,6,7,8-HpCDF	33.8			1.11	36:39	___
1,2,3,4,7,8,9-HpCDF	4.7			1.02	38:12	J__
1,2,3,4,6,7,8,9-OCDF	67.2			0.84	41:33	___

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	27.9	9		29.7	___
Total PeCDD	4.9	4		18.0	___
Total HxCDD	47.3	7			___
Total HpCDD	111	2			___
Total TCDF	138	13		168	X__
Total PeCDF	102	13		124	X__
Total HxCDF	66.1	9		79.3	X__
Total HpCDF	57.3	4			___

MIT3_PSR v1.00, LARS 6.25.06

Eno River Labs, LLC®
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Printed: 11:06 05/03/2005

Lab Project: **64980** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BB1TP102 (4.0)** Analysis File: **U027511**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	161	81.9	40%-135%	0.69	26:14	___
$^{13}C_{12}$-2,3,7,8-TCDD	155	79.1	40%-135%	0.84	26:56	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	182	92.6	40%-135%	1.53	30:09	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	197	100	40%-135%	1.51	31:10	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	146	74.2	40%-135%	0.50	33:42	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	164	83.3	40%-135%	1.24	34:23	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	173	87.8	40%-135%	0.44	36:37	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	155	78.8	40%-135%	0.99	37:40	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	292	74.3	40%-135%	0.84	41:19	___

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	177	89.9	40%-135%	1.50	30:50	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	154	78.5	40%-135%	0.50	33:36	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	163	82.8	40%-135%	1.23	34:18	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	163	82.7	40%-135%	0.42	38:11	___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	17.7	90.0	40%-135%	26:58	___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	159	80.7	40%-135%	0.51	34:59	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	149	75.7	40%-135%	0.51	34:12	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.85	26:46	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:42	___

Data Reviewer: _____ 05/03/2005

MJT3_PSR v1.00, LARS 6.25.06

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Printed: 11:06 05/03/2005

Initial ....Date...

Data Review By: PAB 5/3/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U027511B.dbf
05/03/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.962-1.229			
304-306	DC	NL				Height	5.44	3.58	1.86				
				23:09		0.86	222.19	102.44	119.75	0.882	1368-TCDF	AN	
				23:39		0.75	238.83	102.00	136.83	0.902			
				23:53		0.71	235.13	97.85	137.28	0.910			
				24:16		0.70	1,181.33	484.42	696.91	0.925			
				24:33		0.74	651.52	276.98	374.54	0.936			
				24:58		0.72	775.28	324.49	450.79	0.952			
				25:14		0.70	670.73	276.93	393.80	0.962			
	M			25:28		0.68	1,034.00	420.00	614.00	0.971			
	MX		X	25:46	RO	0.68	543.00	219.00	324.00	0.982			
	A			25:52		0.74	376.00	160.00	216.00	0.986			
				26:06		0.73	355.72	150.24	205.48	0.995			
				26:17		0.71	1,331.96	552.88	779.08	1.002	2378-TCDF	AN	
				26:42		0.68	565.81	229.90	335.91	1.018			
				26:53		0.73	313.24	131.95	181.29	1.025			
	X		X	27:03	RO	0.76	120.49	51.92	68.57	1.031			
	X		X	27:19	RO	0.62	426.23	185.42	297.19	1.041			
	X		X	27:39	RO	0.74	589.33	251.25	338.08	1.054			
		DC	SN	28:00	RO	0.58	31.52			1.067			
		DC	WH	28:15		0.68	240.48			1.077			
	AD	D	IE	29:33	RO	1.84	93.46			1.126			
	AD	D	IE	30:05	RO	1.59	94.16			1.147			
304-306			17	Peaks			9,630.79						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	32.79	10.68	22.11				
	DC	WL		23:12	RO	0.63	372.16			0.884			
				26:14		0.69	9,542.31	3,893.69	5,648.62	1.000	13C12-2378-TCDF	ISO	
						Height	2,418.69	972.57	1,446.12				
				26:35		0.74	766.28	326.81	439.47	1.013			
316-318			2	Peaks			10,308.59						

---------- Above: TCDF / TCDD Follows ----------

TCDD						0.65-0.89				0.963-1.223			
320-322	DC	NL				Height	1.07	0.55	0.52				
				24:27		0.80	505.62	224.27	281.35	0.908	1368-TCDD	AN	
				24:50		0.73	197.28	83.04	114.24	0.922	1379-TCDD	AN	
				25:07		0.75	42.82	18.38	24.44	0.933			
				25:48		0.74	157.68	67.17	90.51	0.958			
				26:02		0.87	69.43	32.21	37.22	0.967			
				26:12	RO	0.57	27.15	11.81	20.78	0.973			J
				26:27		0.75	36.32	15.58	20.74	0.982			J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
M				26:51		0.74	138.60	59.10	79.50	0.997			
AN				26:58		0.73	18.03	7.63	10.40	1.001	2378-TCDD	AN	J
				27:07		0.80	15.51	6.89	8.62	1.007			J
				27:19	RO	0.92	32.09	13.96	15.25	1.014			J
				27:30	RO	1.22	9.56	6.58	5.40	1.021			J
				27:57	RO	0.41	6.46	2.81	6.78	1.038			J
	DC	WH		28:09	RO	2.17	1.52			1.045			
320-322		13	Peaks				1,256.55						
37Cl-TCDD										0.926-1.074			
328	DC	NL				Height	1.21	1.21					
	DC	WL		24:36			16.82			0.913			
	DC	WL		24:43			109.20			0.918			
	DC	WL		24:51			65.39			0.923			
				24:58			4.11	4.11		0.927			
				25:18			12.84	12.84		0.939			
				25:36			2,781.33	2,781.33		0.950			
				26:04			17.45	17.45		0.968			
				26:13			9.25	9.25		0.973			
				26:35			14.92	14.92		0.987			
				26:58			864.62	864.62		1.001	37Cl-TCDD	CLS	
				27:20			138.48	138.48		1.015			
				28:17			76.24	76.24		1.050			
328		9	Peaks				3,919.24						
13C12-TCDD						0.65-0.89				0.926-1.074			
332-334	DC	NL				Height	1.86	1.28	0.58				
				26:46		0.85	10,237.81	4,709.86	5,527.95	0.994	13C12-1234-TCDD	RSI	
				26:56		0.84	7,357.87	3,357.09	4,000.78	1.000	13C12-2378-TCDD	ISI	
						Height	2,017.49	914.51	1,102.98				
332-334		2	Peaks				17,595.68						

---------- Above: TCDD / PeCDF Follows ----------

PeCDF						1.32-1.78				0.867-1.133			
340-342	DC	NL				Height	0.71	0.38	0.33				
				28:12		1.51	518.62	312.13	206.49	0.935			
				28:58	RO	1.14	5.74	2.56	2.25	0.961			J
				29:11		1.77	150.09	95.81	54.28	0.968			J
				29:19		1.54	1,192.23	722.12	470.11	0.972			
M				29:28		1.70	190.50	120.00	70.50	0.977			J
AX		X		29:34	RO	1.84	134.64	97.20	52.80	0.981			J
				29:47		1.62	290.26	179.41	110.85	0.988			
				29:54		1.50	375.76	225.52	150.24	0.992			
A				30:05		1.59	137.80	84.60	53.20	0.998			J
AN				30:09		1.54	285.00	173.00	112.00	1.000	12378-PeCDF	AN	
MX		X		30:13	RO	1.56	739.00	450.00	289.00	1.002			
A				30:20		1.57	149.10	91.10	58.00	1.006			J
M				30:27		1.63	376.00	233.00	143.00	1.010			
				30:51		1.59	366.70	224.91	141.79	1.023	23478-PeCDF	AN	
				31:01		1.64	464.83	288.83	176.00	1.029			
				31:19	RO	2.10	23.61	19.49	9.26	1.039			J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
X		X		31:34	RO	1.50	104.89	62.99	41.90	1.047			J
				31:50		1.74	22.61	14.35	8.26	1.056			J
	DC		WH	32:02		1.78	4.81			1.062			
340-342			18 Peaks				5,527.38						
13C12-PeCDF				1.32-1.78						0.867-1.133			
352-354	DC	NL		Height			0.56	0.31	0.25				
				29:19	RO	1.09	18.77	8.01	7.36	0.972			
				30:09		1.53	7,558.56	4,568.03	2,990.53	1.000	13C12-PeCDF 123	IS2	
				Height			2,381.57	1,456.85	924.72				
				30:27	RO	1.90	58.04	43.17	22.76	1.010			
				30:50		1.50	7,218.12	4,331.54	2,886.58	1.023	13C12-PeCDF 234	SUR1	
				31:48		1.44	58.89	34.74	24.15	1.055			
352-354			5 Peaks				14,912.38						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.872-1.128			
356-358	DC	NL		Height			0.71	0.34	0.37				
D	D	SN		29:36	RO	0.01	2.43			0.950			
	DC	SN		29:47	RO	0.21	1.78			0.956			
				29:54		1.35	20.74	11.90	8.84	0.959			J
				30:07	RO	0.88	191.12	116.17	131.54	0.966			
				30:15		1.43	30.75	18.12	12.63	0.971			J
				30:27	RO	2.10	83.67	69.06	32.81	0.977			J
M				30:41	RO	1.29	56.10	34.10	26.40	0.984			J
				30:54		1.71	52.17	32.89	19.28	0.991			J
				31:01	RO	0.29	10.68	6.49	22.64	0.995			J
				31:11		1.36	39.16	22.57	16.59	1.001	12378-PeCDD	AN	J
D	D	SN		31:21	RO	0.07	15.15			1.006			
				31:43	RO	0.55	43.68	26.55	47.88	1.018			J
	DC		WH	31:55	RO	0.49	20.07			1.024			
356-358			9 Peaks				528.07						
13C12-PeCDD				1.32-1.78						0.872-1.128			
368-370	DC	NL		Height			0.30	0.15	0.15				
				30:06	RO	0.88	5.46	3.32	3.77	0.966			
				30:14		1.32	13.48	7.66	5.82	0.970			
				31:10		1.51	5,164.11	3,102.70	2,061.41	1.000	13C12-PeCDD 123	IS3	
				Height			1,632.58	977.46	655.12				
368-370			3 Peaks				5,183.05						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.881-1.119			
374-376	DC	NL		Height			0.71	0.34	0.37				
				32:39		1.28	212.91	119.60	93.31	0.969			
				32:48		1.24	667.78	369.06	298.72	0.973			
				32:58		1.30	45.44	25.68	19.76	0.978			J
				33:05	RO	1.67	32.05	23.87	14.31	0.982			J
X		X		33:14	RO	1.29	212.32	119.60	92.72	0.986			
				33:21	RO	0.87	5.51	3.05	3.50	0.990			J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	X		X	33:29	RO	1.21	24.01	13.13	10.88	0.994			J
				33:36		1.31	678.66	385.25	293.41	0.997	123478-HxCDF	AN	
				33:43		1.32	228.92	130.08	98.84	1.000	123678-HxCDF	AN	
	X		X	33:52	RO	1.30	146.22	82.64	63.58	1.005			J
				34:01		1.25	57.33	31.81	25.52	1.009			J
				34:12		1.35	236.33	135.94	100.39	1.015	234678-HxCDF	AN	
		DC	SN	34:29	RO	1.74	0.69			1.023			
				34:37	RO	2.85	0.92	1.17	0.41	1.027			J
	M			34:59		1.24	21.14	11.70	9.44	1.038	123789-HxCDF	AN	J
				35:04		1.26	28.29	15.78	12.51	1.041			J
374-376			15	Peaks			2,597.83						
13C12-HxCDF					0.43-0.59					0.881-1.119			
384-386		DC	NL		Height		1.85	0.94	0.91				
				33:36		0.50	6,024.87	2,019.31	4,005.56	0.997	13C12-HxCDF 478	SUR2	
				33:42		0.50	5,860.33	1,953.69	3,906.64	1.000	13C12-HxCDF 678	IS4	
					Height		1,929.83	638.48	1,291.35				
				33:59	RO	0.15	3.46	1.17	7.82	1.008			
				34:12		0.51	5,657.41	1,901.46	3,755.95	1.015	13C12-HxCDF 234	ALT2	
				34:59		0.51	4,526.81	1,520.03	3,006.78	1.038	13C12-HxCDF 789	ALT1	
384-386			5	Peaks			22,072.88						

---------- Above: HxCDF / HxCDD Follows ----------

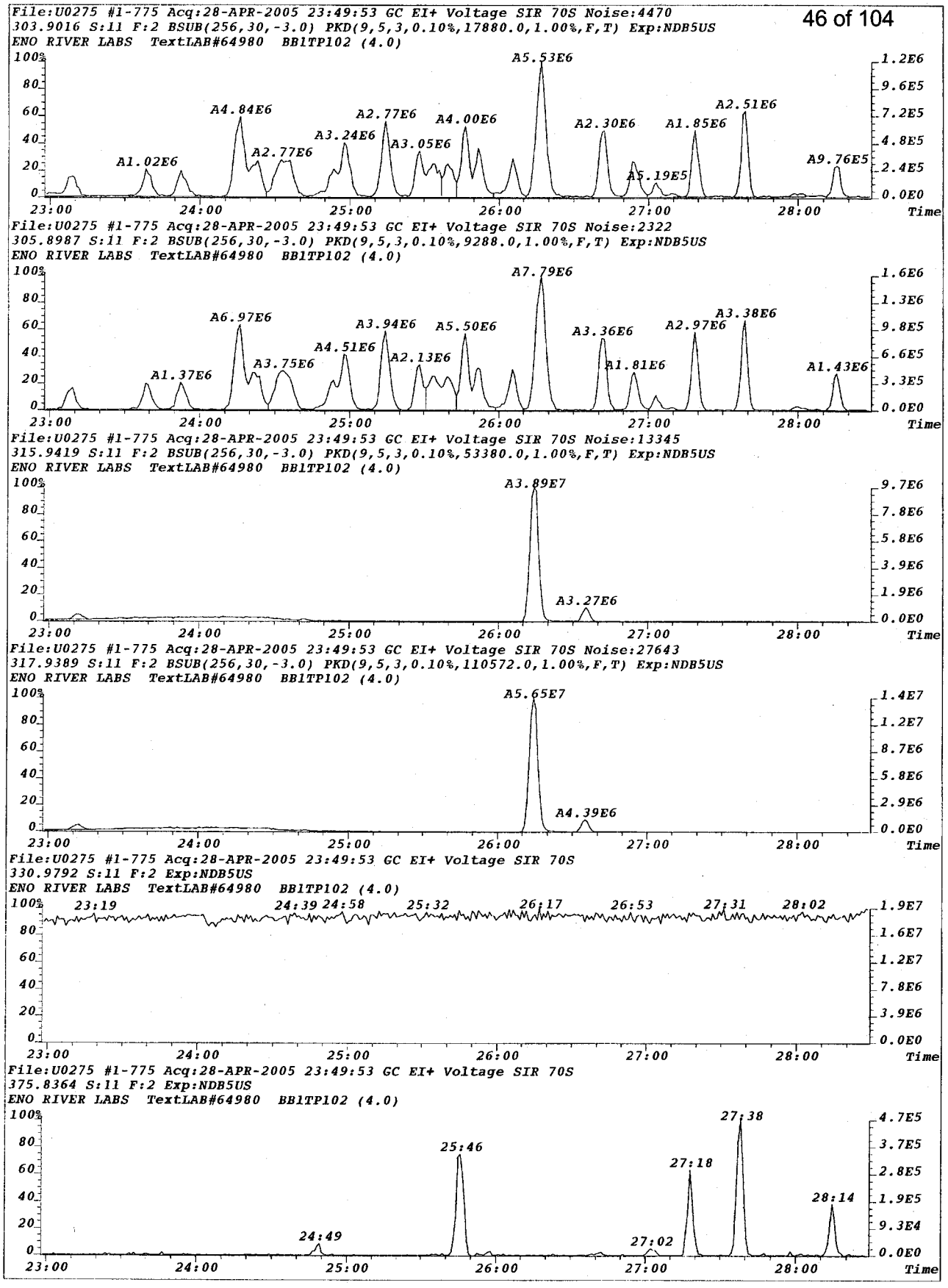
HxCDD					1.05-1.43					0.884-1.116			
390-392		DC	NL		Height		0.90	0.36	0.54				
	M			33:08		1.08	175.90	91.20	84.70	0.964			
		DC	SN	33:21	RO	0.47	1.14			0.970			
		DC	SN	33:29	RO	3.31	0.36			0.974			
				33:34		1.20	421.63	230.10	191.53	0.976			
				33:48		1.05	357.79	182.93	174.86	0.983			
				33:57		1.30	23.92	13.53	10.39	0.987			J
		DC	SN	34:05	RO	0.51	0.52			0.991			
		DC	SN	34:12	RO	2.47	3.20			0.995			
				34:18		1.11	29.90	15.74	14.16	0.998	123478-HxCDD	AN	J
				34:24		1.38	71.72	41.61	30.11	1.000	123678-HxCDD	AN	J
				34:42		1.25	92.55	51.44	41.11	1.009	123789-HxCDD	AN	J
		DC	WH	35:03		1.13	0.81			1.019			
		DC	WH	35:10	RO	0.44	24.42			1.023			
390-392			7	Peaks			1,173.41						
13C12-HxCDD					1.05-1.43					0.971-1.029			
402-404		DC	NL		Height		0.33	0.18	0.15				
				33:46		1.42	19.76	11.59	8.17	0.982			
				34:18		1.23	3,978.45	2,190.46	1,787.99	0.998	13C12-HxCDD 478	SUR3	
				34:23		1.24	4,526.50	2,505.89	2,020.61	1.000	13C12-HxCDD 678	IS5	
					Height		1,436.26	785.00	651.26				
				34:42		1.21	5,207.29	2,855.29	2,352.00	1.009	13C12-HxCDD 789	RS2	
				35:05	RO	1.52	4.41	2.99	1.97	1.020			
402-404			5	Peaks			13,736.41						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20						0.891-1.109			
408-410	DC	NL		Height			<0.01	0.00	0.00				
				36:39		1.11	967.59	509.12	458.47	1.001	1234678-HpCDF	AN	
				36:55		1.02	178.29	89.97	88.32	1.008			
				37:03		1.15	287.35	153.78	133.57	1.012			
				38:12		1.02	98.93	49.96	48.97	1.043	1234789-HpCDF	AN	J
	DC	WH		38:27	RO	3.29	1.57			1.050			
408-410			4 Peaks				1,532.16						
13C12-HpCDF				0.37-0.51						0.945-1.109			
418-420	DC	NL		Height			0.24	0.14	0.10				
				36:37		0.44	3,621.91	1,107.66	2,514.25	1.000	13C12-HpCDF 678	IS6	
				Height			1,043.66	314.67	728.99				
				36:55		0.42	5.68	1.68	4.00	1.008			
				38:11		0.42	2,662.28	787.83	1,874.45	1.043	13C12-HpCDF 789	SUR4	
				38:29		0.41	4.99	1.44	3.55	1.051			
				38:34	RO	0.99	6.81	2.08	2.11	1.053			
418-420			5 Peaks				6,301.67						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD				0.88-1.20						0.894-1.106			
424-426	DC	NL		Height			0.39	0.15	0.24				
				36:56		1.04	899.18	458.28	440.90	0.981			
D	D	NH		37:16	RO	0.74	1.57			0.989			
D	D	NH		37:30	RO	2.93	0.94			0.996			
				37:42		1.02	832.60	419.87	412.73	1.001	1234678-HpCDD	AN	
424-426			2 Peaks				1,731.78						
13C12-HpCDD				0.88-1.20						0.973-1.027			
436-438	DC	NL		Height			0.24	0.24	0.00				
				37:40		0.99	3,256.33	1,623.83	1,632.50	1.000	13C12-HpCDD 678	IS7	
				Height			882.38	440.49	441.89				
436-438			1 Peak				3,256.33						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF				0.76-1.02						0.903-1.097			
442-444	DC	NL		Height			0.06	0.01	0.05				
	DC	WL		36:03	RO	0.55	0.96			0.873			
	DC	WL		36:38	RO	4.36	0.21			0.887			
				38:00	RO	1.58	1.08	0.90	0.57	0.920			
				38:06	RO	0.44	1.06	0.50	1.14	0.922			
				38:22	RO	6.63	0.30	1.06	0.16	0.929			
				38:43	RO	0.38	1.25	0.59	1.56	0.937			
				39:16	RO	0.42	1.78	0.84	1.99	0.950			
				39:18		0.96	1.53	0.75	0.78	0.951			
				39:39		0.83	7.88	3.58	4.30	0.960			
				40:09	RO	1.11	1.19	0.70	0.63	0.972			
				41:23	RO	1.25	1.44	0.95	0.76	1.002			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				41:33		0.84	937.26	429.02	508.24	1.006	OCDF		AN
				41:50	RO	1.25	1.95	1.29	1.03	1.013			
				42:21	RO	0.28	0.93	0.44	1.55	1.025			
				42:32	RO	2.79	1.25	1.84	0.66	1.029			
				44:32	RO	0.19	0.53	0.25	1.35	1.078			
442-444			14 Peaks				959.43						
OCDD						0.76-1.02				0.903-1.097			
458-460		DC	NL			Height	<0.01	0.00	0.00				
				39:05	RO	0.70	56.49	26.60	37.75	0.946			
				41:20		0.83	2,479.70	1,127.77	1,351.93	1.000	OCDD		AN
458-460			2 Peaks				2,536.19						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472		DC	NL			Height	<0.01	0.00	0.00				
				41:19		0.84	4,331.18	1,972.05	2,359.13	1.000	13C12-OCDD		IS8
						Height	927.25	411.02	516.23				
				41:39	RO	0.65	7.77	3.66	5.63	1.008			
470-472			2 Peaks				4,338.95						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.l -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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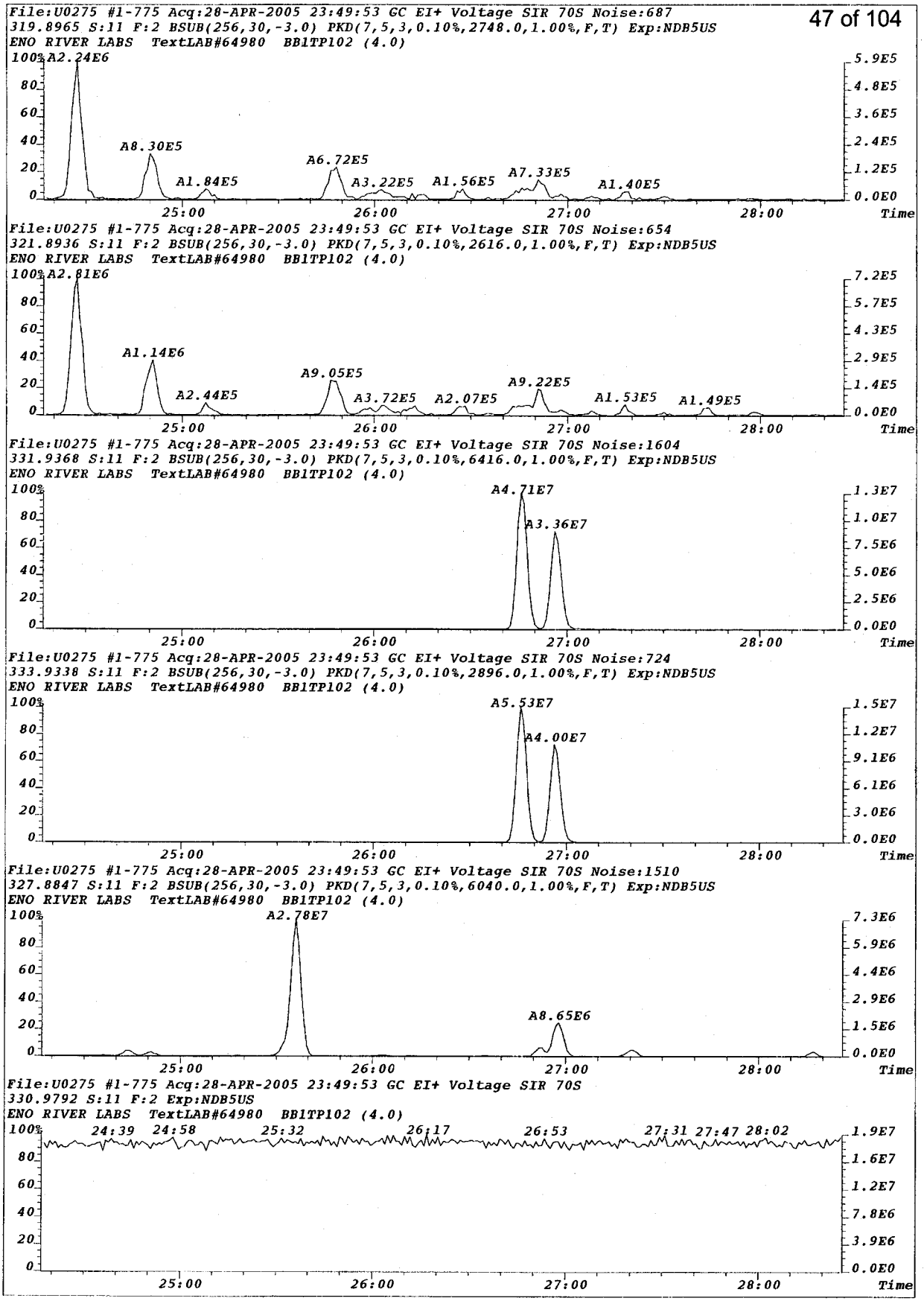
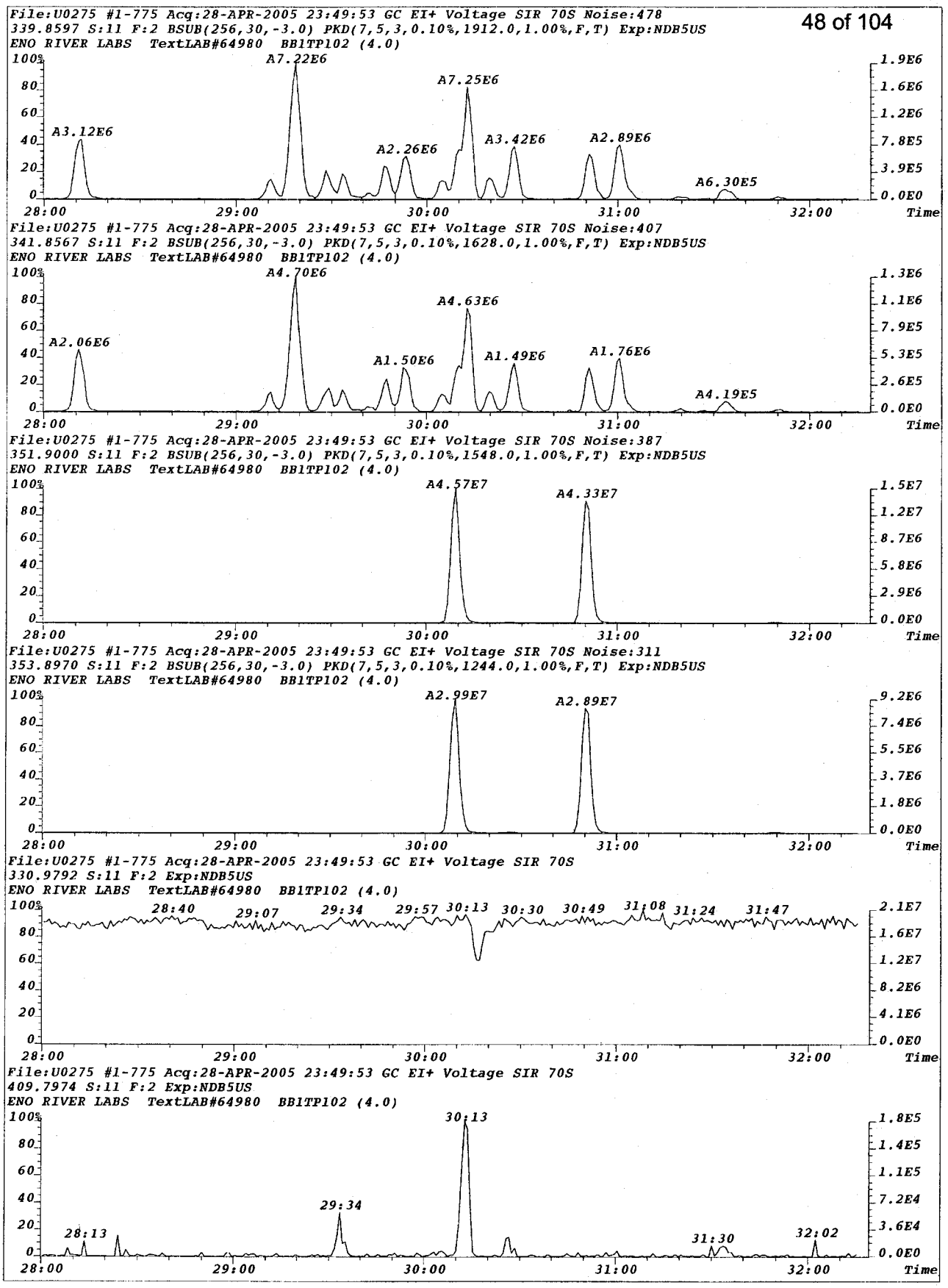
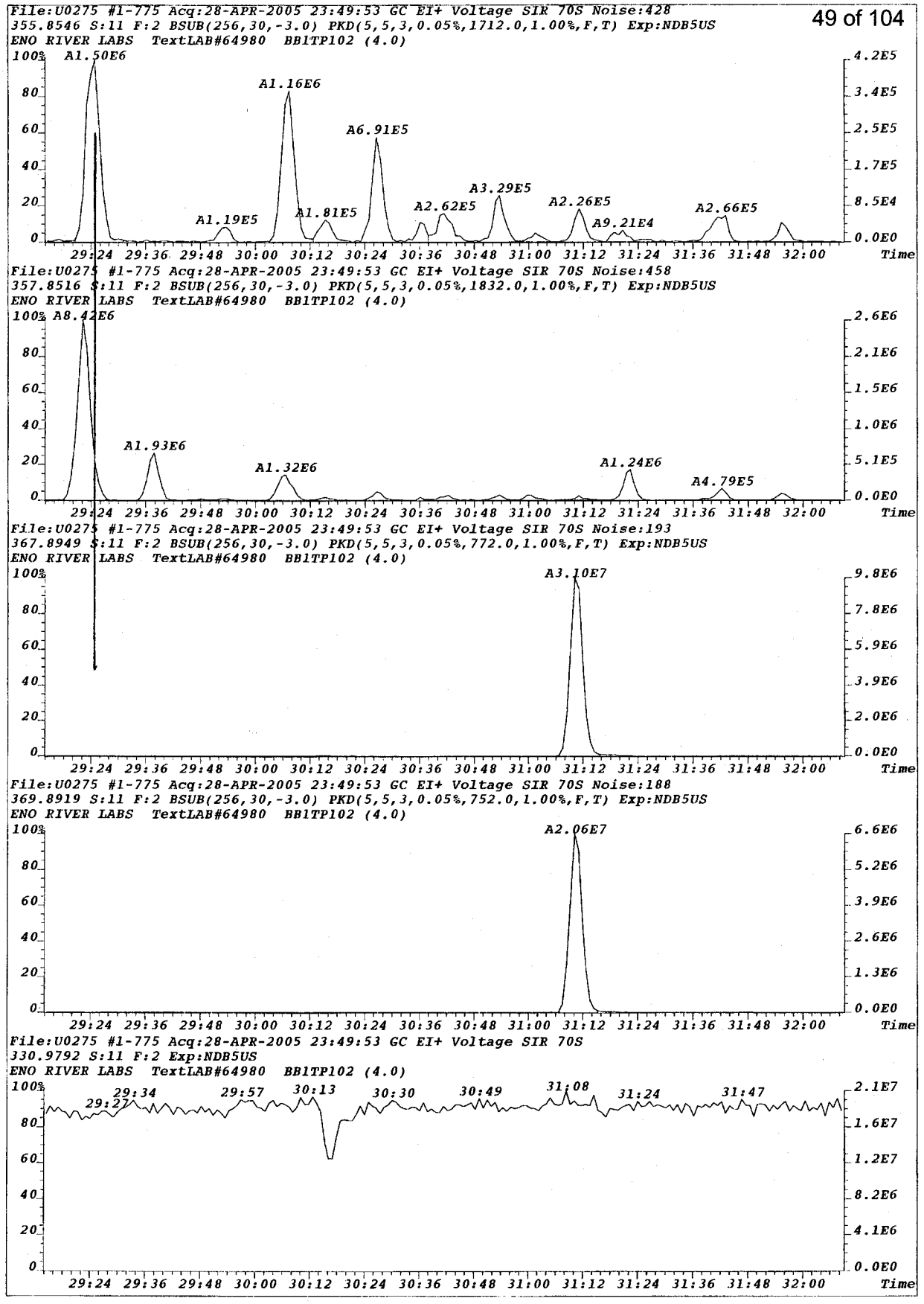
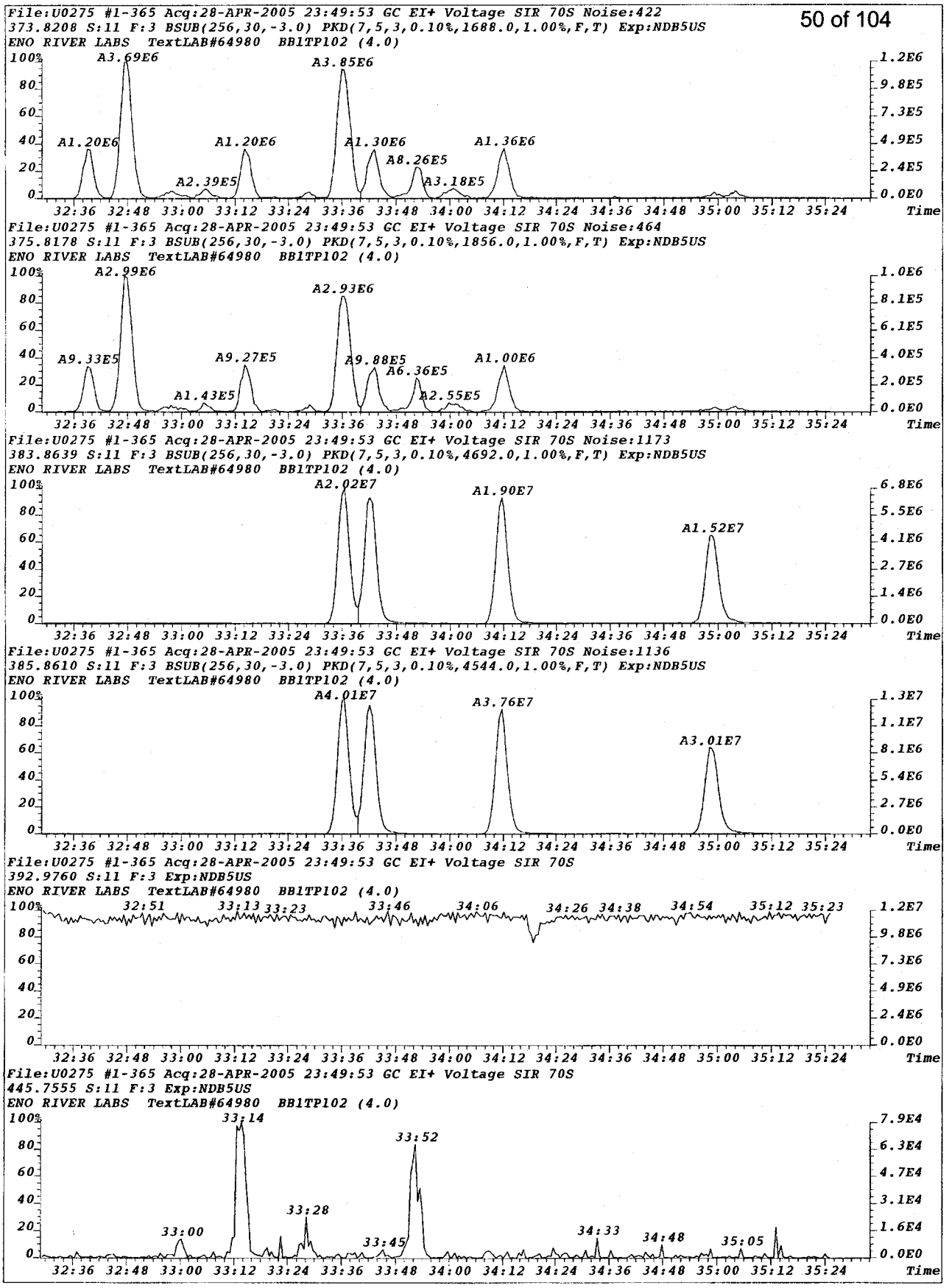
303.9016 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,17880.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.02E6
A4.84E6
A2.77E6
A3.24E6
A2.77E6
A3.05E6
A4.00E6
A5.53E6
A2.30E6
A1.85E6
A2.51E6
A5.19E5
A9.76E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:2322
305.8987 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,9288.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.37E6
A6.97E6
A3.75E6
A4.51E6
A3.94E6
A2.13E6
A5.50E6
A7.79E6
A3.36E6
A1.81E6
A2.97E6
A3.38E6
A1.43E6
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:13345
315.9419 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,53380.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A3.89E7
A3.27E6
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:27643
317.9389 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,110572.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A5.65E7
A4.39E6
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
23:19
24:39
24:58
25:32
26:17
26:53
27:31
28:02
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
375.8364 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
24:49
25:46
27:02
27:18
27:38
28:14
Time


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:687
319.8965 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2748.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.24E6
A8.30E5
A1.84E5
A6.72E5
A3.22E5
A1.56E5
A7.33E5
A1.40E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:654
321.8936 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2616.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.81E6
A1.14E6
A2.44E5
A9.05E5
A3.72E5
A2.07E5
A9.22E5
A1.53E5
A1.49E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:1604
331.9368 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6416.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.71E7
A3.36E7
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:724
333.9338 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2896.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A5.53E7
A4.00E7
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:1510
327.8847 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6040.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.78E7
A8.65E6
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
24:39 24:58 25:32 26:17 26:53 27:31 27:47 28:02
25:00 26:00 27:00 28:00 Time


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:478
339.8597 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1912.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A3.12E6
A7.22E6
A2.26E6
A7.25E6
A3.42E6
A2.89E6
A6.30E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:407
341.8567 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1628.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.06E6
A4.70E6
A1.50E6
A4.63E6
A1.49E6
A1.76E6
A4.19E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:387
351.9000 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1548.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.57E7
A4.33E7
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:311
353.8970 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1244.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.99E7
A2.89E7
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
28:40
29:07
29:34
29:57
30:13
30:30
30:49
31:08
31:24
31:47
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
409.7974 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
28:13
29:34
30:13
31:30
32:02
28:00
29:00
30:00
31:00
32:00
Time


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:428
355.8546 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1712.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.50E6
A1.16E6
A6.91E5
A3.29E5
A2.62E5
A2.26E5
A1.19E5
A1.81E5
A9.21E4
A2.66E5
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:458
357.8516 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1832.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A8.42E6
A1.93E6
A1.32E6
A1.24E6
A4.79E5
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:193
367.8949 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,772.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A3.10E7
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:188
369.8919 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,752.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.06E7
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
29:27
29:34
29:57
30:13
30:30
30:49
31:08
31:24
31:47
Time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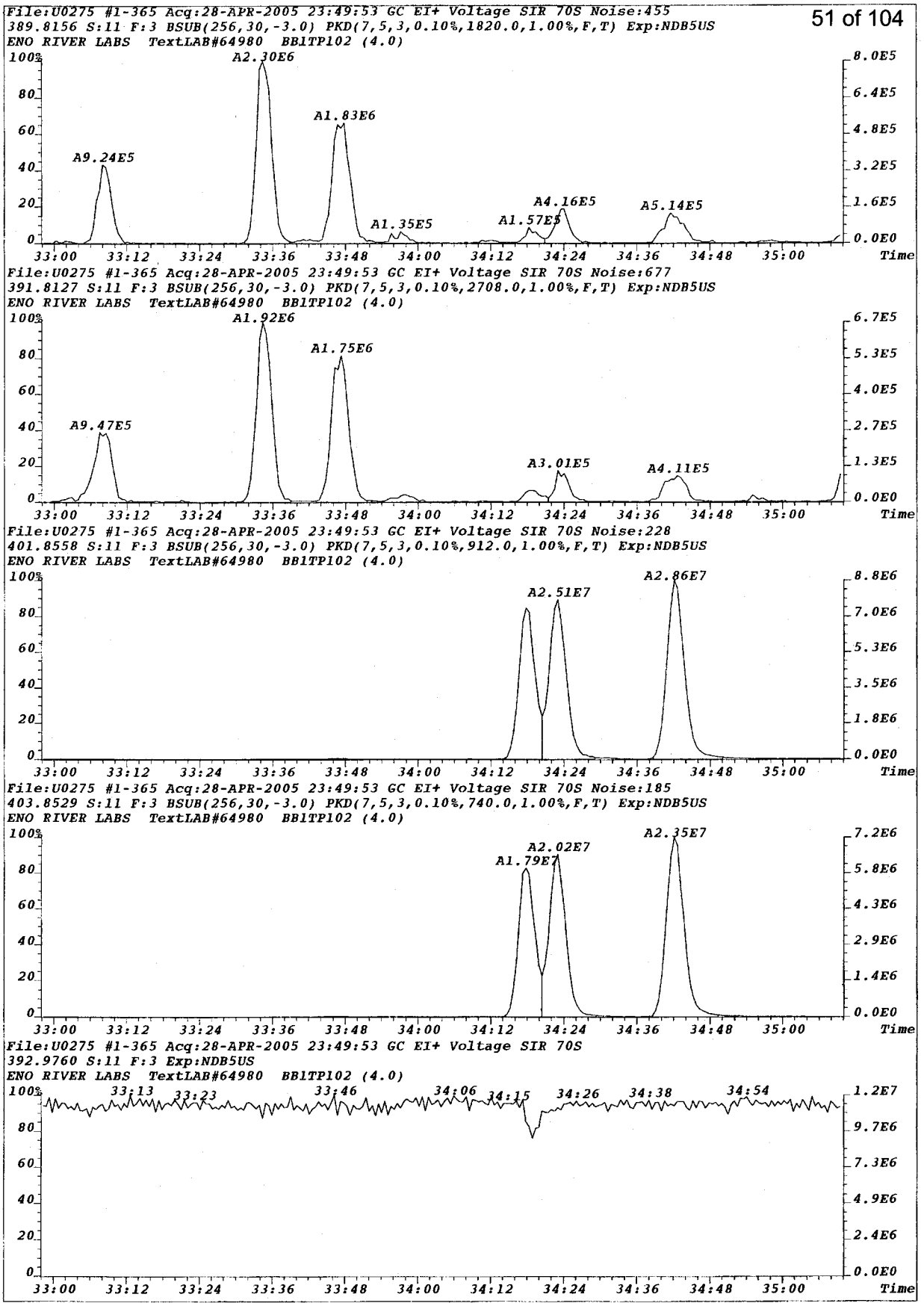
373.8208 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1688.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A3.69E6
A3.85E6
A1.20E6
A1.20E6
A1.30E6
A1.36E6
A8.26E5
A2.39E5
A3.18E5
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:464
375.8178 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1856.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.99E6
A2.93E6
A9.33E5
A9.27E5
A9.88E5
A1.00E6
A6.36E5
A1.43E5
A2.55E5
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:1173
383.8639 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4692.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.02E7
A1.90E7
A1.52E7
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:1136
385.8610 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4544.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.01E7
A3.76E7
A3.01E7
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
392.9760 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
445.7555 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
33:14
33:52
33:28
33:00
33:45
34:33
34:48
35:05
32:36 32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 35:12 35:24
Time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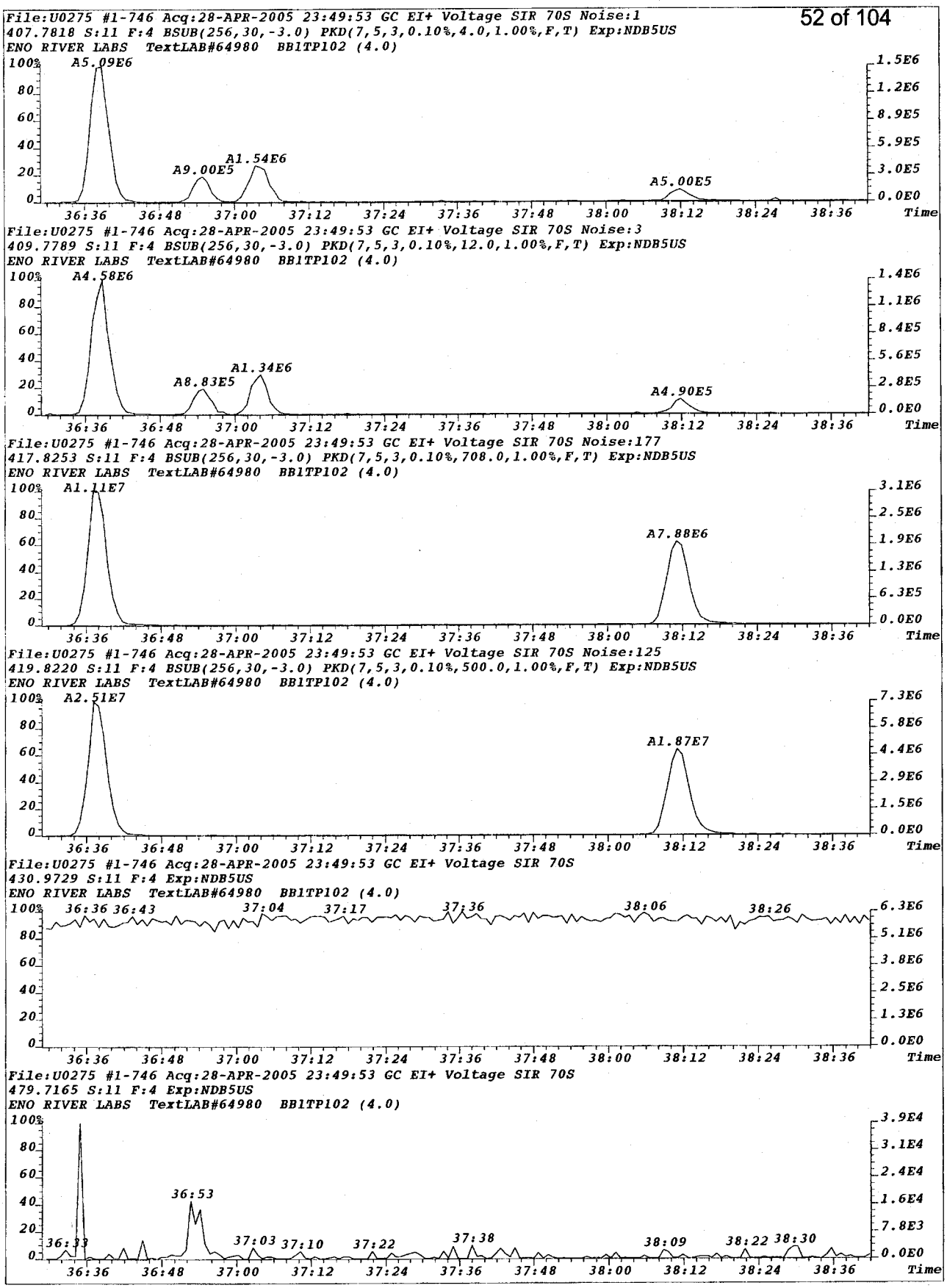
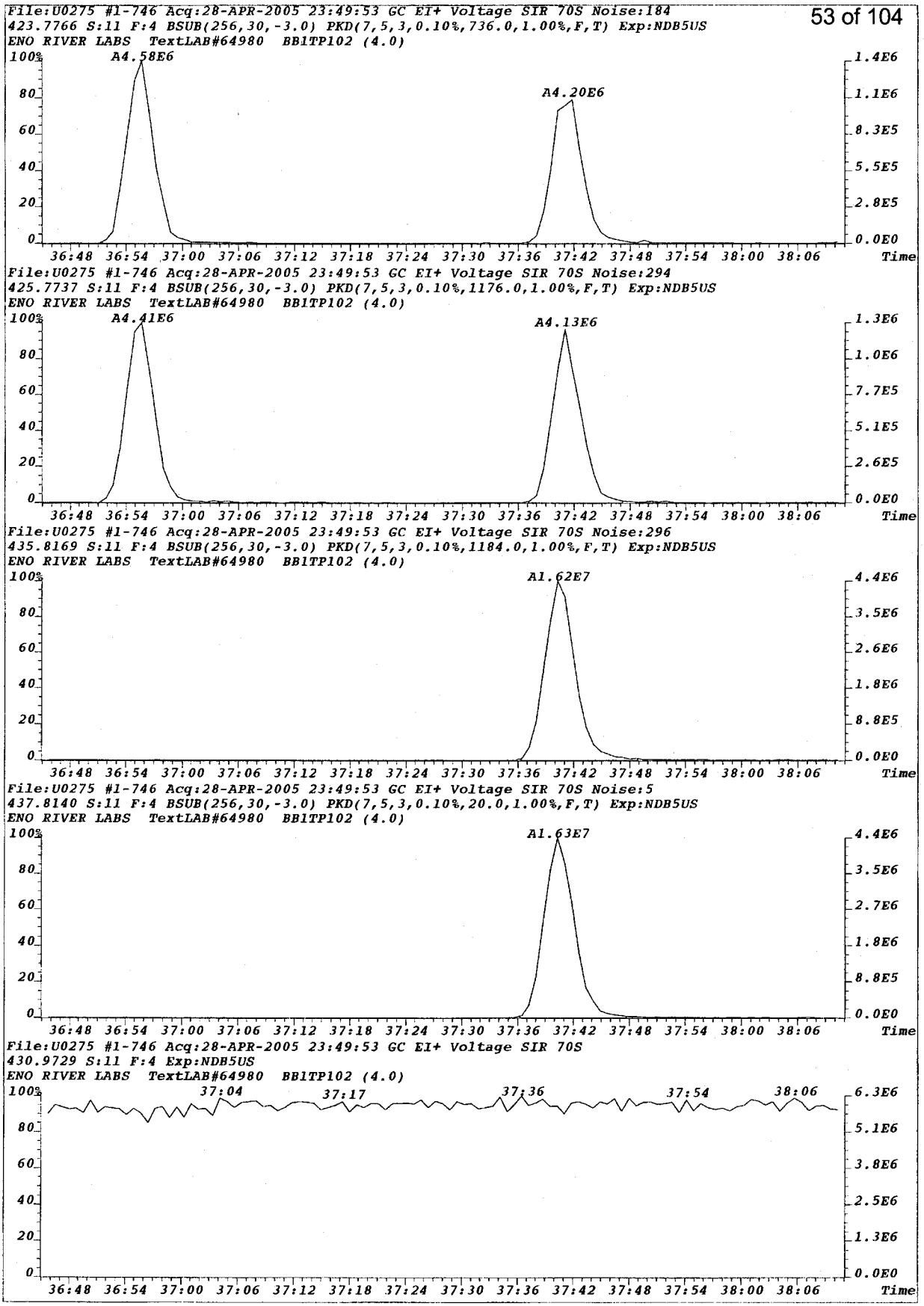
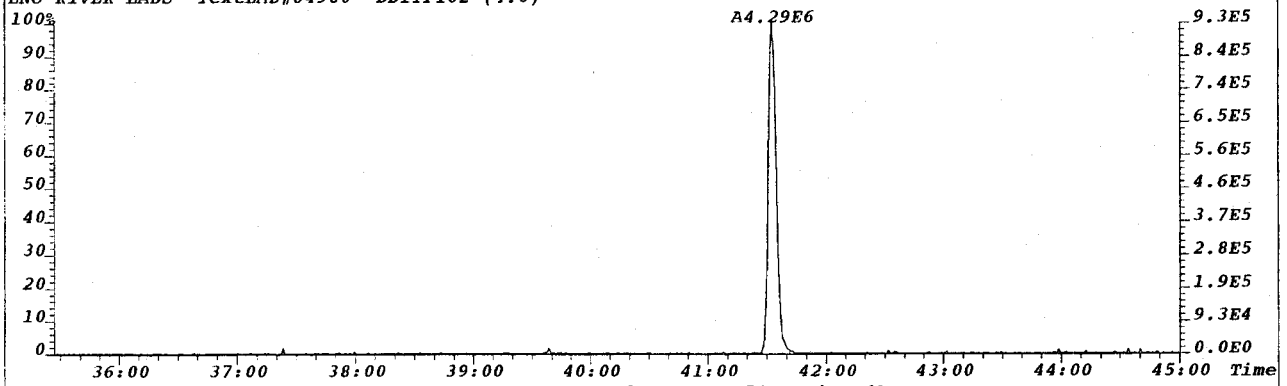
389.8156 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1820.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.30E6
A1.83E6
A9.24E5
A1.35E5
A1.57E5
A4.16E5
A5.14E5
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:677
391.8127 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2708.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.92E6
A1.75E6
A9.47E5
A3.01E5
A4.11E5
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:228
401.8558 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,912.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.86E7
A2.51E7
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:185
403.8529 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,740.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.35E7
A2.02E7
A1.79E7
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
392.9760 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
33:13
33:23
33:46
34:06
34:15
34:26
34:38
34:54
Time


File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:1
407.7818 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A5.09E6
A9.00E5
A1.54E6
A5.00E5
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:3
409.7789 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.58E6
A8.83E5
A1.34E6
A4.90E5
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:177
417.8253 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,708.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.11E7
A7.88E6
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:125
419.8220 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,500.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A2.51E7
A1.87E7
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
479.7165 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
36:53
Time


File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:184
423.7766 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,736.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.58E6
A4.20E6
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:294
425.7737 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1176.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A4.41E6
A4.13E6
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:296
435.8169 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1184.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.62E7
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:5
437.8140 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
A1.63E7
File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
37:04
37:17
37:36
37:54
38:06
36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06
Time

File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:12
441.7428 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,48.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



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443.7399 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,244.0,1.00%,F,T) Exp:NDB5US
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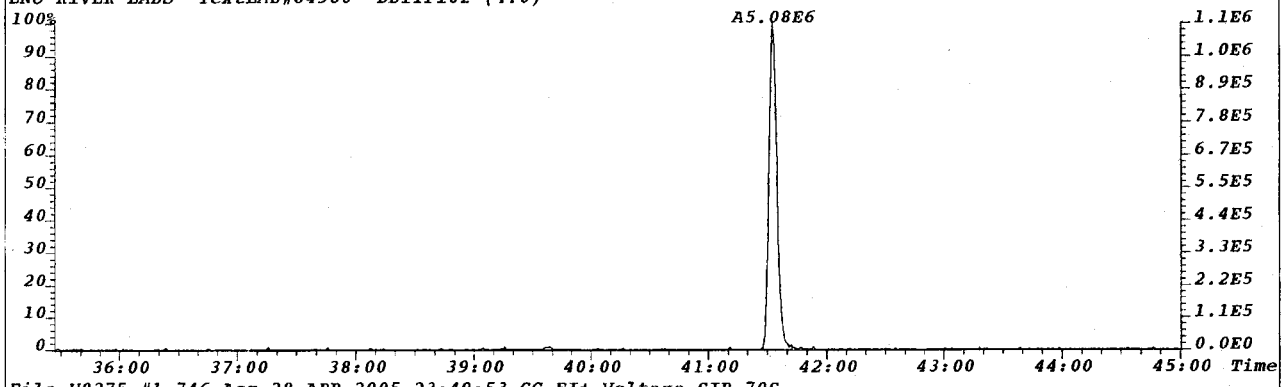

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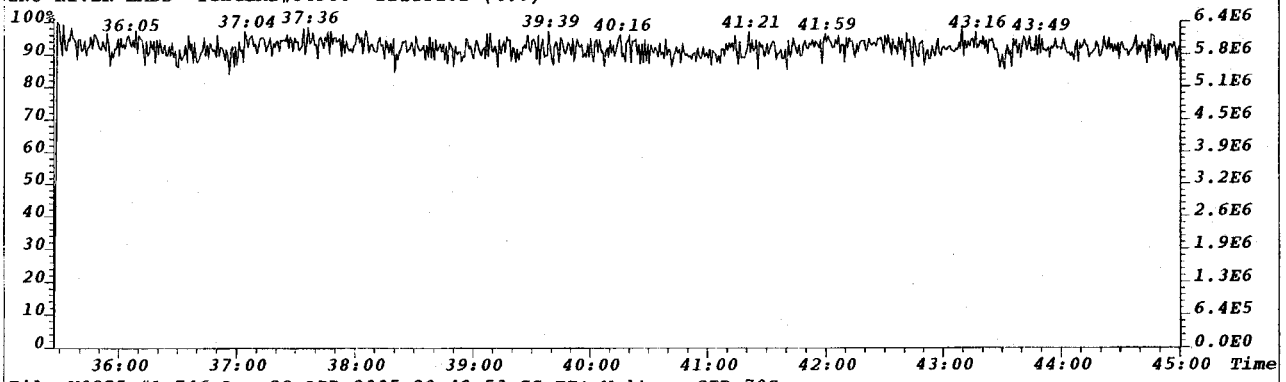
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



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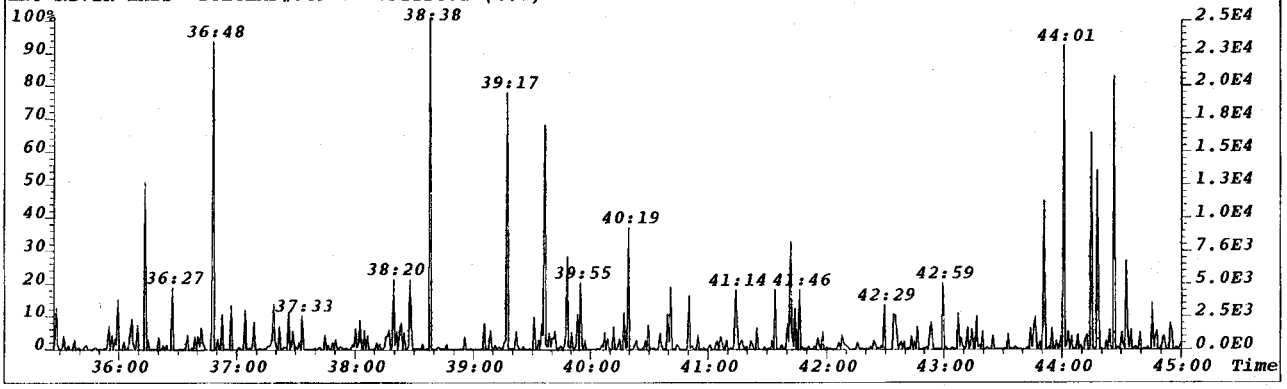
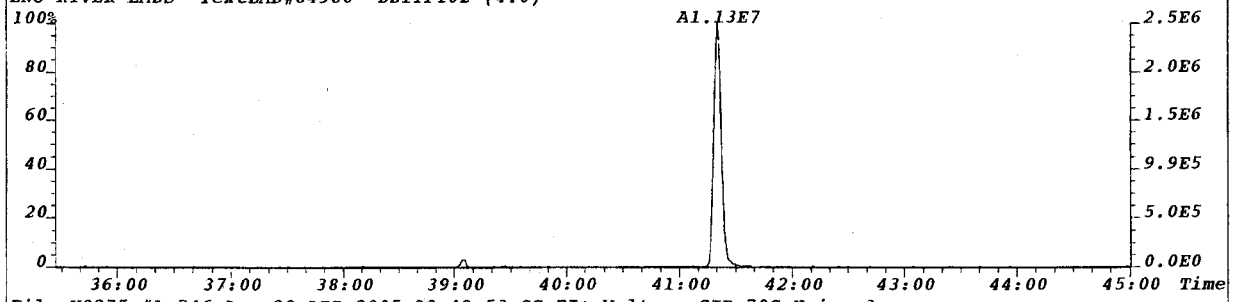
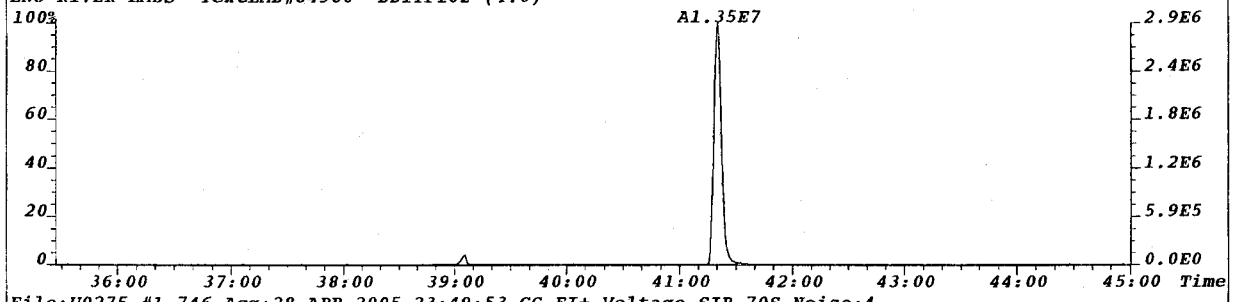
513.6775 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:2
457.7377 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:3
459.7348 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S Noise:4
469.7779 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16.0,1.00%,F,T) Exp:NDB5US
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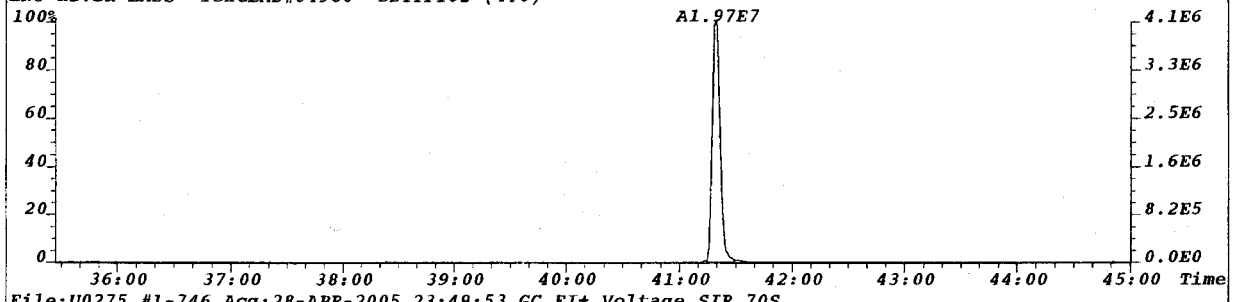

File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
471.7750 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,0.0,1.00%,F,T) Exp:NDB5US
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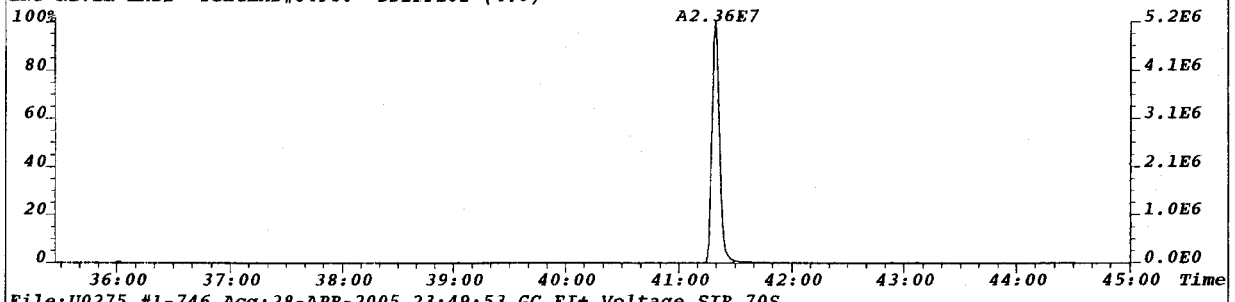
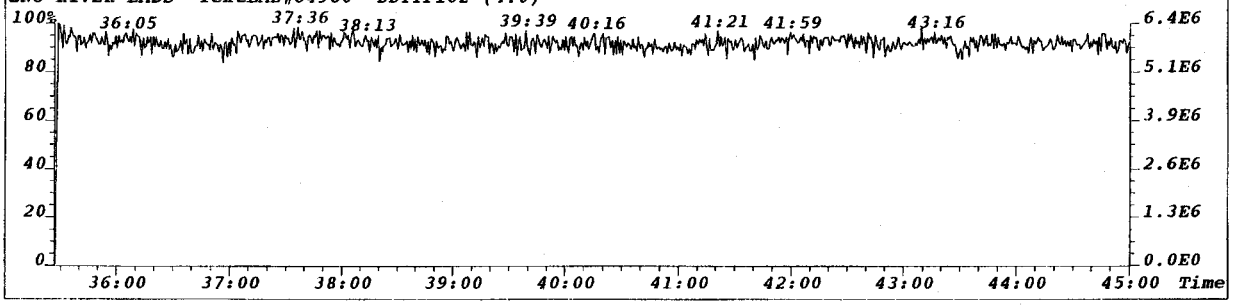
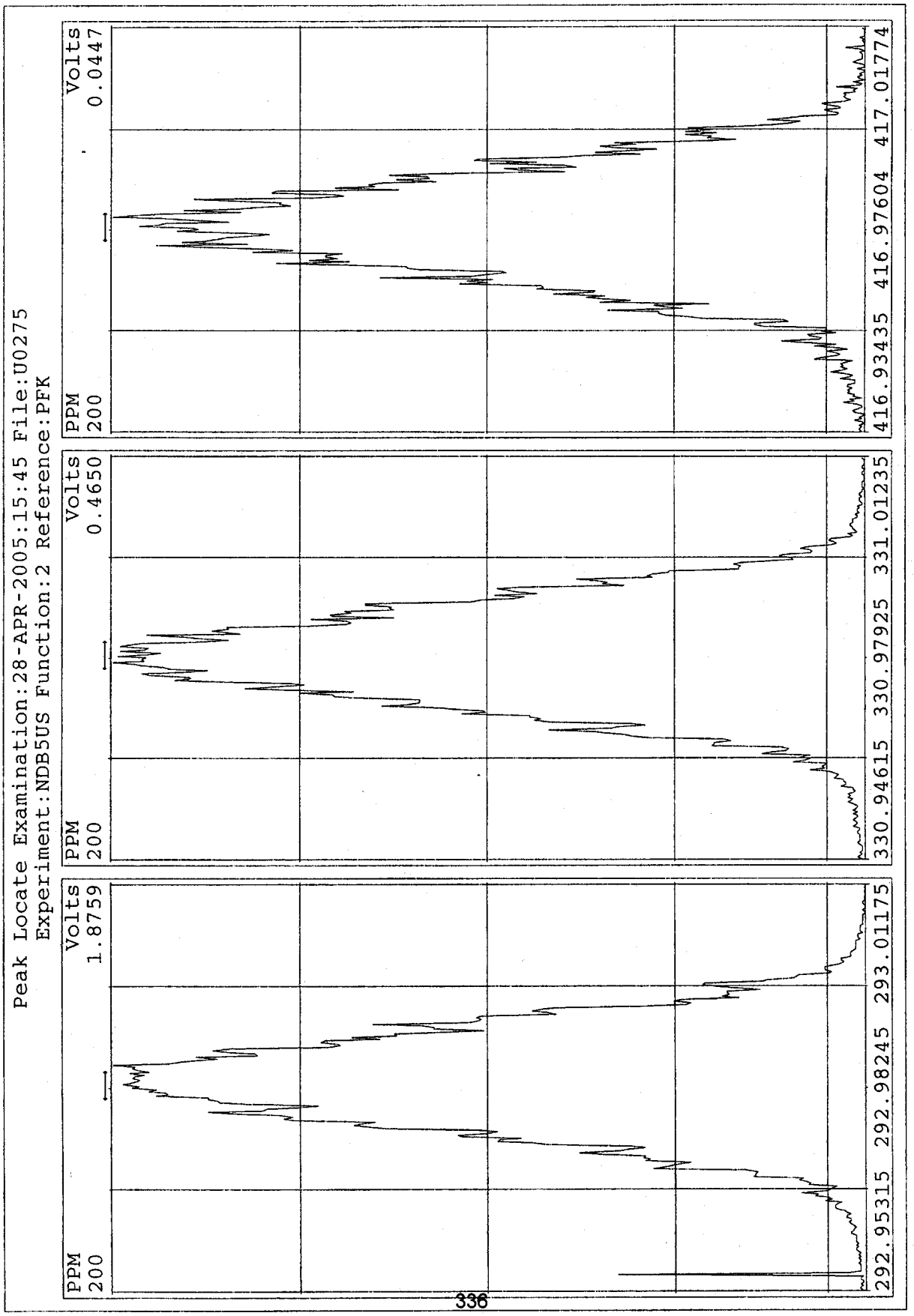
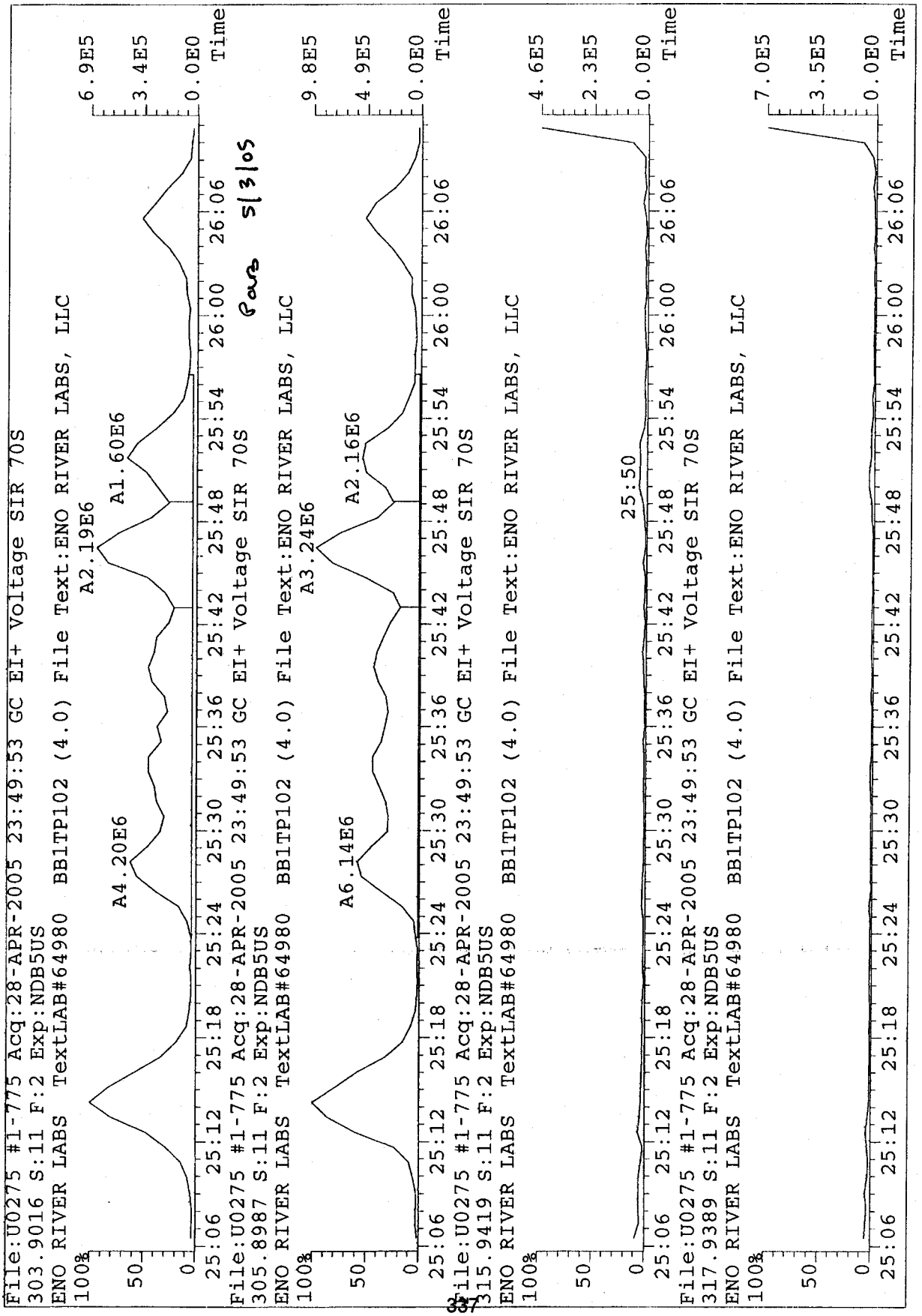
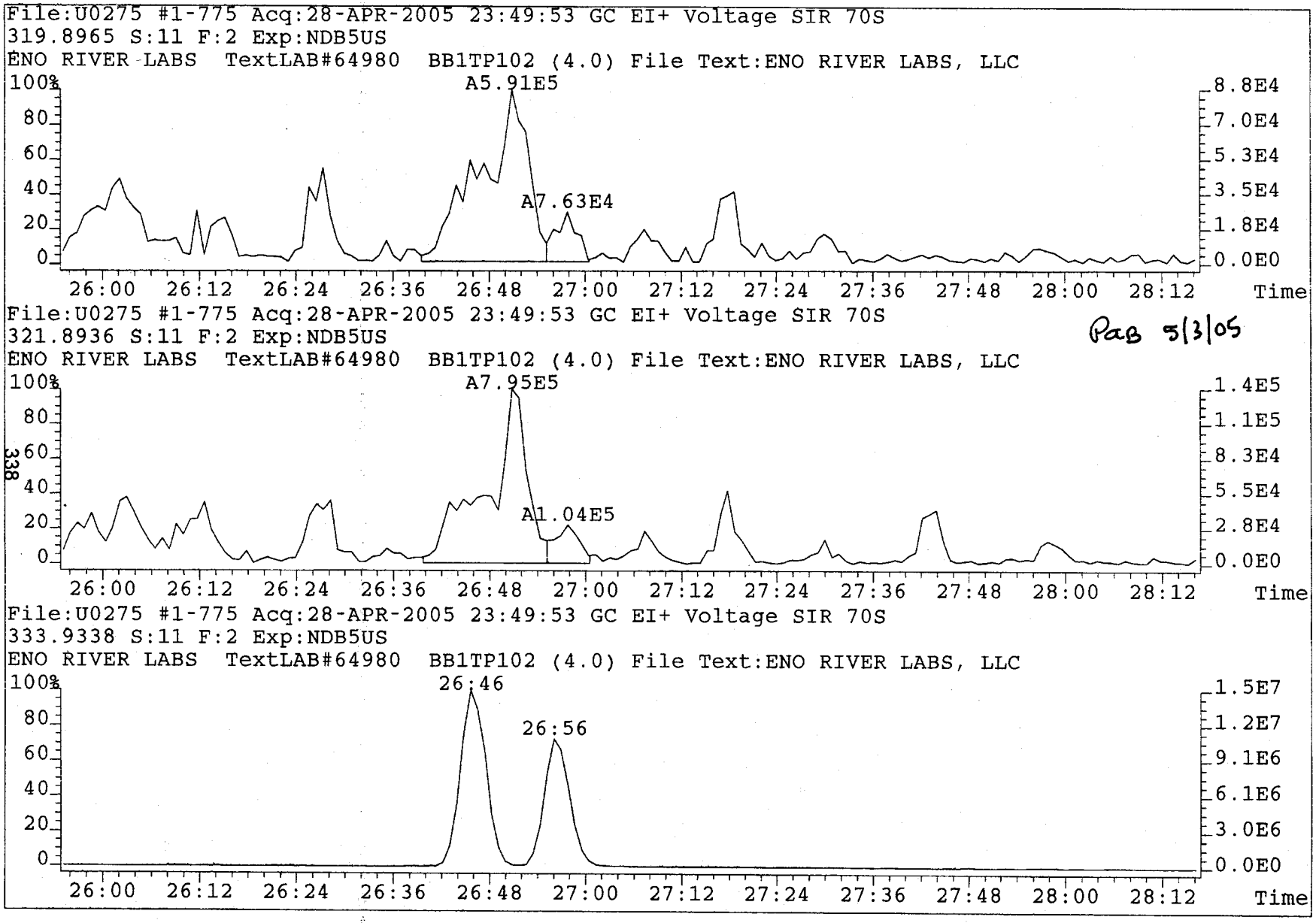


File:U0275 #1-746 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)



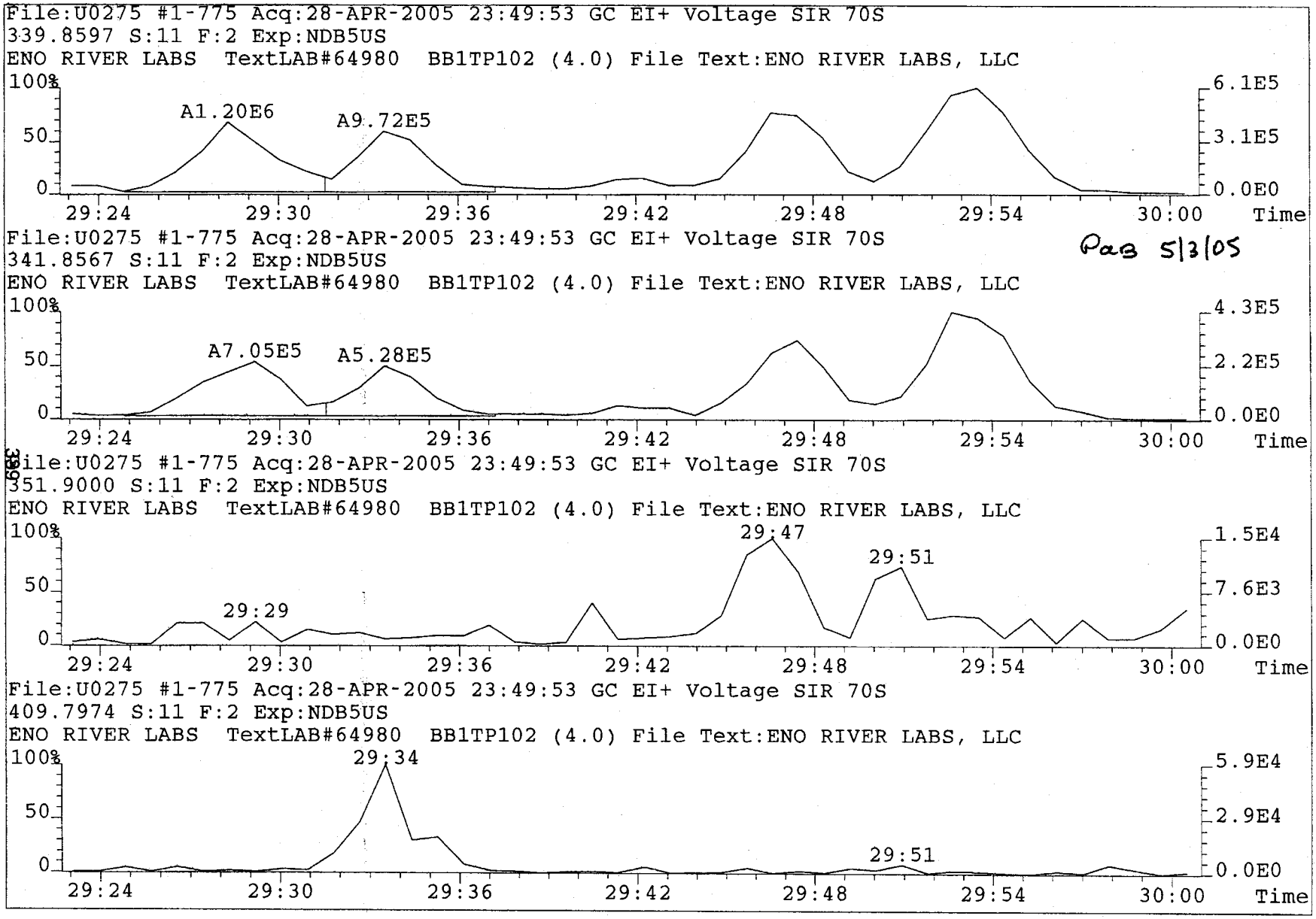

Peak Locate Examination:28-APR-2005:15:45 File:U0275
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8759
292.95315
292.98245
293.01175
PPM
200
Volts
0.4650
330.94615
330.97925
331.01235
PPM
200
Volts
0.0447
416.93435
416.97604
417.01774


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
303.9016 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A4.20E6
A2.19E6
A1.60E6
6.9E5
3.4E5
0.0E0
Time
25:06 25:12 25:18 25:24 25:30 25:36 25:42 25:48 25:54 26:00 26:06
Pass 5/3/05
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
305.8987 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A6.14E6
A3.24E6
A2.16E6
9.8E5
4.9E5
0.0E0
Time
25:06 25:12 25:18 25:24 25:30 25:36 25:42 25:48 25:54 26:00 26:06
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
315.9419 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
25:50
4.6E5
2.3E5
0.0E0
Time
25:06 25:12 25:18 25:24 25:30 25:36 25:42 25:48 25:54 26:00 26:06
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
317.9389 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
7.0E5
3.5E5
0.0E0
Time
25:06 25:12 25:18 25:24 25:30 25:36 25:42 25:48 25:54 26:00 26:06
100%
50
0

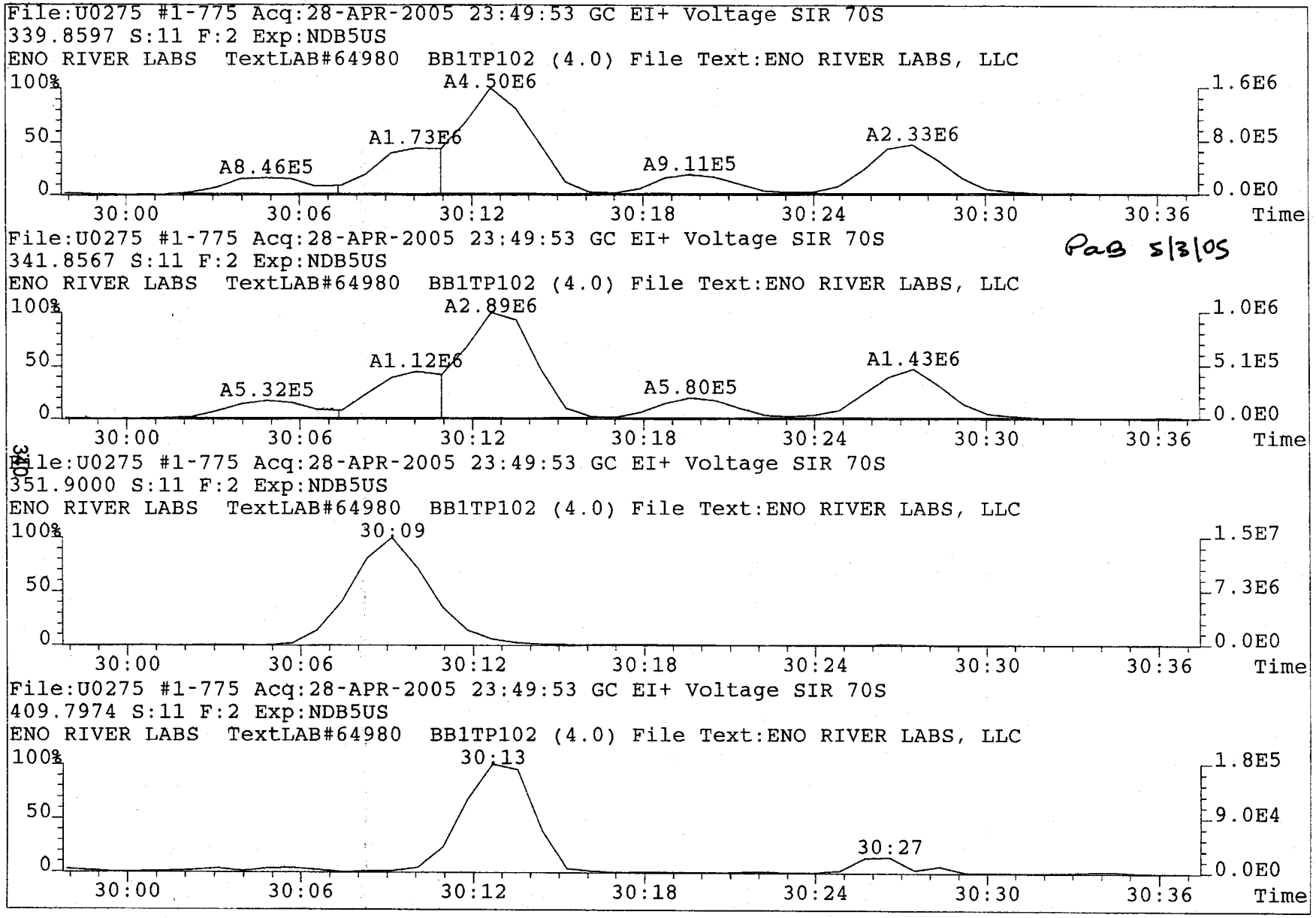

File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
319.8965 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
A5.91E5
A7.63E4
8.8E4
7.0E4
5.3E4
3.5E4
1.8E4
0.0E0
26:00 26:12 26:24 26:36 26:48 27:00 27:12 27:24 27:36 27:48 28:00 28:12 Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
321.8936 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
A7.95E5
A1.04E5
1.4E5
1.1E5
8.3E4
5.5E4
2.8E4
0.0E0
26:00 26:12 26:24 26:36 26:48 27:00 27:12 27:24 27:36 27:48 28:00 28:12 Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
333.9338 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
26:46
26:56
1.5E7
1.2E7
9.1E6
6.1E6
3.0E6
0.0E0
26:00 26:12 26:24 26:36 26:48 27:00 27:12 27:24 27:36 27:48 28:00 28:12 Time

PAB 5/3/05

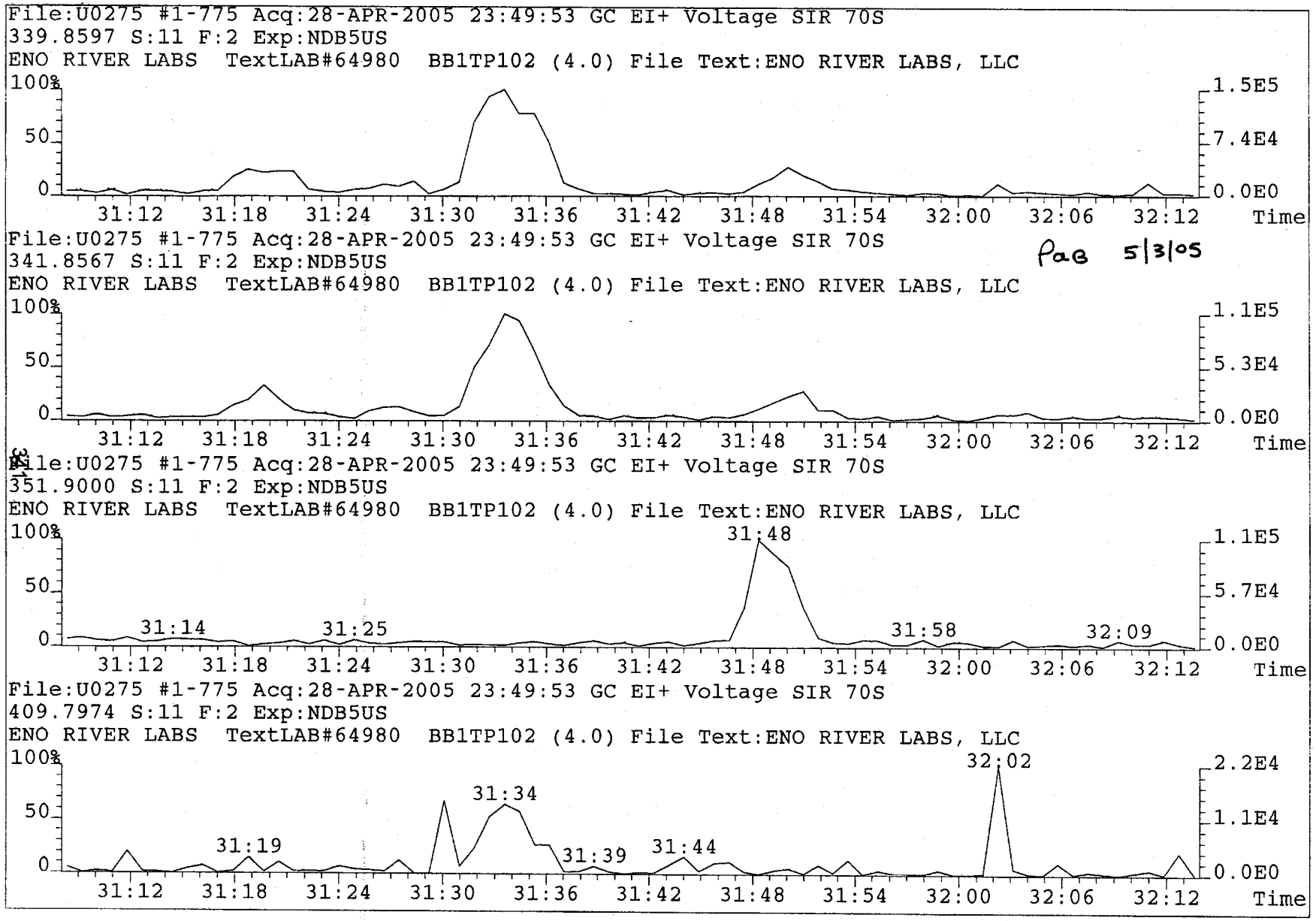
338


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
339.8597 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A1.20E6
A9.72E5
6.1E5
3.1E5
0.0E0
29:24
29:30
29:36
29:42
29:48
29:54
30:00
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
341.8567 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A7.05E5
A5.28E5
4.3E5
2.2E5
0.0E0
29:24
29:30
29:36
29:42
29:48
29:54
30:00
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
351.9000 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
29:29
29:47
29:51
1.5E4
7.6E3
0.0E0
29:24
29:30
29:36
29:42
29:48
29:54
30:00
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
409.7974 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
29:34
29:51
5.9E4
2.9E4
0.0E0
29:24
29:30
29:36
29:42
29:48
29:54
30:00
Time

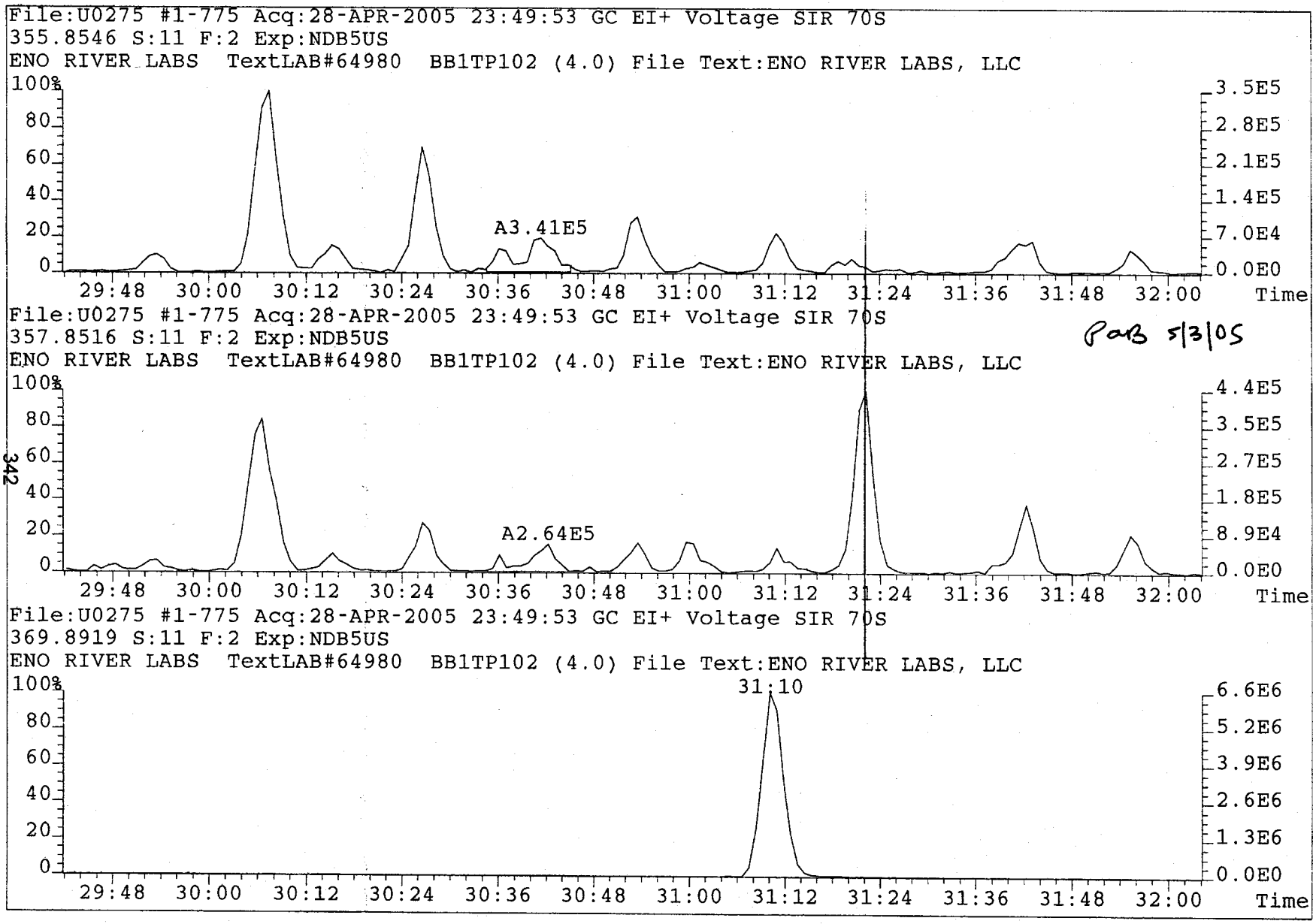
PaB 5/3/05


File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
339.8597 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A4.50E6
A1.73E6
A8.46E5
A9.11E5
A2.33E6
1.6E6
8.0E5
0.0E0
30:00
30:06
30:12
30:18
30:24
30:30
30:36
Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
341.8567 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A2.89E6
A1.12E6
A5.32E5
A5.80E5
A1.43E6
1.0E6
5.1E5
0.0E0
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
351.9000 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
30:09
1.5E7
7.3E6
0.0E0
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
409.7974 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
30:13
30:27
1.8E5
9.0E4
0.0E0

PaB 5/3/05

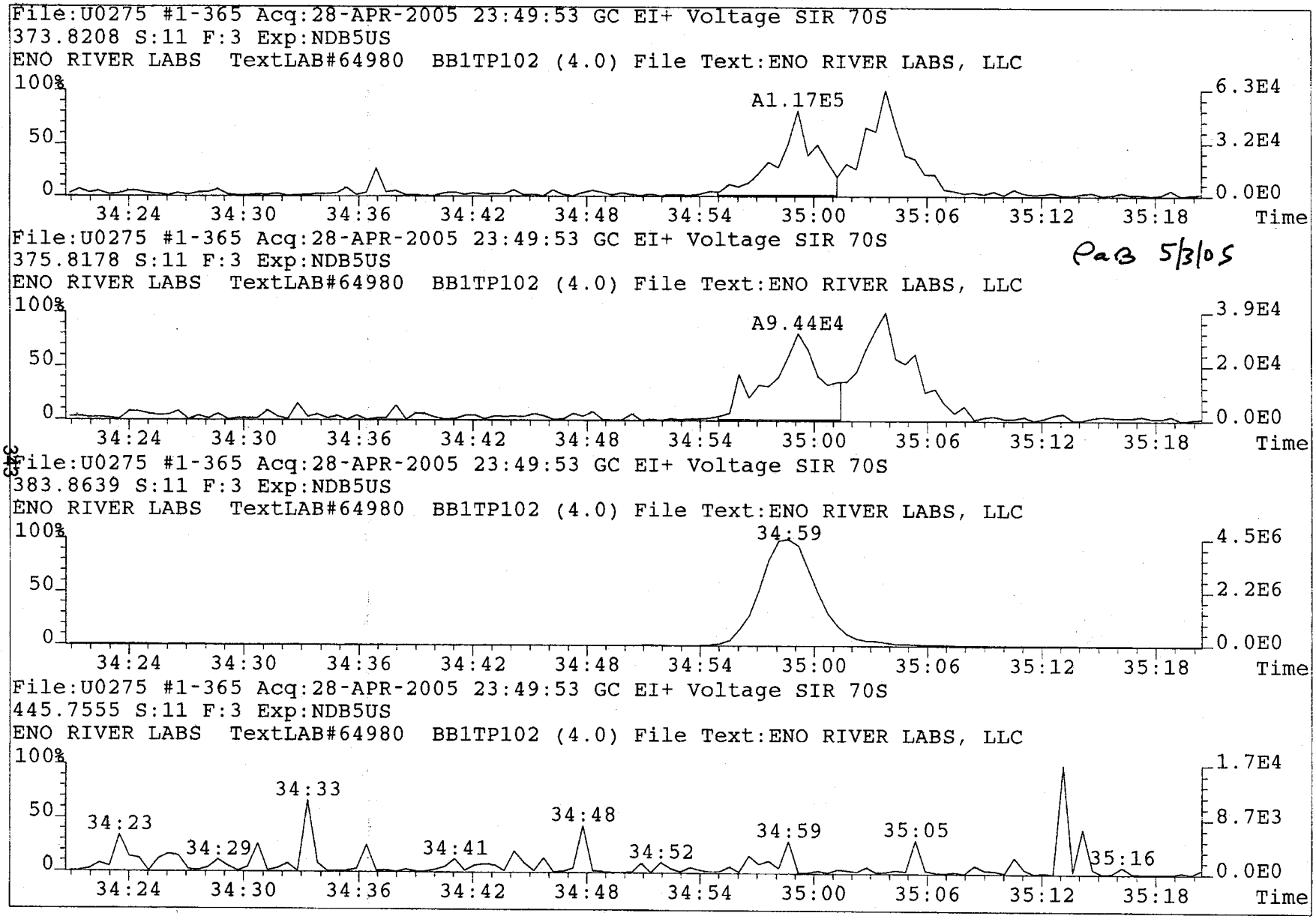

File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
339.8597 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
1.5E5
7.4E4
0.0E0
31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00 32:06 32:12 Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
341.8567 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
1.1E5
5.3E4
0.0E0
31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00 32:06 32:12 Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
351.9000 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
31:48
31:14
31:25
31:58
32:09
1.1E5
5.7E4
0.0E0
31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00 32:06 32:12 Time
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
409.7974 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
32:02
31:34
31:19
31:39
31:44
2.2E4
1.1E4
0.0E0
31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00 32:06 32:12 Time

Pab 5/3/05

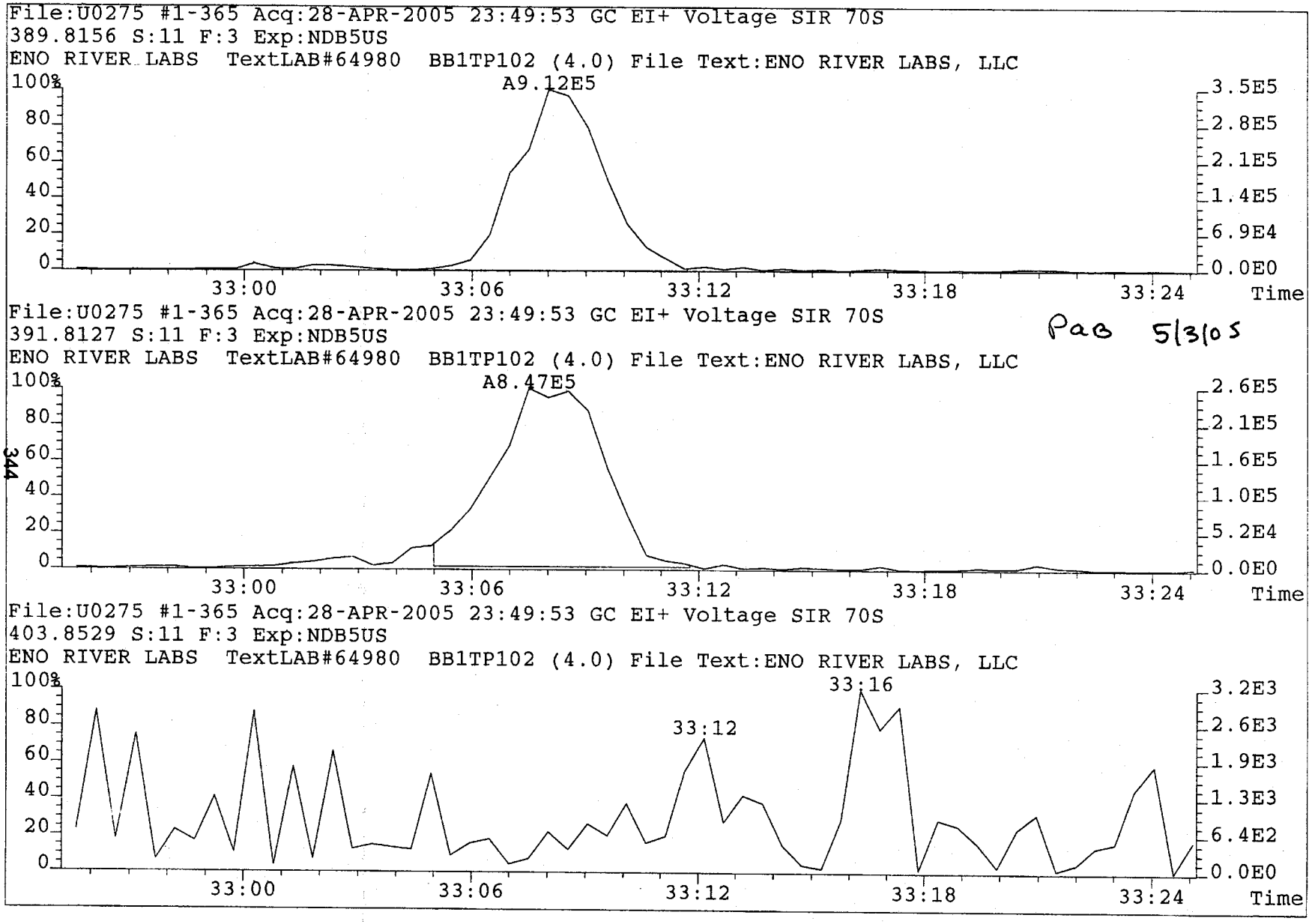

File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
355.8546 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A3.41E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
357.8516 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A2.64E5
File:U0275 #1-775 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
369.8919 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
31:10
Time

BAB 5/3/05

342


File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
373.8208 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A1.17E5
6.3E4
3.2E4
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 35:12 35:18 Time
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
375.8178 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
PaB 5/3/05
100%
50
0
A9.44E4
3.9E4
2.0E4
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 35:12 35:18 Time
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
383.8639 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:59
4.5E6
2.2E6
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 35:12 35:18 Time
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
445.7555 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:23
34:29
34:33
34:41
34:48
34:52
34:59
35:05
35:16
1.7E4
8.7E3
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 35:12 35:18 Time

343


File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
389.8156 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A9.12E5
100%
80
60
40
20
0
3.5E5
2.8E5
2.1E5
1.4E5
6.9E4
0.0E0
33:00
33:06
33:12
33:18
33:24
Time
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
391.8127 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
A8.47E5
2.6E5
2.1E5
1.6E5
1.0E5
5.2E4
0.0E0
File:U0275 #1-365 Acq:28-APR-2005 23:49:53 GC EI+ Voltage SIR 70S
403.8529 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0) File Text:ENO RIVER LABS, LLC
33:16
33:12
3.2E3
2.6E3
1.9E3
1.3E3
6.4E2
0.0E0

PaB 5/3/05

344

Lab Project: **64980** Method 8290 TCDD/TCDF Analysis (DB-225)
Client Sample: **BB1TP102 (4.0)** Analysis File: **P052061**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SOIL**	Date Received:	**04/19/2005**	Spike File:	**SPC2NF22**
Lab ID:	**401-94-1**	Date Extracted:	**04/21/2005**	ICal:	**PF22215**
		Date Analyzed:	**05/02/2005**	ConCal:	**P052056**
Sample Size:	**13.020 g**	Dilution Factor:	**n/a**	% Moisture:	**21.9**
Dry Weight:	**10.169 g**	Blank File:	**U027504**	% Lipid:	**n/a**
GC Column:	**DB-225**	Analyst:	**JSY**	% Solids:	**78.1**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDF	7.0			0.79	22:48	___

Internal Standard	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	161	81.7	40%-130%	0.76	22:48	___

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	21:37	___

Data Reviewer: Pam 05/03/2005

C2NF_PSR v2.03, LARS 6.25.06

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Printed: 11:50 05/03/2005

Initial ....Date...

Data Review By: PaB 5/3/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

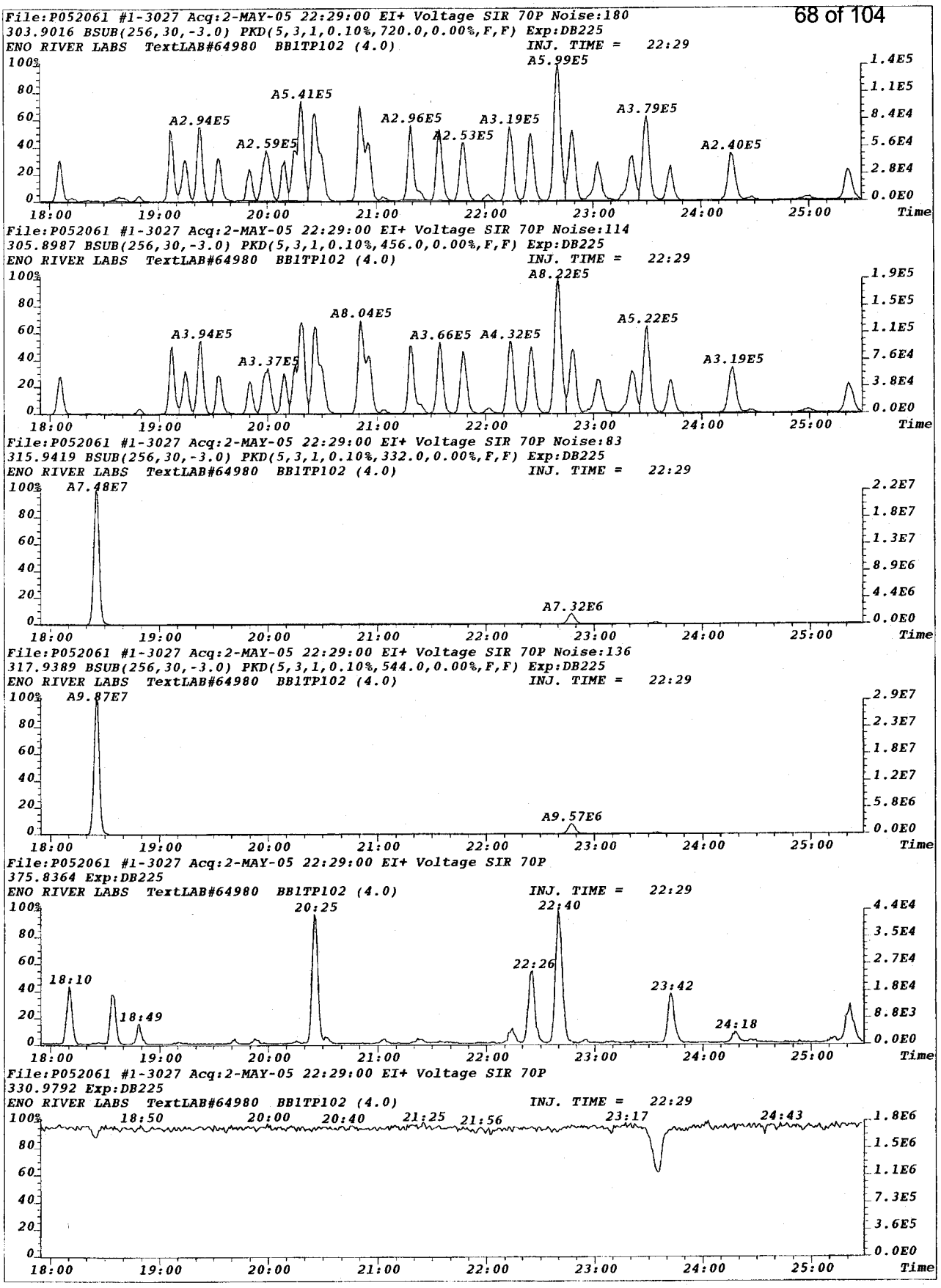
Page No. 1 Listing of P052061B.dbf
05/03/2005 Matched GC Peaks / Ratio / Ret. Time

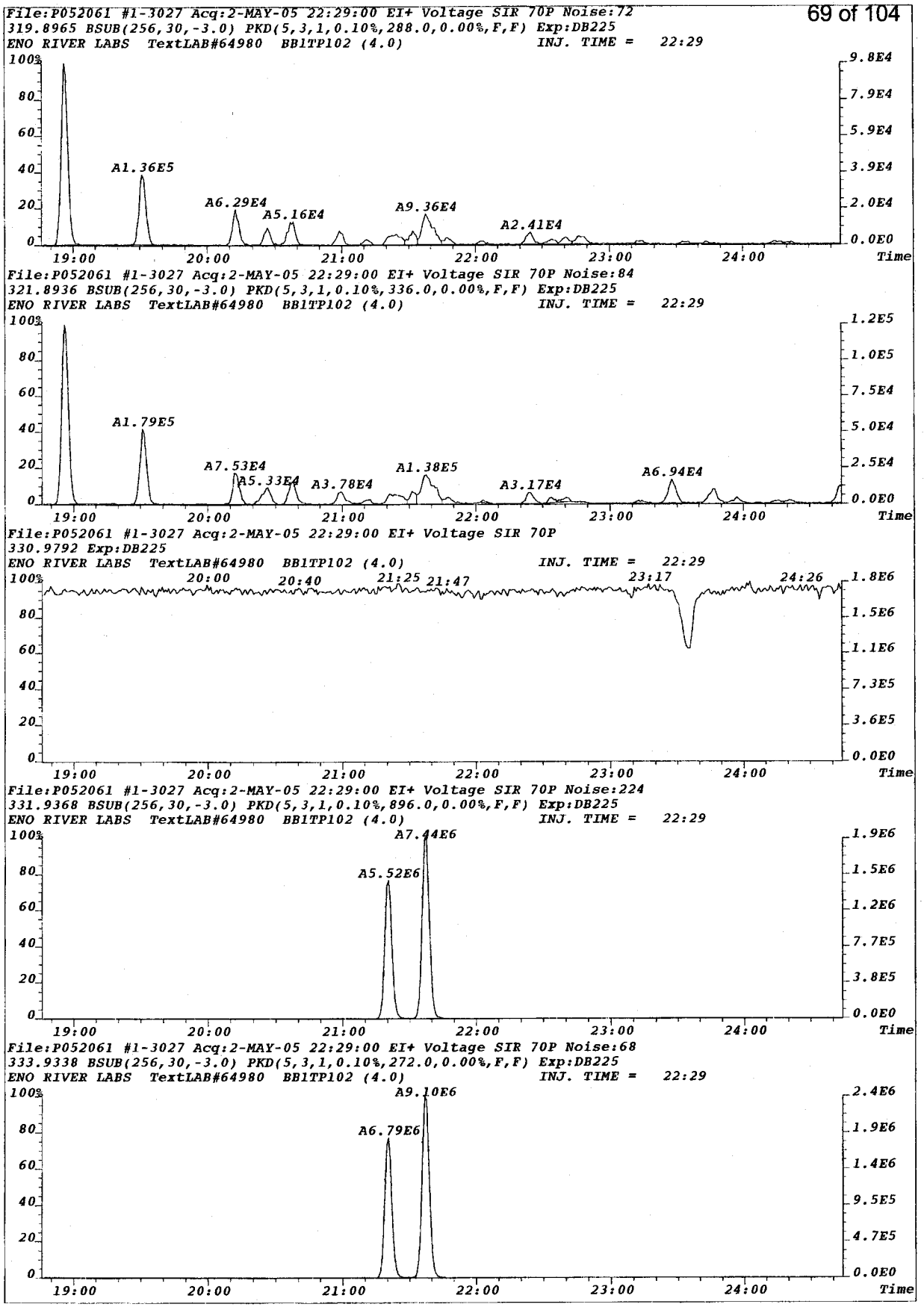
Compound/ M_Z....	QC.Log	Omit	Why	RT	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.786-1.104			
304-306	DC	NL		Height			0.23	0.14	0.09				
				18:06		0.79	32.34	14.26	18.08	0.983			
				18:12	RO	5.00	0.44	1.25	0.25	0.988			J
	DC	SN		18:39	RO	45.40	0.09			1.013			
				18:50		0.77	4.40	1.91	2.49	1.023			J
				19:07		0.76	57.20	24.68	32.52	1.038			
				19:15		0.74	39.02	16.62	22.40	1.045			
				19:22		0.75	68.78	29.43	39.35	1.052			
				19:33		0.82	37.25	16.75	20.50	1.062			
				19:50		0.71	27.03	11.18	15.85	1.077			
				20:00		0.77	59.58	25.86	33.72	1.086			
				20:10		0.72	33.09	13.86	19.23	1.095			
				20:19		0.76	125.18	54.13	71.05	1.103			
	DC	WH		20:26		0.75	118.13			1.110			
	DC	WH		20:51		0.73	139.03			1.132			
	DC	WH		21:03		0.85	3.17			1.143			
	DC	WH		21:19		0.75	69.12			1.157			
	DC	WH		21:35		0.75	64.02			1.172			
	DC	WH		21:48		0.71	60.78			1.184			
	DC	WH		22:02		0.82	5.86			1.196			
	DC	WH		22:13		0.74	75.17			1.206			
	DC	WH		22:26		0.75	68.85			1.218			
	DC	WH		22:41		0.73	142.09			1.232			
	KN			22:48		0.79	71.98	31.69	40.29	1.238	2378-TCDF		AN
	DC	WH		23:03		0.75	45.29			1.252			
	DC	WH		23:22		0.75	53.89			1.269			
	DC	WH		23:30		0.73	90.15			1.276			
	DC	WH		23:43		0.70	35.45			1.288			
	DC	WH		24:16		0.75	55.83			1.318			
	DC	WH		24:29		0.67	3.20			1.329			
	DC	WH		25:01	RO	0.62	4.57			1.358			
	DC	WH		25:21		0.73	36.83			1.376			
304-306			12	Peaks			556.29						
13C12-TCDF				0.65-0.89						0.956-1.044			
316-318	DC	NL		Height			0.18	0.07	0.11				
				17:54		0.74	107.15	45.40	61.75	0.972			
	N			18:25		0.76	17,345.75	7,475.13	9,870.62	1.000			
	DC	WH		19:29		0.76	49.23			1.058			
	DC	WH		20:35		0.75	63.11			1.118			
	NK			22:48		0.76	1,689.41	732.21	957.20	1.238	13C12-2378-TCDF		ISO
				Height			373.40	161.95	211.45				
	DC	WH		23:34		0.75	232.42			1.280			

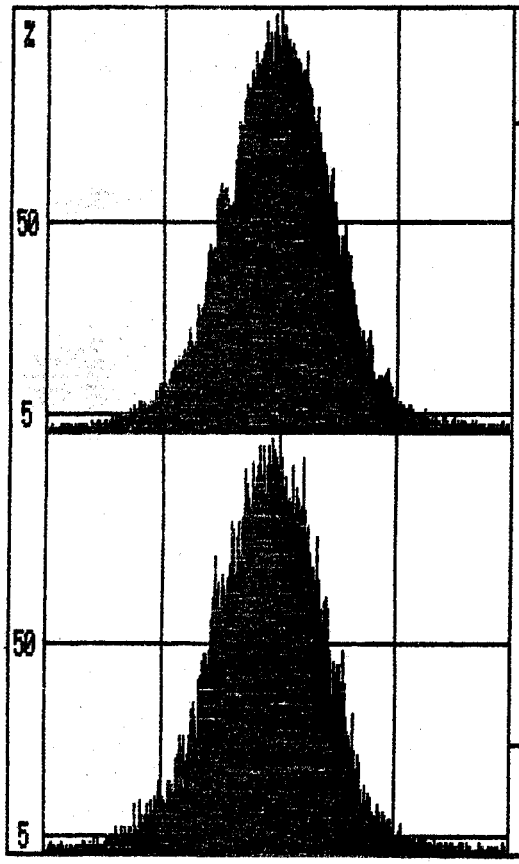
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
316-318			3 Peaks				19,142.31						
				---------- Above: TCDF / TCDD Follows ----------									
13C12-TCDD						0.65-0.89					0.906-1.094		
332-334		DC	NL			Height	0.23	0.18	0.05				
	N			21:20		0.81	1,231.30	552.09	679.21	0.987	13C12-2378-TCDD	IS1	
						Height	329.40	147.28	182.12				
	N			21:37		0.82	1,654.00	743.87	910.13	1.000	13C12-1234-TCDD	RS1	
332-334			2 Peaks				2,885.30						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***


File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:180
303.9016 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,720.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A2.94E5
A5.41E5
A2.59E5
A2.96E5
A2.53E5
A3.19E5
A5.99E5
A3.79E5
A2.40E5
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:114
305.8987 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,456.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A3.94E5
A8.04E5
A3.37E5
A3.66E5
A4.32E5
A8.22E5
A5.22E5
A3.19E5
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:83
315.9419 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,332.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A7.48E7
A7.32E6
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:136
317.9389 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,544.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A9.87E7
A9.57E6
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P
375.8364 Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
18:10
18:49
20:25
22:26
22:40
23:42
24:18
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
18:50
20:00
20:40
21:25
21:56
23:17
24:43
Time


File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:72
319.8965 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,288.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A1.36E5
A6.29E4
A5.16E4
A9.36E4
A2.41E4
Time
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:84
321.8936 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,336.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A1.79E5
A7.53E4
A5.33E4
A3.78E4
A1.38E5
A3.17E4
A6.94E4
Time
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
Time
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:224
331.9368 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,896.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A7.44E6
A5.52E6
Time
File:P052061 #1-3027 Acq:2-MAY-05 22:29:00 EI+ Voltage SIR 70P Noise:68
333.9338 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,272.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#64980 BB1TP102 (4.0)
INJ. TIME = 22:29
A9.10E6
A6.79E6
Time



Ref. mass	292.9825	Peak top	
Height	1.19 volts	Span	200 ppm

System file name	DB225
Data file name	A:P582051
Resolution	10000
Group number	1
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 308.9761

A	292.9825	J	330.9792
B	303.9016	K	331.9368
C	305.8987	L	333.9338
D	315.9419	M	375.8364
E	317.9389		
F	319.8965		
G	321.8936		
H	327.8847		
I	330.9792		

Channel	I 330.9792	Peak top	
Height	.25 volts	Span	200 ppm

Lab Project: 64980 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: LCS Analysis File: U027510

Client Project:	Presidio/Baker Beach			ICal:	UF5O284
Sample Matrix:	SAND	Date Received:	/ /	Spike File:	SPMIT32S
Lab ID:	LCS	Date Extracted:	04/21/2005	1st CCal:	U050274
		Date Analyzed:	04/28/2005	End CCal:	U027514
Sample Size:	10.000 g	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	U027504	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	39.0			0.79	26:57	___
1,2,3,7,8-PeCDD	189			1.55	31:11	___
1,2,3,4,7,8-HxCDD	254			1.22	34:18	___
1,2,3,6,7,8-HxCDD	203			1.23	34:23	___
1,2,3,7,8,9-HxCDD	206			1.24	34:43	___
1,2,3,4,6,7,8-HpCDD	213			1.02	37:41	___
1,2,3,4,6,7,8,9-OCDD	391			0.84	41:19	___
2,3,7,8-TCDF	35.9			0.72	26:16	___
1,2,3,7,8-PeCDF	211			1.52	30:10	___
2,3,4,7,8-PeCDF	219			1.53	30:50	___
1,2,3,4,7,8-HxCDF	193			1.27	33:36	___
1,2,3,6,7,8-HxCDF	215			1.29	33:43	___
2,3,4,6,7,8-HxCDF	200			1.29	34:12	___
1,2,3,7,8,9-HxCDF	209			1.31	34:59	___
1,2,3,4,6,7,8-HpCDF	223			1.10	36:38	___
1,2,3,4,7,8,9-HpCDF	206			1.10	38:12	___
1,2,3,4,6,7,8,9-OCDF	375			0.90	41:32	___

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	49.4	24.7	40%-135%	0.67	26:14	V___
$^{13}C_{12}$-2,3,7,8-TCDD	49.8	24.9	40%-135%	0.85	26:56	V___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	65.2	32.6	40%-135%	1.55	30:09	V___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	77.2	38.6	40%-135%	1.50	31:11	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	59.6	29.8	40%-135%	0.49	33:42	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	65.4	32.7	40%-135%	1.22	34:23	V___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	72.6	36.3	40%-135%	0.42	36:37	V___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	68.1	34.1	40%-135%	1.05	37:40	V___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	142	35.4	40%-135%	0.84	41:19	V___

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 13:19 04/30/2005

Lab Project: **64980** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCS** Analysis File: **U027510**

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	65.6	32.8	40%-135%	1.56	30:50	V___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	59.2	29.6	40%-135%	0.50	33:36	V___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	73.0	36.5	40%-135%	1.23	34:18	V___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	71.7	35.8	40%-135%	0.42	38:11	V___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	4.4	22.1	40%-135%	26:57	V___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	62.4	31.2	40%-135%	0.49	34:58	V___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	60.8	30.4	40%-135%	0.51	34:11	V___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.84	26:45	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.22	34:42	___

Data Reviewer: QAB 04/30/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 13:19 04/30/2005

Initial ....Date...

Data Review By: PAB 4/29/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U027510B.dbf
04/29/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.874-1.072			
304-306	DC	NL				Height	4.80	2.73	2.07				
				23:09		0.69	632.71	258.50	374.21	0.882	1368-TCDF		AN
	DC	SN		23:22		0.69	5.01			0.891			
	DC	SN		24:12	RO	0.46	6.21			0.922			
	DC	SN		25:52	RO	0.60	13.84			0.986	1278-TCDF		AN
				26:16		0.72	645.96	270.64	375.32	1.001	2378-TCDF		AN
304-306			2	Peaks			1,278.67						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	2.76	1.47	1.29				
	DC	WL		24:46	RO	0.45	4.23			0.944			
	DC	WL		25:13	RO	0.31	9.47			0.961			
	DC	SN		25:53	RO	1.18	14.21			0.987			
				26:14		0.67	3,052.93	1,229.10	1,823.83	1.000	13C12-2378-TCDF		ISO
						Height	825.02	319.10	505.92				
	DC	SN		26:38	RO	2.18	4.90			1.015			
316-318			1	Peak			3,052.93						

---------- Above: TCDF / TCDD Follows ----------

TCDD						0.65-0.89				0.900-1.041			
320-322	DC	NL				Height	1.38	0.79	0.59				
				26:13	RO	0.95	16.14	7.02	7.39	0.973			
	DC	SN		26:24	RO	1.23	3.38			0.980			
				26:57		0.79	529.21	233.75	295.46	1.001	2378-TCDD		AN
	DC	SN		27:11	RO	4.62	1.36			1.009			
	DC	SN		27:21	RO	1.07	3.73			1.015			
	DC	WH		28:23	RO	0.42	1.45			1.054			
320-322			2	Peaks			545.35						
37Cl-TCDD										0.926-1.074			
328	DC	NL				Height	0.73	0.73					
	DC	WL		24:23			2.06			0.905			
	DC	WL		24:32			3.87			0.911			
	DC	WL		24:43			2.71			0.918			
	DC	WL		24:50			1.08			0.922			
	DC	SN		24:56			1.87			0.926			
				25:10			6.42	6.42		0.934			
	DC	SN		25:17			1.80			0.939			
				25:36			27.61	27.61		0.950			
	DC	SN		25:53			1.17			0.961			
				26:03			3.95	3.95		0.967			
				26:10			5.12	5.12		0.972			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		26:31			1.92			0.985			
	DC	SN		26:43			0.85			0.992			
				26:57			225.39	225.39		1.001	37Cl-TCDD	CLS	
	DC	SN		27:13			1.89			1.011			
				27:17			3.21	3.21		1.013			
	DC	SN		27:37			2.71			1.025			
	DC	SN		27:49			2.09			1.033			
	DC	SN		28:00			0.27			1.040			
				28:23			2.55	2.55		1.054			
328			7	Peaks			274.25						
13C12-TCDD				0.65-0.89						0.926-1.074			
332-334	DC	NL		Height			2.17	1.53	0.64				
				26:45		0.84	9,786.10	4,461.13	5,324.97	0.993	13C12-1234-TCDD	RS1	
				26:56		0.85	2,460.63	1,132.73	1,327.90	1.000	13C12-2378-TCDD	IS1	
				Height			665.75	302.79	362.96				
332-334			2	Peaks			12,246.73						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.928-1.060			
340-342	DC	NL		Height			1.13	0.57	0.56				
				28:43		1.63	9.28	5.75	3.53	0.952			J
				29:19		1.48	46.00	27.42	18.58	0.972			J
				29:47		1.55	28.08	17.07	11.01	0.988			J
				29:54	RO	0.80	4.24	2.58	3.23	0.992			J
				30:10		1.52	3,476.69	2,098.32	1,378.37	1.001	12378-PeCDF	AN	
				30:27		1.51	48.43	29.12	19.31	1.010			J
				30:50		1.53	3,540.92	2,143.82	1,397.10	1.023	23478-PeCDF	AN	
				31:11	RO	0.51	2.71	1.65	3.25	1.034			J
				31:16	RO	0.87	1.22	0.74	0.85	1.037			J
340-342			9	Peaks			7,157.57						
13C12-PeCDF				1.32-1.78						0.867-1.133			
352-354	DC	NL		Height			0.65	0.32	0.33				
				29:17		1.66	29.94	18.70	11.24	0.971			
				29:46	RO	1.80	14.18	10.02	5.56	0.987			
				30:09		1.55	2,826.42	1,718.29	1,108.13	1.000	13C12-PeCDF 123	IS2	
				Height			905.21	551.05	354.16				
				30:26	RO	1.99	22.34	17.44	8.76	1.009			
				30:50		1.56	2,799.70	1,705.61	1,094.09	1.023	13C12-PeCDF 234	SUR1	
				31:50	RO	1.12	28.71	12.56	11.26	1.056			
352-354			6	Peaks			5,721.29						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.937-1.020			
356-358	DC	NL		Height			0.51	0.25	0.26				
				29:30		1.38	3.12	1.81	1.31	0.946			J
				30:08	RO	2.75	3.32	3.57	1.30	0.966			J
				30:26	RO	1.17	5.38	2.46	2.11	0.976			J
	DC	SN		30:36	RO	5.35	1.30			0.981			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		30:50	RO	2.76	1.28			0.989			
				31:02	RO	0.48	0.79	0.48	1.00	0.995			J
				31:11		1.55	2,225.17	1,351.38	873.79	1.000	12378-PeCDD	AN	
				31:42	RO	0.45	2.43	1.48	3.29	1.017			J
356-358			6 Peaks				2,240.21						
13C12-PeCDD				1.32-1.78						0.872-1.128			
368-370	DC	NL		Height			0.31	0.17	0.14				
				30:07		1.42	3.66	2.15	1.51	0.966			
				30:14		1.64	5.47	3.40	2.07	0.970			
				30:28	RO	0.87	1.22	0.74	0.85	0.977			
				30:42		1.47	1.48	0.88	0.60	0.985			
				31:11		1.50	2,110.76	1,265.38	845.38	1.000	13C12-PeCDD 123	IS3	
				Height			677.71	410.66	267.05				
				31:28	RO	0.63	2.16	1.31	2.07	1.009			
				31:43		1.73	2.05	1.30	0.75	1.017			
368-370			7 Peaks				2,126.80						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.963-1.045			
374-376	DC	NL		Height			0.88	0.51	0.37				
				32:47	RO	1.62	11.72	8.47	5.23	0.973			J
				33:36		1.27	2,733.98	1,528.31	1,205.67	0.997	123478-HxCDF	AN	
				33:43		1.29	3,204.94	1,804.29	1,400.65	1.000	123678-HxCDF	AN	
				33:54	RO	2.88	3.11	4.01	1.39	1.006			J
				33:59	RO	2.77	3.02	3.74	1.35	1.008			J
				34:12		1.29	3,026.93	1,704.79	1,322.14	1.015	234678-HxCDF	AN	
				34:24	RO	0.61	5.71	3.16	5.14	1.021			J
				34:59		1.31	2,177.97	1,236.40	941.57	1.038	123789-HxCDF	AN	
374-376			8 Peaks				11,167.38						
13C12-HxCDF				0.43-0.59						0.881-1.119			
384-386	DC	NL		Height			0.54	0.22	0.32				
				32:28	RO	0.88	2.16	0.73	0.83	0.963			
				32:40	RO	0.78	5.51	1.86	2.40	0.969			
				32:47	RO	0.73	8.94	3.02	4.16	0.973			
				33:36		0.50	2,451.68	819.59	1,632.09	0.997	13C12-HxCDF 478	SUR2	
				33:42		0.49	2,543.41	841.43	1,701.98	1.000	13C12-HxCDF 678	IS4	
				Height			876.56	290.25	586.31				
				34:00		0.53	1.73	0.60	1.13	1.009			
				34:11		0.51	2,456.15	826.92	1,629.23	1.014	13C12-HxCDF 234	ALT2	
				34:22	RO	0.61	9.50	3.21	5.25	1.020			
				34:58		0.49	1,891.03	620.38	1,270.65	1.038	13C12-HxCDF 789	ALT1	
				35:11		0.44	4.65	1.42	3.23	1.044			
384-386			10 Peaks				9,374.76						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43						0.958-1.013			
390-392	DC	NL		Height			0.32	0.11	0.21				
				33:35	RO	3.27	2.06	3.01	0.92	0.977			J

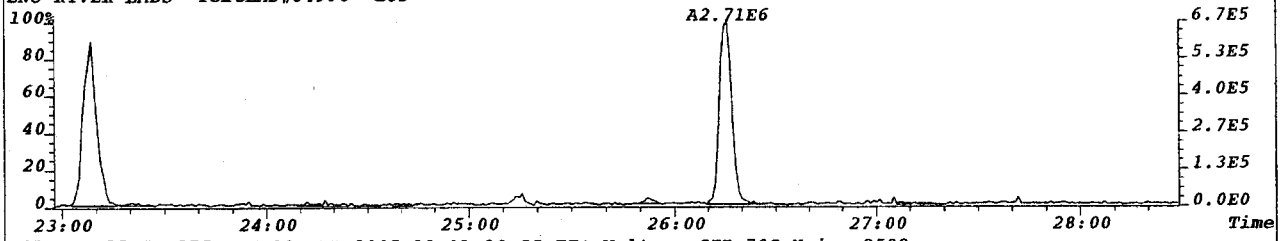
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				34:18		1.22	2,601.60	1,430.50	1,171.10	0.998	123478-HxCDD	AN	
				34:23		1.23	2,171.41	1,197.62	973.79	1.000	123678-HxCDD	AN	
				34:43		1.24	2,082.48	1,151.07	931.41	1.010	123789-HxCDD	AN	
390-392			4 Peaks				6,857.55						
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL		Height			0.72	0.24	0.48				
				34:18		1.23	1,895.99	1,047.59	848.40	0.998	13C12-HxCDD 478	SUR3	
				34:23		1.22	1,918.54	1,054.74	863.80	1.000	13C12-HxCDD 678	IS5	
				Height			621.81	336.97	284.84				
				34:42		1.22	5,062.19	2,778.43	2,283.76	1.009	13C12-HxCDD 789	RS2	
				35:02	RO	0.42	1.70	0.94	2.23	1.019			
402-404			4 Peaks				8,878.42						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20						0.996-1.047			
408-410	DC	NL		Height			0.59	0.33	0.26				
				36:38		1.10	2,801.29	1,469.12	1,332.17	1.000	1234678-HpCDF	AN	
				37:06	RO	1.63	3.33	2.65	1.63	1.013			J
				38:12		1.10	1,902.35	994.43	907.92	1.043	1234789-HpCDF	AN	
408-410			3 Peaks				4,706.97						
13C12-HpCDF				0.37-0.51						0.945-1.109			
418-420	DC	NL		Height			0.21	0.18	0.03				
				36:37		0.42	1,616.57	476.70	1,139.87	1.000	13C12-HpCDF 678	IS6	
				Height			471.71	144.64	327.07				
				37:33		0.48	1.58	0.51	1.07	1.025			
				38:11		0.42	1,247.20	367.19	880.01	1.043	13C12-HpCDF 789	SUR4	
418-420			3 Peaks				2,865.35						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD				0.88-1.20						0.975-1.004			
424-426	DC	NL		Height			0.16	0.08	0.08				
				36:54	RO	1.41	3.75	2.60	1.84	0.980			J
				37:41		1.02	1,527.48	769.87	757.61	1.000	1234678-HpCDD	AN	
	DC	WH		37:59	RO	0.83	1.55			1.008			
424-426			2 Peaks				1,531.23						
13C12-HpCDD				0.88-1.20						0.973-1.027			
436-438	DC	NL		Height			0.19	0.11	0.08				
				37:40		1.05	1,520.53	778.79	741.74	1.000	13C12-HpCDD 678	IS7	
				Height			417.33	212.58	204.75				
436-438			1 Peak				1,520.53						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF				0.76-1.02						0.903-1.097			
442-444	DC	NL		Height			0.11	0.05	0.06				
				41:32		0.90	2,642.71	1,254.90	1,387.81	1.005	OCDF	AN	
				41:59	RO	0.63	1.06	0.50	0.79	1.016			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				42:00		0.86	1.62	0.75	0.87	1.017			
				42:15	RO	0.65	2.21	1.04	1.61	1.023			
				44:55	RO	1.64	1.15	1.00	0.61	1.087			
442-444			5 Peaks				2,648.75						
OCDD						0.76-1.02				0.903-1.097			
458-460		DC	NL				Height 0.07	0.01	0.06				
				41:09	RO	1.54	2.40	1.95	1.27	0.996			
				41:19		0.84	2,206.96	1,005.77	1,201.19	1.000	OCDD		AN
458-460			2 Peaks				2,209.36						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472		DC	NL				Height 0.03	0.02	0.01				
		DC	WL	38:11	RO	0.61	1.76			0.924			
				41:19		0.84	2,228.67	1,014.80	1,213.87	1.000	13C12-OCDD		IS8
							Height 516.29	239.72	276.57				
				41:49	RO	1.07	2.42	1.37	1.28	1.012			
				42:06	RO	0.63	3.55	1.67	2.64	1.019			
				42:15	RO	0.74	1.27	0.60	0.81	1.023			
470-472			4 Peaks				2,235.91						

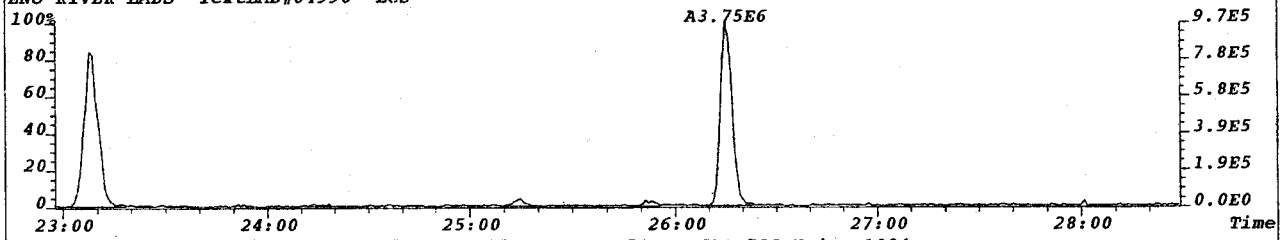
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

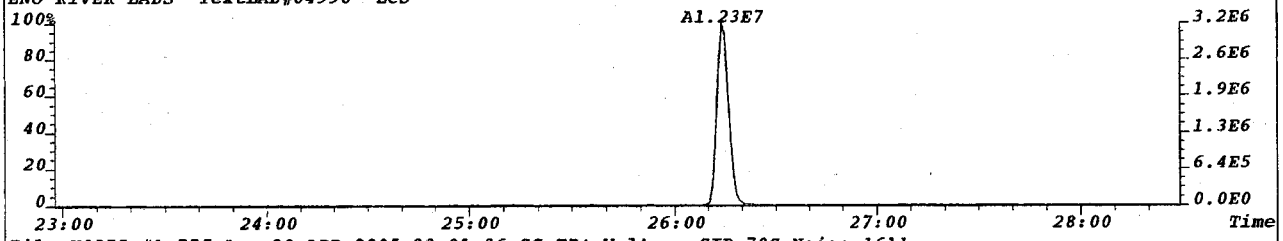
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:3414
303.9016 S:10 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,13656.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



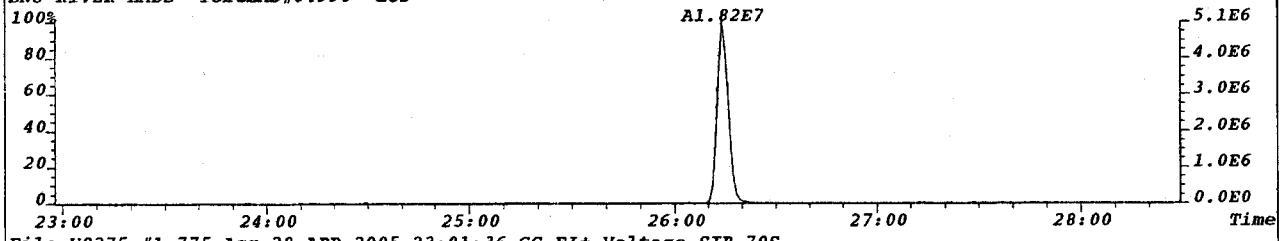
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:2589
305.8987 S:10 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,10356.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



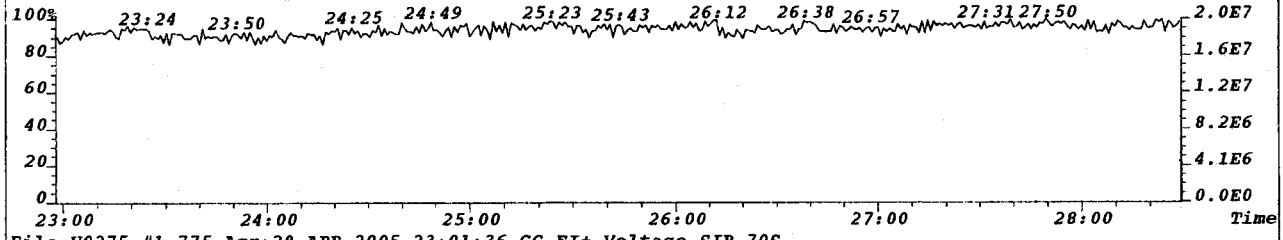
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:1834
315.9419 S:10 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,7336.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



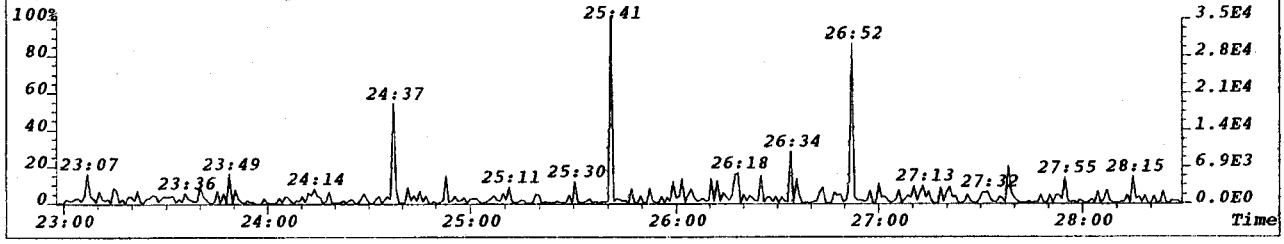
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:1611
317.9389 S:10 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,6444.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



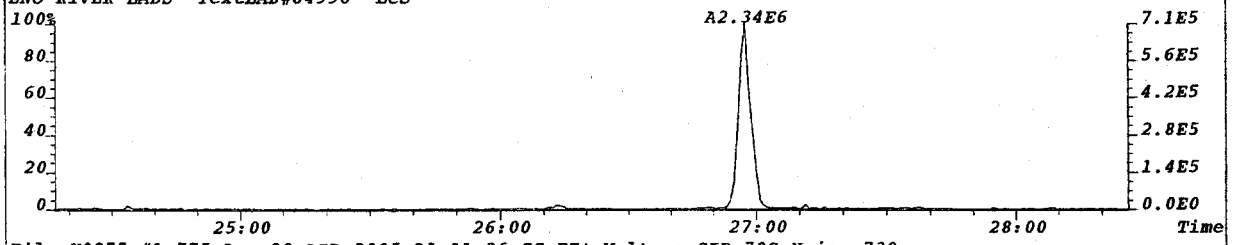
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
330.9792 S:10 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



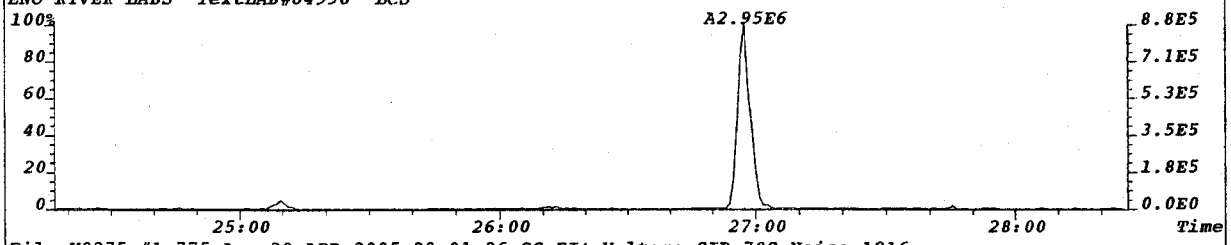
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
375.8364 S:10 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



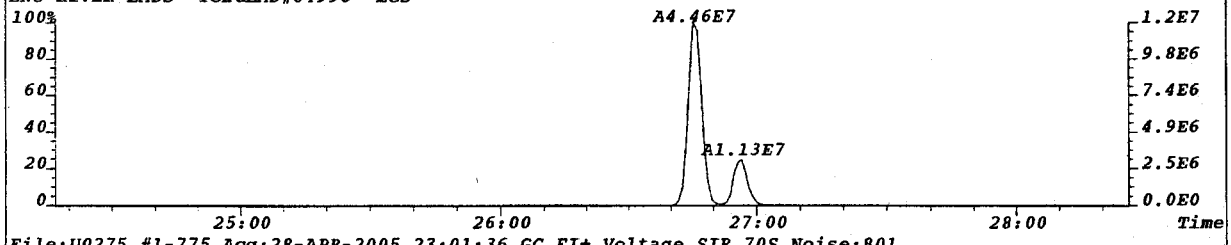
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:990
319.8965 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3960.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



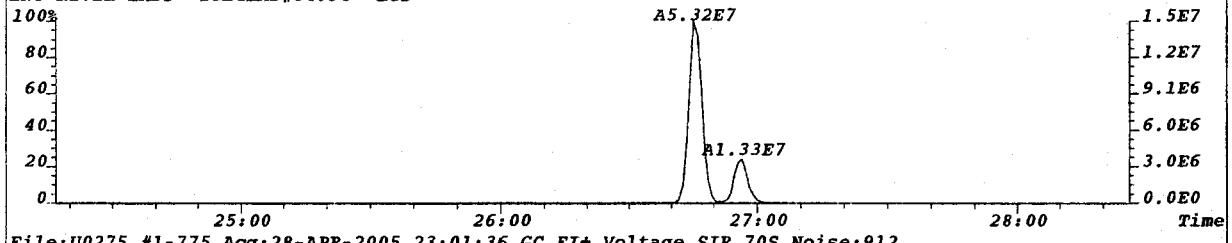
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:739
321.8936 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2956.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



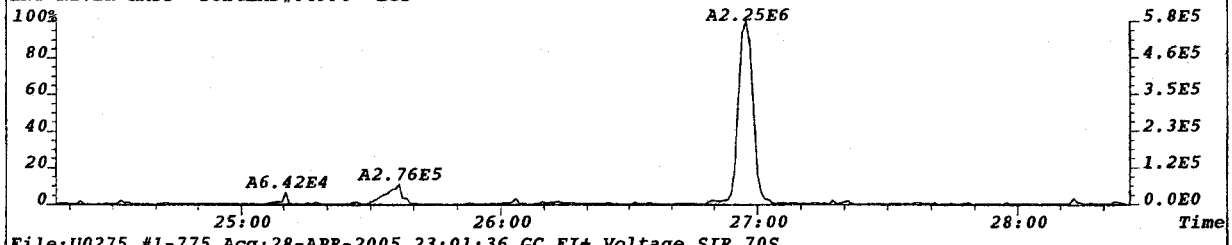
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:1916
331.9368 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,7664.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



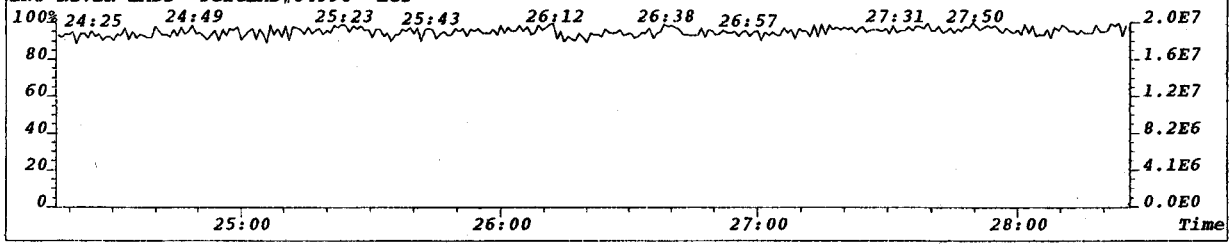
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:801
333.9338 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3204.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



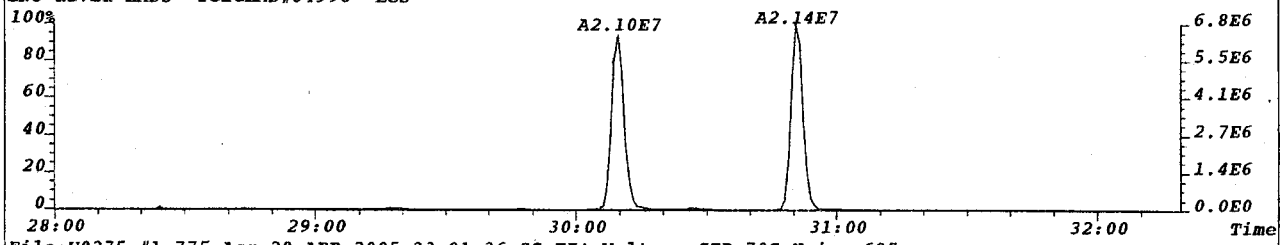
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:912
327.8847 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3648.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



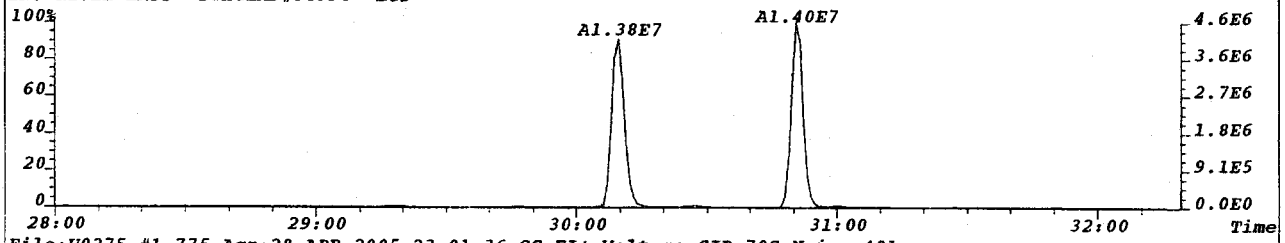
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
330.9792 S:10 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:712
339.8597 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:695
341.8567 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2780.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



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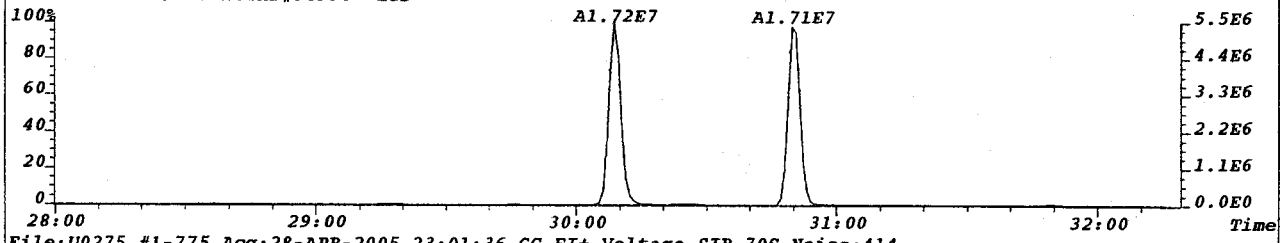
351.9000 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1604.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



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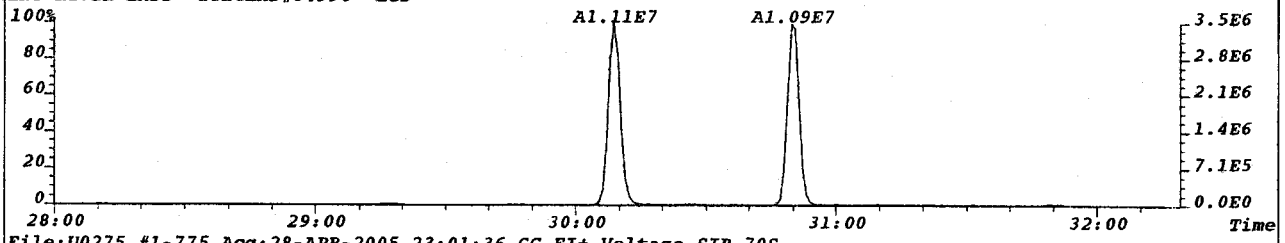
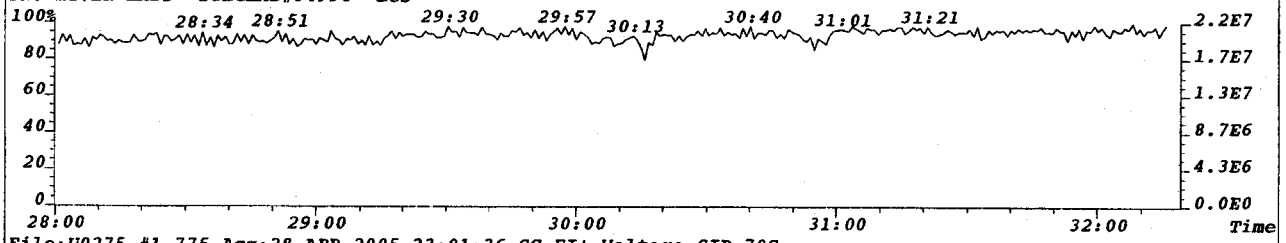
353.8970 S:10 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1656.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
330.9792 S:10 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
409.7974 S:10 F:2 Exp:NDB5US
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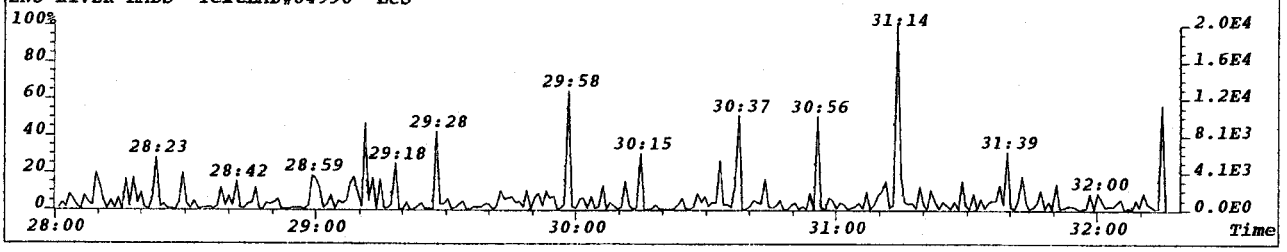
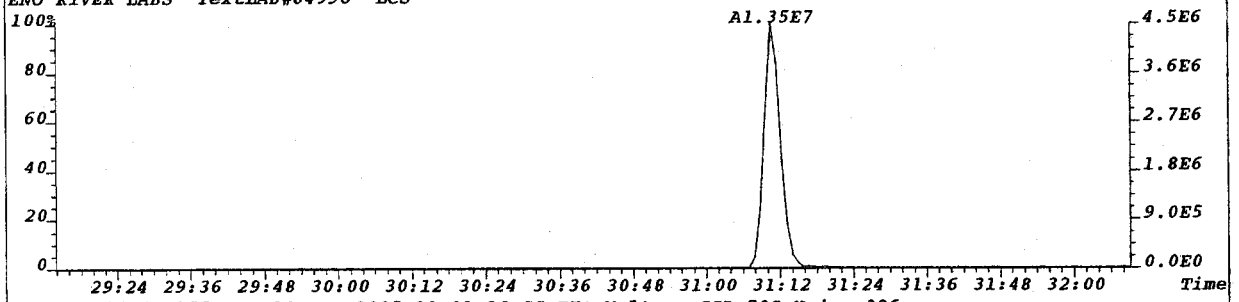


File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:317
355.8546 S:10 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1268.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



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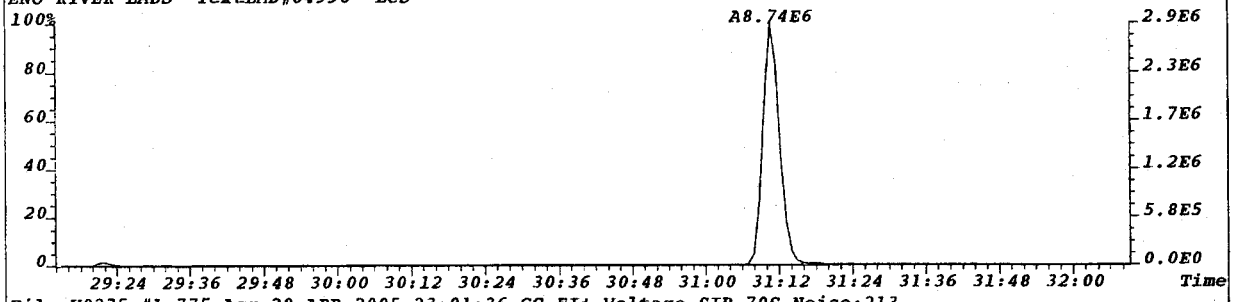
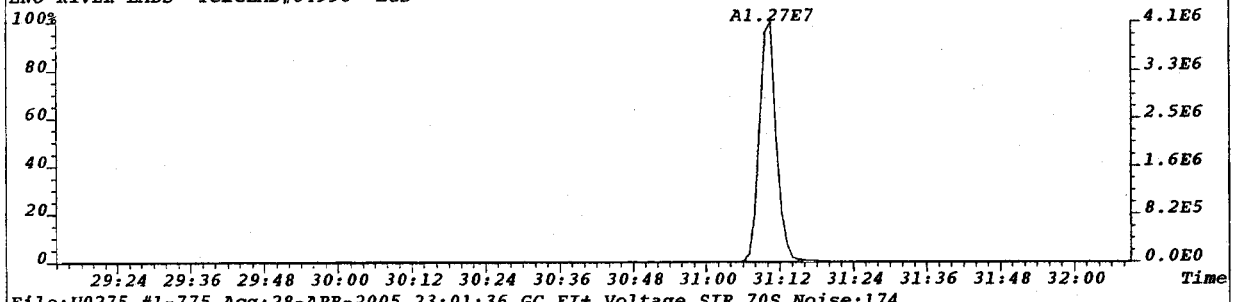
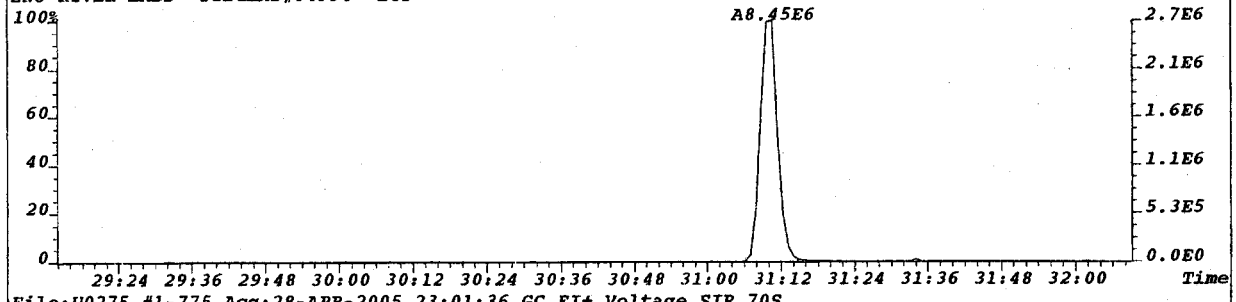
357.8516 S:10 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1304.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



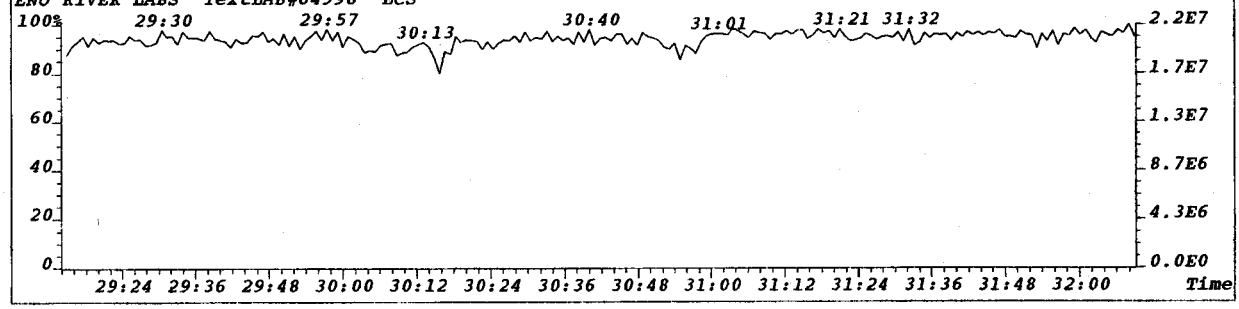
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:213
367.8949 S:10 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,852.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



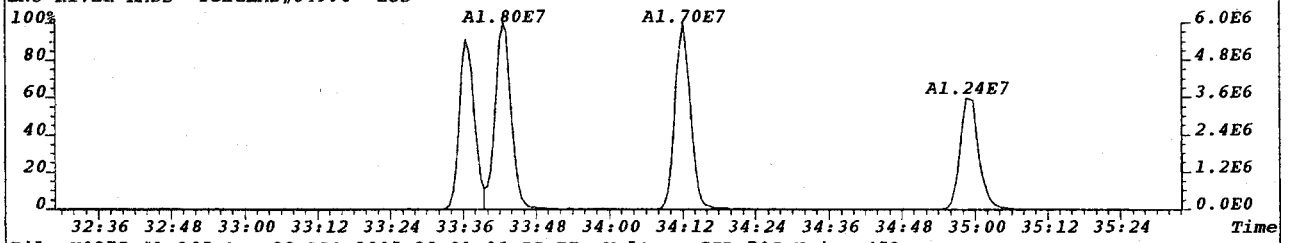
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:174
369.8919 S:10 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,696.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



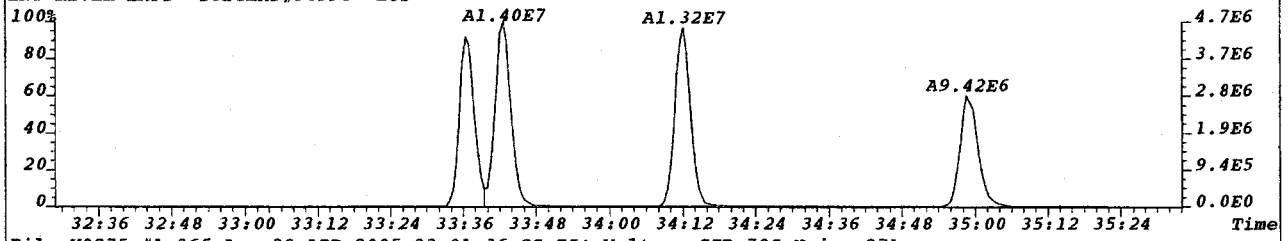
File:U0275 #1-775 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
330.9792 S:10 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



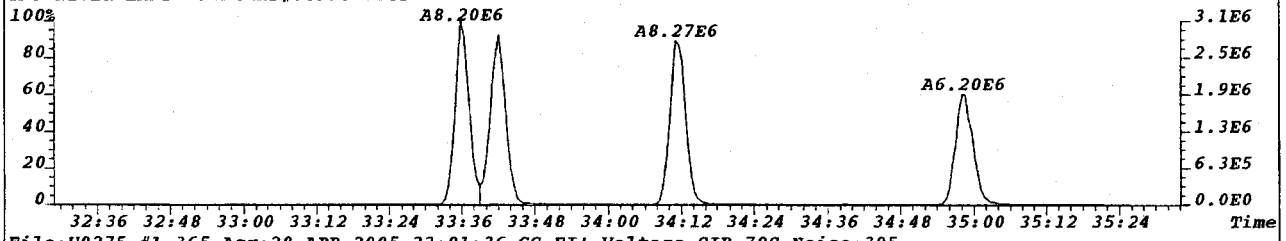
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:632
373.8208 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2528.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



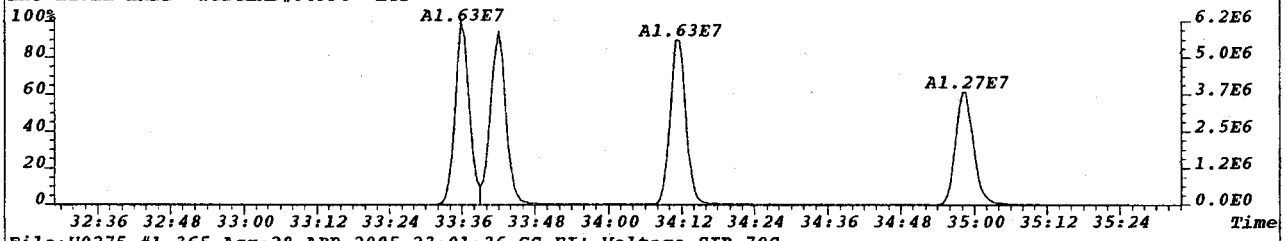
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:459
375.8178 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1836.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



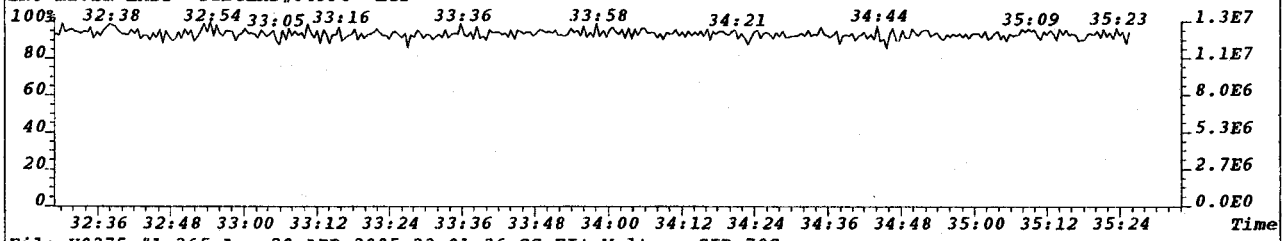
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:271
383.8639 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1084.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



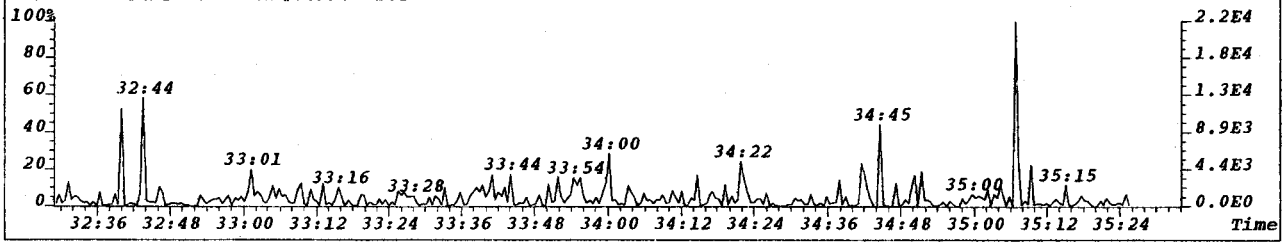
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:395
385.8610 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1580.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



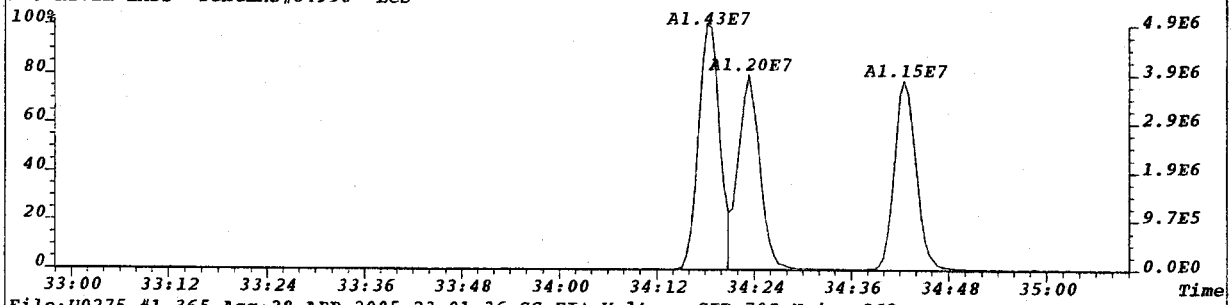
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
392.9760 S:10 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



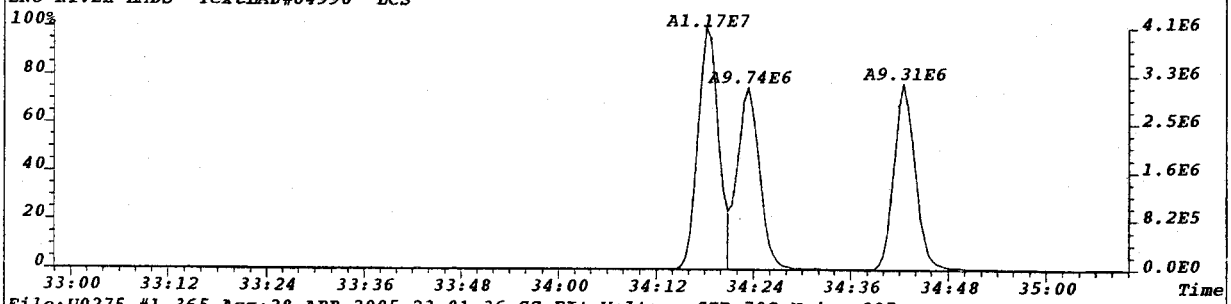
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
445.7555 S:10 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



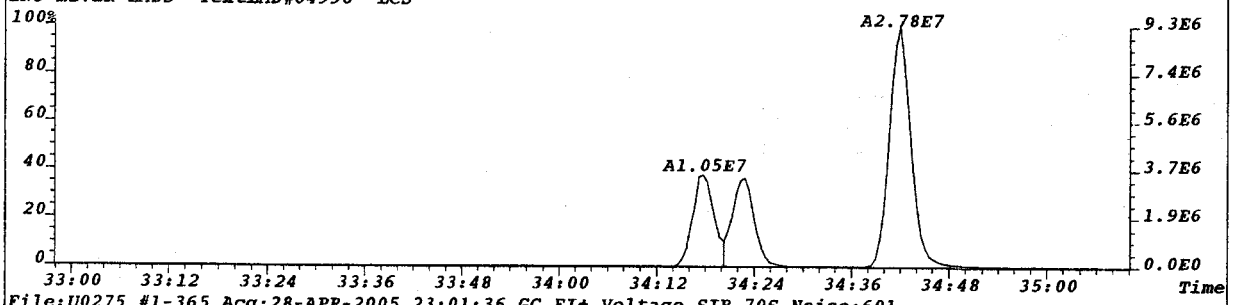
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:142
389.8156 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,568.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



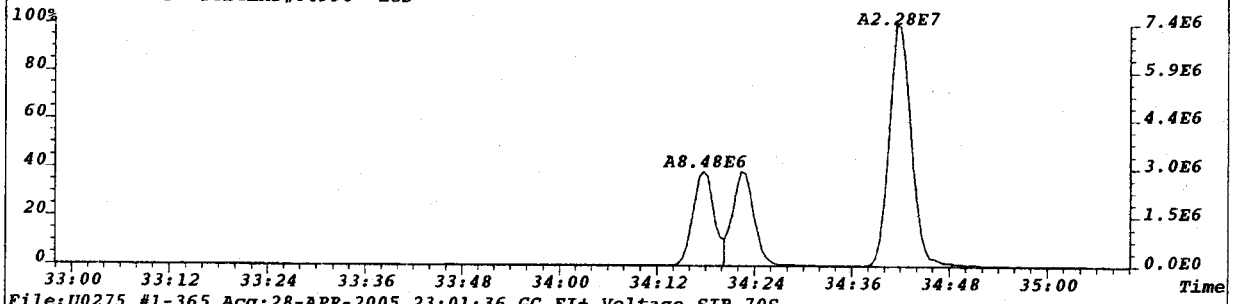
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:262
391.8127 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1048.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



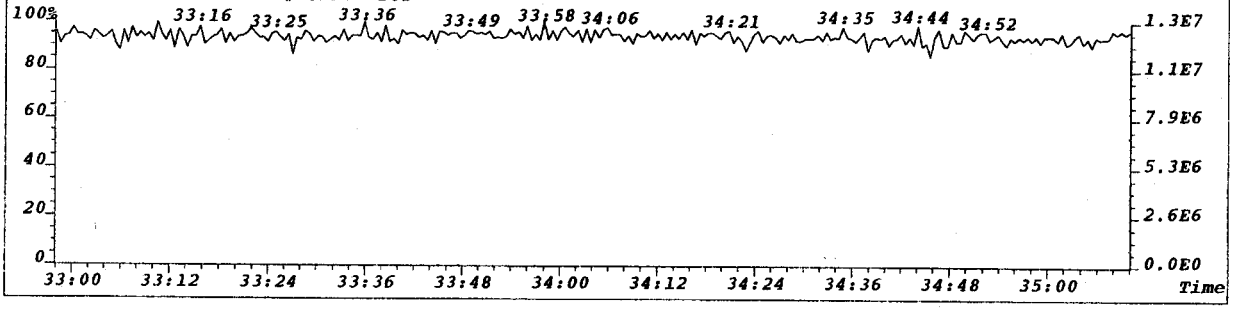
File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:297
401.8558 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1188.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS

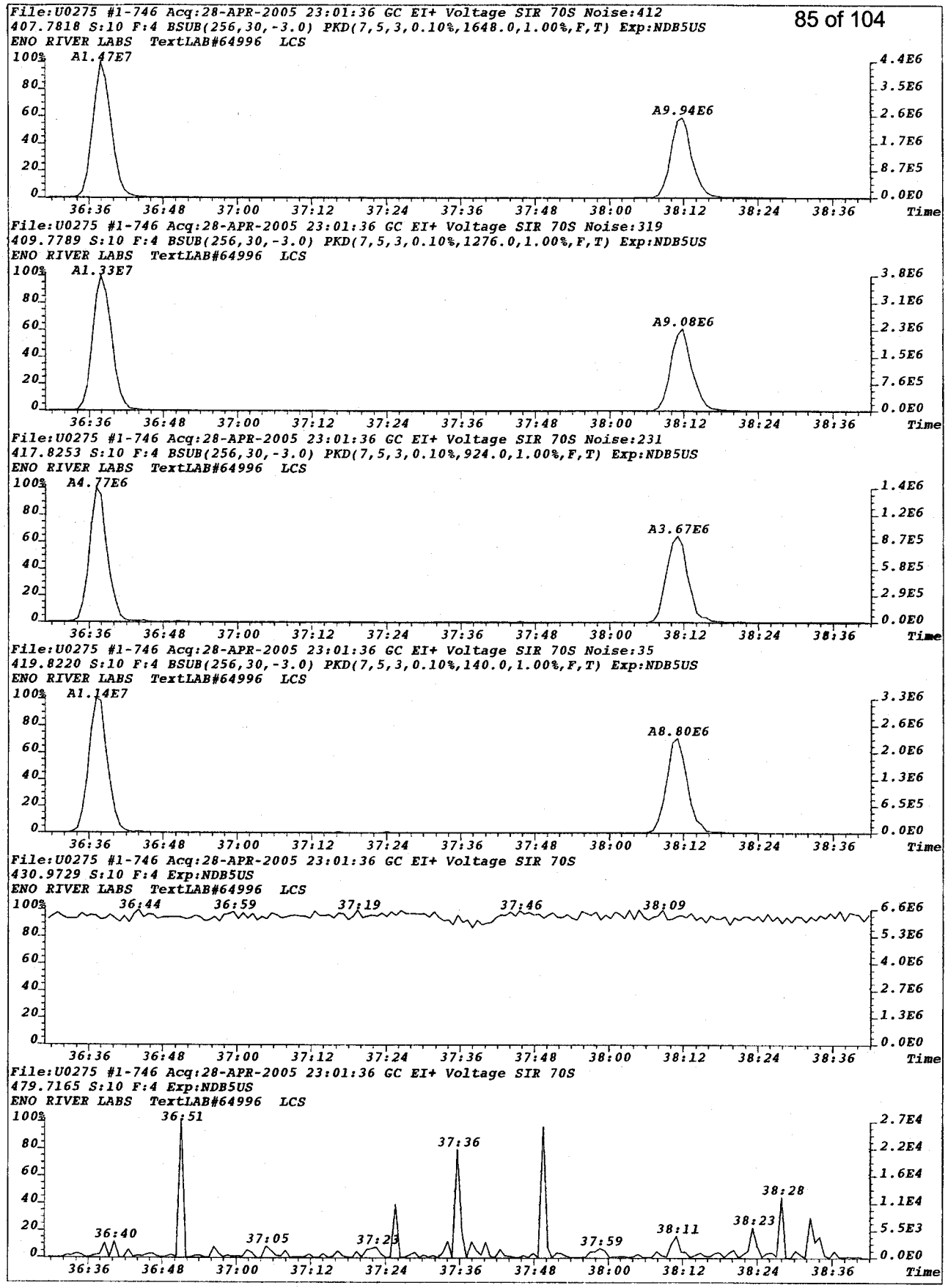


File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:601
403.8529 S:10 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2404.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS

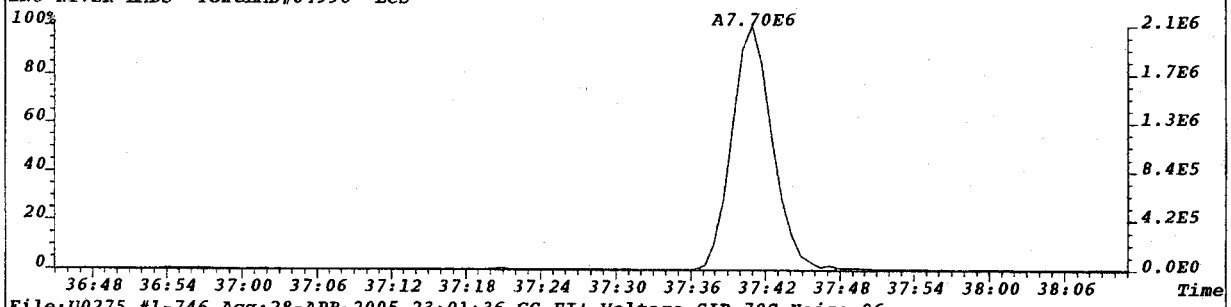


File:U0275 #1-365 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
392.9760 S:10 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS

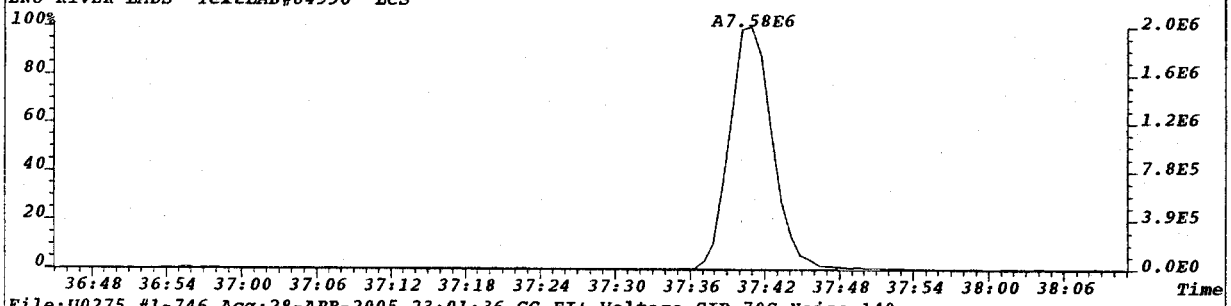



File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:412
407.7818 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1648.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
A1.47E7
A9.94E6
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:319
409.7789 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1276.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
A1.33E7
A9.08E6
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:231
417.8253 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,924.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
A4.77E6
A3.67E6
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:35
419.8220 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,140.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
A1.14E7
A8.80E6
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
430.9729 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
36:44
36:59
37:19
37:46
38:09
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
479.7165 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS
36:51
37:36
38:28
36:40
37:05
37:23
37:59
38:11
38:23
36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36
Time

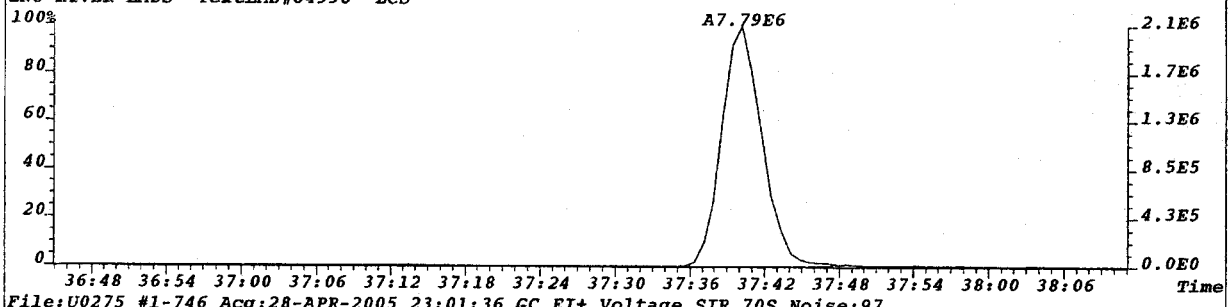
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:96
423.7766 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,384.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



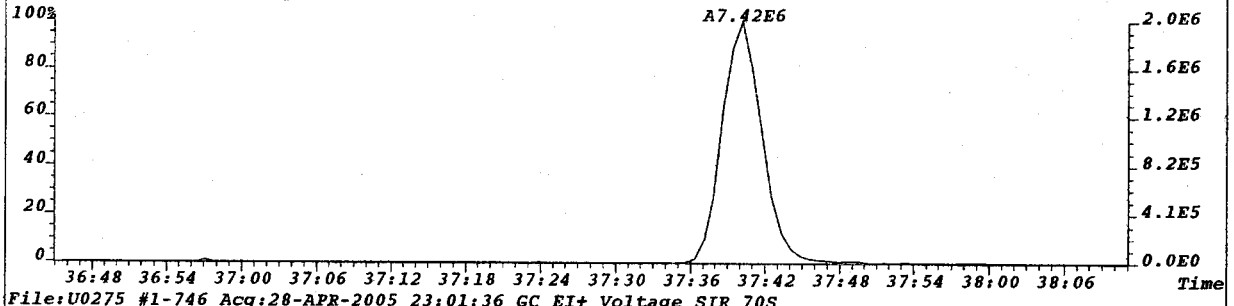
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:96
425.7737 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,384.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



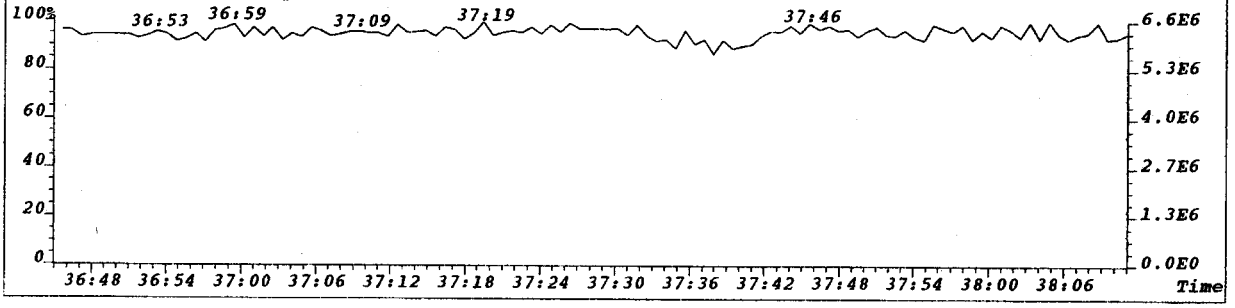
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:140
435.8169 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,560.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



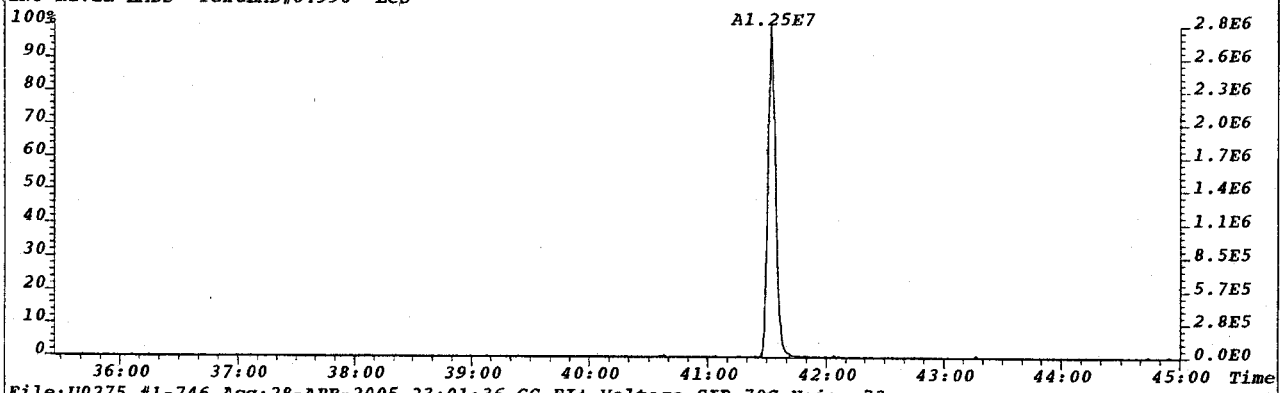
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:97
437.8140 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,388.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



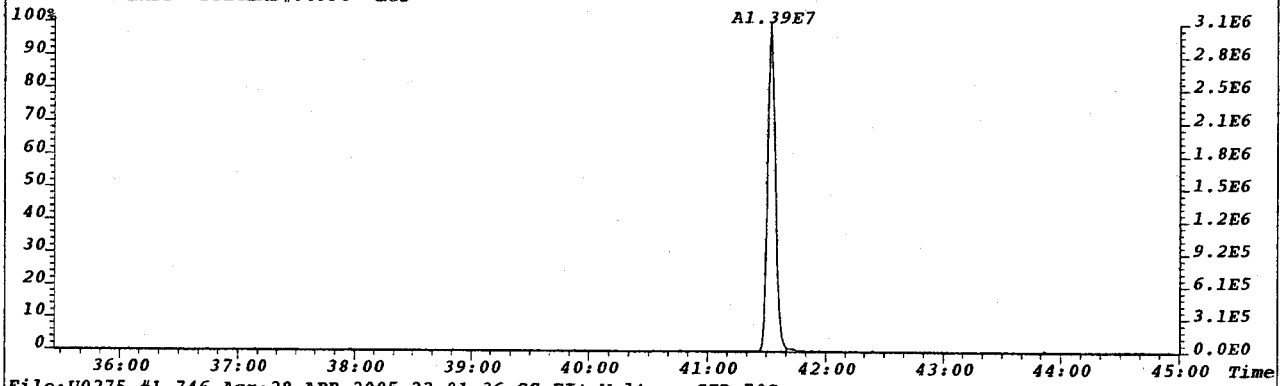
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
430.9729 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



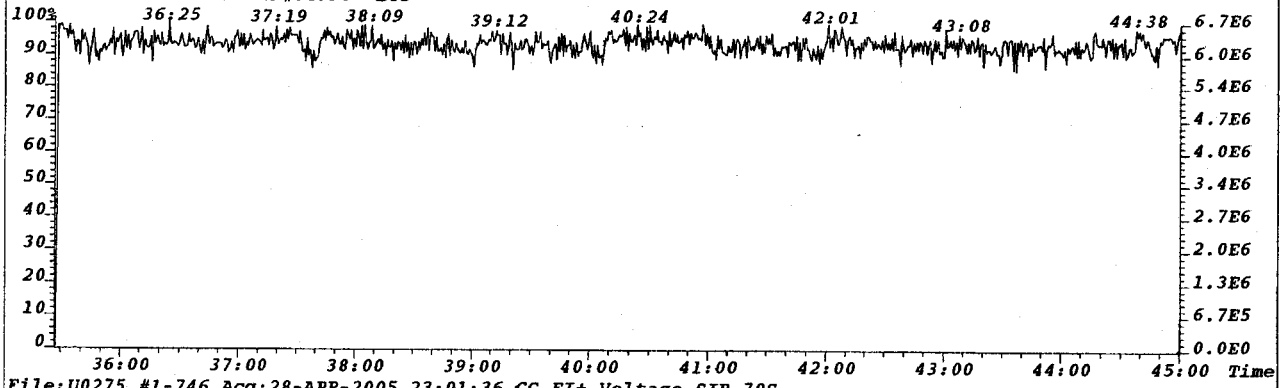
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:58
441.7428 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,232.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



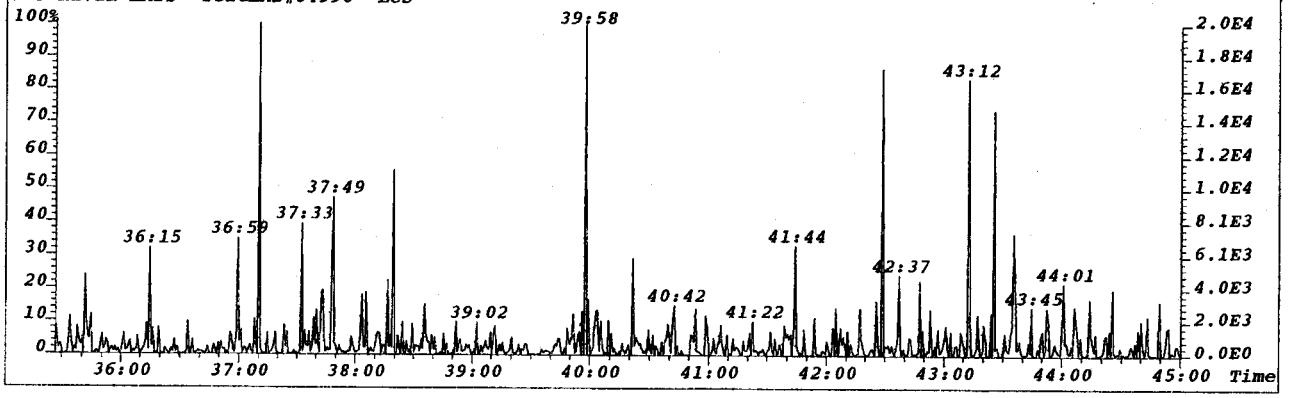
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:73
443.7399 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,292.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



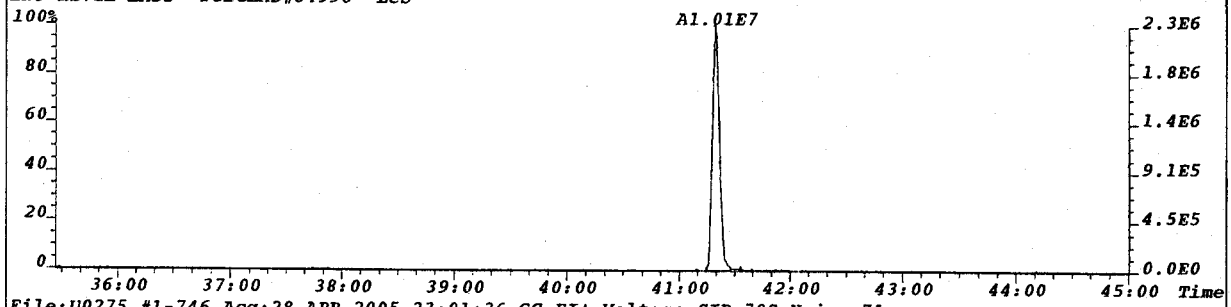
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
430.9729 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



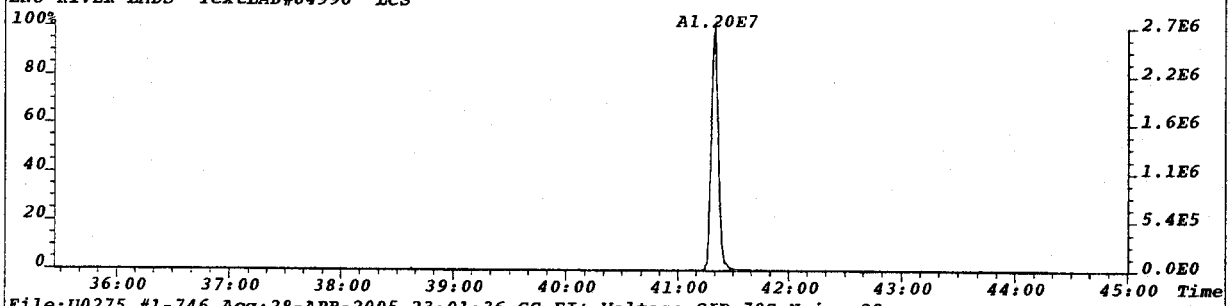
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
513.6775 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



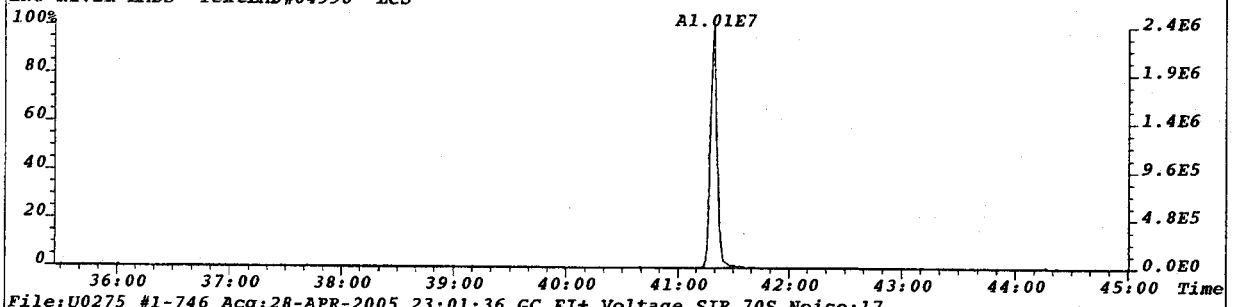
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:17
457.7377 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,68.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



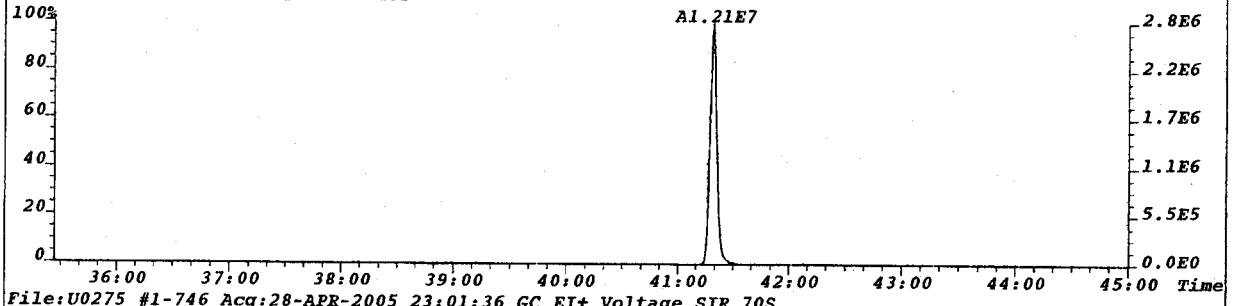
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:71
459.7348 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,284.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



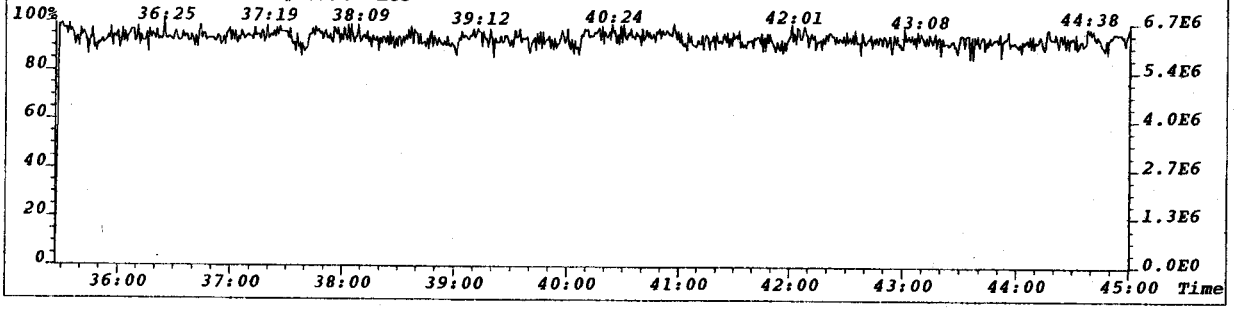
File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:29
469.7779 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,116.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS

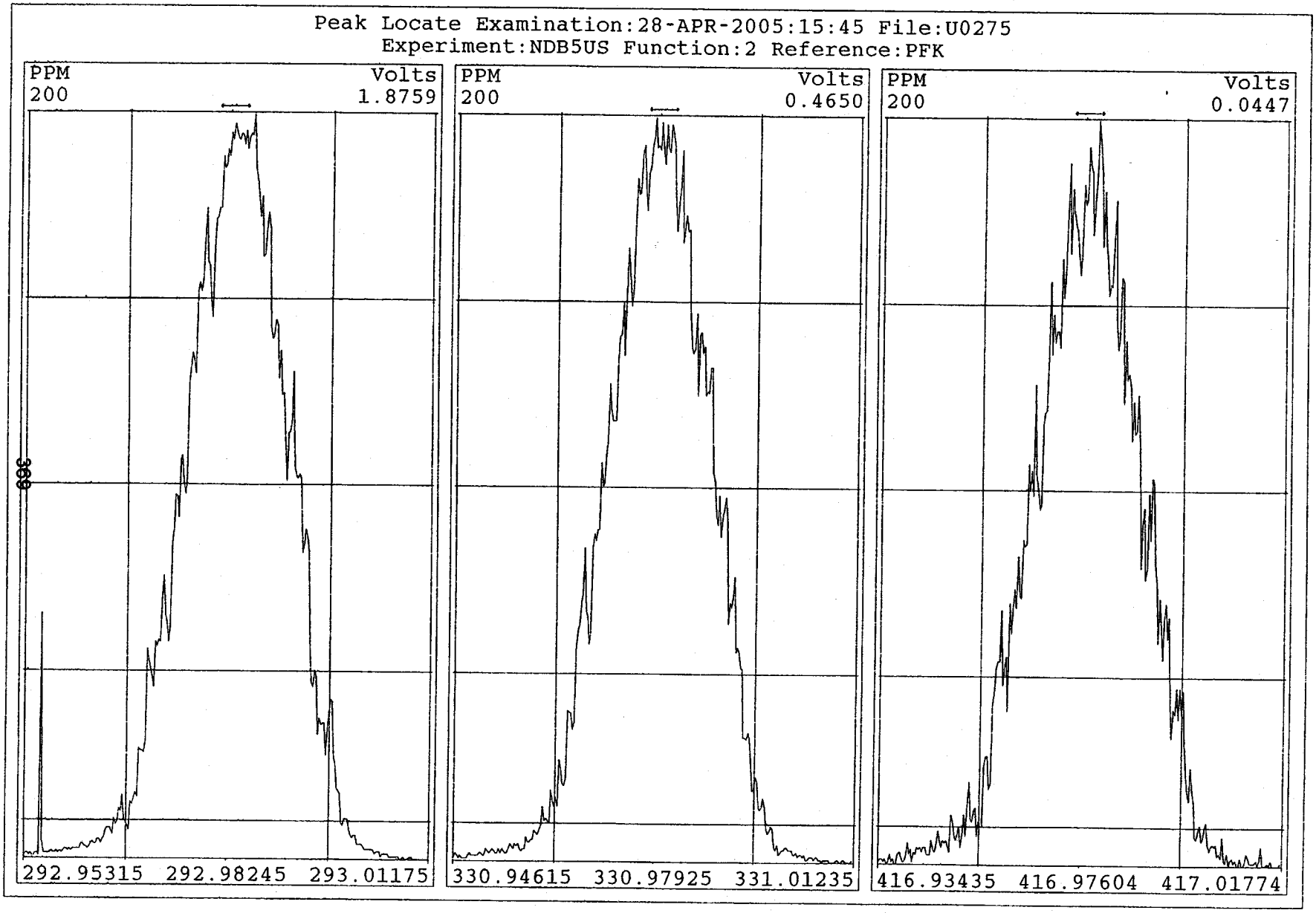


File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S Noise:17
471.7750 S:10 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,68.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS



File:U0275 #1-746 Acq:28-APR-2005 23:01:36 GC EI+ Voltage SIR 70S
430.9729 S:10 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64996 LCS




Peak Locate Examination:28-APR-2005:15:45 File:U0275
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
1.8759
292.95315
292.98245
293.01175
PPM
200
Volts
0.4650
330.94615
330.97925
331.01235
PPM
200
Volts
0.0447
416.93435
416.97604
417.01774

ENO RIVER LABS

DOCUMENT CONTROL

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

LEVEL III

Project Number: 178951
Site: Presidio / Baker Beach

COPY

Subcontract Laboratory:
Eno River Labs, LLC
2445 South Alston Ave
ferris@enoriverlabs.com
Durham, NC 27713
(919) 281-4053
ATTN: Shawn Ferris

Results due: Report Level: III

Please send report to: Patricia Flynn
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
BB1TP102(4.0)	04/15	Soil	8290	178951-004	Dioxins/Furans

Notes:	Relinquished By:	Received By:
	Date/Time: 4.18.05 1537	Date/Time: 4/19/05 9:50

Signature on this form constitutes a firm Purchase Order for the services requested above.
Page 1 of 1

ENO RIVER LABS, LLC -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

Lab Project Number 64980
Client: CUT02 - Curtis & Tompkins

Book 401

Date Received 04/19/05 By

Page 94

Carrier and Number UP1Z9X31690142183888

Ice Chest ICE Temp 6.0 C

Lab Number.. / mR/H:CPM.	Client Sample ID / Client COC ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
401-94-1	BB1TP102 (4.0) / BB1TP102 (4.0)	SOIL / C02	KL	4/21/05							

372

Receiving Remarks:

Archive Remarks:

92 of 104

Form Revised 05/27/1997 -- Page 1 OF 1

ENO RIVER LABS, LLC
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

Lab Proj#: 64980	Samples: 1	TurnAround.: 21 Day(s)
Prod Code: D01012	Matrix.: Soil	Hold Time..: 30 Day(s)
DetectLim: 1 ppt	Type...: B	Start Date.: 04/19/05
	Recvd..: 04/19/05	Ship By....: 05/08/05
		DWL Due Dt.: 04/27/05

Analyte List.: Tetra - Octa

Method.....: Method 8290: Tetra-Octa
Client Proj..: Presidio/Baker Beach
Client.....: Curtis & Tompkins (CUT02)

P.O. No.....: 178951	Collect Dt/Tm: 04/15/05
Contact.....: Patricia Flynn	Phone.....: 510-486-0900
Proj. Mgr....: Client Services	Fax.....: 510-486-0532
	Sample Origin:

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA	Prespike Standard: n/a
	Extraction Exp...: 05/15/05
	EDD(s).....: A130

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option III

See MILES for Instructions/Communications.

Completed by: _____ DATE: 4/20/05

Reviewed by: _____ DATE: 04/21/05 (PMGT01

Date: 05/03/05 ENO RIVER LABS, LLC PRPPERC v4.05
Time: 11:39 Percent Moisture/Solid Calculations Page: 1
Project: 64980

Sample #	crd	R	Empty Vial.Wt	Wet Vial Weight...	Dry Vial Weight...	Entered.By.....	Date....	Time....	%Moist	%Solid	Valid Weight From.....-To.....	Target Weight...
002		y	21.8700	0.0000	0.0000	royall	04/21/05	16:27:08	21.9	78.1	12.2919-13.3163	12.8041

Percent Moisture/Solid Summary

TLI.MILES.ID....	TLI.Number..	Client.Id.Number.....	%Moist	%Solid	ExtrctWt	DryWtEqu	RPD..
64980- -002	401-94-1	BB1TP102 (4.0)	21.9	78.1	13.020	10.169	

*** End of Report ***

ENO RIVER LABS, LLC
Wet Lab Extraction and Observations
Project: 64980

Sample #	crd	TLI_Number..	Customer.Sample.Id.....	Init. pH...	NaOH Adj. mL..	NaOH Adj. pH.1.	H2SO4 Adj. mL...	H2SO4 Adj. pH.2.	Appearance.	Color.....	Odor...	Vol.	Cl2	Entered.By.....	Date....	Time....	S
002		401-94-1	BB1TP102 (4.0)	n/a	n/a	n/a	n/a	n/a	SOIL	BROWN	NO	0	n/	MIMS	04/21	22:05	F

*** End of Report ***

Eno River Labs,LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

96 of 104

Extraction

Type: (Soxhlet) / RapidScreen / Sep Funnel / Cont LL / ASE / Waste Diln. / SPE / Sonication / Tumbler / Food O Oil Column

S.O.P: 105 Version: 20

Solvent / Solution	Lot Number / ID
Toluene	034763

For Waters, any filtered? No Yes
If Yes, which ones? _____

Comments / Observations: Blank & LCS = preserved sand Lot # 53-10-83M
obs: (002 - 6) Grey Ash no odor
64980 (002) Brown soil no odor K 4/21/05

Concentration

Type: (Rotovap) / KD / Speedvac

Analyst(s)/ Date: K7 4-22-05

S.O.P: 124 Version: 20 Logged in by: K7

Solvent Exchange	Lot Number
Heptane	044755

Tridecane Lot # FT-1-25-3148

Division: 50%/50% (____mL / ____mL) % Lipids (5 mL / 20 mL) None

Comments / Observations: _____

Cleanup

S.O.P: DSP260 Version: 19 Analyst(s)/ Date: KDH 4/25/05
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____

If DSP 280 needed complete the following areas:
Glasswool Lot #: GW-02-_____
Sodium Sulfate Lot #: _____
Acid Coated Silica Gel Lot #: SGA-_____
Heptane Lot#: _____
50g used for: 100g used for:

MeCl2/Hept Solutions
2% ID: CHSPL-33-99-2
20% ID: CHSPL-33-99-3
6% ID:

Comments / Observations: _____

Transfer

Type: (Speedvac) / N2

Analyst(s)/ Date: CP 4/26/05

S.O.P: 272 Version: 12

Solvent	Lot Number
Heptane	044755

Division: None

90%/10% for samples: 64996 (2-74)
(0.9mL/0.1mL) 64980 (2)

Comments / Observations: _____

Method: 8290
Matrix: solids
Ext. Date: 04/21/05
Analyst: K.M.

Project-Sample ID / Internal ID			Gross Weight Before	Gross Weight After	Sample Size (g) / mL	K 9034 E USF-ALS 12/10/05 04/21/05 18:30 0.10 ug/mL 20 uL	K 8998 D USF-Mx 10/07/05 04/21/05 18:30 0.01 ug/mL 40 uL	KT 8999Z USF-C 10/07/05 04/22/05 11:40 0.01 ug/mL 20 uL	____ ____ ____ __/__/__ __/__/__ __:__ ____ ug/mL ____ uL	Chemist Spike # Spike ID " Exp. " Date " Time Concen. Volume	
64996	1	BLANK	N/A	N/A	10.00	K		KT		Any Left	~~Yes / No~~
64996	2	402-11-1	322.43	305.26	17.05			KT			Yes / No
64996	3	402-11-2	385.20	369.55	15.58			KT			Yes / No
64996	4	402-11-3	340.55	↓	15.56			KT			Yes / No
64996	5	402-11-3MS	↓		15.67		K	KT			Yes / No
64996	6	402-11-3MSD	↓	293.65	15.44			KT			Yes / No
64996	7	LCS	N/A	N/A	10.00		K	KT			~~Yes / No~~
64980	2	401-94-1	173.87	160.72	13.02	K		KT			Yes / No
											Yes / No
											Yes / No
											Yes / No
											Yes / No
											Yes / No
											Yes / No

Project-Sample ID / Internal ID			1	2/3	4/7	8	6	9
64996	1	BLANK	KG	KT 4-22-05	KT 4-22-05	BHL 4/25/05	NA	L.P. 4/26/05
64996	2	402-11-1					L.P. 4/26/05	
64996	3	402-11-2						
64996	4	402-11-3					L.P. 4/26/05	
64996	5	402-11-3MS					NA	
64996	6	402-11-3MSD					KL	
64996	7	LCS					NA	
64980	2	401-94-1	4/19/05	KT 4-22-05	KT 4-22-05	BHL 4/25/05	KL L.P. 4/26/05	L.P. 4/26/05

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate {10 mL / 3 mL / Tridecane} 5) Combine
6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup (ESP260 / ESP280 / Alumina 9) Transfer ( ) Other:
___ %:___ % Carbon / RS / AgNO3 / Copper)

ENO RIVER LABS, LLC
Transfer Chain-of-Custody Form
Project 64980

Transfer From: DWLH5 To: DMS5

	Initials..	Date.....	Time...
Released by:	LP	4/26/05	10:45
Accepted by:	JSH	4/26/05	14:38

MILES.ID.....	TLI_No.....	Cust.Id.....
64980- -002	401-94-1	BB1TP102 (4.0)

XfrCOC (Rev 11/01/94)

Additional comments or instructions:

ENO RIVER LABS, LLC

Method: Method 8290: Tetra-Octa
HR GC/HRMS ANALYSIS
Required Detection Limit: 1 ppt

PROJECT: 64980

		SAMPLE INFORMATION					RS Conc
		1ST COLUMN		2ND COLUMN			20 µl @ 100.0 PG/µl
S#.crd	LAB / SAMPLE ID / CLIENT / SAMPLE ID	GC/MS FILENAME COLUMN: DB5	CONFIRM	CONFIRM FILENAME COLUMN: DB225	USF-RS VOLUME 20µl SOLN ID 9033M	USF-RS INIT. TS DATE 11/26/05	ANALYSIS COMMENTS
002	401-94-1 / BB1TP102 (4.0)	W027511	Y	P052061	↓	↓	

Comments: _____

Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70U-94	DB5	4905311	TD2	2 µl	NDB5US	NDB5US

Signature: Johna Shinn Date: 4/27/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
U027213	4/28/05	02:55	G4969	401-83-2	0504311-002	1.2 E7	DSY 4/27/05	13	DSY 4/28/05	
U027214	4/28/05	03:43	G4969	↓ -3	0504325-002	1.7 E7	DSY 4/27/05	14	↓	
U050273	4/28/05	10:23	—	9038A	RTCHK	10%	DSY 4/28/05	1		
U050274	↓	14:44	—	9004C	8290/1613 Concel 10	2.5 E7	DSY 4/28/05	1		Good 8290 TD DSY 4/28/05
U027501		15:46	G5013	Blank	Blank			1	DSY 4/29/05	
02		16:34	↓	402-28-1	05164154			2		
03		17:22	G5013	↓ -2	05164157			3		
04		18:11	G4996	Blank	Blank			4		
05		18:59		402-11-1	Fly & Bottom #1			5		
06		19:47		-2	#2			6		
07		20:36		-3	#3			7		
08	↓	21:25	↓	-3MS	#3 MS		↓	8		
U027509	4/28/05	22:13	G4996	↓ -3MSD	#3 MSD		DSY 4/28/05	9	↓	

* Transcribed from chromatographic data
** Dated initials required (12) DSY 4/28/05

ConCal Due: _____

Page: 57

srvr1/sop/hrrunlog.doc (04/12/2004)

381

10 of 97

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70U-94	DB5	H905311	T02	2 µL	NDB5US	NDB5US

Signature _____ Date 4/28/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
U027510	4/28/05	23:01	GH996	LCS	LCS		JSY 4/28/05	10	JSY 4/29/05	
11	4/28/05	23:49	GH980	401-94-1	BBITP102 (4.0)			11		
12	4/29/05	00:38	GH996lv1	401-75-2	S050412A2			12		
13	↓	01:26	GH914Av1	401-28-1	S050405A 01		↓	13		
U027514	4/29/05	02:14	—	9004C	8290116l3 Counsel0	1.1 E7	JSY 4/28/05	14	↓	Bore 8290 outliers averaged. JSY 4/29/05
U050276	4/29/05	—	—	—	Eating resp lof	—	JSY 4/29/05	—	—	
U050277			—	9038A	RTCHK		JSY 4/29/05	1		

382

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 58

102 of 1048

srvr1/sop/hrrunlog.doc (04/12/2004)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70P-45	DB225	4919245	TTI	2 µL	DB225	DB225

Signature _____ Date 4/26/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
P052043	4/26/05	20:24	64946	401-60-1	0504 0149-1A	8.2 E5	JSY 4/26/05	4	JSY 4/27/05	
↓ 44	↓	21:10	64953	401-67-1	N94878-1	8.5 E5	↓	5	↓	
P052045	4/26/05	21:55	64936	401-50-1	MW-X OIL	5.6 E5	JSY 4/26/05	6	↓	
P052046	4/27/05	—	—	—	Ending resplot	—	JSY 4/27/05	—	—	
47	↓	16:43	—	9038A	RTCHK	8%	↓	1	JSY 4/28/05	
48	↓	17:28	—	9004C	8250/1613 Course 10	2.1 E6	↓	2	↓	Good all methods. JSY 4/28/05
49	↓	18:13	—	9033K	RS-100	1.4 E6	↓	3	↓	
50	↓	18:58	64929 Anl	401-43-7	90532-56A	1.2 E6	↓	4	↓	
51	↓	19:44	↓	-8	90532-57B	1.4 E6	↓	5	↓	
↓ 52	↓	20:29	64929 Anl	↓ -9	DUPE	1.5 E6	↓	6	↓	
P052053	4/27/05	21:14	—	9004C	8250/1613 Course 10	1.5 E6	JSY 4/27/05	7	↓	Good F.T.B. JSY 4/28/05
P052054	4/28/05	—	—	—	Ending resplot	—	JSY 4/28/05	—	—	
P052055	5/2/05	17:58	—	9038A	RTCHK	7%	JSY 5/2/05	1	JSY 5/3/05	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 58

383

1031 of 1104

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70P-45	DB225	49192145	TTI	2 µl	DB225	DB225

Signature: Johnson Johnson Date: 5/2/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
P052056	5/2/05	18:42	—	9004C	8250/1613 Concel0	1.1 EC	JSY 5/2/05	2	JSY 5/3/05	Good all multiples. JSY 5/3/05
57		19:28	—	9033L	RS-100	1.5 EC		3		
58		20:13	GH996	H02-11-1	Fly & Bottom #1	1.9 EC		4		
59		20:58	↓	↓ -2	↓ #2	1.4 EC		5		
60		21:43	GH996	↓ -3	↓ #3	8.0 E5		6		
61		22:29	GH980	H01-9H-1	BBITP102 (4.0)	1.9 EC		7		
62	↓	23:14	GH993	H02-8-1A-D	UNIT 1 OUTLET, Test1	2.1 EC		8		
63	5/2/05	23:59		↓ -2A-D	↓ , Test2	1.9 EC		9		
64	5/3/05	00:44	↓	↓ -3A-D	↓ Test3	1.7 EC		10		
↓ 65		01:30	GH993	↓ -4A-D	Train Blank	1.6 EC	↓	11		
P052066	↓	02:15	—	9004C	8250/1613 Concel0	1.2 EC	JSY 5/2/05	12	↓	Good FTB. JSY 5/3/05
P052067	5/3/05				Ending resplot	—	JSY 5/3/05	—	—	

384

104 of 104

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 59

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179049

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBITP106(5.0)	179049-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/24/05
Operations Manager

Signature: _____ Date: 5/24/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179049**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**04/22/05**
Samples Received:	**04/22/05**

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 04/22/05. The sample was received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 101391; this analyte was not detected in the sample at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
Response exceeding the instrument's linear range was observed for diesel C10-C24 in the MS for batch 101505. Parent sample was not from this site. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low response was observed for bromomethane in the ICV analyzed 03/30/05 21:59; this analyte was not detected at or above the RL in the associated samples. High response was observed for Freon 12 in the CCV analyzed 04/22/05 11:19; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for many analytes in the ICV analyzed 04/16/05 15:47; these analytes were not detected at or above the RL in the associated samples. Low response was observed for benzo(k)fluoranthene in the CCV analyzed 04/26/05 19:00; this analyte met minimum response criteria. BBITP106(5.0) (lab # 179049-001) was diluted due to high levels of non-target analytes and the dark, viscous nature of the sample extract. No other analytical problems were encountered.

PCBs (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for copper and zinc in the MS/MSD for batch 101496; the parent sample was not a project sample, and the BS/BSD were within limits. Recoveries were low for these elements in the post digestion spike. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179049**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**04/22/05**
Samples Received:	**04/22/05**

Dioxins and Furans (EPA 8290):

Eno River Labs, LLC in Durham, NC performed the analysis. Please see the Eno River Labs, LLC case narrative.

Chain of Custody

179049

~~Harding Lawson Associates~~
~~90 Digital Drive~~
~~Novato, CA 94949~~
~~(415) 883-0112~~

MACTEC Engineering & Consulting
5341 old Redwood Hwy, Ste 300
Petaluma, CA 94954

~~HLA/Corps of Engineers~~

CHAIN OF CUSTODY FORM

Seq. No.: № 6162

Lab: CURTIS TOMPKINS

Samplers: A H HENKE

Job Number: 57255.005103

Name/Location: PRESIDIO SF BRDA 1

Project Manager: M A JACOBVITZ

Recorder: (Signature Required)

MATRIX				#CONTAINERS & PRESERV.						SAMPLE NUMBER OR LAB NUMBER				DATE				STATION					
Water	Soil			Unpres	H_2SO_4	HNO_3	HCL			YR	WK	SEQ		YR	MO	DAY	TIME	SAMP TYPE	SITE	SEQ		DEPTH	
	✓			8						BB	1	TP	106(5.0)	05	04	21	0830	BB	1	TP	106	5-5.5'	

ANALYSIS REQUESTED																							
Gasoline Range Organics 8015B	Diesel/MotorOil Range Organics 8015B	CCR Title 22 Metals (17)	Priority Pollutant Metals (13)	BTEX plus MTBE	EPA 8021B	EPA 8260B	EPA 8270C/PAH (8270 SIM)	EPA 8310	EPA 8082 (PCB's)	EPA 8290 (DIOXINS/FURANS)													
✓	✓	✓				✓	✓		✓	✓													5

ADDITIONAL INFORMATION

SAMPLE NUMBER			REMARKS
YR	WK	SEQ	
			- EXTRA VOLUME PROVIDED FOR EPA 8290
			- STANDARD TAT
			- CT1720050ZMP01x2

CHAIN OF CUSTODY RECORD

	(Print Name)	(Company)	Date/Time
Relinquished By: (signature)	A H HENKE	MACTEC	4/21/05 1200
Received By: (signature)	William Godwin	MACTEC	4/21/05 1200
Relinquished By: (signature)	William Godwin	MACTEC	4/22/05 1050
Received By: (signature)	Gary Lichtman	MACTEL	4/22/05 1050
Relinquished By: (signature)	AARON GRENIER	Curtis Tompkins	4/22/05 1100
Received By: (signature)			

Method of Shipment: CT COURIER - PETALUMA OFFICE

Laboratory Copy *White* | Project Office Copy *Yellow* | Manager Copy *Pink* | Field or Office Copy *Goldenrod*

36086 01020301

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 179049 Date Received: 4-22-05 Number of Coolers: 1
Client: Mactec Project: Presidio / Baker Beach

A. Preliminary Examination Phase
Date Opened: 4-22-05 By (print): Troy Windsor (sign) Troy Windsor

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO N/A
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... YES NO
   Type of ice: Wet Temperature: Cold - no temp blank

B. Login Phase
Date Logged In: 4-22-05 By (print): Troy Windsor (sign) Troy Windsor

1. Describe type of packing in cooler: In ziploc bags
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO N/A
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: ✓ Client Request: By: Mueter Date/Time: 4/23/05 Initials: PR

_____ Login Review _____ Data Review

Client/Act: REVISED

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel CHANGE	Analysis	Holddate	Duedate
179049 - A11			Soil	Add	TEH with Silica Gel		

7

TPH-PURGEABLE HYDROCARBONS IN SOIL

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBITP106(5.0)	Batch#:	101391
Matrix:	Soil	Sampled:	04/21/05
Units:	mg/Kg	Received:	04/22/05
Diln Fac:	1.000	Analyzed:	04/22/05

Type: SAMPLE
Lab ID: 179049-001
Basis: dry
Moisture: 33%

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.40	0.014

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	60-138
Bromofluorobenzene (FID)	100	66-148

Type: BLANK
Lab ID: QC291334
Basis: as received

Analyte	Result	RL	MDL
Gasoline C7-C12	0.019 J	0.20	0.0072

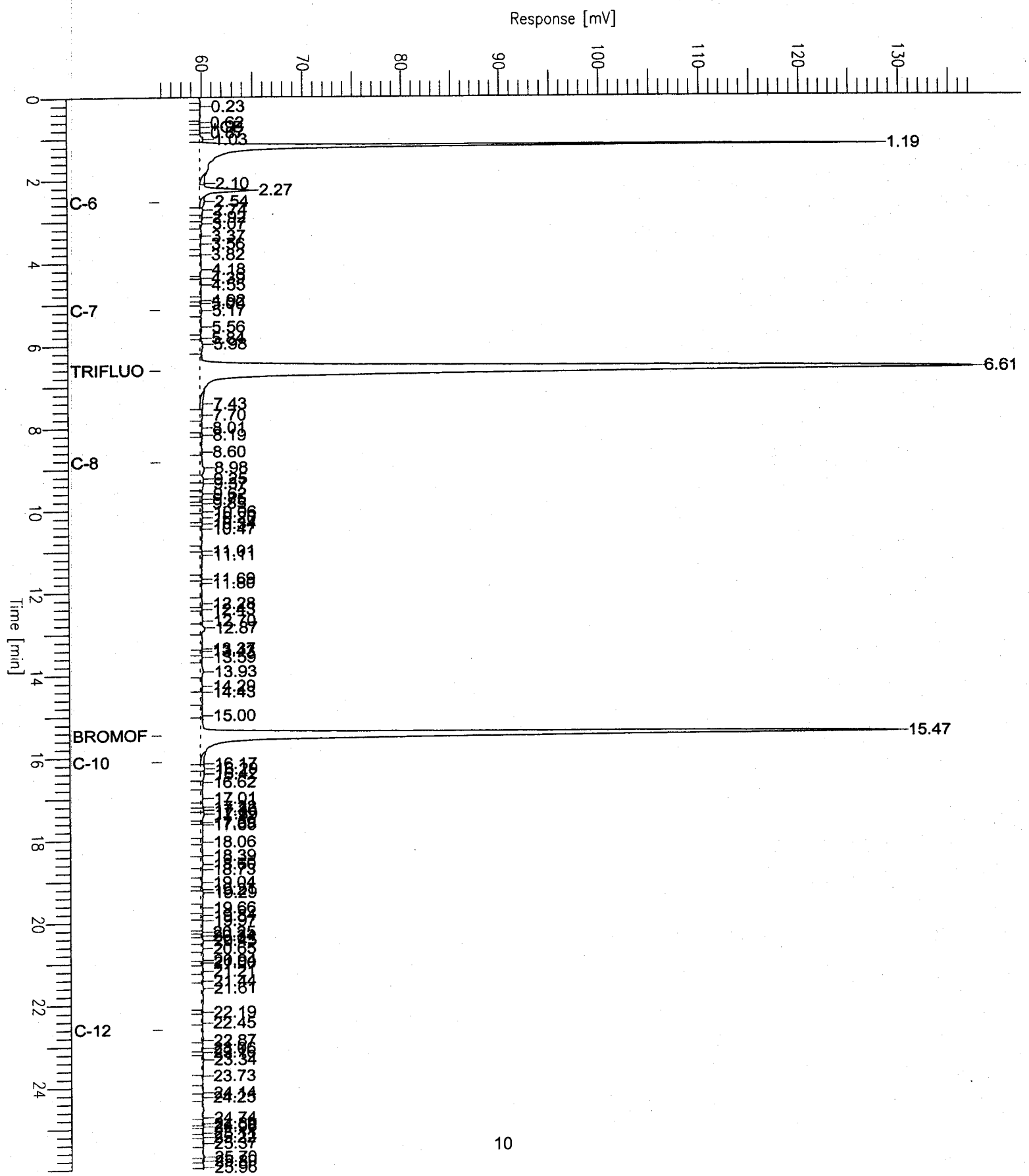
Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	60-138
Bromofluorobenzene (FID)	100	66-148

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC04 TVH 'J' Data File FID

Sample Name : mb,qc291334,101391
FileName : G:\GC04\DATA\112J004.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 56 mV

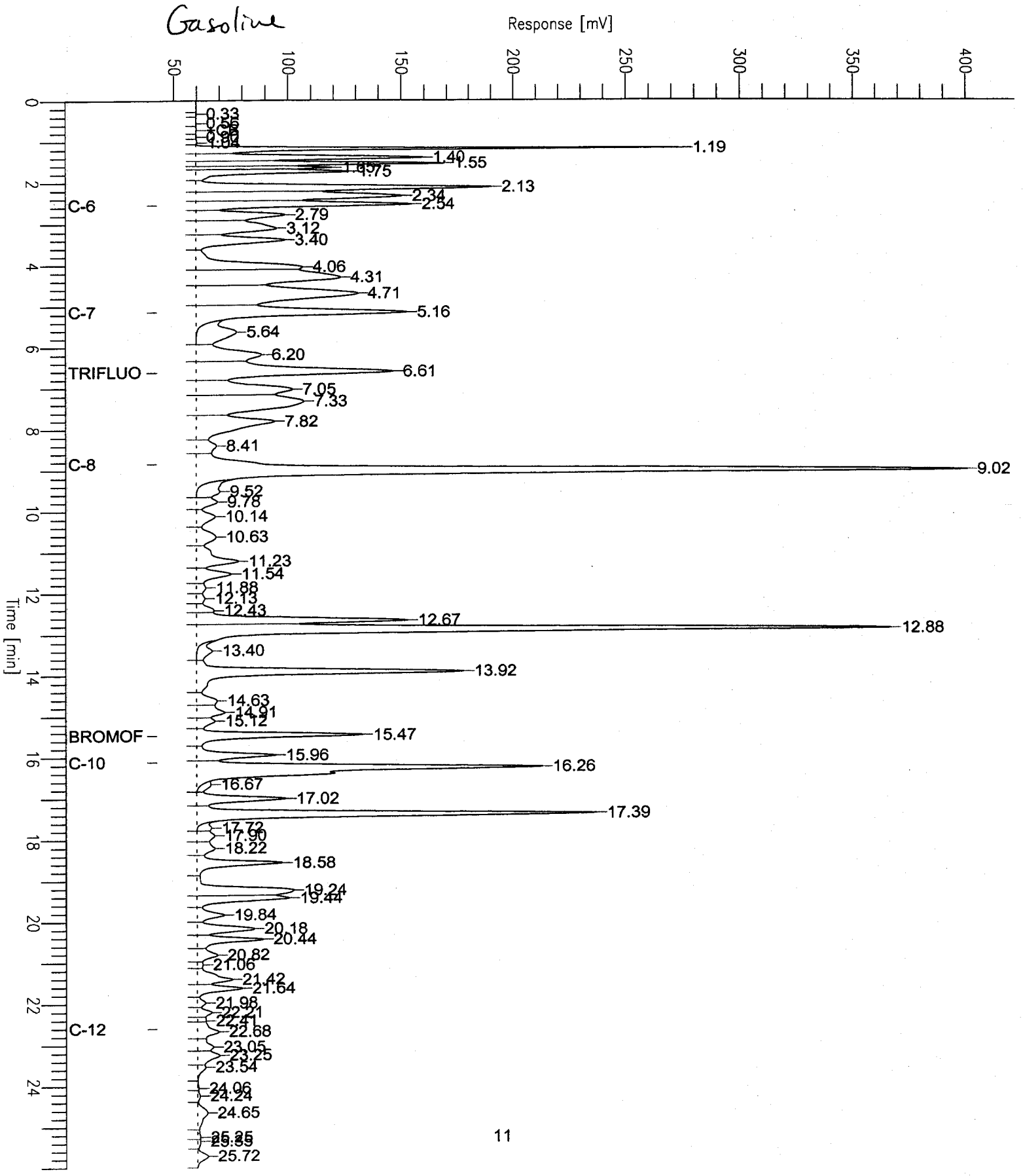
Sample #: Page 1 of 1
Date : 4/22/05 11:46 AM
Time of Injection: 4/22/05 11:20 AM
Low Point : 55.78 mV High Point : 137.44 mV
Plot Scale: 81.7 mV



GC04 TVH 'J' Data File FID

Sample Name : ccv/lcs,qc291336,101391,s247,5/5000
FileName : G:\GC04\DATA\112J003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 43 mV

Sample #: Page 1 of 1
Date : 4/22/05 11:10 AM
Time of Injection: 4/22/05 10:44 AM
Low Point : 42.67 mV High Point : 400.21 mV
Plot Scale: 357.5 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC291336	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101391
Units:	mg/Kg	Analyzed:	04/22/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.59	106	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	137	60-138
Bromofluorobenzene (FID)	109	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	179019-005	Batch#:	101391
Matrix:	Soil	Sampled:	04/20/05
Units:	mg/Kg	Received:	04/20/05
Basis:	as received	Analyzed:	04/22/05

Type: MS Lab ID: QC291392

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.09268	10.31	9.558	92	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	60-138
Bromofluorobenzene (FID)	98	66-148

Type: MSD Lab ID: QC291393

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.31	9.660	93	43-120	1	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	127	60-138
Bromofluorobenzene (FID)	98	66-148

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 304466014001 Name: tvh Type: (normal) Date: 18-NOV-2004 20:30 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_007	304466014007	tvh1	18-NOV-2004 20:30	04WS1982 (1000X), 04WS1966 (5000X)
2	323_008	304466014008	tvh2	18-NOV-2004 21:05	04WS1983 (1000X), 04WS1966 (5000X)
3	323_009	304466014009	tvh3	18-NOV-2004 21:41	04WS1984 (1000X), 04WS1966 (5000X)
4	323_010	304466014010	tvh4	18-NOV-2004 22:17	04WS1985 (2000X), 04WS1966 (5000X)
5	323_011	304466014011	tvh5	18-NOV-2004 22:52	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	J	2584.4	1778.6	1670.9	2095.6	1820.2	AVRG R		5.025E-4		ng	1989.9	18	0.995	20	

14

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC04 Calname : tvh
Calnum : 304466014001 Caldate : 18-NOV-2004 Caltype :

ICV 304466014013 (323_013) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Gasoline C7-C12	J	304466014013	19-NOV-2004	10000.0	10789	ng	8

INITIAL CALIBRATION REPORT FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 305100272001 Name: tft/bfb Type: (normal) Date: 10-MAR-2005 15:12 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	069_002	305100272002	tft/bfb 1	10-MAR-2005 15:12	S67 (5000X)
2	069_003	305100272003	tft/bfb 2	10-MAR-2005 15:48	S68 (5000X)
3	069_004	305100272004	tft/bfb 3	10-MAR-2005 16:26	S69 (5000X)
4	069_005	305100272005	tft/bfb 4	10-MAR-2005 17:03	S70 (5000X)
5	069_006	305100272006	tft/bfb 5	10-MAR-2005 17:39	S71 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	J	1919.8	2014.6	1900.7	1936.1	1943.7	AVRG	R		5.147E-4		ng	1943.0	2	0.995	20	
Bromofluorobenzene (FID)	J	1194.3	1196.7	1136.3	1173.3	1154.0	AVRG	R		8.540E-4		ng	1170.9	2	0.995	20	

16

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Seqnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305161852003	22-APR-2005 10:44	304466014001	18-NOV-2004	1989.9	2106.8	10000	10587	ng	6	15	u
GC04	J	305161852015	22-APR-2005 17:57	304466014001	18-NOV-2004	1989.9	2034.0	15000	15332	ng	2	15	
GC04	J	305161852023	22-APR-2005 22:43	304466014001	18-NOV-2004	1989.9	2020.5	5000.0	5076.9	ng	2	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305161852002	22-APR-2005 10:08	305100272001	10-MAR-2005	1943.0	1854.9	450.00	429.59	ng	-5	15	
GC04	J	305161852003	22-APR-2005 10:44	305100272001	10-MAR-2005	1943.0	2665.8	450.00	617.41	ng	**37**	15	c+ u
GC04	J	305161852013	22-APR-2005 16:45	305100272001	10-MAR-2005	1943.0	1801.6	450.00	417.25	ng	-7	15	
GC04	J	305161852023	22-APR-2005 22:43	305100272001	10-MAR-2005	1943.0	2229.0	450.00	516.24	ng	15	15	

IN-House
QC Limits

TFT-FID-5
60-138 % Rec.

+=high bias c=CCV u=use
Page 1 of 1

mcw 8/3/05

CONTINUING CALIBRATION SUMMARY FOR 179049 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305161852002	22-APR-2005 10:08	305100272001	10-MAR-2005	1170.9	1150.2	450.00	442.04	ng	-2	15	
GC04	J	305161852003	22-APR-2005 10:44	305100272001	10-MAR-2005	1170.9	1271.8	450.00	488.76	ng	9	15	u
GC04	J	305161852013	22-APR-2005 16:45	305100272001	10-MAR-2005	1170.9	1140.2	450.00	438.20	ng	-3	15	
GC04	J	305161852023	22-APR-2005 22:43	305100272001	10-MAR-2005	1170.9	1193.4	450.00	458.63	ng	2	15	

u=use

PROJECT Glossary for Bdy

Notebook No. BK-1160

Continued From Page

89

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 314466280 Instrument: GC05
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #5 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 18-NOV-2004

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	323_001	X	ib			18-NOV-2004 19:20	1.0					1	
002	323_002	X	ib			18-NOV-2004 19:52	1.0					1	
003	323_003	ICAL	tvh1			18-NOV-2004 20:23	1.0					2 1	pass/lbe
004	323_004	ICAL	tvh2			18-NOV-2004 20:55	1.0					3 1	
005	323_005	ICAL	tvh3			18-NOV-2004 21:26	1.0					4 1	
006	323_006	ICAL	tvh4			18-NOV-2004 21:58	1.0					5 1	
007	323_007	ICAL	tvh5			18-NOV-2004 22:30	1.0					5 1	*
008	323_008	X	ib			18-NOV-2004 23:02	1.0					1	
009	323_009	ICV	tvh			18-NOV-2004 23:33	1.0	1	5000			6 1	pass 1:F3BZME=992.437
010	323_010	X	crbmrk			19-NOV-2004 00:05	1.0					7 8 1	
011	323_011	X	ib			19-NOV-2004 00:37	1.0					1	
012	323_012	X	ib			19-NOV-2004 07:00	1.0					1	
013	323_013	ICAL	tft/bfb 1			19-NOV-2004 07:32	1.0					9	pass/lbe
014	323_014	ICAL	tft/bfb 2			19-NOV-2004 08:11	1.0					10	
015	323_015	ICAL	tft/bfb 3			19-NOV-2004 08:54	1.0					11	
016	323_016	ICAL	tft/bfb 4			19-NOV-2004 09:35	1.0					12	
017	323_017	ICAL	tft/bfb 5			19-NOV-2004 10:22	1.0					13	

Stds used: 1=04WS1966 2=04WS1982 3=04WS1983 4=04WS1984 5=04WS1985 6=04WS2154 7=02SS420 8=02SS421 9=04WS1886 10=04WS1887 11=04WS1888 12=04WS1889 13=04WS1890

Analyst: _____ Date: 11/19/04

Page 1 of 1

Continued on Page

Read and Understood By

Signed _____ Date 11/19/04

Signed _____ Date 11.19.04

PROJECT 46

Notebook No. [illegible]

Continued From Page [illegible]

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305100272 Instrument: GC04
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #4 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 10-MAR-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	069_001	X	ib			10-MAR-2005 14:36	1.0				1	
002	069_002	ICAL	tft/bfb 1			10-MAR-2005 15:12	1.0				2	
003	069_003	ICAL	tft/bfb 2			10-MAR-2005 15:48	1.0				3	
004	069_004	ICAL	tft/bfb 3			10-MAR-2005 16:26	1.0				4	
005	069_005	ICAL	tft/bfb 4			10-MAR-2005 17:03	1.0				5	
006	069_006	ICAL	tft/bfb 5			10-MAR-2005 17:39	1.0				6	

Stds used: 1=05W0068 2=S67 3=S68 4=S69 5=S70 6=S71

Analyst: [signature] Date: 3/11/05

Page 1 of 1

[signature] 3/11/05

Signed [signature] Date 3/11/05

Read and Understood By

Signed [signature] Date 3/11/05

21

Continued on Page

PROJECT GC04 System Log Book

Notebook No. BK 248

Continued From Page

73

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305161852 Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Begun: 22-APR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	112_001	X	ib			22-APR-2005 09:32	1.0						1	
002	112_002	CCV/LCS	QC291335	101391	Soil	22-APR-2005 10:08	1.0	1		5000			2 1 Pass	
003	112_003	CCV/LCS	QC291336	101391	Soil	22-APR-2005 10:44	1.0		1	5000			3 1 ↓	
004	112_004	BLANK	QC291334	101391	Soil	22-APR-2005 11:20	1.0	6		5000			1	
005	112_005	SAMPLE	179030-006	101391	Soil	22-APR-2005 11:56	1.0			5000	B		1	
006	112_006	SAMPLE	179030-008	101391	Soil	22-APR-2005 12:32	1.0	1		5000	C		1	4:GAS:7-=64011.8
007	112_007	SAMPLE	179030-001	101391	Soil	22-APR-2005 13:10	10.0		1	5000	A		1	
008	112_008	X	meoh blk	101391		22-APR-2005 13:46	5.0						1 ND	
009	112_009	SAMPLE	179031-011	101391	Soil	22-APR-2005 14:22	1.0			5000	Kx1		1	
010	112_010	SAMPLE	179049-001	101391	Soil	22-APR-2005 14:58	1.0			5000	C		1	
011	112_011	SAMPLE	179030-003	101391	Soil	22-APR-2005 15:33	5.0	1	1	5000	C		1	4:GAS:7-=72490.9
012	112_012	SAMPLE	179030-005	101391	Soil	22-APR-2005 16:09	5.0	1		5000	A		1	1:BR4FBZ=972.443
013	112_013	CCV	mbtxe	101391		22-APR-2005 16:45	1.0	1		5000			2 1 Pass	
014	112_014	X	tvh	101391		22-APR-2005 17:21	1.0			5000			3 1 retest	
015	112_015	CCV	tvh	101391		22-APR-2005 17:57	1.0	1		5000			3 1 Pass	1:F3BZME=978.100
016	112_016	MSS	179019-005	101391	Soil	22-APR-2005 18:32	1.0	3		5000	A		1	
017	112_017	SAMPLE	179019-007	101391	Soil	22-APR-2005 19:08	1.0			5000			1	
018	112_018	SAMPLE	179030-002	101391	Soil	22-APR-2005 19:44	10.0			5000	V		1 Dil 2x	
019	112_019	SAMPLE	179030-004	101391	Soil	22-APR-2005 20:20	10.0		1	5000	D		1	
020	112_020	SAMPLE	179030-009	101391	Soil	22-APR-2005 20:56	10.0	1		5000	B		1	4:GAS:7-=65162.5
021	112_021	MS	QC291392	101391	Soil	22-APR-2005 21:31	1.0		1	5000	A		3 1 Pass	
022	112_022	MSD	QC291393	101391	Soil	22-APR-2005 22:07	1.0		1	5000	A		3 1	
023	112_023	CCV	tvh	101391		22-APR-2005 22:43	1.0			5000			3 1 ↓	
024	112_024	CCV	tvh	101391		22-APR-2005 23:19	1.0			5000			3 1	

SAMPLE QC = EN Lot#129474-111164

Stds used: 1=S224 2=S292 3=S247

Analyst: _____ Date: 4.25.05

Page 1 of 1

4.25.05

Signed _____ Date 4.25.05

Read and Understood By

Signed _____ Date 4/25/05

Continued on Page

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101391
Date Started: 22-APR-2005
Batched by : Micaela M. Perpetuo

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
179019-005			CH2M Hill	Soil	TVH	27-APR-2005
179019-007			CH2M Hill	Soil	TVH	27-APR-2005
179030-001			Environmental Qual	Soil	TVH	27-APR-2005
179030-002			Environmental Qual	Soil	TVH	27-APR-2005
179030-003			Environmental Qual	Soil	TVH	27-APR-2005
179030-004			Environmental Qual	Soil	TVH	27-APR-2005
179030-005			Environmental Qual	Soil	TVH	27-APR-2005
179030-006			Environmental Qual	Soil	TVH	27-APR-2005
179030-008			Environmental Qual	Soil	TVH	27-APR-2005
179030-009			Environmental Qual	Soil	TVH	27-APR-2005
179031-011			Questa Engineering	Soil	BTXE, TVH	27-APR-2005
179049-001			Mactec, Inc.	Soil	ETVH	04-MAY-2005
QC291334	MB			Soil		
QC291335	LCS			Soil		
QC291336	LCS			Soil		
QC291392	MS	of 179019-005		Soil		
QC291393	MSD	of 179019-005		Soil		

Project TVA / Middle Creek Wash Bulk 2106

Continued from Page

Sample ID	Core	Type	Weight (g)	Comp (?)	Mixture (?)	Analyst & Date
179987	-023	A	2.93	Yes	No	Dry-Grind
	-014	A	3.07			
	-015	A	3.41			
	-016	A	2.98			
	-024	Comp	1.00			
	-017	A	3.02			
	-018	A	2.95			
	-019	A	3.05			
	-020	A	3.09			
	-025	Comp	0.97			
179987-023		Comp	0.93	Yes	No	Dry-Grind
~~Mix~~ ~~179~~ 179007	-001	A	0.97	No		
Split of 179007	-001	A	0.96			
Mix of 179007	-001	A	0.94			
179007	-002	A	0.96			
	-003	A	0.98			
	-004	A	1.06			
~~Mix~~ ~~179~~ 179029	-001	A	0.94			
	-002	A	0.93			
	-003	A	1.00			
	-004	A	1.02			
	-005	A	0.94			
	-006	A	0.96			
	-007	A	1.03			
	-008	A	0.95			
179031	-011	Comp	0.94	Yes	Yes	Dry-Grind
179030	-006	B	0.98	No		
	-008	C	0.98			
179049	-001	C	3.74			
179019	-005	A	1.03			
Split of 179019	-005	A	0.97			
Mix of 179019	-005	A	0.97			
179019	-007	A	0.96			
179030	-002	A	0.98	No	No	Dry-Grind

Continued on Page

Read and Understood By

Signed — Date — Signed — Date

TPH-EXTRACTABLES DATA

SOIL

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBITP106(5.0)	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	mg/Kg	Prepared:	04/27/05
Diln Fac:	1.000	Analyzed:	04/27/05
Batch#:	101505		

Type:	SAMPLE	Moisture:	33%
Lab ID:	179049-001	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL
Diesel C10-C24	32 H Y	1.5
Motor Oil C24-C36	120	7.4

Surrogate	%REC	Limits
Hexacosane	125	51-136

Type:	BLANK	Basis:	as received
Lab ID:	QC291783	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

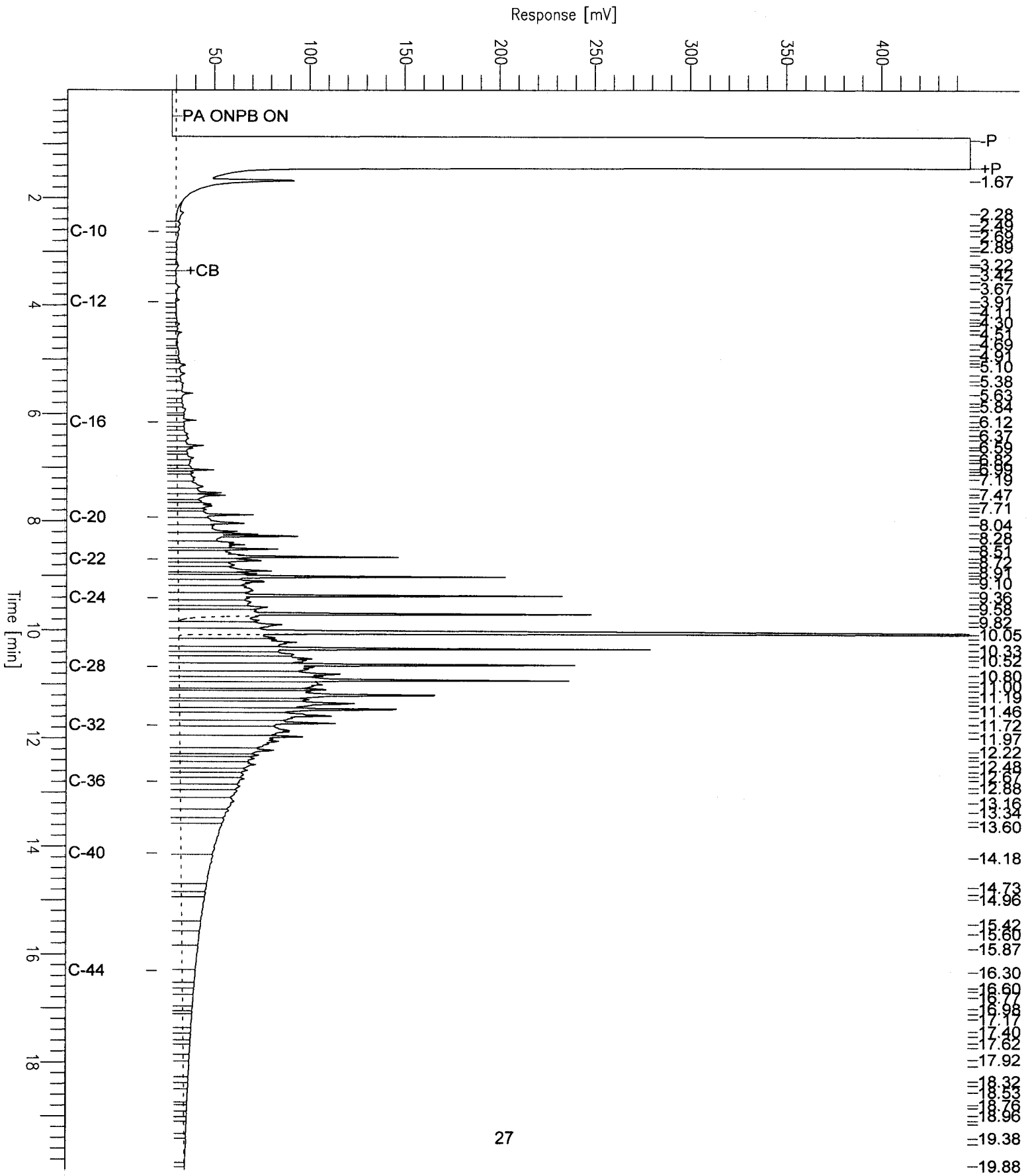
Surrogate	%REC	Limits
Hexacosane	106	51-136

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 179049-001sg,101505
FileName : G:\GC13\CHB\116B056.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 20 mV

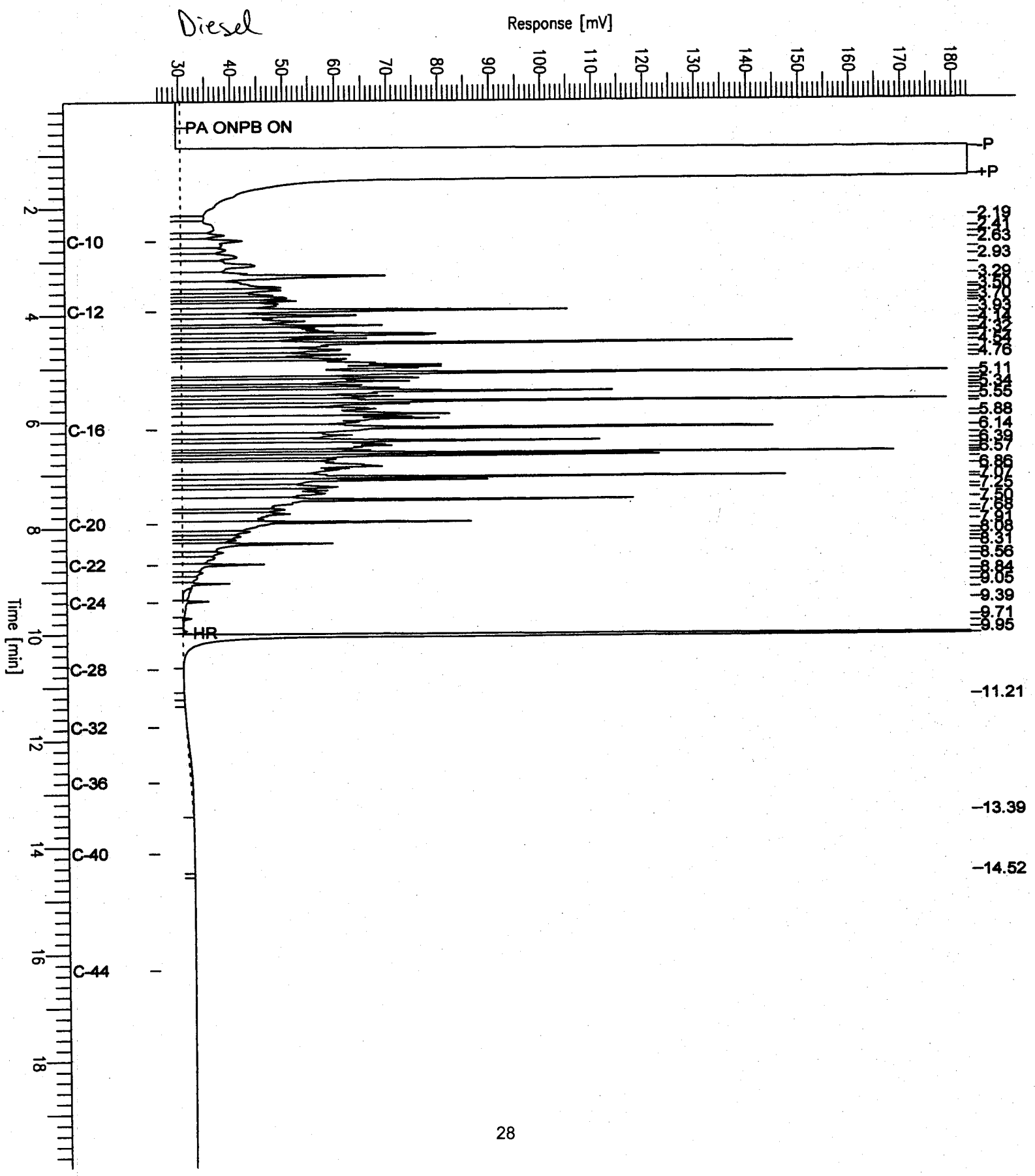
Sample #: 101505 Page 1 of 1
Date : 4/28/05 09:21 AM
Time of Injection: 4/27/05 08:40 PM
Low Point : 20.48 mV High Point : 446.74 mV
Plot Scale: 426.3 mV



Chromatogram

ample Name : ccv,S167,dsl
ileName : G:\GC13\CHB\116B003.RAW
ethod : BTEH115S.MTH
tart Time : 0.01 min End Time : 19.99 min
cale Factor: 0.0 Plot Offset: 25 mV

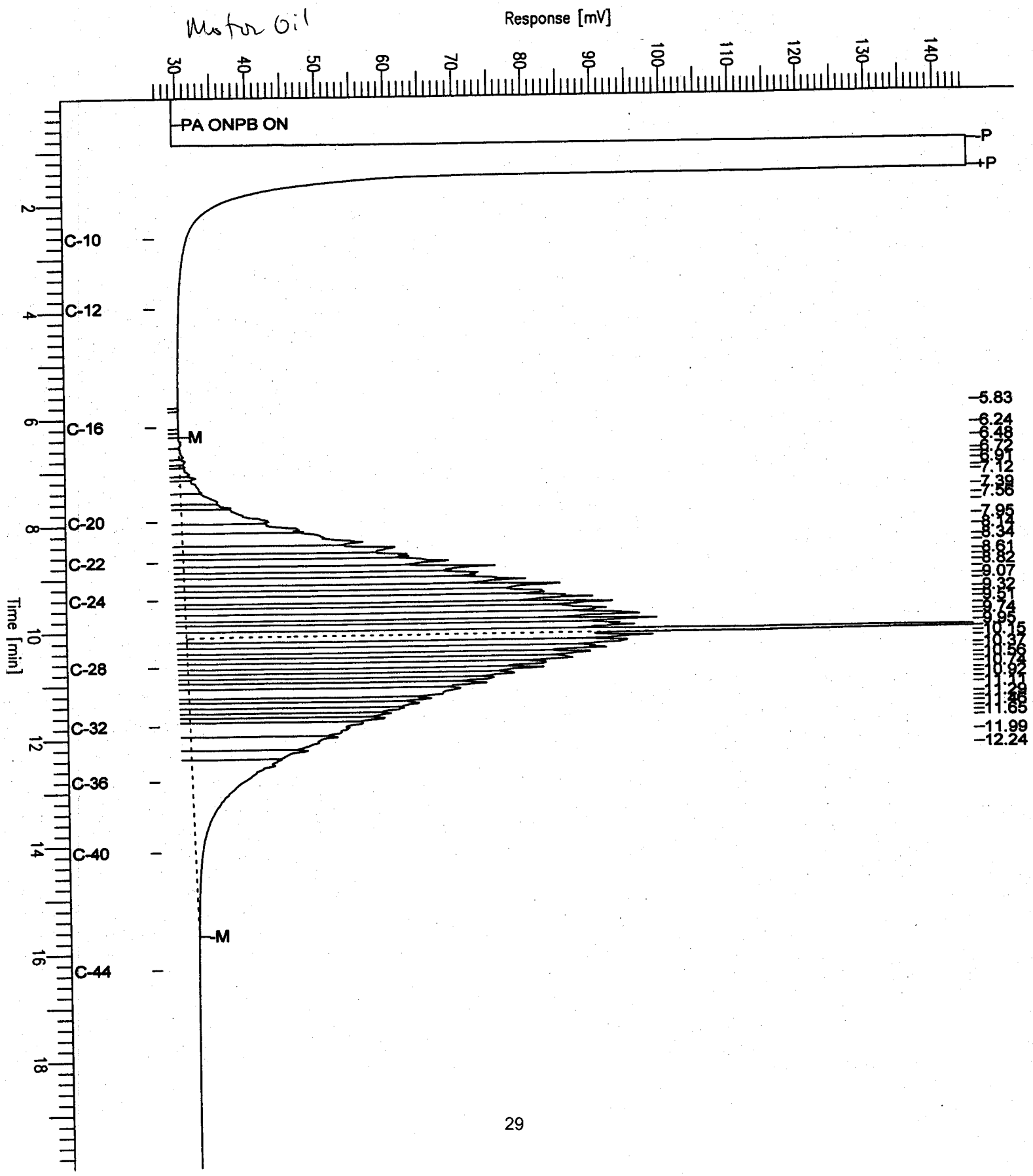
Sample #: 250mg/L
Date : 4/26/05 10:16 AM
Time of Injection: 4/26/05 09:23 AM
Low Point : 25.41 mV High Point : 183.16 mV
Plot Scale: 157.8 mV



Chromatogram

ample Name : ccv,S294,mo
ileName : G:\GC13\CHB\116B004.RAW
ethod : BTEH115S.MTH
tart Time : 0.01 min End Time : 19.99 min
cale Factor: 0.0 Plot Offset: 27 mV

Sample #: 500mg/L Page 1 of 1
Date : 4/26/05 10:17 AM
Time of Injection: 4/26/05 09:51 AM
Low Point : 26.73 mV High Point : 144.76 mV
Plot Scale: 118.0 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291784	Batch#:	101505
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	04/27/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.75	45.19	91	52-137

Surrogate	%REC	Limits
Hexacosane	98	51-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	101505
MSS Lab ID:	179062-003	Sampled:	04/22/05
Matrix:	Soil	Received:	04/22/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	04/27/05
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC291785

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	671.0	56.92	748.5 >LR	136 NM	11-169

Surrogate	%REC	Limits
Hexacosane	84	51-136

Type: MSD Moisture: 13%
Lab ID: QC291786

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	57.21	545.4	-220 NM	11-169	NC	49

Surrogate	%REC	Limits
Hexacosane	93	51-136

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: MCH
Calnum: 145118824002 Name: dsl Type: (normal) Date: 23-MAR-2005 22:24 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	082b012	145118824012	dsl10	23-MAR-2005 22:24	05WS0167
2	082b013	145118824013	dsl100	23-MAR-2005 22:52	05WS0169
3	082b014	145118824014	dsl250	23-MAR-2005 23:20	05WS0170
4	082b015	145118824015	dsl500	23-MAR-2005 23:48	05WS0171
5	082b016	145118824016	dsl1000	24-MAR-2005 00:17	05WS0172
6	082b017	145118824017	dsl2500	24-MAR-2005 00:45	05WS0173
7	082b018	145118824018	dsl5000	24-MAR-2005 01:13	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Diesel C10-C24	25181	22700	17958	23267	18682	19751	20580	AVRG R		4.726E-5		mg/L	21160	12	0.995 20	

32

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC13B Calname : dsl
Calnum : 145118824002 Caldate : 23-MAR-2005 Caltype :

ICV 145118824020 (082b020) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	B	145118824020	24-MAR-2005	500.00	540.80	mg/L	8

INITIAL CALIBRATION REPORT FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: RH
Calnum: 145107088002 Name: mo Type: (normal) Date: 15-MAR-2005 17:15 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	074b013	145107088013	mo 50	15-MAR-2005 17:15	04WS2172
2	074b014	145107088014	mo 250	15-MAR-2005 17:43	04WS2173
3	074b015	145107088015	mo 500	15-MAR-2005 18:11	04WS2174
4	074b016	145107088016	mo 1000	15-MAR-2005 18:38	04WS2175
5	074b017	145107088017	mo 2500	15-MAR-2005 19:07	04WS2176
6	074b018	145107088018	mo 5000	15-MAR-2005 19:34	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	15505	16721	16352	15078	12216	9686.5	AVRG R		7.013E-5		mg/L	14260	19	0.995	20	

34

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: CW
Calnum: 145147550001 Name: Hexacosane Type: (normal) Date: 13-APR-2005 01:01 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102b019	145147550019	hex5	13-APR-2005 01:01	S112
2	102b020	145147550020	hex10	13-APR-2005 01:30	S113
3	102b021	145147550021	hex25	13-APR-2005 01:58	S114
4	102b022	145147550022	hex50	13-APR-2005 02:26	S115
5	102b023	145147550023	hex75	13-APR-2005 02:55	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	24111	24621	24792	26302	24569	AVRG R		4.019E-5		mg/L	24879	3	0.995	20	

35

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769001 Name: dsl Type: (normal) Date: 12-APR-2005 15:46 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a003	175147769003	dsl10	12-APR-2005 15:46	05WS0167
2	102a004	175147769004	dsl100	12-APR-2005 16:15	05WS0169
3	102a005	175147769005	dsl250	12-APR-2005 16:43	05WS0170
4	102a006	175147769006	dsl500	12-APR-2005 17:12	05WS0171
5	102a007	175147769007	dsl1000	12-APR-2005 17:40	05WS0172
6	102a008	175147769008	dsl2500	12-APR-2005 18:09	05WS0173
7	102a009	175147769009	dsl5000	12-APR-2005 18:37	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C10-C24	25738	30678	29352	30492	30341	30615	30232	AVRG R		3.374E-5		mg/L	29636	6	0.995	20	

36

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC17A Calname : dsl
Calnum : 175147769001 Caldate : 12-APR-2005 Caltype :

ICV 175147769011 (102a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	A	175147769011	12-APR-2005	500.00	494.04	mg/L	-1

INITIAL CALIBRATION REPORT FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769003 Name: hex Type: (normal) Date: 12-APR-2005 23:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a020	175147769020	hex5	12-APR-2005 23:52	S112
2	102a021	175147769021	hex10	13-APR-2005 00:21	S113
3	102a022	175147769022	hex25	13-APR-2005 00:49	S114
4	102a023	175147769023	hex50	13-APR-2005 01:18	S115
5	102a024	175147769024	hex75	13-APR-2005 01:47	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	34053	35110	33549	32398	34102	AVRG R		2.955E-5		mg/L	33842	3	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145167533052	27-APR-2005 13:58	145118824002	23-MAR-2005	21160	22689	1000.0	1072.3	mg/L	7	15	
GC13B	B	145167533064	28-APR-2005 00:26	145118824002	23-MAR-2005	21160	20805	250.00	245.80	mg/L	-2	15	
GC17A	A	175170475003	28-APR-2005 10:41	175147769001	12-APR-2005	29636	26664	500.00	449.86	mg/L	-10	15	
GC17A	A	175170475015	28-APR-2005 18:17	175147769001	12-APR-2005	29636	30459	1000.0	1027.8	mg/L	3	15	

CONTINUING CALIBRATION SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145167533053	27-APR-2005 14:26	145107088002	15-MAR-2005	14260	14580	500.00	511.21	mg/L	2	15	
GC13B	B	145167533065	28-APR-2005 00:54	145107088002	15-MAR-2005	14260	14734	500.00	516.63	mg/L	3	15	

CONTINUING CALIBRATION SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145167533052	27-APR-2005 13:58	145147550001	13-APR-2005	24879	23785	50.000	47.801	mg/L	-4	15	
GC13B	B	145167533064	28-APR-2005 00:26	145147550001	13-APR-2005	24879	23329	50.000	46.884	mg/L	-6	15	
GC17A	A	175170475003	28-APR-2005 10:41	175147769003	12-APR-2005	33842	31674	50.000	46.797	mg/L	-6	15	
GC17A	A	175170475015	28-APR-2005 18:17	175147769003	12-APR-2005	33842	32101	50.000	47.428	mg/L	-5	15	

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145107088 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 15-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	074b001	X	primer			15-MAR-2005 08:48	1.0						
002	074b002	X	ib			15-MAR-2005 09:16	1.0						
003	074b003	ICAL	dsl 10			15-MAR-2005 12:35	1.0					1	
004	074b004	ICAL	dsl 100			15-MAR-2005 13:03	1.0					2	
005	074b005	ICAL	dsl 250			15-MAR-2005 13:31	1.0					3	
006	074b006	ICAL	dsl 500			15-MAR-2005 13:58	1.0					4	
007	074b007	ICAL	dsl 1000			15-MAR-2005 14:26	1.0					5	
008	074b008	ICAL	dsl 2500			15-MAR-2005 14:54	1.0					6	
009	074b009	ICAL	dsl 5000			15-MAR-2005 15:22	1.0					7	
010	074b010	X	ib			15-MAR-2005 15:50	1.0						
011	074b011	ICV	dsl			15-MAR-2005 16:18	1.0		3			8	
012	074b012	X	ib			15-MAR-2005 16:47	1.0						
013	074b013	ICAL	mo 50			15-MAR-2005 17:15	1.0					9	
014	074b014	ICAL	mo 250			15-MAR-2005 17:43	1.0					10	
015	074b015	ICAL	mo 500			15-MAR-2005 18:11	1.0					11	42
016	074b016	ICAL	mo 1000			15-MAR-2005 18:38	1.0					12	
017	074b017	ICAL	mo 2500			15-MAR-2005 19:07	1.0					13	
018	074b018	ICAL	mo 5000			15-MAR-2005 19:34	1.0					14	
019	074b019	X	ib			15-MAR-2005 20:02	1.0						
020	074b020	ICAL	hex5			15-MAR-2005 20:30	1.0					15	
021	074b021	ICAL	hex10			15-MAR-2005 20:58	1.0					16	
022	074b022	ICAL	hex25			15-MAR-2005 21:26	1.0					17	
023	074b023	ICAL	hex50			15-MAR-2005 21:54	1.0					18	
024	074b024	ICAL	hex75			15-MAR-2005 22:22	1.0					19	
025	074b025	X	ib			15-MAR-2005 22:50	1.0						
026	074b026	X	c10-16			15-MAR-2005 23:18	1.0						
027	074b027	X	c12-60			15-MAR-2005 23:46	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145118824 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 23-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK	uL	VL	pH	Stds Used	>LR
001	082b001	X	primer			23-MAR-2005 11:56	1.0							
002	082b002	X	ib			23-MAR-2005 12:24	1.0							
003	082b003	CCV	dsl			23-MAR-2005 12:53	1.0	7		3			1	
004	082b004	CCV	mo			23-MAR-2005 13:21	1.0			3			2	
005	082b005	X	ib			23-MAR-2005 19:08	1.0							
006	082b006	ICAL	hex5			23-MAR-2005 19:36	1.0						3	
007	082b007	ICAL	hex10			23-MAR-2005 20:04	1.0						4	
008	082b008	ICAL	hex25			23-MAR-2005 20:32	1.0						5	
009	082b009	ICAL	hex50			23-MAR-2005 21:00	1.0						6	
010	082b010	ICAL	hex75			23-MAR-2005 21:28	1.0						7	
011	082b011	X	ib			23-MAR-2005 21:56	1.0							
012	082b012	ICAL	dsl10			23-MAR-2005 22:24	1.0						8	
013	082b013	ICAL	dsl100			23-MAR-2005 22:52	1.0						9	
014	082b014	ICAL	dsl250			23-MAR-2005 23:20	1.0						10	
015	082b015	ICAL	dsl500			23-MAR-2005 23:48	1.0						11	43
016	082b016	ICAL	dsl1000			24-MAR-2005 00:17	1.0						12	
017	082b017	ICAL	dsl2500			24-MAR-2005 00:45	1.0						13	
018	082b018	ICAL	dsl5000			24-MAR-2005 01:13	1.0						14	
019	082b019	X	ib			24-MAR-2005 01:41	1.0							
020	082b020	ICV	dsl			24-MAR-2005 02:09	1.0			3			15	
021	082b021	X	ib			24-MAR-2005 02:38	1.0							

Stds used: 1=S72 2=S97 3=S112 4=S113 5=S114 6=S115 7=S116 8=05WS0167 9=05WS0169 10=05WS0170 11=05WS0171 12=05WS0172 13=05WS0173 14=05WS0174 15=S110

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145147550 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	102b001	X	primer			12-APR-2005 11:10	1.0						
002	102b002	X	ib			12-APR-2005 11:38	1.0						
003	102b003	CCV	dsl			12-APR-2005 12:06	1.0					1	
004	102b004	CCV	mo			12-APR-2005 12:34	1.0					2	
005	102b005	X	ib			12-APR-2005 15:11	1.0						
006	102b006	CCV	dsl			12-APR-2005 15:39	1.0		3			1	
007	102b007	CCV	mo			12-APR-2005 16:07	1.0		3			2	
008	102b008	X	ib			12-APR-2005 19:52	1.0						
009	102b009	ICAL	dsl10			12-APR-2005 20:20	1.0					3	
010	102b010	ICAL	dsl100			12-APR-2005 20:48	1.0					4	
011	102b011	ICAL	dsl250			12-APR-2005 21:16	1.0					5	
012	102b012	ICAL	dsl500			12-APR-2005 21:44	1.0					6	
013	102b013	ICAL	dsl1000			12-APR-2005 22:12	1.0					7	
014	102b014	ICAL	dsl2500			12-APR-2005 22:40	1.0					8	
015	102b015	ICAL	dsl5000			12-APR-2005 23:09	1.0					9	44
016	102b016	X	ib			12-APR-2005 23:37	1.0						
017	102b017	ICV	dsl			13-APR-2005 00:05	1.0					10	
018	102b018	X	ib			13-APR-2005 00:33	1.0						
019	102b019	ICAL	hex5			13-APR-2005 01:01	1.0					11	
020	102b020	ICAL	hex10			13-APR-2005 01:30	1.0					12	
021	102b021	ICAL	hex25			13-APR-2005 01:58	1.0					13	
022	102b022	ICAL	hex50			13-APR-2005 02:26	1.0					14	
023	102b023	ICAL	hex75			13-APR-2005 02:55	1.0					15	
024	102b024	X	ib			13-APR-2005 03:23	1.0						
025	102b025	CCV	dsl			13-APR-2005 03:51	1.0		3			16	

Stds used: 1=S72 2=S294 3=05WS0167 4=05WS0169 5=05WS0170 6=05WS0171 7=05WS0172 8=05WS0173 9=05WS0174 10=S110 11=S112 12=S113 13=S114 14=S115 15=S116 16=S167

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175147769 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	102a001	X	primer			12-APR-2005 14:49	1.0						
002	102a002	X	ib			12-APR-2005 15:18	1.0						
003	102a003	ICAL	dsl10			12-APR-2005 15:46	1.0					1	
004	102a004	ICAL	dsl100			12-APR-2005 16:15	1.0					2	
005	102a005	ICAL	dsl250			12-APR-2005 16:43	1.0					3	
006	102a006	ICAL	dsl500			12-APR-2005 17:12	1.0					4	
007	102a007	ICAL	dsl1000			12-APR-2005 17:40	1.0					5	
008	102a008	ICAL	dsl2500			12-APR-2005 18:09	1.0					6	
009	102a009	ICAL	dsl5000			12-APR-2005 18:37	1.0					7	
010	102a010	X	ib			12-APR-2005 19:06	1.0						
011	102a011	ICV	dsl			12-APR-2005 19:34	1.0		3			8	
012	102a012	X	ib			12-APR-2005 20:03	1.0						
013	102a013	ICAL	mo50			12-APR-2005 20:32	1.0					9	
014	102a014	ICAL	mo250			12-APR-2005 21:00	1.0					10	
015	102a015	ICAL	mo500			12-APR-2005 21:29	1.0					11	45
016	102a016	ICAL	mo1000			12-APR-2005 21:57	1.0					12	
017	102a017	ICAL	mo2500			12-APR-2005 22:26	1.0					13	
018	102a018	ICAL	mo5000			12-APR-2005 22:55	1.0					14	
019	102a019	X	ib			12-APR-2005 23:23	1.0						
020	102a020	ICAL	hex5			12-APR-2005 23:52	1.0					15	
021	102a021	ICAL	hex10			13-APR-2005 00:21	1.0					16	
022	102a022	ICAL	hex25			13-APR-2005 00:49	1.0					17	
023	102a023	ICAL	hex50			13-APR-2005 01:18	1.0					18	
024	102a024	ICAL	hex75			13-APR-2005 01:47	1.0					19	
025	102a025	X	ib			13-APR-2005 02:16	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145167533 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 26-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	116b001	X	primer			26-APR-2005 08:13	1.0					
002	116b002	X	ib			26-APR-2005 08:41	1.0					
003	116b003	CCV	dsl			26-APR-2005 09:23	1.0	1.0		3	1	
004	116b004	CCV	mo			26-APR-2005 09:51	1.0	1.0		3	2	
005	116b005	SAMPLE	179006-009	101426	Water	26-APR-2005 11:25	1.0	0.005		3		
006	116b006	SAMPLE	179006-010	101426	Water	26-APR-2005 11:53	1.0	0.005		3		
007	116b007	SAMPLE	178994-001 S	101426	Water	26-APR-2005 14:02	1.0	0.005		3		
008	116b008	SAMPLE	178994-002 S	101426	Water	26-APR-2005 14:30	1.0	0.005		3		
009	116b009	SAMPLE	179035-006	101426	Water	26-APR-2005 14:58	1.0	0.005		3		
010	116b010	BS	QC291456 S	101426	Water	26-APR-2005 15:26	1.0	0.005		3		
011	116b011	BSD	QC291457 S	101426	Water	26-APR-2005 15:54	1.0	0.005		3		
012	116b012	CCV	dsl			26-APR-2005 17:37	1.0	1.0		3	3	
013	116b013	CCV	mo			26-APR-2005 18:05	1.0	1.0		3	2	
014	116b014	CCV	jet			26-APR-2005 19:30	1.0	1.0		3	4	
015	116b015	LCS	QC291686 S	101485	Soil	26-APR-2005 20:20	1.0	0.1009		3		46
016	116b016	BLANK	QC291685 S	101485	Soil	26-APR-2005 20:48	1.0	0.1005	9	3		
017	116b017	SAMPLE	179094-005 S	101485	Soil	26-APR-2005 21:16	1.0	0.09984	2	3	6:JETA:1=14034.2	
018	116b018	SAMPLE	179028-002	101485	Soil	26-APR-2005 21:44	25.0	0.1005		3		
019	116b019	SAMPLE	179028-005	101485	Soil	26-APR-2005 22:12	10.0	0.09952		3		
020	116b020	SAMPLE	179028-006	101485	Soil	26-APR-2005 22:40	20.0	0.09994		3		
021	116b021	MSS	179030-003	101485	Soil	26-APR-2005 23:09	1.0	0.09903	14	3	6:DSL:10=5372.02	
022	116b022	SAMPLE	179030-004	101485	Soil	26-APR-2005 23:37	1.0	0.1002	1	3	9:DSL:10=9731.38	
023	116b023	SAMPLE	179030-005	101485	Soil	27-APR-2005 00:05	1.0	0.1002		3		
024	116b024	SAMPLE	179031-011	101485	Soil	27-APR-2005 00:33	1.0	0.09911		3		
025	116b025	CCV	dsl			27-APR-2005 01:01	1.0	1.0		3	5	
026	116b026	CCV	mo			27-APR-2005 01:30	1.0	1.0		3	2	
027	116b027	X	ccv			27-APR-2005 01:58	1.0				5	
028	116b028	CCV	jet			27-APR-2005 02:26	1.0	1.0		3	4	
029	116b029	SAMPLE	179030-001	101485	Soil	27-APR-2005 02:55	1.0	0.1001	1	3	9:JETA:1=9452.73	
030	116b030	SAMPLE	179030-002	101485	Soil	27-APR-2005 03:23	1.0	0.1006		3	1:JETA:1=3348.46	
031	116b031	SAMPLE	179030-006	101485	Soil	27-APR-2005 03:51	1.0	0.1005	1	3	13:DSL:10=15633.0	

Stds used: 1=S167 2=S294 3=S295 4=S348 5=S351 6=S442

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145167533 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 26-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
032	116b032	SAMPLE	179030-008	101485	Soil	27-APR-2005 04:20	1.0	0.1005	1	1	3	10:DSL:10=15607.0	
033	116b033	SAMPLE	179060-002	101485	Soil	27-APR-2005 04:48	5.0	0.0998			3		
034	116b034	X	ib			27-APR-2005 05:16	1.0						
035	116b035	SAMPLE	179060-003	101485	Soil	27-APR-2005 05:45	1.0	0.0998	1	1	3	10:JETA:1=21331.3	
036	116b036	SAMPLE	179030-009	101485	Soil	27-APR-2005 06:13	1.0	0.1007	1	1	3	11:JETA:1=20749.7	
037	116b037	SAMPLE	179028-003	101485	Soil	27-APR-2005 06:41	25.0	0.1007			3		
038	116b038	SAMPLE	179028-001	101485	Soil	27-APR-2005 07:10	1.0	0.1001			3		
039	116b039	SAMPLE	179028-007	101485	Soil	27-APR-2005 07:38	1.0	0.0995			3		
040	116b040	X	ib			27-APR-2005 08:06	1.0						
041	116b041	CCV	dsl			27-APR-2005 08:35	1.0	1.0			3	1	
042	116b042	CCV	mo			27-APR-2005 09:03	1.0	1.0			3	2	
043	116b043	SAMPLE	179028-008	101485	Soil	27-APR-2005 09:32	5.0	0.1005			3		
044	116b044	SAMPLE	179028-004	101485	Soil	27-APR-2005 10:00	1.0	0.09988			3		
045	116b045	X	ib			27-APR-2005 10:28	1.0						
046	116b046	MS	QC291687	101485	Soil	27-APR-2005 10:56	1.0	0.1001			3	9:DSL:10=7967.53	
047	116b047	MSD	QC291688	101485	Soil	27-APR-2005 11:24	1.0	0.1003			3	9:DSL:10=8553.64	
048	116b048	X	ib			27-APR-2005 11:52	1.0						
049	116b049	SAMPLE	179030-001	101485	Soil	27-APR-2005 12:20	5.0	0.1001			3		
050	116b050	SAMPLE	179030-006	101485	Soil	27-APR-2005 12:48	20.0	0.1005			3		
051	116b051	X	tank check 4			27-APR-2005 13:25	1.0						
052	116b052	CCV	dsl			27-APR-2005 13:58	1.0	1.0			3	3	
053	116b053	CCV	mo			27-APR-2005 14:26	1.0	1.0			3	2	
054	116b054	LCS	QC291784 S	101505	Soil	27-APR-2005 19:44	1.0	0.0995			3		
055	116b055	BLANK	QC291783 S	101505	Soil	27-APR-2005 20:12	1.0	0.0995	9		3		
056	116b056	SAMPLE	179049-001 S	101505	Soil	27-APR-2005 20:40	1.0	0.09946			3		
057	116b057	MS	QC291785	101505	Soil	27-APR-2005 21:08	1.0	0.09905			3	9:DSL:10=7697.68	
058	116b058	MSD	QC291786	101505	Soil	27-APR-2005 21:36	1.0	0.09954			3	2:DSL:10=5770.35	
059	116b059	SAMPLE	179062-001	101505	Soil	27-APR-2005 22:04	1.0	0.09964			3		
060	116b060	SAMPLE	179061-003	101505	Soil	27-APR-2005 22:32	1.0	0.0998			3		
061	116b061	SAMPLE	179095-009	101505	Soil	27-APR-2005 23:01	1.0	0.09946			3		
062	116b062	SAMPLE	179062-005	101505	Soil	27-APR-2005 23:29	1.0	0.09974			3		

Stds used: 1=S167 2=S294 3=S295 4=S348 5=S351 6=S442

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145167533 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 26-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
063	116b063	SAMPLE	179062-004	101505	Soil	27-APR-2005 23:57	1.0	0.0993			3		
064	116b064	CCV	dsl			28-APR-2005 00:26	1.0	1.0			3	5	
065	116b065	CCV	mo			28-APR-2005 00:54	1.0	1.0			3	2	
066	116b066	X	ccv			28-APR-2005 01:23	1.0					5	
067	116b067	XSS	179062-003	101505	Soil	28-APR-2005 01:51	1.0	0.09984			3	9:DSL:10=7387.85	
068	116b068	SAMPLE	179095-012	101505	Soil	28-APR-2005 02:20	1.0	0.0994			3		
069	116b069	SAMPLE	179095-011	101505	Soil	28-APR-2005 02:48	1.0	0.0996			3		
070	116b070	SAMPLE	178982-001	101505	Soil	28-APR-2005 03:16	1.0	0.09972			3		
071	116b071	SAMPLE	178982-002	101505	Soil	28-APR-2005 03:45	1.0	0.0996			3		
072	116b072	SAMPLE	179061-002	101505	Soil	28-APR-2005 04:13	1.0	0.0998			3		
073	116b073	SAMPLE	179097-002	101505	Soil	28-APR-2005 04:41	1.0	0.09986	1	1	3	6:JETA:1=24435.4	
074	116b074	SAMPLE	179097-001	101505	Soil	28-APR-2005 05:10	1.0	0.09907	1	1	3	9:JETA:1=22461.1	
075	116b075	SAMPLE	178959-001	101505	Soil	28-APR-2005 05:38	25.0	0.09972			3		
076	116b076	SAMPLE	178958-001	101505	Soil	28-APR-2005 06:07	3.0	0.09992	1	1	3	7:MO:20-=9300.76	
077	116b077	CCV	dsl			28-APR-2005 06:35	1.0	1.0			3	1	48
078	116b078	CCV	mo			28-APR-2005 07:04	1.0	1.0			3	2	
079	116b079	X	ccv			28-APR-2005 07:32	1.0					1	
080	116b080	SAMPLE	179062-002	101505	Soil	28-APR-2005 08:01	1.0	0.09919			3		
081	116b081	SAMPLE	178982-004	101505	Soil	28-APR-2005 08:29	1.0	0.09954			3		
082	116b082	SAMPLE	178982-003	101505	Soil	28-APR-2005 08:58	1.0	0.1000			3		
083	116b083	SAMPLE	179095-010	101505	Soil	28-APR-2005 09:26	1.0	0.09972			3		
084	116b084	SAMPLE	179122-004	101531	Soil	28-APR-2005 10:19	5.0	0.09974	1		3	9:DSL:12=12787.5	
085	116b085	SAMPLE	179122-002	101531	Soil	28-APR-2005 10:47	10.0	0.09956	1		3	9:DSL:12=12982.2	
086	116b086	SAMPLE	179122-001	101531	Soil	28-APR-2005 11:15	1.0	0.0998	1	1	3	9:JETA:1=19983.6	
087	116b087	SAMPLE	179122-002	101531	Soil	28-APR-2005 11:44	20.0	0.09956	1		3	8:DSL:12=6550.75	
088	116b088	SAMPLE	179122-004	101531	Soil	28-APR-2005 12:12	10.0	0.09974	1		3	5:DSL:12=6492.50	
089	116b089	SAMPLE	179122-002	101531	Soil	28-APR-2005 12:40	40.0	0.09956			3		
090	116b090	CCV	dsl			28-APR-2005 13:09	1.0	1.0			3	3	
091	116b091	CCV	mo			28-APR-2005 13:38	1.0	1.0			3	2	
092	116b092	SAMPLE	179076-030 S	101519	Soil	28-APR-2005 15:51	1.0						
093	116b093	SAMPLE	179076-026 S	101519	Soil	28-APR-2005 16:19	1.0	0.09925			3		

Stds used: 1=S167 2=S294 3=S295 4=S348 5=S351 6=S442

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145167533 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 26-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
094	116b094	SAMPLE	179076-038 S	101519	Soil	28-APR-2005 16:47	1.0	0.09962			3		
095	116b095	SAMPLE	179076-024 S	101519	Soil	28-APR-2005 17:15	1.0	0.09972			3		
096	116b096	SAMPLE	179076-022 S	101519	Soil	28-APR-2005 17:43	1.0	0.09923			3		
097	116b097	SAMPLE	179076-019 S	101519	Soil	28-APR-2005 18:11	1.0	0.09988			3		
098	116b098	SAMPLE	179076-017 S	101519	Soil	28-APR-2005 18:39	1.0	0.09994			3		
099	116b099	SAMPLE	179076-034 S	101519	Soil	28-APR-2005 19:07	1.0	0.09903			3		
100	116b100	SAMPLE	179076-032 S	101519	Soil	28-APR-2005 19:35	1.0	0.09944			3		
101	116b101	SAMPLE	179076-012 S	101519	Soil	28-APR-2005 20:03	1.0	0.09923			3		
102	116b102	CCV	dsl			28-APR-2005 20:31	1.0	1.0			3	5	
103	116b103	CCV	mo			28-APR-2005 21:00	1.0	1.0			3	2	
104	116b104	X	ccv			28-APR-2005 21:28	1.0					5	
105	116b105	SAMPLE	179076-009 S	101519	Soil	28-APR-2005 21:56	1.0	0.0993			3		
106	116b106	SAMPLE	179076-005 S	101519	Soil	28-APR-2005 22:24	1.0	0.09988			3		
107	116b107	SAMPLE	179076-002 S	101519	Soil	28-APR-2005 22:52	1.0	0.09996			3		
108	116b108	SAMPLE	179076-004 S	101519	Soil	28-APR-2005 23:21	50.0	0.09998			3		49
109	116b109	MSS	179076-007 S	101519	Soil	28-APR-2005 23:49	50.0	0.1986	10		3		
110	116b110	SAMPLE	179076-016 S	101519	Soil	29-APR-2005 00:17	200.0	0.1997			3		
111	116b111	SAMPLE	179076-027 S	101519	Soil	29-APR-2005 00:46	1.0	0.09982	1	1	3	6:MO:20-=11217.4	
112	116b112	SAMPLE	179076-014 S	101519	Soil	29-APR-2005 01:14	1.0	0.09958			3		
113	116b113	SAMPLE	179076-036 S	101519	Soil	29-APR-2005 01:42	1.0	0.09982			3		
114	116b114	CCV	dsl			29-APR-2005 02:11	1.0	1.0			3	1	
115	116b115	CCV	mo			29-APR-2005 02:39	1.0	1.0			3	2	
116	116b116	X	ccv			29-APR-2005 03:07	1.0					1	
117	116b117	CHECK	mo			29-APR-2005 03:35	1.0	1.0			3	6	

Stds used: 1=S167 2=S294 3=S295 4=S348 5=S351 6=S442

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175170475 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 28-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum		Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK uL	Stds Used	>LR
001	118a001	X	primer				28-APR-2005 09:15	1.0					
002	118a002	X	ib				28-APR-2005 10:13	1.0					
003	118a003	CCV	dsl				28-APR-2005 10:41	1.0	1.0		3	1	
004	118a004	CCV	mo				28-APR-2005 11:10	1.0	1.0		3	2	
005	118a005	SAMPLE	179122-003		101531	Soil	28-APR-2005 11:54	20.0	0.0999		3		
006	118a006	SAMPLE	179122-001		101531	Soil	28-APR-2005 12:24	20.0	0.0998		3		
007	118a007	SAMPLE	179097-001		101505	Soil	28-APR-2005 13:09	40.0	0.09907		3		
008	118a008	SAMPLE	179097-002		101505	Soil	28-APR-2005 13:38	40.0	0.09986		3		
009	118a009	SAMPLE	178958-001		101505	Soil	28-APR-2005 14:07	25.0	0.09992		3	1:BUNKC:=6382.28	
010	118a010	MSS	179062-003		101505	Soil	28-APR-2005 14:35	2.0	0.09984	8	3	1:BUNKC:=10370.6	
011	118a011	SAMPLE	179098-002	S	101531	Soil	28-APR-2005 16:23	1.0	0.0994		3		
012	118a012	SAMPLE	179098-001	S	101531	Soil	28-APR-2005 16:51	1.0	0.0997		3		
013	118a013	SAMPLE	179098-003	S	101531	Soil	28-APR-2005 17:20	1.0	0.09942		3		
014	118a014	MSS	179089-001		101531	Soil	28-APR-2005 17:48	1.0	0.0997	8	3		
015	118a015	CCV	dsl				28-APR-2005 18:17	1.0	1.0		3	3	50
016	118a016	CCV	mo				28-APR-2005 18:46	1.0	1.0		3	2	
017	118a017	X	ccv				28-APR-2005 19:14	1.0				3	
018	118a018	SAMPLE	179089-002		101531	Soil	28-APR-2005 19:43	1.0	0.09998		3		
019	118a019	SAMPLE	179089-003		101531	Soil	28-APR-2005 20:11	1.0	0.09919		3		
020	118a020	SAMPLE	179121-005		101531	Soil	28-APR-2005 20:41	40.0	0.09905		3		
021	118a021	SAMPLE	179121-004		101531	Soil	28-APR-2005 21:10	1.0	0.09913		3		
022	118a022	SAMPLE	179121-001		101531	Soil	28-APR-2005 21:38	1.0	0.09936		3		
023	118a023	SAMPLE	179121-002		101531	Soil	28-APR-2005 22:07	2.0	0.09913		3		
024	118a024	X	ib				28-APR-2005 22:35	1.0					
025	118a025	SAMPLE	179121-006		101531	Soil	28-APR-2005 23:04	1.0	0.09917		3	1:BUNKC:=6256.05	
026	118a026	SAMPLE	179121-003		101531	Soil	28-APR-2005 23:33	1.0	0.0996		3		
027	118a027	X	ib				29-APR-2005 00:01	1.0					
028	118a028	MS	QC291891		101531	Soil	29-APR-2005 00:30	1.0	0.09996		3		
029	118a029	MSD	QC291892		101531	Soil	29-APR-2005 00:59	1.0	0.09927		3		
030	118a030	CCV	dsl				29-APR-2005 01:27	1.0	1.0		3	4	
031	118a031	CCV	mo				29-APR-2005 01:56	1.0	1.0		3	2	

Stds used: 1=S167 2=S294 3=S295 4=S351 5=S442

SEQUENCE SUMMARY FOR 179049 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175170475 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 28-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
032	118a032	X	ccv			29-APR-2005 02:25	1.0			4	
033	118a033	CHECK	mo			29-APR-2005 02:53	1.0	1.0	3	5	

51

Stds used: 1=S167 2=S294 3=S295 4=S351 5=S442

Curtis & Tompkins Laboratories Sample Preparation Summary 27-APR-2005 20:52

Batch Number : 101505
Date Extracted: 27-APR-2005
Extracted by : Sheila H. Dodson
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S253B
Spike #2 ID : S305A
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178958-001			Consolidated Waste Industries	Soil	50.04	g	5	0.099920	1		1	0		TEHM		
178959-001			Consolidated Waste Industries	Soil	50.14	g	5	0.099721	1		1	0		TEHM		
178982-001			Tetra Tech FW	Soil	50.14	g	5	0.099721	1		1	0		TEH		
178982-002			Tetra Tech FW	Soil	50.2	g	5	0.099602	1		1	0		TEH		
178982-003			Tetra Tech FW	Soil	50	g	5	0.100000	1		1	0		TEH		
178982-004			Tetra Tech FW	Soil	50.23	g	5	0.099542	1		1	0		TEH		
179049-001			Mactec, Inc.	Soil	50.27	g	5	0.099463	1		1	0		TEHM	3630C	sg
179061-002			Environmental Quality Manageme	Soil	50.1	g	5	0.099800	1		1	0		TEH		
179061-003			Environmental Quality Manageme	Soil	50.1	g	5	0.099800	1		1	0		TEH		
179062-001			Environmental Quality Manageme	Soil	50.18	g	5	0.099641	1		1	0		TEH		
179062-002			Environmental Quality Manageme	Soil	50.41	g	5	0.099187	1		1	0		TEH		
179062-003			Environmental Quality Manageme	Soil	50.08	g	5	0.099840	1		1	0		TEH		mss
179062-004			Environmental Quality Manageme	Soil	50.35	g	5	0.099305	1		1	0		TEH		
179062-005			Environmental Quality Manageme	Soil	50.13	g	5	0.099741	1		1	0		TEH		
179095-009			Questa Engineering Corporation	Soil	50.27	g	5	0.099463	1		1	0		TEHM		
179095-010			Questa Engineering Corporation	Soil	50.14	g	5	0.099721	1		1	0		TEHM		
179095-011			Questa Engineering Corporation	Soil	50.2	g	5	0.099602	1		1	0		TEHM		
179095-012			Questa Engineering Corporation	Soil	50.3	g	5	0.099404	1		1	0		TEHM		
179097-001			SECOR	Soil	50.47	g	5	0.099069	1		1	0		TEH		
179097-002			SECOR	Soil	50.07	g	5	0.099860	1		1	0		TEH		
QC291783	MB			Soil	50.25	g	5	0.099502	1		1	0		TEH	3630C	sg
QC291784	LCS			Soil	50.25	g	5	0.099502	1		1	1		TEH	3630C	sg
QC291785	MS	of 179062-003		Soil	50.48	g	5	0.099049	1		1	1		TEH		
QC291786	MSD	of 179062-003		Soil	50.23	g	5	0.099542	1		1	1		TEH		

Prep Chemist: _____ Reviewed By: _____ Date: 4/27/05

Relinquished By: _____ Received By: _____ Date: 4/27/05

LIMS Batch No: 101505 **Extraction Method:** **Cleanup Method (if necessary):**

LIMS Analysis TEH ☒ Mechanical Shaker Table ☑ EPA 3630 Silica Gel

Extracted by: SHD ☐ EPA 3550 Sonication ☐ Other _____

Date Extracted: 4/27/05 ☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB BC291783	50.25 SHD 4/27/05	50	X	
	LCS 84	50.25		X	
	MS 85	50.48			
	MSD 86	50.23			
5	178958 - 001	50.04			
	178959 - 001	50.14			
	178982 - 001	50.14			
	- 002	50.20			
	- 003	50.06			
10	- 004	50.23			
	179049 - 001	50.27		X	
	179061 - 002	50.10			
	179061 - 003	50.10			
	179062 - 001	50.18			
15	- 002	50.41			
	- 003	50.08			MSS
	- 004	50.35			
	- 005	50.13			
	179095 - 009	50.27			
20	- 010	50.14			
	- 011	50.20			
	- 012	~~50.30~~			
	179097 - 001	50.47			
	- 002	50.07			
	~~SHD 4/27/05~~				

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44258	SHD 4/27/05
Samples were dried with CH_2Cl_2-rinsed ~~granular~~ powder Na_2SO_4	EM44135453	
1.0 mL of TEH_SURR surrogate solution was added to all samples	S253B	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	S305A	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all	CH_2Cl_2 45005	
	Acetone 44233	
Samples were: ☐ sonicated 3 times ☑ placed on shaker table at:	0900	
taken off shaker table at:	1100	
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM44135453	
Concentrated to volumes as noted above	✓	

4/27/05

Extraction Chemist / Date

Continued from page ___

Continued on page ___

4/27/05

Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SHD
Cleanup Date: 4/27/05

Benchbook # **BK 2091**
Page 92

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179049-001	101505	1.0	1.0	
MBQC191783	↓	1.0	↓	
LCS ↓ 84	↓	1.0	↓	

5 10 15 20 25 30

PR 4/27/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	SHD 4/27/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP3401	↓
Extracts were eluted with 20 mL CH_2Cl_2	4505	
Concentrated to volumes as noted above	✓	

Extraction Chemist / Date

Continued from page ____
Continued on page ____

4/29/05
Reviewed by / Date

Project SOIL AUGUST BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178958-001A	50.04	TEHM	
178959-001A	50.14	TEHM	
178960-001A	50.32	TEHM	
-004	50.30	↓	
178918-001A	15.12	PCB	
178961-007	50.37	TEHM	comp 001A,002A,003A,004A,005A,006A
178964-007	50.25	TEHM	comp 001A,002A
-008	50.07		003A,004A
-009	50.17		005A,006A
178967-017	50.08	TEHM	comp 001A,002A,003A,004A
-018	50.06		005A,006A,007A,008A
-019	50.41		009A,010A,011A,012A
-020	50.30		013A,014A,015A,016A
178967-017	30.24	8100	comp 001A,002A,003A,004A
-018	30.25		005A,006A,007A,008A
-019	30.09		009A,010A,011A,012A
-020	30.15		013A,014A,015A,016A

Continued on Page

Signed 4/19/05 Date

Read and Understood By

Signed Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178982-001B	50.14	TEH	
-002	50.20		
-003	50.00		
-004	50.23		
178982-001B	15.03	PCB	
-002	15.07		
-003	15.09		MSS
-MS	15.02		178982-003B
-MSD	15.06		EM44258
-LCS	15.06		
-MB	15.18		
-004B	15.05		
178982-001B	15.06	8081	
-002	15.13		
-003	15.12		
-004	15.24		MSS
-MS	15.00		178982-004B
-MSD	15.03		EM44258
-LCS	15.17		
-MB	15.04		
179011-001B	15.03	PCB	
179011-001B	15.16	8081	
179012-001B	15.13	PCB	
179012-001B	15.20	8081	
179014-001B	15.22	PCB	
179014-001B	15.11	8081	
179029-001B	30.09	8270	
179029-001B	15.07	PCB	
179029-001B	15.21	8081	
179049-001B	50.27	TEH	
179049-001B	15.18	PCB	
179049-001B	30.38	8270-SIM	MSS
-MS	30.34		179049-001B
-MSD	30.04		
-LCS	30.12		EM44258
-MB	30.41		

Continued on Page

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4/25/05 56

Date

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Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179060-002D	50.01	TEH	
-003	50.48		
179060-002D	30.13	8270	
-003	30.17		
179060-002D	30.30	8310	
-003	30.24		
179061-002D	50.10	TEH	
-003	50.10		
179061-002D	30.42	8270	
-003	30.11		
179061-002D	30.25	8310	
-003	30.20		
179062-001D	50.18	TEH	
-002	50.41		
-003	50.08		MSS 179062-003D
-MS	50.48		
-MSD	50.23		EM44258
-LCS	50.25		
-MB	50.25		
-004D	50.35		
-005	50.13		
179062-001D	30.09	8270	
-002	30.17		
-003	30.45		
-004	30.30		MSS 179062-004D
-MS	30.21		
-MSD	30.23		EM44258
-LCS	30.38		
-MB	30.22		
-005D	30.08		
179062-001D	30.31	8310	
-002	30.12		
-003	30.09		
-004	30.28		
-005	30.16		MSS 179062-005D
-MS	30.38		

Continued on Page

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SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179076-002A	15.14	8081	
-004	15.22		
-005	15.16		
-007	15.19		
-009	15.11		
-012	15.23		
-014	15.19		
-016	15.03		
-017	15.04		
-019	15.12		
-022	15.09		
-024	15.04		
-026	15.06		
-027	15.04		MSS
-MS	15.00		179076-027A
-MSD	15.10		↓
-LCS	15.20		EM44258
-MB	15.19		↓
-030A	15.09		
-032	15.21		
-034	15.18		
-036	15.14		
-038	15.12		
179094-005	50.08	TEHM	COMP 001A 002A 003A 004A
178881-018A	30.16	8270	
179097-001A	50.47	TEH	
-002	50.07	↓	
179095-009	50.27	TEHM	COMP 001A 002A
-010	50.14		003A 004A
-011	50.20		005A 006A
-012	50.30		007A 008A

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Signed — Date 4/26/05 — Read and Understood By: Signed — Date

Polychlorinated Biphenyls Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBITP106(5.0)	Batch#:	101475
Matrix:	Soil	Sampled:	04/21/05
Units:	ug/Kg	Received:	04/22/05
Diln Fac:	1.000	Prepared:	04/26/05

Type:	SAMPLE	Moisture:	33%
Lab ID:	179049-001	Analyzed:	04/27/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	3.0
Aroclor-1221	ND	28	15
Aroclor-1232	ND	14	10
Aroclor-1242	ND	14	4.9
Aroclor-1248	ND	14	3.6
Aroclor-1254	430	14	5.8
Aroclor-1260	ND	14	3.3

Surrogate	%REC	Limits
TCMX	107	63-141
Decachlorobiphenyl	102	49-146

Type:	BLANK	Analyzed:	04/26/05
Lab ID:	QC291651	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	2.0
Aroclor-1221	ND	19	9.9
Aroclor-1232	ND	9.5	6.7
Aroclor-1242	ND	9.5	3.3
Aroclor-1248	ND	9.5	2.4
Aroclor-1254	ND	9.5	3.9
Aroclor-1260	ND	9.5	2.2

Surrogate	%REC	Limits
TCMX	92	63-141
Decachlorobiphenyl	81	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291652	Batch#:	101475
Matrix:	Soil	Prepared:	04/26/05
Units:	ug/Kg	Analyzed:	04/26/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1242	166.0	150.3	91	78-153

Surrogate	%REC	Limits
TCMX	101	63-141
Decachlorobiphenyl	96	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	101475
MSS Lab ID:	178982-003	Sampled:	04/19/05
Matrix:	Soil	Received:	04/19/05
Units:	ug/Kg	Prepared:	04/26/05
Basis:	dry	Analyzed:	04/26/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC291653
Moisture: 12%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1242	<3.761	189.1	182.3	96	64-161

Surrogate	%REC	Limits
TCMX	105	63-141
Decachlorobiphenyl	89	49-146

Type: MSD
Lab ID: QC291654
Moisture: 12%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1242	188.6	170.2	90	64-161	7	27

Surrogate	%REC	Limits
TCMX	98	63-141
Decachlorobiphenyl	87	49-146

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_003	255150953003	pcb10_2	14-APR-2005 19:53	05WS0223
2	104_004	255150953004	pcb25_5	14-APR-2005 20:19	05WS0030
3	104_005	255150953005	pcb100_20	14-APR-2005 20:46	S157
4	104_006	255150953006	pcb250_50	14-APR-2005 21:13	S40
5	104_007	255150953007	pcb500_100	14-APR-2005 21:39	S100
6	104_008	255150953008	pcb750_150	14-APR-2005 22:06	S101
7	104_009	255150953009	pcb1K_200	14-APR-2005 22:33	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	311.44	297.35	273.50	254.34	241.44	229.07	225.17	AVRG	R		0.003820		pg	261.76	13	.99	20	
Aroclor-1016 Peak # 2	A	603.96	577.15	537.33	491.67	466.16	439.80	437.20	AVRG	R		0.001970		pg	507.61	13	.99	20	
Aroclor-1016 Peak # 3	A	773.55	721.22	695.67	645.78	645.19	624.02	597.23	AVRG	R		0.001489		pg	671.81	9	.99	20	
Aroclor-1016 Peak # 4	A	480.47	454.81	435.41	389.02	374.89	358.64	350.10	AVRG	R		0.002462		pg	406.19	12	.99	20	
Aroclor-1016 Peak # 5	A	365.11	369.58	341.88	307.56	295.86	281.48	275.12	AVRG	R		0.003130		pg	319.51	12	.99	20	
Aroclor-1260 Peak # 1	A	1358.9	1344.3	1171.9	1074.2	1035.6	989.70	1003.5	AVRG	R		8.774E-4		pg	1139.7	14	.99	20	
Aroclor-1260 Peak # 2	A	1346.9	1260.9	1086.4	1018.4	923.32	877.93	946.53	AVRG	R		9.383E-4		pg	1065.8	17	.99	20	
Aroclor-1260 Peak # 3	A	926.98	809.08	719.65	621.25	594.43	561.70	576.48	AVRG	R		0.001455		pg	687.08	20	.99	20	
Aroclor-1260 Peak # 4	A	642.42	570.82	608.36	550.05	531.16	498.62	512.26	AVRG	R		0.001789		pg	559.10	9	.99	20	
Aroclor-1260 Peak # 5	A	1699.1	1627.8	1500.5	1403.3	1409.3	1373.6	1481.2	AVRG	R		6.670E-4		pg	1499.3	8	.99	20	
TCMX	A	15744	15150	14219	13524	13267	12725	12857	AVRG	R		7.181E-5		pg	13926	8	.99	20	
Decachlorobiphenyl	A	9633.0	8471.8	8393.8	7724.9	8610.1	8390.1	9192.4	AVRG	R		1.159E-4		pg	8630.9	7	.99	20	
Aroclor-1016 Peak # 1	B	377.75	391.61	371.84	340.90	313.43	311.37	306.48	AVRG	R		0.002901		pg	344.77	10	.99	20	
Aroclor-1016 Peak # 2	B	832.44	805.50	737.73	667.22	611.91	611.72	600.39	AVRG	R		0.001438		pg	695.27	14	.99	20	
Aroclor-1016 Peak # 3	B	1768.4	1730.4	1566.4	1416.5	1316.9	1301.7	1263.3	AVRG	R		6.754E-4		pg	1480.5	14	.99	20	
Aroclor-1016 Peak # 4	B	735.21	675.00	625.42	561.73	518.83	522.53	511.89	AVRG	R		0.001687		pg	592.94	15	.99	20	
Aroclor-1016 Peak # 5	B	513.59	501.84	488.09	416.51	387.49	389.27	381.87	AVRG	R		0.002274		pg	439.81	13	.99	20	
Aroclor-1260 Peak # 1	B	969.42	944.36	875.52	745.20	711.37	698.33	677.23	AVRG	R		0.001245		pg	803.06	15	.99	20	
Aroclor-1260 Peak # 2	B	1398.9	1347.1	1246.3	1084.9	1039.3	1022.3	1004.4	AVRG	R		8.596E-4		pg	1163.3	14	.99	20	

63

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	970.39	955.89	857.34	742.61	731.27	720.26	707.50	AVRG	R		0.001231		pg	812.18	14	.99	20	
Aroclor-1260 Peak # 4	B	808.55	813.70	731.17	642.53	622.80	609.49	599.52	AVRG	R		0.001450		pg	689.68	14	.99	20	
Aroclor-1260 Peak # 5	B	457.61	430.44	403.91	354.82	343.78	338.70	335.24	AVRG	R		0.002627		pg	380.64	13	.99	20	
TCMX	B	20555	20240	18611	17309	15585	15486	15237	AVRG	R		5.690E-5		pg	17575	13	.99	20	
Decachlorobiphenyl	B	9988.0	9388.0	8258.3	7593.2	8005.8	8552.6	8411.5	AVRG	R		1.163E-4		pg	8599.6	10	.99	20	

64

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :

ICV 255150953011 (104_011) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255150953011	14-APR-2005	250.00	275.76	pg	10	15
Aroclor-1260	A	255150953011	14-APR-2005	250.00	266.52	pg	7	15
Aroclor-1016	B	255150953011	14-APR-2005	250.00	274.23	pg	10	15
Aroclor-1260	B	255150953011	14-APR-2005	250.00	278.29	pg	11	15

INITIAL CALIBRATION REPORT FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953002 Name: Type: (normal) Date: 15-APR-2005 00:19 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_013	255150953013	ar1254	15-APR-2005 00:19	S39

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	390.89	AVRG	R		0.002558		pg	390.89	0	.99	20	
Aroclor-1254 Peak # 2	A	549.73	AVRG	R		0.001819		pg	549.73	0	.99	20	
Aroclor-1254 Peak # 3	A	423.39	AVRG	R		0.002362		pg	423.39	0	.99	20	
Aroclor-1254 Peak # 4	A	728.11	AVRG	R		0.001373		pg	728.11	0	.99	20	
Aroclor-1254 Peak # 5	A	643.80	AVRG	R		0.001553		pg	643.80	0	.99	20	
Aroclor-1254 Peak # 1	B	351.39	AVRG	R		0.002846		pg	351.39	0	.99	20	
Aroclor-1254 Peak # 2	B	635.56	AVRG	R		0.001573		pg	635.56	0	.99	20	
Aroclor-1254 Peak # 3	B	744.74	AVRG	R		0.001343		pg	744.74	0	.99	20	
Aroclor-1254 Peak # 4	B	567.27	AVRG	R		0.001763		pg	567.27	0	.99	20	
Aroclor-1254 Peak # 5	B	1049.6	AVRG	R		9.527E-4		pg	1049.6	0	.99	20	

99

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255156384001 Name: Type: (normal) Date: 18-APR-2005 16:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	108_004	255156384004	ar1242	18-APR-2005 16:53	S8

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1242 Peak # 1	A	242.26	AVRG	R		0.004128		pg	242.26	0	.99	20	
Aroclor-1242 Peak # 2	A	425.84	AVRG	R		0.002348		pg	425.84	0	.99	20	
Aroclor-1242 Peak # 3	A	534.54	AVRG	R		0.001871		pg	534.54	0	.99	20	
Aroclor-1242 Peak # 4	A	344.78	AVRG	R		0.002900		pg	344.78	0	.99	20	
Aroclor-1242 Peak # 5	A	284.35	AVRG	R		0.003517		pg	284.35	0	.99	20	
Aroclor-1242 Peak # 1	B	297.41	AVRG	R		0.003362		pg	297.41	0	.99	20	
Aroclor-1242 Peak # 2	B	543.41	AVRG	R		0.001840		pg	543.41	0	.99	20	
Aroclor-1242 Peak # 3	B	1133.0	AVRG	R		8.826E-4		pg	1133.0	0	.99	20	
Aroclor-1242 Peak # 4	B	453.78	AVRG	R		0.002204		pg	453.78	0	.99	20	
Aroclor-1242 Peak # 5	B	345.78	AVRG	R		0.002892		pg	345.78	0	.99	20	

67

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	265.05	pg	6	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	225.68	pg	-10	15	
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	103.96	pg	4	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	91.856	pg	-8	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	494.66	pg	-1	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	430.13	pg	-14	15	
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	266.19	pg	6	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	234.37	pg	-6	15	

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1242

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923005	26-APR-2005 16:41	255156384001	18-APR-2005			250.00	252.87	pg	1	15	
GC22	B	255167923005	26-APR-2005 16:41	255156384001	18-APR-2005			250.00	241.82	pg	-3	15	
GC22	A	255167923022	27-APR-2005 02:22	255156384001	18-APR-2005			250.00	252.17	pg	1	15	
GC22	B	255167923022	27-APR-2005 02:22	255156384001	18-APR-2005			250.00	236.63	pg	-5	15	
GC22	A	255167923054	27-APR-2005 19:28	255156384001	18-APR-2005			250.00	236.95	pg	-5	15	
GC22	B	255167923054	27-APR-2005 19:28	255156384001	18-APR-2005			250.00	216.02	pg	-14	15	

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1254

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923038	27-APR-2005 09:27	255150953002	15-APR-2005			250.00	283.97	pg	14	15	
GC22	B	255167923038	27-APR-2005 09:27	255150953002	15-APR-2005			250.00	199.71	pg	**-20**	15	c- ***
GC22	A	255167923051	27-APR-2005 15:13	255150953002	15-APR-2005			250.00	275.79	pg	10	15	
GC22	B	255167923051	27-APR-2005 15:13	255150953002	15-APR-2005			250.00	214.96	pg	-14	15	

Ch. A used

more similar

-=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	259.11	pg	4	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005			250.00	208.22	pg	**-17**	15	c- ***
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	98.028	pg	-2	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005			100.00	85.554	pg	-14	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	472.21	pg	-6	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005			500.00	378.86	pg	**-24**	15	c- ***
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	249.35	pg	0	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005			250.00	204.63	pg	**-18**	15	c- ***

Ch A used

-=low bias c=CCV

Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	13926	14380	50.000	51.627	pg	3	15	
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	17575	17172	50.000	48.854	pg	-2	15	
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	13926	14452	20.000	20.755	pg	4	15	
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	17575	17757	20.000	20.207	pg	1	15	
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	13926	14389	100.00	103.32	pg	3	15	
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	17575	16590	100.00	94.397	pg	-6	15	
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	13926	14234	50.000	51.103	pg	2	15	
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	17575	18138	50.000	51.601	pg	3	15	

CONTINUING CALIBRATION SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags	
GC22	A	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	8630.9	8282.2	50.000	47.980	pg	-4	15		
GC22	B	255167923004	26-APR-2005 15:55	255150953001	14-APR-2005	8599.6	7483.2	50.000	43.509	pg	-13	15		
GC22	A	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	8630.9	7778.0	20.000	18.024	pg	-10	15		
GC22	B	255167923020	27-APR-2005 01:29	255150953001	14-APR-2005	8599.6	7571.2	20.000	17.608	pg	-12	15		
GC22	A	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	8630.9	8281.5	100.00	95.952	pg	-4	15		
GC22	B	255167923036	27-APR-2005 08:34	255150953001	14-APR-2005	8599.6	6983.3	100.00	81.204	pg	**-19**	15	c-	Ch B used
GC22	A	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	8630.9	7665.0	50.000	44.404	pg	-11	15		
GC22	B	255167923049	27-APR-2005 14:20	255150953001	14-APR-2005	8599.6	7193.4	50.000	41.824	pg	**-16**	15	c-	

Ch B used 5/4/05

-=low bias c=CCV

Page 1 of 1

SEQUENCE SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255150953 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
002	104_002	X	hex			14-APR-2005 19:26	1.0					
003	104_003	ICAL	pcb10_2			14-APR-2005 19:53	1.0				1	
004	104_004	ICAL	pcb25_5			14-APR-2005 20:19	1.0				2	
005	104_005	ICAL	pcb100_20			14-APR-2005 20:46	1.0				3	
006	104_006	ICAL	pcb250_50			14-APR-2005 21:13	1.0				4	
007	104_007	ICAL	pcb500_100			14-APR-2005 21:39	1.0				5	
008	104_008	ICAL	pcb750_150			14-APR-2005 22:06	1.0				6	
009	104_009	ICAL	pcb1K_200			14-APR-2005 22:33	1.0				7	
011	104_011	ICV	accu_1660			14-APR-2005 23:26	1.0	1			8	
012	104_012	X	icv			14-APR-2005 23:52	1.0				8	
013	104_013	CCV/ICAL	ar1254			15-APR-2005 00:19	1.0	1			9	

mcA 5/4/05

74

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255156384 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 18-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	108_002	CCV	pcb250_50			18-APR-2005 14:24	1.0	1.0			1	1	
003	108_003	X	ccv			18-APR-2005 14:50	1.0					1	
004	108_004	CCV/ICAL	ar1242 mcw 5/4/05			18-APR-2005 16:53	1.0	1.0			1	2	
005	108_005	X	ccv			18-APR-2005 17:19	1.0					2	
006	108_006	CCV	ar1254			18-APR-2005 17:46	1.0	1.0			1	3	
008	108_008	BLANK	QC290722	101231	Soil	18-APR-2005 20:21	1.0	0.6653	2		1		
009	108_009	LCS	QC290730	101231	Soil	18-APR-2005 20:48	1.0	0.6664			1		
010	108_010	SAMPLE	178777-001	101231	Soil	18-APR-2005 21:15	1.0	0.6625	2		1		
011	108_011	SAMPLE	178777-002	101231	Soil	18-APR-2005 21:41	1.0	0.6618	3		1	2:PCB101=2263.81	
012	108_012	MSS	178777-004	101231	Soil	18-APR-2005 22:08	1.0	0.6607	2		1		
013	108_013	SAMPLE	178777-005	101231	Soil	18-APR-2005 22:34	1.0	0.6625	2		1		
014	108_014	SAMPLE	178777-006	101231	Soil	18-APR-2005 23:01	1.0	0.6662	2		1		
015	108_015	MSS	178777-003	101231	Soil	18-APR-2005 23:28	1.0	0.6627	2		1	2:PCB101=3386.46	
016	108_016	MS	QC290731	101231	Soil	18-APR-2005 23:54	1.0	0.6633			1	2:PCB101=6019.05	
017	108_017	MSD	QC290732	101231	Soil	19-APR-2005 00:21	1.0	0.664			1	2:PCB101=6528.67	
019	108_019	CCV	pcb500_100			19-APR-2005 01:14	1.0	1.0	1		1	4	
020	108_020	X	ccv			19-APR-2005 01:41	1.0					4	
021	108_021	CCV	ar1242			19-APR-2005 02:07	1.0	1.0			1	2	
022	108_022	X	ccv			19-APR-2005 02:34	1.0					2	
023	108_023	CCV	ar1254			19-APR-2005 03:01	1.0	1.0	1		1	3	
025	108_025	SAMPLE	178777-007	101231	Soil	19-APR-2005 03:54	1.0	0.657	2	2	1		
026	108_026	SAMPLE	178777-008	101231	Soil	19-APR-2005 04:20	1.0	0.6658	2		1		
027	108_027	SAMPLE	178777-009	101231	Soil	19-APR-2005 04:47	1.0	0.6592	2		1		
028	108_028	SAMPLE	178777-010	101231	Soil	19-APR-2005 05:14	1.0	0.6603	2	2	1		
029	108_029	SAMPLE	178777-011	101231	Soil	19-APR-2005 05:40	1.0	0.6605	2		1		
030	108_030	SAMPLE	178777-012	101231	Soil	19-APR-2005 06:07	1.0	0.6645	2		1		
032	108_032	X	pcb100_20			19-APR-2005 07:00	1.0					5	
033	108_033	CCV	pcb100_20			19-APR-2005 07:27	1.0	1.0	1		1	5	

Stds used: 1=S40 2=S8 3=S39 4=S100 5=S157

SEQUENCE SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255167923 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 26-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	116_002	X	pcb250_50			26-APR-2005 14:43	1.0	1.0		1	1	
003	116_003	X	ccv			26-APR-2005 15:09	1.0				1	
004	116_004	CCV	ccv			26-APR-2005 15:55	1.0	1.0	1	1	1	
005	116_005	CCV	ar1242			26-APR-2005 16:41	1.0	1.0		1	2	
006	116_006	X	ccv			26-APR-2005 17:08	1.0				2	
009	116_009	BLANK	QC291700	101489	Oil	26-APR-2005 20:36	1.0	50.0	1	1		
010	116_010	BLANK	QC291651	101475	Soil	26-APR-2005 21:03	1.0	0.6588	1	1		
011	116_011	LCS	QC291652	101475	Soil	26-APR-2005 21:29	1.0	0.664		1		
012	116_012	BS	QC291701	101489	Oil	26-APR-2005 21:56	1.0	50.0		1		
013	116_013	BSD	QC291702	101489	Oil	26-APR-2005 22:22	1.0	50.0		1		
014	116_014	MS	QC291653	101475	Soil	26-APR-2005 22:49	1.0	0.6658		1		
015	116_015	MSD	QC291654	101475	Soil	26-APR-2005 23:16	1.0	0.664		1		
016	116_016	SAMPLE	179086-001	101489	Oil	26-APR-2005 23:42	1.0	49.93	1	1		
017	116_017	SAMPLE	179086-002	101489	Oil	27-APR-2005 00:09	1.0	49.85	1	1		
018	116_018	SAMPLE	179086-003	101489	Oil	27-APR-2005 00:35	1.0	49.82	1	1		
020	116_020	CCV	pcb100_20			27-APR-2005 01:29	1.0	1.0		1	3	
021	116_021	X	ccv			27-APR-2005 01:55	1.0				3	
022	116_022	CCV	ar1242			27-APR-2005 02:22	1.0	1.0		1	2	
023	116_023	X	ccv			27-APR-2005 02:48	1.0				2	
026	116_026	SAMPLE	178964-009	101475	Soil	27-APR-2005 04:08	1.0	0.6766	1	1		
027	116_027	SAMPLE	179011-001	101475	Soil	27-APR-2005 04:35	1.0	0.6596	1	1		
028	116_028	SAMPLE	179012-001	101475	Soil	27-APR-2005 05:01	1.0	0.6579	1	1		
029	116_029	SAMPLE	179014-001	101475	Soil	27-APR-2005 05:28	1.0	0.6618	1	1		
030	116_030	SAMPLE	179019-005	101475	Soil	27-APR-2005 05:55	1.0	0.664	1	1		
031	116_031	SAMPLE	179019-007	101475	Soil	27-APR-2005 06:21	1.0	0.6734	1	1		
032	116_032	SAMPLE	179024-001	101475	Soil	27-APR-2005 06:48	1.0	0.678	1	1		
033	116_033	SAMPLE	179029-001	101475	Soil	27-APR-2005 07:14	1.0	0.6575	1	1		
034	116_034	MSS	178982-004	101475	Soil	27-APR-2005 07:41	1.0	0.6562	1	1		
036	116_036	CCV	pcb500_100			27-APR-2005 08:34	1.0	1.0	1	1	4	
037	116_037	X	ccv			27-APR-2005 09:01	1.0				4	
038	116_038	CCV	ccv			27-APR-2005 09:27	1.0	1.0	1	1	5	

Stds used: 1=S40 2=S8 3=S157 4=S100 5=S39

SEQUENCE SUMMARY FOR 179049 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255167923 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 26-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	116_040	SAMPLE	178982-001	101475	Soil	27-APR-2005 10:20	1.0	0.664	2		1		
041	116_041	SAMPLE	178982-002	101475	Soil	27-APR-2005 10:47	1.0	0.6609	2		1		
042	116_042	MSS	178982-003	101475	Soil	27-APR-2005 11:14	1.0	0.6627	1		1		
043	116_043	SAMPLE	178951-001	101475	Soil	27-APR-2005 11:40	1.0	0.6618	2		1		
044	116_044	SAMPLE	178951-002	101475	Soil	27-APR-2005 12:07	1.0	0.6575	2		1		
045	116_045	SAMPLE	178951-003	101475	Soil	27-APR-2005 12:33	1.0	0.6588	2		1		
046	116_046	SAMPLE	178951-004	101475	Soil	27-APR-2005 13:00	1.0	0.6653	2	2	1		
047	116_047	SAMPLE	179049-001	101475	Soil	27-APR-2005 13:27	1.0	0.6588	2		1		
049	116_049	CCV	pcb250_50			27-APR-2005 14:20	1.0	1.0	1		1	1	
050	116_050	X	ccv			27-APR-2005 14:46	1.0					1	
051	116_051	CCV	ccv			27-APR-2005 15:13	1.0	1.0			1	5	
053	116_053	X	ar1242			27-APR-2005 19:02	1.0					2	
054	116_054	CCV	ccv			27-APR-2005 19:28	1.0	1.0			1	2	
058	116_058	BLANK	QC291840	101518	Soil	27-APR-2005 21:15	1.0	0.6667	1		1		
059	116_059	LCS	QC291844	101518	Soil	27-APR-2005 21:41	1.0	0.6618			1		
060	116_060	SAMPLE	179022-001	101518	Soil	27-APR-2005 22:08	1.0	0.6645	1		1		
061	116_061	SAMPLE	179076-002	101518	Soil	27-APR-2005 22:34	1.0	0.6649	1		1		
062	116_062	SAMPLE	179076-004	101518	Soil	27-APR-2005 23:01	1.0	0.6583	1		1		
063	116_063	SAMPLE	179076-005	101518	Soil	27-APR-2005 23:28	1.0	0.6649	1		1		
064	116_064	SAMPLE	179076-007	101518	Soil	27-APR-2005 23:54	1.0	0.6662	1		1		
065	116_065	SAMPLE	179076-009	101518	Soil	28-APR-2005 00:21	1.0	0.6566	1		1		
066	116_066	MS	QC291845	101518	Soil	28-APR-2005 00:47	1.0	0.6653			1		
067	116_067	MSD	QC291846	101518	Soil	28-APR-2005 01:14	1.0	0.6596			1		
069	116_069	CCV	pcb100_20			28-APR-2005 02:07	1.0	1.0			1	3	
070	116_070	X	ccv			28-APR-2005 02:34	1.0					3	
072	116_072	CCV	ar1242			28-APR-2005 03:27	1.0	1.0			1	2	
073	116_073	X	ccv			28-APR-2005 03:54	1.0					2	

Stds used: 1=S40 2=S8 3=S157 4=S100 5=S39

Curtis & Tompkins Laboratories Sample Preparation Summary 26-APR-2005 11:04

Batch Number : 101475
Date Extracted: 26-APR-2005
Extracted by : Jessie O'Brien Mee
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S284A
Spike #3 ID : 04SS445E
SOP Version : PCB-ASE_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178951-001			Mactec, Inc.	Soil	15.11	g	10	0.661813	1		.02	0	0	PCB		
178951-002			Mactec, Inc.	Soil	15.21	g	10	0.657462	1		.02	0	0	PCB		
178951-003			Mactec, Inc.	Soil	15.18	g	10	0.658762	1		.02	0	0	PCB		
178951-004			Mactec, Inc.	Soil	15.03	g	10	0.665336	1		.02	0	0	PCB		
178964-009			CH2M Hill	Soil	14.78	g	10	0.676590	1		.02	0	0	PCB		
178982-001			Tetra Tech FW	Soil	15.06	g	10	0.664011	1		.02	0	0	8081, PCB		
178982-002			Tetra Tech FW	Soil	15.13	g	10	0.660939	1		.02	0	0	8081, PCB		
178982-003			Tetra Tech FW	Soil	15.09	g	10	0.662691	1		.02	0	0	8081, PCB		PCB MSS
178982-004			Tetra Tech FW	Soil	15.24	g	10	0.656168	1		.02	0	0	8081, PCB		8081 MSS
179011-001			CH2M Hill Constructors Inc.	Soil	15.16	g	10	0.659631	1		.02	0	0	8081, PCB		
179012-001			CH2M Hill Constructors Inc.	Soil	15.2	g	10	0.657895	1		.02	0	0	8081, PCB		
179014-001			CH2M Hill Constructors Inc.	Soil	15.11	g	10	0.661813	1		.02	0	0	8081, PCB		
179019-005			CH2M Hill	Soil	15.06	g	10	0.664011	1		.02	0	0	PCB		
179019-007			CH2M Hill	Soil	14.85	g	10	0.673401	1		.02	0	0	PCB		
179024-001			CH2M Hill	Soil	14.75	g	10	0.677966	1		.02	0	0	PCB		
179029-001			CH2M Hill Constructors Inc.	Soil	15.21	g	10	0.657462	1		.02	0	0	8081, PCB		
179049-001			Mactec, Inc.	Soil	15.18	g	10	0.658762	1		.02	0	0	PCB		
QC291651	MB			Soil	15.18	g	10	0.658762	1		.02	0	0	PCB		
QC291652	LCS			Soil	15.06	g	10	0.664011	1		.02	.025	0	PCB		
QC291653	MS	of 178982-003		Soil	15.02	g	10	0.665779	1		.02	.025	0	PCB		
QC291654	MSD	of 178982-003		Soil	15.06	g	10	0.664011	1		.02	.025	0	PCB		
QC291658	LCS			Soil	15.17	g	10	0.659196	1		.02	0	.025	8081		
QC291659	MS	of 178982-004		Soil	15	g	10	0.666667	1		.02	0	.025	8081		
QC291660	MSD	of 178982-004		Soil	15.03	g	10	0.665336	1		.02	0	.025	8081		

Prep Chemist: [signature] Reviewed By: [signature] Date: 4/26/05

Relinquished By: [signature] Received By: [signature] Date: 4/26/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

BK 2098

Page 33

LIMS Batch No: 101475
LIMS Analysis: PCB
Extracted by: JOM
Date Extracted: 26 Apr 05

☐ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☒ EPA 3545 PFE (ASE Method# 10)
☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	178951-001	15.11	10.0	possible double surr
	-002	15.21		
	-003	15.18		~~MSS~~ JOM 26Apr05
	-004	15.03		~~MSS~~ JOM 26Apr05
5	178964-009	14.78		
	178982-001	15.06		
	-002	15.13		
	-003	15.09		MSS
	-004	15.24		
10	179011-001	15.16		
	179012-001	15.20		
	179014-001	15.11		
	179019-005	15.06		
	-007	14.85		
15	179024-001	14.75		
	179029-001	15.21		
	179049-001	15.18		JOM 26Apr05
	MB QC291651	15.04		JOM 18
	LCS 52	15.06		
20	MS 53	15.02		178982-003B
	MSD 54	15.06		
	JOM 26Apr05			

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44258	JOM 26Apr05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Donex 040603	
0.020 mL of surrogate solution was added to all samples	S258B	
0.025 mL of spike solution AR1242 was added to all spikes	S284A	
1:1 CH_2Cl_2 (lot# EM45005):Acetone(lot# EM45019) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
PFE (ASE) / soxhlets on at:	N/A	
PFE (ASE) / soxhlets off at:		
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	↓	
Concentrated to volumes noted above after exchange to Hexane Lot#	CN801	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	JTBA49034	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	↓

Jessie Mee 26 Apr 05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

7/26/05
Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178951-001A	15.11	PCB	
-002	15.21		
-003	15.18		
-004	15.03		
178951-001A	30.37	8270-SIM	
-002	30.26		
-003	30.32		
-004	30.25		
178951-001A	50.09	TEHM	
-002	50.48		
-003	50.17		
-004	50.01		

Continued on Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
178982-001B	50.14	TEH	
-002	50.20		
-003	50.00		
-004	50.23		
178982-001B	15.03	PCB	
-002	15.07		
-003	15.09		MSS
-MS	15.02		178982-003B
-MSD	15.06		↓
-LCS	15.06		EM44258
-MB	15.18		↓
-004B	15.05		
178982-001B	15.06	8081	
-002	15.13		
~~-003~~ Not used Jon 4/26/05	~~15.12~~		
-004	15.24		MSS
~~-MS~~ Not used Jon 4/26/05	~~15.00~~		178982-004B
~~-MSD~~	15.03		↓
-LCS	15.11		EM44258
-MB	15.04		↓
179011-001B	15.03	PCB	
179011-001B	15.16	8081	
179012-001B	15.13	PCB	
179012-001B	15.20	8081	
179014-001B	15.22	PCB	
179014-001B	15.11	8081	
179029-001B	30.09	8270	
179029-001B	15.07	PCB	
179029-001B	15.21	8081	
179049-001B	50.27	TEH	
179049-001B	15.18	PCB	
179049-001B	30.38	8270-SIM	MSS
-MS	30.34		179049-001B
-MSD	30.04		↓
-LCS	30.12		EM44258
-MB	30.41		↓

Continued on Page

Signed

4/25/05 81
Date

Read and Understood By

Signed

Date

74 Project SOIL ALIQUOT PR2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
MB	15.02	PCB	EM44258
LCS	14.88		↓
MS	14.90		178964-009
MSD	14.97		↓
178964-009	14.78		MS/COMP OF 005 + 006
179019-005A	15.06		
179019-007A	14.85		
179024-001	14.75	↓	ACAS: 178869-001
MB	30.15	PCB	EM44258
LCS	29.90		↓
MS	29.72		179022-001
MSD	29.65		↓
179022-001	30.05		MS/COMP OF A, B, + C
MB	29.85	8081	EM44258
LCS	29.64		↓
MS	30.29		179022-001
MSD	29.92		↓
179022-001	29.94		MS/COMP OF A, B, + C
MB	30.15	8310	EM44258
LCS	29.85		↓
MS	30.18		179030-004
MSD	29.68		↓
179030-001	29.84		
-002	30.38		
-003	29.86		
-004	36.19		MS
-005	30.43		
-006	36.46		
-008	29.65		
-009	29.68		

Continued on Page

Signed 4/24/05 Date

Read and Understood By

Signed Date

Confirmation Report for 179049 PCB Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
179049-001	BBITP106(5.0)	Aroclor-1254	431.1	392.9	9	-9

REPORTING SUMMARY FOR 179049 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179049-001	Aroclor-1016	GC22	A	04/27/05 13:27
179049-001	Aroclor-1221	GC22	A	04/27/05 13:27
179049-001	Aroclor-1232	GC22	A	04/27/05 13:27
179049-001	Aroclor-1242	GC22	A	04/27/05 13:27
179049-001	Aroclor-1248	GC22	A	04/27/05 13:27
179049-001	Aroclor-1254	GC22	A	04/27/05 13:27
179049-001	Aroclor-1260	GC22	A	04/27/05 13:27
179049-001	TCMX	GC22	A	04/27/05 13:27
179049-001	Decachlorobiphenyl	GC22	A	04/27/05 13:27
QC291651	Aroclor-1016	GC22	A	04/26/05 21:03
QC291651	Aroclor-1221	GC22	A	04/26/05 21:03
QC291651	Aroclor-1232	GC22	A	04/26/05 21:03
QC291651	Aroclor-1242	GC22	A	04/26/05 21:03
QC291651	Aroclor-1248	GC22	A	04/26/05 21:03
QC291651	Aroclor-1254	GC22	A	04/26/05 21:03
QC291651	Aroclor-1260	GC22	A	04/26/05 21:03
QC291651	TCMX	GC22	A	04/26/05 21:03
QC291651	Decachlorobiphenyl	GC22	A	04/26/05 21:03
QC291652	Aroclor-1242	GC22	A	04/26/05 21:29
QC291652	TCMX	GC22	A	04/26/05 21:29
QC291652	Decachlorobiphenyl	GC22	A	04/26/05 21:29
QC291653	Aroclor-1242	GC22	A	04/26/05 22:49
QC291653	TCMX	GC22	A	04/26/05 22:49
QC291653	Decachlorobiphenyl	GC22	A	04/26/05 22:49
QC291654	Aroclor-1242	GC22	A	04/26/05 23:16
QC291654	TCMX	GC22	A	04/26/05 23:16
QC291654	Decachlorobiphenyl	GC22	A	04/26/05 23:16

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP106(5.0)	Diln Fac:	0.8475
Lab ID:	179049-001	Batch#:	101402
Matrix:	Soil	Sampled:	04/21/05
Units:	ug/Kg	Received:	04/22/05
Basis:	dry	Analyzed:	04/22/05

Moisture: 33%

Analyte	Result	RL	MDL
Freon 12	ND	13	2.5
Chloromethane	ND	13	2.5
Vinyl Chloride	ND	13	2.0
Bromomethane	ND	13	2.1
Chloroethane	ND	13	2.3
Trichlorofluoromethane	ND	6.3	2.1
Acetone	ND	25	2.7
Freon 113	ND	6.3	2.2
1,1-Dichloroethene	ND	6.3	2.8
Methylene Chloride	ND	25	2.7
Carbon Disulfide	ND	6.3	2.2
MTBE	ND	6.3	2.6
trans-1,2-Dichloroethene	ND	6.3	2.6
Vinyl Acetate	ND	63	2.4
1,1-Dichloroethane	ND	6.3	2.5
2-Butanone	ND	13	2.7
cis-1,2-Dichloroethene	ND	6.3	2.5
2,2-Dichloropropane	ND	6.3	2.5
Chloroform	ND	6.3	2.5
Bromochloromethane	ND	6.3	2.3
1,1,1-Trichloroethane	ND	6.3	2.6
1,1-Dichloropropene	ND	6.3	2.6
Carbon Tetrachloride	ND	6.3	2.2
1,2-Dichloroethane	ND	6.3	2.5
Benzene	ND	6.3	2.7
Trichloroethene	ND	6.3	2.6
1,2-Dichloropropane	ND	6.3	2.8
Bromodichloromethane	ND	6.3	2.4
Dibromomethane	ND	6.3	2.4
4-Methyl-2-Pentanone	ND	13	2.2
cis-1,3-Dichloropropene	ND	6.3	2.2
Toluene	ND	6.3	3.0
trans-1,3-Dichloropropene	ND	6.3	2.5
1,1,2-Trichloroethane	ND	6.3	3.2
2-Hexanone	ND	13	2.5
1,3-Dichloropropane	ND	6.3	2.4
Tetrachloroethene	ND	6.3	2.3
Dibromochloromethane	ND	6.3	1.9
1,2-Dibromoethane	ND	6.3	2.5
Chlorobenzene	ND	6.3	2.6
1,1,1,2-Tetrachloroethane	ND	6.3	2.1
Ethylbenzene	ND	6.3	2.6
m,p-Xylenes	ND	6.3	5.5
o-Xylene	ND	6.3	2.6
Styrene	ND	6.3	2.3
Bromoform	ND	6.3	2.0
Isopropylbenzene	ND	6.3	2.6
1,1,2,2-Tetrachloroethane	ND	6.3	2.6
1,2,3-Trichloropropane	ND	6.3	3.2
Propylbenzene	ND	6.3	2.6
Bromobenzene	ND	6.3	2.4
1,3,5-Trimethylbenzene	ND	6.3	2.6

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP106(5.0)	Diln Fac:	0.8475
Lab ID:	179049-001	Batch#:	101402
Matrix:	Soil	Sampled:	04/21/05
Units:	ug/Kg	Received:	04/22/05
Basis:	dry	Analyzed:	04/22/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	6.3	2.7
4-Chlorotoluene	ND	6.3	2.3
tert-Butylbenzene	ND	6.3	2.6
1,2,4-Trimethylbenzene	ND	6.3	2.5
sec-Butylbenzene	ND	6.3	2.7
para-Isopropyl Toluene	ND	6.3	2.5
1,3-Dichlorobenzene	ND	6.3	2.4
1,4-Dichlorobenzene	ND	6.3	2.4
n-Butylbenzene	ND	6.3	2.2
1,2-Dichlorobenzene	ND	6.3	2.4
1,2-Dibromo-3-Chloropropane	ND	6.3	2.8
1,2,4-Trichlorobenzene	ND	6.3	2.0
Hexachlorobutadiene	ND	6.3	2.5
Naphthalene	ND	6.3	2.1
1,2,3-Trichlorobenzene	ND	6.3	2.2

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-120
1,2-Dichloroethane-d4	93	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291373	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101402
Units:	ug/Kg	Analyzed:	04/22/05

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291373	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101402
Units:	ug/Kg	Analyzed:	04/22/05

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	95	78-120
1,2-Dichloroethane-d4	94	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	91	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC291372	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101402
Units:	ug/Kg	Analyzed:	04/22/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	56.28	113	77-124
Benzene	50.00	49.62	99	80-120
Trichloroethene	50.00	50.03	100	80-120
Toluene	50.00	51.14	102	80-120
Chlorobenzene	50.00	48.47	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	107	80-120
Bromofluorobenzene	96	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9804
MSS Lab ID:	179030-002	Batch#:	101402
Matrix:	Soil	Sampled:	04/20/05
Units:	ug/Kg	Received:	04/21/05
Basis:	as received	Analyzed:	04/22/05

Type: MS Lab ID: QC291381

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<2.141	49.02	58.73	120	70-120
Benzene	<2.059	49.02	48.72	99	70-120
Trichloroethene	<1.977	49.02	47.11	96	65-126
Toluene	<2.294	49.02	48.80	100	64-120
Chlorobenzene	<2.007	49.02	44.77	91	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

Type: MSD Lab ID: QC291382

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	55.93	114	70-120	5	20
Benzene	49.02	48.10	98	70-120	1	20
Trichloroethene	49.02	46.33	95	65-126	2	20
Toluene	49.02	49.17	100	64-120	1	20
Chlorobenzene	49.02	44.16	90	59-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	106	80-120

RPD= Relative Percent Difference

MS/VOA03 8260/GASOX 5 ICAL TUNE

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\033005.b\CCU16.D

Date : 30-MAR-2005 16:41

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

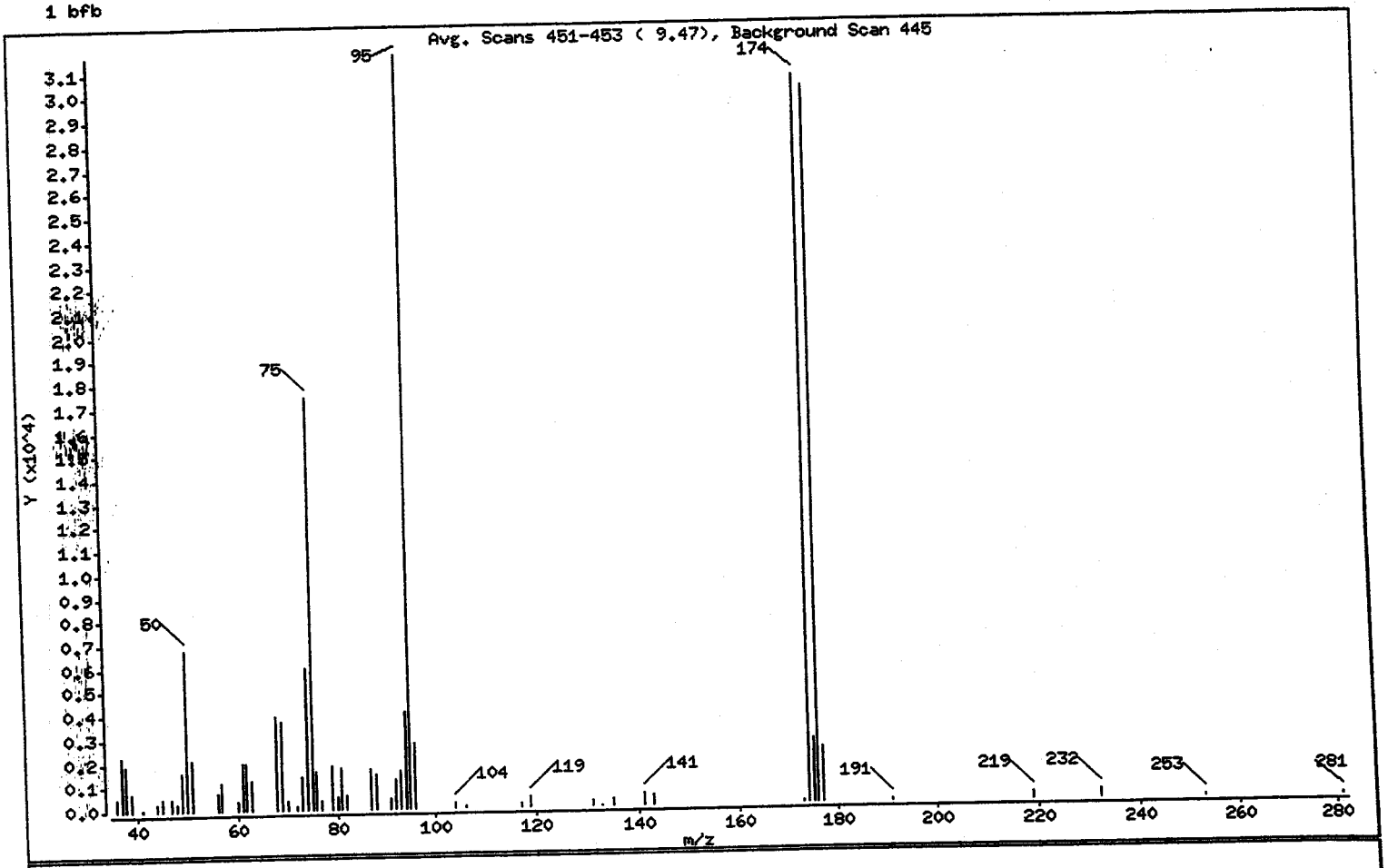
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.37
75	30.00 - 60.00% of mass 95	55.06
96	5.00 - 9.00% of mass 95	8.78
173	Less than 2.00% of mass 174	0.33 (0.34)
174	50.00 - 99.99% of mass 95	96.58
175	5.00 - 9.00% of mass 174	8.41 (8.70)
176	95.01 - 100.99% of mass 174	95.26 (98.63)
177	5.00 - 9.00% of mass 176	7.36 (7.71)

C 03/31/05

B 3/31/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\042205.b\CDM02.D

Date : 22-APR-2005 11:03

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

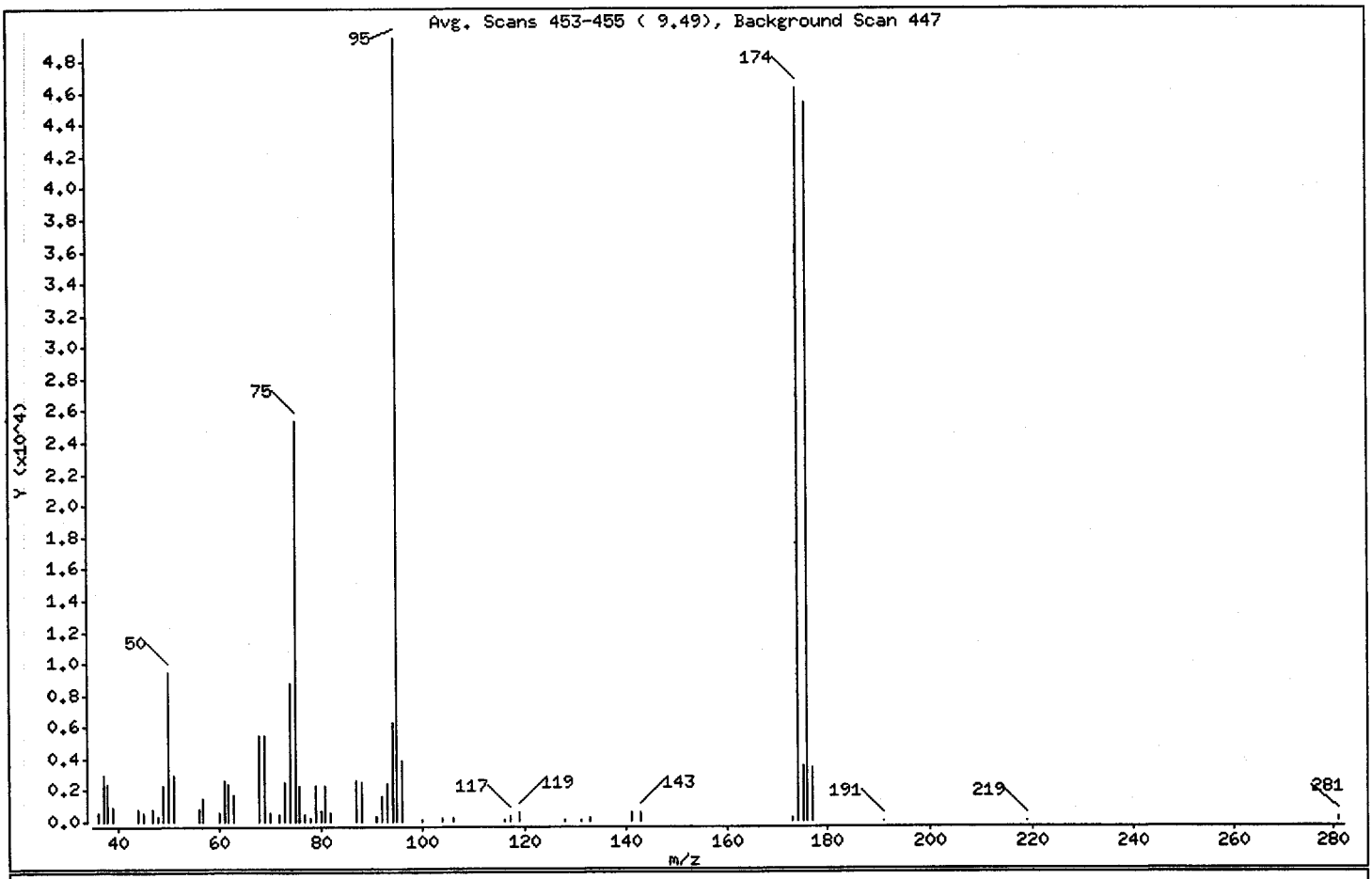
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.19
75	30.00 - 60.00% of mass 95	51.24
96	5.00 - 9.00% of mass 95	7.71
173	Less than 2.00% of mass 174	0.52 (0.55)
174	50.00 - 99.99% of mass 95	93.66
175	5.00 - 9.00% of mass 174	7.21 (7.70)
176	95.01 - 100.99% of mass 174	91.78 (98.00)
177	5.00 - 9.00% of mass 176	6.88 (7.50)

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	ccu18	425128734018	5PPB	30-MAR-2005 17:27	S158 (100000X), S127 (100000X), S95 (5000X)
2	ccu19	425128734019	10PPB	30-MAR-2005 17:57	S158 (50000X), S127 (50000X), S95 (5000X)
3	ccu20	425128734020	20PPB	30-MAR-2005 18:27	S158 (25000X), S127 (25000X), S95 (5000X)
4	ccu21	425128734021	50PPB	30-MAR-2005 18:57	S158 (10000X), S127 (10000X), S95 (5000X)
5	ccu22	425128734022	60PPB	30-MAR-2005 19:27	S158 (8333X), S127 (8333X), S95 (5000X)
6	ccu23	425128734023	75PPB	30-MAR-2005 19:58	S158 (6667X), S127 (6667X), S95 (5000X)
7	ccu24	425128734024	100PPB	30-MAR-2005 20:28	S158 (5000X), S127 (5000X), S95 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4745m	0.4940m	0.4751m	0.4976m	0.5119m	0.4812m	0.4759m	AVRG	R		2.052728		ug/L	0.4872	3	0.0500	0.99	15	
Chloromethane	0.4546m	0.4333m	0.4042m	0.3987m	0.3952m	0.3795m	0.3596	AVRG	R		2.477694		ug/L	0.4036	8	0.1000	0.99	15	
Vinyl Chloride	0.3567	0.3592	0.3293	0.3631	0.3567	0.3419	0.3359	AVRG	R		2.865534		ug/L	0.3490	4	0.0500	0.99	15	
Bromomethane	0.6025	0.5903	0.5800	0.5781	0.5826	0.5774	0.5609	AVRG	R		1.719137		ug/L	0.5817	2	0.0500	0.99	15	
Chloroethane	0.2623	0.2655	0.2661	0.2516	0.2474	0.2505	0.2389	AVRG	R		3.927511		ug/L	0.2546	4	0.0500	0.99	15	
Trichlorofluoromethane	0.7451	0.7351	0.6993	0.7470	0.7537	0.7322	0.7122	AVRG	R		1.365915		ug/L	0.7321	3	0.0500	0.99	15	
Acetone		0.1684	0.1404	0.1435	0.1343	0.1296	0.1228	AVRG	R		7.151248		ug/L	0.1398	11	0.0500	0.99	15	
Freon 113	0.3763	0.3313	0.2496	0.4359	0.4394	0.4285	0.4299	LINR	R	3.499502	2.213916		ug/L	0.3844	0.994	0.0500	0.99	15	
1,1-Dichloroethene	0.3130	0.2947	0.2597	0.3277	0.3230	0.3295	0.3179	AVRG	R		3.232673		ug/L	0.3093	8	0.0500	0.99	15	
Methylene Chloride		0.4356	0.4209	0.4196	0.4170	0.4058	0.3891	AVRG	R		2.411557		ug/L	0.4147	4	0.0500	0.99	15	
Carbon Disulfide	0.9218	0.8982	0.8392	0.9664	0.9743	0.9295	0.9343	AVRG	R		1.082975		ug/L	0.9234	5	0.0500	0.99	15	
MTBE	1.2580	1.2866	1.2003	1.2427	1.2274	1.1938	1.1428	AVRG	R		0.818567		ug/L	1.2216	4	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.3945	0.3916	0.3570	0.3924	0.3873	0.3852	0.3781	AVRG	R		2.606048		ug/L	0.3837	3	0.0500	0.99	15	
Vinyl Acetate	0.8972	0.8399	0.8594	0.8742	0.8300	0.8268	0.8066	AVRG	R		1.179606		ug/L	0.8477	4	0.0500	0.99	15	
1,1-Dichloroethane	0.6787	0.6736	0.6272	0.6559	0.6339	0.6374	0.6178	AVRG	R		1.547118		ug/L	0.6464	4	0.1000	0.99	15	
2-Butanone		0.2358	0.2313	0.2273	0.2279	0.2128	0.1938	AVRG	R		4.514839		ug/L	0.2215	7	0.0500	0.99	15	
2,2-Dichloropropane	0.6240	0.5950	0.5262	0.5935	0.6008	0.5769	0.5718	AVRG	R		1.712243		ug/L	0.5840	5	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.4755	0.4431	0.4299	0.4415	0.4432	0.4318	0.4179	AVRG	R		2.270552		ug/L	0.4404	4	0.0500	0.99	15	

94

BAL - 5000, ICV - 5200 + A.C.E. Lin - brket

Flags used: m=manual integration - for inc. int. by Target

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

3/31/05

3/31

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Reviewed By:

Instrument: MSVOA03 HP GCMS VOA 03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000
Calnum: 425128734001 Name: 826GOX03

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 tRSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	0.7899	0.8058	0.7653	0.7702	0.7714	0.7322	0.7313	AVRG	R		1.304464		ug/L	0.7666	4	0.0500	0.99	15	
Bromochloromethane	0.2557	0.2677	0.2593	0.2692	0.2779	0.2618	0.2558	AVRG	R		3.788978		ug/L	0.2639	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6382	0.6119	0.5379	0.6378	0.6394	0.6167	0.6122	AVRG	R		1.630131		ug/L	0.6134	6	0.0500	0.99	15	
1,1-Dichloropropene	0.3474	0.3198	0.2838	0.3294	0.3422	0.3257	0.3301	AVRG	R		3.072226		ug/L	0.3255	6	0.0500	0.99	15	
Carbon Tetrachloride	0.3729	0.3485	0.2989	0.3858	0.3852	0.3845	0.3909	AVRG	R		2.727273		ug/L	0.3667	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4482	0.4634	0.4344	0.4217	0.4177	0.4053	0.4033	AVRG	R		2.337999		ug/L	0.4277	5	0.0500	0.99	15	
Benzene	0.9907	0.9541	0.8903	0.8797	0.8871	0.8552	0.8477	AVRG	R		1.110289		ug/L	0.9007	6	0.0500	0.99	15	
Trichloroethene	0.2949	0.2987	0.2652	0.2841	0.2953	0.2842	0.2870	AVRG	R		3.483382		ug/L	0.2871	4	0.0500	0.99	15	
1,2-Dichloropropane	0.2948	0.2940	0.2649	0.2588	0.2602	0.2581	0.2532	AVRG	R		3.715540		ug/L	0.2691	7	0.0500	0.99	15	
Bromodichloromethane	0.3996	0.4125	0.3801	0.3986	0.4026	0.3987	0.3987	AVRG	R		2.508187		ug/L	0.3987	2	0.0500	0.99	15	
Dibromomethane	0.2421	0.2471	0.2412	0.2454	0.2420	0.2382	0.2322	AVRG	R		4.146577		ug/L	0.2412	2	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.3486	0.3396	0.3360	0.3325	0.3160	0.3008	AVRG	R		3.040251		ug/L	0.3289	5	0.0500	0.99	15	
Tetramethyl THF	0.6721	0.6708	0.6240	0.5981	0.5948	0.5714	0.5443	AVRG	R		1.637230		ug/L	0.6108	8	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4646	0.4742	0.4349	0.4430	0.4486	0.4421	0.4363	AVRG	R		2.226603		ug/L	0.4491	3	0.0500	0.99	15	
Toluene	0.6271	0.6238	0.5714	0.5858	0.5953	0.5819	0.5574	AVRG	R		1.689743		ug/L	0.5918	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4441	0.4635	0.4231	0.4429	0.4432	0.4348	0.4292	AVRG	R		2.272139		ug/L	0.4401	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1538	0.1581	0.1405	0.1512	0.1496	0.1450	0.1476	AVRG	R		6.692440		ug/L	0.1494	4	0.0500	0.99	15	
2-Hexanone		0.3134	0.3212	0.3063	0.2974	0.2884	0.2681	AVRG	R		3.343034		ug/L	0.2991	6	0.0500	0.99	15	
1,3-Dichloropropane	0.5717	0.5606	0.5382	0.5390	0.5192	0.5197	0.5159	AVRG	R		1.859577		ug/L	0.5378	4	0.0500	0.99	15	
Tetrachloroethene	0.3828	0.3816	0.3205	0.3886	0.3875	0.3795	0.3819	AVRG	R		2.669315		ug/L	0.3746	6	0.0500	0.99	15	
Dibromochloromethane	0.4296	0.4434	0.4281	0.4439	0.4292	0.4446	0.4463	AVRG	R		2.283853		ug/L	0.4379	2	0.0500	0.99	15	
1,2-Dibromoethane	0.3274	0.3274	0.3100	0.3309	0.3247	0.3120	0.3129	AVRG	R		3.117626		ug/L	0.3208	3	0.0500	0.99	15	
Chlorobenzene	1.0049	0.9516	0.9031	0.9065	0.8937	0.8685	0.8544	AVRG	R		1.096704		ug/L	0.9118	6	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.4100	0.4028	0.3648	0.3903	0.3694	0.3665	0.3679	AVRG	R		2.620104		ug/L	0.3817	5	0.0500	0.99	15	
Ethylbenzene	1.5015	1.4811	1.3158	1.4354	1.3997	1.3356	1.3274	AVRG	R		0.714542		ug/L	1.3995	5	0.0500	0.99	15	
m,p-Xylenes	0.5684	0.5359	0.4802	0.4973	0.4942	0.4800	0.4751	AVRG	R		1.982364		ug/L	0.5044	7	0.0500	0.99	15	
o-Xylene	0.5578	0.5442	0.4877	0.5107	0.4999	0.4974	0.4935	AVRG	R		1.949221		ug/L	0.5130	5	0.0500	0.99	15	
Styrene	0.9486	0.9388	0.8958	0.9083	0.8995	0.8799	0.8834	AVRG	R		1.101632		ug/L	0.9077	3	0.0500	0.99	15	
Bromoform	0.3658	0.3812	0.3789	0.3892	0.3902	0.3856	0.3927	AVRG	R		2.608541		ug/L	0.3834	2	0.1000	0.99	15	
Isopropylbenzene	2.3797	2.2853	1.8943	2.2514	2.2791	2.1815	2.1569	AVRG	R		0.453714		ug/L	2.2040	7	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.8639	0.8746	0.8123	0.8132	0.8164	0.7938	0.7558	AVRG	R		1.221659		ug/L	0.8186	5	0.3000	0.99	15	

95

Flags used: m=manual integration
Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.2802	0.2799	0.2582	0.2535	0.2692	0.2566	0.2441	AVRG	R		3.800524		ug/L	0.2631	5	0.0500	0.99	15	
Propylbenzene	3.0056	2.9505	2.4595	2.7615	2.7537	2.6388	2.5300	AVRG	R		0.366500		ug/L	2.7285	7	0.0500	0.99	15	
Bromobenzene	0.7851	0.8022	0.7151	0.7382	0.7451	0.7042	0.7070	AVRG	R		1.346954		ug/L	0.7424	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.0475	2.0849	1.7387	1.9321	1.9418	1.8979	1.8424	AVRG	R		0.519084		ug/L	1.9265	6	0.0500	0.99	15	
2-Chlorotoluene	2.1828	2.1463	1.9105	1.9394	1.9828	1.9145	1.8155	AVRG	R		0.503892		ug/L	1.9846	7	0.0500	0.99	15	
4-Chlorotoluene	2.0331	2.0693	1.7961	1.8674	1.9187	1.8250	1.7889	AVRG	R		0.526379		ug/L	1.8998	6	0.0500	0.99	15	
tert-Butylbenzene	1.7764	1.7129	1.3901	1.6904	1.6977	1.6270	1.5981	AVRG	R		0.609086		ug/L	1.6418	8	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1604	2.1330	1.8337	2.0032	2.0675	1.9578	1.9085	AVRG	R		0.497720		ug/L	2.0092	6	0.0500	0.99	15	
sec-Butylbenzene	2.4196	2.4698	1.9586	2.5153	2.5642	2.4347	2.3737	AVRG	R		0.418263		ug/L	2.3908	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.2101	2.1113	1.7857	2.1164	2.1225	2.0633	2.0526	AVRG	R		0.484030		ug/L	2.0660	6	0.0500	0.99	15	
1,3-Dichlorobenzene	1.4037	1.4449	1.2815	1.3359	1.3324	1.2865	1.2907	AVRG	R		0.746610		ug/L	1.3394	5	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5207	1.5011	1.3123	1.3850	1.3603	1.3396	1.3146	AVRG	R		0.719158		ug/L	1.3905	6	0.0500	0.99	15	
n-Butylbenzene	2.1015	2.0272	1.6584	1.9969	2.0294	1.9309	1.9163	AVRG	R		0.512422		ug/L	1.9515	7	0.0500	0.99	15	
1,2-Dichlorobenzene	1.3317	1.4049	1.2331	1.3227	1.2701	1.2497	1.2509	AVRG	R		0.772366		ug/L	1.2947	5	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2127	0.2003	0.1827	0.1848	0.1763	0.1695	0.1719	AVRG	R		5.392369		ug/L	0.1854	9	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.8893	0.9435	0.8386	0.8713	0.8419	0.8600	0.8394	AVRG	R		1.150560		ug/L	0.8691	4	0.0500	0.99	15	
Hexachlorobutadiene	0.4670	0.4315	0.3483	0.4512	0.4371	0.4438	0.4224	AVRG	R		2.332319		ug/L	0.4288	9	0.0500	0.99	15	
Naphthalene	1.8317	1.8992	1.8363	1.8422	1.8165	1.8641	1.8074	AVRG	R		0.542743		ug/L	1.8425	2	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.8405	0.8846	0.7986	0.8496	0.8171	0.8221	0.8145	AVRG	R		1.201311		ug/L	0.8324	3	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0640	0.0624	0.0606	0.0627	0.0592	0.0579	0.0554	AVRG	R		16.57698		ug/L	0.0603	5	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.3662	1.3527	1.2454	1.2486	1.2134	1.1675	1.1187	AVRG	R		0.803448		ug/L	1.2446	7	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2541	1.2293	1.1368	1.1625	1.1556	1.1088	1.0879	AVRG	R		0.860478		ug/L	1.1621	5	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8474	0.8602	0.7960	0.7927	0.7941	0.7668	0.7593	AVRG	R		1.246319		ug/L	0.8024	5	0.0500	0.99	15	
Ethanol	0.0062	0.0062	0.0056	0.0060	0.0057	0.0055	0.0055	AVRG	R		172.3205		ug/L	0.0058	5	5.0E-4	0.99	15	
Isopropanol	0.0344	0.0360	0.0333	0.0342	0.0326	0.0315	0.0297	AVRG	R		30.21780		ug/L	0.0331	6	0.0050	0.99	15	
Tetrahydrofuran	0.1319	0.1298	0.1204	0.1136	0.1118	0.1035	0.0968	AVRG	R		8.665138		ug/L	0.1154	11	0.0050	0.99	15	
Dibromofluoromethane	0.5673	0.5807	0.5718	0.5796	0.5851	0.5677	0.5694	AVRG	R		1.740573		ug/L	0.5745	1	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3980	0.4035	0.3835	0.3829	0.3835	0.3824	0.3756	AVRG	R		2.583613		ug/L	0.3871	3	0.0500	0.99	15	
Trifluorotoluene	0.4633	0.4158	0.3448	0.4457	0.4659	0.4464	0.4341	AVRG	R		2.320907		ug/L	0.4309	10	0.0500	0.99	15	
Toluene-d8	0.9720	0.9955	0.9527	0.9594	0.9745	0.9605	0.9532	AVRG	R		1.034299		ug/L	0.9668	2	0.0500	0.99	15	
Bromofluorobenzene	0.9410	0.9440	0.9237	0.9626	0.9394	0.9447	0.9522	AVRG	R		1.059393		ug/L	0.9439	1	0.0500	0.99	15	

96

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

nstid : MSVOA03 Run Name : QC288414
eqnum : 425128734027 Filename : ccu27 Injected : 30-MAR-2005 21:59
alnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
tandards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	43.56850	ug/L	-13	30	m
Chloromethane	50.00000	44.03510	ug/L	-12	30	
Vinyl Chloride	50.00000	51.14330	ug/L	2	20	
Bromomethane	50.00000	34.75960	ug/L	-30	30	!v-
Chloroethane	50.00000	52.04920	ug/L	4	30	
Trichlorofluoromethane	50.00000	53.42370	ug/L	7	30	
Acetone	50.00000	48.80200	ug/L	-2	40	
Freon 113	50.00000	48.00420	ug/L	-4	30	
1,1-Dichloroethene	50.00000	53.35110	ug/L	7	20	
Methylene Chloride	50.00000	49.45840	ug/L	-1	30	
Carbon Disulfide	50.00000	58.43920	ug/L	17	30	
MTBE	50.00000	52.94030	ug/L	6	30	
trans-1,2-Dichloroethene	50.00000	49.13170	ug/L	-2	30	
Vinyl Acetate	50.00000	36.86450	ug/L	-26	40	
1,1-Dichloroethane	50.00000	46.15010	ug/L	-8	30	
2-Butanone	50.00000	48.59070	ug/L	-3	40	
2,2-Dichloropropane	50.00000	46.28030	ug/L	-7	30	
cis-1,2-Dichloroethene	50.00000	47.94770	ug/L	-4	30	
Chloroform	50.00000	46.22470	ug/L	-8	20	
Bromochloromethane	50.00000	47.66480	ug/L	-5	30	
1,1,1-Trichloroethane	50.00000	48.09250	ug/L	-4	30	
1,1-Dichloropropene	50.00000	49.04550	ug/L	-2	30	
Carbon Tetrachloride	50.00000	49.92850	ug/L	0	30	
1,2-Dichloroethane	50.00000	44.44360	ug/L	-11	30	
Benzene	50.00000	45.08970	ug/L	-10	30	
Trichloroethene	50.00000	45.67340	ug/L	-9	30	
1,2-Dichloropropane	50.00000	41.38110	ug/L	-17	20	
Bromodichloromethane	50.00000	49.98580	ug/L	0	30	
Dibromomethane	50.00000	45.45000	ug/L	-9	30	
4-Methyl-2-Pentanone	50.00000	45.23430	ug/L	-10	40	
Tetramethyl THF	50.00000	42.98930	ug/L	-14	30	
cis-1,3-Dichloropropene	50.00000	44.74650	ug/L	-11	30	
Toluene	50.00000	44.28250	ug/L	-11	20	
trans-1,3-Dichloropropene	50.00000	42.13000	ug/L	-16	30	
1,1,2-Trichloroethane	50.00000	46.38090	ug/L	-7	30	
2-Hexanone	50.00000	48.05640	ug/L	-4	40	
1,3-Dichloropropane	50.00000	46.30170	ug/L	-7	30	
Tetrachloroethene	50.00000	47.76460	ug/L	-4	30	
Dibromochloromethane	50.00000	47.82850	ug/L	-4	30	
1,2-Dibromoethane	50.00000	45.64190	ug/L	-9	30	
Chlorobenzene	50.00000	45.00960	ug/L	-10	30	
1,1,1,2-Tetrachloroethane	50.00000	46.37180	ug/L	-7	30	
Ethylbenzene	50.00000	45.58140	ug/L	-9	20	
m,p-Xylenes	100.0000	90.71480	ug/L	-9	30	
o-Xylene	50.00000	45.88000	ug/L	-8	30	
Styrene	50.00000	44.67960	ug/L	-11	30	
Bromoform	50.00000	45.70180	ug/L	-9	30	

!=warning -=low bias m=manual integration v=ICV

03/31

3/31/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

ıstid : MSVOA03 Run Name : QC288414 Injected : 30-MAR-2005 21:59
ɐqnum : 425128734027 Filename : ccu27 Caltype : SOIL
ɐlnum : 425128734001 Caldate : 30-MAR-2005
ɔandards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

ɐnalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
ɔsopropylbenzene	50.00000	42.99660	ug/L	-14	30	
ı,1,2,2-Tetrachloroethane	50.00000	44.80580	ug/L	-10	30	
ı,2,3-Trichloropropane	50.00000	45.01040	ug/L	-10	30	
Propylbenzene	50.00000	45.62610	ug/L	-9	30	
Bromobenzene	50.00000	44.62420	ug/L	-11	30	
1,3,5-Trimethylbenzene	50.00000	44.59320	ug/L	-11	30	
2-Chlorotoluene	50.00000	44.92990	ug/L	-10	30	
4-Chlorotoluene	50.00000	43.41110	ug/L	-13	30	
tert-Butylbenzene	50.00000	44.99060	ug/L	-10	30	
1,2,4-Trimethylbenzene	50.00000	43.90530	ug/L	-12	30	
sec-Butylbenzene	50.00000	47.19820	ug/L	-6	30	
para-Isopropyl Toluene	50.00000	44.11860	ug/L	-12	30	
1,3-Dichlorobenzene	50.00000	43.62700	ug/L	-13	30	
1,4-Dichlorobenzene	50.00000	43.46170	ug/L	-13	30	
n-Butylbenzene	50.00000	44.98560	ug/L	-10	30	
1,2-Dichlorobenzene	50.00000	45.68640	ug/L	-9	30	
1,2-Dibromo-3-Chloropropane	50.00000	44.14240	ug/L	-12	30	
1,2,4-Trichlorobenzene	50.00000	41.81470	ug/L	-16	30	
Hexachlorobutadiene	50.00000	47.39690	ug/L	-5	30	
Naphthalene	50.00000	44.88000	ug/L	-10	30	
1,2,3-Trichlorobenzene	50.00000	44.29180	ug/L	-11	30	
tert-Butyl Alcohol (TBA)	250.0000	287.8299	ug/L	15	30	
Isopropyl Ether (DIPE)	50.00000	49.76250	ug/L	0	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	56.44800	ug/L	13	30	
Methyl tert-Amyl Ether (TAME)	50.00000	53.11460	ug/L	6	30	
Ethanol	5000.000	5185.074	ug/L	4	30	
Isopropanol	500.0000	555.9436	ug/L	11	30	
Tetrahydrofuran	500.0000	537.8157	ug/L	8	30	

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	436523	15.76	10.68	10.68	0.00
1,4-Difluorobenzene	547892	634947	15.89	11.83	11.83	0.00
Chlorobenzene-d5	440598	502547	14.06	15.81	15.82	0.01
1,4-Dichlorobenzene-d4	262241	297816	13.57	18.51	18.51	0.00

3/31/05

!=warning -=low bias m=manual integration v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425161908003 Filename : cdm03 Injected : 22-APR-2005 11:19
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (10000X), S297 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4872	0.5934	50.00000	60.90660	ug/L	22	30	0.0500	!c+ m
Chloromethane	0.4036	0.4250	50.00000	52.65510	ug/L	5	30	0.1000	m
Vinyl Chloride	0.3490	0.4159	50.00000	59.59020	ug/L	19	20	0.0500	
Bromomethane	0.5817	0.6495	50.00000	55.82630	ug/L	12	30	0.0500	
Chloroethane	0.2546	0.2980	50.00000	58.51190	ug/L	17	30	0.0500	
Trichlorofluoromethane	0.7321	0.8016	50.00000	54.74910	ug/L	9	30	0.0500	
Acetone	0.1398	0.1485	50.00000	53.10660	ug/L	6	40	0.0500	
Freon 113	0.3844	0.4974	50.00000	58.55760	ug/L	17	30	0.0500	
1,1-Dichloroethene	0.3093	0.3661	50.00000	59.17600	ug/L	18	20	0.0500	
Methylene Chloride	0.4147	0.4620	50.00000	55.70260	ug/L	11	30	0.0500	
Carbon Disulfide	0.9234	1.0933	50.00000	59.20070	ug/L	18	30	0.0500	
MTBE	1.2216	1.2044	50.00000	49.29500	ug/L	-1	30	0.0500	
trans-1,2-Dichloroethene	0.3837	0.4361	50.00000	56.82030	ug/L	14	30	0.0500	
Vinyl Acetate	0.8477	0.8576	50.00000	50.57930	ug/L	1	40	0.0500	
1,1-Dichloroethane	0.6464	0.6819	50.00000	52.74890	ug/L	5	30	0.1000	
2-Butanone	0.2215	0.2232	50.00000	50.38330	ug/L	1	40	0.0500	
2,2-Dichloropropane	0.5840	0.6509	50.00000	55.72250	ug/L	11	30	0.0500	
cis-1,2-Dichloroethene	0.4404	0.4757	50.00000	54.00720	ug/L	8	30	0.0500	
Chloroform	0.7666	0.8032	50.00000	52.38590	ug/L	5	20	0.0500	
Bromochloromethane	0.2639	0.2906	50.00000	55.05970	ug/L	10	30	0.0500	
1,1,1-Trichloroethane	0.6134	0.6553	50.00000	53.41260	ug/L	7	30	0.0500	
1,1-Dichloropropene	0.3255	0.3717	50.00000	57.09670	ug/L	14	30	0.0500	
Carbon Tetrachloride	0.3667	0.3925	50.00000	53.52780	ug/L	7	30	0.0500	
1,2-Dichloroethane	0.4277	0.4037	50.00000	47.18830	ug/L	-6	30	0.0500	
Benzene	0.9007	0.9346	50.00000	51.88200	ug/L	4	30	0.0500	
Trichloroethene	0.2871	0.3100	50.00000	53.98480	ug/L	8	30	0.0500	
1,2-Dichloropropane	0.2691	0.2729	50.00000	50.70390	ug/L	1	20	0.0500	m
Bromodichloromethane	0.3987	0.3970	50.00000	49.78730	ug/L	0	30	0.0500	
Dibromomethane	0.2412	0.2414	50.00000	50.04270	ug/L	0	30	0.0500	
4-Methyl-2-Pentanone	0.3289	0.3037	50.00000	46.16250	ug/L	-8	40	0.0500	
Tetramethyl THF	0.6108	0.5480	50.00000	44.86040	ug/L	-10	30	0.0500	
cis-1,3-Dichloropropene	0.4491	0.4622	50.00000	51.46160	ug/L	3	30	0.0500	
Toluene	0.5918	0.6320	50.00000	53.39960	ug/L	7	20	0.0500	
trans-1,3-Dichloropropene	0.4401	0.4446	50.00000	50.50890	ug/L	1	30	0.0500	
1,1,2-Trichloroethane	0.1494	0.1556	50.00000	52.06870	ug/L	4	30	0.0500	
2-Hexanone	0.2991	0.2740	50.00000	45.79480	ug/L	-8	40	0.0500	
1,3-Dichloropropane	0.5378	0.5583	50.00000	51.90930	ug/L	4	30	0.0500	
Tetrachloroethene	0.3746	0.4106	50.00000	54.80290	ug/L	10	30	0.0500	
Dibromochloromethane	0.4379	0.4343	50.00000	49.59670	ug/L	-1	30	0.0500	
1,2-Dibromoethane	0.3208	0.3286	50.00000	51.22460	ug/L	2	30	0.0500	
Chlorobenzene	0.9118	0.9590	50.00000	52.58860	ug/L	5	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3817	0.3810	50.00000	49.91650	ug/L	0	30	0.0500	
Ethylbenzene	1.3995	1.4439	50.00000	51.58680	ug/L	3	20	0.0500	
m,p-Xylenes	0.5044	0.5399	100.0000	107.0219	ug/L	7	30	0.0500	
o-Xylene	0.5130	0.5388	50.00000	52.51120	ug/L	5	30	0.0500	
Styrene	0.9077	0.9294	50.00000	51.19030	ug/L	2	30	0.0500	

!=warning +=high bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425161908003 Filename : cdm03 Injected : 22-APR-2005 11:19
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (10000X), S297 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3834	0.3659	50.00000	47.72080	ug/L	-5	30	0.1000	
Isopropylbenzene	2.2040	2.4581	50.00000	55.76270	ug/L	12	30	0.0500	
1,1,2,2-Tetrachloroethane	0.8186	0.8672	50.00000	52.96940	ug/L	6	30	0.3000	
1,2,3-Trichloropropane	0.2631	0.2649	50.00000	50.33730	ug/L	1	30	0.0500	
Propylbenzene	2.7285	2.9726	50.00000	54.47240	ug/L	9	30	0.0500	
Bromobenzene	0.7424	0.7774	50.00000	52.35580	ug/L	5	30	0.0500	
1,3,5-Trimethylbenzene	1.9265	2.2110	50.00000	57.38430	ug/L	15	30	0.0500	
2-Chlorotoluene	1.9846	2.0890	50.00000	52.63200	ug/L	5	30	0.0500	
4-Chlorotoluene	1.8998	1.9428	50.00000	51.13260	ug/L	2	30	0.0500	
tert-Butylbenzene	1.6418	1.7868	50.00000	54.41470	ug/L	9	30	0.0500	
1,2,4-Trimethylbenzene	2.0092	2.2348	50.00000	55.61610	ug/L	11	30	0.0500	
sec-Butylbenzene	2.3908	2.7382	50.00000	57.26380	ug/L	15	30	0.0500	
para-Isopropyl Toluene	2.0660	2.2839	50.00000	55.27420	ug/L	11	30	0.0500	
1,3-Dichlorobenzene	1.3394	1.4148	50.00000	52.81480	ug/L	6	30	0.0500	
1,4-Dichlorobenzene	1.3905	1.4675	50.00000	52.76900	ug/L	6	30	0.0500	
n-Butylbenzene	1.9515	2.1171	50.00000	54.24160	ug/L	8	30	0.0500	
1,2-Dichlorobenzene	1.2947	1.3496	50.00000	52.11830	ug/L	4	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1854	0.1732	50.00000	46.70860	ug/L	-7	30	0.0500	
1,2,4-Trichlorobenzene	0.8691	0.9419	50.00000	54.18320	ug/L	8	30	0.0500	
Hexachlorobutadiene	0.4288	0.3901	50.00000	45.49480	ug/L	-9	30	0.0500	
Naphthalene	1.8425	2.1412	50.00000	58.10670	ug/L	16	30	0.0500	
1,2,3-Trichlorobenzene	0.8324	0.9131	50.00000	54.84790	ug/L	10	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0603	0.0592	500.0000	490.2783	ug/L	-2	30	0.0050	
Isopropyl Ether (DIPE)	1.2446	1.2065	50.00000	48.46940	ug/L	-3	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.1621	1.1499	50.00000	49.47360	ug/L	-1	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8024	0.7934	50.00000	49.44310	ug/L	-1	30	0.0500	
Ethanol	0.0058	0.0056	5000.000	4840.177	ug/L	-3	30	5.0E-4	
Isopropanol	0.0331	0.0306	500.0000	462.7472	ug/L	-7	30	0.0050	
Tetrahydrofuran	0.1154	0.1088	500.0000	471.3580	ug/L	-6	30	0.0050	
Dibromofluoromethane	0.5745	0.5862	50.00000	51.01200	ug/L	2	30	0.0500	
1,2-Dichloroethane-d4	0.3871	0.3737	50.00000	48.27420	ug/L	-3	30	0.0500	
Trifluorotoluene	0.4309	0.4899	50.00000	56.85500	ug/L	14	30	0.0500	
Toluene-d8	0.9668	1.0080	50.00000	52.13120	ug/L	4	30	0.0500	
Bromofluorobenzene	0.9439	0.9277	50.00000	49.13770	ug/L	-2	30	0.0500	

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	385076	2.12	10.68	10.71	0.03
1,4-Difluorobenzene	547892	564257	2.99	11.83	11.86	0.03
Chlorobenzene-d5	440598	462366	4.94	15.81	15.83	0.02
1,4-Dichlorobenzene-d4	262241	263831	0.61	18.51	18.53	0.02

4/28/05

!=warning +=high bias c=CCV m=manual integration
Page 2 of 2

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 22-APR-2005
Sequence: 425161908 (cdm)
Instrument ID: MSVOA03

ICAL Filename: ccu21
Date Analyzed: 30-MAR-2005
Time Analyzed: 18:57

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	377098	10.68	547892	11.83	440598	15.81	262241	18.51
LOWER LIMIT	188549	10.18	273946	11.33	220299	15.31	131121	18.01
UPPER LIMIT	754196	11.18	1095784	12.33	881196	16.31	524482	19.01

TYPE	SAMPLE	#							
CCV	50PPB	003	385076	10.71	564257	11.86	462366	15.83	263831	18.53
LCS	QC291372	004	261705	10.71	366341	11.87	328293	15.83	195547	18.53
BLANK	QC291373	006	339477	10.71	481056	11.87	396500	15.84	242516	18.53
SAMPLE	179029-001	007	378048	10.71	534381	11.86	439715	15.83	261034	18.53
SAMPLE	178976-001	008	417998	10.70	611521	11.86	491593	15.84	287771	18.53
MSS	179030-002	009	433507	10.72	626351	11.86	540477	15.84	310594	18.54
SAMPLE	179049-001	010	422250	10.71	597763	11.87	502144	15.84	271416	18.53
SAMPLE	179030-001	011	451876	10.72	666063	11.86	574246	15.83	327464	18.54
SAMPLE	179030-008	012	474458	10.71	703164	11.87	595660	15.83	339212	18.53
SAMPLE	179030-006	013	515249	10.70	737294	11.86	613412	15.83	345246	18.53
SAMPLE	179030-003	014	473762	10.71	680470	11.86	571551	15.83	361717	18.53
SAMPLE	179030-004	015	540939	10.70	779199	11.86	637038	15.83	365771	18.53
SAMPLE	179030-005	016	519236	10.71	767347	11.86	652317	15.83	367575	18.53
SAMPLE	179030-009	017	614347	10.71	948268	11.87	736884	15.84	331256	18.53
MS	QC291381	018	559521	10.71	820802	11.86	705747	15.83	398632	18.53
MSD	QC291382	019	608170	10.71	887851	11.87	770539	15.83	434413	18.53

4/25/05

LABVOA03 8260/GASOO ICAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Begun: 30-MAR-2005

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA 03
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	ccu01	X	IB			30-MAR-2005 09:34	1.0					1	
002	ccu02	TUN	BFB			30-MAR-2005 10:03	1.0					2	
003	ccu03	X	50PPB			30-MAR-2005 10:19	1.0		5000			3 4 1 cc-	
004	ccu04	TUN	BFB			30-MAR-2005 11:04	1.0					2	
005	ccu05	X	50PPB			30-MAR-2005 11:19	1.0		5000			3 4 1 cc-	
006	ccu06	TUN	BFB			30-MAR-2005 11:58	1.0					2	
007	ccu07	X	50PPB			30-MAR-2005 12:14	1.0		5000			3 4 1 cc-	
008	ccu08	X	IB			30-MAR-2005 13:00	1.0					1	
009	ccu09	X	IB			30-MAR-2005 13:30	1.0					1	
010	ccu10	X	IB			30-MAR-2005 14:00	1.0					1	
011	ccu11	X	IB			30-MAR-2005 14:30	1.0					1	
012	ccu12	TUN	BFB			30-MAR-2005 15:21	1.0					2	
013	ccu13	TUN	BFB			30-MAR-2005 15:42	1.0					2	
014	ccu14	TUN	BFB			30-MAR-2005 15:58	1.0	1				2 t	
015	ccu15	X	CALIB IB			30-MAR-2005 16:14	1.0					1	
016	ccu16	TUN	BFB			30-MAR-2005 16:41	1.0					2	102
017	ccu17	X	CALIB IB			30-MAR-2005 16:57	1.0					1	
018	ccu18	ICAL	5PPB			30-MAR-2005 17:27	1.0					5 3 1	
019	ccu19	ICAL	10PPB			30-MAR-2005 17:57	1.0					5 3 1	
020	ccu20	ICAL	20PPB			30-MAR-2005 18:27	1.0					5 3 1	
021	ccu21	ICAL	50PPB			30-MAR-2005 18:57	1.0					5 3 1	
022	ccu22	ICAL	60PPB			30-MAR-2005 19:27	1.0					5 3 1	
023	ccu23	ICAL	75PPB			30-MAR-2005 19:58	1.0					5 3 1	
024	ccu24	ICAL	100PPB			30-MAR-2005 20:28	1.0					5 3 1	
025	ccu25	ICV	not used			30-MAR-2005 20:58	1.0	1	5000			6 1	
026	ccu26	ICV				30-MAR-2005 21:29	1.0		5000			7 8 1	
027	ccu27	LCS/ICV	QC288414	100657	Soil	30-MAR-2005 21:59	1.0		5000			6 7 8 1	
028	ccu28	PREPBLK	QC288415 M	100657	Soil	30-MAR-2005 22:30	25.0		5000			9 1	see QC pack
029	ccu29	BLANK	QC288416	100657	Soil	30-MAR-2005 23:00	1.0	1	5000			1	
030	ccu30	MSS	178510-002 M	100657	Soil	30-MAR-2005 23:30	500.0		5000			9 1	

ICAL - GOOD, ICV - GOOD + A.C.E Lin - Bottet

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: [signature] Date: 3/31/05

Page 1 of 2

2
03/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Begun: 30-MAR-2005

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA 03
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
031	ccu31	SAMPLE	178510-003 M	100657	Soil	31-MAR-2005 00:01	500.0			5000			9 1	
032	ccu32	SAMPLE	178510-004 M	100657	Soil	31-MAR-2005 00:31	500.0			5000			9 1	
033	ccu33	SAMPLE	178510-005 M	100657	Soil	31-MAR-2005 01:02	500.0			5000			9 1	
034	ccu34	SAMPLE	178514-001 M	100657	Soil	31-MAR-2005 01:32	200.0	1	2	5000			9 1	1:TMB124=155.868
035	ccu35	SAMPLE	178514-002 M	100657	Soil	31-MAR-2005 02:02	200.0		1	5000			9 1	per QC pack
036	ccu36	SAMPLE	178514-003 M	100657	Soil	31-MAR-2005 02:33	200.0		1	5000			9 1	
037	ccu37	SAMPLE	178514-004 M	100657	Soil	31-MAR-2005 03:03	200.0		1	5000			9 1	
038	ccu38	SAMPLE	178514-005 M	100657	Soil	31-MAR-2005 03:34	200.0		1	5000			9 1	
039	ccu39	MS	QC288417 M	100657	Soil	31-MAR-2005 04:04	500.0		4	5000			7 8 6 9 1	
040	ccu40	MSD	QC288418 M	100657	Soil	31-MAR-2005 04:34	500.0			5000			7 9 8 6 1	
041	ccu41	X	514-6			31-MAR-2005 05:05	1.0						1	
042	ccu42	X	514-7			31-MAR-2005 05:35	1.0						1	
043	ccu43	X	IB			31-MAR-2005 06:06	1.0						1	
044	ccu44	X	IB			31-MAR-2005 06:37	1.0						1	
045	ccu45	X	IB			31-MAR-2005 07:07	1.0						1	

108

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: Date: 3/31/05

3/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425161908 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 22-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	cdm01	X	IB			22-APR-2005 10:28	1.0						1	
002	cdm02	TUN	BFB			22-APR-2005 11:03	1.0						2	
003	cdm03	CCV	50PPB			22-APR-2005 11:19	1.0			5000			3 4 1	
004	cdm04	LCS	QC291372	101402	Soil	22-APR-2005 12:05	1.0			5000			5 6 7 1	
005	cdm05	X	IB			22-APR-2005 12:35	1.0						1	
006	cdm06	BLANK	QC291373	101402	Soil	22-APR-2005 13:05	1.0		1	5000			1	
007	cdm07	SAMPLE	179029-001	101402	Soil	22-APR-2005 13:40	0.9091			5000	C		1	
008	cdm08	SAMPLE	178976-001 M	101402	Miscel	22-APR-2005 14:10	50.0		1	5000	A		8 1	
009	cdm09	MSS	179030-002	101402	Soil	22-APR-2005 14:40	0.9804		1	5000			1	
010	cdm10	SAMPLE	179049-001	101402	Soil	22-APR-2005 15:12	0.8475		1	5000	D		1	
011	cdm11	SAMPLE	179030-001	101402	Soil	22-APR-2005 15:42	2.0		2	5000	A		1	3:TMB124=411.682
012	cdm12	SAMPLE	179030-008	101402	Soil	22-APR-2005 16:12	2.083		1	5000			1	2:TMB124=168.373
013	cdm13	SAMPLE	179030-006	101402	Soil	22-APR-2005 16:42	2.273		1	5000			1	
014	cdm14	SAMPLE	179030-003	101402	Soil	22-APR-2005 17:12	5.0		2	5000			1	3:TMB135=136.187
015	cdm15	SAMPLE	179030-004	101402	Soil	22-APR-2005 17:42	5.0		1	5000			1	
016	cdm16	SAMPLE	179030-005	101402	Soil	22-APR-2005 18:12	5.0		1	5000	B		1	
017	cdm17	SAMPLE	179030-009	101402	Soil	22-APR-2005 18:42	4.545	3	3	5000	A		1	15:XYLMP=1043.52
018	cdm18	MS	QC291381	101402	Soil	22-APR-2005 19:12	0.9804			5000			5 7 6 1	
019	cdm19	MSD	QC291382	101402	Soil	22-APR-2005 19:42	0.9804			5000			5 7 6 1	
020	cdm20	X	IB			22-APR-2005 20:12	1.0						1	
021	cdm21	X	IB			22-APR-2005 20:42	1.0						1	
022	cdm22	X	3A			22-APR-2005 21:13	1.0						1	
023	cdm23	X	3B			22-APR-2005 21:43	1.0						1	

104

ICAL-6000, ICV-6000, +A.C.E. low · Brocket, CCV-6000 +A.C.E low - F12

4/25/05

Stds used: 1=S296 2=04WS2425 3=S283 4=S297 5=S215 6=S139 7=S285 8=S49

Analyst: _____ Date: 4/25/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 4/22/05

Prepped by: Tia

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date	
1	179030-1	2.5	A						R
2	2	5.1	I			MSS, MSD			
3	3	1.0	A						
4	4	1.0	I						
5	5	1.0	B						
6	6	2.2	A						
7	8	2.4	I						
8	9	1.1	I						
9	178976-1	0.2	A			RR thru RE. ~~5.25 x 4.2 = 5g~~			
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date	
1	179029-1	5.5	C						F
2	179049-1	5.9	D						
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP106(5.0)	Batch#:	101491
Lab ID:	179049-001	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	ug/Kg	Prepared:	04/26/05
Basis:	dry	Analyzed:	04/27/05
Diln Fac:	2.000		

Moisture: 33%

Analyte	Result	RL	MDL
Naphthalene	ND	15	3.5
Acenaphthylene	ND	15	3.8
Acenaphthene	ND	15	3.7
Fluorene	ND	15	3.4
Phenanthrene	ND	15	3.7
Anthracene	ND	15	6.2
Fluoranthene	ND	15	3.4
Pyrene	ND	15	3.0
Benzo(a)anthracene	ND	15	3.8
Chrysene	ND	15	2.8
Benzo(b)fluoranthene	ND	15	3.5
Benzo(k)fluoranthene	ND	15	4.5
Benzo(a)pyrene	ND	15	5.8
Indeno(1,2,3-cd)pyrene	ND	15	3.5
Dibenz(a,h)anthracene	ND	15	3.5
Benzo(g,h,i)perylene	ND	15	3.5

Surrogate	%REC	Limits
Nitrobenzene-d5	46	37-140
2-Fluorobiphenyl	57	38-120
Terphenyl-d14	51	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC291715	Batch#:	101491
Matrix:	Soil	Prepared:	04/26/05
Units:	ug/Kg	Analyzed:	04/27/05
Basis:	as received		

Analyte	Result	RL
Naphthalene	ND	4.9
Acenaphthylene	ND	4.9
Acenaphthene	ND	4.9
Fluorene	ND	4.9
Phenanthrene	ND	4.9
Anthracene	ND	4.9
Fluoranthene	ND	4.9
Pyrene	ND	4.9
Benzo(a)anthracene	ND	4.9
Chrysene	ND	4.9
Benzo(b)fluoranthene	ND	4.9
Benzo(k)fluoranthene	ND	4.9
Benzo(a)pyrene	ND	4.9
Indeno(1,2,3-cd)pyrene	ND	4.9
Dibenz(a,h)anthracene	ND	4.9
Benzo(g,h,i)perylene	ND	4.9

Surrogate	%REC	Limits
Nitrobenzene-d5	71	37-140
2-Fluorobiphenyl	60	38-120
Terphenyl-d14	67	44-137

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291716	Batch#:	101491
Matrix:	Soil	Prepared:	04/26/05
Units:	ug/Kg	Analyzed:	04/27/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.20	25.26	76	49-128
Pyrene	33.20	25.98	78	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	74	37-140
2-Fluorobiphenyl	69	38-120
Terphenyl-d14	79	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP106(5.0)	Batch#:	101491
MSS Lab ID:	179049-001	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	ug/Kg	Prepared:	04/26/05
Basis:	as received	Analyzed:	04/27/05
Diln Fac:	2.000		

Type: MS Lab ID: QC291717

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<2.466	32.96	22.72	69	39-138
Pyrene	3.542	32.96	25.07	65	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	75	37-140
2-Fluorobiphenyl	63	38-120
Terphenyl-d14	63	44-137

Type: MSD Lab ID: QC291718

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	33.29	24.05	72	39-138	5	39
Pyrene	33.29	24.51	63	28-159	3	45

Surrogate	%REC	Limits
Nitrobenzene-d5	70	37-140
2-Fluorobiphenyl	62	38-120
Terphenyl-d14	61	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\041605.b\XDG03.D

Date : 16-APR-2005 11:59

Client ID: dftpp tune std

Sample Info: TUN,05WS0188

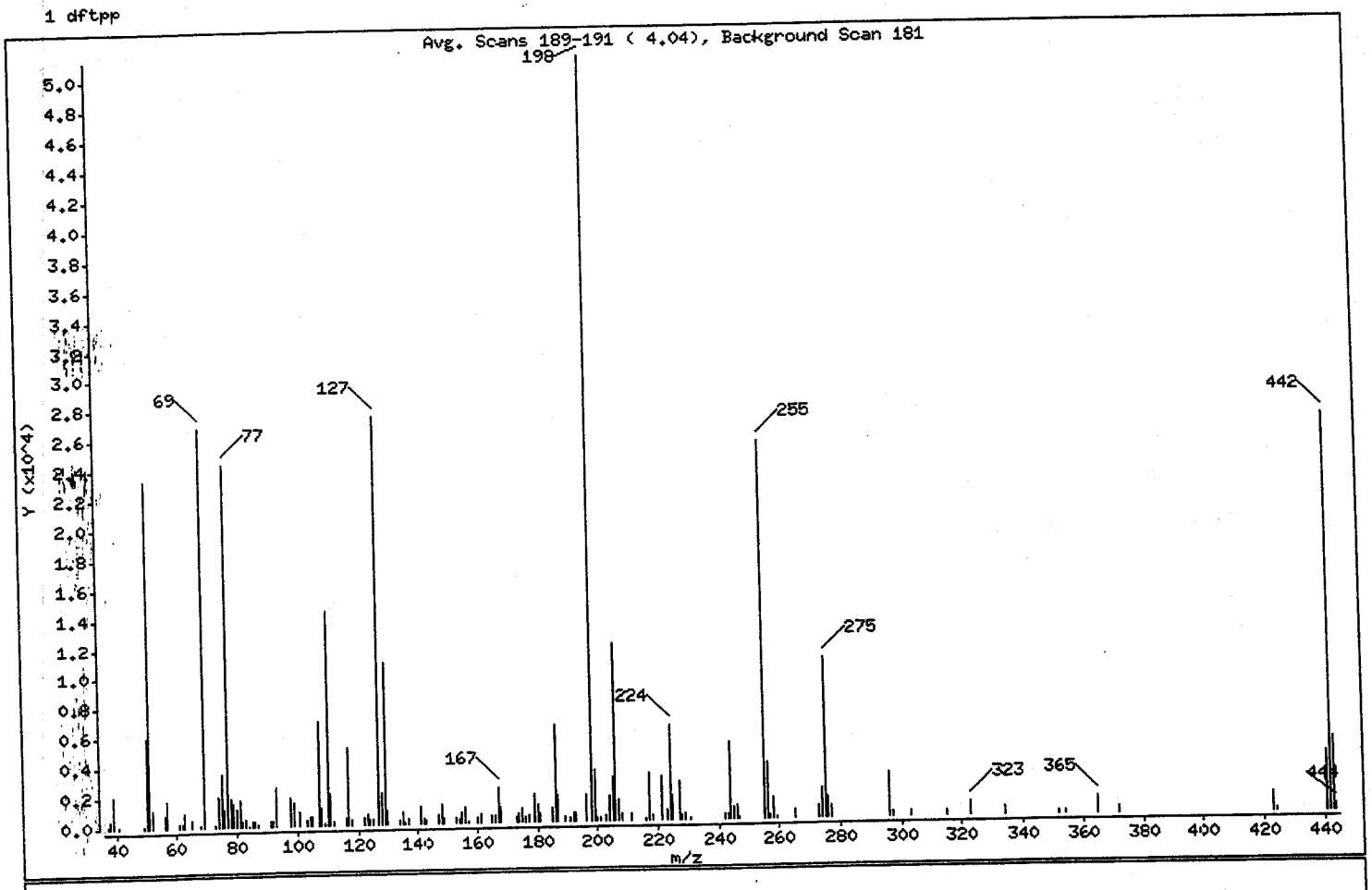
Instrument: MSBNA05.i

Operator: LLH

Column diameter: 0.25

Column phase: Xti 5

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.42
68	Less than 1.99% of mass 69	0.23 (0.44)
69	Mass 69 relative abundance	52.38
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	53.37
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	20.86
365	Greater than 1.00% of mass 198	2.40
441	Present, but less than mass 443	7.84
442	40.00 - 99.99% of mass 198	51.99
443	17.00 - 23.00% of mass 442	9.79 (18.83)

8270-SIM ECL

4/18/05

05/18/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\042605.b\XDQ06.D

Date : 26-APR-2005 18:41

Client ID: dftpp tune std

Instrument: MSBNA05.i

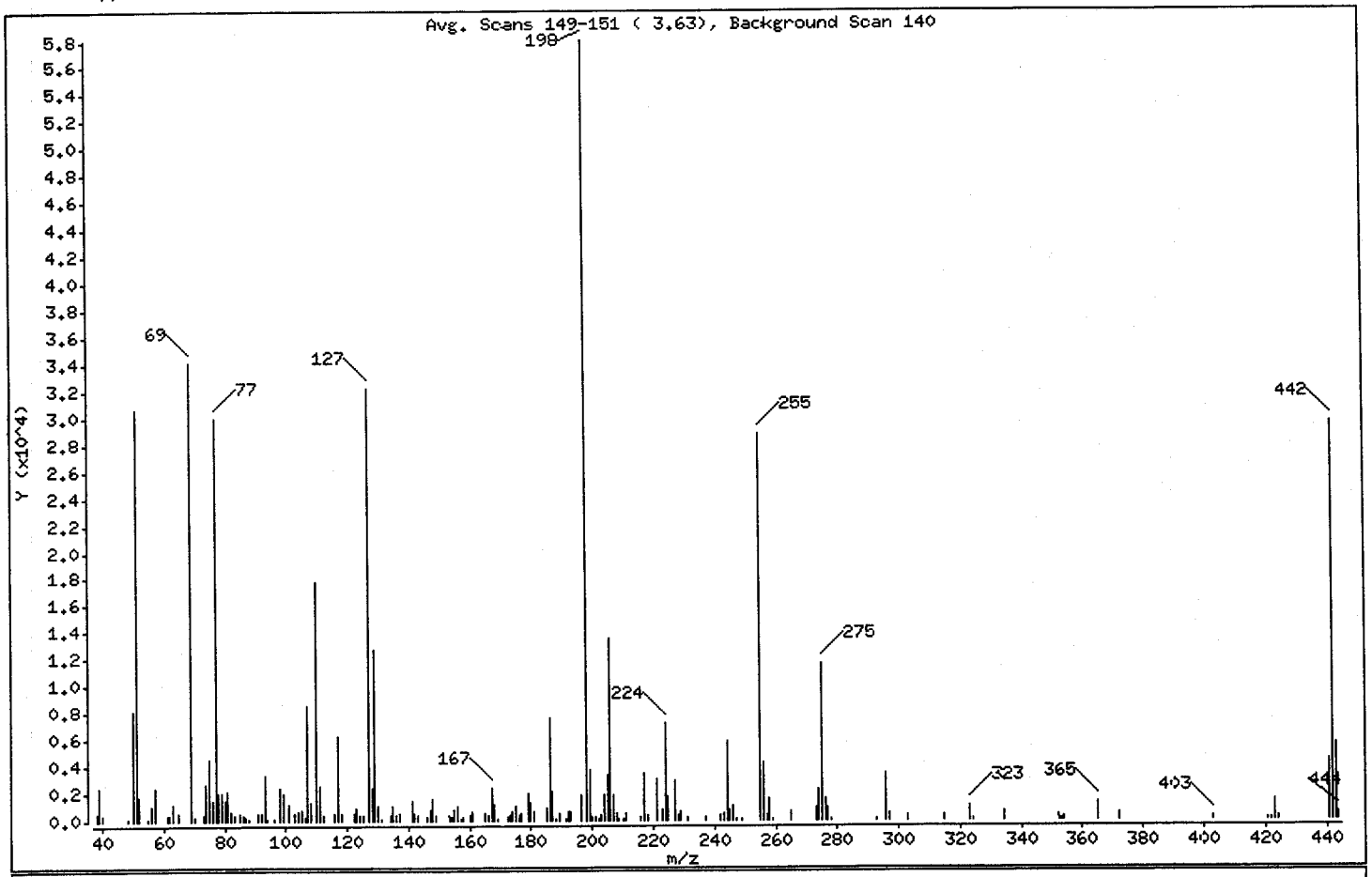
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	52.87
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	58.66
70	Less than 2.00% of mass 69	0.37 (0.63)
127	40.00 - 60.00% of mass 198	55.61
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 30.00% of mass 198	20.07
365	Greater than 1.00% of mass 198	2.34
441	Present, but less than mass 443	7.56
442	40.00 - 99.99% of mass 198	51.03
443	17.00 - 23.00% of mass 442	9.70 (19.00)

4/27/05

4/27/05

BNA0T 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	xdg04	545153296004	0.1ug/mL	16-APR-2005 12:16	05WS0256
2	xdg05	545153296005	0.2ug/mL	16-APR-2005 12:46	05WS0257
3	xdg06	545153296006	0.5ug/mL	16-APR-2005 13:16	05WS0258
4	xdg07	545153296007	1.0ug/mL	16-APR-2005 13:46	05WS0259
5	xdg08	545153296008	2.0ug/mL	16-APR-2005 14:17	05WS0260
6	xdg09	545153296009	5.0ug/mL	16-APR-2005 14:47	05WS0261
7	xdg10	545153296010	10.0ug/mL	16-APR-2005 15:17	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.5083m	0.4658m	0.4593m	0.4615m	0.4155	0.3536m	AVRG	R		2.252186		ng	0.4440	12	0.0500	.99	15	
Naphthalene	1.0823	1.0470	0.9094	0.9002	0.8581	0.8558	0.7962	AVRG	R		1.085426		ng	0.9213	11	0.0500	.99	15	
2-Methylnaphthalene	0.8237	0.8179	0.7193	0.6877	0.6545	0.6353	0.5767	AVRG	R		1.424186		ng	0.7022	13	0.0500	.99	15	
Acenaphthylene	1.9176	1.9272	1.6248	1.6229	1.5218	1.5491	1.4048	AVRG	R		0.605107		ng	1.6526	12	0.0500	.99	15	
Acenaphthene	0.9780	1.0039	0.8880	0.9042	0.8745	0.8961	0.8459	AVRG	R		1.095343		ng	0.9130	6	0.0500	.99	15	
Fluorene	1.2936	1.3343	1.1044	1.0822	1.0251	1.0427	0.9742	AVRG	R		0.890969		ng	1.1224	12	0.0500	.99	15	
Phenanthrene	1.0829	1.0832	0.9129	0.9025	0.8625	0.8733	0.8045	AVRG	R		1.073340		ng	0.9317	12	0.0500	.99	15	
Anthracene	1.0124	1.0089	0.8374	0.8494	0.8074	0.8190	0.7527	AVRG	R		1.149982		ng	0.8696	12	0.0500	.99	15	
Fluoranthene	1.3463	1.3299	1.0908	1.0639	0.9777	0.9745		AVRG	R		0.884534		ng	1.1305	15	0.0500	.99	15	
Pyrene	1.6296	1.5838	1.3203	1.3448	1.2436	1.3168	1.2377	AVRG	R		0.723391		ng	1.3824	11	0.0500	.99	15	
Benzo(a)anthracene	1.4876	1.4402	1.1906	1.1967	1.1234	1.1975	1.0980	AVRG	R		0.801467		ng	1.2477	12	0.0500	.99	15	
Chrysene	1.2222	1.1905	1.0174	1.0425	1.0044	1.0843	1.0109	AVRG	R		0.924429		ng	1.0817	8	0.0500	.99	15	
Benzo(b)fluoranthene	1.5580	1.5462	1.2905	1.2678	1.2143	1.2456	1.2660	AVRG	R		0.745603		ng	1.3412	11	0.0500	.99	15	
Benzo(k)fluoranthene	1.6417	1.5304	1.2891	1.2397	1.2185	1.3772	1.2329	AVRG	R		0.734560		ng	1.3614	12	0.0500	.99	15	
Benzo(a)pyrene	1.2245m	1.3794	1.1580	1.1555	1.0869	1.1538	1.0795	AVRG	R		0.849763		ng	1.1768	9	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.6137	1.5844	1.3125	1.2617	1.2035	1.2739	1.2276	AVRG	R		0.738612		ng	1.3539	13	0.0500	.99	15	
Dibenz(a,h)anthracene	1.3595	1.3309	1.1205	1.0961	1.0463	1.1076	1.0269	AVRG	R		0.865497		ng	1.1554	12	0.0500	.99	15	
Benzo(g,h,i)perylene	1.3844	1.3455	1.1143	1.0875	1.0452	1.0883	1.0182	AVRG	R		0.865962		ng	1.1548	13	0.0500	.99	15	

113

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

4 CCVs OK
5 CCV: 1,4-Dioxane ↑ Curve ED.
2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(b)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ Curve nearing limits

04/18/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545153296002 Name: 5PAHSIM Type: (normal) Date: 16-APR-2005 12:16 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.3672	0.3648	0.3381	0.3529	0.3456	0.3488	0.3162	AVRG	R		2.876322		ng	0.3477	5	0.0500	.99	15	
2-Fluorobiphenyl	1.4858	1.4656	1.2004	1.1696	1.0949	1.1500	1.0726	AVRG	R		0.810301		ng	1.2341	14	0.0500	.99	15	
Terphenyl-d14	1.1218	1.0588	0.8829	0.8901	0.8422	0.9018	0.8230	AVRG	R		1.073507		ng	0.9315	12	0.0500	.99	15	

114

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

nstid : MSBNA05 Run Name : 1.0ug/mL
eqnum : 545153296011 Filename : xdg11 Injected : 16-APR-2005 15:47
alnum : 545153296002 Caldate : 16-APR-2005 Caltype :
tandards: 05WS0244

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.315700	ng	32	30	m v+ ***
Naphthalene	1.000000	1.183700	ng	18	30	
2-Methylnaphthalene	1.000000	1.226800	ng	23	30	!v+
Acenaphthylene	1.000000	1.231800	ng	23	30	!v+
Acenaphthene	1.000000	0.943100	ng	-6	20	m
Fluorene	1.000000	1.193400	ng	19	30	
Phenanthrene	1.000000	1.261100	ng	26	30	!v+
Anthracene	1.000000	1.261900	ng	26	30	!v+
Fluoranthene	1.000000	1.194800	ng	19	20	
Pyrene	1.000000	1.203700	ng	20	30	m
Benzo(a)anthracene	1.000000	1.258100	ng	26	30	!v+
Chrysene	1.000000	1.162800	ng	16	30	
Benzo(b)fluoranthene	1.000000	1.276500	ng	28	30	!v+
Benzo(k)fluoranthene	1.000000	1.169700	ng	17	30	
Benzo(a)pyrene	1.000000	1.124600	ng	12	20	m
Indeno(1,2,3-cd)pyrene	1.000000	1.189900	ng	19	30	
Dibenz(a,h)anthracene	1.000000	1.265500	ng	27	30	!v+
Benzo(g,h,i)perylene	1.000000	1.230800	ng	23	30	!v+

ISTD (CCV=xdg02)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	31768	23536	-25.91	6.44	6.44	0.00
Naphthalene-d8	95273	82425	-13.49	7.96	7.94	-0.02
Acenaphthene-d10	52843	44789	-15.24	10.21	10.21	0.00
Phenanthrene-d10	88159	70817	-19.67	12.12	12.12	0.00
Chrysene-d12	71234	53929	-24.29	15.79	15.79	0.00
Perylene-d12	66280	47612	-28.17	17.78	17.78	0.00

4/18/05

!=warning +=high bias m=manual integration v=ICV
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05
Seqnum : 545167721007
Calnum : 545153296002
Standards: 05WS0260

Run Name :
Filename : xdq07
Caldate : 16-APR-2005

IDF : 1.0
Injected : 26-APR-2005 19:00
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4440	0.5010	2.000000	2.256500	ng	13	30	0.0500	
Naphthalene	0.9213	0.8945	2.000000	1.941800	ng	-3	30	0.0500	
2-Methylnaphthalene	0.7022	0.5995	2.000000	1.707500	ng	-15	30	0.0500	
Acenaphthylene	1.6526	1.4988	2.000000	1.813800	ng	-9	30	0.0500	
Acenaphthene	0.9130	0.8515	2.000000	1.865500	ng	-7	20	0.0500	
Fluorene	1.1224	1.0002	2.000000	1.782400	ng	-11	30	0.0500	
Phenanthrene	0.9317	0.8486	2.000000	1.821700	ng	-9	30	0.0500	
Anthracene	0.8696	0.8119	2.000000	1.867300	ng	-7	30	0.0500	
Fluoranthene	1.1305	0.9685	2.000000	1.713400	ng	-14	20	0.0500	
Pyrene	1.3824	1.2323	2.000000	1.782900	ng	-11	30	0.0500	
Benzo(a)anthracene	1.2477	1.1229	2.000000	1.799900	ng	-10	30	0.0500	
Chrysene	1.0817	0.9907	2.000000	1.831600	ng	-8	30	0.0500	
Benzo(b)fluoranthene	1.3412	1.1848	2.000000	1.766800	ng	-12	30	0.0500	
Benzo(k)fluoranthene	1.3614	1.0612	2.000000	1.559000	ng	-22	30	0.0500	!c-
Benzo(a)pyrene	1.1768	1.0528	2.000000	1.789200	ng	-11	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.3539	1.1534	2.000000	1.703800	ng	-15	30	0.0500	
Dibenz(a,h)anthracene	1.1554	1.0050	2.000000	1.739600	ng	-13	30	0.0500	
Benzo(g,h,i)perylene	1.1548	1.0137	2.000000	1.755700	ng	-12	30	0.0500	
Nitrobenzene-d5	0.3477	0.3315	2.000000	1.907100	ng	-5	30	0.0500	
2-Fluorobiphenyl	1.2341	1.0462	2.000000	1.695400	ng	-15	30	0.0500	
Terphenyl-d14	0.9315	0.8375	2.000000	1.798100	ng	-10	30	0.0500	

11/27/06

MDW
4/27/06

!=warning -=low bias c=CCV
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 26-APR-2005
Sequence: 545167721 (xdq)
Instrument ID: MSBNA05

CCV Filename: xdq07
Date Analyzed: 26-APR-2005
Time Analyzed: 19:00

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	33958	5.98	125373	7.47	68435	9.69	111594	11.59	87982	15.19	82821	17.15
LOWER LIMIT	16979	5.48	62687	6.97	34218	9.19	55797	11.09	43991	14.69	41411	16.65
UPPER LIMIT	67916	6.48	250746	7.97	136870	10.19	223188	12.09	175964	15.69	165642	17.65

TYPE	SAMPLE	#											
CCV		007	33958	5.98	125373	7.47	68435	9.69	111594	11.59	87982	15.19	82821	17.15
BLANK	QC291715	019	29532	5.99	121255	7.47	66541	9.69	100839	11.59	86252	15.19	69303	17.16
LCS	QC291716	020	28370	5.99	113699	7.47	60411	9.69	96541	11.59	75334	15.19	65013	17.16
SAMPLE	179028-004	021	29976	5.99	120051	7.47	67932	9.69	99561	11.59	80442	15.20	53335	17.18
MSS	179049-001	022	27777	5.98	112461	7.47	62652	9.69	95510	11.59	78021	15.19	61664	17.16
MS	QC291717	023	25428	5.99	103325	7.47	56306	9.69	86440	11.59	67948	15.19	42344	17.16
MSD	QC291718	024	25056	5.98	101920	7.47	55023	9.69	85085	11.59	66647	15.19	51913	17.16
SAMPLE	179022-001	025	26564	5.98	106614	7.47	60944	9.69	91309	11.59	73772	15.19	55110	17.16
SAMPLE	179028-002	026	26654	5.99	106568	7.47	58061	9.69	83965	11.59	63084	15.20	26826*	17.20
SAMPLE	179028-006	027	21882	5.99	88509	7.47	47022	9.69	68156	11.59	49074	15.21	19497*	17.20

* = Outside QC Limits

ISNA05 8270 SIM Calibration

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545153296 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 16-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
001	xdg01	CCV				16-APR-2005 10:56	1.0	1.0	21		1	1 ?t 13:NO2BZD=12.8892	
002	xdg02	CCV				16-APR-2005 11:33	1.0	1.0	21		1	1 ?t cc- 3:NO2BZD=11.112	
003	xdg03	TUN	NP NL			16-APR-2005 11:59	1.0	1.0				2	
004	xdg04	ICAL	0.1ug/mL			16-APR-2005 12:16	1.0	1.0				3	
005	xdg05	ICAL	0.2ug/mL			16-APR-2005 12:46	1.0	1.0				4	
006	xdg06	ICAL	0.5ug/mL			16-APR-2005 13:16	1.0	1.0				5	
007	xdg07	ICAL	1.0ug/mL			16-APR-2005 13:46	1.0	1.0				6	
008	xdg08	CCV	2.0ug/mL			16-APR-2005 14:17	1.0	1.0			1	7	
009	xdg09	ICAL	5.0ug/mL			16-APR-2005 14:47	1.0	1.0				8	
010	xdg10	ICAL	10.0ug/mL			16-APR-2005 15:17	1.0	1.0				1	
011	xdg11	ICV	1.0ug/mL			16-APR-2005 15:47	1.0	1.0	1		1	9	
012	xdg12	BLANK	QC290649	101215	Soil	16-APR-2005 16:17	1.0	0.03297			1	10	
013	xdg13	LCS	QC290650	101215	Soil	16-APR-2005 16:47	1.0	0.0333			1	10	
014	xdg14	SAMPLE	178762-005	101215	Soil	16-APR-2005 17:18	2.0	0.03309			1	10	
015	xdg15	SAMPLE	178762-006	101215	Soil	16-APR-2005 17:48	1.0	0.03324			1	10	118
016	xdg16	SAMPLE	178762-009	101215	Soil	16-APR-2005 18:18	1.0	0.03282			1	10	
017	xdg17	SAMPLE	178762-008	101215	Soil	16-APR-2005 18:48	2.0	0.0331		1	1	10	
018	xdg18	SAMPLE	178762-010	101215	Soil	16-APR-2005 19:19	2.0	0.03311			1	10	
019	xdg19	SAMPLE	178762-011	101215	Soil	16-APR-2005 19:49	1.0	0.03317			1	10	
020	xdg20	X	ENDBLANK			16-APR-2005 20:19	1.0						
021	xdg21	X	ENDBLANK			16-APR-2005 20:42	1.0						
022	xdg22	X	ENDBLANK			16-APR-2005 20:52	1.0						

ICAL: OK
ICV: 1,4-Dioxane ↑ Cal's OK
- 2-Methylnaphthalene ↑; Acenaphthylene ↑; Phenanthrene ↑; Anthracene ↑; Benzo(a)anthracene ↑; Benzo(a)fluoranthene ↑; Dibenz(a,h)anthracene ↑; Benzo(g,h,i)perylene ↑ bel reporting limits

Stds used: 1=05WS0262 2=05WS0188 3=05WS0256 4=05WS0257 5=05WS0258 6=05WS0259 7=05WS0260 8=05WS0261 9=05WS0244 10=S266
Flags used: -=low bias ?t=missing tune cc=CCV CCC failure

Analyst: _____ Date: 4/18/05

04/18/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545167721 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 26-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK uL	Stds Used	>LR
001	xdq01	TUN	DFTTP 50NG			26-APR-2005 11:21	1.0	1.0			1	
002	xdq02	CCV				26-APR-2005 11:40	1.0	1.0	8	1	2	5:BBP=85.8913
003	xdq03	CCV				26-APR-2005 12:17	1.0	1.0		1	3	
004	xdq04	SAMPLE	178835-001	101384	Soil	26-APR-2005 13:11	1.0	0.033	3	1	4	3:NO2BZD=25.4053
005	xdq05	SAMPLE	178835-003	101384	Soil	26-APR-2005 13:42	1.0	0.03291	3	1	4	3:NO2BZD=24.6337
006	xdq06	TUN	NP NL			26-APR-2005 18:41	1.0	1.0			1	
007	xdq07	CCV				26-APR-2005 19:00	1.0	1.0		1	5	
008	xdq08	ICAL	2 ug/mL			26-APR-2005 19:32	1.0	1.0			6	
009	xdq09	ICAL	5 ug/mL			26-APR-2005 20:09	1.0	1.0			7	
010	xdq10	ICAL	10 ug/mL			26-APR-2005 20:46	1.0	1.0			8	
011	xdq11	ICAL	20 ug/mL			26-APR-2005 21:24	1.0	1.0			9	
012	xdq12	ICAL	50 ug/mL			26-APR-2005 22:01	1.0	1.0			10	
013	xdq13	ICAL	80 ug/mL			26-APR-2005 22:38	1.0	1.0			2	
014	xdq14	ICAL	100 ug/mL			26-APR-2005 23:16	1.0	1.0			11	
015	xdq15	ICAL	120 ug/mL			26-APR-2005 23:54	1.0	1.0			12	
016	xdq16	ICAL	160 ug/mL			27-APR-2005 00:32	1.0	1.0			13	
017	xdq17	X	S249			27-APR-2005 01:10	1.0					
018	xdq18	ICV	80 ug/mL			27-APR-2005 01:48	1.0	1.0	1	1	14	
019	xdq19	BLANK	QC291715	101491	Soil	27-APR-2005 02:27	1.0	0.03288		1	4	
020	xdq20	LCS	QC291716	101491	Soil	27-APR-2005 02:58	1.0	0.0332		1	4	
021	xdq21	SAMPLE	179028-004	101491	Soil	27-APR-2005 03:30	1.0	0.1656		1	4	
022	xdq22	MSS	179049-001	101491	Soil	27-APR-2005 04:01	2.0	0.03292		1	4	
023	xdq23	MS	QC291717	101491	Soil	27-APR-2005 04:32	2.0	0.03296		1	4	
024	xdq24	MSD	QC291718	101491	Soil	27-APR-2005 05:03	2.0	0.03329		1	4	
025	xdq25	SAMPLE	179022-001	101491	Soil	27-APR-2005 05:35	1.0	0.1676		1	4	
026	xdq26	SAMPLE	179028-002	101491	Soil	27-APR-2005 06:07	1.0	0.1688		1	4	
027	xdq27	SAMPLE	179028-006	101491	Soil	27-APR-2005 06:38	1.0	0.1676		1	4	
028	xdq28	X	ENDBLANK			27-APR-2005 07:01	1.0					
029	xdq29	X	ENDBLANK			27-APR-2005 07:11	1.0					
030	xdq30	X	ENDBLANK			27-APR-2005 07:22	1.0					

8270-full ICAL

119

Stds used: 1=05WS0188 2=S240 3=05WS0259 4=S266 5=05WS0260 6=S235 7=S236 8=S237 9=S238 10=S239 11=S241 12=S242 13=S244 14=S246

Analyst: _____ Date: 4/27/05

Page 1 of 1

CCV: Ok
- Benzo(k)fluoranthene & fluorene missing limits

BCCV: Ok

FCV: Ok

ICV - wL (cont.) - Dibenz(a,h)anthracene ↑
Benzo(g,h,i)perylene ↑

1,4 - dioxane fails ↑ Y.D

wL - 2-methylnaphthalene ↑, Acenaphthylene, Phenanthrene ↑, Anthracene ↑, Benzo(b)Fluoranthene ↑

Benzo(a)anthracene ↑

Curtis & Tompkins Laboratories Sample Preparation Summary 26-APR-2005 19:29

Batch Number : 101491
Date Extracted: 26-APR-2005
Extracted by : Brook N. Buswell
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S369A
Spike #2 ID : S212C
Spike #3 ID : S168A
SOP Version : 8270_SIM_rv0

Sample	Type	Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179022-001		Montezuma Wetlands LLC	Soil	29.83	g	5	0.167616	1		1	0	0	8270-SIM		
179028-001		MWH	Soil	29.68	g	1	0.033693	1		1	0	0	8270-SIM		
179028-002		MWH	Soil	29.62	g	5	0.168805	1		1	0	0	8270-SIM		
179028-003		MWH	Soil	30.21	g	5	0.165508	1		1	0	0	8270-SIM		
179028-004		MWH	Soil	30.19	g	5	0.165618	1		1	0	0	8270-SIM		
179028-005		MWH	Soil	30.28	g	1	0.033025	1		1	0	0	8270-SIM		
179028-006		MWH	Soil	29.83	g	5	0.167616	1		1	0	0	8270-SIM		
179028-007		MWH	Soil	29.63	g	1	0.033750	1		1	0	0	8270-SIM		
179028-008		MWH	Soil	29.93	g	1	0.033411	1		1	0	0	8270-SIM		
179049-001		Mactec, Inc.	Soil	30.38	g	1	0.032916	1		1	0	0	8270-SIM		mss
QC291715	MB		Soil	30.41	g	1	0.032884	1		1	0	0	8270-SIM		
QC291716	LCS		Soil	30.12	g	1	0.033201	1		1	1	.1	8270-SIM		
QC291717	MS	of 179049-001	Soil	30.34	g	1	0.032960	1		1	1	.1	8270-SIM		
QC291718	MSD	of 179049-001	Soil	30.04	g	1	0.033289	1		1	1	.1	8270-SIM		

120

Prep Chemist: _____ Reviewed By: _____ Date: 27Apr05

Relinquished By: _____ Received By: _____ Date: 11/7/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 16 of 100

LIMS Batch No: 10491 Extraction Method:
LIMS Analysis 8270-sim ☑ EPA 3550b Sonication
Extracted by: TSZ ☐ EPA 3540c Soxhlet
Date Extracted: 4/26/05 ☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	179028-001	29.68	1.0		
	2	29.62	5.0		*
	3	30.21	↓		*
	4	30.19	↓		*
5	5	30.28	1.0		
	6	29.85	5.0		*
	7	29.63	1.0		
	8	29.93	1.0		
	179022-001	29.83	5.0		*
10	179049-001	30.38	1.0		MSS
	MS BC29715	30.41			
	LCS 6	30.12			
	MS 7	30.34			
	MSD ↓ 4	30.09	1.0		
15					
					BS 4/26/05
20					

WOULDN'T CONCENTRATE

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	FSN 49258	BS 4/26/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	FSN 4913545 3	
1.0 mL of surrogate solution was added to all samples	5369A	
1.0 ~~2.0~~ 1.0 mL of matrix spiking solution was added to all spikes 5369 BS/MS	5212C 5368A	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	FSN 45005	
Acetone	FSN 45019	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:		
soxhlets off at:	NA	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	FSN 4913545 3	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	J	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	NA	
Concentrated to final volumes as noted above	J	

4/26/05

Extraction Chemist / Date

Continued from page _____
Continued on page 121

Reviewed by / Date

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
178982-001B	50.14	TEH	
-002	50.20		
-003	50.00		
-004	50.23		
178982-001B	15.03	PCB	
-002	15.07		
-003	15.09		MSS
-MS	15.02		178982-003B
-MSD	15.06		↓
-LCS	15.06		EM44258
-MB	15.18		↓
-004B	15.05		
178982-001B	15.06	8081	
-002	15.13		
-003	15.12		
-004	15.24		MSS
-MS	15.00		178982-004B
-MSD	15.03		↓
-LCS	15.17		EM44258
-MB	15.04		↓
179011-001B	15.03	PCB	
179011-001B	15.16	8081	
179012-001B	15.13	PCB	
179012-001B	15.20	8081	
179014-001B	15.22	PCB	
179014-001B	15.11	8081	
179029-001B	30.09	8270	
179029-001B	15.07	PCB	
179029-001B	15.21	8081	
179049-001B	50.27	TEH	
179049-001B	15.18	PCB	
179049-001B	30.38	8270-SIM	MSS
-MS	30.34		179049-001B
-MSD	30.04		↓
-LCS	30.12		EM44258
-MB	30.41		↓

Continued on Page

Signed — Date 4/25/05 122 — Read and Understood By: Signed — Date

Curtis & Tompkins, Ltd.

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179049	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP106(5.0)	Basis:	dry
Lab ID:	179049-001	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	mg/Kg		

Moisture: 33%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	35	0.38	0.091	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	230	3.8	1.2	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Barium	610	3.8	0.38	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.51	0.38	0.079	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	28	0.38	0.016	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Chromium	42	0.38	0.079	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	74	3.8	0.053	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Copper	2,200	38	15	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Lead	1,700	38	1.2	500.0	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Mercury	7.7	0.52	0.099	25.00	101443	04/25/05	04/25/05	METHOD	EPA 7471A
Molybdenum	84	3.8	0.079	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Nickel	240	4.5	4.5	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Selenium	2.2	0.38	0.15	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Silver	2.6	0.38	0.0049	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.53	0.38	0.019	5.000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	110	3.8	2.2	50.00	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020
Zinc	73,000	750	170	10,000	101496	04/27/05	05/10/05	EPA 3050B	EPA 6020

RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC291518	Batch#:	101443
Matrix:	Soil	Prepared:	04/25/05
Units:	mg/Kg	Analyzed:	04/25/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC291742	Batch#:	101496
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	05/09/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	0.25	0.056

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101443
Units:	mg/Kg	Prepared:	04/25/05
Basis:	as received	Analyzed:	04/25/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC291519	0.5000	0.5080	102	80-120		
BSD	QC291520	0.5000	0.4940	99	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101496
Units:	mg/Kg	Prepared:	04/27/05
Basis:	as received	Analyzed:	05/09/05
Diln Fac:	5.000		

Type: BS Lab ID: QC291743

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	23.09	92	80-120
Arsenic	25.00	23.76	95	80-120
Barium	25.00	23.36	93	80-120
Beryllium	25.00	23.63	95	80-120
Cadmium	25.00	25.98	104	80-120
Chromium	25.00	23.88	96	80-120
Cobalt	25.00	24.19	97	80-120
Copper	25.00	25.50	102	80-120
Lead	25.00	24.00	96	80-120
Molybdenum	25.00	24.35	97	80-120
Nickel	25.00	24.89	100	80-125
Selenium	25.00	24.11	96	80-120
Silver	25.00	25.24	101	80-120
Thallium	25.00	23.15	93	66-120
Vanadium	25.00	23.66	95	80-120
Zinc	25.00	24.61	98	80-120

Type: BSD Lab ID: QC291744

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.47	94	80-120	2	20
Arsenic	25.00	23.81	95	80-120	0	20
Barium	25.00	23.09	92	80-120	1	20
Beryllium	25.00	23.74	95	80-120	0	20
Cadmium	25.00	25.74	103	80-120	1	20
Chromium	25.00	23.81	95	80-120	0	20
Cobalt	25.00	24.25	97	80-120	0	20
Copper	25.00	25.54	102	80-120	0	20
Lead	25.00	24.10	96	80-120	0	20
Molybdenum	25.00	24.32	97	80-120	0	20
Nickel	25.00	24.95	100	80-125	0	20
Selenium	25.00	24.04	96	80-120	0	20
Silver	25.00	25.21	101	80-120	0	20
Thallium	25.00	23.64	95	66-120	2	20
Vanadium	25.00	23.71	95	80-120	0	20
Zinc	25.00	24.58	98	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	101443
MSS Lab ID:	179062-004	Sampled:	04/22/05
Matrix:	Soil	Received:	04/22/05
Units:	mg/Kg	Prepared:	04/25/05
Basis:	dry	Analyzed:	04/25/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC291521	<0.004816	0.5526	0.5581	101	64-139	22%		
MSD	QC291522		0.6047	0.6132	101	64-139	22%	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	05/10/05

Type: MS Moisture: 9%
Lab ID: QC291745

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.2681	25.68	9.156	35	28-120	5.000
Arsenic	2.626	25.68	24.21	84	70-120	5.000
Barium	28.47	25.68	48.81	79	46-165	50.00
Beryllium	0.1321	25.68	22.76	88	72-120	5.000
Cadmium	0.1278	25.68	24.26	94	74-120	5.000
Chromium	103.5	25.68	126.8	91 NM	45-160	50.00
Cobalt	10.73	25.68	37.89	106	62-136	5.000
Copper	28.23	25.68	35.11	27 *	47-164	5.000
Lead	8.077	25.68	26.35	71	60-140	5.000
Molybdenum	0.3315	25.68	22.55	87	74-120	5.000
Nickel	68.52	25.68	96.28	108	51-172	50.00
Selenium	0.2638	25.68	21.77	84	66-120	5.000
Silver	0.01765	25.68	23.53	92	74-120	5.000
Thallium	0.1303	25.68	22.55	87	57-120	5.000
Vanadium	65.66	25.68	89.09	91	19-177	50.00
Zinc	35.66	25.68	46.98	44	39-166	5.000

Type: MSD Moisture: 9%
Lab ID: QC291746

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	20.81	7.405	34	28-120	0	24	5.000
Arsenic	20.81	20.15	84	70-120	1	20	5.000
Barium	20.81	42.17	66	46-165	5	23	50.00
Beryllium	20.81	18.32	87	72-120	1	20	5.000
Cadmium	20.81	19.78	94	74-120	0	20	5.000
Chromium	20.81	126.9	113 NM	45-160	4	29	50.00
Cobalt	20.81	29.10	88	62-136	12	20	5.000
Copper	20.81	25.84	-12 *	47-164	21	21	5.000
Lead	20.81	20.90	62	60-140	8	24	5.000
Molybdenum	20.81	18.41	87	74-120	0	20	5.000
Nickel	20.81	85.58	82	51-172	6	22	50.00
Selenium	20.81	17.61	83	66-120	0	20	5.000
Silver	20.81	19.28	93	74-120	1	20	5.000
Thallium	20.81	18.32	87	57-120	0	20	5.000
Vanadium	20.81	80.17	70	19-177	5	30	50.00
Zinc	20.81	39.73	20 *	39-166	8	33	5.000

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Basis:	dry
Type:	Serial Dilution	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Lab ID:	QC291747	Received:	04/12/05
Matrix:	Soil	Analyzed:	05/10/05
Units:	mg/Kg		

Moisture: 9%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.2681	0.2747	0.3727 J	1.374		10	25.00
Arsenic	2.626	0.2747	2.658	1.374		10	25.00
Barium	28.47	0.2747	27.87	1.374	2	10	25.00
Beryllium	0.1321	0.2747	ND	1.374		10	25.00
Cadmium	0.1278	0.2747	0.1395 J	1.374		10	25.00
Chromium	103.5	2.747	100.8	6.868	3	10	250.0
Cobalt	10.73	0.2747	10.71	1.374	0	10	25.00
Copper	28.23	0.2747	28.54	1.374	1	10	25.00
Lead	8.077	0.2747	7.868	1.374	3	10	25.00
Molybdenum	0.3315	0.2747	0.3497 J	6.868	5	10	25.00
Nickel	68.52	3.259	68.24	27.47		10	250.0
Selenium	0.2638	0.2747	1.206 J	1.374		10	25.00
Silver	0.01765	0.2747	ND	1.374		10	25.00
Thallium	0.1303	0.2747	0.1752 J	1.374		10	25.00
Vanadium	65.66	2.747	62.03	13.74		10	250.0
Zinc	35.66	0.2747	36.21	5.495	2	10	25.00

J= Estimated value
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547111	Seqnum : 55186547115
Filename : e0913111	Filename : e0913115
IDF : 5.0	IDF : 5.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 00:00	Inj : 10-MAY-2005 00:23
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.9760	100.0	91.52	91	75-125	u
Arsenic	9.560	100.0	103.9	94	75-125	u
Barium	103.6	100.0	195.0	91	75-125	u
Beryllium	0.4808	100.0	96.62	96	75-125	u
Cadmium	0.4652	100.0	104.9	104	75-125	u
Calcium	11330	10000	19640	83	75-125	y
Chromium	*** usable MSS data not found ***					
Cobalt	39.04	100.0	138.1	99	75-125	u
Copper	102.8	100.0	121.6	**19***	75-125	u
Iron	*** usable MSS data not found ***					
Lead	29.40	100.0	106.2	77	75-125	u
Magnesium	8856	10000	17790	89	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	1.207	100.0	99.70	98	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1252	10000	10240	90	75-125	
Selenium	0.9604	100.0	96.42	95	75-125	u
Silver	0.06424	100.0	101.9	102	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.4742	100.0	96.76	96	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	129.8	100.0	182.6	**53***	75-125	u

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	320352	-16.41
Scandium	566573	539934	-4.70
Germanium	161713	144243	-10.80
Indium	1281904	1209012	-5.69
Bismuth	1275587	1160840	-9.00

u=use y=RL raised
Page 1 of 1

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547137	Seqnum : 55186547141
Filename : e0913137	Filename : e0913141
IDF : 50.0	IDF : 50.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 02:31	Inj : 10-MAY-2005 02:55
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	10.00	8.656	87	75-125	
Arsenic	0.9588	10.00	10.08	91	75-125	
Barium	10.12	10.00	18.42	83	75-125	
Beryllium	ND	10.00	9.382	94	75-125	
Cadmium	0.05072	10.00	10.77	107	75-125	
Calcium	1170	1000	2056	89	75-125	y
Chromium	37.66	10.00	45.92	83	75-125	u y
Cobalt	3.798	10.00	13.27	95	75-125	
Copper	10.26	10.00	12.29	**20***	75-125	
Iron	9214	1000	9894	68	75-125	: y
Lead	2.916	10.00	9.714	**68***	75-125	
Magnesium	966.4	1000	2060	109	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	ND	10.00	9.734	97	75-125	
Nickel	24.94	10.00	30.54	**56***	75-125	u
Potassium	154.6	1000	1130	98	75-125	
Selenium	0.4678	10.00	9.690	92	75-125	
Silver	ND	10.00	10.48	105	75-125	
Sodium	ND	1000	998.8	100	75-125	
Thallium	ND	10.00	8.488	85	75-125	
Vanadium	23.90	10.00	32.46	86	75-125	u
Zinc	*** usable MSS data not found ***					

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	301271	-21.39
Scandium	566573	431776	-23.79
Germanium	161713	126413	-21.83
Indium	1281904	1137692	-11.25
Bismuth	1275587	1123206	-11.95

:=recovery not meaningful u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179049 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
179049-001	MET04	04/25/05 20:46	1.0																		
179049-001	MET04	04/25/05 21:23	25.0										+								
179049-001	MET05	05/10/05 01:21	5.0	+			+	+	+							+	+	+			
179049-001	MET05	05/10/05 03:54	50.0		+	+				+				+	+				+		
179049-001	MET05	05/10/05 15:41	500.0								+	+									
179049-001	MET05	05/10/05 16:13	10000																	+	
QC291518	MET04	04/25/05 20:15	1.0										+								
QC291519	MET04	04/25/05 20:17	1.0										+								
QC291520	MET04	04/25/05 20:20	1.0										+								
QC291521	MET04	04/25/05 20:25	1.0										+								
QC291522	MET04	04/25/05 20:27	1.0										+								
QC291742	MET05	05/09/05 23:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC291743	MET05	05/09/05 23:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC291744	MET05	05/09/05 23:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC291745	MET05	05/10/05 00:12	5.0	+	+		+	+		+	+	+		+		+	+	+		+	
QC291745	MET05	05/10/05 02:43	50.0			+			+						+				+		
QC291746	MET05	05/10/05 00:18	5.0	+	+		+	+		+	+	+		+		+	+	+		+	
QC291746	MET05	05/10/05 02:49	50.0			+			+						+				+		
QC291747	MET05	05/10/05 00:06	25.0	+	+	+	+	+		+	+	+		+		+	+	+		+	
QC291747	MET05	05/10/05 02:37	250.0						+						+				+		
QC291748	MET05	05/10/05 00:23	5.0	+	+	+	+	+		+	+	+		+		+	+	+		+	
QC291748	MET05	05/10/05 02:55	50.0						+						+				+		

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45166810 Instrument: MET04 HydraAA HG Analyzer Begun: 25-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101443	CCV					25-APR-2005 20:10	1.0	1.0	1	5.000	45166724001	4.990		ug/L	100		
002	101443	CCB					25-APR-2005 20:12	1.0	1.0			45166724001	ND	0.20	ug/L			
003	101443	BLANK	QC291518		101443	Soil	25-APR-2005 20:15	1.0	100.0			45166724001	ND	0.020	mg/Kg			u
004	101443	BS	QC291519		101443	Soil	25-APR-2005 20:17	1.0	100.0		0.5000	45166724001	0.5080	0.020	mg/Kg	102		u
005	101443	BSD	QC291520		101443	Soil	25-APR-2005 20:20	1.0	100.0		0.5000	45166724001	0.4940	0.020	mg/Kg	99	3	u
006	101443	MSS	179062-004		101443	Soil	25-APR-2005 20:22	1.0	98.04			45166724001	ND	0.020	mg/Kg			u
007	101443	MS	QC291521	179062-004	101443	Soil	25-APR-2005 20:25	1.0	86.21		0.4310	45166724001	0.4353	0.017	mg/Kg	101		u
008	101443	MSD	QC291522	179062-004	101443	Soil	25-APR-2005 20:27	1.0	94.34		0.4717	45166724001	0.4783	0.019	mg/Kg	101	0	u
009	101443	X	178065-008		101443	Soil	25-APR-2005 20:29	1.0	100.0									
010	101443	SAMPLE	179011-001		101443	Soil	25-APR-2005 20:31	1.0	83.33			45166724001	0.093	0.017	mg/Kg			u
011	101443	SAMPLE	179012-001		101443	Soil	25-APR-2005 20:34	1.0	98.04			45166724001	0.59	0.020	mg/Kg			u
012	101443	SAMPLE	179014-001		101443	Soil	25-APR-2005 20:36	1.0	92.59			45166724001	0.17	0.019	mg/Kg			u
013	101443	CCV					25-APR-2005 20:38	1.0	1.0	2	2.500	45166724001	2.430		ug/L	97		
014	101443	CCB					25-APR-2005 20:41	1.0	1.0			45166724001	ND	0.20	ug/L			
015	101443	SAMPLE	179029-001		101443	Soil	25-APR-2005 20:43	1.0	113.6			45166724001	ND	0.023	mg/Kg			u
016	101443	SAMPLE	179049-001		101443	Soil	25-APR-2005 20:46	1.0	69.44			45166724001	4.2 >LR	0.014	mg/Kg			! >LR c
017	101443	SAMPLE	179060-002		101443	Soil	25-APR-2005 20:48	1.0	87.72			45166724001	ND	0.018	mg/Kg			u
018	101443	SAMPLE	179060-003		101443	Soil	25-APR-2005 20:51	1.0	90.91			45166724001	0.018	0.018	mg/Kg			u
019	101443	SAMPLE	179061-002		101443	Soil	25-APR-2005 20:53	1.0	94.34			45166724001	0.0091 J	0.019	mg/Kg			u
020	101443	SAMPLE	179061-003		101443	Soil	25-APR-2005 20:56	1.0	83.33			45166724001	0.018	0.017	mg/Kg			u
021	101443	SAMPLE	179062-001		101443	Soil	25-APR-2005 20:58	1.0	104.2			45166724001	0.012 J	0.021	mg/Kg			u
022	101443	SAMPLE	179062-002		101443	Soil	25-APR-2005 21:00	1.0	104.2			45166724001	0.0064 J	0.021	mg/Kg			u
023	101443	SAMPLE	179062-003		101443	Soil	25-APR-2005 21:03	1.0	113.6			45166724001	ND	0.023	mg/Kg			u
024	101443	SAMPLE	179062-005		101443	Soil	25-APR-2005 21:05	1.0	83.33			45166724001	0.0055 J	0.017	mg/Kg			u
025	101443	CCV					25-APR-2005 21:07	1.0	1.0	1	5.000	45166724001	5.290		ug/L	106		
026	101443	CCB					25-APR-2005 21:09	1.0	1.0			45166724001	ND	0.20	ug/L			
027	101443	SAMPLE	179065-001		101443	Soil	25-APR-2005 21:12	1.0	113.6			45166724001	0.027	0.023	mg/Kg			u
028	101443	SAMPLE	179065-002		101443	Soil	25-APR-2005 21:14	1.0	104.2			45166724001	0.021	0.021	mg/Kg			u
029	101443	SAMPLE	179065-003		101443	Soil	25-APR-2005 21:16	1.0	104.2			45166724001	ND	0.021	mg/Kg			u
030	101443	SAMPLE	179065-004		101443	Soil	25-APR-2005 21:19	1.0	94.34			45166724001	ND	0.019	mg/Kg			u
031	101443	SAMPLE	179065-005		101443	Soil	25-APR-2005 21:21	1.0	108.7			45166724001	ND	0.022	mg/Kg			u
032	101443	SAMPLE	179049-001		101443	Soil	25-APR-2005 21:23	25.0	69.44			45166724001	5.2	0.35	mg/Kg			u
033	101443	CCV					25-APR-2005 21:26	1.0	1.0	3	7.500	45166724001	7.800		ug/L	104		
034	101443	CCB					25-APR-2005 21:28	1.0	1.0			45166724001	ND	0.20	ug/L			

Stds used: 1=S384 2=S383 3=S385
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: [signature] Date: 4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45166724001 Name: Type: SOIL Date: 25-APR-2005 18:44 Inj Vol (uL): 2000

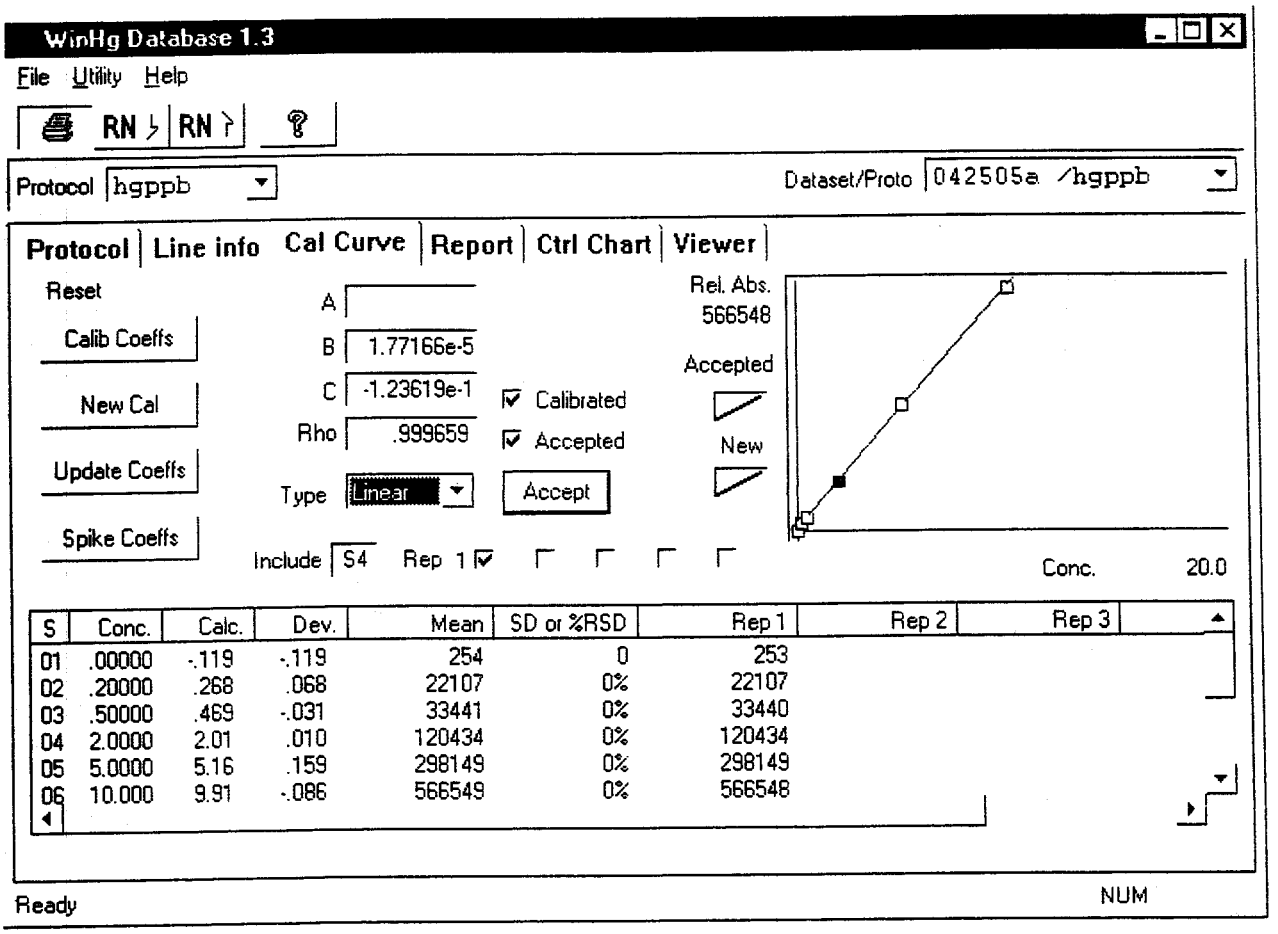
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101449	45166724002	Std02Rep1	25-APR-2005 18:47	S380 (500X)
2	101449	45166724003	Std03Rep1	25-APR-2005 18:50	S380 (200X)
3	101449	45166724004	Std04Rep1	25-APR-2005 18:52	S380 (50X)
4	101449	45166724005	Std05Rep1	25-APR-2005 18:55	S380 (20X)
5	101449	45166724006	Std06Rep1	25-APR-2005 18:57	S380 (10X)

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	110535	66880	60217	59630	56655	LINR R	-0.12362	1.772E-5		ug/L	70783	0.999	.99	

136

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 042505a /hgppb
Protocol Line info Cal Curve Report Ctrl Chart Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 1.77166e-5
C -1.23619e-1
Rho .999659
Type Linear
Calibrated
Accepted
Accept
Include S4 Rep 1
Rel. Abs.
566548
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.119 -.119 254 0 253
02 .20000 .268 .068 22107 0% 22107
03 .50000 .469 -.031 33441 0% 33440
04 2.0000 2.01 .010 120434 0% 120434
05 5.0000 5.16 .159 298149 0% 298149
06 10.000 9.91 -.086 566549 0% 566548
Ready
NUM

Folder: 042505a
Protocol: hgppb
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 22	18:44:18 25 Apr 05				HG
Hg	.000	ppb	253						
		Bkgd 1	10510563						
*** Standard: 2 Rep: 1				Seq: 23	18:47:39 25 Apr 05				HG
Hg	.200	ppb	22107						
		Bkgd 1	10512198						
*** Standard: 3 Rep: 1				Seq: 24	18:50:03 25 Apr 05				HG
Hg	.500	ppb	33440						
		Bkgd 1	10511723						
*** Standard: 4 Rep: 1				Seq: 25	18:52:32 25 Apr 05				HG
Hg	2.00	ppb	120434						
		Bkgd 1	10512018						
*** Standard: 5 Rep: 1				Seq: 26	18:55:16 25 Apr 05				HG
Hg	5.00	ppb	298149						
		Bkgd 1	10513959						
*** Standard: 6 Rep: 1				Seq: 27	18:57:48 25 Apr 05				HG
Hg	10.0	ppb	566548						
		Bkgd 1	10511209						
*** Check Standard: 2			Ck2S382	Seq: 28	19:05:22 25 Apr 05				HG
Line	Flag		Intensities						
Hg			304412						
		Bkgd 1	10511248						
*** Check Standard: 1			Ck1ICB	Seq: 29	19:07:58 25 Apr 05				HG
Line	Flag		Intensities						
Hg			3673						
		Bkgd 1	10511833						
*** Sample ID: qc291548			101449,1	Seq: 30	19:10:40 25 Apr 05				HG
Hg	.084	ppb	11728						
		Bkgd 1	10513561						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45166810 Instrument: MET04 HydraAA HG Analyzer Begun: 25-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101443	CCV					25-APR-2005 20:10	1.0	1.0	1	5.000	45166724001	4.990		ug/L	100		
002	101443	CCB					25-APR-2005 20:12	1.0	1.0			45166724001	ND	0.20	ug/L			
003	101443	BLANK	QC291518		101443	Soil	25-APR-2005 20:15	1.0	100.0			45166724001	ND	0.020	mg/Kg			u
004	101443	BS	QC291519		101443	Soil	25-APR-2005 20:17	1.0	100.0		0.5000	45166724001	0.5080	0.020	mg/Kg	102		u
005	101443	BSD	QC291520		101443	Soil	25-APR-2005 20:20	1.0	100.0		0.5000	45166724001	0.4940	0.020	mg/Kg	99	3	u
006	101443	MSS	179062-004		101443	Soil	25-APR-2005 20:22	1.0	98.04			45166724001	ND	0.020	mg/Kg			u
007	101443	MS	QC291521	179062-004	101443	Soil	25-APR-2005 20:25	1.0	86.21		0.4310	45166724001	0.4353	0.017	mg/Kg	101		u
008	101443	MSD	QC291522	179062-004	101443	Soil	25-APR-2005 20:27	1.0	94.34		0.4717	45166724001	0.4783	0.019	mg/Kg	101	0	u
009	101443	X	178065-008		101443	Soil	25-APR-2005 20:29	1.0	100.0									
010	101443	SAMPLE	179011-001		101443	Soil	25-APR-2005 20:31	1.0	83.33			45166724001	0.093	0.017	mg/Kg			u
011	101443	SAMPLE	179012-001		101443	Soil	25-APR-2005 20:34	1.0	98.04			45166724001	0.59	0.020	mg/Kg			u
012	101443	SAMPLE	179014-001		101443	Soil	25-APR-2005 20:36	1.0	92.59			45166724001	0.17	0.019	mg/Kg			u
013	101443	CCV					25-APR-2005 20:38	1.0	1.0	2	2.500	45166724001	2.430		ug/L	97		
014	101443	CCB					25-APR-2005 20:41	1.0	1.0			45166724001	ND	0.20	ug/L			
015	101443	SAMPLE	179029-001		101443	Soil	25-APR-2005 20:43	1.0	113.6			45166724001	ND	0.023	mg/Kg			u
016	101443	SAMPLE	179049-001		101443	Soil	25-APR-2005 20:46	1.0	69.44			45166724001	4.2 >LR	0.014	mg/Kg			! >LR c
017	101443	SAMPLE	179060-002		101443	Soil	25-APR-2005 20:48	1.0	87.72			45166724001	ND	0.018	mg/Kg			u
018	101443	SAMPLE	179060-003		101443	Soil	25-APR-2005 20:51	1.0	90.91			45166724001	0.018	0.018	mg/Kg			u
019	101443	SAMPLE	179061-002		101443	Soil	25-APR-2005 20:53	1.0	94.34			45166724001	0.0091 J	0.019	mg/Kg			u
020	101443	SAMPLE	179061-003		101443	Soil	25-APR-2005 20:56	1.0	83.33			45166724001	0.018	0.017	mg/Kg			u
021	101443	SAMPLE	179062-001		101443	Soil	25-APR-2005 20:58	1.0	104.2			45166724001	0.012 J	0.021	mg/Kg			u
022	101443	SAMPLE	179062-002		101443	Soil	25-APR-2005 21:00	1.0	104.2			45166724001	0.0064 J	0.021	mg/Kg			u
023	101443	SAMPLE	179062-003		101443	Soil	25-APR-2005 21:03	1.0	113.6			45166724001	ND	0.023	mg/Kg			u
024	101443	SAMPLE	179062-005		101443	Soil	25-APR-2005 21:05	1.0	83.33			45166724001	0.0055 J	0.017	mg/Kg			u
025	101443	CCV					25-APR-2005 21:07	1.0	1.0	1	5.000	45166724001	5.290		ug/L	106		
026	101443	CCB					25-APR-2005 21:09	1.0	1.0			45166724001	ND	0.20	ug/L			
027	101443	SAMPLE	179065-001		101443	Soil	25-APR-2005 21:12	1.0	113.6			45166724001	0.027	0.023	mg/Kg			u
028	101443	SAMPLE	179065-002		101443	Soil	25-APR-2005 21:14	1.0	104.2			45166724001	0.021	0.021	mg/Kg			u
029	101443	SAMPLE	179065-003		101443	Soil	25-APR-2005 21:16	1.0	104.2			45166724001	ND	0.021	mg/Kg			u
030	101443	SAMPLE	179065-004		101443	Soil	25-APR-2005 21:19	1.0	94.34			45166724001	ND	0.019	mg/Kg			u
031	101443	SAMPLE	179065-005		101443	Soil	25-APR-2005 21:21	1.0	108.7			45166724001	ND	0.022	mg/Kg			u
032	101443	SAMPLE	179049-001		101443	Soil	25-APR-2005 21:23	25.0	69.44			45166724001	5.2	0.35	mg/Kg			u
033	101443	CCV					25-APR-2005 21:26	1.0	1.0	3	7.500	45166724001	7.800		ug/L	104		
034	101443	CCB					25-APR-2005 21:28	1.0	1.0			45166724001	ND	0.20	ug/L			

Stds used: 1=S384 2=S383 3=S385
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: [signature] Date: 4/25/05

Curtis & Tompkins Laboratories Sample Preparation Summary 25-APR-2005 13:51

Batch Number : 101443
Date Extracted: 25-APR-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S380
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178065-008			MDL Studies	Soil	.5	g	50	100.000000	1					HG		
179011-001			CH2M Hill Constructors Inc.	Soil	.6	g	50	83.333333	1					T26/HG		
179012-001			CH2M Hill Constructors Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
179014-001			CH2M Hill Constructors Inc.	Soil	.54	g	50	92.592593	1					T26/HG		
179029-001			CH2M Hill Constructors Inc.	Soil	.44	g	50	113.636364	1					T26/HG		
179049-001			Mactec, Inc.	Soil	.72	g	50	69.444444	1					T26/HG		
179060-002			Environmental Quality Manageme	Soil	.57	g	50	87.719298	1					TAL/HG		
179060-003			Environmental Quality Manageme	Soil	.55	g	50	90.909091	1					TAL/HG		
179061-002			Environmental Quality Manageme	Soil	.53	g	50	94.339623	1					TAL/HG		
179061-003			Environmental Quality Manageme	Soil	.6	g	50	83.333333	1					TAL/HG		
179062-001			Environmental Quality Manageme	Soil	.48	g	50	104.166667	1					TAL/HG		
179062-002			Environmental Quality Manageme	Soil	.48	g	50	104.166667	1					TAL/HG		
179062-003			Environmental Quality Manageme	Soil	.44	g	50	113.636364	1					TAL/HG		
179062-004			Environmental Quality Manageme	Soil	.51	g	50	98.039216	1					TAL/HG		
179062-005			Environmental Quality Manageme	Soil	.6	g	50	83.333333	1					TAL/HG		
179065-001			Earth Tech, Inc.	Soil	.44	g	50	113.636364	1					T26/HG		
179065-002			Earth Tech, Inc.	Soil	.48	g	50	104.166667	1					T26/HG		
179065-003			Earth Tech, Inc.	Soil	.48	g	50	104.166667	1					T26/HG		
179065-004			Earth Tech, Inc.	Soil	.53	g	50	94.339623	1					T26/HG		
179065-005			Earth Tech, Inc.	Soil	.46	g	50	108.695652	1					T26/HG		
QC291518	MB			Soil	.5	g	50	100.000000	1					HG		
QC291519	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC291520	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC291521	MS	of 179062-004		Soil	.58	g	50	86.206897	1		2.5			HG		
QC291522	MSD	of 179062-004		Soil	.53	g	50	94.339623	1		2.5			HG		
QC291523	SER	of 179062-004		Soil	.5	g	50	100.000000	1					HG		
QC291524	PDS	of 179062-004		Soil	.5	g	50	100.000000	1					HG		

Prep Chemist: _____ Reviewed By: _____ Date: 4/25/05

Relinquished By: _____ Received By: _____ Date: 4/25/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 101443
Date Digested: 4/25/05
Digested by: AM

Digestion Method
☑ EPA 7471A
☐ _____

BK 2086
Page 57

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	MB		50		
	BS				
	BSD				
	MSS 179062-004 D	.51			
5	MS	.58			
	MSD	.53			
	179011-001 B	.6			
	12-001 B	.51			
	14-001 B	.54			
10	29-001 A	.44			
	49-001 B	.72			
	60-002 D	.57			
	3 D	.55			
	61-002 D	.53			
15	3 D	.60			
	67-001 D	.49			
	2 D	.48			
	3 D	.44			
	179065-001 A	.44			
20	2 A	.49			
	3 A	.49			
	4 A	.53			
	AM 4/25/05 5 A	.46			
	~~179065-005 D~~	~~.60~~			
	179062-005 D	.60			

	Reagent ID/ LIMS# / Time	Initials / Date
1.6 mL of spike solution was added to all spikes	S380	AM 4/25
ICAL Source WS#	S380	
ICV / CCV WS#	S381, B2, B3, B4	
Digestion of Samples & Standards: Time ON / Temperature ON	11:30 AM 95°C	
Time OFF/ Temperature OFF	12:00PM 95°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 042505	
5% $KMnO_4$	K 041805	
5% $K_2S_2O_8$	K_2 041805	
NaCl.hydroxylamine hydrochloride	Hy 041805	
Stannous Chloride	$SnCl_2$ 041805	
☐ filtered thru' 0.45 um syringe filter		

Prep Chemist / Date

Continued from page 1
141
Continued on page 1

Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e0913001	TUN	tune			09-MAY-2005 13:07	1.0	1.0				1	
003	e0913003	ICALBLK	std-blk			09-MAY-2005 13:18	1.0	1.0				2	
004	e0913004	ICAL	cs1			09-MAY-2005 13:23	1.0	1.0				3	
005	e0913005	ICAL	cs2			09-MAY-2005 13:28	1.0	1.0				4	
006	e0913006	ICAL	cs3			09-MAY-2005 13:33	1.0	1.0				5	
007	e0913007	ICAL	cs4			09-MAY-2005 13:39	1.0	1.0				6	
008	e0913008	ICAL	cs5			09-MAY-2005 13:44	1.0	1.0				7	
009	e0913009	ICAL	cs6			09-MAY-2005 13:49	1.0	1.0				8	
010	e0913010	ICV				09-MAY-2005 13:54	1.0	1.0			1	9	
012	e0913012	ICB				09-MAY-2005 14:06	1.0	1.0	1		1	2	
013	e0913013	ICSA				09-MAY-2005 14:12	1.0	1.0			1	10 2	7:CA=295200
014	e0913014	ICSAB				09-MAY-2005 14:17	1.0	1.0			1	11 2	12:CA=295000
016	e0913016	SER	QC291792	101506	Water	09-MAY-2005 14:29	5.0	1.0		1	1	2	
017	e0913017	MS	QC291790	101506	Water	09-MAY-2005 14:35	2.0	1.0			1	2	
018	e0913018	MSD	QC291791	101506	Water	09-MAY-2005 14:41	2.0	1.0			1	2	
019	e0913019	SAMPLE	179075-004	101506	Water	09-MAY-2005 14:47	2.0	1.0			1	2	
020	e0913020	SAMPLE	179075-006	101506	Water	09-MAY-2005 14:52	5.0	1.0			1	2	
021	e0913021	SAMPLE	179075-007	101506	Water	09-MAY-2005 14:58	2.0	1.0			1	2	
022	e0913022	SAMPLE	179075-011	101506	Water	09-MAY-2005 15:04	2.0	1.0	1		1	2	
023	e0913023	SAMPLE	179075-012	101506	Water	09-MAY-2005 15:10	2.0	1.0			1	2	
025	e0913025	CCV				09-MAY-2005 15:22	1.0	1.0			1	12 2	
027	e0913027	CCB				09-MAY-2005 15:33	1.0	1.0	1		1	2	
028	e0913028	SAMPLE	179075-013	101506	Water	09-MAY-2005 15:39	2.0	1.0			1	2	
029	e0913029	SAMPLE	179075-018	101506	Water	09-MAY-2005 15:45	2.0	1.0			1	2	
031	e0913031	CCV				09-MAY-2005 15:57	1.0	1.0			1	13 2	
033	e0913033	CCB				09-MAY-2005 16:09	1.0	1.0			1	2	
034	e0913034	ICSA				09-MAY-2005 16:15	1.0	1.0			1	10 2	7:CA=292900
035	e0913035	ICSAB				09-MAY-2005 16:21	1.0	1.0			1	11 2	11:CA=292500
037	e0913037	MSS	179132-001	101641	Filtra	09-MAY-2005 16:32	10.0	1.0			1	2	
038	e0913038	SER	QC292313	101641	Filtra	09-MAY-2005 16:52	50.0	1.0			1	2	
039	e0913039	MS	QC292311	101641	Filtra	09-MAY-2005 16:58	10.0	1.0		1	1	2	

142

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: MEW Date: 5/10/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e0913040	MSD	QC292312	101641	Filtra	09-MAY-2005 17:04	10.0	1.0		2	1	2	
041	e0913041	SAMPLE	179132-006	101641	Filtra	09-MAY-2005 17:10	10.0	1.0			1	2	
042	e0913042	SAMPLE	179132-015	101641	Filtra	09-MAY-2005 17:16	5.0	1.0			1	2	2:NA=39280.0
043	e0913043	SAMPLE	179132-016	101641	Filtra	09-MAY-2005 17:22	50.0	1.0			1	2	
044	e0913044	SAMPLE	179132-017	101641	Filtra	09-MAY-2005 17:27	10.0	1.0			1	2	
046	e0913046	CCV				09-MAY-2005 17:39	1.0	1.0			1	12 2	
047	e0913047	X	rinse			09-MAY-2005 17:45	1.0					2	
048	e0913048	CCB				09-MAY-2005 17:51	1.0	1.0	1		1	2	
049	e0913049	SAMPLE	179132-018	101641	Filtra	09-MAY-2005 17:57	50.0	1.0			1	2	
050	e0913050	SAMPLE	179132-019	101641	Filtra	09-MAY-2005 18:03	5.0	1.0			1	2	3:CA=48920.0
051	e0913051	SAMPLE	179132-020	101641	Filtra	09-MAY-2005 18:09	5.0	1.0			1	2	1:NA=21860.0
052	e0913052	X	RINSE	101506		09-MAY-2005 18:14	1.0					2	
053	e0913053	BLANK	QC292136	101595	Water	09-MAY-2005 18:20	1.0	1.0			1	2	
054	e0913054	BS	QC292137	101595	Water	09-MAY-2005 18:26	1.0	1.0			1	2	
055	e0913055	BSD	QC292138	101595	Water	09-MAY-2005 18:32	1.0	1.0			1	2	
056	e0913056	MSS	179161-001	101595	Water	09-MAY-2005 18:38	1.0	1.0	2		1	2	2:CA=22330.0
057	e0913057	SER	QC292141	101595	Water	09-MAY-2005 18:44	5.0	1.0			1	2	
058	e0913058	MS	QC292139	101595	Water	09-MAY-2005 18:50	1.0	1.0	2		1	2	4:CA=32120.0
059	e0913059	MSD	QC292140	101595	Water	09-MAY-2005 18:56	1.0	1.0	2		1	2	4:CA=31200.0
061	e0913061	CCV				09-MAY-2005 19:07	1.0	1.0			1	12 2	
062	e0913062	X	rinse			09-MAY-2005 19:13	1.0					2	
063	e0913063	CCB				09-MAY-2005 19:19	1.0	1.0	1		1	2	
064	e0913064	PDS	QC292142	101595	Water	09-MAY-2005 19:25	1.0	1.0	2		1	14 2	4:CA=30950.0
065	e0913065	MSS	179161-001	101595	Water	09-MAY-2005 19:31	5.0	1.0			1	2	
066	e0913066	SER	QC292141	101595	Water	09-MAY-2005 19:37	25.0	1.0			1	2	
067	e0913067	MS	QC292139	101595	Water	09-MAY-2005 19:42	5.0	1.0			1	2	
068	e0913068	MSD	QC292140	101595	Water	09-MAY-2005 19:48	5.0	1.0			1	2	
069	e0913069	SAMPLE	179132-021	101595	Filtra	09-MAY-2005 19:54	1.0	1.0			1	2	3:NA=185600
070	e0913070	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:00	1.0	1.0	1		1	2	5:NA=111100
071	e0913071	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:06	5.0	1.0			1	2	1:NA=21880.0
073	e0913073	CCV				09-MAY-2005 20:18	1.0	1.0			1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: [signature] Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
074	e0913074	X	rinse	101595		09-MAY-2005 20:24	1.0				2	
075	e0913075	CCB				09-MAY-2005 20:30	1.0	1.0		1	2	
076	e0913076	ICSA				09-MAY-2005 20:35	1.0	1.0		1	10 2	7:CA=288400
077	e0913077	ICSAB				09-MAY-2005 20:41	1.0	1.0		1	11 2	10:CA=282500
079	e0913079	TUN	tune			09-MAY-2005 20:53	1.0	1.0			1	
081	e0913081	SAMPLE	179176-001	101595	Water	09-MAY-2005 21:03	2.0	1.0		1	2	
082	e0913082	SAMPLE	179141-007	101595	Water	09-MAY-2005 21:09	5.0	1.0		1	2	4:MG=98600.0
083	e0913083	SAMPLE	179141-010	101595	Water	09-MAY-2005 21:15	10.0	1.0		1	2	
084	e0913084	SAMPLE	179141-013	101595	Water	09-MAY-2005 21:21	10.0	1.0		1	2	1:NA=62100.0
085	e0913085	SAMPLE	179141-019	101595	Water	09-MAY-2005 21:27	2.0	1.0		1	2	5:NA=63300.0
086	e0913086	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:33	2.0	1.0	2	1	2	2:AL=1888.50
087	e0913087	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:39	20.0	1.0		1	2	
088	e0913088	SAMPLE	179156-002	101595	Water	09-MAY-2005 21:45	2.0	1.0	2	1	2	2:AL=503.500
090	e0913090	CCV				09-MAY-2005 21:57	1.0	1.0		1	12 2	
091	e0913091	X	rinse			09-MAY-2005 22:02	1.0				2	
092	e0913092	CCB				09-MAY-2005 22:08	1.0	1.0		1	2	
093	e0913093	SAMPLE	179156-003	101595	Water	09-MAY-2005 22:14	5.0	1.0		1	2	44
094	e0913094	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:20	2.0	1.0	4	1	2	4:FE=23515.0
095	e0913095	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:26	100.0	1.0		1	2	
096	e0913096	SAMPLE	179162-001	101595	Filtra	09-MAY-2005 22:32	1.0	1.0		1	2	3:MG=563000
097	e0913097	SAMPLE	179162-002	101595	Filtra	09-MAY-2005 22:38	1.0	1.0		1	2	3:MG=474700
098	e0913098	SAMPLE	179162-003	101595	Filtra	09-MAY-2005 22:44	1.0	1.0		1	2	3:MG=429100
099	e0913099	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:50	10.0	1.0	3	1	2	2:NA=207100
100	e0913100	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:56	100.0	1.0	2	1	2	
101	e0913101	ICSA				09-MAY-2005 23:02	1.0	1.0		1	10 2	7:CA=286700
102	e0913102	ICSAB				09-MAY-2005 23:07	1.0	1.0		1	11 2	9:CA=285000
104	e0913104	CCV				09-MAY-2005 23:19	1.0	1.0		1	12 2	
105	e0913105	X	rinse			09-MAY-2005 23:25	1.0				2	
106	e0913106	CCB				09-MAY-2005 23:31	1.0	1.0	3	1	2	
107	e0913107	X	rinse	101595		09-MAY-2005 23:36	1.0				2	
108	e0913108	BLANK	QC291742	101496	Soil	09-MAY-2005 23:42	5.0	50.0	1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: [signature] Date: 5/10/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e0913109	BS	QC291743	101496	Soil	09-MAY-2005 23:48	5.0	50.0	1		1	2	
110	e0913110	BSD	QC291744	101496	Soil	09-MAY-2005 23:54	5.0	50.0	1		1	2	
111	e0913111	MSS	178846-002	101496	Soil	10-MAY-2005 00:00	5.0	50.0	7		1	2	6:FE=90920.0
112	e0913112	SER	QC291747	101496	Soil	10-MAY-2005 00:06	25.0	50.0		2	1	2	2:AL=4268.00
113	e0913113	MS	QC291745	101496	Soil	10-MAY-2005 00:12	5.0	46.73	1	1	1	2	7:FE=105040
114	e0913114	MSD	QC291746	101496	Soil	10-MAY-2005 00:18	5.0	37.88	2	2	1	2	8:FE=121700
115	e0913115	PDS	QC291748	101496	Soil	10-MAY-2005 00:23	5.0	50.0		16	1	15 16 2	6:FE=95900.0
116	e0913116	SAMPLE	178846-001	101496	Soil	10-MAY-2005 00:29	5.0	51.02	1		1	2	4:FE=31640.0
117	e0913117	SAMPLE	178951-001	101496	Soil	10-MAY-2005 00:35	5.0	42.74	6		1	2	10:FE=73240.0
119	e0913119	CCV				10-MAY-2005 00:47	1.0	1.0			1	12 2	
120	e0913120	X	rinse			10-MAY-2005 00:52	1.0					2	
121	e0913121	CCB				10-MAY-2005 00:58	1.0	1.0	1		1	2	
122	e0913122	SAMPLE	178951-002	101496	Soil	10-MAY-2005 01:04	5.0	37.04	5		1	2	9:MG=302200
123	e0913123	SAMPLE	178951-003	101496	Soil	10-MAY-2005 01:10	5.0	44.25	6		1	2	10:FE=92160.0
124	e0913124	SAMPLE	178951-004	101496	Soil	10-MAY-2005 01:16	5.0	31.45	8		1	2	13:FE=333400
125	e0913125	SAMPLE	179049-001	101496	Soil	10-MAY-2005 01:21	5.0	50.51	9		1	2	11:ZN=189860
126	e0913126	SAMPLE	179076-040	101496	Soil	10-MAY-2005 01:27	5.0	33.78			1	2	5:CA=109500
127	e0913127	SAMPLE	179076-041	101496	Soil	10-MAY-2005 01:33	5.0	35.97	1		1	2	5:FE=129460
128	e0913128	SAMPLE	179076-042	101496	Soil	10-MAY-2005 01:39	5.0	33.33			1	2	5:FE=137140
129	e0913129	SAMPLE	179076-043	101496	Soil	10-MAY-2005 01:45	5.0	50.51	1		1	2	8:FE=76140.0
130	e0913130	SAMPLE	179089-001	101496	Soil	10-MAY-2005 01:50	5.0	41.32	5		1	2	7:FE=89300.0
131	e0913131	SAMPLE	179089-002	101496	Soil	10-MAY-2005 01:56	5.0	47.17	5		1	2	7:FE=99780.0
133	e0913133	CCV				10-MAY-2005 02:08	1.0	1.0			1	12 2	
134	e0913134	X	rinse			10-MAY-2005 02:14	1.0					2	
135	e0913135	CCB				10-MAY-2005 02:20	1.0	1.0	4		1	2	
136	e0913136	SAMPLE	179089-003	101496	Soil	10-MAY-2005 02:26	5.0	48.54	2		1	2	4:FE=64480.0
137	e0913137	MSS	178846-002	101496	Soil	10-MAY-2005 02:31	50.0	50.0	3		1	2	1:AL=2188.00
138	e0913138	SER	QC291747	101496	Soil	10-MAY-2005 02:37	250.0	50.0		1	1	2	1:AL=428.000
139	e0913139	MS	QC291745	101496	Soil	10-MAY-2005 02:43	50.0	46.73		1	1	2	1:AL=2346.00
140	e0913140	MSD	QC291746	101496	Soil	10-MAY-2005 02:49	50.0	37.88		3	1	2	1:AL=2810.00
141	e0913141	PDS	QC291748	101496	Soil	10-MAY-2005 02:55	50.0	50.0		15	1	15 2	1:AL=2034.00

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 8/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
142	e0913142	SAMPLE	178846-001	101496	Soil	10-MAY-2005 03:01	50.0	51.02	1		1	2	1:AL=1128.60
143	e0913143	SAMPLE	178951-001	101496	Soil	10-MAY-2005 03:07	50.0	42.74	1		1	2	1:AL=3446.00
144	e0913144	SAMPLE	178951-002	101496	Soil	10-MAY-2005 03:13	50.0	37.04	3		1	2	5:MG=39900.0
145	e0913145	SAMPLE	178951-003	101496	Soil	10-MAY-2005 03:19	50.0	44.25	1		1	2	2:AL=4054.00
147	e0913147	CCV				10-MAY-2005 03:31	1.0	1.0			1	12 2	
148	e0913148	X	rinse			10-MAY-2005 03:36	1.0					2	
149	e0913149	CCB				10-MAY-2005 03:42	1.0	1.0	3		1	2	
150	e0913150	SAMPLE	178951-004	101496	Soil	10-MAY-2005 03:48	50.0	31.45	5		1	2	7:FE=32960.0
151	e0913151	SAMPLE	179049-001	101496	Soil	10-MAY-2005 03:54	50.0	50.51	4		1	2	5:MN=53920.0
152	e0913152	SAMPLE	179076-040	101496	Soil	10-MAY-2005 04:00	50.0	33.78			1	2	3:CA=114320
153	e0913153	SAMPLE	179076-041	101496	Soil	10-MAY-2005 04:06	50.0	35.97			1	2	2:AL=3606.00
154	e0913154	SAMPLE	179076-042	101496	Soil	10-MAY-2005 04:12	50.0	33.33			1	2	2:AL=5556.00
155	e0913155	SAMPLE	179076-043	101496	Soil	10-MAY-2005 04:18	50.0	50.51	1		1	2	3:AL=2670.00
156	e0913156	SAMPLE	179089-001	101496	Soil	10-MAY-2005 04:24	50.0	41.32	2		1	2	1:AL=5494.00
157	e0913157	SAMPLE	179089-002	101496	Soil	10-MAY-2005 04:29	50.0	47.17	2		1	2	1:AL=6630.00
158	e0913158	SAMPLE	179089-003	101496	Soil	10-MAY-2005 04:35	50.0	48.54	2		1	2	1:AL=4162.00
160	e0913160	BLANK	QC292252	101627	Soil	10-MAY-2005 04:47	5.0	50.0	2		1	2	146
162	e0913162	CCV				10-MAY-2005 04:59	1.0	1.0	1		1	12 2	
163	e0913163	X	rinse			10-MAY-2005 05:05	1.0					2	
164	e0913164	CCB				10-MAY-2005 05:11	1.0	1.0	1		1	2	
165	e0913165	BS	QC292253	101627	Soil	10-MAY-2005 05:17	5.0	50.0	2		1	2	1:AL=240.800
166	e0913166	BSD	QC292254	101627	Soil	10-MAY-2005 05:23	5.0	50.0	2		1	2	1:AL=240.400
167	e0913167	MSS	179182-001	101627	Soil	10-MAY-2005 05:29	5.0	54.95	7		1	2	6:FE=62860.0
168	e0913168	SER	QC292257	101627	Soil	10-MAY-2005 05:34	25.0	54.95		2	1	2	2:AL=5716.00
169	e0913169	MS	QC292255	101627	Soil	10-MAY-2005 05:40	5.0	47.62	2	1	1	2	8:FE=75280.0
170	e0913170	MSD	QC292256	101627	Soil	10-MAY-2005 05:46	5.0	44.64	3	1	1	2	9:FE=97560.0
171	e0913171	PDS	QC292258	101627	Soil	10-MAY-2005 05:52	5.0	54.95	2	14	1	15 16 2	8:FE=67740.0
172	e0913172	SAMPLE	179182-002	101627	Soil	10-MAY-2005 05:58	5.0	49.02	4		1	2	6:FE=101560
173	e0913173	SAMPLE	179182-003	101627	Soil	10-MAY-2005 06:04	5.0	48.54	6		1	2	9:FE=66860.0
174	e0913174	SAMPLE	179167-001	101627	Soil	10-MAY-2005 06:09	5.0	46.30	5		1	2	6:FE=67820.0
176	e0913176	CCV				10-MAY-2005 06:21	1.0	1.0			1	12 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Date: 5/11/

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
177	e0913177	X	rinse			10-MAY-2005 06:27	1.0					2	
178	e0913178	CCB				10-MAY-2005 06:33	1.0	1.0	2		1	2	
179	e0913179	MSS	179182-001	101627	Soil	10-MAY-2005 06:39	50.0	54.95	3		1	2	2:AL=2926.00
180	e0913180	SER	QC292257	101627	Soil	10-MAY-2005 06:45	250.0	54.95		1	1	2	1:AL=573.600
181	e0913181	MS	QC292255	101627	Soil	10-MAY-2005 06:51	50.0	47.62		1	1	2	1:AL=3788.00
182	e0913182	MSD	QC292256	101627	Soil	10-MAY-2005 06:57	50.0	44.64		2	1	2	2:AL=3612.00
183	e0913183	SAMPLE	179182-002	101627	Soil	10-MAY-2005 07:03	50.0	49.02	1		1	2	1:AL=5238.00
185	e0913185	SAMPLE	179167-001	101627	Soil	10-MAY-2005 07:15	50.0	46.30			1	2	
186	e0913186	ICSA				10-MAY-2005 07:20	1.0	1.0			1	10 2	7:CA=277800
187	e0913187	ICSAB				10-MAY-2005 07:26	1.0	1.0			1	11 2	8:CA=286000
189	e0913189	CCV				10-MAY-2005 07:38	1.0	1.0			1	13 2	
190	e0913190	X	rinse blank			10-MAY-2005 07:44	1.0					2	
191	e0913191	CCB				10-MAY-2005 07:50	1.0	1.0	2		1	2	

147

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Melissa Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e0913004	55186547004	cs1	09-MAY-2005 13:23	S395
2	e0913005	55186547005	cs2	09-MAY-2005 13:28	S396
3	e0913006	55186547006	cs3	09-MAY-2005 13:33	S397
4	e0913007	55186547007	cs4	09-MAY-2005 13:39	S398
5	e0913008	55186547008	cs5	09-MAY-2005 13:44	S393
6	e0913009	55186547009	cs6	09-MAY-2005 13:49	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		10.153	6.0829	0.9673	0.4588	0.4944	BLNK	R	-12.7573	2.210067		ug/L	3.6312	0.995	0.995	
Antimony	0.3589	0.3024	0.2578	0.2436	0.2337	0.2478	BLNK	R	-0.08506	4.084564		ug/L	0.2740	0.999	0.995	
Arsenic		0.3774	0.4193	0.3947	0.3766	0.3829	BLNK	R	-0.04706	2.621125		ug/L	0.3902	1.000	0.995	
Barium	0.2018	0.1403	0.1156	0.0928	0.0876	0.0901	BLNK	R	-0.25603	11.18257		ug/L	0.1214	1.000	0.995	
Beryllium	0.1783	0.1683	0.1540	0.1500	0.1445	0.1457	BLNK	R	-0.02094	6.876203		ug/L	0.1568	1.000	0.995	
Cadmium	0.7744	0.6967	0.5455	0.4842	0.4426	0.4420	BLNK	R	-0.13603	2.263259		ug/L	0.5642	1.000	0.995	
Calcium		0.0313	0.0234	0.0172	0.0161	0.0160	BLNK	R	-49.5055	62.77004		ug/L	0.0208	1.000	0.995	
Chromium		4.3383	3.2151	2.3460	2.1587	2.1661	BLNK	R	-0.42265	0.463105		ug/L	2.8448	1.000	0.995	
Cobalt	3.2625	3.0795	2.8275	2.6959	2.6101	2.6044	BLNK	R	-0.02149	0.383819		ug/L	2.8466	1.000	0.995	
Copper		0.8868	0.8511	0.7268	0.6781	0.6740	BLNK	R	-0.08651	1.482419		ug/L	0.7634	1.000	0.995	
Iron		0.1044	0.0819	0.0669	0.0641	0.0622	BLNK	R	-31.6243	16.01468		ug/L	0.0759	1.000	0.995	
Lead	1.0478	0.9807	0.8986	0.8612	0.8597	0.8871	BLNK	R	-0.03139	1.134540		ug/L	0.9225	1.000	0.995	
Magnesium		0.0678	0.0611	0.0610	0.0564	0.0576	BLNK	R	-5.71639	17.44594		ug/L	0.0608	1.000	0.995	
Manganese	4.5105	3.9500	3.4588	3.1803	3.0599	3.0148	BLNK	R	-0.08146	0.330840		ug/L	3.5290	1.000	0.995	
Molybdenum		1.1483	0.9339	0.8415	0.8048	0.8208	BLNK	R	-0.20816	1.224575		ug/L	0.9099	1.000	0.995	
Nickel	0.8173	0.7070	0.6359	0.6107	0.5632	0.5597	BLNK	R	-0.05945	1.784754		ug/L	0.6490	1.000	0.995	
Potassium		1.8843	1.2006	0.5984	0.5120	0.5175	BLNK	R	-123.524	1.950804		ug/L	0.9426	1.000	0.995	
Selenium		0.0701	0.0480	0.0293	0.0252	0.0252	BLNK	R	-0.73536	39.87147		ug/L	0.0396	1.000	0.995	
Silver	2.6099	2.4138	2.2920	2.2287	2.0847	2.1087	BLNK	R	-0.01765	0.475304		ug/L	2.2896	1.000	0.995	
Sodium		1.2550	0.9547	0.6219	0.5523	0.5624	BLNK	R	-52.6365	1.789812		ug/L	0.7893	1.000	0.995	

148

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

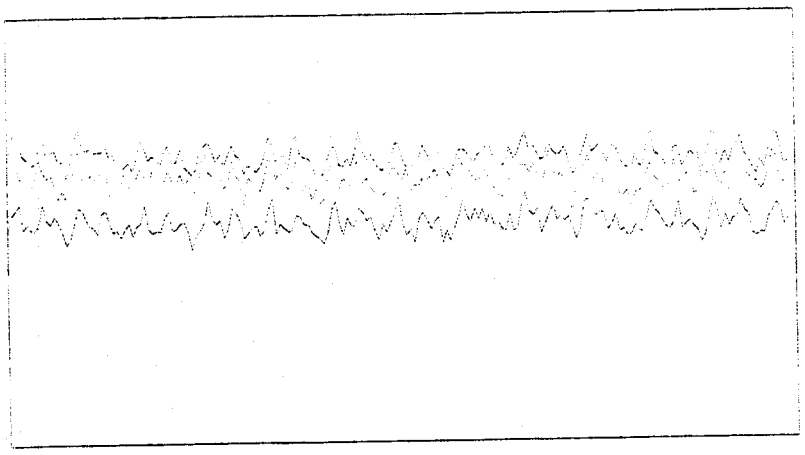
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.7544	0.6500	0.6312	0.6727	0.6795	BLNK	R	-0.05163	1.475366		ug/L	0.6776	1.000	0.995	
Vanadium		3.5450	2.9111	2.4600	2.4296	2.4164	BLNK	R	-0.17808	0.413830		ug/L	2.7524	1.000	0.995	
Zinc		1.5046	1.2129	0.4952	0.4057	0.3983	BLNK	R	-1.28422	2.520165		ug/L	0.8033	1.000	0.995	

149

Curves: BLNK: Y=aX+ [blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



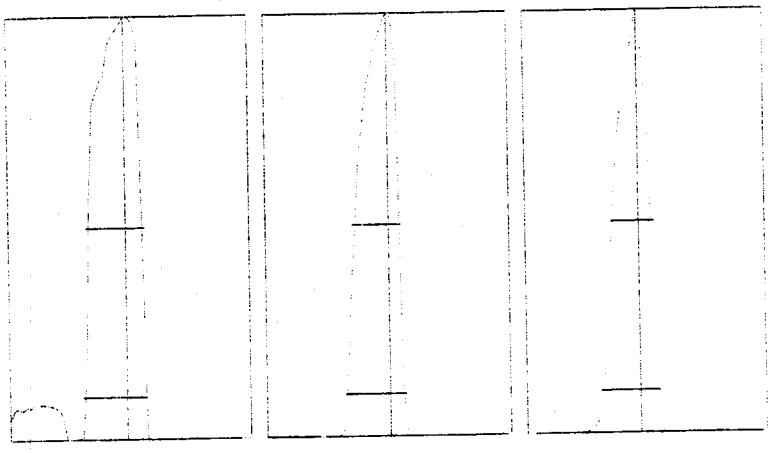
m/z:	7	89	205
Range:	20,000	50,000	100,000
Count:	10,232	32,303	56,142
Mean:	10247.6	33410.8	61381.1
RSD%:	5.00	3.85	4.60
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.40%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	20.9	18.2	22.1



m/z:	7	89	205
Height:	10,325	33,774	69,064
Axis:	7.00	89.05	204.95
W-50%:	0.75	0.60	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.02 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 09, 2005 10:41:58
Printed : May 09, 2005 10:42:06

Temp.p$$

P/A Factor Tuning Report

Acquired:May 9 2005 11:06 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087637
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097864
45	Sc	0.093351
51	V	0.097956
52	Cr	0.099998
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101675
57	Fe	0.104597
59	Co	0.105141
60	Ni	Sensitivity too low
63	Cu	0.107023
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105980
95	Mo	Sensitivity too low
98	Mo	0.104137
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.114003
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.114449
118	(In)	Sensitivity too low
121	Sb	0.113109
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119372
166	Er	Sensitivity too low

205	Tl	0.127188
206	(Pb)	0.123052
207	(Pb)	0.122974
208	Pb	0.126240
209	Bi	0.125409
232	Th	0.127801
238	U	0.128284

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 9 2005 11:19 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087424
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097829
45	Sc	0.093447
51	V	0.097709
52	Cr	0.099861
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101644
57	Fe	0.104280
59	Co	0.104935
60	Ni	Sensitivity too low
63	Cu	0.107045
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106140
95	Mo	Sensitivity too low
98	Mo	0.103609
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113603
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.113939
118	(In)	0.112751
121	Sb	0.112520
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119176
166	Er	Sensitivity too low

205	Tl	0.126386
206	(Pb)	0.122394
207	(Pb)	0.121301
208	Pb	0.125098
209	Bi	0.124741
232	Th	0.127048
238	U	0.126846

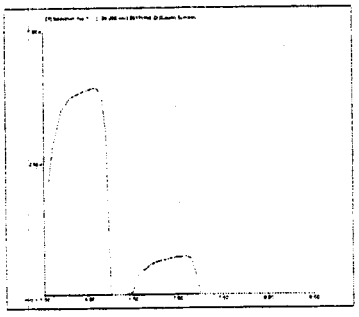
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

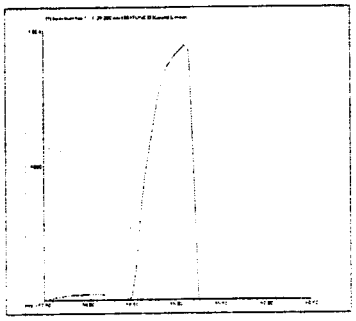
Data File: C:\ICPCHEM\1\DATA\05E0913a.B\001TUNE.D
Date Acquired: May 9 2005 01:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

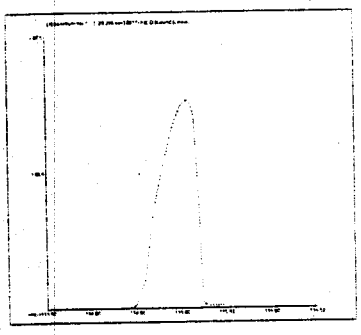
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.43	5.00	
115 In	1.12	5.00	
205 Tl	0.90	5.00	



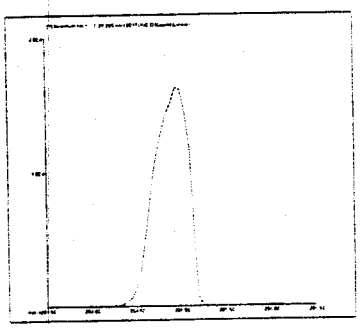
7 Li
Mass Calib.
Actual: 7.10
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.10
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 9 2005 01:12 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 09 2005 00:27 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01962	ppb	37.67	0.01962	1.00	
23 Na	-43.94	ppb	0.73	-43.94	1.00	
26 Mg	3.398	ppb	8.82	3.398	1.00	
27 Al	1.878	ppb	10.47	1.878	1.00	
39 K	-29.44	ppb	4.05	-29.44	1.00	
44 Ca	3.364	ppb	40.01	3.364	1.00	
51 V	0.07676	ppb	20.02	0.07676	1.00	
52 Cr	0.01954	ppb	87.56	0.01954	1.00	
55 Mn	0.004327	ppb	145.09	0.004327	1.00	
57 Fe	6.129	ppb	10.02	6.129	1.00	
59 Co	0.007675	ppb	55.04	0.007675	1.00	
60 Ni	0.01296	ppb	122.07	0.01296	1.00	
65 Cu	0.005624	ppb	130.71	0.005624	1.00	
66 Zn	0.1207	ppb	61.64	0.1207	1.00	
75 As	-0.0005196	ppb	13986.00	-0.00052	1.00	
82 Se	0.1292	ppb	181.97	0.1292	1.00	
95 Mo	0.2682	ppb	12.30	0.2682	1.00	
109 Ag	-0.0006557	ppb	128.85	-0.000656	1.00	
111 Cd	-0.01698	ppb	93.52	-0.01698	1.00	
121 Sb	0.02757	ppb	87.81	0.02757	1.00	
137 Ba	-0.01029	ppb	188.92	-0.01029	1.00	
205 Tl	-0.001022	ppb	423.19	-0.001022	1.00	
208 Pb	0.005026	ppb	28.45	0.005026	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	385913.31	1.24	---	#VALUE!	30 - 200	
45 Sc	579813.31	0.74	---	#VALUE!	30 - 200	
72 Ge	166277.11	0.91	---	#VALUE!	30 - 200	

115 In	1301750.40	0.98	---	#VALUE!	30 - 200
209 Bi	1283374.90	1.15	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\003CAL
Date Acquired: May 9 2005 01:18 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 00:27 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	383255.50	P	2928.00	0.76
9	Be	23.33	P	8.82	37.80
23	Na	333306.69	P	15010.00	4.50
26	Mg	3714.44	P	313.40	8.44
27	Al	65416.66	P	2181.00	3.33
39	K	717550.00	P	14920.00	2.08
44	Ca	8939.10	P	442.70	4.95
45	Sc	566573.31	P	5196.00	0.92
51	V	1393.93	P	609.90	43.75
52	Cr	2952.22	P	110.80	3.75
55	Mn	796.67	P	60.09	7.54
57	Fe	6386.67	P	64.29	1.01
59	Co	181.11	P	21.69	11.98
60	Ni	107.78	P	12.62	11.71
65	Cu	188.87	P	29.87	15.82
66	Zn	1647.80	P	70.03	4.25
72	Ge	161712.41	P	1363.00	0.84
75	As	58.31	P	44.00	75.46
82	Se	59.65	P	7.11	11.92
95	Mo	550.00	P	46.67	8.49
109	Ag	120.00	P	17.32	14.43
111	Cd	194.55	P	36.43	18.73
115	In	1281904.00	A	17700.00	1.38
121	Sb	534.44	P	93.95	17.58
137	Ba	586.67	P	40.96	6.98
205	Tl	893.33	P	106.00	11.87
208	Pb	705.56	P	51.78	7.34
209	Bi	1275587.00	A	13700.00	1.07
232	Th	740.00	P	63.33	8.56
238	U	246.67	P	14.53	5.89

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\004CALI.D\004CALI.D#
Date Acquired: May 9 2005 01:23 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	381658.91	P	6406.00	1.68
9 Be	340.00	P	15.28	4.49
23 Na	503082.19	P	5102.00	1.01
26 Mg	21435.55	P	425.80	1.99
27 Al	63396.66	P	201.20	0.32
39 K	921026.63	A	5986.00	0.65
44 Ca	14123.80	P	67.58	0.48
45 Sc	574345.63	P	9099.00	1.58
51 V	3325.88	P	223.90	6.73
52 Cr	5065.56	P	13.88	0.27
55 Mn	3686.67	P	35.12	0.95
57 Fe	12066.67	P	67.66	0.56
59 Co	2666.67	P	26.46	0.99
60 Ni	667.78	P	27.15	4.07
65 Cu	806.57	P	72.65	9.01
66 Zn	2573.44	P	59.26	2.30
72 Ge	163487.59	P	2285.00	1.40
75 As	510.06	P	86.56	16.97
82 Se	105.78	P	12.66	11.97
95 Mo	1196.67	P	138.90	11.61
109 Ag	2133.33	P	63.60	2.98
111 Cd	633.08	P	23.33	3.69
115 In	1290959.00	A	17010.00	1.32
121 Sb	2316.67	P	178.40	7.70
137 Ba	1302.22	P	32.03	2.46
205 Tl	5216.67	P	221.70	4.25
208 Pb	6642.22	P	126.00	1.90
209 Bi	1268362.00	A	24950.00	1.97
232 Th	2925.56	P	186.80	6.39
238 U	5856.67	P	60.83	1.04

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6	Li	381658.88	1.68	383255.53	99.6	30 -	200	
45	Sc	574345.56	1.58	566573.31	101.4	30 -	200	
72	Ge	163487.55	1.40	161712.45	101.1	30 -	200	
115	In	1290959.40	1.32	1281904.10	100.7	30 -	200	
209	Bi	1268362.10	1.97	1275586.80	99.4	30 -	200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\005CALI.D\005CALI.D#
Date Acquired: May 9 2005 01:28 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	388543.31	P	6704.00	1.73
9 Be	654.44	P	69.95	10.69
23 Na	720465.63	M	53520.00	7.43
26 Mg	38891.11	P	203.40	0.52
27 Al	58248.88	P	605.70	1.04
39 K	1081261.00	A	8068.00	0.75
44 Ca	17968.38	P	26.04	0.14
45 Sc	573872.19	P	9184.00	1.60
51 V	5801.79	P	456.80	7.87
52 Cr	7103.33	P	123.50	1.74
55 Mn	6466.67	P	174.90	2.70
57 Fe	17103.33	P	175.70	1.03
59 Co	5042.22	P	75.82	1.50
60 Ni	1157.78	P	80.02	6.91
65 Cu	1453.17	P	100.90	6.94
66 Zn	2464.64	P	93.12	3.78
72 Ge	163775.59	P	2296.00	1.40
75 As	618.01	P	97.53	15.78
82 Se	114.84	P	18.26	15.90
95 Mo	1880.00	P	58.59	3.12
109 Ag	3953.33	P	100.70	2.55
111 Cd	1141.54	P	83.62	7.33
115 In	1302916.00	A	31930.00	2.45
121 Sb	3942.22	P	265.00	6.72
137 Ba	1827.78	P	89.46	4.89
205 Tl	9710.00	P	346.70	3.57
208 Pb	12620.00	P	375.60	2.98
209 Bi	1286918.00	A	14760.00	1.15
232 Th	5670.00	P	387.00	6.83
238 U	12016.67	P	179.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	388543.31	1.73	383255.53	101.4	30 - 200	
45 Sc	573872.19	1.60	566573.31	101.3	30 - 200	
72 Ge	163775.55	1.40	161712.45	101.3	30 - 200	
115 In	1302916.10	2.45	1281904.10	101.6	30 - 200	
209 Bi	1286917.50	1.15	1275586.80	100.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\006CALI.D\006CALI.D#
Date Acquired: May 9 2005 01:33 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	378866.69	P	1012.00	0.27
9 Be	1166.67	P	61.73	5.29
23 Na	1059123.00	A	15230.00	1.44
26 Mg	67734.44	P	290.70	0.43
27 Al	67477.78	P	900.40	1.33
39 K	1331844.00	A	11740.00	0.88
44 Ca	25958.08	P	633.30	2.44
45 Sc	554661.13	P	3920.00	0.71
51 V	9309.37	P	328.70	3.53
52 Cr	10281.11	P	180.30	1.75
55 Mn	11060.00	P	97.13	0.88
57 Fe	26186.67	P	47.02	0.18
59 Co	9041.11	P	56.80	0.63
60 Ni	2033.33	P	64.29	3.16
65 Cu	2721.94	P	83.82	3.08
66 Zn	3879.23	P	176.70	4.56
72 Ge	159886.91	P	1054.00	0.66
75 As	1340.70	P	49.37	3.68
82 Se	153.36	P	34.90	22.76
95 Mo	2985.56	P	137.30	4.60
109 Ag	7330.00	P	229.40	3.13
111 Cd	1744.86	P	131.90	7.56
115 In	1284396.00	A	7356.00	0.57
121 Sb	6622.22	P	85.27	1.29
137 Ba	2970.00	P	170.70	5.75
205 Tl	16626.67	P	280.50	1.69
208 Pb	22985.55	P	449.20	1.95
209 Bi	1278827.00	A	11910.00	0.93
232 Th	10770.00	P	415.30	3.86
238 U	21516.67	P	439.50	2.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	378866.66	0.27	383255.53	98.9	30 - 200	
45 Sc	554661.06	0.71	566573.31	97.9	30 - 200	
72 Ge	159886.89	0.66	161712.45	98.9	30 - 200	
115 In	1284395.60	0.57	1281904.10	100.2	30 - 200	
209 Bi	1278826.80	0.93	1275586.80	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\007CALI.D\007CALI.D#
Date Acquired: May 9 2005 01:39 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	373440.00	P	5622.00	1.51
9 Be	11201.11	P	320.10	2.86
23 Na	6985478.00	A	53770.00	0.77
26 Mg	685156.31	M	30550.00	4.46
27 Al	108658.90	P	2111.00	1.94
39 K	6721495.00	A	84880.00	1.26
44 Ca	193138.09	P	3493.00	1.81
45 Sc	561696.63	P	11480.00	2.04
51 V	79563.28	P	2277.00	2.86
52 Cr	75866.66	P	1479.00	1.95
55 Mn	102837.80	P	878.60	0.85
57 Fe	216431.09	P	1686.00	0.78
59 Co	87177.78	P	954.10	1.09
60 Ni	19746.67	P	52.92	0.27
65 Cu	23500.52	P	320.00	1.36
66 Zn	16014.54	P	280.90	1.75
72 Ge	161695.59	P	2721.00	1.68
75 As	12764.13	P	285.60	2.24
82 Se	947.73	P	37.30	3.94
95 Mo	27211.11	P	262.30	0.96
109 Ag	72074.44	P	1428.00	1.98
111 Cd	15658.37	P	351.50	2.24
115 In	1268975.00	A	8228.00	0.65
121 Sb	61817.78	P	996.20	1.61
137 Ba	23555.55	P	440.50	1.87
205 Tl	159404.41	P	4573.00	2.87
208 Pb	217473.30	P	3833.00	1.76
209 Bi	1262652.00	A	23180.00	1.84
232 Th	111372.20	P	5385.00	4.84
238 U	210833.30	P	4958.00	2.35

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	373440.00	1.51	383255.53	97.4	30 - 200	
45 Sc	561696.63	2.04	566573.31	99.1	30 - 200	
72 Ge	161695.55	1.68	161712.45	100.0	30 - 200	
115 In	1268975.10	0.65	1281904.10	99.0	30 - 200	
209 Bi	1262651.90	1.84	1275586.80	99.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#
Date Acquired: May 9 2005 01:44 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:41 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	384265.50	P	6338.00	1.65
9 Be	111040.00	P	2223.00	2.00
23 Na	64779380.00	A	914800.00	1.41
26 Mg	6611233.00	A	56080.00	0.85
27 Al	538136.63	P	10100.00	1.88
39 K	60055780.00	A	1021000.00	1.70
44 Ca	1886489.00	A	35790.00	1.90
45 Sc	586510.00	P	11090.00	1.89
51 V	815436.81	M	11310.00	1.39
52 Cr	724518.88	P	7612.00	1.05
55 Mn	1026897.00	A	2574.00	0.25
57 Fe	2150757.00	A	11590.00	0.54
59 Co	875879.50	M	8110.00	0.93
60 Ni	189035.59	P	2981.00	1.58
65 Cu	227604.91	P	3232.00	1.42
66 Zn	136166.41	P	2085.00	1.53
72 Ge	167832.00	P	2983.00	1.78
75 As	126410.40	P	2488.00	1.97
82 Se	8468.64	P	100.50	1.19
95 Mo	270137.81	P	4754.00	1.76
109 Ag	699755.50	P	12720.00	1.82
111 Cd	148551.20	P	2298.00	1.55
115 In	1290516.00	A	11120.00	0.86
121 Sb	603296.63	P	12550.00	2.08
137 Ba	226022.20	P	2894.00	1.28
205 Tl	1674851.00	A	11330.00	0.68
208 Pb	2140513.00	A	22340.00	1.04
209 Bi	1244905.00	A	17460.00	1.40
232 Th	1933230.00	A	52040.00	2.69
238 U	2220371.00	A	13630.00	0.61

ISTD Elements

C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	384265.53	1.65	383255.53	100.3	30 - 200	
45 Sc	586510.00	1.89	566573.31	103.5	30 - 200	
72 Ge	167832.00	1.78	161712.45	103.8	30 - 200	
115 In	1290516.10	0.86	1281904.10	100.7	30 - 200	
209 Bi	1244904.60	1.40	1275586.80	97.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#
Date Acquired: May 9 2005 01:49 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:46 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	387304.41	P	3457.00	0.89
9	Be	225693.30	P	2890.00	1.28
23	Na	130728600.00	A	458100.00	0.35
26	Mg	13381630.00	A	23150.00	0.17
27	Al	1149083.00	A	7759.00	0.68
39	K	120280500.00	A	1180000.00	0.98
44	Ca	3707841.00	A	36990.00	1.00
45	Sc	581156.63	P	9439.00	1.62
51	V	1624804.00	A	13860.00	0.85
52	Cr	1456411.00	A	13430.00	0.92
55	Mn	2026948.00	A	17110.00	0.84
57	Fe	4180162.00	A	10860.00	0.26
59	Co	1751228.00	A	15420.00	0.88
60	Ni	376336.69	P	1881.00	0.50
65	Cu	453202.41	P	3241.00	0.72
66	Zn	267803.59	P	2351.00	0.88
72	Ge	168117.09	P	2754.00	1.64
75	As	257446.70	P	3322.00	1.29
82	Se	16928.90	P	229.50	1.36
95	Mo	551943.31	P	6031.00	1.09
109	Ag	1417878.00	A	14610.00	1.03
111	Cd	297226.69	P	3533.00	1.19
115	In	1269237.00	A	11470.00	0.90
121	Sb	1257868.00	A	10450.00	0.83
137	Ba	457220.00	P	5570.00	1.22
205	Tl	3305613.00	A	41840.00	1.27
208	Pb	4316318.00	A	84220.00	1.95
209	Bi	1216527.00	A	29690.00	2.44
232	Th	4542415.00	A	78550.00	1.73
238	U	4488659.00	A	82940.00	1.85

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	387304.44	0.89	383255.53	101.1	30 - 200	
45 Sc	581156.63	1.62	566573.31	102.6	30 - 200	
72 Ge	168117.11	1.64	161712.45	104.0	30 - 200	
115 In	1269236.80	0.90	1281904.10	99.0	30 - 200	
209 Bi	1216526.80	2.44	1275586.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 09, 2005 13:51
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e0913a.b\003calb.d\	003calb.d#	May 9 2005 01:18 pm
2	...hem\1\data\05e0913a.b\004cali.d\	004cali.d#	May 9 2005 01:23 pm
3	...hem\1\data\05e0913a.b\005cali.d\	005cali.d#	May 9 2005 01:28 pm
4	...hem\1\data\05e0913a.b\006cali.d\	006cali.d#	May 9 2005 01:33 pm
5	...hem\1\data\05e0913a.b\007cali.d\	007cali.d#	May 9 2005 01:39 pm
6	...hem\1\data\05e0913a.b\008cali.d\	008cali.d#	May 9 2005 01:44 pm
7	...hem\1\data\05e0913a.b\009cali.d\	009cali.d#	May 9 2005 01:49 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.454E-1*X +3.046E-3(blank)	---	ppb
Na	23	45	Y = 5.587E-1*X +2.941E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.732E-2*X +3.277E-1(blank)	---	ppb
Al	27	45	Y = 4.525E-1*X +5.772E+0(blank)	---	ppb
K	39	45	Y = 5.126E-1*X +6.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.593E-2*X +7.887E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.416E+0*X +4.303E-1(blank)	---	ppb
Cr	52	72	Y = 2.159E+0*X +9.127E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.023E+0*X +2.462E-1(blank)	---	ppb
Fe	57	72	Y = 6.244E-2*X +1.975E+0(blank)	---	ppb
Co	59	72	Y = 2.605E+0*X +5.598E-2(blank)	---	ppb
Ni	60	72	Y = 5.603E-1*X +3.331E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.746E-1*X +5.836E-2(blank)	---	ppb
Zn	66	72	Y = 3.968E-1*X +5.096E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.815E-1*X +1.796E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.508E-2*X +1.844E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.166E-1*X +1.700E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.104E+0*X +3.713E-2(blank)	---	ppb
Cd	111	72	Y = 4.418E-1*X +6.010E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.448E-1*X +2.082E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.942E-2*X +2.290E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.778E-1*X +3.499E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.767E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

stid : MET05
qnum : 55186547010
lnum : 55186547001
andards: S399

Run Name :
Filename : e0913010
Caldate : 09-MAY-2005

Injected : 09-MAY-2005 13:54
Caltype :

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
luminum	100.0000	95.24000	ug/L	-5	10	
ntimony	100.0000	98.46000	ug/L	-2	10	
rsenic	100.0000	100.5000	ug/L	1	10	
arium	100.0000	98.32000	ug/L	-2	10	
eryllium	100.0000	98.59000	ug/L	-1	10	
admium	100.0000	101.9000	ug/L	2	10	
alcium	10000.00	10110.00	ug/L	1	10	
hromium	100.0000	100.1000	ug/L	0	10	
obalt	100.0000	100.3000	ug/L	0	10	
opper	100.0000	101.2000	ug/L	1	10	
ron	10000.00	10260.00	ug/L	3	10	
ead	100.0000	98.27000	ug/L	-2	10	
lagnesium	10000.00	10060.00	ug/L	1	10	
langanese	100.0000	101.6000	ug/L	2	10	
olybdenum	100.0000	100.6000	ug/L	1	10	
ickel	100.0000	101.7000	ug/L	2	10	
otassium	10000.00	10060.00	ug/L	1	10	
elenium	100.0000	102.1000	ug/L	2	10	
ilver	100.0000	100.9000	ug/L	1	10	
odium	10000.00	10090.00	ug/L	1	10	
hallium	100.0000	100.5000	ug/L	1	10	
anadium	100.0000	101.3000	ug/L	1	10	
inc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	397821	3.80
Scandium	566573	593270	4.71
Germanium	161713	169142	4.59
Indium	1281904	1313906	2.50
Bismuth	1275587	1269056	-0.51

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɛqnum : 55186547012 Filename : e0913012 Injected : 09-MAY-2005 14:06
:andards: 05WS0207

ınalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.380300	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɜarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɜeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔalcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɔhromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɔobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔopper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɪron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɭead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547013 Filename : e0913013 Injected : 09-MAY-2005 14:12
:andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.391000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.555400	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.891700	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0090]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.0932]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.188000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.679000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.476000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.227000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.022000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.305000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.4896]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1480]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.1242]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.1340]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.928000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89980	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	295200	ug/L	98
Iron	55186547001	09-MAY-2005	250000	241600	ug/L	97
Magnesium	55186547001	09-MAY-2005	100000	93590	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1902	ug/L	95
Potassium	55186547001	09-MAY-2005	100000	96440	ug/L	96
Sodium	55186547001	09-MAY-2005	250000	227100	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

nstid : MET05 Run Name :
eqnum : 55186547014 Filename : e0913014 Injected : 09-MAY-2005 14:17
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88800.00	ug/L	-11		
Arsenic	100.0000	109.0000	ug/L	9	20	
Cadmium	100.0000	98.83000	ug/L	-1	20	
Calcium	300000.0	295000.0	ug/L	-2		
Chromium	200.0000	215.5000	ug/L	8	20	
Cobalt	200.0000	210.2000	ug/L	5	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	247100.0	ug/L	-1		
Magnesium	100000.0	91970.00	ug/L	-8		
Manganese	200.0000	217.9000	ug/L	9	20	
Molybdenum	2000.000	1929.000	ug/L	-4		
Nickel	200.0000	201.8000	ug/L	1	20	
Potassium	100000.0	95150.00	ug/L	-5		
Selenium	100.0000	101.5000	ug/L	2	20	
Silver	50.00000	48.38000	ug/L	-3	20	
Sodium	250000.0	224200.0	ug/L	-10		
Vanadium	200.0000	220.6000	ug/L	10	20	
Zinc	100.0000	101.8000	ug/L	2	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	598407	5.62
Germanium	161713	166732	3.10

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name : IDF : 1.0
ɛqnum : 55186547025 Filename : e0913025 Injected : 09-MAY-2005 15:22
ıalnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
ɔandards: S403, 05WS0207

ınalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Flags
ıluminum	3.6312	0.4842	150.0000	147.8000	ug/L	-1	10
ıntimony	0.2740	0.2317	150.0000	141.9000	ug/L	-5	10
ırsenic	0.3902	0.3709	150.0000	145.8000	ug/L	-3	10
ɜarium	0.1214	0.0872	150.0000	146.0000	ug/L	-3	10
ɜeryllium	0.1568	0.1417	150.0000	146.1000	ug/L	-3	10
ɔadmium	0.5642	0.4444	150.0000	150.7000	ug/L	0	10
ɔalcium	0.0208	0.0157	15000.00	14730.00	ug/L	-2	10
ɔhromium	2.8448	2.1412	150.0000	148.3000	ug/L	-1	10
ɔobalt	2.8466	2.5911	150.0000	149.2000	ug/L	-1	10
ɔopper	0.7634	0.6613	150.0000	147.0000	ug/L	-2	10
ɪron	0.0759	0.0618	15000.00	14820.00	ug/L	-1	10
ɭead	0.9225	0.8510	150.0000	144.8000	ug/L	-3	10
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10
Manganese	3.5290	2.9760	150.0000	147.6000	ug/L	-2	10
Molybdenum	0.9099	0.8045	150.0000	147.6000	ug/L	-2	10
Nickel	0.6490	0.5499	150.0000	147.1000	ug/L	-2	10
Potassium	0.9426	0.5046	15000.00	14640.00	ug/L	-2	10
Selenium	0.0396	0.0248	150.0000	147.4000	ug/L	-2	10
Silver	2.2896	2.1088	150.0000	150.3000	ug/L	0	10
Sodium	0.7893	0.5501	15000.00	14720.00	ug/L	-2	10
Thallium	0.6776	0.6635	150.0000	146.8000	ug/L	-2	10
Vanadium	2.7524	2.4032	150.0000	149.0000	ug/L	-1	10
Zinc	0.8033	0.3903	150.0000	146.3000	ug/L	-2	10

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	373026	-2.67
Scandium	566573	561004	-0.98
Germanium	161713	161836	0.08
Indium	1281904	1264407	-1.36
Bismuth	1275587	1249023	-2.08

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547027 Filename : e0913027 Injected : 09-MAY-2005 15:33
:andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
.luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.260000	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
3arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
3eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
:hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid	: MET05	Run Name :		IDF	: 1.0
:qnum	: 55186547031	Filename :	e0913031	Injected	: 09-MAY-2005 15:57
ılnum	: 55186547001	Caldate :	09-MAY-2005	Caltype	:
:andards	: S400, 05WS0207				

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ıluminum	3.6312	0.4676	100.0000	90.59000	ug/L	-9	10	
ıntimony	0.2740	0.2331	100.0000	95.12000	ug/L	-5	10	
ırsenic	0.3902	0.3791	100.0000	99.32000	ug/L	-1	10	
ıarium	0.1214	0.0880	100.0000	98.19000	ug/L	-2	10	
ıeryllium	0.1568	0.1450	100.0000	99.70000	ug/L	0	10	
:admium	0.5642	0.4516	100.0000	102.1000	ug/L	2	10	
:alcium	0.0208	0.0164	10000.00	10220.00	ug/L	2	10	
:hromium	2.8448	2.1583	100.0000	99.53000	ug/L	0	10	
:obalt	2.8466	2.5857	100.0000	99.22000	ug/L	-1	10	
:opper	0.7634	0.6794	100.0000	100.6000	ug/L	1	10	
Iron	0.0759	0.0645	10000.00	10300.00	ug/L	3	10	
;ead	0.9225	0.8645	100.0000	98.05000	ug/L	-2	10	
Magnesium	0.0608	0.0583	10000.00	10160.00	ug/L	2	10	
Manganese	3.5290	3.1243	100.0000	103.3000	ug/L	3	10	
Molybdenum	0.9099	0.8182	100.0000	99.98000	ug/L	0	10	
Nickel	0.6490	0.5662	100.0000	101.0000	ug/L	1	10	
Potassium	0.9426	0.5241	10000.00	10100.00	ug/L	1	10	
Selenium	0.0396	0.0255	100.0000	100.9000	ug/L	1	10	
Silver	2.2896	2.1286	100.0000	101.2000	ug/L	1	10	
Sodium	0.7893	0.5663	10000.00	10080.00	ug/L	1	10	
Thallium	0.6776	0.6851	100.0000	101.0000	ug/L	1	10	
Vanadium	2.7524	2.4000	100.0000	99.14000	ug/L	-1	10	
Zinc	0.8033	0.4049	100.0000	100.8000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	368057	-3.97
Scandium	566573	555167	-2.01
Germanium	161713	161141	-0.35
Indium	1281904	1267241	-1.14
Bismuth	1275587	1237819	-2.96

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05
qnum : 55186547033
andards: 05WS0207

Run Name :
Filename : e0913033

Injected : 09-MAY-2005 16:09

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1836]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547034 Filename : e0913034 Injected : 09-MAY-2005 16:15
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.217000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.647500	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.803400	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0110]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.1070]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.182000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.621000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.499000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.185000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.014000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.330000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.3223]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1382]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0349]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.0894]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	90860	ug/L	91
Calcium	55186547001	09-MAY-2005	300000	292900	ug/L	98
Iron	55186547001	09-MAY-2005	250000	237700	ug/L	95
Magnesium	55186547001	09-MAY-2005	100000	94090	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1944	ug/L	97
Potassium	55186547001	09-MAY-2005	100000	96540	ug/L	97
Sodium	55186547001	09-MAY-2005	250000	226900	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɛqnum : 55186547035 Filename : e0913035 Injected : 09-MAY-2005 16:21
ıalnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
ɔandards: S402, 05WS0207

ınalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ıluminum	100000.0	89450.00	ug/L	-11		
ırsenic	100.0000	106.2000	ug/L	6	20	
ɔadmium	100.0000	98.87000	ug/L	-1	20	
ɔalcium	300000.0	292500.0	ug/L	-3		
ɔhromium	200.0000	206.3000	ug/L	3	20	
ɔobalt	200.0000	204.6000	ug/L	2	20	
ɔopper	200.0000	192.8000	ug/L	-4	20	
Iron	250000.0	237800.0	ug/L	-5		
Magnesium	100000.0	93040.00	ug/L	-7		
Manganese	200.0000	208.6000	ug/L	4	20	
Molybdenum	2000.000	1917.000	ug/L	-4		
Nickel	200.0000	196.3000	ug/L	-2	20	
Potassium	100000.0	95100.00	ug/L	-5		
Selenium	100.0000	99.09000	ug/L	-1	20	
Silver	50.00000	48.47000	ug/L	-3	20	
Sodium	250000.0	223600.0	ug/L	-11		
Vanadium	200.0000	212.9000	ug/L	6	20	
Zinc	100.0000	98.57000	ug/L	-1	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	566613	0.01
Germanium	161713	163447	1.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
gnum : 55186547046 Filename : e0913046 Injected : 09-MAY-2005 17:39
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4749	150.0000	144.7000	ug/L	-4	10	
ltimony	0.2740	0.2250	150.0000	137.7000	ug/L	-8	10	
rsenic	0.3902	0.3648	150.0000	143.4000	ug/L	-4	10	
arium	0.1214	0.0853	150.0000	142.9000	ug/L	-5	10	
eryllium	0.1568	0.1391	150.0000	143.4000	ug/L	-4	10	
admium	0.5642	0.4459	150.0000	151.2000	ug/L	1	10	
alcium	0.0208	0.0155	15000.00	14550.00	ug/L	-3	10	
aromium	2.8448	2.1136	150.0000	146.4000	ug/L	-2	10	
obalt	2.8466	2.5472	150.0000	146.6000	ug/L	-2	10	
opper	0.7634	0.6531	150.0000	145.1000	ug/L	-3	10	
ron	0.0759	0.0620	15000.00	14850.00	ug/L	-1	10	
ead	0.9225	0.8358	150.0000	142.2000	ug/L	-5	10	
agnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
anganese	3.5290	2.9806	150.0000	147.8000	ug/L	-1	10	
olybdenum	0.9099	0.7972	150.0000	146.2000	ug/L	-3	10	
ickel	0.6490	0.5403	150.0000	144.6000	ug/L	-4	10	
otassium	0.9426	0.5038	15000.00	14620.00	ug/L	-3	10	
elenium	0.0396	0.0247	150.0000	147.1000	ug/L	-2	10	
ilver	2.2896	2.1293	150.0000	151.8000	ug/L	1	10	
odium	0.7893	0.5550	15000.00	14850.00	ug/L	-1	10	
hallium	0.6776	0.6552	150.0000	144.9000	ug/L	-3	10	
anadium	2.7524	2.3700	150.0000	146.9000	ug/L	-2	10	
inc	0.8033	0.3843	150.0000	144.0000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	371734	-3.01
candium	566573	544232	-3.94
ermanium	161713	158308	-2.11
ndium	1281904	1276514	-0.42
ismuth	1275587	1283726	0.64

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547048 Filename : e0913048 Injected : 09-MAY-2005 17:51
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.2093]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.559700	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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stid : MET05 Run Name : IDF : 1.0
pnum : 55186547061 Filename : e0913061 Injected : 09-MAY-2005 19:07
.num : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4622	150.0000	140.5000	ug/L	-6	10	
.timony	0.2740	0.2246	150.0000	137.5000	ug/L	-8	10	
senic	0.3902	0.3614	150.0000	142.1000	ug/L	-5	10	
arium	0.1214	0.0850	150.0000	142.2000	ug/L	-5	10	
eryllium	0.1568	0.1384	150.0000	142.7000	ug/L	-5	10	
admium	0.5642	0.4352	150.0000	147.6000	ug/L	-2	10	
alcium	0.0208	0.0155	15000.00	14580.00	ug/L	-3	10	
aromium	2.8448	2.1179	150.0000	146.7000	ug/L	-2	10	
obalt	2.8466	2.5818	150.0000	148.6000	ug/L	-1	10	
opper	0.7634	0.6536	150.0000	145.3000	ug/L	-3	10	
ron	0.0759	0.0622	15000.00	14900.00	ug/L	-1	10	
ead	0.9225	0.8200	150.0000	139.5000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14530.00	ug/L	-3	10	
anganese	3.5290	3.0047	150.0000	149.0000	ug/L	-1	10	
olybdenum	0.9099	0.7924	150.0000	145.3000	ug/L	-3	10	
ickel	0.6490	0.5423	150.0000	145.1000	ug/L	-3	10	
otassium	0.9426	0.4942	15000.00	14340.00	ug/L	-4	10	
elenium	0.0396	0.0243	150.0000	144.8000	ug/L	-3	10	
ilver	2.2896	2.0791	150.0000	148.2000	ug/L	-1	10	
odium	0.7893	0.5429	15000.00	14520.00	ug/L	-3	10	
hallium	0.6776	0.6486	150.0000	143.5000	ug/L	-4	10	
anadium	2.7524	2.3733	150.0000	147.1000	ug/L	-2	10	
inc	0.8033	0.3850	150.0000	144.3000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	364584	-4.87
candium	566573	549159	-3.07
ermanium	161713	158082	-2.25
ndium	1281904	1258859	-1.80
ismuth	1275587	1233783	-3.28

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stid : MET05 Run Name :
qnum : 55186547063 Filename : e0913063 Injected : 09-MAY-2005 19:19
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
itimony	55186547001	09-MAY-2005	0.274200	0.250000	ug/L	ib ***
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.2043]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547073 Filename : e0913073 Injected : 09-MAY-2005 20:18
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S400, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4673	100.0000	90.51000	ug/L	-9	10	
ntimony	0.2740	0.2288	100.0000	93.37000	ug/L	-7	10	
rsenic	0.3902	0.3666	100.0000	96.04000	ug/L	-4	10	
arium	0.1214	0.0856	100.0000	95.47000	ug/L	-5	10	
eryllium	0.1568	0.1387	100.0000	95.34000	ug/L	-5	10	
admium	0.5642	0.4496	100.0000	101.6000	ug/L	2	10	
alcium	0.0208	0.0159	10000.00	9930.000	ug/L	-1	10	
hromium	2.8448	2.1183	100.0000	97.68000	ug/L	-2	10	
obalt	2.8466	2.5411	100.0000	97.51000	ug/L	-2	10	
opper	0.7634	0.6660	100.0000	98.64000	ug/L	-1	10	
ron	0.0759	0.0640	10000.00	10220.00	ug/L	2	10	
ead	0.9225	0.8380	100.0000	95.05000	ug/L	-5	10	
agnesium	0.0608	0.0574	10000.00	10010.00	ug/L	0	10	
anganese	3.5290	3.0535	100.0000	100.9000	ug/L	1	10	
olybdenum	0.9099	0.8014	100.0000	97.93000	ug/L	-2	10	
ickel	0.6490	0.5555	100.0000	99.08000	ug/L	-1	10	
otassium	0.9426	0.5068	10000.00	9764.000	ug/L	-2	10	
elenium	0.0396	0.0248	100.0000	98.04000	ug/L	-2	10	
ilver	2.2896	2.1066	100.0000	100.1000	ug/L	0	10	
odium	0.7893	0.5618	10000.00	10000.00	ug/L	0	10	
hallium	0.6776	0.6543	100.0000	96.49000	ug/L	-4	10	
anadium	2.7524	2.3544	100.0000	97.26000	ug/L	-3	10	
Zinc	0.8033	0.3978	100.0000	98.96000	ug/L	-1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	380148	-0.81
Scandium	566573	554670	-2.10
Germanium	161713	160863	-0.53
Indium	1281904	1296859	1.17
Bismuth	1275587	1288713	1.03

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

.stid : MET05 Run Name :
:qnum : 55186547075 Filename : e0913075 Injected : 09-MAY-2005 20:30
.andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1410]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547076 Filename : e0913076 Injected : 09-MAY-2005 20:35
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.164000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.849800	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.754800	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0173]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.402000	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.676000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	3.095000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.990000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.152000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.476000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.796000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	1.035000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.275200	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0729]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.5942]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.645000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	89710	ug/L	90
alcium	55186547001	09-MAY-2005	300000	288400	ug/L	96
ron	55186547001	09-MAY-2005	250000	232000	ug/L	93
agnesium	55186547001	09-MAY-2005	100000	92800	ug/L	93
olybdenum	55186547001	09-MAY-2005	2000	1916	ug/L	96
otassium	55186547001	09-MAY-2005	100000	95190	ug/L	95
odium	55186547001	09-MAY-2005	250000	224900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547077 Filename : e0913077 Injected : 09-MAY-2005 20:41
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88680.00	ug/L	-11		
rsenic	100.0000	104.0000	ug/L	4	20	
admium	100.0000	100.3000	ug/L	0	20	
alcium	300000.0	282500.0	ug/L	-6		
hromium	200.0000	200.5000	ug/L	0	20	
obalt	200.0000	199.2000	ug/L	0	20	
opper	200.0000	188.4000	ug/L	-6	20	
ron	250000.0	229700.0	ug/L	-8		
agnesium	100000.0	91480.00	ug/L	-9		
anganese	200.0000	202.9000	ug/L	1	20	
olybdenum	2000.000	1934.000	ug/L	-3		
ickel	200.0000	191.1000	ug/L	-4	20	
otassium	100000.0	92990.00	ug/L	-7		
elenium	100.0000	97.83000	ug/L	-2	20	
ilver	50.00000	49.27000	ug/L	-1	20	
odium	250000.0	220800.0	ug/L	-12		
anadium	200.0000	205.6000	ug/L	3	20	
inc	100.0000	94.58000	ug/L	-5	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
icandium	566573	524903	-7.35
ermanium	161713	152927	-5.43

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid	: MET05	Run Name :		IDF	: 1.0
qnum	: 55186547090	Filename :	e0913090	Injected	: 09-MAY-2005 21:57
lnum	: 55186547001	Caldate :	09-MAY-2005	Caltype	:
andards	: S403, 05WS0207				

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4441	150.0000	134.5000	ug/L	-10	10	
ntimony	0.2740	0.2267	150.0000	138.8000	ug/L	-7	10	
rsenic	0.3902	0.3603	150.0000	141.6000	ug/L	-6	10	
arium	0.1214	0.0859	150.0000	143.8000	ug/L	-4	10	
eryllium	0.1568	0.1381	150.0000	142.4000	ug/L	-5	10	
admium	0.5642	0.4419	150.0000	149.9000	ug/L	0	10	
alcium	0.0208	0.0155	15000.00	14560.00	ug/L	-3	10	
hromium	2.8448	2.1134	150.0000	146.4000	ug/L	-2	10	
obalt	2.8466	2.5717	150.0000	148.0000	ug/L	-1	10	
opper	0.7634	0.6520	150.0000	144.9000	ug/L	-3	10	
ron	0.0759	0.0625	15000.00	14970.00	ug/L	0	10	
ead	0.9225	0.8374	150.0000	142.5000	ug/L	-5	10	
lagnesium	0.0608	0.0558	15000.00	14600.00	ug/L	-3	10	
langanese	3.5290	3.0052	150.0000	149.1000	ug/L	-1	10	
lolybdenum	0.9099	0.7996	150.0000	146.7000	ug/L	-2	10	
lickel	0.6490	0.5407	150.0000	144.7000	ug/L	-4	10	
otassium	0.9426	0.4972	15000.00	14430.00	ug/L	-4	10	
elenium	0.0396	0.0244	150.0000	145.0000	ug/L	-3	10	
ilver	2.2896	2.1172	150.0000	150.9000	ug/L	1	10	
odium	0.7893	0.5486	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.6532	150.0000	144.5000	ug/L	-4	10	
anadium	2.7524	2.3781	150.0000	147.4000	ug/L	-2	10	
inc	0.8033	0.3860	150.0000	144.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	332344	-13.28
candium	566573	500594	-11.65
ermanium	161713	147515	-8.78
ndium	1281904	1196146	-6.69
ismuth	1275587	1218836	-4.45

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stid : MET05 Run Name :
qnum : 55186547092 Filename : e0913092 Injected : 09-MAY-2005 22:08
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1935]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547101 Filename : e0913101 Injected : 09-MAY-2005 23:02
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	2.055000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.835800	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.760600	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	[0.0340]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	0.389700	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.686000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	3.051000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.977000	0.500000	ug/L	
ad	55186547001	09-MAY-2005	1.131000	0.250000	ug/L	
nganese	55186547001	09-MAY-2005	1.590000	0.250000	ug/L	
ckel	55186547001	09-MAY-2005	1.808000	0.250000	ug/L	
lenium	55186547001	09-MAY-2005	0.814200	0.500000	ug/L	
lver	55186547001	09-MAY-2005	0.292200	0.250000	ug/L	
allium	55186547001	09-MAY-2005	[0.0177]	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	[0.5981]	1.000000	ug/L	
nc	55186547001	09-MAY-2005	3.873000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88230	ug/L	88
alcium	55186547001	09-MAY-2005	300000	286700	ug/L	96
ron	55186547001	09-MAY-2005	250000	236400	ug/L	95
agnesium	55186547001	09-MAY-2005	100000	91370	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1844	ug/L	92
otassium	55186547001	09-MAY-2005	100000	92300	ug/L	92
odium	55186547001	09-MAY-2005	250000	220800	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547102 Filename : e0913102 Injected : 09-MAY-2005 23:07
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

nalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88090.00	ug/L	-12		
rsenic	100.0000	100.6000	ug/L	1	20	
admium	100.0000	94.17000	ug/L	-6	20	
alcium	300000.0	285000.0	ug/L	-5		
hromium	200.0000	196.3000	ug/L	-2	20	
obalt	200.0000	196.8000	ug/L	-2	20	
opper	200.0000	185.2000	ug/L	-7	20	
ron	250000.0	232200.0	ug/L	-7		
agnesium	100000.0	91520.00	ug/L	-8		
anganese	200.0000	205.7000	ug/L	3	20	
olybdenum	2000.000	1829.000	ug/L	-9		
ickel	200.0000	188.6000	ug/L	-6	20	
otassium	100000.0	92260.00	ug/L	-8		
elenium	100.0000	94.08000	ug/L	-6	20	
ilver	50.00000	46.16000	ug/L	-8	20	
odium	250000.0	221600.0	ug/L	-11		
anadium	200.0000	202.2000	ug/L	1	20	
inc	100.0000	93.46000	ug/L	-7	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	588738	3.91
Germanium	161713	171175	5.85

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547104 Filename : e0913104 Injected : 09-MAY-2005 23:19
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4816	150.0000	146.9000	ug/L	-2	10	
ntimony	0.2740	0.2208	150.0000	135.2000	ug/L	-10	10	
rsenic	0.3902	0.3531	150.0000	138.8000	ug/L	-7	10	
arium	0.1214	0.0838	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1379	150.0000	142.2000	ug/L	-5	10	
admium	0.5642	0.4284	150.0000	145.3000	ug/L	-3	10	
alcium	0.0208	0.0155	15000.00	14510.00	ug/L	-3	10	
hromium	2.8448	2.0770	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5468	150.0000	146.6000	ug/L	-2	10	
opper	0.7634	0.6408	150.0000	142.4000	ug/L	-5	10	
ron	0.0759	0.0615	15000.00	14750.00	ug/L	-2	10	
ead	0.9225	0.8210	150.0000	139.7000	ug/L	-7	10	
lagnesium	0.0608	0.0544	15000.00	14220.00	ug/L	-5	10	
langanese	3.5290	2.9731	150.0000	147.5000	ug/L	-2	10	
lolybdenum	0.9099	0.7836	150.0000	143.7000	ug/L	-4	10	
lickel	0.6490	0.5339	150.0000	142.9000	ug/L	-5	10	
otassium	0.9426	0.4881	15000.00	14160.00	ug/L	-6	10	
elenium	0.0396	0.0238	150.0000	141.7000	ug/L	-6	10	
ilver	2.2896	2.0654	150.0000	147.2000	ug/L	-2	10	
odium	0.7893	0.5389	15000.00	14410.00	ug/L	-4	10	
hallium	0.6776	0.6459	150.0000	142.9000	ug/L	-5	10	
anadium	2.7524	2.3446	150.0000	145.4000	ug/L	-3	10	
inc	0.8033	0.3778	150.0000	141.5000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	354034	-7.62
Scandium	566573	572106	0.98
Germanium	161713	167746	3.73
Indium	1281904	1353822	5.61
Bismuth	1275587	1244487	-2.44

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stid : MET05 Run Name :
qnum : 55186547106 Filename : e0913106 Injected : 09-MAY-2005 23:31
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.266100	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[7.8940]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	[16.540]	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.509500	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	152.9000	50.00000	ug/L	ib ***
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.1644]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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stid : MET05 Run Name : IDF : 1.0
qnum : 55186547119 Filename : e0913119 Injected : 10-MAY-2005 00:47
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
ntimony	0.2740	0.2207	150.0000	135.1000	ug/L	-10	10	
rsenic	0.3902	0.3591	150.0000	141.1000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1365	150.0000	140.8000	ug/L	-6	10	
admium	0.5642	0.4429	150.0000	150.2000	ug/L	0	10	
alcium	0.0208	0.0154	15000.00	14440.00	ug/L	-4	10	
hromium	2.8448	2.0623	150.0000	142.8000	ug/L	-5	10	
obalt	2.8466	2.5430	150.0000	146.4000	ug/L	-2	10	
opper	0.7634	0.6440	150.0000	143.1000	ug/L	-5	10	
ron	0.0759	0.0607	15000.00	14540.00	ug/L	-3	10	
ead	0.9225	0.8229	150.0000	140.0000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14540.00	ug/L	-3	10	
anganese	3.5290	2.9299	150.0000	145.3000	ug/L	-3	10	
olybdenum	0.9099	0.7959	150.0000	146.0000	ug/L	-3	10	
ickel	0.6490	0.5358	150.0000	143.4000	ug/L	-4	10	
otassium	0.9426	0.4978	15000.00	14440.00	ug/L	-4	10	
elenium	0.0396	0.0240	150.0000	143.0000	ug/L	-5	10	
ilver	2.2896	2.1147	150.0000	150.8000	ug/L	1	10	
odium	0.7893	0.5374	15000.00	14380.00	ug/L	-4	10	
hallium	0.6776	0.6584	150.0000	145.7000	ug/L	-3	10	
anadium	2.7524	2.3251	150.0000	144.1000	ug/L	-4	10	
inc	0.8033	0.3749	150.0000	140.4000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	327369	-14.58
candium	566573	503498	-11.13
ermanium	161713	148418	-8.22
Indium	1281904	1233456	-3.78
ismuth	1275587	1161755	-8.92

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stid : MET05 Run Name :
qnum : 55186547121 Filename : e0913121 Injected : 10-MAY-2005 00:58
andards: 05WS0207

ıalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıtimony	55186547001	09-MAY-2005	0.291700	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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age 1 of 1

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stid : MET05 Run Name : IDF : 1.0
qnum : 55186547133 Filename : e0913133 Injected : 10-MAY-2005 02:08
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4738	150.0000	144.3000	ug/L	-4	10	
ntimony	0.2740	0.2193	150.0000	134.3000	ug/L	-10	10	
rsenic	0.3902	0.3574	150.0000	140.5000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1362	150.0000	140.5000	ug/L	-6	10	
admium	0.5642	0.4611	150.0000	156.4000	ug/L	4	10	
alcium	0.0208	0.0155	15000.00	14540.00	ug/L	-3	10	
hromium	2.8448	2.0076	150.0000	139.0000	ug/L	-7	10	
obalt	2.8466	2.4868	150.0000	143.1000	ug/L	-5	10	
opper	0.7634	0.6376	150.0000	141.7000	ug/L	-6	10	
ron	0.0759	0.0605	15000.00	14510.00	ug/L	-3	10	
ead	0.9225	0.8171	150.0000	139.0000	ug/L	-7	10	
agnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
anganese	3.5290	2.9991	150.0000	148.8000	ug/L	-1	10	
olybdenum	0.9099	0.8080	150.0000	148.2000	ug/L	-1	10	
ickel	0.6490	0.5282	150.0000	141.3000	ug/L	-6	10	
otassium	0.9426	0.5000	15000.00	14510.00	ug/L	-3	10	
elenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
ilver	2.2896	2.1831	150.0000	155.6000	ug/L	4	10	
odium	0.7893	0.5438	15000.00	14550.00	ug/L	-3	10	
hallium	0.6776	0.6476	150.0000	143.3000	ug/L	-4	10	
anadium	2.7524	2.2899	150.0000	142.0000	ug/L	-5	10	
Zinc	0.8033	0.3800	150.0000	142.4000	ug/L	-5	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	290486	-24.21
Scandium	566573	426922	-24.65
Germanium	161713	127442	-21.19
Indium	1281904	1121490	-12.51
Bismuth	1275587	1113799	-12.68

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stid : MET05 Run Name :
qnum : 55186547135 Filename : e0913135 Injected : 10-MAY-2005 02:20
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
itimony	55186547001	09-MAY-2005	0.275900	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[12.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.2292]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	3.056000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.556300	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	2.229000	1.000000	ug/L	ib ***

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Page 1 of 1

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Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547147 Filename : e0913147 Injected : 10-MAY-2005 03:31
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4614	150.0000	140.2000	ug/L	-7	10	
ntimony	0.2740	0.2218	150.0000	135.8000	ug/L	-9	10	
rsenic	0.3902	0.3599	150.0000	141.5000	ug/L	-6	10	
arium	0.1214	0.0840	150.0000	140.6000	ug/L	-6	10	
eryllium	0.1568	0.1372	150.0000	141.5000	ug/L	-6	10	
admium	0.5642	0.4655	150.0000	157.9000	ug/L	5	10	
alcium	0.0208	0.0156	15000.00	14620.00	ug/L	-3	10	
hromium	2.8448	2.0299	150.0000	140.6000	ug/L	-6	10	
obalt	2.8466	2.5088	150.0000	144.4000	ug/L	-4	10	
opper	0.7634	0.6448	150.0000	143.3000	ug/L	-4	10	
ron	0.0759	0.0605	15000.00	14490.00	ug/L	-3	10	
ead	0.9225	0.8192	150.0000	139.4000	ug/L	-7	10	
agnesium	0.0608	0.0568	15000.00	14850.00	ug/L	-1	10	
anganese	3.5290	2.9146	150.0000	144.6000	ug/L	-4	10	
olybdenum	0.9099	0.8154	150.0000	149.6000	ug/L	0	10	
ickel	0.6490	0.5336	150.0000	142.8000	ug/L	-5	10	
otassium	0.9426	0.5096	15000.00	14790.00	ug/L	-1	10	
elenium	0.0396	0.0243	150.0000	144.3000	ug/L	-4	10	
ilver	2.2896	2.1995	150.0000	156.8000	ug/L	5	10	
odium	0.7893	0.5477	15000.00	14650.00	ug/L	-2	10	
hallium	0.6776	0.6668	150.0000	147.5000	ug/L	-2	10	
anadium	2.7524	2.3045	150.0000	142.9000	ug/L	-5	10	
inc	0.8033	0.3761	150.0000	140.9000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	295190	-22.98
candium	566573	430569	-24.00
ermanium	161713	127088	-21.41
ndium	1281904	1117565	-12.82
ismuth	1275587	1051484	-17.57

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
gnum : 55186547149 Filename : e0913149 Injected : 10-MAY-2005 03:42
ndards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.2246]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	[0.1014]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.195000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.517200	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	1.043000	1.000000	ug/L	ib ***

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid	: MET05	Run Name :		IDF	: 1.0
num	: 55186547162	Filename :	e0913162	Injected	: 10-MAY-2005 04:59
num	: 55186547001	Caldate :	09-MAY-2005	Caltype	:
ndards	: S403, 05WS0207				

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
timony	0.2740	0.2169	150.0000	132.8000	ug/L	-11	10	c- ***
senic	0.3902	0.3587	150.0000	141.0000	ug/L	-6	10	
rium	0.1214	0.0817	150.0000	136.8000	ug/L	-9	10	
ryllium	0.1568	0.1363	150.0000	140.6000	ug/L	-6	10	
dmium	0.5642	0.4600	150.0000	156.0000	ug/L	4	10	
lcium	0.0208	0.0156	15000.00	14610.00	ug/L	-3	10	
romium	2.8448	2.0237	150.0000	140.2000	ug/L	-7	10	
balt	2.8466	2.5161	150.0000	144.8000	ug/L	-3	10	
pper	0.7634	0.6437	150.0000	143.0000	ug/L	-5	10	
on	0.0759	0.0607	15000.00	14560.00	ug/L	-3	10	
ad	0.9225	0.8290	150.0000	141.0000	ug/L	-6	10	
agnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
anganese	3.5290	2.9288	150.0000	145.3000	ug/L	-3	10	
olybdenum	0.9099	0.8142	150.0000	149.3000	ug/L	0	10	
ickel	0.6490	0.5312	150.0000	142.2000	ug/L	-5	10	
otassium	0.9426	0.5043	15000.00	14630.00	ug/L	-2	10	
elenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
ilver	2.2896	2.1764	150.0000	155.2000	ug/L	3	10	
odium	0.7893	0.5422	15000.00	14510.00	ug/L	-3	10	
hallium	0.6776	0.6898	150.0000	152.6000	ug/L	2	10	
anadium	2.7524	2.3205	150.0000	143.9000	ug/L	-4	10	
inc	0.8033	0.3758	150.0000	140.8000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	290333	-24.25
candium	566573	433501	-23.49
ermanium	161713	127988	-20.85
ndium	1281904	1129581	-11.88
ismuth	1275587	973668	-23.67

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Page 1 of 1

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547164 Filename : e0913164 Injected : 10-MAY-2005 05:11
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.2283]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0799]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.855700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.8803]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
gnum : 55186547176 Filename : e0913176 Injected : 10-MAY-2005 06:21
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
.uminum	3.6312	0.4688	150.0000	142.6000	ug/L	-5	10	
ıtimony	0.2740	0.2225	150.0000	136.2000	ug/L	-9	10	
:senic	0.3902	0.3706	150.0000	145.7000	ug/L	-3	10	
ırium	0.1214	0.0831	150.0000	139.1000	ug/L	-7	10	
eryllium	0.1568	0.1415	150.0000	146.0000	ug/L	-3	10	
admium	0.5642	0.4668	150.0000	158.4000	ug/L	6	10	
alcium	0.0208	0.0159	15000.00	14930.00	ug/L	0	10	
hromium	2.8448	2.0775	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5922	150.0000	149.2000	ug/L	-1	10	
opper	0.7634	0.6615	150.0000	147.0000	ug/L	-2	10	
ron	0.0759	0.0623	15000.00	14940.00	ug/L	0	10	
ead	0.9225	0.8454	150.0000	143.8000	ug/L	-4	10	
agnesium	0.0608	0.0568	15000.00	14860.00	ug/L	-1	10	
anganese	3.5290	2.9983	150.0000	148.7000	ug/L	-1	10	
olybdenum	0.9099	0.8280	150.0000	151.9000	ug/L	1	10	
ickel	0.6490	0.5492	150.0000	147.0000	ug/L	-2	10	
otassium	0.9426	0.5165	15000.00	14990.00	ug/L	0	10	
elenium	0.0396	0.0247	150.0000	147.2000	ug/L	-2	10	
ilver	2.2896	2.2155	150.0000	157.9000	ug/L	5	10	
odium	0.7893	0.5489	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.7149	150.0000	158.2000	ug/L	5	10	
anadium	2.7524	2.3822	150.0000	147.7000	ug/L	-2	10	
inc	0.8033	0.3834	150.0000	143.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	282773	-26.22
Scandium	566573	434472	-23.32
Germanium	161713	127616	-21.08
Indium	1281904	1110413	-13.38
Bismuth	1275587	869999	-31.80

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547178 Filename : e0913178 Injected : 10-MAY-2005 06:33
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.256600	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0781]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.907700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.7570]	1.000000	ug/L	

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age 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547186 Filename : e0913186 Injected : 10-MAY-2005 07:20
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	1.989000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.989200	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.727600	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0237]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.365700	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.624000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.991000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.871000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.225000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	2.276000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.822000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	0.993000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.288600	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0578]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.6500]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	4.768000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88650	ug/L	89
alcium	55186547001	09-MAY-2005	300000	277800	ug/L	93
ron	55186547001	09-MAY-2005	250000	220600	ug/L	88
agnesium	55186547001	09-MAY-2005	100000	90820	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1959	ug/L	98
otassium	55186547001	09-MAY-2005	100000	93220	ug/L	93
odium	55186547001	09-MAY-2005	250000	217200	ug/L	87

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

:tid : MET05 Run Name :
ɲum : 55186547187 Filename : e0913187 Injected : 10-MAY-2005 07:26
.num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ındards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	100000.0	91030.00	ug/L	-9		
senic	100.0000	103.0000	ug/L	3	20	
dmium	100.0000	105.6000	ug/L	6	20	
lcium	300000.0	286000.0	ug/L	-5		
ıromium	200.0000	195.5000	ug/L	-2	20	
balt	200.0000	197.1000	ug/L	-1	20	
pper	200.0000	186.4000	ug/L	-7	20	
on	250000.0	223800.0	ug/L	-10		
ıgnesium	100000.0	93160.00	ug/L	-7		
ınganese	200.0000	196.7000	ug/L	-2	20	
lybdenum	2000.000	1995.000	ug/L	0		
ickel	200.0000	188.2000	ug/L	-6	20	
tassium	100000.0	96400.00	ug/L	-4		
elenium	100.0000	97.03000	ug/L	-3	20	
ilver	50.00000	51.53000	ug/L	3	20	
dium	250000.0	222600.0	ug/L	-11		
anadium	200.0000	201.1000	ug/L	1	20	
inc	100.0000	92.34000	ug/L	-8	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	407477	-28.08
ermanium	161713	122547	-24.22

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547189
num : 55186547001
ndards: S400, 05WS0207

Run Name :
Filename : e0913189
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 07:38
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.5127	100.0000	100.5000	ug/L	1	10	
timony	0.2740	0.2253	100.0000	91.93000	ug/L	-8	10	
senic	0.3902	0.3668	100.0000	96.09000	ug/L	-4	10	
rium	0.1214	0.0850	100.0000	94.77000	ug/L	-5	10	
ryllium	0.1568	0.1390	100.0000	95.53000	ug/L	-4	10	
dmium	0.5642	0.4837	100.0000	109.3000	ug/L	9	10	
lcium	0.0208	0.0162	10000.00	10120.00	ug/L	1	10	
romium	2.8448	2.0567	100.0000	94.82000	ug/L	-5	10	
balt	2.8466	2.4820	100.0000	95.24000	ug/L	-5	10	
pper	0.7634	0.6631	100.0000	98.22000	ug/L	-2	10	
on	0.0759	0.0631	10000.00	10070.00	ug/L	1	10	
ad	0.9225	0.8048	100.0000	91.27000	ug/L	-9	10	
gnesium	0.0608	0.0576	10000.00	10040.00	ug/L	0	10	
nganese	3.5290	2.9534	100.0000	97.63000	ug/L	-2	10	
lybdenum	0.9099	0.8451	100.0000	103.3000	ug/L	3	10	
ickel	0.6490	0.5474	100.0000	97.64000	ug/L	-2	10	
tassium	0.9426	0.5191	10000.00	10000.00	ug/L	0	10	
lenium	0.0396	0.0250	100.0000	99.01000	ug/L	-1	10	
ilver	2.2896	2.2723	100.0000	108.0000	ug/L	8	10	
odium	0.7893	0.5530	10000.00	9845.000	ug/L	-2	10	
hallium	0.6776	0.6745	100.0000	99.47000	ug/L	-1	10	
anadium	2.7524	2.2699	100.0000	93.76000	ug/L	-6	10	
inc	0.8033	0.3931	100.0000	97.78000	ug/L	-2	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	273038	-28.76
candium	566573	415113	-26.73
ermanium	161713	125004	-22.70
ndium	1281904	1128861	-11.94
ismuth	1275587	1063109	-16.66

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stid : MET05 Run Name :
qnum : 55186547191 Filename : e0913191 Injected : 10-MAY-2005 07:50
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1481]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[11.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0886]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.281000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	1.070000	1.000000	ug/L	ib ***

.b=instrument blank
age 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	e1012001	TUN	tune			10-MAY-2005 12:49	1.0	1.0			1	
003	e1012003	ICALBLK	std-blk			10-MAY-2005 13:00	1.0	1.0			2	
004	e1012004	ICAL	cs1			10-MAY-2005 13:05	1.0	1.0			3	
005	e1012005	ICAL	cs2			10-MAY-2005 13:10	1.0	1.0			4	
006	e1012006	ICAL	cs3			10-MAY-2005 13:17	1.0	1.0			5	
007	e1012007	ICAL	cs4			10-MAY-2005 13:22	1.0	1.0			6	
008	e1012008	ICAL	cs5			10-MAY-2005 13:27	1.0	1.0			7	
009	e1012009	ICAL	cs6			10-MAY-2005 13:32	1.0	1.0			8	
010	e1012010	ICV				10-MAY-2005 13:37	1.0	1.0		1	9	
012	e1012012	ICB				10-MAY-2005 13:49	1.0	1.0	1	1	2	
013	e1012013	ICSA				10-MAY-2005 13:55	1.0	1.0		1	10 2	7:CA=291100
014	e1012014	ICSAB				10-MAY-2005 14:01	1.0	1.0		1	11 2	11:CA=291200
017	e1012017	SAMPLE	178951-001	101496	Soil	10-MAY-2005 14:18	50.0	42.74		1	2	1:AL=3114.00
018	e1012018	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:24	5.0	37.04	4	1	2	9:MG=296200
019	e1012019	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:30	500.0	37.04		1	2	1:AL=350.000
020	e1012020	SAMPLE	179156-002	101595	Water	10-MAY-2005 14:37	10.0	1.0		1	2	
021	e1012021	SAMPLE	179076-043	101496	Soil	10-MAY-2005 14:43	500.0	50.51		1	2	1:AL=253.400
022	e1012022	SAMPLE	179141-013	101595	Water	10-MAY-2005 14:49	5.0	1.0		1	2	1:NA=115080
023	e1012023	SAMPLE	179127-001	101595	Water	10-MAY-2005 14:55	100.0	1.0	3	1	2	2:NA=22790.0
026	e1012026	CCV				10-MAY-2005 15:12	1.0	1.0		1	12 2	
028	e1012028	CCB				10-MAY-2005 15:24	1.0	1.0		1	2	
029	e1012029	SAMPLE	178951-003	101496	Soil	10-MAY-2005 15:30	50.0	44.25		1	2	2:AL=3654.00
030	e1012030	SAMPLE	178951-004	101496	Soil	10-MAY-2005 15:36	500.0	31.45		1	2	1:AL=607.600
031	e1012031	SAMPLE	179049-001	101496	Soil	10-MAY-2005 15:41	500.0	50.51	1	1	2	2:MN=5308.00
032	e1012032	SAMPLE	179089-001	101496	Soil	10-MAY-2005 15:47	5.0	41.32	4	1	2	7:FE=90420.0
033	e1012033	SAMPLE	179089-001	101596	Soil	10-MAY-2005 15:53	20.0				2	
034	e1012034	SAMPLE	179089-002	101496	Soil	10-MAY-2005 15:59	5.0	47.17	4	1	2	7:FE=103220
035	e1012035	SAMPLE	179089-003	101496	Soil	10-MAY-2005 16:05	5.0	48.54	2	1	2	5:FE=66160.0
036	e1012036	SAMPLE	179049-001	101496	Soil	10-MAY-2005 16:13	10000	50.51		1	2	1:MN=250.000
037	e1012037	SAMPLE	179127-001	101595	Water	10-MAY-2005 16:19	200.0	1.0	2	1	2	1:AL=280.850
039	e1012039	CCV				10-MAY-2005 16:31	1.0	1.0		1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: _____ Date: 8/10/15

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 10-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
041	e1012041	CCB				10-MAY-2005 16:43	1.0	1.0	1	2	
042	e1012042	ICSA				10-MAY-2005 16:49	1.0	1.0	1	10 2	7:CA=276800
043	e1012043	ICSAB				10-MAY-2005 16:55	1.0	1.0	1	11 2	7:CA=286800

213

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: Mei Wu Date: 5/19/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1012004	55187969004	cs1	10-MAY-2005 13:05	S395
2	e1012005	55187969005	cs2	10-MAY-2005 13:10	S396
3	e1012006	55187969006	cs3	10-MAY-2005 13:17	S397
4	e1012007	55187969007	cs4	10-MAY-2005 13:22	S398
5	e1012008	55187969008	cs5	10-MAY-2005 13:27	S393
6	e1012009	55187969009	cs6	10-MAY-2005 13:32	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		10.712	6.7709	0.9517	0.5028	0.4918	BLNK	R	-4.36033	2.074629		ug/L	3.8858	0.995	0.995	
Antimony	0.2876	0.2546	0.2225	0.2090	0.2095	0.2169	BLNK	R	-0.07018	4.644182		ug/L	0.2334	1.000	0.995	
Arsenic		0.5280	0.3905	0.3570	0.3513	0.3478	BLNK	R	-0.06208	2.870332		ug/L	0.3949	1.000	0.995	
Barium	0.1811	0.1329	0.1026	0.0805	0.0779	0.0785	BLNK	R	-0.13224	12.77536		ug/L	0.1089	1.000	0.995	
Beryllium	0.1422	0.1503	0.1315	0.1298	0.1284	0.1277	BLNK	R	-0.01571	7.822782		ug/L	0.1350	1.000	0.995	
Cadmium	0.6908	0.5645	0.4479	0.3915	0.3804	0.3756	BLNK	R	-0.18387	2.658232		ug/L	0.4751	1.000	0.995	
Calcium		0.0292	0.0217	0.0157	0.0153	0.0149	BLNK	R	-24.2569	66.90677		ug/L	0.0193	1.000	0.995	
Chromium		4.4142	3.2286	2.2557	2.1569	2.1311	BLNK	R	-0.45918	0.469384		ug/L	2.8373	1.000	0.995	
Cobalt	2.9198	3.0251	2.7510	2.6694	2.6432	2.5722	BLNK	R	-0.01120	0.386636		ug/L	2.7635	1.000	0.995	
Copper		0.9153	0.8357	0.7088	0.6748	0.6600	BLNK	R	-0.09059	1.509025		ug/L	0.7589	1.000	0.995	
Iron		0.1071	0.0832	0.0635	0.0619	0.0599	BLNK	R	-31.0829	16.61212		ug/L	0.0751	1.000	0.995	
Lead	1.1466	0.9977	0.8528	0.7971	0.8192	0.8245	BLNK	R	-0.06798	1.215023		ug/L	0.9063	1.000	0.995	
Magnesium		0.0668	0.0595	0.0618	0.0571	0.0561	BLNK	R	-2.50535	17.75619		ug/L	0.0603	1.000	0.995	
Manganese	6.0529	4.9653	3.9083	3.0542	2.9805	2.8773	BLNK	R	-0.28682	0.345649		ug/L	3.9731	1.000	0.995	
Molybdenum		0.9309	0.8085	0.7393	0.7267	0.7260	BLNK	R	-0.13871	1.378359		ug/L	0.7863	1.000	0.995	
Nickel	0.7661	0.7323	0.6352	0.5875	0.5661	0.5600	BLNK	R	-0.04388	1.782278		ug/L	0.6412	1.000	0.995	
Potassium		1.8070	1.1493	0.5781	0.5076	0.4975	BLNK	R	-114.749	2.015438		ug/L	0.9079	1.000	0.995	
Selenium		0.0836	0.0431	0.0267	0.0241	0.0234	BLNK	R	-0.78675	42.61011		ug/L	0.0402	1.000	0.995	
Silver	2.1378	2.2080	1.9436	1.8861	1.8337	1.8223	BLNK	R	-0.01410	0.548069		ug/L	1.9719	1.000	0.995	
Sodium		0.9207	0.7354	0.5808	0.5484	0.5349	BLNK	R	-18.6668	1.861918		ug/L	0.6640	1.000	0.995	

214

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

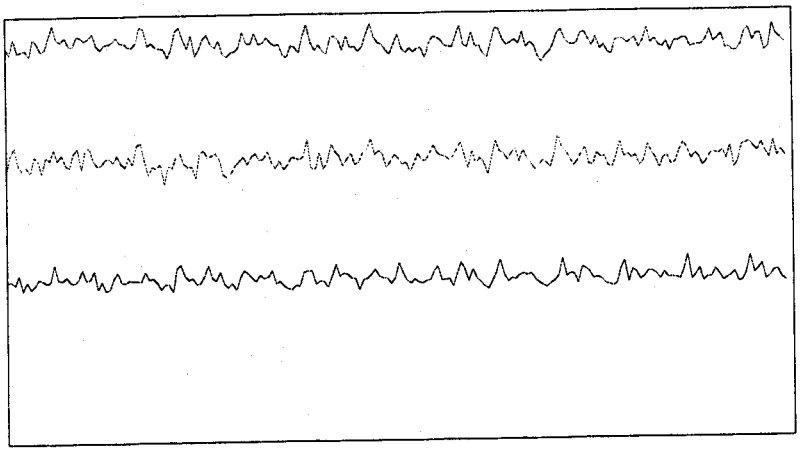
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.6780	0.5820	0.5790	0.6469	0.6384	BLNK	R	-0.04548	1.563002		ug/L	0.6249	1.000	0.995	
Vanadium		3.4462	2.8673	2.4337	2.4514	2.4088	BLNK	R	-0.14209	0.414034		ug/L	2.7215	1.000	0.995	
Zinc		1.7561	1.7658	0.4600	0.3762	0.3604	BLNK	R	-1.56063	2.775817		ug/L	0.9437	0.999	0.995	

215

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



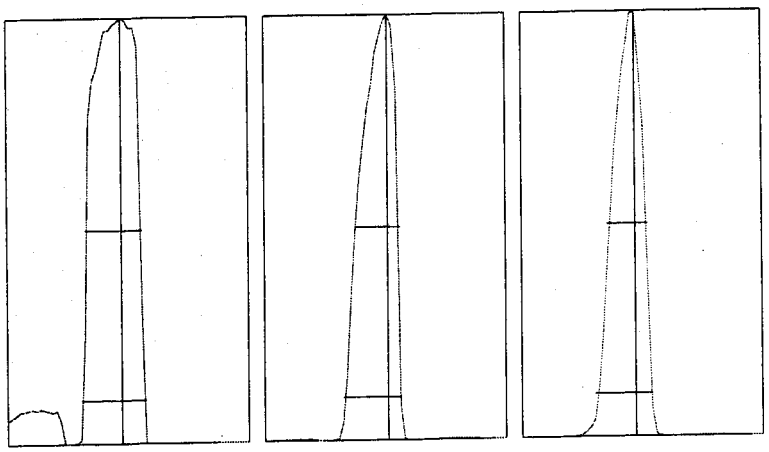
m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	18,256	46,074	65,738
Mean:	19091.0	46502.0	66216.5
RSD%:	4.00	1.97	2.80
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.38%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	17.5	15.0	21.0



m/z:	7	89	205
Height:	19,050	46,889	75,835
Axis:	6.95	89.05	204.95
W-50%:	0.70	0.55	0.50
W-10%:	0.800	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1240 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.05 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 10, 2005 10:16:54
Printed : May 10, 2005 10:17:00

P/A Factor Tuning Report

Acquired:May 10 2005 10:54 am

Mass[amu]	Element	P/A Factor
6	Li	0.065328
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086211
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096429
45	Sc	0.092462
51	V	0.096363
52	Cr	0.098525
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100421
57	Fe	0.103034
59	Co	0.103706
60	Ni	Sensitivity too low
63	Cu	0.106752
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105166
95	Mo	Sensitivity too low
98	Mo	0.103164
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112480
111	Cd	Sensitivity too low
114	Cd	0.110373
115	In	0.113433
118	(In)	0.111893
121	Sb	0.111500
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118093
166	Er	Sensitivity too low

205	Tl	0.124899
206	(Pb)	0.121288
207	(Pb)	0.120314
208	Pb	0.123932
209	Bi	0.123651
232	Th	0.124893
238	U	0.125077

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 10 2005 11:04 am

Mass[amu]	Element	P/A Factor
6	Li	0.065273
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086619
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097059
45	Sc	0.092805
51	V	0.096569
52	Cr	0.098962
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100792
57	Fe	0.103564
59	Co	0.104107
60	Ni	Sensitivity too low
63	Cu	0.107010
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105253
95	Mo	0.101878
98	Mo	0.103856
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113070
111	Cd	Sensitivity too low
114	Cd	0.110939
115	In	0.113128
118	(In)	0.109043
121	Sb	0.111760
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117772
166	Er	Sensitivity too low

205	Tl	0.125493
206	(Pb)	0.121742
207	(Pb)	0.120976
208	Pb	0.123902
209	Bi	0.123656
232	Th	0.125815
238	U	0.125933

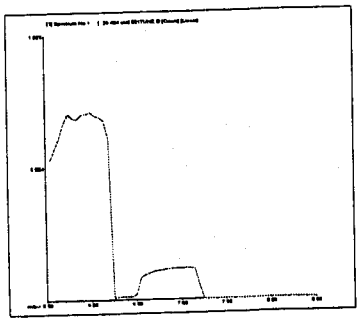
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

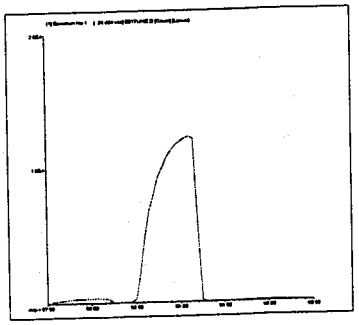
6020 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\001TUNE.D
Date Acquired: May 10 2005 12:49 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

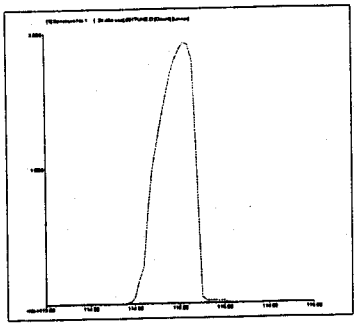
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	0.49	5.00	
115 In	0.64	5.00	
205 Tl	1.44	5.00	





7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



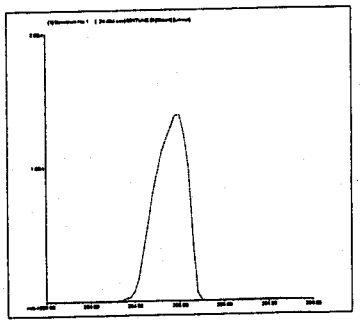
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 10 2005 12:54 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 10 2005 00:04 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.03116	ppb	13.47	-0.03116	1.00	
23 Na	-12.11	ppb	31.16	-12.11	1.00	
26 Mg	-0.7713	ppb	63.69	-0.7713	1.00	
27 Al	3.72	ppb	10.04	3.72	1.00	
39 K	-41.84	ppb	3.19	-41.84	1.00	
44 Ca	5.716	ppb	16.40	5.716	1.00	
51 V	-0.0507	ppb	122.86	-0.0507	1.00	
52 Cr	-0.0812	ppb	13.76	-0.0812	1.00	
55 Mn	0.3018	ppb	10.06	0.3018	1.00	
57 Fe	2.672	ppb	11.55	2.672	1.00	
59 Co	-0.03714	ppb	6.06	-0.03714	1.00	
60 Ni	-0.05275	ppb	8.79	-0.05275	1.00	
65 Cu	-0.05798	ppb	29.13	-0.05798	1.00	
66 Zn	0.09554	ppb	71.04	0.09554	1.00	
75 As	-0.1104	ppb	57.17	-0.1104	1.00	
82 Se	-0.01301	ppb	235.74	-0.01301	1.00	
95 Mo	0.09857	ppb	16.24	0.09857	1.00	
109 Ag	-0.04607	ppb	5.47	-0.04607	1.00	
111 Cd	-0.0972	ppb	19.23	-0.0972	1.00	
121 Sb	-0.04399	ppb	39.83	-0.04399	1.00	
137 Ba	-0.03554	ppb	40.35	-0.03554	1.00	
205 Tl	0.02596	ppb	84.32	0.02596	1.00	
208 Pb	-0.03851	ppb	17.54	-0.03851	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	701103.94	0.68	---	#VALUE!	30 - 200	
45 Sc	896386.63	0.38	---	#VALUE!	30 - 200	
72 Ge	232681.11	0.54	---	#VALUE!	30 - 200	

115 In	1690578.80	0.96	---	#VALUE!	30 - 200
209 Bi	1183699.40	0.85	---	#VALUE!	30 - 200

ISTD Ref File : ---

3 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\003CAL
Date Acquired:	May 10 2005 01:00 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 00:04 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	719657.81	A	1702.00	0.24
9	Be	28.89	P	16.78	58.09
23	Na	191925.59	M	34060.00	17.75
26	Mg	2700.00	P	33.33	1.23
27	Al	40218.89	P	360.30	0.90
39	K	1089581.00	A	16580.00	1.52
44	Ca	6938.21	P	112.10	1.62
45	Sc	956826.81	A	7899.00	0.83
51	V	1659.68	P	209.80	12.64
52	Cr	4728.89	P	75.82	1.60
55	Mn	4010.00	P	235.40	5.87
57	Fe	9043.33	P	236.80	2.62
59	Co	140.00	P	12.02	8.59
60	Ni	118.89	P	25.89	21.78
65	Cu	289.99	P	40.96	14.13
66	Zn	2717.79	P	39.77	1.46
72	Ge	241692.41	P	1586.00	0.66
75	As	105.24	P	208.40	198.02
82	Se	89.31	P	24.05	26.93
95	Mo	486.67	P	92.44	19.00
109	Ag	124.44	P	27.95	22.46
111	Cd	334.51	P	37.33	11.16
115	In	1803737.00	A	16320.00	0.90
121	Sb	545.56	P	141.30	25.90
137	Ba	373.33	P	26.46	7.09
205	Tl	736.67	P	41.63	5.65
208	Pb	1416.67	P	93.87	6.63
209	Bi	1265991.00	A	5816.00	0.46
232	Th	861.11	P	40.32	4.68
238	U	110.00	P	35.12	31.93

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\004CALI.D\004CALI.D#
Date Acquired: May 10 2005 01:05 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:02 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698350.88	A	6692.00	0.96
9 Be	496.67	P	35.12	7.07
23 Na	459327.69	P	6024.00	1.31
26 Mg	31054.44	P	502.00	1.62
27 Al	93782.22	P	830.90	0.89
39 K	1369872.00	A	5473.00	0.40
44 Ca	19080.93	P	410.00	2.15
45 Sc	892146.31	A	6087.00	0.68
51 V	4264.46	P	707.70	16.60
52 Cr	7424.44	P	228.90	3.08
55 Mn	6994.44	P	21.43	0.31
57 Fe	16501.11	P	274.70	1.66
59 Co	3374.44	P	85.14	2.52
60 Ni	885.56	P	59.29	6.70
65 Cu	1263.20	P	130.50	10.33
66 Zn	4297.93	P	123.40	2.87
72 Ge	231121.80	P	1849.00	0.80
75 As	549.50	P	161.80	29.45
82 Se	144.18	P	16.91	11.73
95 Mo	1257.78	P	105.50	8.39
109 Ag	2470.00	P	123.40	5.00
111 Cd	798.47	P	49.72	6.23
115 In	1673006.00	A	20080.00	1.20
121 Sb	2406.67	P	135.40	5.63
137 Ba	1514.44	P	80.30	5.30
205 Tl	4577.78	P	174.80	3.82
208 Pb	6927.78	P	179.90	2.60
209 Bi	1208287.00	A	21020.00	1.74
232 Th	1888.89	P	86.43	4.58
238 U	4665.56	P	234.30	5.02

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698350.94	0.96	719657.81	97.0	30 - 200	
45 Sc	892146.31	0.68	956826.81	93.2	30 - 200	
72 Ge	231121.77	0.80	241692.44	95.6	30 - 200	
115 In	1673006.30	1.20	1803736.80	92.8	30 - 200	
209 Bi	1208286.90	1.74	1265990.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\005CALI.D\005CALI.D#
Date Acquired: May 10 2005 01:10 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:07 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699010.81	A	14880.00	2.13
9 Be	1051.11	P	49.14	4.68
23 Na	832864.81	A	6232.00	0.75
26 Mg	60425.55	P	720.90	1.19
27 Al	96897.78	P	996.90	1.03
39 K	1634566.00	A	15450.00	0.95
44 Ca	26390.43	P	462.80	1.75
45 Sc	904599.88	A	4884.00	0.54
51 V	7922.10	P	171.70	2.17
52 Cr	10147.78	P	89.46	0.88
55 Mn	11415.56	P	427.00	3.74
57 Fe	24631.11	P	240.60	0.98
59 Co	6954.44	P	102.90	1.48
60 Ni	1683.33	P	23.09	1.37
65 Cu	2104.18	P	30.25	1.44
66 Zn	4036.97	P	66.59	1.65
72 Ge	229885.30	P	1072.00	0.47
75 As	1213.81	P	32.47	2.68
82 Se	192.06	P	15.31	7.97
95 Mo	2140.00	P	16.67	0.78
109 Ag	5075.56	P	92.52	1.82
111 Cd	1297.52	P	68.34	5.27
115 In	1696747.00	A	14150.00	0.83
121 Sb	4321.11	P	244.10	5.65
137 Ba	2255.56	P	26.94	1.19
205 Tl	8311.11	P	287.20	3.46
208 Pb	12226.67	P	136.90	1.12
209 Bi	1225669.00	A	21630.00	1.76
232 Th	3423.33	P	308.90	9.02
238 U	9805.55	P	143.70	1.47

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699010.75	2.13	719657.81	97.1	30 - 200	
45 Sc	904599.88	0.54	956826.81	94.5	30 - 200	
72 Ge	229885.33	0.47	241692.44	95.1	30 - 200	
115 In	1696747.10	0.83	1803736.80	94.1	30 - 200	
209 Bi	1225669.40	1.76	1265990.80	96.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\006CALI.D\006CALI.D#
Date Acquired: May 10 2005 01:17 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	703836.13	A	3699.00	0.53
9 Be	1851.11	P	13.88	0.75
23 Na	1331068.00	A	6839.00	0.51
26 Mg	107675.50	P	791.70	0.74
27 Al	122551.10	P	412.70	0.34
39 K	2080276.00	A	26130.00	1.26
44 Ca	39283.22	P	200.20	0.51
45 Sc	905068.38	A	9445.00	1.04
51 V	13224.89	P	690.50	5.22
52 Cr	14888.89	P	391.00	2.63
55 Mn	18022.22	P	243.20	1.35
57 Fe	38377.78	P	577.80	1.51
59 Co	12686.67	P	241.30	1.90
60 Ni	2928.89	P	121.20	4.14
65 Cu	3853.98	P	85.66	2.22
66 Zn	8142.76	P	243.30	2.99
72 Ge	230570.70	P	1520.00	0.66
75 As	1800.98	P	39.83	2.21
82 Se	198.82	P	29.94	15.06
95 Mo	3728.89	P	128.80	3.45
109 Ag	8963.33	P	243.90	2.72
111 Cd	2065.61	P	160.80	7.78
115 In	1690616.00	A	19740.00	1.17
121 Sb	7525.56	P	220.70	2.93
137 Ba	3467.78	P	59.29	1.71
205 Tl	13907.78	P	496.50	3.57
208 Pb	20371.11	P	279.70	1.37
209 Bi	1194525.00	A	11760.00	0.98
232 Th	5810.00	P	316.30	5.44
238 U	16753.33	P	317.20	1.89

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	703836.13	0.53	719657.81	97.8	30 - 200	
45 Sc	905068.38	1.04	956826.81	94.6	30 - 200	
72 Ge	230570.67	0.66	241692.44	95.4	30 - 200	
115 In	1690615.60	1.17	1803736.80	93.7	30 - 200	
209 Bi	1194524.50	0.98	1265990.80	94.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\007CALI.D\007CALI.D#
Date Acquired: May 10 2005 01:22 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698230.13	A	4940.00	0.71
9 Be	18122.22	P	154.40	0.85
23 Na	10502480.00	A	101600.00	0.97
26 Mg	1116637.00	A	6260.00	0.56
27 Al	172081.09	P	447.80	0.26
39 K	10453720.00	A	104000.00	0.99
44 Ca	283507.19	P	3509.00	1.24
45 Sc	904146.31	A	8540.00	0.94
51 V	112371.20	P	2790.00	2.48
52 Cr	104144.40	P	1065.00	1.02
55 Mn	141006.70	P	1407.00	1.00
57 Fe	293033.31	P	4126.00	1.41
59 Co	123247.80	P	2094.00	1.70
60 Ni	27125.55	P	528.40	1.95
65 Cu	32724.14	P	529.20	1.62
66 Zn	21234.47	P	100.10	0.47
72 Ge	230841.80	P	2197.00	0.95
75 As	16483.39	P	428.10	2.60
82 Se	1235.04	P	32.56	2.64
95 Mo	34135.56	P	585.50	1.72
109 Ag	87083.33	P	1895.00	2.18
111 Cd	18076.90	P	723.00	4.00
115 In	1672252.00	A	12460.00	0.75
121 Sb	69888.88	P	1077.00	1.54
137 Ba	26923.33	P	410.40	1.52
205 Tl	138774.41	P	5630.00	4.06
208 Pb	190987.80	P	4471.00	2.34
209 Bi	1198065.00	A	34230.00	2.86
232 Th	74003.33	P	1018.00	1.38
238 U	170760.00	P	4648.00	2.72

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698230.13	0.71	719657.81	97.0	30 - 200	
45 Sc	904146.31	0.94	956826.81	94.5	30 - 200	
72 Ge	230841.77	0.95	241692.44	95.5	30 - 200	
115 In	1672252.10	0.75	1803736.80	92.7	30 - 200	
209 Bi	1198064.60	2.86	1265990.80	94.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\008CALI.D\008CALI.D#
Date Acquired: May 10 2005 01:27 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699749.88	A	8396.00	1.20
9 Be	179666.70	P	1754.00	0.98
23 Na	100785300.00	A	653100.00	0.65
26 Mg	10492970.00	A	80140.00	0.76
27 Al	924061.81	A	12600.00	1.36
39 K	93293584.00	A	766800.00	0.82
44 Ca	2805459.00	A	39840.00	1.42
45 Sc	918942.69	A	7217.00	0.79
51 V	1144253.00	A	25920.00	2.27
52 Cr	1006779.00	A	18680.00	1.86
55 Mn	1391212.00	A	24870.00	1.79
57 Fe	2888783.00	A	37060.00	1.28
59 Co	1233744.00	A	10770.00	0.87
60 Ni	264221.09	P	2341.00	0.89
65 Cu	314983.09	P	6123.00	1.94
66 Zn	175570.20	P	1374.00	0.78
72 Ge	233375.80	P	940.20	0.40
75 As	163957.50	P	2287.00	1.39
82 Se	11253.83	P	103.20	0.92
95 Mo	339165.50	P	3375.00	1.00
109 Ag	855902.19	P	13560.00	1.58
111 Cd	177562.20	P	2959.00	1.67
115 In	1662089.00	A	15180.00	0.91
121 Sb	696540.00	P	10150.00	1.46
137 Ba	258810.00	P	4673.00	1.81
205 Tl	1514719.00	A	25830.00	1.71
208 Pb	1918263.00	A	19400.00	1.01
209 Bi	1170810.00	A	7189.00	0.61
232 Th	1603621.00	A	73670.00	4.59
238 U	1870409.00	A	82290.00	4.40

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699749.94	1.20	719657.81	97.2	30 - 200	
45 Sc	918942.69	0.79	956826.81	96.0	30 - 200	
72 Ge	233375.77	0.40	241692.44	96.6	30 - 200	
115 In	1662089.30	0.91	1803736.80	92.1	30 - 200	
209 Bi	1170810.50	0.61	1265990.80	92.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\009CALI.D\009CALI.D#
Date Acquired: May 10 2005 01:32 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:29 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	696458.81	A	2195.00	0.32
9 Be	355763.31	P	4299.00	1.21
23 Na	195593790.00	A	1676000.00	0.86
26 Mg	20520950.00	A	125100.00	0.61
27 Al	1798230.00	A	9012.00	0.50
39 K	181916700.00	A	1782000.00	0.98
44 Ca	5445574.00	A	41320.00	0.76
45 Sc	914124.38	A	3346.00	0.37
51 V	2229676.00	A	37870.00	1.70
52 Cr	1972506.00	A	17300.00	0.88
55 Mn	2663152.00	A	19950.00	0.75
57 Fe	5545234.00	A	47970.00	0.87
59 Co	2380822.00	A	22700.00	0.95
60 Ni	518287.69	P	5007.00	0.97
65 Cu	610870.63	P	3499.00	0.57
66 Zn	333554.81	P	3904.00	1.17
72 Ge	231395.59	P	1736.00	0.75
75 As	321932.81	P	2251.00	0.70
82 Se	21699.04	P	318.60	1.47
95 Mo	671982.19	P	15500.00	2.31
109 Ag	1686766.00	A	26260.00	1.56
111 Cd	347695.91	P	6167.00	1.77
115 In	1627808.00	A	29630.00	1.82
121 Sb	1412049.00	A	9677.00	0.69
137 Ba	510754.41	P	8315.00	1.63
205 Tl	2929376.00	A	45530.00	1.55
208 Pb	3783427.00	A	65130.00	1.72
209 Bi	1147209.00	A	19820.00	1.73
232 Th	3720604.00	A	23790.00	0.64
238 U	3700491.00	A	29660.00	0.80

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	696458.75	0.32	719657.81	96.8	30 - 200	
45 Sc	914124.44	0.37	956826.81	95.5	30 - 200	
72 Ge	231395.56	0.75	241692.44	95.7	30 - 200	
115 In	1627807.60	1.82	1803736.80	90.2	30 - 200	
209 Bi	1147209.40	1.73	1265990.80	90.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 10, 2005 13:34
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1012a.b\003calb.d\	003calb.d#	May 10 2005 01:00 pm
2	...hem\1\data\05e1012a.b\004cali.d\	004cali.d#	May 10 2005 01:05 pm
3	...hem\1\data\05e1012a.b\005cali.d\	005cali.d#	May 10 2005 01:10 pm
4	...hem\1\data\05e1012a.b\006cali.d\	006cali.d#	May 10 2005 01:17 pm
5	...hem\1\data\05e1012a.b\007cali.d\	007cali.d#	May 10 2005 01:22 pm
6	...hem\1\data\05e1012a.b\008cali.d\	008cali.d#	May 10 2005 01:27 pm
7	...hem\1\data\05e1012a.b\009cali.d\	009cali.d#	May 10 2005 01:32 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.278E-1*X +2.008E-3(blank)	---	ppb
Na	23	45	Y = 5.371E-1*X +1.003E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.632E-2*X +1.411E-1(blank)	---	ppb
Al	27	45	Y = 4.820E-1*X +2.102E+0(blank)	---	ppb
K	39	45	Y = 4.962E-1*X +5.694E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.495E-2*X +3.625E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.415E+0*X +3.432E-1(blank)	---	ppb
Cr	52	72	Y = 2.130E+0*X +9.783E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.893E+0*X +8.298E-1(blank)	---	ppb
Fe	57	72	Y = 6.020E-2*X +1.871E+0(blank)	---	ppb
Co	59	72	Y = 2.586E+0*X +2.896E-2(blank)	---	ppb
Ni	60	72	Y = 5.611E-1*X +2.462E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.627E-1*X +6.003E-2(blank)	---	ppb
Zn	66	72	Y = 3.603E-1*X +5.622E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.484E-1*X +2.163E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.347E-2*X +1.846E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 7.255E-1*X +1.006E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.825E+0*X +2.572E-2(blank)	---	ppb
Cd	111	72	Y = 3.762E-1*X +6.917E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.153E-1*X +1.511E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 7.828E-2*X +1.035E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.398E-1*X +2.910E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.230E-1*X +5.595E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969010
Calnum : 55187969001
Standards: S399

Run Name :
Filename : e1012010
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 13:37
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	102.7000	ug/L	3	10	
Antimony	100.0000	98.25000	ug/L	-2	10	
Arsenic	100.0000	100.5000	ug/L	1	10	
Barium	100.0000	98.57000	ug/L	-1	10	
Beryllium	100.0000	99.06000	ug/L	-1	10	
Cadmium	100.0000	101.4000	ug/L	1	10	
Calcium	10000.00	10180.00	ug/L	2	10	
Chromium	100.0000	100.4000	ug/L	0	10	
Cobalt	100.0000	101.7000	ug/L	2	10	
Copper	100.0000	101.8000	ug/L	2	10	
Iron	10000.00	10170.00	ug/L	2	10	
Lead	100.0000	99.03000	ug/L	-1	10	
Magnesium	10000.00	10150.00	ug/L	2	10	
Manganese	100.0000	101.6000	ug/L	2	10	
Molybdenum	100.0000	100.2000	ug/L	0	10	
Nickel	100.0000	99.80000	ug/L	0	10	
Potassium	10000.00	10070.00	ug/L	1	10	
Selenium	100.0000	101.5000	ug/L	2	10	
Silver	100.0000	100.6000	ug/L	1	10	
Sodium	10000.00	10140.00	ug/L	1	10	
Thallium	100.0000	101.1000	ug/L	1	10	
Vanadium	100.0000	100.3000	ug/L	0	10	
Zinc	100.0000	102.6000	ug/L	3	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	724674	0.70
Scandium	956827	924461	-3.38
Germanium	241692	233548	-3.37
Indium	1803737	1679520	-6.89
Bismuth	1265991	1183198	-6.54

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969013
Standards: S401, 05WS0207

Run Name :
Filename : e1012013

Injected : 10-MAY-2005 13:55

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.360000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	1.056000	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.964200	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0126]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	0.385600	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.854000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	3.136000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	2.143000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.195000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	1.415000	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.978000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	0.729100	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	0.272700	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.1355]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.7444]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	4.254000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	83970	ug/L	84
Calcium	55187969001	10-MAY-2005	300000	291100	ug/L	97
Iron	55187969001	10-MAY-2005	250000	236500	ug/L	95
Magnesium	55187969001	10-MAY-2005	100000	93180	ug/L	93
Molybdenum	55187969001	10-MAY-2005	2000	1899	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	94190	ug/L	94
Sodium	55187969001	10-MAY-2005	250000	220600	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55187969014 Filename : e1012014 Injected : 10-MAY-2005 14:01
Calnum : 55187969001 Caldate : 10-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	82720.00	ug/L	-17		
Arsenic	100.0000	107.3000	ug/L	7	20	
Cadmium	100.0000	97.02000	ug/L	-3	20	
Calcium	300000.0	291200.0	ug/L	-3		
Chromium	200.0000	202.6000	ug/L	1	20	
Cobalt	200.0000	201.4000	ug/L	1	20	
Copper	200.0000	192.3000	ug/L	-4	20	
Iron	250000.0	236700.0	ug/L	-5		
Magnesium	100000.0	92020.00	ug/L	-8		
Manganese	200.0000	207.8000	ug/L	4	20	
Molybdenum	2000.000	1904.000	ug/L	-5		
Nickel	200.0000	193.8000	ug/L	-3	20	
Potassium	100000.0	93640.00	ug/L	-6		
Selenium	100.0000	98.99000	ug/L	-1	20	
Silver	50.00000	47.93000	ug/L	-4	20	
Sodium	250000.0	219600.0	ug/L	-12		
Vanadium	200.0000	208.2000	ug/L	4	20	
Zinc	100.0000	97.23000	ug/L	-3	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	869228	-9.16
Germanium	241692	222192	-8.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969026
Calnum : 55187969001
Standards: S403, 05WS0207

Run Name :
Filename : e1012026
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 15:12
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4635	150.0000	139.9000	ug/L	-7	10	
Antimony	0.2334	0.2062	150.0000	143.6000	ug/L	-4	10	
Arsenic	0.3949	0.3410	150.0000	146.7000	ug/L	-2	10	
Barium	0.1089	0.0757	150.0000	144.9000	ug/L	-3	10	
Beryllium	0.1350	0.1251	150.0000	146.7000	ug/L	-2	10	
Cadmium	0.4751	0.3607	150.0000	143.7000	ug/L	-4	10	
Calcium	0.0193	0.0147	15000.00	14720.00	ug/L	-2	10	
Chromium	2.8373	2.0713	150.0000	145.4000	ug/L	-3	10	
Cobalt	2.7635	2.5246	150.0000	146.4000	ug/L	-2	10	
Copper	0.7589	0.6495	150.0000	146.9000	ug/L	-2	10	
Iron	0.0751	0.0588	15000.00	14610.00	ug/L	-3	10	
Lead	0.9063	0.8028	150.0000	146.2000	ug/L	-3	10	
Magnesium	0.0603	0.0535	15000.00	14240.00	ug/L	-5	10	
Manganese	3.9731	2.8529	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.7863	0.7031	150.0000	145.2000	ug/L	-3	10	
Nickel	0.6412	0.5444	150.0000	145.5000	ug/L	-3	10	
Potassium	0.9079	0.4849	15000.00	14540.00	ug/L	-3	10	
Selenium	0.0402	0.0229	150.0000	145.8000	ug/L	-3	10	
Silver	1.9719	1.7857	150.0000	146.8000	ug/L	-2	10	
Sodium	0.6640	0.5123	15000.00	14290.00	ug/L	-5	10	
Thallium	0.6249	0.6323	150.0000	148.2000	ug/L	-1	10	
Vanadium	2.7215	2.3631	150.0000	146.6000	ug/L	-2	10	
Zinc	0.9437	0.3538	150.0000	145.8000	ug/L	-3	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	664033	-7.73
Scandium	956827	929219	-2.89
Germanium	241692	235124	-2.72
Indium	1803737	1649355	-8.56
Bismuth	1265991	1123687	-11.24

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969028
Standards: 05WS0207

Run Name :
Filename : e1012028

Injected : 10-MAY-2005 15:24

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.2432]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	[0.0701]	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[8.2720]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969012
Standards: 05WS0207

Run Name :
Filename : e1012012

Injected : 10-MAY-2005 13:49

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	0.327900	0.250000	ug/L	ib ***
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[12.610]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969039
Calnum : 55187969001
Standards: S400, 05WS0207

Run Name :
Filename : e1012039
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 16:31
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4979	100.0000	98.94000	ug/L	-1	10	
Antimony	0.2334	0.2072	100.0000	96.16000	ug/L	-4	10	
Arsenic	0.3949	0.3473	100.0000	99.63000	ug/L	0	10	
Barium	0.1089	0.0771	100.0000	98.34000	ug/L	-2	10	
Beryllium	0.1350	0.1269	100.0000	99.29000	ug/L	-1	10	
Cadmium	0.4751	0.3872	100.0000	102.7000	ug/L	3	10	
Calcium	0.0193	0.0153	10000.00	10220.00	ug/L	2	10	
Chromium	2.8373	2.1399	100.0000	99.98000	ug/L	0	10	
Cobalt	2.7635	2.6100	100.0000	100.9000	ug/L	1	10	
Copper	0.7589	0.6661	100.0000	100.4000	ug/L	0	10	
Iron	0.0751	0.0611	10000.00	10120.00	ug/L	1	10	
Lead	0.9063	0.8236	100.0000	100.0000	ug/L	0	10	
Magnesium	0.0603	0.0560	10000.00	9942.000	ug/L	-1	10	
Manganese	3.9731	2.9336	100.0000	101.1000	ug/L	1	10	
Molybdenum	0.7863	0.7370	100.0000	101.4000	ug/L	1	10	
Nickel	0.6412	0.5586	100.0000	99.51000	ug/L	0	10	
Potassium	0.9079	0.5059	10000.00	10080.00	ug/L	1	10	
Selenium	0.0402	0.0240	100.0000	101.5000	ug/L	2	10	
Silver	1.9719	1.8761	100.0000	102.8000	ug/L	3	10	
Sodium	0.6640	0.5306	10000.00	9860.000	ug/L	-1	10	
Thallium	0.6249	0.6496	100.0000	101.5000	ug/L	2	10	
Vanadium	2.7215	2.4411	100.0000	100.9000	ug/L	1	10	
Zinc	0.9437	0.3683	100.0000	100.7000	ug/L	1	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	618084	-14.11
Scandium	956827	826860	-13.58
Germanium	241692	211718	-12.40
Indium	1803737	1585924	-12.08
Bismuth	1265991	1137926	-10.12

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969041
Standards: 05WS0207

Run Name :
Filename : e1012041

Injected : 10-MAY-2005 16:43

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.1232]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[7.3160]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[20.830]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969042
Standards: S401, 05WS0207

Run Name :
Filename : e1012042

Injected : 10-MAY-2005 16:49

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.084000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	0.708900	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.851300	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0141]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	[0.1545]	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.223000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	2.494000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	1.475000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.100000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	0.771300	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.369000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	[0.4094]	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	[0.1428]	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.0358]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.2481]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	2.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	78490	ug/L	78
Calcium	55187969001	10-MAY-2005	300000	276800	ug/L	92
Iron	55187969001	10-MAY-2005	250000	223700	ug/L	89
Magnesium	55187969001	10-MAY-2005	100000	86300	ug/L	86
Molybdenum	55187969001	10-MAY-2005	2000	1901	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	89540	ug/L	90
Sodium	55187969001	10-MAY-2005	250000	205000	ug/L	82

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969043
Calnum : 55187969001
Standards: S402, 05WS0207

Run Name :
Filename : e1012043
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 16:55
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	80920.00	ug/L	-19		
Arsenic	100.0000	103.6000	ug/L	4	20	
Cadmium	100.0000	98.05000	ug/L	-2	20	
Calcium	300000.0	286800.0	ug/L	-4		
Chromium	200.0000	193.2000	ug/L	-3	20	
Cobalt	200.0000	190.2000	ug/L	-5	20	
Copper	200.0000	181.4000	ug/L	-9	20	
Iron	250000.0	225400.0	ug/L	-10		
Magnesium	100000.0	89150.00	ug/L	-11		
Manganese	200.0000	193.7000	ug/L	-3	20	
Molybdenum	2000.000	1933.000	ug/L	-3		
Nickel	200.0000	183.5000	ug/L	-8	20	
Potassium	100000.0	92940.00	ug/L	-7		
Selenium	100.0000	96.54000	ug/L	-3	20	
Silver	50.00000	48.60000	ug/L	-3	20	
Sodium	250000.0	210800.0	ug/L	-16		
Vanadium	200.0000	198.2000	ug/L	-1	20	
Zinc	100.0000	90.26000	ug/L	-10	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	792702	-17.15
Germanium	241692	203815	-15.67

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	383256	566573	161713	1281904	1275587	1961549
LOWER LIMIT	114977	169972	48514	384571	382676	588465
UPPER LIMIT	459907	679888	194055	1538285	1530704	2353859

TYPE	SAMPLE	#						
ICB		012	398133	574338	165050	1295852	1262491	1986107
ICSA		013	346568	585480	165964	1206572	1034302	1885660
SER	QC291792	016	360601	574226	166189	1313972	1264223	1992797
MS	QC291790	017	357271	563392	161951	1250233	1207732	1944941
MSD	QC291791	018	360728	566869	163110	1255236	1222275	1952234
SAMPLE	179075-004	019	367478	568523	164798	1288704	1247558	1958562
SAMPLE	179075-006	020	367643	563823	163071	1287136	1263627	1974646
SAMPLE	179075-007	021	366643	570946	164159	1283858	1243530	1953644
SAMPLE	179075-011	022	373348	566936	165290	1287274	1246271	1978536
SAMPLE	179075-012	023	363108	562751	161001	1275896	1251362	1958231
CCV		025	373026	561004	161836	1264407	1249023	1999038
CCB		027	374726	557619	161013	1301082	1256526	1972729
SAMPLE	179075-013	028	367557	543752	158800	1252376	1225482	1956790
SAMPLE	179075-018	029	370487	555821	161480	1276264	1250542	1955957
CCV		031	368057	555167	161141	1267241	1237819	1955994
CCB		033	379843	559887	159132	1300645	1273674	1985667
ICSA		034	335479	563166	161577	1218668	1087887	1960268
MSS	179132-001	037	363368	580241	168272	1326575	1254419	2023380
SER	QC292313	038	380880	570299	165743	1338897	1303881	2013562
MS	QC292311	039	364544	555633	160719	1290844	1270339	1998090
MSD	QC292312	040	393580	609664	174058	1420429	1365235	2194455
SAMPLE	179132-006	041	389358	581682	167543	1348341	1299880	2079257
SAMPLE	179132-015	042	377470	565529	162974	1314638	1278674	2034845
SAMPLE	179132-016	043	400273	584930	170556	1374132	1362137	2079434
SAMPLE	179132-017	044	398669	576126	167928	1364855	1355156	2097381
CCV		046	371734	544232	158308	1276514	1283726	2019984
CCB		048	390733	573322	164831	1351990	1325322	2052989
BLANK	QC292136	053	406942	576746	165847	1344710	1337139	2051303

250

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

TYPE	SAMPLE	#						
CCV		061	364584	549159	158082	1258859	1233783	1958603
CCB		063	387047	566878	163345	1316900	1277659	2010396
CCV		073	380148	554670	160863	1296859	1288713	2034156
CCB		075	397508	581142	167853	1366726	1319500	2068160
ICSA		076	328713	543652	158612	1217096	1122198	1981217
CCV		090	332344	500594	147515	1196146	1218836	1910741
CCB		092	336386	514294	147596	1252830	1252315	1919669
ICSA		101	354346	616516	175729	1330694	1060028	1998550
CCV		104	354034	572106	167746	1353822	1244487	2034989
CCB		106	345220	541652	158905	1326647	1266398	1989079
BLANK	QC291742	108	321933	507433	147220	1247176	1219502	1887856
CCV		119	327369	503498	148418	1233456	1161755	1910155
CCB		121	351012	546596	158826	1340551	1260259	2008652
CCV		133	290486	426922	127442	1121490	1113799	1786266
CCB		135	290358	415531	122110	1105488	1103286	1719875
CCV		147	295190	430569	127088	1117565	1051484	1730252
CCB		149	306470	438276	128199	1164919	1098012	1755235
BLANK	QC292252	160	295062	433876	128080	1150518	1056366	1733581
CCV		162	290333	433501	127988	1129581	973668	1716457
CCB		164	298951	437758	128840	1159844	1020075	1716228
CCV		176	282773	434472	127616	1110413	869999	1663666
CCB		178	311364	475987	137998	1239853	1003583	1800998
ICSA		186	266251	437644	127903	1099918	861462	1734148
CCV		189	273038	415113	125004	1128861	1063109	1747302
CCB		191	280867	413918	123256	1141761	1086930	1735234

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005
Sequence: 55187969 (e1012)
Instrument ID: MET05

ICALBLK Filename: e1012003
Date Analyzed: 10-MAY-2005
Time Analyzed: 13:00

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	719658	956827	241692	1803737	1265991	2281899
LOWER LIMIT	215897	287048	72508	541121	379797	684570
UPPER LIMIT	863589	1148192	290031	2164484	1519189	2738279

TYPE	SAMPLE #						
ICB	012	712709	916999	228138	1690859	1215197	2197753
ICSA	013	629058	901590	225056	1508287	991906	2062292
SAMPLE	178951-001 017	653026	890522	228240	1674047	1213023	2174446
SAMPLE	178951-002 018	622557	1131762	216440	1513159	1056537	2091502
SAMPLE	178951-002 019	666065	884232	227704	1670852	1206732	2175138
SAMPLE	179156-002 020	670040	893672	229908	1658303	1148477	2114972
SAMPLE	179076-043 021	681177	904249	229505	1645155	1169916	2111839
SAMPLE	179141-013 022	656556	922910	228869	1620694	1069712	2099409
SAMPLE	179127-001 023	692427	937373	235115	1707105	1169855	2181533
CCV	026	664033	929219	235124	1649355	1123687	2126752
CCB	028	685876	922069	233240	1707399	1189703	2142381
SAMPLE	178951-003 029	690300	974177	239059	1712926	1201680	2179279
SAMPLE	178951-004 030	687869	946272	236592	1700682	1156930	2110386
SAMPLE	179049-001 031	668755	913591	232519	1634499	1101671	2040530
SAMPLE	179089-001 032	663602	1162729*	231096	1645486	1135062	2172600
SAMPLE	179089-002 034	647549	1147533	219515	1579078	1140361	2135996
SAMPLE	179089-003 035	635380	971456	211907	1586246	1164627	2121389
SAMPLE	179049-001 036	619394	828272	211681	1604933	1178732	2095415
SAMPLE	179127-001 037	621213	822592	211321	1596592	1173582	2084737
CCV	039	618084	826860	211718	1585924	1137926	2118222
CCB	041	622750	818589	210138	1580701	1114455	2022076
ICSA	042	569684	831662	206070	1497884	1013382	2100172

252

* = Outside QC Limits

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 14:50

Batch Number : 101496
Date Extracted: 27-APR-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178846-001			Mactec, Inc.	Soil	.98	g	50	51.020408	1					T26/ICP		
178846-002			Mactec, Inc.	Soil	1	g	50	50.000000	1					T26/ICP		mss
178951-001			Mactec, Inc.	Soil	1.17	g	50	42.735043	1					T26/ICP		
178951-002			Mactec, Inc.	Soil	1.35	g	50	37.037037	1					T26/ICP		
178951-003			Mactec, Inc.	Soil	1.13	g	50	44.247788	1					T26/ICP		
178951-004			Mactec, Inc.	Soil	1.59	g	50	31.446541	1					T26/ICP		
179049-001			Mactec, Inc.	Soil	.99	g	50	50.505051	1					T26/ICP		
179076-040			Fugro West, Inc.	Soil	1.48	g	50	33.783784	1					PB		
179076-041			Fugro West, Inc.	Soil	1.39	g	50	35.971223	1					PB		
179076-042			Fugro West, Inc.	Soil	1.5	g	50	33.333333	1					PB		
179076-043			Fugro West, Inc.	Soil	.99	g	50	50.505051	1					PB		
179089-001			Mactec, Inc.	Soil	1.21	g	50	41.322314	1					T26/ICP		
179089-002			Mactec, Inc.	Soil	1.06	g	50	47.169811	1					T26/ICP		
179089-003			Mactec, Inc.	Soil	1.03	g	50	48.543689	1					T26/ICP		
QC291742	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC291743	BS			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291744	BSD			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC291745	MS	of 178846-002		Soil	1.07	g	50	46.728972	1		.25	.25		ICAP		
QC291746	MSD	of 178846-002		Soil	1.32	g	50	37.878788	1		.25	.25		ICAP		
QC291747	SER	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		
QC291748	PDS	of 178846-002		Soil	1	g	50	50.000000	1					ICAP		

253

Prep Chemist: _____ 5.3.05

Relinquished By: _____

Reviewed By: _____ Date: 5/3/05

Received By: _____ Date: 5/3/05

Soil Digestion for ICP & ICP-MS | Curtis & Tompkins, Ltd.

LIMS Batch #: 101496
Date Digested: 4/26/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2103
Page 84

Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
BLK QC 291742		Ø	50.0	Y	
* BS 291743		↓	↓	↓	
* BSD 291744		↓	↓	↓	
* 179846-002MS	A	1.09	↓	↓	
* - 002 MSD	↓	1.32	↓	↓	
001	↓	0.98	↓	↓	
002	↓	1.00	↓	↓	MSS
178951-001	A	1.17	↓	↓	
- 002	↓	1.35	↓	↓	
- 003	↓	1.13	↓	↓	
- 004	↓	1.59	↓	↓	
179049-001	B	0.99	↓	↓	
179076-040	A	1.48	↓	↓	
- 041	↓	1.39	↓	↓	
- 042	↓	1.50	↓	↓	
* - 043	↓	0.99	↓	↓	
179087-001	A	1.21	↓	↓	
- 002	↓	1.06	↓	↓	
- 003	↓	1.03	↓	↓	

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	93.4°C	VV 4/26/05
0.25 mL of spike solution was added to all spikes	045727 *	
	045728 *	
1:1 HNO3	#179076-042105	
concentrated HNO3	AH50046 - JTBaker	
3mL 30% hydrogen peroxide	43287414 - V.W.R	
concentrated HCl	BD1038 - JTBaker	
☒ filtered thru' Whatman # 541		

4/26/05
Extraction Chemist / Date

Continued ~~on~~ page Ø
Continued on page Ø

MW 5/8/05
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	BBITP106(5.0)	Batch#:	101563
Lab ID:	179049-001	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	%	Analyzed:	04/29/05

Result	RL
33	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179049	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	101563
MSS Lab ID:	179062-001	Sampled:	04/22/05
Lab ID:	QC292022	Received:	04/22/05
Matrix:	Soil	Analyzed:	04/29/05

MSS Result	Result	RL	RPD	Lim
16.29	16.80	1.000	3	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 101563
Date: 04/29/05
Method: CLP SOW 390
Analyst: KDG

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179029-001	15.4795	21.5790	20.9333	89	11
179049-001	15.5447	20.8188	19.0973	67	33
179062-001	15.0909	21.2898	20.2802	84	16
179062-002	15.5756	21.0112	20.1834	85	15
179062-003	15.0412	20.3285	19.6645	87	13
179062-004	15.2642	21.0608	19.8113	78	22
179062-005	15.2345	21.2456	20.0546	80	20
179089-001	15.4429	20.5292	20.0902	91	9
179089-002	15.1299	20.3622	19.6314	86	14
179089-003	15.2988	20.5603	19.6233	82	18
179107-001	15.3522	20.9919	20.6592	94	6
QC292022	15.7732	21.0418	20.1568	83	17
of 179062-001			RPD:	0.6%	3.1%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101563
Date Started: 28-APR-2005
Batched by : Kevin Gaines

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179029-001		CH2M Hill Construc	Soil	MOISTURE	03-MAY-2005
179049-001		Mactec, Inc.	Soil	MOISTURE	04-MAY-2005
179062-001		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-002		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-003		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-004		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-005		Environmental Qual	Soil	MOISTURE	29-APR-2005
179089-001		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179089-002		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179089-003		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179107-001		RMT, Inc.	Miscell.	MOISTURE	29-APR-2005
QC292022	SDUP of 179062-001		Soil	MOISTURE	

4-28-05

101563

Sample	B.L. Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank	11	15.6678	—	15.6690	
179062-01 C	3D	15.0909	21.2898	20.2602	
Dup - 02 ↓	4	15.7732	21.0418	20.1568	
- 03 B	3	15.0417	20.3285	19.6645	
- 04 ↓	000	15.2642	21.0608	19.8113	
- 02 C	39	15.5756	21.0112	20.1824	
107-01 B	973	15.3522	20.9919	20.6592	
029-01 B	40	15.4795	21.5790	20.9333	
045-01 B	18	15.5447	20.8188	19.0973	
089-01 A	42	15.4429	20.5292	20.0902	
- 02 ↓	A	15.1293	20.3622	19.6314	
- 03 ↓	146	15.2988	20.5603	19.6233	
062-05 C	31	15.2345	21.2454	20.0546	

OVEN TEMP 103
TIME IN 0945 - 4/28/05
TIME OUT : 7:10 A.M -

4/28/05

Continued on Page 1

Read and Understood By

Signed

4/28/05 Date

260

Signed

4-29-05 Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 2/28/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	2-28-05	RSM		103°C	4-4-05	RSM
103°C	3-1-05	RSM		104°C	4-5-05	RSM
105°C	3-2-05	RSM		105°C	4-6-05	RSM
103°C	3-3-05	RSM		103°C	4-7-05	RSM
103°C	3-4-05	RSM		103°C	4-8-05	RSM
103°C	3-7-05	RSM		105°C	4-11-05	RSM
103°C	3-8-05	RSM		103°C	4-12-05	RSM
104°C	3-9-05	RSM		104°C	4-13-05	RSM
104°C	3-10-05	RSM		104°C	4-14-05	RSM
104°C	3-11-05	RSM		105°C	4-15-05	RSM
103°C	3-13-05	KLA		104°C	4-18-05	RSM
103°C	3-14-05	RSM		104°C	4-19-05	RSM
103°C	3-15-05	RSM		105°C	4-20-05	RSM
103°C	3-16-05	RSM		105°C	4-21-05	RSM
103	3-17-05	KLA		103°C	4-22-05	RSM
103°C	3-28-05	RSM		103°C	4-25-05	RSM
105°C	3-29-05	RSM		103°C	4-26-05	RSM
103°C	3-30-05	RSM		104°C	4-27-05	RSM
105°C	3-31-05	RSM		104°C	4-28-05	RSM
105°C	4-1-05	RSM		103°C	4-29-05	RSM
103°C	4-3-05	RSM				

00007

PROJECT METTLER AE-200 BALANCE Notebook No. 0152

Continued From Page 0

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	CET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-26-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date Signed Date

Curtis & Tompkins, Ltd

Subcontracted Analyses

ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio/Baker Beach

Project Summary 65028
Method 8290
Concentrations shown in pg/g

	Blank	BBITP106(5.0)
Total TEQ	**0.2**	**18.5**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 0.06	< 0.4
1,2,3,7,8-PeCDD	< 0.05	< 0.5
1,2,3,4,7,8-HxCDD	< 0.08	0.69 J
1,2,3,6,7,8-HxCDD	< 0.08	8.4
1,2,3,7,8,9-HxCDD	< 0.07	3.6 J
1,2,3,4,6,7,8-HpCDD	< 0.1	660
1,2,3,4,6,7,8,9-OCDD	0.88 J	3500 D
2,3,7,8-TCDF	< 0.05	12.5 C
1,2,3,7,8-PeCDF	< 0.05	< 0.4
2,3,4,7,8-PeCDF	< 0.05	5.7
1,2,3,4,7,8-HxCDF	< 0.06	7.2
1,2,3,6,7,8-HxCDF	< 0.05	2.7 J
2,3,4,6,7,8-HxCDF	< 0.05	2.9 J
1,2,3,7,8,9-HxCDF	< 0.06	< 0.6
1,2,3,4,6,7,8-HpCDF	< 0.07	59.9
1,2,3,4,7,8,9-HpCDF	< 0.09	2.1 J
1,2,3,4,6,7,8,9-OCDF	< 0.2	281
Total TCDD	< 0.06	10.4
Total PeCDD	[0.15]	[2.8]
Total HxCDD	< 0.08	[64.6]
Total HpCDD	< 0.1	1280
Total TCDF	[0.25] X	[429] X
Total PeCDF	[1.6]	[274] X
Total HxCDF	< 0.06	[157] X
Total HpCDF	< 0.08	[271]
Extraction Date	4/27/2005	4/27/2005
Analysis Date	5/2/2005	5/3/2005
Primary Filename	T051287	U028603
Confirm Filename	N/A	P052084
Dilution Filename	N/A	T051458

Data Flag Descriptions:

<	Not detected -Sample Specific Detection Limits reported	C	Value reported from Confirmatory Analysis	N/A	Not Applicable
[..]	EMPC Value	D	Value reported from Dilution Analysis	Q	Quantitative Interference Present
B	Analyte detected in Blank	E	Estimated Value - Above Calibration Range	S	Analyte saturated
		J	Estimated Value- Below Calibration Range	X	Interference from Diphenyl Ethers

summary 1

Printed: 05/17/05 18:02

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CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-p-dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	May 17, 2005
Client ID:	Curtis & Tompkins
P.O. Number:	179049
Project Number:	65028

Eno River Labs, LLC has acquired the assets of Triangle Laboratories, Inc. and will continue its operations.

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Rev. 04/12/04

Overview

The sample and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during sample handling will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analysis of one soil sample.

Quality Control Samples

A laboratory method blank was prepared along with each batch of samples.

A laboratory control spike (LCS) sample was extracted and analyzed along with the sample. A report summarizing the analyte recoveries for this sample is included in the data package.

Matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Curtis & Tompkins analytical data by Eno River Labs, LLC was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: One soil sample was received from Curtis & Tompkins at 4°C in good condition on April 23, 2005 and stored in a refrigerator at 4°C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: The OCDD concentration in the field sample is above the calibration range. The affected analyte is flagged with an "E" qualifier. The client was notified and authorized dilution of the sample. The sample was diluted by adding additional internal standard to obtain an analyte response that is within the calibration curve. As the results are not recovery corrected. Only those analytes that exceeded the calibration range are reported on the diluted analysis.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the laboratory blank above the target detection limit (TDL).

EMPC stands for **E**stimated **M**aximum **P**ossible **C**oncentration. A dioxin or furan analyte is quantitated as an EMPC when the detected analyte meets the retention time criteria of a dioxin or furan, but not the isotopic ratio criteria. Interferences, such as PCBs, may co-elute or cause quantitative interference, causing a peak ratio to be outside criteria. Low level peaks that are close to the detection limits can be significantly affected by instrument and chemical noise, causing the ratio to be outside criteria. As a result, the reported value(s) should be considered estimated at the highest level possible.

The analytical results presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the results. Should Curtis & Tompkins have any questions or comments regarding this data package, please feel free to contact our customer service at (919) 281-4013.

Released by,

Kenneth Varley

Report Preparation Chemist
Eno River Labs, LLC

The total number of pages in the data package is : _____ .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the amount of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ENO RIVER LABS

ACCREDITED IN ACCORDANCE WITH nelac
FL-E87769 NJ-NC851

ENO RIVER LABS, LLC
LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). **Secondary NELAP Certificate**: **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of Alabama, Department of Environmental Management. Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires July 31, 2005.

State of Alaska, Department of Environmental Conservation. Certificate #NC1706-05. EPA 1613B, Dioxin (2378-TCDD). Expires December 21, 2005.

State of Arizona, Department of Health Services. Certificate #AZ0423. Drinking Water for Dioxin, Dioxins in Waste Water and Solid or Hazardous Waste. Expires May 25, 2005.

State of Arkansas, Department of Environmental Quality. Certificate # 04-060-0. Dioxins and Furans. Expires September 1, 2005.

State of California, Department of Health Services, Certificate No. I-2583. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires March 31, 2006.

State of Colorado, Department of Public Health and Environment. SDWA, Dioxin by EPA 1613. Expires April 30, 2005.

State of Connecticut, Department of Health Services. Registration # PH-0117. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires September 30, 2005.

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Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Georgia Department of Environmental Quality. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles; reciprocity based on FL-DOH NELAP Certificate, expires June 30, 2005.

Georgia Department of Natural Resources, ID # 953. SDWA 2,3,7,8-TCDD (Dioxin) by Method 1613B. Expires July 31, 2005.

Hawaii Department of Health. Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes. Expires June 30, 2005.

Idaho Department of Health and Welfare. Dioxin in drinking water, EPA Method 1613. Expires July 31, 2004. Renewal pending.

Secondary NELAP Certificate: Illinois Environmental Protection Agency. Accreditation Number #200007, Certificate #001168; Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Organic, Methods 1613; Hazardous and Solid Waste, Organic, Methods 8280A and 8290. Expires 30 September 2005.

Indiana Department of Health. Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01. Expires July 31, 2005.

Secondary NELAP Certificate: State of Kansas. Certificate # E-10215. Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Methods 1613; Hazardous and Solid Waste, Methods 8280A and 8290. Expires July 31, 2005.

Commonwealth of Kentucky, Department for Environmental Protection. Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires December 31, 2005.

Secondary NELAP Certificate: State of Louisiana Department of Environmental Quality. Certificate # 01979. CAA, TO-9A and TO-13A; **CWA**, Method 1613 PCDDs/PCDFs; **RCRA**, Methods 8280A & 8290 PCDDs/PCDFs; Misc. Methods 1613, 8280A & 8290. Expires 30 June 2005.

Secondary NELAP Certificate: State of Louisiana Department of Health & Hospitals. Certificate # LA040020. SDWA, Dioxin (2,3,7,8-TCDD) in Drinking Water. Expires December 31, 2005.

Maine Department of Human Services. Certification #: NC140. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF. Expires May 30, 2005.

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Maryland Department of Health and Mental Hygiene. Certification # 235, SOC 2 (Dioxin). Expires September 30, 2005.

Commonwealth of Massachusetts, Department of Environmental Protection, does not require Certification for Drinking Water Dioxin/Furan analysis.

State of Michigan, Department of Environmental Quality. SDWA; 2,3,7,8 TCDD by Method 1613. Expires July 31, 2005.

Minnesota Department of Health. The certification program in MN does not include dioxins/furans for CWA, SDWA of RCRA. See U.S. EPA Region V.

Mississippi State Department of Health. Dioxin in drinking water. No expiration date.

State of Montana Department of Public Health and Human Services. Dioxin in drinking water. December 31, 2004.

State of Nebraska Department of Health and Human Services. Reciprocal certification with the Florida DOH NELAP Certification. **SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water. Expires June 30, 2005.

State of Nevada, Division of Environmental Protection. Lab Certificate No. NC140-2004-75. SDWA, Method 1613B, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613B, expires July 31, 2005.

Primary NELAP Certificate: **State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA,** Methods 0023A and MM5 (Sampling Train). Secondary NELAP Certificate: **SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of New Mexico, Environment Department. Safe Drinking Water Act; 2,3,7,8-TCDD by Method 1613. Expires June 30, 2005.

Secondary NELAP Certificate: New York State Department of Health, LAB ID #11026. Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 26053; **Non-Potable Water,** 2,3,7,8-TCDD, EPA 1613, Serial # 26054. Expires 1 April, 2006.

State of North Carolina, Department of Health and Human Services. Certificate # 37751. Dioxin in drinking water. Expires July 31, 2005.

North Dakota State Department of Health. Certificate # R-076. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA,** Methods 8280A/8290, PCDD/PCDF. Expires July 31, 2005.

Ohio EPA. Ohio does not offer out-of-state lab certifications; certification by EPA Region 5 is honored. Ohio EPA #29382, Analyst #9999.

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Oklahoma Department of Environmental Quality. Laboratory #9951. 2,3,7,8 TCDD (Dioxin). Expires August 31, 2005.

Secondary NELAP Certificate: **Oregon Environmental Laboratory Accreditation Program, Certificate No:-NC200001-002. SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA,** Methods 8280/8290, PCDD/PCDFs. Expires January 31, 2006.

Pennsylvania Department of Environmental Protection. 2,3,7,8 TCDD (Dioxin) in Drinking water, EPA 1613 . Expires July 9, 2005.

State of Tennessee. Department of Environment and Conservation. ID #02992. Dioxin in Drinking water. Expires July 30, 2005.

Texas Natural Resource Conservation Commission. Certification Number: TX264-2002A. SDWA: Chemistry, Dioxin (2378-TCDD), EPA 1613. Expires March 31, 2006.

U.S. EPA Region V. 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613B. Expires February 03, 2006. [Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin]

U.S. EPA Region VIII, for the State of Wyoming. EPA Method 1613 for Dioxin in drinking water. Expires 20 October 2005.

U.S. Navy, NFESC IR QA; NFESC 413. Acceptance to perform samples analysis; water and solids by EPA Methods 8280A, 8290 and 1613B. Expires April 21, 2006.

Secondary NELAP Certificate: **State of Utah, Department of Health. ID # TRIA, Account # 9195445729 SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF & totals; RCRA, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613B. Expires June 30, 2005.

State of Washington, Department of Ecology. Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613, 8280, and 8290 in potable and non-potable water. Expires February 8, 2005.

State of West Virginia, Department of Health & Human Resources. Certificate No. 9923C. 2,3,7,8-TCDD (Dioxin), 1613B. Expires December 31, 2005.

State of Wisconsin, Department of Natural Resources. Laboratory ID Number 999869530. Certified for 2,3,7,8-TCDD (Dioxin) in drinking water and for PCDD/PCDF. Expires August 31, 2005.

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PHARMACEUTICAL

Clinical Laboratory Improvement Amendments (CLIA) Registration. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration. Certificate for the Acceptance of Human Specimens for the purposes of performing laboratory examinations or procedures - Chemistry, Toxicology, HCFA. Expires May 30, 2005.

U.S. Dept of Justice, Drug Enforcement Agency (DEA). Registration number RE0317811. Controlled substance registration for schedules 1,2,3,3N,4,5. Expires 8/31/05.

N.C. Department of Health and Human Services. Registration number NC-PE 0000 2493. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6. Expires 10/31/2005.

Food & Drug Administration (FDA) Registration. ID #'s 001500 3004570112. Annual registration of drug establishment.

OTHER

U.S. Department of Agriculture Soil Permit. Permit No. S-68701. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis. Expires September 30, 2009.

U.S. EPA Large Quantity Hazardous Waste Generator. EPA ID #NCR000137232. Permit indicates that the laboratory is a large generator of hazardous waste. No expiration date.

U.S. Fish and Wildlife Permit. Number LE027890-1. Authorization to import/export wildlife and/or wildlife products. Expires April 30, 2005.

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ENO RIVER LABS, LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS

Project: 65028
Matrix: SAND
Method: 8290

Isomer	T051287 ID: Blank Sample (pg/g)	T051291 ID: LCS With Spike (pg/g)	Percent Recovery
2378-TCDD	ND	35.3	88.2
12378-PeCDD	ND	157	78.5
123478-HxCDD	ND	238	119
123678-HxCDD	ND	181	90.7
123789-HxCDD	ND	179	89.5
1234678-HpCDD	ND	200	99.8
OCDD	0.88	385	96.0
2378-TCDF	ND	34.1	85.2
12378-PeCDF	ND	203	101
23478-PeCDF	ND	184	92.1
123478-HxCDF	ND	189	94.4
123678-HxCDF	ND	207	104
234678-HxCDF	ND	195	97.4
123789-HxCDF	ND	183	91.5
1234678-HpCDF	ND	201	100
1234789-HpCDF	ND	178	89.2
OCDF	ND	372	93.0

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: KLW Date: 05/11/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

ENO RIVER LABS, LLC
MATRIX SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 65028
Matrix: SOIL
Method: 8290

Isomer	T051288 ID: 401-61-2 Sample (pg/g)	T051289 ID: 401-61-2MS With Spike (pg/g)	Percent Recovery	T051290 ID: 401-61-2MSD Spike Dup (pg/g)	Percent Recovery	Relative Percent Difference
2378-TCDD	[0.23]	36.1	89.9	36.1	89.7	0.22
12378-PeCDD	0.36	157	78.3	161	80.3	2.52
123478-HxCDD	ND	222	111	221	111	0.0
123678-HxCDD	0.80	181	90.1	183	90.9	0.88
123789-HxCDD	1.1	189	94.1	184	91.7	2.58
1234678-HpCDD	6.7	209	101	207	100	1.00
OCDD	29.9	419	97.5	403	93.4	4.30
2378-TCDF	3.3	37.5	85.8	37.7	86.1	0.35
12378-PeCDF	1.2	201	100	190	94.5	5.66
23478-PeCDF	1.7	185	91.8	188	92.9	1.19
123478-HxCDF	5.0	198	96.8	190	92.5	4.54
123678-HxCDF	2.0	206	102	202	100	1.98
234678-HxCDF	1.8	188	93.2	183	90.7	2.72
123789-HxCDF	0.47	189	94.5	190	94.7	0.21
1234678-HpCDF	9.2	226	108	215	103	4.74
1234789-HpCDF	2.0	171	84.5	163	80.7	4.60
OCDF	12.9	386	93.5	395	95.6	2.22

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: PaB Date: 05/12/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
- TCDD/TCDF..: 0.4 ng
- PeCDD/PeCDF: 2.0 ng
- HxCDD/HxCDF: 2.0 ng
- HpCDD/HpCDF: 2.0 ng
- OCDD/OCDF..: 4.0 ng

ENO RIVER LABS

SAMPLE DATA

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **Blank** Analysis File: **T051287**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
Lab ID:	**Blank**	Date Extracted:	**04/27/2005**	ICal:	**TF5O224**
		Date Analyzed:	**05/02/2005**	ConCal:	**T051279**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**T051287**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**n/a**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.06				___
1,2,3,7,8-PeCDD	ND	0.05				___
1,2,3,4,7,8-HxCDD	ND	0.08				___
1,2,3,6,7,8-HxCDD	ND	0.08				___
1,2,3,7,8,9-HxCDD	ND	0.07				___
1,2,3,4,6,7,8-HpCDD	ND	0.1				___
1,2,3,4,6,7,8,9-OCDD	0.88			0.83	41:47	J__
2,3,7,8-TCDF	ND	0.05				___
1,2,3,7,8-PeCDF	ND	0.05				___
2,3,4,7,8-PeCDF	ND	0.05				___
1,2,3,4,7,8-HxCDF	ND	0.06				___
1,2,3,6,7,8-HxCDF	ND	0.05				___
2,3,4,6,7,8-HxCDF	ND	0.05				___
1,2,3,7,8,9-HxCDF	ND	0.06				___
1,2,3,4,6,7,8-HpCDF	ND	0.07				___
1,2,3,4,7,8,9-HpCDF	ND	0.09				___
1,2,3,4,6,7,8,9-OCDF	ND	0.2				___

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	ND		0.06		___
Total PeCDD	EMPC			0.15	___
Total HxCDD	ND		0.08		___
Total HpCDD	ND		0.1		___
Total TCDF	EMPC			0.25	X__
Total PeCDF	EMPC			1.6	___
Total HxCDF	ND		0.06		___
Total HpCDF	ND		0.08		___

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 20:46 05/11/2005

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **Blank** Analysis File: **T051287**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	145	72.7	40%-135%	0.74	26:32	___
$^{13}C_{12}$-2,3,7,8-TCDD	151	75.3	40%-135%	0.79	27:15	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	188	94.1	40%-135%	1.51	30:26	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	235	117	40%-135%	1.50	31:27	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	166	82.9	40%-135%	0.50	33:57	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	174	86.9	40%-135%	1.19	34:39	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	186	93.2	40%-135%	0.42	36:56	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	175	87.5	40%-135%	1.03	38:00	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	309	77.2	40%-135%	0.88	41:47	___

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	181	90.4	40%-135%	1.48	31:07	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	173	86.3	40%-135%	0.50	33:51	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	184	91.8	40%-135%	1.20	34:34	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	166	83.1	40%-135%	0.42	38:32	___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	13.0	65.0	40%-135%	27:16	___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	167	83.5	40%-135%	0.50	35:15	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	166	83.2	40%-135%	0.50	34:27	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.79	27:05	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:59	___

Data Reviewer: KLW 05/11/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 20:46 05/11/2005

Initial ....Date...

Data Review By: PaB 5/3/05

Calculated Noise Height: 0.03

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T051287B.dbf
05/03/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.877-1.069			
304-306	DC	NL		Height			<0.01	0.00	0.00				
	DC	SN	24:42	RO		0.47	0.21			0.931			
	DC	SN	25:17	RO		0.29	0.05			0.953			
	DC	SN	26:37	RO		0.44	0.41			1.003			
X		X	27:37	RO		0.91	0.80	0.41	0.45	1.041			J
X		X	27:56	RO		0.76	0.72	0.31	0.41	1.053			J
	DC	WH	28:33			0.87	0.28			1.076			
304-306			2 Peaks				1.52						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL		Height			0.02	0.02	0.00				
			26:09	RO		0.99	2.00	0.87	0.88	0.986			
			26:32			0.74	946.01	400.86	545.15	1.000	13C12-2378-TCDF	IS0	
				Height			256.13	108.94	147.19				
316-318			2 Peaks				948.01						
---------- Above: TCDF / TCDD Follows ----------													
TCDD				0.65-0.89						0.904-1.041			
320-322	DC	NL		Height			<0.01	0.00	0.00				
	DC	SN	24:42	RO		2.00	0.07			0.906			
	DC	SN	24:47	RO		0.60	0.14			0.909	1368-TCDD	AN	
	DC	SN	25:07	RO		0.44	0.09			0.922			
	DC	SN	25:22	RO		8.00	0.02			0.931			
	DC	SN	25:28	RO		0.56	0.11			0.935			
	DC	SN	25:39	RO		1.00	0.11			0.941			
	DC	SN	25:52	RO		0.63	0.11			0.949			
	DC	SN	26:17	RO		3.00	0.05			0.965			
	DC	SN	26:33	RO		2.92	0.23			0.974			
	DC	SN	27:16			0.67	0.30			1.001	2378-TCDD	AN	
	DC	SN	28:01	RO		4.00	0.02			1.028			
	DC	SN	28:20	RO		0.39	0.16			1.040			
	DC	WH	28:33	RO		0.25	0.05			1.048			
320-322			0 Peaks				0.00						
37C1-TCDD										0.927-1.073			
328	DC	NL		Height			0.05	0.05					
	DC	WL	25:06				0.23			0.921			
	DC	WL	25:11				0.34			0.924			
	DC	SN	25:28				0.08			0.935			
			25:56				12.46	12.46		0.952			
	DC	SN	26:15				0.11			0.963			
	DC	SN	26:21				0.05			0.967			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		26:33			0.14			0.974			
				26:35			0.10	0.10		0.976			
	DC	SN		26:46			0.23			0.982			
				27:16			65.25	65.25		1.001	37Cl-TCDD	CLS	
				27:39			0.39	0.39		1.015			
	DC	SN		28:22			0.22			1.041			
	DC	SN		28:29			0.15			1.045			
				28:33			0.30	0.30		1.048			
	DC	SN		28:43			0.05			1.054			
	DC	SN		28:50			0.11			1.058			
328			5	Peaks			78.50						
13C12-TCDD					0.65-0.89					0.927-1.073			
332-334	DC	NL			Height		0.05	0.05	0.00				
				27:05		0.79	872.63	384.06	488.57	0.994	13C12-1234-TCDD	RS1	
				27:15		0.79	724.12	319.24	404.88	1.000	13C12-2378-TCDD	IS1	
					Height		202.81	88.55	114.26				
332-334			2	Peaks			1,596.75						

---------- Above: TCDD / PeCDF Follows ----------

PeCDF					1.32-1.78					0.930-1.060			
340-342	DC	NL			Height		0.02	0.00	0.02				
	DC	SN		29:09	RO	5.20	0.13			0.958			
	DC	SN		29:23	RO	2.13	0.20			0.965			
				29:44	RO	6.39	8.08	20.26	3.17	0.977			J
D	D	SN		30:20		1.43	0.85			0.997			
D	D	SN		30:30	RO	1.03	0.56			1.002			
	DC	SN		30:49	RO	3.40	0.13			1.013			
	DC	SN		31:06	RO	3.29	0.36			1.022	23478-PeCDF	AN	
	DC	SN		31:50	RO	2.67	0.15			1.046			
	DC	SN		32:13	RO	0.80	0.13			1.059			
	DC	WH		32:20	RO	0.60	0.10			1.062			
	DC	WH		32:35	RO	2.50	0.15			1.071			
340-342			1	Peak			8.08						
13C12-PeCDF					1.32-1.78					0.869-1.131			
352-354	DC	NL			Height		<0.01	0.00	0.00				
				29:35		1.51	2.21	1.33	0.88	0.972			
				30:26		1.51	992.44	596.59	395.85	1.000	13C12-PeCDF 123	IS2	
					Height		311.07	188.00	123.07				
				30:42		1.45	9.70	5.74	3.96	1.009			
				31:07		1.48	980.20	585.24	394.96	1.022	13C12-PeCDF 234	SUR1	
				32:05		1.48	9.48	5.66	3.82	1.054			
352-354			5	Peaks			1,994.03						

---------- Above: PeCDF / PeCDD Follows ----------

PeCDD					1.32-1.78					0.939-1.020			
356-358	DC	NL			Height		<0.01	0.00	0.00				
	DC	SN		29:55	RO	0.22	0.21			0.951			
	DC	SN		30:12	RO	0.71	0.20			0.960			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				30:20	RO	1.29	0.66	0.40	0.31	0.964			J
	DC	SN		31:07	RO	3.00	0.10			0.989			
	DC	SN		31:18	RO	0.25	0.02			0.995			
D	D	SN		31:29	RO	2.69	0.33			1.001	12378-PeCDD	AN	
	DC	WH		32:30	RO	1.14	0.36			1.033			
356-358			1 Peak				0.66						
13C12-PeCDD				1.32-1.78					0.873-1.127				
368-370	DC	NL		Height			<0.01	0.00	0.00				
				30:20	RO	3.94	6.02	9.31	2.36	0.964			
				30:31		1.41	2.87	1.68	1.19	0.970			
				31:27		1.50	696.98	417.93	279.05	1.000	13C12-PeCDD 123	IS3	
				Height			231.84	139.92	91.92				
368-370			3 Peaks				705.87						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.963-1.045				
374-376	DC	NL		Height			0.06	0.04	0.02				
	DC	SN		32:59	RO	0.33	0.02			0.972			
	DC	SN		33:23	RO	0.45	0.09			0.983			
D	D	SN		33:30	RO	1.62	0.47			0.987			
D	D	SN		33:52	RO	1.00	0.40			0.998	123478-HxCDF	AN	
	DC	SN		33:57	RO	4.60	0.11			1.000	123678-HxCDF	AN	
	DC	SN		34:09	RO	0.58	0.13			1.006			
	DC	SN		34:15	RO	0.75	0.11			1.009			
	DC	SN		34:28	RO	2.60	0.22			1.015	234678-HxCDF	AN	
	DC	SN		34:35	RO	3.00	0.09			1.019			
	DC	SN		34:59	RO	5.50	0.04			1.030			
	DC	SN		35:10	RO	0.80	0.07			1.036			
	DC	WH		35:37	RO	2.00	0.07			1.049			
	DC	WH		35:40	RO	1.60	0.11			1.051			
	DC	WH		35:48	RO	0.55	0.11			1.054			
	DC	WH		35:53		1.14	0.15			1.057			
374-376			0 Peaks				0.00						
13C12-HxCDF				0.43-0.59					0.882-1.118				
384-386	DC	NL		Height			0.15	0.05	0.10				
				32:54		0.59	1.08	0.40	0.68	0.969			
				33:01	RO	0.33	0.50	0.17	0.51	0.973			
				33:51		0.50	713.16	237.17	475.99	0.997	13C12-HxCDF 478	SUR2	
				33:57		0.50	696.51	232.10	464.41	1.000	13C12-HxCDF 678	IS4	
				Height			235.45	78.59	156.86				
				34:07	RO	1.10	1.03	0.75	0.68	1.005			
				34:27		0.50	714.24	238.26	475.98	1.015	13C12-HxCDF 234	ALT2	
				35:15		0.50	593.55	196.67	396.88	1.038	13C12-HxCDF 789	ALT1	
				35:29	RO	0.37	0.56	0.19	0.52	1.045			
384-386			8 Peaks				2,720.63						
---------- Above: HxCDF / HxCDD Follows ----------													

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
HxCDD				1.05-1.43						0.958-1.013			
390-392	DC	NL		Height			0.12	0.07	0.05				
	DC	SN		33:51	RO	2.00	0.29			0.977			
	DC	SN		33:58		1.38	0.31			0.980			
	DC	SN		34:02	RO	0.67	0.18			0.982			
	DC	SN		34:13	RO	1.00	0.16			0.987			
	DC	SN		34:19	RO	0.58	0.13			0.990			
	DC	SN		34:28	RO	4.57	0.16			0.995			
	DC	SN		34:34	RO	5.67	0.07			0.998	123478-HxCDD		AN
	DC	SN		34:38	RO	0.92	0.20			1.000	123678-HxCDD		AN
	DC	SN		35:04	RO	0.18	0.04			1.012			
	DC	WH		35:25		1.40	0.12			1.022			
	DC	WH		35:28	RO	0.63	0.09			1.024			
390-392			0	Peaks			0.00						
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL		Height			0.08	0.04	0.04				
				34:02		1.10	3.59	1.88	1.71	0.982			
				34:34		1.20	491.14	267.64	223.50	0.998	13C12-HxCDD	478	SUR3
				34:39		1.19	524.45	284.64	239.81	1.000	13C12-HxCDD	678	IS5
				Height			170.75	93.64	77.11				
				34:59		1.21	569.36	311.61	257.75	1.010	13C12-HxCDD	789	RS2
402-404			4	Peaks			1,588.54						

---------- Above: HxCDD / HpCDF Follows ----------

HpCDF				0.88-1.20						0.995-1.048			
408-410	DC	NL		Height			0.13	0.10	0.03				
D	D	SN		36:55	RO	1.54	0.53			1.000			
	DC	SN		37:53	RO	1.50	0.16			1.026			
	DC	SN		38:35	RO	0.23	0.06			1.045			
408-410			0	Peaks			0.00						
13C12-HpCDF				0.37-0.51						0.946-1.108			
418-420	DC	NL		Height			0.13	0.07	0.06				
				36:56		0.42	497.25	147.36	349.89	1.000	13C12-HpCDF	678	IS6
				Height			141.30	42.14	99.16				
				37:07	RO	0.35	0.79	0.24	0.68	1.005			
				38:32		0.42	377.29	111.41	265.88	1.043	13C12-HpCDF	789	SUR4
	DC	SN		39:00		0.41	0.31			1.056			
418-420			3	Peaks			875.33						

---------- Above: HpCDF / HpCDD Follows ----------

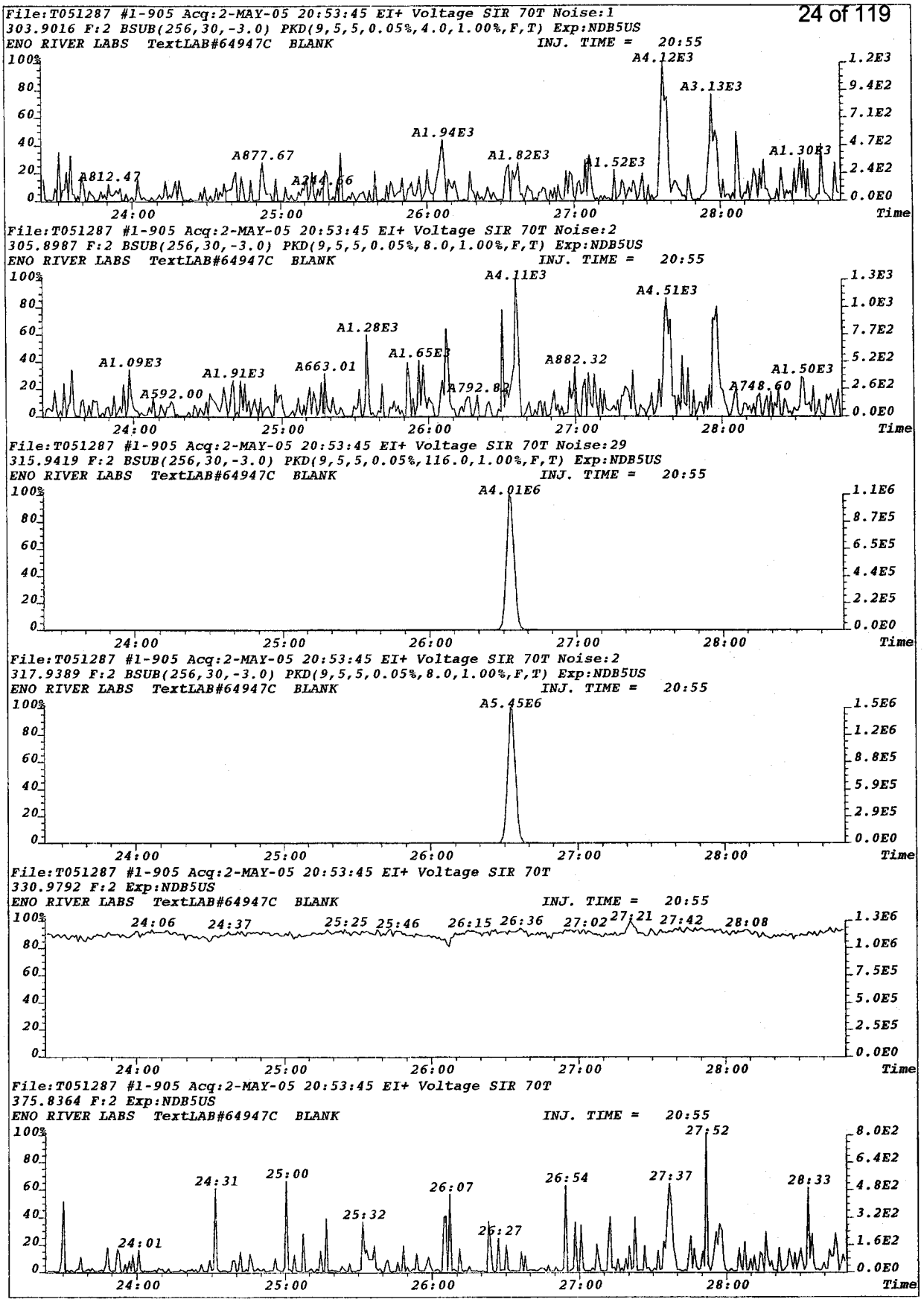
HpCDD				0.88-1.20						0.975-1.004			
424-426	DC	NL		Height			0.07	0.03	0.04				
	DC	SN		37:15	RO	1.50	0.24			0.980			
	DC	SN		37:52	RO	1.22	0.18			0.996			
D	D	SN		38:01	RO	0.75	0.35			1.000	1234678-HpCDD		AN
	DC	SN		38:10	RO	2.33	0.06			1.004			
	DC	WH		38:31	RO	2.27	0.31			1.014			
424-426			0	Peaks			0.00						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HpCDD				0.88-1.20						0.974-1.026			
436-438	DC	NL		Height			0.19	0.10	0.09				
			38:00	1.03			437.28	221.66	215.62	1.000	13C12-HpCDD	678	IS7
				Height			120.09	60.15	59.94				
436-438			1 Peak				437.28						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF				0.76-1.02						0.904-1.096			
442-444	DC	NL		Height			0.04	0.02	0.02				
	DC	WL	37:21	RO	0.13		0.06			0.894			
	DC	WL	37:36	RO	1.60		0.09			0.900			
	DC	WL	37:46	RO	1.44		0.17			0.904			
	DC	SN	37:55		1.00		0.12			0.907			
	DC	SN	38:20	RO	1.22		0.17			0.917			
	DC	SN	38:44	RO	2.40		0.09			0.927			
	DC	SN	38:51	RO	2.50		0.04			0.930			
	DC	SN	38:54	RO	2.33		0.06			0.931			
	DC	SN	39:06	RO	3.25		0.08			0.936			
	DC	SN	39:16	RO	2.50		0.08			0.940			
	DC	SN	39:35	RO	0.54		0.15			0.947			
	DC	SN	39:43	RO	2.00		0.06			0.951			
	DC	SN	39:59		1.00		0.18			0.957			
	DC	SN	40:23	RO	0.25		0.02			0.966			
	DC	SN	40:24	RO	3.00		0.06			0.967			
	DC	SN	40:57		1.00		0.16			0.980			
	DC	SN	41:03	RO	0.29		0.08			0.982			
	DC	SN	41:12		0.89		0.17			0.986			
	DC	SN	41:45	RO	1.33		0.11			0.999			
	DC	SN	42:03	RO	2.06		0.32			1.006			
	DC	SN	42:24	RO	1.20		0.19			1.015			
	DC	SN	42:34	RO	0.19		0.06			1.019			
	DC	SN	42:55	RO	2.50		0.04			1.027			
	DC	SN	43:00	RO	0.60		0.06			1.029			
	DC	SN	43:12	RO	0.71		0.11			1.034			
	DC	SN	43:24	RO	0.30		0.06			1.039			
	DC	SN	43:35	RO	2.20		0.09			1.043			
	DC	SN	44:04	RO	1.25		0.08			1.055			
	DC	SN	44:22		0.77		0.23			1.062			
	DC	SN	44:47	RO	1.33		0.06			1.072			
	DC	SN	44:55	RO	2.00		0.04			1.075			
442-444			0 Peaks				0.00						
OCDD				0.76-1.02						0.904-1.096			
458-460	DC	NL		Height			0.03	0.02	0.01				
	DC	WL	36:22	RO	2.33		0.06			0.870			
	DC	WL	36:38	RO	0.33		0.02			0.877			
	DC	WL	36:46	RO	2.00		0.08			0.880			
	DC	WL	37:13	RO	2.75		0.08			0.891			
	DC	WL	37:18	RO	1.80		0.09			0.893			
	DC	WL	37:22	RO	0.50		0.06			0.894			
	DC	SN	38:11	RO	0.70		0.15			0.914			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
		DC	SN	38:24		0.86	0.13			0.919			
		DC	SN	38:34	RO	1.17	0.11			0.923			
		DC	SN	38:38	RO	6.00	0.02			0.925			
		DC	SN	39:13	RO	1.20	0.09			0.939			
		DC	SN	40:19	RO	2.00	0.08			0.965			
		DC	SN	40:31	RO	1.20	0.09			0.970			
		DC	SN	40:45	RO	1.14	0.13			0.975			
		DC	SN	40:52	RO	3.33	0.06			0.978			
		DC	SN	41:16	RO	2.00	0.13			0.988			
		DC	SN	41:26		0.80	0.09			0.992			
460	AN			41:47		0.83	1.30	0.59	0.71	1.000	OCDD	AN	J
		DC	SN	42:06	RO	2.75	0.08			1.008			
		DC	SN	42:21	RO	2.50	0.04			1.014			
		DC	SN	42:44		1.00	0.06			1.023			
		DC	SN	43:36	RO	2.33	0.06			1.043			
		DC	SN	44:08	RO	0.20	0.02			1.056			
		DC	SN	44:14	RO	0.20	0.02			1.059			
		DC	SN	44:29	RO	3.50	0.04			1.065			
		DC	SN	44:57	RO	1.33	0.06			1.076			
458-460			1	Peak			1.30						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472		DC	NL			Height	0.06	0.04	0.02				
				41:47		0.88	554.52	258.84	295.68	1.000	13C12-OCDD	IS8	
						Height	125.17	59.31	65.86				
				42:08	RO	0.74	0.59	0.28	0.38	1.008			
				42:24	RO	0.52	0.34	0.16	0.31	1.015			
470-472			3	Peaks			555.45						

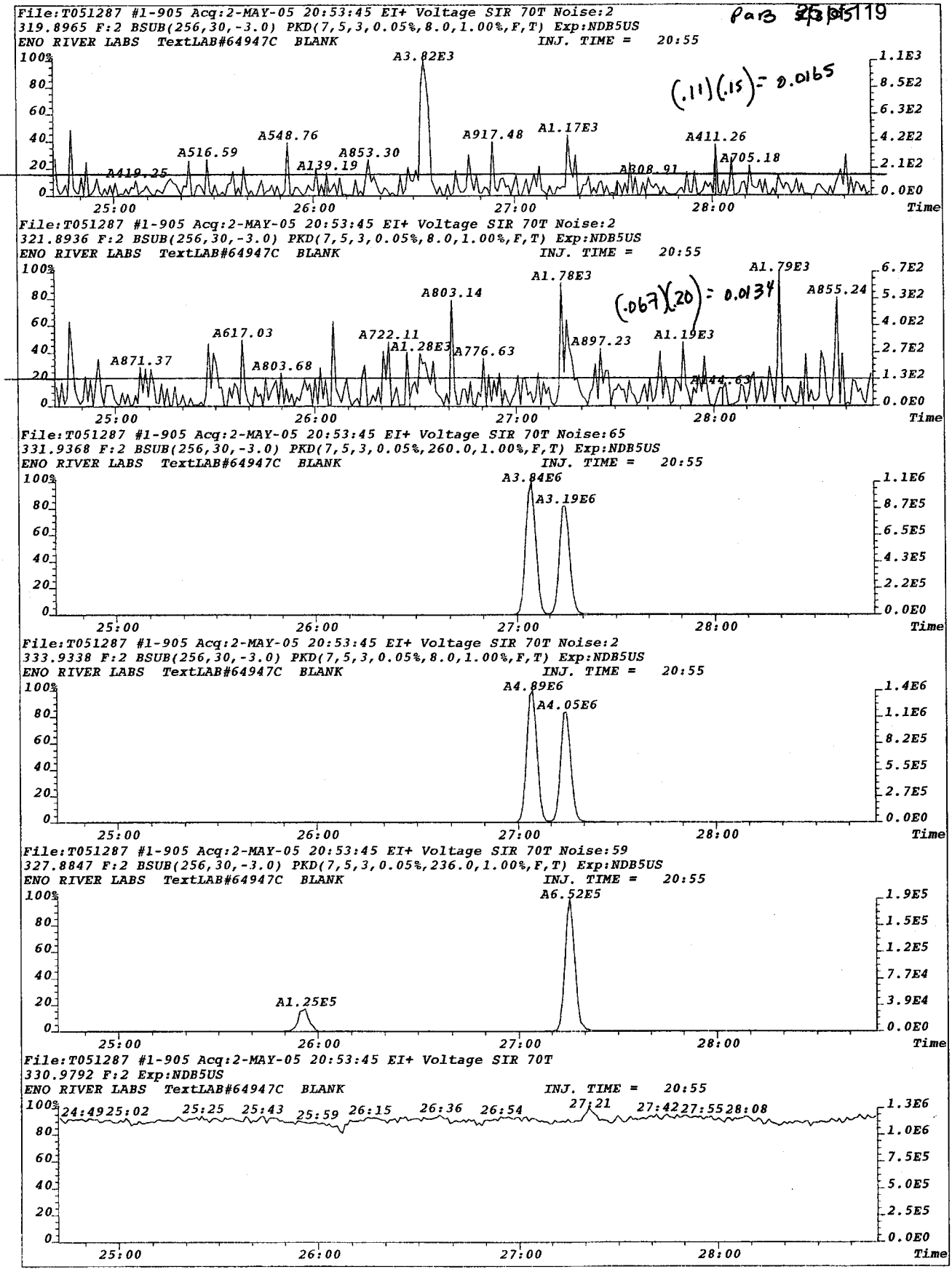
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

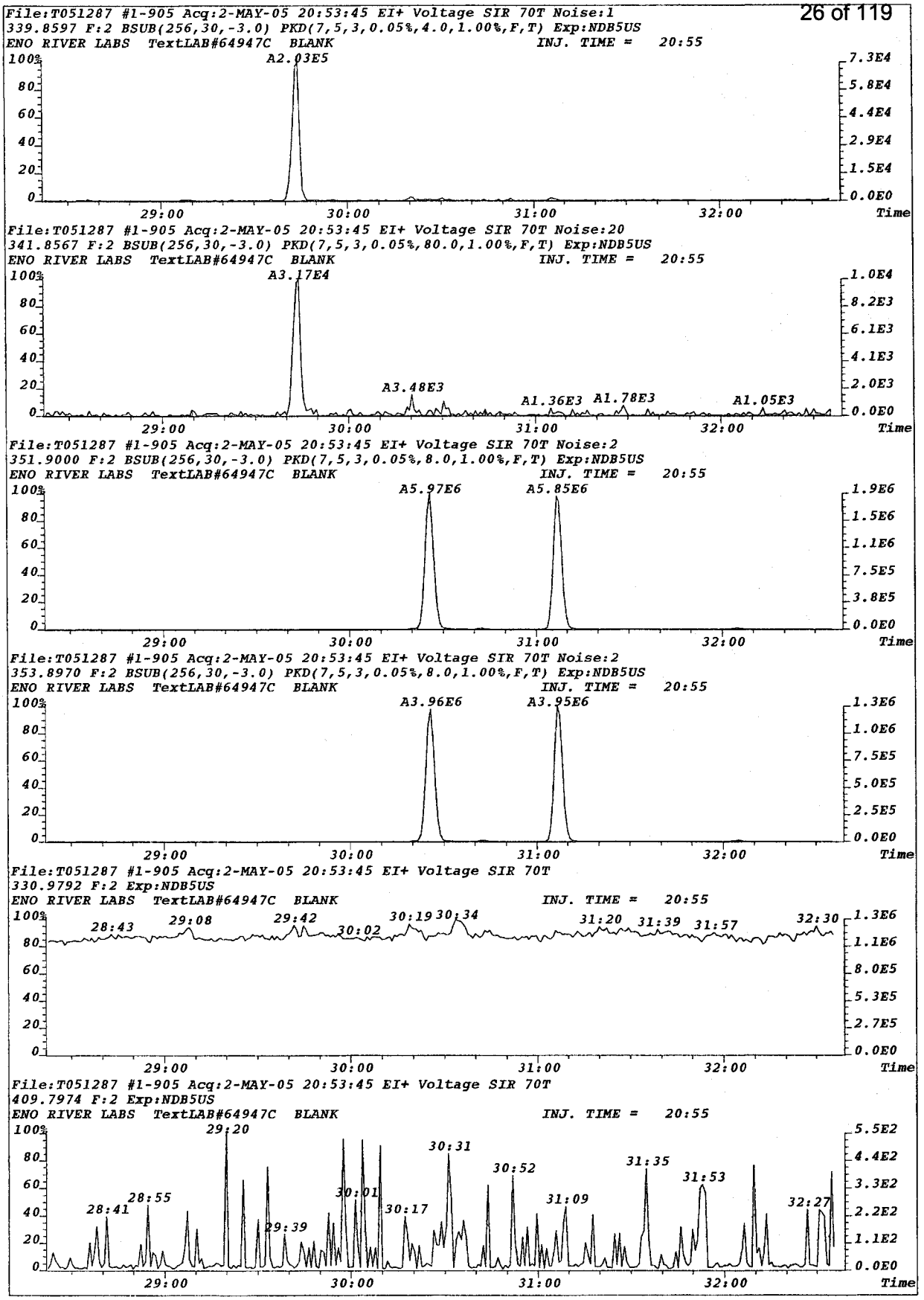
*** End of Report ***

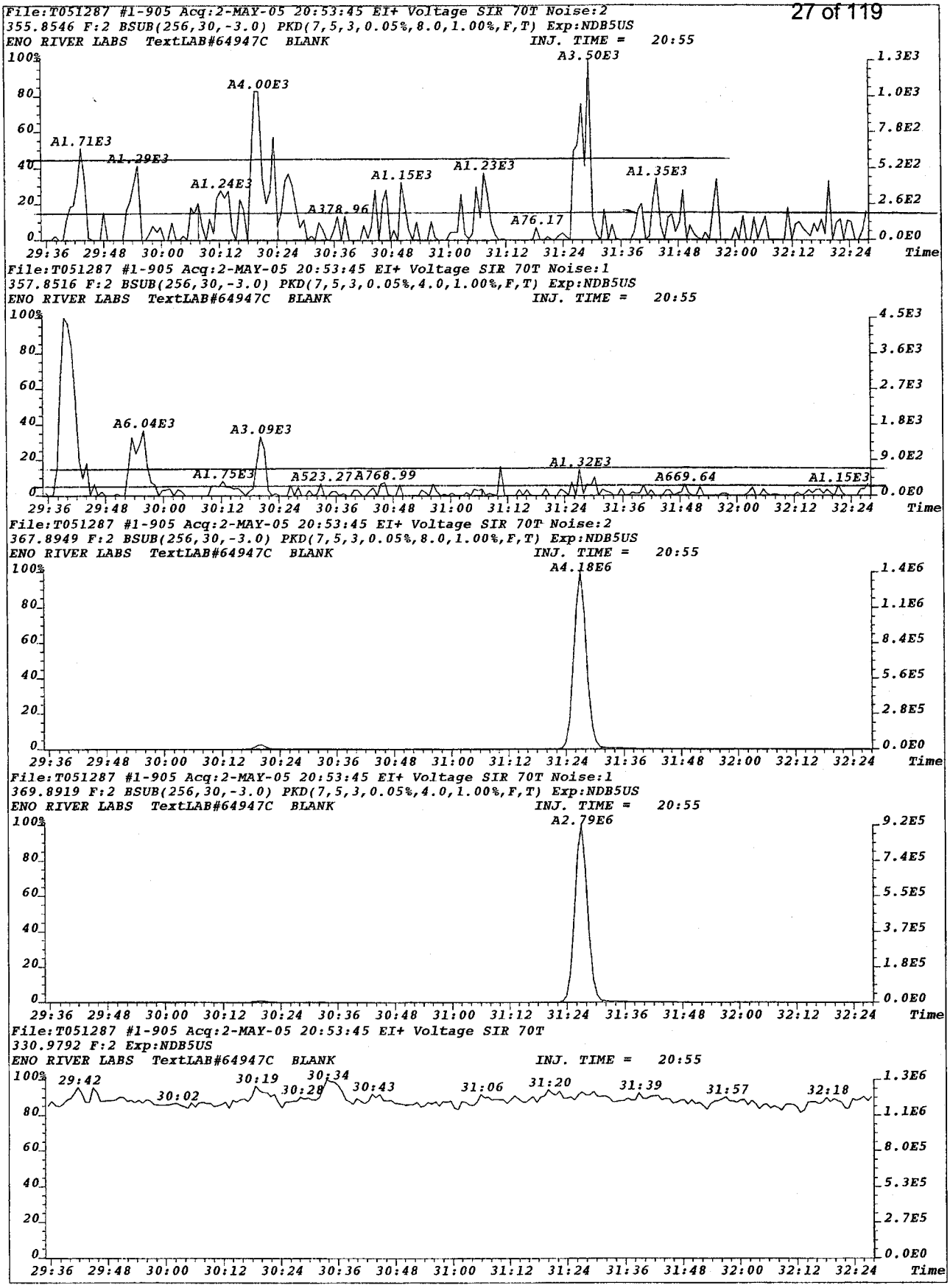

File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:1
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A4.12E3
A3.13E3
A1.94E3
A877.67
A1.82E3
A1.52E3
A1.30E3
A812.47
A2[illegible].66
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A4.11E3
A4.51E3
A1.28E3
A1.65E3
A1.09E3
A1.91E3
A663.01
A882.32
A1.50E3
A592.00
A792.82
A748.60
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:29
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,116.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A4.01E6
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A5.45E6
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
24:06
24:37
25:25
25:46
26:15
26:36
27:02
27:21
27:42
28:08
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
27:52
24:31
25:00
26:07
26:54
27:37
28:33
25:32
26:27
24:01
100%
Time
24:00
25:00
26:00
27:00
28:00

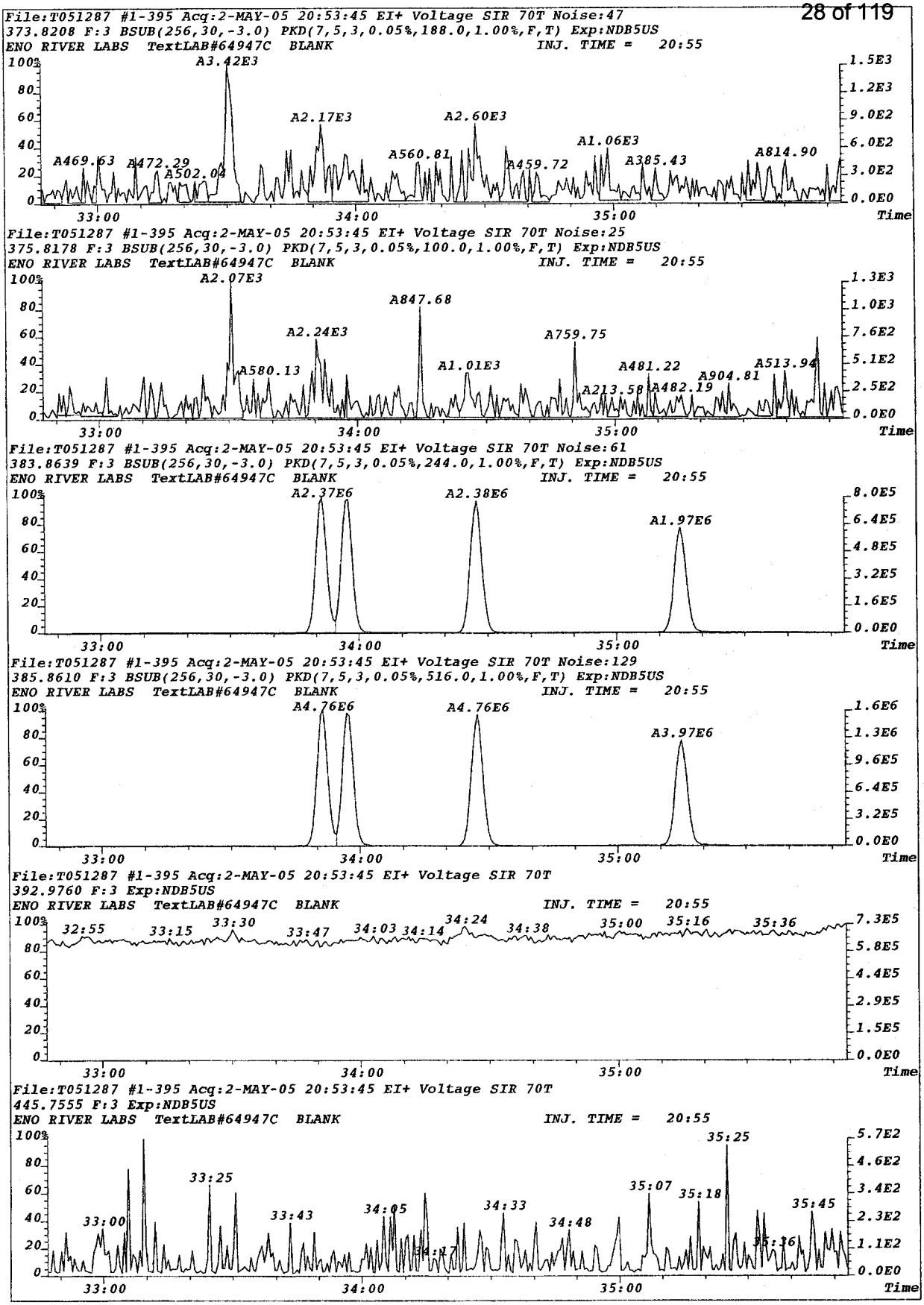
N = 0.0165 + 0.0134 = 0.0299

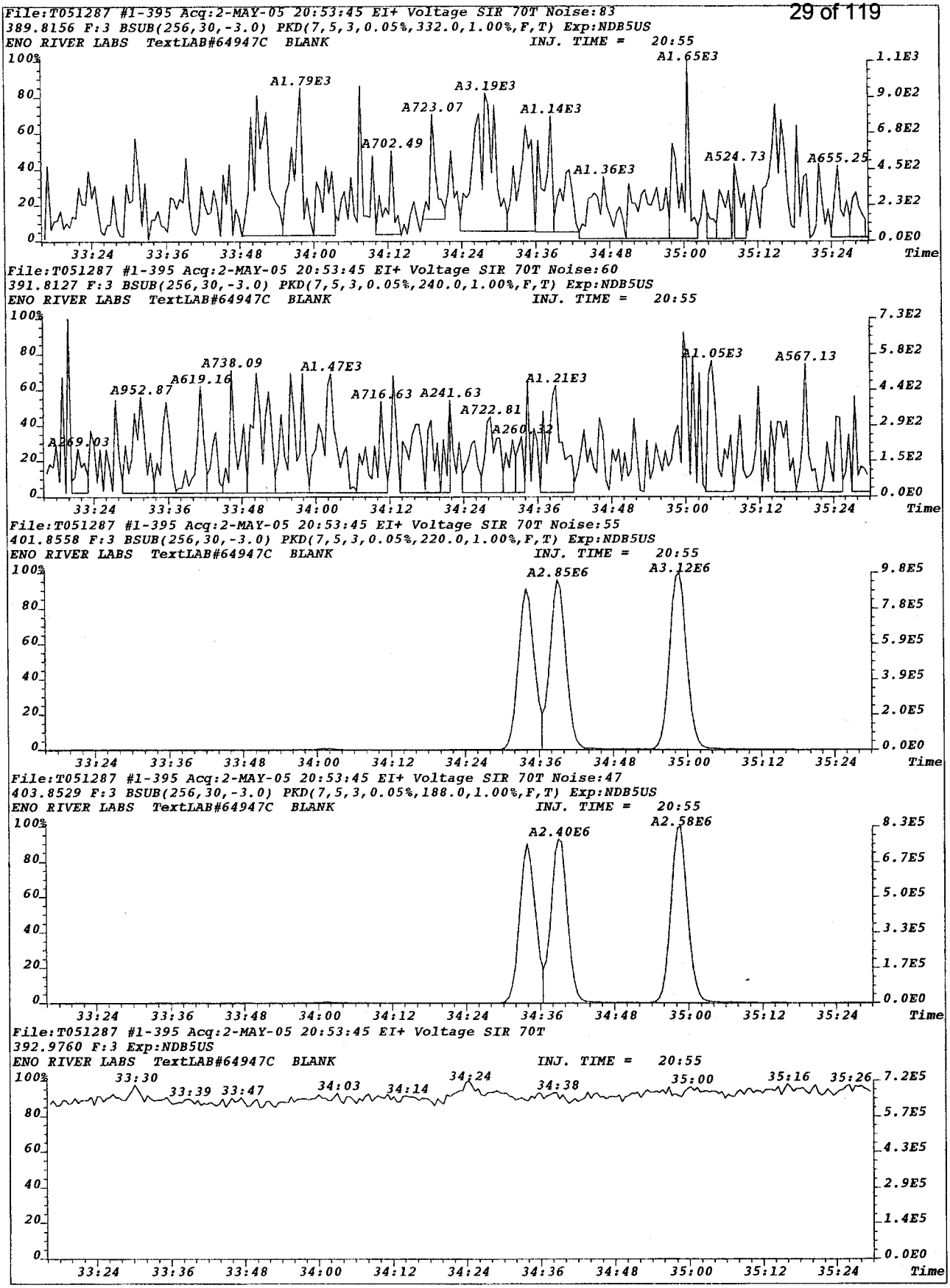
Para 25 of 5119

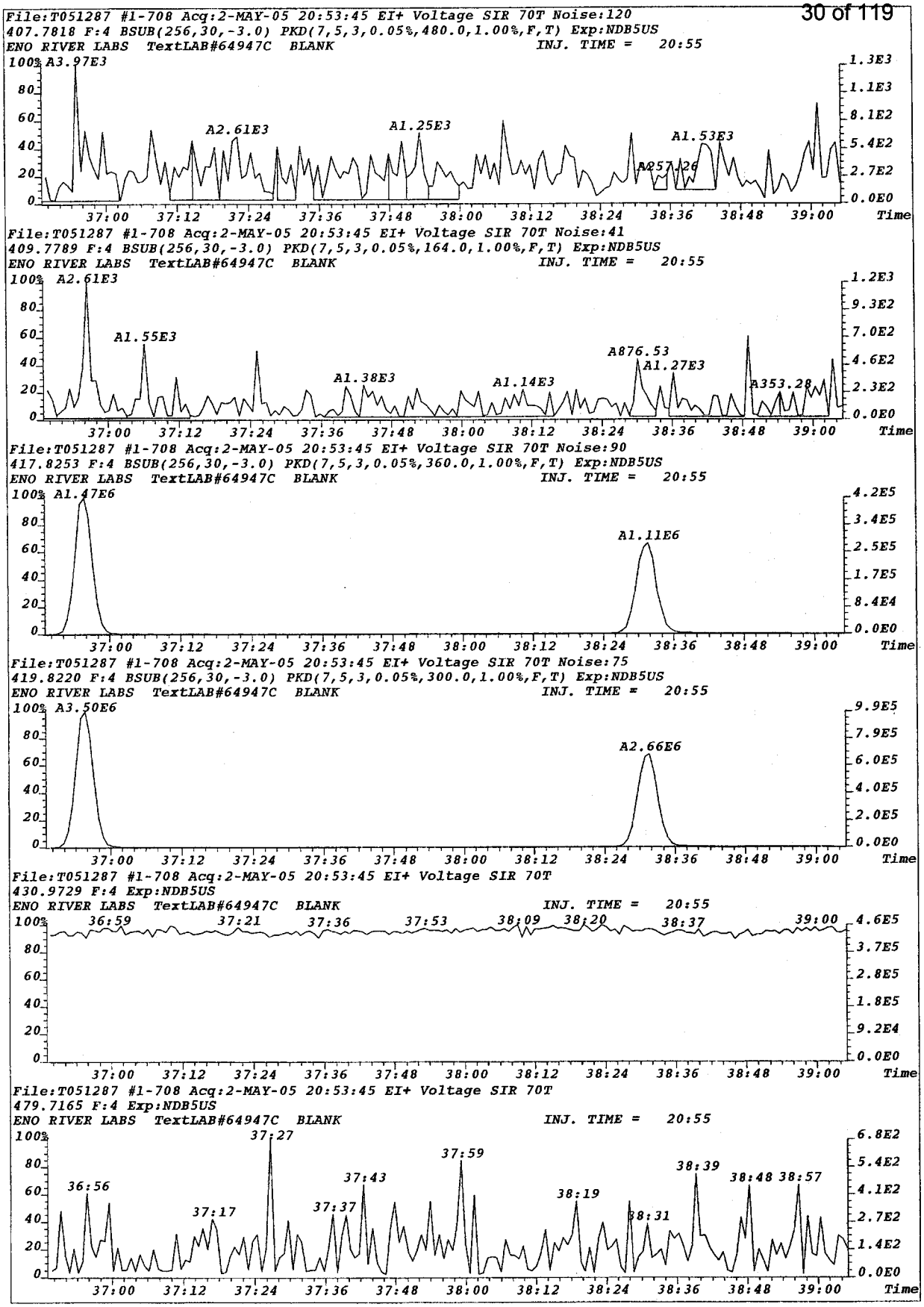


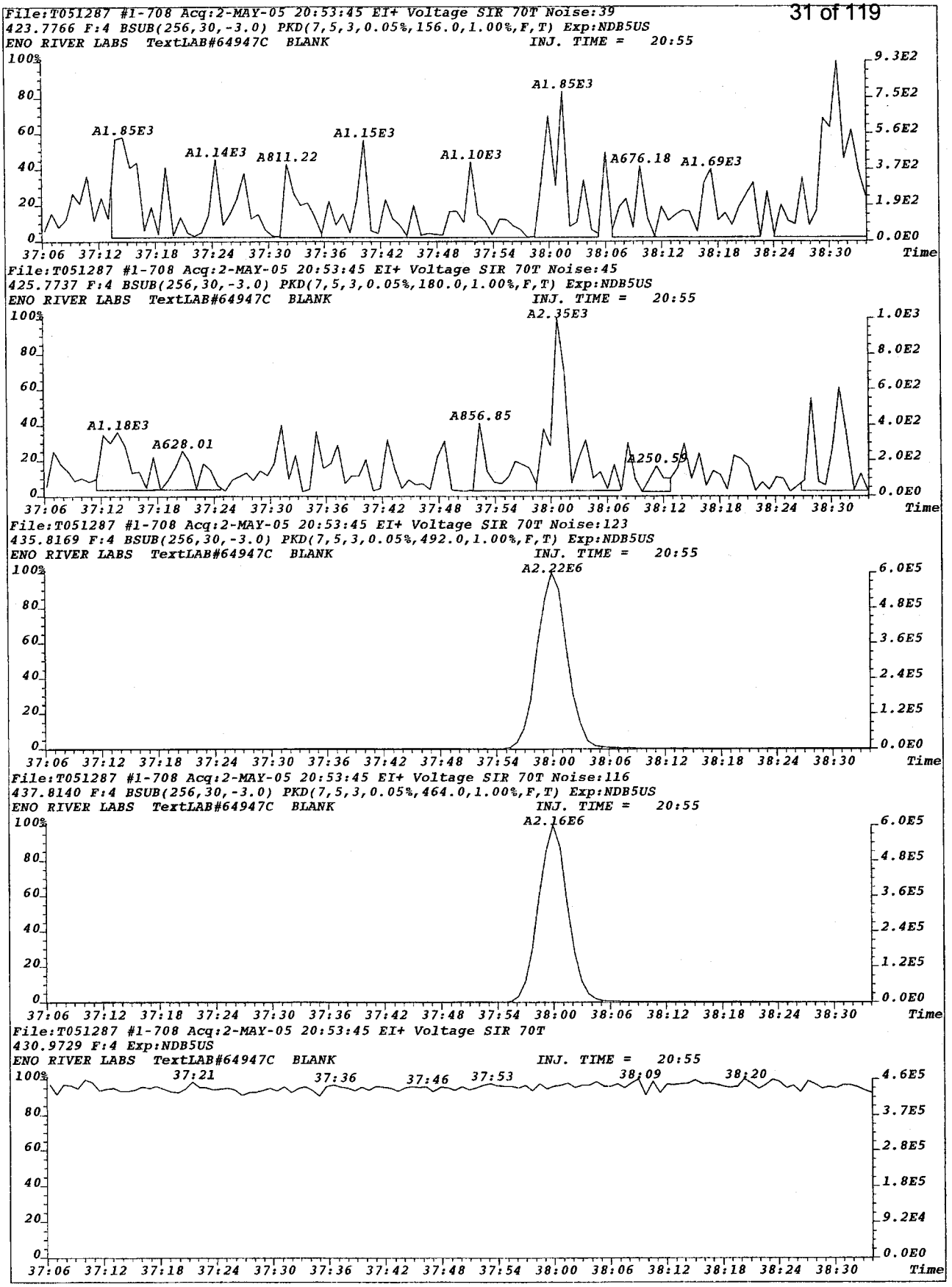

File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:1
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.03E5
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:20
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,80.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.17E4
A3.48E3
A1.36E3
A1.78E3
A1.05E3
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A5.97E6
A5.85E6
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.96E6
A3.95E6
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
28:43
29:08
29:42
30:02
30:19
30:34
31:20
31:39
31:57
32:30
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
28:41
28:55
29:20
29:39
30:01
30:17
30:31
30:52
31:09
31:35
31:53
32:27
29:00
30:00
31:00
32:00
Time


File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.50E3
A4.00E3
A1.71E3
A1.29E3
A1.24E3
A1.15E3
A1.23E3
A1.35E3
A378.96
A76.17
1.3E3
1.0E3
7.8E2
5.2E2
2.6E2
0.0E0
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:1
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A6.04E3
A3.09E3
A1.75E3
A523.27A768.99
A1.32E3
A669.64
A1.15E3
4.5E3
3.6E3
2.7E3
1.8E3
9.0E2
0.0E0
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:2
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A4.18E6
1.4E6
1.1E6
8.4E5
5.6E5
2.8E5
0.0E0
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:1
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.79E6
9.2E5
7.4E5
5.5E5
3.7E5
1.8E5
0.0E0
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051287 #1-905 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
29:42
30:02
30:19
30:28
30:34
30:43
31:06
31:20
31:39
31:57
32:18
1.3E6
1.1E6
8.0E5
5.3E5
2.7E5
0.0E0
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time

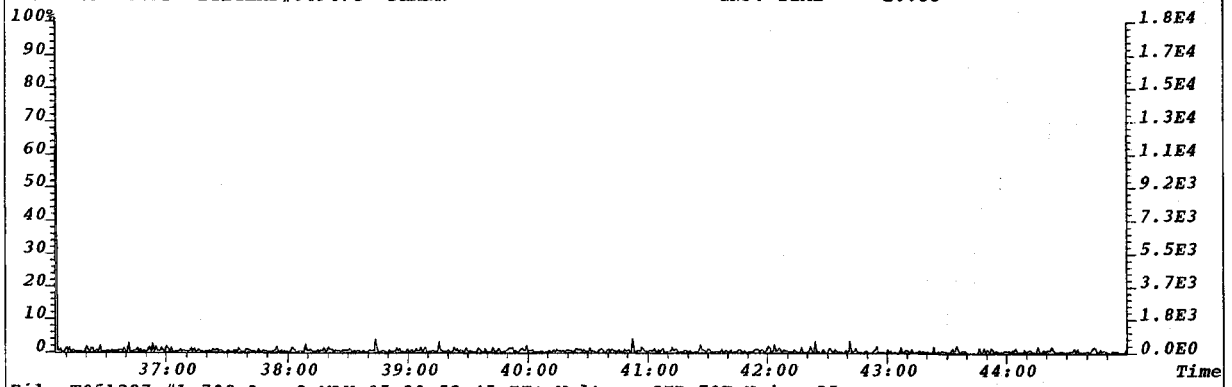

File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:47
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,188.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.42E3
A2.17E3
A2.60E3
A1.06E3
A469.63
A472.29
A502.04
A560.81
A459.72
A385.43
A814.90
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:25
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,100.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.07E3
A847.68
A2.24E3
A759.75
A580.13
A1.01E3
A481.22
A513.94
A904.81
A213.58
A482.19
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:61
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,244.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.37E6
A2.38E6
A1.97E6
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:129
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,516.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A4.76E6
A4.76E6
A3.97E6
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
Time


File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:83
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A1.79E3
A723.07
A3.19E3
A1.14E3
A1.65E3
A702.49
A1.36E3
A524.73
A655.25
Time
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:60
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,240.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A738.09
A1.47E3
A619.16
A952.87
A716.63
A241.63
A722.81
A1.21E3
A1.05E3
A567.13
A269.03
A260.32
Time
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:55
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,220.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.85E6
A3.12E6
Time
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:47
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,188.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.40E6
A2.58E6
Time
File:T051287 #1-395 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
Time

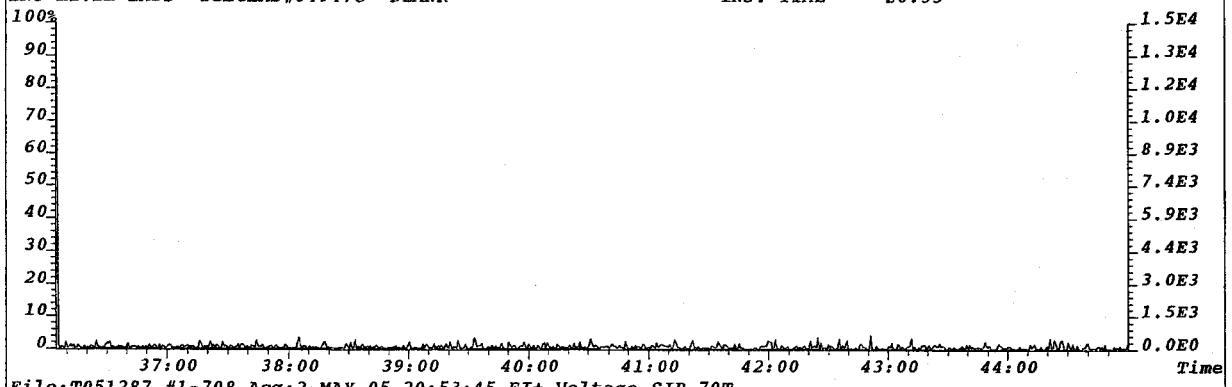

File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:120
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,480.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.97E3
A2.61E3
A1.25E3
A1.53E3
A257.26
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:41
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,164.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.61E3
A1.55E3
A1.38E3
A1.14E3
A876.53
A1.27E3
A353.28
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:90
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,360.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A1.47E6
A1.11E6
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:75
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,300.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A3.50E6
A2.66E6
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
36:59
37:21
37:36
37:53
38:09
38:20
38:37
39:00
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
36:56
37:17
37:27
37:37
37:43
37:59
38:19
38:31
38:39
38:48
38:57
Time


File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:39
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,156.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A1.85E3
A1.14E3
A811.22
A1.15E3
A1.10E3
A1.85E3
A676.18
A1.69E3
Time
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:45
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,180.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.35E3
A1.18E3
A628.01
A856.85
A250.59
Time
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:123
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,492.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.22E6
Time
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:116
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,464.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.16E6
Time
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
37:21
37:36
37:46
37:53
38:09
38:20
Time

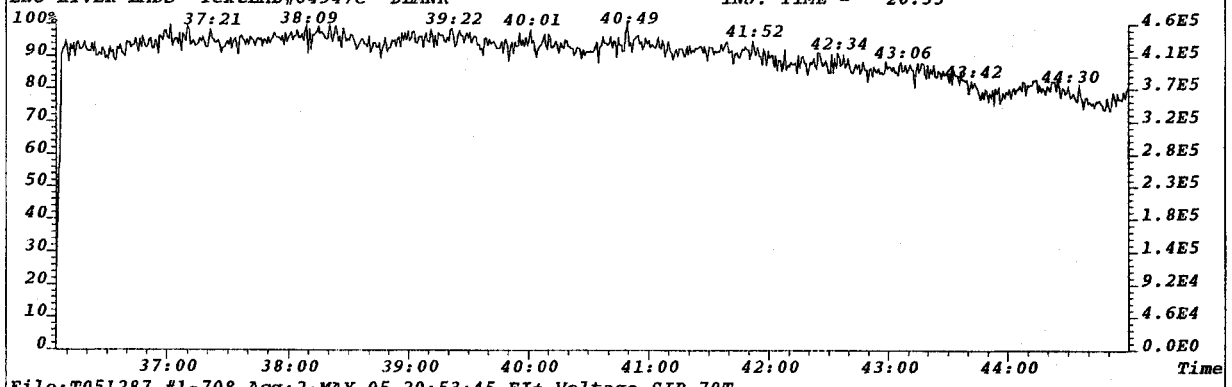
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:23
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,92.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK INJ. TIME = 20:55



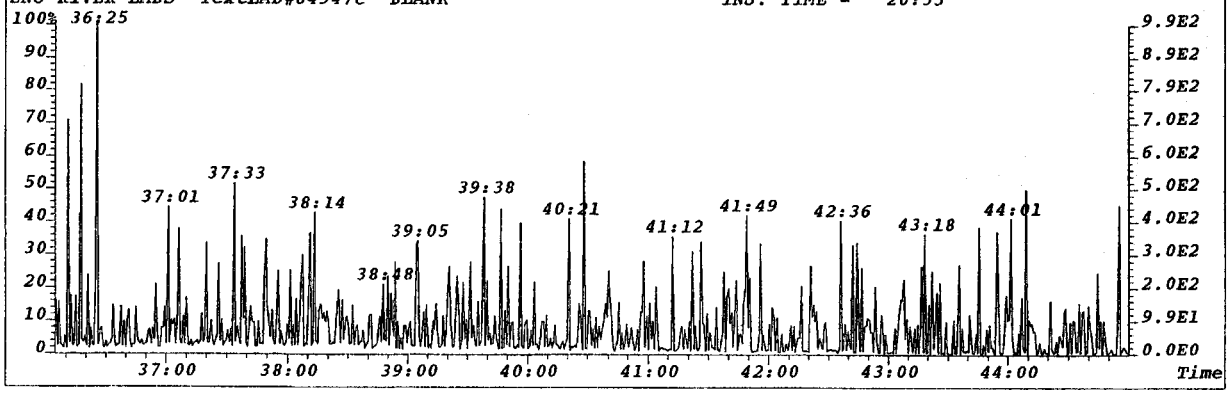
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:25
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,100.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK INJ. TIME = 20:55

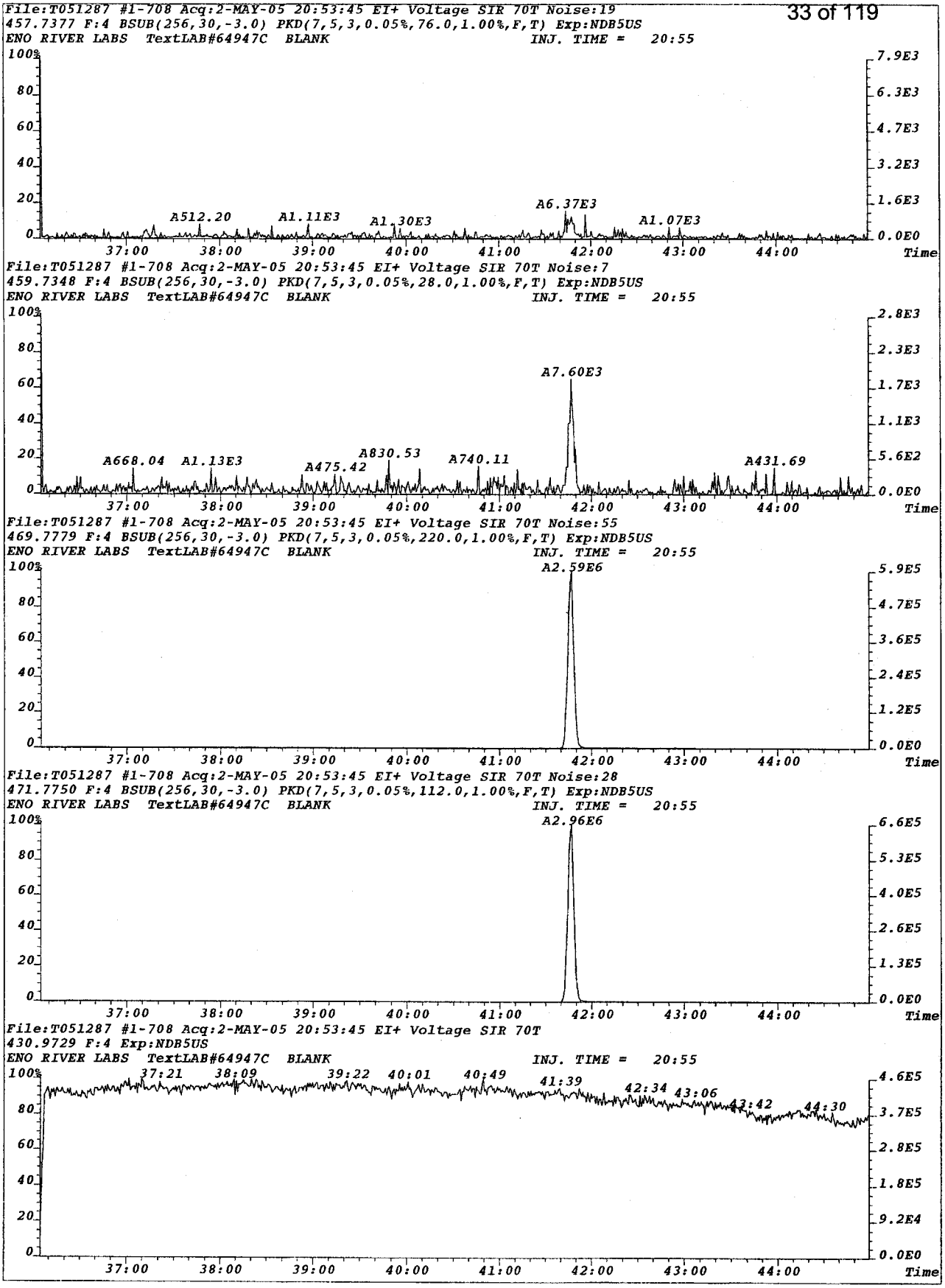


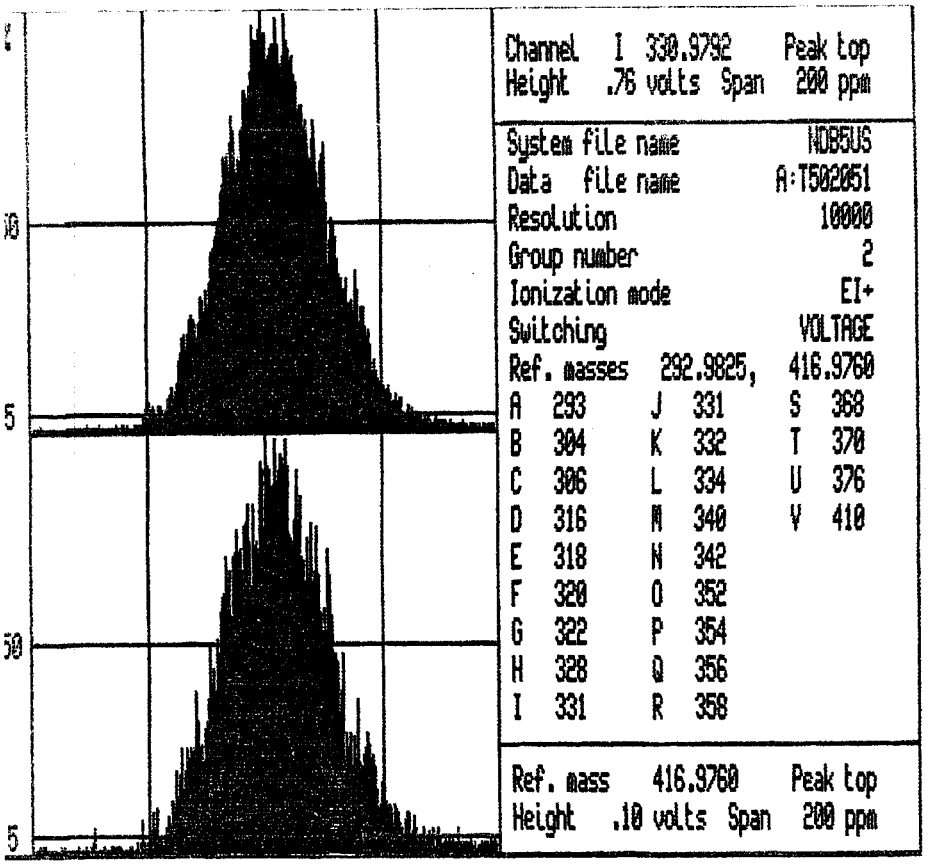
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK INJ. TIME = 20:55

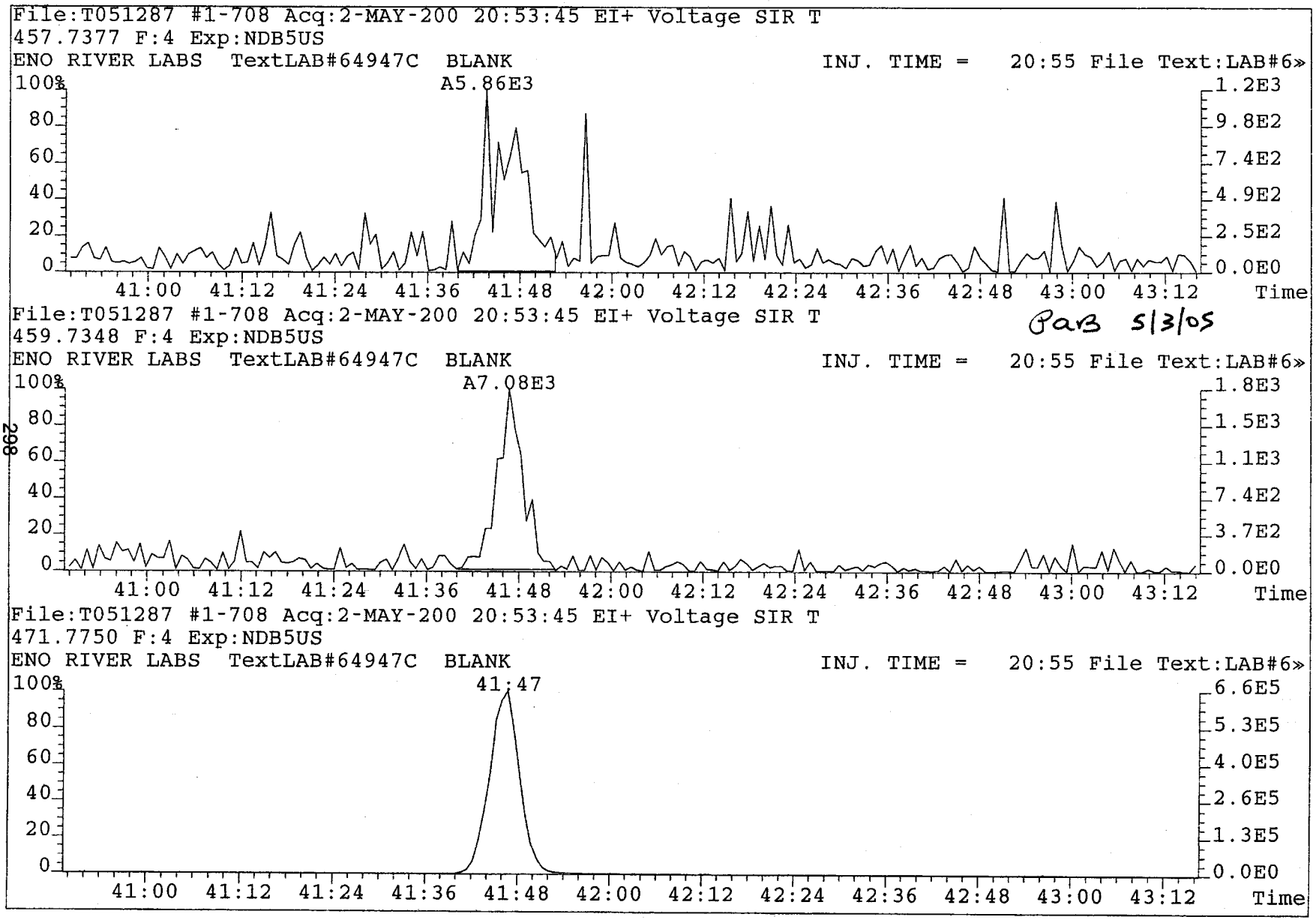


File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK INJ. TIME = 20:55




File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:19
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,76.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A512.20
A1.11E3
A1.30E3
A6.37E3
A1.07E3
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:7
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,28.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A668.04
A1.13E3
A475.42
A830.53
A740.11
A7.60E3
A431.69
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:55
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,220.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.59E6
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T Noise:28
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,112.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
A2.96E6
File:T051287 #1-708 Acq:2-MAY-05 20:53:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55
37:21
38:09
39:22
40:01
40:49
41:39
42:34
43:06
43:42
44:30
100%
80
60
40
20
0
37:00
38:00
39:00
40:00
41:00
42:00
43:00
44:00
Time
7.9E3
6.3E3
4.7E3
3.2E3
1.6E3
0.0E0
2.8E3
2.3E3
1.7E3
1.1E3
5.6E2
5.9E5
4.7E5
3.6E5
2.4E5
1.2E5
6.6E5
5.3E5
4.0E5
2.6E5
1.3E5
4.6E5
3.7E5
2.8E5
1.8E5
9.2E4


Channel I 330.9792 Peak top
Height .76 volts Span 200 ppm
System file name NOBSUS
Data file name A:T502051
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 416.9760
A 293 J 331 S 368
B 304 K 332 T 370
C 306 L 334 U 376
D 316 M 340 V 410
E 318 N 342
F 320 O 352
G 322 P 354
H 328 Q 356
I 331 R 358
Ref. mass 416.9760 Peak top
Height .10 volts Span 200 ppm


File:T051287 #1-708 Acq:2-MAY-200 20:53:45 EI+ Voltage SIR T
457.7377 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55 File Text:LAB#6»
A5.86E3
100%
80
60
40
20
0
1.2E3
9.8E2
7.4E2
4.9E2
2.5E2
0.0E0
41:00 41:12 41:24 41:36 41:48 42:00 42:12 42:24 42:36 42:48 43:00 43:12
Time
File:T051287 #1-708 Acq:2-MAY-200 20:53:45 EI+ Voltage SIR T
459.7348 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55 File Text:LAB#6»
A7.08E3
100%
80
60
40
20
0
1.8E3
1.5E3
1.1E3
7.4E2
3.7E2
0.0E0
41:00 41:12 41:24 41:36 41:48 42:00 42:12 42:24 42:36 42:48 43:00 43:12
Time
File:T051287 #1-708 Acq:2-MAY-200 20:53:45 EI+ Voltage SIR T
471.7750 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C BLANK
INJ. TIME = 20:55 File Text:LAB#6»
41:47
100%
80
60
40
20
0
6.6E5
5.3E5
4.0E5
2.6E5
1.3E5
0.0E0
41:00 41:12 41:24 41:36 41:48 42:00 42:12 42:24 42:36 42:48 43:00 43:12
Time

PaB 5/3/05

208

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BBITP106(5.0)** Analysis File: **U028603**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SOIL**	Date Received:	**04/23/2005**	Spike File:	**SPMIT322**
Lab ID:	**402-43-1**	Date Extracted:	**04/27/2005**	ICal:	**UF5O284**
		Date Analyzed:	**05/03/2005**	ConCal:	**U050285**
Sample Size:	**14.300 g**	Dilution Factor:	**n/a**	% Moisture:	**30.0**
Dry Weight:	**10.010 g**	Blank File:	**T051287**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**70.0**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.4				___
1,2,3,7,8-PeCDD	ND	0.5				___
1,2,3,4,7,8-HxCDD	0.69			1.30	34:17	J__
1,2,3,6,7,8-HxCDD	8.4			1.19	34:22	___
1,2,3,7,8,9-HxCDD	3.6			1.18	34:40	J__
1,2,3,4,6,7,8-HpCDD	660			1.04	37:38	___
1,2,3,4,6,7,8,9-OCDD	5000			0.83	41:17	E__
2,3,7,8-TCDF	24.3			0.72	26:14	___
1,2,3,7,8-PeCDF	ND	0.4				___
2,3,4,7,8-PeCDF	5.7			1.43	30:49	___
1,2,3,4,7,8-HxCDF	7.2			1.21	33:35	___
1,2,3,6,7,8-HxCDF	2.7			1.42	33:40	J__
2,3,4,6,7,8-HxCDF	2.9			1.35	34:10	J__
1,2,3,7,8,9-HxCDF	ND	0.6				___
1,2,3,4,6,7,8-HpCDF	59.9			1.09	36:36	___
1,2,3,4,7,8,9-HpCDF	2.1			1.01	38:09	J__
1,2,3,4,6,7,8,9-OCDF	281			0.85	41:29	___

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	10.4	3			___
Total PeCDD	EMPC			2.8	___
Total HxCDD	59.8	5		64.6	___
Total HpCDD	1280	2			___
Total TCDF	161	12		429	X__
Total PeCDF	107	10		274	X__
Total HxCDF	91.9	6		157	X__
Total HpCDF	257	3		271	___

MIT3_PSR v1.00, LARS 6.25.06

Eno River Labs, LLC®
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Printed: 14:06 05/12/2005

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BBITP106(5.0)** Analysis File: **U028603**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	108	54.1	40%-135%	0.75	26:12	___
$^{13}C_{12}$-2,3,7,8-TCDD	112	56.0	40%-135%	0.86	26:55	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	117	58.6	40%-135%	1.49	30:07	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	126	62.9	40%-135%	1.54	31:08	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	149	74.5	40%-135%	0.50	33:40	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	151	75.5	40%-135%	1.20	34:21	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	148	73.9	40%-135%	0.42	36:35	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	128	64.1	40%-135%	1.01	37:38	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	238	59.6	40%-135%	0.83	41:15	___

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	110	54.8	40%-135%	1.45	30:49	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	154	77.1	40%-135%	0.51	33:34	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	148	73.9	40%-135%	1.22	34:16	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	111	55.7	40%-135%	0.41	38:09	___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	14.3	71.5	40%-135%	26:56	___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	122	60.8	40%-135%	0.51	34:56	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	137	68.7	40%-135%	0.50	34:09	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:43	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:40	___

Data Reviewer: PAB 05/12/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 14:06 05/12/2005

Initial ....Date...

Data Review By: PAB 5/12/05

Calculated Noise Height: 1.05

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U028603B.dbf
05/12/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.877-1.073			
304-306		DC	NL			Height	14.60	9.10	5.50				
				23:07	RO	0.60	86.20	37.50	62.99	0.882	1368-TCDF		AN
				23:37		0.71	203.50	84.28	119.22	0.901			
				23:50		0.69	394.23	160.67	233.56	0.910			
				24:14		0.66	476.73	188.81	287.92	0.925			
				24:34		0.70	449.20	184.47	264.73	0.938			
				24:56		0.70	990.20	408.35	581.85	0.952			
				25:13		0.69	362.47	148.28	214.19	0.962			
	A			25:26		0.73	109.50	46.30	63.20	0.971			
	XM		X	25:31	RO	0.75	339.00	145.00	194.00	0.974			
	A			25:36		0.73	181.90	76.90	105.00	0.977			
	XM		X	25:44	RO	0.72	1,837.00	767.00	1,070.00	0.982			
	A			25:49		0.76	317.00	137.00	180.00	0.985			
	AX		X	25:55	RO	0.69	72.10	29.40	42.70	0.989			
				26:04		0.71	264.40	109.64	154.76	0.995			
				26:14		0.72	749.39	313.78	435.61	1.001	2378-TCDF		AN
				26:39		0.75	469.69	201.41	268.28	1.017			
	X		X	26:52	RO	0.67	184.75	73.87	110.88	1.025			
	X		X	27:01	RO	0.79	465.91	205.08	260.83	1.031			
	X		X	27:16	RO	0.71	2,494.41	1,039.07	1,455.34	1.041			
	X		X	27:36	RO	0.72	2,785.22	1,163.03	1,622.19	1.053			
		DC	WH	28:13		0.72	1,267.03			1.077			
304-306			20	Peaks			13,232.80						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318		DC	NL			Height	20.91	11.07	9.84				
				26:12		0.75	5,073.75	2,166.23	2,907.52	1.000	13C12-2378-TCDF		ISO
						Height	1,366.67	583.80	782.87				
316-318			1	Peak			5,073.75						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89						0.902-1.044			
320-322		DC	NL			Height	4.32	2.34	1.98				
	M			24:25		0.76	120.30	52.10	68.20	0.907	1368-TCDD		AN
	M			24:48		0.73	52.20	22.10	30.10	0.921	1379-TCDD		AN
	D	D	SN	25:07	RO	0.93	22.87			0.933			
	M			25:46		0.84	51.40	23.50	27.90	0.957			
	D	D	SN	26:02	RO	0.27	21.22			0.967			
	D	D	SN	26:50	RO	0.50	83.19			0.997			
		DC	SN	27:05	RO	1.18	9.86			1.006			
		DC	SN	27:15	RO	0.35	14.14			1.012			
		DC	WH	28:16	RO	0.17	29.22			1.050			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
320-322			3 Peaks				223.90						
37Cl-TCDD										0.926-1.074			
328	DC	NL				Height	66.26	66.26					
	DC	WL		24:33			555.72			0.912			
	DC	WL		24:41			8,289.30			0.917			
	DC	WL		24:48			9,104.80			0.921			
				25:35			440,708.00	440,708.00		0.950			
				26:49			3,132.80	3,132.80		0.996			
AN				26:56			527.00	527.00		1.001	37Cl-TCDD	CLS	
				27:16			1,852.48	1,852.48		1.013			
				28:15			7,324.99	7,324.99		1.050			
328			5 Peaks				453,545.27						
13C12-TCDD						0.65-0.89				0.926-1.074			
332-334	DC	NL				Height	5.38	3.24	2.14				
				25:34	RO	1.81	85.37	87.06	48.23	0.950			
				26:43		0.83	7,240.50	3,292.27	3,948.23	0.993	13C12-1234-TCDD	RS1	
				26:55		0.86	4,025.32	1,861.00	2,164.32	1.000	13C12-2378-TCDD	IS1	
						Height	1,080.50	499.04	581.46				
	DC	SN		27:15	RO	1.48	13.10			1.012			
332-334			3 Peaks				11,351.19						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF						1.32-1.78				0.929-1.061			
340-342	DC	NL				Height	3.74	2.09	1.65				
	DC	WL		27:58	RO	1.18	7.53			0.929			
				28:09		1.51	942.40	566.67	375.73	0.935			
A				29:10		1.65	44.30	27.60	16.70	0.968			J
M				29:16		1.48	903.00	539.00	364.00	0.972			
A				29:24		1.57	95.90	58.60	37.30	0.976			J
MTX		X		29:30	RO	1.56	88.20	53.70	34.50	0.980			J
				29:45		1.50	104.59	62.74	41.85	0.988			J
				29:52		1.56	109.69	66.87	42.82	0.992			J
A				30:02		1.77	35.40	22.60	12.80	0.997			J
XM		X		30:11	RO	1.53	2,960.00	1,790.00	1,170.00	1.002			
A				30:18		1.70	65.80	41.40	24.40	1.006			J
X		X		30:25	RO	1.33	542.15	309.66	232.49	1.010			
				30:49		1.43	139.07	81.75	57.32	1.023	23478-PeCDF	AN	
				30:58		1.32	143.98	81.90	62.08	1.028			
X		X		31:31	RO	1.52	452.98	273.34	179.64	1.046			
	DC	SN		31:57	RO	2.07	8.06			1.061			
340-342			14 Peaks				6,627.46						
13C12-PeCDF						1.32-1.78				0.867-1.133			
352-354	DC	NL				Height	2.11	1.08	1.03				
	DC	SN		27:56	RO	0.95	5.99			0.928			
	DC	SN		28:14	RO	0.64	9.67			0.937			
	DC	SN		29:16		1.76	11.60			0.972			
	DC	SN		29:58	RO	0.93	6.53			0.995			
				30:07		1.49	4,238.09	2,535.02	1,703.07	1.000	13C12-PeCDF 123	IS2	
						Height	1,253.09	750.26	502.83				

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				30:25		1.62	47.89	29.59	18.30	1.010			
				30:49		1.45	3,913.59	2,314.78	1,598.81	1.023	13C12-PeCDF 234	SUR1	
	DC	SN		31:09	RO	1.86	15.61			1.034			
				31:48		1.55	29.17	17.74	11.43	1.056			
	DC	SN		31:56		1.35	8.23			1.060			
352-354			4	Peaks			8,228.74						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD						1.32-1.78				0.938-1.021			
356-358	DC	NL				Height	2.58	0.81	1.77				
D	D	SN		29:22	RO	0.00	100.82			0.943			
A				30:04	RO	0.73	46.23	28.10	38.70	0.966			J
356-358			1	Peak			46.23						
13C12-PeCDD						1.32-1.78				0.872-1.128			
368-370	DC	NL				Height	1.66	0.86	0.80				
	DC	SN		29:20	RO	3.10	24.00			0.942			
	DC	SN		29:35	RO	2.11	11.04			0.950			
	DC	SN		29:43	RO	0.81	2.73			0.954			
	DC	SN		30:34	RO	1.17	5.97			0.982			
	DC	SN		30:46	RO	1.87	4.77			0.988			
				31:08		1.54	2,720.43	1,649.87	1,070.56	1.000	13C12-PeCDD 123	IS3	
						Height	819.08	485.68	333.40				
	DC	SN		31:22	RO	2.76	6.96			1.007			
	DC	SN		31:29	RO	3.66	4.77			1.011			
	DC	SN		31:48		1.46	4.18			1.021			
368-370			1	Peak			2,720.43						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF						1.05-1.43				0.964-1.046			
374-376	DC	NL				Height	1.15	0.75	0.40				
				32:37	RO	1.45	54.48	35.29	24.32	0.969			J
				32:46		1.31	395.59	224.07	171.52	0.973			
	DC	SN		32:53	RO	0.24	2.64			0.977			
	DC	SN		33:02	RO	2.11	5.80			0.981			
				33:12		1.30	1,003.34	566.37	436.97	0.986			
X		X		33:26	RO	1.33	137.36	78.38	58.98	0.993			
				33:35		1.21	127.54	69.88	57.66	0.998	123478-HxCDF	AN	
				33:40		1.42	51.48	30.25	21.23	1.000	123678-HxCDF	AN	J
X		X		33:51	RO	1.26	970.36	541.10	429.26	1.005			
	DC	SN		33:58	RO	0.52	6.12			1.009			
				34:10		1.35	56.00	32.14	23.86	1.015	234678-HxCDF	AN	J
	DC	SN		34:26	RO	1.51	1.19			1.023			
	DC	SN		34:38	RO	0.60	0.72			1.029			
	DC	SN		34:43	RO	1.02	3.70			1.031			
A				34:54		1.30	6.32	3.57	2.75	1.037			J
	DC	SN		34:55	RO	1.57	7.62			1.037	123789-HxCDF	AN	
	DC	SN		35:01		1.14	10.18			1.040			
374-376			9	Peaks			2,802.47						

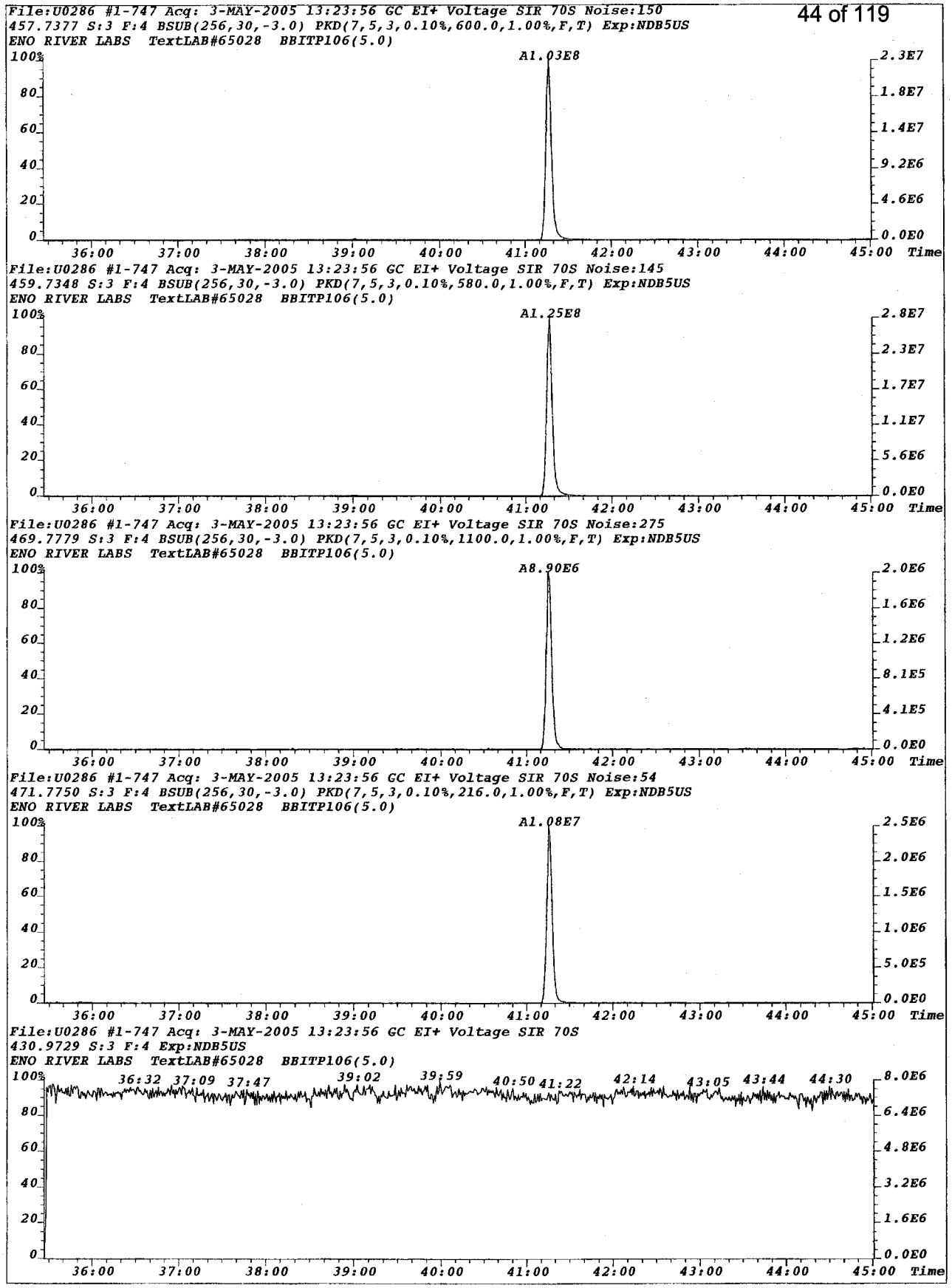
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HxCDF	*			0.43-0.59						0.881-1.119			
384-386	DC	NL		Height		1.34	0.70	0.64					
	DC	SN	32:36	RO	0.34	2.43			0.968				
			33:34		0.51	2,996.12	1,007.64	1,988.48	0.997	13C12-HxCDF 478	SUR2		
			33:40		0.50	3,046.28	1,021.45	2,024.83	1.000	13C12-HxCDF 678	IS4		
				Height		968.84	331.24	637.60					
	DC	SN	33:55	RO	0.66	6.13			1.007				
	DC	SN	34:00	RO	0.41	4.17			1.010				
			34:09		0.50	2,707.47	907.85	1,799.62	1.014	13C12-HxCDF 234	ALT2		
			34:23	RO	1.49	7.11	7.04	4.71	1.021				
	DC	SN	34:41	RO	0.75	5.54			1.030				
			34:56		0.51	1,953.07	657.24	1,295.83	1.038	13C12-HxCDF 789	ALT1		
	DC	SN	35:11	RO	1.60	2.81			1.045				
	DC	SN	35:19	RO	0.83	2.84			1.049				
384-386		5	Peaks			10,710.05							
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43						0.959-1.014			
390-392	DC	NL		Height		1.19	0.58	0.61					
			33:06		1.08	181.69	94.38	87.31	0.964				
K			33:33	RO	1.44	55.93	35.86	24.97	0.977				J
			33:45		1.12	368.04	194.14	173.90	0.983				
	DC	SN	33:56	RO	0.93	12.30			0.988				
	DC	SN	34:11		1.39	2.01			0.995				
MK			34:17		1.30	7.92	4.47	3.45	0.998	123478-HxCDD	AN		J
M			34:22		1.19	99.40	54.10	45.30	1.000	123678-HxCDD	AN		
			34:40		1.18	43.06	23.31	19.75	1.009	123789-HxCDD	AN		J
	DC	SN	34:47		1.38	3.12			1.013				
	DC	WH	34:54	RO	0.84	3.14			1.016				
	DC	WH	35:08	RO	0.25	0.81			1.023				
390-392		6	Peaks			756.04							
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL		Height		1.22	0.61	0.61					
	DC	SN	33:31	RO	0.44	1.26			0.976				
	DC	SN	33:45	RO	1.57	12.92			0.983				
			34:16		1.22	1,902.39	1,047.19	855.20	0.998	13C12-HxCDD 478	SUR3		
			34:21		1.20	2,273.60	1,240.36	1,033.24	1.000	13C12-HxCDD 678	IS5		
				Height		726.75	400.50	326.25					
			34:40		1.21	3,012.42	1,649.09	1,363.33	1.009	13C12-HxCDD 789	RS2		
	DC	SN	34:54	RO	1.52	9.21			1.016				
	DC	SN	35:01	RO	0.97	3.50			1.019				
402-404		3	Peaks			7,188.41							
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20						0.996-1.047			
408-410	DC	NL		Height		0.61	0.38	0.23					
			36:36		1.09	786.50	409.85	376.65	1.000	1234678-HpCDF	AN		
X		X	36:52	RO	1.13	159.97	84.72	75.25	1.008				
			37:01		1.11	2,272.50	1,193.38	1,079.12	1.012				

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				38:09		1.01	21.83	10.96	10.87	1.043	1234789-HpCDF	AN	J
408-410			4 Peaks				3,240.80						
13C12-HpCDF						0.37-0.51				0.945-1.109			
418-420	DC	NL				Height	0.71	0.28	0.43				
				36:35		0.42	1,639.24	484.49	1,154.75	1.000	13C12-HpCDF 678	IS6	
						Height	484.50	150.37	334.13				
	DC	SN	37:02	RO	1.06		2.07			1.012			
	DC	SN	37:16	RO	0.29		1.24			1.019			
	DC	SN	37:20	RO	0.25		0.98			1.021			
			38:09			0.41	1,006.86	292.52	714.34	1.043	13C12-HpCDF 789	SUR4	
	DC	SN	38:38	RO	0.20		2.55			1.056			
418-420			2 Peaks				2,646.10						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20				0.976-1.005			
424-426	DC	NL				Height	1.70	0.97	0.73				
				36:52		1.03	4,130.56	2,096.01	2,034.55	0.980			
	DC	SN	37:14	RO	0.79		6.43			0.989			
				37:38		1.04	4,387.84	2,238.29	2,149.55	1.000	1234678-HpCDD	AN	
424-426			2 Peaks				8,518.40						
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	0.68	0.55	0.13				
	DC	SN	36:55	RO	0.86		1.35			0.981			
				37:38		1.01	1,328.64	669.16	659.48	1.000	13C12-HpCDD 678	IS7	
						Height	368.05	182.14	185.91				
	DC	SN	38:01	RO	1.59		2.08			1.010			
436-438			1 Peak				1,328.64						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02				0.903-1.097			
442-444	DC	NL				Height	0.51	0.28	0.23				
	DC	WL	35:46			0.77	2.83			0.867			
	DC	WL	36:37	RO	2.35		1.17			0.888			
	DC	WL	36:51	RO	0.60		3.29			0.893			
	DC	WL	37:10	RO	1.39		1.80			0.901			
	DC	SN	37:55	RO	0.70		3.44			0.919			
	DC	SN	38:09	RO	0.23		0.40			0.925			
	DC	SN	38:19	RO	0.50		1.13			0.929			
	DC	SN	38:34	RO	0.68		2.82			0.935			
	DC	SN	38:41			0.93	2.68			0.938			
	DC	SN	39:17			0.76	2.68			0.952			
	DC	SN	39:25	RO	1.38		2.15			0.956			
	DC	SN	39:35	RO	2.05		1.23			0.960			
	DC	SN	39:44	RO	0.46		1.95			0.963			
	DC	SN	39:51	RO	1.64		1.40			0.966			
	DC	SN	40:01	RO	1.10		1.97			0.970			
	DC	SN	40:21	RO	0.37		1.06			0.978			
	DC	SN	40:35	RO	1.07		1.27			0.984			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				41:29		0.85	1,587.10	731.38	855.72	1.006	OCDF	AN	
	DC	SN		42:12	RO	0.14	0.76			1.023			
	DC	SN		43:38	RO	0.59	1.30			1.058			
	DC	SN		43:42	RO	1.15	1.83			1.059			
	DC	SN		43:48		0.76	1.64			1.062			
	DC	SN		44:01	RO	2.46	1.06			1.067			
	DC	SN		44:10	RO	1.03	2.19			1.071			
	DC	SN		44:18	RO	2.49	0.66			1.074			
	DC	SN		44:28		0.80	2.23			1.078			
	DC	SN		44:58	RO	1.83	1.12			1.090			
442-444			1 Peak				1,587.10						
OCDD						0.76-1.02				0.903-1.097			
458-460	DC	NL				Height	0.24	0.12	0.12				
				39:02		0.87	98.68	45.80	52.88	0.946			
				41:17		0.83	22,846.80	10,342.20	12,504.60	1.001	OCDD	AN	E
458-460			2 Peaks				22,945.48						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472	DC	NL				Height	0.26	0.22	0.04				
	DC	WL		35:52	RO	0.21	2.72			0.869			
	DC	WL		36:51	RO	0.48	1.32			0.893			
	DC	WL		37:15	RO	4.56	0.34			0.903			
	DC	WL		39:09	RO	1.49	0.96			0.949			
	DC	SN		40:12	RO	1.30	2.31			0.975			
				41:15		0.83	1,966.65	889.95	1,076.70	1.000	13C12-OCDD	IS8	
						Height	453.94	203.32	250.62				
	DC	SN		41:45	RO	0.69	3.42			1.012			
	DC	SN		43:04	RO	1.67	2.74			1.044			
	DC	SN		43:15	RO	2.86	1.40			1.048			
	DC	WH		44:18	RO	1.95	0.83			1.074			
470-472			1 Peak				1,966.65						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.l -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.03E8
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ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.25E8
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469.7779 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1100.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A8.90E6
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A1.08E7
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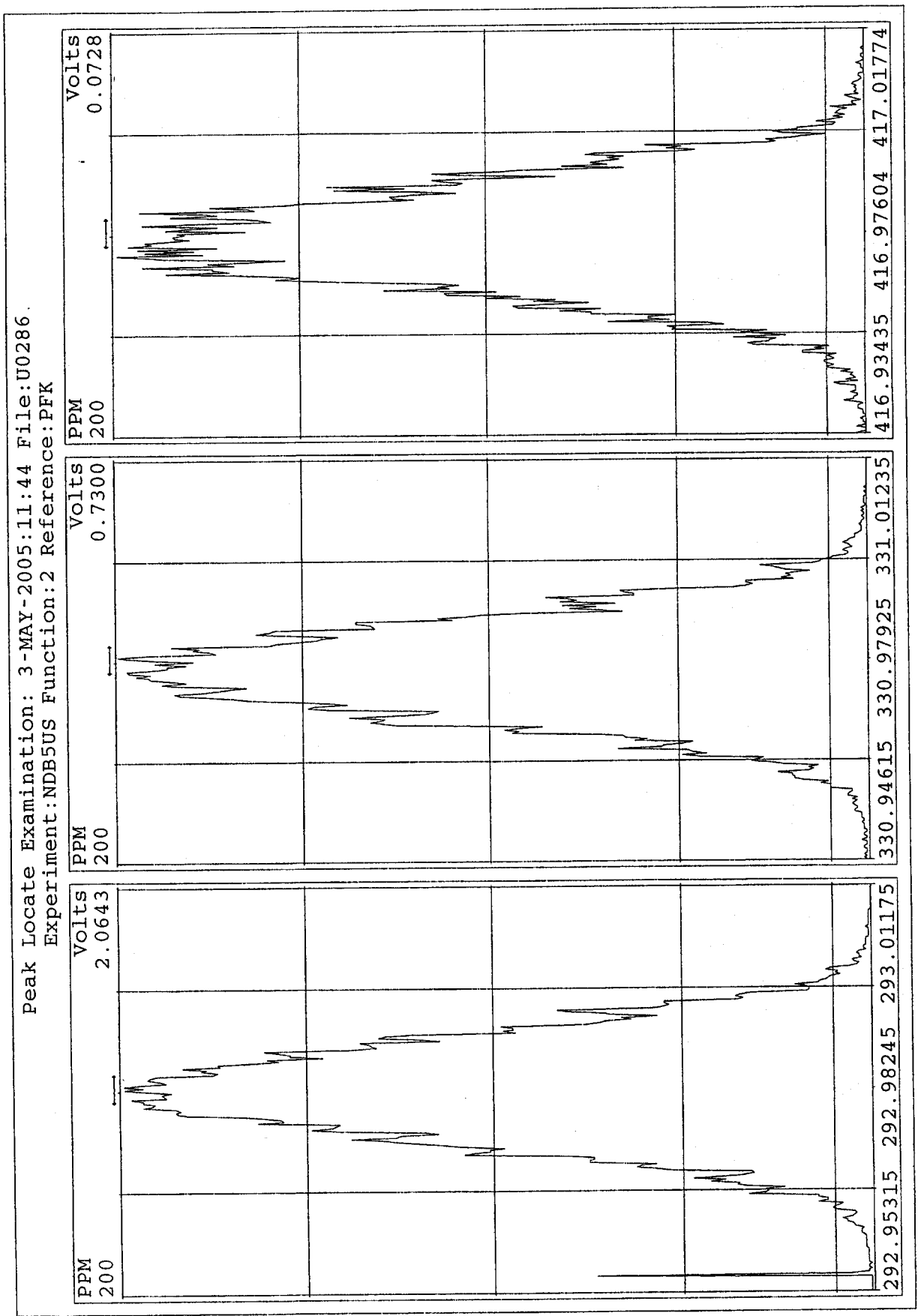
430.9729 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
36:32 37:09 37:47 39:02 39:59 40:50 41:22 42:14 43:05 43:44 44:30
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 45:00 Time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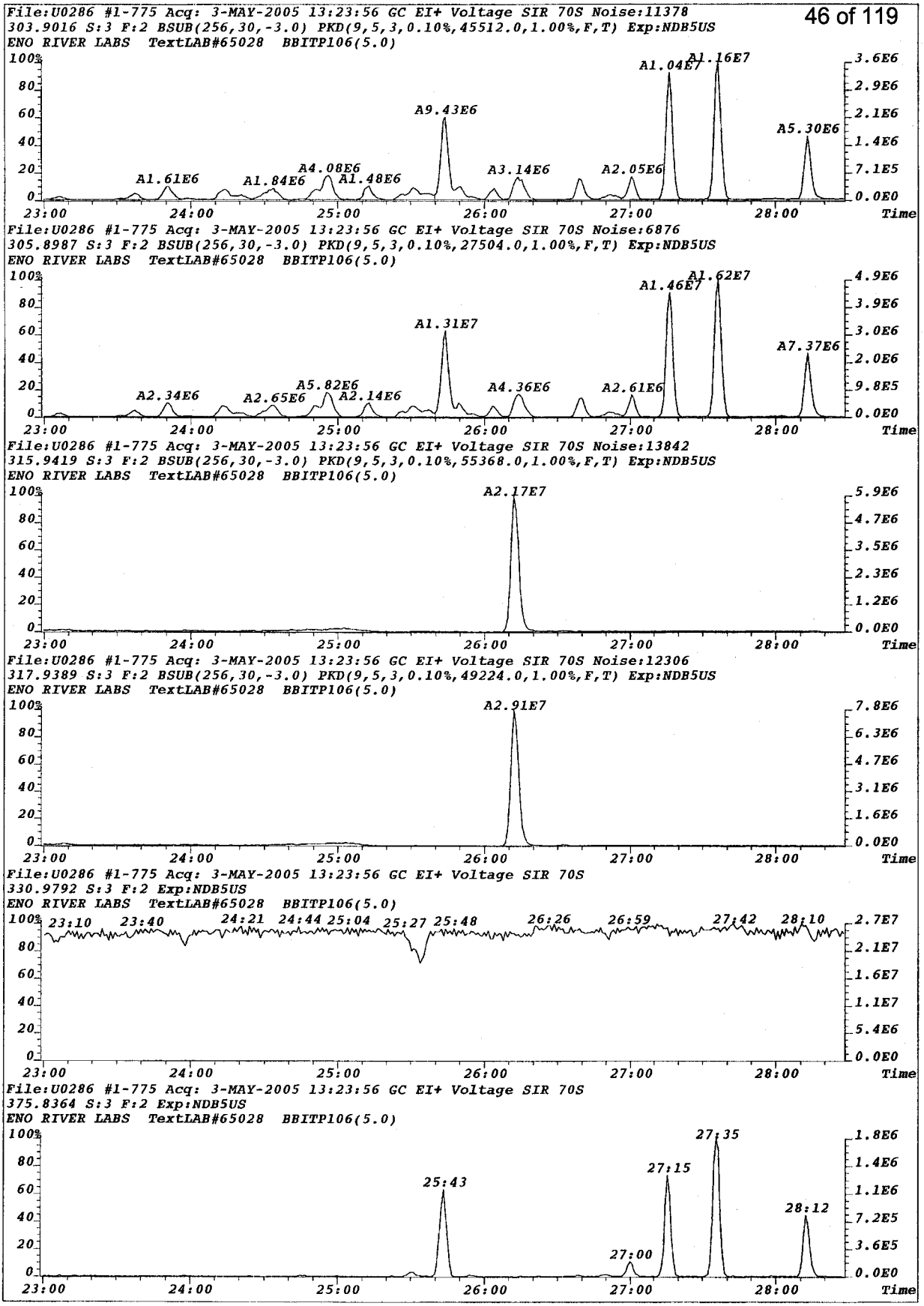
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ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.61E6
A1.84E6
A4.08E6
A1.48E6
A9.43E6
A3.14E6
A2.05E6
A1.04E7
A1.16E7
A5.30E6
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:6876
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ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
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A2.65E6
A5.82E6
A2.14E6
A1.31E7
A4.36E6
A2.61E6
A1.46E7
A1.62E7
A7.37E6
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:13842
315.9419 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,55368.0,1.00%,F,T) Exp:NDB5US
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A2.17E7
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:12306
317.9389 S:3 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,49224.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A2.91E7
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
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23:40
24:21
24:44
25:04
25:27
25:48
26:26
26:59
27:42
28:10
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
375.8364 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
25:43
27:00
27:15
27:35
28:12
Time

File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:2923
319.8965 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11692.0,1.00%,F,T) Exp:NDB5US
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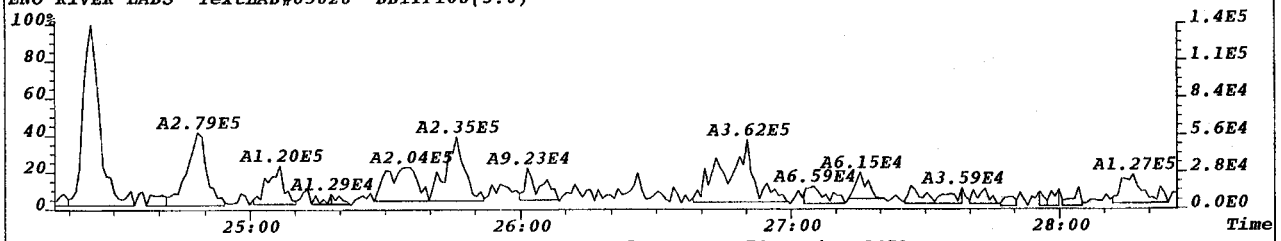

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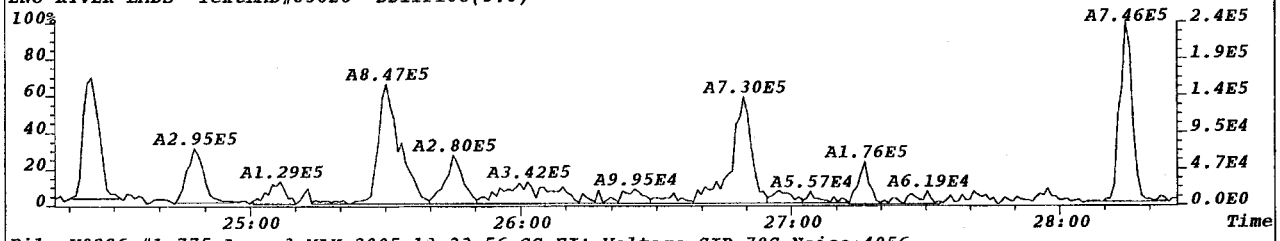
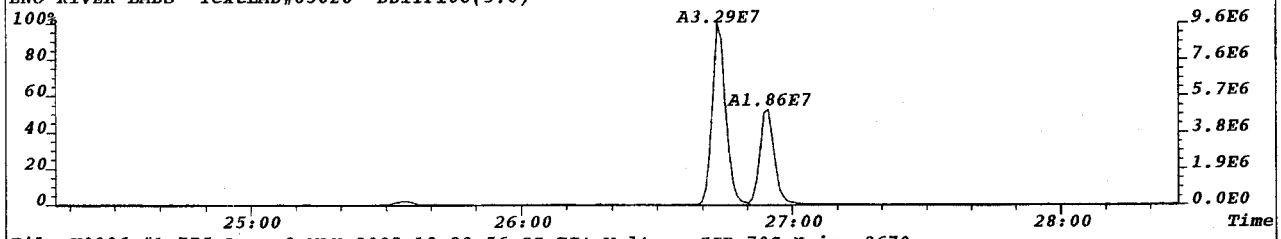
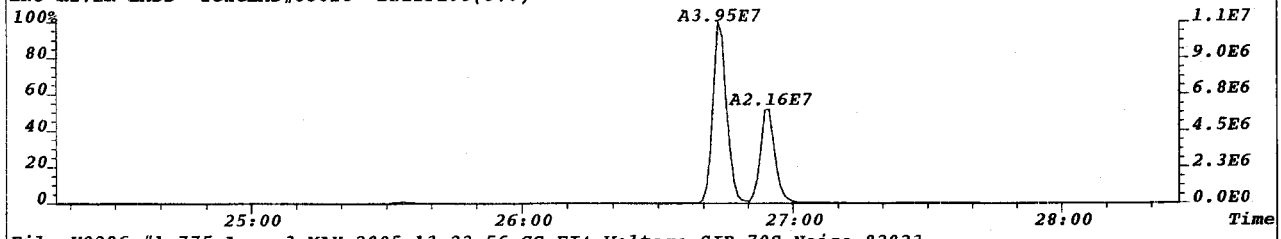
321.8936 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,9884.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



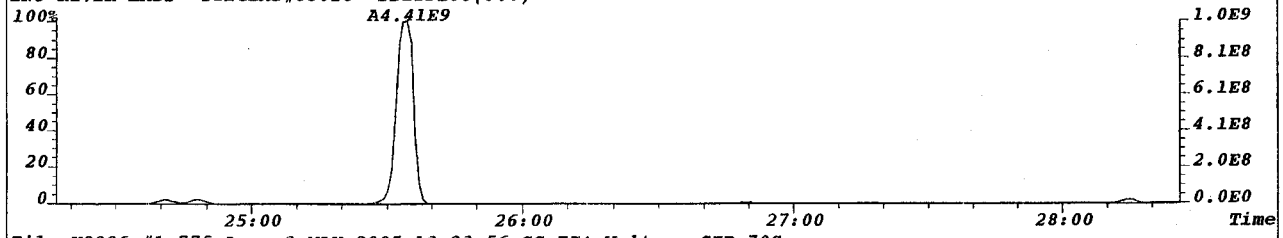
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:4056
331.9368 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,16224.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



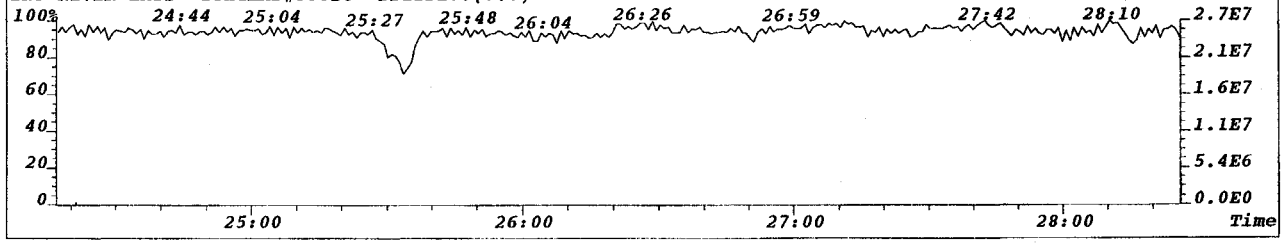
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:2670
333.9338 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10680.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



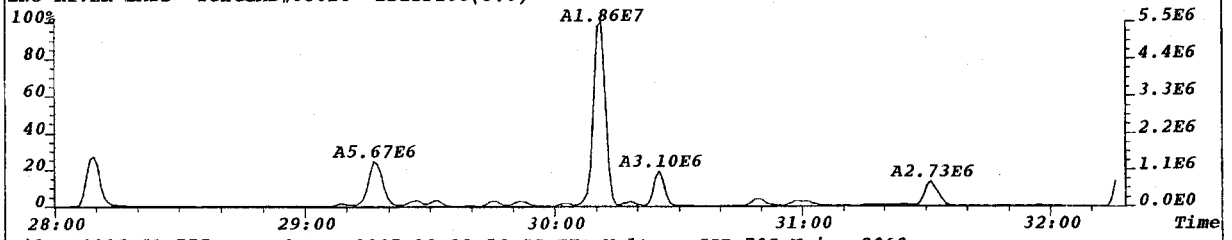
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:82823
327.8847 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,331292.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



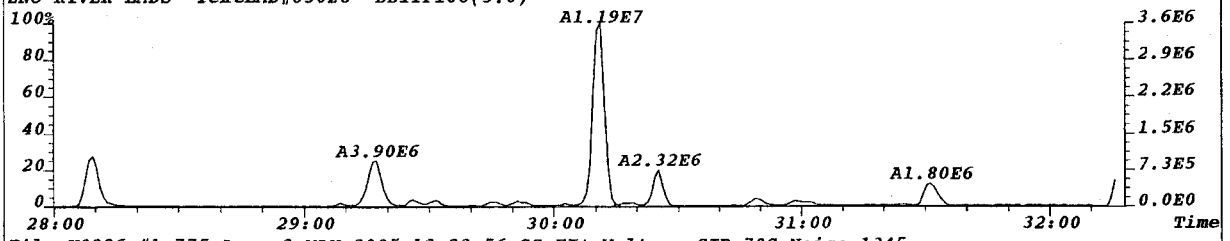
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



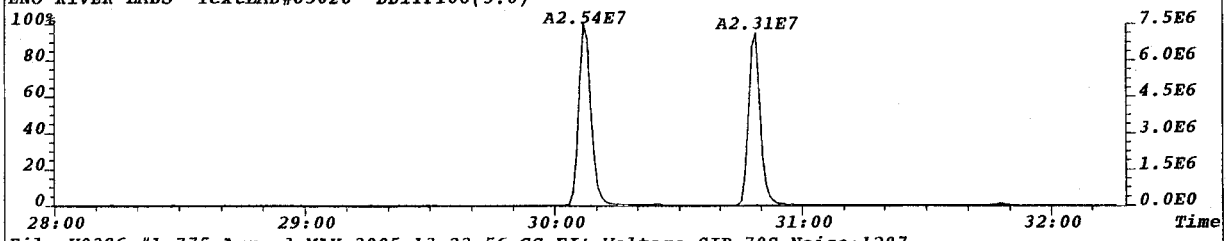
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:2610
339.8597 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10440.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



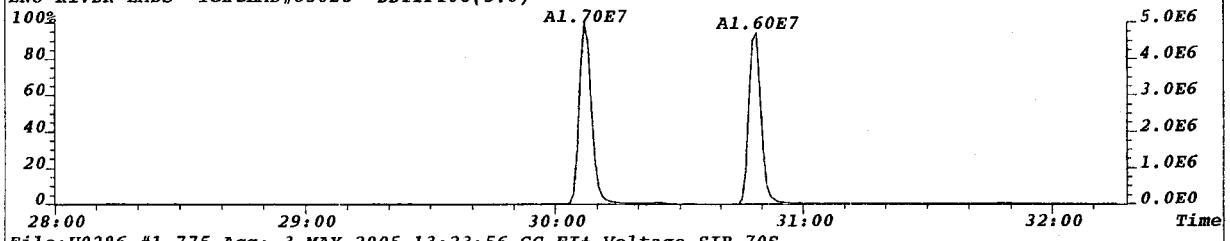
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:2068
341.8567 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8272.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



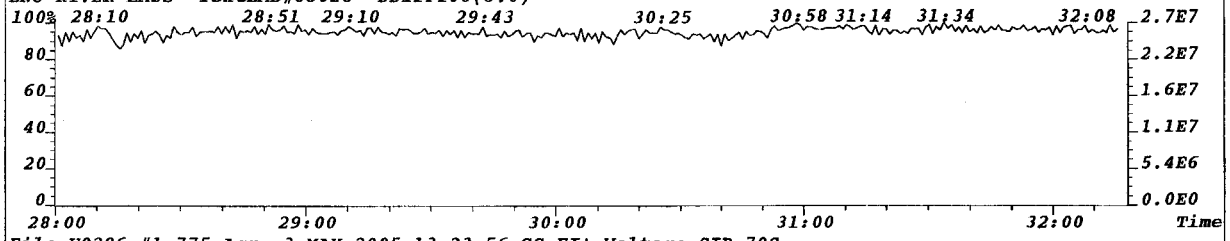
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1345
351.9000 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5380.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



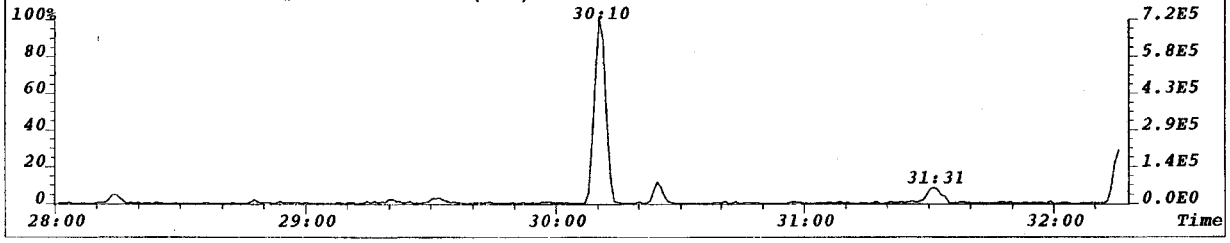
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1287
353.8970 S:3 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5148.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



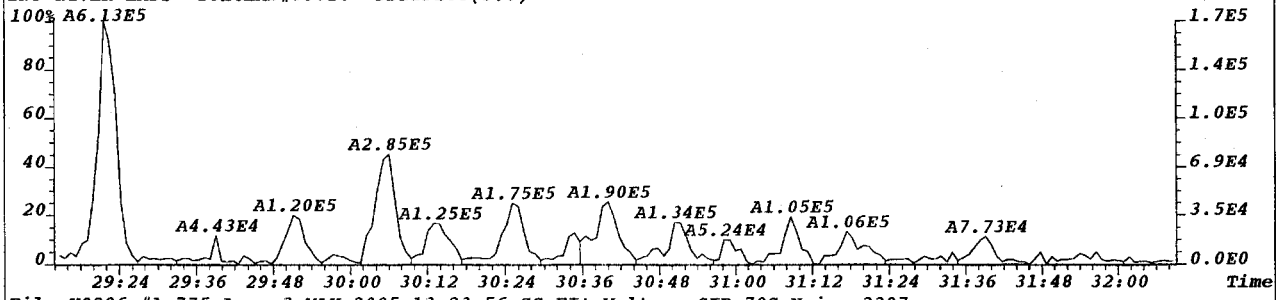
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



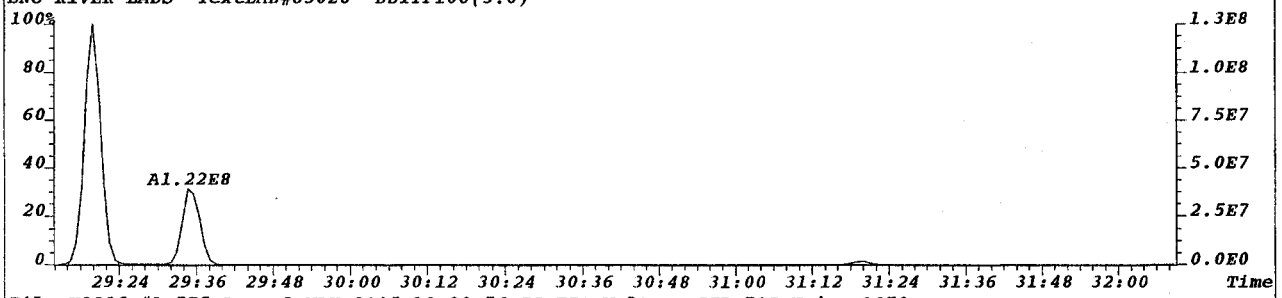
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
409.7974 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



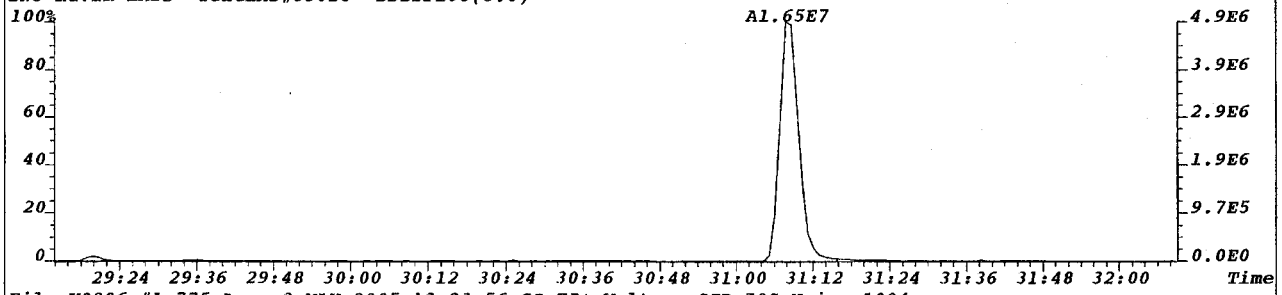
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1015
355.8546 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4060.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



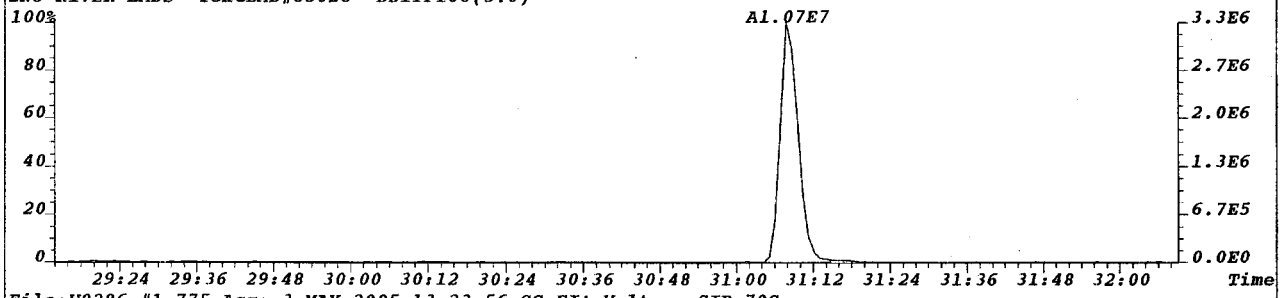
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:2207
357.8516 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,8828.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



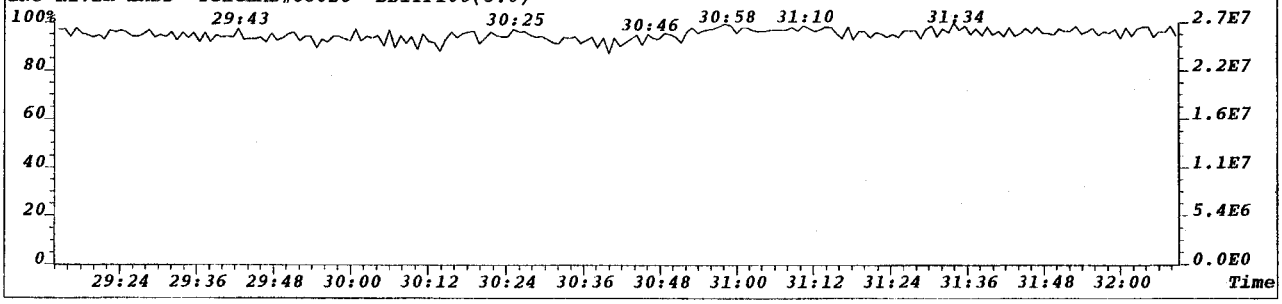
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1070
367.8949 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4280.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)

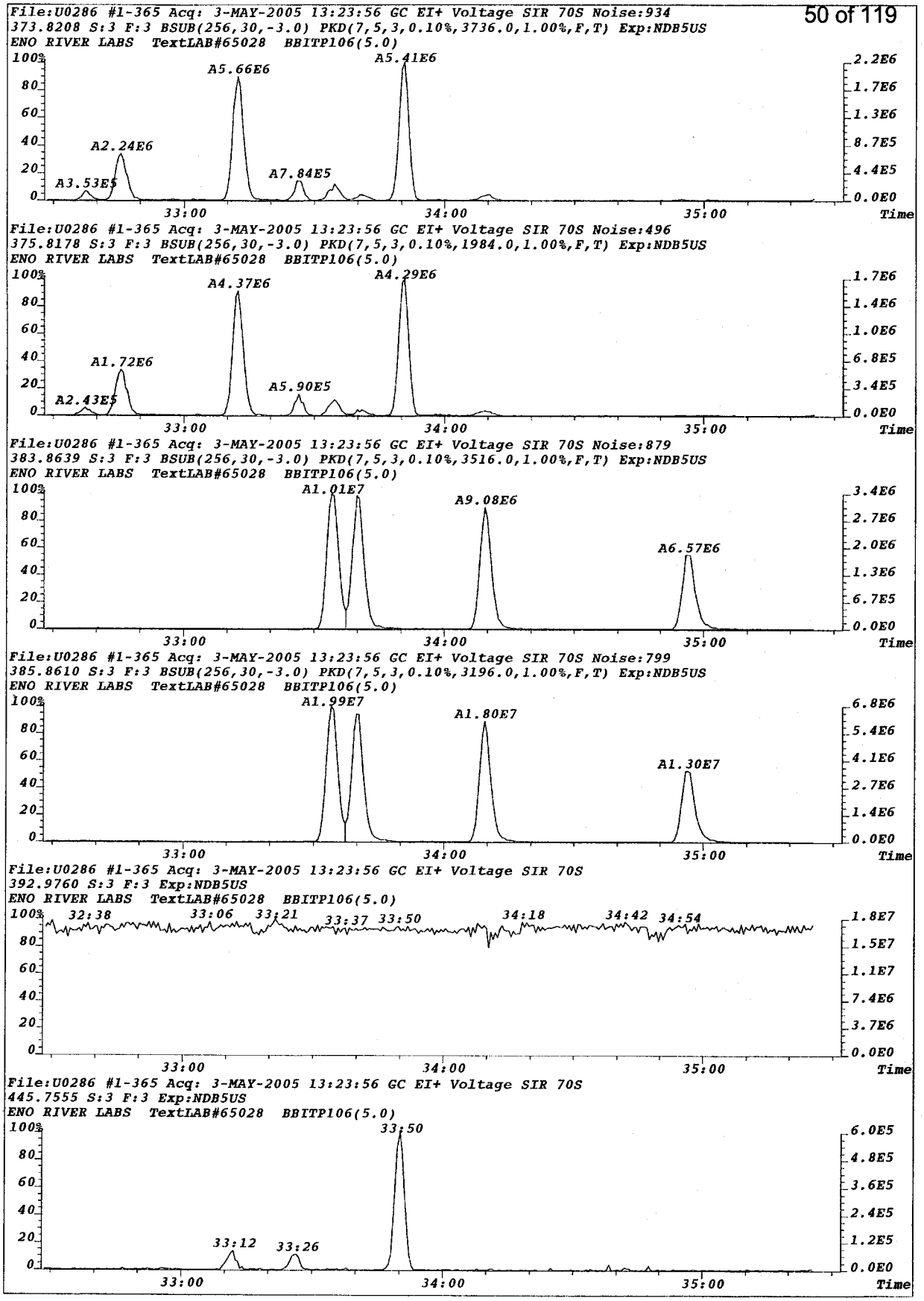


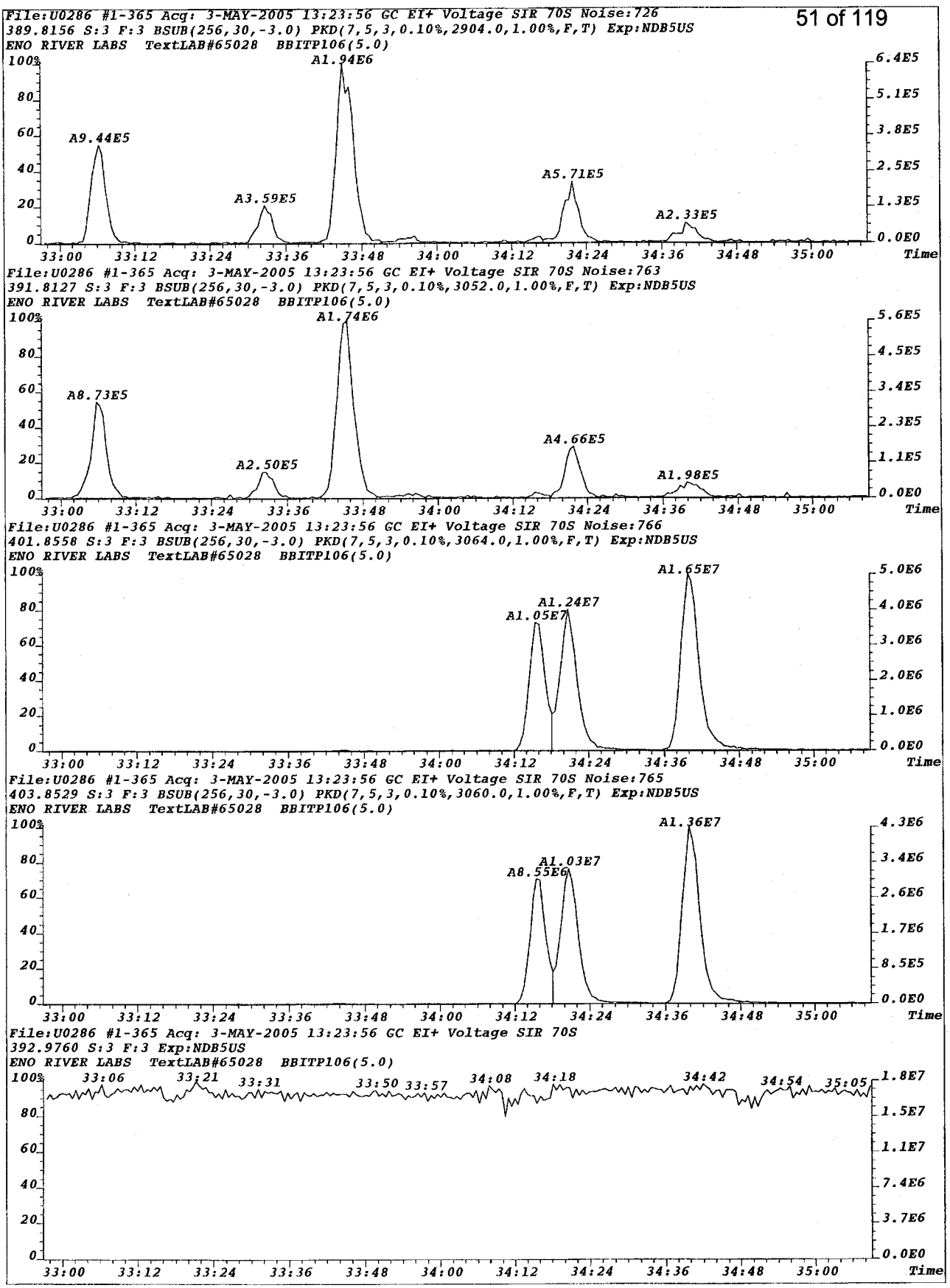
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1004
369.8919 S:3 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4016.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)



File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
330.9792 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)




File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:934
373.8208 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3736.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A5.66E6
A5.41E6
A2.24E6
A7.84E5
A3.53E5
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:496
375.8178 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1984.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A4.37E6
A4.29E6
A1.72E6
A5.90E5
A2.43E5
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:879
383.8639 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3516.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.01E7
A9.08E6
A6.57E6
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:799
385.8610 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3196.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.99E7
A1.80E7
A1.30E7
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
392.9760 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
32:38
33:06
33:21
33:37
33:50
34:18
34:42
34:54
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
445.7555 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
33:50
33:12
33:26
33:00
34:00
35:00
Time


File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:726
389.8156 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2904.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.94E6
A9.44E5
A3.59E5
A5.71E5
A2.33E5
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:763
391.8127 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3052.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.74E6
A8.73E5
A2.50E5
A4.66E5
A1.98E5
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:766
401.8558 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3064.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.65E7
A1.24E7
A1.05E7
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:765
403.8529 S:3 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3060.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.36E7
A1.03E7
A8.55E6
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
392.9760 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
33:06
33:21
33:31
33:50
33:57
34:08
34:18
34:42
34:54
35:05
33:00
33:12
33:24
33:36
33:48
34:00
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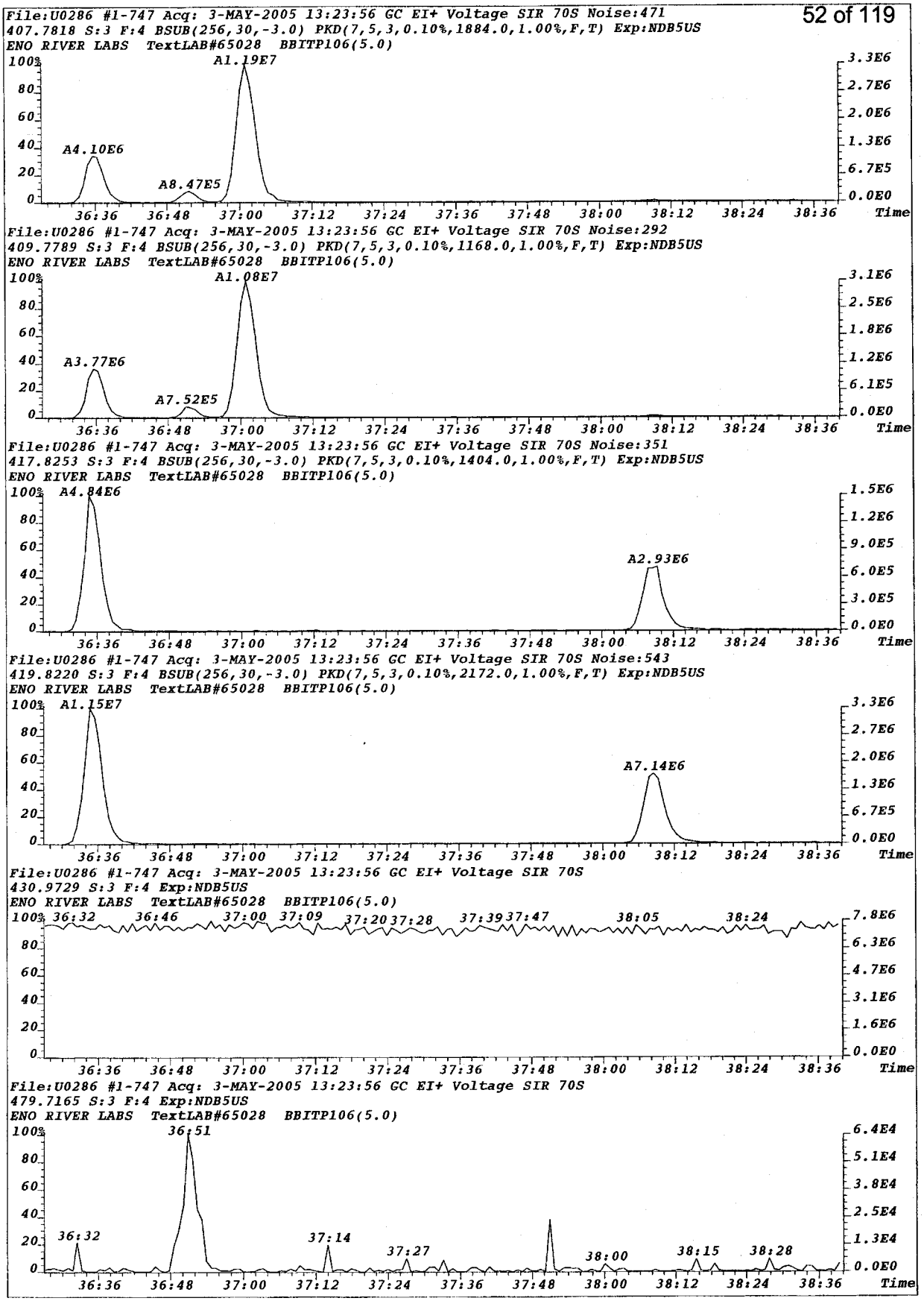
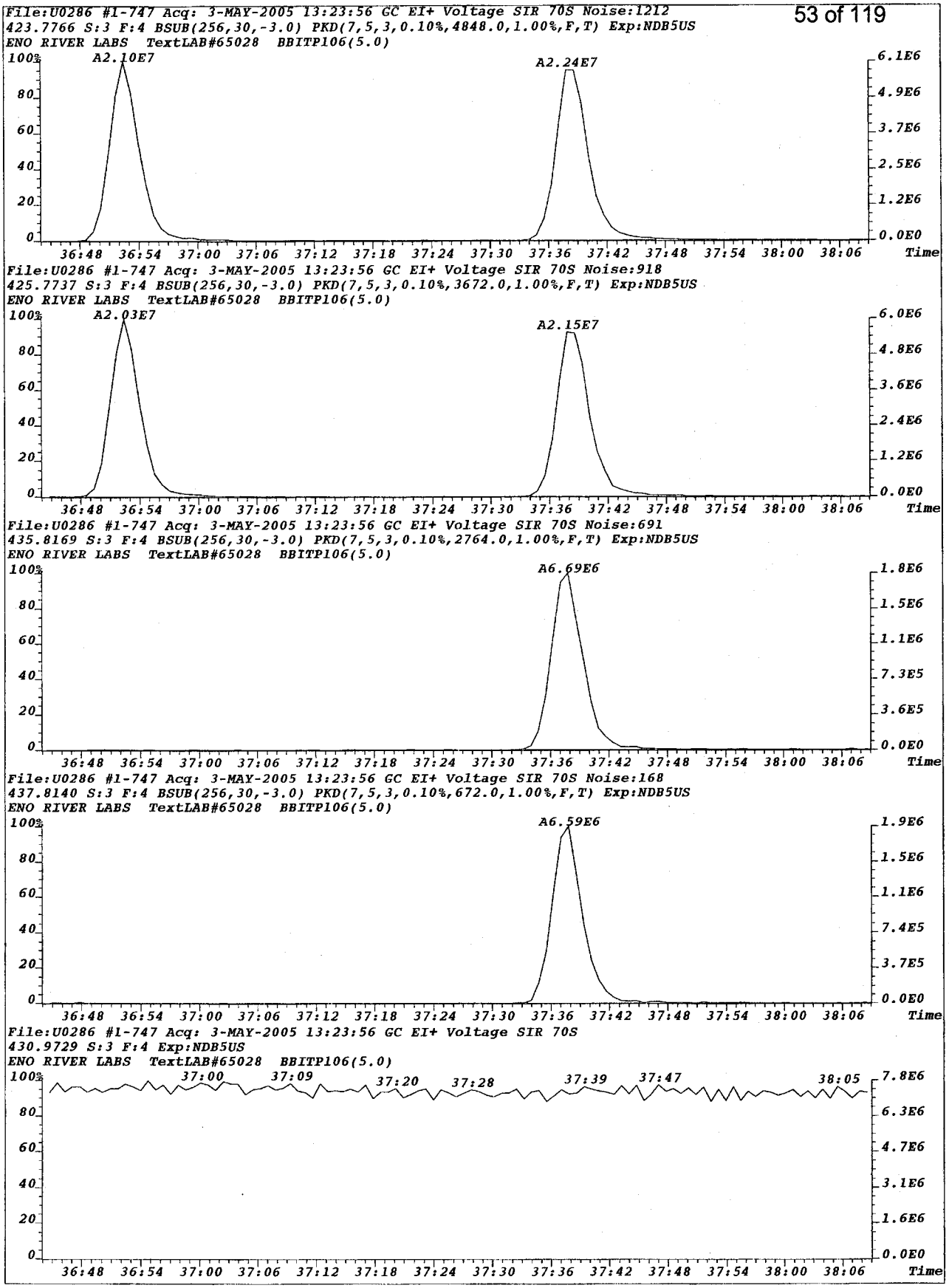
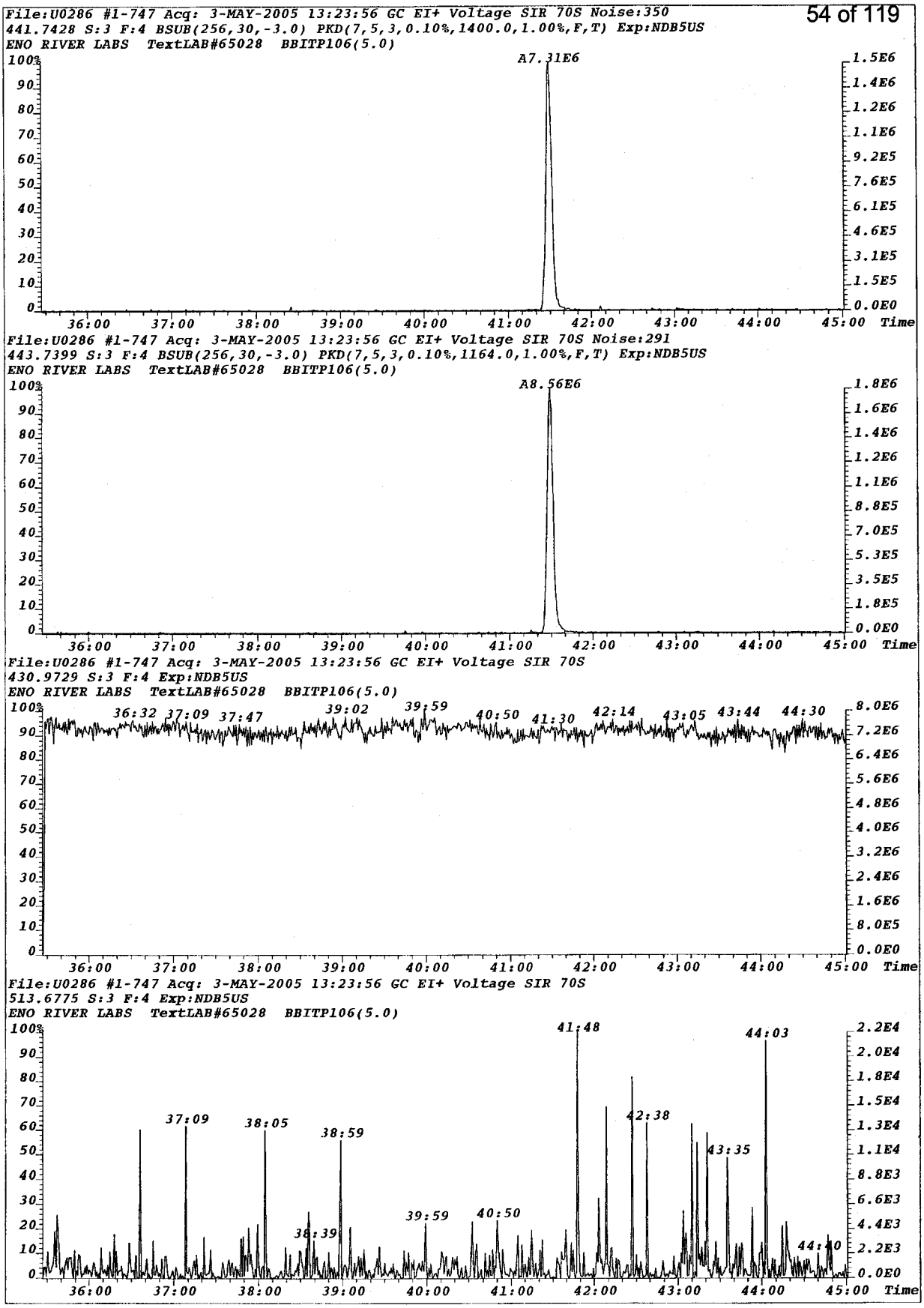
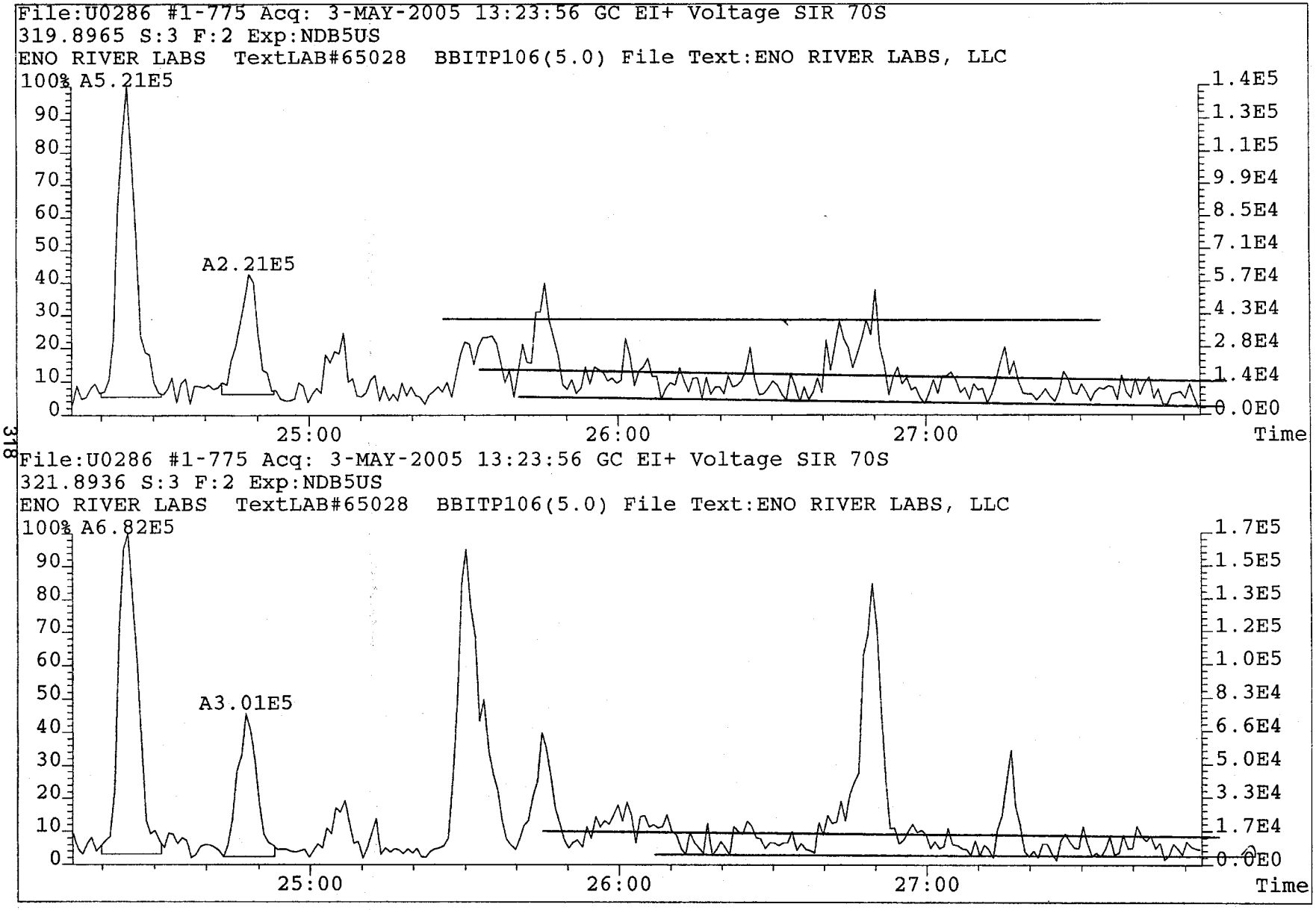
34:24
34:36
34:48
35:00
Time


File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:471
407.7818 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1884.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.19E7
A4.10E6
A8.47E5
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:292
409.7789 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1168.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.08E7
A3.77E6
A7.52E5
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:351
417.8253 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1404.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A4.84E6
A2.93E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:543
419.8220 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A1.15E7
A7.14E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
479.7165 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
36:51
36:32
37:14
37:27
38:00
38:15
38:28
Time


File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:1212
423.7766 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A2.10E7
A2.24E7
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:918
425.7737 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3672.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A2.03E7
A2.15E7
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:691
435.8169 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2764.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A6.69E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:168
437.8140 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,672.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A6.59E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
Time

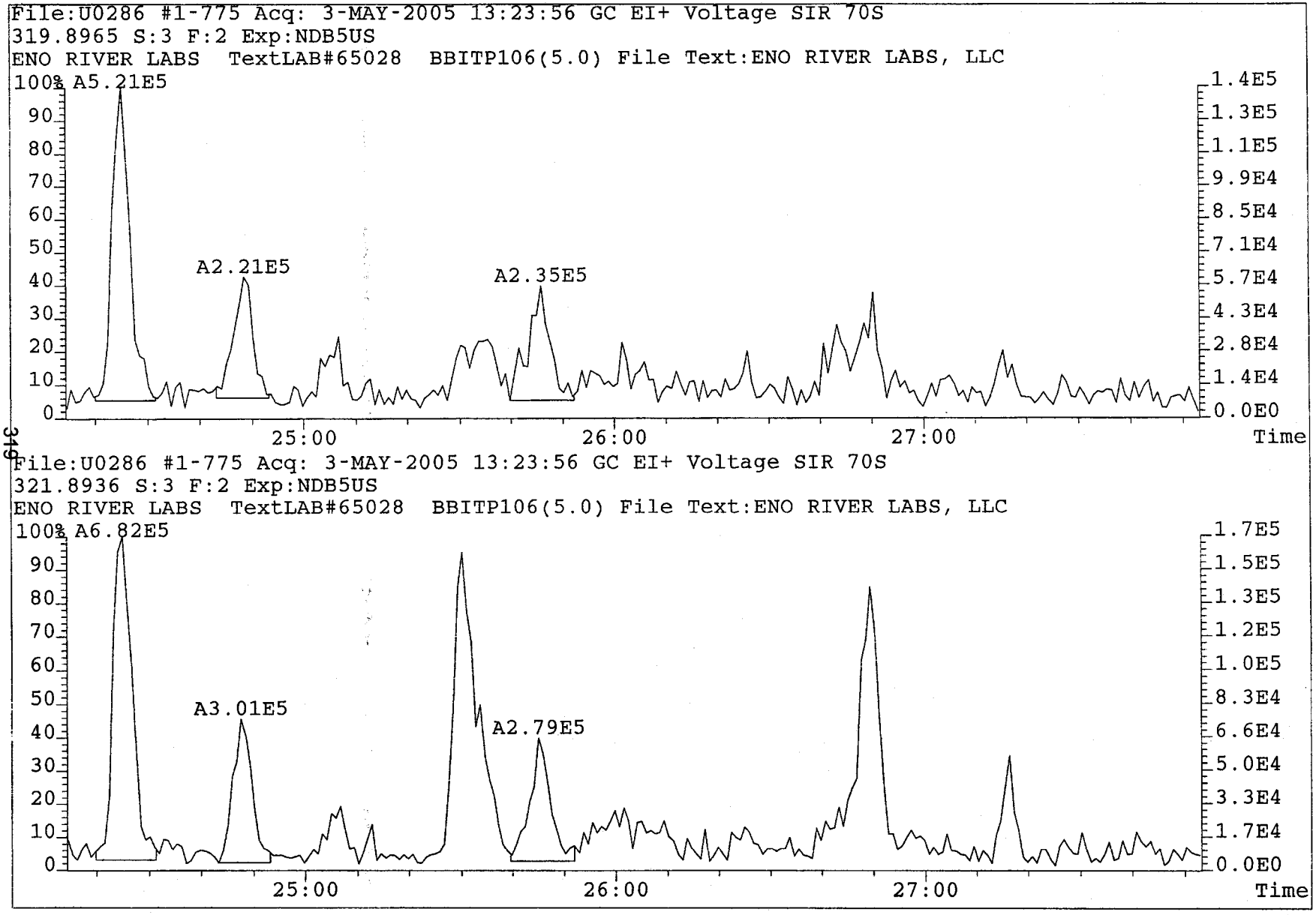

File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:350
441.7428 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1400.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A7.31E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S Noise:291
443.7399 S:3 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1164.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
A8.56E6
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
430.9729 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
36:32 37:09 37:47 39:02 39:59 40:50 41:30 42:14 43:05 43:44 44:30
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
513.6775 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0)
41:48 44:03 37:09 38:05 38:59 42:38 43:35 38:39 39:59 40:50 44:10
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 45:00 Time



318

55 of 119

noise = (108 x 14) + (106 x 17) = 105.
KWS 1/09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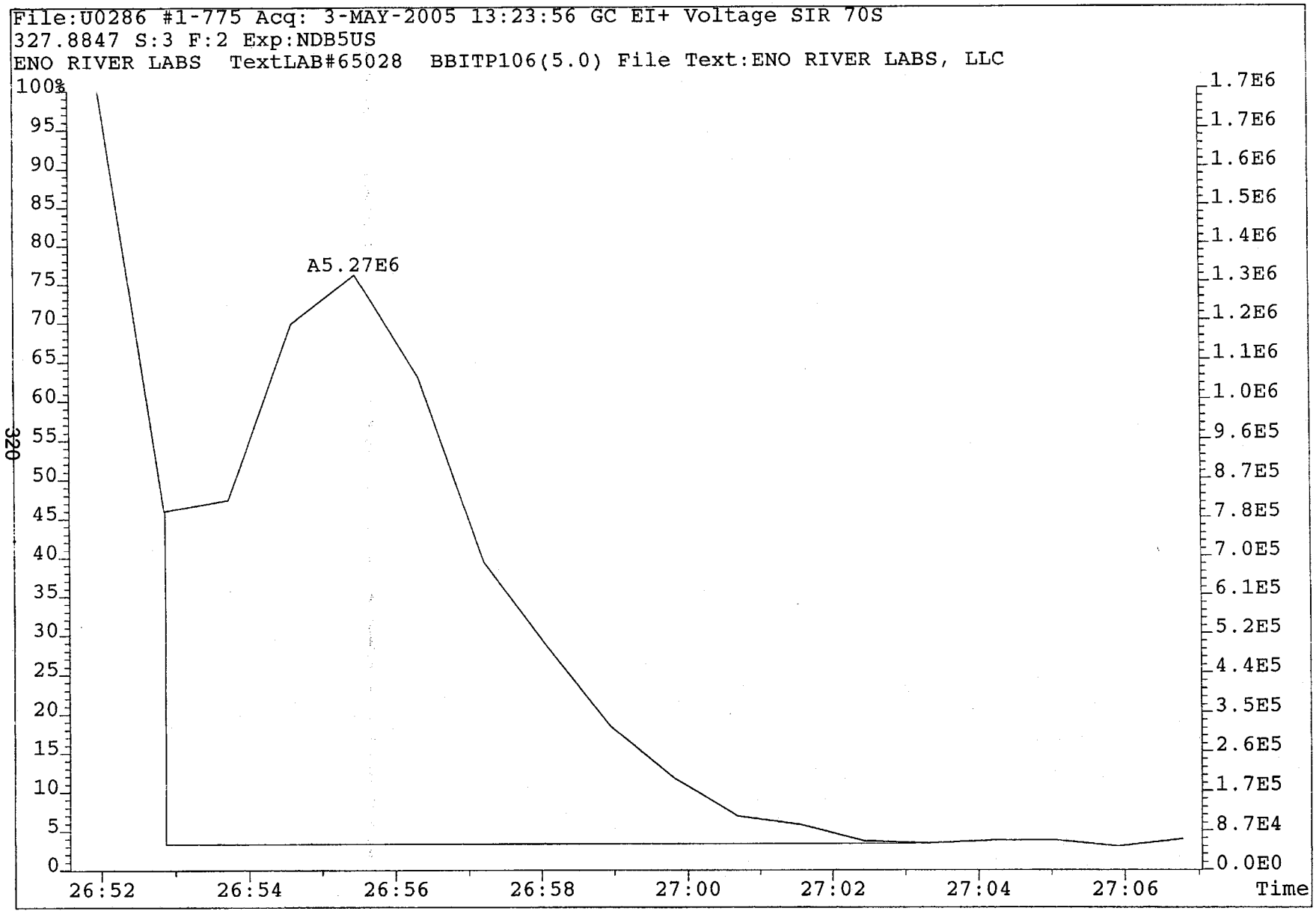
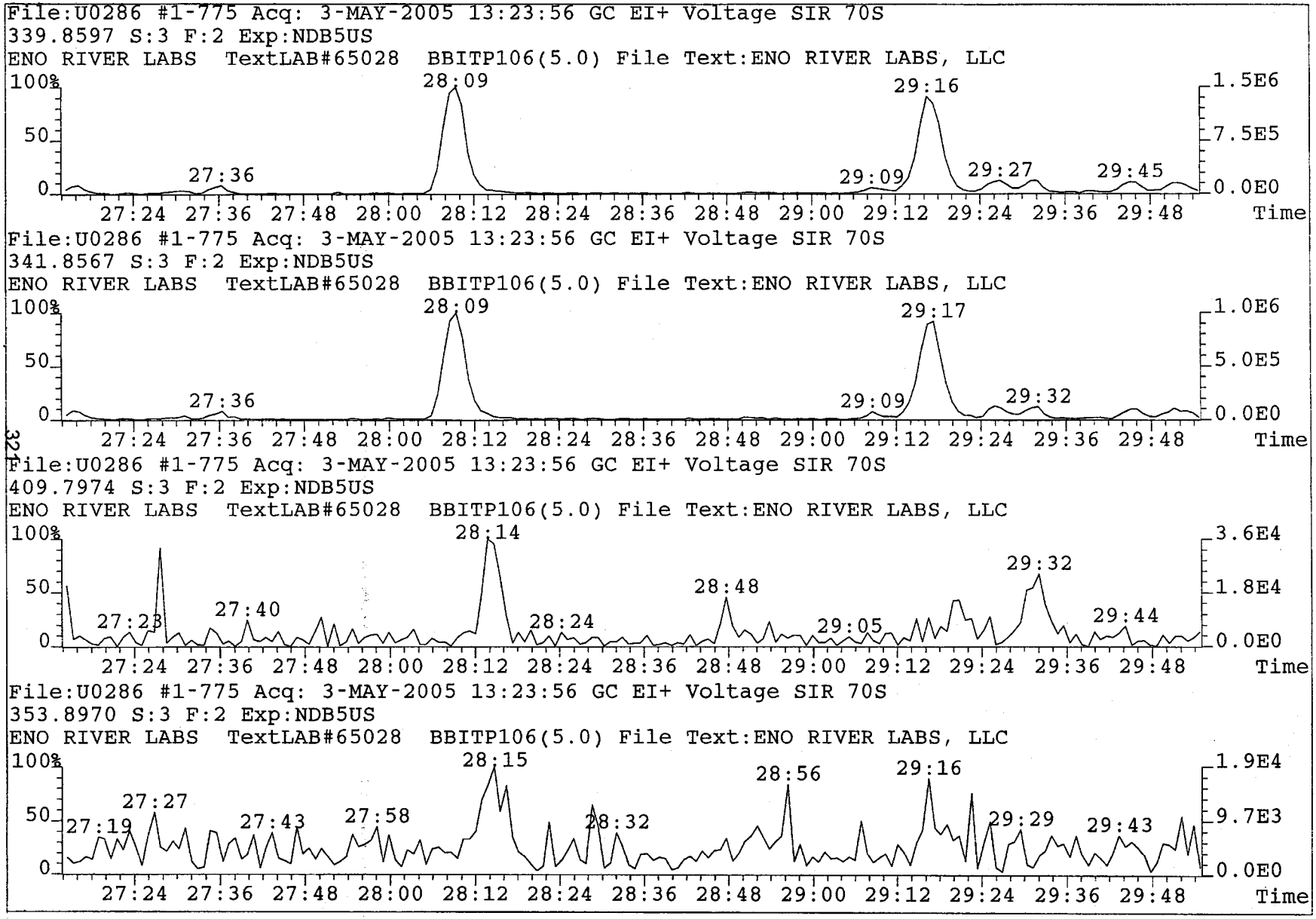
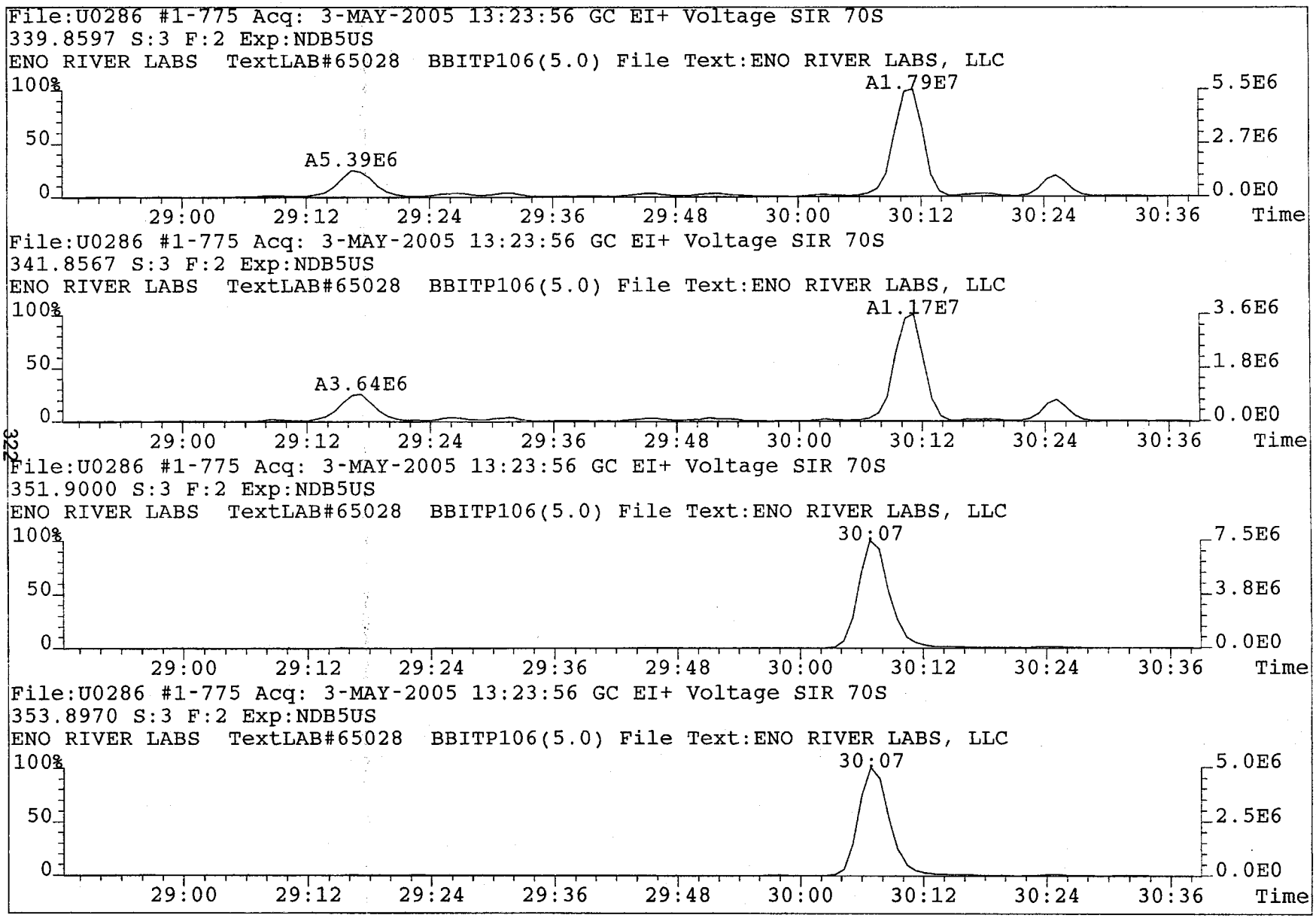
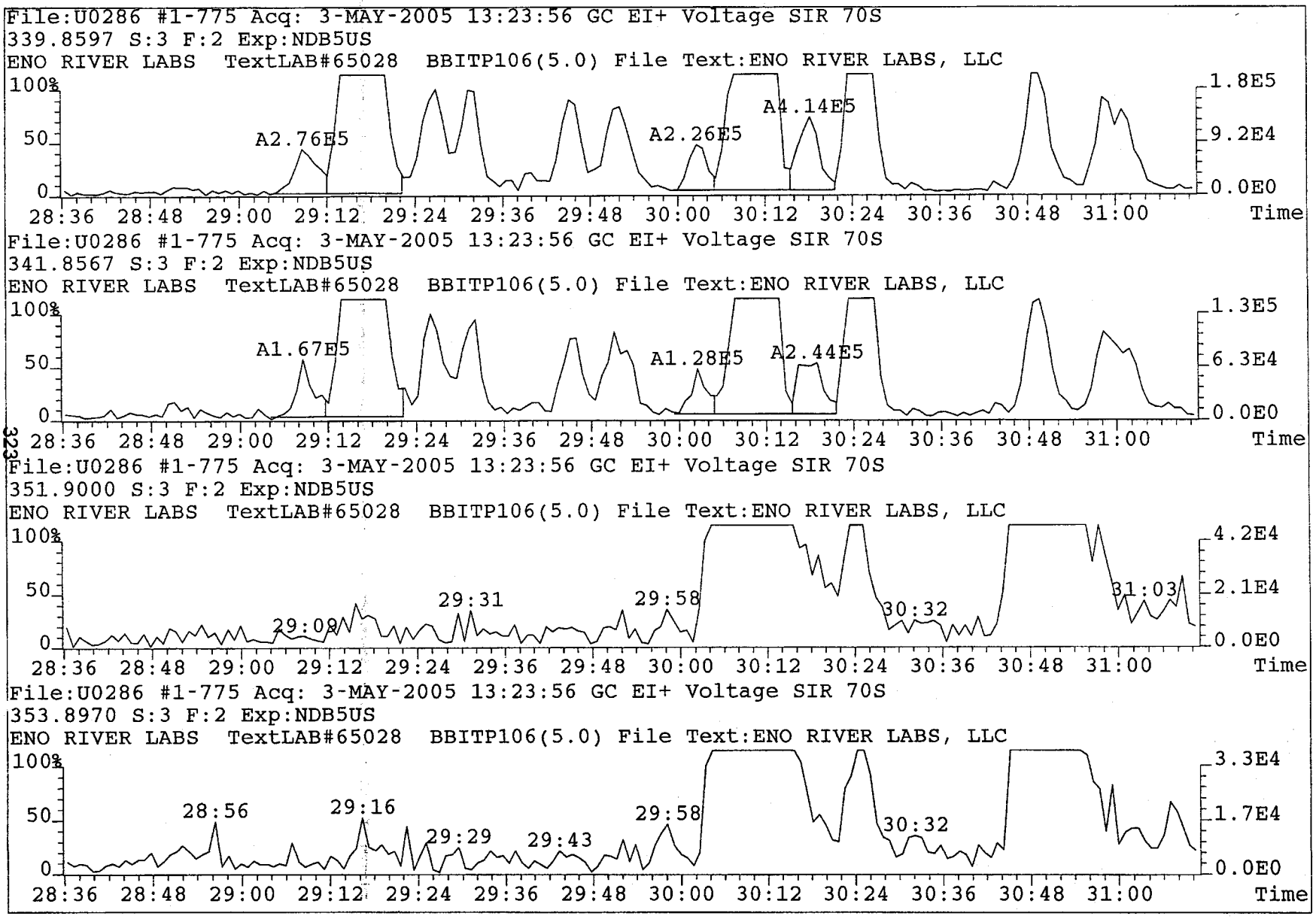
319.8965 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100% A5.21E5
A2.21E5
A2.35E5
25:00
26:00
27:00
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
321.8936 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100% A6.82E5
A3.01E5
A2.79E5
25:00
26:00
27:00
Time


File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
327.8847 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
A5.27E6
320
100%
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
1.7E6
1.7E6
1.6E6
1.5E6
1.4E6
1.3E6
1.2E6
1.1E6
1.0E6
9.6E5
8.7E5
7.8E5
7.0E5
6.1E5
5.2E5
4.4E5
3.5E5
2.6E5
1.7E5
8.7E4
0.0E0
26:52
26:54
26:56
26:58
27:00
27:02
27:04
27:06
Time


File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
339.8597 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
28:09
29:16
27:36
29:09
29:27
29:45
1.5E6
7.5E5
0.0E0
27:24 27:36 27:48 28:00 28:12 28:24 28:36 28:48 29:00 29:12 29:24 29:36 29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
341.8567 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
28:09
29:17
27:36
29:09
29:32
1.0E6
5.0E5
0.0E0
27:24 27:36 27:48 28:00 28:12 28:24 28:36 28:48 29:00 29:12 29:24 29:36 29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
409.7974 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
28:14
29:32
28:48
27:23
27:40
28:24
29:05
29:44
3.6E4
1.8E4
0.0E0
27:24 27:36 27:48 28:00 28:12 28:24 28:36 28:48 29:00 29:12 29:24 29:36 29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
353.8970 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
28:15
28:56
29:16
27:27
27:19
27:43
27:58
28:32
29:29
29:43
1.9E4
9.7E3
0.0E0
27:24 27:36 27:48 28:00 28:12 28:24 28:36 28:48 29:00 29:12 29:24 29:36 29:48
Time

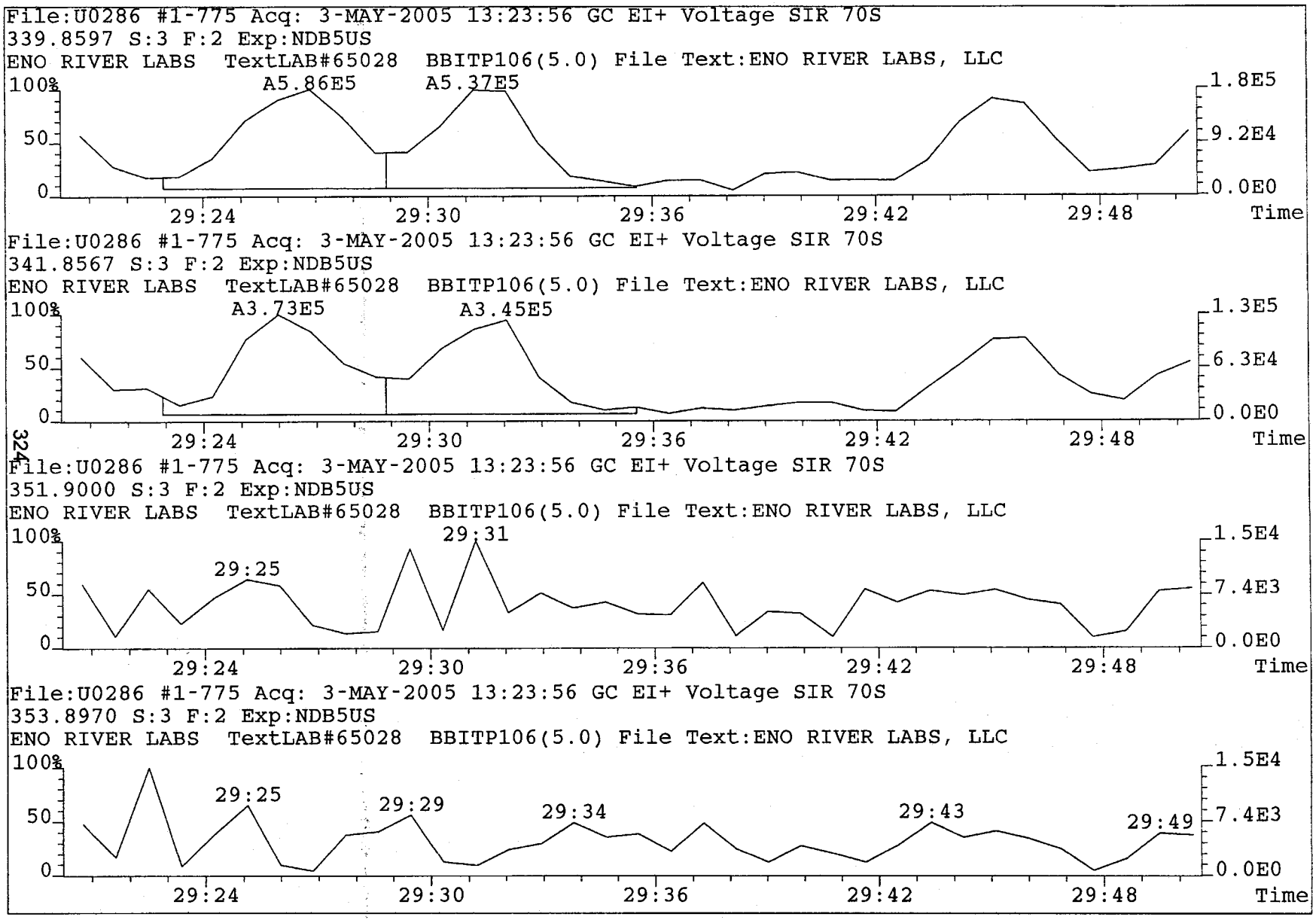

File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
339.8597 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A5.39E6
A1.79E7
5.5E6
2.7E6
0.0E0
29:00 29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
341.8567 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A3.64E6
A1.17E7
3.6E6
1.8E6
0.0E0
29:00 29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 Time
322
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
351.9000 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
30:07
7.5E6
3.8E6
0.0E0
29:00 29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
353.8970 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
30:07
5.0E6
2.5E6
0.0E0
29:00 29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 Time

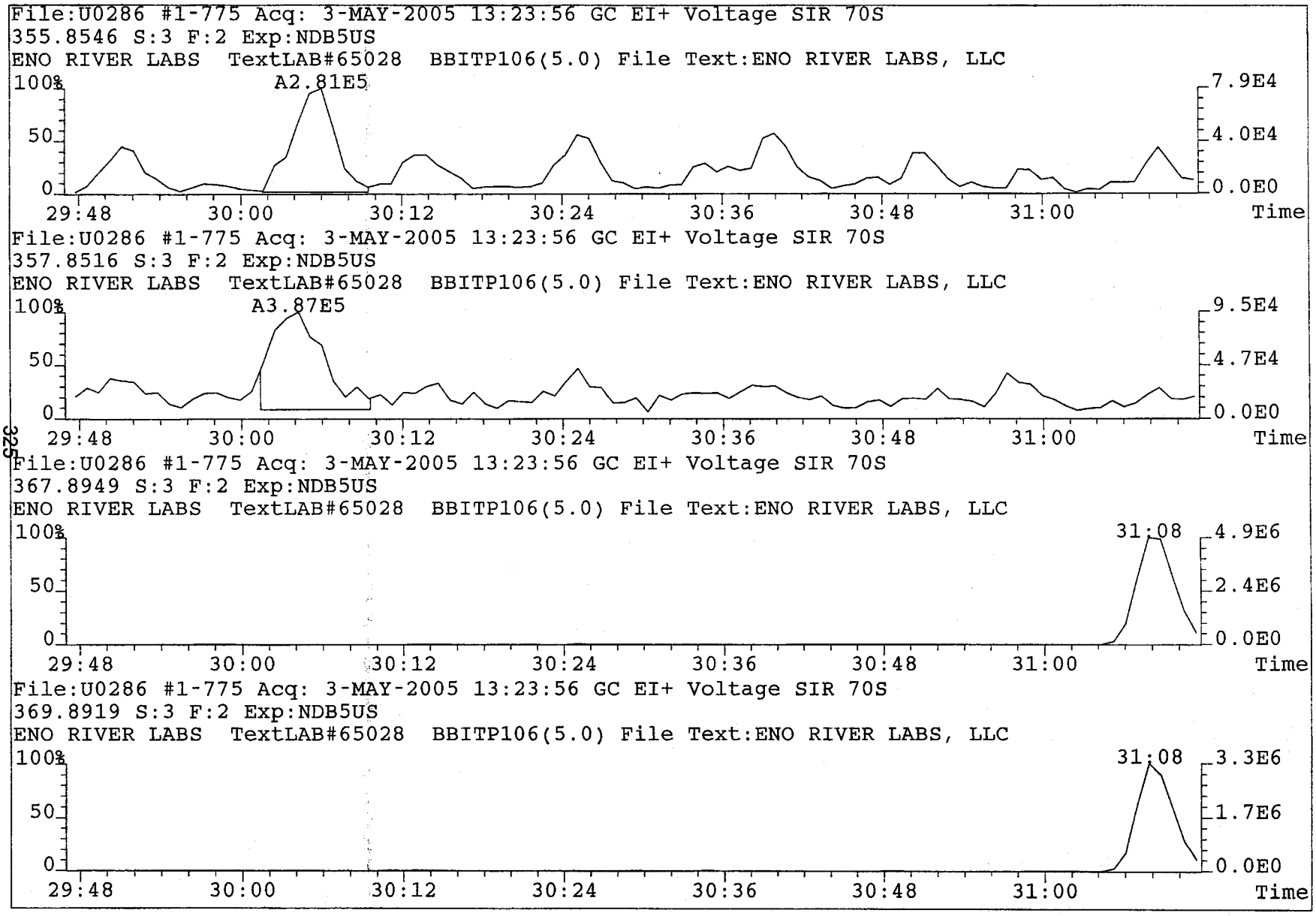
11/05



323

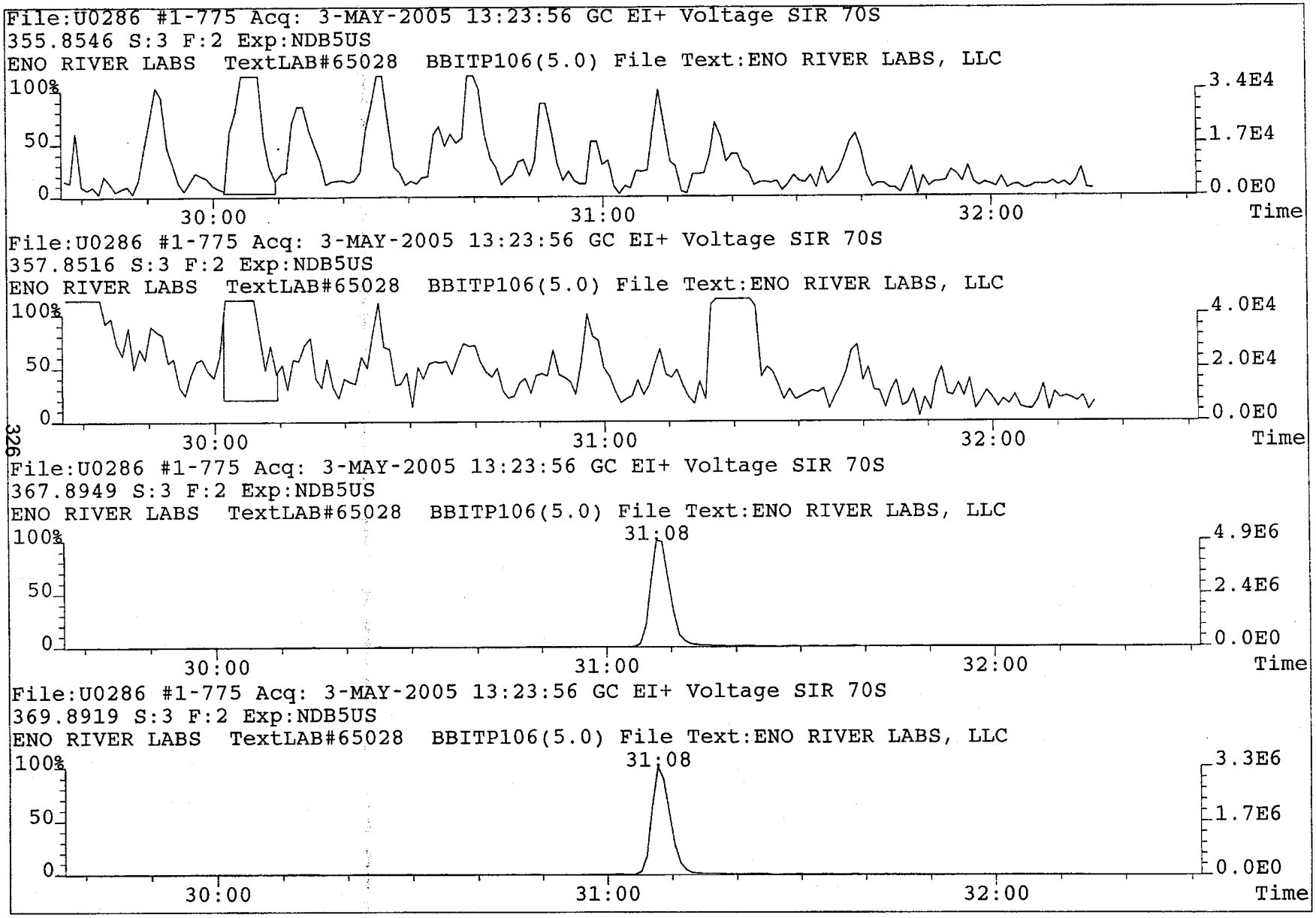
Kwg 11/10/09


File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
339.8597 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A5.86E5
A5.37E5
1.8E5
9.2E4
0.0E0
29:24
29:30
29:36
29:42
29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
341.8567 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A3.73E5
A3.45E5
1.3E5
6.3E4
0.0E0
29:24
29:30
29:36
29:42
29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
351.9000 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
29:25
29:31
1.5E4
7.4E3
0.0E0
29:24
29:30
29:36
29:42
29:48
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
353.8970 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
29:25
29:29
29:34
29:43
29:49
1.5E4
7.4E3
0.0E0
29:24
29:30
29:36
29:42
29:48
Time

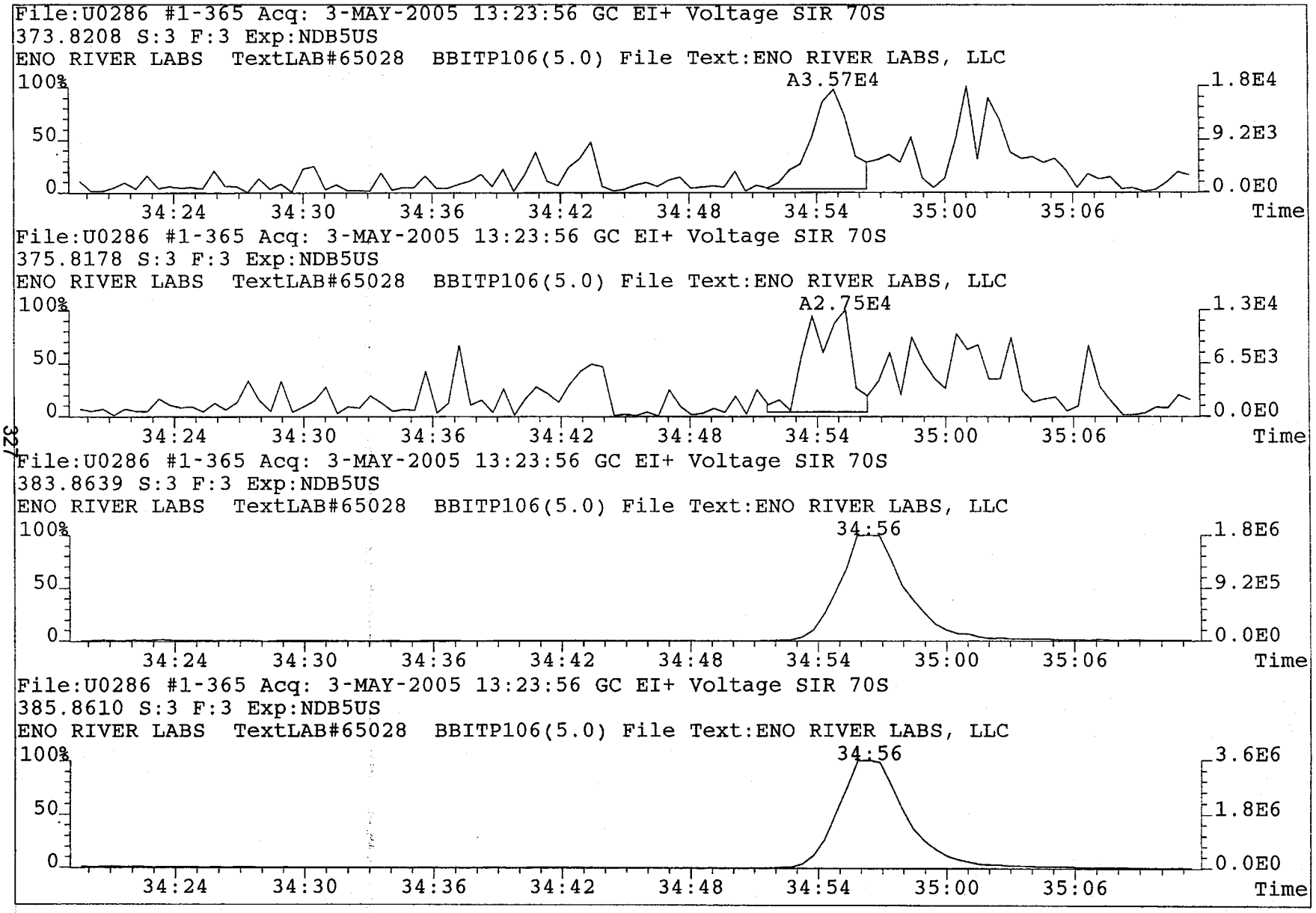


325

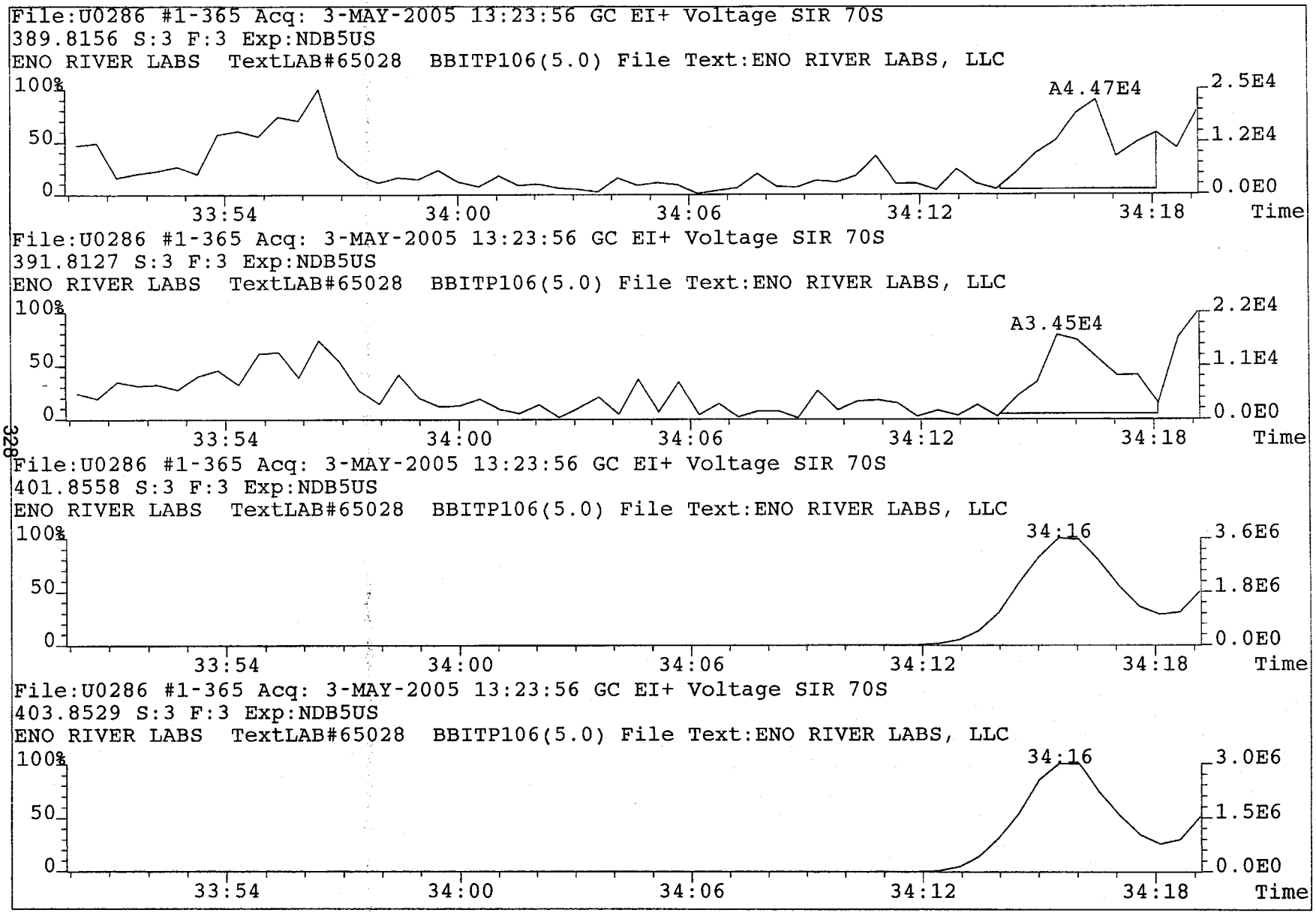
KLW 5/11/05


File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
355.8546 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
3.4E4
1.7E4
0.0E0
30:00
31:00
32:00
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
357.8516 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
4.0E4
2.0E4
0.0E0
30:00
31:00
32:00
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
367.8949 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
31:08
50
0
4.9E6
2.4E6
0.0E0
30:00
31:00
32:00
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
369.8919 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
31:08
50
0
3.3E6
1.7E6
0.0E0
30:00
31:00
32:00
Time

326

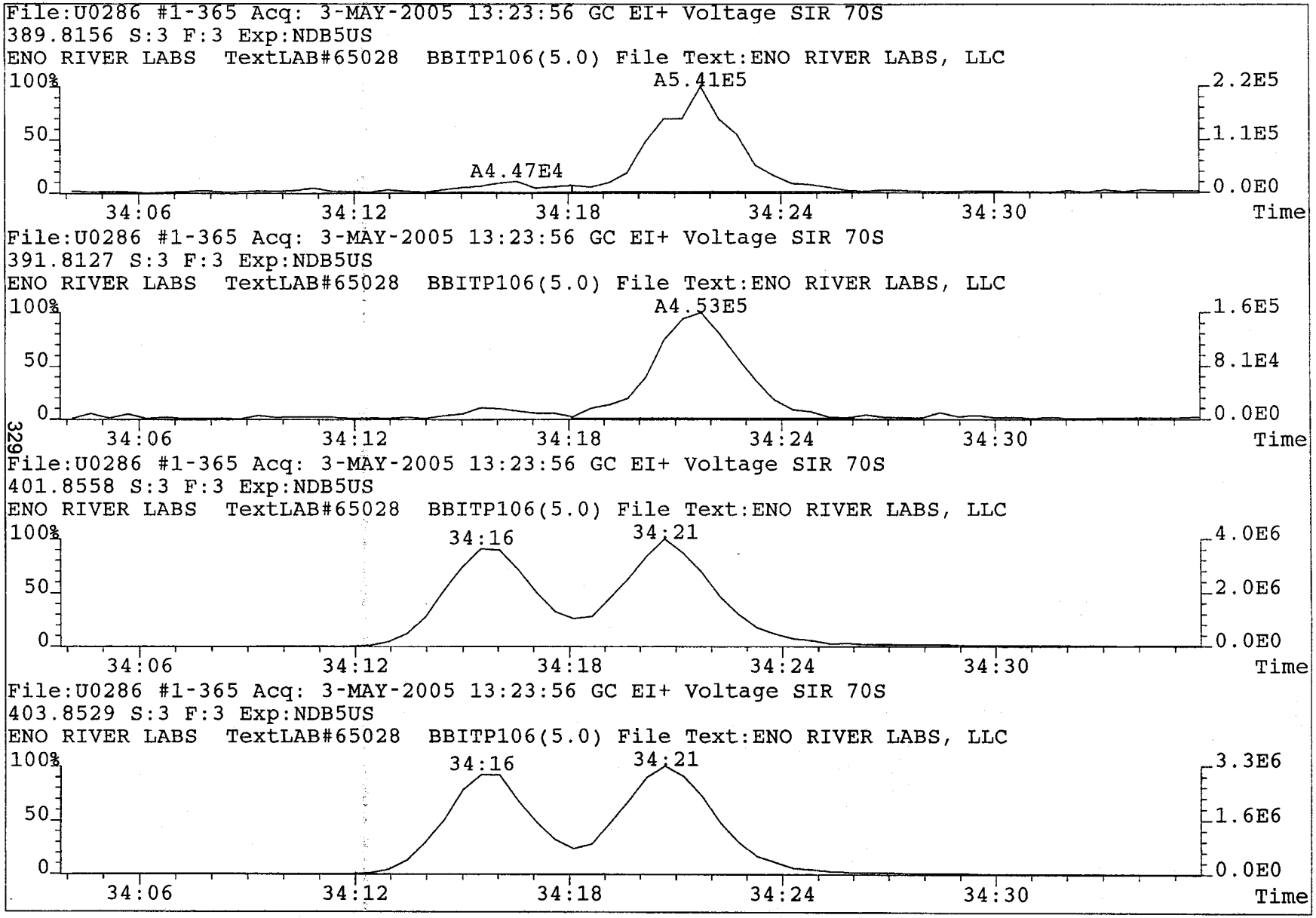

File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
373.8208 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A3.57E4
1.8E4
9.2E3
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 Time
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
375.8178 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A2.75E4
1.3E4
6.5E3
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 Time
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
383.8639 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:56
1.8E6
9.2E5
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 Time
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
385.8610 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:56
3.6E6
1.8E6
0.0E0
34:24 34:30 34:36 34:42 34:48 34:54 35:00 35:06 Time

KLW 5/11/05



328

KHUS/11/05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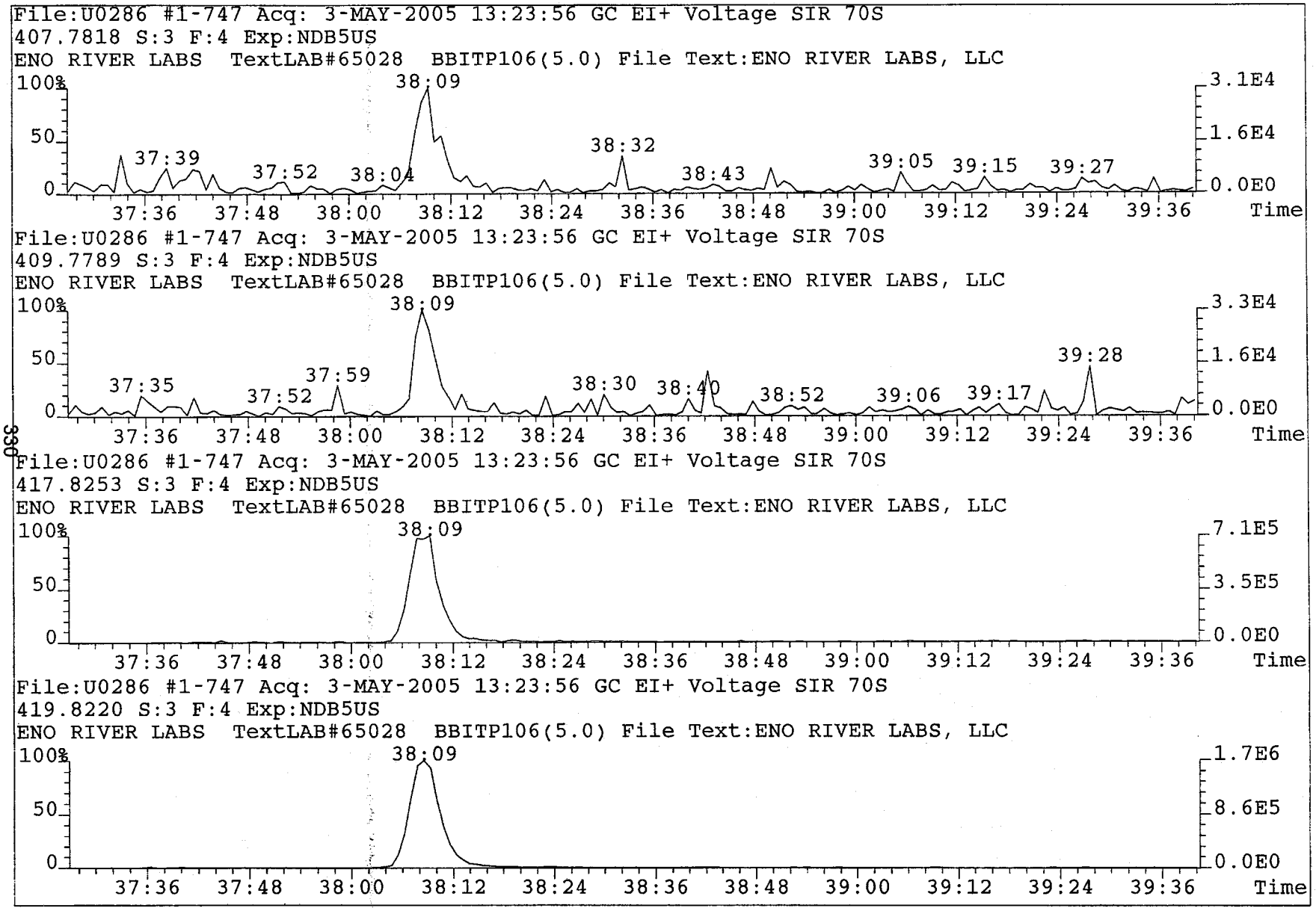
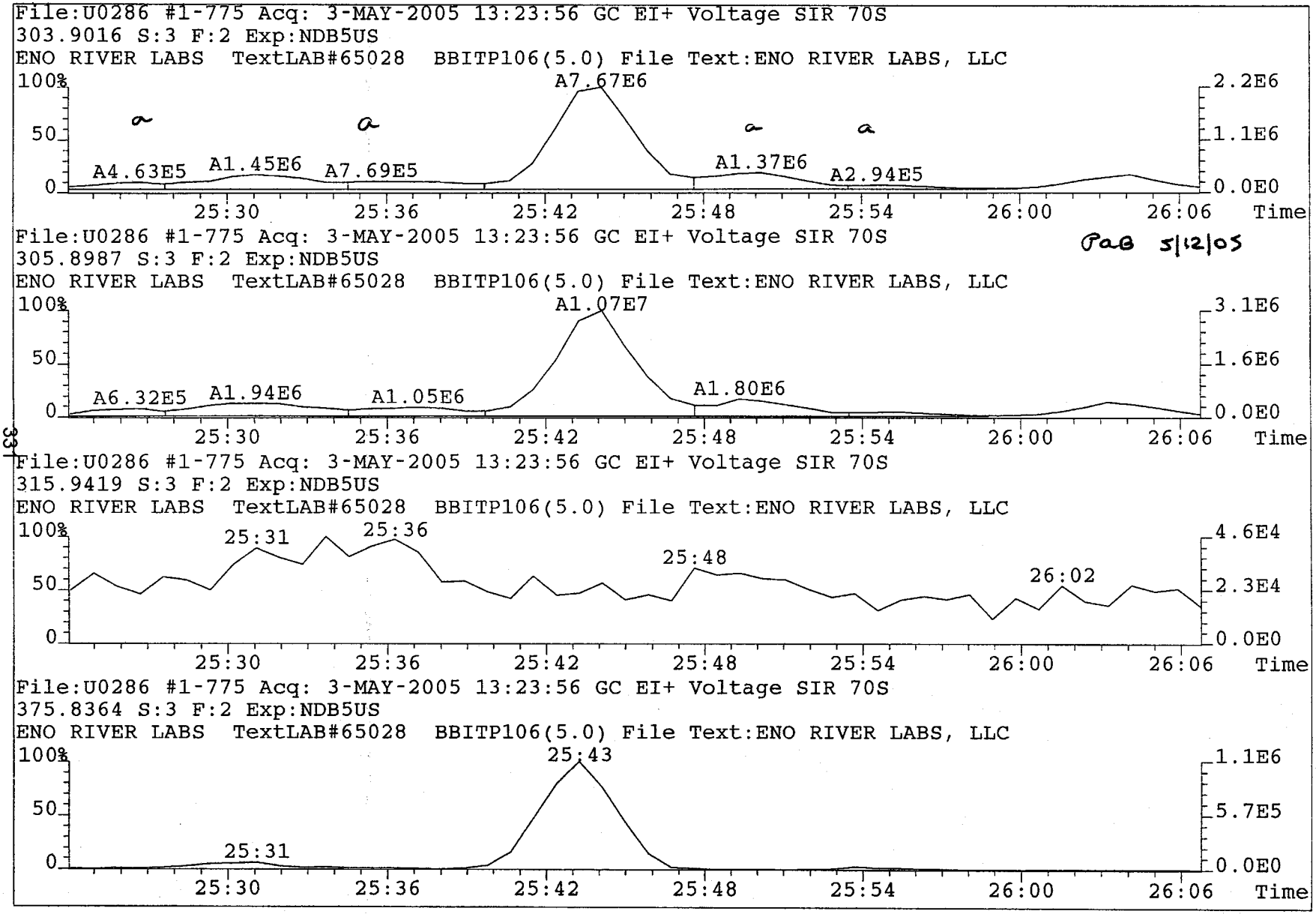
389.8156 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A5.41E5
A4.47E4
2.2E5
1.1E5
0.0E0
34:06
34:12
34:18
34:24
34:30
Time
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
391.8127 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A4.53E5
1.6E5
8.1E4
0.0E0
34:06
34:12
34:18
34:24
34:30
Time
329
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
401.8558 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:16
34:21
4.0E6
2.0E6
0.0E0
34:06
34:12
34:18
34:24
34:30
Time
File:U0286 #1-365 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
403.8529 S:3 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
34:16
34:21
3.3E6
1.6E6
0.0E0
34:06
34:12
34:18
34:24
34:30
Time

KLW 5/11/05

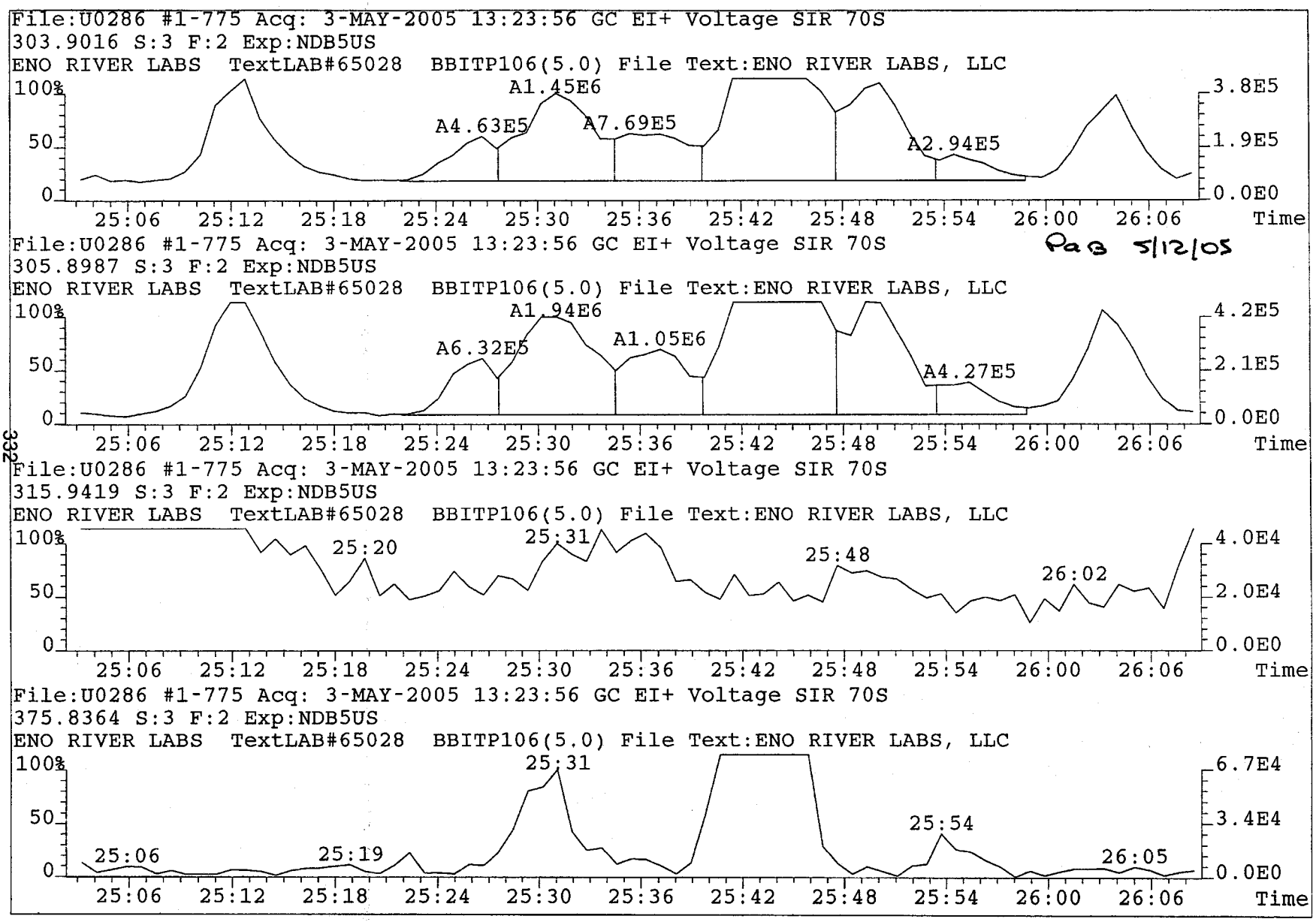

File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
407.7818 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
37:39
37:52
38:04
38:09
38:32
38:43
39:05
39:15
39:27
3.1E4
1.6E4
0.0E0
37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 39:12 39:24 39:36 Time
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
409.7789 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
37:35
37:52
37:59
38:09
38:30
38:40
38:52
39:06
39:17
39:28
3.3E4
1.6E4
0.0E0
37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 39:12 39:24 39:36 Time
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
417.8253 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
38:09
7.1E5
3.5E5
0.0E0
37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 39:12 39:24 39:36 Time
File:U0286 #1-747 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
419.8220 S:3 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
38:09
1.7E6
8.6E5
0.0E0
37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 39:12 39:24 39:36 Time

330


File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
303.9016 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A7.67E6
A4.63E5
A1.45E6
A7.69E5
A1.37E6
A2.94E5
2.2E6
1.1E6
0.0E0
25:30
25:36
25:42
25:48
25:54
26:00
26:06
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
305.8987 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
A1.07E7
A6.32E5
A1.94E6
A1.05E6
A1.80E6
3.1E6
1.6E6
0.0E0
25:30
25:36
25:42
25:48
25:54
26:00
26:06
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
315.9419 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
25:31
25:36
25:48
26:02
4.6E4
2.3E4
0.0E0
25:30
25:36
25:42
25:48
25:54
26:00
26:06
Time
File:U0286 #1-775 Acq: 3-MAY-2005 13:23:56 GC EI+ Voltage SIR 70S
375.8364 S:3 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) File Text:ENO RIVER LABS, LLC
100%
50
0
25:43
25:31
1.1E6
5.7E5
0.0E0
25:30
25:36
25:42
25:48
25:54
26:00
26:06
Time

PaB 5/12/05

33



Pa B 5/12/05

332

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BBITP106(5.0)** Analysis File: **T051458**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SOIL**	Date Received:	**04/23/2005**	Spike File:	**SPMIT3J2**
Lab ID:	**402-43-1**	Date Extracted:	**04/27/2005**	ICal:	**TF5O224**
		Date Analyzed:	**05/17/2005**	ConCal:	**T051445**
Sample Size:	**14.300 g**	Dilution Factor:	**10X**	% Moisture:	**30.0**
Dry Weight:	**10.010 g**	Blank File:	**T051287**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**70.0**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
1,2,3,4,6,7,8,9-OCDD	3500			0.90	41:45	___

Internal Standard	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	4000	91.0	40%-135%	0.81	41:44	___

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.27	34:57	___

Data Reviewer: _____ 05/17/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 17:41 05/17/2005

Initial ....Date...

Data Review By: PAB 5/17/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T051458B.dbf
05/17/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404	DC	NL				Height	0.17	0.11	0.06				
				34:01		1.24	4.81	2.66	2.15	0.982			
				34:32		1.28	594.00	333.36	260.64	0.997	13C12-HxCDD 478		SUR3
				34:38		1.27	664.84	372.01	292.83	1.000	13C12-HxCDD 678		IS5
						Height	215.77	120.52	95.25				
				34:57		1.27	624.47	348.98	275.49	1.009	13C12-HxCDD 789		RS2
				35:12	RO	2.29	1.48	1.51	0.66	1.016			
402-404			5 Peaks				1,889.60						

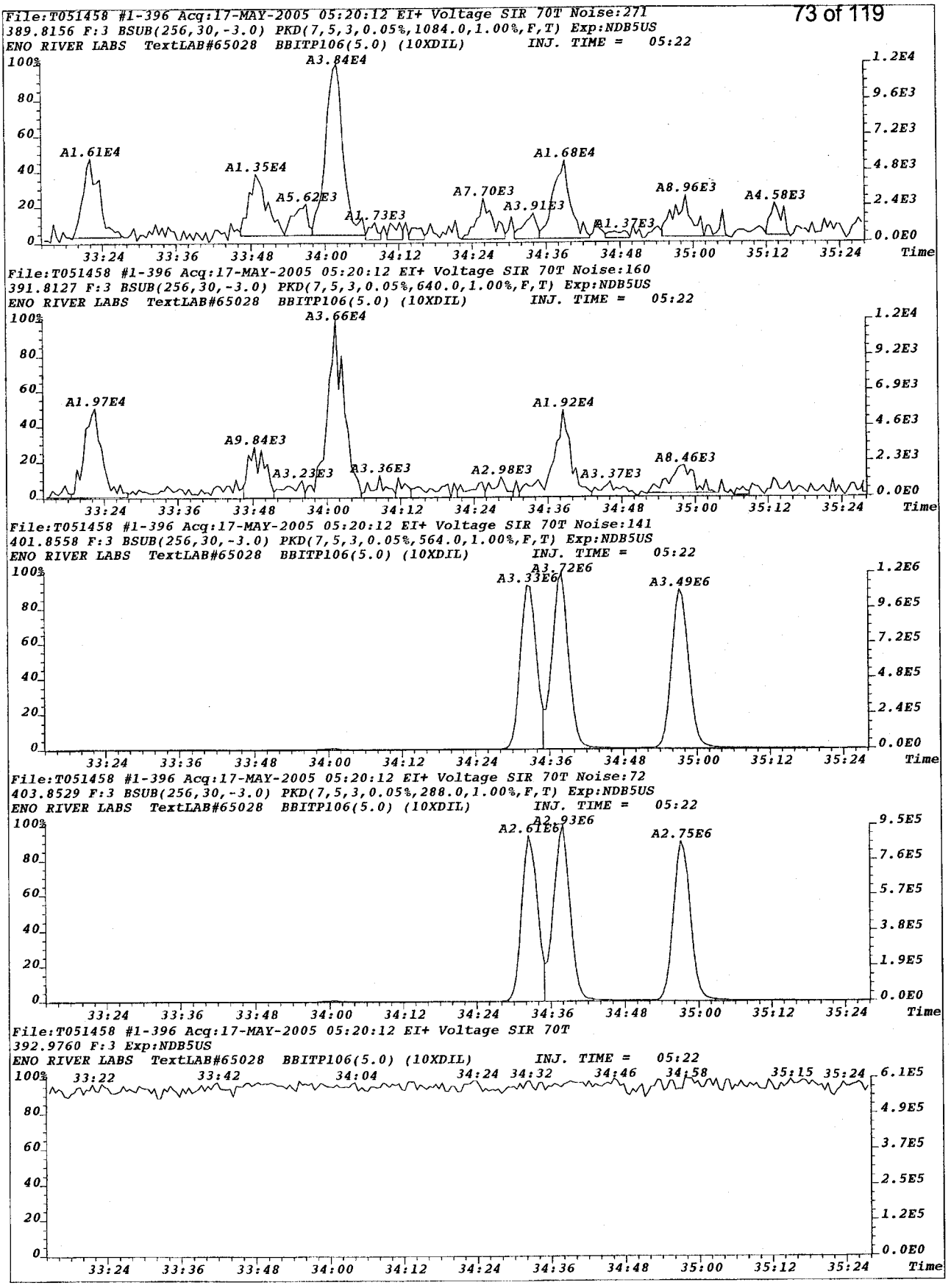
---------- Above: HxCDD / Octa-CDD and CDF Follows ----------

OCDD						0.76-1.02				0.904-1.096			
458-460	DC	NL				Height	0.11	0.08	0.03				
				39:25		0.90	2.87	1.36	1.51	0.944			
				41:45		0.90	673.17	318.59	354.58	1.000	OCDD		AN
				42:02		0.99	1.61	0.80	0.81	1.007			
				42:22	RO	1.33	0.57	0.40	0.30	1.015			
458-460			4 Peaks				678.22						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472	DC	NL				Height	0.27	0.11	0.16				
	DC	WL		37:28	RO	1.41	0.55			0.898			
	DC	WL		38:45	RO	1.36	0.42			0.929			
	DC	WL		39:03	RO	1.13	0.91			0.936			
	DC	SN		40:12	RO	0.45	0.53			0.963			
	DC	SN		40:38	RO	0.41	0.42			0.974			
				41:44		0.81	788.56	352.74	435.82	1.000	13C12-OCDD		IS8
						Height	168.91	76.17	92.74				
				42:01	RO	0.69	0.89	0.42	0.61	1.007			
				42:03	RO	0.29	0.68	0.32	1.12	1.008			
	DC	SN		42:29	RO	0.45	0.32			1.018			
	DC	SN		42:40	RO	2.30	0.19			1.022			
	DC	SN		43:20	RO	3.82	0.21			1.038			
	DC	SN		43:29	RO	1.12	0.79			1.042			
470-472			3 Peaks				790.13						

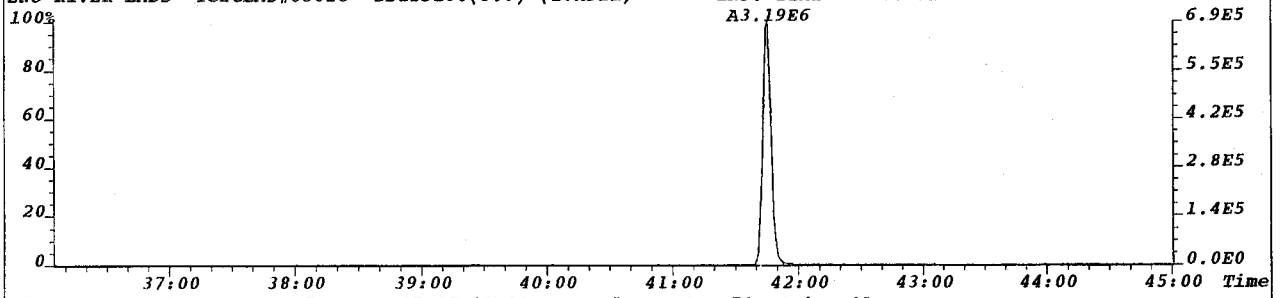
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

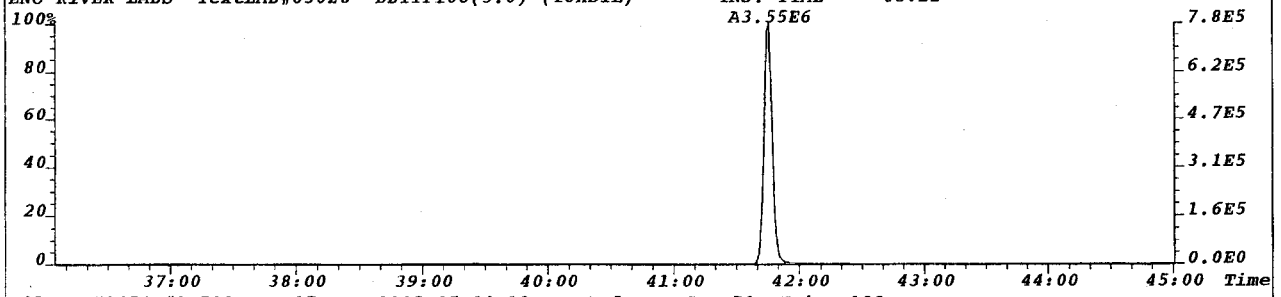
*** End of Report ***


File:T051458 #1-396 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:271
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1084.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.84E4
A1.61E4
A1.35E4
A5.62E3
A1.73E3
A7.70E3
A3.91E3
A1.68E4
A1.37E3
A8.96E3
A4.58E3
File:T051458 #1-396 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:160
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,640.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.66E4
A1.97E4
A9.84E3
A3.23E3
A3.36E3
A2.98E3
A1.92E4
A3.37E3
A8.46E3
File:T051458 #1-396 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:141
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,564.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.72E6
A3.33E6
A3.49E6
File:T051458 #1-396 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:72
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,288.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A2.93E6
A2.61E6
A2.75E6
File:T051458 #1-396 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
Time

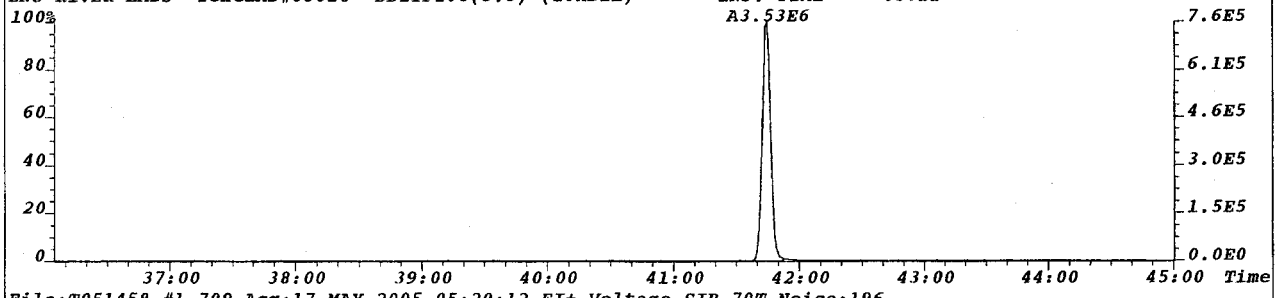
File:T051458 #1-709 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:105
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,420.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.19E6



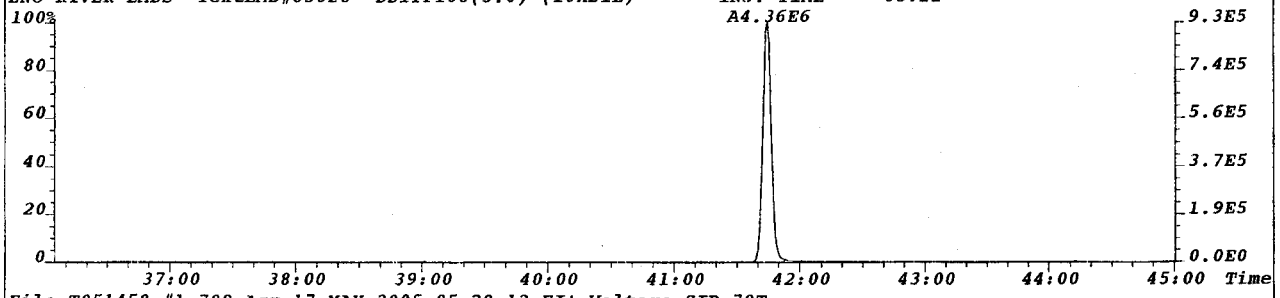
File:T051458 #1-709 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:43
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.55E6



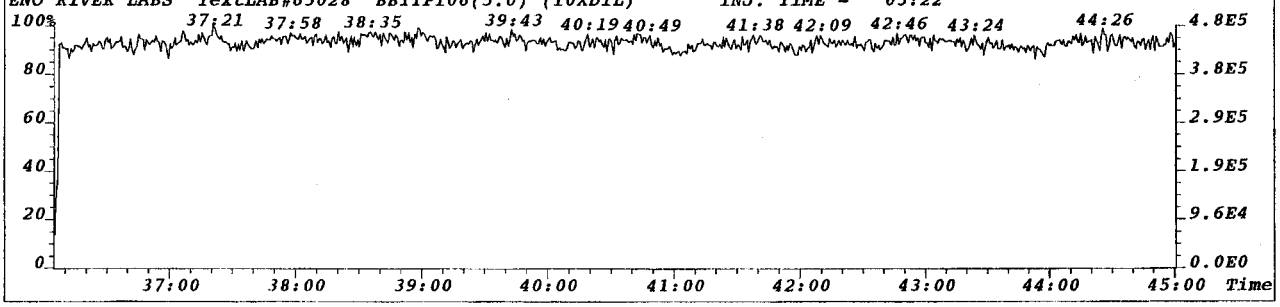
File:T051458 #1-709 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:132
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,528.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A3.53E6

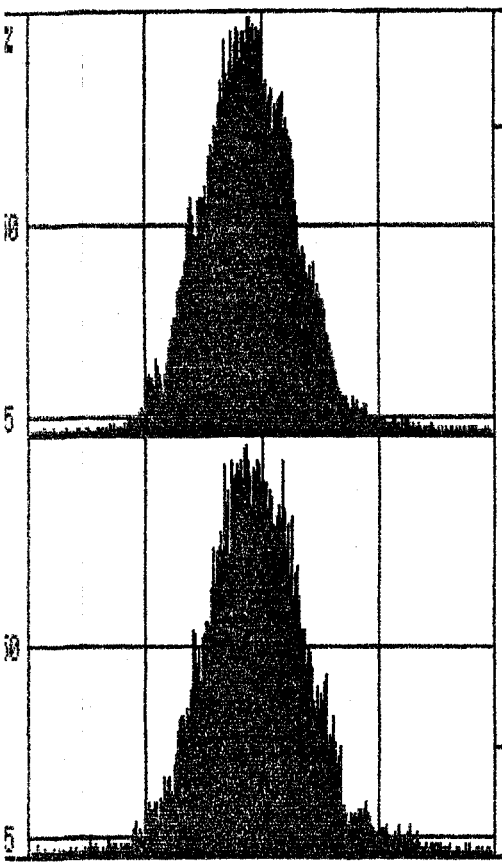


File:T051458 #1-709 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T Noise:196
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,784.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22
A4.36E6



File:T051458 #1-709 Acq:17-MAY-2005 05:20:12 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65028 BBITP106(5.0) (10XDIL) INJ. TIME = 05:22





Channel	I	330.9792		Peak top	
Height	1.47	volts	Span	200	ppm

System file name	NDB5US
Data file name	A:T516051
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass	416.9760			Peak top	
Height	.21	volts	Span	200	ppm

Lab Project: **65028** Method 8290 TCDD/TCDF Analysis (DB-225)
Client Sample: **BBITP106(5.0)** Analysis File: **P052084**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SOIL**	Date Received:	**04/23/2005**	Spike File:	**SPC2NF22**
Lab ID:	**402-43-1**	Date Extracted:	**04/27/2005**	ICal:	**PF22215**
		Date Analyzed:	**05/04/2005**	ConCal:	**P052080**
Sample Size:	**14.300 g**	Dilution Factor:	**n/a**	% Moisture:	**30.0**
Dry Weight:	**10.010 g**	Blank File:	**T051287**	% Lipid:	**n/a**
GC Column:	**DB-225**	Analyst:	**JSY**	% Solids:	**70.0**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDF	12.5			0.76	22:50	___

Internal Standard	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	128	64.1	40%-130%	0.76	22:48	___

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	21:38	___

Data Reviewer: _____ 05/11/2005

C2NF_PSR v2.03, LARS 6.25.06

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Printed: 20:42 05/11/2005

Initial ....Date...

Data Review By: KW 5/11/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

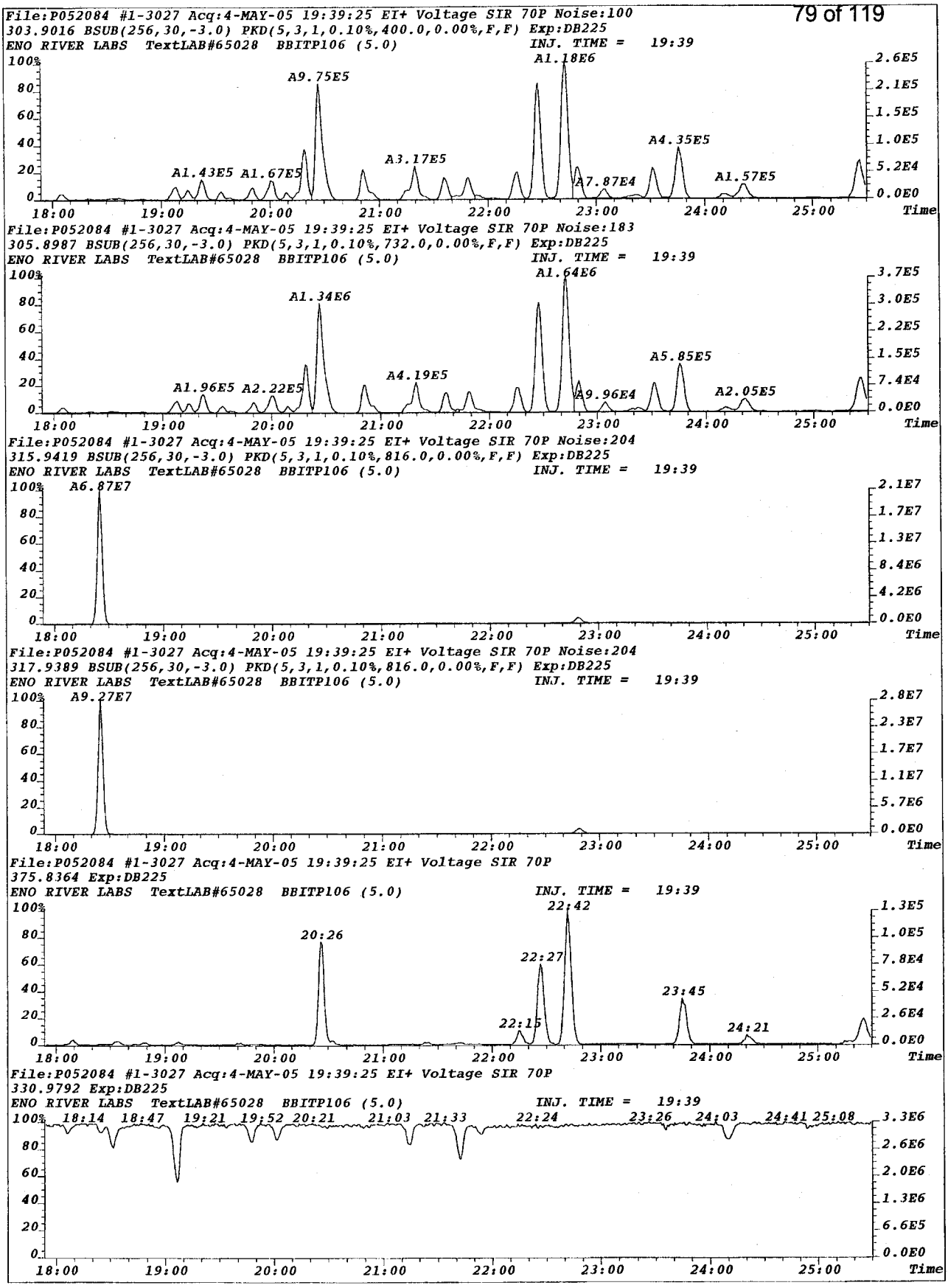
Page No. 1 Listing of P052084B.dbf
05/11/2005 Matched GC Peaks / Ratio / Ret. Time

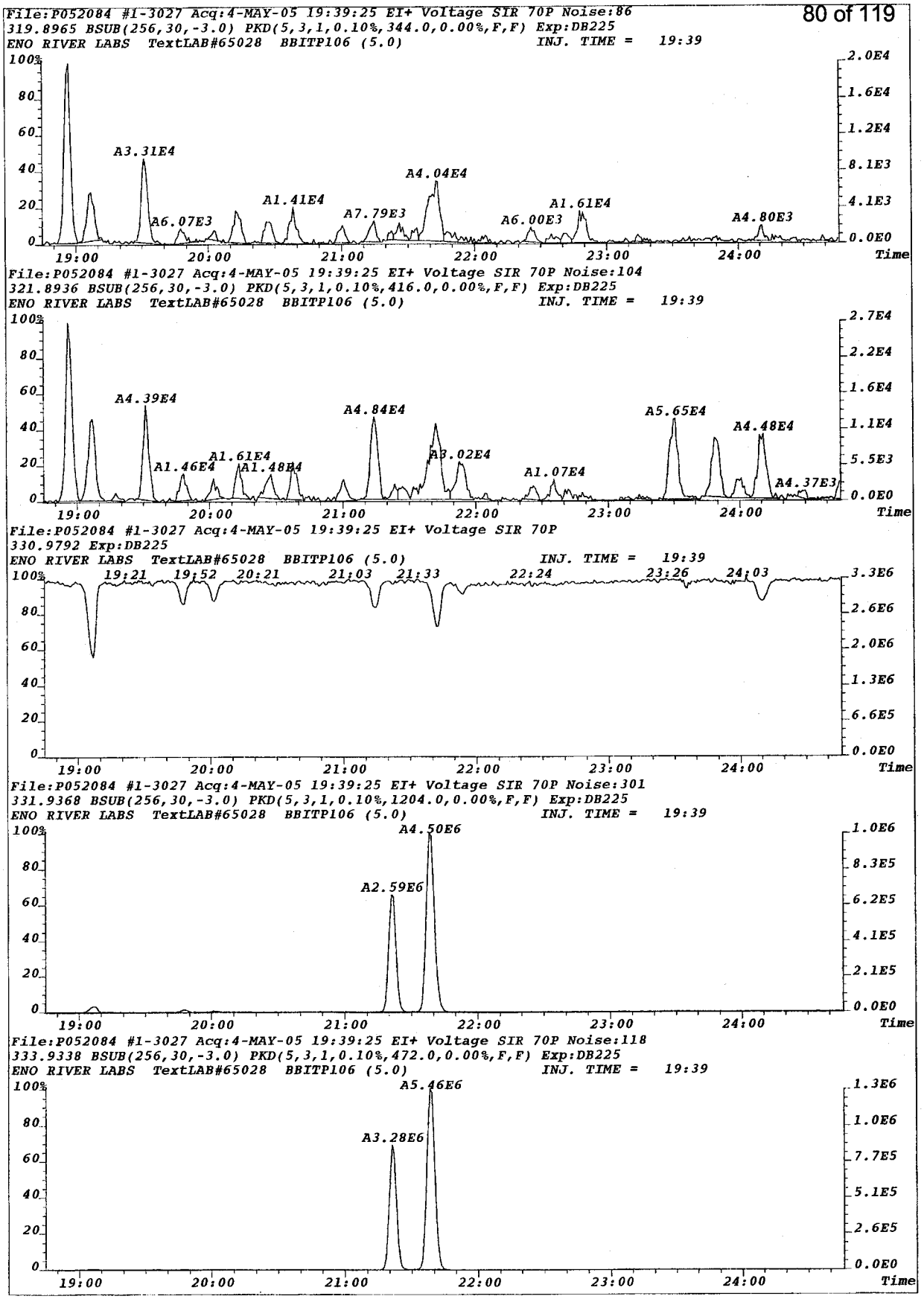
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89					0.785-1.104				
304-306	DC	NL		Height			0.23	0.08	0.15				
				18:05		0.81	10.27	4.61	5.66	0.982			
				18:20		0.80	1.96	0.87	1.09	0.995			J
				18:32	RO	0.54	2.76	1.20	2.24	1.006			J
				18:50	RO	1.38	1.22	0.95	0.69	1.023			J
	DC	SN		18:58	RO	0.19	0.09			1.030			
				19:08		0.74	23.50	9.99	13.51	1.039			
				19:15		0.77	16.03	6.96	9.07	1.045			
				19:22		0.73	33.92	14.34	19.58	1.052			
				19:33	RO	1.00	11.12	6.29	6.28	1.062			
				19:50		0.82	19.30	8.72	10.58	1.077			
				20:00		0.75	38.88	16.68	22.20	1.086			
				20:09		0.82	11.42	5.15	6.27	1.094			
				20:19		0.76	90.01	38.91	51.10	1.103			
	DC	WH		20:27		0.73	231.15			1.110			
	DC	WH		20:51		0.73	61.76			1.132			
	DC	WH		21:20		0.76	73.53			1.158			
	DC	WH		21:35		0.72	39.12			1.172			
	DC	WH		21:49		0.71	49.15			1.185			
	DC	WH		22:02	RO	1.48	1.33			1.196			
	DC	WH		22:16		0.75	53.37			1.209			
	DC	WH		22:28		0.72	220.84			1.220			
	DC	WH		22:43		0.72	281.96			1.233			
	KN			22:50		0.76	59.83	25.88	33.95	1.240	2378-TCDF		AN
	DC	WH		23:05		0.79	17.83			1.253			
	DC	WH		23:22		0.70	11.06			1.269			
	DC	WH		23:31		0.74	59.80			1.277			
	DC	WH		23:46		0.74	102.03			1.290			
	DC	WH		24:10		0.76	11.47			1.312			
	DC	WH		24:22		0.77	36.22			1.323			
	DC	WH		24:31	RO	1.05	0.39			1.331			
	DC	WH		25:26		0.76	90.22			1.381			
304-306			13	Peaks			320.22						
13C12-TCDF				0.65-0.89					0.956-1.044				
316-318	DC	NL		Height			0.32	0.16	0.16				
				17:53		0.70	97.69	40.22	57.47	0.971			
	N			18:25		0.74	16,136.66	6,869.45	9,267.21	1.000			
	KN			22:48		0.76	797.40	344.53	452.87	1.238	13C12-2378-TCDF		ISO
				Height			181.87	78.78	103.09				
316-318			3	Peaks			17,031.75						

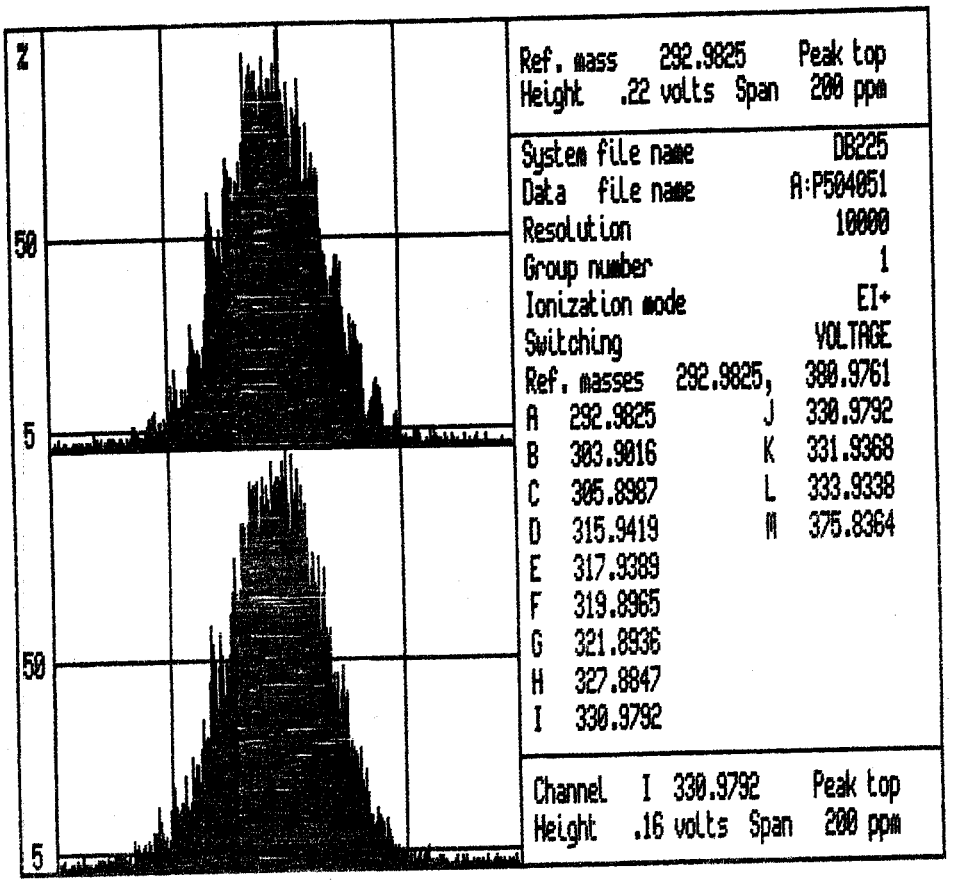
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				---------- Above: TCDF / TCDD Follows ----------									
13C12-TCDD						0.65-0.89				0.906-1.094			
332-334		DC	NL			Height	0.33	0.24	0.09				
		DC	WL	19:07	RO	5.44	4.34			0.884			
				19:47	RO	9.13	0.85	4.38	0.48	0.914			
	N			21:21		0.79	587.22	258.95	328.27	0.987	13C12-2378-TCDD	IS1	
						Height	157.23	68.35	88.88				
	N			21:38		0.82	995.71	449.76	545.95	1.000	13C12-1234-TCDD	RS1	
332-334			3 Peaks				1,583.78						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***


File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:100
303.9016 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,400.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A9.75E5
A1.18E6
A1.43E5 A1.67E5
A3.17E5
A4.35E5
A7.87E4
A1.57E5
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:183
305.8987 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,732.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A1.34E6
A1.64E6
A1.96E5 A2.22E5
A4.19E5
A5.85E5
A9.96E4
A2.05E5
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:204
315.9419 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,816.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A6.87E7
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:204
317.9389 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,816.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A9.27E7
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P
375.8364 Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
20:26
22:42
22:27
22:15
23:45
24:21
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
18:14 18:47 19:21 19:52 20:21 21:03 21:33 22:24 23:26 24:03 24:41 25:08
18:00 19:00 20:00 21:00 22:00 23:00 24:00 25:00 Time


File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:86
319.8965 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,344.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A3.31E4
A6.07E3
A1.41E4
A7.79E3
A4.04E4
A6.00E3
A1.61E4
A4.80E3
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:104
321.8936 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,416.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A4.39E4
A1.46E4
A1.61E4
A1.48E4
A4.84E4
A3.02E4
A1.07E4
A5.65E4
A4.48E4
A4.37E3
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
19:21
19:52
20:21
21:03
21:33
22:24
23:26
24:03
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:301
331.9368 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,1204.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A4.50E6
A2.59E6
File:P052084 #1-3027 Acq:4-MAY-05 19:39:25 EI+ Voltage SIR 70P Noise:118
333.9338 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,472.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65028 BBITP106 (5.0)
INJ. TIME = 19:39
A5.46E6
A3.28E6
100%
19:00
20:00
21:00
22:00
23:00
24:00
Time


%
50
5
50
5
Ref. mass 292.9825 Peak top
Height .22 volts Span 200 ppm
System file name DB225
Data file name A:P504051
Resolution 10000
Group number 1
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 380.9761
A 292.9825
B 303.9016
C 305.8987
D 315.9419
E 317.9389
F 319.8965
G 321.8936
H 327.8847
I 330.9792
J 330.9792
K 331.9368
L 333.9338
M 375.8364
Channel I 330.9792 Peak top
Height .16 volts Span 200 ppm

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCS** Analysis File: **T051291**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
Lab ID:	**LCS**	Date Extracted:	**04/27/2005**	ICal:	**TF5O224**
		Date Analyzed:	**05/03/2005**	ConCal:	**T051279**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**T051287**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**n/a**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	35.3			0.77	27:15	
1,2,3,7,8-PeCDD	157			1.59	31:27	
1,2,3,4,7,8-HxCDD	238			1.28	34:34	
1,2,3,6,7,8-HxCDD	181			1.17	34:39	
1,2,3,7,8,9-HxCDD	179			1.24	34:59	
1,2,3,4,6,7,8-HpCDD	200			1.02	38:01	
1,2,3,4,6,7,8,9-OCDD	385			0.82	41:47	
2,3,7,8-TCDF	34.1			0.77	26:33	
1,2,3,7,8-PeCDF	203			1.53	30:26	
2,3,4,7,8-PeCDF	184			1.55	31:07	
1,2,3,4,7,8-HxCDF	189			1.25	33:52	
1,2,3,6,7,8-HxCDF	207			1.21	33:57	
2,3,4,6,7,8-HxCDF	195			1.23	34:28	
1,2,3,7,8,9-HxCDF	183			1.23	35:15	
1,2,3,4,6,7,8-HpCDF	201			0.97	36:56	
1,2,3,4,7,8,9-HpCDF	178			0.96	38:32	
1,2,3,4,6,7,8,9-OCDF	372			0.94	42:00	

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	156	77.9	40%-135%	0.72	26:32	
$^{13}C_{12}$-2,3,7,8-TCDD	155	77.4	40%-135%	0.80	27:14	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	179	89.3	40%-135%	1.46	30:25	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	226	113	40%-135%	1.49	31:26	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	177	88.3	40%-135%	0.50	33:57	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	181	90.5	40%-135%	1.18	34:39	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	168	83.9	40%-135%	0.41	36:55	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	156	77.8	40%-135%	1.03	38:00	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	292	73.0	40%-135%	0.91	41:46	

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 20:47 05/11/2005

Lab Project: **65028** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCS** Analysis File: **T051291**

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	167	83.6	40%-135%	1.47	31:07	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	178	88.9	40%-135%	0.50	33:51	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	202	101	40%-135%	1.19	34:34	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	154	77.1	40%-135%	0.41	38:31	___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	13.6	68.0	40%-135%	27:15	___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	169	84.3	40%-135%	0.51	35:15	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	180	90.2	40%-135%	0.50	34:27	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	27:04	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:58	___

Data Reviewer: KLV 05/11/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 20:47 05/11/2005

Initial ....Date...

Data Review By: PAB 5/3/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside
ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T051291B.dbf
05/03/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.877-1.069			
304-306	DC	NL		Height			<0.01	0.00	0.00				
				23:28		0.75	165.47	70.74	94.73	0.884			
				26:09		0.86	4.69	2.17	2.52	0.986	1278-TCDF	AN	J
				26:33		0.77	233.02	101.26	131.76	1.001	2378-TCDF	AN	
304-306			3 Peaks				403.18						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL		Height			<0.01	0.00	0.00				
				26:09	RO	0.64	1.93	0.84	1.31	0.986			
				26:32		0.72	1,073.89	451.27	622.62	1.000	13C12-2378-TCDF	ISO	
						Height	302.58	124.41	178.17				
316-318			2 Peaks				1,075.82						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89						0.904-1.041			
320-322	DC	NL		Height			<0.01	0.00	0.00				
				24:46	RO	1.19	0.28	0.19	0.16	0.909	1368-TCDD	AN	J
				25:09		0.82	0.31	0.14	0.17	0.924	1379-TCDD	AN	J
				26:05	RO	0.64	0.16	0.07	0.11	0.958			J
				26:06	RO	3.00	0.05	0.09	0.03	0.958			J
				26:32	RO	2.64	0.19	0.29	0.11	0.974			J
				27:15		0.77	158.18	68.72	89.46	1.001	2378-TCDD	AN	
				27:47		0.78	0.16	0.07	0.09	1.020			J
320-322			7 Peaks				159.33						
37Cl-TCDD										0.927-1.073			
328	DC	NL		Height			<0.01	0.00					
	DC	WL		25:07			0.09			0.922			
	DC	WL		25:12			0.10			0.925			
				25:40			0.11	0.11		0.942			
				25:55			3.99	3.99		0.952			
				26:08			0.09	0.09		0.960			
				26:31			0.05	0.05		0.974			
				27:15			72.29	72.29		1.001	37Cl-TCDD	CLS	
				27:34			0.09	0.09		1.012			
				27:40			0.10	0.10		1.016			
				27:47			0.18	0.18		1.020			
				27:56			0.06	0.06		1.026			
				28:10			0.14	0.14		1.034			
				28:21			0.25	0.25		1.041			
				28:34			0.21	0.21		1.049			
				28:48			0.14	0.14		1.058			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
328			13 Peaks				77.70						
13C12-TCDD				0.65-0.89						0.927-1.073			
332-334	DC	NL		Height			0.05	0.05	0.00				
				27:04		0.81	924.30	413.01	511.29	0.994	13C12-1234-TCDD	RS1	
				27:14		0.80	787.94	350.18	437.76	1.000	13C12-2378-TCDD	IS1	
						Height	237.19	104.95	132.24				
332-334			2 Peaks				1,712.24						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.930-1.060			
340-342	DC	NL		Height			<0.01	0.00	0.00				
				29:35		1.36	3.49	2.01	1.48	0.973			J
				30:03	RO	2.05	1.66	1.33	0.65	0.988			J
				30:26		1.53	1,036.56	626.47	410.09	1.001	12378-PeCDF	AN	
				30:43		1.41	12.14	7.11	5.03	1.010			J
				31:07		1.55	983.29	597.42	385.87	1.023	23478-PeCDF	AN	
				32:06		1.44	2.10	1.24	0.86	1.055			J
340-342			6 Peaks				2,039.24						
13C12-PeCDF				1.32-1.78						0.869-1.131			
352-354	DC	NL		Height			<0.01	0.00	0.00				
				29:35	RO	1.30	2.24	1.14	0.88	0.973			
				30:25		1.46	997.41	592.20	405.21	1.000	13C12-PeCDF 123	IS2	
						Height	314.63	187.74	126.89				
				30:42		1.71	9.57	6.04	3.53	1.009			
				31:07		1.47	959.96	571.80	388.16	1.023	13C12-PeCDF 234	SUR1	
				31:26	RO	0.41	1.23	0.75	1.82	1.033			
				32:05		1.55	9.04	5.49	3.55	1.055			
352-354			6 Peaks				1,979.45						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.939-1.020			
356-358	DC	NL		Height			<0.01	0.00	0.00				
				31:27		1.59	705.15	432.80	272.35	1.001	12378-PeCDD	AN	
356-358			1 Peak				705.15						
13C12-PeCDD				1.32-1.78						0.873-1.127			
368-370	DC	NL		Height			<0.01	0.00	0.00				
				30:22	RO	2.09	1.48	1.21	0.58	0.966			
				30:30		1.59	2.56	1.57	0.99	0.970			
				31:26		1.49	711.30	425.32	285.98	1.000	13C12-PeCDD 123	IS3	
						Height	228.11	136.34	91.77				
368-370			3 Peaks				715.34						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.963-1.045			
374-376	DC	NL		Height			0.16	0.07	0.09				
				33:02	RO	0.99	1.50	0.83	0.84	0.973			J

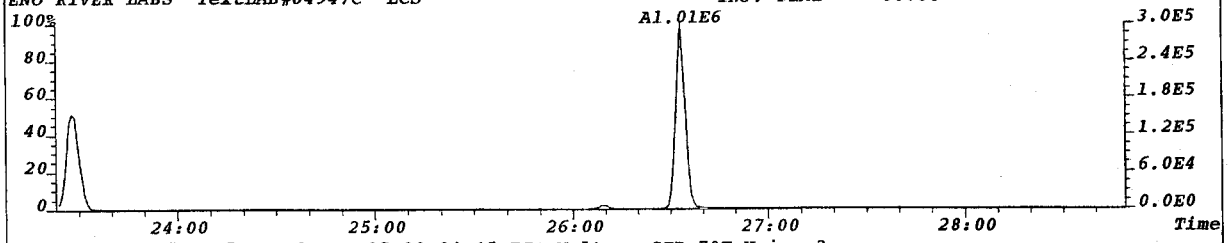
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				33:52		1.25	772.16	428.22	343.94	0.998	123478-HxCDF	AN	
				33:57		1.21	886.67	484.89	401.78	1.000	123678-HxCDF	AN	
				34:28		1.23	893.92	492.21	401.71	1.015	234678-HxCDF	AN	
				34:40	RO	1.51	1.10	0.74	0.49	1.021			J
				35:15		1.23	649.60	357.65	291.95	1.038	123789-HxCDF	AN	
				35:26	RO	1.52	1.25	0.85	0.56	1.044			J
374-376			7 Peaks				3,206.20						
13C12-HxCDF						0.43-0.59				0.882-1.118			
384-386	DC	NL				Height	0.26	0.12	0.14				
				32:53		0.59	0.94	0.35	0.59	0.969			
				33:51		0.50	712.34	237.87	474.47	0.997	13C12-HxCDF 478	SUR2	
				33:57		0.50	718.97	238.55	480.42	1.000	13C12-HxCDF 678	IS4	
						Height	246.21	80.43	165.78				
				34:27		0.50	750.66	249.81	500.85	1.015	13C12-HxCDF 234	ALT2	
				35:15		0.51	580.81	195.07	385.74	1.038	13C12-HxCDF 789	ALT1	
384-386			5 Peaks				2,763.72						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD						1.05-1.43				0.958-1.013			
390-392	DC	NL				Height	0.02	0.00	0.02				
				34:34		1.28	690.73	387.86	302.87	0.998	123478-HxCDD	AN	
				34:39		1.17	543.93	293.62	250.31	1.000	123678-HxCDD	AN	
				34:59		1.24	560.02	309.82	250.20	1.010	123789-HxCDD	AN	
390-392			3 Peaks				1,794.68						
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404	DC	NL				Height	0.07	0.04	0.03				
				34:03		1.22	3.75	2.06	1.69	0.983			
				34:34		1.19	523.53	284.90	238.63	0.998	13C12-HxCDD 478	SUR3	
				34:39		1.18	529.67	286.82	242.85	1.000	13C12-HxCDD 678	IS5	
						Height	177.14	95.66	81.48				
				34:58		1.19	551.86	300.05	251.81	1.009	13C12-HxCDD 789	RS2	
				35:17	RO	0.87	0.61	0.34	0.39	1.018			
402-404			5 Peaks				1,609.42						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF						0.88-1.20				0.995-1.048			
408-410	DC	NL				Height	0.17	0.11	0.06				
				36:56		0.97	654.22	322.26	331.96	1.000	1234678-HpCDF	AN	
				37:21	RO	1.24	1.02	0.62	0.50	1.012			J
				38:32		0.96	473.10	232.15	240.95	1.044	1234789-HpCDF	AN	
	DC	WH		38:59		0.98	0.79			1.056			
408-410			3 Peaks				1,128.34						
13C12-HpCDF						0.37-0.51				0.946-1.108			
418-420	DC	NL				Height	0.08	0.06	0.02				
				36:55		0.41	434.05	126.64	307.41	1.000	13C12-HpCDF 678	IS6	
						Height	124.19	36.16	88.03				
	DC	SN		37:10	RO	0.54	0.65			1.007			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				38:31		0.41	339.26	98.89	240.37	1.043	13C12-HpCDF 789	SUR4	
418-420			2 Peaks				773.31						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20							
424-426	DC	NL				Height	0.13	0.08	0.05				
				37:13		1.09	0.73	0.38	0.35	0.979			J
				38:01		1.02	383.42	193.49	189.93	1.000	1234678-HpCDD	AN	
	DC	WH	38:34	RO	5.67		0.12			1.015			
424-426			2 Peaks				384.15						
13C12-HpCDD						0.88-1.20							
436-438	DC	NL				Height	0.19	0.12	0.07				
	DC	SN	37:27	RO	7.30		0.47			0.986			
				38:00		1.03	376.74	191.54	185.20	1.000	13C12-HpCDD 678	IS7	
						Height	109.93	55.68	54.25				
	DC	SN	38:22	RO	1.44		0.37			1.010			
436-438			1 Peak				376.74						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02							
442-444	DC	NL				Height	<0.01	0.00	0.00				
				42:00		0.94	664.56	322.74	341.82	1.006	OCDF	AN	
442-444			1 Peak				664.56						
OCDD						0.76-1.02							
458-460	DC	NL				Height	<0.01	0.00	0.00				
				41:47		0.82	524.18	236.42	287.76	1.000	OCDD	AN	
458-460			1 Peak				524.18						
13C12-OCDD						0.76-1.02							
470-472	DC	NL				Height	0.03	0.03	0.00				
				41:46		0.91	508.44	241.74	266.70	1.000	13C12-OCDD	IS8	
						Height	111.83	53.29	58.54				
470-472			1 Peak				508.44						

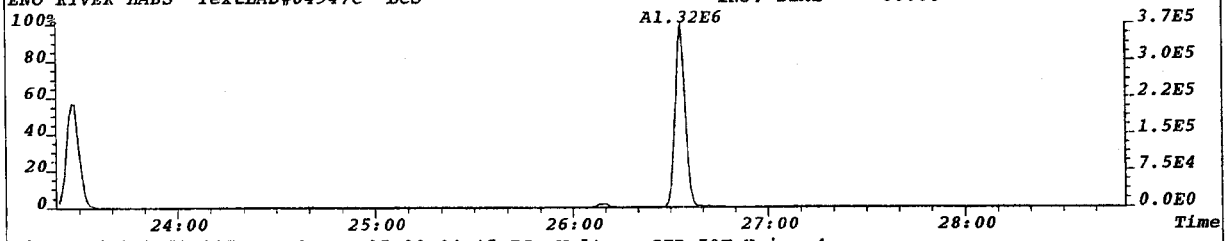
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

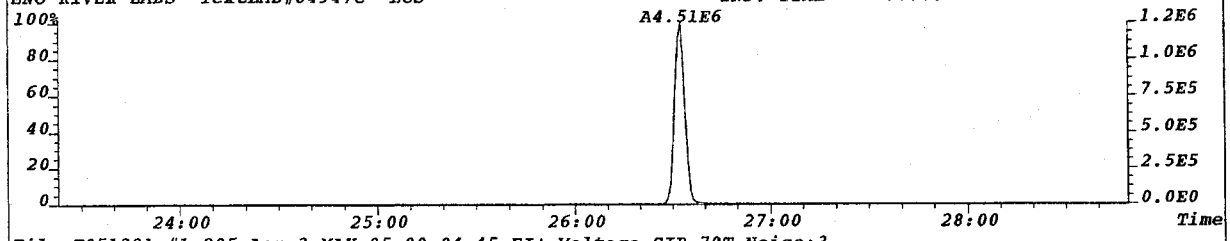
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



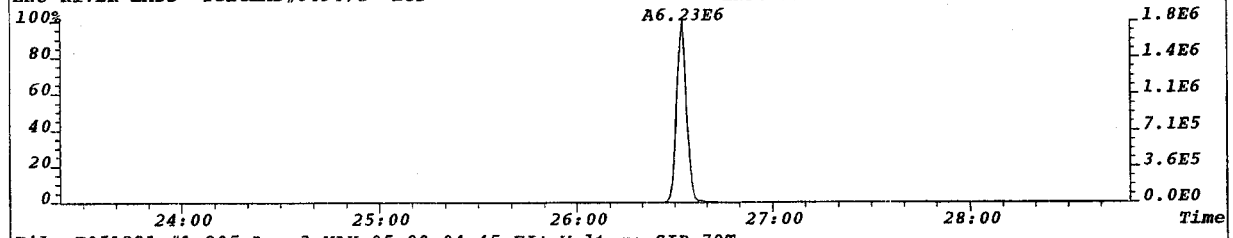
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



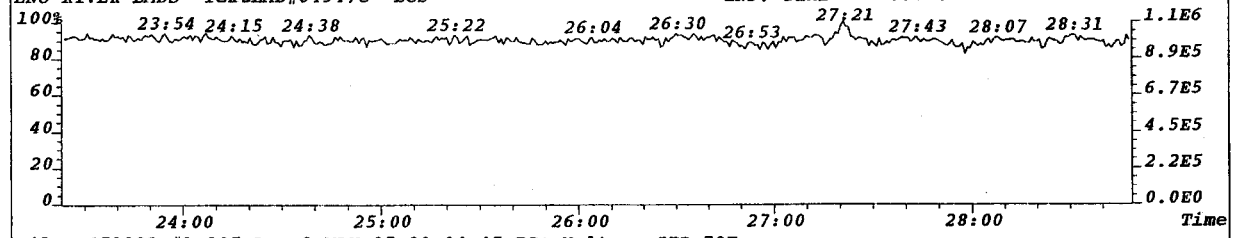
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:4
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,16.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



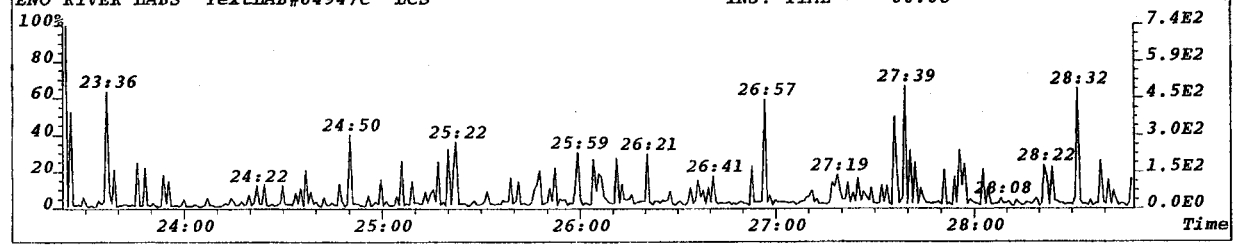
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06

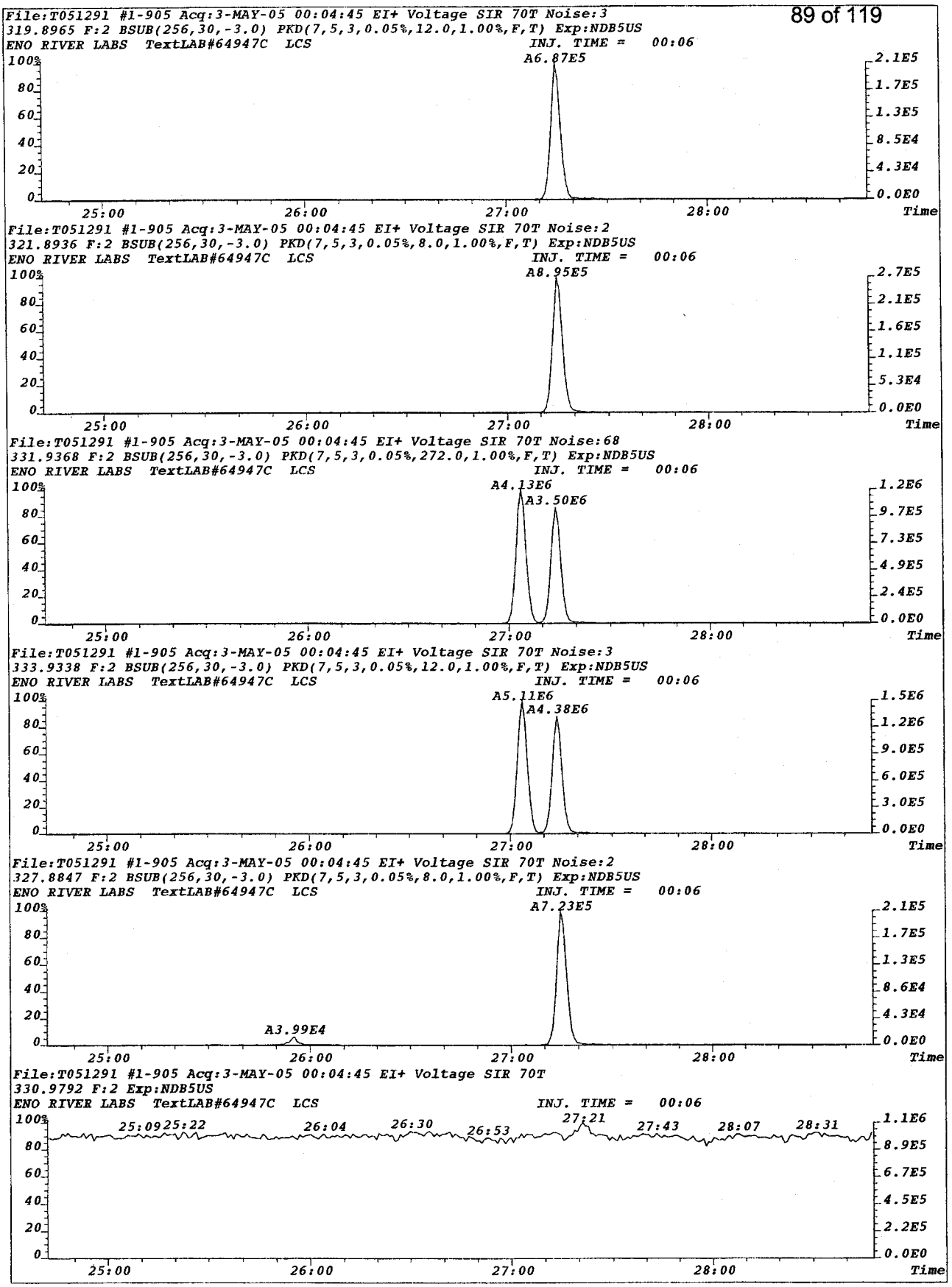


File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06




File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A6.87E5
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A8.95E5
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:68
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A4.13E6
A3.50E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A5.11E6
A4.38E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A7.23E5
A3.99E4
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
25:09 25:22 26:04 26:30 26:53 27:21 27:43 28:07 28:31
100%
80
60
40
20
0
25:00
26:00
27:00
28:00
Time
2.1E5
1.7E5
1.3E5
8.5E4
4.3E4
0.0E0
2.7E5
2.1E5
1.6E5
1.1E5
5.3E4
1.2E6
9.7E5
7.3E5
4.9E5
2.4E5
1.5E6
1.2E6
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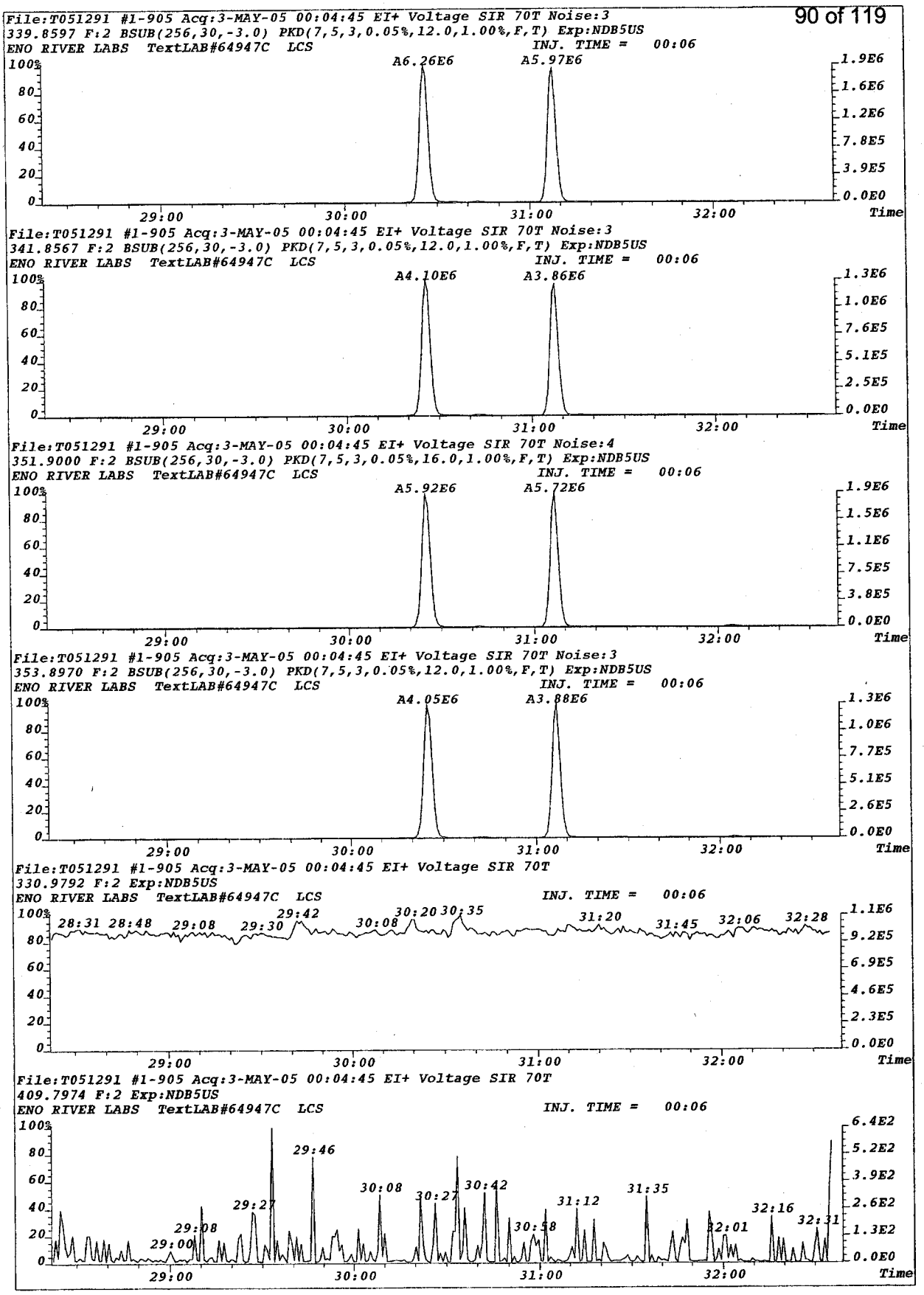
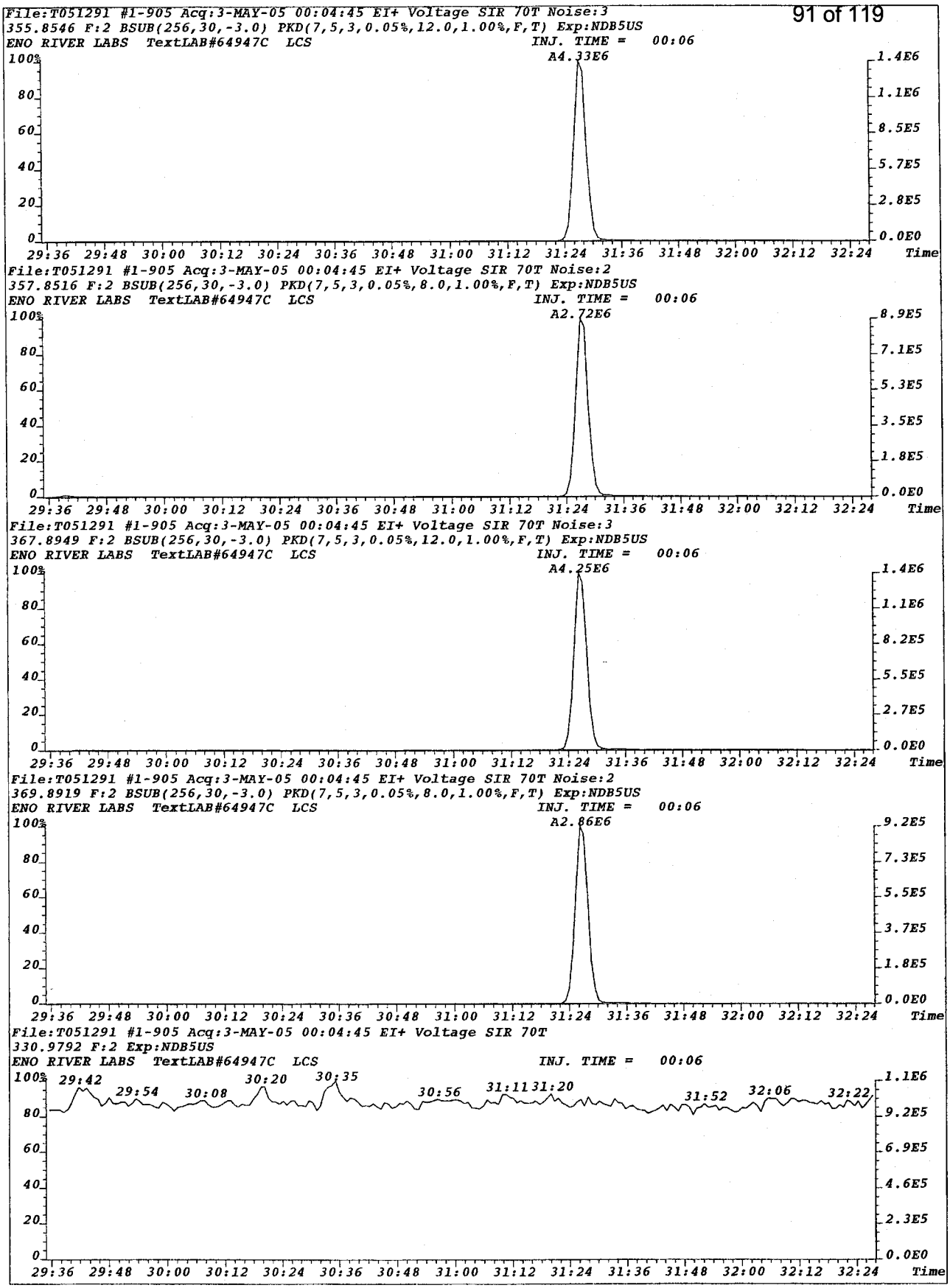
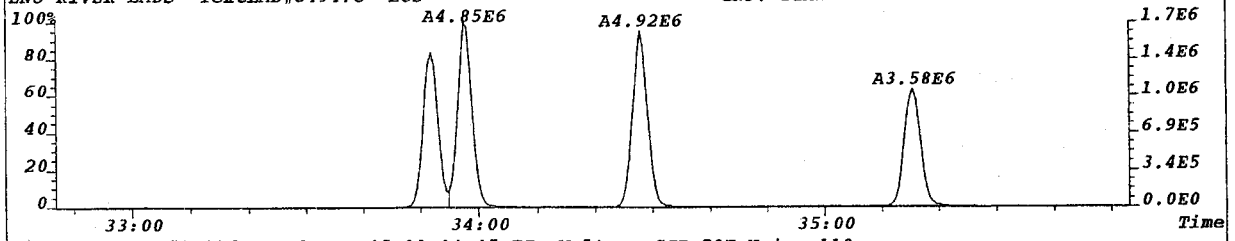
4.5E5
2.2E5

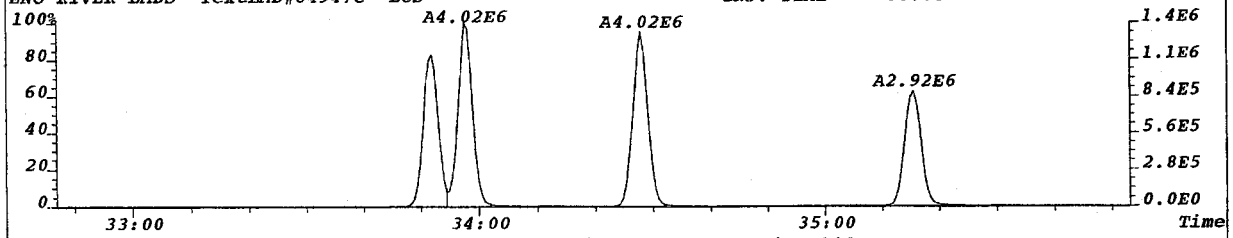

File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A6.26E6
A5.97E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A4.10E6
A3.86E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:4
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,16.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A5.92E6
A5.72E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A4.05E6
A3.88E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
28:31 28:48 29:08 29:30 29:42 30:08 30:20 30:35 31:20 31:45 32:06 32:28
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
29:00 29:08 29:27 29:46 30:08 30:27 30:42 30:58 31:12 31:35 32:01 32:16 32:31
29:00
30:00
31:00
32:00
Time


File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A4.33E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.72E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A4.25E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.86E6
File:T051291 #1-905 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
29:42
29:54
30:08
30:20
30:35
30:56
31:11
31:20
31:52
32:06
32:22
Time

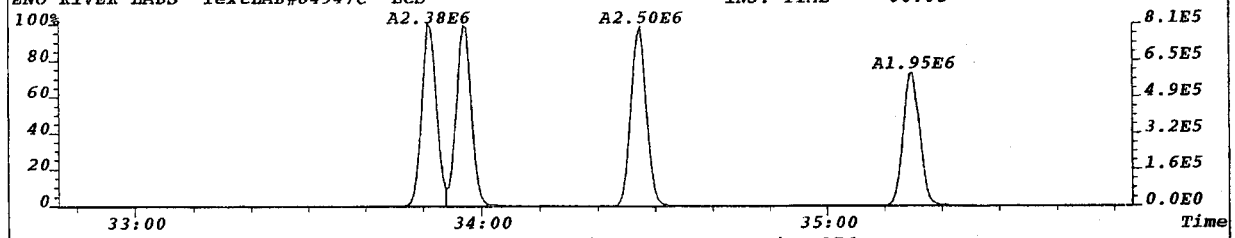
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:90
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,360.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



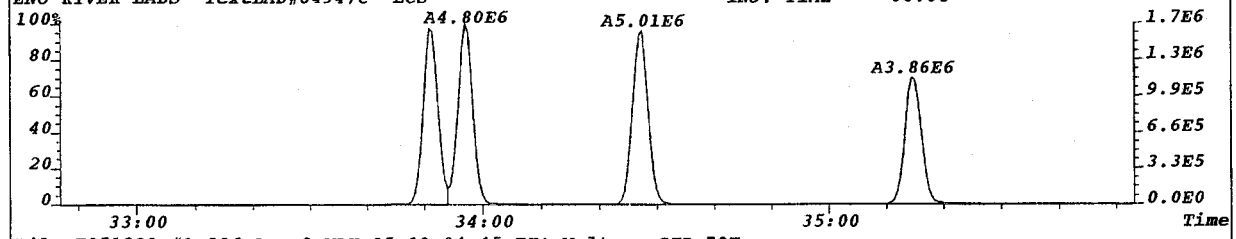
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:110
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,440.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



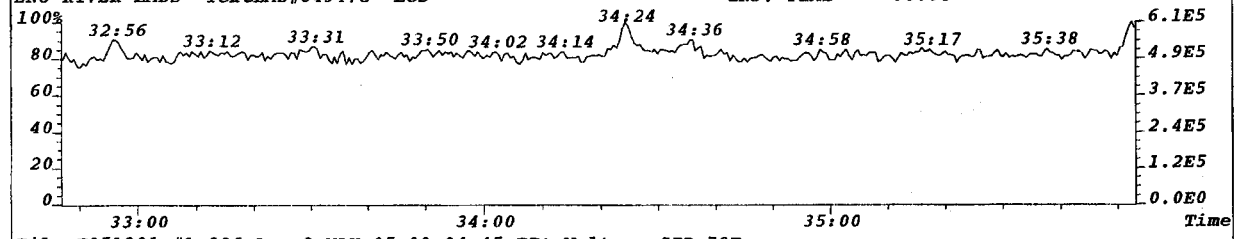
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:146
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,584.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06



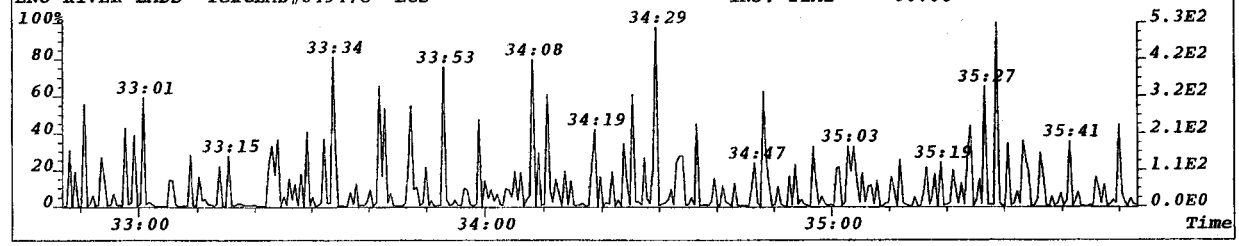
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:176
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,704.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06

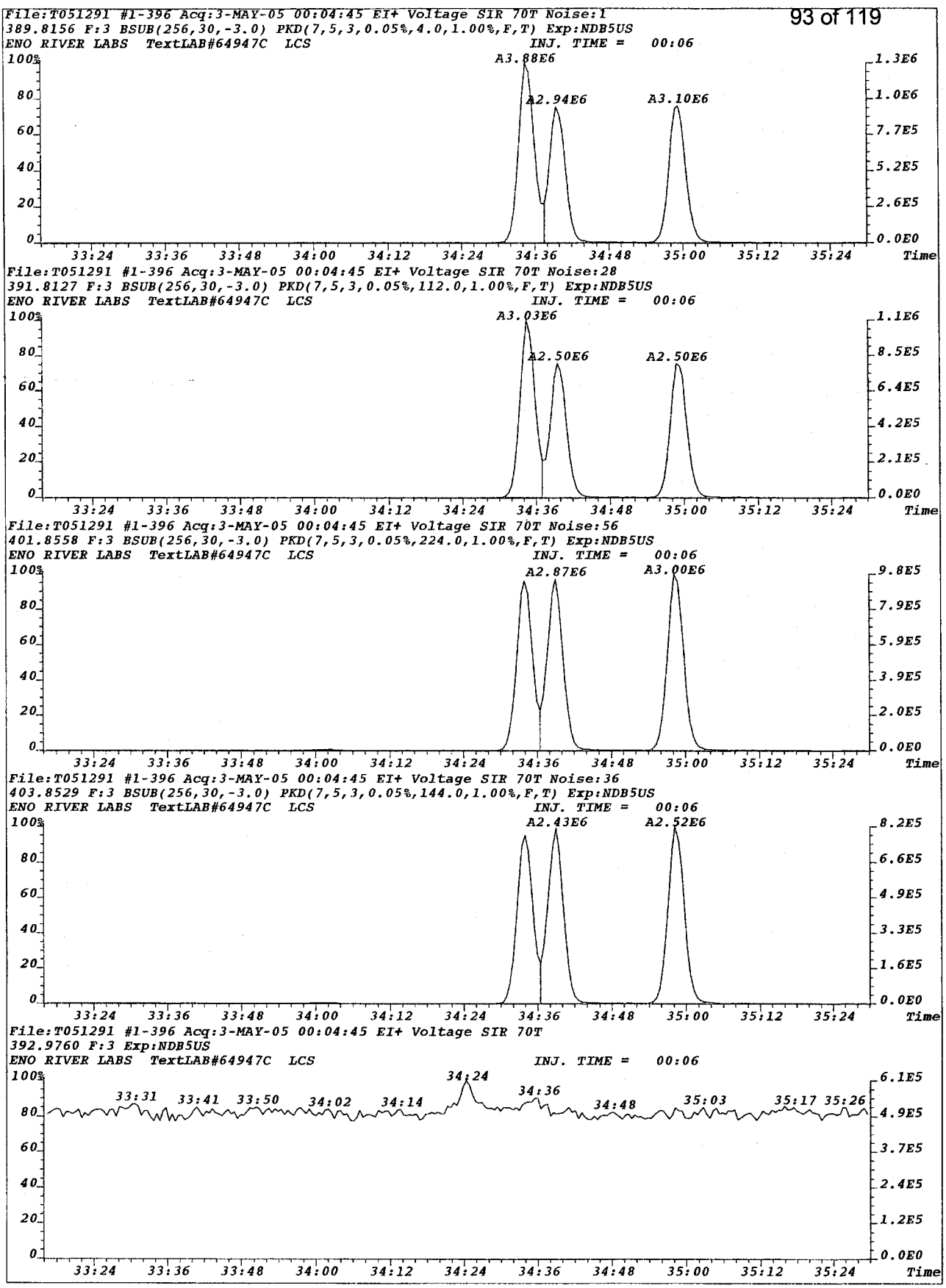


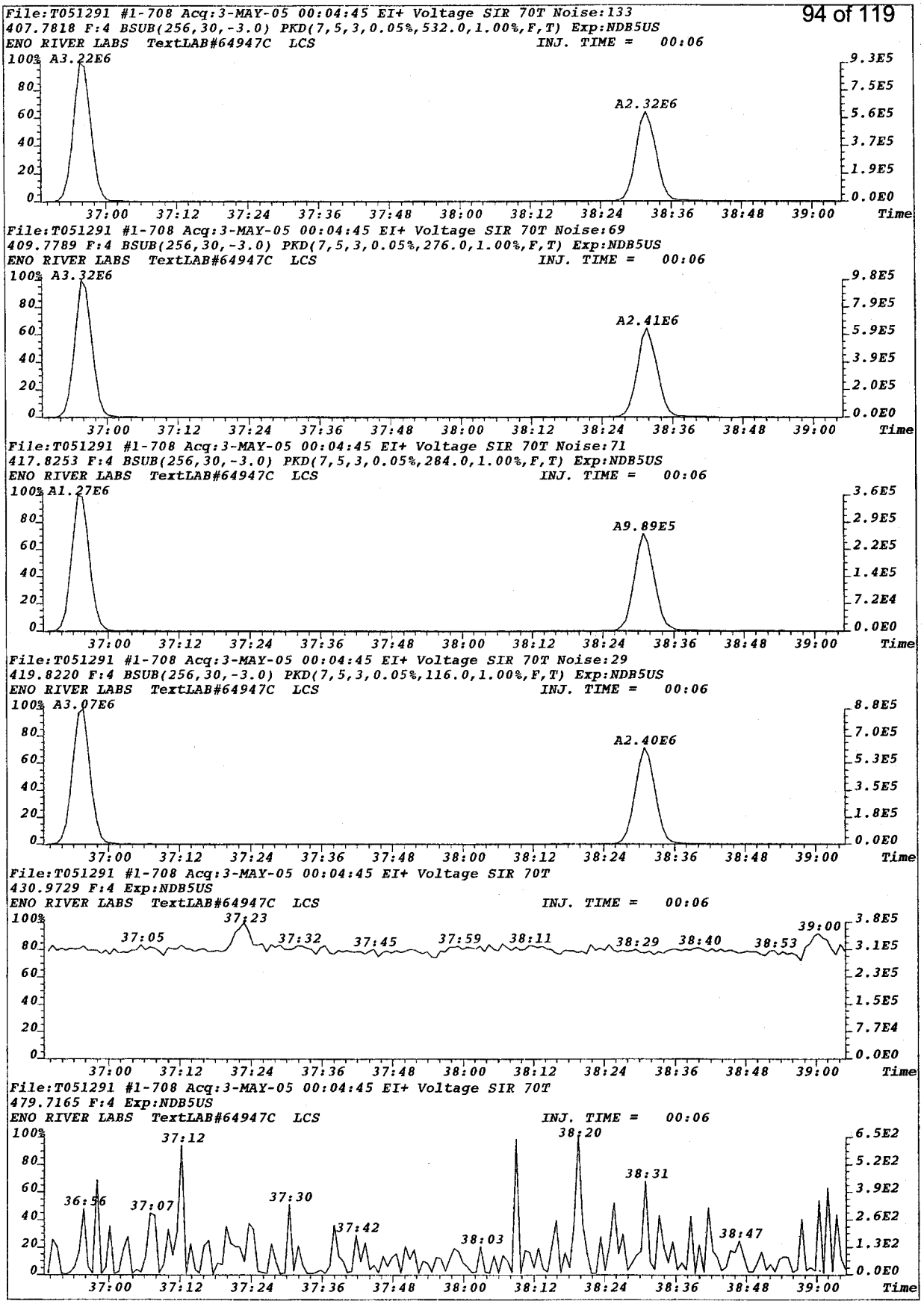
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06

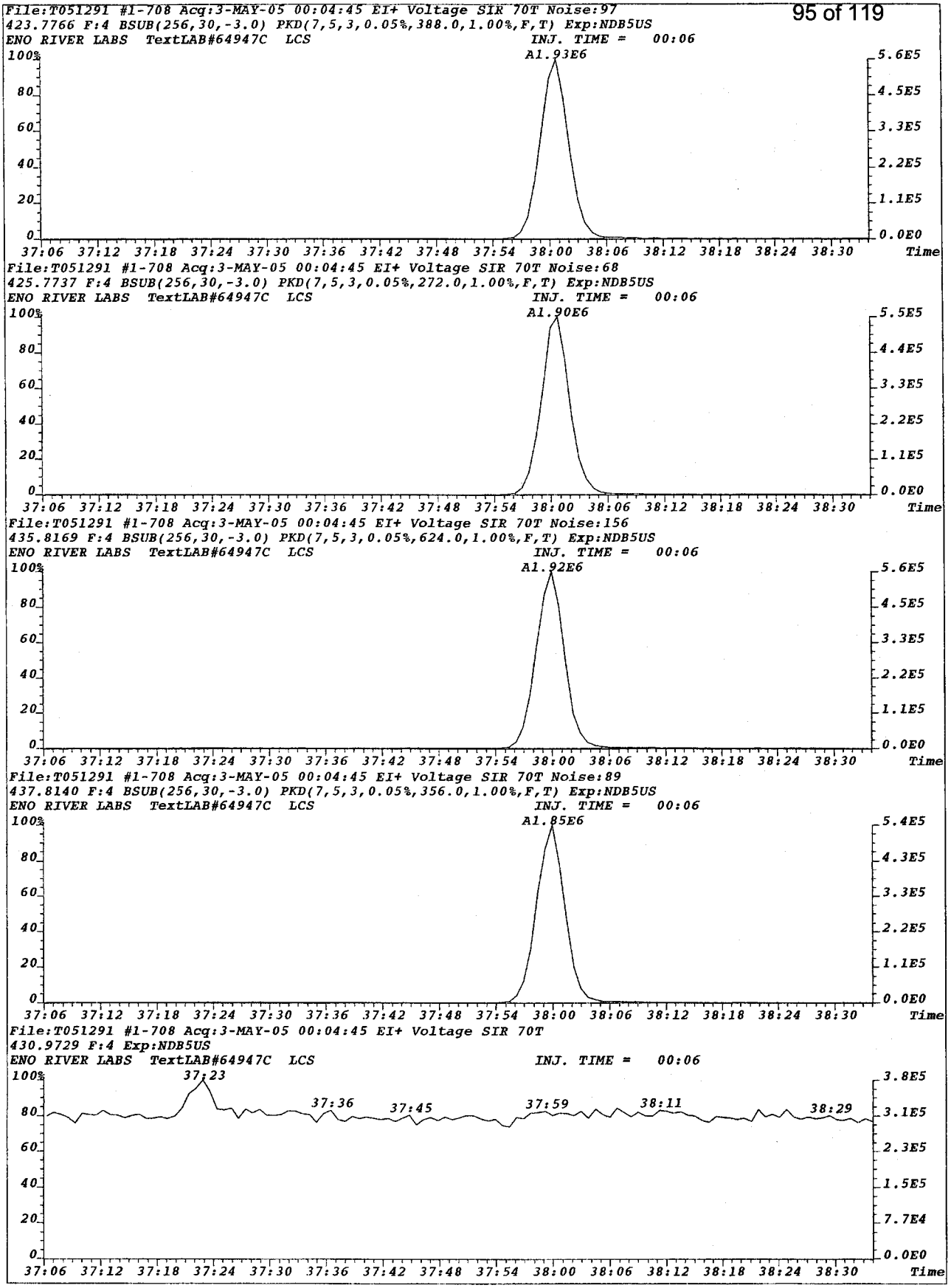


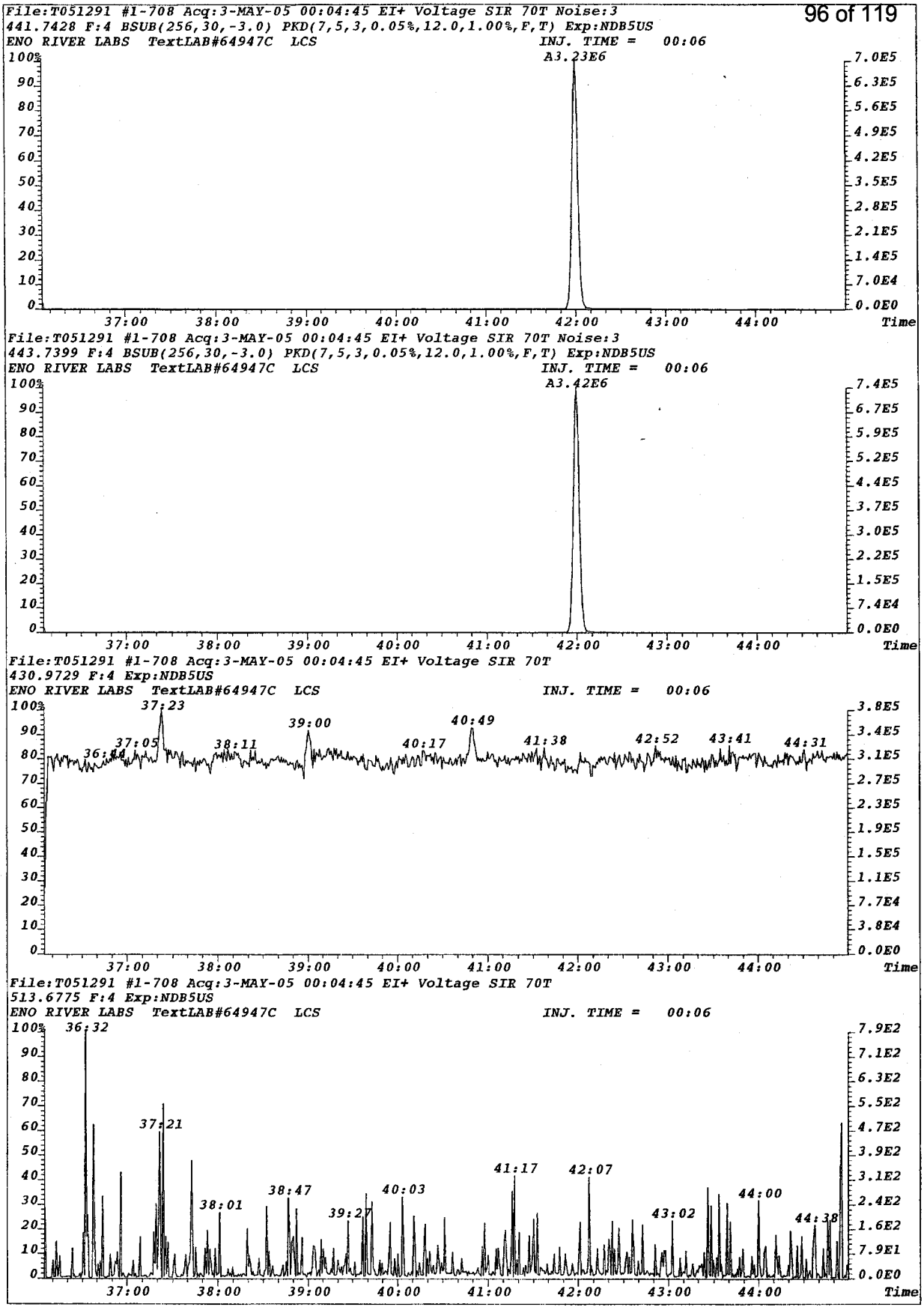
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS INJ. TIME = 00:06

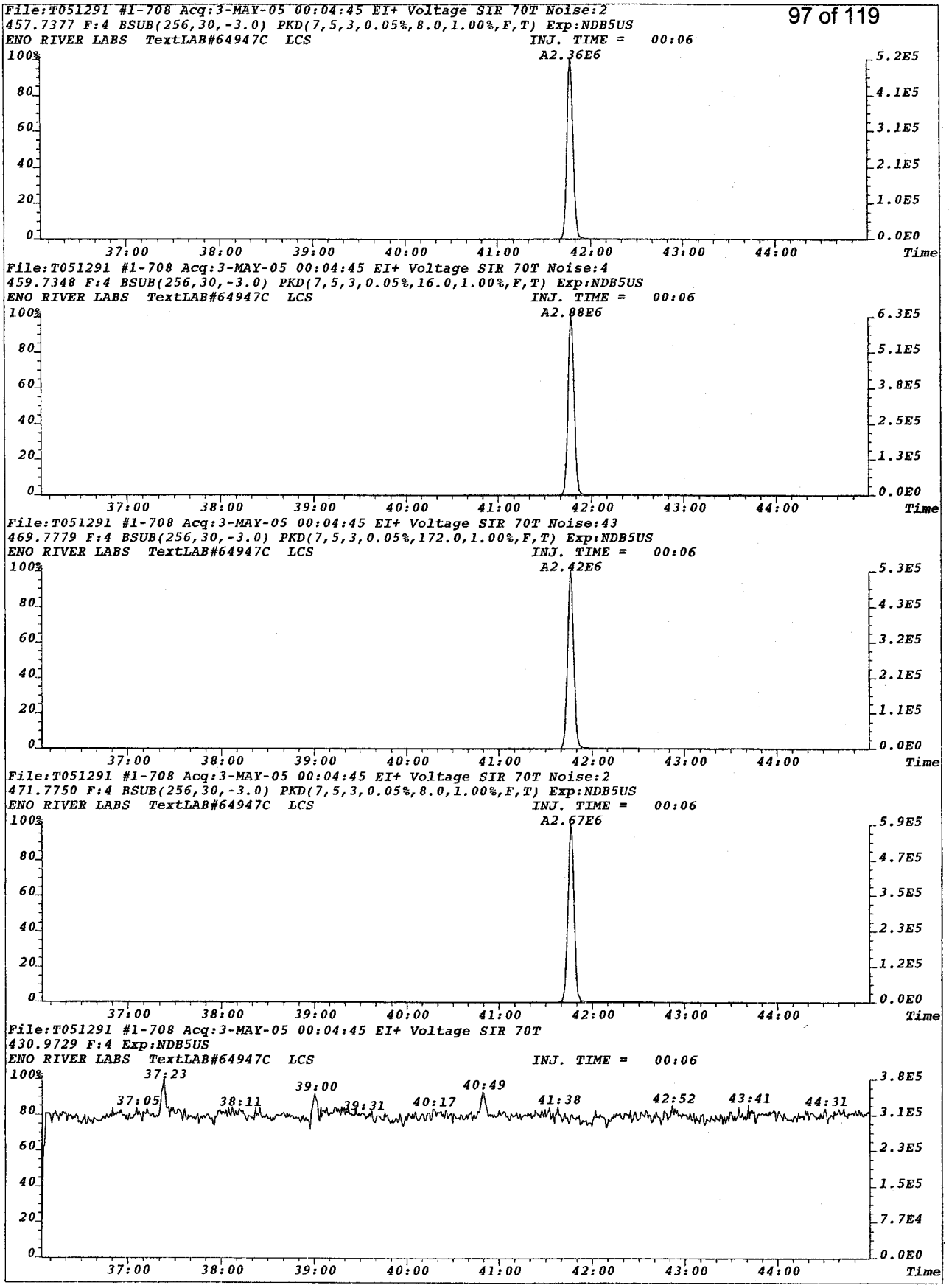


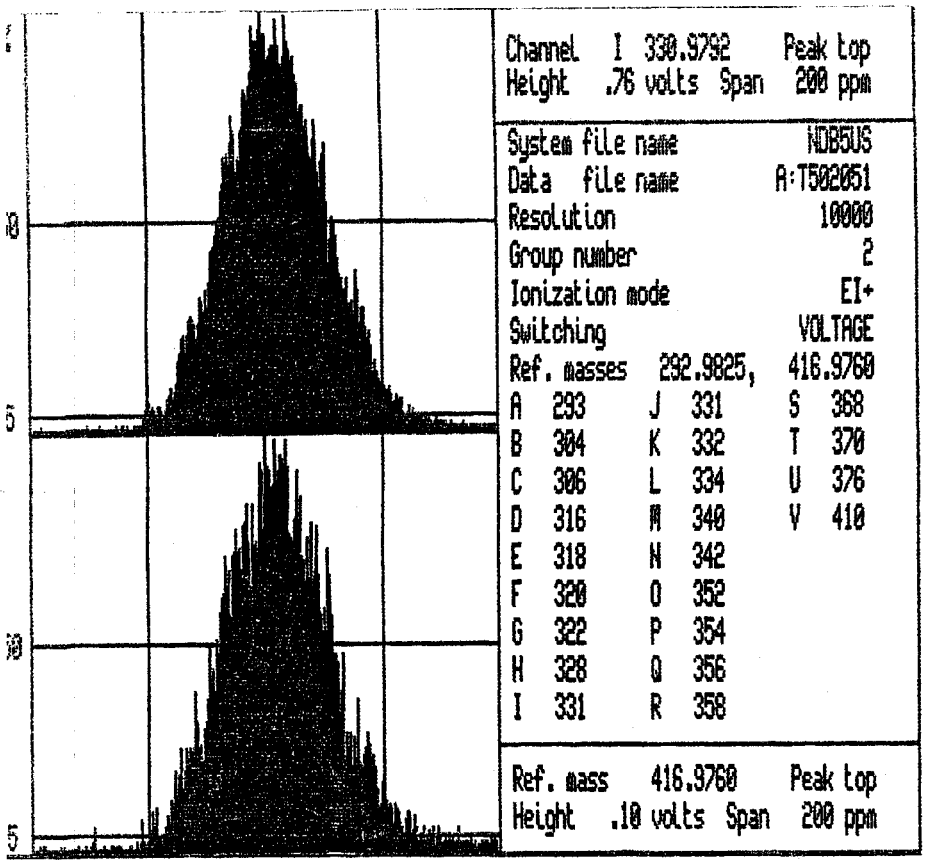

File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:1
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A3.88E6
A2.94E6
A3.10E6
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:28
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,112.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A3.03E6
A2.50E6
A2.50E6
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:56
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,224.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.87E6
A3.00E6
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:36
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,144.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.43E6
A2.52E6
File:T051291 #1-396 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
34:24
34:36
Time


File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:133
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,532.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100% A3.22E6
A2.32E6
9.3E5
7.5E5
5.6E5
3.7E5
1.9E5
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:69
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100% A3.32E6
A2.41E6
9.8E5
7.9E5
5.9E5
3.9E5
2.0E5
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:71
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100% A1.27E6
A9.89E5
3.6E5
2.9E5
2.2E5
1.4E5
7.2E4
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:29
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,116.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100% A3.07E6
A2.40E6
8.8E5
7.0E5
5.3E5
3.5E5
1.8E5
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100%
37:05 37:23 37:32 37:45 37:59 38:11 38:29 38:40 38:53 39:00
3.8E5
3.1E5
2.3E5
1.5E5
7.7E4
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
100%
36:56 37:07 37:12 37:30 37:42 38:03 38:20 38:31 38:47
6.5E2
5.2E2
3.9E2
2.6E2
1.3E2
0.0E0
37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 38:48 39:00 Time


File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:97
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,388.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A1.93E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:68
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A1.90E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:156
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,624.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A1.92E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:89
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A1.85E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
37:23
37:36
37:45
37:59
38:11
38:29
Time


File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A3.23E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:3
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A3.42E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
37:23
37:05
38:11
39:00
40:17
40:49
41:38
42:52
43:41
44:31
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
36:32
37:21
38:01
38:47
39:27
40:03
41:17
42:07
43:02
44:00
44:38
Time


File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.36E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:4
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,16.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.88E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:43
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.42E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T Noise:2
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
A2.67E6
File:T051291 #1-708 Acq:3-MAY-05 00:04:45 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#64947C LCS
INJ. TIME = 00:06
37:23
37:05
38:11
39:00
39:31
40:17
40:49
41:38
42:52
43:41
44:31
Time



Channel I 330.9792 Peak top
Height .76 volts Span 200 ppm

System file name	NDB5US
Data file name	A:T502051
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .10 volts Span 200 ppm

ENO RIVER LABS

DOCUMENT CONTROL

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

LEVEL III

Project Number: 179049
Site: Presidio / Baker Beach

COPY

Subcontract Laboratory:
Eno River Labs, LLC
2445 South Alston Ave
ferris@enoriverlabs.com
Durham, NC 27713
(919) 281-4053
ATTN: Shawn Ferris

Results due: 04-MAY-05 Report Level: III
04W 4-22-05
Please send report to: Patricia Flynn
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
BBITP106(5.0)	04/21	Soil	8290	179049-001	Dioxins/Furans

Notes:	Relinquished By:	Received By:
	Date/Time: 4/22/05 1439	Date/Time: 4/23/05 @ 1130/A

Signature on this form constitutes a firm Purchase Order for the services requested above.
Page 1 of 1

ENO RIVER LABS, LLC -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

Lab Project Number 65028
Client: CUT02 - Curtis & Tompkins

Book 402

Date Received 04/23/05 By

Page 43

Carrier and Number UP1Z9X31694442908274

Ice Chest ICE Temp 4.0 C

Lab Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Matrix Location.....	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
402-43-1	BBITP106(5.0) BBITP106(5.0)	SOIL C02	4/27/05	4/27/05							

Receiving Remarks:

Archive Remarks:

Form Revised 05/27/1997 -- Page 1 OF 1

364

101 of 119

ENO RIVER LABS, LLC
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

Lab Proj#: 65028-
Prod Code: D01012
DetectLim: 1 ppt
Samples: 1
Matrix.: Soil
Type...: B
Recvd..: 04/23/05
TurnAround.: 21 Day(s)
Hold Time..: 30 Day(s)
Start Date.: ~~04/23/05~~ 4/25/05
Ship By....: ~~05/12/05~~ 5/14/05
DWL Due Dt.: ~~05/06/05~~ 5/9/05
DAH 4/25/05

Analyte List.: Tetra - Octa

Method.....: Method 8290: Tetra-Octa
Client Proj..: Presidio/Baker Beach
Client.....: Curtis & Tompkins (CUT02)
P.O. No.....: 179049
Contact.....: Patricia Flynn
Proj. Mgr....: Client Services
Collect Dt/Tm: 04/21/05
Phone.....: 510-486-0900
Fax.....: 510-486-0532
Sample Origin:

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA
Prespike Standard: n/a
Extraction Exp...: 05/21/05
EDD(s).....: A130

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option III

See MILES for Instructions/Communications.

Completed by: _____ DATE: 4/25/05

Reviewed by: _____ DATE: 4/25/05 (PMGT01

ENO RIVER LABS, LLC
Percent Moisture/Solid Calculations
Project: 65028

Sample #	crd	R	Empty Vial.Wt	Wet Vial Weight...	Dry Vial Weight...	Entered.By.....	Date....	Time....	%Moist	%Solid	Valid Weight From.....-To.....	Target Weight...
002		Y	30.0100	0.0000	0.0000	PRATT	04/27/05	11:38:21	30.0	70.0	13.7143-14.8571	14.2857

Percent Moisture/Solid Summary

TLI.MILES.ID....	TLI.Number..	Client.Id.Number.....	%Moist	%Solid	ExtrctWt	DryWtEqu	RPD..
65028-	-002	402-43-1 BBITP106(5.0)	30.0	70.0			

*** End of Report ***

Date: 04/28/05
Time: 11:28

ENO RIVER LABS, LLC
Wet Lab Extraction and Observations
Project: 65028

PRDPERC v4.05
Page: 1

Sample #	crd	TLI_Number..	Customer.Sample.Id.....	Init. pH...	NaOH Adj. mL..	pH.1.	H2SO4 Adj. mL...	pH.2.	Appearance.	Color.....	Odor...	Vol.	Cl2	Entered.By.....	Date....	Time....	S
002		402-43-1	BBITP106(5.0)	n/a	n/a	n/a	n/a	n/a	SOIL	BROWN	NO	0	n/	PRATT	04/28	11:17	F

*** End of Report ***

Extraction 105 of 119

Type: Soxhlet / RapidScreen / Sep Funnel / Cont LL / (ASE) / Waste Diln. / SPE / Sonication / Tumbler / Food Oil
Oil Column

S.O.P: 201 Version: 14

Solvent / Solution	Lot Number / ID
3: 1 TOL / ACETONE	ESPI-2-6-2

For Waters, any filtered? (No) Yes
If Yes, which ones? _____

Comments / Observations: SAMPLE #1 AND 5 64947C SAND LOT # 5310-84 SAMPLE #2->4 64947C BROWN SOIL SAMPLE #(2) 64947D BROWN SOIL, SAMPLE #(2) 65004 GREY ASH SAMPLE #(2) 65018, 65034A, 65028 BROWN SOIL, SAMPLE #(2) 65034B BEIGE ASH LP. 4/27/05

Concentration

Analyst(s)/ Date: LT 4-28-05

Type: (Rotovap) / KD / Speedvac

S.O.P: 124 Version: 20 Logged in by: LT

Solvent Exchange	Lot Number
Heptane	044TT

Tridecane Lot # FT-1-25- 314B

Division: 50%/50% (____mL / ____mL) % Lipids (5 mL / 20 mL) (None)

Comments / Observations: _____

Cleanup

S.O.P: 260 Version: 19 Analyst(s)/ Date: L.P. 4/29/05
S.O.P: 280 Version: 5 Analyst(s)/ Date: L.P. 5/2/05
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____

If DSP 280 needed complete the following areas:

MeCl2/Hept Solutions	
2% ID:	CUSP1-23-101-3
20% ID:	CUSP1-23-101-4
6% ID:	

Glasswool Lot #: GW-02- 115B
Sodium Sulfate Lot #: 044031 044331 L.P.
Acid Coated Silica Gel Lot #: SGA- 55J
Heptane Lot#: 044331 L.P. 044758
50g used for: 5/2/05 100g used for: ALL SAMPLES

Comments / Observations: _____

Transfer

Analyst(s)/ Date: L.P. 5/2/05

Type: (Speedvac / N2)

S.O.P: 292 Version: 12

Solvent	Lot Number
Heptane	044758

Division: None

90%/10% for samples: (0.9 mL/ 0.1 mL)
64947C (2) 65004 (2)
64947D (2) 65018 (2)
65028 (2) 65034A,B (2)

Comments / Observations: _____

Method: 8290
Matrix: Soil/Ash
Ext. Date: 4/27/05
Analyst: LP

Project-Sample ID / Internal ID			Gross Weight Before	Gross Weight After	Sample Size g / mL	LP	LP	KT		Chemist
						9034E	8998Q	8999Y		Spike #
						USF-AIS	USF-MX	USF-C		Spike ID
						12/10/05	10/7/05	10/07/05	/ /	" Exp.
						4/27/05	4/27/05	04/28/05	/ /	" Date
						15:20	15:20	14:55	:	" Time
						0.10 ug/mL	0.01 ug/mL	0.01 ug/mL	ug/mL	Concen.
						20 uL	40 uL	20 uL	uL	Volume
64947 C	1	Blank			10.00	LP	NA	KT		Any Left Yes / No
64947 C	2	401-61-2	283.18		10.68		M	KT		Yes / No
64947 C	3	401-61-2MS			10.89		LP	KT		Yes / No
64947 C	4	401-61-2MSD		294.43	10.47		↓	KT		Yes / No
64947 C	5	LCS			10.00		LP	KT		Yes / No
64947 D	2	401-61-4	301.57	300.36	1.15		NA	KT		Yes / No
65004	2	402-19-1	368.33	356.07	12.22			KT		Yes / No
65018	2	402-33-1	632.85	620.89	11.83			KT		Yes / No
65034 A	2	402-49-1	212.22	201.93	10.25			KT		Yes / No
65034 B	2	402-49-2	169.70	158.50	11.10	↓	↓	KT		Yes / No
65028	2	402-43-1	358.92	344.22	14.30	LP	NA	KT		Yes / No
64947D-003 Clean-Up Bla						LP		LP		Yes / No
						9034E USF-AIS 12/10/05 5/2/05 11:10		8999Y USF-C 10/7/05 5/2/05 11:10		Yes / No
										Yes / No

0.10 ug/mL 20 uL

0.01 ug/mL 20 uL

Project-Sample ID / Internal ID			1	2/3	4/7	8B	4	8A	4	6	9			
64947 C	1	Blank	L.P. 4/27/05	K7 4-28-05	K7 4-29-05	L.P. 4/29/05	NA	NA	NA	NA	L.P. 5/2/05			
64947 C	2	401-61-2								L.P. 5/2/05				
64947 C	3	401-61-2MS								NA				
64947 C	4	401-61-2MSD												
64947 C	5	LCS					NA	NA	NA	NA	L.P. 5/2/05			
64947 D	2	401-61-4					L.P. 5/2/05	L.P. 5/2/05	NA					
65004	2	402-19-1					NA	NA	NA	L.P. 5/2/05	L.P. 5/2/05			
65018	2	402-33-1												
65034 A	2	402-49-1												
65034 B	2	402-49-2												
65028	2	402-43-1	L.P. 4/27/05	K7 4-28-05	K7 4-29-05	L.P. 4/29/05	NA	NA	NA	L.P. 5/2/05	L.P. 5/2/05			
64947D-003 Clean-Up Bla			L.P. 5/2/05	L.P. 5/2/05 NA	NA	NA	NA	L.P. 5/2/05		NA				

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate {10 mL / 3 mL / Tridecane} 5) Combine
6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup (ESP260 / ESP280 / Alumina 9) Transfer ( ) Other:
___ %:____ % Carbon / RS / AgNO3 / Copper)

ENO RIVER LABS, LLC
Transfer Chain-of-Custody Form
Project 65028

Transfer From: DWLH5 To: DMS5

	Initials..	Date.....	Time...
Released by:	L.P.	5/2/05	13:00
Accepted by:	JSY	5/2/05	14:29

MILES.ID.....	TLI_No.....	Cust.Id.....
65028- -002	402-43-1	BBITP106(5.0)

XfrCOC (Rev 11/01/94)

Additional comments or instructions:

ENO RIVER LABS, LLC

Method: Method 8290: Tetra-Octa — HR GC/HRMS ANALYSIS

Required Detection Limit: 1 ppt — PROJECT: 65028

SAMPLE INFORMATION — RS Conc 20 µl @ 100.0 PG/µl

S#.crd	LAB / SAMPLE ID / CLIENT SAMPLE ID	1ST COLUMN GC/MS FILENAME COLUMN: DB5	CONFIRM	2ND COLUMN CONFIRM FILENAME COLUMN: DB225	USF-RS VOLUME 20µl SOLN ID 90332	USF-RS INIT. TSK DATE 5/2/05	ANALYSIS COMMENTS
002	402-43-1 / BBITP106(5.0)	W028603	Y	P052084	↓	↓	

Comments: _____ Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

ENO RIVER LABS, LLC

Method: Method 8290: Tetra-Octa — HR GC/HRMS ANALYSIS

Required Detection Limit: 1 ppt — PROJECT: 65028

SAMPLE INFORMATION — RS Conc

10% extract — 1ST COLUMN — 2ND COLUMN — 20 µl @ 100.0 PG/µl

S#.crd	LAB SAMPLE ID / CLIENT SAMPLE ID	GC/MS FILENAME COLUMN: DB5	CONFIRM	CONFIRM FILENAME COLUMN:	USF-RS VOLUME 20µl SOLN ID 9033N	USF-RS INIT. JBY DATE 5/12/05	ANALYSIS COMMENTS
002 1	402-43-1 / BBITP106(5.0)	D067458 S051411	NA		↓	↓	10 x dil.

Comments: Spiked 10% extract with 20 µl USF-A1S (lot# 9034D) and RS. JBY 5/12/05

Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70T-115	DB5	4905334	T02	2µl	NDB5US	NDB5US

Signature: Johnson Johnson Date: 5/2/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T057278	5/2/05	12:09	—	9088A	RTCHK	14%	DSY 5/2/05	1		
T057279		14:15	—	9004C	8290/1613 Coeval 10	9.5 E5	DSY 5/2/05	1		Good 8290/1613B T0. DSY 5/2/05
80		15:21	GH949W1	OPR	OPR	7.8 E5		1	DSY 5/3/05	
81		16:09	↓	Blank	Blank	1.1 E6		2		
82		16:57	GH949W1	401-G3-1A	25000-1970	1.4 E6		3		
83		17:44	GH975	401-B9-1	L0504051-01A	8.1 E5		4		
84		18:32	G5003A	OPR	OPR	7.2 E5		5		
85		19:20	↓	Blank	Blank	1.0 E6		6		
86		20:08	G5003A	H02-18-1A	Dewatered sludge for Land APP	1.1 E6		7		
87		20:55	GH947C	Blank	Blank	1.1 E6		8		
88		21:43		401-G1-2	MB-101 (3.5'-4.0')	9.6 E5		9		
89		(12) PAB 5/3/05 ~~20:55~~ 22:31	↓	-2MS	MS	1.6 E6	↓	10		
(12) DSY 5/2/05 T057290	5/2/05	23:19	GH947C	-2MSD	MSD	1.3 E6	DSY 5/2/05	11	↓	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 13

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70T-115	DB5	4905334	T02	2 µL	NDB5US	NDB5US

Signature: [signature] Date: 5/2/05

(12) JSY 5/2/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T051291	5/3/05	00:06	G4947C	LCS	LCSD (12) JSY 5/2/05	1.2 E6	JSY 5/4/05	12	JSY 5/3/05	
↓ 92	↓	00:54	G5004	402-19-1	251832-001	8.8 E5	↓	13	↓	
T057293	5/3/05	01:42	—	9004C	8290 11613 Column 10	2.1 E6	JSY 5/2/05	14	↓	Good 8290 FJB. JSY 5/3/05
T057294	5/3/05		—	9038A	RTCHK		JSY 5/3/05	1		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 14

srvr1/sop/hrrunlog.doc (04/12/2004)

375

112 of 119

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
7OL94	DB5	4905311	T02	2 µl	NDB5US	NDB5US
					Signature	5/2/05 Date

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
L0282O5	5/2/05	20:16	G5006	LCS	LCS	2.3 E7	JSH 5/2/05	5	JSH 5/3/05	
06		21:05	G5019	Blank	Blank	1.5 E7		6		
07		21:53		402-34-1	JC-041505-01DX	1.1 E7		7		
08		22:41		-2	-02DX	1.5 E7		8		
09	5/2/05	23:30		-3	-03DX	1.3 E7		9		
10	5/3/05	00:18		-4	-04DX	1.8 E7		10		
11		01:06		LCS	LCS	9.6 E6		11		
12		01:54	G5019	LCSD	LCSD	1.4 E7		12		
13		02:43	G5013	402-18-1	05G4156	6.0 E6		13		10X dil.
L0282I4	5/3/05	03:31	—	900HC	8290/1613 Cocktail0	1.9 E7	JSH 5/2/05	14		Good 8290 PB. JSH 5/3/05
L0502B3	5/3/05				Ending resplot	—	JSH 5/3/05			
L0502B4		09:42	—	9038A	RTCHK	18%	JSH 5/3/05	1		
L0502B5	5/3/05	10:43	—	9004C	8290/1613 Cocktail0	1.3 E7	JSH 5/3/05	1		Good 8290 LCS. JSH 5/3/05

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 60

srvr1/sop/hrrunlog.doc (04/12/2004)

376

11/30/19

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70U-94	DB5	4905311	T02	2 µl	NDB5US	NDB5US

Signature: John John Date: 5/3/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
U028601	5/3/05	11:47	—	9033K	RS-100	1.1 E7	JSH 5/3/05	1	JSH 5/4/05	
02		12:35	G5018	H02-33-1	BG34G35	1.1 E7		2		
03		13:23	G5028	H02-H3-1	BBITP10G (5.0)	9.6 E6		3		
04		14:12	G5027C	H02-42-57	F05-389	1.7 E7		4		
05		15:00		-58	-390	1.4 E7		5		
06		15:48		-59	-391	1.3 E7		6		
07		16:37		-60	-392	1.6 E7		7		
08		17:25		-61	-393	1.5 E7		8		
09		18:13		-62	-394	1.3 E7		9		
10		19:02		-63	-405	2.1 E7		10		
11		19:50		-64	-406	9.4 E6		11		
12		20:38		LCS	LCS	1.4 E7		12		
U028613	5/3/05	21:26	G5027C	LCSD	LCSD	8.7 E6	JSH 5/3/05	13		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 61

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
7OL-9H	DB5	H9053I1	TD2	2 µL	NDB5US	NDB5US

Signature: Johnson Johnson Date: 5/3/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
L028614	5/3/05	22:15	—	9004C	8290/1613 Column 10	1.6 E7	JBY 5/3/05	14	JSY 5/4/05	Good 8290 F7B. JSY 5/4/05

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 62

srvr1/sop/hrrunlog.doc (04/12/2004)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70P-45	DB225	4919245	TTI	2 µL	DB225	DB225

Signature Date 5/3/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
P052069	5/3/05	14:51	—	9004C	8290/1613 Couple10	1.1 E6	JSY 5/3/05	2	JSY 5/4/05	Good all methods. JSY 5/3/05
70		15:36	—	9033K	RS-100	1.2 E6		3		
71		16:21	G4949W1	H01-G3-1A	25000-1970	9.2 E5		4		
72		17:07	G4975	H01-89-1	L0504051-01A	5.0 E5		5		
73		17:52	G4947C	H01-G1-2	MB-101 (3.5'-4.0')	1.1 E6		6		
74		18:37	G500H	H02-19-1	251832-001	8.8 E5		7		
75		19:22	G5027C	H02-42-52	F05-383	1.0 E6		8		
76		20:07	G5027C	↓ -54	F05-386	1.3 E6		9		
P052077	5/3/05	20:53	—	9004C	8290/1613 Couple10	1.1 E6	JSY 5/3/05	10		Good FTB. JSY 5/4/05
P052078	5/4/05	—	—	—	Ending replot	—	JSY 5/4/05	—	—	
79		15:54	—	9038A	RTCHK	9%		1	JSY 5/5/05	
80		16:38	—	9004C	8290/1613 Couple10	6.2 E5		2		Good all methods. JSY 5/5/05
P052081	5/4/05	17:23	—	9033K	RS-100	6.2 E5	JSY 5/4/05	3		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70P-45	DB225	4919245	TTI	2 µL	DB225	DB225

Signature: Johnson Johnson Date: 5/4/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
P052082	5/4/05	18:09	G503HA	H02-H9-1	H25-01	7.2 E5	JSJ 5/4/05	4	JSJ 5/5/05	
83	↓	18:54	↓ B	↓ -2	H25-02	9.6 E5	↓	5	↓	
84		19:39	G5028	H02-H3-1	BBITP10G (5.0)	1.0 E6		6		
85		20:24	G5027C	H02-H2-58	F05-390	1.2 E6		7		
86		21:09	↓	-61	-394	2.1 E6		8		
87		21:55	↓	-63	-405	1.6 E6		9		
↓ 88	↓	22:40	G5027C	↓ -64	↓ -406	9.8 E5	↓	10		
P052089	5/4/05	23:25	—	9004C	8290/1613 Control 10	1.2 E6	JSJ 5/4/05	11	↓	Gold FTB JSJ 5/5/05
P052090	5/5/05	—	—	—	Existing Neoplex	—	JSJ 5/5/05	—	—	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 61

srvr1/sop/hrrunlog.doc (04/12/2004)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70T-115	DB5	H9053J4	T02	2 µL	NDB5US	NDB5US

Signature: Johnna Johnson Date: 5/13/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T057H34	5/13/05	23:12	G508/r1	H02-96-9A-E	AAT-303CC-SS-BY-COMP	8.9 ES	JSY 5/13/05	12	JSY 5/14/05	
↓ 35	5/13/05	00:00	G508/r1	↓ -10A-E	↓ -FY-COMP	8.6 ES	↓	13	↓	
T057H36	5/14/05	00:47	—	9004C	8290/1613 Couvel 10	1.6 E6	JSY 5/13/05	14		Good 8290 F1B. JSY 5/14/05
T057H37	↓	16:32	—	9004C	8290/1613 Couvel 10	1.6 E6	JSY 5/14/05	1	JSY 5/16/05	Good 8290 T0. JSY 5/14/05
↓ 38	↓	17:20	—	9038A	RTCHK	17%	↓	2	↓	
39	↓	18:07	—	9053N	RS-100	7.9 ES	↓	3	↓	
40	↓	18:55	G508/r1	Blank	Blank	1.1 E6	↓	4	↓	
41	↓	19:43	G508/r1	H02-96-7A-E	AAT-452MF-SS-BY-COMP	1.6 E6	↓	5	↓	
↓ 42	↓	20:31	G5072r1	H02-87-10A-E	AAT-DUP2-COMP	1.5 E6	↓	6	↓	
T057H43	5/14/05	21:18	—	9004C	8290/1613 Couvel 10	1.8 E6	JSY 5/14/05	7	↓	Good 8290 F1B. JSY 5/16/05
T057HHH	5/16/05	—	—	—	Ending Reagent	—	JSY 5/16/05	—	—	
↓ 45	↓	19:01	—	9004C	8290/1613 Couvel 10	3.6 E6	↓	1	JSY 5/17/05	Good 8290/1613 T0. JSY 5/16/05
T057H46	5/16/05	19:49	—	9038A	RTCHK	15%	JSY 5/16/05	2	↓	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

srvr1/sop/hrrunlog.doc (04/12/2004)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70T-115	DB5	4920911	T02	2 µL	NDB5US	NDB5US

Signature: Johnson Date: 5/16/05

Filename	Date*	Time* (IE) Pas 5/17/05	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T057H47 (504)	5/16/05	22:58 ~~20:37~~	G5081 Avl	Blank	Blank	1.1 E6	TSY 5/16/05	3	TSY 5/17/05	
48 (51*)	5/16/05	23:46	↓	H02-96-15B	AAT-EQ-POST	1.1 E6		4		Changed order
49 (52*)	5/17/05	00:33	↓	LES	LES	1.2 E6		5		of samples.
~~50~~ (53*)	5/17/05	01:21	G5081 Avl	LESD	LESD	8.5 E5		6		TSY 5/16/05
~~51~~ (47*)	5/16/05	20:37	G5012 rl	OPR	OPR	1.3 E6		7		
~~52~~ (48*)	↓	21:22	↓	Blank	Blank	1.2 E6		8		
~~53~~ (49*)	5/16/05	22:10	G5012 rl	H02-27-1B	WI049WE045BP	1.5 E6		9		
54	5/17/05	02:11	920394M	Uncoated	Uncoated # SSG-929	1.6 E6		10		
55	↓	02:59	↓	Acid Coated	Acid Coated #SG#-853	2.0 E6		11		
56	5/17/05	03:46	920394M	Sand	Sand #S3-85	1.2 E6		12		
57	↓	04:34	GH996rl	H02-11-2	Fly & Bottom #2	1.2 E6		13		10x dil.
58	↓	05:22	95* G5028	H02-43-1	BBITP106 (5.0)	1.2 E6	↓	14		10x dil.
T057459	5/17/05	06:10	—	9004C	8290 11613 Course 10	1.4 E6	DSY 5/16/05	15	↓	Good 8290 TSY DSY 5/17/05

* Transcribed from chromatographic data
** Dated initials required

* (IE) TSY 5/16/05

ConCal Due: _____

Page: 26

srvr1/sop/hrrunlog.doc (04/12/2004)

382

1198

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179089

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB02TP108(4.0)	179089-001
BB02TP108(7.0)	179089-002
BB02TP108(10.0)	179089-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/19/05
Operations Manager

Signature: _____ Date: 5/18/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179089**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**04/26/05**
Samples Received:	**04/26/05**

This hardcopy data package contains sample and QC results for three soil samples, requested for the above referenced project on 04/26/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Encore samples not analyzed within 48 hours were frozen. Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 101466; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low response was observed for bromomethane in the ICV analyzed 03/30/05 21:59; this analyte was not detected at or above the RL in the associated samples. Low response was observed for chloromethane in the CCV analyzed 04/26/05 11:24; this analyte met minimum response criteria. High response was observed for naphthalene; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High response was observed for dibenz(a,h)anthracene in the CCV analyzed 05/04/05 08:48; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Pesticides (EPA 8081A):
Low response was observed for 4,4'-DDT in the ICV analyzed 04/29/05 01:54; average ICV drift met method requirements. Low responses were observed for 4,4'-DDT and methoxychlor in the CCV analyzed 05/03/05 23:33; average CCV drift met method requirements. No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for copper and zinc in the MS/MSD for batch 101496; the parent sample was not a project sample, and the BS/BSD were within limits. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

Harding Lawson Associates
90 Digital Drive
Novato, CA 94949
(415) 883-0112

179089

~~HLA/Corps of Engineers~~
CHAIN OF CUSTODY FORM

Seq. No.: № 6314

Lab: CURTIS TOMPKINS

Samplers: A H HENKE

Job Number: 57255 005132

Name/Location: PRESIDIO SF - BBDA

Project Manager: M A JACOBVITZ

Recorder: (Signature Required)

| MATRIX | | | #CONTAINERS & PRESERV. | | | | | | SAMPLE NUMBER OR LAB NUMBER | | | | DATE | | | | STATION | | | | | ANALYSIS REQUESTED | | | | | |

TVH Results & QC Summary

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	04/25/05
Units:	mg/Kg	Received:	04/26/05
Diln Fac:	1.000	Analyzed:	04/26/05
Batch#:	101466		

Field ID: BB02TP108(4.0) Basis: dry
Type: SAMPLE Moisture: 9%
Lab ID: 179089-001

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.24	0.0086

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	60-138
Bromofluorobenzene (FID)	110	66-148

Field ID: BB02TP108(7.0) Basis: dry
Type: SAMPLE Moisture: 14%
Lab ID: 179089-002

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.24	0.0085

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	60-138
Bromofluorobenzene (FID)	111	66-148

Field ID: BB02TP108(10.0) Basis: dry
Type: SAMPLE Moisture: 18%
Lab ID: 179089-003

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.31	0.011

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	60-138
Bromofluorobenzene (FID)	101	66-148

Type: BLANK Basis: as received
Lab ID: QC291612

Analyte	Result	RL	MDL
Gasoline C7-C12	0.020 J	0.20	0.0072

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	60-138
Bromofluorobenzene (FID)	95	66-148

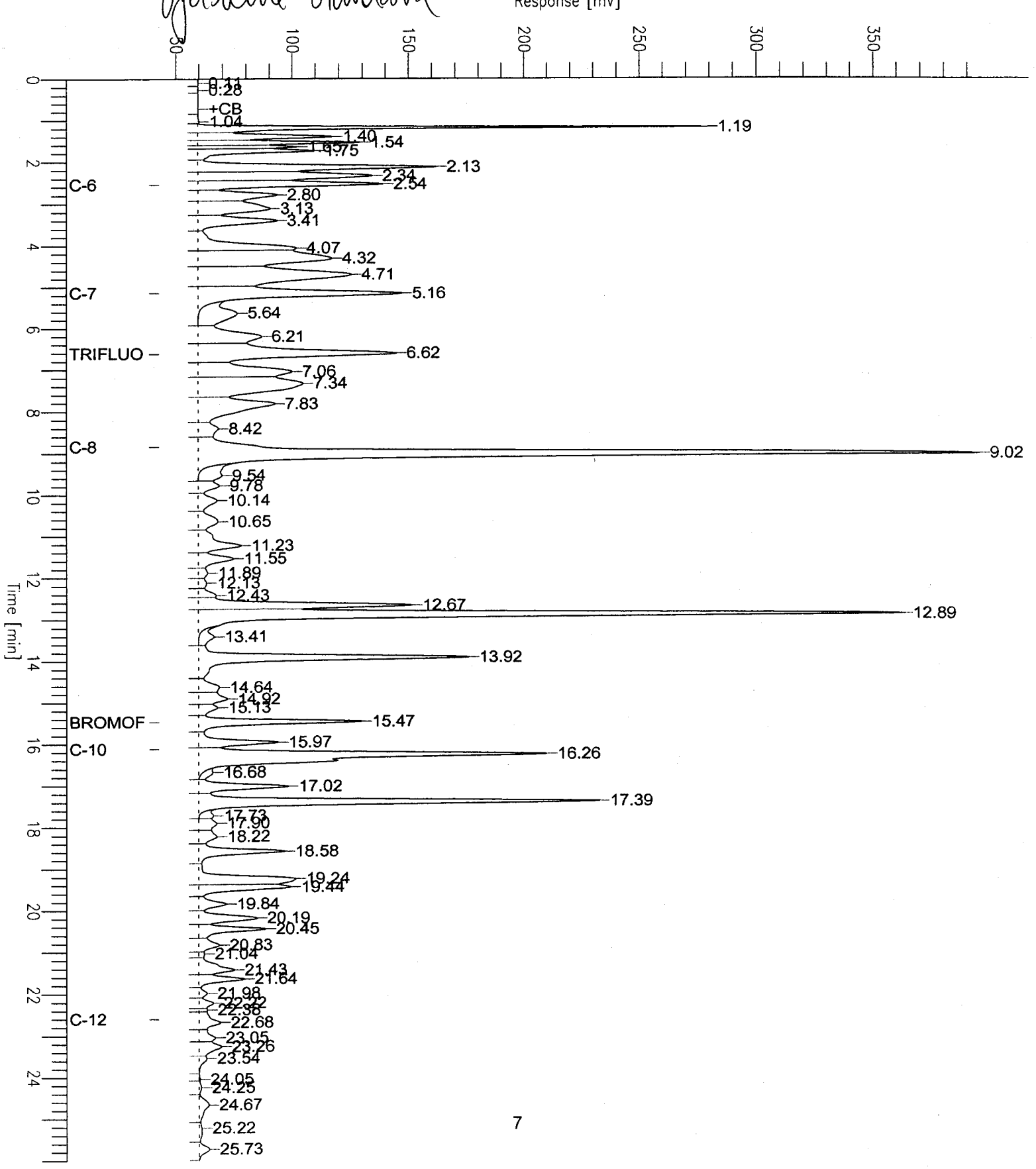
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC04 TVH 'J' Data File FID

Sample Name : ccv/lcs,qc291614,101466,s247,5/5000
FileName : G:\GC04\DATA\116J003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 43 mV

Sample #: Page 1 of 1
Date : 4/26/05 10:50 AM
Time of Injection: 4/26/05 10:24 AM
Low Point : 42.76 mV High Point : 395.45 mV
Plot Scale: 352.7 mV

Gasoline Standard



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC291614	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101466
Units:	mg/Kg	Analyzed:	04/26/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.30	103	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	60-138
Bromofluorobenzene (FID)	103	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	179098-001	Batch#:	101466
Matrix:	Soil	Sampled:	04/26/05
Units:	mg/Kg	Received:	04/26/05
Basis:	as received	Analyzed:	04/27/05

Type: MS Lab ID: QC291713

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.09059	9.901	8.519	85	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	60-138
Bromofluorobenzene (FID)	101	66-148

Type: MSD Lab ID: QC291714

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.524	7.202	75	43-120	13	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	60-138
Bromofluorobenzene (FID)	101	66-148

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 304466014001 Name: tvh Type: (normal) Date: 18-NOV-2004 20:30 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_007	304466014007	tvh1	18-NOV-2004 20:30	04WS1982 (1000X), 04WS1966 (5000X)
2	323_008	304466014008	tvh2	18-NOV-2004 21:05	04WS1983 (1000X), 04WS1966 (5000X)
3	323_009	304466014009	tvh3	18-NOV-2004 21:41	04WS1984 (1000X), 04WS1966 (5000X)
4	323_010	304466014010	tvh4	18-NOV-2004 22:17	04WS1985 (2000X), 04WS1966 (5000X)
5	323_011	304466014011	tvh5	18-NOV-2004 22:52	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Gasoline C7-C12	J	2584.4	1778.6	1670.9	2095.6	1820.2	AVRG	R		5.025E-4		ng	1989.9	18	0.995	20	

10

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC04 Calname : tvh
Calnum : 304466014001 Caldate : 18-NOV-2004 Caltype :

ICV 304466014013 (323_013) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	J	304466014013	19-NOV-2004	10000.0 10789	ng	8

INITIAL CALIBRATION REPORT FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 305100272001 Name: tft/bfb Type: (normal) Date: 10-MAR-2005 15:12 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	069_002	305100272002	tft/bfb 1	10-MAR-2005 15:12	S67 (5000X)
2	069_003	305100272003	tft/bfb 2	10-MAR-2005 15:48	S68 (5000X)
3	069_004	305100272004	tft/bfb 3	10-MAR-2005 16:26	S69 (5000X)
4	069_005	305100272005	tft/bfb 4	10-MAR-2005 17:03	S70 (5000X)
5	069_006	305100272006	tft/bfb 5	10-MAR-2005 17:39	S71 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	J	1919.8	2014.6	1900.7	1936.1	1943.7	AVRG	R		5.147E-4		ng	1943.0	2	0.995	20	
Bromofluorobenzene (FID)	J	1194.3	1196.7	1136.3	1173.3	1154.0	AVRG	R		8.540E-4		ng	1170.9	2	0.995	20	

12

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305167592003	26-APR-2005 10:24	304466014001	18-NOV-2004	1989.9	2048.8	10000	10296	ng	3	15	u
GC04	J	305167592017	26-APR-2005 21:28	304466014001	18-NOV-2004	1989.9	1963.8	15000	14803	ng	-1	15	
GC04	J	305167592018	26-APR-2005 22:04	304466014001	18-NOV-2004	1989.9	1929.2	15000	14542	ng	-3	15	
GC04	J	305167592024	27-APR-2005 01:39	304466014001	18-NOV-2004	1989.9	1894.9	5000.0	4761.2	ng	-5	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305167592002	26-APR-2005 09:48	305100272001	10-MAR-2005	1943.0	1886.2	450.00	436.84	ng	-3	15	
GC04	J	305167592003	26-APR-2005 10:24	305100272001	10-MAR-2005	1943.0	2585.4	450.00	598.79	ng	**33**	15	c+ u AKS
GC04	J	305167592016	26-APR-2005 20:53	305100272001	10-MAR-2005	1943.0	1856.1	450.00	429.87	ng	-4	15	
GC04	J	305167592024	27-APR-2005 01:39	305100272001	10-MAR-2005	1943.0	2209.5	450.00	511.73	ng	14	15	

mmm 4/27/05

IN-House
QC Limits
TFT-FID-5
60-138 % Rec.

mm 5/6/05

+=high bias c=CCV u=use
Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 179089 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305167592002	26-APR-2005 09:48	305100272001	10-MAR-2005	1170.9	1154.7	450.00	443.75	ng	-1	15	
GC04	J	305167592003	26-APR-2005 10:24	305100272001	10-MAR-2005	1170.9	1204.3	450.00	462.81	ng	3	15	u
GC04	J	305167592016	26-APR-2005 20:53	305100272001	10-MAR-2005	1170.9	1130.1	450.00	434.32	ng	-3	15	
GC04	J	305167592024	27-APR-2005 01:39	305100272001	10-MAR-2005	1170.9	1189.0	450.00	456.93	ng	2	15	

u=use

PROJECT Gloss Sequoia

Notebook No. BK 460

Continued From Page

89

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 314466280 Instrument: GC05
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #5 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 18-NOV-2004

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	323_001	X	ib			18-NOV-2004 19:20	1.0					1	
002	323_002	X	ib			18-NOV-2004 19:52	1.0					1	
003	323_003	ICAL	tvh1			18-NOV-2004 20:23	1.0					2 1 pass/use	
004	323_004	ICAL	tvh2			18-NOV-2004 20:55	1.0					3 1	
005	323_005	ICAL	tvh3			18-NOV-2004 21:26	1.0					4 1	
006	323_006	ICAL	tvh4			18-NOV-2004 21:58	1.0					5 1	
007	323_007	ICAL	tvh5			18-NOV-2004 22:30	1.0					5 1 *	
008	323_008	X	ib			18-NOV-2004 23:02	1.0					1	
009	323_009	ICV	tvh			18-NOV-2004 23:33	1.0	1	5000			6 1 pass 1:F3BZME=992.437	
010	323_010	X	crbmrk			19-NOV-2004 00:05	1.0					7 8 1 JSL	
011	323_011	X	ib			19-NOV-2004 00:37	1.0					1	
012	323_012	X	ib			19-NOV-2004 07:00	1.0					1	
013	323_013	ICAL	tft/bfb 1			19-NOV-2004 07:32	1.0					9 pass/use	
014	323_014	ICAL	tft/bfb 2			19-NOV-2004 08:11	1.0					10	
015	323_015	ICAL	tft/bfb 3			19-NOV-2004 08:54	1.0					11	
016	323_016	ICAL	tft/bfb 4			19-NOV-2004 09:35	1.0					12	
017	323_017	ICAL	tft/bfb 5			19-NOV-2004 10:22	1.0					13	

Stds used: 1=04WS1966 2=04WS1982 3=04WS1983 4=04WS1984 5=04WS1985 6=04WS2154 7=02SS420 8=02SS421 9=04WS1886 10=04WS1887 11=04WS1888 12=04WS1889 13=04WS1890

Analyst: _____ Date: 11/19/04

Page 1 of 1

Signed _____ Date 11/19/04

Read and Understood By

Signed _____ Date 11/19/04

Continued on Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305100272 Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Begun: 10-MAR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	069_001	X	ib			10-MAR-2005 14:36	1.0				1	
002	069_002	ICAL	tft/bfb 1			10-MAR-2005 15:12	1.0				2	
003	069_003	ICAL	tft/bfb 2			10-MAR-2005 15:48	1.0				3	
004	069_004	ICAL	tft/bfb 3			10-MAR-2005 16:26	1.0				4	
005	069_005	ICAL	tft/bfb 4			10-MAR-2005 17:03	1.0				5	
006	069_006	ICAL	tft/bfb 5			10-MAR-2005 17:39	1.0				6	

Stds used: 1=05WS0068 2=S67 3=S68 4=S69 5=S70 6=S71

Analyst: _____ Date: 3/11/05

Page 1 of 1

Continued on Page

Signed _____ Date 3/11/05

Read and Understood By 17

Signed _____ Date 3/11/05

PROJECT GCMS Solvents Logbook

Notebook No. BK2048

Continued From Page

PROJECT GC04 sequence log Book

Notebook No. GC 2918

Continued From Page —

75

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305167592 Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Begun: 26-APR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL (Code ID)	pH	Stds Used	>LR
001	116_001	X	ib			26-APR-2005 09:12	1.0						1	
002	116_002	CCV/LCS	QC291613	101466	Soil	26-APR-2005 09:48	1.0	1		5000			2 1 MSS/MSE	
003	116_003	CCV/LCS	QC291614	101466	Soil	26-APR-2005 10:24	1.0		1	5000			3 1 ↓	
004	116_004	BLANK	QC291612	101466	Soil	26-APR-2005 10:59	1.0	6		5000			1 ≤ 1/2 RL	
005	116_005	SAMPLE	179089-001	101466	Soil	26-APR-2005 13:53	1.0			5000	B		1	
006	116_006	SAMPLE	179089-002	101466	Soil	26-APR-2005 14:29	1.0			5000	↓		1	
007	116_007	SAMPLE	179089-003	101466	Soil	26-APR-2005 15:05	1.0			5000	↓		1	
008	116_008	SAMPLE	179094-005	101466	Soil	26-APR-2005 16:06	1.0				Comp		1 RRO SOX >LR	
009	116_009	X	ib			26-APR-2005 16:42	1.0						1	
010	116_010	SAMPLE	179097-002	101466	Soil	26-APR-2005 17:18	5.0			5000	A		1	
011	116_011	SAMPLE	179094-005	101466	Soil	26-APR-2005 17:54	50.0		1	5000	Comp		1	
012	116_012	X	meoh blk	101466		26-APR-2005 18:30	5.0						1 ND, H/27/05	
013	116_013	SAMPLE	179097-001	101466	Soil	26-APR-2005 19:05	1.0			5000	A		1	
014	116_014	X	ib			26-APR-2005 19:41	1.0						1	
015	116_015	X	mbtxe	101466		26-APR-2005 20:17	1.0						2 1 Not used	
016	116_016	CCV	mbtxe	101466		26-APR-2005 20:53	1.0	1		5000			2 1 MSS/MSE	
017	116_017	CCV	tvh	101466		26-APR-2005 21:28	1.0			5000			3 1 ↓	
018	116_018	CCV	tvh	101466		26-APR-2005 22:04	1.0			5000			3 1 ↓	
019	116_019	MSS	179098-001	101466	Soil	26-APR-2005 22:40	1.0	3		5000	A		1	
020	116_020	SAMPLE	179098-002	101466	Soil	26-APR-2005 23:16	1.0			5000	↓		1	
021	116_021	SAMPLE	179098-003	101466	Soil	26-APR-2005 23:52	1.0			5000	↓		1	
022	116_022	MS	QC291713	101466	Soil	27-APR-2005 00:27	1.0		1	5000			3 1 MSS/MSE	
023	116_023	MSD	QC291714	101466	Soil	27-APR-2005 01:03	1.0		1	5000			3 1 ↓	
024	116_024	CCV	tvh	101466		27-APR-2005 01:39	1.0			5000			3 1 ↓	
025	116_025	CCV	tvh	101466		27-APR-2005 02:15	1.0			5000			3 1 ↓	

Standard used in QC EM 128974-M104164

Stds used: 1=S224 2=S292 3=S247

Analyst: Micael O'Keefe Date: 04/27/05

Page 1 of 1

Micael O'Keefe 04/27/05

Micael O'Keefe 04/27/05
Signed Date

Read and Understood By

Dustin J. Vega 4/27/05
Signed Date

Continued on Page —

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101466
Date Started: 26-APR-2005
Batched by : Micaela M. Perpetuo

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
179089-001			Mactec, Inc.	Soil	ETVH	09-MAY-2005
179089-002			Mactec, Inc.	Soil	ETVH	09-MAY-2005
179089-003			Mactec, Inc.	Soil	ETVH	09-MAY-2005
179094-005			Port of Oakland	Soil	BTXE, TVH	27-APR-2005
179097-001			SECOR	Soil	BTXE, TVH	27-APR-2005
179097-002			SECOR	Soil	BTXE, TVH	27-APR-2005
179098-001			Iris Environmental	Soil	TVH	02-MAY-2005
179098-002			Iris Environmental	Soil	TVH	02-MAY-2005
179098-003			Iris Environmental	Soil	TVH	02-MAY-2005
QC291612	MB			Soil		
QC291613	LCS			Soil		
QC291614	LCS			Soil		
QC291713	MS	of 179098-001		Soil		
QC291714	MSD	of 179098-001		Soil		

Sample ID	Cont	Dup	Weight (g)	Comp (?)	Multiseg (?)	Analyst & Date
179061-002		D	0.93	No	No	DJT 4/25/05
MS of 179061-002		D	0.91			
MSD of 179061-002		D	0.93			
179062-001		A	0.95			
-002		A	0.96			
-003		A	0.91			
-004		A	0.94			
-005		A	0.94			
179030-002	A		1.02	No	No	mmp 4/25/05
179076-032	A		0.99	No	No	mmp 4/26/05
-036			0.96			
-038			0.94			
-034	A		0.98	No	No	mmp 4/26/05
-030			0.93			
MS 179076-030			1.06			
MSD -030			1.08			
179076-002	A		1.06	No	No	mmp 4/26/05
-004			0.97			
-007			0.92			
-009			0.97			
-012			0.99			
179076-014	A		0.95	No	No	mmp 4/26/05
-016			0.91			
-017			0.92			
-019			0.95			
-022			0.93			
-024			1.00			
-026			0.97			
-027			0.95			
179089-001		B	4.58	No	No	DJT 4.16.06
-002		B	4.92			
-003		B	3.94			
179094-001	A		4.01	Yes		
-002	A		4.05			
-003	A		4.04			
-004	A		3.98			

Continued on Page

Signed: Michael J. Fraser Date: 04/26/05

Read and Understood By

Signed: [illegible] Date: 4.26.06

TEH results & QC Summary

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	04/25/05
Units:	mg/Kg	Received:	04/26/05
Diln Fac:	1.000	Prepared:	04/27/05
Batch#:	101531		

Field ID:	BB02TP108(4.0)	Moisture:	9%
Type:	SAMPLE	Analyzed:	05/02/05
Lab ID:	179089-001	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.1	0.34
Motor Oil C24-C36	4.0 J Y	5.5	0.71

Surrogate	%REC	Limits
Hexacosane	110	51-136

Field ID:	BB02TP108(7.0)	Moisture:	14%
Type:	SAMPLE	Analyzed:	05/02/05
Lab ID:	179089-002	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	0.38 J Y	1.2	0.36
Motor Oil C24-C36	2.1 J Y	5.8	0.75

Surrogate	%REC	Limits
Hexacosane	92	51-136

Field ID:	BB02TP108(10.0)	Moisture:	18%
Type:	SAMPLE	Analyzed:	05/02/05
Lab ID:	179089-003	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	1.9 Y	1.2	0.38
Motor Oil C24-C36	26 Y	6.0	0.78

Surrogate	%REC	Limits
Hexacosane	100	51-136

Type:	BLANK	Analyzed:	04/28/05
Lab ID:	QC291889	Cleanup Method:	EPA 3630C
Basis:	as received		

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.0	0.55
Motor Oil C24-C36	ND	5.0	2.4

Surrogate	%REC	Limits
Hexacosane	108	51-136

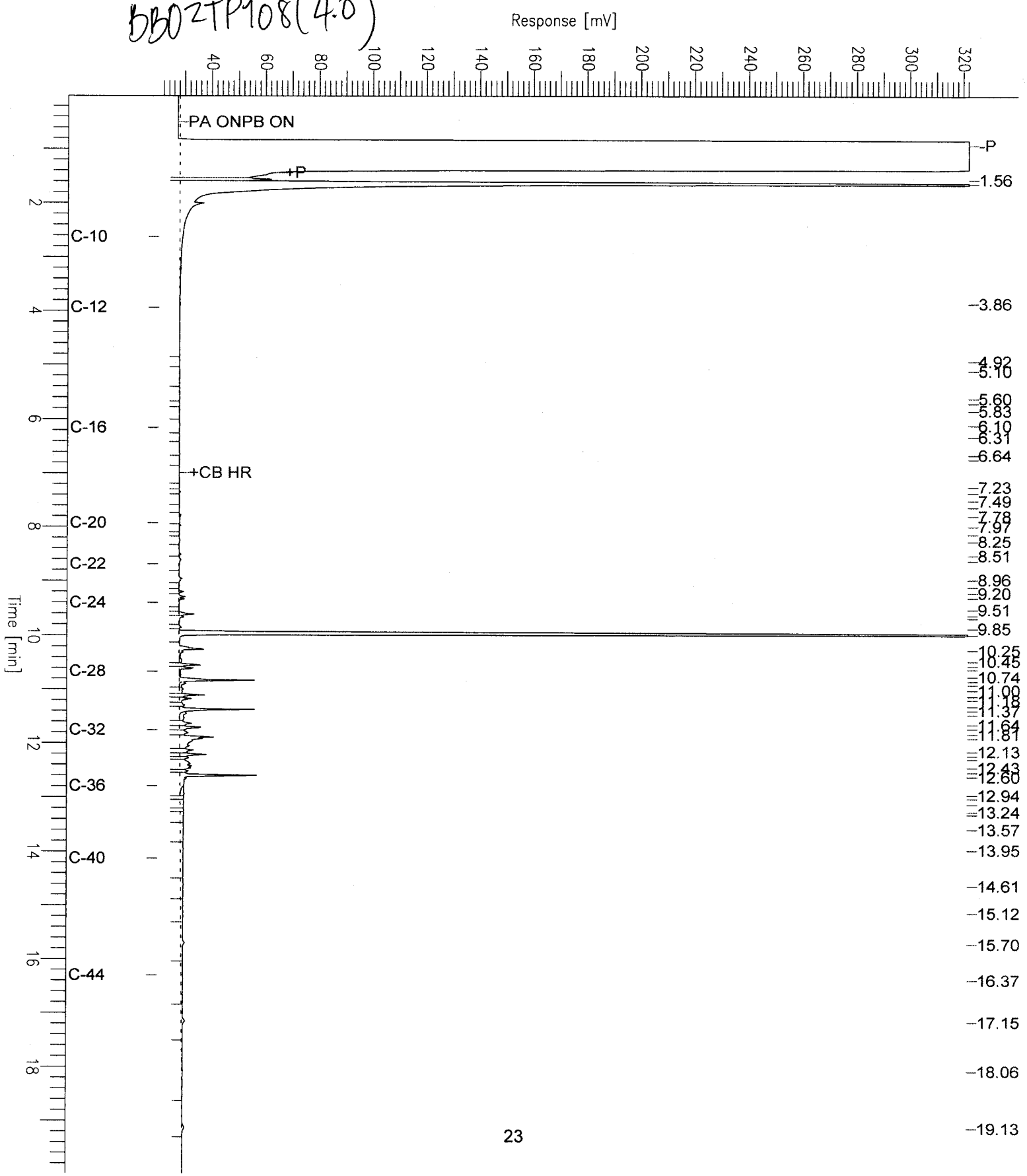
J= Estimated value
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 179089-001sg,101531
FileName : G:\GC13\CHB\122B007.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 20 mV

Sample #: 101531 Page 1 of 1
Date : 5/2/05 04:13 PM
Time of Injection: 5/2/05 03:47 PM
Low Point : 20.08 mV High Point : 322.12 mV
Plot Scale: 302.0 mV

BB02TP108(4.0)

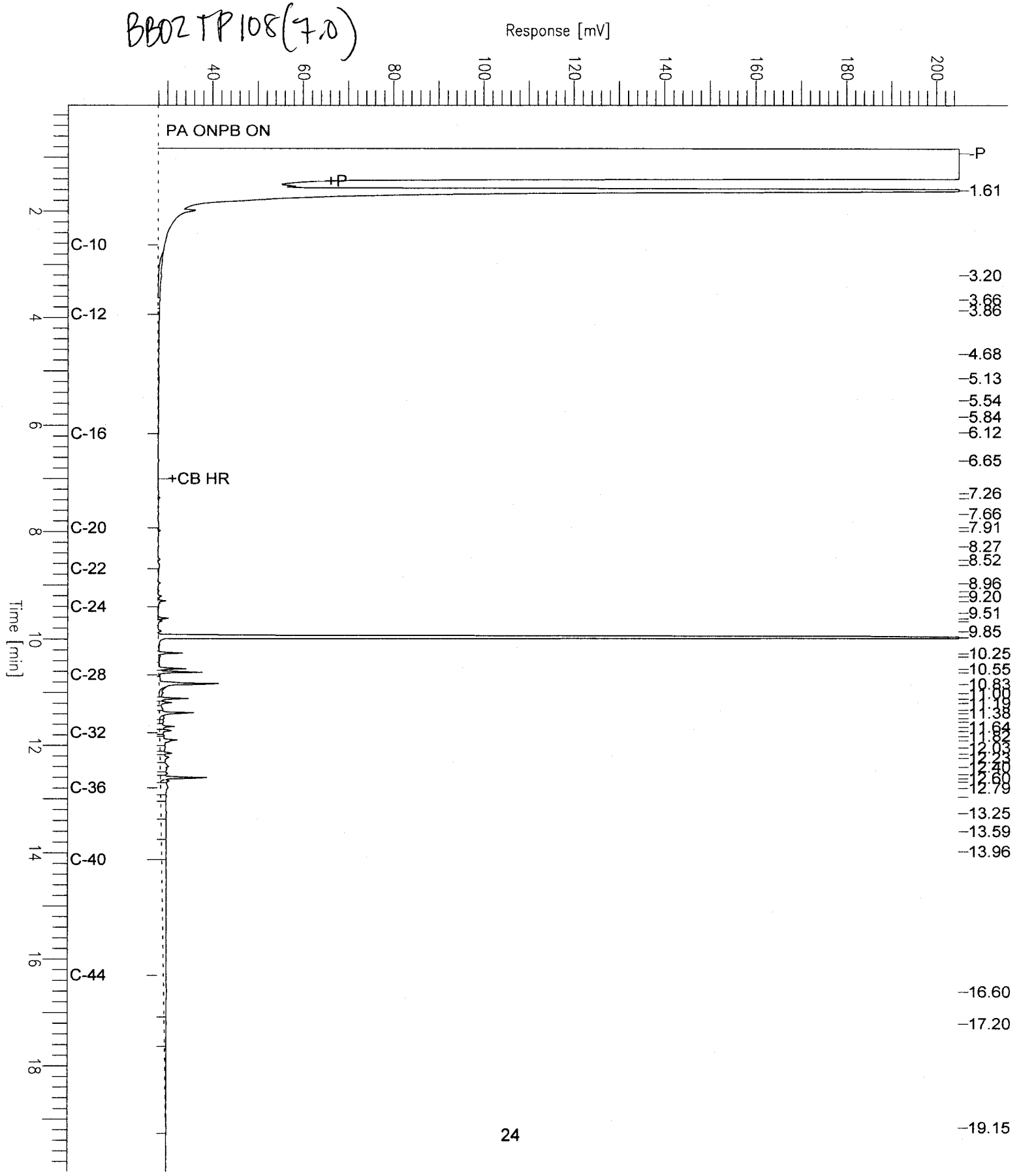


Chromatogram

Sample Name : 179089-002sg,101531
FileName : G:\GC13\CHB\122B008.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #: 101531 Page 1 of 1
Date : 5/2/05 04:41 PM
Time of Injection: 5/2/05 04:15 PM
Low Point : 27.78 mV High Point : 205.08 mV
Plot Scale: 177.3 mV

BB02 TP 108 (7.0)

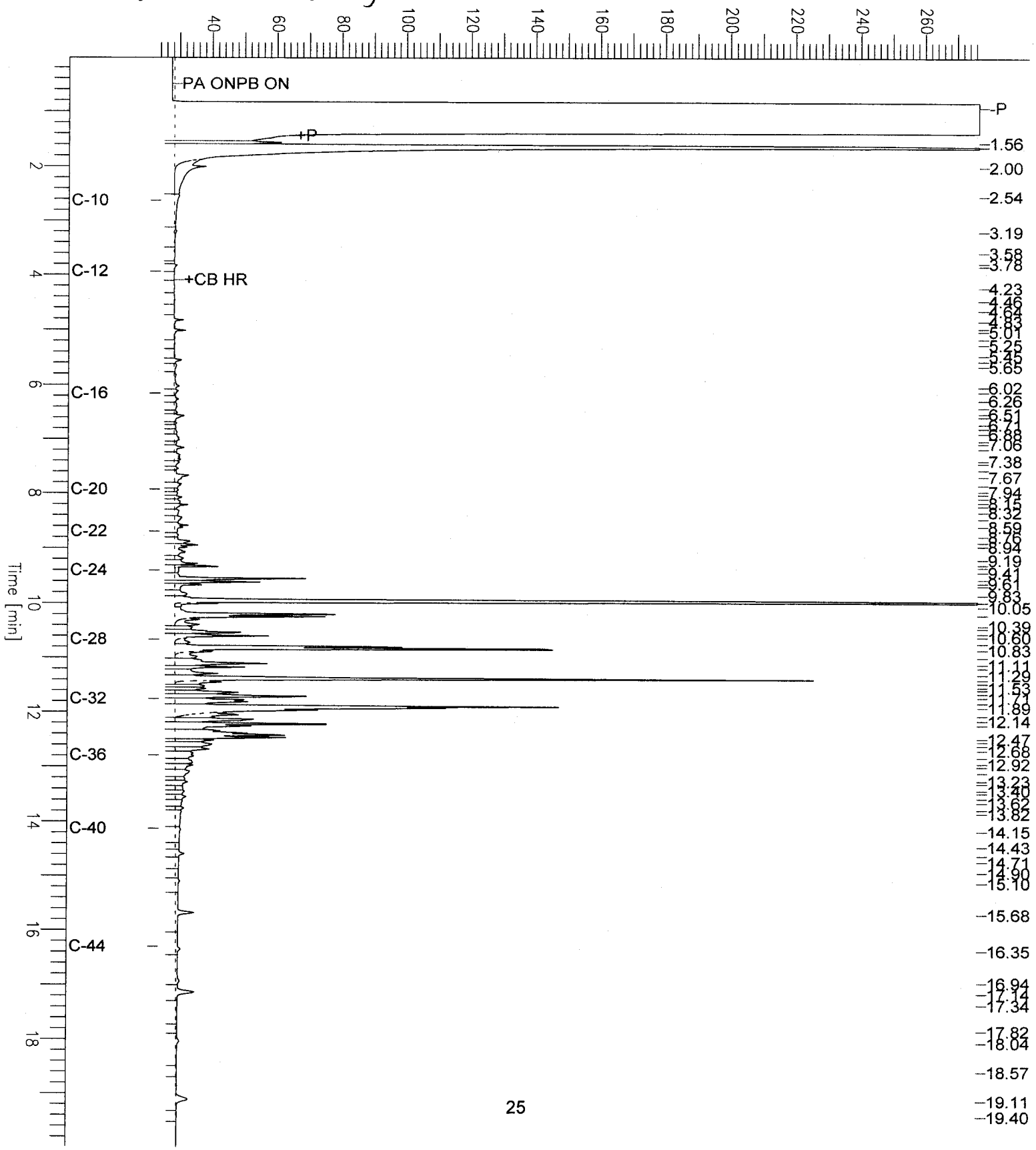


Chromatogram

Sample Name : 179089-003sg,101531
FileName : G:\GC13\CHB\122B009.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #: 101531 Page 1 of 1
Date : 5/2/05 05:50 PM
Time of Injection: 5/2/05 04:43 PM
Low Point : 23.91 mV High Point : 276.79 mV
Plot Scale: 252.9 mV

BB02TP108 (10.0)

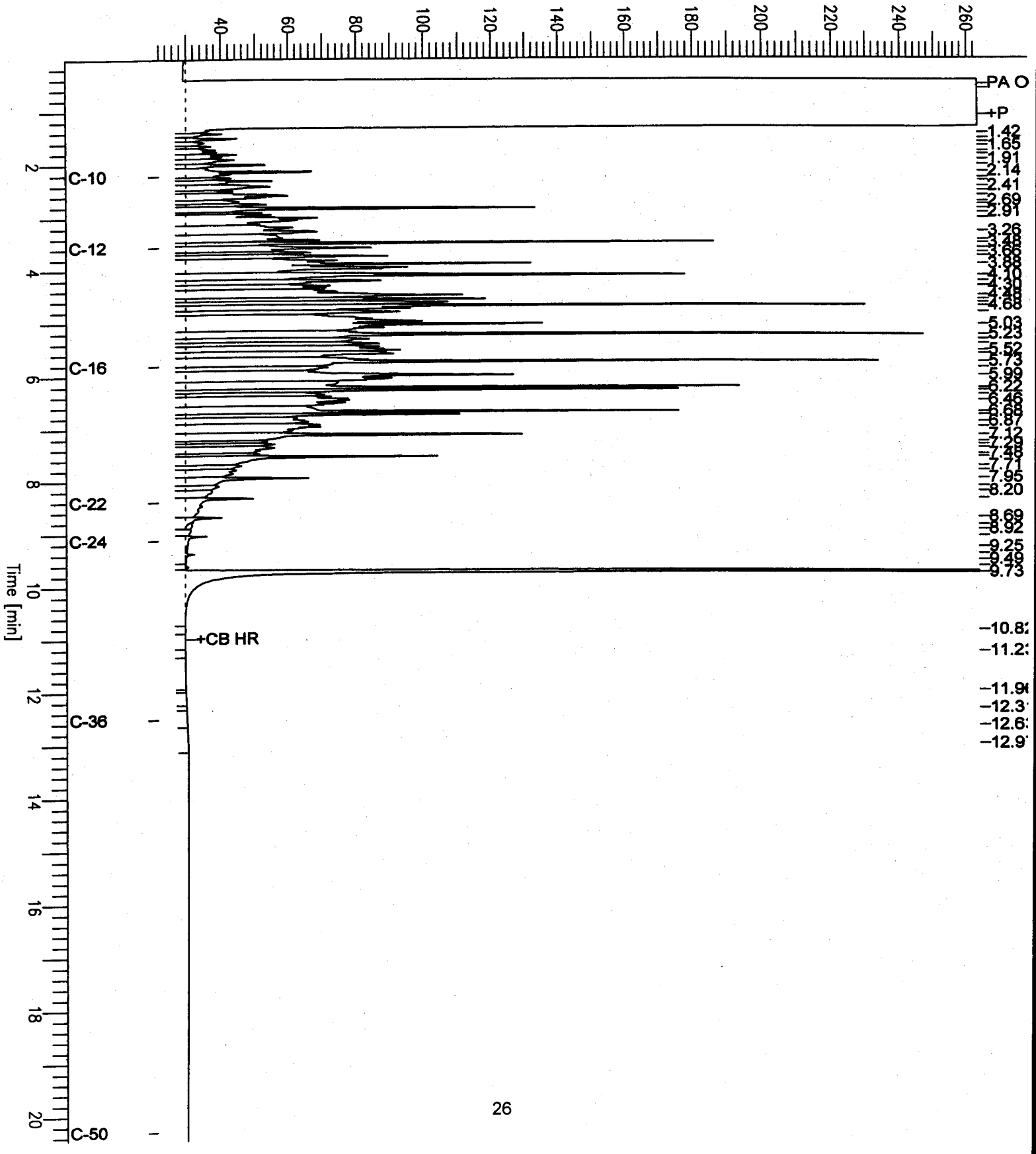


Chromatogram

Sample Name : ccv,S167,dsl
FileName : G:\GC11\CHA\118A003.RAW
Method : ATEH109S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 500mg/L Page 1 of 1
Date : 4/28/05 11:00 AM
Time of Injection: 4/28/05 10:08 AM
Low Point : 21.96 mV High Point : 263.08 mV
Plot Scale: 241.1 mV

Diesel Std

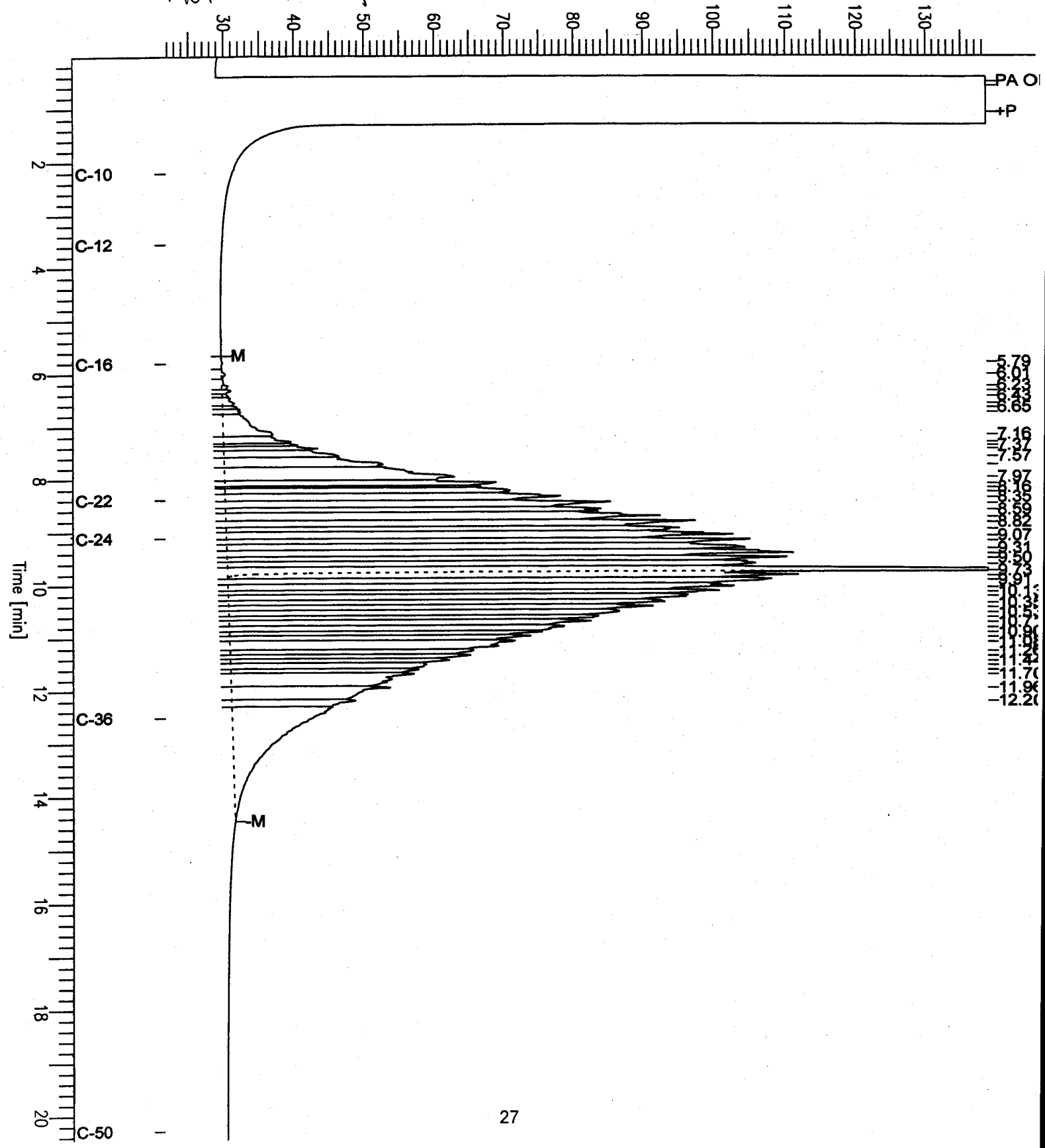


Chromatogram

Sample Name : ccv,S294,mo
FileName : G:\GC11\CHA\118A004.RAW
Method : ATEH109S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 500mg/L Page 1 of 1
Date : 4/28/05 11:01 AM
Time of Injection: 4/28/05 10:37 AM
Low Point : 21.80 mV High Point : 138.52 mV
Plot Scale: 116.7 mV

Motor Oil Std



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC291890	Batch#:	101531
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	04/28/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.97	47.97	96	52-137

Surrogate	%REC	Limits
Hexacosane	104	51-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BB02TP108(4.0)	Batch#:	101531
MSS Lab ID:	179089-001	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	05/02/05
Diln Fac:	1.000		

Type:	MS	Moisture:	9%
Lab ID:	QC291891	Cleanup Method:	EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<0.3411	54.92	50.87	93	11-169

Surrogate	%REC	Limits
Hexacosane	103	51-136

Type:	MSD	Moisture:	9%
Lab ID:	QC291892	Cleanup Method:	EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	54.54	53.75	99	11-169	6	49

Surrogate	%REC	Limits
Hexacosane	105	51-136

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409001 Name: dsl Type: (normal) Date: 08-APR-2005 22:28 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	098a003	115142409003	dsl10	08-APR-2005 22:28	05WS0167
2	098a004	115142409004	dsl100	08-APR-2005 22:58	05WS0169
3	098a005	115142409005	dsl250	08-APR-2005 23:27	05WS0170
4	098a006	115142409006	dsl500	08-APR-2005 23:57	05WS0171
5	098a007	115142409007	dsl1000	09-APR-2005 00:26	05WS0172
6	098a008	115142409008	dsl2500	09-APR-2005 00:56	05WS0173
7	098a009	115142409009	dsl5000	09-APR-2005 01:26	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C10-C24	36708	33508	31510	32059	31644	31825	31182	AVRG	R		3.064E-5		mg/L	32634	6	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC11A Calname : dsl
Calnum : 115142409001 Caldate : 08-APR-2005 Caltype :

ICV 115142409011 (098a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	A	115142409011	09-APR-2005	500.00	467.77	mg/L	-6

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409003 Name: hxcs Type: (normal) Date: 09-APR-2005 06:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	098a020	115142409020	hex5	09-APR-2005 06:52	S112
2	098a021	115142409021	hex10	09-APR-2005 07:22	S113
3	098a022	115142409022	hex25	09-APR-2005 07:51	S114
4	098a023	115142409023	hex50	09-APR-2005 08:21	S115
5	098a024	115142409024	hex75	09-APR-2005 08:50	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	r^2 MxRSD	Flags
Hexacosane	31483	30572	30285	30096	33263	AVRG R		3.211E-5		mg/L	31140	4	0.995	20	

32

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115156062001 Name: Motor Oil Type: (normal) Date: 19-APR-2005 02:03 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	108a020	115156062020	mo50	19-APR-2005 02:03	04WS2172
2	108a021	115156062021	mo250	19-APR-2005 02:33	04WS2173
3	108a022	115156062022	mo500	19-APR-2005 03:03	04WS2174
4	108a023	115156062023	mo1000	19-APR-2005 03:33	04WS2175
5	108a024	115156062024	mo2500	19-APR-2005 04:02	04WS2176
6	108a025	115156062025	mo5000	19-APR-2005 04:32	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Motor Oil C24-C36	17587	18506	17605	19906	18788	16157	AVRG R		5.527E-5		mg/L	18091	7	0.995 20	

33

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: RH
Calnum: 145107088002 Name: mo Type: (normal) Date: 15-MAR-2005 17:15 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	074b013	145107088013	mo 50	15-MAR-2005 17:15	04WS2172
2	074b014	145107088014	mo 250	15-MAR-2005 17:43	04WS2173
3	074b015	145107088015	mo 500	15-MAR-2005 18:11	04WS2174
4	074b016	145107088016	mo 1000	15-MAR-2005 18:38	04WS2175
5	074b017	145107088017	mo 2500	15-MAR-2005 19:07	04WS2176
6	074b018	145107088018	mo 5000	15-MAR-2005 19:34	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Motor Oil C24-C36	15505	16721	16352	15078	12216	9686.5	AVRG R		7.013E-5		mg/L	14260	19	0.995	20	

34

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: MCH
Calnum: 145118824002 Name: dsl Type: (normal) Date: 23-MAR-2005 22:24 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	082b012	145118824012	dsl10	23-MAR-2005 22:24	05WS0167
2	082b013	145118824013	dsl100	23-MAR-2005 22:52	05WS0169
3	082b014	145118824014	dsl250	23-MAR-2005 23:20	05WS0170
4	082b015	145118824015	dsl500	23-MAR-2005 23:48	05WS0171
5	082b016	145118824016	dsl1000	24-MAR-2005 00:17	05WS0172
6	082b017	145118824017	dsl2500	24-MAR-2005 00:45	05WS0173
7	082b018	145118824018	dsl5000	24-MAR-2005 01:13	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C10-C24	25181	22700	17958	23267	18682	19751	20580	AVRG R		4.726E-5		mg/L	21160	12	0.995	20	

35

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC13B Calname : dsl
Calnum : 145118824002 Caldate : 23-MAR-2005 Caltype :

ICV 145118824020 (082b020) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	B	145118824020	24-MAR-2005	500.00	540.80	mg/L	8

INITIAL CALIBRATION REPORT FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: CW
Calnum: 145147550001 Name: Hexacosane Type: (normal) Date: 13-APR-2005 01:01 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102b019	145147550019	hex5	13-APR-2005 01:01	S112
2	102b020	145147550020	hex10	13-APR-2005 01:30	S113
3	102b021	145147550021	hex25	13-APR-2005 01:58	S114
4	102b022	145147550022	hex50	13-APR-2005 02:26	S115
5	102b023	145147550023	hex75	13-APR-2005 02:55	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 XRSD	MnR^2 MxRSD	Flags
Hexacosane	24111	24621	24792	26302	24569	AVRG R		4.019E-5		mg/L	24879	3	0.995 20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115170468003	28-APR-2005 10:08	115142409001	08-APR-2005	32634	28728	500.00	440.16	mg/L	-12	15	
GC11A	A	115170468013	28-APR-2005 17:39	115142409001	08-APR-2005	32634	29482	1000.0	903.43	mg/L	-10	15	
GC13B	B	145176452003	02-MAY-2005 13:48	145118824002	23-MAR-2005	21160	22196	500.00	524.49	mg/L	5	15	
GC13B	B	145176452010	02-MAY-2005 17:11	145118824002	23-MAR-2005	21160	22754	1000.0	1075.4	mg/L	8	15	

CONTINUING CALIBRATION SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115170468004	28-APR-2005 10:37	115156062001	19-APR-2005	18091	17869	500.00	493.86	mg/L	-1	15	
GC11A	A	115170468012	28-APR-2005 17:09	115156062001	19-APR-2005	18091	18295	500.00	505.62	mg/L	1	15	
GC13B	B	145176452004	02-MAY-2005 14:15	145107088002	15-MAR-2005	14260	16042	500.00	562.49	mg/L	12	15	
GC13B	B	145176452011	02-MAY-2005 17:39	145107088002	15-MAR-2005	14260	15358	500.00	538.51	mg/L	8	15	

CONTINUING CALIBRATION SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115170468003	28-APR-2005 10:08	115142409003	09-APR-2005	31140	28797	50.000	46.237	mg/L	-8	15	
GC11A	A	115170468012	28-APR-2005 17:09	115142409003	09-APR-2005	31140	29813	50.000	47.869	mg/L	-4	15	
GC13B	B	145176452003	02-MAY-2005 13:48	145147550001	13-APR-2005	24879	25746	50.000	51.742	mg/L	3	15	
GC13B	B	145176452010	02-MAY-2005 17:11	145147550001	13-APR-2005	24879	23963	50.000	48.160	mg/L	-4	15	

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145107088 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 15-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	074b001	X	primer			15-MAR-2005 08:48	1.0						
002	074b002	X	ib			15-MAR-2005 09:16	1.0						
003	074b003	ICAL	dsl 10			15-MAR-2005 12:35	1.0					1	
004	074b004	ICAL	dsl 100			15-MAR-2005 13:03	1.0					2	
005	074b005	ICAL	dsl 250			15-MAR-2005 13:31	1.0					3	
006	074b006	ICAL	dsl 500			15-MAR-2005 13:58	1.0					4	
007	074b007	ICAL	dsl 1000			15-MAR-2005 14:26	1.0					5	
008	074b008	ICAL	dsl 2500			15-MAR-2005 14:54	1.0					6	
009	074b009	ICAL	dsl 5000			15-MAR-2005 15:22	1.0					7	
010	074b010	X	ib			15-MAR-2005 15:50	1.0						
011	074b011	ICV	dsl			15-MAR-2005 16:18	1.0		3			8	
012	074b012	X	ib			15-MAR-2005 16:47	1.0						
013	074b013	ICAL	mo 50			15-MAR-2005 17:15	1.0					9	
014	074b014	ICAL	mo 250			15-MAR-2005 17:43	1.0					10	
015	074b015	ICAL	mo 500			15-MAR-2005 18:11	1.0					11	
016	074b016	ICAL	mo 1000			15-MAR-2005 18:38	1.0					12	
017	074b017	ICAL	mo 2500			15-MAR-2005 19:07	1.0					13	
018	074b018	ICAL	mo 5000			15-MAR-2005 19:34	1.0					14	
019	074b019	X	ib			15-MAR-2005 20:02	1.0						
020	074b020	ICAL	hex5			15-MAR-2005 20:30	1.0					15	
021	074b021	ICAL	hex10			15-MAR-2005 20:58	1.0					16	
022	074b022	ICAL	hex25			15-MAR-2005 21:26	1.0					17	
023	074b023	ICAL	hex50			15-MAR-2005 21:54	1.0					18	
024	074b024	ICAL	hex75			15-MAR-2005 22:22	1.0					19	
025	074b025	X	ib			15-MAR-2005 22:50	1.0						
026	074b026	X	c10-16			15-MAR-2005 23:18	1.0						
027	074b027	X	c12-60			15-MAR-2005 23:46	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145118824 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 23-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	082b001	X	primer			23-MAR-2005 11:56	1.0						
002	082b002	X	ib			23-MAR-2005 12:24	1.0						
003	082b003	CCV	dsl			23-MAR-2005 12:53	1.0	7	3			1	
004	082b004	CCV	mo			23-MAR-2005 13:21	1.0		3			2	
005	082b005	X	ib			23-MAR-2005 19:08	1.0						
006	082b006	ICAL	hex5			23-MAR-2005 19:36	1.0					3	
007	082b007	ICAL	hex10			23-MAR-2005 20:04	1.0					4	
008	082b008	ICAL	hex25			23-MAR-2005 20:32	1.0					5	
009	082b009	ICAL	hex50			23-MAR-2005 21:00	1.0					6	
010	082b010	ICAL	hex75			23-MAR-2005 21:28	1.0					7	
011	082b011	X	ib			23-MAR-2005 21:56	1.0						
012	082b012	ICAL	dsl10			23-MAR-2005 22:24	1.0					8	
013	082b013	ICAL	dsl100			23-MAR-2005 22:52	1.0					9	
014	082b014	ICAL	dsl250			23-MAR-2005 23:20	1.0					10	
015	082b015	ICAL	dsl500			23-MAR-2005 23:48	1.0					11	42
016	082b016	ICAL	dsl1000			24-MAR-2005 00:17	1.0					12	
017	082b017	ICAL	dsl2500			24-MAR-2005 00:45	1.0					13	
018	082b018	ICAL	dsl5000			24-MAR-2005 01:13	1.0					14	
019	082b019	X	ib			24-MAR-2005 01:41	1.0						
020	082b020	ICV	dsl			24-MAR-2005 02:09	1.0		3			15	
021	082b021	X	ib			24-MAR-2005 02:38	1.0						

Stds used: 1=S72 2=S97 3=S112 4=S113 5=S114 6=S115 7=S116 8=05WS0167 9=05WS0169 10=05WS0170 11=05WS0171 12=05WS0172 13=05WS0173 14=05WS0174 15=S110

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 115142409 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 08-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	098a001	X	primer			08-APR-2005 21:29	1.0					
002	098a002	X	ib			08-APR-2005 21:58	1.0					
003	098a003	ICAL	dsl10			08-APR-2005 22:28	1.0				1	
004	098a004	ICAL	dsl100			08-APR-2005 22:58	1.0				2	
005	098a005	ICAL	dsl250			08-APR-2005 23:27	1.0				3	
006	098a006	ICAL	dsl500			08-APR-2005 23:57	1.0				4	
007	098a007	ICAL	dsl1000			09-APR-2005 00:26	1.0				5	
008	098a008	ICAL	dsl2500			09-APR-2005 00:56	1.0				6	
009	098a009	ICAL	dsl5000			09-APR-2005 01:26	1.0				7	
010	098a010	X	ib			09-APR-2005 01:56	1.0					
011	098a011	ICV	dsl			09-APR-2005 02:25	1.0	3			8	
012	098a012	X	ib			09-APR-2005 02:55	1.0					
013	098a013	ICAL	mo50			09-APR-2005 03:25	1.0				9	
014	098a014	ICAL	mo250			09-APR-2005 03:54	1.0				10	
015	098a015	ICAL	mo500			09-APR-2005 04:24	1.0				11	43
016	098a016	ICAL	mo1000			09-APR-2005 04:54	1.0				12	
017	098a017	ICAL	mo2500			09-APR-2005 05:23	1.0				13	
018	098a018	ICAL	mo5000			09-APR-2005 05:53	1.0				14	
019	098a019	X	ib			09-APR-2005 06:22	1.0					
020	098a020	ICAL	hex5			09-APR-2005 06:52	1.0				15	
021	098a021	ICAL	hex10			09-APR-2005 07:22	1.0				16	
022	098a022	ICAL	hex25			09-APR-2005 07:51	1.0				17	
023	098a023	ICAL	hex50			09-APR-2005 08:21	1.0				18	
024	098a024	ICAL	hex75			09-APR-2005 08:50	1.0				19	
025	098a025	X	ib			09-APR-2005 09:20	1.0					
026	098a026	X	c12-60			09-APR-2005 09:49	1.0					
027	098a027	X	c10-16			09-APR-2005 10:19	1.0					

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145147550 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	102b001	X	primer			12-APR-2005 11:10	1.0					
002	102b002	X	ib			12-APR-2005 11:38	1.0					
003	102b003	CCV	dsl			12-APR-2005 12:06	1.0				1	
004	102b004	CCV	mo			12-APR-2005 12:34	1.0				2	
005	102b005	X	ib			12-APR-2005 15:11	1.0					
006	102b006	CCV	dsl			12-APR-2005 15:39	1.0	3			1	
007	102b007	CCV	mo			12-APR-2005 16:07	1.0	3			2	
008	102b008	X	ib			12-APR-2005 19:52	1.0					
009	102b009	ICAL	dsl10			12-APR-2005 20:20	1.0				3	
010	102b010	ICAL	dsl100			12-APR-2005 20:48	1.0				4	
011	102b011	ICAL	dsl250			12-APR-2005 21:16	1.0				5	
012	102b012	ICAL	dsl500			12-APR-2005 21:44	1.0				6	
013	102b013	ICAL	dsl1000			12-APR-2005 22:12	1.0				7	
014	102b014	ICAL	dsl2500			12-APR-2005 22:40	1.0				8	
015	102b015	ICAL	dsl5000			12-APR-2005 23:09	1.0				9	44
016	102b016	X	ib			12-APR-2005 23:37	1.0					
017	102b017	ICV	dsl			13-APR-2005 00:05	1.0				10	
018	102b018	X	ib			13-APR-2005 00:33	1.0					
019	102b019	ICAL	hex5			13-APR-2005 01:01	1.0				11	
020	102b020	ICAL	hex10			13-APR-2005 01:30	1.0				12	
021	102b021	ICAL	hex25			13-APR-2005 01:58	1.0				13	
022	102b022	ICAL	hex50			13-APR-2005 02:26	1.0				14	
023	102b023	ICAL	hex75			13-APR-2005 02:55	1.0				15	
024	102b024	X	ib			13-APR-2005 03:23	1.0					
025	102b025	CCV	dsl			13-APR-2005 03:51	1.0	3			16	

Stds used: 1=S72 2=S294 3=05WS0167 4=05WS0169 5=05WS0170 6=05WS0171 7=05WS0172 8=05WS0173 9=05WS0174 10=S110 11=S112 12=S113 13=S114 14=S115 15=S116 16=S167

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 115156062 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 18-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK uL	Stds Used	>LR
001	108a001	X	primer			18-APR-2005 09:02	1.0					
002	108a002	X	ib			18-APR-2005 09:32	1.0					
003	108a003	X	CCV			18-APR-2005 10:31	1.0	1.0		3	1	
004	108a004	X	CCV			18-APR-2005 11:01	1.0	1.0		3	2	
005	108a005	X	primer			18-APR-2005 15:13	1.0					
006	108a006	X	ib			18-APR-2005 15:42	1.0					
007	108a007	CCV	mo			18-APR-2005 16:11	1.0	1.0	1	3	2	
008	108a008	CCV	dsl			18-APR-2005 16:42	1.0	1.0		3	3	
009	108a009	BLANK	QC290563 S	101192	Water	18-APR-2005 20:34	1.0	0.005	8	3		
010	108a010	SAMPLE	178716-010	101236	Soil	18-APR-2005 21:04	100.0	0.3992		3		
011	108a011	SAMPLE	178716-012	101236	Soil	18-APR-2005 21:34	200.0	0.1987		3		
012	108a012	SAMPLE	178716-006	101236	Soil	18-APR-2005 22:04	10.0	0.09998		3		
013	108a013	SAMPLE	178716-007	101236	Soil	18-APR-2005 22:34	25.0	0.09982		3		
014	108a014	SAMPLE	178716-011	101236	Soil	18-APR-2005 23:04	50.0	0.09986		3		
015	108a015	SAMPLE	178716-008	101236	Soil	18-APR-2005 23:34	25.0	0.09944		3		45
016	108a016	CCV	dsl			19-APR-2005 00:04	1.0	1.0		3	4	
017	108a017	CCV	mo			19-APR-2005 00:34	1.0	1.0	1	3	2	
018	108a018	X	ccv			19-APR-2005 01:04	1.0				4	
019	108a019	X	ib			19-APR-2005 01:33	1.0					
020	108a020	ICAL	mo50			19-APR-2005 02:03	1.0	1.0			5	
021	108a021	ICAL	mo250			19-APR-2005 02:33	1.0	1.0			6	
022	108a022	ICAL	mo500			19-APR-2005 03:03	1.0	1.0			7	
023	108a023	ICAL	mo1000			19-APR-2005 03:33	1.0	1.0			8	
024	108a024	ICAL	mo2500			19-APR-2005 04:02	1.0	1.0			9	
025	108a025	ICAL	mo5000			19-APR-2005 04:32	1.0	1.0			10	
026	108a026	X	ib			19-APR-2005 05:02	1.0					
027	108a027	CCV	mo			19-APR-2005 05:31	1.0	1.0		3	2	

Stds used: 1=S72 2=S294 3=S167 4=S295 5=04WS2172 6=04WS2173 7=04WS2174 8=04WS2175 9=04WS2176 10=04WS2169

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 115170468 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 28-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK uL	Stds Used	>LR
001	118a001	X	primer			28-APR-2005 09:08	1.0					
002	118a002	X	ib			28-APR-2005 09:38	1.0					
003	118a003	CCV	dsl			28-APR-2005 10:08	1.0	1.0		3	1	
004	118a004	CCV	mo			28-APR-2005 10:37	1.0	1.0		3	2	
005	118a005	LCS	QC291890 S	101531	Soil	28-APR-2005 11:27	1.0	0.09994		3		
006	118a006	BLANK	QC291889 S	101531	Soil	28-APR-2005 11:56	1.0	0.09978	7	3		
007	118a007	SAMPLE	179122-004	101531	Soil	28-APR-2005 12:28	20.0	0.09974		3		
008	118a008	LCS	QC291848 S	101519	Soil	28-APR-2005 14:42	1.0	0.0995		3		
009	118a009	BLANK	QC291847 S	101519	Soil	28-APR-2005 15:12	1.0	0.09915	7	3		
010	118a010	SAMPLE	179043-005 S	101519	Soil	28-APR-2005 15:41	1.0	0.1005	1	3	2:MO:28-=9379.05	
011	118a011	X	ccv			28-APR-2005 16:40	1.0	1.0		3	3	
012	118a012	CCV	mo			28-APR-2005 17:09	1.0	1.0		3	2	
013	118a013	CCV	dsl			28-APR-2005 17:39	1.0	1.0		3	3	
014	118a014	CHECK	mo			28-APR-2005 19:27	1.0	1.0		3	4	
015	118a015	SAMPLE	179119-002 S	101526	Water	28-APR-2005 20:35	1.0	0.005		3		46
016	118a016	SAMPLE	179076-030 S	101519	Soil	28-APR-2005 21:05	1.0	0.09956		3		
017	118a017	SAMPLE	179043-005 S	101519	Soil	28-APR-2005 21:34	3.0	0.1005		3		
018	118a018	CCV	dsl			28-APR-2005 22:03	1.0	1.0		3	5	
019	118a019	CCV	mo			28-APR-2005 22:33	1.0	1.0		3	2	
020	118a020	X	ccv			28-APR-2005 23:02	1.0				5	

Stds used: 1=S167 2=S294 3=S295 4=S442 5=S351

SEQUENCE SUMMARY FOR 179089 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145176452 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 02-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	122b001	X	primer			02-MAY-2005 12:52	1.0					
002	122b002	X	ib			02-MAY-2005 13:20	1.0					
003	122b003	CCV	dsl			02-MAY-2005 13:48	1.0	1.0		3	1	
004	122b004	CCV	mo			02-MAY-2005 14:15	1.0	1.0		3	2	
005	122b005	MS	QC291891 S	101531	Soil	02-MAY-2005 14:51	1.0	0.09996		3		
006	122b006	MSD	QC291892 S	101531	Soil	02-MAY-2005 15:19	1.0	0.09927		3		
007	122b007	MSS	179089-001 S	101531	Soil	02-MAY-2005 15:47	1.0	0.0997	10	3		
008	122b008	SAMPLE	179089-002 S	101531	Soil	02-MAY-2005 16:15	1.0	0.09998		3		
009	122b009	SAMPLE	179089-003 S	101531	Soil	02-MAY-2005 16:43	1.0	0.09919		3		
010	122b010	CCV	dsl			02-MAY-2005 17:11	1.0	1.0		3	3	
011	122b011	CCV	mo			02-MAY-2005 17:39	1.0	1.0		3	2	
012	122b012	X	ib			02-MAY-2005 19:48	1.0					
013	122b013	BLANK	QC292291	101637	Soil	02-MAY-2005 20:16	1.0	0.1000	10	3		
014	122b014	MDL	177896-001	101637	Soil	02-MAY-2005 20:44	1.0	0.1000		3		
015	122b015	MDL	177896-002	101637	Soil	02-MAY-2005 21:12	1.0	0.1000		3		47
016	122b016	MDL	177896-003	101637	Soil	02-MAY-2005 21:40	1.0	0.1000		3		
017	122b017	MDL	177896-004	101637	Soil	02-MAY-2005 22:08	1.0	0.1000		3		
018	122b018	MDL	177896-005	101637	Soil	02-MAY-2005 22:36	1.0	0.1000		3		
019	122b019	MDL	177896-006	101637	Soil	02-MAY-2005 23:04	1.0	0.1000		3		
020	122b020	MDL	177896-007	101637	Soil	02-MAY-2005 23:32	1.0	0.1000		3		
021	122b021	MDL	177896-008	101637	Soil	03-MAY-2005 00:00	1.0	0.1000		3		
022	122b022	CCV	dsl			03-MAY-2005 00:28	1.0	1.0		3	4	
023	122b023	X	ccv			03-MAY-2005 00:56	1.0				4	

Stds used: 1=S467 2=S442 3=S295 4=S351

Curtis & Tompkins Laboratories Sample Preparation Summary 28-APR-2005 08:32

Batch Number : 101531
Date Extracted: 27-APR-2005
Extracted by : Stephen Koster
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S253B
Spike #2 ID : S305A
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001			Mactec, Inc.	Soil	50.15	g	5	0.099701	1		1	0		TEHM		mss
179089-002			Mactec, Inc.	Soil	50.01	g	5	0.099980	1		1	0		TEHM		
179089-003			Mactec, Inc.	Soil	50.41	g	5	0.099187	1		1	0		TEHM		
179098-001			Iris Environmental	Soil	50.15	g	5	0.099701	1		1	0		TEHM	3630C	sg
179098-002			Iris Environmental	Soil	50.3	g	5	0.099404	1		1	0		TEHM	3630C	sg
179098-003			Iris Environmental	Soil	50.29	g	5	0.099423	1		1	0		TEHM	3630C	sg
179121-001			Stellar Environmental Solution	Soil	50.32	g	5	0.099364	1		1	0		TEHM		
179121-002			Stellar Environmental Solution	Soil	50.44	g	5	0.099128	1		1	0		TEHM		
179121-003			Stellar Environmental Solution	Soil	50.2	g	5	0.099602	1		1	0		TEHM		
179121-004			Stellar Environmental Solution	Soil	50.44	g	5	0.099128	1		1	0		TEHM		
179121-005			Stellar Environmental Solution	Soil	50.48	g	5	0.099049	1		1	0		TEHM		
179121-006			Stellar Environmental Solution	Soil	50.42	g	5	0.099167	1		1	0		TEHM		
179122-001			SECOR	Soil	50.1	g	5	0.099800	1		1	0		TEH		
179122-002			SECOR	Soil	50.22	g	5	0.099562	1		1	0		TEH		
179122-003			SECOR	Soil	50.05	g	5	0.099900	1		1	0		TEH		
179122-004			SECOR	Soil	50.13	g	5	0.099741	1		1	0		TEH		
QC291889	MB			Soil	50.11	g	5	0.099780	1		1	0		TEH	3630C	sg
QC291890	LCS			Soil	50.03	g	5	0.099940	1		1	1		TEH	3630C	sg
QC291891	MS	of 179089-001		Soil	50.02	g	5	0.099960	1		1	1		TEH		
QC291892	MSD	of 179089-001		Soil	50.37	g	5	0.099265	1		1	1		TEH		

Prep Chemist: _____ Reviewed By: _____ Date: 28Apr05

Relinquished By: _____ Received By: _____ Date: 4-28-5

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2119

LIMS Batch No: 101531
LIMS Analysis TEH/M
Extracted by: SFL
Date Extracted: 04/27/05

Extraction Method:
☒ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☒ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC 291889	50.11	5.0	X	
	LCS 291890	50.03		X	
	MS 291891	50.02			
	MSD 291892	50.37			
5	179089 -001	50.15			MSS
	-002	50.01			
	-003	50.41			
	179098 -001	50.15		X	
	-002	50.30		X	
10	-003	50.29		X	
	179121 -001	50.32			
	-002	50.44			
	-003	50.20			
	-004	50.44			
15	-005	50.48			
	-006	50.42			
	179122 -001	50.10			
	-002	50.22			
	-003	50.05			
20	-004	50.13			

JDM 28Apr05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44528	SFL 04/27/05
Samples were dried with CH2Cl2-rinsed granular Na2SO4	JDM 4/28/05 EM44135453	↓
1.0 mL of TEH_SURR surrogate solution was added to all samples	~~5885~~ S253B	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	S305A	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all CH_2Cl_2	EM45015	
Acetone	EM44233	
Samples were: ☐ sonicated 3 times ☒ placed on shaker table at:	1700	
taken off shaker table at:	1980	↓
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM44135453	JDM 28Apr05
Concentrated to volumes as noted above	✓	↓

SFL 04/27/05
Extraction Chemist / Date

Continued from page 5
Continued on page 49

JDM 28Apr05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

JOM 28Apr05
Prep Chemist: ~~JOM~~ 1015 JOM
Cleanup Date: 28 Apr 05

Benchbook # **BK 2091**
Page 93

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179098-001	101531	1.0	1.0	
-002	↓	↓	↓	
-003				
MB QC291889				
LCS ↓ 90				

JOM 28Apr05

JOM 28Apr05
~~☒~~ Extracts were cleaned up using C&T assembled 1.0 g columns

☐ Extracts were cleaned up using ____ g cartridges

Extracts were eluted with 4.0 mL CH_2Cl_2

Concentrated to volumes as noted above ✓

Mfg & Lot # / Time / Program	Initials / Date
~~SPS~~ JTB V33332	JOM 28Apr05
N/A	↓
EM45071	

Jessie Mee 28Apr05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

4/28/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: AMS
Cleanup Date: 5/2/05

Benchbook # **BK 2091**
Page 99

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179089-001	109531	1.0	1.0	MSS
↓ -002	↓	↓	↓	
↓ -003				
MS 02271891				
MSD ↓ 92				

JRD 5/2/05

	Mfg & Lot # / Time / Program	Initials / Date
☒ Extracts were cleaned up using C&T assembled 1.0 g columns	JTBV33332	AMS 5/2/05
☐ Extracts were cleaned up using ____ g cartridges	N/A	↓
Extracts were eluted with 4.0 mL CH_2Cl_2	EM45071	
Concentrated to volumes as noted above	✓	↓

M Silverberg 5/2/05
Extraction Chemist / Date

Continued from page ____
Continued on page 1

Jennifer Dell 5/2/05
Reviewed by / Date

182 Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178982-002B	30.39	8270	
179089-001A	50.15	TEHM	MSS
-MS	50.02		179089-001A
-MSD	50.37		↓
-LCS	50.03		EM44258
-MB	50.11		↓
-002A	50.01		
-003A	50.41		
179089-001A	30.21	8270	
-002A	30.37		MSS
-MS	30.21		179089-002A
-MSD	30.21		↓
-LCS	30.45		EM44258
-MB	30.20		↓
-003A	30.25		
179089-001A	15.08	8081	
-002	15.04		
-003	15.19		MSS
-MS	15.01		179089-003A
-MSD	15.01		↓
-LCS	15.09		EM44258
-MB	15.15		↓
179098-001A	50.15	TEHM	
-002	50.30		
-003	50.29		
179098-004	30.16	8270	COMP 001A 002A 003A
179098-004	15.17	8081	
179098-004	CLAIMS 15.02	PCB	↓
179098-004	15.05	PCB/8091	COMP A,B,C
179122-001	50.10	TEH	
179122-001A	50.22		
-002	50.05		
-003	50.13		COMP A,B,C,D
-004			

Continued on Page

Signed [signature] Date 4/27/05

Read and Understood By

Signed Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
T79121F001A	50.22	TEHM	
-002	50.44		
-003	50.20		
-004	50.44		
-005	50.48		
-006	50.42		

Continued on Page

Signed

4/27/05 53

Date

Read and Understood By

Signed

Date

VOCs results & QC Summary

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(4.0)	Diln Fac:	0.9259
Lab ID:	179089-001	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Moisture: 9%

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.7
Chloroethane	ND	10	1.9
Trichlorofluoromethane	ND	5.1	1.7
Acetone	ND	20	2.1
Freon 113	ND	5.1	1.8
1,1-Dichloroethene	ND	5.1	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.1	1.7
MTBE	ND	5.1	2.1
trans-1,2-Dichloroethene	ND	5.1	2.1
Vinyl Acetate	ND	51	1.9
1,1-Dichloroethane	ND	5.1	2.0
2-Butanone	ND	10	2.2
cis-1,2-Dichloroethene	ND	5.1	2.0
2,2-Dichloropropane	ND	5.1	2.0
Chloroform	ND	5.1	2.0
Bromochloromethane	ND	5.1	1.9
1,1,1-Trichloroethane	ND	5.1	2.1
1,1-Dichloropropene	ND	5.1	2.1
Carbon Tetrachloride	ND	5.1	1.8
1,2-Dichloroethane	ND	5.1	2.0
Benzene	ND	5.1	2.1
Trichloroethene	ND	5.1	2.1
1,2-Dichloropropane	ND	5.1	2.2
Bromodichloromethane	ND	5.1	1.9
Dibromomethane	ND	5.1	1.9
4-Methyl-2-Pentanone	ND	10	1.8
cis-1,3-Dichloropropene	ND	5.1	1.8
Toluene	8.5	5.1	2.4
trans-1,3-Dichloropropene	ND	5.1	2.0
1,1,2-Trichloroethane	ND	5.1	2.6
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.1	1.9
Tetrachloroethene	ND	5.1	1.9
Dibromochloromethane	ND	5.1	1.5
1,2-Dibromoethane	ND	5.1	2.0
Chlorobenzene	ND	5.1	2.1
1,1,1,2-Tetrachloroethane	ND	5.1	1.7
Ethylbenzene	ND	5.1	2.1
m,p-Xylenes	8.8	5.1	4.5
o-Xylene	ND	5.1	2.1
Styrene	ND	5.1	1.8
Bromoform	ND	5.1	1.6
Isopropylbenzene	ND	5.1	2.1
1,1,2,2-Tetrachloroethane	ND	5.1	2.1
1,2,3-Trichloropropane	ND	5.1	2.6
Propylbenzene	ND	5.1	2.1
Bromobenzene	ND	5.1	1.9
1,3,5-Trimethylbenzene	ND	5.1	2.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

5.1

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(4.0)	Diln Fac:	0.9259
Lab ID:	179089-001	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.1	2.2
4-Chlorotoluene	ND	5.1	1.9
tert-Butylbenzene	ND	5.1	2.1
1,2,4-Trimethylbenzene	ND	5.1	2.0
sec-Butylbenzene	ND	5.1	2.1
para-Isopropyl Toluene	ND	5.1	2.0
1,3-Dichlorobenzene	ND	5.1	1.9
1,4-Dichlorobenzene	ND	5.1	1.9
n-Butylbenzene	ND	5.1	1.8
1,2-Dichlorobenzene	ND	5.1	1.9
1,2-Dibromo-3-Chloropropane	ND	5.1	2.3
1,2,4-Trichlorobenzene	ND	5.1	1.6
Hexachlorobutadiene	ND	5.1	2.0
Naphthalene	ND	5.1	1.7
1,2,3-Trichlorobenzene	ND	5.1	1.8

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-120
1,2-Dichloroethane-d4	93	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(7.0)	Diln Fac:	0.9091
Lab ID:	179089-002	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Moisture: 14%

Analyte	Result	RL	MDL
Freon 12	ND	11	2.1
Chloromethane	ND	11	2.1
Vinyl Chloride	ND	11	1.6
Bromomethane	ND	11	1.7
Chloroethane	ND	11	1.9
Trichlorofluoromethane	ND	5.3	1.7
Acetone	ND	21	2.2
Freon 113	ND	5.3	1.8
1,1-Dichloroethene	ND	5.3	2.3
Methylene Chloride	ND	21	2.3
Carbon Disulfide	ND	5.3	1.8
MTBE	ND	5.3	2.2
trans-1,2-Dichloroethene	ND	5.3	2.2
Vinyl Acetate	ND	53	2.0
1,1-Dichloroethane	ND	5.3	2.1
2-Butanone	ND	11	2.3
cis-1,2-Dichloroethene	ND	5.3	2.1
2,2-Dichloropropane	ND	5.3	2.1
Chloroform	ND	5.3	2.1
Bromochloromethane	ND	5.3	1.9
1,1,1-Trichloroethane	ND	5.3	2.1
1,1-Dichloropropene	ND	5.3	2.1
Carbon Tetrachloride	ND	5.3	1.9
1,2-Dichloroethane	ND	5.3	2.1
Benzene	ND	5.3	2.2
Trichloroethene	ND	5.3	2.1
1,2-Dichloropropane	ND	5.3	2.3
Bromodichloromethane	ND	5.3	2.0
Dibromomethane	ND	5.3	2.0
4-Methyl-2-Pentanone	ND	11	1.8
cis-1,3-Dichloropropene	ND	5.3	1.8
Toluene	ND	5.3	2.5
trans-1,3-Dichloropropene	ND	5.3	2.1
1,1,2-Trichloroethane	ND	5.3	2.7
2-Hexanone	ND	11	2.1
1,3-Dichloropropane	ND	5.3	2.0
Tetrachloroethene	ND	5.3	1.9
Dibromochloromethane	ND	5.3	1.6
1,2-Dibromoethane	ND	5.3	2.1
Chlorobenzene	ND	5.3	2.2
1,1,1,2-Tetrachloroethane	ND	5.3	1.8
Ethylbenzene	ND	5.3	2.2
m,p-Xylenes	ND	5.3	4.6
o-Xylene	ND	5.3	2.2
Styrene	ND	5.3	1.9
Bromoform	ND	5.3	1.7
Isopropylbenzene	ND	5.3	2.1
1,1,2,2-Tetrachloroethane	ND	5.3	2.2
1,2,3-Trichloropropane	ND	5.3	2.7
Propylbenzene	ND	5.3	2.2
Bromobenzene	ND	5.3	2.0
1,3,5-Trimethylbenzene	ND	5.3	2.2

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(7.0)	Diln Fac:	0.9091
Lab ID:	179089-002	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.3	2.2
4-Chlorotoluene	ND	5.3	1.9
tert-Butylbenzene	ND	5.3	2.2
1,2,4-Trimethylbenzene	ND	5.3	2.1
sec-Butylbenzene	ND	5.3	2.2
para-Isopropyl Toluene	ND	5.3	2.1
1,3-Dichlorobenzene	ND	5.3	2.0
1,4-Dichlorobenzene	ND	5.3	2.0
n-Butylbenzene	ND	5.3	1.8
1,2-Dichlorobenzene	ND	5.3	2.0
1,2-Dibromo-3-Chloropropane	ND	5.3	2.4
1,2,4-Trichlorobenzene	ND	5.3	1.7
Hexachlorobutadiene	ND	5.3	2.1
Naphthalene	ND	5.3	1.8
1,2,3-Trichlorobenzene	ND	5.3	1.8

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-120
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(10.0)	Diln Fac:	0.9091
Lab ID:	179089-003	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Moisture: 18%

Analyte	Result	RL	MDL
Freon 12	ND	11	2.2
Chloromethane	ND	11	2.2
Vinyl Chloride	ND	11	1.7
Bromomethane	ND	11	1.8
Chloroethane	ND	11	2.0
Trichlorofluoromethane	ND	5.5	1.8
Acetone	ND	22	2.3
Freon 113	ND	5.5	1.9
1,1-Dichloroethene	ND	5.5	2.4
Methylene Chloride	ND	22	2.4
Carbon Disulfide	ND	5.5	1.9
MTBE	ND	5.5	2.3
trans-1,2-Dichloroethene	ND	5.5	2.3
Vinyl Acetate	ND	55	2.1
1,1-Dichloroethane	ND	5.5	2.2
2-Butanone	ND	11	2.4
cis-1,2-Dichloroethene	ND	5.5	2.2
2,2-Dichloropropane	ND	5.5	2.2
Chloroform	ND	5.5	2.2
Bromochloromethane	ND	5.5	2.0
1,1,1-Trichloroethane	ND	5.5	2.2
1,1-Dichloropropene	ND	5.5	2.3
Carbon Tetrachloride	ND	5.5	2.0
1,2-Dichloroethane	ND	5.5	2.2
Benzene	ND	5.5	2.3
Trichloroethene	ND	5.5	2.2
1,2-Dichloropropane	ND	5.5	2.4
Bromodichloromethane	ND	5.5	2.1
Dibromomethane	ND	5.5	2.1
4-Methyl-2-Pentanone	ND	11	1.9
cis-1,3-Dichloropropene	ND	5.5	1.9
Toluene	5.8	5.5	2.6
trans-1,3-Dichloropropene	ND	5.5	2.2
1,1,2-Trichloroethane	ND	5.5	2.8
2-Hexanone	ND	11	2.2
1,3-Dichloropropane	ND	5.5	2.1
Tetrachloroethene	ND	5.5	2.0
Dibromochloromethane	ND	5.5	1.6
1,2-Dibromoethane	ND	5.5	2.2
Chlorobenzene	ND	5.5	2.3
1,1,1,2-Tetrachloroethane	ND	5.5	1.9
Ethylbenzene	ND	5.5	2.3
m,p-Xylenes	ND	5.5	4.9
o-Xylene	ND	5.5	2.3
Styrene	ND	5.5	2.0
Bromoform	ND	5.5	1.8
Isopropylbenzene	ND	5.5	2.2
1,1,2,2-Tetrachloroethane	ND	5.5	2.3
1,2,3-Trichloropropane	ND	5.5	2.8
Propylbenzene	ND	5.5	2.3
Bromobenzene	ND	5.5	2.1
1,3,5-Trimethylbenzene	ND	5.5	2.3

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

7.1

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB02TP108(10.0)	Diln Fac:	0.9091
Lab ID:	179089-003	Batch#:	101479
Matrix:	Soil	Sampled:	04/25/05
Units:	ug/Kg	Received:	04/26/05
Basis:	dry	Analyzed:	04/26/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.5	2.3
4-Chlorotoluene	ND	5.5	2.0
tert-Butylbenzene	ND	5.5	2.3
1,2,4-Trimethylbenzene	ND	5.5	2.2
sec-Butylbenzene	ND	5.5	2.3
para-Isopropyl Toluene	ND	5.5	2.2
1,3-Dichlorobenzene	ND	5.5	2.1
1,4-Dichlorobenzene	ND	5.5	2.1
n-Butylbenzene	ND	5.5	1.9
1,2-Dichlorobenzene	ND	5.5	2.1
1,2-Dibromo-3-Chloropropane	ND	5.5	2.5
1,2,4-Trichlorobenzene	ND	5.5	1.8
Hexachlorobutadiene	ND	5.5	2.2
Naphthalene	ND	5.5	1.8
1,2,3-Trichlorobenzene	ND	5.5	1.9

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-120
1,2-Dichloroethane-d4	93	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291673	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101479
Units:	ug/Kg	Analyzed:	04/26/05

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC291673	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101479
Units:	ug/Kg	Analyzed:	04/26/05

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-120
1,2-Dichloroethane-d4	94	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC291671	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101479
Units:	ug/Kg	Analyzed:	04/26/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	57.74	115	77-124
Benzene	50.00	49.33	99	80-120
Trichloroethene	50.00	50.62	101	80-120
Toluene	50.00	51.26	103	80-120
Chlorobenzene	50.00	47.10	94	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	107	80-120
Bromofluorobenzene	96	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9804
MSS Lab ID:	178881-024	Batch#:	101479
Matrix:	Soil	Sampled:	04/13/05
Units:	ug/Kg	Received:	04/13/05
Basis:	as received	Analyzed:	04/26/05

Type: MS Lab ID: QC291719

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<2.141	49.02	56.69	116	70-120
Benzene	<2.059	49.02	45.41	93	70-120
Trichloroethene	<1.977	49.02	46.02	94	65-126
Toluene	<2.294	49.02	44.60	91	64-120
Chlorobenzene	<2.007	49.02	40.98	84	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-120
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	105	80-120
Bromofluorobenzene	101	80-120

Type: MSD Lab ID: QC291720

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	54.52	111	70-120	4	20
Benzene	49.02	43.06	88	70-120	5	20
Trichloroethene	49.02	43.92	90	65-126	5	20
Toluene	49.02	44.57	91	64-120	0	20
Chlorobenzene	49.02	39.73	81	59-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	90	80-120
Toluene-d8	106	80-120
Bromofluorobenzene	104	80-120

RPD= Relative Percent Difference

MSVOA03 8260/GA500 & ICAL TUNE

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\033005.b\CCU16.D

Date : 30-MAR-2005 16:41

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

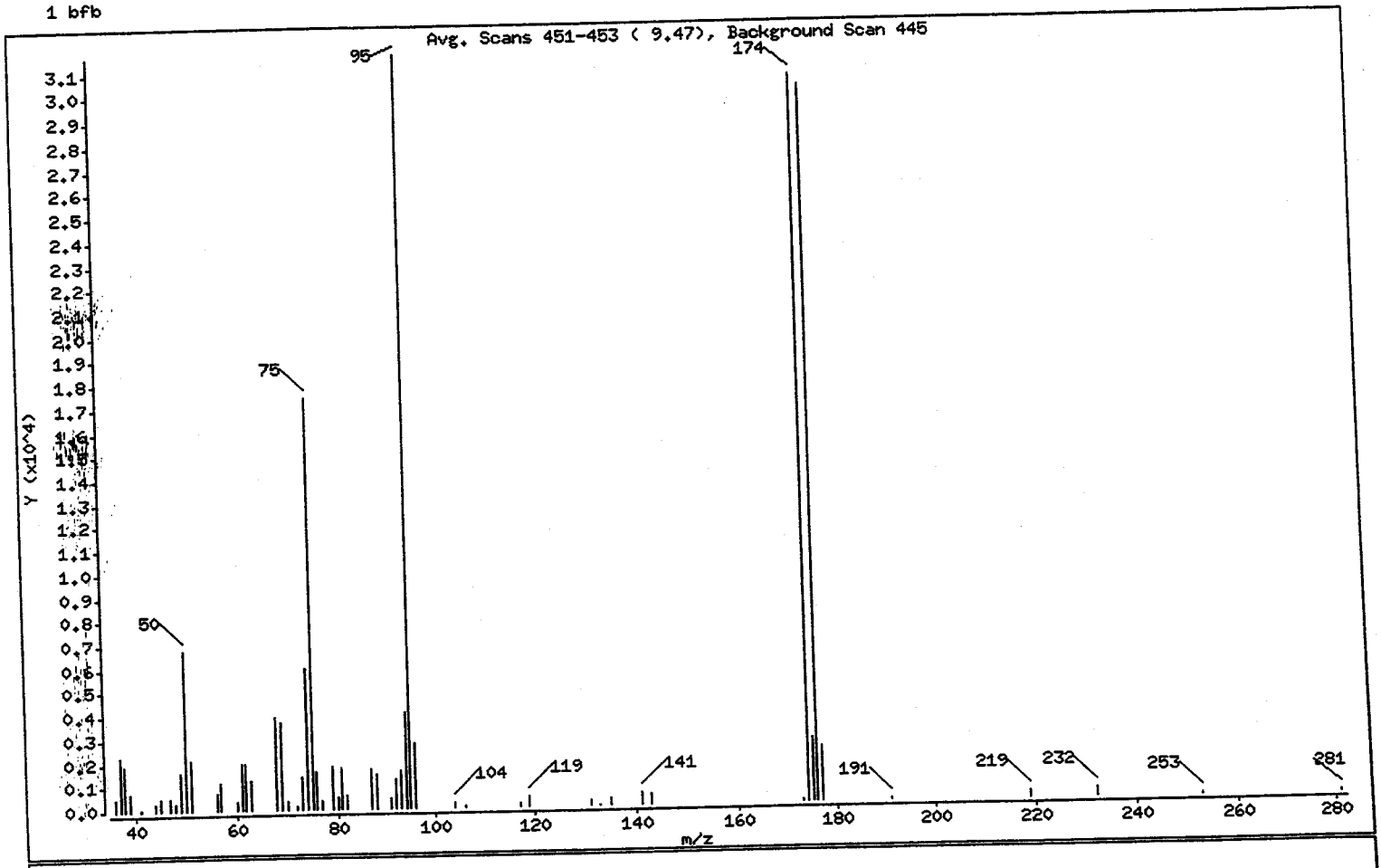
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.37
75	30.00 - 60.00% of mass 95	55.06
96	5.00 - 9.00% of mass 95	8.78
173	Less than 2.00% of mass 174	0.33 (0.34)
174	50.00 - 99.99% of mass 95	96.58
175	5.00 - 9.00% of mass 174	8.41 (8.70)
176	95.01 - 100.99% of mass 174	95.26 (98.63)
177	5.00 - 9.00% of mass 176	7.35 (7.71)

C 03/31/05

R 3/31/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\042605.b\CDQ02.D

Date : 26-APR-2005 11:08

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

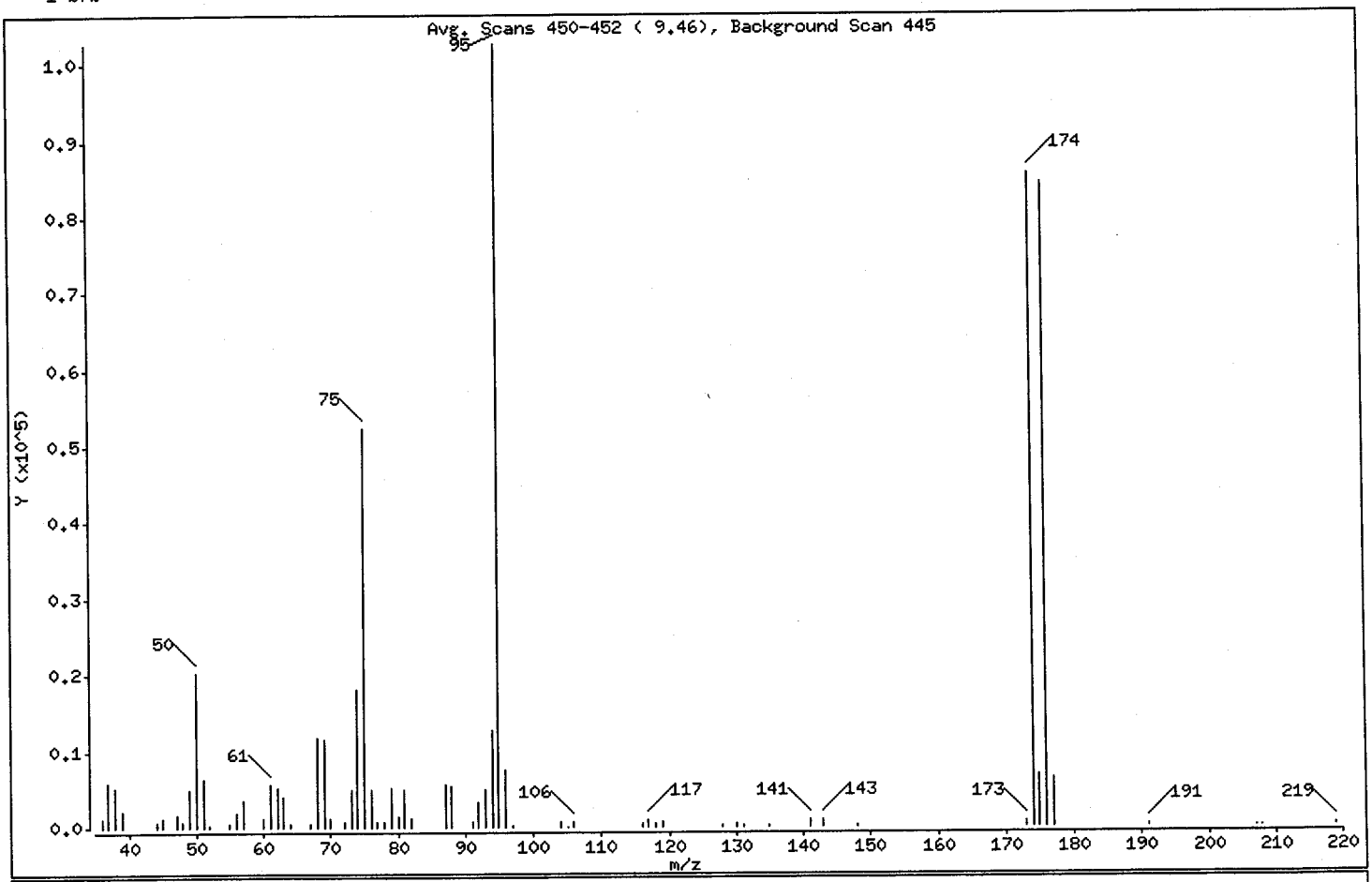
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.69
75	30.00 - 60.00% of mass 95	51.13
96	5.00 - 9.00% of mass 95	7.44
173	Less than 2.00% of mass 174	0.66 (0.79)
174	50.00 - 99.99% of mass 95	83.46
175	5.00 - 9.00% of mass 174	6.63 (7.95)
176	95.01 - 100.99% of mass 174	82.28 (98.60)
177	5.00 - 9.00% of mass 176	6.15 (7.47)

4/27/05

4/28/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	ccu18	425128734018	5PPB	30-MAR-2005 17:27	S158 (100000X), S127 (100000X), S95 (5000X)
2	ccu19	425128734019	10PPB	30-MAR-2005 17:57	S158 (50000X), S127 (50000X), S95 (5000X)
3	ccu20	425128734020	20PPB	30-MAR-2005 18:27	S158 (25000X), S127 (25000X), S95 (5000X)
4	ccu21	425128734021	50PPB	30-MAR-2005 18:57	S158 (10000X), S127 (10000X), S95 (5000X)
5	ccu22	425128734022	60PPB	30-MAR-2005 19:27	S158 (8333X), S127 (8333X), S95 (5000X)
6	ccu23	425128734023	75PPB	30-MAR-2005 19:58	S158 (6667X), S127 (6667X), S95 (5000X)
7	ccu24	425128734024	100PPB	30-MAR-2005 20:28	S158 (5000X), S127 (5000X), S95 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4745m	0.4940m	0.4751m	0.4976m	0.5119m	0.4812m	0.4759m	AVRG	R		2.052728		ug/L	0.4872	3	0.0500	0.99	15	
Chloromethane	0.4546m	0.4333m	0.4042m	0.3987m	0.3952m	0.3795m	0.3596	AVRG	R		2.477694		ug/L	0.4036	8	0.1000	0.99	15	
Vinyl Chloride	0.3567	0.3592	0.3293	0.3631	0.3567	0.3419	0.3359	AVRG	R		2.865534		ug/L	0.3490	4	0.0500	0.99	15	
Bromomethane	0.6025	0.5903	0.5800	0.5781	0.5826	0.5774	0.5609	AVRG	R		1.719137		ug/L	0.5817	2	0.0500	0.99	15	
Chloroethane	0.2623	0.2655	0.2661	0.2516	0.2474	0.2505	0.2389	AVRG	R		3.927511		ug/L	0.2546	4	0.0500	0.99	15	
Trichlorofluoromethane	0.7451	0.7351	0.6993	0.7470	0.7537	0.7322	0.7122	AVRG	R		1.365915		ug/L	0.7321	3	0.0500	0.99	15	
Acetone		0.1684	0.1404	0.1435	0.1343	0.1296	0.1228	AVRG	R		7.151248		ug/L	0.1398	11	0.0500	0.99	15	
Freon 113	0.3763	0.3313	0.2496	0.4359	0.4394	0.4285	0.4299	LINR	R	3.499502	2.213916		ug/L	0.3844	0.994	0.0500	0.99	15	
1,1-Dichloroethene	0.3130	0.2947	0.2597	0.3277	0.3230	0.3295	0.3179	AVRG	R		3.232673		ug/L	0.3093	8	0.0500	0.99	15	
Methylene Chloride		0.4356	0.4209	0.4196	0.4170	0.4058	0.3891	AVRG	R		2.411557		ug/L	0.4147	4	0.0500	0.99	15	
Carbon Disulfide	0.9218	0.8982	0.8392	0.9664	0.9743	0.9295	0.9343	AVRG	R		1.082975		ug/L	0.9234	5	0.0500	0.99	15	
MTBE	1.2580	1.2866	1.2003	1.2427	1.2274	1.1938	1.1428	AVRG	R		0.818567		ug/L	1.2216	4	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.3945	0.3916	0.3570	0.3924	0.3873	0.3852	0.3781	AVRG	R		2.606048		ug/L	0.3837	3	0.0500	0.99	15	
Vinyl Acetate	0.8972	0.8399	0.8594	0.8742	0.8300	0.8268	0.8066	AVRG	R		1.179606		ug/L	0.8477	4	0.0500	0.99	15	
1,1-Dichloroethane	0.6787	0.6736	0.6272	0.6559	0.6339	0.6374	0.6178	AVRG	R		1.547118		ug/L	0.6464	4	0.1000	0.99	15	
2-Butanone		0.2358	0.2313	0.2273	0.2279	0.2128	0.1938	AVRG	R		4.514839		ug/L	0.2215	7	0.0500	0.99	15	
2,2-Dichloropropane	0.6240	0.5950	0.5262	0.5935	0.6008	0.5769	0.5718	AVRG	R		1.712243		ug/L	0.5840	5	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.4755	0.4431	0.4299	0.4415	0.4432	0.4318	0.4179	AVRG	R		2.270552		ug/L	0.4404	4	0.0500	0.99	15	

ICAL - Good, ICV - Good + A.C.E. Lim - Brhet

Flags used: m=manual integration - for inc. int. By Target

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

3/31/05

3/31/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	0.7899	0.8058	0.7653	0.7702	0.7714	0.7322	0.7313	AVRG	R		1.304464		ug/L	0.7666	4	0.0500	0.99	15	
Bromochloromethane	0.2557	0.2677	0.2593	0.2692	0.2779	0.2618	0.2558	AVRG	R		3.788978		ug/L	0.2639	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6382	0.6119	0.5379	0.6378	0.6394	0.6167	0.6122	AVRG	R		1.630131		ug/L	0.6134	6	0.0500	0.99	15	
1,1-Dichloropropene	0.3474	0.3198	0.2838	0.3294	0.3422	0.3257	0.3301	AVRG	R		3.072226		ug/L	0.3255	6	0.0500	0.99	15	
Carbon Tetrachloride	0.3729	0.3485	0.2989	0.3858	0.3852	0.3845	0.3909	AVRG	R		2.727273		ug/L	0.3667	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4482	0.4634	0.4344	0.4217	0.4177	0.4053	0.4033	AVRG	R		2.337999		ug/L	0.4277	5	0.0500	0.99	15	
Benzene	0.9907	0.9541	0.8903	0.8797	0.8871	0.8552	0.8477	AVRG	R		1.110289		ug/L	0.9007	6	0.0500	0.99	15	
Trichloroethene	0.2949	0.2987	0.2652	0.2841	0.2953	0.2842	0.2870	AVRG	R		3.483382		ug/L	0.2871	4	0.0500	0.99	15	
1,2-Dichloropropane	0.2948	0.2940	0.2649	0.2588	0.2602	0.2581	0.2532	AVRG	R		3.715540		ug/L	0.2691	7	0.0500	0.99	15	
Bromodichloromethane	0.3996	0.4125	0.3801	0.3986	0.4026	0.3987	0.3987	AVRG	R		2.508187		ug/L	0.3987	2	0.0500	0.99	15	
Dibromomethane	0.2421	0.2471	0.2412	0.2454	0.2420	0.2382	0.2322	AVRG	R		4.146577		ug/L	0.2412	2	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.3486	0.3396	0.3360	0.3325	0.3160	0.3008	AVRG	R		3.040251		ug/L	0.3289	5	0.0500	0.99	15	
Tetramethyl THF	0.6721	0.6708	0.6240	0.5981	0.5948	0.5714	0.5443	AVRG	R		1.637230		ug/L	0.6108	8	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4646	0.4742	0.4349	0.4430	0.4486	0.4421	0.4363	AVRG	R		2.226603		ug/L	0.4491	3	0.0500	0.99	15	
Toluene	0.6271	0.6238	0.5714	0.5858	0.5953	0.5819	0.5574	AVRG	R		1.689743		ug/L	0.5918	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4441	0.4635	0.4231	0.4429	0.4432	0.4348	0.4292	AVRG	R		2.272139		ug/L	0.4401	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1538	0.1581	0.1405	0.1512	0.1496	0.1450	0.1476	AVRG	R		6.692440		ug/L	0.1494	4	0.0500	0.99	15	
2-Hexanone		0.3134	0.3212	0.3063	0.2974	0.2884	0.2681	AVRG	R		3.343034		ug/L	0.2991	6	0.0500	0.99	15	
1,3-Dichloropropane	0.5717	0.5606	0.5382	0.5390	0.5192	0.5197	0.5159	AVRG	R		1.859577		ug/L	0.5378	4	0.0500	0.99	15	
Tetrachloroethene	0.3828	0.3816	0.3205	0.3886	0.3875	0.3795	0.3819	AVRG	R		2.669315		ug/L	0.3746	6	0.0500	0.99	15	
Dibromochloromethane	0.4296	0.4434	0.4281	0.4439	0.4292	0.4446	0.4463	AVRG	R		2.283853		ug/L	0.4379	2	0.0500	0.99	15	
1,2-Dibromoethane	0.3274	0.3274	0.3100	0.3309	0.3247	0.3120	0.3129	AVRG	R		3.117626		ug/L	0.3208	3	0.0500	0.99	15	
Chlorobenzene	1.0049	0.9516	0.9031	0.9065	0.8937	0.8685	0.8544	AVRG	R		1.096704		ug/L	0.9118	6	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.4100	0.4028	0.3648	0.3903	0.3694	0.3665	0.3679	AVRG	R		2.620104		ug/L	0.3817	5	0.0500	0.99	15	
Ethylbenzene	1.5015	1.4811	1.3158	1.4354	1.3997	1.3356	1.3274	AVRG	R		0.714542		ug/L	1.3995	5	0.0500	0.99	15	
m,p-Xylenes	0.5684	0.5359	0.4802	0.4973	0.4942	0.4800	0.4751	AVRG	R		1.982364		ug/L	0.5044	7	0.0500	0.99	15	
o-Xylene	0.5578	0.5442	0.4877	0.5107	0.4999	0.4974	0.4935	AVRG	R		1.949221		ug/L	0.5130	5	0.0500	0.99	15	
Styrene	0.9486	0.9388	0.8958	0.9083	0.8995	0.8799	0.8834	AVRG	R		1.101632		ug/L	0.9077	3	0.0500	0.99	15	
Bromoform	0.3658	0.3812	0.3789	0.3892	0.3902	0.3856	0.3927	AVRG	R		2.608541		ug/L	0.3834	2	0.1000	0.99	15	
Isopropylbenzene	2.3797	2.2853	1.8943	2.2514	2.2791	2.1815	2.1569	AVRG	R		0.453714		ug/L	2.2040	7	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.8639	0.8746	0.8123	0.8132	0.8164	0.7938	0.7558	AVRG	R		1.221659		ug/L	0.8186	5	0.3000	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.2802	0.2799	0.2582	0.2535	0.2692	0.2566	0.2441	AVRG	R		3.800524		ug/L	0.2631	5	0.0500	0.99	15	
Propylbenzene	3.0056	2.9505	2.4595	2.7615	2.7537	2.6388	2.5300	AVRG	R		0.366500		ug/L	2.7285	7	0.0500	0.99	15	
Bromobenzene	0.7851	0.8022	0.7151	0.7382	0.7451	0.7042	0.7070	AVRG	R		1.346954		ug/L	0.7424	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.0475	2.0849	1.7387	1.9321	1.9418	1.8979	1.8424	AVRG	R		0.519084		ug/L	1.9265	6	0.0500	0.99	15	
2-Chlorotoluene	2.1828	2.1463	1.9105	1.9394	1.9828	1.9145	1.8155	AVRG	R		0.503892		ug/L	1.9846	7	0.0500	0.99	15	
4-Chlorotoluene	2.0331	2.0693	1.7961	1.8674	1.9187	1.8250	1.7889	AVRG	R		0.526379		ug/L	1.8998	6	0.0500	0.99	15	
tert-Butylbenzene	1.7764	1.7129	1.3901	1.6904	1.6977	1.6270	1.5981	AVRG	R		0.609086		ug/L	1.6418	8	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1604	2.1330	1.8337	2.0032	2.0675	1.9578	1.9085	AVRG	R		0.497720		ug/L	2.0092	6	0.0500	0.99	15	
sec-Butylbenzene	2.4196	2.4698	1.9586	2.5153	2.5642	2.4347	2.3737	AVRG	R		0.418263		ug/L	2.3908	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.2101	2.1113	1.7857	2.1164	2.1225	2.0633	2.0526	AVRG	R		0.484030		ug/L	2.0660	6	0.0500	0.99	15	
1,3-Dichlorobenzene	1.4037	1.4449	1.2815	1.3359	1.3324	1.2865	1.2907	AVRG	R		0.746610		ug/L	1.3394	5	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5207	1.5011	1.3123	1.3850	1.3603	1.3396	1.3146	AVRG	R		0.719158		ug/L	1.3905	6	0.0500	0.99	15	
n-Butylbenzene	2.1015	2.0272	1.6584	1.9969	2.0294	1.9309	1.9163	AVRG	R		0.512422		ug/L	1.9515	7	0.0500	0.99	15	
1,2-Dichlorobenzene	1.3317	1.4049	1.2331	1.3227	1.2701	1.2497	1.2509	AVRG	R		0.772366		ug/L	1.2947	5	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2127	0.2003	0.1827	0.1848	0.1763	0.1695	0.1719	AVRG	R		5.392369		ug/L	0.1854	9	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.8893	0.9435	0.8386	0.8713	0.8419	0.8600	0.8394	AVRG	R		1.150560		ug/L	0.8691	4	0.0500	0.99	15	
Hexachlorobutadiene	0.4670	0.4315	0.3483	0.4512	0.4371	0.4438	0.4224	AVRG	R		2.332319		ug/L	0.4288	9	0.0500	0.99	15	
Naphthalene	1.8317	1.8992	1.8363	1.8422	1.8165	1.8641	1.8074	AVRG	R		0.542743		ug/L	1.8425	2	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.8405	0.8846	0.7986	0.8496	0.8171	0.8221	0.8145	AVRG	R		1.201311		ug/L	0.8324	3	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0640	0.0624	0.0606	0.0627	0.0592	0.0579	0.0554	AVRG	R		16.57698		ug/L	0.0603	5	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.3662	1.3527	1.2454	1.2486	1.2134	1.1675	1.1187	AVRG	R		0.803448		ug/L	1.2446	7	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2541	1.2293	1.1368	1.1625	1.1556	1.1088	1.0879	AVRG	R		0.860478		ug/L	1.1621	5	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8474	0.8602	0.7960	0.7927	0.7941	0.7668	0.7593	AVRG	R		1.246319		ug/L	0.8024	5	0.0500	0.99	15	
Ethanol	0.0062	0.0062	0.0056	0.0060	0.0057	0.0055	0.0055	AVRG	R		172.3205		ug/L	0.0058	5	5.0E-4	0.99	15	
Isopropanol	0.0344	0.0360	0.0333	0.0342	0.0326	0.0315	0.0297	AVRG	R		30.21780		ug/L	0.0331	6	0.0050	0.99	15	
Tetrahydrofuran	0.1319	0.1298	0.1204	0.1136	0.1118	0.1035	0.0968	AVRG	R		8.665138		ug/L	0.1154	11	0.0050	0.99	15	
Dibromofluoromethane	0.5673	0.5807	0.5718	0.5796	0.5851	0.5677	0.5694	AVRG	R		1.740573		ug/L	0.5745	1	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3980	0.4035	0.3835	0.3829	0.3835	0.3824	0.3756	AVRG	R		2.583613		ug/L	0.3871	3	0.0500	0.99	15	
Trifluorotoluene	0.4633	0.4158	0.3448	0.4457	0.4659	0.4464	0.4341	AVRG	R		2.320907		ug/L	0.4309	10	0.0500	0.99	15	
Toluene-d8	0.9720	0.9955	0.9527	0.9594	0.9745	0.9605	0.9532	AVRG	R		1.034299		ug/L	0.9668	2	0.0500	0.99	15	
Bromofluorobenzene	0.9410	0.9440	0.9237	0.9626	0.9394	0.9447	0.9522	AVRG	R		1.059393		ug/L	0.9439	1	0.0500	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

istid : MSVOA03 Run Name : QC288414
eqnum : 425128734027 Filename : ccu27 Injected : 30-MAR-2005 21:59
alnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
tandards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
freon 12	50.00000	43.56850	ug/L	-13	30	m
Chloromethane	50.00000	44.03510	ug/L	-12	30	
Vinyl Chloride	50.00000	51.14330	ug/L	2	20	
Bromomethane	50.00000	34.75960	ug/L	**-30**	30	!v-
Chloroethane	50.00000	52.04920	ug/L	4	30	
Trichlorofluoromethane	50.00000	53.42370	ug/L	7	30	
Acetone	50.00000	48.80200	ug/L	-2	40	
Freon 113	50.00000	48.00420	ug/L	-4	30	
1,1-Dichloroethene	50.00000	53.35110	ug/L	7	20	
Methylene Chloride	50.00000	49.45840	ug/L	-1	30	
Carbon Disulfide	50.00000	58.43920	ug/L	17	30	
MTBE	50.00000	52.94030	ug/L	6	30	
trans-1,2-Dichloroethene	50.00000	49.13170	ug/L	-2	30	
Vinyl Acetate	50.00000	36.86450	ug/L	-26	40	
1,1-Dichloroethane	50.00000	46.15010	ug/L	-8	30	
2-Butanone	50.00000	48.59070	ug/L	-3	40	
2,2-Dichloropropane	50.00000	46.28030	ug/L	-7	30	
cis-1,2-Dichloroethene	50.00000	47.94770	ug/L	-4	30	
Chloroform	50.00000	46.22470	ug/L	-8	20	
Bromochloromethane	50.00000	47.66480	ug/L	-5	30	
1,1,1-Trichloroethane	50.00000	48.09250	ug/L	-4	30	
1,1-Dichloropropene	50.00000	49.04550	ug/L	-2	30	
Carbon Tetrachloride	50.00000	49.92850	ug/L	0	30	
1,2-Dichloroethane	50.00000	44.44360	ug/L	-11	30	
Benzene	50.00000	45.08970	ug/L	-10	30	
Trichloroethene	50.00000	45.67340	ug/L	-9	30	
1,2-Dichloropropane	50.00000	41.38110	ug/L	-17	20	
Bromodichloromethane	50.00000	49.98580	ug/L	0	30	
Dibromomethane	50.00000	45.45000	ug/L	-9	30	
4-Methyl-2-Pentanone	50.00000	45.23430	ug/L	-10	40	
Tetramethyl THF	50.00000	42.98930	ug/L	-14	30	
cis-1,3-Dichloropropene	50.00000	44.74650	ug/L	-11	30	
Toluene	50.00000	44.28250	ug/L	-11	20	
trans-1,3-Dichloropropene	50.00000	42.13000	ug/L	-16	30	
1,1,2-Trichloroethane	50.00000	46.38090	ug/L	-7	30	
2-Hexanone	50.00000	48.05640	ug/L	-4	40	
1,3-Dichloropropane	50.00000	46.30170	ug/L	-7	30	
Tetrachloroethene	50.00000	47.76460	ug/L	-4	30	
Dibromochloromethane	50.00000	47.82850	ug/L	-4	30	
1,2-Dibromoethane	50.00000	45.64190	ug/L	-9	30	
Chlorobenzene	50.00000	45.00960	ug/L	-10	30	
1,1,1,2-Tetrachloroethane	50.00000	46.37180	ug/L	-7	30	
Ethylbenzene	50.00000	45.58140	ug/L	-9	20	
m,p-Xylenes	100.0000	90.71480	ug/L	-9	30	
o-Xylene	50.00000	45.88000	ug/L	-8	30	
Styrene	50.00000	44.67960	ug/L	-11	30	
Bromoform	50.00000	45.70180	ug/L	-9	30	

!=warning -=low bias m=manual integration v=ICV

03/31

3/31/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

ıstid : MSVOA03 Run Name : QC288414
:qnum : 425128734027 Filename : ccu27 Injected : 30-MAR-2005 21:59
ılnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
:andards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Isopropylbenzene	50.00000	42.99660	ug/L	-14	30	
1,1,2,2-Tetrachloroethane	50.00000	44.80580	ug/L	-10	30	
1,2,3-Trichloropropane	50.00000	45.01040	ug/L	-10	30	
Propylbenzene	50.00000	45.62610	ug/L	-9	30	
Bromobenzene	50.00000	44.62420	ug/L	-11	30	
1,3,5-Trimethylbenzene	50.00000	44.59320	ug/L	-11	30	
2-Chlorotoluene	50.00000	44.92990	ug/L	-10	30	
4-Chlorotoluene	50.00000	43.41110	ug/L	-13	30	
tert-Butylbenzene	50.00000	44.99060	ug/L	-10	30	
1,2,4-Trimethylbenzene	50.00000	43.90530	ug/L	-12	30	
sec-Butylbenzene	50.00000	47.19820	ug/L	-6	30	
para-Isopropyl Toluene	50.00000	44.11860	ug/L	-12	30	
1,3-Dichlorobenzene	50.00000	43.62700	ug/L	-13	30	
1,4-Dichlorobenzene	50.00000	43.46170	ug/L	-13	30	
n-Butylbenzene	50.00000	44.98560	ug/L	-10	30	
1,2-Dichlorobenzene	50.00000	45.68640	ug/L	-9	30	
1,2-Dibromo-3-Chloropropane	50.00000	44.14240	ug/L	-12	30	
1,2,4-Trichlorobenzene	50.00000	41.81470	ug/L	-16	30	
Hexachlorobutadiene	50.00000	47.39690	ug/L	-5	30	
Naphthalene	50.00000	44.88000	ug/L	-10	30	
1,2,3-Trichlorobenzene	50.00000	44.29180	ug/L	-11	30	
tert-Butyl Alcohol (TBA)	250.0000	287.8299	ug/L	15	30	
Isopropyl Ether (DIPE)	50.00000	49.76250	ug/L	0	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	56.44800	ug/L	13	30	
Methyl tert-Amyl Ether (TAME)	50.00000	53.11460	ug/L	6	30	
Ethanol	5000.000	5185.074	ug/L	4	30	
Isopropanol	500.0000	555.9436	ug/L	11	30	
Tetrahydrofuran	500.0000	537.8157	ug/L	8	30	

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	436523	15.76	10.68	10.68	0.00
1,4-Difluorobenzene	547892	634947	15.89	11.83	11.83	0.00
Chlorobenzene-d5	440598	502547	14.06	15.81	15.82	0.01
1,4-Dichlorobenzene-d4	262241	297816	13.57	18.51	18.51	0.00

!=warning -=low bias m=manual integration v=ICV

3/31/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425167668003 Filename : cdq03 Injected : 26-APR-2005 11:24
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (10000X), S359 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF	Flags
Freon 12	0.4872	0.5134	50.00000	52.69810	ug/L	5	30	0.0500	m
Chloromethane	0.4036	0.3852	50.00000	47.71480	ug/L	-5	30	0.1000	m
Vinyl Chloride	0.3490	0.3751	50.00000	53.74500	ug/L	7	20	0.0500	
Bromomethane	0.5817	0.6167	50.00000	53.00850	ug/L	6	30	0.0500	
Chloroethane	0.2546	0.2821	50.00000	55.39030	ug/L	11	30	0.0500	
Trichlorofluoromethane	0.7321	0.7445	50.00000	50.84400	ug/L	2	30	0.0500	
Acetone	0.1398	0.1648	50.00000	58.94130	ug/L	18	40	0.0500	
Freon 113	0.3844	0.4848	50.00000	57.16860	ug/L	14	30	0.0500	
1,1-Dichloroethene	0.3093	0.3620	50.00000	58.51860	ug/L	17	20	0.0500	
Methylene Chloride	0.4147	0.4922	50.00000	59.35260	ug/L	19	30	0.0500	
Carbon Disulfide	0.9234	1.0882	50.00000	58.92250	ug/L	18	30	0.0500	
MTBE	1.2216	1.2856	50.00000	52.61570	ug/L	5	30	0.0500	
trans-1,2-Dichloroethene	0.3837	0.4368	50.00000	56.90990	ug/L	14	30	0.0500	
Vinyl Acetate	0.8477	0.8945	50.00000	52.75930	ug/L	6	40	0.0500	
1,1-Dichloroethane	0.6464	0.6952	50.00000	53.77460	ug/L	8	30	0.1000	
2-Butanone	0.2215	0.2307	50.00000	52.08580	ug/L	4	40	0.0500	
2,2-Dichloropropane	0.5840	0.6497	50.00000	55.62270	ug/L	11	30	0.0500	
cis-1,2-Dichloroethene	0.4404	0.4929	50.00000	55.95690	ug/L	12	30	0.0500	
Chloroform	0.7666	0.8155	50.00000	53.19230	ug/L	6	20	0.0500	
Bromochloromethane	0.2639	0.2969	50.00000	56.25590	ug/L	13	30	0.0500	
1,1,1-Trichloroethane	0.6134	0.6620	50.00000	53.95750	ug/L	8	30	0.0500	
1,1-Dichloropropene	0.3255	0.3729	50.00000	57.28300	ug/L	15	30	0.0500	
Carbon Tetrachloride	0.3667	0.3918	50.00000	53.42890	ug/L	7	30	0.0500	
1,2-Dichloroethane	0.4277	0.4142	50.00000	48.42050	ug/L	-3	30	0.0500	
Benzene	0.9007	0.9621	50.00000	53.40850	ug/L	7	30	0.0500	
Trichloroethene	0.2871	0.3088	50.00000	53.77980	ug/L	8	30	0.0500	
1,2-Dichloropropane	0.2691	0.2763	50.00000	51.33450	ug/L	3	20	0.0500	
Bromodichloromethane	0.3987	0.4123	50.00000	51.70910	ug/L	3	30	0.0500	
Dibromomethane	0.2412	0.2452	50.00000	50.84250	ug/L	2	30	0.0500	
4-Methyl-2-Pentanone	0.3289	0.3258	50.00000	49.52550	ug/L	-1	40	0.0500	
Tetramethyl THF	0.6108	0.5750	50.00000	47.07420	ug/L	-6	30	0.0500	
cis-1,3-Dichloropropene	0.4491	0.4753	50.00000	52.91020	ug/L	6	30	0.0500	
Toluene	0.5918	0.6325	50.00000	53.44220	ug/L	7	20	0.0500	
trans-1,3-Dichloropropene	0.4401	0.4632	50.00000	52.62280	ug/L	5	30	0.0500	
1,1,2-Trichloroethane	0.1494	0.1587	50.00000	53.10950	ug/L	6	30	0.0500	
2-Hexanone	0.2991	0.2858	50.00000	47.77350	ug/L	-4	40	0.0500	
1,3-Dichloropropane	0.5378	0.5636	50.00000	52.40180	ug/L	5	30	0.0500	
Tetrachloroethene	0.3746	0.4018	50.00000	53.62380	ug/L	7	30	0.0500	
Dibromochloromethane	0.4379	0.4356	50.00000	49.74650	ug/L	-1	30	0.0500	
1,2-Dibromoethane	0.3208	0.3306	50.00000	51.53870	ug/L	3	30	0.0500	
Chlorobenzene	0.9118	0.9604	50.00000	52.66310	ug/L	5	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3817	0.3762	50.00000	49.28230	ug/L	-1	30	0.0500	
Ethylbenzene	1.3995	1.4822	50.00000	52.95470	ug/L	6	20	0.0500	
m,p-Xylenes	0.5044	0.5308	100.0000	105.2325	ug/L	5	30	0.0500	
o-Xylene	0.5130	0.5453	50.00000	53.14470	ug/L	6	30	0.0500	
Styrene	0.9077	0.9640	50.00000	53.09830	ug/L	6	30	0.0500	

!=warning +=high bias c=CCV m=manual integration

4/27/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425167668003 Filename : cdq03 Injected : 26-APR-2005 11:24
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (10000X), S359 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3834	0.3668	50.00000	47.83870	ug/L	-4	30	0.1000	
Isopropylbenzene	2.2040	2.4158	50.00000	54.80490	ug/L	10	30	0.0500	
1,1,2,2-Tetrachloroethane	0.8186	0.8797	50.00000	53.73370	ug/L	7	30	0.3000	
1,2,3-Trichloropropane	0.2631	0.2781	50.00000	52.85440	ug/L	6	30	0.0500	
Propylbenzene	2.7285	2.9583	50.00000	54.21020	ug/L	8	30	0.0500	
Bromobenzene	0.7424	0.7620	50.00000	51.32050	ug/L	3	30	0.0500	
1,3,5-Trimethylbenzene	1.9265	2.1624	50.00000	56.12450	ug/L	12	30	0.0500	
2-Chlorotoluene	1.9846	2.0668	50.00000	52.07150	ug/L	4	30	0.0500	
4-Chlorotoluene	1.8998	1.9516	50.00000	51.36310	ug/L	3	30	0.0500	
tert-Butylbenzene	1.6418	1.7378	50.00000	52.92290	ug/L	6	30	0.0500	
1,2,4-Trimethylbenzene	2.0092	2.2166	50.00000	55.16230	ug/L	10	30	0.0500	
sec-Butylbenzene	2.3908	2.8179	50.00000	58.93170	ug/L	18	30	0.0500	
para-Isopropyl Toluene	2.0660	2.3094	50.00000	55.88990	ug/L	12	30	0.0500	
1,3-Dichlorobenzene	1.3394	1.4177	50.00000	52.92380	ug/L	6	30	0.0500	
1,4-Dichlorobenzene	1.3905	1.4829	50.00000	53.32070	ug/L	7	30	0.0500	
n-Butylbenzene	1.9515	2.2781	50.00000	58.36740	ug/L	17	30	0.0500	
1,2-Dichlorobenzene	1.2947	1.3651	50.00000	52.71720	ug/L	5	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1854	0.1795	50.00000	48.38560	ug/L	-3	30	0.0500	
1,2,4-Trichlorobenzene	0.8691	1.0070	50.00000	57.93130	ug/L	16	30	0.0500	
Hexachlorobutadiene	0.4288	0.4284	50.00000	49.95360	ug/L	0	30	0.0500	
Naphthalene	1.8425	2.2316	50.00000	60.55930	ug/L	**21**	30	0.0500	!c+
1,2,3-Trichlorobenzene	0.8324	0.9356	50.00000	56.19710	ug/L	12	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0603	0.0621	500.0000	515.0729	ug/L	3	30	0.0050	
Isopropyl Ether (DIPE)	1.2446	1.2732	50.00000	51.14790	ug/L	2	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.1621	1.1887	50.00000	51.14420	ug/L	2	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8024	0.8047	50.00000	50.14650	ug/L	0	30	0.0500	
Ethanol	0.0058	0.0058	5000.000	5022.463	ug/L	0	30	5.0E-4	
Isopropanol	0.0331	0.0325	500.0000	491.3851	ug/L	-2	30	0.0050	
Tetrahydrofuran	0.1154	0.1131	500.0000	489.9816	ug/L	-2	30	0.0050	
Dibromofluoromethane	0.5745	0.5892	50.00000	51.28140	ug/L	3	30	0.0500	
1,2-Dichloroethane-d4	0.3871	0.3780	50.00000	48.82970	ug/L	-2	30	0.0500	
Trifluorotoluene	0.4309	0.4911	50.00000	56.98680	ug/L	14	30	0.0500	
Toluene-d8	0.9668	1.0058	50.00000	52.01620	ug/L	4	30	0.0500	
Bromofluorobenzene	0.9439	0.9325	50.00000	49.39420	ug/L	-1	30	0.0500	

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	380000	0.77	10.68	10.70	0.02
1,4-Difluorobenzene	547892	561126	2.42	11.83	11.85	0.02
Chlorobenzene-d5	440598	465041	5.55	15.81	15.82	0.01
1,4-Dichlorobenzene-d4	262241	265202	1.13	18.51	18.52	0.01

!=warning +=high bias c=CCV m=manual integration

4/26/05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 26-APR-2005
Sequence: 425167668 (cdq)
Instrument ID: MSVOA03

ICAL Filename: ccu21
Date Analyzed: 30-MAR-2005
Time Analyzed: 18:57

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	377098	10.68	547892	11.83	440598	15.81	262241	18.51
LOWER LIMIT	188549	10.18	273946	11.33	220299	15.31	131121	18.01
UPPER LIMIT	754196	11.18	1095784	12.33	881196	16.31	524482	19.01

TYPE	SAMPLE	#							
CCV	50PPB	003	380000	10.70	561126	11.85	465041	15.82	265202	18.52
LCS	QC291671	004	261375	10.70	388125	11.85	343060	15.82	200802	18.53
PREPBLK	QC291672	005	366178	10.69	527937	11.85	431005	15.83	250960	18.53
BLANK	QC291673	006	368126	10.70	540657	11.86	463164	15.83	281442	18.52
SAMPLE	178881-024	007	396573	10.71	582712	11.85	493483	15.83	287932	18.53
SAMPLE	179061-002	008	420077	10.70	608353	11.86	524218	15.83	298623	18.53
SAMPLE	179061-003	009	432581	10.70	623479	11.86	516807	15.83	301407	18.53
SAMPLE	179089-001	010	439375	10.70	648660	11.86	553405	15.83	302918	18.52
SAMPLE	179089-002	011	441559	10.70	631704	11.86	517386	15.83	299238	18.53
SAMPLE	179089-003	012	437025	10.70	665815	11.86	497679	15.83	285069	18.53
SAMPLE	179076-001	013	462156	10.71	701091	11.86	556972	15.83	312584	18.53
SAMPLE	179076-003	014	485168	10.71	714865	11.86	600320	15.84	328924	18.53
SAMPLE	179076-008	015	467306	10.71	715542	11.86	579828	15.83	319262	18.53
SAMPLE	179076-010	016	462612	10.70	698840	11.86	558069	15.83	310112	18.53
SAMPLE	179076-011	017	462214	10.71	714905	11.85	577315	15.83	309059	18.53
SAMPLE	179076-013	018	461792	10.72	731078	11.86	587185	15.83	334274	18.53
SAMPLE	179076-015	019	467295	10.71	717882	11.86	548936	15.83	284332	18.53
SAMPLE	179076-018	020	479691	10.71	736318	11.86	611873	15.83	343392	18.53
SAMPLE	179076-020	021	504114	10.71	737000	11.86	617007	15.84	338709	18.53
MSS	178881-024	022	509196	10.71	777574	11.87	666710	15.83	362978	18.53
SAMPLE	179030-009	023	499774	10.71	768559	11.86	642628	15.83	371745	18.53
MS	QC291719	024	507968	10.71	771637	11.86	643767	15.83	356218	18.53
MSD	QC291720	025	533382	10.71	818899	11.86	699642	15.83	371493	18.53
SAMPLE	178969-001	029	511136	10.70	769939	11.86	680696	15.83	358656	18.53

4/27/05

LABQA 03 8260/GASOO ICAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA 03
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

Begun: 30-MAR-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	ccu01	X	IB			30-MAR-2005 09:34	1.0					1	
002	ccu02	TUN	BFB			30-MAR-2005 10:03	1.0					2	
003	ccu03	X	50PPB			30-MAR-2005 10:19	1.0		5000			3 4 1 cc-	
004	ccu04	TUN	BFB			30-MAR-2005 11:04	1.0					2	
005	ccu05	X	50PPB			30-MAR-2005 11:19	1.0		5000			3 4 1 cc-	
006	ccu06	TUN	BFB			30-MAR-2005 11:58	1.0					2	
007	ccu07	X	50PPB			30-MAR-2005 12:14	1.0		5000			3 4 1 cc-	
008	ccu08	X	IB			30-MAR-2005 13:00	1.0					1	
009	ccu09	X	IB			30-MAR-2005 13:30	1.0					1	
010	ccu10	X	IB			30-MAR-2005 14:00	1.0					1	
011	ccu11	X	IB			30-MAR-2005 14:30	1.0					1	
012	ccu12	TUN	BFB			30-MAR-2005 15:21	1.0					2	
013	ccu13	TUN	BFB			30-MAR-2005 15:42	1.0					2	
014	ccu14	TUN	BFB			30-MAR-2005 15:58	1.0	1				2 t	
015	ccu15	X	CALIB IB			30-MAR-2005 16:14	1.0					1	75
016	ccu16	TUN	BFB			30-MAR-2005 16:41	1.0					2	
017	ccu17	X	CALIB IB			30-MAR-2005 16:57	1.0					1	
018	ccu18	ICAL	5PPB			30-MAR-2005 17:27	1.0					5 3 1	
019	ccu19	ICAL	10PPB			30-MAR-2005 17:57	1.0					5 3 1	
020	ccu20	ICAL	20PPB			30-MAR-2005 18:27	1.0					5 3 1	
021	ccu21	ICAL	50PPB			30-MAR-2005 18:57	1.0					5 3 1	
022	ccu22	ICAL	60PPB			30-MAR-2005 19:27	1.0					5 3 1	
023	ccu23	ICAL	75PPB			30-MAR-2005 19:58	1.0					5 3 1	
024	ccu24	ICAL	100PPB			30-MAR-2005 20:28	1.0					5 3 1	
025	ccu25	ICV	not used			30-MAR-2005 20:58	1.0	1	5000			6 1	
026	ccu26	ICV				30-MAR-2005 21:29	1.0		5000			7 8 1	
027	ccu27	LCS/ICV	QC288414	100657	Soil	30-MAR-2005 21:59	1.0		5000			6 7 8 1	
028	ccu28	PREPBLK	QC288415 M	100657	Soil	30-MAR-2005 22:30	25.0		5000			9 1	see QC pack
029	ccu29	BLANK	QC288416	100657	Soil	30-MAR-2005 23:00	1.0	1	5000			1	
030	ccu30	MSS	178510-002 M	100657	Soil	30-MAR-2005 23:30	500.0		5000			9 1	

ICAL GOOD, ICV - GOOD + A.C.E Lin - Bmet

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: _____ Date: 3/31/05

Page 1 of 2

2 03/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA-03
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

Begun: 30-MAR-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
031	ccu31	SAMPLE	178510-003 M	100657	Soil	31-MAR-2005 00:01	500.0			5000			9 1	
032	ccu32	SAMPLE	178510-004 M	100657	Soil	31-MAR-2005 00:31	500.0			5000			9 1	
033	ccu33	SAMPLE	178510-005 M	100657	Soil	31-MAR-2005 01:02	500.0			5000			9 1	
034	ccu34	SAMPLE	178514-001 M	100657	Soil	31-MAR-2005 01:32	200.0	1	2	5000			9 1	1:TMB124=155.868
035	ccu35	SAMPLE	178514-002 M	100657	Soil	31-MAR-2005 02:02	200.0		1	5000			9 1	per QC pack
036	ccu36	SAMPLE	178514-003 M	100657	Soil	31-MAR-2005 02:33	200.0		1	5000			9 1	
037	ccu37	SAMPLE	178514-004 M	100657	Soil	31-MAR-2005 03:03	200.0		1	5000			9 1	
038	ccu38	SAMPLE	178514-005 M	100657	Soil	31-MAR-2005 03:34	200.0		1	5000			9 1	
039	ccu39	MS	QC288417 M	100657	Soil	31-MAR-2005 04:04	500.0		4	5000			7 8 6 9 1	
040	ccu40	MSD	QC288418 M	100657	Soil	31-MAR-2005 04:34	500.0			5000			7 9 8 6 1	
041	ccu41	X	514-6			31-MAR-2005 05:05	1.0						1	
042	ccu42	X	514-7			31-MAR-2005 05:35	1.0						1	
043	ccu43	X	IB			31-MAR-2005 06:06	1.0						1	
044	ccu44	X	IB			31-MAR-2005 06:37	1.0						1	
045	ccu45	X	IB			31-MAR-2005 07:07	1.0						1	76

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: Date: 3/31/05

3/31/05

1-3

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425167668 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 26-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	cdq01	X	IB			26-APR-2005 10:28	1.0						1	
002	cdq02	TUN	BFB			26-APR-2005 11:08	1.0						2	
003	cdq03	CCV	50PPB			26-APR-2005 11:24	1.0			5000			3 4 1	
004	cdq04	LCS	QC291671	101479	Soil	26-APR-2005 12:11	1.0		2	5000			5 6 7 1	
005	cdq05	PREPBLK	QC291672 M	101479	Soil	26-APR-2005 12:41	25.0			5000			8 1 MeOH PB 4/5/05	
006	cdq06	BLANK	QC291673	101479	Soil	26-APR-2005 13:12	1.0		1	5000			1	
007	cdq07 MS	~~SAMPLE~~	178881-024	101479	Soil	26-APR-2005 13:43	0.9804	1	1	5000	A		1 PR 3.3X	1:MTLNCL=151.652
008	cdq08	SAMPLE	179061-002	101479	Soil	26-APR-2005 14:13	3.333		1	5000	A		1 Not needed	
009	cdq09	SAMPLE	179061-003	101479	Soil	26-APR-2005 14:43	2.500		1	5000	B		1 spk	
010	cdq10	SAMPLE	179089-001	101479	Soil	26-APR-2005 15:13	0.9259		1	5000	C		1	
011	cdq11	SAMPLE	179089-002	101479	Soil	26-APR-2005 15:43	0.9091		1	5000			1	
012	cdq12	SAMPLE	179089-003	101479	Soil	26-APR-2005 16:14	0.9091		1	5000			1	
013	cdq13	~~SAMPLE~~	179076-001	101479	Soil	26-APR-2005 16:44	1.163		1	5000	A		1	
014	cdq14	SAMPLE	179076-003	101479	Soil	26-APR-2005 17:15	0.8065		1	5000			1	
015	cdq15	SAMPLE	179076-008	101479	Soil	26-APR-2005 17:45	1.042		1	5000			1	77
016	cdq16	SAMPLE	179076-010	101479	Soil	26-APR-2005 18:15	1.02		1	5000			1	
017	cdq17	SAMPLE	179076-011	101479	Soil	26-APR-2005 18:46	0.8621		1	5000			1	
018	cdq18	SAMPLE	179076-013	101479	Soil	26-APR-2005 19:16	0.8333		1	5000			1	
019	cdq19	SAMPLE	179076-015	101479	Soil	26-APR-2005 19:47	1.25		1	5000			1	
020	cdq20	SAMPLE	179076-018	101479	Soil	26-APR-2005 20:17	0.9259		1	5000			1	
021	cdq21	SAMPLE	179076-020	101479	Soil	26-APR-2005 20:48	1.042		1	5000			1	
022	cdq22	~~SAMPLE~~ MSS	178881-024	101479	Soil	26-APR-2005 21:18	3.333		1	5000			1	
023	cdq23	SAMPLE	179030-009	101479	Soil	26-APR-2005 21:49	100.0			5000	B		8 1 spk PR 62.5X CO TAMPT. LCS	
024	cdq24	MS	QC291719	101479	Soil	26-APR-2005 22:20	0.9804	2		5000	A		5 6 7 1	2:MTLNCL=212.760
025	cdq25	MSD	QC291720	101479	Soil	26-APR-2005 22:50	0.9804	1		5000			5 6 7 1	1:MTLNCL=179.593
026	cdq26	X	IB			26-APR-2005 23:21	1.0						1	
027	cdq27	X	3A			26-APR-2005 23:51	1.0						1 PR	
028	cdq28	X	3B			27-APR-2005 00:21	1.0						1	
029	cdq29	SAMPLE	178969-001	101479	Soil	27-APR-2005 00:51	1.0	72	1	5000	A		1 <<t	
030	cdq30	X	60-3			27-APR-2005 01:21	1.0				B		1 83.3X	

ICAL - GOOD, ICV - GOOD, CA.C.E. lin - R ~Mo↓, CCV - GOOD + A.C.E. - Naph ↑

Stds used: 1=S296 2=04WS2425 3=S283 4=S359 5=S215 6=S285 7=S139 8=S49
Flags used: <<t=out of clock spk=5% spike rule

Analyst: _____ Date: 4/27/05

Page 1 of 2

4/27/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425167668 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 26-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
031	cdq31	X	76-6			27-APR-2005 01:51	1.0		4	7	1 25X	
032	cdq32	X	72-1			27-APR-2005 02:22	1.0		4	7	1 2000X	
033	cdq33	X	IB			27-APR-2005 02:52	1.0				1	
034	cdq34	X	IB			27-APR-2005 03:22	1.0				1	
035	cdq35	X	IB			27-APR-2005 03:52	1.0				1	

78

Stds used: 1=S296 2=04WS2425 3=S283 4=S359 5=S215 6=S285 7=S139 8=S49
Flags used: <<t=out of clock spk=5% spike rule

Analyst: [signature] Date: 4/27/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 4/26/05

Prepped by: Ja

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179061-2	1.5	A		3	PR 3.3X wet Cl2		
2	3	2.0	B		↓	PR 2.5X I		
3	179060-3	10.0	B	X	3	SCAN		
4	179030-9	0.05	↓		3	PR. 100X high HC		
5	179072-1	10.0	A		3	Misc. SCAN		
6	178881-24	5.1	↓		3	MS/MSD		
7	-24	1.5	↓		↓	3.3X		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26	178969-1		A					

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179076-1	4.3	A		3			
2	3	6.2	↓		↓			
3	6	5.9		X		SCAN		
4	8	4.8						
5	10	4.9						
6	11	5.8						
7	13	6.0						
8	15	4.0						
9	18	5.4						
10	20	4.8	↓		↓			
11	21	—	—		—			
12	23							
13	25	—	—		—			
14	179089-1	5.4	C		3			
15	-2	5.5	↓		↓			
16	-3	5.5	↓		↓			
17								

F:/home/terri/templates/Soilprepsheet.xls

PAH-SIM Results & QC Summary

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB02TP108(7.0)	Batch#:	101683
Lab ID:	179089-002	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Moisture: 14%

Analyte	Result	RL	MDL
Naphthalene	ND	5.8	0.88
Acenaphthylene	ND	5.8	1.7
Acenaphthene	ND	5.8	0.88
Fluorene	ND	5.8	1.3
Phenanthrene	ND	5.8	1.1
Anthracene	ND	5.8	1.4
Fluoranthene	ND	5.8	1.5
Pyrene	ND	5.8	1.3
Benzo(a)anthracene	ND	5.8	1.2
Chrysene	ND	5.8	1.1
Benzo(b)fluoranthene	ND	5.8	1.2
Benzo(k)fluoranthene	ND	5.8	0.69
Benzo(a)pyrene	ND	5.8	1.0
Indeno(1,2,3-cd)pyrene	ND	5.8	1.1
Dibenz(a,h)anthracene	ND	5.8	1.0
Benzo(g,h,i)perylene	ND	5.8	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	89	37-140
2-Fluorobiphenyl	85	38-120
Terphenyl-d14	87	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292467	Batch#:	101683
Matrix:	Soil	Prepared:	05/03/05
Units:	ug/Kg	Analyzed:	05/04/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.77
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.76
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.95
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.3
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	0.96
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.60
Benzo(a)pyrene	ND	5.0	0.90
Indeno(1,2,3-cd)pyrene	ND	5.0	0.96
Dibenz(a,h)anthracene	ND	5.0	0.89
Benzo(g,h,i)perylene	ND	5.0	0.87

Surrogate	%REC	Limits
Nitrobenzene-d5	95	37-140
2-Fluorobiphenyl	94	38-120
Terphenyl-d14	101	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292468	Batch#:	101683
Matrix:	Soil	Prepared:	05/03/05
Units:	ug/Kg	Analyzed:	05/04/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.21	32.95	99	49-128
Pyrene	33.21	32.49	98	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	99	37-140
2-Fluorobiphenyl	95	38-120
Terphenyl-d14	99	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	101683
MSS Lab ID:	179148-001	Sampled:	04/27/05
Matrix:	Soil	Received:	04/28/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Type: MS Moisture: 5%
Lab ID: QC292469

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8037	34.94	36.67	105	39-138
Pyrene	<1.189	34.94	42.81	123	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	112	37-140
2-Fluorobiphenyl	98	38-120
Terphenyl-d14	114	44-137

Type: MSD Moisture: 5%
Lab ID: QC292470

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	34.99	40.27	115	39-138	9	39
Pyrene	34.99	49.61	142	28-159	15	45

Surrogate	%REC	Limits
Nitrobenzene-d5	122	37-140
2-Fluorobiphenyl	105	38-120
Terphenyl-d14	129	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DI\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

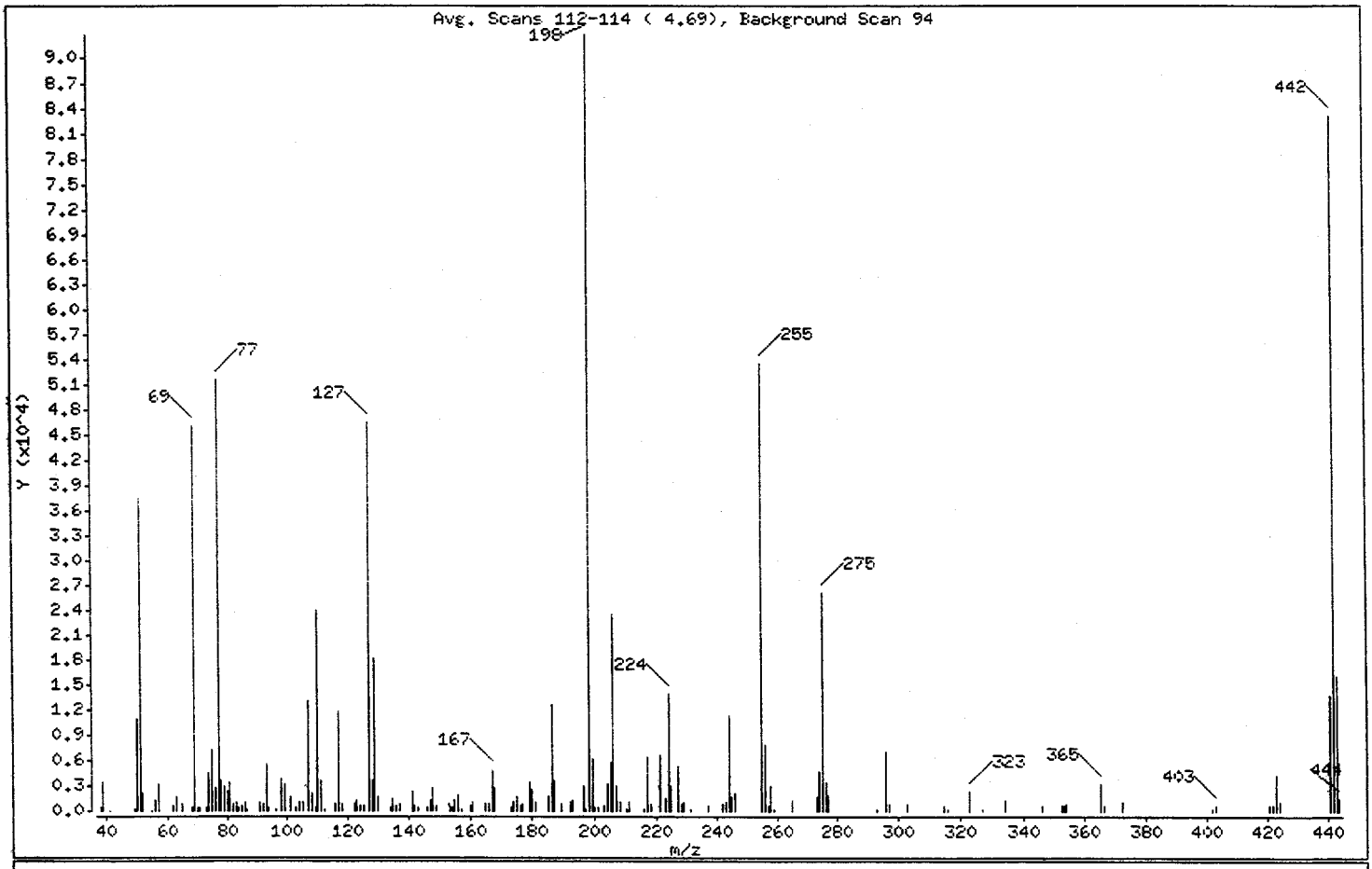
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM FCAL

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\050405.b\WE401.D

Date : 04-MAY-2005 08:31

Client ID: dftpp tune std

Instrument: MSBNA03.i

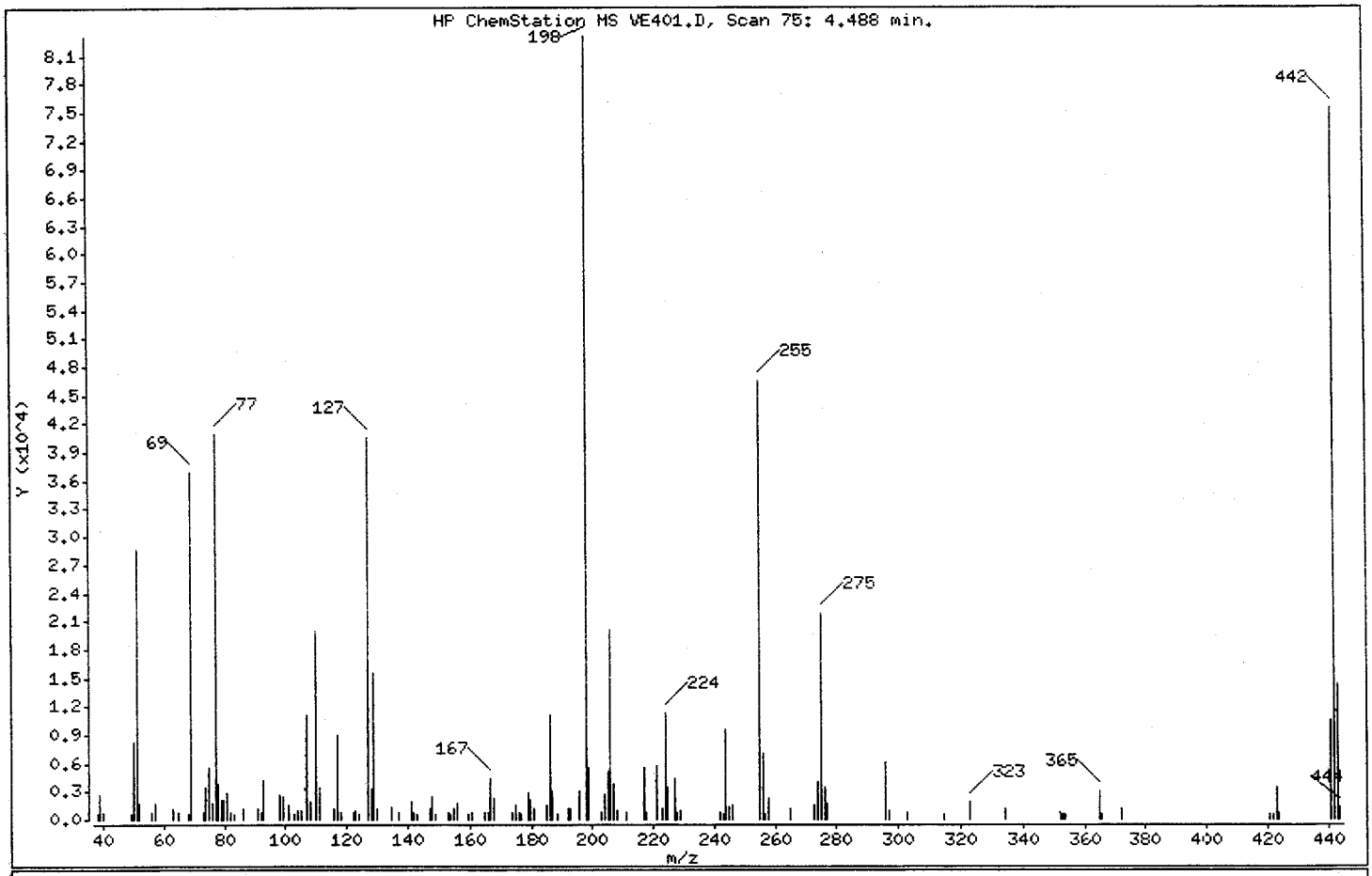
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.62
68	Less than 1.99% of mass 69	0.72 (1.61)
69	Mass 69 relative abundance	44.45
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.91
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.58
275	10.00 - 30.00% of mass 198	26.26
365	Greater than 1.00% of mass 198	3.66
441	Present, but less than mass 443	12.57
442	40.00 - 99.99% of mass 198	90.71
443	17.00 - 23.00% of mass 442	17.17 (18.93)

MDV 5/4/05

BNA05 8/10-21M Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

87

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: 04/25/05
BCV: 04/25/05

4/25/05

4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

88

Flags used: m=manual integration

Curves: AVRG: Average response factor

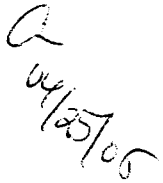
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00



CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525179071002 Filename : ve402 Injected : 04-MAY-2005 08:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4183	1.000000	1.051600	ng	5	30	0.0500	m
Naphthalene	0.8875	0.8939	1.000000	1.007200	ng	1	30	0.0500	
2-Methylnaphthalene	0.6056	0.6620	1.000000	1.093100	ng	9	30	0.0500	
Acenaphthylene	1.6578	1.7695	1.000000	1.067400	ng	7	30	0.0500	
Acenaphthene	1.0255	1.1579	1.000000	1.129100	ng	13	20	0.0500	
Fluorene	1.2395	1.3847	1.000000	1.117100	ng	12	30	0.0500	
Phenanthrene	0.9650	1.0594	1.000000	1.097800	ng	10	30	0.0500	
Anthracene	0.8558	0.9172	1.000000	1.071700	ng	7	30	0.0500	
Fluoranthene	1.0752	1.1694	1.000000	1.087600	ng	9	20	0.0500	
Pyrene	1.1306	1.1730	1.000000	1.037500	ng	4	30	0.0500	
Benzo(a)anthracene	1.0288	1.1374	1.000000	1.105600	ng	11	30	0.0500	
Chrysene	1.0217	1.1447	1.000000	1.120400	ng	12	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3344	1.000000	1.007800	ng	1	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.9052	1.000000	1.061600	ng	6	30	0.0500	
Benzo(a)pyrene	1.1063	1.2082	1.000000	1.092100	ng	9	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4392	1.000000	1.191300	ng	19	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.1654	1.000000	1.211400	ng	21	30	0.0500	!c+
Benzo(g,h,i)perylene	1.0276	1.1981	1.000000	1.165900	ng	17	30	0.0500	
Nitrobenzene-d5	0.2512	0.2717	1.000000	1.081600	ng	8	30	0.0500	
2-Fluorobiphenyl	1.3678	1.5354	1.000000	1.122600	ng	12	30	0.0500	
Terphenyl-d14	0.9054	0.9981	1.000000	1.102400	ng	10	30	0.0500	

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

MW 5/4/05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 04-MAY-2005
Sequence: 525179071 (ve4)
Instrument ID: MSBNA03

CCV Filename: ve402
Date Analyzed: 04-MAY-2005
Time Analyzed: 08:48

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	39888	6.97	161817	8.65	79884	11.22	155048	13.43	156562	17.30	148237	19.07
LOWER LIMIT	19944	6.47	80909	8.15	39942	10.72	77524	12.93	78281	16.80	74119	18.57
UPPER LIMIT	79776	7.47	323634	9.15	159768	11.72	310096	13.93	313124	17.80	296474	19.57

TYPE	SAMPLE	#										
CCV		002	39888	6.97	161817	8.65	79884	11.22	155048	13.43	156562	17.30	148237	19.07
BLANK	QC292467	003	26380	6.97	113970	8.65	57937	11.22	113208	13.43	108371	17.29	93025	19.07
LCS	QC292468	004	26754	6.97	117370	8.65	58512	11.22	112827	13.43	111474	17.29	97214	19.07
SAMPLE	179089-002	005	27412	6.97	118344	8.65	60192	11.22	114254	13.43	110800	17.29	100960	19.07
SAMPLE	179148-002	006	26304	6.97	113078	8.65	57723	11.22	111267	13.43	102356	17.30	93231	19.07
SAMPLE	179182-001	007	28238	6.97	127602	8.65	63333	11.22	120756	13.43	111331	17.29	97488	19.08
SAMPLE	179182-002	008	27545	6.97	120512	8.65	61867	11.22	123997	13.43	124774	17.29	117836	19.07
MSS	179148-001	009	28461	6.97	124124	8.65	65414	11.22	127541	13.43	110533	17.30	93752	19.08
MS	QC292469	010	27252	6.97	125860	8.65	62315	11.22	120535	13.43	99239	17.30	81770	19.08
MSD	QC292470	011	27955	6.97	128220	8.65	63321	11.22	122112	13.43	96729	17.30	62878*	19.08
SAMPLE	179182-003	012	28730	6.97	129480	8.65	65843	11.22	113613	13.44	79803	17.31	45158*	19.10
MS	QC292469	013	26860	6.97	124314	8.65	61753	11.22	119934	13.43	93691	17.30	67334*	19.08
MSD	QC292470	014	27088	6.97	123496	8.65	61730	11.22	121499	13.43	94798	17.30	52316*	19.08

91

* = Outside QC Limits

MSNA03 8270 SIM STANDARDS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	92
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

04/27/05

MB LCS MSS/MSD MSD

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 525179071 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 04-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	ve401	TUN	NP NL			04-MAY-2005 08:31	1.0	1.0			1	
002	ve402	CCV				04-MAY-2005 08:48	1.0	1.0		1	2	
003	ve403	BLANK	QC292467	101683	Soil	04-MAY-2005 09:36	1.0	0.03326		1	3	
004	ve404	LCS	QC292468	101683	Soil	04-MAY-2005 10:08	1.0	0.03321		1	3	
005	ve405	SAMPLE	179089-002	101683	Soil	04-MAY-2005 10:39	1.0	0.03299		1	3	
006	ve406	SAMPLE	179148-002	101683	Soil	04-MAY-2005 11:10	1.0	0.03328		1	3	
007	ve407	SAMPLE	179182-001	101683	Soil	04-MAY-2005 11:42	1.0	0.03312	1	1	3	
008	ve408	SAMPLE	179182-002	101683	Soil	04-MAY-2005 12:13	1.0	0.06667	1	1	3	
009	ve409	MSS	179148-001	101683	Soil	04-MAY-2005 12:44	1.0	0.03321		1	3	
010	ve410	MS	QC292469	101683	Soil	04-MAY-2005 13:15	1.0	0.03319		1	3	
011	ve411	MSD	QC292470	101683	Soil	04-MAY-2005 13:47	1.0	0.03324		1	3	
012	ve412	SAMPLE	179182-003	101683	Soil	04-MAY-2005 14:18	1.0	0.03311	9	1	3	8:PYR=39.7942
013	ve413	MS	QC292469	101683	Soil	04-MAY-2005 14:51	1.0	0.03319		1	3	
014	ve414	MSD	QC292470	101683	Soil	04-MAY-2005 15:22	1.0	0.03324		1	3	
015	ve415	TUN	NP NL			04-MAY-2005 20:23	1.0	1.0			1	
016	ve416	CCV				04-MAY-2005 20:45	1.0	1.0		1	2	
017	ve417	BLANK	QC292646	101730	Soil	04-MAY-2005 21:25	1.0	0.03331		1	3	
018	ve418	LCS	QC292647	101730	Soil	04-MAY-2005 21:57	1.0	0.03333		1	3	
019	ve419	SAMPLE	179182-003	101683	Soil	04-MAY-2005 22:30	5.0	0.03311		1	3	
020	ve420	MSS	179144-001	101730	Soil	04-MAY-2005 23:02	1.0	0.03323		1	3	
021	ve421	MS	QC292648	101730	Soil	04-MAY-2005 23:34	1.0	0.03317		1	3	
022	ve422	MSD	QC292649	101730	Soil	05-MAY-2005 00:06	1.0	0.03308		1	3	
023	ve423	CHECK				05-MAY-2005 00:37	1.0	1.0		1	4	
024	ve424	CHECK				05-MAY-2005 01:10	1.0	1.0	21	1	5	21:NO2BZD=25.3116
025	ve425	X	ENDBLANK			05-MAY-2005 01:35	1.0					
026	ve426	X	ENDBLANK			05-MAY-2005 01:46	1.0					
027	ve427	X	ENDBLANK			05-MAY-2005 01:57	1.0					

93

ve401 : Ok
ve416 : Ok
ve417 : Ok
ve418 : Ok

- Benzo(a)anthracene ↑ 6 of 8 surrogate limits
- Nitrobenzene-d5 ↑ 6 of 8 surrogate limits

Stds used: 1=05WS0188 2=S490 3=05WS0254 4=S489 5=S488

Analyst: _____ Date: 5/5/05

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 18:39

Batch Number : 101683
Date Extracted: 03-MAY-2005
Extracted by : Jennifer R Dell
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S337A
Spike #2 ID : 05WS0096C
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001			Mactec, Inc.	Soil	30.43	g	1	0.032862	1		1	0		8270-SIM		
179089-002			Mactec, Inc.	Soil	30.31	g	1	0.032992	1		1	0		8270-SIM		
179089-003			Mactec, Inc.	Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
179148-001			Blasland, Bouck & Lee	Soil	30.11	g	1	0.033212	1		1	0		8270-SIM		mss
179148-002			Blasland, Bouck & Lee	Soil	30.05	g	1	0.033278	1		1	0		8270-SIM		
179182-001			Mactec, Inc.	Soil	30.19	g	1	0.033124	1		1	0		8270-SIM		
179182-002			Mactec, Inc.	Soil	30	g	2	0.066667	1		1	0		8270-SIM		
179182-003			Mactec, Inc.	Soil	30.2	g	1	0.033113	1		1	0		8270-SIM		
QC292467	MB			Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
QC292468	LCS			Soil	30.11	g	1	0.033212	1		1	1		8270-SIM		
QC292469	MS	of 179148-001		Soil	30.13	g	1	0.033190	1		1	1		8270-SIM		
QC292470	MSD	of 179148-001		Soil	30.08	g	1	0.033245	1		1	1		8270-SIM		

94

Prep Chemist: Jennifer Dell Reviewed By: Date: 5/8/05

Relinquished By: Jennifer Dell Received By: Date: 5/5/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 21 of 100

LIMS Batch No: 101683 Extraction Method:
LIMS Analysis 8270-SIM ☒ EPA 3550b Sonication
Extracted by: JRD ☐ EPA 3540c Soxhlet
Date Extracted: 5/3/05 ☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
179089-001	30.43	1.0		
-002	30.31			
-003	30.07			
179148-001	30.11			MSS
-002	30.05			
179182-001	30.19			
-002	30.00	2.0		lots of ~~sediment~~ ppt, wouldn't come further
-003	30.20	1.0		cloudy JRD 5/3/05
MB QC292467	30.07			
LCS 68	30.11			
MS 69	30.13			
MSD 70	30.08			

JRD 5/3/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM4A028452	JRD 5/3/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM4A303507	
1.0 mL of surrogate solution was added to all samples	S337A	
1.0 mL of matrix spiking solution was added to all spikes	05WSC096C	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM45071	
Acetone	EM44233	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM4A303507	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

Jennifer L Dell 5/3/05
Extraction Chemist / Date

Continued from page ___
Continued on page ___

5/3/05
Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001 A	49.76	TEH	MSS
179206-001 A	49.79	↓	
179213-001 A	49.84	↓	
MB	50.06	↓	EM44258
LCS	50.14	↓	↓
MS	49.77	↓	179182-001A
MSD	49.79	↓	↓
179213-001A	30.05	8270	
179213-001A	15.01	PCB	
179213-001A	15.21	8081	
179076-027A	30.38	8100	
179148-001A	30.11	8270-SIM	MSS
-MS	30.13	↓	179148-001A
-MSD	30.08	↓	↓
-LCS	~~30.07~~ 30.11	↓	EM44258
-MB	30.07	↓	↓

Continued on Page

Signed: [signature] Date: 5/3/05

Read and Understood By

Signed Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179089-001A	15.22	PCB/8081	
-002A	15.08	8081	
~~-002~~ 002A	15.21	PCB	MS
-MS	15.04		179089-002A
-MSD	15.25		↓
-LCS	15.23		EM49258
-MB	15.21	PCB/8081	↓
-003A	15.17	PCB	
-003A	15.10	8081	MSS
-MS	15.21		179089-003A
-MSD	15.05		↓
-LCS	15.20		EM49258
179098-004	15.02	PCB/8081	COMP 001A, 002A, 003A
179167-001A	15.25	PCB/8081	
179089-001A	30.43	8270-SIM	
-002	30.31		
-003	30.07		
179170-001A	50.34	TEH	
-002	50.29		
-003	50.02		
179190-001A	50.13	TEHM	
179190-001A	30.46	8100	
179190-001A	15.08	PCB	
179190-001A	15.09	8081	
179197-001A	50.17	TEHM	
-002	50.13		
-003	50.00		
-004	50.04		
-005	50.07		
179197-001A	30.37	8310	
-002	30.23		
-003	30.18		
-004	30.00		
-005	30.08		

Continued on Page

Signed — Date 5/2/03

Read and Understood By

Signed — Date

Pesticides Results & QC Summary

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB02TP108(4.0)	Batch#:	101667
Lab ID:	179089-001	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Moisture: 9%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.8	0.36
beta-BHC	ND	1.8	0.45
gamma-BHC	ND	1.8	0.39
delta-BHC	ND	1.8	0.37
Heptachlor	ND	1.8	0.53
Aldrin	ND	1.8	0.44
Heptachlor epoxide	ND	1.8	0.54
Endosulfan I	ND	1.8	0.97
Dieldrin	ND	3.6	0.69
4,4'-DDE	ND	3.6	0.58
Endrin	ND	3.6	0.73
Endosulfan II	ND	3.6	1.0
Endosulfan sulfate	ND	3.6	0.85
4,4'-DDD	ND	3.6	0.74
Endrin aldehyde	ND	3.6	0.79
4,4'-DDT	ND #	3.6	1.3
alpha-Chlordane	ND	1.8	0.54
gamma-Chlordane	ND	1.8	0.51
Methoxychlor	ND #	18	2.9
Toxaphene	ND	65	13

Surrogate	%REC	Limits
TCMX	80	43-130
Decachlorobiphenyl	89	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB02TP108(7.0)	Batch#:	101667
Lab ID:	179089-002	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Moisture: 14%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.0	0.38
beta-BHC	ND	2.0	0.48
gamma-BHC	ND	2.0	0.42
delta-BHC	ND	2.0	0.39
Heptachlor	ND	2.0	0.56
Aldrin	ND	2.0	0.47
Heptachlor epoxide	ND	2.0	0.58
Endosulfan I	ND	2.0	1.0
Dieldrin	ND	3.8	0.74
4,4'-DDE	ND	3.8	0.62
Endrin	ND	3.8	0.78
Endosulfan II	ND	3.8	1.1
Endosulfan sulfate	ND	3.8	0.90
4,4'-DDD	ND	3.8	0.79
Endrin aldehyde	ND	3.8	0.84
4,4'-DDT	ND #	3.8	1.4
alpha-Chlordane	ND	2.0	0.58
gamma-Chlordane	ND	2.0	0.54
Methoxychlor	ND #	20	3.1
Toxaphene	ND	69	14

Surrogate	%REC	Limits
TCMX	62	43-130
Decachlorobiphenyl	80	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB02TP108(10.0)	Batch#:	101667
Lab ID:	179089-003	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Moisture: 18%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.1	0.40
beta-BHC	ND	2.1	0.50
gamma-BHC	ND	2.1	0.44
delta-BHC	ND	2.1	0.41
Heptachlor	ND	2.1	0.59
Aldrin	ND	2.1	0.49
Heptachlor epoxide	ND	2.1	0.61
Endosulfan I	ND	2.1	1.1
Dieldrin	ND	4.0	0.78
4,4'-DDE	ND	4.0	0.65
Endrin	ND	4.0	0.81
Endosulfan II	ND	4.0	1.2
Endosulfan sulfate	ND	4.0	0.95
4,4'-DDD	ND	4.0	0.82
Endrin aldehyde	ND	4.0	0.88
4,4'-DDT	ND #	4.0	1.4
alpha-Chlordane	ND	2.1	0.61
gamma-Chlordane	ND	2.1	0.57
Methoxychlor	ND #	21	3.2
Toxaphene	ND	73	15

Surrogate	%REC	Limits
TCMX	78	43-130
Decachlorobiphenyl	77	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292396	Batch#:	101667
Matrix:	Soil	Prepared:	05/02/05
Units:	ug/Kg	Analyzed:	05/03/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.32
beta-BHC	ND	1.7	0.41
gamma-BHC	ND	1.7	0.36
delta-BHC	ND	1.7	0.33
Heptachlor	ND	1.7	0.48
Aldrin	ND	1.7	0.40
Heptachlor epoxide	ND	1.7	0.50
Endosulfan I	ND	1.7	0.88
Dieldrin	ND	3.3	0.63
4,4'-DDE	ND	3.3	0.53
Endrin	ND	3.3	0.66
Endosulfan II	ND	3.3	0.94
Endosulfan sulfate	ND	3.3	0.77
4,4'-DDD	ND	3.3	0.67
Endrin aldehyde	ND	3.3	0.72
4,4'-DDT	ND #	3.3	1.2
alpha-Chlordane	ND	1.7	0.49
gamma-Chlordane	ND	1.7	0.46
Methoxychlor	ND #	17	2.6
Toxaphene	ND	59	12

Surrogate	%REC	Limits
TCMX	79	43-130
Decachlorobiphenyl	90	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292397	Batch#:	101667
Matrix:	Soil	Prepared:	05/02/05
Units:	ug/Kg	Analyzed:	05/03/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.16	9.405	71	42-120
Heptachlor	13.16	9.709	74	49-126
Aldrin	13.16	9.690	74	52-120
Dieldrin	26.32	19.99	76	40-125
Endrin	26.32	20.05	76	38-135
4,4'-DDT	26.32	16.19 #	62	43-135

Surrogate	%REC	Limits
TCMX	76	43-130
Decachlorobiphenyl	71	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB02TP108(10.0)	Batch#:	101667
MSS Lab ID:	179089-003	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292398

Moisture: 18%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.4405	16.04	12.84	80	41-120
Heptachlor	<0.5900	16.04	13.13	82	48-130
Aldrin	<0.4936	16.04	13.76	86	42-126
Dieldrin	<0.7769	32.07	27.63	86	43-128
Endrin	<0.8142	32.07	27.86	87	45-137
4,4'-DDT	<1.423	32.07	22.01 #	69	31-151

Surrogate	%REC	Limits
TCMX	84	43-130
Decachlorobiphenyl	80	43-143

Type: MSD
Lab ID: QC292399

Moisture: 18%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	16.21	13.49	83	41-120	4	37
Heptachlor	16.21	12.95	80	48-130	2	43
Aldrin	16.21	13.44	83	42-126	3	36
Dieldrin	32.41	28.07	87	43-128	1	38
Endrin	32.41	26.66	82	45-137	5	39
4,4'-DDT	32.41	23.59 #	73	31-151	6	47

Surrogate	%REC	Limits
TCMX	91	43-130
Decachlorobiphenyl	75	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235170716001 Name: Type: (normal) Date: 28-APR-2005 21:19 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	118_015	235170716015	pest_1	28-APR-2005 21:19	S9
2	118_016	235170716016	pest_2	28-APR-2005 21:49	S10
3	118_017	235170716017	pest_3	28-APR-2005 22:20	S11
4	118_018	235170716018	pest_4	28-APR-2005 22:50	S243
5	118_019	235170716019	pest_5	28-APR-2005 23:22	S245
6	118_020	235170716020	pest_6	28-APR-2005 23:52	S13
7	118_021	235170716021	pest_7	29-APR-2005 00:23	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	2055.4	2100.2	2338.0	2603.3	2917.9	3518.4	3554.1	AVRG	R		3.667E-4		pg	2726.7	**23**	0.995	20	rsd ***
gamma-BHC	A	2066.7	2109.6	2387.0	2669.2	2975.7	3440.3	3362.9	AVRG	R		3.682E-4		pg	2715.9	**21**	0.995	20	rsd ***
beta-BHC	A	1535.9	1477.2	1568.2	1617.9	1731.7	1804.2	1666.6	AVRG	R		6.139E-4		pg	1628.8	7	0.995	20	
delta-BHC	A	1905.0	1826.7	2038.8	2303.9	2658.4	3168.7	3166.4	AVRG	R		4.101E-4		pg	2438.3	**23**	0.995	20	rsd ***
Heptachlor	A	2491.1	2411.1	2648.8	2843.0	3121.3	3308.6	3039.9	AVRG	R		3.524E-4		pg	2837.7	12	0.995	20	
Aldrin	A	2307.2	2270.2	2431.0	2567.1	2809.3	3085.3	2911.6	AVRG	R		3.808E-4		pg	2626.0	12	0.995	20	
Heptachlor epoxide	A	2671.7	2578.0	2742.6	2846.9	3083.2	3161.2	2806.4	AVRG	R		3.519E-4		pg	2841.4	7	0.995	20	
gamma-Chlordane	A	2848.0	2495.0	2668.7	2776.9	3062.1	3169.1	2851.3	AVRG	R		3.523E-4		pg	2838.7	8	0.995	20	
alpha-Chlordane	A	2608.1	2539.4	2722.9	2849.9	3120.0	3226.2	2860.7	AVRG	R		3.513E-4		pg	2846.8	9	0.995	20	
4,4'-DDE	A	2371.2	2300.3	2521.9	2654.0	2986.0	2991.4	2584.2	AVRG	R		3.802E-4		pg	2629.9	10	0.995	20	
Endosulfan I	A	2433.8	2471.0	2641.3	2758.4	3034.5	3142.9	2803.2	AVRG	R		3.630E-4		pg	2755.0	10	0.995	20	
Dieldrin	A	2182.4	2166.5	2397.7	2595.5	2911.9	2999.2	2621.2	AVRG	R		3.916E-4		pg	2553.5	13	0.995	20	
Endrin	A	2044.0	1927.8	2134.4	2307.6	2618.4	2626.1	2245.2	AVRG	R		4.402E-4		pg	2271.9	12	0.995	20	
4,4'-DDD	A	1462.1	1430.5	1591.2	1698.1	2024.1	2165.9	1924.5	AVRG	R		5.693E-4		pg	1756.6	16	0.995	20	
Endosulfan II	A	2281.4	2129.5	2334.3	2469.7	2809.1	2751.2	2346.9	AVRG	R		4.088E-4		pg	2446.0	10	0.995	20	
4,4'-DDT	A	1248.6	975.85	1226.4	1595.0	2045.5	2077.1	1855.8	AVRG	R		6.350E-4		pg	1574.9	**28**	0.995	20	rsd ***
Endrin aldehyde	A	2023.0	2003.8	2105.1	2061.6	2299.0	2208.8	1875.5	AVRG	R		4.802E-4		pg	2082.4	7	0.995	20	
Methoxychlor	A	836.20	684.78	810.39	879.12	1051.4	922.51	732.86	AVRG	R		0.001183		pg	845.33	14	0.995	20	

105

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235170716001 Name: Type: (normal) Date: 28-APR-2005 21:19 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2205.6	2006.2	2193.4	2234.7	2547.2	2462.9	2067.7	AVRG	R		4.454E-4		pg	2245.4	9	0.995	20	
TCMX	A	2638.5	2703.9	2874.5	2855.2	2988.6	2982.5	2702.8	AVRG	R		3.545E-4		pg	2820.9	5	0.995	20	
Decachlorobiphenyl	A	2505.9	3299.1	3466.7	3146.5	3237.2	3080.4	2376.5	AVRG	R		3.316E-4		pg	3016.1	14	0.995	20	
alpha-BHC	B	7198.7	7031.8	7373.3	7434.2	7909.0	8186.5	7574.2	AVRG	R		1.328E-4		pg	7529.7	5	0.995	20	
gamma-BHC	B	6629.2	6247.7	6502.4	6534.8	6941.1	7082.7	6471.2	AVRG	R		1.508E-4		pg	6629.9	4	0.995	20	
beta-BHC	B	4524.4	3936.5	3832.6	3596.5	3709.2	3553.7	3108.7	AVRG	R		2.665E-4		pg	3751.7	11	0.995	20	
delta-BHC	B	6608.0	6097.3	6432.9	6472.0	7067.5	7242.5	6591.7	AVRG	R		1.505E-4		pg	6644.5	6	0.995	20	
Heptachlor	B	4869.1	4451.9	4668.6	4618.8	4916.7	4792.8	4194.4	AVRG	R		2.153E-4		pg	4644.6	5	0.995	20	
Aldrin	B	7033.9	6770.8	6734.2	6642.6	7068.9	6965.0	6113.1	AVRG	R		1.479E-4		pg	6761.2	5	0.995	20	
Heptachlor epoxide	B	6836.9	6313.6	6079.4	5781.0	5970.9	5740.5	4817.8	AVRG	R		1.685E-4		pg	5934.3	10	0.995	20	
gamma-Chlordane	B	7266.3	6611.6	6602.3	6497.1	6881.8	6670.5	5726.6	AVRG	R		1.513E-4		pg	6608.0	7	0.995	20	
alpha-Chlordane	B	7471.1	6779.1	6719.6	6488.0	6940.3	6620.8	5652.7	AVRG	R		1.500E-4		pg	6667.4	8	0.995	20	
4,4'-DDE	B	5410.9	5034.7	5381.1	5475.7	6019.6	5862.6	4975.3	AVRG	R		1.834E-4		pg	5451.4	7	0.995	20	
Endosulfan I	B	6951.8	6193.7	6069.6	5814.0	6194.0	5801.8	4844.3	AVRG	R		1.672E-4		pg	5981.3	11	0.995	20	
Dieldrin	B	5913.2	5451.5	5615.7	5509.5	5962.0	5609.5	4644.1	AVRG	R		1.809E-4		pg	5529.4	8	0.995	20	
Endrin	B	4914.2	4275.7	4337.4	4274.3	4597.1	4366.9	3559.3	AVRG	R		2.308E-4		pg	4332.1	9	0.995	20	
4,4'-DDD	B	3826.6	3639.3	3719.2	3496.5	3972.3	3879.4	3225.5	AVRG	R		2.718E-4		pg	3679.8	7	0.995	20	
Endosulfan II	B	5844.7	5220.5	5165.1	4796.4	5163.9	4785.6	3835.9	AVRG	R		2.011E-4		pg	4973.2	12	0.995	20	
4,4'-DDT	B	2497.0	2030.4	2319.0	2660.7	3133.9	3019.6	2580.5	AVRG	R		3.837E-4		pg	2605.9	15	0.995	20	
Endrin aldehyde	B	4720.9	4203.4	4101.4	3758.6	4092.6	3704.8	2974.3	AVRG	R		2.540E-4		pg	3936.6	14	0.995	20	
Methoxychlor	B	1171.3	946.97	985.26	991.38	1162.4	1009.4	812.29	AVRG	R		9.889E-4		pg	1011.3	12	0.995	20	
Endosulfan sulfate	B	5476.6	4685.7	4575.2	4293.0	4716.6	4235.5	3420.2	AVRG	R		2.229E-4		pg	4486.1	14	0.995	20	
TCMX	B	7079.9	6634.1	6614.6	6139.5	6327.9	5985.7	5279.2	AVRG	R		1.589E-4		pg	6294.4	9	0.995	20	
Decachlorobiphenyl	B	5170.7	4532.3	4491.8	3932.0	4379.2	3884.4	3073.3	AVRG	R		2.376E-4		pg	4209.1	16	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	13	20	
EPA 8081A	B	22	9	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :

ICV 235170716024 (118_024) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235170716024	29-APR-2005	25.000	23.475	pg	-6	15	
gamma-BHC	A	235170716024	29-APR-2005	25.000	23.476	pg	-6	15	
beta-BHC	A	235170716024	29-APR-2005	25.000	23.121	pg	-8	15	
delta-BHC	A	235170716024	29-APR-2005	25.000	23.763	pg	-5	15	
Heptachlor	A	235170716024	29-APR-2005	25.000	23.266	pg	-7	15	
Aldrin	A	235170716024	29-APR-2005	25.000	23.530	pg	-6	15	
Heptachlor epoxide	A	235170716024	29-APR-2005	25.000	24.010	pg	-4	15	
gamma-Chlordane	A	235170716024	29-APR-2005	25.000	23.121	pg	-8	15	
alpha-Chlordane	A	235170716024	29-APR-2005	25.000	23.986	pg	-4	15	
4,4'-DDE	A	235170716024	29-APR-2005	25.000	23.204	pg	-7	15	
Endosulfan I	A	235170716024	29-APR-2005	25.000	23.885	pg	-4	15	
Dieldrin	A	235170716024	29-APR-2005	25.000	22.169	pg	-11	15	
Endrin	A	235170716024	29-APR-2005	25.000	23.339	pg	-7	15	
4,4'-DDD	A	235170716024	29-APR-2005	25.000	22.988	pg	-8	15	
Endosulfan II	A	235170716024	29-APR-2005	25.000	23.776	pg	-5	15	
4,4'-DDT	A	235170716024	29-APR-2005	25.000	19.036	pg	**-24**	15	v- ***
Endrin aldehyde	A	235170716024	29-APR-2005	25.000	25.538	pg	2	15	
Methoxychlor	A	235170716024	29-APR-2005	25.000	20.634	pg	**-17**	15	v- ***
Endosulfan sulfate	A	235170716024	29-APR-2005	25.000	24.390	pg	-2	15	
alpha-BHC	B	235170716024	29-APR-2005	25.000	23.849	pg	-5	15	
gamma-BHC	B	235170716024	29-APR-2005	25.000	23.348	pg	-7	15	
beta-BHC	B	235170716024	29-APR-2005	25.000	22.459	pg	-10	15	
delta-BHC	B	235170716024	29-APR-2005	25.000	24.048	pg	-4	15	
Heptachlor	B	235170716024	29-APR-2005	25.000	22.886	pg	-8	15	
Aldrin	B	235170716024	29-APR-2005	25.000	23.187	pg	-7	15	
Heptachlor epoxide	B	235170716024	29-APR-2005	25.000	23.494	pg	-6	15	
gamma-Chlordane	B	235170716024	29-APR-2005	25.000	22.725	pg	-9	15	
alpha-Chlordane	B	235170716024	29-APR-2005	25.000	22.835	pg	-9	15	
4,4'-DDE	B	235170716024	29-APR-2005	25.000	24.026	pg	-4	15	
Endosulfan I	B	235170716024	29-APR-2005	25.000	23.296	pg	-7	15	
Dieldrin	B	235170716024	29-APR-2005	25.000	23.747	pg	-5	15	
Endrin	B	235170716024	29-APR-2005	25.000	25.152	pg	1	15	
4,4'-DDD	B	235170716024	29-APR-2005	25.000	24.887	pg	0	15	
Endosulfan II	B	235170716024	29-APR-2005	25.000	25.252	pg	1	15	
4,4'-DDT	B	235170716024	29-APR-2005	25.000	21.003	pg	**-16**	15	v- ***
Endrin aldehyde	B	235170716024	29-APR-2005	25.000	25.666	pg	3	15	
Methoxychlor	B	235170716024	29-APR-2005	25.000	27.568	pg	10	15	
Endosulfan sulfate	B	235170716024	29-APR-2005	25.000	25.120	pg	0	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	7	15	
EPA 8081A	B	20	6	15	

-=low bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235177693012 Run Name: Injected: 03-MAY-2005 15:26
Filename: 123_012 Standard(s): S306

Analyte	Ch	Area
Endrin	A	111993.62
Endrin aldehyde	A	931.53
Endrin ketone	A	3729.5

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	160850.87
4,4'-DDE	A	1212.83
4,4'-DDD	A	10395.06

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	211900.17
Endrin aldehyde	B	2982.48
Endrin ketone	B	9291.64

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	236085.62
4,4'-DDE	B	3297.33
4,4'-DDD	B	27049

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235177693026 Run Name: Injected: 03-MAY-2005 23:03
Filename: 123_026 Standard(s): S306

Analyte	Ch	Area
Endrin	A	123714.16
Endrin aldehyde	A	1125.43
Endrin ketone	A	5566.41

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	169984.03
4,4'-DDE	A	1322.44
4,4'-DDD	A	13378.57

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	230255.52
Endrin aldehyde	B	3789.77
Endrin ketone	B	12945.15

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	256183.87
4,4'-DDE	B	3131.47
4,4'-DDD	B	35112.7

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_5 IDF : 1.0
Seqnum : 235177693013 Filename : 123_013 Injected : 03-MAY-2005 15:57
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :
Standards: S245

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2726.7	2724.2	25.00000	24.97643	pg	0	15	rsd ***
gamma-BHC	A	2715.9	2766.1	25.00000	25.46154	pg	2	15	rsd ***
beta-BHC	A	1628.8	1638.4	25.00000	25.14698	pg	1	15	
delta-BHC	A	2438.3	2463.6	25.00000	25.25939	pg	1	15	rsd ***
Heptachlor	A	2837.7	2702.7	25.00000	23.81030	pg	-5	15	
Aldrin	A	2626.0	2664.3	25.00000	25.36513	pg	1	15	
Heptachlor epoxide	A	2841.4	2929.3	25.00000	25.77301	pg	3	15	
gamma-Chlordane	A	2838.7	2884.4	25.00000	25.40185	pg	2	15	
alpha-Chlordane	A	2846.8	3003.0	25.00000	26.37241	pg	5	15	
4,4'-DDE	A	2629.9	2847.5	50.00000	54.13735	pg	8	15	
Endosulfan I	A	2755.0	2835.7	25.00000	25.73224	pg	3	15	
Dieldrin	A	2553.5	2733.0	50.00000	53.51571	pg	7	15	
Endrin	A	2271.9	2435.6	50.00000	53.60137	pg	7	15	
4,4'-DDD	A	1756.6	1959.8	50.00000	55.78395	pg	12	15	
Endosulfan II	A	2446.0	2635.2	50.00000	53.86726	pg	8	15	
4,4'-DDT	A	1574.9	1544.3	50.00000	49.02848	pg	-2	15	rsd ***
Endrin aldehyde	A	2082.4	2180.1	50.00000	52.34579	pg	5	15	
Methoxychlor	A	845.33	837.64	250.0000	247.7271	pg	-1	15	
Endosulfan sulfate	A	2245.4	2406.3	50.00000	53.58418	pg	7	15	
TCMX	A	2820.9	2798.3	50.00000	49.60048	pg	-1	15	
Decachlorobiphenyl	A	3016.1	3220.0	50.00000	53.38101	pg	7	15	
alpha-BHC	B	7529.7	7526.6	25.00000	24.98996	pg	0	15	
gamma-BHC	B	6629.9	6541.3	25.00000	24.66594	pg	-1	15	
beta-BHC	B	3751.7	3530.1	25.00000	23.52330	pg	-6	15	
delta-BHC	B	6644.5	6684.2	25.00000	25.14931	pg	1	15	
Heptachlor	B	4644.6	4440.6	25.00000	23.90215	pg	-4	15	
Aldrin	B	6761.2	6796.4	25.00000	25.13011	pg	1	15	
Heptachlor epoxide	B	5934.3	5918.1	25.00000	24.93171	pg	0	15	
gamma-Chlordane	B	6608.0	6637.0	25.00000	25.10946	pg	0	15	
alpha-Chlordane	B	6667.4	6657.3	25.00000	24.96225	pg	0	15	
4,4'-DDE	B	5451.4	5710.0	50.00000	52.37196	pg	5	15	
Endosulfan I	B	5981.3	5992.3	25.00000	25.04597	pg	0	15	
Dieldrin	B	5529.4	5707.1	50.00000	51.60673	pg	3	15	
Endrin	B	4332.1	4468.3	50.00000	51.57163	pg	3	15	
4,4'-DDD	B	3679.8	3807.1	50.00000	51.72889	pg	3	15	
Endosulfan II	B	4973.2	5048.8	50.00000	50.75994	pg	2	15	
4,4'-DDT	B	2605.9	2438.7	50.00000	46.79178	pg	-6	15	
Endrin aldehyde	B	3936.6	3974.6	50.00000	50.48303	pg	1	15	
Methoxychlor	B	1011.3	932.02	250.0000	230.4096	pg	-8	15	
Endosulfan sulfate	B	4486.1	4523.7	50.00000	50.41889	pg	1	15	
TCMX	B	6294.4	6034.6	50.00000	47.93590	pg	-4	15	
Decachlorobiphenyl	B	4209.1	4067.3	50.00000	48.31544	pg	-3	15	
Average EPA 8081A	A		(count=22)				4	15	
Average EPA 8081A	B		(count=22)				3	15	

rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235177693027 Filename : 123_027 Injected : 03-MAY-2005 23:33
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2726.7	2199.1	10.00000	8.065072	pg	**-19**	15	c- rsd ***
gamma-BHC	A	2715.9	2223.8	10.00000	8.187896	pg	**-18**	15	c- rsd ***
beta-BHC	A	1628.8	1492.5	10.00000	9.162956	pg	-8	15	
delta-BHC	A	2438.3	1975.2	10.00000	8.100602	pg	**-19**	15	c- rsd ***
Heptachlor	A	2837.7	2274.5	10.00000	8.015206	pg	**-20**	15	c- ***
Aldrin	A	2626.0	2419.0	10.00000	9.211800	pg	-8	15	
Heptachlor epoxide	A	2841.4	2741.4	10.00000	9.647878	pg	-4	15	
gamma-Chlordane	A	2838.7	2648.4	10.00000	9.329570	pg	-7	15	
alpha-Chlordane	A	2846.8	2723.0	10.00000	9.565245	pg	-4	15	
4,4'-DDE	A	2629.9	2587.3	20.00000	19.67604	pg	-2	15	
Endosulfan I	A	2755.0	2593.7	10.00000	9.414328	pg	-6	15	
Dieldrin	A	2553.5	2394.7	20.00000	18.75629	pg	-6	15	
Endrin	A	2271.9	2024.2	20.00000	17.81916	pg	-11	15	
4,4'-DDD	A	1756.6	1725.8	20.00000	19.64907	pg	-2	15	
Endosulfan II	A	2446.0	2352.2	20.00000	19.23278	pg	-4	15	
4,4'-DDT	A	1574.9	851.49	20.00000	10.81335	pg	**-46**	15	c- rsd ***
Endrin aldehyde	A	2082.4	2134.9	20.00000	20.50404	pg	3	15	
Methoxychlor	A	845.33	576.84	100.0000	68.23847	pg	**-32**	15	c- ***
Endosulfan sulfate	A	2245.4	2230.7	20.00000	19.86892	pg	-1	15	
TCMX	A	2820.9	2708.8	20.00000	19.20548	pg	-4	15	
Decachlorobiphenyl	A	3016.1	3360.8	20.00000	22.28623	pg	11	15	
alpha-BHC	B	7529.7	7160.1	10.00000	9.509150	pg	-5	15	
gamma-BHC	B	6629.9	6364.5	10.00000	9.599703	pg	-4	15	
beta-BHC	B	3751.7	3796.5	10.00000	10.11947	pg	1	15	
delta-BHC	B	6644.5	6374.2	10.00000	9.593100	pg	-4	15	
Heptachlor	B	4644.6	4328.0	10.00000	9.318397	pg	-7	15	
Aldrin	B	6761.2	6754.2	10.00000	9.989636	pg	0	15	
Heptachlor epoxide	B	5934.3	6254.2	10.00000	10.53909	pg	5	15	
gamma-Chlordane	B	6608.0	6711.0	10.00000	10.15587	pg	2	15	
alpha-Chlordane	B	6667.4	6825.2	10.00000	10.23670	pg	2	15	
4,4'-DDE	B	5451.4	5568.8	20.00000	20.43067	pg	2	15	
Endosulfan I	B	5981.3	6246.5	10.00000	10.44340	pg	4	15	
Dieldrin	B	5529.4	5785.6	20.00000	20.92681	pg	5	15	
Endrin	B	4332.1	4275.5	20.00000	19.73829	pg	-1	15	
4,4'-DDD	B	3679.8	3983.7	20.00000	21.65180	pg	8	15	
Endosulfan II	B	4973.2	5330.8	20.00000	21.43836	pg	7	15	
4,4'-DDT	B	2605.9	1699.2	20.00000	13.04105	pg	**-35** —	15	c- ***
Endrin aldehyde	B	3936.6	4282.7	20.00000	21.75849	pg	9	15	
Methoxychlor	B	1011.3	749.78	100.0000	74.14248	pg	**-26** —	15	c- ***
Endosulfan sulfate	B	4486.1	4731.6	20.00000	21.09458	pg	5	15	
TCMX	B	6294.4	6330.7	20.00000	20.11522	pg	1	15	
Decachlorobiphenyl	B	4209.1	4397.5	20.00000	20.89529	pg	4	15	
Average EPA 8081A	A		(count=22)				11	15	
Average EPA 8081A	B		(count=22)				6	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235170716 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 28-APR-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
005	118_005	CCV	pest_4			28-APR-2005 13:16	1.0					1	
006	118_006	CCV	pest_4			28-APR-2005 13:47	1.0					1	
012	118_012	X	hex			28-APR-2005 19:47	1.0						
013	118_013	PEM				28-APR-2005 20:18	1.0		1			2	
014	118_014	X	hex			28-APR-2005 20:48	1.0						
015	118_015	ICAL	pest_1			28-APR-2005 21:19	1.0					3	
016	118_016	ICAL	pest_2			28-APR-2005 21:49	1.0					4	
017	118_017	ICAL	pest_3			28-APR-2005 22:20	1.0					5	
018	118_018	ICAL	pest_4			28-APR-2005 22:50	1.0					1	
019	118_019	ICAL	pest_5			28-APR-2005 23:22	1.0					6	
020	118_020	ICAL	pest_6			28-APR-2005 23:52	1.0					7	
021	118_021	ICAL	pest_7			29-APR-2005 00:23	1.0					8	
023	118_023	X	icv			29-APR-2005 01:24	1.0					9	
024	118_024	ICV	icv			29-APR-2005 01:54	1.0	3	1			9	

112

Stds used: 1=S243 2=S306 3=S9 4=S10 5=S11 6=S245 7=S13 8=S14 9=S441

SEQUENCE SUMMARY FOR 179089 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235177693 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 03-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	123_001	PEM				03-MAY-2005 09:33	1.0	1.0			1	1	
002	123_002	X	ccv			03-MAY-2005 10:03	1.0					2	
003	123_003	CCV	pest_4			03-MAY-2005 10:34	1.0	1.0	4		1	2	
005	123_005	BLANK	QC292190	101610	Water	03-MAY-2005 11:52	1.0	0.01			1		
006	123_006	BS	QC292191	101610	Water	03-MAY-2005 12:23	1.0	0.01	4		1		
007	123_007	BSD	QC292192	101610	Water	03-MAY-2005 12:53	1.0	0.01	4		1		
008	123_008	SAMPLE	179161-001	101610	Water	03-MAY-2005 13:24	1.0	0.009901			1		
009	123_009	SAMPLE	179076-009	101575	Soil	03-MAY-2005 13:54	1.0	0.6618			1		
010	123_010	SAMPLE	179076-012	101575	Soil	03-MAY-2005 14:25	1.0	0.6566			1		
011	123_011	SAMPLE	179022-001	101575	Soil	03-MAY-2005 14:55	10.0	0.6676			1		
012	123_012	PEM				03-MAY-2005 15:26	1.0	1.0			1	1	
013	123_013	CCV	pest_5			03-MAY-2005 15:57	1.0	1.0	4		1	3	
015	123_015	BLANK	QC292396	101667	Soil	03-MAY-2005 17:26	1.0	0.6575	8		1		
016	123_016	LCS	QC292397	101667	Soil	03-MAY-2005 17:56	1.0	0.6579	8		1		
017	123_017	SAMPLE	179089-001	101667	Soil	03-MAY-2005 18:27	1.0	0.657	8		1		113
018	123_018	SAMPLE	179089-002	101667	Soil	03-MAY-2005 18:57	1.0	0.6631	8		1		
019	123_019	MSS	179089-003	101667	Soil	03-MAY-2005 19:28	1.0	0.6623	8		1		
020	123_020	SAMPLE	179098-004	101667	Soil	03-MAY-2005 19:58	1.0	0.6658	8		1		
021	123_021	SAMPLE	179167-001	101667	Soil	03-MAY-2005 20:29	1.0	0.6557	5		1		
022	123_022	SAMPLE	179182-001	101667	Soil	03-MAY-2005 20:59	1.0	0.6601	8		1		
023	123_023	MS	QC292398	101667	Soil	03-MAY-2005 21:30	1.0	0.6575	8		1		
024	123_024	MSD	QC292399	101667	Soil	03-MAY-2005 22:00	1.0	0.6645	8		1		
026	123_026	PEM				03-MAY-2005 23:03	1.0	1.0			1	1	
027	123_027	CCV	pest_3			03-MAY-2005 23:33	1.0	1.0	8		1	4	
031	123_031	SAMPLE	179190-001	101667	Soil	04-MAY-2005 01:35	1.0	0.6627	5	4	1		
032	123_032	MSS	179182-002	101667	Soil	04-MAY-2005 02:06	1.0	0.6658	8		1		
033	123_033	SAMPLE	179182-003	101667	Soil	04-MAY-2005 02:36	5.0	0.6707	8		1		
035	123_035	PEM				04-MAY-2005 03:37	1.0	1.0			1	1	
036	123_036	CCV	pest_4			04-MAY-2005 04:08	1.0	1.0	7		1	2	

Stds used: 1=S306 2=S243 3=S245 4=S420

Curtis & Tompkins Laboratories **Sample Preparation Summary** **03-MAY-2005 13:20**

Batch Number : 101667
Date Extracted: 02-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S203B
Spike #3 ID : S284A
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001			Mactec, Inc.	Soil	15.22	g	10	0.657030	1	.02	0	0	8081		
179089-002			Mactec, Inc.	Soil	15.08	g	10	0.663130	1	.02	0	0	8081		
179089-003			Mactec, Inc.	Soil	15.1	g	10	0.662252	1	.02	0	0	8081		mss
179098-004			Iris Environmental	Soil	15.02	g	10	0.665779	1	.02	0	0	8081, PCB		
179167-001			Fugro West, Inc.	Soil	15.25	g	10	0.655738	1	.02	0	0	8081, PCB		
179182-001			Mactec, Inc.	Soil	15.15	g	10	0.660066	1	.02	0	0	8081, PCB		
179182-002			Mactec, Inc.	Soil	15.02	g	10	0.665779	1	.02	0	0	8081, PCB		mss
179182-003			Mactec, Inc.	Soil	14.91	g	10	0.670691	1	.02	0	0	8081, PCB		
179190-001			Fugro West, Inc.	Soil	15.09	g	10	0.662691	1	.02	0	0	8081, PCB		
QC292396	MB			Soil	15.21	g	10	0.657462	1	.02	0	0	8081		
QC292397	LCS			Soil	15.2	g	10	0.657895	1	.02	.025	0	8081		
QC292398	MS	of 179089-003		Soil	15.21	g	10	0.657462	1	.02	.025	0	8081		
QC292399	MSD	of 179089-003		Soil	15.05	g	10	0.664452	1	.02	.025	0	8081		
QC292400	LCS			Soil	15.23	g	10	0.656599	1	.02	0	.025	PCB		
QC292401	MS	of 179182-002		Soil	15.12	g	10	0.661376	1	.02	0	.025	PCB		
QC292402	MSD	of 179182-002		Soil	15	g	10	0.666667	1	.02	0	.025	PCB	3665A	

Prep Chemist: _____ Reviewed By: _____ Date: 5/3/05

Relinquished By: _____ Received By: 05/03/05 Date: 5/3/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

LIMS Batch No: 101667 **Extraction Method:** **Cleanup Method:** Page 66

LIMS Analysis: 8081/PCB ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: KMH 5/2/05 ☑ EPA 3545 PFE (Mth# 10) ☒ EPA 3620b Florisil

Date Extracted: 5/2/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

	Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
	179089-001	15.22	10.0	X	
	-002	15.08			
	-003	15.10			MSS
	179098-001	15.02			
5	179167-001	15.25			
	179182-001	15.15			
	-002	15.02			
	-003	14.91			
	179190-001	15.09			
10	MB QC292396	15.21			
	LCS 97	15.20			
	MS 98	15.21			
	MSD 99	15.05			
15					
20					

SHD 5/3/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	KMH 5/2/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	DIDMX 040603	
0.2 mL of surrogate solution was added to all samples	S258B SHD 5/3/05	
0.25 mL of spike solution was added to all spikes	~~S284A(PCB)~~ S2038 8081	
1:1 CH_2Cl_2 (lot# EMA5071):Acetone(lot# EM45033) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	[redacted] D28	
Soxhlets on at:	N/A	SHD 5/3/05
Soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	N/A	
Exchanged 2x with Hexane	CN98	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	402290-BE	

Kristen Harris 5/2/05

Extraction Chemist / Date

Continued from page ___

Continued on page ___

115

Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: SHD
Cleanup Date: 5/3/05

Benchbook # **BK 2068**
Page 68

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179089-001	401667	1.8	1.0	
-002				
-003				MS9
179098-004				
179167-001				
179182-001				
-002				
-003				
179190-001				
MB QC192396				
LCS 97				
MS 98				
MSD 99				

DM 3 May 05

Reprep

	Mfg & Lot # / Time / Program	Initials / Dat
☑ Extracts were cleaned up using Florisil cartridges	407290-BE	SHD 5/3/0
Florisil cartridges/ columns rinsed 3x with Hexane	CN818	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone — Hexane	B02E27	
Acetone	EM944233	
Concentrated to volumes as noted above	✓	

Extraction Chemist / Date

Continued from page
Continued on page

Jamie Mee 3 May 05
Reviewed by / Date

6 Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001A	15.09	PCB/8081 TEH	
179148-002A	49.51		MSS 179148-002A
MS	49.91		
MSD	50.12		
179167-001A	50.07		
179098-004	14.87	PCB/8081 PCB	MSS, comp 1A, 2A, 3A 179098-004
MS	14.79		
MSD	14.84		
LCS	14.83	TEHM	EM44258 Miscell.
179152-001B	49.51		179152-001B
SDUP	49.58		
179167-001	29.61	8100 ~~8270~~ KMH 4/29/05	
179182-001 A	49.62	TEHM	
-002	50.39		
-003	50.07		
179182-001	30.19	8270-SIM	
002	30.00		
003	30.20		
179182-001	15.15	8081	
002	15.02		
003	14.91		
179182-001	14.87	PCB	
-002	15.16		
-003	15.18		

JOM 4/29/05

Continued on Page

Read and Understood By

Signed 29Apr05 Date 117 Signed Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179089-001A	15.22	PCB/8081	
-002A	15.08	8081	
~~-002~~ 002A	15.21	PCB	MS/S
-MS	15.04		179089-002A
-MSD	15.25		↓
-LCS	15.23		EM44258
-MB	15.21	PCB/8081	↓
-003A	15.17	PCB	
-003A	15.10	8081	MSS
-MS	15.21		179089-003A
-MSD	15.05		↓
-LCS	15.20		EM49258
179098-004	15.02	PCB/8081	COMP 001*, 002*, 003A
179167-001A	15.25	PCB/8081	
179089-001A	30.43	8270-SIM	
-002	30.31		
-003	30.07		
179170-001A	50.34	TEH	
-002	50.29		
-003	50.02		
179190-001A	50.13	TEHM	
179190-001A	30.46	8100	
179190-001A	15.08	PCB	
179190-001A	15.09	8081	
179197-001A	50.17	TEHM	
-002	50.13		
-003	50.00		
-004	50.04		
-005	50.07		
179197-001A	30.37	8310	
-002	30.23		
-003	30.18		
-004	30.00		
-005	30.08		

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[signature]	5/2/03		

REPORTING SUMMARY FOR 179089 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179089-001	alpha-BHC	GC16	B	05/03/05 18:27
179089-001	beta-BHC	GC16	B	05/03/05 18:27
179089-001	gamma-BHC	GC16	B	05/03/05 18:27
179089-001	delta-BHC	GC16	B	05/03/05 18:27
179089-001	Heptachlor	GC16	B	05/03/05 18:27
179089-001	Aldrin	GC16	B	05/03/05 18:27
179089-001	Heptachlor epoxide	GC16	B	05/03/05 18:27
179089-001	Endosulfan I	GC16	B	05/03/05 18:27
179089-001	Dieldrin	GC16	B	05/03/05 18:27
179089-001	4,4'-DDE	GC16	B	05/03/05 18:27
179089-001	Endrin	GC16	B	05/03/05 18:27
179089-001	Endosulfan II	GC16	B	05/03/05 18:27
179089-001	Endosulfan sulfate	GC16	B	05/03/05 18:27
179089-001	4,4'-DDD	GC16	B	05/03/05 18:27
179089-001	Endrin aldehyde	GC16	B	05/03/05 18:27
179089-001	4,4'-DDT	GC16	B	05/03/05 18:27
179089-001	alpha-Chlordane	GC16	B	05/03/05 18:27
179089-001	gamma-Chlordane	GC16	B	05/03/05 18:27
179089-001	Methoxychlor	GC16	B	05/03/05 18:27
179089-001	Toxaphene	GC16	B	05/03/05 18:27
179089-001	TCMX	GC16	B	05/03/05 18:27
179089-001	Decachlorobiphenyl	GC16	B	05/03/05 18:27
179089-002	alpha-BHC	GC16	B	05/03/05 18:57
179089-002	beta-BHC	GC16	B	05/03/05 18:57
179089-002	gamma-BHC	GC16	B	05/03/05 18:57
179089-002	delta-BHC	GC16	B	05/03/05 18:57
179089-002	Heptachlor	GC16	B	05/03/05 18:57
179089-002	Aldrin	GC16	B	05/03/05 18:57
179089-002	Heptachlor epoxide	GC16	B	05/03/05 18:57
179089-002	Endosulfan I	GC16	B	05/03/05 18:57
179089-002	Dieldrin	GC16	B	05/03/05 18:57
179089-002	4,4'-DDE	GC16	B	05/03/05 18:57
179089-002	Endrin	GC16	B	05/03/05 18:57
179089-002	Endosulfan II	GC16	B	05/03/05 18:57
179089-002	Endosulfan sulfate	GC16	B	05/03/05 18:57
179089-002	4,4'-DDD	GC16	B	05/03/05 18:57
179089-002	Endrin aldehyde	GC16	B	05/03/05 18:57
179089-002	4,4'-DDT	GC16	B	05/03/05 18:57
179089-002	alpha-Chlordane	GC16	B	05/03/05 18:57
179089-002	gamma-Chlordane	GC16	B	05/03/05 18:57
179089-002	Methoxychlor	GC16	B	05/03/05 18:57
179089-002	Toxaphene	GC16	B	05/03/05 18:57
179089-002	TCMX	GC16	B	05/03/05 18:57
179089-002	Decachlorobiphenyl	GC16	B	05/03/05 18:57
179089-003	alpha-BHC	GC16	B	05/03/05 19:28
179089-003	beta-BHC	GC16	B	05/03/05 19:28
179089-003	gamma-BHC	GC16	B	05/03/05 19:28
179089-003	delta-BHC	GC16	B	05/03/05 19:28
179089-003	Heptachlor	GC16	B	05/03/05 19:28
179089-003	Aldrin	GC16	B	05/03/05 19:28
179089-003	Heptachlor epoxide	GC16	B	05/03/05 19:28
179089-003	Endosulfan I	GC16	B	05/03/05 19:28

Sample ID	Analyte	Inst ID	Ch	Date & Time
179089-003	Dieldrin	GC16	B	05/03/05 19:28
179089-003	4,4'-DDE	GC16	B	05/03/05 19:28
179089-003	Endrin	GC16	B	05/03/05 19:28
179089-003	Endosulfan II	GC16	B	05/03/05 19:28
179089-003	Endosulfan sulfate	GC16	B	05/03/05 19:28
179089-003	4,4'-DDD	GC16	B	05/03/05 19:28
179089-003	Endrin aldehyde	GC16	B	05/03/05 19:28
179089-003	4,4'-DDT	GC16	B	05/03/05 19:28
179089-003	alpha-Chlordane	GC16	B	05/03/05 19:28
179089-003	gamma-Chlordane	GC16	B	05/03/05 19:28
179089-003	Methoxychlor	GC16	B	05/03/05 19:28
179089-003	Toxaphene	GC16	B	05/03/05 19:28
179089-003	TCMX	GC16	B	05/03/05 19:28
179089-003	Decachlorobiphenyl	GC16	B	05/03/05 19:28
QC292396	alpha-BHC	GC16	B	05/03/05 17:26
QC292396	beta-BHC	GC16	B	05/03/05 17:26
QC292396	gamma-BHC	GC16	B	05/03/05 17:26
QC292396	delta-BHC	GC16	B	05/03/05 17:26
QC292396	Heptachlor	GC16	B	05/03/05 17:26
QC292396	Aldrin	GC16	B	05/03/05 17:26
QC292396	Heptachlor epoxide	GC16	B	05/03/05 17:26
QC292396	Endosulfan I	GC16	B	05/03/05 17:26
QC292396	Dieldrin	GC16	B	05/03/05 17:26
QC292396	4,4'-DDE	GC16	B	05/03/05 17:26
QC292396	Endrin	GC16	B	05/03/05 17:26
QC292396	Endosulfan II	GC16	B	05/03/05 17:26
QC292396	Endosulfan sulfate	GC16	B	05/03/05 17:26
QC292396	4,4'-DDD	GC16	B	05/03/05 17:26
QC292396	Endrin aldehyde	GC16	B	05/03/05 17:26
QC292396	4,4'-DDT	GC16	B	05/03/05 17:26
QC292396	alpha-Chlordane	GC16	B	05/03/05 17:26
QC292396	gamma-Chlordane	GC16	B	05/03/05 17:26
QC292396	Methoxychlor	GC16	B	05/03/05 17:26
QC292396	Toxaphene	GC16	B	05/03/05 17:26
QC292396	TCMX	GC16	B	05/03/05 17:26
QC292396	Decachlorobiphenyl	GC16	B	05/03/05 17:26
QC292397	gamma-BHC	GC16	B	05/03/05 17:56
QC292397	Heptachlor	GC16	B	05/03/05 17:56
QC292397	Aldrin	GC16	B	05/03/05 17:56
QC292397	Dieldrin	GC16	B	05/03/05 17:56
QC292397	Endrin	GC16	B	05/03/05 17:56
QC292397	4,4'-DDT	GC16	B	05/03/05 17:56
QC292397	TCMX	GC16	B	05/03/05 17:56
QC292397	Decachlorobiphenyl	GC16	B	05/03/05 17:56
QC292398	gamma-BHC	GC16	B	05/03/05 21:30
QC292398	Heptachlor	GC16	B	05/03/05 21:30
QC292398	Aldrin	GC16	B	05/03/05 21:30
QC292398	Dieldrin	GC16	B	05/03/05 21:30
QC292398	Endrin	GC16	B	05/03/05 21:30
QC292398	4,4'-DDT	GC16	B	05/03/05 21:30
QC292398	TCMX	GC16	B	05/03/05 21:30

REPORTING SUMMARY FOR 179089 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC292398	Decachlorobiphenyl	GC16	B	05/03/05 21:30
QC292399	gamma-BHC	GC16	B	05/03/05 22:00
QC292399	Heptachlor	GC16	B	05/03/05 22:00
QC292399	Aldrin	GC16	B	05/03/05 22:00
QC292399	Dieldrin	GC16	B	05/03/05 22:00
QC292399	Endrin	GC16	B	05/03/05 22:00
QC292399	4,4'-DDT	GC16	B	05/03/05 22:00
QC292399	TCMX	GC16	B	05/03/05 22:00
QC292399	Decachlorobiphenyl	GC16	B	05/03/05 22:00

METALS RESULTS & QC SUMMARY

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179089	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB02TP108(4.0)	Basis:	dry
Lab ID:	179089-001	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	mg/Kg	Prepared:	04/27/05

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.11 J	0.23	0.055	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Arsenic	2.8	0.23	0.075	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Barium	96	2.3	0.23	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.30	0.23	0.048	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.099 J	0.23	0.0099	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Chromium	75	2.3	0.47	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Cobalt	11	0.23	0.0032	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Copper	13	0.23	0.088	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Lead	5.6	0.23	0.0075	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Mercury	0.045	0.022	0.0041	1.000	101514	04/27/05	METHOD	EPA 7471A
Molybdenum	0.38	0.23	0.0048	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Nickel	61	2.7	2.7	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Selenium	0.33	0.23	0.088	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Silver	0.024 J	0.23	0.0029	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Thallium	0.066 J	0.23	0.011	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Vanadium	46	2.3	1.3	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Zinc	32	0.23	0.051	5.000	101496	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179089	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB02TP108(7.0)	Basis:	dry
Lab ID:	179089-002	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	mg/Kg	Prepared:	04/27/05

Moisture: 14%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.18 J	0.27	0.066	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Arsenic	4.2	0.27	0.090	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Barium	92	2.7	0.28	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.42	0.27	0.058	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.12 J	0.27	0.012	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Chromium	100	2.7	0.57	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Cobalt	16	0.27	0.0038	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Copper	20	0.27	0.11	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Lead	4.9	0.27	0.0090	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Mercury	0.057	0.019	0.0036	1.000	101514	04/27/05	METHOD	EPA 7471A
Molybdenum	0.40	0.27	0.0058	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Nickel	100	3.3	3.3	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Selenium	0.25 J	0.27	0.11	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Silver	0.032 J	0.27	0.0036	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Thallium	0.088 J	0.27	0.014	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Vanadium	56	2.7	1.6	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Zinc	41	0.27	0.061	5.000	101496	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179089	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB02TP108(10.0)	Basis:	dry
Lab ID:	179089-003	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	mg/Kg	Prepared:	04/27/05

Moisture: 18%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.13 J	0.30	0.071	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Arsenic	2.7	0.30	0.098	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Barium	130	3.0	0.30	50.00	101496	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.32	0.30	0.062	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.12 J	0.30	0.013	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Chromium	59	0.30	0.062	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Cobalt	12	0.30	0.0041	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Copper	15	0.30	0.11	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Lead	4.4	0.30	0.0097	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Mercury	ND	0.020	0.0038	1.000	101514	04/27/05	METHOD	EPA 7471A
Molybdenum	0.38	0.30	0.0062	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Nickel	50	0.35	0.35	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Selenium	0.44	0.30	0.11	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Silver	0.035 J	0.30	0.0038	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Thallium	0.068 J	0.30	0.015	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Vanadium	47	0.30	0.17	5.000	101496	05/10/05	EPA 3050B	EPA 6020
Zinc	36	0.30	0.066	5.000	101496	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC291742	Batch#:	101496
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	05/09/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	0.25	0.056

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC291819	Batch#:	101514
Matrix:	Soil	Prepared:	04/27/05
Units:	mg/Kg	Analyzed:	04/27/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101496
Units:	mg/Kg	Prepared:	04/27/05
Basis:	as received	Analyzed:	05/09/05
Diln Fac:	5.000		

Type: BS Lab ID: QC291743

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	23.09	92	80-120
Arsenic	25.00	23.76	95	80-120
Barium	25.00	23.36	93	80-120
Beryllium	25.00	23.63	95	80-120
Cadmium	25.00	25.98	104	80-120
Chromium	25.00	23.88	96	80-120
Cobalt	25.00	24.19	97	80-120
Copper	25.00	25.50	102	80-120
Lead	25.00	24.00	96	80-120
Molybdenum	25.00	24.35	97	80-120
Nickel	25.00	24.89	100	80-125
Selenium	25.00	24.11	96	80-120
Silver	25.00	25.24	101	80-120
Thallium	25.00	23.15	93	66-120
Vanadium	25.00	23.66	95	80-120
Zinc	25.00	24.61	98	80-120

Type: BSD Lab ID: QC291744

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.47	94	80-120	2	20
Arsenic	25.00	23.81	95	80-120	0	20
Barium	25.00	23.09	92	80-120	1	20
Beryllium	25.00	23.74	95	80-120	0	20
Cadmium	25.00	25.74	103	80-120	1	20
Chromium	25.00	23.81	95	80-120	0	20
Cobalt	25.00	24.25	97	80-120	0	20
Copper	25.00	25.54	102	80-120	0	20
Lead	25.00	24.10	96	80-120	0	20
Molybdenum	25.00	24.32	97	80-120	0	20
Nickel	25.00	24.95	100	80-125	0	20
Selenium	25.00	24.04	96	80-120	0	20
Silver	25.00	25.21	101	80-120	0	20
Thallium	25.00	23.64	95	66-120	2	20
Vanadium	25.00	23.71	95	80-120	0	20
Zinc	25.00	24.58	98	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Matrix:	Soil	Received:	04/12/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	05/10/05

Type: MS Moisture: 9%
Lab ID: QC291745

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.2681	25.68	9.156	35	28-120	5.000
Arsenic	2.626	25.68	24.21	84	70-120	5.000
Barium	28.47	25.68	48.81	79	46-165	50.00
Beryllium	0.1321	25.68	22.76	88	72-120	5.000
Cadmium	0.1278	25.68	24.26	94	74-120	5.000
Chromium	103.5	25.68	126.8	91 NM	45-160	50.00
Cobalt	10.73	25.68	37.89	106	62-136	5.000
Copper	28.23	25.68	35.11	27 *	47-164	5.000
Lead	8.077	25.68	26.35	71	60-140	5.000
Molybdenum	0.3315	25.68	22.55	87	74-120	5.000
Nickel	68.52	25.68	96.28	108	51-172	50.00
Selenium	0.2638	25.68	21.77	84	66-120	5.000
Silver	0.01765	25.68	23.53	92	74-120	5.000
Thallium	0.1303	25.68	22.55	87	57-120	5.000
Vanadium	65.66	25.68	89.09	91	19-177	50.00
Zinc	35.66	25.68	46.98	44	39-166	5.000

Type: MSD Moisture: 9%
Lab ID: QC291746

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	20.81	7.405	34	28-120	0	24	5.000
Arsenic	20.81	20.15	84	70-120	1	20	5.000
Barium	20.81	42.17	66	46-165	5	23	50.00
Beryllium	20.81	18.32	87	72-120	1	20	5.000
Cadmium	20.81	19.78	94	74-120	0	20	5.000
Chromium	20.81	126.9	113 NM	45-160	4	29	50.00
Cobalt	20.81	29.10	88	62-136	12	20	5.000
Copper	20.81	25.84	-12 *	47-164	21	21	5.000
Lead	20.81	20.90	62	60-140	8	24	5.000
Molybdenum	20.81	18.41	87	74-120	0	20	5.000
Nickel	20.81	85.58	82	51-172	6	22	50.00
Selenium	20.81	17.61	83	66-120	0	20	5.000
Silver	20.81	19.28	93	74-120	1	20	5.000
Thallium	20.81	18.32	87	57-120	0	20	5.000
Vanadium	20.81	80.17	70	19-177	5	30	50.00
Zinc	20.81	39.73	20 *	39-166	8	33	5.000

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Basis:	dry
Type:	Serial Dilution	Batch#:	101496
MSS Lab ID:	178846-002	Sampled:	04/07/05
Lab ID:	QC291747	Received:	04/12/05
Matrix:	Soil	Analyzed:	05/10/05
Units:	mg/Kg		

Moisture: 9%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.2681	0.2747	0.3727 J	1.374		10	25.00
Arsenic	2.626	0.2747	2.658	1.374		10	25.00
Barium	28.47	0.2747	27.87	1.374	2	10	25.00
Beryllium	0.1321	0.2747	ND	1.374		10	25.00
Cadmium	0.1278	0.2747	0.1395 J	1.374		10	25.00
Chromium	103.5	2.747	100.8	6.868	3	10	250.0
Cobalt	10.73	0.2747	10.71	1.374	0	10	25.00
Copper	28.23	0.2747	28.54	1.374	1	10	25.00
Lead	8.077	0.2747	7.868	1.374	3	10	25.00
Molybdenum	0.3315	0.2747	0.3497 J	6.868	5	10	25.00
Nickel	68.52	3.259	68.24	27.47		10	250.0
Selenium	0.2638	0.2747	1.206 J	1.374		10	25.00
Silver	0.01765	0.2747	ND	1.374		10	25.00
Thallium	0.1303	0.2747	0.1752 J	1.374		10	25.00
Vanadium	65.66	2.747	62.03	13.74		10	250.0
Zinc	35.66	0.2747	36.21	5.495	2	10	25.00

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101514
Units:	mg/Kg	Prepared:	04/27/05
Basis:	as received	Analyzed:	04/27/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC291820	0.5000	0.5500	110	80-120		
BSD	QC291821	0.5000	0.5330	107	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BB02TP108(4.0)	Batch#:	101514
MSS Lab ID:	179089-001	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	mg/Kg	Prepared:	04/27/05
Basis:	dry	Analyzed:	04/27/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC291822	0.04493	0.6389	0.7002	103	64-139	9%		
MSD	QC291823		0.6541	0.7104	102	64-139	9%	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	BB02TP108(4.0)	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	101514
MSS Lab ID:	179089-001	Sampled:	04/25/05
Lab ID:	QC291824	Received:	04/26/05
Matrix:	Soil	Analyzed:	04/27/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.04493	0.02155	ND	0.1077	9%	10

ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547111	Seqnum : 55186547115
Filename : e0913111	Filename : e0913115
IDF : 5.0	IDF : 5.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 00:00	Inj : 10-MAY-2005 00:23
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.9760	100.0	91.52	91	75-125	u
Arsenic	9.560	100.0	103.9	94	75-125	u
Barium	103.6	100.0	195.0	91	75-125	u
Beryllium	0.4808	100.0	96.62	96	75-125	u
Cadmium	0.4652	100.0	104.9	104	75-125	u
Calcium	11330	10000	19640	83	75-125	y
Chromium	*** usable MSS data not found ***					
Cobalt	39.04	100.0	138.1	99	75-125	u
Copper	102.8	100.0	121.6	**19***	75-125	u
Iron	*** usable MSS data not found ***					
Lead	29.40	100.0	106.2	77	75-125	u
Magnesium	8856	10000	17790	89	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	1.207	100.0	99.70	98	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1252	10000	10240	90	75-125	
Selenium	0.9604	100.0	96.42	95	75-125	u
Silver	0.06424	100.0	101.9	102	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.4742	100.0	96.76	96	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	129.8	100.0	182.6	**53***	75-125	u

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	320352	-16.41
Scandium	566573	539934	-4.70
Germanium	161713	144243	-10.80
Indium	1281904	1209012	-5.69
Bismuth	1275587	1160840	-9.00

u=use y=RL raised
Page 1 of 1

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547137	Seqnum : 55186547141
Filename : e0913137	Filename : e0913141
IDF : 50.0	IDF : 50.0
PDF : 50.0	PDF : 50.0
Run type : MSS	Run type : PDS
Samplenum: 178846-002	Samplenum: QC291748
Matrix : Soil	Matrix : Soil
Batchnum : 101496	Batchnum : 101496
Inj : 10-MAY-2005 02:31	Inj : 10-MAY-2005 02:55
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	10.00	8.656	87	75-125	
Arsenic	0.9588	10.00	10.08	91	75-125	
Barium	10.12	10.00	18.42	83	75-125	
Beryllium	ND	10.00	9.382	94	75-125	
Cadmium	0.05072	10.00	10.77	107	75-125	
Calcium	1170	1000	2056	89	75-125	y
Chromium	37.66	10.00	45.92	83	75-125	u y
Cobalt	3.798	10.00	13.27	95	75-125	
Copper	10.26	10.00	12.29	**20***	75-125	
Iron	9214	1000	9894	68	75-125	: y
Lead	2.916	10.00	9.714	**68***	75-125	
Magnesium	966.4	1000	2060	109	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	ND	10.00	9.734	97	75-125	
Nickel	24.94	10.00	30.54	**56***	75-125	u
Potassium	154.6	1000	1130	98	75-125	
Selenium	0.4678	10.00	9.690	92	75-125	
Silver	ND	10.00	10.48	105	75-125	
Sodium	ND	1000	998.8	100	75-125	
Thallium	ND	10.00	8.488	85	75-125	
Vanadium	23.90	10.00	32.46	86	75-125	u
Zinc	*** usable MSS data not found ***					

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	301271	-21.39
Scandium	566573	431776	-23.79
Germanium	161713	126413	-21.83
Indium	1281904	1137692	-11.25
Bismuth	1275587	1123206	-11.95

:=recovery not meaningful u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179089 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179089-001	MET04	04/27/05 13:05	1.0										+							
179089-001	MET05	05/10/05 01:50	5.0	+	+		+	+		+	+	+		+		+	+	+		
179089-001	MET05	05/10/05 04:24	50.0			+			+						+				+	
179089-001	MET05	05/10/05 15:47	5.0																	+
179089-001	MET05	05/10/05 15:53	20.0																	
179089-002	MET04	04/27/05 13:15	1.0										+							
179089-002	MET05	05/10/05 01:56	5.0	+	+		+	+		+	+	+		+		+	+	+		
179089-002	MET05	05/10/05 04:29	50.0			+			+						+				+	
179089-002	MET05	05/10/05 15:59	5.0																	+
179089-003	MET04	04/27/05 13:17	1.0										+							
179089-003	MET05	05/10/05 02:26	5.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	
179089-003	MET05	05/10/05 04:35	50.0			+														
179089-003	MET05	05/10/05 16:05	5.0																	+
QC291742	MET05	05/09/05 23:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291743	MET05	05/09/05 23:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291744	MET05	05/09/05 23:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC291745	MET05	05/10/05 00:12	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291745	MET05	05/10/05 02:43	50.0			+			+						+				+	
QC291746	MET05	05/10/05 00:18	5.0	+	+		+	+		+	+	+		+		+	+	+		+
QC291746	MET05	05/10/05 02:49	50.0			+			+						+				+	
QC291747	MET05	05/10/05 00:06	25.0	+	+	+	+	+		+	+	+		+		+	+	+		+
QC291747	MET05	05/10/05 02:37	250.0						+						+				+	
QC291748	MET05	05/10/05 00:23	5.0	+	+	+	+	+		+	+	+		+		+	+	+		+
QC291748	MET05	05/10/05 02:55	50.0						+						+				+	
QC291819	MET04	04/27/05 12:57	1.0										+							
QC291820	MET04	04/27/05 12:59	1.0										+							
QC291821	MET04	04/27/05 13:02	1.0										+							
QC291822	MET04	04/27/05 13:07	1.0										+							
QC291823	MET04	04/27/05 13:09	1.0										+							
QC291824	MET04	04/27/05 14:34	5.0										+							
QC291825	MET04	04/27/05 14:37	1.0										+							

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e0913001	TUN	tune			09-MAY-2005 13:07	1.0	1.0				1	
003	e0913003	ICALBLK	std-blk			09-MAY-2005 13:18	1.0	1.0				2	
004	e0913004	ICAL	cs1			09-MAY-2005 13:23	1.0	1.0				3	
005	e0913005	ICAL	cs2			09-MAY-2005 13:28	1.0	1.0				4	
006	e0913006	ICAL	cs3			09-MAY-2005 13:33	1.0	1.0				5	
007	e0913007	ICAL	cs4			09-MAY-2005 13:39	1.0	1.0				6	
008	e0913008	ICAL	cs5			09-MAY-2005 13:44	1.0	1.0				7	
009	e0913009	ICAL	cs6			09-MAY-2005 13:49	1.0	1.0				8	
010	e0913010	ICV				09-MAY-2005 13:54	1.0	1.0			1	9	
012	e0913012	ICB				09-MAY-2005 14:06	1.0	1.0	1		1	2	
013	e0913013	ICSA				09-MAY-2005 14:12	1.0	1.0			1	10 2	7:CA=295200
014	e0913014	ICSAB				09-MAY-2005 14:17	1.0	1.0			1	11 2	12:CA=295000
016	e0913016	SER	QC291792	101506	Water	09-MAY-2005 14:29	5.0	1.0		1	1	2	
017	e0913017	MS	QC291790	101506	Water	09-MAY-2005 14:35	2.0	1.0			1	2	
018	e0913018	MSD	QC291791	101506	Water	09-MAY-2005 14:41	2.0	1.0			1	2	
019	e0913019	SAMPLE	179075-004	101506	Water	09-MAY-2005 14:47	2.0	1.0			1	2	
020	e0913020	SAMPLE	179075-006	101506	Water	09-MAY-2005 14:52	5.0	1.0			1	2	
021	e0913021	SAMPLE	179075-007	101506	Water	09-MAY-2005 14:58	2.0	1.0			1	2	
022	e0913022	SAMPLE	179075-011	101506	Water	09-MAY-2005 15:04	2.0	1.0	1		1	2	
023	e0913023	SAMPLE	179075-012	101506	Water	09-MAY-2005 15:10	2.0	1.0			1	2	
025	e0913025	CCV				09-MAY-2005 15:22	1.0	1.0			1	12 2	
027	e0913027	CCB				09-MAY-2005 15:33	1.0	1.0	1		1	2	
028	e0913028	SAMPLE	179075-013	101506	Water	09-MAY-2005 15:39	2.0	1.0			1	2	
029	e0913029	SAMPLE	179075-018	101506	Water	09-MAY-2005 15:45	2.0	1.0			1	2	
031	e0913031	CCV				09-MAY-2005 15:57	1.0	1.0			1	13 2	
033	e0913033	CCB				09-MAY-2005 16:09	1.0	1.0			1	2	
034	e0913034	ICSA				09-MAY-2005 16:15	1.0	1.0			1	10 2	7:CA=292900
035	e0913035	ICSAB				09-MAY-2005 16:21	1.0	1.0			1	11 2	11:CA=292500
037	e0913037	MSS	179132-001	101641	Filtra	09-MAY-2005 16:32	10.0	1.0			1	2	
038	e0913038	SER	QC292313	101641	Filtra	09-MAY-2005 16:52	50.0	1.0			1	2	
039	e0913039	MS	QC292311	101641	Filtra	09-MAY-2005 16:58	10.0	1.0		1	1	2	

137

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e0913040	MSD	QC292312	101641	Filtra	09-MAY-2005 17:04	10.0	1.0		2	1	2	
041	e0913041	SAMPLE	179132-006	101641	Filtra	09-MAY-2005 17:10	10.0	1.0			1	2	
042	e0913042	SAMPLE	179132-015	101641	Filtra	09-MAY-2005 17:16	5.0	1.0			1	2	2:NA=39280.0
043	e0913043	SAMPLE	179132-016	101641	Filtra	09-MAY-2005 17:22	50.0	1.0			1	2	
044	e0913044	SAMPLE	179132-017	101641	Filtra	09-MAY-2005 17:27	10.0	1.0			1	2	
046	e0913046	CCV				09-MAY-2005 17:39	1.0	1.0			1	12 2	
047	e0913047	X	rinse			09-MAY-2005 17:45	1.0					2	
048	e0913048	CCB				09-MAY-2005 17:51	1.0	1.0	1		1	2	
049	e0913049	SAMPLE	179132-018	101641	Filtra	09-MAY-2005 17:57	50.0	1.0			1	2	
050	e0913050	SAMPLE	179132-019	101641	Filtra	09-MAY-2005 18:03	5.0	1.0			1	2	3:CA=48920.0
051	e0913051	SAMPLE	179132-020	101641	Filtra	09-MAY-2005 18:09	5.0	1.0			1	2	1:NA=21860.0
052	e0913052	X	RINSE	101506		09-MAY-2005 18:14	1.0					2	
053	e0913053	BLANK	QC292136	101595	Water	09-MAY-2005 18:20	1.0	1.0			1	2	
054	e0913054	BS	QC292137	101595	Water	09-MAY-2005 18:26	1.0	1.0			1	2	
055	e0913055	BSD	QC292138	101595	Water	09-MAY-2005 18:32	1.0	1.0			1	2	
056	e0913056	MSS	179161-001	101595	Water	09-MAY-2005 18:38	1.0	1.0	2		1	2	2:CA=22330.0
057	e0913057	SER	QC292141	101595	Water	09-MAY-2005 18:44	5.0	1.0			1	2	
058	e0913058	MS	QC292139	101595	Water	09-MAY-2005 18:50	1.0	1.0	2		1	2	4:CA=32120.0
059	e0913059	MSD	QC292140	101595	Water	09-MAY-2005 18:56	1.0	1.0	2		1	2	4:CA=31200.0
061	e0913061	CCV				09-MAY-2005 19:07	1.0	1.0			1	12 2	
062	e0913062	X	rinse			09-MAY-2005 19:13	1.0					2	
063	e0913063	CCB				09-MAY-2005 19:19	1.0	1.0	1		1	2	
064	e0913064	PDS	QC292142	101595	Water	09-MAY-2005 19:25	1.0	1.0	2		1	14 2	4:CA=30950.0
065	e0913065	MSS	179161-001	101595	Water	09-MAY-2005 19:31	5.0	1.0			1	2	
066	e0913066	SER	QC292141	101595	Water	09-MAY-2005 19:37	25.0	1.0			1	2	
067	e0913067	MS	QC292139	101595	Water	09-MAY-2005 19:42	5.0	1.0			1	2	
068	e0913068	MSD	QC292140	101595	Water	09-MAY-2005 19:48	5.0	1.0			1	2	
069	e0913069	SAMPLE	179132-021	101595	Filtra	09-MAY-2005 19:54	1.0	1.0			1	2	3:NA=185600
070	e0913070	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:00	1.0	1.0	1		1	2	5:NA=111100
071	e0913071	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:06	5.0	1.0			1	2	1:NA=21880.0
073	e0913073	CCV				09-MAY-2005 20:18	1.0	1.0			1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

138

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
074	e0913074	X	rinse	101595		09-MAY-2005 20:24	1.0				2	
075	e0913075	CCB				09-MAY-2005 20:30	1.0	1.0		1	2	
076	e0913076	ICSA				09-MAY-2005 20:35	1.0	1.0		1	10 2	7:CA=288400
077	e0913077	ICSAB				09-MAY-2005 20:41	1.0	1.0		1	11 2	10:CA=282500
079	e0913079	TUN	tune			09-MAY-2005 20:53	1.0	1.0			1	
081	e0913081	SAMPLE	179176-001	101595	Water	09-MAY-2005 21:03	2.0	1.0		1	2	
082	e0913082	SAMPLE	179141-007	101595	Water	09-MAY-2005 21:09	5.0	1.0		1	2	4:MG=98600.0
083	e0913083	SAMPLE	179141-010	101595	Water	09-MAY-2005 21:15	10.0	1.0		1	2	
084	e0913084	SAMPLE	179141-013	101595	Water	09-MAY-2005 21:21	10.0	1.0		1	2	1:NA=62100.0
085	e0913085	SAMPLE	179141-019	101595	Water	09-MAY-2005 21:27	2.0	1.0		1	2	5:NA=63300.0
086	e0913086	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:33	2.0	1.0	2	1	2	2:AL=1888.50
087	e0913087	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:39	20.0	1.0		1	2	
088	e0913088	SAMPLE	179156-002	101595	Water	09-MAY-2005 21:45	2.0	1.0	2	1	2	2:AL=503.500
090	e0913090	CCV				09-MAY-2005 21:57	1.0	1.0		1	12 2	
091	e0913091	X	rinse			09-MAY-2005 22:02	1.0				2	
092	e0913092	CCB				09-MAY-2005 22:08	1.0	1.0		1	2	
093	e0913093	SAMPLE	179156-003	101595	Water	09-MAY-2005 22:14	5.0	1.0		1	2	4:FE=23515.0
094	e0913094	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:20	2.0	1.0	4	1	2	
095	e0913095	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:26	100.0	1.0		1	2	3:MG=563000
096	e0913096	SAMPLE	179162-001	101595	Filtra	09-MAY-2005 22:32	1.0	1.0		1	2	3:MG=474700
097	e0913097	SAMPLE	179162-002	101595	Filtra	09-MAY-2005 22:38	1.0	1.0		1	2	3:MG=429100
098	e0913098	SAMPLE	179162-003	101595	Filtra	09-MAY-2005 22:44	1.0	1.0		1	2	2:NA=207100
099	e0913099	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:50	10.0	1.0	3	1	2	
100	e0913100	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:56	100.0	1.0	2	1	2	
101	e0913101	ICSA				09-MAY-2005 23:02	1.0	1.0		1	10 2	7:CA=286700
102	e0913102	ICSAB				09-MAY-2005 23:07	1.0	1.0		1	11 2	9:CA=285000
104	e0913104	CCV				09-MAY-2005 23:19	1.0	1.0		1	12 2	
105	e0913105	X	rinse			09-MAY-2005 23:25	1.0				2	
106	e0913106	CCB				09-MAY-2005 23:31	1.0	1.0	3	1	2	
107	e0913107	X	rinse	101595		09-MAY-2005 23:36	1.0				2	
108	e0913108	BLANK	QC291742	101496	Soil	09-MAY-2005 23:42	5.0	50.0	1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: [signature] Date: 5/10/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e0913109	BS	QC291743	101496	Soil	09-MAY-2005 23:48	5.0	50.0	1		1	2	
110	e0913110	BSD	QC291744	101496	Soil	09-MAY-2005 23:54	5.0	50.0	1		1	2	
111	e0913111	MSS	178846-002	101496	Soil	10-MAY-2005 00:00	5.0	50.0	7		1	2	6:FE=90920.0
112	e0913112	SER	QC291747	101496	Soil	10-MAY-2005 00:06	25.0	50.0		2	1	2	2:AL=4268.00
113	e0913113	MS	QC291745	101496	Soil	10-MAY-2005 00:12	5.0	46.73	1	1	1	2	7:FE=105040
114	e0913114	MSD	QC291746	101496	Soil	10-MAY-2005 00:18	5.0	37.88	2	2	1	2	8:FE=121700
115	e0913115	PDS	QC291748	101496	Soil	10-MAY-2005 00:23	5.0	50.0		16	1	15 16 2	6:FE=95900.(
116	e0913116	SAMPLE	178846-001	101496	Soil	10-MAY-2005 00:29	5.0	51.02	1		1	2	4:FE=31640.0
117	e0913117	SAMPLE	178951-001	101496	Soil	10-MAY-2005 00:35	5.0	42.74	6		1	2	10:FE=73240.0
119	e0913119	CCV				10-MAY-2005 00:47	1.0	1.0			1	12 2	
120	e0913120	X	rinse			10-MAY-2005 00:52	1.0					2	
121	e0913121	CCB				10-MAY-2005 00:58	1.0	1.0	1		1	2	
122	e0913122	SAMPLE	178951-002	101496	Soil	10-MAY-2005 01:04	5.0	37.04	5		1	2	9:MG=302200
123	e0913123	SAMPLE	178951-003	101496	Soil	10-MAY-2005 01:10	5.0	44.25	6		1	2	10:FE=92160.0
124	e0913124	SAMPLE	178951-004	101496	Soil	10-MAY-2005 01:16	5.0	31.45	8		1	2	13:FE=333400
125	e0913125	SAMPLE	179049-001	101496	Soil	10-MAY-2005 01:21	5.0	50.51	9		1	2	11:ZN=189860
126	e0913126	SAMPLE	179076-040	101496	Soil	10-MAY-2005 01:27	5.0	33.78			1	2	5:CA=1095000
127	e0913127	SAMPLE	179076-041	101496	Soil	10-MAY-2005 01:33	5.0	35.97	1		1	2	5:FE=129460
128	e0913128	SAMPLE	179076-042	101496	Soil	10-MAY-2005 01:39	5.0	33.33			1	2	5:FE=137140
129	e0913129	SAMPLE	179076-043	101496	Soil	10-MAY-2005 01:45	5.0	50.51	1		1	2	8:FE=76140.0
130	e0913130	SAMPLE	179089-001	101496	Soil	10-MAY-2005 01:50	5.0	41.32	5		1	2	7:FE=89300.0
131	e0913131	SAMPLE	179089-002	101496	Soil	10-MAY-2005 01:56	5.0	47.17	5		1	2	7:FE=99780.0
133	e0913133	CCV				10-MAY-2005 02:08	1.0	1.0			1	12 2	
134	e0913134	X	rinse			10-MAY-2005 02:14	1.0					2	
135	e0913135	CCB				10-MAY-2005 02:20	1.0	1.0	4		1	2	
136	e0913136	SAMPLE	179089-003	101496	Soil	10-MAY-2005 02:26	5.0	48.54	2		1	2	4:FE=64480.0
137	e0913137	MSS	178846-002	101496	Soil	10-MAY-2005 02:31	50.0	50.0	3		1	2	1:AL=2188.00
138	e0913138	SER	QC291747	101496	Soil	10-MAY-2005 02:37	250.0	50.0		1	1	2	1:AL=428.000
139	e0913139	MS	QC291745	101496	Soil	10-MAY-2005 02:43	50.0	46.73		1	1	2	1:AL=2346.00
140	e0913140	MSD	QC291746	101496	Soil	10-MAY-2005 02:49	50.0	37.88		3	1	2	1:AL=2810.00
141	e0913141	PDS	QC291748	101496	Soil	10-MAY-2005 02:55	50.0	50.0		15	1	15 2	1:AL=2034.00

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 8/10/1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
142	e0913142	SAMPLE	178846-001	101496	Soil	10-MAY-2005 03:01	50.0	51.02	1		1	2	1:AL=1128.60
143	e0913143	SAMPLE	178951-001	101496	Soil	10-MAY-2005 03:07	50.0	42.74	1		1	2	1:AL=3446.00
144	e0913144	SAMPLE	178951-002	101496	Soil	10-MAY-2005 03:13	50.0	37.04	3		1	2	5:MG=39900.0
145	e0913145	SAMPLE	178951-003	101496	Soil	10-MAY-2005 03:19	50.0	44.25	1		1	2	2:AL=4054.00
147	e0913147	CCV				10-MAY-2005 03:31	1.0	1.0			1	12 2	
148	e0913148	X	rinse			10-MAY-2005 03:36	1.0					2	
149	e0913149	CCB				10-MAY-2005 03:42	1.0	1.0	3		1	2	
150	e0913150	SAMPLE	178951-004	101496	Soil	10-MAY-2005 03:48	50.0	31.45	5		1	2	7:FE=32960.0
151	e0913151	SAMPLE	179049-001	101496	Soil	10-MAY-2005 03:54	50.0	50.51	4		1	2	5:MN=53920.0
152	e0913152	SAMPLE	179076-040	101496	Soil	10-MAY-2005 04:00	50.0	33.78			1	2	3:CA=114320
153	e0913153	SAMPLE	179076-041	101496	Soil	10-MAY-2005 04:06	50.0	35.97			1	2	2:AL=3606.00
154	e0913154	SAMPLE	179076-042	101496	Soil	10-MAY-2005 04:12	50.0	33.33			1	2	2:AL=5556.00
155	e0913155	SAMPLE	179076-043	101496	Soil	10-MAY-2005 04:18	50.0	50.51	1		1	2	3:AL=2670.00
156	e0913156	SAMPLE	179089-001	101496	Soil	10-MAY-2005 04:24	50.0	41.32	2		1	2	1:AL=5494.00
157	e0913157	SAMPLE	179089-002	101496	Soil	10-MAY-2005 04:29	50.0	47.17	2		1	2	1:AL=6630.00
158	e0913158	SAMPLE	179089-003	101496	Soil	10-MAY-2005 04:35	50.0	48.54	2		1	2	1:AL=4162.00
160	e0913160	BLANK	QC292252	101627	Soil	10-MAY-2005 04:47	5.0	50.0	2		1	2	
162	e0913162	CCV				10-MAY-2005 04:59	1.0	1.0	1		1	12 2	
163	e0913163	X	rinse			10-MAY-2005 05:05	1.0					2	
164	e0913164	CCB				10-MAY-2005 05:11	1.0	1.0	1		1	2	
165	e0913165	BS	QC292253	101627	Soil	10-MAY-2005 05:17	5.0	50.0	2		1	2	1:AL=240.800
166	e0913166	BSD	QC292254	101627	Soil	10-MAY-2005 05:23	5.0	50.0	2		1	2	1:AL=240.400
167	e0913167	MSS	179182-001	101627	Soil	10-MAY-2005 05:29	5.0	54.95	7		1	2	6:FE=62860.0
168	e0913168	SER	QC292257	101627	Soil	10-MAY-2005 05:34	25.0	54.95		2	1	2	2:AL=5716.00
169	e0913169	MS	QC292255	101627	Soil	10-MAY-2005 05:40	5.0	47.62	2	1	1	2	8:FE=75280.0
170	e0913170	MSD	QC292256	101627	Soil	10-MAY-2005 05:46	5.0	44.64	3	1	1	2	9:FE=97560.0
171	e0913171	PDS	QC292258	101627	Soil	10-MAY-2005 05:52	5.0	54.95	2	14	1	15 16 2	8:FE=67740.0
172	e0913172	SAMPLE	179182-002	101627	Soil	10-MAY-2005 05:58	5.0	49.02	4		1	2	6:FE=101560
173	e0913173	SAMPLE	179182-003	101627	Soil	10-MAY-2005 06:04	5.0	48.54	6		1	2	9:FE=66860.0
174	e0913174	SAMPLE	179167-001	101627	Soil	10-MAY-2005 06:09	5.0	46.30	5		1	2	6:FE=67820.0
176	e0913176	CCV				10-MAY-2005 06:21	1.0	1.0			1	12 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Date: 5/16/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
177	e0913177	X	rinse			10-MAY-2005 06:27	1.0					2	
178	e0913178	CCB				10-MAY-2005 06:33	1.0	1.0	2		1	2	
179	e0913179	MSS	179182-001	101627	Soil	10-MAY-2005 06:39	50.0	54.95	3		1	2	2:AL=2926.00
180	e0913180	SER	QC292257	101627	Soil	10-MAY-2005 06:45	250.0	54.95		1	1	2	1:AL=573.600
181	e0913181	MS	QC292255	101627	Soil	10-MAY-2005 06:51	50.0	47.62		1	1	2	1:AL=3788.00
182	e0913182	MSD	QC292256	101627	Soil	10-MAY-2005 06:57	50.0	44.64		2	1	2	2:AL=3612.00
183	e0913183	SAMPLE	179182-002	101627	Soil	10-MAY-2005 07:03	50.0	49.02	1		1	2	1:AL=5238.00
185	e0913185	SAMPLE	179167-001	101627	Soil	10-MAY-2005 07:15	50.0	46.30			1	2	
186	e0913186	ICSA				10-MAY-2005 07:20	1.0	1.0			1	10 2	7:CA=277800
187	e0913187	ICSAB				10-MAY-2005 07:26	1.0	1.0			1	11 2	8:CA=286000
189	e0913189	CCV				10-MAY-2005 07:38	1.0	1.0			1	13 2	
190	e0913190	X	rinse blank			10-MAY-2005 07:44	1.0					2	
191	e0913191	CCB				10-MAY-2005 07:50	1.0	1.0	2		1	2	

142

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Melissa Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e0913004	55186547004	cs1	09-MAY-2005 13:23	S395
2	e0913005	55186547005	cs2	09-MAY-2005 13:28	S396
3	e0913006	55186547006	cs3	09-MAY-2005 13:33	S397
4	e0913007	55186547007	cs4	09-MAY-2005 13:39	S398
5	e0913008	55186547008	cs5	09-MAY-2005 13:44	S393
6	e0913009	55186547009	cs6	09-MAY-2005 13:49	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		10.153	6.0829	0.9673	0.4588	0.4944	BLNK	R	-12.7573	2.210067		ug/L	3.6312	0.995	0.995	
Antimony	0.3589	0.3024	0.2578	0.2436	0.2337	0.2478	BLNK	R	-0.08506	4.084564		ug/L	0.2740	0.999	0.995	
Arsenic		0.3774	0.4193	0.3947	0.3766	0.3829	BLNK	R	-0.04706	2.621125		ug/L	0.3902	1.000	0.995	
Barium	0.2018	0.1403	0.1156	0.0928	0.0876	0.0901	BLNK	R	-0.25603	11.18257		ug/L	0.1214	1.000	0.995	
Beryllium	0.1783	0.1683	0.1540	0.1500	0.1445	0.1457	BLNK	R	-0.02094	6.876203		ug/L	0.1568	1.000	0.995	
Cadmium	0.7744	0.6967	0.5455	0.4842	0.4426	0.4420	BLNK	R	-0.13603	2.263259		ug/L	0.5642	1.000	0.995	
Calcium		0.0313	0.0234	0.0172	0.0161	0.0160	BLNK	R	-49.5055	62.77004		ug/L	0.0208	1.000	0.995	
Chromium		4.3383	3.2151	2.3460	2.1587	2.1661	BLNK	R	-0.42265	0.463105		ug/L	2.8448	1.000	0.995	
Cobalt	3.2625	3.0795	2.8275	2.6959	2.6101	2.6044	BLNK	R	-0.02149	0.383819		ug/L	2.8466	1.000	0.995	
Copper		0.8868	0.8511	0.7268	0.6781	0.6740	BLNK	R	-0.08651	1.482419		ug/L	0.7634	1.000	0.995	
Iron		0.1044	0.0819	0.0669	0.0641	0.0622	BLNK	R	-31.6243	16.01468		ug/L	0.0759	1.000	0.995	
Lead	1.0478	0.9807	0.8986	0.8612	0.8597	0.8871	BLNK	R	-0.03139	1.134540		ug/L	0.9225	1.000	0.995	
Magnesium		0.0678	0.0611	0.0610	0.0564	0.0576	BLNK	R	-5.71639	17.44594		ug/L	0.0608	1.000	0.995	
Manganese	4.5105	3.9500	3.4588	3.1803	3.0599	3.0148	BLNK	R	-0.08146	0.330840		ug/L	3.5290	1.000	0.995	
Molybdenum		1.1483	0.9339	0.8415	0.8048	0.8208	BLNK	R	-0.20816	1.224575		ug/L	0.9099	1.000	0.995	
Nickel	0.8173	0.7070	0.6359	0.6107	0.5632	0.5597	BLNK	R	-0.05945	1.784754		ug/L	0.6490	1.000	0.995	
Potassium		1.8843	1.2006	0.5984	0.5120	0.5175	BLNK	R	-123.524	1.950804		ug/L	0.9426	1.000	0.995	
Selenium		0.0701	0.0480	0.0293	0.0252	0.0252	BLNK	R	-0.73536	39.87147		ug/L	0.0396	1.000	0.995	
Silver	2.6099	2.4138	2.2920	2.2287	2.0847	2.1087	BLNK	R	-0.01765	0.475304		ug/L	2.2896	1.000	0.995	
Sodium		1.2550	0.9547	0.6219	0.5523	0.5624	BLNK	R	-52.6365	1.789812		ug/L	0.7893	1.000	0.995	

143

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

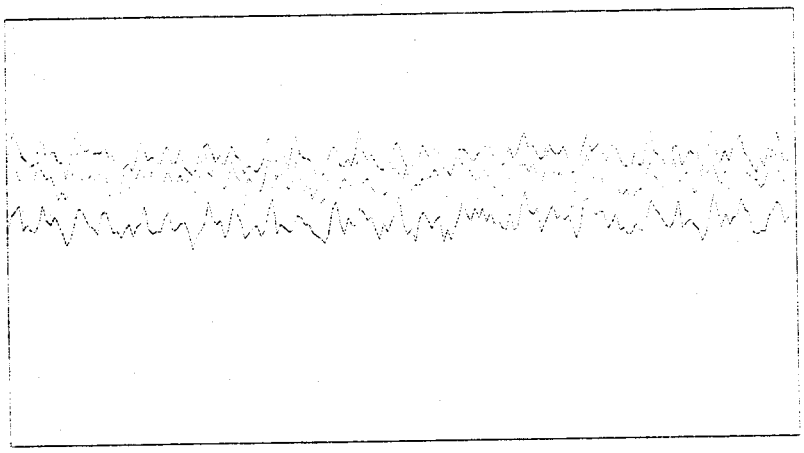
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Thallium		0.7544	0.6500	0.6312	0.6727	0.6795	BLNK	R	-0.05163	1.475366		ug/L	0.6776	1.000	0.995	
Vanadium		3.5450	2.9111	2.4600	2.4296	2.4164	BLNK	R	-0.17808	0.413830		ug/L	2.7524	1.000	0.995	
Zinc		1.5046	1.2129	0.4952	0.4057	0.3983	BLNK	R	-1.28422	2.520165		ug/L	0.8033	1.000	0.995	

144

Curves: BLNK: Y=aX+ [blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



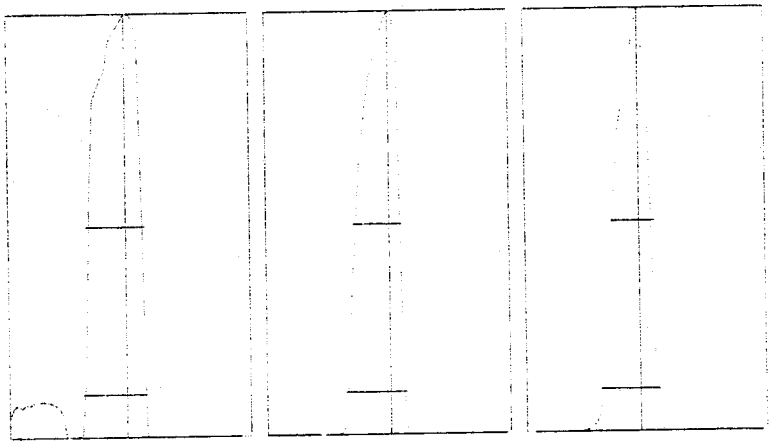
m/z:	7	89	205
Range:	20,000	50,000	100,000
Count:	10,232	32,303	56,142
Mean:	10247.6	33410.8	61381.1
RSD%:	5.00	3.85	4.60
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.40%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	20.9	18.2	22.1



m/z:	7	89	205
Height:	10,325	33,774	69,064
Axis:	7.00	89.05	204.95
W-50%:	0.75	0.60	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.02 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 09, 2005 10:41:58
Printed : May 09, 2005 10:42:06

P/A Factor Tuning Report

Acquired:May 9 2005 11:06 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087637
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097864
45	Sc	0.093351
51	V	0.097956
52	Cr	0.099998
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101675
57	Fe	0.104597
59	Co	0.105141
60	Ni	Sensitivity too low
63	Cu	0.107023
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105980
95	Mo	Sensitivity too low
98	Mo	0.104137
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.114003
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.114449
118	(In)	Sensitivity too low
121	Sb	0.113109
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119372
166	Er	Sensitivity too low

205	Tl	0.127188
206	(Pb)	0.123052
207	(Pb)	0.122974
208	Pb	0.126240
209	Bi	0.125409
232	Th	0.127801
238	U	0.128284

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 9 2005 11:19 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087424
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097829
45	Sc	0.093447
51	V	0.097709
52	Cr	0.099861
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101644
57	Fe	0.104280
59	Co	0.104935
60	Ni	Sensitivity too low
63	Cu	0.107045
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106140
95	Mo	Sensitivity too low
98	Mo	0.103609
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113603
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.113939
118	(In)	0.112751
121	Sb	0.112520
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119176
166	Er	Sensitivity too low

205	Tl	0.126386
206	(Pb)	0.122394
207	(Pb)	0.121301
208	Pb	0.125098
209	Bi	0.124741
232	Th	0.127048
238	U	0.126846

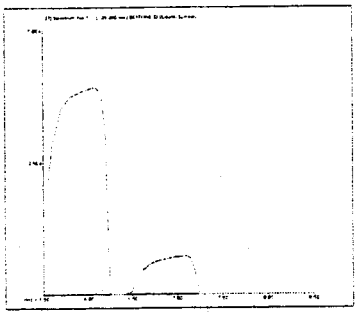
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

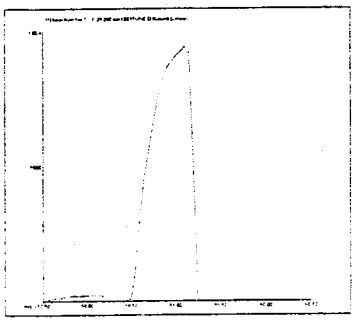
Data File: C:\ICPCHEM\1\DATA\05E0913a.B\001TUNE.D
Date Acquired: May 9 2005 01:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

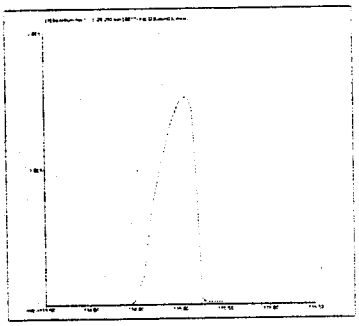
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.43	5.00	
115 In	1.12	5.00	
205 Tl	0.90	5.00	



7 Li
Mass Calib.
Actual: 7.10
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

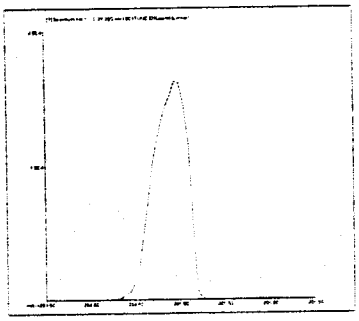


115 In
Mass Calib.

Actual:	115.10	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl
Mass Calib.

Actual:	204.95	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 9 2005 01:12 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 09 2005 00:27 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01962	ppb	37.67	0.01962	1.00	
23 Na	-43.94	ppb	0.73	-43.94	1.00	
26 Mg	3.398	ppb	8.82	3.398	1.00	
27 Al	1.878	ppb	10.47	1.878	1.00	
39 K	-29.44	ppb	4.05	-29.44	1.00	
44 Ca	3.364	ppb	40.01	3.364	1.00	
51 V	0.07676	ppb	20.02	0.07676	1.00	
52 Cr	0.01954	ppb	87.56	0.01954	1.00	
55 Mn	0.004327	ppb	145.09	0.004327	1.00	
57 Fe	6.129	ppb	10.02	6.129	1.00	
59 Co	0.007675	ppb	55.04	0.007675	1.00	
60 Ni	0.01296	ppb	122.07	0.01296	1.00	
65 Cu	0.005624	ppb	130.71	0.005624	1.00	
66 Zn	0.1207	ppb	61.64	0.1207	1.00	
75 As	-0.0005196	ppb	13986.00	-0.00052	1.00	
82 Se	0.1292	ppb	181.97	0.1292	1.00	
95 Mo	0.2682	ppb	12.30	0.2682	1.00	
109 Ag	-0.0006557	ppb	128.85	-0.000656	1.00	
111 Cd	-0.01698	ppb	93.52	-0.01698	1.00	
121 Sb	0.02757	ppb	87.81	0.02757	1.00	
137 Ba	-0.01029	ppb	188.92	-0.01029	1.00	
205 Tl	-0.001022	ppb	423.19	-0.001022	1.00	
208 Pb	0.005026	ppb	28.45	0.005026	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	385913.31	1.24	---	#VALUE!	30 - 200	
45 Sc	579813.31	0.74	---	#VALUE!	30 - 200	
72 Ge	166277.11	0.91	---	#VALUE!	30 - 200	

115 In	1301750.40	0.98	---	#VALUE!	30 - 200
209 Bi	1283374.90	1.15	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\003CAL
Date Acquired: May 9 2005 01:18 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 00:27 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	383255.50	P	2928.00	0.76
9	Be	23.33	P	8.82	37.80
23	Na	333306.69	P	15010.00	4.50
26	Mg	3714.44	P	313.40	8.44
27	Al	65416.66	P	2181.00	3.33
39	K	717550.00	P	14920.00	2.08
44	Ca	8939.10	P	442.70	4.95
45	Sc	566573.31	P	5196.00	0.92
51	V	1393.93	P	609.90	43.75
52	Cr	2952.22	P	110.80	3.75
55	Mn	796.67	P	60.09	7.54
57	Fe	6386.67	P	64.29	1.01
59	Co	181.11	P	21.69	11.98
60	Ni	107.78	P	12.62	11.71
65	Cu	188.87	P	29.87	15.82
66	Zn	1647.80	P	70.03	4.25
72	Ge	161712.41	P	1363.00	0.84
75	As	58.31	P	44.00	75.46
82	Se	59.65	P	7.11	11.92
95	Mo	550.00	P	46.67	8.49
109	Ag	120.00	P	17.32	14.43
111	Cd	194.55	P	36.43	18.73
115	In	1281904.00	A	17700.00	1.38
121	Sb	534.44	P	93.95	17.58
137	Ba	586.67	P	40.96	6.98
205	Tl	893.33	P	106.00	11.87
208	Pb	705.56	P	51.78	7.34
209	Bi	1275587.00	A	13700.00	1.07
232	Th	740.00	P	63.33	8.56
238	U	246.67	P	14.53	5.89

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\004CALI.D\004CALI.D#
Date Acquired: May 9 2005 01:23 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	381658.91	P	6406.00	1.68
9 Be	340.00	P	15.28	4.49
23 Na	503082.19	P	5102.00	1.01
26 Mg	21435.55	P	425.80	1.99
27 Al	63396.66	P	201.20	0.32
39 K	921026.63	A	5986.00	0.65
44 Ca	14123.80	P	67.58	0.48
45 Sc	574345.63	P	9099.00	1.58
51 V	3325.88	P	223.90	6.73
52 Cr	5065.56	P	13.88	0.27
55 Mn	3686.67	P	35.12	0.95
57 Fe	12066.67	P	67.66	0.56
59 Co	2666.67	P	26.46	0.99
60 Ni	667.78	P	27.15	4.07
65 Cu	806.57	P	72.65	9.01
66 Zn	2573.44	P	59.26	2.30
72 Ge	163487.59	P	2285.00	1.40
75 As	510.06	P	86.56	16.97
82 Se	105.78	P	12.66	11.97
95 Mo	1196.67	P	138.90	11.61
109 Ag	2133.33	P	63.60	2.98
111 Cd	633.08	P	23.33	3.69
115 In	1290959.00	A	17010.00	1.32
121 Sb	2316.67	P	178.40	7.70
137 Ba	1302.22	P	32.03	2.46
205 Tl	5216.67	P	221.70	4.25
208 Pb	6642.22	P	126.00	1.90
209 Bi	1268362.00	A	24950.00	1.97
232 Th	2925.56	P	186.80	6.39
238 U	5856.67	P	60.83	1.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	381658.88	1.68	383255.53	99.6	30 - 200	
45 Sc	574345.56	1.58	566573.31	101.4	30 - 200	
72 Ge	163487.55	1.40	161712.45	101.1	30 - 200	
115 In	1290959.40	1.32	1281904.10	100.7	30 - 200	
209 Bi	1268362.10	1.97	1275586.80	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\005CALI.D\005CALI.D#
Date Acquired: May 9 2005 01:28 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	388543.31	P	6704.00	1.73
9 Be	654.44	P	69.95	10.69
23 Na	720465.63	M	53520.00	7.43
26 Mg	38891.11	P	203.40	0.52
27 Al	58248.88	P	605.70	1.04
39 K	1081261.00	A	8068.00	0.75
44 Ca	17968.38	P	26.04	0.14
45 Sc	573872.19	P	9184.00	1.60
51 V	5801.79	P	456.80	7.87
52 Cr	7103.33	P	123.50	1.74
55 Mn	6466.67	P	174.90	2.70
57 Fe	17103.33	P	175.70	1.03
59 Co	5042.22	P	75.82	1.50
60 Ni	1157.78	P	80.02	6.91
65 Cu	1453.17	P	100.90	6.94
66 Zn	2464.64	P	93.12	3.78
72 Ge	163775.59	P	2296.00	1.40
75 As	618.01	P	97.53	15.78
82 Se	114.84	P	18.26	15.90
95 Mo	1880.00	P	58.59	3.12
109 Ag	3953.33	P	100.70	2.55
111 Cd	1141.54	P	83.62	7.33
115 In	1302916.00	A	31930.00	2.45
121 Sb	3942.22	P	265.00	6.72
137 Ba	1827.78	P	89.46	4.89
205 Tl	9710.00	P	346.70	3.57
208 Pb	12620.00	P	375.60	2.98
209 Bi	1286918.00	A	14760.00	1.15
232 Th	5670.00	P	387.00	6.83
238 U	12016.67	P	179.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	388543.31	1.73	383255.53	101.4	30 - 200	
45 Sc	573872.19	1.60	566573.31	101.3	30 - 200	
72 Ge	163775.55	1.40	161712.45	101.3	30 - 200	
115 In	1302916.10	2.45	1281904.10	101.6	30 - 200	
209 Bi	1286917.50	1.15	1275586.80	100.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\006CALI.D\006CALI.D#
Date Acquired: May 9 2005 01:33 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	378866.69	P	1012.00	0.27
9 Be	1166.67	P	61.73	5.29
23 Na	1059123.00	A	15230.00	1.44
26 Mg	67734.44	P	290.70	0.43
27 Al	67477.78	P	900.40	1.33
39 K	1331844.00	A	11740.00	0.88
44 Ca	25958.08	P	633.30	2.44
45 Sc	554661.13	P	3920.00	0.71
51 V	9309.37	P	328.70	3.53
52 Cr	10281.11	P	180.30	1.75
55 Mn	11060.00	P	97.13	0.88
57 Fe	26186.67	P	47.02	0.18
59 Co	9041.11	P	56.80	0.63
60 Ni	2033.33	P	64.29	3.16
65 Cu	2721.94	P	83.82	3.08
66 Zn	3879.23	P	176.70	4.56
72 Ge	159886.91	P	1054.00	0.66
75 As	1340.70	P	49.37	3.68
82 Se	153.36	P	34.90	22.76
95 Mo	2985.56	P	137.30	4.60
109 Ag	7330.00	P	229.40	3.13
111 Cd	1744.86	P	131.90	7.56
115 In	1284396.00	A	7356.00	0.57
121 Sb	6622.22	P	85.27	1.29
137 Ba	2970.00	P	170.70	5.75
205 Tl	16626.67	P	280.50	1.69
208 Pb	22985.55	P	449.20	1.95
209 Bi	1278827.00	A	11910.00	0.93
232 Th	10770.00	P	415.30	3.86
238 U	21516.67	P	439.50	2.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	378866.66	0.27	383255.53	98.9	30 - 200	
45 Sc	554661.06	0.71	566573.31	97.9	30 - 200	
72 Ge	159886.89	0.66	161712.45	98.9	30 - 200	
115 In	1284395.60	0.57	1281904.10	100.2	30 - 200	
209 Bi	1278826.80	0.93	1275586.80	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\007CALI.D\007CALI.D#
Date Acquired: May 9 2005 01:39 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	373440.00	P	5622.00	1.51
9 Be	11201.11	P	320.10	2.86
23 Na	6985478.00	A	53770.00	0.77
26 Mg	685156.31	M	30550.00	4.46
27 Al	108658.90	P	2111.00	1.94
39 K	6721495.00	A	84880.00	1.26
44 Ca	193138.09	P	3493.00	1.81
45 Sc	561696.63	P	11480.00	2.04
51 V	79563.28	P	2277.00	2.86
52 Cr	75866.66	P	1479.00	1.95
55 Mn	102837.80	P	878.60	0.85
57 Fe	216431.09	P	1686.00	0.78
59 Co	87177.78	P	954.10	1.09
60 Ni	19746.67	P	52.92	0.27
65 Cu	23500.52	P	320.00	1.36
66 Zn	16014.54	P	280.90	1.75
72 Ge	161695.59	P	2721.00	1.68
75 As	12764.13	P	285.60	2.24
82 Se	947.73	P	37.30	3.94
95 Mo	27211.11	P	262.30	0.96
109 Ag	72074.44	P	1428.00	1.98
111 Cd	15658.37	P	351.50	2.24
115 In	1268975.00	A	8228.00	0.65
121 Sb	61817.78	P	996.20	1.61
137 Ba	23555.55	P	440.50	1.87
205 Tl	159404.41	P	4573.00	2.87
208 Pb	217473.30	P	3833.00	1.76
209 Bi	1262652.00	A	23180.00	1.84
232 Th	111372.20	P	5385.00	4.84
238 U	210833.30	P	4958.00	2.35

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	373440.00	1.51	383255.53	97.4	30 - 200	
45 Sc	561696.63	2.04	566573.31	99.1	30 - 200	
72 Ge	161695.55	1.68	161712.45	100.0	30 - 200	
115 In	1268975.10	0.65	1281904.10	99.0	30 - 200	
209 Bi	1262651.90	1.84	1275586.80	99.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#
Date Acquired: May 9 2005 01:44 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:41 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	384265.50	P	6338.00	1.65
9 Be	111040.00	P	2223.00	2.00
23 Na	64779380.00	A	914800.00	1.41
26 Mg	6611233.00	A	56080.00	0.85
27 Al	538136.63	P	10100.00	1.88
39 K	60055780.00	A	1021000.00	1.70
44 Ca	1886489.00	A	35790.00	1.90
45 Sc	586510.00	P	11090.00	1.89
51 V	815436.81	M	11310.00	1.39
52 Cr	724518.88	P	7612.00	1.05
55 Mn	1026897.00	A	2574.00	0.25
57 Fe	2150757.00	A	11590.00	0.54
59 Co	875879.50	M	8110.00	0.93
60 Ni	189035.59	P	2981.00	1.58
65 Cu	227604.91	P	3232.00	1.42
66 Zn	136166.41	P	2085.00	1.53
72 Ge	167832.00	P	2983.00	1.78
75 As	126410.40	P	2488.00	1.97
82 Se	8468.64	P	100.50	1.19
95 Mo	270137.81	P	4754.00	1.76
109 Ag	699755.50	P	12720.00	1.82
111 Cd	148551.20	P	2298.00	1.55
115 In	1290516.00	A	11120.00	0.86
121 Sb	603296.63	P	12550.00	2.08
137 Ba	226022.20	P	2894.00	1.28
205 Tl	1674851.00	A	11330.00	0.68
208 Pb	2140513.00	A	22340.00	1.04
209 Bi	1244905.00	A	17460.00	1.40
232 Th	1933230.00	A	52040.00	2.69
238 U	2220371.00	A	13630.00	0.61

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	384265.53	1.65	383255.53	100.3	30 - 200	
45 Sc	586510.00	1.89	566573.31	103.5	30 - 200	
72 Ge	167832.00	1.78	161712.45	103.8	30 - 200	
115 In	1290516.10	0.86	1281904.10	100.7	30 - 200	
209 Bi	1244904.60	1.40	1275586.80	97.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#
Date Acquired: May 9 2005 01:49 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:46 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	387304.41	P	3457.00	0.89
9 Be	225693.30	P	2890.00	1.28
23 Na	130728600.00	A	458100.00	0.35
26 Mg	13381630.00	A	23150.00	0.17
27 Al	1149083.00	A	7759.00	0.68
39 K	120280500.00	A	1180000.00	0.98
44 Ca	3707841.00	A	36990.00	1.00
45 Sc	581156.63	P	9439.00	1.62
51 V	1624804.00	A	13860.00	0.85
52 Cr	1456411.00	A	13430.00	0.92
55 Mn	2026948.00	A	17110.00	0.84
57 Fe	4180162.00	A	10860.00	0.26
59 Co	1751228.00	A	15420.00	0.88
60 Ni	376336.69	P	1881.00	0.50
65 Cu	453202.41	P	3241.00	0.72
66 Zn	267803.59	P	2351.00	0.88
72 Ge	168117.09	P	2754.00	1.64
75 As	257446.70	P	3322.00	1.29
82 Se	16928.90	P	229.50	1.36
95 Mo	551943.31	P	6031.00	1.09
109 Ag	1417878.00	A	14610.00	1.03
111 Cd	297226.69	P	3533.00	1.19
115 In	1269237.00	A	11470.00	0.90
121 Sb	1257868.00	A	10450.00	0.83
137 Ba	457220.00	P	5570.00	1.22
205 Tl	3305613.00	A	41840.00	1.27
208 Pb	4316318.00	A	84220.00	1.95
209 Bi	1216527.00	A	29690.00	2.44
232 Th	4542415.00	A	78550.00	1.73
238 U	4488659.00	A	82940.00	1.85

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	387304.44	0.89	383255.53	101.1	30 - 200	
45 Sc	581156.63	1.62	566573.31	102.6	30 - 200	
72 Ge	168117.11	1.64	161712.45	104.0	30 - 200	
115 In	1269236.80	0.90	1281904.10	99.0	30 - 200	
209 Bi	1216526.80	2.44	1275586.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 09, 2005 13:51
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e0913a.b\003calb.d\	003calb.d#	May 9 2005 01:18 pm
2	...hem\1\data\05e0913a.b\004cali.d\	004cali.d#	May 9 2005 01:23 pm
3	...hem\1\data\05e0913a.b\005cali.d\	005cali.d#	May 9 2005 01:28 pm
4	...hem\1\data\05e0913a.b\006cali.d\	006cali.d#	May 9 2005 01:33 pm
5	...hem\1\data\05e0913a.b\007cali.d\	007cali.d#	May 9 2005 01:39 pm
6	...hem\1\data\05e0913a.b\008cali.d\	008cali.d#	May 9 2005 01:44 pm
7	...hem\1\data\05e0913a.b\009cali.d\	009cali.d#	May 9 2005 01:49 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.454E-1*X +3.046E-3(blank)	---	ppb
Na	23	45	Y = 5.587E-1*X +2.941E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.732E-2*X +3.277E-1(blank)	---	ppb
Al	27	45	Y = 4.525E-1*X +5.772E+0(blank)	---	ppb
K	39	45	Y = 5.126E-1*X +6.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.593E-2*X +7.887E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.416E+0*X +4.303E-1(blank)	---	ppb
Cr	52	72	Y = 2.159E+0*X +9.127E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.023E+0*X +2.462E-1(blank)	---	ppb
Fe	57	72	Y = 6.244E-2*X +1.975E+0(blank)	---	ppb
Co	59	72	Y = 2.605E+0*X +5.598E-2(blank)	---	ppb
Ni	60	72	Y = 5.603E-1*X +3.331E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.746E-1*X +5.836E-2(blank)	---	ppb
Zn	66	72	Y = 3.968E-1*X +5.096E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.815E-1*X +1.796E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.508E-2*X +1.844E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.166E-1*X +1.700E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.104E+0*X +3.713E-2(blank)	---	ppb
Cd	111	72	Y = 4.418E-1*X +6.010E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.448E-1*X +2.082E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.942E-2*X +2.290E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.778E-1*X +3.499E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.767E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547010 Filename : e0913010 Injected : 09-MAY-2005 13:54
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S399

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
luminum	100.0000	95.24000	ug/L	-5	10	
ntimony	100.0000	98.46000	ug/L	-2	10	
rsenic	100.0000	100.5000	ug/L	1	10	
arium	100.0000	98.32000	ug/L	-2	10	
eryllium	100.0000	98.59000	ug/L	-1	10	
admium	100.0000	101.9000	ug/L	2	10	
alcium	10000.00	10110.00	ug/L	1	10	
hromium	100.0000	100.1000	ug/L	0	10	
obalt	100.0000	100.3000	ug/L	0	10	
opper	100.0000	101.2000	ug/L	1	10	
ron	10000.00	10260.00	ug/L	3	10	
ead	100.0000	98.27000	ug/L	-2	10	
agnesium	10000.00	10060.00	ug/L	1	10	
anganese	100.0000	101.6000	ug/L	2	10	
olybdenum	100.0000	100.6000	ug/L	1	10	
ickel	100.0000	101.7000	ug/L	2	10	
otassium	10000.00	10060.00	ug/L	1	10	
elenium	100.0000	102.1000	ug/L	2	10	
ilver	100.0000	100.9000	ug/L	1	10	
odium	10000.00	10090.00	ug/L	1	10	
hallium	100.0000	100.5000	ug/L	1	10	
anadium	100.0000	101.3000	ug/L	1	10	
inc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	397821	3.80
Scandium	566573	593270	4.71
Germanium	161713	169142	4.59
Indium	1281904	1313906	2.50
Bismuth	1275587	1269056	-0.51

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
eqnum : 55186547012 Filename : e0913012 Injected : 09-MAY-2005 14:06
:andards: 05WS0207

ınalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.380300	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
3arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
3eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
:hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Iron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Lead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547013 Filename : e0913013 Injected : 09-MAY-2005 14:12
:andards: S401, 05WS0207

ıalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıntimony	55186547001	09-MAY-2005	2.391000	0.250000	ug/L	
ırsenic	55186547001	09-MAY-2005	0.555400	0.500000	ug/L	
ıarium	55186547001	09-MAY-2005	0.891700	0.250000	ug/L	
ıeryllium	55186547001	09-MAY-2005	[0.0090]	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	[0.0932]	0.250000	ug/L	
:hromium	55186547001	09-MAY-2005	1.188000	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	2.679000	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	1.476000	0.500000	ug/L	
ıead	55186547001	09-MAY-2005	1.227000	0.250000	ug/L	
ıanganese	55186547001	09-MAY-2005	1.022000	0.250000	ug/L	
ıickel	55186547001	09-MAY-2005	1.305000	0.250000	ug/L	
ıelenium	55186547001	09-MAY-2005	[0.4896]	0.500000	ug/L	
ılver	55186547001	09-MAY-2005	[0.1480]	0.250000	ug/L	
ıallium	55186547001	09-MAY-2005	[0.1242]	0.500000	ug/L	
ıanadium	55186547001	09-MAY-2005	[0.1340]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.928000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89980	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	295200	ug/L	98
Iron	55186547001	09-MAY-2005	250000	241600	ug/L	97
Magnesium	55186547001	09-MAY-2005	100000	93590	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1902	ug/L	95
Potassium	55186547001	09-MAY-2005	100000	96440	ug/L	96
Sodium	55186547001	09-MAY-2005	250000	227100	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

nstid : MET05 Run Name :
eqnum : 55186547014 Filename : e0913014 Injected : 09-MAY-2005 14:17
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88800.00	ug/L	-11		
Arsenic	100.0000	109.0000	ug/L	9	20	
Cadmium	100.0000	98.83000	ug/L	-1	20	
Calcium	300000.0	295000.0	ug/L	-2		
Chromium	200.0000	215.5000	ug/L	8	20	
Cobalt	200.0000	210.2000	ug/L	5	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	247100.0	ug/L	-1		
Magnesium	100000.0	91970.00	ug/L	-8		
Manganese	200.0000	217.9000	ug/L	9	20	
Molybdenum	2000.000	1929.000	ug/L	-4		
Nickel	200.0000	201.8000	ug/L	1	20	
Potassium	100000.0	95150.00	ug/L	-5		
Selenium	100.0000	101.5000	ug/L	2	20	
Silver	50.00000	48.38000	ug/L	-3	20	
Sodium	250000.0	224200.0	ug/L	-10		
Vanadium	200.0000	220.6000	ug/L	10	20	
Zinc	100.0000	101.8000	ug/L	2	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	598407	5.62
Germanium	161713	166732	3.10

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid	: MET05	Run Name	:	IDF	: 1.0
ɜqnum	: 55186547025	Filename	: e0913025	Injected	: 09-MAY-2005 15:22
ılnum	: 55186547001	Caldate	: 09-MAY-2005	Caltype	:
ɔandards:	S403, 05WS0207				

ınalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ıluminum	3.6312	0.4842	150.0000	147.8000	ug/L	-1	10	
ıntimony	0.2740	0.2317	150.0000	141.9000	ug/L	-5	10	
ırsenic	0.3902	0.3709	150.0000	145.8000	ug/L	-3	10	
ɜarium	0.1214	0.0872	150.0000	146.0000	ug/L	-3	10	
ɜeryllium	0.1568	0.1417	150.0000	146.1000	ug/L	-3	10	
ɔadmium	0.5642	0.4444	150.0000	150.7000	ug/L	0	10	
ɔalcium	0.0208	0.0157	15000.00	14730.00	ug/L	-2	10	
ɔhromium	2.8448	2.1412	150.0000	148.3000	ug/L	-1	10	
ɔobalt	2.8466	2.5911	150.0000	149.2000	ug/L	-1	10	
ɔopper	0.7634	0.6613	150.0000	147.0000	ug/L	-2	10	
Iron	0.0759	0.0618	15000.00	14820.00	ug/L	-1	10	
Lead	0.9225	0.8510	150.0000	144.8000	ug/L	-3	10	
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
Manganese	3.5290	2.9760	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.9099	0.8045	150.0000	147.6000	ug/L	-2	10	
Nickel	0.6490	0.5499	150.0000	147.1000	ug/L	-2	10	
Potassium	0.9426	0.5046	15000.00	14640.00	ug/L	-2	10	
Selenium	0.0396	0.0248	150.0000	147.4000	ug/L	-2	10	
Silver	2.2896	2.1088	150.0000	150.3000	ug/L	0	10	
Sodium	0.7893	0.5501	15000.00	14720.00	ug/L	-2	10	
Thallium	0.6776	0.6635	150.0000	146.8000	ug/L	-2	10	
Vanadium	2.7524	2.4032	150.0000	149.0000	ug/L	-1	10	
Zinc	0.8033	0.3903	150.0000	146.3000	ug/L	-2	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	373026	-2.67
Scandium	566573	561004	-0.98
Germanium	161713	161836	0.08
Indium	1281904	1264407	-1.36
Bismuth	1275587	1249023	-2.08

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547027 Filename : e0913027 Injected : 09-MAY-2005 15:33
:andards: 05WS0207

ıalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.260000	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ıarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ıeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
:hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
[ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
;ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ıagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıanganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ıolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ıickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid	: MET05	Run Name :		IDF	: 1.0
:qnum	: 55186547031	Filename :	e0913031	Injected	: 09-MAY-2005 15:57
ılnum	: 55186547001	Caldate :	09-MAY-2005	Caltype	:
:andards:	S400, 05WS0207				

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ıluminum	3.6312	0.4676	100.0000	90.59000	ug/L	-9	10	
ıntimony	0.2740	0.2331	100.0000	95.12000	ug/L	-5	10	
ırsenic	0.3902	0.3791	100.0000	99.32000	ug/L	-1	10	
ıarium	0.1214	0.0880	100.0000	98.19000	ug/L	-2	10	
ıeryllium	0.1568	0.1450	100.0000	99.70000	ug/L	0	10	
:admium	0.5642	0.4516	100.0000	102.1000	ug/L	2	10	
:alcium	0.0208	0.0164	10000.00	10220.00	ug/L	2	10	
:hromium	2.8448	2.1583	100.0000	99.53000	ug/L	0	10	
:obalt	2.8466	2.5857	100.0000	99.22000	ug/L	-1	10	
:opper	0.7634	0.6794	100.0000	100.6000	ug/L	1	10	
Iron	0.0759	0.0645	10000.00	10300.00	ug/L	3	10	
:ead	0.9225	0.8645	100.0000	98.05000	ug/L	-2	10	
Magnesium	0.0608	0.0583	10000.00	10160.00	ug/L	2	10	
Manganese	3.5290	3.1243	100.0000	103.3000	ug/L	3	10	
Molybdenum	0.9099	0.8182	100.0000	99.98000	ug/L	0	10	
Nickel	0.6490	0.5662	100.0000	101.0000	ug/L	1	10	
Potassium	0.9426	0.5241	10000.00	10100.00	ug/L	1	10	
Selenium	0.0396	0.0255	100.0000	100.9000	ug/L	1	10	
Silver	2.2896	2.1286	100.0000	101.2000	ug/L	1	10	
Sodium	0.7893	0.5663	10000.00	10080.00	ug/L	1	10	
Thallium	0.6776	0.6851	100.0000	101.0000	ug/L	1	10	
Vanadium	2.7524	2.4000	100.0000	99.14000	ug/L	-1	10	
Zinc	0.8033	0.4049	100.0000	100.8000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	368057	-3.97
Scandium	566573	555167	-2.01
Germanium	161713	161141	-0.35
Indium	1281904	1267241	-1.14
Bismuth	1275587	1237819	-2.96

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05
qnum : 55186547033
andards: 05WS0207

Run Name :
Filename : e0913033

Injected : 09-MAY-2005 16:09

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1836]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547034 Filename : e0913034 Injected : 09-MAY-2005 16:15
ndards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	2.217000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.647500	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.803400	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	[0.0110]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	[0.1070]	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.182000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	2.621000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.499000	0.500000	ug/L	
ad	55186547001	09-MAY-2005	1.185000	0.250000	ug/L	
nganese	55186547001	09-MAY-2005	1.014000	0.250000	ug/L	
ckel	55186547001	09-MAY-2005	1.330000	0.250000	ug/L	
lenium	55186547001	09-MAY-2005	[0.3223]	0.500000	ug/L	
lver	55186547001	09-MAY-2005	[0.1382]	0.250000	ug/L	
allium	55186547001	09-MAY-2005	[0.0349]	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	[0.0894]	1.000000	ug/L	
nc	55186547001	09-MAY-2005	3.729000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	90860	ug/L	91
alcium	55186547001	09-MAY-2005	300000	292900	ug/L	98
ron	55186547001	09-MAY-2005	250000	237700	ug/L	95
agnesium	55186547001	09-MAY-2005	100000	94090	ug/L	94
olybdenum	55186547001	09-MAY-2005	2000	1944	ug/L	97
otassium	55186547001	09-MAY-2005	100000	96540	ug/L	97
odium	55186547001	09-MAY-2005	250000	226900	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547035 Filename : e0913035 Injected : 09-MAY-2005 16:21
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	89450.00	ug/L	-11		
rsenic	100.0000	106.2000	ug/L	6	20	
admium	100.0000	98.87000	ug/L	-1	20	
alcium	300000.0	292500.0	ug/L	-3		
hromium	200.0000	206.3000	ug/L	3	20	
obalt	200.0000	204.6000	ug/L	2	20	
opper	200.0000	192.8000	ug/L	-4	20	
ron	250000.0	237800.0	ug/L	-5		
agnesium	100000.0	93040.00	ug/L	-7		
anganese	200.0000	208.6000	ug/L	4	20	
olybdenum	2000.000	1917.000	ug/L	-4		
ickel	200.0000	196.3000	ug/L	-2	20	
otassium	100000.0	95100.00	ug/L	-5		
elenium	100.0000	99.09000	ug/L	-1	20	
ilver	50.00000	48.47000	ug/L	-3	20	
odium	250000.0	223600.0	ug/L	-11		
anadium	200.0000	212.9000	ug/L	6	20	
inc	100.0000	98.57000	ug/L	-1	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	566613	0.01
ermanium	161713	163447	1.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05 Run Name : IDF : 1.0
num : 55186547046 Filename : e0913046 Injected : 09-MAY-2005 17:39
num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ndards: S403, 05WS0207

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
minum	3.6312	0.4749	150.0000	144.7000	ug/L	-4	10	
timony	0.2740	0.2250	150.0000	137.7000	ug/L	-8	10	
senic	0.3902	0.3648	150.0000	143.4000	ug/L	-4	10	
rium	0.1214	0.0853	150.0000	142.9000	ug/L	-5	10	
ryllium	0.1568	0.1391	150.0000	143.4000	ug/L	-4	10	
dmium	0.5642	0.4459	150.0000	151.2000	ug/L	1	10	
lcium	0.0208	0.0155	15000.00	14550.00	ug/L	-3	10	
romium	2.8448	2.1136	150.0000	146.4000	ug/L	-2	10	
balt	2.8466	2.5472	150.0000	146.6000	ug/L	-2	10	
pper	0.7634	0.6531	150.0000	145.1000	ug/L	-3	10	
on	0.0759	0.0620	15000.00	14850.00	ug/L	-1	10	
ad	0.9225	0.8358	150.0000	142.2000	ug/L	-5	10	
gnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
nganese	3.5290	2.9806	150.0000	147.8000	ug/L	-1	10	
lybdenum	0.9099	0.7972	150.0000	146.2000	ug/L	-3	10	
ckel	0.6490	0.5403	150.0000	144.6000	ug/L	-4	10	
tassium	0.9426	0.5038	15000.00	14620.00	ug/L	-3	10	
lenium	0.0396	0.0247	150.0000	147.1000	ug/L	-2	10	
lver	2.2896	2.1293	150.0000	151.8000	ug/L	1	10	
dium	0.7893	0.5550	15000.00	14850.00	ug/L	-1	10	
allium	0.6776	0.6552	150.0000	144.9000	ug/L	-3	10	
nadium	2.7524	2.3700	150.0000	146.9000	ug/L	-2	10	
nc	0.8033	0.3843	150.0000	144.0000	ug/L	-4	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	371734	-3.01
andium	566573	544232	-3.94
rmanium	161713	158308	-2.11
dium	1281904	1276514	-0.42
smuth	1275587	1283726	0.64

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stid : MET05 Run Name :
qnum : 55186547048 Filename : e0913048 Injected : 09-MAY-2005 17:51
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.2093]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	0.559700	0.500000	ug/L	ib ***
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Curtis & Tompkins Laboratories

tid : MET05 Run Name : IDF : 1.0
num : 55186547061 Filename : e0913061 Injected : 09-MAY-2005 19:07
num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ndards: S403, 05WS0207

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
minum	3.6312	0.4622	150.0000	140.5000	ug/L	-6	10	
imony	0.2740	0.2246	150.0000	137.5000	ug/L	-8	10	
enic	0.3902	0.3614	150.0000	142.1000	ug/L	-5	10	
ium	0.1214	0.0850	150.0000	142.2000	ug/L	-5	10	
yllium	0.1568	0.1384	150.0000	142.7000	ug/L	-5	10	
dmium	0.5642	0.4352	150.0000	147.6000	ug/L	-2	10	
lcium	0.0208	0.0155	15000.00	14580.00	ug/L	-3	10	
romium	2.8448	2.1179	150.0000	146.7000	ug/L	-2	10	
balt	2.8466	2.5818	150.0000	148.6000	ug/L	-1	10	
pper	0.7634	0.6536	150.0000	145.3000	ug/L	-3	10	
on	0.0759	0.0622	15000.00	14900.00	ug/L	-1	10	
ad	0.9225	0.8200	150.0000	139.5000	ug/L	-7	10	
gnesium	0.0608	0.0556	15000.00	14530.00	ug/L	-3	10	
nganese	3.5290	3.0047	150.0000	149.0000	ug/L	-1	10	
lybdenum	0.9099	0.7924	150.0000	145.3000	ug/L	-3	10	
ckel	0.6490	0.5423	150.0000	145.1000	ug/L	-3	10	
tassium	0.9426	0.4942	15000.00	14340.00	ug/L	-4	10	
lenium	0.0396	0.0243	150.0000	144.8000	ug/L	-3	10	
lver	2.2896	2.0791	150.0000	148.2000	ug/L	-1	10	
dium	0.7893	0.5429	15000.00	14520.00	ug/L	-3	10	
allium	0.6776	0.6486	150.0000	143.5000	ug/L	-4	10	
nadium	2.7524	2.3733	150.0000	147.1000	ug/L	-2	10	
nc	0.8033	0.3850	150.0000	144.3000	ug/L	-4	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	364584	-4.87
andium	566573	549159	-3.07
rmanium	161713	158082	-2.25
dium	1281904	1258859	-1.80
smuth	1275587	1233783	-3.28

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tid : MET05 Run Name :
num : 55186547063 Filename : e0913063 Injected : 09-MAY-2005 19:19
ndards: 05WS0207

lyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
minum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
imony	55186547001	09-MAY-2005	0.274200	0.250000	ug/L	ib ***
enic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
yllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	[0.2043]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05
qnum : 55186547073
lnum : 55186547001
andards: S400, 05WS0207

Run Name :
Filename : e0913073
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 09-MAY-2005 20:18
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4673	100.0000	90.51000	ug/L	-9	10	
timony	0.2740	0.2288	100.0000	93.37000	ug/L	-7	10	
senic	0.3902	0.3666	100.0000	96.04000	ug/L	-4	10	
rium	0.1214	0.0856	100.0000	95.47000	ug/L	-5	10	
ryllium	0.1568	0.1387	100.0000	95.34000	ug/L	-5	10	
dmium	0.5642	0.4496	100.0000	101.6000	ug/L	2	10	
lcium	0.0208	0.0159	10000.00	9930.000	ug/L	-1	10	
romium	2.8448	2.1183	100.0000	97.68000	ug/L	-2	10	
balt	2.8466	2.5411	100.0000	97.51000	ug/L	-2	10	
pper	0.7634	0.6660	100.0000	98.64000	ug/L	-1	10	
on	0.0759	0.0640	10000.00	10220.00	ug/L	2	10	
ad	0.9225	0.8380	100.0000	95.05000	ug/L	-5	10	
gnesium	0.0608	0.0574	10000.00	10010.00	ug/L	0	10	
nganese	3.5290	3.0535	100.0000	100.9000	ug/L	1	10	
lybdenum	0.9099	0.8014	100.0000	97.93000	ug/L	-2	10	
ckel	0.6490	0.5555	100.0000	99.08000	ug/L	-1	10	
tassium	0.9426	0.5068	10000.00	9764.000	ug/L	-2	10	
lenium	0.0396	0.0248	100.0000	98.04000	ug/L	-2	10	
lver	2.2896	2.1066	100.0000	100.1000	ug/L	0	10	
dium	0.7893	0.5618	10000.00	10000.00	ug/L	0	10	
allium	0.6776	0.6543	100.0000	96.49000	ug/L	-4	10	
nadium	2.7524	2.3544	100.0000	97.26000	ug/L	-3	10	
nc	0.8033	0.3978	100.0000	98.96000	ug/L	-1	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	380148	-0.81
candium	566573	554670	-2.10
ermanium	161713	160863	-0.53
ndium	1281904	1296859	1.17
ismuth	1275587	1288713	1.03

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547075 Filename : e0913075 Injected : 09-MAY-2005 20:30
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.1410]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547076 Filename : e0913076 Injected : 09-MAY-2005 20:35
ndards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	2.164000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.849800	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.754800	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	[0.0173]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	0.402000	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.676000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	3.095000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.990000	0.500000	ug/L	
ad	55186547001	09-MAY-2005	1.152000	0.250000	ug/L	
nganese	55186547001	09-MAY-2005	1.476000	0.250000	ug/L	
ckel	55186547001	09-MAY-2005	1.796000	0.250000	ug/L	
lenium	55186547001	09-MAY-2005	1.035000	0.500000	ug/L	
lver	55186547001	09-MAY-2005	0.275200	0.250000	ug/L	
allium	55186547001	09-MAY-2005	[0.0729]	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	[0.5942]	1.000000	ug/L	
nc	55186547001	09-MAY-2005	3.645000	1.000000	ug/L	

SPIKED INTERFERENTS

alyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
uminum	55186547001	09-MAY-2005	100000	89710	ug/L	90
lcium	55186547001	09-MAY-2005	300000	288400	ug/L	96
on	55186547001	09-MAY-2005	250000	232000	ug/L	93
gnesium	55186547001	09-MAY-2005	100000	92800	ug/L	93
lybdenum	55186547001	09-MAY-2005	2000	1916	ug/L	96
tassium	55186547001	09-MAY-2005	100000	95190	ug/L	95
dium	55186547001	09-MAY-2005	250000	224900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547077 Filename : e0913077 Injected : 09-MAY-2005 20:41
num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ndards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	100000.0	88680.00	ug/L	-11		
senic	100.0000	104.0000	ug/L	4	20	
dmium	100.0000	100.3000	ug/L	0	20	
lcium	300000.0	282500.0	ug/L	-6		
romium	200.0000	200.5000	ug/L	0	20	
balt	200.0000	199.2000	ug/L	0	20	
pper	200.0000	188.4000	ug/L	-6	20	
on	250000.0	229700.0	ug/L	-8		
gnesium	100000.0	91480.00	ug/L	-9		
nganese	200.0000	202.9000	ug/L	1	20	
lybdenum	2000.000	1934.000	ug/L	-3		
ckel	200.0000	191.1000	ug/L	-4	20	
tassium	100000.0	92990.00	ug/L	-7		
lenium	100.0000	97.83000	ug/L	-2	20	
lver	50.00000	49.27000	ug/L	-1	20	
dium	250000.0	220800.0	ug/L	-12		
nadium	200.0000	205.6000	ug/L	3	20	
nc	100.0000	94.58000	ug/L	-5	20	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
andium	566573	524903	-7.35
rmanium	161713	152927	-5.43

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547090 Filename : e0913090 Injected : 09-MAY-2005 21:57
inum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Flags
uminum	3.6312	0.4441	150.0000	134.5000	ug/L	-10	10
timony	0.2740	0.2267	150.0000	138.8000	ug/L	-7	10
senic	0.3902	0.3603	150.0000	141.6000	ug/L	-6	10
rium	0.1214	0.0859	150.0000	143.8000	ug/L	-4	10
ryllium	0.1568	0.1381	150.0000	142.4000	ug/L	-5	10
dmium	0.5642	0.4419	150.0000	149.9000	ug/L	0	10
lcium	0.0208	0.0155	15000.00	14560.00	ug/L	-3	10
romium	2.8448	2.1134	150.0000	146.4000	ug/L	-2	10
balt	2.8466	2.5717	150.0000	148.0000	ug/L	-1	10
pper	0.7634	0.6520	150.0000	144.9000	ug/L	-3	10
on	0.0759	0.0625	15000.00	14970.00	ug/L	0	10
ad	0.9225	0.8374	150.0000	142.5000	ug/L	-5	10
gnesium	0.0608	0.0558	15000.00	14600.00	ug/L	-3	10
nganese	3.5290	3.0052	150.0000	149.1000	ug/L	-1	10
lybdenum	0.9099	0.7996	150.0000	146.7000	ug/L	-2	10
ckel	0.6490	0.5407	150.0000	144.7000	ug/L	-4	10
tassium	0.9426	0.4972	15000.00	14430.00	ug/L	-4	10
lenium	0.0396	0.0244	150.0000	145.0000	ug/L	-3	10
lver	2.2896	2.1172	150.0000	150.9000	ug/L	1	10
dium	0.7893	0.5486	15000.00	14680.00	ug/L	-2	10
allium	0.6776	0.6532	150.0000	144.5000	ug/L	-4	10
nadium	2.7524	2.3781	150.0000	147.4000	ug/L	-2	10
nc	0.8033	0.3860	150.0000	144.6000	ug/L	-4	10

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	332344	-13.28
candium	566573	500594	-11.65
ermanium	161713	147515	-8.78
ndium	1281904	1196146	-6.69
ismuth	1275587	1218836	-4.45

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tid : MET05 Run Name :
num : 55186547092 Filename : e0913092 Injected : 09-MAY-2005 22:08
ndards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.1935]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547101 Filename : e0913101 Injected : 09-MAY-2005 23:02
ndards: S401, 05WS0207

lyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
imony	55186547001	09-MAY-2005	2.055000	0.250000	ug/L	
enic	55186547001	09-MAY-2005	0.835800	0.500000	ug/L	
ium	55186547001	09-MAY-2005	0.760600	0.250000	ug/L	
yllium	55186547001	09-MAY-2005	[0.0340]	0.250000	ug/L	
mium	55186547001	09-MAY-2005	0.389700	0.250000	ug/L	
omium	55186547001	09-MAY-2005	1.686000	0.500000	ug/L	
alt	55186547001	09-MAY-2005	3.051000	0.250000	ug/L	
per	55186547001	09-MAY-2005	1.977000	0.500000	ug/L	
d	55186547001	09-MAY-2005	1.131000	0.250000	ug/L	
ganese	55186547001	09-MAY-2005	1.590000	0.250000	ug/L	
kel	55186547001	09-MAY-2005	1.808000	0.250000	ug/L	
enium	55186547001	09-MAY-2005	0.814200	0.500000	ug/L	
ver	55186547001	09-MAY-2005	0.292200	0.250000	ug/L	
llium	55186547001	09-MAY-2005	[0.0177]	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	[0.5981]	1.000000	ug/L	
nc	55186547001	09-MAY-2005	3.873000	1.000000	ug/L	

SPIKED INTERFERENTS

alyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
uminum	55186547001	09-MAY-2005	100000	88230	ug/L	88
lcium	55186547001	09-MAY-2005	300000	286700	ug/L	96
on	55186547001	09-MAY-2005	250000	236400	ug/L	95
gnesium	55186547001	09-MAY-2005	100000	91370	ug/L	91
lybdenum	55186547001	09-MAY-2005	2000	1844	ug/L	92
tassium	55186547001	09-MAY-2005	100000	92300	ug/L	92
dium	55186547001	09-MAY-2005	250000	220800	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547102 Filename : e0913102 Injected : 09-MAY-2005 23:07
num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ndards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	100000.0	88090.00	ug/L	-12		
senic	100.0000	100.6000	ug/L	1	20	
dmium	100.0000	94.17000	ug/L	-6	20	
lcium	300000.0	285000.0	ug/L	-5		
romium	200.0000	196.3000	ug/L	-2	20	
balt	200.0000	196.8000	ug/L	-2	20	
pper	200.0000	185.2000	ug/L	-7	20	
on	250000.0	232200.0	ug/L	-7		
gnesium	100000.0	91520.00	ug/L	-8		
nganese	200.0000	205.7000	ug/L	3	20	
lybdenum	2000.000	1829.000	ug/L	-9		
ckel	200.0000	188.6000	ug/L	-6	20	
tassium	100000.0	92260.00	ug/L	-8		
lenium	100.0000	94.08000	ug/L	-6	20	
lver	50.00000	46.16000	ug/L	-8	20	
dium	250000.0	221600.0	ug/L	-11		
nadium	200.0000	202.2000	ug/L	1	20	
nc	100.0000	93.46000	ug/L	-7	20	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
andium	566573	588738	3.91
rmanium	161713	171175	5.85

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05 | Run Name : | IDF : 1.0
num : 55186547104 | Filename : e0913104 | Injected : 09-MAY-2005 23:19
num : 55186547001 | Caldate : 09-MAY-2005 | Caltype :
ndards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4816	150.0000	146.9000	ug/L	-2	10	
timony	0.2740	0.2208	150.0000	135.2000	ug/L	-10	10	
senic	0.3902	0.3531	150.0000	138.8000	ug/L	-7	10	
rium	0.1214	0.0838	150.0000	140.2000	ug/L	-7	10	
ryllium	0.1568	0.1379	150.0000	142.2000	ug/L	-5	10	
dmium	0.5642	0.4284	150.0000	145.3000	ug/L	-3	10	
lcium	0.0208	0.0155	15000.00	14510.00	ug/L	-3	10	
romium	2.8448	2.0770	150.0000	143.9000	ug/L	-4	10	
balt	2.8466	2.5468	150.0000	146.6000	ug/L	-2	10	
pper	0.7634	0.6408	150.0000	142.4000	ug/L	-5	10	
on	0.0759	0.0615	15000.00	14750.00	ug/L	-2	10	
ad	0.9225	0.8210	150.0000	139.7000	ug/L	-7	10	
gnesium	0.0608	0.0544	15000.00	14220.00	ug/L	-5	10	
nganese	3.5290	2.9731	150.0000	147.5000	ug/L	-2	10	
lybdenum	0.9099	0.7836	150.0000	143.7000	ug/L	-4	10	
ckel	0.6490	0.5339	150.0000	142.9000	ug/L	-5	10	
tassium	0.9426	0.4881	15000.00	14160.00	ug/L	-6	10	
lenium	0.0396	0.0238	150.0000	141.7000	ug/L	-6	10	
lver	2.2896	2.0654	150.0000	147.2000	ug/L	-2	10	
dium	0.7893	0.5389	15000.00	14410.00	ug/L	-4	10	
allium	0.6776	0.6459	150.0000	142.9000	ug/L	-5	10	
nadium	2.7524	2.3446	150.0000	145.4000	ug/L	-3	10	
nc	0.8033	0.3778	150.0000	141.5000	ug/L	-6	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	354034	-7.62
candium	566573	572106	0.98
ermanium	161713	167746	3.73
ndium	1281904	1353822	5.61
ismuth	1275587	1244487	-2.44

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Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547106 Filename : e0913106 Injected : 09-MAY-2005 23:31
ndards: 05WS0207

lyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	0.266100	0.250000	ug/L	ib ***
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	[7.8940]	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	[16.540]	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	0.509500	0.500000	ug/L	ib ***
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	152.9000	50.00000	ug/L	ib ***
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	[0.1644]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547119
num : 55186547001
ndards: S403, 05WS0207

Run Name :
Filename : e0913119
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 00:47
Caltype :

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
timony	0.2740	0.2207	150.0000	135.1000	ug/L	-10	10	
senic	0.3902	0.3591	150.0000	141.1000	ug/L	-6	10	
rium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
ryllium	0.1568	0.1365	150.0000	140.8000	ug/L	-6	10	
dmium	0.5642	0.4429	150.0000	150.2000	ug/L	0	10	
lcium	0.0208	0.0154	15000.00	14440.00	ug/L	-4	10	
romium	2.8448	2.0623	150.0000	142.8000	ug/L	-5	10	
balt	2.8466	2.5430	150.0000	146.4000	ug/L	-2	10	
pper	0.7634	0.6440	150.0000	143.1000	ug/L	-5	10	
on	0.0759	0.0607	15000.00	14540.00	ug/L	-3	10	
ad	0.9225	0.8229	150.0000	140.0000	ug/L	-7	10	
gnesium	0.0608	0.0556	15000.00	14540.00	ug/L	-3	10	
nganese	3.5290	2.9299	150.0000	145.3000	ug/L	-3	10	
lybdenum	0.9099	0.7959	150.0000	146.0000	ug/L	-3	10	
ckel	0.6490	0.5358	150.0000	143.4000	ug/L	-4	10	
tassium	0.9426	0.4978	15000.00	14440.00	ug/L	-4	10	
lenium	0.0396	0.0240	150.0000	143.0000	ug/L	-5	10	
lver	2.2896	2.1147	150.0000	150.8000	ug/L	1	10	
dium	0.7893	0.5374	15000.00	14380.00	ug/L	-4	10	
allium	0.6776	0.6584	150.0000	145.7000	ug/L	-3	10	
nadium	2.7524	2.3251	150.0000	144.1000	ug/L	-4	10	
nc	0.8033	0.3749	150.0000	140.4000	ug/L	-6	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	327369	-14.58
andium	566573	503498	-11.13
rmanium	161713	148418	-8.22
dium	1281904	1233456	-3.78
smuth	1275587	1161755	-8.92

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tid : MET05 Run Name :
num : 55186547121 Filename : e0913121 Injected : 10-MAY-2005 00:58
ndards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	0.291700	0.250000	ug/L	ib ***
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05 Run Name : IDF : 1.0
num : 55186547133 Filename : e0913133 Injected : 10-MAY-2005 02:08
num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ndards: S403, 05WS0207

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4738	150.0000	144.3000	ug/L	-4	10	
timony	0.2740	0.2193	150.0000	134.3000	ug/L	-10	10	
senic	0.3902	0.3574	150.0000	140.5000	ug/L	-6	10	
rium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
ryllium	0.1568	0.1362	150.0000	140.5000	ug/L	-6	10	
dmium	0.5642	0.4611	150.0000	156.4000	ug/L	4	10	
lcium	0.0208	0.0155	15000.00	14540.00	ug/L	-3	10	
romium	2.8448	2.0076	150.0000	139.0000	ug/L	-7	10	
balt	2.8466	2.4868	150.0000	143.1000	ug/L	-5	10	
pper	0.7634	0.6376	150.0000	141.7000	ug/L	-6	10	
on	0.0759	0.0605	15000.00	14510.00	ug/L	-3	10	
ad	0.9225	0.8171	150.0000	139.0000	ug/L	-7	10	
gnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
nganese	3.5290	2.9991	150.0000	148.8000	ug/L	-1	10	
lybdenum	0.9099	0.8080	150.0000	148.2000	ug/L	-1	10	
ckel	0.6490	0.5282	150.0000	141.3000	ug/L	-6	10	
tassium	0.9426	0.5000	15000.00	14510.00	ug/L	-3	10	
lenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
lver	2.2896	2.1831	150.0000	155.6000	ug/L	4	10	
dium	0.7893	0.5438	15000.00	14550.00	ug/L	-3	10	
allium	0.6776	0.6476	150.0000	143.3000	ug/L	-4	10	
nadium	2.7524	2.2899	150.0000	142.0000	ug/L	-5	10	
nc	0.8033	0.3800	150.0000	142.4000	ug/L	-5	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	290486	-24.21
andium	566573	426922	-24.65
rmanium	161713	127442	-21.19
dium	1281904	1121490	-12.51
smuth	1275587	1113799	-12.68

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

id : MET05 Run Name :
ıum : 55186547135 Filename : e0913135 Injected : 10-MAY-2005 02:20
ıdards: 05WS0207

lyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
minum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
imony	55186547001	09-MAY-2005	0.275900	0.250000	ug/L	ib ***
enic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
yllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
mium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
cium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	[12.110]	50.00000	ug/L	
ad	55186547001	09-MAY-2005	[0.2292]	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	3.056000	0.250000	ug/L	ib ***
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	0.556300	0.500000	ug/L	ib ***
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	2.229000	1.000000	ug/L	ib ***

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547147
num : 55186547001
ndards: S403, 05WS0207

Run Name :
Filename : e0913147
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 03:31
Caltype :

lyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
minum	3.6312	0.4614	150.0000	140.2000	ug/L	-7	10	
imony	0.2740	0.2218	150.0000	135.8000	ug/L	-9	10	
enic	0.3902	0.3599	150.0000	141.5000	ug/L	-6	10	
ium	0.1214	0.0840	150.0000	140.6000	ug/L	-6	10	
yllium	0.1568	0.1372	150.0000	141.5000	ug/L	-6	10	
lmium	0.5642	0.4655	150.0000	157.9000	ug/L	5	10	
lcium	0.0208	0.0156	15000.00	14620.00	ug/L	-3	10	
romium	2.8448	2.0299	150.0000	140.6000	ug/L	-6	10	
balt	2.8466	2.5088	150.0000	144.4000	ug/L	-4	10	
pper	0.7634	0.6448	150.0000	143.3000	ug/L	-4	10	
on	0.0759	0.0605	15000.00	14490.00	ug/L	-3	10	
ad	0.9225	0.8192	150.0000	139.4000	ug/L	-7	10	
gnesium	0.0608	0.0568	15000.00	14850.00	ug/L	-1	10	
nganese	3.5290	2.9146	150.0000	144.6000	ug/L	-4	10	
lybdenum	0.9099	0.8154	150.0000	149.6000	ug/L	0	10	
ckel	0.6490	0.5336	150.0000	142.8000	ug/L	-5	10	
tassium	0.9426	0.5096	15000.00	14790.00	ug/L	-1	10	
lenium	0.0396	0.0243	150.0000	144.3000	ug/L	-4	10	
lver	2.2896	2.1995	150.0000	156.8000	ug/L	5	10	
dium	0.7893	0.5477	15000.00	14650.00	ug/L	-2	10	
allium	0.6776	0.6668	150.0000	147.5000	ug/L	-2	10	
nadium	2.7524	2.3045	150.0000	142.9000	ug/L	-5	10	
nc	0.8033	0.3761	150.0000	140.9000	ug/L	-6	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	295190	-22.98
andium	566573	430569	-24.00
ermanium	161713	127088	-21.41
dium	1281904	1117565	-12.82
smuth	1275587	1051484	-17.57

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Curtis & Tompkins Laboratories

id : MET05 Run Name :
um : 55186547149 Filename : e0913149 Injected : 10-MAY-2005 03:42
dards: 05WS0207

yte	Calnum	Caldate	QuantAmt	RL	Units	Flags
inum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
imony	55186547001	09-MAY-2005	[0.2246]	0.250000	ug/L	
enic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
yllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
mium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
cium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
omium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
alt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
per	55186547001	09-MAY-2005	ND	0.500000	ug/L	
n	55186547001	09-MAY-2005	ND	50.00000	ug/L	
d	55186547001	09-MAY-2005	[0.1014]	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	1.195000	0.250000	ug/L	ib ***
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	0.517200	0.500000	ug/L	ib ***
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	1.043000	1.000000	ug/L	ib ***

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

id : MET05
um : 55186547162
um : 55186547001
dards: S403, 05WS0207

Run Name :
Filename : e0913162
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 04:59
Caltype :

yte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
minum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
imony	0.2740	0.2169	150.0000	132.8000	ug/L	-11	10	c- ***
enic	0.3902	0.3587	150.0000	141.0000	ug/L	-6	10	
ium	0.1214	0.0817	150.0000	136.8000	ug/L	-9	10	
yllium	0.1568	0.1363	150.0000	140.6000	ug/L	-6	10	
mium	0.5642	0.4600	150.0000	156.0000	ug/L	4	10	
cium	0.0208	0.0156	15000.00	14610.00	ug/L	-3	10	
omium	2.8448	2.0237	150.0000	140.2000	ug/L	-7	10	
alt	2.8466	2.5161	150.0000	144.8000	ug/L	-3	10	
per	0.7634	0.6437	150.0000	143.0000	ug/L	-5	10	
n	0.0759	0.0607	15000.00	14560.00	ug/L	-3	10	
d	0.9225	0.8290	150.0000	141.0000	ug/L	-6	10	
gnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
nganese	3.5290	2.9288	150.0000	145.3000	ug/L	-3	10	
ybdenum	0.9099	0.8142	150.0000	149.3000	ug/L	0	10	
ckel	0.6490	0.5312	150.0000	142.2000	ug/L	-5	10	
tassium	0.9426	0.5043	15000.00	14630.00	ug/L	-2	10	
lenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
lver	2.2896	2.1764	150.0000	155.2000	ug/L	3	10	
dium	0.7893	0.5422	15000.00	14510.00	ug/L	-3	10	
allium	0.6776	0.6898	150.0000	152.6000	ug/L	2	10	
nadium	2.7524	2.3205	150.0000	143.9000	ug/L	-4	10	
nc	0.8033	0.3758	150.0000	140.8000	ug/L	-6	10	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	290333	-24.25
andium	566573	433501	-23.49
rmanium	161713	127988	-20.85
dium	1281904	1129581	-11.88
smuth	1275587	973668	-23.67

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age 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547164 Filename : e0913164 Injected : 10-MAY-2005 05:11
ndards: 05WS0207

lyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
minum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
imony	55186547001	09-MAY-2005	[0.2283]	0.250000	ug/L	
enic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
yllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
cium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ad	55186547001	09-MAY-2005	[0.0799]	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	0.855700	0.250000	ug/L	ib ***
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	[0.8803]	1.000000	ug/L	

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age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ɜtid	: MET05	Run Name :		IDF	: 1.0
ɡnum	: 55186547176	Filename :	e0913176	Injected	: 10-MAY-2005 06:21
lnum	: 55186547001	Caldate :	09-MAY-2005	Caltype	:
andards:	S403, 05WS0207				

ıalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
.uminum	3.6312	0.4688	150.0000	142.6000	ug/L	-5	10	
ıtimony	0.2740	0.2225	150.0000	136.2000	ug/L	-9	10	
:senic	0.3902	0.3706	150.0000	145.7000	ug/L	-3	10	
ıarium	0.1214	0.0831	150.0000	139.1000	ug/L	-7	10	
ɜryllium	0.1568	0.1415	150.0000	146.0000	ug/L	-3	10	
ıdmium	0.5642	0.4668	150.0000	158.4000	ug/L	6	10	
ıalcium	0.0208	0.0159	15000.00	14930.00	ug/L	0	10	
hromium	2.8448	2.0775	150.0000	143.9000	ug/L	-4	10	
ɔbalt	2.8466	2.5922	150.0000	149.2000	ug/L	-1	10	
opper	0.7634	0.6615	150.0000	147.0000	ug/L	-2	10	
ron	0.0759	0.0623	15000.00	14940.00	ug/L	0	10	
ead	0.9225	0.8454	150.0000	143.8000	ug/L	-4	10	
agnesium	0.0608	0.0568	15000.00	14860.00	ug/L	-1	10	
anganese	3.5290	2.9983	150.0000	148.7000	ug/L	-1	10	
olybdenum	0.9099	0.8280	150.0000	151.9000	ug/L	1	10	
ickel	0.6490	0.5492	150.0000	147.0000	ug/L	-2	10	
otassium	0.9426	0.5165	15000.00	14990.00	ug/L	0	10	
elenium	0.0396	0.0247	150.0000	147.2000	ug/L	-2	10	
ilver	2.2896	2.2155	150.0000	157.9000	ug/L	5	10	
odium	0.7893	0.5489	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.7149	150.0000	158.2000	ug/L	5	10	
anadium	2.7524	2.3822	150.0000	147.7000	ug/L	-2	10	
inc	0.8033	0.3834	150.0000	143.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	282773	-26.22
candium	566573	434472	-23.32
ermanium	161713	127616	-21.08
Indium	1281904	1110413	-13.38
Bismuth	1275587	869999	-31.80

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547178 Filename : e0913178 Injected : 10-MAY-2005 06:33
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
itimony	55186547001	09-MAY-2005	0.256600	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0781]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.907700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.7570]	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547186 Filename : e0913186 Injected : 10-MAY-2005 07:20
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıtimony	55186547001	09-MAY-2005	1.989000	0.250000	ug/L	
:senic	55186547001	09-MAY-2005	0.989200	0.500000	ug/L	
ırium	55186547001	09-MAY-2005	0.727600	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0237]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.365700	0.250000	ug/L	
ıromium	55186547001	09-MAY-2005	1.624000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.991000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.871000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.225000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	2.276000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.822000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	0.993000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.288600	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0578]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.6500]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	4.768000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88650	ug/L	89
alcium	55186547001	09-MAY-2005	300000	277800	ug/L	93
ron	55186547001	09-MAY-2005	250000	220600	ug/L	88
agnesium	55186547001	09-MAY-2005	100000	90820	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1959	ug/L	98
Potassium	55186547001	09-MAY-2005	100000	93220	ug/L	93
Sodium	55186547001	09-MAY-2005	250000	217200	ug/L	87

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

id : MET05
ium : 55186547187
ium : 55186547001
ndards: S402, 05WS0207

Run Name :
Filename : e0913187
Caldate : 09-MAY-2005

Injected : 10-MAY-2005 07:26
Caltype :

lyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
minum	100000.0	91030.00	ug/L	-9		
enic	100.0000	103.0000	ug/L	3	20	
mium	100.0000	105.6000	ug/L	6	20	
cium	300000.0	286000.0	ug/L	-5		
omium	200.0000	195.5000	ug/L	-2	20	
alt	200.0000	197.1000	ug/L	-1	20	
per	200.0000	186.4000	ug/L	-7	20	
n	250000.0	223800.0	ug/L	-10		
gnesium	100000.0	93160.00	ug/L	-7		
nganese	200.0000	196.7000	ug/L	-2	20	
lybdenum	2000.000	1995.000	ug/L	0		
ckel	200.0000	188.2000	ug/L	-6	20	
tassium	100000.0	96400.00	ug/L	-4		
lenium	100.0000	97.03000	ug/L	-3	20	
lver	50.00000	51.53000	ug/L	3	20	
dium	250000.0	222600.0	ug/L	-11		
nadium	200.0000	201.1000	ug/L	1	20	
nc	100.0000	92.34000	ug/L	-8	20	

TD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
andium	566573	407477	-28.08
rmanium	161713	122547	-24.22

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

id : MET05
um : 55186547189
um : 55186547001
dards: S400, 05WS0207

Run Name :
Filename : e0913189
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 07:38
Caltype :

yte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
inum	3.6312	0.5127	100.0000	100.5000	ug/L	1	10	
mony	0.2740	0.2253	100.0000	91.93000	ug/L	-8	10	
enic	0.3902	0.3668	100.0000	96.09000	ug/L	-4	10	
um	0.1214	0.0850	100.0000	94.77000	ug/L	-5	10	
llium	0.1568	0.1390	100.0000	95.53000	ug/L	-4	10	
mium	0.5642	0.4837	100.0000	109.3000	ug/L	9	10	
cium	0.0208	0.0162	10000.00	10120.00	ug/L	1	10	
omium	2.8448	2.0567	100.0000	94.82000	ug/L	-5	10	
alt	2.8466	2.4820	100.0000	95.24000	ug/L	-5	10	
per	0.7634	0.6631	100.0000	98.22000	ug/L	-2	10	
n	0.0759	0.0631	10000.00	10070.00	ug/L	1	10	
d	0.9225	0.8048	100.0000	91.27000	ug/L	-9	10	
nesium	0.0608	0.0576	10000.00	10040.00	ug/L	0	10	
ganese	3.5290	2.9534	100.0000	97.63000	ug/L	-2	10	
ybdenum	0.9099	0.8451	100.0000	103.3000	ug/L	3	10	
kel	0.6490	0.5474	100.0000	97.64000	ug/L	-2	10	
assium	0.9426	0.5191	10000.00	10000.00	ug/L	0	10	
enium	0.0396	0.0250	100.0000	99.01000	ug/L	-1	10	
ver	2.2896	2.2723	100.0000	108.0000	ug/L	8	10	
ium	0.7893	0.5530	10000.00	9845.000	ug/L	-2	10	
llium	0.6776	0.6745	100.0000	99.47000	ug/L	-1	10	
adium	2.7524	2.2699	100.0000	93.76000	ug/L	-6	10	
c	0.8033	0.3931	100.0000	97.78000	ug/L	-2	10	

D (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
thium	383256	273038	-28.76
andium	566573	415113	-26.73
rmanium	161713	125004	-22.70
dium	1281904	1128861	-11.94
smuth	1275587	1063109	-16.66

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

tid : MET05 Run Name :
num : 55186547191 Filename : e0913191 Injected : 10-MAY-2005 07:50
ndards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
timony	55186547001	09-MAY-2005	[0.1481]	0.250000	ug/L	
senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
on	55186547001	09-MAY-2005	[11.110]	50.00000	ug/L	
ad	55186547001	09-MAY-2005	[0.0886]	0.250000	ug/L	
gnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
nganese	55186547001	09-MAY-2005	1.281000	0.250000	ug/L	ib ***
lybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ckel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
tassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
lenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
allium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
nadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
nc	55186547001	09-MAY-2005	1.070000	1.000000	ug/L	ib ***

b=instrument blank
age 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	e1012001	TUN	tune			10-MAY-2005 12:49	1.0	1.0			1	
003	e1012003	ICALBLK	std-blk			10-MAY-2005 13:00	1.0	1.0			2	
004	e1012004	ICAL	cs1			10-MAY-2005 13:05	1.0	1.0			3	
005	e1012005	ICAL	cs2			10-MAY-2005 13:10	1.0	1.0			4	
006	e1012006	ICAL	cs3			10-MAY-2005 13:17	1.0	1.0			5	
007	e1012007	ICAL	cs4			10-MAY-2005 13:22	1.0	1.0			6	
008	e1012008	ICAL	cs5			10-MAY-2005 13:27	1.0	1.0			7	
009	e1012009	ICAL	cs6			10-MAY-2005 13:32	1.0	1.0			8	
010	e1012010	ICV				10-MAY-2005 13:37	1.0	1.0		1	9	
012	e1012012	ICB				10-MAY-2005 13:49	1.0	1.0	1	1	2	
013	e1012013	ICSA				10-MAY-2005 13:55	1.0	1.0		1	10 2	7:CA=291100
014	e1012014	ICSAB				10-MAY-2005 14:01	1.0	1.0		1	11 2	11:CA=291200
017	e1012017	SAMPLE	178951-001	101496	Soil	10-MAY-2005 14:18	50.0	42.74		1	2	1:AL=3114.00
018	e1012018	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:24	5.0	37.04	4	1	2	9:MG=296200
019	e1012019	SAMPLE	178951-002	101496	Soil	10-MAY-2005 14:30	500.0	37.04		1	2	1:AL=350.000
020	e1012020	SAMPLE	179156-002	101595	Water	10-MAY-2005 14:37	10.0	1.0		1	2	
021	e1012021	SAMPLE	179076-043	101496	Soil	10-MAY-2005 14:43	500.0	50.51		1	2	1:AL=253.400
022	e1012022	SAMPLE	179141-013	101595	Water	10-MAY-2005 14:49	5.0	1.0		1	2	1:NA=115080
023	e1012023	SAMPLE	179127-001	101595	Water	10-MAY-2005 14:55	100.0	1.0	3	1	2	2:NA=22790.0
026	e1012026	CCV				10-MAY-2005 15:12	1.0	1.0		1	12 2	
028	e1012028	CCB				10-MAY-2005 15:24	1.0	1.0		1	2	
029	e1012029	SAMPLE	178951-003	101496	Soil	10-MAY-2005 15:30	50.0	44.25		1	2	2:AL=3654.00
030	e1012030	SAMPLE	178951-004	101496	Soil	10-MAY-2005 15:36	500.0	31.45		1	2	1:AL=607.600
031	e1012031	SAMPLE	179049-001	101496	Soil	10-MAY-2005 15:41	500.0	50.51	1	1	2	2:MN=5308.00
032	e1012032	SAMPLE	179089-001	101496	Soil	10-MAY-2005 15:47	5.0	41.32	4	1	2	7:FE=90420.0
033	e1012033	SAMPLE	179089-001	101596	Soil	10-MAY-2005 15:53	20.0				2	
034	e1012034	SAMPLE	179089-002	101496	Soil	10-MAY-2005 15:59	5.0	47.17	4	1	2	7:FE=103220
035	e1012035	SAMPLE	179089-003	101496	Soil	10-MAY-2005 16:05	5.0	48.54	2	1	2	5:FE=66160.0
036	e1012036	SAMPLE	179049-001	101496	Soil	10-MAY-2005 16:13	10000	50.51		1	2	1:MN=250.000
037	e1012037	SAMPLE	179127-001	101595	Water	10-MAY-2005 16:19	200.0	1.0	2	1	2	1:AL=280.850
039	e1012039	CCV				10-MAY-2005 16:31	1.0	1.0		1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: _____ Date: 5/10/15

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55187969 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
041	e1012041	CCB				10-MAY-2005 16:43	1.0	1.0	1	2	
042	e1012042	ICSA				10-MAY-2005 16:49	1.0	1.0	1	10 2	7:CA=276800
043	e1012043	ICSAB				10-MAY-2005 16:55	1.0	1.0	1	11 2	7:CA=286800

208

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400

Analyst: Mai Wu Date: 5/19/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1012004	55187969004	cs1	10-MAY-2005 13:05	S395
2	e1012005	55187969005	cs2	10-MAY-2005 13:10	S396
3	e1012006	55187969006	cs3	10-MAY-2005 13:17	S397
4	e1012007	55187969007	cs4	10-MAY-2005 13:22	S398
5	e1012008	55187969008	cs5	10-MAY-2005 13:27	S393
6	e1012009	55187969009	cs6	10-MAY-2005 13:32	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		10.712	6.7709	0.9517	0.5028	0.4918	BLNK	R	-4.36033	2.074629		ug/L	3.8858	0.995	0.995	
Antimony	0.2876	0.2546	0.2225	0.2090	0.2095	0.2169	BLNK	R	-0.07018	4.644182		ug/L	0.2334	1.000	0.995	
Arsenic		0.5280	0.3905	0.3570	0.3513	0.3478	BLNK	R	-0.06208	2.870332		ug/L	0.3949	1.000	0.995	
Barium	0.1811	0.1329	0.1026	0.0805	0.0779	0.0785	BLNK	R	-0.13224	12.77536		ug/L	0.1089	1.000	0.995	
Beryllium	0.1422	0.1503	0.1315	0.1298	0.1284	0.1277	BLNK	R	-0.01571	7.822782		ug/L	0.1350	1.000	0.995	
Cadmium	0.6908	0.5645	0.4479	0.3915	0.3804	0.3756	BLNK	R	-0.18387	2.658232		ug/L	0.4751	1.000	0.995	
Calcium		0.0292	0.0217	0.0157	0.0153	0.0149	BLNK	R	-24.2569	66.90677		ug/L	0.0193	1.000	0.995	
Chromium		4.4142	3.2286	2.2557	2.1569	2.1311	BLNK	R	-0.45918	0.469384		ug/L	2.8373	1.000	0.995	
Cobalt	2.9198	3.0251	2.7510	2.6694	2.6432	2.5722	BLNK	R	-0.01120	0.386636		ug/L	2.7635	1.000	0.995	
Copper		0.9153	0.8357	0.7088	0.6748	0.6600	BLNK	R	-0.09059	1.509025		ug/L	0.7589	1.000	0.995	
Iron		0.1071	0.0832	0.0635	0.0619	0.0599	BLNK	R	-31.0829	16.61212		ug/L	0.0751	1.000	0.995	
Lead	1.1466	0.9977	0.8528	0.7971	0.8192	0.8245	BLNK	R	-0.06798	1.215023		ug/L	0.9063	1.000	0.995	
Magnesium		0.0668	0.0595	0.0618	0.0571	0.0561	BLNK	R	-2.50535	17.75619		ug/L	0.0603	1.000	0.995	
Manganese	6.0529	4.9653	3.9083	3.0542	2.9805	2.8773	BLNK	R	-0.28682	0.345649		ug/L	3.9731	1.000	0.995	
Molybdenum		0.9309	0.8085	0.7393	0.7267	0.7260	BLNK	R	-0.13871	1.378359		ug/L	0.7863	1.000	0.995	
Nickel	0.7661	0.7323	0.6352	0.5875	0.5661	0.5600	BLNK	R	-0.04388	1.782278		ug/L	0.6412	1.000	0.995	
Potassium		1.8070	1.1493	0.5781	0.5076	0.4975	BLNK	R	-114.749	2.015438		ug/L	0.9079	1.000	0.995	
Selenium		0.0836	0.0431	0.0267	0.0241	0.0234	BLNK	R	-0.78675	42.61011		ug/L	0.0402	1.000	0.995	
Silver	2.1378	2.2080	1.9436	1.8861	1.8337	1.8223	BLNK	R	-0.01410	0.548069		ug/L	1.9719	1.000	0.995	
Sodium		0.9207	0.7354	0.5808	0.5484	0.5349	BLNK	R	-18.6668	1.861918		ug/L	0.6640	1.000	0.995	

209

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55187969001 Name: Type: (normal) Date: 10-MAY-2005 13:00 Inj Vol (uL): 1

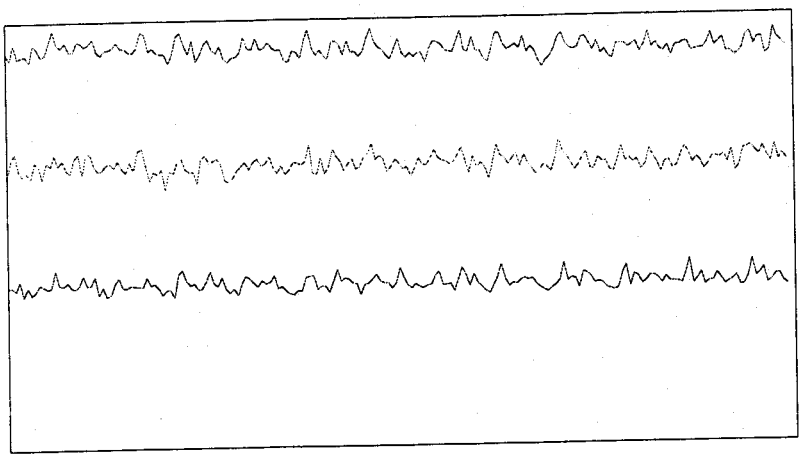
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.6780	0.5820	0.5790	0.6469	0.6384	BLNK	R	-0.04548	1.563002		ug/L	0.6249	1.000	0.995	
Vanadium		3.4462	2.8673	2.4337	2.4514	2.4088	BLNK	R	-0.14209	0.414034		ug/L	2.7215	1.000	0.995	
Zinc		1.7561	1.7658	0.4600	0.3762	0.3604	BLNK	R	-1.56063	2.775817		ug/L	0.9437	0.999	0.995	

210

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



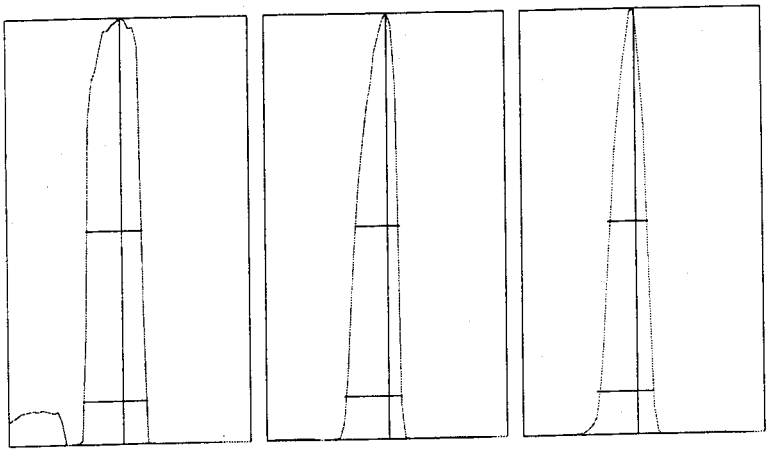
m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	18,256	46,074	65,738
Mean:	19091.0	46502.0	66216.5
RSD%:	4.00	1.97	2.80
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.38%
Doubly Charged: 70/140 0.69%

Background:

m/z:	7	89	205
Cps:	17.5	15.0	21.0



m/z:	7	89	205
Height:	19,050	46,889	75,835
Axis:	6.95	89.05	204.95
W-50%:	0.70	0.55	0.50
W-10%:	0.800	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1240 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.05 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 10, 2005 10:16:54
Printed : May 10, 2005 10:17:00

P/A Factor Tuning Report

Acquired:May 10 2005 10:54 am

Mass[amu]	Element	P/A Factor
6	Li	0.065328
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086211
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096429
45	Sc	0.092462
51	V	0.096363
52	Cr	0.098525
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100421
57	Fe	0.103034
59	Co	0.103706
60	Ni	Sensitivity too low
63	Cu	0.106752
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105166
95	Mo	Sensitivity too low
98	Mo	0.103164
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112480
111	Cd	Sensitivity too low
114	Cd	0.110373
115	In	0.113433
118	(In)	0.111893
121	Sb	0.111500
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118093
166	Er	Sensitivity too low

205	Tl	0.124899
206	(Pb)	0.121288
207	(Pb)	0.120314
208	Pb	0.123932
209	Bi	0.123651
232	Th	0.124893
238	U	0.125077

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 10 2005 11:04 am

Mass[amu]	Element	P/A Factor
6	Li	0.065273
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086619
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097059
45	Sc	0.092805
51	V	0.096569
52	Cr	0.098962
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100792
57	Fe	0.103564
59	Co	0.104107
60	Ni	Sensitivity too low
63	Cu	0.107010
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105253
95	Mo	0.101878
98	Mo	0.103856
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113070
111	Cd	Sensitivity too low
114	Cd	0.110939
115	In	0.113128
118	(In)	0.109043
121	Sb	0.111760
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117772
166	Er	Sensitivity too low

205	Tl	0.125493
206	(Pb)	0.121742
207	(Pb)	0.120976
208	Pb	0.123902
209	Bi	0.123656
232	Th	0.125815
238	U	0.125933

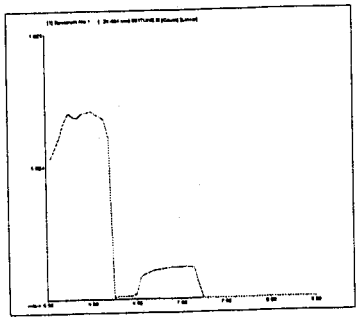
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

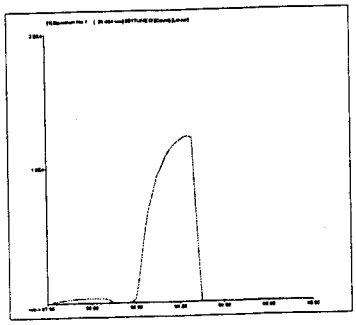
6020 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\001TUNE.D
Date Acquired: May 10 2005 12:49 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

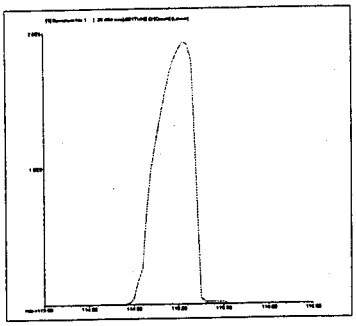
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	0.49	5.00	
115 In	0.64	5.00	
205 Tl	1.44	5.00	





7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



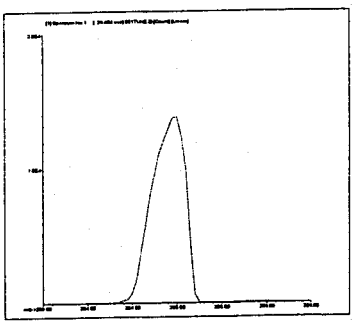
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 10 2005 12:54 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 10 2005 00:04 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.03116	ppb	13.47	-0.03116	1.00	
23 Na	-12.11	ppb	31.16	-12.11	1.00	
26 Mg	-0.7713	ppb	63.69	-0.7713	1.00	
27 Al	3.72	ppb	10.04	3.72	1.00	
39 K	-41.84	ppb	3.19	-41.84	1.00	
44 Ca	5.716	ppb	16.40	5.716	1.00	
51 V	-0.0507	ppb	122.86	-0.0507	1.00	
52 Cr	-0.0812	ppb	13.76	-0.0812	1.00	
55 Mn	0.3018	ppb	10.06	0.3018	1.00	
57 Fe	2.672	ppb	11.55	2.672	1.00	
59 Co	-0.03714	ppb	6.06	-0.03714	1.00	
60 Ni	-0.05275	ppb	8.79	-0.05275	1.00	
65 Cu	-0.05798	ppb	29.13	-0.05798	1.00	
66 Zn	0.09554	ppb	71.04	0.09554	1.00	
75 As	-0.1104	ppb	57.17	-0.1104	1.00	
82 Se	-0.01301	ppb	235.74	-0.01301	1.00	
95 Mo	0.09857	ppb	16.24	0.09857	1.00	
109 Ag	-0.04607	ppb	5.47	-0.04607	1.00	
111 Cd	-0.0972	ppb	19.23	-0.0972	1.00	
121 Sb	-0.04399	ppb	39.83	-0.04399	1.00	
137 Ba	-0.03554	ppb	40.35	-0.03554	1.00	
205 Tl	0.02596	ppb	84.32	0.02596	1.00	
208 Pb	-0.03851	ppb	17.54	-0.03851	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	701103.94	0.68	---	#VALUE!	30 - 200	
45 Sc	896386.63	0.38	---	#VALUE!	30 - 200	
72 Ge	232681.11	0.54	---	#VALUE!	30 - 200	

115 In	1690578.80	0.96	---	#VALUE!	30 - 200
209 Bi	1183699.40	0.85	---	#VALUE!	30 - 200

ISTD Ref File : ---

3 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\003CAL
Date Acquired:	May 10 2005 01:00 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 00:04 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	719657.81	A	1702.00	0.24
9	Be	28.89	P	16.78	58.09
23	Na	191925.59	M	34060.00	17.75
26	Mg	2700.00	P	33.33	1.23
27	Al	40218.89	P	360.30	0.90
39	K	1089581.00	A	16580.00	1.52
44	Ca	6938.21	P	112.10	1.62
45	Sc	956826.81	A	7899.00	0.83
51	V	1659.68	P	209.80	12.64
52	Cr	4728.89	P	75.82	1.60
55	Mn	4010.00	P	235.40	5.87
57	Fe	9043.33	P	236.80	2.62
59	Co	140.00	P	12.02	8.59
60	Ni	118.89	P	25.89	21.78
65	Cu	289.99	P	40.96	14.13
66	Zn	2717.79	P	39.77	1.46
72	Ge	241692.41	P	1586.00	0.66
75	As	105.24	P	208.40	198.02
82	Se	89.31	P	24.05	26.93
95	Mo	486.67	P	92.44	19.00
109	Ag	124.44	P	27.95	22.46
111	Cd	334.51	P	37.33	11.16
115	In	1803737.00	A	16320.00	0.90
121	Sb	545.56	P	141.30	25.90
137	Ba	373.33	P	26.46	7.09
205	Tl	736.67	P	41.63	5.65
208	Pb	1416.67	P	93.87	6.63
209	Bi	1265991.00	A	5816.00	0.46
232	Th	861.11	P	40.32	4.68
238	U	110.00	P	35.12	31.93

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\004CALI.D\004CALI.D#
Date Acquired:	May 10 2005 01:05 pm
Operator:	
Sample Name:	cs1,s395
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 01:02 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698350.88	A	6692.00	0.96
9 Be	496.67	P	35.12	7.07
23 Na	459327.69	P	6024.00	1.31
26 Mg	31054.44	P	502.00	1.62
27 Al	93782.22	P	830.90	0.89
39 K	1369872.00	A	5473.00	0.40
44 Ca	19080.93	P	410.00	2.15
45 Sc	892146.31	A	6087.00	0.68
51 V	4264.46	P	707.70	16.60
52 Cr	7424.44	P	228.90	3.08
55 Mn	6994.44	P	21.43	0.31
57 Fe	16501.11	P	274.70	1.66
59 Co	3374.44	P	85.14	2.52
60 Ni	885.56	P	59.29	6.70
65 Cu	1263.20	P	130.50	10.33
66 Zn	4297.93	P	123.40	2.87
72 Ge	231121.80	P	1849.00	0.80
75 As	549.50	P	161.80	29.45
82 Se	144.18	P	16.91	11.73
95 Mo	1257.78	P	105.50	8.39
109 Ag	2470.00	P	123.40	5.00
111 Cd	798.47	P	49.72	6.23
115 In	1673006.00	A	20080.00	1.20
121 Sb	2406.67	P	135.40	5.63
137 Ba	1514.44	P	80.30	5.30
205 Tl	4577.78	P	174.80	3.82
208 Pb	6927.78	P	179.90	2.60
209 Bi	1208287.00	A	21020.00	1.74
232 Th	1888.89	P	86.43	4.58
238 U	4665.56	P	234.30	5.02

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698350.94	0.96	719657.81	97.0	30 - 200	
45 Sc	892146.31	0.68	956826.81	93.2	30 - 200	
72 Ge	231121.77	0.80	241692.44	95.6	30 - 200	
115 In	1673006.30	1.20	1803736.80	92.8	30 - 200	
209 Bi	1208286.90	1.74	1265990.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\005CALI.D\005CALI.D#
Date Acquired: May 10 2005 01:10 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:07 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699010.81	A	14880.00	2.13
9 Be	1051.11	P	49.14	4.68
23 Na	832864.81	A	6232.00	0.75
26 Mg	60425.55	P	720.90	1.19
27 Al	96897.78	P	996.90	1.03
39 K	1634566.00	A	15450.00	0.95
44 Ca	26390.43	P	462.80	1.75
45 Sc	904599.88	A	4884.00	0.54
51 V	7922.10	P	171.70	2.17
52 Cr	10147.78	P	89.46	0.88
55 Mn	11415.56	P	427.00	3.74
57 Fe	24631.11	P	240.60	0.98
59 Co	6954.44	P	102.90	1.48
60 Ni	1683.33	P	23.09	1.37
65 Cu	2104.18	P	30.25	1.44
66 Zn	4036.97	P	66.59	1.65
72 Ge	229885.30	P	1072.00	0.47
75 As	1213.81	P	32.47	2.68
82 Se	192.06	P	15.31	7.97
95 Mo	2140.00	P	16.67	0.78
109 Ag	5075.56	P	92.52	1.82
111 Cd	1297.52	P	68.34	5.27
115 In	1696747.00	A	14150.00	0.83
121 Sb	4321.11	P	244.10	5.65
137 Ba	2255.56	P	26.94	1.19
205 Tl	8311.11	P	287.20	3.46
208 Pb	12226.67	P	136.90	1.12
209 Bi	1225669.00	A	21630.00	1.76
232 Th	3423.33	P	308.90	9.02
238 U	9805.55	P	143.70	1.47

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699010.75	2.13	719657.81	97.1	30 - 200	
45 Sc	904599.88	0.54	956826.81	94.5	30 - 200	
72 Ge	229885.33	0.47	241692.44	95.1	30 - 200	
115 In	1696747.10	0.83	1803736.80	94.1	30 - 200	
209 Bi	1225669.40	1.76	1265990.80	96.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\006CALI.D\006CALI.D#
Date Acquired: May 10 2005 01:17 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	703836.13	A	3699.00	0.53
9 Be	1851.11	P	13.88	0.75
23 Na	1331068.00	A	6839.00	0.51
26 Mg	107675.50	P	791.70	0.74
27 Al	122551.10	P	412.70	0.34
39 K	2080276.00	A	26130.00	1.26
44 Ca	39283.22	P	200.20	0.51
45 Sc	905068.38	A	9445.00	1.04
51 V	13224.89	P	690.50	5.22
52 Cr	14888.89	P	391.00	2.63
55 Mn	18022.22	P	243.20	1.35
57 Fe	38377.78	P	577.80	1.51
59 Co	12686.67	P	241.30	1.90
60 Ni	2928.89	P	121.20	4.14
65 Cu	3853.98	P	85.66	2.22
66 Zn	8142.76	P	243.30	2.99
72 Ge	230570.70	P	1520.00	0.66
75 As	1800.98	P	39.83	2.21
82 Se	198.82	P	29.94	15.06
95 Mo	3728.89	P	128.80	3.45
109 Ag	8963.33	P	243.90	2.72
111 Cd	2065.61	P	160.80	7.78
115 In	1690616.00	A	19740.00	1.17
121 Sb	7525.56	P	220.70	2.93
137 Ba	3467.78	P	59.29	1.71
205 Tl	13907.78	P	496.50	3.57
208 Pb	20371.11	P	279.70	1.37
209 Bi	1194525.00	A	11760.00	0.98
232 Th	5810.00	P	316.30	5.44
238 U	16753.33	P	317.20	1.89

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	703836.13	0.53	719657.81	97.8	30 - 200	
45 Sc	905068.38	1.04	956826.81	94.6	30 - 200	
72 Ge	230570.67	0.66	241692.44	95.4	30 - 200	
115 In	1690615.60	1.17	1803736.80	93.7	30 - 200	
209 Bi	1194524.50	0.98	1265990.80	94.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\007CALI.D\007CALI.D#
Date Acquired: May 10 2005 01:22 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	698230.13	A	4940.00	0.71
9 Be	18122.22	P	154.40	0.85
23 Na	10502480.00	A	101600.00	0.97
26 Mg	1116637.00	A	6260.00	0.56
27 Al	172081.09	P	447.80	0.26
39 K	10453720.00	A	104000.00	0.99
44 Ca	283507.19	P	3509.00	1.24
45 Sc	904146.31	A	8540.00	0.94
51 V	112371.20	P	2790.00	2.48
52 Cr	104144.40	P	1065.00	1.02
55 Mn	141006.70	P	1407.00	1.00
57 Fe	293033.31	P	4126.00	1.41
59 Co	123247.80	P	2094.00	1.70
60 Ni	27125.55	P	528.40	1.95
65 Cu	32724.14	P	529.20	1.62
66 Zn	21234.47	P	100.10	0.47
72 Ge	230841.80	P	2197.00	0.95
75 As	16483.39	P	428.10	2.60
82 Se	1235.04	P	32.56	2.64
95 Mo	34135.56	P	585.50	1.72
109 Ag	87083.33	P	1895.00	2.18
111 Cd	18076.90	P	723.00	4.00
115 In	1672252.00	A	12460.00	0.75
121 Sb	69888.88	P	1077.00	1.54
137 Ba	26923.33	P	410.40	1.52
205 Tl	138774.41	P	5630.00	4.06
208 Pb	190987.80	P	4471.00	2.34
209 Bi	1198065.00	A	34230.00	2.86
232 Th	74003.33	P	1018.00	1.38
238 U	170760.00	P	4648.00	2.72

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	698230.13	0.71	719657.81	97.0	30 - 200	
45 Sc	904146.31	0.94	956826.81	94.5	30 - 200	
72 Ge	230841.77	0.95	241692.44	95.5	30 - 200	
115 In	1672252.10	0.75	1803736.80	92.7	30 - 200	
209 Bi	1198064.60	2.86	1265990.80	94.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1012a.B\008CALI.D\008CALI.D#
Date Acquired: May 10 2005 01:27 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	699749.88	A	8396.00	1.20
9 Be	179666.70	P	1754.00	0.98
23 Na	100785300.00	A	653100.00	0.65
26 Mg	10492970.00	A	80140.00	0.76
27 Al	924061.81	A	12600.00	1.36
39 K	93293584.00	A	766800.00	0.82
44 Ca	2805459.00	A	39840.00	1.42
45 Sc	918942.69	A	7217.00	0.79
51 V	1144253.00	A	25920.00	2.27
52 Cr	1006779.00	A	18680.00	1.86
55 Mn	1391212.00	A	24870.00	1.79
57 Fe	2888783.00	A	37060.00	1.28
59 Co	1233744.00	A	10770.00	0.87
60 Ni	264221.09	P	2341.00	0.89
65 Cu	314983.09	P	6123.00	1.94
66 Zn	175570.20	P	1374.00	0.78
72 Ge	233375.80	P	940.20	0.40
75 As	163957.50	P	2287.00	1.39
82 Se	11253.83	P	103.20	0.92
95 Mo	339165.50	P	3375.00	1.00
109 Ag	855902.19	P	13560.00	1.58
111 Cd	177562.20	P	2959.00	1.67
115 In	1662089.00	A	15180.00	0.91
121 Sb	696540.00	P	10150.00	1.46
137 Ba	258810.00	P	4673.00	1.81
205 Tl	1514719.00	A	25830.00	1.71
208 Pb	1918263.00	A	19400.00	1.01
209 Bi	1170810.00	A	7189.00	0.61
232 Th	1603621.00	A	73670.00	4.59
238 U	1870409.00	A	82290.00	4.40

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	699749.94	1.20	719657.81	97.2	30 - 200	
45 Sc	918942.69	0.79	956826.81	96.0	30 - 200	
72 Ge	233375.77	0.40	241692.44	96.6	30 - 200	
115 In	1662089.30	0.91	1803736.80	92.1	30 - 200	
209 Bi	1170810.50	0.61	1265990.80	92.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1012a.B\009CALI.D\009CALI.D#
Date Acquired:	May 10 2005 01:32 pm
Operator:	
Sample Name:	cs6,s394
Misc Info:	
Vial Number:	1107
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 10 2005 01:29 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	696458.81	A	2195.00	0.32
9 Be	355763.31	P	4299.00	1.21
23 Na	195593790.00	A	1676000.00	0.86
26 Mg	20520950.00	A	125100.00	0.61
27 Al	1798230.00	A	9012.00	0.50
39 K	181916700.00	A	1782000.00	0.98
44 Ca	5445574.00	A	41320.00	0.76
45 Sc	914124.38	A	3346.00	0.37
51 V	2229676.00	A	37870.00	1.70
52 Cr	1972506.00	A	17300.00	0.88
55 Mn	2663152.00	A	19950.00	0.75
57 Fe	5545234.00	A	47970.00	0.87
59 Co	2380822.00	A	22700.00	0.95
60 Ni	518287.69	P	5007.00	0.97
65 Cu	610870.63	P	3499.00	0.57
66 Zn	333554.81	P	3904.00	1.17
72 Ge	231395.59	P	1736.00	0.75
75 As	321932.81	P	2251.00	0.70
82 Se	21699.04	P	318.60	1.47
95 Mo	671982.19	P	15500.00	2.31
109 Ag	1686766.00	A	26260.00	1.56
111 Cd	347695.91	P	6167.00	1.77
115 In	1627808.00	A	29630.00	1.82
121 Sb	1412049.00	A	9677.00	0.69
137 Ba	510754.41	P	8315.00	1.63
205 Tl	2929376.00	A	45530.00	1.55
208 Pb	3783427.00	A	65130.00	1.72
209 Bi	1147209.00	A	19820.00	1.73
232 Th	3720604.00	A	23790.00	0.64
238 U	3700491.00	A	29660.00	0.80

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	696458.75	0.32	719657.81	96.8	30 - 200	
45 Sc	914124.44	0.37	956826.81	95.5	30 - 200	
72 Ge	231395.56	0.75	241692.44	95.7	30 - 200	
115 In	1627807.60	1.82	1803736.80	90.2	30 - 200	
209 Bi	1147209.40	1.73	1265990.80	90.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1012a.B\003CALB.D\003CALB.D#

--- :Element Failures
0 :ISTD Failures

--- :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 10, 2005 13:34
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1012a.b\003calb.d\	003calb.d#	May 10 2005 01:00 pm
2	...hem\1\data\05e1012a.b\004cali.d\	004cali.d#	May 10 2005 01:05 pm
3	...hem\1\data\05e1012a.b\005cali.d\	005cali.d#	May 10 2005 01:10 pm
4	...hem\1\data\05e1012a.b\006cali.d\	006cali.d#	May 10 2005 01:17 pm
5	...hem\1\data\05e1012a.b\007cali.d\	007cali.d#	May 10 2005 01:22 pm
6	...hem\1\data\05e1012a.b\008cali.d\	008cali.d#	May 10 2005 01:27 pm
7	...hem\1\data\05e1012a.b\009cali.d\	009cali.d#	May 10 2005 01:32 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.278E-1*X +2.008E-3(blank)	---	ppb
Na	23	45	Y = 5.371E-1*X +1.003E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.632E-2*X +1.411E-1(blank)	---	ppb
Al	27	45	Y = 4.820E-1*X +2.102E+0(blank)	---	ppb
K	39	45	Y = 4.962E-1*X +5.694E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.495E-2*X +3.625E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.415E+0*X +3.432E-1(blank)	---	ppb
Cr	52	72	Y = 2.130E+0*X +9.783E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.893E+0*X +8.298E-1(blank)	---	ppb
Fe	57	72	Y = 6.020E-2*X +1.871E+0(blank)	---	ppb
Co	59	72	Y = 2.586E+0*X +2.896E-2(blank)	---	ppb
Ni	60	72	Y = 5.611E-1*X +2.462E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.627E-1*X +6.003E-2(blank)	---	ppb
Zn	66	72	Y = 3.603E-1*X +5.622E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.484E-1*X +2.163E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.347E-2*X +1.846E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 7.255E-1*X +1.006E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.825E+0*X +2.572E-2(blank)	---	ppb
Cd	111	72	Y = 3.762E-1*X +6.917E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.153E-1*X +1.511E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 7.828E-2*X +1.035E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.398E-1*X +2.910E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.230E-1*X +5.595E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969010
Calnum : 55187969001
Standards: S399

Run Name :
Filename : e1012010
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 13:37
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max Flags
Aluminum	100.0000	102.7000	ug/L	3	10
Antimony	100.0000	98.25000	ug/L	-2	10
Arsenic	100.0000	100.5000	ug/L	1	10
Barium	100.0000	98.57000	ug/L	-1	10
Beryllium	100.0000	99.06000	ug/L	-1	10
Cadmium	100.0000	101.4000	ug/L	1	10
Calcium	10000.00	10180.00	ug/L	2	10
Chromium	100.0000	100.4000	ug/L	0	10
Cobalt	100.0000	101.7000	ug/L	2	10
Copper	100.0000	101.8000	ug/L	2	10
Iron	10000.00	10170.00	ug/L	2	10
Lead	100.0000	99.03000	ug/L	-1	10
Magnesium	10000.00	10150.00	ug/L	2	10
Manganese	100.0000	101.6000	ug/L	2	10
Molybdenum	100.0000	100.2000	ug/L	0	10
Nickel	100.0000	99.80000	ug/L	0	10
Potassium	10000.00	10070.00	ug/L	1	10
Selenium	100.0000	101.5000	ug/L	2	10
Silver	100.0000	100.6000	ug/L	1	10
Sodium	10000.00	10140.00	ug/L	1	10
Thallium	100.0000	101.1000	ug/L	1	10
Vanadium	100.0000	100.3000	ug/L	0	10
Zinc	100.0000	102.6000	ug/L	3	10

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	724674	0.70
Scandium	956827	924461	-3.38
Germanium	241692	233548	-3.37
Indium	1803737	1679520	-6.89
Bismuth	1265991	1183198	-6.54

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969012
Standards: 05WS0207

Run Name :
Filename : e1012012

Injected : 10-MAY-2005 13:49

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	0.327900	0.250000	ug/L	ib ***
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[12.610]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55187969013 Filename : e1012013 Injected : 10-MAY-2005 13:55
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.360000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	1.056000	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.964200	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0126]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	0.385600	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.854000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	3.136000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	2.143000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.195000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	1.415000	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.978000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	0.729100	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	0.272700	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.1355]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.7444]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	4.254000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	83970	ug/L	84
Calcium	55187969001	10-MAY-2005	300000	291100	ug/L	97
Iron	55187969001	10-MAY-2005	250000	236500	ug/L	95
Magnesium	55187969001	10-MAY-2005	100000	93180	ug/L	93
Molybdenum	55187969001	10-MAY-2005	2000	1899	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	94190	ug/L	94
Sodium	55187969001	10-MAY-2005	250000	220600	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969014
Calnum : 55187969001
Standards: S402, 05WS0207

Run Name :
Filename : e1012014
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 14:01
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	82720.00	ug/L	-17		
Arsenic	100.0000	107.3000	ug/L	7	20	
Cadmium	100.0000	97.02000	ug/L	-3	20	
Calcium	300000.0	291200.0	ug/L	-3		
Chromium	200.0000	202.6000	ug/L	1	20	
Cobalt	200.0000	201.4000	ug/L	1	20	
Copper	200.0000	192.3000	ug/L	-4	20	
Iron	250000.0	236700.0	ug/L	-5		
Magnesium	100000.0	92020.00	ug/L	-8		
Manganese	200.0000	207.8000	ug/L	4	20	
Molybdenum	2000.000	1904.000	ug/L	-5		
Nickel	200.0000	193.8000	ug/L	-3	20	
Potassium	100000.0	93640.00	ug/L	-6		
Selenium	100.0000	98.99000	ug/L	-1	20	
Silver	50.00000	47.93000	ug/L	-4	20	
Sodium	250000.0	219600.0	ug/L	-12		
Vanadium	200.0000	208.2000	ug/L	4	20	
Zinc	100.0000	97.23000	ug/L	-3	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	869228	-9.16
Germanium	241692	222192	-8.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969026
Calnum : 55187969001
Standards: S403, 05WS0207

Run Name :
Filename : e1012026
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 15:12
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4635	150.0000	139.9000	ug/L	-7	10	
Antimony	0.2334	0.2062	150.0000	143.6000	ug/L	-4	10	
Arsenic	0.3949	0.3410	150.0000	146.7000	ug/L	-2	10	
Barium	0.1089	0.0757	150.0000	144.9000	ug/L	-3	10	
Beryllium	0.1350	0.1251	150.0000	146.7000	ug/L	-2	10	
Cadmium	0.4751	0.3607	150.0000	143.7000	ug/L	-4	10	
Calcium	0.0193	0.0147	15000.00	14720.00	ug/L	-2	10	
Chromium	2.8373	2.0713	150.0000	145.4000	ug/L	-3	10	
Cobalt	2.7635	2.5246	150.0000	146.4000	ug/L	-2	10	
Copper	0.7589	0.6495	150.0000	146.9000	ug/L	-2	10	
Iron	0.0751	0.0588	15000.00	14610.00	ug/L	-3	10	
Lead	0.9063	0.8028	150.0000	146.2000	ug/L	-3	10	
Magnesium	0.0603	0.0535	15000.00	14240.00	ug/L	-5	10	
Manganese	3.9731	2.8529	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.7863	0.7031	150.0000	145.2000	ug/L	-3	10	
Nickel	0.6412	0.5444	150.0000	145.5000	ug/L	-3	10	
Potassium	0.9079	0.4849	15000.00	14540.00	ug/L	-3	10	
Selenium	0.0402	0.0229	150.0000	145.8000	ug/L	-3	10	
Silver	1.9719	1.7857	150.0000	146.8000	ug/L	-2	10	
Sodium	0.6640	0.5123	15000.00	14290.00	ug/L	-5	10	
Thallium	0.6249	0.6323	150.0000	148.2000	ug/L	-1	10	
Vanadium	2.7215	2.3631	150.0000	146.6000	ug/L	-2	10	
Zinc	0.9437	0.3538	150.0000	145.8000	ug/L	-3	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	664033	-7.73
Scandium	956827	929219	-2.89
Germanium	241692	235124	-2.72
Indium	1803737	1649355	-8.56
Bismuth	1265991	1123687	-11.24

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969028
Standards: 05WS0207

Run Name :
Filename : e1012028

Injected : 10-MAY-2005 15:24

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.2432]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	[0.0701]	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[8.2720]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969039
Calnum : 55187969001
Standards: S400, 05WS0207

Run Name :
Filename : e1012039
Caldate : 10-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 16:31
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.8858	0.4979	100.0000	98.94000	ug/L	-1	10	
Antimony	0.2334	0.2072	100.0000	96.16000	ug/L	-4	10	
Arsenic	0.3949	0.3473	100.0000	99.63000	ug/L	0	10	
Barium	0.1089	0.0771	100.0000	98.34000	ug/L	-2	10	
Beryllium	0.1350	0.1269	100.0000	99.29000	ug/L	-1	10	
Cadmium	0.4751	0.3872	100.0000	102.7000	ug/L	3	10	
Calcium	0.0193	0.0153	10000.00	10220.00	ug/L	2	10	
Chromium	2.8373	2.1399	100.0000	99.98000	ug/L	0	10	
Cobalt	2.7635	2.6100	100.0000	100.9000	ug/L	1	10	
Copper	0.7589	0.6661	100.0000	100.4000	ug/L	0	10	
Iron	0.0751	0.0611	10000.00	10120.00	ug/L	1	10	
Lead	0.9063	0.8236	100.0000	100.0000	ug/L	0	10	
Magnesium	0.0603	0.0560	10000.00	9942.000	ug/L	-1	10	
Manganese	3.9731	2.9336	100.0000	101.1000	ug/L	1	10	
Molybdenum	0.7863	0.7370	100.0000	101.4000	ug/L	1	10	
Nickel	0.6412	0.5586	100.0000	99.51000	ug/L	0	10	
Potassium	0.9079	0.5059	10000.00	10080.00	ug/L	1	10	
Selenium	0.0402	0.0240	100.0000	101.5000	ug/L	2	10	
Silver	1.9719	1.8761	100.0000	102.8000	ug/L	3	10	
Sodium	0.6640	0.5306	10000.00	9860.000	ug/L	-1	10	
Thallium	0.6249	0.6496	100.0000	101.5000	ug/L	2	10	
Vanadium	2.7215	2.4411	100.0000	100.9000	ug/L	1	10	
Zinc	0.9437	0.3683	100.0000	100.7000	ug/L	1	10	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Lithium	719658	618084	-14.11
Scandium	956827	826860	-13.58
Germanium	241692	211718	-12.40
Indium	1803737	1585924	-12.08
Bismuth	1265991	1137926	-10.12

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969041
Standards: 05WS0207

Run Name :
Filename : e1012041

Injected : 10-MAY-2005 16:43

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55187969001	10-MAY-2005	[0.1232]	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55187969001	10-MAY-2005	[7.3160]	50.00000	ug/L	
Lead	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55187969001	10-MAY-2005	[20.830]	50.00000	ug/L	
Selenium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55187969001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55187969001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55187969042 Filename : e1012042 Injected : 10-MAY-2005 16:49
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55187969001	10-MAY-2005	2.084000	0.250000	ug/L	
Arsenic	55187969001	10-MAY-2005	0.708900	0.500000	ug/L	
Barium	55187969001	10-MAY-2005	0.851300	0.250000	ug/L	
Beryllium	55187969001	10-MAY-2005	[0.0141]	0.250000	ug/L	
Cadmium	55187969001	10-MAY-2005	[0.1545]	0.250000	ug/L	
Chromium	55187969001	10-MAY-2005	1.223000	0.500000	ug/L	
Cobalt	55187969001	10-MAY-2005	2.494000	0.250000	ug/L	
Copper	55187969001	10-MAY-2005	1.475000	0.500000	ug/L	
Lead	55187969001	10-MAY-2005	1.100000	0.250000	ug/L	
Manganese	55187969001	10-MAY-2005	0.771300	0.250000	ug/L	
Nickel	55187969001	10-MAY-2005	1.369000	0.250000	ug/L	
Selenium	55187969001	10-MAY-2005	[0.4094]	0.500000	ug/L	
Silver	55187969001	10-MAY-2005	[0.1428]	0.250000	ug/L	
Thallium	55187969001	10-MAY-2005	[0.0358]	0.500000	ug/L	
Vanadium	55187969001	10-MAY-2005	[0.2481]	1.000000	ug/L	
Zinc	55187969001	10-MAY-2005	2.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55187969001	10-MAY-2005	100000	78490	ug/L	78
Calcium	55187969001	10-MAY-2005	300000	276800	ug/L	92
Iron	55187969001	10-MAY-2005	250000	223700	ug/L	89
Magnesium	55187969001	10-MAY-2005	100000	86300	ug/L	86
Molybdenum	55187969001	10-MAY-2005	2000	1901	ug/L	95
Potassium	55187969001	10-MAY-2005	100000	89540	ug/L	90
Sodium	55187969001	10-MAY-2005	250000	205000	ug/L	82

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55187969043
Calnum : 55187969001
Standards: S402, 05WS0207

Run Name :
Filename : e1012043
Caldate : 10-MAY-2005

Injected : 10-MAY-2005 16:55
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	80920.00	ug/L	-19		
Arsenic	100.0000	103.6000	ug/L	4	20	
Cadmium	100.0000	98.05000	ug/L	-2	20	
Calcium	300000.0	286800.0	ug/L	-4		
Chromium	200.0000	193.2000	ug/L	-3	20	
Cobalt	200.0000	190.2000	ug/L	-5	20	
Copper	200.0000	181.4000	ug/L	-9	20	
Iron	250000.0	225400.0	ug/L	-10		
Magnesium	100000.0	89150.00	ug/L	-11		
Manganese	200.0000	193.7000	ug/L	-3	20	
Molybdenum	2000.000	1933.000	ug/L	-3		
Nickel	200.0000	183.5000	ug/L	-8	20	
Potassium	100000.0	92940.00	ug/L	-7		
Selenium	100.0000	96.54000	ug/L	-3	20	
Silver	50.00000	48.60000	ug/L	-3	20	
Sodium	250000.0	210800.0	ug/L	-16		
Vanadium	200.0000	198.2000	ug/L	-1	20	
Zinc	100.0000	90.26000	ug/L	-10	20	

ISTD (ICALBLK=e1012003)	ICALBLK Abund	Abund	%Diff
Scandium	956827	792702	-17.15
Germanium	241692	203815	-15.67

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 14:50

Batch Number : 101496
Date Extracted: 27-APR-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH	Clean D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178846-001			Mactec, Inc.	Soil	.98	g	50	51.020408		1				T26/ICP		
178846-002			Mactec, Inc.	Soil	1	g	50	50.000000		1				T26/ICP		mss
178951-001			Mactec, Inc.	Soil	1.17	g	50	42.735043		1				T26/ICP		
178951-002			Mactec, Inc.	Soil	1.35	g	50	37.037037		1				T26/ICP		
178951-003			Mactec, Inc.	Soil	1.13	g	50	44.247788		1				T26/ICP		
178951-004			Mactec, Inc.	Soil	1.59	g	50	31.446541		1				T26/ICP		
179049-001			Mactec, Inc.	Soil	.99	g	50	50.505051		1				T26/ICP		
179076-040			Fugro West, Inc.	Soil	1.48	g	50	33.783784		1				PB		
179076-041			Fugro West, Inc.	Soil	1.39	g	50	35.971223		1				PB		
179076-042			Fugro West, Inc.	Soil	1.5	g	50	33.333333		1				PB		
179076-043			Fugro West, Inc.	Soil	.99	g	50	50.505051		1				PB		
179089-001			Mactec, Inc.	Soil	1.21	g	50	41.322314		1				T26/ICP		
179089-002			Mactec, Inc.	Soil	1.06	g	50	47.169811		1				T26/ICP		
179089-003			Mactec, Inc.	Soil	1.03	g	50	48.543689		1				T26/ICP		
QC291742	BLANK			Soil	1	g	50	50.000000		1				ICAP		
QC291743	BS			Soil	1	g	50	50.000000		1	.25	.25		ICAP		
QC291744	BSD			Soil	1	g	50	50.000000		1	.25	.25		ICAP		
QC291745	MS	of 178846-002		Soil	1.07	g	50	46.728972		1	.25	.25		ICAP		
QC291746	MSD	of 178846-002		Soil	1.32	g	50	37.878788		1	.25	.25		ICAP		
QC291747	SER	of 178846-002		Soil	1	g	50	50.000000		1				ICAP		
QC291748	PDS	of 178846-002		Soil	1	g	50	50.000000		1				ICAP		

245

Prep Chemist: _____ Reviewed By: _____ Date: 5/9/05

Relinquished By: _____ Received By: _____ Date: 5/9/05

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 101496
Date Digested: 4/26/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2103
Page 84

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK QC 291742		Ø	50.0	Y	
*	BS 291743		↓	↓	↓	
*	BSD 291744		↓	↓	↓	
*	179846-002MS	A	1.09	↓	↓	
*	-002MSD	↓	1.32	↓	↓	
	001	↓	0.98	↓	↓	
	002	↓	1.00	↓	↓	WSS
	178951-001	A	1.17	↓	↓	
	-002	↓	1.35	↓	↓	
10	-003	↓	1.13	↓	↓	
	-004	↓	1.59	↓	↓	
	179049-001	B	0.99	↓	↓	
	179046-010	A	1.48	↓	↓	
	-011	↓	1.39	↓	↓	
15	-012	↓	1.50	↓	↓	
	-013	↓	0.99	↓	↓	
	179081-001	A	1.21	↓	↓	
	-002	↓	1.06	↓	↓	
	-003	↓	1.03	↓	↓	
20						

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	93.4°C	VV 4/26/05
0.25 mL of spike solution was added to all spikes	04S527 *	
	04S528 *	
1:1 HNO3	AH8046-042105	
concentrated HNO3	AH8046 - JTBaker	
3mL 30% hydrogen peroxide	43287414 - V.W.R	
concentrated HCl	BD1038 - JTBaker	
☒ filtered thru' Whatman # 541		

Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

	IS1 (LI READING)	IS2 (SC READING)	IS3 (GE READING)	IS4 (IN READING)	IS5 (BI READING)	IS6 (TB READING)
ICALBLK STD	383256	566573	161713	1281904	1275587	1961549
LOWER LIMIT	114977	169972	48514	384571	382676	588465
UPPER LIMIT	459907	679888	194055	1538285	1530704	2353859

TYPE	SAMPLE	#						
ICB		012	398133	574338	165050	1295852	1262491	1986107
ICSA		013	346568	585480	165964	1206572	1034302	1885660
SER	QC291792	016	360601	574226	166189	1313972	1264223	1992797
MS	QC291790	017	357271	563392	161951	1250233	1207732	1944941
MSD	QC291791	018	360728	566869	163110	1255236	1222275	1952234
SAMPLE	179075-004	019	367478	568523	164798	1288704	1247558	1958562
SAMPLE	179075-006	020	367643	563823	163071	1287136	1263627	1974646
SAMPLE	179075-007	021	366643	570946	164159	1283858	1243530	1953644
SAMPLE	179075-011	022	373348	566936	165290	1287274	1246271	1978536
SAMPLE	179075-012	023	363108	562751	161001	1275896	1251362	1958231
CCV		025	373026	561004	161836	1264407	1249023	1999038
CCB		027	374726	557619	161013	1301082	1256526	1972729
SAMPLE	179075-013	028	367557	543752	158800	1252376	1225482	1956790
SAMPLE	179075-018	029	370487	555821	161480	1276264	1250542	1955957
CCV		031	368057	555167	161141	1267241	1237819	1955994
CCB		033	379843	559887	159132	1300645	1273674	1985667
ICSA		034	335479	563166	161577	1218668	1087887	1960268
MSS	179132-001	037	363368	580241	168272	1326575	1254419	2023380
SER	QC292313	038	380880	570299	165743	1338897	1303881	2013562
MS	QC292311	039	364544	555633	160719	1290844	1270339	1998090
MSD	QC292312	040	393580	609664	174058	1420429	1365235	2194455
SAMPLE	179132-006	041	389358	581682	167543	1348341	1299880	2079257
SAMPLE	179132-015	042	377470	565529	162974	1314638	1278674	2034845
SAMPLE	179132-016	043	400273	584930	170556	1374132	1362137	2079434
SAMPLE	179132-017	044	398669	576126	167928	1364855	1355156	2097381
CCV		046	371734	544232	158308	1276514	1283726	2019984
CCB		048	390733	573322	164831	1351990	1325322	2052989
BLANK	QC292136	053	406942	576746	165847	1344710	1337139	2051303

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

TYPE	SAMPLE	#						
CCV		061	364584	549159	158082	1258859	1233783	1958603
CCB		063	387047	566878	163345	1316900	1277659	2010396
CCV		073	380148	554670	160863	1296859	1288713	2034156
CCB		075	397508	581142	167853	1366726	1319500	2068160
ICSA		076	328713	543652	158612	1217096	1122198	1981217
CCV		090	332344	500594	147515	1196146	1218836	1910741
CCB		092	336386	514294	147596	1252830	1252315	1919669
ICSA		101	354346	616516	175729	1330694	1060028	1998550
CCV		104	354034	572106	167746	1353822	1244487	2034989
CCB		106	345220	541652	158905	1326647	1266398	1989079
BLANK	QC291742	108	321933	507433	147220	1247176	1219502	1887856
CCV		119	327369	503498	148418	1233456	1161755	1910155
CCB		121	351012	546596	158826	1340551	1260259	2008652
CCV		133	290486	426922	127442	1121490	1113799	1786266
CCB		135	290358	415531	122110	1105488	1103286	1719875
CCV		147	295190	430569	127088	1117565	1051484	1730252
CCB		149	306470	438276	128199	1164919	1098012	1755235
BLANK	QC292252	160	295062	433876	128080	1150518	1056366	1733581
CCV		162	290333	433501	127988	1129581	973668	1716457
CCB		164	298951	437758	128840	1159844	1020075	1716228
CCV		176	282773	434472	127616	1110413	869999	1663666
CCB		178	311364	475987	137998	1239853	1003583	1800998
ICSA		186	266251	437644	127903	1099918	861462	1734148
CCV		189	273038	415113	125004	1128861	1063109	1747302
CCB		191	280867	413918	123256	1141761	1086930	1735234

248

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005
Sequence: 55187969 (e1012)
Instrument ID: MET05

ICALBLK Filename: e1012003
Date Analyzed: 10-MAY-2005
Time Analyzed: 13:00

	IS1 (LI READING)	IS2 (SC READING)	IS3 (GE READING)	IS4 (IN READING)	IS5 (BI READING)	IS6 (TB READING)
ICALBLK STD	719658	956827	241692	1803737	1265991	2281899
LOWER LIMIT	215897	287048	72508	541121	379797	684570
UPPER LIMIT	863589	1148192	290031	2164484	1519189	2738279

TYPE	SAMPLE	#						
ICB		012	712709	916999	228138	1690859	1215197	2197753
ICSA		013	629058	901590	225056	1508287	991906	2062292
SAMPLE	178951-001	017	653026	890522	228240	1674047	1213023	2174446
SAMPLE	178951-002	018	622557	1131762	216440	1513159	1056537	2091502
SAMPLE	178951-002	019	666065	884232	227704	1670852	1206732	2175138
SAMPLE	179156-002	020	670040	893672	229908	1658303	1148477	2114972
SAMPLE	179076-043	021	681177	904249	229505	1645155	1169916	2111839
SAMPLE	179141-013	022	656556	922910	228869	1620694	1069712	2099409
SAMPLE	179127-001	023	692427	937373	235115	1707105	1169855	2181533
CCV		026	664033	929219	235124	1649355	1123687	2126752
CCB		028	685876	922069	233240	1707399	1189703	2142381
SAMPLE	178951-003	029	690300	974177	239059	1712926	1201680	2179279
SAMPLE	178951-004	030	687869	946272	236592	1700682	1156930	2110386
SAMPLE	179049-001	031	668755	913591	232519	1634499	1101671	2040530
SAMPLE	179089-001	032	663602	1162729*	231096	1645486	1135062	2172600
SAMPLE	179089-002	034	647549	1147533	219515	1579078	1140361	2135996
SAMPLE	179089-003	035	635380	971456	211907	1586246	1164627	2121389
SAMPLE	179049-001	036	619394	828272	211681	1604933	1178732	2095415
SAMPLE	179127-001	037	621213	822592	211321	1596592	1173582	2084737
CCV		039	618084	826860	211718	1585924	1137926	2118222
CCB		041	622750	818589	210138	1580701	1114455	2022076
ICSA		042	569684	831662	206070	1497884	1013382	2100172

* = Outside QC Limits

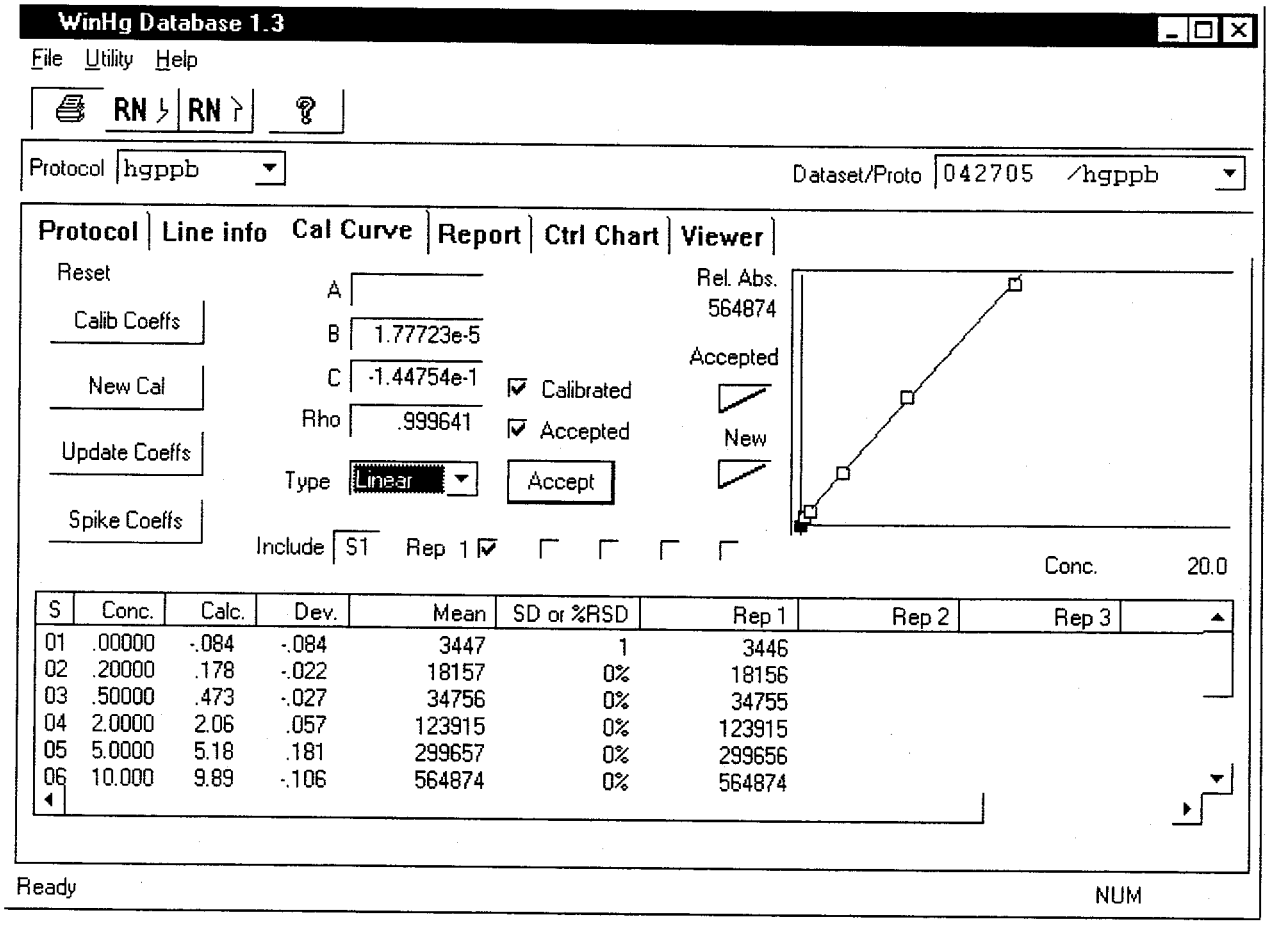
SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45169221 Instrument: MET04 HydraAA HG Analyzer Begun: 27-APR-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101514	ICALBLK	Std01Rep1				27-APR-2005 12:21	1.0	1.0									
002	101514	ICAL	Std02Rep1				27-APR-2005 12:24	1.0	1.0									
003	101514	ICAL	Std03Rep1				27-APR-2005 12:26	1.0	1.0									
004	101514	ICAL	Std04Rep1				27-APR-2005 12:29	1.0	1.0									
005	101514	ICAL	Std05Rep1				27-APR-2005 12:31	1.0	1.0									
006	101514	ICAL	Std06Rep1				27-APR-2005 12:34	1.0	1.0									
007	101514	ICV					27-APR-2005 12:52	1.0	1.0	2	5.000	45169221001	5.140		ug/L	103		
008	101514	ICB					27-APR-2005 12:54	1.0	1.0			45169221001	ND	0.20	ug/L			
009	101514	BLANK	QC291819		101514	Soil	27-APR-2005 12:57	1.0	100.0			45169221001	ND	0.020	mg/Kg			u
010	101514	BS	QC291820		101514	Soil	27-APR-2005 12:59	1.0	100.0		0.5000	45169221001	0.5500	0.020	mg/Kg	110		u
011	101514	BSD	QC291821		101514	Soil	27-APR-2005 13:02	1.0	100.0		0.5000	45169221001	0.5330	0.020	mg/Kg	107	3	u
012	101514	MSS	179089-001		101514	Soil	27-APR-2005 13:05	1.0	98.04			45169221001	0.041	0.020	mg/Kg			u
013	101514	MS	QC291822	179089-001	101514	Soil	27-APR-2005 13:07	1.0	116.3		0.5814	45169221001	0.6372	0.023	mg/Kg	103		u
014	101514	MSD	QC291823	179089-001	101514	Soil	27-APR-2005 13:09	1.0	119.0		0.5952	45169221001	0.6464	0.024	mg/Kg	102	1	u
015	101514	SAMPLE	178065-008		101514	Soil	27-APR-2005 13:12	1.0	100.0			45169221001	0.0051 J	0.020	mg/Kg			u
016	101514	SAMPLE	179089-002		101514	Soil	27-APR-2005 13:15	1.0	80.65			45169221001	0.049	0.016	mg/Kg			u
017	101514	SAMPLE	179089-003		101514	Soil	27-APR-2005 13:17	1.0	80.65			45169221001	ND	0.016	mg/Kg			u
018	101514	SAMPLE	179094-005		101514	Soil	27-APR-2005 13:20	1.0	81.97			45169221001	ND	0.016	mg/Kg			u
019	101514	CCV					27-APR-2005 13:23	1.0	1.0	3	2.500	45169221001	2.690		ug/L	108		
020	101514	CCB					27-APR-2005 13:25	1.0	1.0			45169221001	ND	0.20	ug/L			
021	101514	SAMPLE	179098-001		101514	Soil	27-APR-2005 13:28	1.0	83.33			45169221001	0.049	0.017	mg/Kg			
022	101514	SAMPLE	179098-002		101514	Soil	27-APR-2005 13:30	1.0	98.04			45169221001	ND	0.020	mg/Kg			u
023	101514	SAMPLE	179098-003		101514	Soil	27-APR-2005 13:33	1.0	80.65			45169221001	0.028	0.016	mg/Kg			u
024	101514	SER	QC291824	179089-001	101514	Soil	27-APR-2005 14:34	5.0	98.04			45169221001	ND	0.098	mg/Kg		--	u
025	101514	PDS	QC291825	179089-001	101514	Soil	27-APR-2005 14:37	1.0	98.04	1	0.4902	45169221001	0.7275	0.020	mg/Kg	140*		u
026	101514	CCV					27-APR-2005 14:39	1.0	1.0	4	7.500	45169221001	7.990		ug/L	107		
027	101514	CCB					27-APR-2005 14:42	1.0	1.0			45169221001	ND	0.20	ug/L			

Stds used: 1=S405 2=S409 3=S408 4=S410
Flags used: u=use

Analyst: _____ Date: 4/27/05


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 042705 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 1.77723e-5
C -1.44754e-1
Rho .999641
Type Linear
Calibrated
Accepted
Accept
Include S1
Rep 1
Rel. Abs.
564874
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.084 -.084 3447 1 3446
02 .20000 .178 -.022 18157 0% 18156
03 .50000 .473 -.027 34756 0% 34755
04 2.0000 2.06 .057 123915 0% 123915
05 5.0000 5.18 .181 299657 0% 299656
06 10.000 9.89 -.106 564874 0% 564874
Ready
NUM

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45169221001 Name: Type: SOIL Date: 27-APR-2005 12:21 Inj Vol (uL): 2000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101514	45169221002	Std02Rep1	27-APR-2005 12:24	S405 (500X)
2	101514	45169221003	Std03Rep1	27-APR-2005 12:26	S405 (200X)
3	101514	45169221004	Std04Rep1	27-APR-2005 12:29	S405 (50X)
4	101514	45169221005	Std05Rep1	27-APR-2005 12:31	S405 (20X)
5	101514	45169221006	Std06Rep1	27-APR-2005 12:34	S405 (10X)

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Mercury	90780	69510	61958	59931	56487	LINR R	-0.14475	1.777E-5		ug/L	67733	0.999	.99	

252

Curves: LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 8		12:21:16 27 Apr 05		HG	
Hg	.000	ppb	3446						
		Bkgd 1	10508374						= =
*** Standard: 2 Rep: 1				Seq: 9		12:24:14 27 Apr 05		HG	
Hg	.200	ppb	18156						
		Bkgd 1	10513406						= =
*** Standard: 3 Rep: 1				Seq: 10		12:26:57 27 Apr 05		HG	
Hg	.500	ppb	34755						
		Bkgd 1	10509494						= =
*** Standard: 4 Rep: 1				Seq: 11		12:29:27 27 Apr 05		HG	
Hg	2.00	ppb	123915						
		Bkgd 1	10510331						= =
*** Standard: 5 Rep: 1				Seq: 12		12:31:50 27 Apr 05		HG	
Hg	5.00	ppb	299656						
		Bkgd 1	10508778						= =
*** Standard: 6 Rep: 1				Seq: 13		12:34:44 27 Apr 05		HG	
Hg	10.0	ppb	564874						
		Bkgd 1	10515280						= =
*** Check Standard: 2			Ck2S407	Seq: 14		12:52:16 27 Apr 05		HG	
Line Flag			Intensities						
Hg			297124						
		Bkgd 1	10507991						= =
*** Check Standard: 1			Ck1ICB	Seq: 15		12:54:47 27 Apr 05		HG	
Line Flag			Intensities						
Hg			3782						
		Bkgd 1	10508208						= =
*** Sample ID: qc291819				Seq: 16		12:57:17 27 Apr 05		HG	
			101514,1						
Hg	-.028	ppb	6592						
		Bkgd 1	10513526						= =

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: qc291820				Seq: 17	12:59:49 27 Apr 05	HG		
			101514,1					
Hg	5.50	ppb	317438					
		Bkgd 1	10513158					
*** Sample ID: qc291821				Seq: 18	13:02:40 27 Apr 05	HG		
			101514,1					
Hg	5.33	ppb	307876					
		Bkgd 1	10513328					
*** Sample ID: 179089-001				Seq: 19	13:05:00 27 Apr 05	HG		
			101514,1					
Hg	.417	ppb	31621					
		Bkgd 1	10510486					
*** Sample ID: qc291822				Seq: 20	13:07:21 27 Apr 05	HG		
			101514,1					
Hg	5.48	ppb	316647					
		Bkgd 1	10511495					
*** Sample ID: qc291823				Seq: 21	13:09:41 27 Apr 05	HG		
			101514,1					
Hg	5.43	ppb	313695					
		Bkgd 1	10505929					
*** Sample ID: 178065-008				Seq: 22	13:12:51 27 Apr 05	HG		
			101514,1					
Hg	.051	ppb	11006					
		Bkgd 1	10503157					
*** Sample ID: 179089-002				Seq: 23	13:15:11 27 Apr 05	HG		
			101514,1					
Hg	.611	ppb	42513					
		Bkgd 1	10505582					
*** Sample ID: 179089-003				Seq: 24	13:17:33 27 Apr 05	HG		
			101514,1					
Hg	.197	ppb	19236					
		Bkgd 1	10509068					

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 179094-005				Seq: 25	13:20:19 27 Apr 05	HG			
				101514,1					
Hg	.165	ppb	17425						
		Bkgd 1	10507866						=
									=
*** Check Standard: 3			Ck3S408	Seq: 26	13:23:01 27 Apr 05	HG			
Line	Flag		Intensities						
Hg			159552						
		Bkgd 1	10505139						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 27	13:25:20 27 Apr 05	HG			
Line	Flag		Intensities						
Hg			5791						
		Bkgd 1	10503162						=
									=
*** Sample ID: 179098-001				Seq: 28	13:28:01 27 Apr 05	HG			
				101514,1					
Hg	.590	ppb	41330						
		Bkgd 1	10500561						=
									=
*** Sample ID: 179098-002				Seq: 29	13:30:42 27 Apr 05	HG			
				101514,1					
Hg	.172	ppb	17806						
		Bkgd 1	10499558						=
									=
*** Sample ID: 179098-003				Seq: 30	13:33:24 27 Apr 05	HG			
				101514,1					
Hg	.347	ppb	27695						
		Bkgd 1	10502331						=
									=
*** Sample ID: qc291824				Seq: 41	14:34:49 27 Apr 05	HG			
				101514,5					
Hg	-.033	ppb	6310						
		Bkgd 1	10505861						=
									=
*** Sample ID: qc291825				Seq: 42	14:37:22 27 Apr 05	HG			
				101514,1					
Hg	7.42	ppb	425587						
		Bkgd 1	10506923						=
									=
*** Check Standard: 4			Ck4S410	Seq: 43	14:39:59 27 Apr 05	HG			
Line	Flag		Intensities						
Hg			457440						
		Bkgd 1	10502717						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 6 Ck6CCB Seq: 44 14:42:46 27 Apr 05 HG

Line	Flag		Intensities					
Hg			2239					
		Bkgd 1	10501121					=
								=

Curtis & Tompkins Laboratories Sample Preparation Summary 27-APR-2005 16:20

Batch Number : 101514
Date Extracted: 27-APR-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S405
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
178065-008			MDL Studies	Soil	.5	g	50	100.000000	1		.04			HG		
179089-001			Mactec, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
179089-002			Mactec, Inc.	Soil	.62	g	50	80.645161	1					T26/HG		
179089-003			Mactec, Inc.	Soil	.62	g	50	80.645161	1					T26/HG		
179094-005			Port of Oakland	Soil	.61	g	50	81.967213	1					T26/HG		
179098-001			Iris Environmental	Soil	.6	g	50	83.333333	1					T26/HG		
179098-002			Iris Environmental	Soil	.51	g	50	98.039216	1					T26/HG		
179098-003			Iris Environmental	Soil	.62	g	50	80.645161	1					T26/HG		
QC291819	MB			Soil	.5	g	50	100.000000	1					HG		
QC291820	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC291821	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC291822	MS	of 179089-001		Soil	.43	g	50	116.279070	1		2.5			HG		
QC291823	MSD	of 179089-001		Soil	.42	g	50	119.047619	1		2.5			HG		
QC291824	SER	of 179089-001		Soil	.51	g	50	98.039216	1					HG		
QC291825	PDS	of 179089-001		Soil	.51	g	50	98.039216	1					HG		

257

Prep Chemist: Andrés M. Reviewed By: M Date: 4/27/05

Relinquished By: Andrés M. Received By: Andrés M. Date: 4/27/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 101514

Date Digested: 4/27/05 AM 4/26

Digested by: AM

Digestion Method

☒ EPA 7471A

☐ _____

BK 2086

Page 60

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	MB		50		
	BS				
	BSD				
	~~MS 179098-003~~ AM 4/27				
5	MS	.43			
	MSD	.42			40µL 4/27
	178065-008				MDL std 1 30µL AM 4/27 0.6mL std
	~~171074-001~~ AM 4/27				sample not ready yet.
*	179089-001 A MS	.51			$ MSS
10	2 A	.62			
	3 A	.62			
	179098-001 A	.66			
	2 A	.51			
	3 ~~A~~ AM 4/27	.62			
15	179094-005	6.61			$ Comp of 1-4
	1 A	0.56			
	2 A	0.56			For Comp
	3 A	0.61			
	4 A	0.57			
20					

	Reagent ID/ LIMS# / Time	Initials / Date
.5 mL of spike solution was added to all spikes	S405	AM 4/27
ICAL Source WS#	S405	
ICV / CCV WS#	S406, 7, 8, 9, 10	
Digestion of Samples & Standards: Time ON / Temperature ON	10:45 AM 75°C	
Time OFF/ Temperature OFF	11:15 AM 75°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 042705	
5% $KMnO_4$	IC 041805	
5% $K_2S_2O_8$	—	
NaCl.hydroxylamine hydrochloride	Hy 041805	
Stannous Chloride	$SnCl_2$ 041805	
☐ filtered thru' 0.45 um syringe filter		

Antoni NO 4/27/05

Prep Chemist / Date

Continued from page 258

Continued on page 1

AM 4/27/05

Reviewed by / Date

MOISTURE

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	101563
Matrix:	Soil	Sampled:	04/25/05
Units:	%	Received:	04/26/05
Diln Fac:	1.000	Analyzed:	04/29/05

Field ID	Lab ID	Result	RL
BB02TP108(4.0)	179089-001	9	1
BB02TP108(7.0)	179089-002	14	1
BB02TP108(10.0)	179089-003	18	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179089	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	101563
MSS Lab ID:	179062-001	Sampled:	04/22/05
Lab ID:	QC292022	Received:	04/22/05
Matrix:	Soil	Analyzed:	04/29/05

MSS Result	Result	RL	RPD	Lim
16.29	16.80	1.000	3	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 101563
Date: 04/29/05
Method: CLP SOW 390
Analyst: KDG

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179029-001	15.4795	21.5790	20.9333	89	11
179049-001	15.5447	20.8188	19.0973	67	33
179062-001	15.0909	21.2898	20.2802	84	16
179062-002	15.5756	21.0112	20.1834	85	15
179062-003	15.0412	20.3285	19.6645	87	13
179062-004	15.2642	21.0608	19.8113	78	22
179062-005	15.2345	21.2456	20.0546	80	20
179089-001	15.4429	20.5292	20.0902	91	9
179089-002	15.1299	20.3622	19.6314	86	14
179089-003	15.2988	20.5603	19.6233	82	18
179107-001	15.3522	20.9919	20.6592	94	6
QC292022	15.7732	21.0418	20.1568	83	17
of 179062-001			RPD:	0.6%	3.1%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101563
Date Started: 28-APR-2005
Batched by : Kevin Gaines

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179029-001		CH2M Hill Construc	Soil	MOISTURE	03-MAY-2005
179049-001		Mactec, Inc.	Soil	MOISTURE	04-MAY-2005
179062-001		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-002		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-003		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-004		Environmental Qual	Soil	MOISTURE	29-APR-2005
179062-005		Environmental Qual	Soil	MOISTURE	29-APR-2005
179089-001		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179089-002		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179089-003		Mactec, Inc.	Soil	MOISTURE	09-MAY-2005
179107-001		RMT, Inc.	Miscell.	MOISTURE	29-APR-2005
QC292022	SDUP of 179062-001		Soil	MOISTURE	

4-28-05

101563

Sample	B.L.	Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank		11	15.6678	—	15.6690	
179062-01	C	31	15.0909	21.2898	20.2602	
Dup-02	↓	4	15.7732	21.0418	20.1568	
-03	B	3	15.0417	20.3285	19.6645	
-04	↓	000	15.2642	21.0608	19.8113	
-02	C	39	15.5756	21.0117	20.1824	
107-01	B	973	15.3522	20.9919	20.6592	
029-01	B	40	15.4795	21.5790	20.9333	
045-01	B	18	15.5447	20.8188	19.0973	
089-01	A	42	15.4426	20.5292	20.0902	
-02	↓	A	15.1299	20.3422	19.6314	
-03	↓	146	15.2988	20.5603	19.6233	
062-05	C	31	15.2345	21.2454	20.0545	

OVEN TEMP 103
TIME IN 0945 - 4/28/05
TIME OUT : 7:10 A.M.

4/28/05

Continued on Page 1

Read and Understood By

Signed — 4/28/05 Date — 264 — Signed — 4-29-05 Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 2/26/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	2-26-05	RSM		103°C	4-4-05	RSM
103°C	3-1-05	RSM		104°C	4-5-05	RSM
105°C	3-2-05	RSM		105°C	4-6-05	RSM
103°C	3-3-05	RSM		103°C	4-7-05	RSM
103°C	3-4-05	RSM		103°C	4-8-05	RSM
103°C	3-7-05	RSM		105°C	4-11-05	RSM
103°C	3-8-05	RSM		103°C	4-12-05	RSM
104°C	3-9-05	RSM		104°C	4-13-05	RSM
104°C	3-10-05	RSM		104°C	4-14-05	RSM
104°C	3-11-05	RSM		105°C	4-15-05	RSM
103°C	3-13-05	KLA		104°C	4-18-05	RSM
103°C	3-14-05	RSM		104°C	4-19-05	RSM
103°C	3-15-05	RSM		105°C	4-20-05	RSM
103°C	3-16-05	RSM		105°C	4-21-05	RSM
103	3-17-05	KLA		103°C	4-22-05	RSM
103°C	3-28-05	RSM		103°C	4-25-05	RSM
105°C	3-29-05	RSM		103°C	4-26-05	RSM
103°C	3-30-05	RSM		104°C	4-27-05	RSM
105°C	3-31-05	RSM		104°C	4-28-05	RSM
105°C	4-1-05	RSM		103°C	4-29-05	RSM
103°C	4-3-05	RSM				

00007

PROJECT METTLER AE-200 BALANCE Notebook No. 0152

Continued From Page 0

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35248
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35248
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35248
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35248
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35248
4-28-05	0.2000	1.0001	10.0000	50.0002	RSM	35248
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35248

Continued on Page

Read and Understood By

R. M
Signed

4-21-05
Date

Signed

Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179182

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBD2TP105(11.5)	179182-001
BBD2TP105(15.0)	179182-002
BBD2TP106(2.0)	179182-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/23/05
Operations Manager

Signature: _____ Date: 5/20/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179182**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**04/29/05**
Samples Received:	**04/29/05**

This hardcopy data package contains sample and QC results for three soil samples, requested for the above referenced project on 04/29/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Encore samples not analyzed within 48 hours were frozen. No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
Motor oil C24-C36 was detected between the MDL and the RL in the method blank for batch 101680; this analyte was either not detected in samples at or above the RL, or detected at a level at least ten times that of the blank. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low response was observed for bromomethane in the ICV analyzed 03/30/05 21:59; this analyte was not detected at or above the RL in the associated samples. High response was observed for chloroethane in the CCV analyzed 04/29/05 10:48; this analyte was not detected at or above the RL in the associated samples. Methylene chloride was detected between the MDL and the RL in the method blank for batch 101594; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High response was observed for dibenz(a,h)anthracene in the CCV analyzed 05/04/05 08:48; this analyte was not detected at or above the RL in the associated samples, and affected data was qualified with "b". Low internal standard response was observed for perylene-d12 in BBD2TP106(2.0) (lab # 179182-003). No other analytical problems were encountered.

Pesticides (EPA 8081A):
Low response was observed for 4,4'-DDT in the ICV analyzed 04/29/05 01:54; average ICV drift met method requirements. Low responses were observed for 4,4'-DDT and methoxychlor in the CCV analyzed 05/03/05 23:33; average CCV drift met method requirements. Low responses were observed for 4,4'-DDT and methoxychlor in the CCV analyzed 05/04/05 04:08; average CCV drift met method requirements. No other analytical problems were encountered.

PCBs (EPA 8082):
High surrogate recoveries were observed for decachlorobiphenyl in BBD2TP105(15.0) (lab # 179182-002), the LCS for batch 101667, and the MS of

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179182**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**04/29/05**
Samples Received:	**04/29/05**

PCBs (EPA 8082):
BBD2TP106(2.0) (lab # 179182-003); the corresponding TCMX surrogate recoveries were within limits. No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for nickel and lead in the MS/MSD of BBD2TP105(11.5) (lab # 179182-001); the BS/BSD were within limits, and the associated RPDs were within limits. High % differences were observed for mercury, molybdenum, and zinc in the serial dilution for batch 101690 and the serial dilution of BBD2TP105(11.5) (lab # 179182-001). A number of analytes were detected between the MDL and the RL in the method blank for batch 101627. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM 179182

Seq. No.: № 1429

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255 005122

Name/Location: PRESIDIO - SF - BADA - NATURAL REC. TRENCH.

Project Manager: M A JACOBVITZ Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED							
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	TPH-G (EPA 8015M)	TPH-d/mo (EPA 8015M)	VOC (EPA 8260)	PAH (EPA 8270)	TETRACHLORVOS	PESTICIDES (8081A)	PCBS 8082	
	✓		7						BBDZTP	105(1.5)	05	04	28	1510	TRENCH 2, W. 3'	11.5-12'	✓	✓	✓	✓	✓	✓	✓	
	✓		7						BBDZTP	105(15.0)	05	04	28	1525	↓	15-15.5'	✓	✓	✓	✓	✓	✓	✓	
	✓		7						BBDZTP	106(2.0)	05	04	28	1540	W. 18'	2-2.5'	✓	✓	✓	✓	✓	✓	✓	
																								5

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		QUESTIONS? - G.A. LIEBERMAN 707 793 3858
		STANDARD TAT.
		Field in plastic bag w/ ice. PP 4/29/05

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	A H HENKE (Print Name)	MACTEC (Company)	4/29/05, 1115 (Date/Time)
Received By (Signature)	Tony Rojas (Print Name)	C&T (Company)	4/29/05 1115 (Date/Time)
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: C.T. COURIER.

TVH gasoline Results & QC Summary

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	04/28/05
Units:	mg/Kg	Received:	04/29/05
Diln Fac:	1.000	Analyzed:	04/29/05
Batch#:	101587		

Field ID: BBD2TP105(11.5) Basis: dry
Type: SAMPLE Moisture: 17%
Lab ID: 179182-001

Analyte	Result	RL	MDL
Gasoline C7-C12	0.27	0.27	0.030

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	60-138
Bromofluorobenzene (FID)	83	66-148

Field ID: BBD2TP105(15.0) Basis: dry
Type: SAMPLE Moisture: 15%
Lab ID: 179182-002

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.28	0.031

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	60-138
Bromofluorobenzene (FID)	104	66-148

Field ID: BBD2TP106(2.0) Basis: dry
Type: SAMPLE Moisture: 9%
Lab ID: 179182-003

Analyte	Result	RL	MDL
Gasoline C7-C12	0.57	0.25	0.028

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	60-138
Bromofluorobenzene (FID)	88	66-148

Type: BLANK Basis: as received
Lab ID: QC292102

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.20	0.022

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	60-138
Bromofluorobenzene (FID)	109	66-148

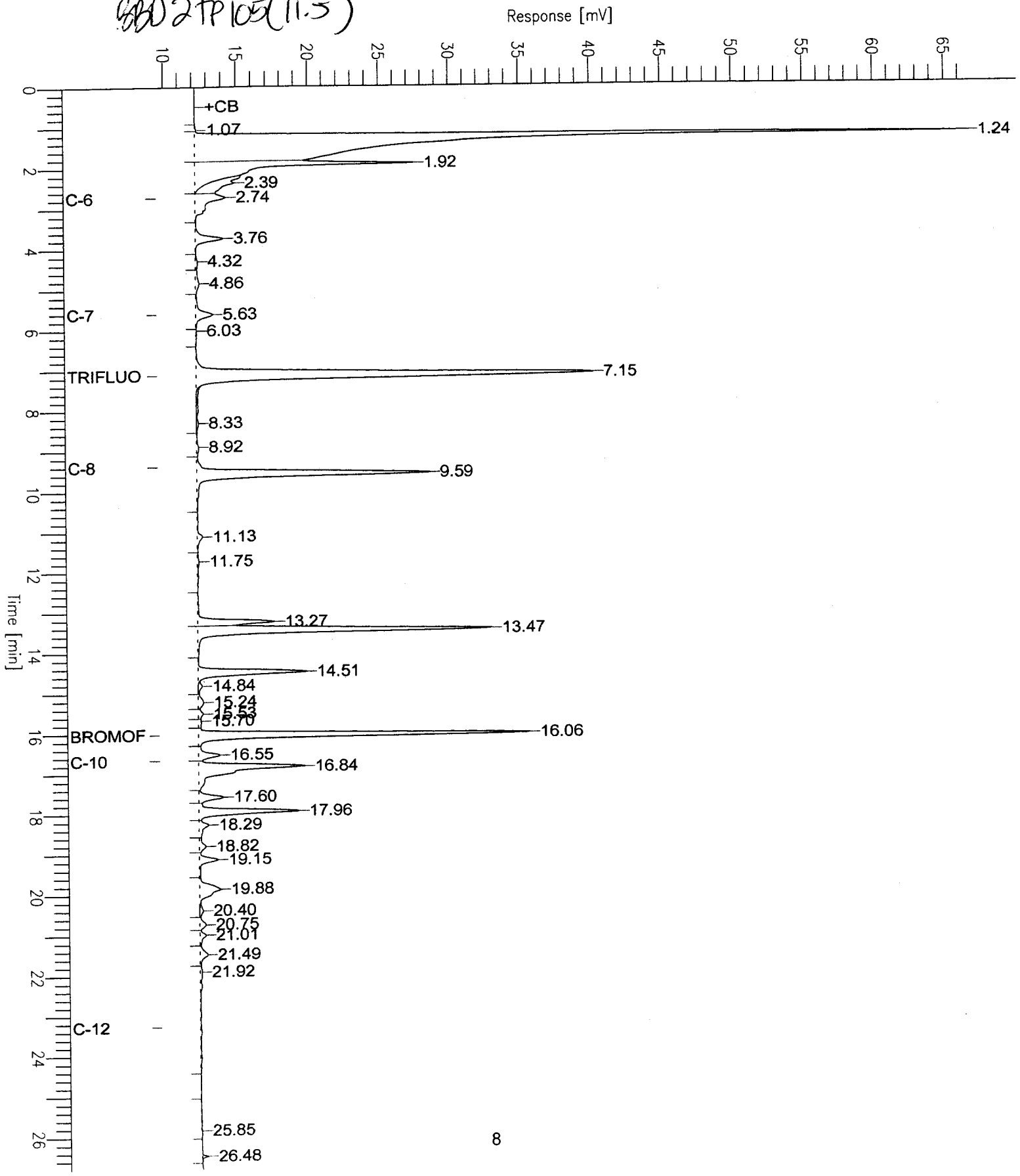
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC19 TVH 'X' Data File (FID)

Sample Name : 179182-001,101587,tvh
FileName : G:\GC19\DATA\119X005.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 9 mV

Sample #: b
Date : 4/29/05 02:45 PM
Time of Injection: 4/29/05 02:18 PM
Low Point : 9.47 mV High Point : 66.70 mV
Plot Scale: 57.2 mV

SBD2TP105(11.5)

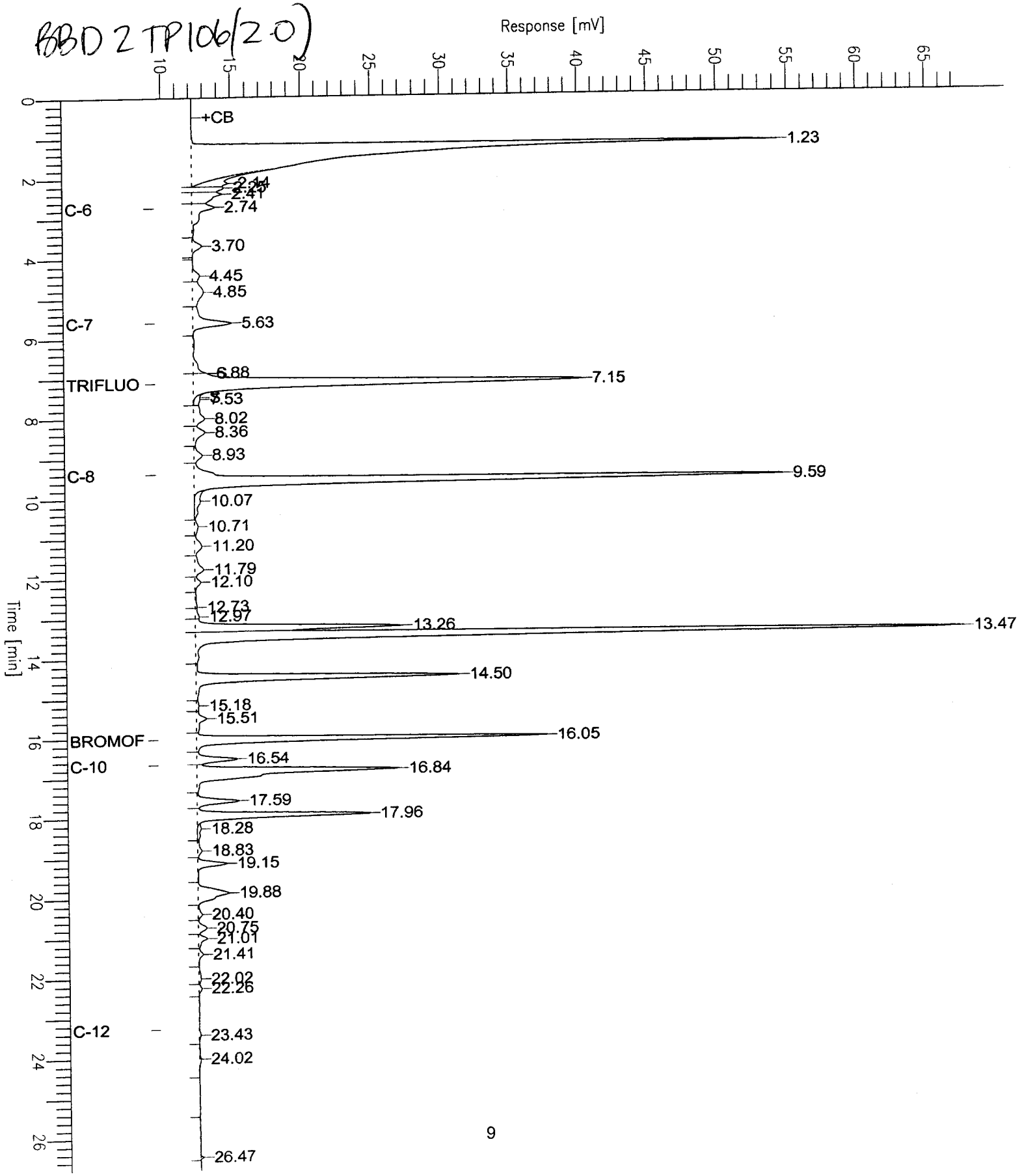


GC19 TVH 'X' Data File (FID)

Sample Name : 179182-003,101587,tvh
FileName : G:\GC19\DATA\119X007.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 9 mV

Sample #: b
Date : 4/29/05 03:56 PM
Time of Injection: 4/29/05 03:26 PM
Low Point : 9.45 mV High Point : 67.39 mV
Plot Scale: 57.9 mV

BBD 2 TP106(2.0)

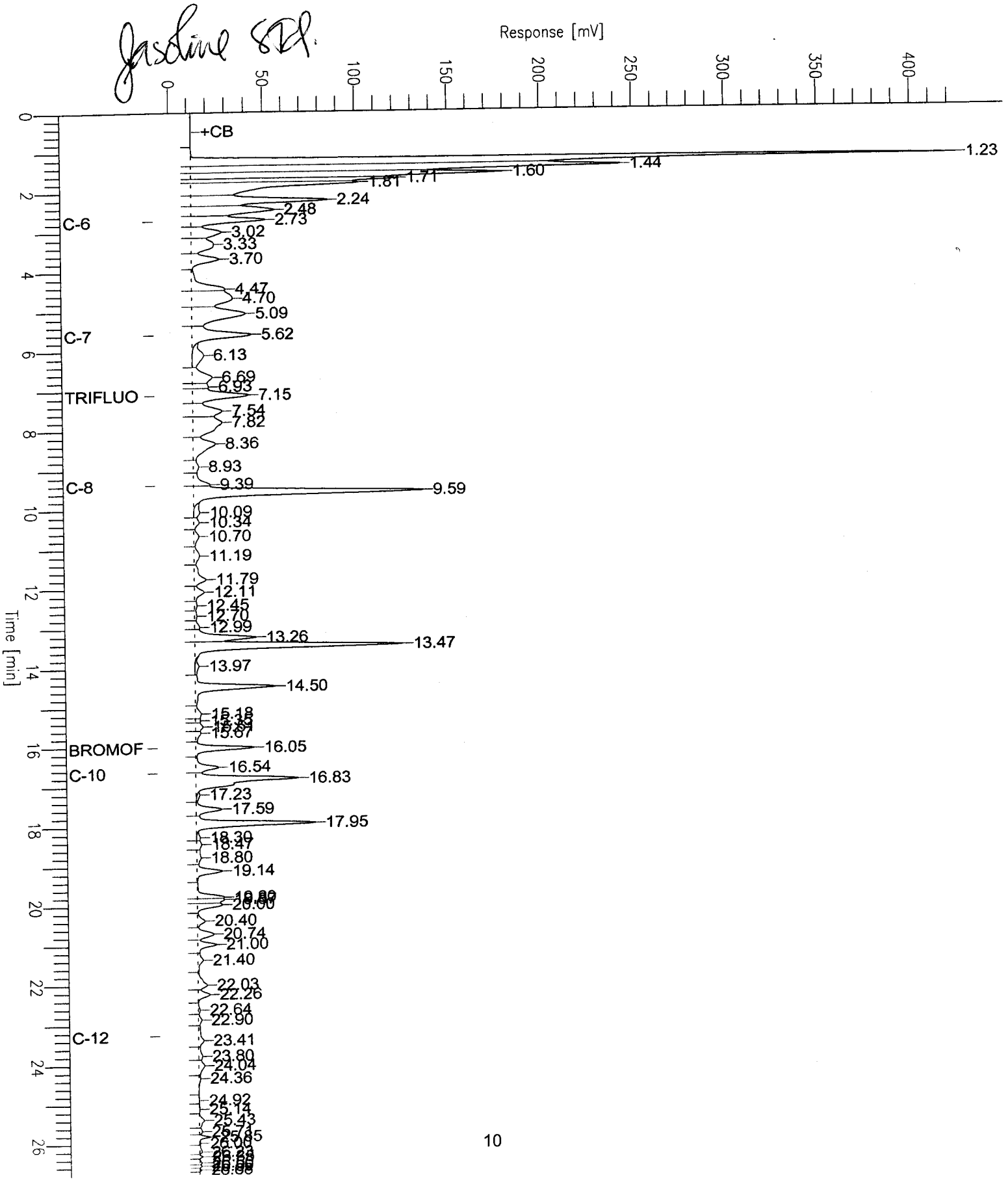


GC19 TVH 'X' Data File (FID)

Sample Name : ccv/bs,qc292104,101587,s247,5/5000
FileName : G:\GC19\DATA\119x003.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 26.80 min
Plot Offset: -8 mV

Sample #:
Date : 4/29/05 04:13 PM
Time of Injection: 4/29/05 10:50 AM
Low Point : -8.45 mV
High Point : 424.86 mV
Plot Scale: 433.3 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	101587
Basis:	as received	Analyzed:	04/29/05

Type: BS Lab ID: QC292104

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.22	102	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	60-138
Bromofluorobenzene (FID)	114	66-148

Type: BSD Lab ID: QC292207

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.00	10.35	104	80-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	60-138
Bromofluorobenzene (FID)	121	66-148

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179182 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 344466119001 Name: tvh Type: (normal) Date: 18-NOV-2004 19:46 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_005	344466119005	tvh1	18-NOV-2004 19:46	04WS1982 (1000X), 04WS1966 (5000X)
2	323_006	344466119006	tvh2	18-NOV-2004 20:20	04WS1983 (1000X), 04WS1966 (5000X)
3	323_007	344466119007	tvh3	18-NOV-2004 20:54	04WS1984 (1000X), 04WS1966 (5000X)
4	323_008	344466119008	tvh4	18-NOV-2004 21:27	04WS1985 (2000X), 04WS1966 (5000X)
5	323_009	344466119009	tvh5	18-NOV-2004 22:02	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Gasoline C7-C12	X	737.22	634.99	621.54	791.38	779.53	AVRG	R		0.001403		ng	712.93	11	0.995	20	

12

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179182 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC19 Calname : tvh
Calnum : 344466119001 Caldate : 18-NOV-2004 Caltype :

ICV 344466119011 (323_011) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	X	344466119011	18-NOV-2004	10000.0 11032	ng	10

INITIAL CALIBRATION REPORT FOR 179182 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 345035125001 Name: tft/bfb Type: (normal) Date: 24-JAN-2005 13:07 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	024_005	345035125005	tft/bfb 1	24-JAN-2005 13:07	04WS2267 (5000X)
2	024_006	345035125006	tft/bfb 2	24-JAN-2005 13:41	04WS2268 (5000X)
3	024_008	345035125008	tft/bfb 4	24-JAN-2005 14:49	04WS2270 (5000X)
4	024_009	345035125009	tft/bfb 5	24-JAN-2005 15:31	04WS2271 (5000X)
5	024_011	345035125011	tft/bfb 3	24-JAN-2005 16:40	04WS2269 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	X	750.53	723.43	681.76	623.54	687.79	AVRG	R		0.001442		ng	693.41	7	0.995	20	
Bromofluorobenzene (FID)	X	471.78	450.41	431.06	409.61	436.75	AVRG	R		0.002273		ng	439.92	5	0.995	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION REPORT FOR 179182 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC19 Run Name : QC292104 IDF : 1.0
Seqnum : 345171941003 Filename : 119_003 Injected : 29-APR-2005 10:50
Caltype :

Standards: S247 (1000X), S224 (5000X)

Analyte	Ch	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Gasoline C7-C12	X	344466119001	18-NOV-2004	712.93	728.75	10000.00	10221.81	ng	2	15	u
Trifluorotoluene (FID)	X	345035125001	24-JAN-2005	693.41	794.84	450.0000	515.8231	ng	15	15	u
Bromofluorobenzene (FID)	X	345035125001	24-JAN-2005	439.92	501.28	450.0000	512.7700	ng	14	15	u

u=use
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179182 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC19 Run Name : tvh IDF : 1.0
Seqnum : 345171941009 Filename : 119_009 Injected : 29-APR-2005 17:03
Caltype :

Standards: S247 (666.7X), S224 (5000X)

Analyte	Ch	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Gasoline C7-C12	X	344466119001	18-NOV-2004	712.93	802.56	15000.00	16885.67	ng	13	15	
Trifluorotoluene (FID)	X	345035125001	24-JAN-2005	693.41	869.48	450.0000	564.2608	ng	**25**	15	c+
Bromofluorobenzene (FID)	X	345035125001	24-JAN-2005	439.92	533.48	450.0000	545.7081	ng	**21**	15	c+

IN-House QC Limits

FID-S

TFT = 60-138 % Rec.

BFB = 66 - 148 % Rec.

+=high bias c=CCV
Page 1 of 1

PROJECT 56

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 344466119 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 18-NOV-2004
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	323_001	CCV/LCS	QC272899	96649	Water	18-NOV-2004 16:39	1.0				1 2	
002	323_002	CCV	minsp	96649		18-NOV-2004 17:13	1.0				3 2	
003	323_003	X	ib			18-NOV-2004 18:38	1.0				2	
004	323_004	X	ib			18-NOV-2004 19:12	1.0				2	
005	323_005	ICAL	tvh1			18-NOV-2004 19:46	1.0				4 2	
006	323_006	ICAL	tvh2			18-NOV-2004 20:20	1.0				5 2	
007	323_007	ICAL	tvh3			18-NOV-2004 20:54	1.0				6 2	
008	323_008	ICAL	tvh4			18-NOV-2004 21:27	1.0				7 2	
009	323_009	ICAL	tvh5			18-NOV-2004 22:02	1.0				7 2	
010	323_010	X	ib			18-NOV-2004 22:36	1.0				2	
011	323_011	ICV	tvh			18-NOV-2004 23:10	1.0	5000			1 2	
012	323_012	X	crbmrk			18-NOV-2004 23:44	1.0				8 9 2	
013	323_013	X	ib			19-NOV-2004 00:18	1.0				2	
014	323_014	X				19-NOV-2004 06:53	1.0				2	
015	323_015	ICAL	tft/bfb 1			19-NOV-2004 07:27	1.0				10	
016	323_016	ICAL	tft/bfb 2			19-NOV-2004 08:05	1.0				11	
017	323_017	ICAL	tft/bfb 3			19-NOV-2004 08:47	1.0				12	
018	323_018	ICAL	tft/bfb 4			19-NOV-2004 09:29	1.0				13	
019	323_019	ICAL	tft/bfb 5			19-NOV-2004 10:16	1.0				14	

Stds used: 1=04WS2154 2=04WS1966 3=04WS1162 4=04WS1982 5=04WS1983 6=04WS1984 7=04WS1985 8=02SS420 9=02SS421 10=04WS1886 11=04WS1887 12=04WS1888 13=04WS1889 14=04WS1890

Analyst: Date: 11.19.04
Page 1 of 1

11.19.04

Signed
Date 11/19/04
17
Signed
Read and Understood By
Continued on Page
Continued From Page
Notebook No. BK 1591

Project 16 Apr 7/5/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 345035125 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 24-JAN-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	024_001	X	ib			24-JAN-2005 09:25	1.0					1	
002	024_002	X	QC280420	98560	Water	24-JAN-2005 09:59	1.0					2 1 Not used	
003	024_003	X	QC280421	98560	Water	24-JAN-2005 10:33	1.0	2	5000			3 1	
004	024_004	X	QC280419	98560	Water	24-JAN-2005 11:08	1.0	17	5000			1	
005	024_005	ICAL	tft/bfb 1			24-JAN-2005 13:07	1.0					4 pass	
006	024_006	ICAL	tft/bfb 2			24-JAN-2005 13:41	1.0					5 Not used	
007	024_007	X	tft/bfb 3			24-JAN-2005 14:15	1.0					6 Not used	
008	024_008	ICAL	tft/bfb 4			24-JAN-2005 14:49	1.0					7 pass	
009	024_009	ICAL	tft/bfb 5			24-JAN-2005 15:31	1.0					8	
010	024_010	X	ib			24-JAN-2005 16:06	1.0					1	
011	024_011	ICAL	tft/bfb 3			24-JAN-2005 16:40	1.0					6 pass	

Stds used: 1=05WS0068 2=04WS2416 3=04WS2408 4=04WS2267 5=04WS2268 6=04WS2269 7=04WS2270 8=04WS2271

Analyst: _____ Date: 1/25/05

Page 1 of 1

1/25/05

Signed 1/25/05 Date

18 Signed 01/25/05 Date

Read and Understood By

Continued on Page

Notebook No. BK1981

Continued From Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Begun: 29-APR-2005

Sequence: 345171941 Instrument: GC19
Gas Chromatograph #19 TVH/BTXE
Analytical Method: EPA 8015B
SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B
SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
001	119_001	X	ib			29-APR-2005 09:41	1.0					1	
002	119_002	CCV/LCS	X	101587	Soil	29-APR-2005 10:16	1.0		5000			2 1	
003	119_003	CCV/BS	QC292104	101587	Soil	29-APR-2005 10:50	1.0	1	5000			3 1	
004	119_004	BLANK	QC292102	101587	Soil	29-APR-2005 12:07	1.0	16	5000			1	
005	119_005	SAMPLE	179182-001	101587	Soil	29-APR-2005 14:18	1.0		5000			1	
006	119_006	SAMPLE	179182-002	101587	Soil	29-APR-2005 14:52	1.0		5000			1	
007	119_007	SAMPLE	179182-003	101587	Soil	29-APR-2005 15:26	1.0		5000			1	
008	119_008	BSD	QC292207	101587	Soil	29-APR-2005 16:29	1.0	2	5000			3 1	
009	119_009	CCV	tvh	101587		29-APR-2005 17:03	1.0		5000			3 1	
010	119_010	CCV	tvh	101587		29-APR-2005 17:37	1.0	1	5000			3 1	1:F3BZME=973.892

Stds used: 1=S224 2=S292 3=S247

Analyst: _____ Date: 5.1.05

Page 1 of 1

Signed _____ Date 5.1.05

Signed _____ Date 5/01/05

Read and Understood By

Continued on Page

Continued From Page

Notebook No. BK 2091

PROJECT 56 19

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101587
Date Started: 29-APR-2005
Batched by : Micaela M. Perpetuo

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type	Client	Matrix	Analyses	Due Date
179182-001		Mactec, Inc.	Soil	ETVH	11-MAY-2005
179182-002		Mactec, Inc.	Soil	ETVH	11-MAY-2005
179182-003		Mactec, Inc.	Soil	ETVH	11-MAY-2005
QC292102	MB		Soil		
QC292103	LCS		Soil		
QC292104	BS		Soil		
QC292207	BSD		Soil		

Sample ID	Cut / Rep	Weight (g)	Complete?	Multisample?	Analysis Date
179122-004	C	3.00	Yes	No	Dec 4.22
-004	D	2.97	↓	↓	↓
-004	C	0.98			
179122-002	A	0.52	No		
179121-002	A	0.94			
Mirror 179121-002	A	0.97			
MSA of 179121-002	A	0.93			
179121-003	A	0.94			
-004	A	0.94			
-005	A	0.92			
-006	A	0.98			
179121-001	A	0.97	↓	↓	↓
179121-005	A	0.98	No	No	Dec 4.23.05
179146-001	C	4.35			
-002	C	4.00			
-003	C	4.33			
179167-001	B	5.49	↓	↓	↓
179182-001	B	4.47	No	No	Dec 7.29.05
-002	B	4.16			
-003	B	4.33	↓	↓	↓

Continued on Page

Read and Understood By

Signed Date Signed Date

TEH results & QC Summary

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	04/28/05
Units:	mg/Kg	Received:	04/29/05
Diln Fac:	1.000	Prepared:	05/03/05
Batch#:	101680		

Field ID:	BBD2TP105(11.5)	Moisture:	17%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-001	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	5.3 H Y	1.2	0.25
Motor Oil C24-C36	32 Y	6.1	0.36

Surrogate	%REC	Limits
Hexacosane	75	51-136

Field ID:	BBD2TP105(15.0)	Moisture:	15%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-002	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.2	0.24
Motor Oil C24-C36	1.1 J Y	5.8	0.34

Surrogate	%REC	Limits
Hexacosane	83	51-136

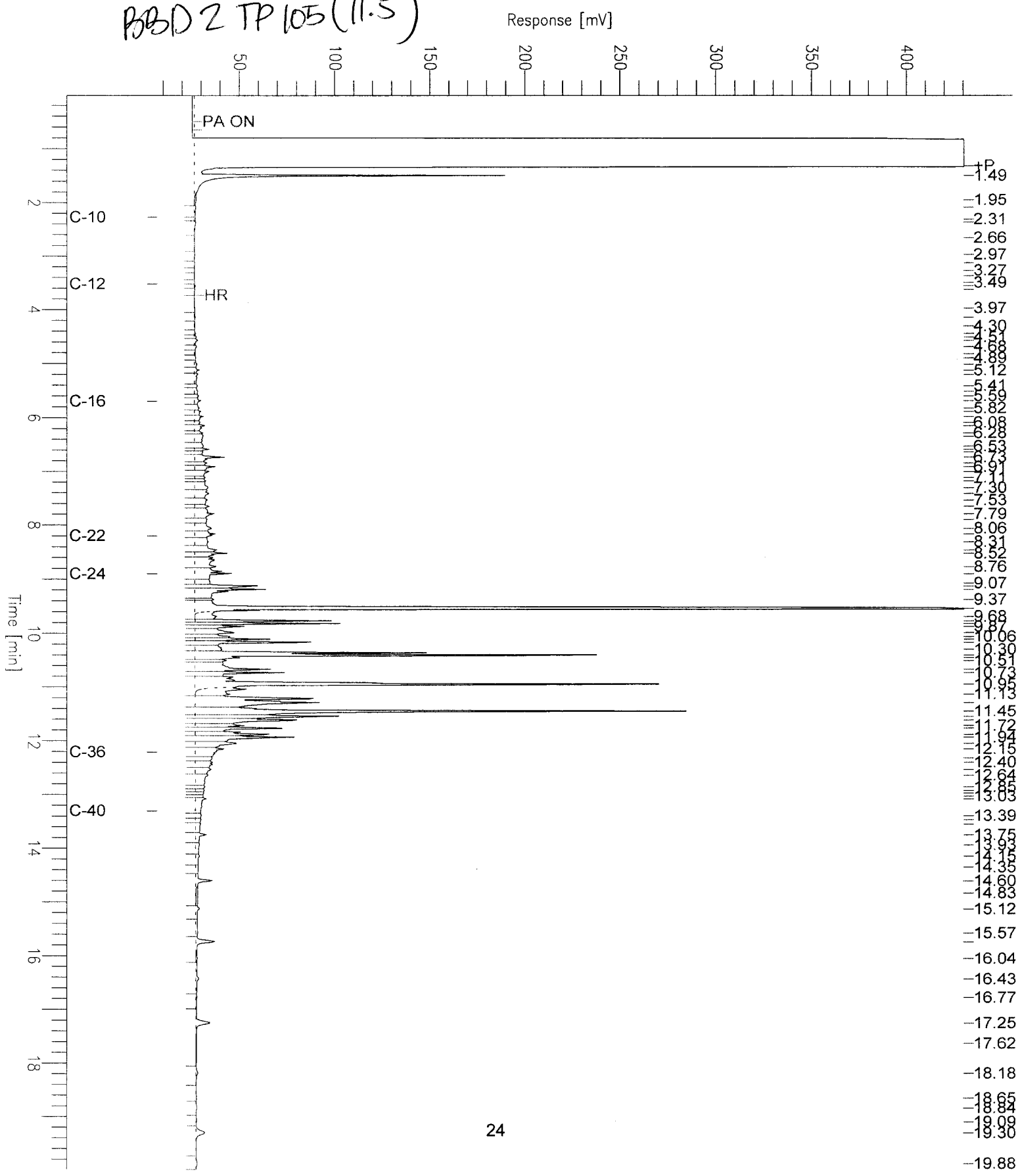
H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 179182-001sg,101680
FileName : G:\GC17\CHA\123A020.RAW
Method : ATEH117.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 101680 Page 1 of 1
Date : 5/4/05 09:39 AM
Time of Injection: 5/4/05 01:22 AM
Low Point : 6.75 mV High Point : 430.40 mV
Plot Scale: 423.6 mV

BBD2 TP105 (11.5)

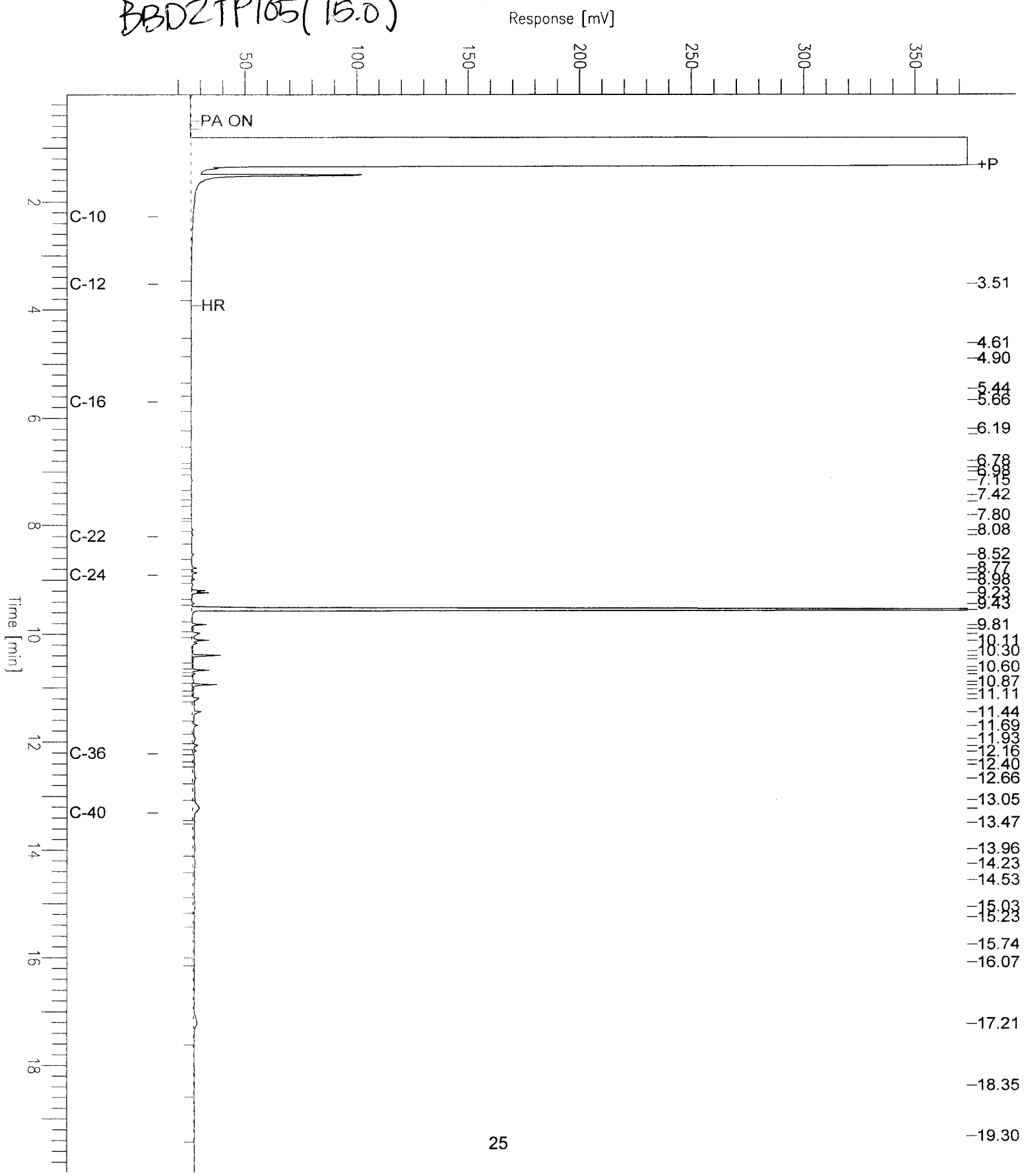


Chromatogram

Sample Name : 179182-002sg,101680
FileName : G:\GC17\CHA\123A021.RAW
Method : ATEH117.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 101680 Page 1 of 1
Date : 5/4/05 09:40 AM
Time of Injection: 5/4/05 01:50 AM
Low Point : 10.67 mV High Point : 373.59 mV
Plot Scale: 362.9 mV

BBD2TP105(15.0)



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	04/28/05
Units:	mg/Kg	Received:	04/29/05
Diln Fac:	1.000	Prepared:	05/03/05
Batch#:	101680		

Field ID:	BBD2TP106(2.0)	Moisture:	9%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-003	Cleanup Method:	EPA 3630C
Basis:	dry		

Analyte	Result	RL	MDL
Diesel C10-C24	180 H Y	1.1	0.23
Motor Oil C24-C36	360 L	5.5	0.32

Surrogate	%REC	Limits
Hexacosane	79	51-136

Type:	BLANK	Analyzed:	05/03/05
Lab ID:	QC292456	Cleanup Method:	EPA 3630C
Basis:	as received		

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.0	0.21
Motor Oil C24-C36	0.37 J	5.0	0.29

Surrogate	%REC	Limits
Hexacosane	98	51-136

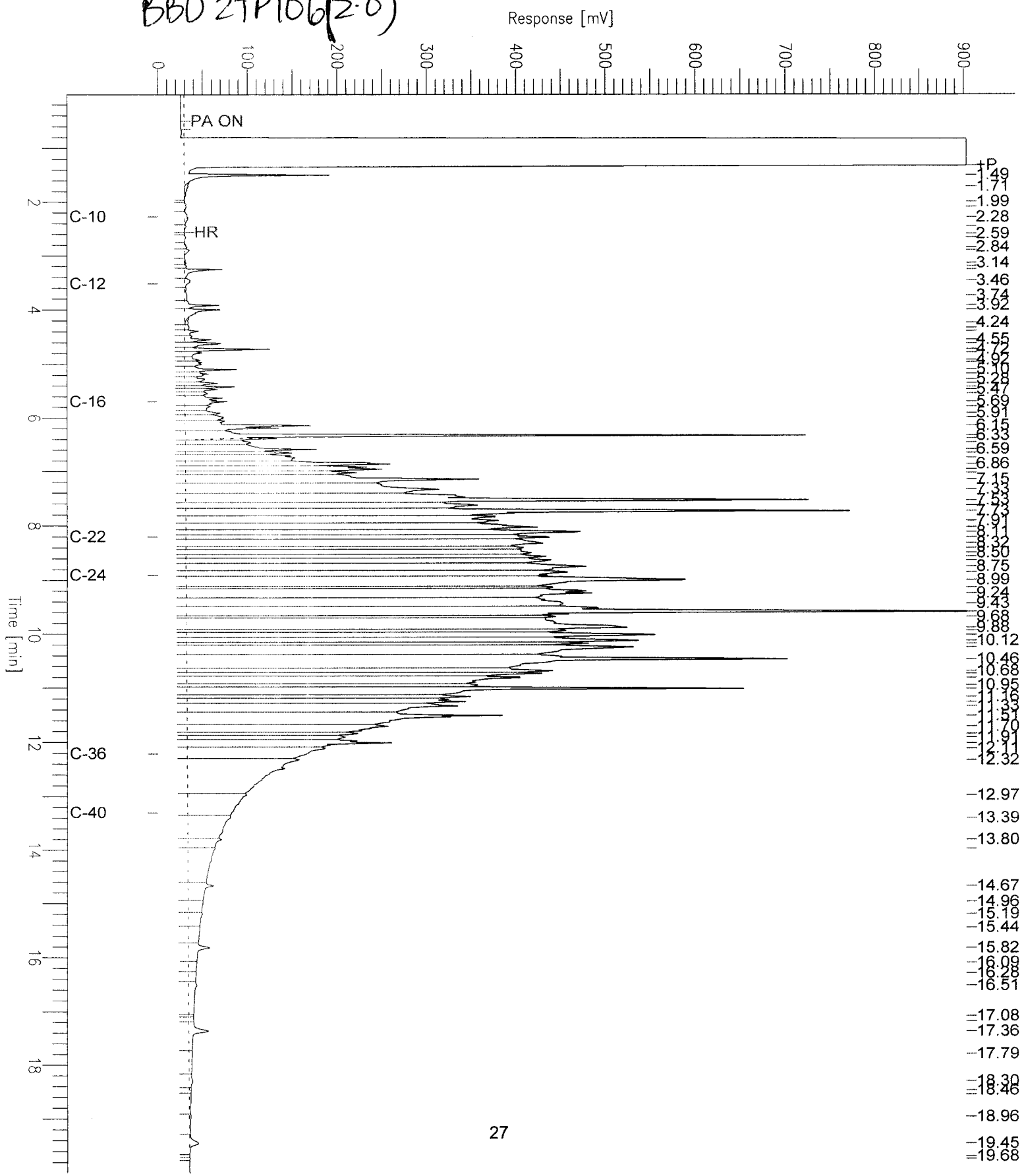
H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 179182-003sg,101680
FileName : G:\GC17\CHA\123A026.RAW
Method : ATEH117.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: -1 mV

Sample #: 101680 Page 1 of 1
Date : 5/4/05 09:42 AM
Time of Injection: 5/4/05 04:14 AM
Low Point : -0.66 mV High Point : 903.02 mV
Plot Scale: 903.7 mV

BBD 2TP106(2·0)



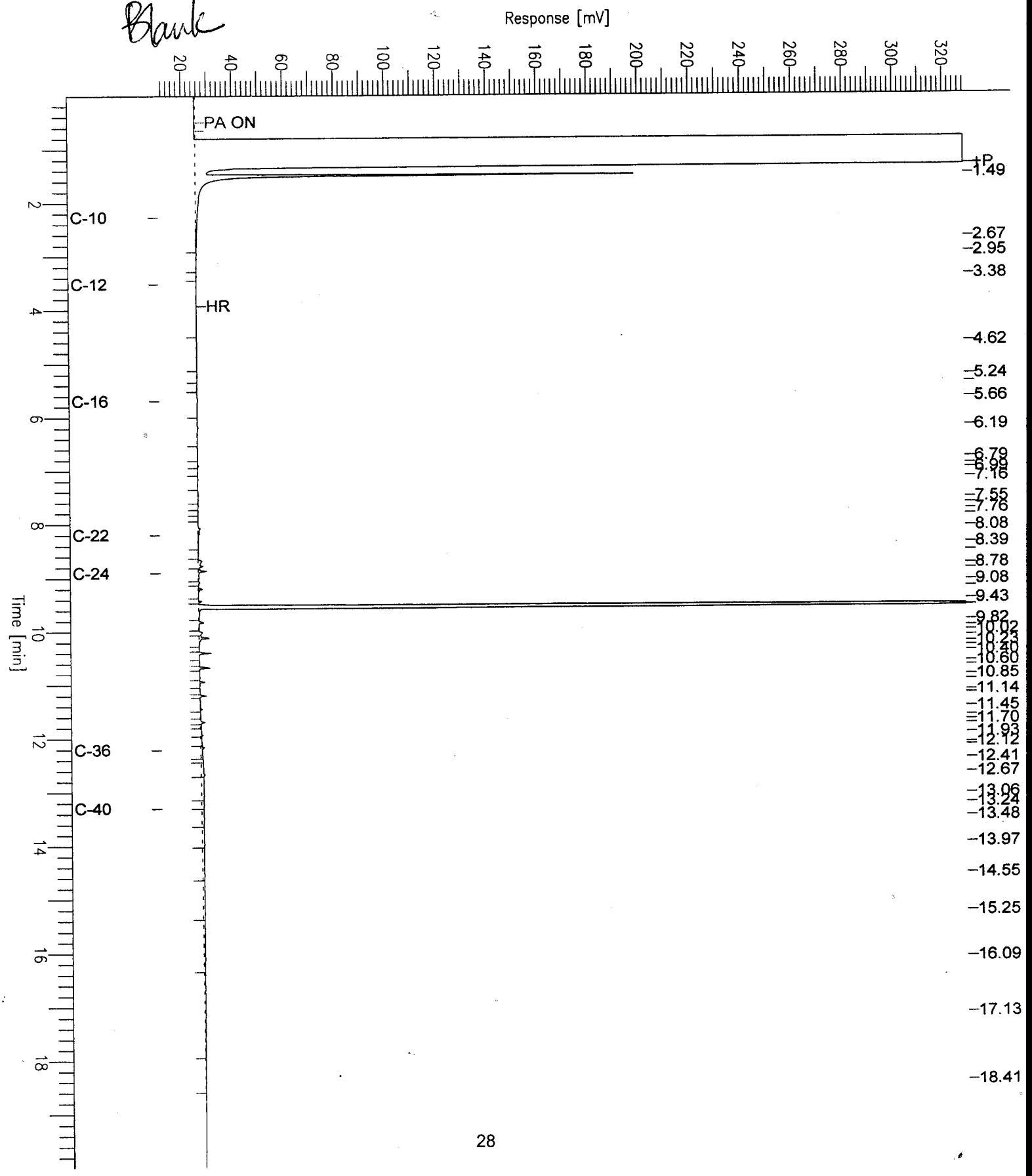
Chromatogram

5 SV 5/4/05

Sample Name : mb,qc2924#6sg,101680
FileName : G:\GC17\CHA\123A008.RAW
Method : ATEH117.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 101680 Page 1 of 1
Date : 5/4/05 09:02 AM
Time of Injection: 5/3/05 07:38 PM
Low Point : 10.60 mV High Point : 328.16 mV
Plot Scale: 317.6 mV

Blank

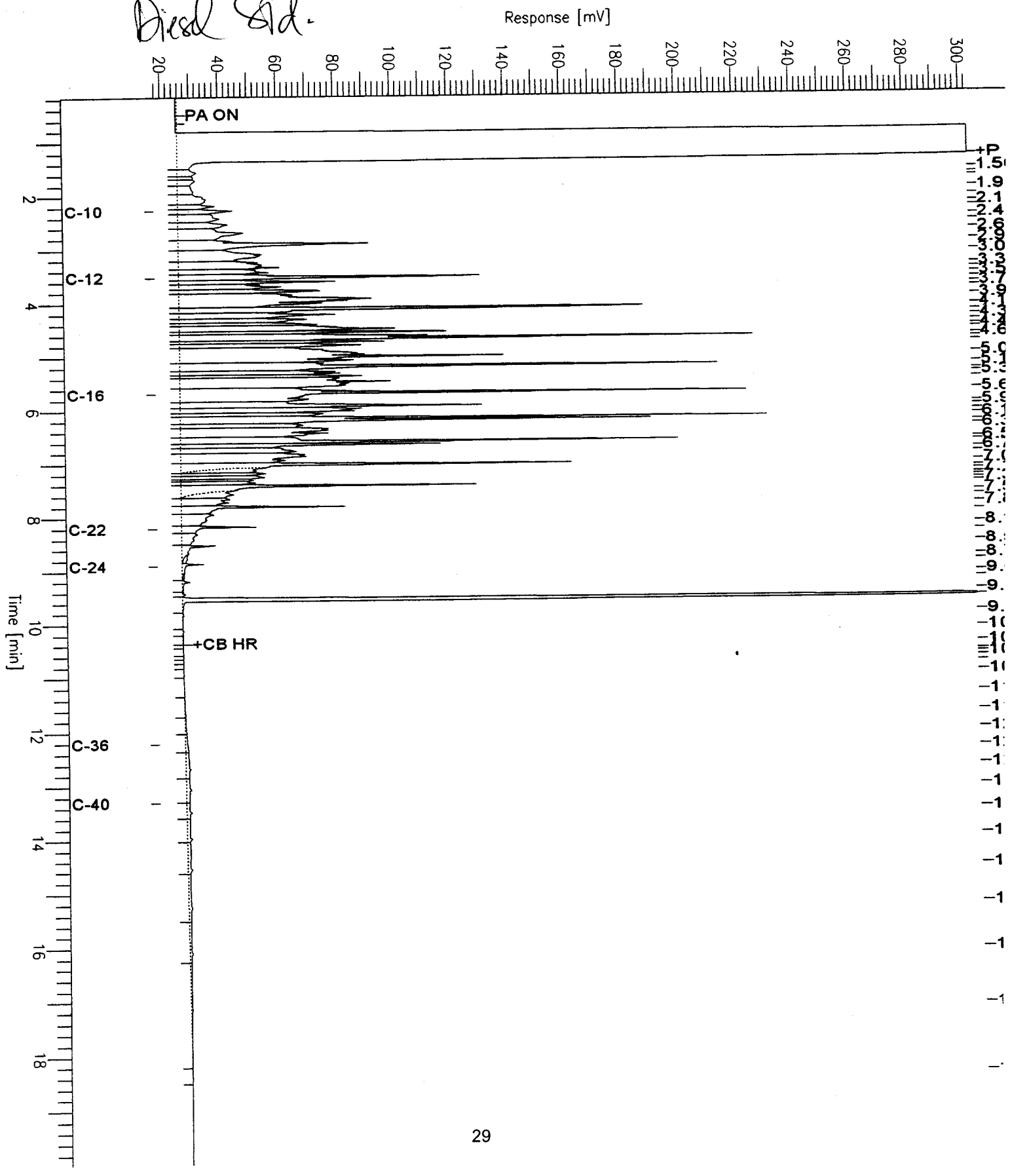


Chromatogram

Sample Name : ccv,S167,dsl
FileName : G:\GC17\CHA\123A003.RAW
Method : ATEH117.MTH
Start Time : 0.17 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 500mg/L
Date : 5/3/05 10:52 AM
Time of Injection: 5/3/05 10:27 AM
Low Point : 17.64 mV High Point : 302.70 mV
Plot Scale: 285.1 mV

Diesel Std.

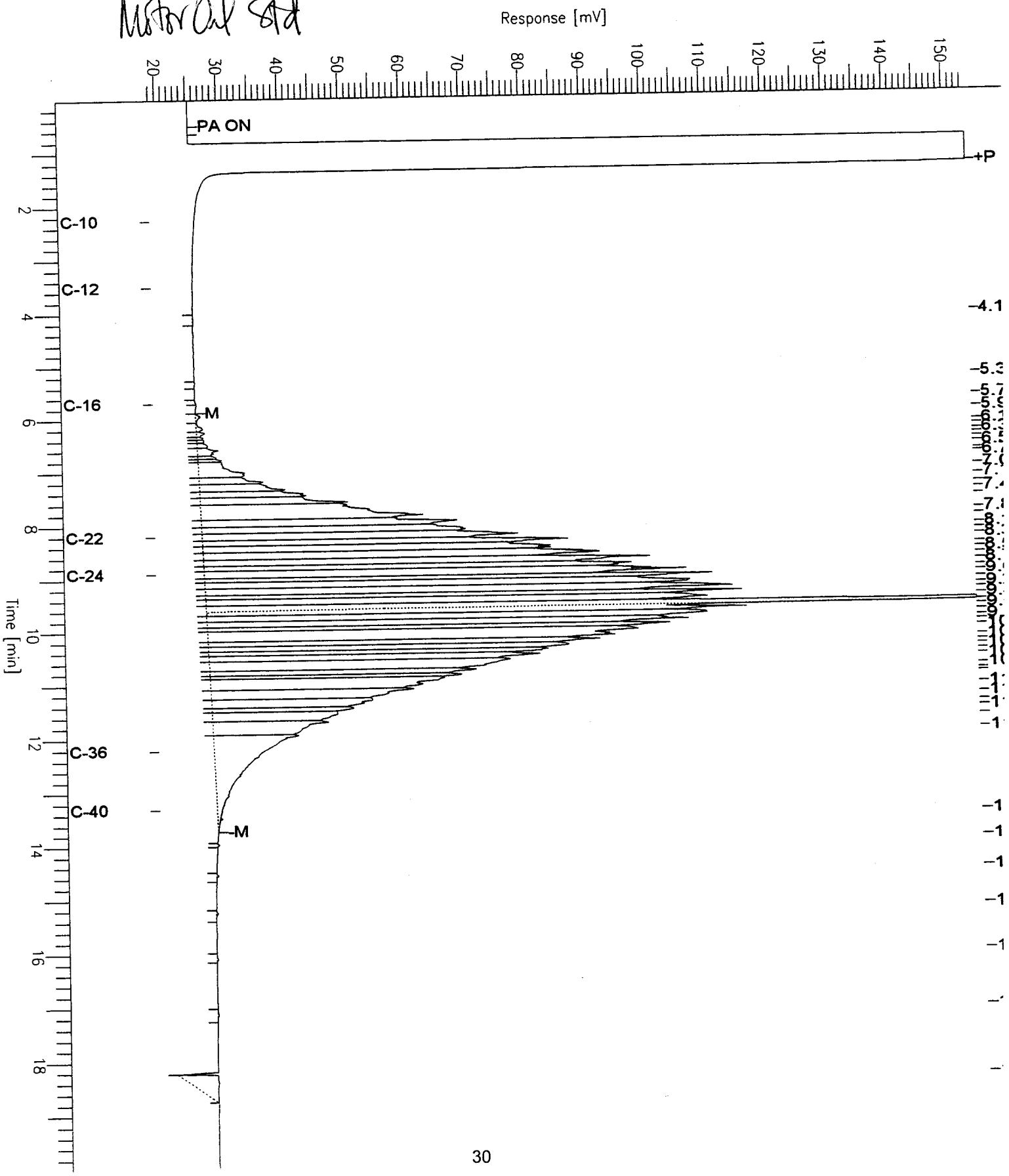


Chromatogram

Sample Name : ccv,S442,mo
FileName : G:\GC17\CHA\123A004.RAW
Method : ATEH117.MTH
Start Time : 0.01 min
End Time : 19.99 min
Scale Factor: 0.0
Plot Offset: 19 mV

Sample #: 500mg/L
Date : 5/3/05 11:19 AM
Time of Injection: 5/3/05 10:55 AM
Low Point : 18.98 mV
High Point : 153.67 mV
Plot Scale: 134.7 mV

Motor Oil Std



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292457	Batch#:	101680
Matrix:	Soil	Prepared:	05/03/05
Units:	mg/Kg	Analyzed:	05/03/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.86	50.77	102	52-137

Surrogate	%REC	Limits
Hexacosane	95	51-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBD2TP105(11.5)	Batch#:	101680
MSS Lab ID:	179182-001	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	mg/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292458

Moisture: 17%
Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	5.348	60.52	52.81	78	11-169

Surrogate	%REC	Limits
Hexacosane	80	51-136

Type: MSD
Lab ID: QC292459

Moisture: 17%
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	60.50	58.39	88	11-169	10	49

Surrogate	%REC	Limits
Hexacosane	93	51-136

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769001 Name: dsl Type: (normal) Date: 12-APR-2005 15:46 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a003	175147769003	dsl10	12-APR-2005 15:46	05WS0167
2	102a004	175147769004	dsl100	12-APR-2005 16:15	05WS0169
3	102a005	175147769005	dsl250	12-APR-2005 16:43	05WS0170
4	102a006	175147769006	dsl500	12-APR-2005 17:12	05WS0171
5	102a007	175147769007	dsl1000	12-APR-2005 17:40	05WS0172
6	102a008	175147769008	dsl2500	12-APR-2005 18:09	05WS0173
7	102a009	175147769009	dsl5000	12-APR-2005 18:37	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C10-C24	25738	30678	29352	30492	30341	30615	30232	AVRG R		3.374E-5		mg/L	29636	6	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC17A Calname : dsl
Calnum : 175147769001 Caldate : 12-APR-2005 Caltype :

ICV 175147769011 (102a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	A	175147769011	12-APR-2005	500.00	494.04	mg/L	-1

INITIAL CALIBRATION REPORT FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769002 Name: mo Type: (normal) Date: 12-APR-2005 20:32 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a013	175147769013	mo50	12-APR-2005 20:32	04WS2172
2	102a014	175147769014	mo250	12-APR-2005 21:00	04WS2173
3	102a015	175147769015	mo500	12-APR-2005 21:29	04WS2174
4	102a016	175147769016	mo1000	12-APR-2005 21:57	04WS2175
5	102a017	175147769017	mo2500	12-APR-2005 22:26	04WS2176
6	102a018	175147769018	mo5000	12-APR-2005 22:55	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	19368	20746	21476	21316	21490	20562	AVRG R		4.802E-5		mg/L	20827	4	0.995	20	

35

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769003 Name: hex Type: (normal) Date: 12-APR-2005 23:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a020	175147769020	hex5	12-APR-2005 23:52	s112
2	102a021	175147769021	hex10	13-APR-2005 00:21	s113
3	102a022	175147769022	hex25	13-APR-2005 00:49	s114
4	102a023	175147769023	hex50	13-APR-2005 01:18	s115
5	102a024	175147769024	hex75	13-APR-2005 01:47	s116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	34053	35110	33549	32398	34102	AVRG R		2.955E-5		mg/L	33842	3	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg Rf/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175177689003	03-MAY-2005 10:27	175147769001	12-APR-2005	29636	28232	500.00	476.33	mg/L	-5	15	
GC17A	A	175177689016	03-MAY-2005 23:27	175147769001	12-APR-2005	29636	29724	250.00	250.75	mg/L	0	15	
GC17A	A	175177689030	04-MAY-2005 06:10	175147769001	12-APR-2005	29636	29047	500.00	490.06	mg/L	-2	15	
GC17A	A	175177689037	04-MAY-2005 10:27	175147769001	12-APR-2005	29636	28515	1000.0	962.20	mg/L	-4	15	

CONTINUING CALIBRATION SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175177689004	03-MAY-2005 10:55	175147769002	12-APR-2005	20827	19966	500.00	479.33	mg/L	-4	15	
GC17A	A	175177689017	03-MAY-2005 23:56	175147769002	12-APR-2005	20827	20233	500.00	485.76	mg/L	-3	15	
GC17A	A	175177689031	04-MAY-2005 06:39	175147769002	12-APR-2005	20827	19028	500.00	456.83	mg/L	-9	15	

CONTINUING CALIBRATION SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175177689003	03-MAY-2005 10:27	175147769003	12-APR-2005	33842	30782	50.000	45.479	mg/L	-9	15	
GC17A	A	175177689016	03-MAY-2005 23:27	175147769003	12-APR-2005	33842	30510	50.000	45.077	mg/L	-10	15	
GC17A	A	175177689030	04-MAY-2005 06:10	175147769003	12-APR-2005	33842	31762	50.000	46.927	mg/L	-6	15	
GC17A	A	175177689037	04-MAY-2005 10:27	175147769003	12-APR-2005	33842	29305	50.000	43.296	mg/L	-13	15	

SEQUENCE SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175147769 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	102a001	X	primer			12-APR-2005 14:49	1.0					
002	102a002	X	ib			12-APR-2005 15:18	1.0					
003	102a003	ICAL	dsl10			12-APR-2005 15:46	1.0				1	
004	102a004	ICAL	dsl100			12-APR-2005 16:15	1.0				2	
005	102a005	ICAL	dsl250			12-APR-2005 16:43	1.0				3	
006	102a006	ICAL	dsl500			12-APR-2005 17:12	1.0				4	
007	102a007	ICAL	dsl1000			12-APR-2005 17:40	1.0				5	
008	102a008	ICAL	dsl2500			12-APR-2005 18:09	1.0				6	
009	102a009	ICAL	dsl5000			12-APR-2005 18:37	1.0				7	
010	102a010	X	ib			12-APR-2005 19:06	1.0					
011	102a011	ICV	dsl			12-APR-2005 19:34	1.0	3			8	
012	102a012	X	ib			12-APR-2005 20:03	1.0					
013	102a013	ICAL	mo50			12-APR-2005 20:32	1.0				9	
014	102a014	ICAL	mo250			12-APR-2005 21:00	1.0				10	
015	102a015	ICAL	mo500			12-APR-2005 21:29	1.0				11	
016	102a016	ICAL	mo1000			12-APR-2005 21:57	1.0				12	
017	102a017	ICAL	mo2500			12-APR-2005 22:26	1.0				13	
018	102a018	ICAL	mo5000			12-APR-2005 22:55	1.0				14	
019	102a019	X	ib			12-APR-2005 23:23	1.0					
020	102a020	ICAL	hex5			12-APR-2005 23:52	1.0				15	
021	102a021	ICAL	hex10			13-APR-2005 00:21	1.0				16	
022	102a022	ICAL	hex25			13-APR-2005 00:49	1.0				17	
023	102a023	ICAL	hex50			13-APR-2005 01:18	1.0				18	
024	102a024	ICAL	hex75			13-APR-2005 01:47	1.0				19	
025	102a025	X	ib			13-APR-2005 02:16	1.0					

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175177689 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 03-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	123a001	X	primer			03-MAY-2005 09:29	1.0					
002	123a002	X	ib			03-MAY-2005 09:58	1.0					
003	123a003	CCV	dsl			03-MAY-2005 10:27	1.0	1.0		3	1	
004	123a004	CCV	mo			03-MAY-2005 10:55	1.0	1.0		3	2	
005	123a005	CCV	jet			03-MAY-2005 18:00	1.0	1.0		3	3	
006	123a006	LCS	QC292457 S	101680	Soil	03-MAY-2005 18:41	1.0	0.09972		3		
007	123a007	BLANK	QC292366 S	101657	Water	03-MAY-2005 19:10	1.0	0.005	7	3		
008	123a008	BLANK	QC292456 S	101680	Soil	03-MAY-2005 19:38	1.0	0.09988	7	3		
009	123a009	BS	QC292367 S	101657	Water	03-MAY-2005 20:07	1.0	0.005		3		
010	123a010	BSD	QC292368 S	101657	Water	03-MAY-2005 20:36	1.0	0.005		3		
011	123a011	SAMPLE	179163-001 S	101657	Water	03-MAY-2005 21:04	1.0	0.005		3		
012	123a012	SAMPLE	179163-002 S	101657	Water	03-MAY-2005 21:33	1.0	0.005		3		
013	123a013	SAMPLE	179163-003 S	101657	Water	03-MAY-2005 22:01	1.0	0.005		3		
014	123a014	SAMPLE	179163-004 S	101657	Water	03-MAY-2005 22:29	1.0	0.008333		3		
015	123a015	SAMPLE	179163-007 S	101657	Water	03-MAY-2005 22:58	1.0	0.005		3		
016	123a016	CCV	dsl			03-MAY-2005 23:27	1.0	1.0		3	4	
017	123a017	CCV	mo			03-MAY-2005 23:56	1.0	1.0		3	2	
018	123a018	X	ccv			04-MAY-2005 00:24	1.0				4	
019	123a019	CCV	jet			04-MAY-2005 00:53	1.0	1.0		3	3	
020	123a020	MSS	179182-001 S	101680	Soil	04-MAY-2005 01:22	1.0	0.1005	7	3		
021	123a021	SAMPLE	179182-002 S	101680	Soil	04-MAY-2005 01:50	1.0	0.09923		3		
022	123a022	SAMPLE	179190-001 S	101680	Soil	04-MAY-2005 02:19	1.0	0.09974		3		
023	123a023	SAMPLE	179197-002 S	101680	Soil	04-MAY-2005 02:47	1.0	0.09974		3		
024	123a024	SAMPLE	179197-001 S	101680	Soil	04-MAY-2005 03:16	200.0	0.09966		3		
025	123a025	SAMPLE	179197-003 S	101680	Soil	04-MAY-2005 03:45	1.0	0.1000		3		
026	123a026	SAMPLE	179182-003 S	101680	Soil	04-MAY-2005 04:14	1.0	0.09986		3		1:BUNKC:=10698.3
027	123a027	SAMPLE	179197-005 S	101680	Soil	04-MAY-2005 04:44	100.0	0.09986		3		
028	123a028	SAMPLE	179197-004 S	101680	Soil	04-MAY-2005 05:13	1.0	0.09992		3		
029	123a029	SAMPLE	179213-001	101680	Soil	04-MAY-2005 05:42	10.0	0.1003		3		
030	123a030	CCV	dsl			04-MAY-2005 06:10	1.0	1.0		3	5	
031	123a031	CCV	mo			04-MAY-2005 06:39	1.0	1.0		3	2	

Stds used: 1=S167 2=S442 3=S348 4=S351 5=S467 6=S295

SEQUENCE SUMMARY FOR 179182 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175177689 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 03-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
032	123a032	X	ccv			04-MAY-2005 07:08	1.0			5	
033	123a033	CCV	jet			04-MAY-2005 07:37	1.0	1.0	3	3	
034	123a034	MS	QC292458 S	101680	Soil	04-MAY-2005 09:01	1.0	0.1005	3		
035	123a035	MSD	QC292459 S	101680	Soil	04-MAY-2005 09:29	1.0	0.1004	3		
036	123a036	SAMPLE	179206-001	101680	Soil	04-MAY-2005 09:58	10.0	0.1004	3		
037	123a037	CCV	dsl			04-MAY-2005 10:27	1.0	1.0	3	6	

42

Stds used: 1=S167 2=S442 3=S348 4=S351 5=S467 6=S295

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 16:56

Batch Number : 101680
Date Extracted: 03-MAY-2005
Extracted by : Amy Silverberg
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S449A
Spike #2 ID : S305B
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179170-001			SECOR	Soil	50.34	g	5	0.099325	1	1	0		TEH		
179170-002			SECOR	Soil	50.29	g	5	0.099423	1	1	0		TEH		
179170-003			SECOR	Soil	50.02	g	5	0.099960	1	1	0		TEH		
179182-001			Mactec, Inc.	Soil	49.76	g	5	0.100482	1	1	0		TEHM	3630C	sg
179182-002			Mactec, Inc.	Soil	50.39	g	5	0.099226	1	1	0		TEHM	3630C	sg
179182-003			Mactec, Inc.	Soil	50.07	g	5	0.099860	1	1	0		TEHM	3630C	sg
179190-001			Fugro West, Inc.	Soil	50.13	g	5	0.099741	1	1	0		TEHM	3630C	sg
179197-001			Port of Oakland	Soil	50.17	g	5	0.099661	1	1	0		TEHM	3630C	sg
179197-002			Port of Oakland	Soil	50.13	g	5	0.099741	1	1	0		TEHM	3630C	sg
179197-003			Port of Oakland	Soil	50	g	5	0.100000	1	1	0		TEHM	3630C	sg
179197-004			Port of Oakland	Soil	50.04	g	5	0.099920	1	1	0		TEHM	3630C	sg
179197-005			Port of Oakland	Soil	50.07	g	5	0.099860	1	1	0		TEHM	3630C	sg
179206-001			SECOR	Soil	49.79	g	5	0.100422	1	1	0		TEH		
179213-001			CH2M Hill Constructors Inc.	Soil	49.84	g	5	0.100321	1	1	0		TEHM		
QC292456	MB			Soil	50.06	g	5	0.099880	1	1	0		TEH	3630C	sg
QC292457	LCS			Soil	50.14	g	5	0.099721	1	1	1		TEH	3630C	sg
QC292458	MS	of 179182-001		Soil	49.77	g	5	0.100462	1	1	1		TEH	3630C	sg
QC292459	MSD	of 179182-001		Soil	49.79	g	5	0.100422	1	1	1		TEH	3630C	sg

Prep Chemist: afsilverberg Reviewed By: Jennifer Dell Date: 5/3/05

Relinquished By: afsilverberg Received By: SD Date: 5/4/05

LIMS Batch No: TEH/M
LIMS Analysis 101680
Extracted by: AMS
Date Extracted: 5/3/05

Extraction Method:
☑ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☑ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	179170-001	50.34	5.0		
	-002	50.29			
	-003	50.02			
	179182-001	49.76		X	MSS
5	-002	50.39		X	
	-003	50.07		X	
	179190-001	50.13		X	
	179197-001	50.17		X	
	-002	50.13		X	
10	-003	50.00		X	
	-004	50.04		X	
	-005	50.07		X	
	179206-001	49.79			
	179213-001	49.84			
15	MB QC292456	50.06		X	
	LCS 57	50.14		X	
	MS 58	49.77		X	filter 2x
	MSD 59	49.79	↓	X	↓
20					
					AMS 5/3/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44258	AMS 5/3/05
Samples were dried with CH2Cl2-rinsed ~~granular~~ powdered Na2SO4	EM44135453	
1.0 mL of TEH_SURR surrogate solution was added to all samples	5449A	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	5305B	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all CH_2Cl_2	EM45089	
Acetone	EM45083	
Samples were: ☐ sonicated 3 times ☑ placed on shaker table at:	0915	
taken off shaker table at:	1115	
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM44135453	
Concentrated to volumes as noted above ✓		

Extraction Chemist / Date

Continued from page 44
Continued on page 1

Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: AMS
Cleanup Date: 5/3/05

Benchbook # **BK 2091**
Page 100

	Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
	179154-002	101657	1.0	1.0	
	-003				
	-004				
	-005				
5	179163-001				
	-002				
	-003				
	-004				
	-007				
10	179169-001				
	-002				
	-003				
	-004				
	-005				
15	-006				
	-007				
	-008				
	-009				
	-010				
20	179195-001				
	MB QC292366				
	BS 67				
	BSD 68				
	179182-001	101680			MSS
25	-002				
	-003				
	179190-001				
	179197-001				
	-002				
30	-003				

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	AMS 5/3/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP3812	
Extracts were eluted with 2.0 mL CH_2Cl_2	BM45091	
Concentrated to volumes as noted above	✓	

AMS 5/3/05
Extraction Chemist / Date

Continued from page ____
Continued on page 2, BK2130

Jennifer Dell 5/3/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: AMS
Cleanup Date: 5/3/05

Benchbook # **BK2130**
Page 1

	Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
AMS 5/3/05	~~197~~ 179197-004	101680	1.0	1.0	
	↓ -005	↓	↓	↓	
	MB QC292456				
	LCS 57				
5	MS 58				179182-001
	MSD ↓ 59	↓	↓	↓	↓
10					
15					
20					
25					
30					AMS 5/3/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	AMS 5/3/05
☒ Extracts were cleaned up using 1.0 g cartridges	SP3812	↓
Extracts were eluted with 20 mL CH_2Cl_2	EM45071	
Concentrated to volumes as noted above	✓	

AMS 5/3/05
Extraction Chemist / Date

Continued from page 100, BK2091
Continued ~~from~~ on page ____

Jennifer Dell 5/3/05
Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
91~~82~~-001A	15.09	PCB/8081 TEH	
79148-002A	49.51		MSS
MS	49.91		179148-002A
MSD	50.12		
79167-001A	50.07		
79098-004	14.87	PCB/8081 PCB	MSS, comp-1A, 2A, 3A
MS	14.79		179098-004
MSD	14.84		
LCS	14.83	TEHM	EM44258
79152-001B	49.51		Miscell.
DUP	49.58		179152-001B
79167-001	29.61	8100 ~~8270~~ KMH 4/29/05	
79182-001 A	49.62	TEHM	
-002	50.39		
-003	50.07		
79182-001	30.19	8270-SIM	
002	30.00		
003	30.20		
79182-001	15.15	8081	
002	15.02		
003	14.91		
79182-001	14.87	PCB	
-002	15.16		
-003	15.18		

JOM 4/29/05

Continued on Page

Read and Understood By

Signed 29Apr05 Date 47 Signed Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179089-001A	15.22	PCB/8081	
-002A	15.08	8081	
~~-002~~ 002A	15.21	PCB	MS
-MS	15.04		179089-002A
-MSD	15.25		↓
-LCS	15.23		EM44258
-MB	15.21	PCB/8081	↓
-003A	15.17	PCB	
-003A	15.10	8081	MS
-MS	15.21		179089-003A
-MSD	15.05		↓
-LCS	15.20		EM44258
179098-004	15.02	PCB/8081	COMP 001A, 002A, 003A
179167-001A	15.25	PCB/8081	
179089-001A	30.43	8270-SIM	
-002	30.31		
-003	30.07		
179170-001A	50.34	TEH	
-002	50.29		
-003	50.02		
179190-001A	50.13	TEHM	
179190-001A	30.46	8100	
179190-001A	15.08	PCB	
179190-001A	15.09	8081	
179197-001A	50.17	TEHM	
-002	50.13		
-003	50.00		
-004	50.04		
-005	50.07		
179197-001A	30.37	8310	
-002	30.23		
-003	30.18		
-004	30.00		
-005	30.08		

Continued on Page

Signed — Date 5/2/03 — Read and Understood By

Signed — Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001 A	49.76	TEH	MSS
179206-001 A	49.79	↓	
179213-001 A	49.84		
MB	50.06		EM44258
LCS	50.14		↓
MS	49.77		179182-001A
MSD	49.79		↓

Continued on Page

VOCs results & QC Summary

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP105(11.5)	Diln Fac:	0.8475
Lab ID:	179182-001	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.7
Chloroethane	ND	10	1.9
Trichlorofluoromethane	ND	5.1	1.7
Acetone	63	20	2.1
Freon 113	ND	5.1	1.8
1,1-Dichloroethene	ND	5.1	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.1	1.7
MTBE	ND	5.1	2.1
trans-1,2-Dichloroethene	ND	5.1	2.1
Vinyl Acetate	ND	51	1.9
1,1-Dichloroethane	ND	5.1	2.0
2-Butanone	11	10	2.2
cis-1,2-Dichloroethene	ND	5.1	2.0
2,2-Dichloropropane	ND	5.1	2.0
Chloroform	ND	5.1	2.1
Bromochloromethane	ND	5.1	1.9
1,1,1-Trichloroethane	ND	5.1	2.1
1,1-Dichloropropene	ND	5.1	2.1
Carbon Tetrachloride	ND	5.1	1.8
1,2-Dichloroethane	ND	5.1	2.0
Benzene	ND	5.1	2.1
Trichloroethene	ND	5.1	2.1
1,2-Dichloropropane	ND	5.1	2.2
Bromodichloromethane	ND	5.1	1.9
Dibromomethane	ND	5.1	1.9
4-Methyl-2-Pentanone	ND	10	1.8
cis-1,3-Dichloropropene	ND	5.1	1.8
Toluene	ND	5.1	2.4
trans-1,3-Dichloropropene	ND	5.1	2.0
1,1,2-Trichloroethane	ND	5.1	2.6
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.1	1.9
Tetrachloroethene	ND	5.1	1.9
Dibromochloromethane	ND	5.1	1.5
1,2-Dibromoethane	ND	5.1	2.0
Chlorobenzene	ND	5.1	2.1
1,1,1,2-Tetrachloroethane	ND	5.1	1.7
Ethylbenzene	ND	5.1	2.1
m,p-Xylenes	ND	5.1	4.5
o-Xylene	ND	5.1	2.1
Styrene	ND	5.1	1.8
Bromoform	ND	5.1	1.6
Isopropylbenzene	ND	5.1	2.1
1,1,2,2-Tetrachloroethane	ND	5.1	2.1
1,2,3-Trichloropropane	ND	5.1	2.6
Propylbenzene	ND	5.1	2.1
Bromobenzene	ND	5.1	2.0
1,3,5-Trimethylbenzene	ND	5.1	2.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP105(11.5)	Diln Fac:	0.8475
Lab ID:	179182-001	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.1	2.2
4-Chlorotoluene	ND	5.1	1.9
tert-Butylbenzene	ND	5.1	2.1
1,2,4-Trimethylbenzene	ND	5.1	2.0
sec-Butylbenzene	ND	5.1	2.2
para-Isopropyl Toluene	ND	5.1	2.0
1,3-Dichlorobenzene	ND	5.1	1.9
1,4-Dichlorobenzene	ND	5.1	1.9
n-Butylbenzene	ND	5.1	1.8
1,2-Dichlorobenzene	ND	5.1	2.0
1,2-Dibromo-3-Chloropropane	ND	5.1	2.3
1,2,4-Trichlorobenzene	ND	5.1	1.6
Hexachlorobutadiene	ND	5.1	2.0
Naphthalene	ND	5.1	1.7
1,2,3-Trichlorobenzene	ND	5.1	1.8

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	90	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP105(15.0)	Diln Fac:	0.8333
Lab ID:	179182-002	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	9.8	2.0
Chloromethane	ND	9.8	1.9
Vinyl Chloride	ND	9.8	1.5
Bromomethane	ND	9.8	1.6
Chloroethane	ND	9.8	1.8
Trichlorofluoromethane	ND	4.9	1.6
Acetone	ND	20	2.1
Freon 113	ND	4.9	1.7
1,1-Dichloroethene	ND	4.9	2.1
Methylene Chloride	ND	20	2.1
Carbon Disulfide	ND	4.9	1.7
MTBE	ND	4.9	2.0
trans-1,2-Dichloroethene	ND	4.9	2.0
Vinyl Acetate	ND	49	1.8
1,1-Dichloroethane	ND	4.9	1.9
2-Butanone	ND	9.8	2.1
cis-1,2-Dichloroethene	ND	4.9	2.0
2,2-Dichloropropane	ND	4.9	2.0
Chloroform	ND	4.9	2.0
Bromochloromethane	ND	4.9	1.8
1,1,1-Trichloroethane	ND	4.9	2.0
1,1-Dichloropropene	ND	4.9	2.0
Carbon Tetrachloride	ND	4.9	1.7
1,2-Dichloroethane	ND	4.9	2.0
Benzene	ND	4.9	2.1
Trichloroethene	ND	4.9	2.0
1,2-Dichloropropane	ND	4.9	2.1
Bromodichloromethane	ND	4.9	1.8
Dibromomethane	ND	4.9	1.9
4-Methyl-2-Pentanone	ND	9.8	1.7
cis-1,3-Dichloropropene	ND	4.9	1.7
Toluene	ND	4.9	2.3
trans-1,3-Dichloropropene	ND	4.9	2.0
1,1,2-Trichloroethane	ND	4.9	2.5
2-Hexanone	ND	9.8	1.9
1,3-Dichloropropane	ND	4.9	1.9
Tetrachloroethene	ND	4.9	1.8
Dibromochloromethane	ND	4.9	1.5
1,2-Dibromoethane	ND	4.9	1.9
Chlorobenzene	ND	4.9	2.0
1,1,1,2-Tetrachloroethane	ND	4.9	1.7
Ethylbenzene	ND	4.9	2.0
m,p-Xylenes	ND	4.9	4.3
o-Xylene	ND	4.9	2.0
Styrene	ND	4.9	1.8
Bromoform	ND	4.9	1.6
Isopropylbenzene	ND	4.9	2.0
1,1,2,2-Tetrachloroethane	ND	4.9	2.0
1,2,3-Trichloropropane	ND	4.9	2.5
Propylbenzene	ND	4.9	2.0
Bromobenzene	ND	4.9	1.9
1,3,5-Trimethylbenzene	ND	4.9	2.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP105(15.0)	Diln Fac:	0.8333
Lab ID:	179182-002	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	4.9	2.1
4-Chlorotoluene	ND	4.9	1.8
tert-Butylbenzene	ND	4.9	2.0
1,2,4-Trimethylbenzene	ND	4.9	2.0
sec-Butylbenzene	ND	4.9	2.1
para-Isopropyl Toluene	ND	4.9	2.0
1,3-Dichlorobenzene	ND	4.9	1.9
1,4-Dichlorobenzene	ND	4.9	1.9
n-Butylbenzene	ND	4.9	1.7
1,2-Dichlorobenzene	ND	4.9	1.9
1,2-Dibromo-3-Chloropropane	ND	4.9	2.2
1,2,4-Trichlorobenzene	ND	4.9	1.6
Hexachlorobutadiene	ND	4.9	1.9
Naphthalene	ND	4.9	1.6
1,2,3-Trichlorobenzene	ND	4.9	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	98	78-120
1,2-Dichloroethane-d4	89	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP106(2.0)	Diln Fac:	1.020
Lab ID:	179182-003	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Moisture: 9%

Analyte	Result	RL	MDL
Freon 12	ND	11	2.2
Chloromethane	ND	11	2.2
Vinyl Chloride	ND	11	1.7
Bromomethane	ND	11	1.8
Chloroethane	ND	11	2.0
Trichlorofluoromethane	ND	5.6	1.8
Acetone	ND	22	2.4
Freon 113	ND	5.6	1.9
1,1-Dichloroethene	ND	5.6	2.4
Methylene Chloride	ND	22	2.4
Carbon Disulfide	ND	5.6	1.9
MTBE	ND	5.6	2.3
trans-1,2-Dichloroethene	ND	5.6	2.3
Vinyl Acetate	ND	56	2.1
1,1-Dichloroethane	ND	5.6	2.2
2-Butanone	ND	11	2.4
cis-1,2-Dichloroethene	ND	5.6	2.2
2,2-Dichloropropane	ND	5.6	2.2
Chloroform	ND	5.6	2.3
Bromochloromethane	ND	5.6	2.1
1,1,1-Trichloroethane	ND	5.6	2.3
1,1-Dichloropropene	ND	5.6	2.3
Carbon Tetrachloride	ND	5.6	2.0
1,2-Dichloroethane	ND	5.6	2.2
Benzene	ND	5.6	2.4
Trichloroethene	ND	5.6	2.3
1,2-Dichloropropane	ND	5.6	2.4
Bromodichloromethane	ND	5.6	2.1
Dibromomethane	ND	5.6	2.1
4-Methyl-2-Pentanone	ND	11	2.0
cis-1,3-Dichloropropene	ND	5.6	2.0
Toluene	40	5.6	2.6
trans-1,3-Dichloropropene	ND	5.6	2.2
1,1,2-Trichloroethane	ND	5.6	2.8
2-Hexanone	ND	11	2.2
1,3-Dichloropropane	ND	5.6	2.1
Tetrachloroethene	ND	5.6	2.0
Dibromochloromethane	ND	5.6	1.7
1,2-Dibromoethane	ND	5.6	2.2
Chlorobenzene	ND	5.6	2.3
1,1,1,2-Tetrachloroethane	ND	5.6	1.9
Ethylbenzene	13	5.6	2.3
m,p-Xylenes	48	5.6	4.9
o-Xylene	18	5.6	2.3
Styrene	ND	5.6	2.0
Bromoform	ND	5.6	1.8
Isopropylbenzene	ND	5.6	2.3
1,1,2,2-Tetrachloroethane	ND	5.6	2.3
1,2,3-Trichloropropane	ND	5.6	2.8
Propylbenzene	ND	5.6	2.3
Bromobenzene	ND	5.6	2.1
1,3,5-Trimethylbenzene	ND	5.6	2.3

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBD2TP106(2.0)	Diln Fac:	1.020
Lab ID:	179182-003	Batch#:	101594
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Basis:	dry	Analyzed:	04/29/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.6	2.4
4-Chlorotoluene	ND	5.6	2.1
tert-Butylbenzene	ND	5.6	2.3
1,2,4-Trimethylbenzene	13	5.6	2.2
sec-Butylbenzene	ND	5.6	2.4
para-Isopropyl Toluene	ND	5.6	2.2
1,3-Dichlorobenzene	ND	5.6	2.1
1,4-Dichlorobenzene	ND	5.6	2.1
n-Butylbenzene	ND	5.6	1.9
1,2-Dichlorobenzene	ND	5.6	2.1
1,2-Dibromo-3-Chloropropane	ND	5.6	2.5
1,2,4-Trichlorobenzene	ND	5.6	1.8
Hexachlorobutadiene	ND	5.6	2.2
Naphthalene	ND	5.6	1.9
1,2,3-Trichlorobenzene	ND	5.6	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	78-120
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	110	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC292135	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101594
Units:	ug/Kg	Analyzed:	04/29/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.6
Chloroethane	ND	10	1.8
Trichlorofluoromethane	ND	5.0	1.6
Acetone	ND	20	2.1
Freon 113	ND	5.0	1.7
1,1-Dichloroethene	ND	5.0	2.2
Methylene Chloride	4.0 J	20	2.2
Carbon Disulfide	ND	5.0	1.7
MTBE	ND	5.0	2.0
trans-1,2-Dichloroethene	ND	5.0	2.1
Vinyl Acetate	ND	50	1.9
1,1-Dichloroethane	ND	5.0	2.0
2-Butanone	ND	10	2.1
cis-1,2-Dichloroethene	ND	5.0	2.0
2,2-Dichloropropane	ND	5.0	2.0
Chloroform	ND	5.0	2.0
Bromochloromethane	ND	5.0	1.8
1,1,1-Trichloroethane	ND	5.0	2.0
1,1-Dichloropropene	ND	5.0	2.0
Carbon Tetrachloride	ND	5.0	1.8
1,2-Dichloroethane	ND	5.0	2.0
Benzene	ND	5.0	2.1
Trichloroethene	ND	5.0	2.0
1,2-Dichloropropane	ND	5.0	2.2
Bromodichloromethane	ND	5.0	1.9
Dibromomethane	ND	5.0	1.9
4-Methyl-2-Pentanone	ND	10	1.7
cis-1,3-Dichloropropene	ND	5.0	1.7
Toluene	ND	5.0	2.3
trans-1,3-Dichloropropene	ND	5.0	2.0
1,1,2-Trichloroethane	ND	5.0	2.5
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.0	1.9
Tetrachloroethene	ND	5.0	1.8
Dibromochloromethane	ND	5.0	1.5
1,2-Dibromoethane	ND	5.0	1.9
Chlorobenzene	ND	5.0	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	1.7
Ethylbenzene	ND	5.0	2.0
m,p-Xylenes	ND	5.0	4.4
o-Xylene	ND	5.0	2.1
Styrene	ND	5.0	1.8
Bromoform	ND	5.0	1.6
Isopropylbenzene	ND	5.0	2.0
1,1,2,2-Tetrachloroethane	ND	5.0	2.1
1,2,3-Trichloropropane	ND	5.0	2.5
Propylbenzene	ND	5.0	2.1
Bromobenzene	ND	5.0	1.9
1,3,5-Trimethylbenzene	ND	5.0	2.1
2-Chlorotoluene	ND	5.0	2.1

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC292135	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101594
Units:	ug/Kg	Analyzed:	04/29/05

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	1.8
tert-Butylbenzene	ND	5.0	2.1
1,2,4-Trimethylbenzene	ND	5.0	2.0
sec-Butylbenzene	ND	5.0	2.1
para-Isopropyl Toluene	ND	5.0	2.0
1,3-Dichlorobenzene	ND	5.0	1.9
1,4-Dichlorobenzene	ND	5.0	1.9
n-Butylbenzene	ND	5.0	1.7
1,2-Dichlorobenzene	ND	5.0	1.9
1,2-Dibromo-3-Chloropropane	ND	5.0	2.2
1,2,4-Trichlorobenzene	ND	5.0	1.6
Hexachlorobutadiene	ND	5.0	2.0
Naphthalene	ND	5.0	1.7
1,2,3-Trichlorobenzene	ND	5.0	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	85	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	104	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Batch#:	101594
Basis:	as received	Analyzed:	04/29/05

Type: BS Lab ID: QC292133

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	58.98	118	77-124
Benzene	50.00	50.59	101	80-120
Trichloroethene	50.00	47.49	95	80-120
Toluene	50.00	48.35	97	80-120
Chlorobenzene	50.00	48.52	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-120
1,2-Dichloroethane-d4	91	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC292134

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	61.30	123	77-124	4	20
Benzene	50.00	49.55	99	80-120	2	20
Trichloroethene	50.00	47.81	96	80-120	1	20
Toluene	50.00	49.76	100	80-120	3	20
Chlorobenzene	50.00	50.06	100	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-120
1,2-Dichloroethane-d4	90	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

RPD= Relative Percent Difference

MSVOA03 8260/GASOX 5 ICAL TUNE

Data File: \\GCHSSERVER\DD\chem\MSVOA03.i\033005.b\CCU16.D

Date : 30-MAR-2005 16:41

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

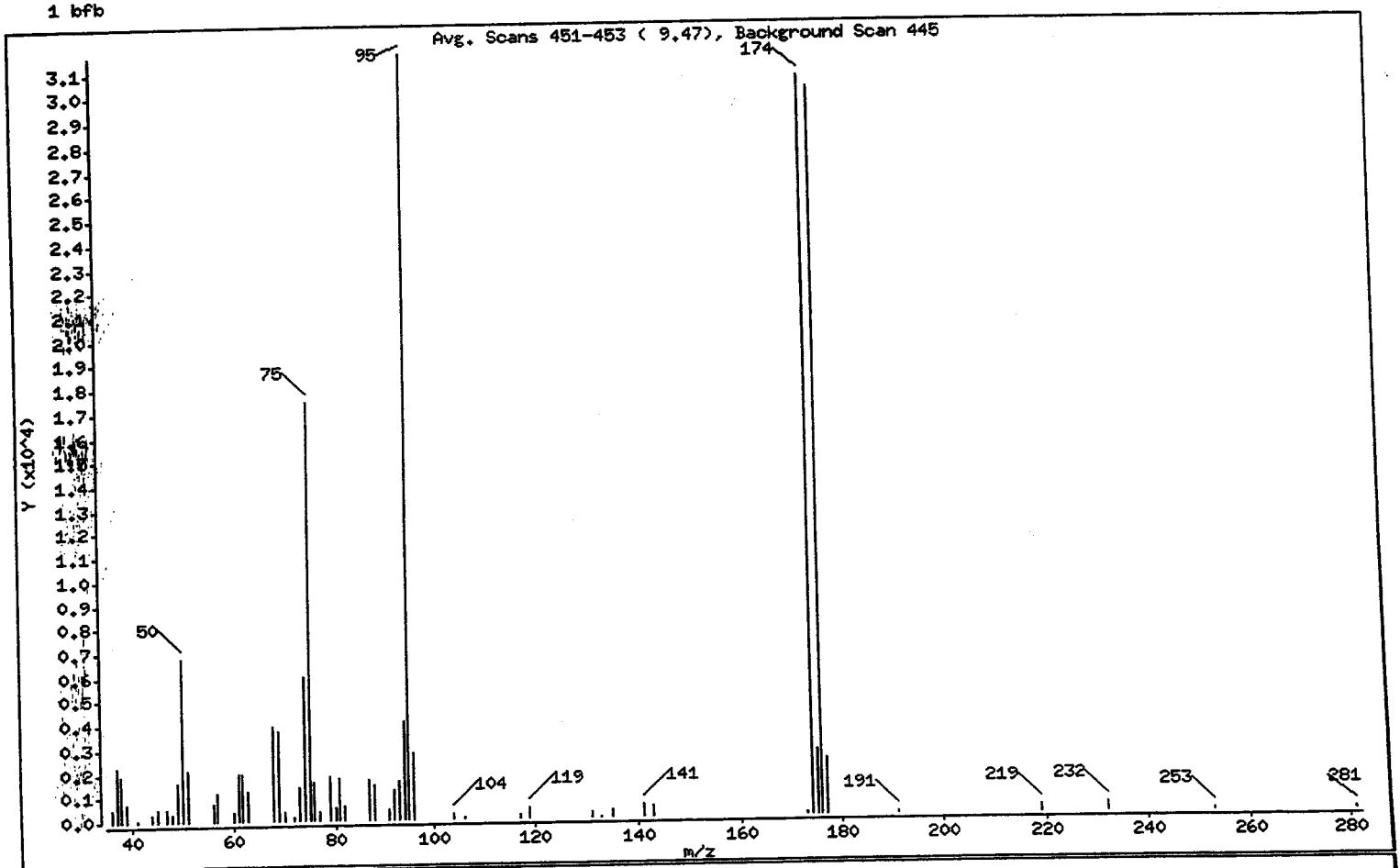
Operator: VOC

Volume Injected (uL): 1.0

Column diameter: 2.00

Column phase:

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.37
75	30.00 - 60.00% of mass 95	55.06
96	5.00 - 9.00% of mass 95	8.78
173	Less than 2.00% of mass 174	0.33 (0.34)
174	50.00 - 99.99% of mass 95	96.58
175	5.00 - 9.00% of mass 174	8.41 (8.70)
176	95.01 - 100.99% of mass 174	95.26 (98.63)
177	5.00 - 9.00% of mass 176	7.35 (7.71)

C 03/31/05 60

K 3/31/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\042905.b\CDT02.D

Date : 29-APR-2005 10:29

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

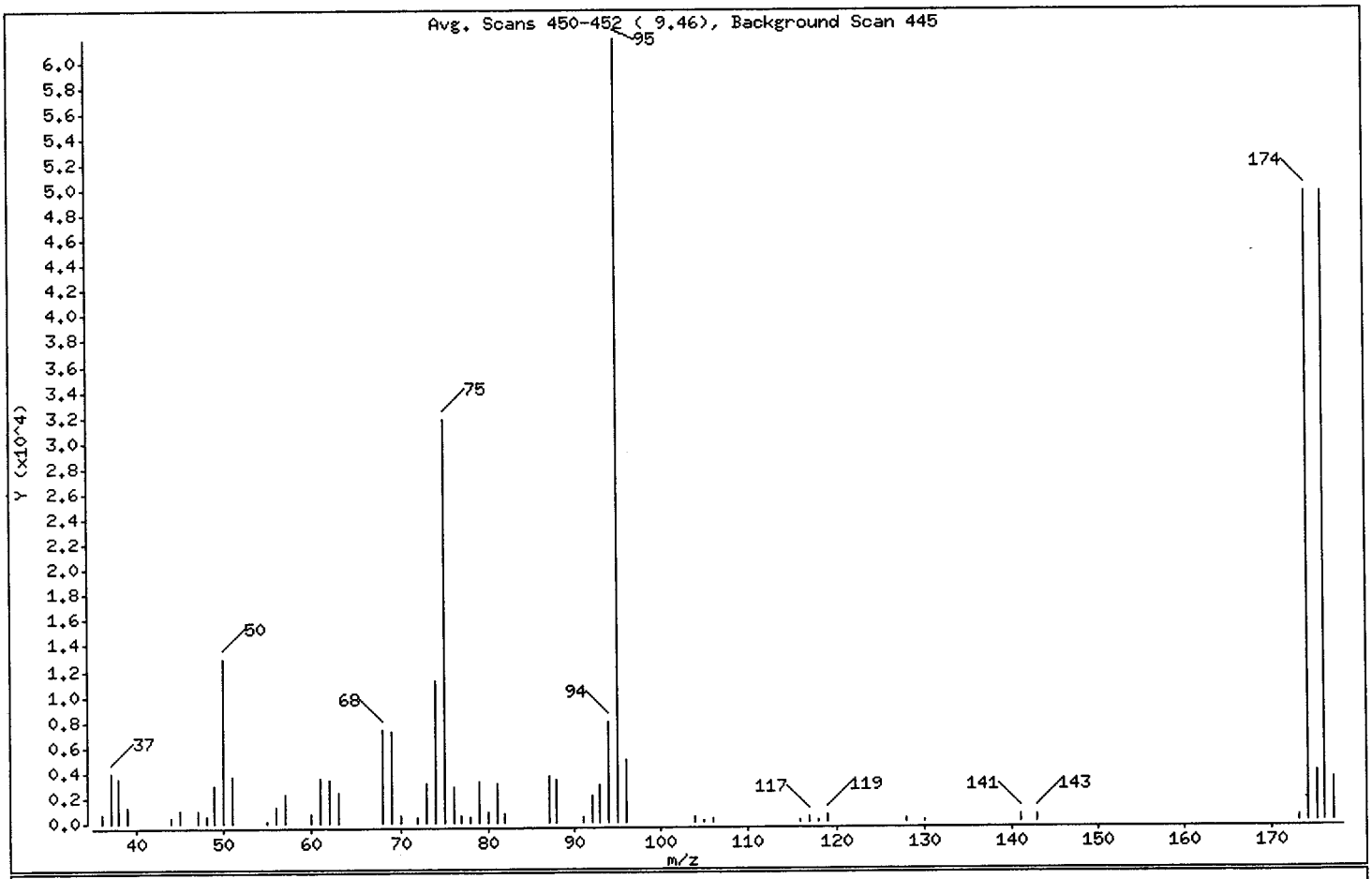
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.88
75	30.00 - 60.00% of mass 95	51.51
96	5.00 - 9.00% of mass 95	7.95
173	Less than 2.00% of mass 174	0.59 (0.74)
174	50.00 - 99.99% of mass 95	80.50
175	5.00 - 9.00% of mass 174	6.40 (7.95)
176	95.01 - 100.99% of mass 174	80.44 (99.93)
177	5.00 - 9.00% of mass 176	5.54 (6.89)

4/29/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	ccu18	425128734018	5PPB	30-MAR-2005 17:27	S158 (100000X), S127 (100000X), S95 (5000X)
2	ccu19	425128734019	10PPB	30-MAR-2005 17:57	S158 (50000X), S127 (50000X), S95 (5000X)
3	ccu20	425128734020	20PPB	30-MAR-2005 18:27	S158 (25000X), S127 (25000X), S95 (5000X)
4	ccu21	425128734021	50PPB	30-MAR-2005 18:57	S158 (10000X), S127 (10000X), S95 (5000X)
5	ccu22	425128734022	60PPB	30-MAR-2005 19:27	S158 (8333X), S127 (8333X), S95 (5000X)
6	ccu23	425128734023	75PPB	30-MAR-2005 19:58	S158 (6667X), S127 (6667X), S95 (5000X)
7	ccu24	425128734024	100PPB	30-MAR-2005 20:28	S158 (5000X), S127 (5000X), S95 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4745m	0.4940m	0.4751m	0.4976m	0.5119m	0.4812m	0.4759m	AVRG	R		2.052728		ug/L	0.4872	3	0.0500	0.99	15	
Chloromethane	0.4546m	0.4333m	0.4042m	0.3987m	0.3952m	0.3795m	0.3596	AVRG	R		2.477694		ug/L	0.4036	8	0.1000	0.99	15	
Vinyl Chloride	0.3567	0.3592	0.3293	0.3631	0.3567	0.3419	0.3359	AVRG	R		2.865534		ug/L	0.3490	4	0.0500	0.99	15	
Bromomethane	0.6025	0.5903	0.5800	0.5781	0.5826	0.5774	0.5609	AVRG	R		1.719137		ug/L	0.5817	2	0.0500	0.99	15	
Chloroethane	0.2623	0.2655	0.2661	0.2516	0.2474	0.2505	0.2389	AVRG	R		3.927511		ug/L	0.2546	4	0.0500	0.99	15	
Trichlorofluoromethane	0.7451	0.7351	0.6993	0.7470	0.7537	0.7322	0.7122	AVRG	R		1.365915		ug/L	0.7321	3	0.0500	0.99	15	
Acetone		0.1684	0.1404	0.1435	0.1343	0.1296	0.1228	AVRG	R		7.151248		ug/L	0.1398	11	0.0500	0.99	15	
Freon 113	0.3763	0.3313	0.2496	0.4359	0.4394	0.4285	0.4299	LINR	R	3.499502	2.213916		ug/L	0.3844	0.994	0.0500	0.99	15	
1,1-Dichloroethene	0.3130	0.2947	0.2597	0.3277	0.3230	0.3295	0.3179	AVRG	R		3.232673		ug/L	0.3093	8	0.0500	0.99	15	
Methylene Chloride		0.4356	0.4209	0.4196	0.4170	0.4058	0.3891	AVRG	R		2.411557		ug/L	0.4147	4	0.0500	0.99	15	
Carbon Disulfide	0.9218	0.8982	0.8392	0.9664	0.9743	0.9295	0.9343	AVRG	R		1.082975		ug/L	0.9234	5	0.0500	0.99	15	
MTBE	1.2580	1.2866	1.2003	1.2427	1.2274	1.1938	1.1428	AVRG	R		0.818567		ug/L	1.2216	4	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.3945	0.3916	0.3570	0.3924	0.3873	0.3852	0.3781	AVRG	R		2.606048		ug/L	0.3837	3	0.0500	0.99	15	
Vinyl Acetate	0.8972	0.8399	0.8594	0.8742	0.8300	0.8268	0.8066	AVRG	R		1.179606		ug/L	0.8477	4	0.0500	0.99	15	
1,1-Dichloroethane	0.6787	0.6736	0.6272	0.6559	0.6339	0.6374	0.6178	AVRG	R		1.547118		ug/L	0.6464	4	0.1000	0.99	15	
2-Butanone		0.2358	0.2313	0.2273	0.2279	0.2128	0.1938	AVRG	R		4.514839		ug/L	0.2215	7	0.0500	0.99	15	
2,2-Dichloropropane	0.6240	0.5950	0.5262	0.5935	0.6008	0.5769	0.5718	AVRG	R		1.712243		ug/L	0.5840	5	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.4755	0.4431	0.4299	0.4415	0.4432	0.4318	0.4179	AVRG	R		2.270552		ug/L	0.4404	4	0.0500	0.99	15	

BAL - Good, ICV - Good + A.C.E. Lin - Brhet

Flags used: m=manual integration - for inc. int. By Target

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

4/3/1/05

3/31

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	r^2 MnR^2	MxRSD	Flags
Chloroform	0.7899	0.8058	0.7653	0.7702	0.7714	0.7322	0.7313	AVRG	R		1.304464		ug/L	0.7666	4	0.0500	0.99	15	
Bromochloromethane	0.2557	0.2677	0.2593	0.2692	0.2779	0.2618	0.2558	AVRG	R		3.788978		ug/L	0.2639	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6382	0.6119	0.5379	0.6378	0.6394	0.6167	0.6122	AVRG	R		1.630131		ug/L	0.6134	6	0.0500	0.99	15	
1,1-Dichloropropene	0.3474	0.3198	0.2838	0.3294	0.3422	0.3257	0.3301	AVRG	R		3.072226		ug/L	0.3255	6	0.0500	0.99	15	
Carbon Tetrachloride	0.3729	0.3485	0.2989	0.3858	0.3852	0.3845	0.3909	AVRG	R		2.727273		ug/L	0.3667	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4482	0.4634	0.4344	0.4217	0.4177	0.4053	0.4033	AVRG	R		2.337999		ug/L	0.4277	5	0.0500	0.99	15	
Benzene	0.9907	0.9541	0.8903	0.8797	0.8871	0.8552	0.8477	AVRG	R		1.110289		ug/L	0.9007	6	0.0500	0.99	15	
Trichloroethene	0.2949	0.2987	0.2652	0.2841	0.2953	0.2842	0.2870	AVRG	R		3.483382		ug/L	0.2871	4	0.0500	0.99	15	
1,2-Dichloropropane	0.2948	0.2940	0.2649	0.2588	0.2602	0.2581	0.2532	AVRG	R		3.715540		ug/L	0.2691	7	0.0500	0.99	15	
Bromodichloromethane	0.3996	0.4125	0.3801	0.3986	0.4026	0.3987	0.3987	AVRG	R		2.508187		ug/L	0.3987	2	0.0500	0.99	15	
Dibromomethane	0.2421	0.2471	0.2412	0.2454	0.2420	0.2382	0.2322	AVRG	R		4.146577		ug/L	0.2412	2	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.3486	0.3396	0.3360	0.3325	0.3160	0.3008	AVRG	R		3.040251		ug/L	0.3289	5	0.0500	0.99	15	
Tetramethyl THF	0.6721	0.6708	0.6240	0.5981	0.5948	0.5714	0.5443	AVRG	R		1.637230		ug/L	0.6108	8	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4646	0.4742	0.4349	0.4430	0.4486	0.4421	0.4363	AVRG	R		2.226603		ug/L	0.4491	3	0.0500	0.99	15	
Toluene	0.6271	0.6238	0.5714	0.5858	0.5953	0.5819	0.5574	AVRG	R		1.689743		ug/L	0.5918	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4441	0.4635	0.4231	0.4429	0.4432	0.4348	0.4292	AVRG	R		2.272139		ug/L	0.4401	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1538	0.1581	0.1405	0.1512	0.1496	0.1450	0.1476	AVRG	R		6.692440		ug/L	0.1494	4	0.0500	0.99	15	
2-Hexanone		0.3134	0.3212	0.3063	0.2974	0.2884	0.2681	AVRG	R		3.343034		ug/L	0.2991	6	0.0500	0.99	15	
1,3-Dichloropropane	0.5717	0.5606	0.5382	0.5390	0.5192	0.5197	0.5159	AVRG	R		1.859577		ug/L	0.5378	4	0.0500	0.99	15	
Tetrachloroethene	0.3828	0.3816	0.3205	0.3886	0.3875	0.3795	0.3819	AVRG	R		2.669315		ug/L	0.3746	6	0.0500	0.99	15	
Dibromochloromethane	0.4296	0.4434	0.4281	0.4439	0.4292	0.4446	0.4463	AVRG	R		2.283853		ug/L	0.4379	2	0.0500	0.99	15	
1,2-Dibromoethane	0.3274	0.3274	0.3100	0.3309	0.3247	0.3120	0.3129	AVRG	R		3.117626		ug/L	0.3208	3	0.0500	0.99	15	
Chlorobenzene	1.0049	0.9516	0.9031	0.9065	0.8937	0.8685	0.8544	AVRG	R		1.096704		ug/L	0.9118	6	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.4100	0.4028	0.3648	0.3903	0.3694	0.3665	0.3679	AVRG	R		2.620104		ug/L	0.3817	5	0.0500	0.99	15	
Ethylbenzene	1.5015	1.4811	1.3158	1.4354	1.3997	1.3356	1.3274	AVRG	R		0.714542		ug/L	1.3995	5	0.0500	0.99	15	
m,p-Xylenes	0.5684	0.5359	0.4802	0.4973	0.4942	0.4800	0.4751	AVRG	R		1.982364		ug/L	0.5044	7	0.0500	0.99	15	
o-Xylene	0.5578	0.5442	0.4877	0.5107	0.4999	0.4974	0.4935	AVRG	R		1.949221		ug/L	0.5130	5	0.0500	0.99	15	
Styrene	0.9486	0.9388	0.8958	0.9083	0.8995	0.8799	0.8834	AVRG	R		1.101632		ug/L	0.9077	3	0.0500	0.99	15	
Bromoform	0.3658	0.3812	0.3789	0.3892	0.3902	0.3856	0.3927	AVRG	R		2.608541		ug/L	0.3834	2	0.1000	0.99	15	
Isopropylbenzene	2.3797	2.2853	1.8943	2.2514	2.2791	2.1815	2.1569	AVRG	R		0.453714		ug/L	2.2040	7	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.8639	0.8746	0.8123	0.8132	0.8164	0.7938	0.7558	AVRG	R		1.221659		ug/L	0.8186	5	0.3000	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425128734001 Name: 826GOX03 Type: SOIL Date: 30-MAR-2005 17:27 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.2802	0.2799	0.2582	0.2535	0.2692	0.2566	0.2441	AVRG	R		3.800524		ug/L	0.2631	5	0.0500	0.99	15	
Propylbenzene	3.0056	2.9505	2.4595	2.7615	2.7537	2.6388	2.5300	AVRG	R		0.366500		ug/L	2.7285	7	0.0500	0.99	15	
Bromobenzene	0.7851	0.8022	0.7151	0.7382	0.7451	0.7042	0.7070	AVRG	R		1.346954		ug/L	0.7424	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.0475	2.0849	1.7387	1.9321	1.9418	1.8979	1.8424	AVRG	R		0.519084		ug/L	1.9265	6	0.0500	0.99	15	
2-Chlorotoluene	2.1828	2.1463	1.9105	1.9394	1.9828	1.9145	1.8155	AVRG	R		0.503892		ug/L	1.9846	7	0.0500	0.99	15	
4-Chlorotoluene	2.0331	2.0693	1.7961	1.8674	1.9187	1.8250	1.7889	AVRG	R		0.526379		ug/L	1.8998	6	0.0500	0.99	15	
tert-Butylbenzene	1.7764	1.7129	1.3901	1.6904	1.6977	1.6270	1.5981	AVRG	R		0.609086		ug/L	1.6418	8	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1604	2.1330	1.8337	2.0032	2.0675	1.9578	1.9085	AVRG	R		0.497720		ug/L	2.0092	6	0.0500	0.99	15	
sec-Butylbenzene	2.4196	2.4698	1.9586	2.5153	2.5642	2.4347	2.3737	AVRG	R		0.418263		ug/L	2.3908	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.2101	2.1113	1.7857	2.1164	2.1225	2.0633	2.0526	AVRG	R		0.484030		ug/L	2.0660	6	0.0500	0.99	15	
1,3-Dichlorobenzene	1.4037	1.4449	1.2815	1.3359	1.3324	1.2865	1.2907	AVRG	R		0.746610		ug/L	1.3394	5	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5207	1.5011	1.3123	1.3850	1.3603	1.3396	1.3146	AVRG	R		0.719158		ug/L	1.3905	6	0.0500	0.99	15	
n-Butylbenzene	2.1015	2.0272	1.6584	1.9969	2.0294	1.9309	1.9163	AVRG	R		0.512422		ug/L	1.9515	7	0.0500	0.99	15	
1,2-Dichlorobenzene	1.3317	1.4049	1.2331	1.3227	1.2701	1.2497	1.2509	AVRG	R		0.772366		ug/L	1.2947	5	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2127	0.2003	0.1827	0.1848	0.1763	0.1695	0.1719	AVRG	R		5.392369		ug/L	0.1854	9	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.8893	0.9435	0.8386	0.8713	0.8419	0.8600	0.8394	AVRG	R		1.150560		ug/L	0.8691	4	0.0500	0.99	15	
Hexachlorobutadiene	0.4670	0.4315	0.3483	0.4512	0.4371	0.4438	0.4224	AVRG	R		2.332319		ug/L	0.4288	9	0.0500	0.99	15	
Naphthalene	1.8317	1.8992	1.8363	1.8422	1.8165	1.8641	1.8074	AVRG	R		0.542743		ug/L	1.8425	2	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.8405	0.8846	0.7986	0.8496	0.8171	0.8221	0.8145	AVRG	R		1.201311		ug/L	0.8324	3	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0640	0.0624	0.0606	0.0627	0.0592	0.0579	0.0554	AVRG	R		16.57698		ug/L	0.0603	5	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.3662	1.3527	1.2454	1.2486	1.2134	1.1675	1.1187	AVRG	R		0.803448		ug/L	1.2446	7	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2541	1.2293	1.1368	1.1625	1.1556	1.1088	1.0879	AVRG	R		0.860478		ug/L	1.1621	5	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8474	0.8602	0.7960	0.7927	0.7941	0.7668	0.7593	AVRG	R		1.246319		ug/L	0.8024	5	0.0500	0.99	15	
Ethanol	0.0062	0.0062	0.0056	0.0060	0.0057	0.0055	0.0055	AVRG	R		172.3205		ug/L	0.0058	5	5.0E-4	0.99	15	
Isopropanol	0.0344	0.0360	0.0333	0.0342	0.0326	0.0315	0.0297	AVRG	R		30.21780		ug/L	0.0331	6	0.0050	0.99	15	
Tetrahydrofuran	0.1319	0.1298	0.1204	0.1136	0.1118	0.1035	0.0968	AVRG	R		8.665138		ug/L	0.1154	11	0.0050	0.99	15	
Dibromofluoromethane	0.5673	0.5807	0.5718	0.5796	0.5851	0.5677	0.5694	AVRG	R		1.740573		ug/L	0.5745	1	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3980	0.4035	0.3835	0.3829	0.3835	0.3824	0.3756	AVRG	R		2.583613		ug/L	0.3871	3	0.0500	0.99	15	
Trifluorotoluene	0.4633	0.4158	0.3448	0.4457	0.4659	0.4464	0.4341	AVRG	R		2.320907		ug/L	0.4309	10	0.0500	0.99	15	
Toluene-d8	0.9720	0.9955	0.9527	0.9594	0.9745	0.9605	0.9532	AVRG	R		1.034299		ug/L	0.9668	2	0.0500	0.99	15	
Bromofluorobenzene	0.9410	0.9440	0.9237	0.9626	0.9394	0.9447	0.9522	AVRG	R		1.059393		ug/L	0.9439	1	0.0500	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : QC288414
Seqnum : 425128734027 Filename : ccu27 Injected : 30-MAR-2005 21:59
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	43.56850	ug/L	-13	30	m
Chloromethane	50.00000	44.03510	ug/L	-12	30	
Vinyl Chloride	50.00000	51.14330	ug/L	2	20	
Bromomethane	50.00000	34.75960	ug/L	-30	30	!v-
Chloroethane	50.00000	52.04920	ug/L	4	30	
Trichlorofluoromethane	50.00000	53.42370	ug/L	7	30	
Acetone	50.00000	48.80200	ug/L	-2	40	
Freon 113	50.00000	48.00420	ug/L	-4	30	
1,1-Dichloroethene	50.00000	53.35110	ug/L	7	20	
Methylene Chloride	50.00000	49.45840	ug/L	-1	30	
Carbon Disulfide	50.00000	58.43920	ug/L	17	30	
MTBE	50.00000	52.94030	ug/L	6	30	
trans-1,2-Dichloroethene	50.00000	49.13170	ug/L	-2	30	
Vinyl Acetate	50.00000	36.86450	ug/L	-26	40	
1,1-Dichloroethane	50.00000	46.15010	ug/L	-8	30	
2-Butanone	50.00000	48.59070	ug/L	-3	40	
2,2-Dichloropropane	50.00000	46.28030	ug/L	-7	30	
cis-1,2-Dichloroethene	50.00000	47.94770	ug/L	-4	30	
Chloroform	50.00000	46.22470	ug/L	-8	20	
Bromochloromethane	50.00000	47.66480	ug/L	-5	30	
1,1,1-Trichloroethane	50.00000	48.09250	ug/L	-4	30	
1,1-Dichloropropene	50.00000	49.04550	ug/L	-2	30	
Carbon Tetrachloride	50.00000	49.92850	ug/L	0	30	
1,2-Dichloroethane	50.00000	44.44360	ug/L	-11	30	
Benzene	50.00000	45.08970	ug/L	-10	30	
Trichloroethene	50.00000	45.67340	ug/L	-9	30	
1,2-Dichloropropane	50.00000	41.38110	ug/L	-17	20	
Bromodichloromethane	50.00000	49.98580	ug/L	0	30	
Dibromomethane	50.00000	45.45000	ug/L	-9	30	
4-Methyl-2-Pentanone	50.00000	45.23430	ug/L	-10	40	
Tetramethyl THF	50.00000	42.98930	ug/L	-14	30	
cis-1,3-Dichloropropene	50.00000	44.74650	ug/L	-11	30	
Toluene	50.00000	44.28250	ug/L	-11	20	
trans-1,3-Dichloropropene	50.00000	42.13000	ug/L	-16	30	
1,1,2-Trichloroethane	50.00000	46.38090	ug/L	-7	30	
2-Hexanone	50.00000	48.05640	ug/L	-4	40	
1,3-Dichloropropane	50.00000	46.30170	ug/L	-7	30	
Tetrachloroethene	50.00000	47.76460	ug/L	-4	30	
Dibromochloromethane	50.00000	47.82850	ug/L	-4	30	
1,2-Dibromoethane	50.00000	45.64190	ug/L	-9	30	
Chlorobenzene	50.00000	45.00960	ug/L	-10	30	
1,1,1,2-Tetrachloroethane	50.00000	46.37180	ug/L	-7	30	
Ethylbenzene	50.00000	45.58140	ug/L	-9	20	
m,p-Xylenes	100.0000	90.71480	ug/L	-9	30	
o-Xylene	50.00000	45.88000	ug/L	-8	30	
Styrene	50.00000	44.67960	ug/L	-11	30	
Bromoform	50.00000	45.70180	ug/L	-9	30	

!=warning -=low bias m=manual integration v=ICV

03/31

3/31/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : QC288414
Seqnum : 425128734027 Filename : ccu27 Injected : 30-MAR-2005 21:59
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: 05WS0359 (5000X), 05WS0232 (5000X), S139 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max Flags
Isopropylbenzene	50.00000	42.99660	ug/L	-14	30
1,1,2,2-Tetrachloroethane	50.00000	44.80580	ug/L	-10	30
1,2,3-Trichloropropane	50.00000	45.01040	ug/L	-10	30
Propylbenzene	50.00000	45.62610	ug/L	-9	30
Bromobenzene	50.00000	44.62420	ug/L	-11	30
1,3,5-Trimethylbenzene	50.00000	44.59320	ug/L	-11	30
2-Chlorotoluene	50.00000	44.92990	ug/L	-10	30
4-Chlorotoluene	50.00000	43.41110	ug/L	-13	30
tert-Butylbenzene	50.00000	44.99060	ug/L	-10	30
1,2,4-Trimethylbenzene	50.00000	43.90530	ug/L	-12	30
sec-Butylbenzene	50.00000	47.19820	ug/L	-6	30
para-Isopropyl Toluene	50.00000	44.11860	ug/L	-12	30
1,3-Dichlorobenzene	50.00000	43.62700	ug/L	-13	30
1,4-Dichlorobenzene	50.00000	43.46170	ug/L	-13	30
n-Butylbenzene	50.00000	44.98560	ug/L	-10	30
1,2-Dichlorobenzene	50.00000	45.68640	ug/L	-9	30
1,2-Dibromo-3-Chloropropane	50.00000	44.14240	ug/L	-12	30
1,2,4-Trichlorobenzene	50.00000	41.81470	ug/L	-16	30
Hexachlorobutadiene	50.00000	47.39690	ug/L	-5	30
Naphthalene	50.00000	44.88000	ug/L	-10	30
1,2,3-Trichlorobenzene	50.00000	44.29180	ug/L	-11	30
tert-Butyl Alcohol (TBA)	250.0000	287.8299	ug/L	15	30
Isopropyl Ether (DIPE)	50.00000	49.76250	ug/L	0	30
Ethyl tert-Butyl Ether (ETBE)	50.00000	56.44800	ug/L	13	30
Methyl tert-Amyl Ether (TAME)	50.00000	53.11460	ug/L	6	30
Ethanol	5000.000	5185.074	ug/L	4	30
Isopropanol	500.0000	555.9436	ug/L	11	30
Tetrahydrofuran	500.0000	537.8157	ug/L	8	30

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	436523	15.76	10.68	10.68	0.00
1,4-Difluorobenzene	547892	634947	15.89	11.83	11.83	0.00
Chlorobenzene-d5	440598	502547	14.06	15.81	15.82	0.01
1,4-Dichlorobenzene-d4	262241	297816	13.57	18.51	18.51	0.00

!=warning -=low bias m=manual integration v=ICV

3/31/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 40PPB IDF : 1.0
Seqnum : 425171947003 Filename : cdt03 Injected : 29-APR-2005 10:48
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (12500X), S359 (12500X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4872	0.5614	40.00000	46.09400	ug/L	15	30	0.0500	m
Chloromethane	0.4036	0.4267	40.00000	42.28470	ug/L	6	30	0.1000	m
Vinyl Chloride	0.3490	0.4089	40.00000	46.86570	ug/L	17	20	0.0500	
Bromomethane	0.5817	0.6510	40.00000	44.76770	ug/L	12	30	0.0500	
Chloroethane	0.2546	0.3100	40.00000	48.70870	ug/L	22	30	0.0500	!c+
Trichlorofluoromethane	0.7321	0.7726	40.00000	42.20980	ug/L	6	30	0.0500	
Acetone	0.1398	0.1361	40.00000	38.94200	ug/L	-3	40	0.0500	
Freon 113	0.3844	0.4468	40.00000	43.06250	ug/L	8	30	0.0500	
1,1-Dichloroethene	0.3093	0.3424	40.00000	44.26880	ug/L	11	20	0.0500	
Methylene Chloride	0.4147	0.4472	40.00000	43.13870	ug/L	8	30	0.0500	
Carbon Disulfide	0.9234	0.9973	40.00000	43.20000	ug/L	8	30	0.0500	
MTBE	1.2216	1.1670	40.00000	38.21170	ug/L	-4	30	0.0500	
trans-1,2-Dichloroethene	0.3837	0.4052	40.00000	42.23660	ug/L	6	30	0.0500	
Vinyl Acetate	0.8477	0.8659	40.00000	40.85830	ug/L	2	40	0.0500	
1,1-Dichloroethane	0.6464	0.6605	40.00000	40.87560	ug/L	2	30	0.1000	
2-Butanone	0.2215	0.2252	40.00000	40.67480	ug/L	2	40	0.0500	
2,2-Dichloropropane	0.5840	0.5893	40.00000	40.36260	ug/L	1	30	0.0500	
cis-1,2-Dichloroethene	0.4404	0.4639	40.00000	42.12820	ug/L	5	30	0.0500	
Chloroform	0.7666	0.7892	40.00000	41.17690	ug/L	3	20	0.0500	
Bromochloromethane	0.2639	0.2761	40.00000	41.84990	ug/L	5	30	0.0500	
1,1,1-Trichloroethane	0.6134	0.6041	40.00000	39.38730	ug/L	-2	30	0.0500	
1,1-Dichloropropene	0.3255	0.3412	40.00000	41.93130	ug/L	5	30	0.0500	
Carbon Tetrachloride	0.3667	0.3423	40.00000	37.34250	ug/L	-7	30	0.0500	
1,2-Dichloroethane	0.4277	0.3851	40.00000	36.01880	ug/L	-10	30	0.0500	
Benzene	0.9007	0.8995	40.00000	39.94610	ug/L	0	30	0.0500	
Trichloroethene	0.2871	0.2874	40.00000	40.04660	ug/L	0	30	0.0500	
1,2-Dichloropropane	0.2691	0.2748	40.00000	40.84390	ug/L	2	20	0.0500	
Bromodichloromethane	0.3987	0.3834	40.00000	38.46140	ug/L	-4	30	0.0500	
Dibromomethane	0.2412	0.2341	40.00000	38.82620	ug/L	-3	30	0.0500	
4-Methyl-2-Pentanone	0.3289	0.3189	40.00000	38.77560	ug/L	-3	40	0.0500	
Tetramethyl THF	0.6108	0.5576	40.00000	36.51410	ug/L	-9	30	0.0500	
cis-1,3-Dichloropropene	0.4491	0.4489	40.00000	39.98080	ug/L	0	30	0.0500	
Toluene	0.5918	0.6064	40.00000	40.98880	ug/L	2	20	0.0500	
trans-1,3-Dichloropropene	0.4401	0.4330	40.00000	39.35190	ug/L	-2	30	0.0500	
1,1,2-Trichloroethane	0.1494	0.1549	40.00000	41.47840	ug/L	4	30	0.0500	
2-Hexanone	0.2991	0.2882	40.00000	38.53220	ug/L	-4	40	0.0500	
1,3-Dichloropropane	0.5378	0.5527	40.00000	41.11010	ug/L	3	30	0.0500	
Tetrachloroethene	0.3746	0.3723	40.00000	39.74920	ug/L	-1	30	0.0500	
Dibromochloromethane	0.4379	0.4208	40.00000	38.43880	ug/L	-4	30	0.0500	
1,2-Dibromoethane	0.3208	0.3181	40.00000	39.66550	ug/L	-1	30	0.0500	
Chlorobenzene	0.9118	0.9068	40.00000	39.78010	ug/L	-1	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3817	0.3684	40.00000	38.60820	ug/L	-3	30	0.0500	
Ethylbenzene	1.3995	1.4268	40.00000	40.77920	ug/L	2	20	0.0500	
m,p-Xylenes	0.5044	0.5257	80.00000	83.37190	ug/L	4	30	0.0500	
o-Xylene	0.5130	0.5391	40.00000	42.03520	ug/L	5	30	0.0500	
Styrene	0.9077	0.9189	40.00000	40.48970	ug/L	1	30	0.0500	

!=warning +=high bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 40PPB IDF : 1.0
Seqnum : 425171947003 Filename : cdt03 Injected : 29-APR-2005 10:48
Calnum : 425128734001 Caldate : 30-MAR-2005 Caltype : SOIL
Standards: S283 (12500X), S359 (12500X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3834	0.3510	40.00000	36.62440	ug/L	-8	30	0.1000	
Isopropylbenzene	2.2040	2.3200	40.00000	42.10550	ug/L	5	30	0.0500	
1,1,2,2-Tetrachloroethane	0.8186	0.8694	40.00000	42.48240	ug/L	6	30	0.3000	
1,2,3-Trichloropropane	0.2631	0.2590	40.00000	39.37580	ug/L	-2	30	0.0500	
Propylbenzene	2.7285	2.7772	40.00000	40.71370	ug/L	2	30	0.0500	
Bromobenzene	0.7424	0.6930	40.00000	37.33550	ug/L	-7	30	0.0500	
1,3,5-Trimethylbenzene	1.9265	2.0223	40.00000	41.99000	ug/L	5	30	0.0500	
2-Chlorotoluene	1.9846	1.9191	40.00000	38.68030	ug/L	-3	30	0.0500	
4-Chlorotoluene	1.8998	1.7807	40.00000	37.49320	ug/L	-6	30	0.0500	
tert-Butylbenzene	1.6418	1.7185	40.00000	41.86740	ug/L	5	30	0.0500	
1,2,4-Trimethylbenzene	2.0092	2.0219	40.00000	40.25440	ug/L	1	30	0.0500	
sec-Butylbenzene	2.3908	2.6083	40.00000	43.63810	ug/L	9	30	0.0500	
para-Isopropyl Toluene	2.0660	2.1005	40.00000	40.66770	ug/L	2	30	0.0500	
1,3-Dichlorobenzene	1.3394	1.2880	40.00000	38.46490	ug/L	-4	30	0.0500	
1,4-Dichlorobenzene	1.3905	1.3086	40.00000	37.64340	ug/L	-6	30	0.0500	
n-Butylbenzene	1.9515	1.9492	40.00000	39.95350	ug/L	0	30	0.0500	
1,2-Dichlorobenzene	1.2947	1.2647	40.00000	39.07280	ug/L	-2	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1854	0.1691	40.00000	36.46950	ug/L	-9	30	0.0500	
1,2,4-Trichlorobenzene	0.8691	0.8111	40.00000	37.32930	ug/L	-7	30	0.0500	
Hexachlorobutadiene	0.4288	0.3497	40.00000	32.62210	ug/L	-18	30	0.0500	
Naphthalene	1.8425	2.0720	40.00000	44.98200	ug/L	12	30	0.0500	
1,2,3-Trichlorobenzene	0.8324	0.8223	40.00000	39.51430	ug/L	-1	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0603	0.0596	400.0000	395.0228	ug/L	-1	30	0.0050	
Isopropyl Ether (DIPE)	1.2446	1.2463	40.00000	40.05390	ug/L	0	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.1621	1.1168	40.00000	38.43830	ug/L	-4	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8024	0.7465	40.00000	37.21430	ug/L	-7	30	0.0500	
Ethanol	0.0058	0.0058	4000.000	4000.982	ug/L	0	30	5.0E-4	
Isopropanol	0.0331	0.0334	400.0000	403.5743	ug/L	1	30	0.0050	
Tetrahydrofuran	0.1154	0.1162	400.0000	402.8695	ug/L	1	30	0.0050	
Dibromofluoromethane	0.5745	0.5838	50.00000	50.81130	ug/L	2	30	0.0500	
1,2-Dichloroethane-d4	0.3871	0.3558	50.00000	45.96240	ug/L	-8	30	0.0500	
Trifluorotoluene	0.4309	0.4561	40.00000	42.34530	ug/L	6	30	0.0500	
Toluene-d8	0.9668	0.9873	50.00000	51.06070	ug/L	2	30	0.0500	
Bromofluorobenzene	0.9439	0.9253	50.00000	49.01150	ug/L	-2	30	0.0500	

ISTD (ICAL=ccu21)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	377098	305473	-18.99	10.68	10.68	0.00
1,4-Difluorobenzene	547892	458171	-16.38	11.83	11.83	0.00
Chlorobenzene-d5	440598	370116	-16.00	15.81	15.82	0.01
1,4-Dichlorobenzene-d4	262241	221531	-15.52	18.51	18.51	0.00

4/29/05

!=warning +=high bias c=CCV m=manual integration

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 29-APR-2005
Sequence: 425171947 (cdt)
Instrument ID: MSVOA03

ICAL Filename: ccu21
Date Analyzed: 30-MAR-2005
Time Analyzed: 18:57

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	377098	10.68	547892	11.83	440598	15.81	262241	18.51
LOWER LIMIT	188549	10.18	273946	11.33	220299	15.31	131121	18.01
UPPER LIMIT	754196	11.18	1095784	12.33	881196	16.31	524482	19.01

TYPE	SAMPLE	#							
CCV	40PPB	003	305473	10.68	458171	11.83	370116	15.82	221531	18.51
BS	QC292133	008	269250	10.68	433131	11.83	343378	15.81	186430	18.51
BSD	QC292134	009	323725	10.68	505315	11.83	400026	15.81	222002	18.51
BLANK	QC292135	011	382589	10.68	583760	11.84	446371	15.81	238261	18.51
SAMPLE	179182-001	012	369333	10.67	565286	11.83	445289	15.81	232223	18.51
SAMPLE	179182-002	013	378735	10.68	570813	11.83	466694	15.81	249491	18.51
SAMPLE	179182-003	014	429941	10.69	660560	11.83	499786	15.81	252700	18.51
SAMPLE	179167-001	015	422634	10.68	653402	11.84	523138	15.81	278143	18.51
SAMPLE	179146-001	016	439755	10.69	666769	11.84	513774	15.82	272277	18.52
SAMPLE	179146-002	017	454139	10.68	679418	11.84	535369	15.81	278542	18.51
SAMPLE	179146-003	018	417985	10.69	660172	11.83	519811	15.82	290386	18.52
SAMPLE	179146-005	019	462438	10.69	696426	11.84	534235	15.81	282285	18.51
SAMPLE	179146-006	020	475671	10.68	731119	11.83	575270	15.81	303385	18.51
SAMPLE	179146-004	021	491932	10.68	762855	11.83	561118	15.81	233817	18.52

MSVOA03 8260/GCMS DATA

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 30-MAR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	ccu01	X	IB			30-MAR-2005 09:34	1.0					1	
002	ccu02	TUN	BFB			30-MAR-2005 10:03	1.0					2	
003	ccu03	X	50PPB			30-MAR-2005 10:19	1.0		5000			3 4 1 cc-	
004	ccu04	TUN	BFB			30-MAR-2005 11:04	1.0					2	
005	ccu05	X	50PPB			30-MAR-2005 11:19	1.0		5000			3 4 1 cc-	
006	ccu06	TUN	BFB			30-MAR-2005 11:58	1.0					2	
007	ccu07	X	50PPB			30-MAR-2005 12:14	1.0		5000			3 4 1 cc-	
008	ccu08	X	IB			30-MAR-2005 13:00	1.0					1	
009	ccu09	X	IB			30-MAR-2005 13:30	1.0					1	
010	ccu10	X	IB			30-MAR-2005 14:00	1.0					1	
011	ccu11	X	IB			30-MAR-2005 14:30	1.0					1	
012	ccu12	TUN	BFB			30-MAR-2005 15:21	1.0					2	
013	ccu13	TUN	BFB			30-MAR-2005 15:42	1.0					2	
014	ccu14	TUN	BFB			30-MAR-2005 15:58	1.0		1			2 t	
015	ccu15	X	CALIB IB			30-MAR-2005 16:14	1.0					1	
016	ccu16	TUN	BFB			30-MAR-2005 16:41	1.0					2	
017	ccu17	X	CALIB IB			30-MAR-2005 16:57	1.0					1	
018	ccu18	ICAL	5PPB			30-MAR-2005 17:27	1.0					5 3 1	
019	ccu19	ICAL	10PPB			30-MAR-2005 17:57	1.0					5 3 1	
020	ccu20	ICAL	20PPB			30-MAR-2005 18:27	1.0					5 3 1	
021	ccu21	ICAL	50PPB			30-MAR-2005 18:57	1.0					5 3 1	
022	ccu22	ICAL	60PPB			30-MAR-2005 19:27	1.0					5 3 1	
023	ccu23	ICAL	75PPB			30-MAR-2005 19:58	1.0					5 3 1	
024	ccu24	ICAL	100PPB			30-MAR-2005 20:28	1.0					5 3 1	
025	ccu25	ICV	not used			30-MAR-2005 20:58	1.0		1		5000	6 1	
026	ccu26	ICV				30-MAR-2005 21:29	1.0				5000	7 8 1	
027	ccu27	LCS/ICV	QC288414	100657	Soil	30-MAR-2005 21:59	1.0				5000	6 7 8 1	
028	ccu28	PREPBLK	QC288415 M	100657	Soil	30-MAR-2005 22:30	25.0				5000	9 1	see QC sheet
029	ccu29	BLANK	QC288416	100657	Soil	30-MAR-2005 23:00	1.0		1		5000	1	
030	ccu30	MSS	178510-002 M	100657	Soil	30-MAR-2005 23:30	500.0				5000	9 1	

ICAL GOOD, ICV GOOD + A.C.E Lin - Brmet

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: _____ Date: 3/31/05
Page 1 of 2

Q 03/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425128734 Instrument: MSVOA03 HP GCMS VOA-03 Begun: 30-MAR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
031	ccu31	SAMPLE	178510-003 M	100657	Soil	31-MAR-2005 00:01	500.0		5000			9 1	
032	ccu32	SAMPLE	178510-004 M	100657	Soil	31-MAR-2005 00:31	500.0		5000			9 1	
033	ccu33	SAMPLE	178510-005 M	100657	Soil	31-MAR-2005 01:02	500.0		5000			9 1	
034	ccu34	SAMPLE	178514-001 M	100657	Soil	31-MAR-2005 01:32	200.0	1	2 5000			9 1	1:TMB124=155.868
035	ccu35	SAMPLE	178514-002 M	100657	Soil	31-MAR-2005 02:02	200.0		1 5000			9 1	all QC pass
036	ccu36	SAMPLE	178514-003 M	100657	Soil	31-MAR-2005 02:33	200.0		1 5000			9 1	
037	ccu37	SAMPLE	178514-004 M	100657	Soil	31-MAR-2005 03:03	200.0		1 5000			9 1	
038	ccu38	SAMPLE	178514-005 M	100657	Soil	31-MAR-2005 03:34	200.0		1 5000			9 1	
039	ccu39	MS	QC288417 M	100657	Soil	31-MAR-2005 04:04	500.0		4 5000			7 8 6 9 1	
040	ccu40	MSD	QC288418 M	100657	Soil	31-MAR-2005 04:34	500.0		5000			7 9 8 6 1	
041	ccu41	X	514-6			31-MAR-2005 05:05	1.0					1	
042	ccu42	X	514-7			31-MAR-2005 05:35	1.0					1	
043	ccu43	X	IB			31-MAR-2005 06:06	1.0					1	
044	ccu44	X	IB			31-MAR-2005 06:37	1.0					1	
045	ccu45	X	IB			31-MAR-2005 07:07	1.0					1	

Stds used: 1=S95 2=04WS2425 3=S127 4=S99 5=S158 6=05WS0359 7=05WS0232 8=S139 9=S49
Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: Date: 3/31/05

3/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

1-3

Sequence: 425171947 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 29-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	cdt01	X	IB			29-APR-2005 09:47	1.0					1	
002	cdt02	TUN	BFB			29-APR-2005 10:29	1.0					2	
003	cdt03	CCV	40PPB			29-APR-2005 10:48	1.0		5000			3 4 1	
004	~~cdt04~~	X	QC292133	101594	Soil	29-APR-2005 11:33	1.0	NOT USED	5000			5 6 7 1 ~~spk ↑ ND~~	75:ETHANO=23724.
005	cdt05	X	QC292134	101594	Soil	29-APR-2005 12:03	1.0		5000			5 6 7 1 ~~spk~~	75:ETHANO=42002.
006	cdt06	X	QC292133	101594	Soil	29-APR-2005 12:58	1.0		5000			5 6 7 1 ~~spk~~	~~AH~~ 5/2/05
007	cdt07	X	QC292134	101594	Soil	29-APR-2005 13:28	1.0	Primed lines	ITS 5000			5 6 7 1 ~~spk~~	
008	cdt08	BS	QC292133	101594	Soil	29-APR-2005 14:46	1.0		3 5000			5 7 6 1	
009	cdt09	BSD	QC292134	101594	Soil	29-APR-2005 15:16	1.0		1 5000			5 6 7 1	
010	cdt10	X	IB			29-APR-2005 15:46	1.0					1	
011	cdt11	BLANK	QC292135	101594	Soil	29-APR-2005 16:16	1.0		1 5000			1	
012	cdt12	SAMPLE	179182-001	101594	Soil	29-APR-2005 17:40	0.8475		1 5000	C	Soil	1	
013	cdt13	SAMPLE	179182-002	101594	Soil	29-APR-2005 18:10	0.8333		1 5000			1	
014	cdt14	SAMPLE	179182-003	101594	Soil	29-APR-2005 18:40	1.02		1 5000			1	
015	cdt15	SAMPLE	179167-001	101594	Soil	29-APR-2005 19:10	0.8197		1 5000	C		1	
016	cdt16	SAMPLE	179146-001	101594	Soil	29-APR-2005 19:41	1.064		1 5000	D		1 spk ↑ ND	
017	cdt17	SAMPLE	179146-002	101594	Soil	29-APR-2005 20:11	1.563		1 5000			1 spk	
018	cdt18	SAMPLE	179146-003	101594	Soil	29-APR-2005 20:42	1.087		2 5000			1 spk	2:PBZN=163.412
019	cdt19	SAMPLE	179146-005	101594	Soil	29-APR-2005 21:13	1.163		1 5000			1 spk	
020	cdt20	SAMPLE	179146-006 M	101594	Soil	29-APR-2005 21:43	500.0		1 5000			1 BR 40x OD	
021	cdt21	SAMPLE	179146-004	101594	Soil	29-APR-2005 22:14	1.389		3 5000			1 spk ↑ ND	16:TMB124=1792.24
022	cdt22	X	IB			29-APR-2005 22:44	1.0					1	
023	cdt23	X	145-1			29-APR-2005 23:14	1.0			G		1 BR 500x	
024	cdt24	X	IB			29-APR-2005 23:44	1.0					1	
025	cdt25	X	IB			30-APR-2005 00:14	1.0					1	
026	cdt26	X	IB			30-APR-2005 00:44	1.0					1	
027	cdt27	X	IB			30-APR-2005 01:14	1.0					1	
028	cdt28	X	IB			30-APR-2005 01:44	1.0					1	

ICAL - Good ICV - Good (CWL: Brmle ↓) CCV - Good (CWL: cl-Ethane ↑)

Stds used: 1=S296 2=04WS2425 3=S283 4=S359 5=S139 6=S215 7=S285
Flags used: spk=5% spike rule BS ↑, Samples ND = OK.

Analyst: ~~AH~~ Date: 5/2/05

Page 1 of 1

✓ AH 5/2/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 4/29/05

Prepped by: JC

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179145-1	2.0	G	X	3	MISC. Screen 1000x @ 5x		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
21								
22								
23								
24								
25								
26								

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179167-1	6.1	C		3			
2	179146-6	5.2	D	X		500 x		
3	179146-1	4.7						
4	2	3.2						
5	3	4.6						
6	4	3.6						
7	5	4.3						
8	179182-1	5.9	C				4/30	
9	-2	6.0						
10	-3	4.9						
11								
12								
14								
15								
16								
17								

F:/home/terri/templates/Soilprepsheet.xls

PAH-SIM Results & QC Summary

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBD2TP105(11.5)	Batch#:	101683
Lab ID:	179182-001	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Moisture: 17%

Analyte	Result	RL	MDL
Naphthalene	ND	6.0	0.92
Acenaphthylene	ND	6.0	1.8
Acenaphthene	ND	6.0	0.92
Fluorene	ND	6.0	1.4
Phenanthrene	1.9 J	6.0	1.1
Anthracene	ND	6.0	1.4
Fluoranthene	3.0 J	6.0	1.6
Pyrene	2.8 J	6.0	1.4
Benzo(a)anthracene	1.4 J	6.0	1.3
Chrysene	2.9 J	6.0	1.2
Benzo(b)fluoranthene	2.9 J	6.0	1.3
Benzo(k)fluoranthene	3.0 J	6.0	0.71
Benzo(a)pyrene	1.7 J	6.0	1.1
Indeno(1,2,3-cd)pyrene	2.8 J	6.0	1.2
Dibenz(a,h)anthracene	1.6 J b	6.0	1.1
Benzo(g,h,i)perylene	3.2 J	6.0	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	98	37-140
2-Fluorobiphenyl	86	38-120
Terphenyl-d14	93	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBD2TP105(15.0)	Batch#:	101683
Lab ID:	179182-002	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Moisture: 15%

Analyte	Result	RL	MDL
Naphthalene	ND	12	1.8
Acenaphthylene	ND	12	3.5
Acenaphthene	ND	12	1.8
Fluorene	ND	12	2.7
Phenanthrene	3.2 J	12	2.2
Anthracene	ND	12	2.8
Fluoranthene	7.6 J	12	3.2
Pyrene	7.4 J	12	2.7
Benzo(a)anthracene	7.8 J	12	2.5
Chrysene	5.5 J	12	2.3
Benzo(b)fluoranthene	8.0 J	12	2.5
Benzo(k)fluoranthene	5.8 J	12	1.4
Benzo(a)pyrene	6.4 J	12	2.1
Indeno(1,2,3-cd)pyrene	8.1 J	12	2.3
Dibenz(a,h)anthracene	8.5 J b	12	2.1
Benzo(g,h,i)perylene	8.0 J	12	2.1

Surrogate	%REC	Limits
Nitrobenzene-d5	98	37-140
2-Fluorobiphenyl	91	38-120
Terphenyl-d14	116	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBD2TP106(2.0)	Batch#:	101683
Lab ID:	179182-003	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac
Naphthalene	64	5.5	0.84	1.000
Acenaphthylene	220	5.5	1.6	1.000
Acenaphthene	22	5.5	0.84	1.000
Fluorene	120	5.5	1.2	1.000
Phenanthrene	1,800	27	5.2	5.000
Anthracene	120	5.5	1.3	1.000
Fluoranthene	1,500	27	7.3	5.000
Pyrene	1,800	27	6.2	5.000
Benzo(a)anthracene	540	27	5.7	5.000
Chrysene	870	27	5.3	5.000
Benzo(b)fluoranthene	610	27	5.9	5.000
Benzo(k)fluoranthene	540	27	3.3	5.000
Benzo(a)pyrene	800	27	4.9	5.000
Indeno(1,2,3-cd)pyrene	290	5.5	1.1	1.000
Dibenz(a,h)anthracene	220	27	4.8	5.000
Benzo(g,h,i)perylene	260	5.5	0.95	1.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	92	37-140	1.000
2-Fluorobiphenyl	79	38-120	1.000
Terphenyl-d14	88	44-137	1.000

RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292467	Batch#:	101683
Matrix:	Soil	Prepared:	05/03/05
Units:	ug/Kg	Analyzed:	05/04/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.77
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.76
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.95
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.3
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	0.96
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.60
Benzo(a)pyrene	ND	5.0	0.90
Indeno(1,2,3-cd)pyrene	ND	5.0	0.96
Dibenz(a,h)anthracene	ND	5.0	0.89
Benzo(g,h,i)perylene	ND	5.0	0.87

Surrogate	%REC	Limits
Nitrobenzene-d5	95	37-140
2-Fluorobiphenyl	94	38-120
Terphenyl-d14	101	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292468	Batch#:	101683
Matrix:	Soil	Prepared:	05/03/05
Units:	ug/Kg	Analyzed:	05/04/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.21	32.95	99	49-128
Pyrene	33.21	32.49	98	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	99	37-140
2-Fluorobiphenyl	95	38-120
Terphenyl-d14	99	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	101683
MSS Lab ID:	179148-001	Sampled:	04/27/05
Matrix:	Soil	Received:	04/28/05
Units:	ug/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Type: MS Moisture: 5%
Lab ID: QC292469

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8037	34.94	36.67	105	39-138
Pyrene	<1.189	34.94	42.81	123	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	112	37-140
2-Fluorobiphenyl	98	38-120
Terphenyl-d14	114	44-137

Type: MSD Moisture: 5%
Lab ID: QC292470

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	34.99	40.27	115	39-138	9	39
Pyrene	34.99	49.61	142	28-159	15	45

Surrogate	%REC	Limits
Nitrobenzene-d5	122	37-140
2-Fluorobiphenyl	105	38-120
Terphenyl-d14	129	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DI\chem\MSBNA03.i\042205.b\VIM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

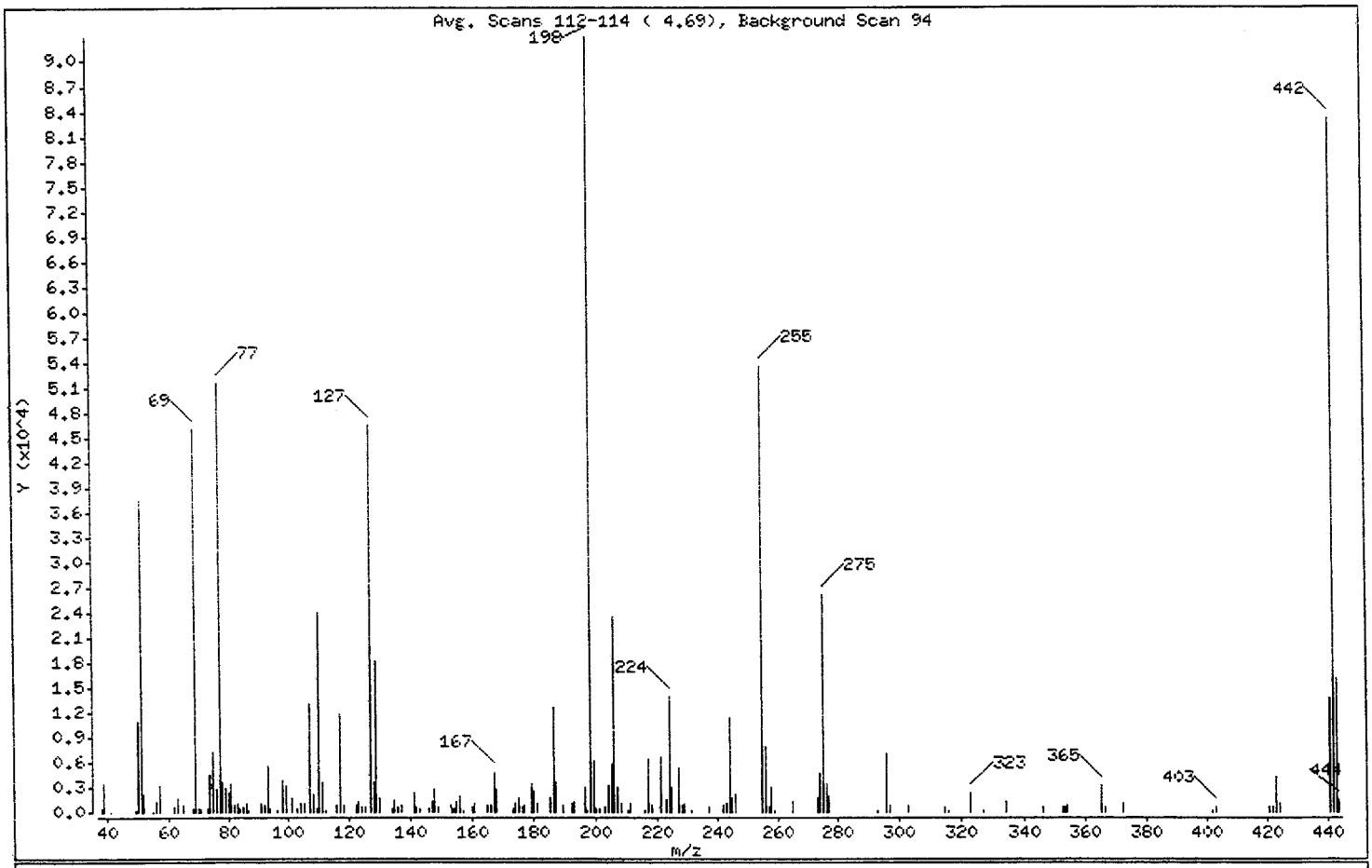
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM FCAL

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\050405.b\VE401.D

Date : 04-MAY-2005 08:31

Client ID: dftpp tune std

Instrument: MSBNA03.i

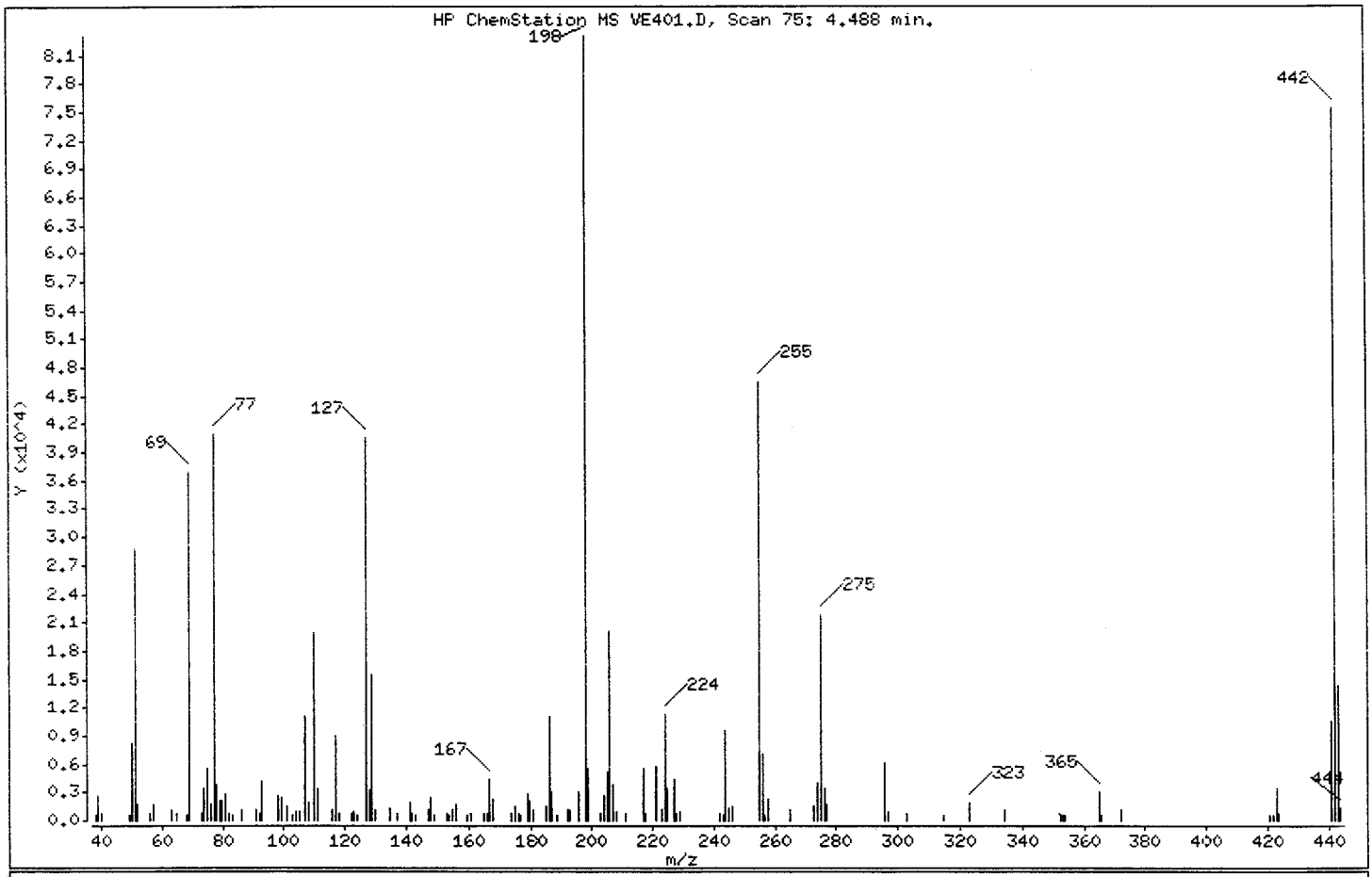
Sample Info: TUN,05WS0188

Operator: BWD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.62
68	Less than 1.99% of mass 69	0.72 (1.61)
69	Mass 69 relative abundance	44.45
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.91
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.58
275	10.00 - 30.00% of mass 198	26.26
365	Greater than 1.00% of mass 198	3.66
441	Present, but less than mass 443	12.57
442	40.00 - 99.99% of mass 198	90.71
443	17.00 - 23.00% of mass 442	17.17 (18.93)

MPV
5/4/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\050405.b\VE415.D

Date : 04-MAY-2005 20:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

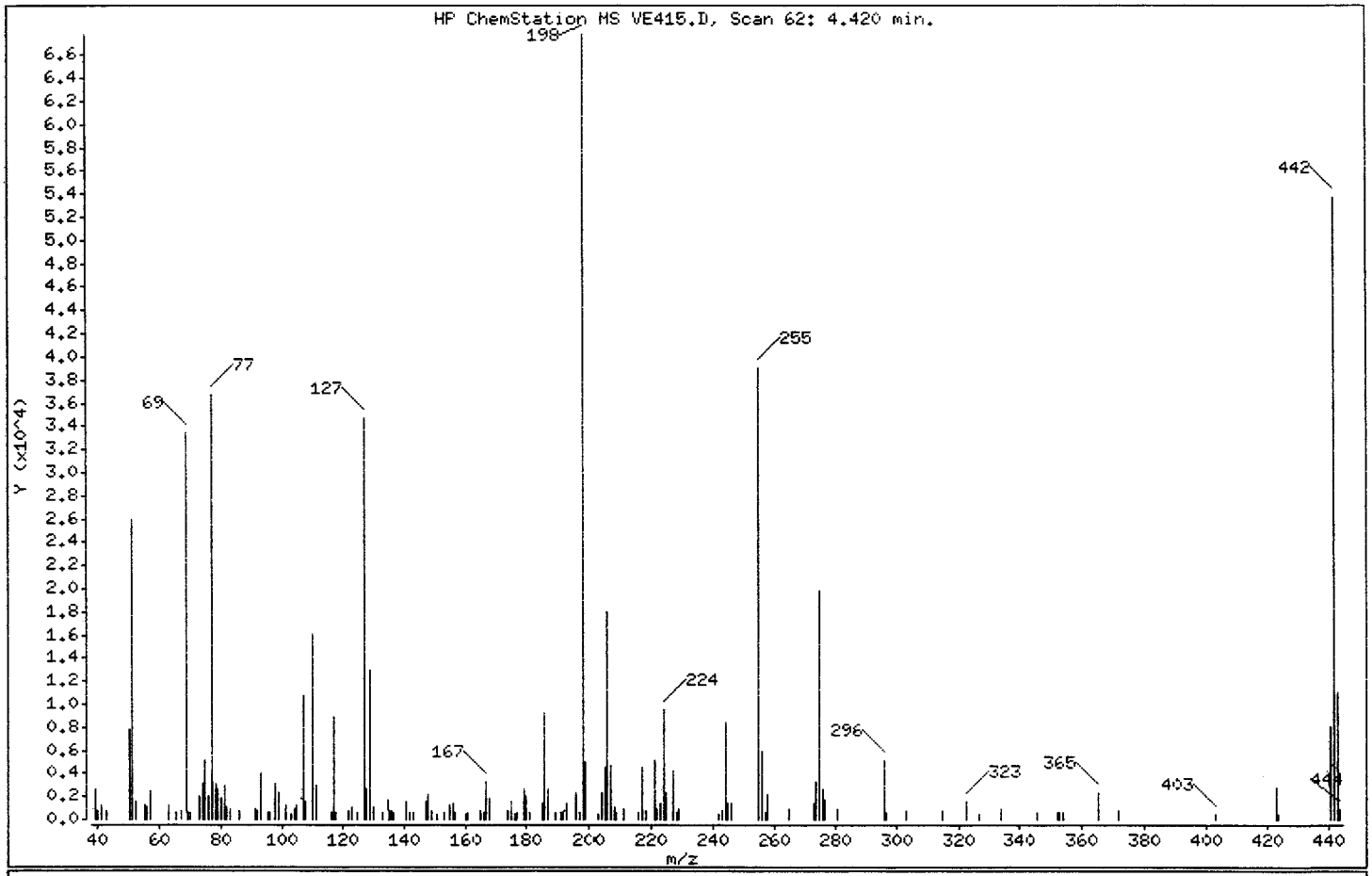
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.36
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.36
70	Less than 2.00% of mass 69	0.96 (1.94)
127	40.00 - 60.00% of mass 198	51.08
197	Less than 1.00% of mass 198	0.82
199	5.00 - 9.00% of mass 198	7.34
275	10.00 - 30.00% of mass 198	29.16
365	Greater than 1.00% of mass 198	3.45
441	Present, but less than mass 443	12.04
442	40.00 - 99.99% of mass 198	79.33
443	17.00 - 23.00% of mass 442	16.36 (20.62)

MP ✓

5/9/05

BNA05 8/10 SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: OK
BNI: OK

4/25/05

4/27/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525179071002 Filename : ve402 Injected : 04-MAY-2005 08:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4183	1.000000	1.051600	ng	5	30	0.0500	m
Naphthalene	0.8875	0.8939	1.000000	1.007200	ng	1	30	0.0500	
2-Methylnaphthalene	0.6056	0.6620	1.000000	1.093100	ng	9	30	0.0500	
Acenaphthylene	1.6578	1.7695	1.000000	1.067400	ng	7	30	0.0500	
Acenaphthene	1.0255	1.1579	1.000000	1.129100	ng	13	20	0.0500	
Fluorene	1.2395	1.3847	1.000000	1.117100	ng	12	30	0.0500	
Phenanthrene	0.9650	1.0594	1.000000	1.097800	ng	10	30	0.0500	
Anthracene	0.8558	0.9172	1.000000	1.071700	ng	7	30	0.0500	
Fluoranthene	1.0752	1.1694	1.000000	1.087600	ng	9	20	0.0500	
Pyrene	1.1306	1.1730	1.000000	1.037500	ng	4	30	0.0500	
Benzo(a)anthracene	1.0288	1.1374	1.000000	1.105600	ng	11	30	0.0500	
Chrysene	1.0217	1.1447	1.000000	1.120400	ng	12	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3344	1.000000	1.007800	ng	1	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.9052	1.000000	1.061600	ng	6	30	0.0500	
Benzo(a)pyrene	1.1063	1.2082	1.000000	1.092100	ng	9	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4392	1.000000	1.191300	ng	19	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.1654	1.000000	1.211400	ng	21	30	0.0500	!c+
Benzo(g,h,i)perylene	1.0276	1.1981	1.000000	1.165900	ng	17	30	0.0500	
Nitrobenzene-d5	0.2512	0.2717	1.000000	1.081600	ng	8	30	0.0500	
2-Fluorobiphenyl	1.3678	1.5354	1.000000	1.122600	ng	12	30	0.0500	
Terphenyl-d14	0.9054	0.9981	1.000000	1.102400	ng	10	30	0.0500	

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

MW 5/4/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525179071016 Filename : ve416 Injected : 04-MAY-2005 20:45
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3670	1.000000	0.922600	ng	-8	30	0.0500	m
Naphthalene	0.8875	0.8488	1.000000	0.956300	ng	-4	30	0.0500	
2-Methylnaphthalene	0.6056	0.6826	1.000000	1.127100	ng	13	30	0.0500	
Acenaphthylene	1.6578	1.8692	1.000000	1.127500	ng	13	30	0.0500	
Acenaphthene	1.0255	1.1648	1.000000	1.135800	ng	14	20	0.0500	
Fluorene	1.2395	1.4152	1.000000	1.141800	ng	14	30	0.0500	
Phenanthrene	0.9650	1.0533	1.000000	1.091400	ng	9	30	0.0500	
Anthracene	0.8558	0.9396	1.000000	1.097900	ng	10	30	0.0500	
Fluoranthene	1.0752	1.1343	1.000000	1.055000	ng	6	20	0.0500	
Pyrene	1.1306	1.2304	1.000000	1.088300	ng	9	30	0.0500	
Benzo(a)anthracene	1.0288	1.1163	1.000000	1.085000	ng	9	30	0.0500	
Chrysene	1.0217	1.1232	1.000000	1.099300	ng	10	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3365	1.000000	1.009400	ng	1	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.5210	1.000000	0.847500	ng	-15	30	0.0500	
Benzo(a)pyrene	1.1063	1.1755	1.000000	1.062500	ng	6	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3381	1.000000	1.107600	ng	11	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0747	1.000000	1.117200	ng	12	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.1187	1.000000	1.088700	ng	9	30	0.0500	
Nitrobenzene-d5	0.2512	0.3144	1.000000	1.251800	ng	25	30	0.0500	!c+
2-Fluorobiphenyl	1.3678	1.5455	1.000000	1.129900	ng	13	30	0.0500	
Terphenyl-d14	0.9054	1.0225	1.000000	1.129300	ng	13	30	0.0500	

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

MC
5/4/05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 04-MAY-2005
Sequence: 525179071 (ve4)
Instrument ID: MSBNA03

CCV Filename: ve402
Date Analyzed: 04-MAY-2005
Time Analyzed: 08:48

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	39888	6.97	161817	8.65	79884	11.22	155048	13.43	156562	17.30	148237	19.07
LOWER LIMIT	19944	6.47	80909	8.15	39942	10.72	77524	12.93	78281	16.80	74119	18.57
UPPER LIMIT	79776	7.47	323634	9.15	159768	11.72	310096	13.93	313124	17.80	296474	19.57

TYPE	SAMPLE	#										
CCV		002	39888	6.97	161817	8.65	79884	11.22	155048	13.43	156562	17.30	148237	19.07
BLANK	QC292467	003	26380	6.97	113970	8.65	57937	11.22	113208	13.43	108371	17.29	93025	19.07
LCS	QC292468	004	26754	6.97	117370	8.65	58512	11.22	112827	13.43	111474	17.29	97214	19.07
SAMPLE	179089-002	005	27412	6.97	118344	8.65	60192	11.22	114254	13.43	110800	17.29	100960	19.07
SAMPLE	179148-002	006	26304	6.97	113078	8.65	57723	11.22	111267	13.43	102356	17.30	93231	19.07
SAMPLE	179182-001	007	28238	6.97	127602	8.65	63333	11.22	120756	13.43	111331	17.29	97488	19.08
SAMPLE	179182-002	008	27545	6.97	120512	8.65	61867	11.22	123997	13.43	124774	17.29	117836	19.07
MSS	179148-001	009	28461	6.97	124124	8.65	65414	11.22	127541	13.43	110533	17.30	93752	19.08
MS	QC292469	010	27252	6.97	125860	8.65	62315	11.22	120535	13.43	99239	17.30	81770	19.08
MSD	QC292470	011	27955	6.97	128220	8.65	63321	11.22	122112	13.43	96729	17.30	62878*	19.08
SAMPLE	179182-003	012	28730	6.97	129480	8.65	65843	11.22	113613	13.44	79803	17.31	45158*	19.10
MS	QC292469	013	26860	6.97	124314	8.65	61753	11.22	119934	13.43	93691	17.30	67334*	19.08
MSD	QC292470	014	27088	6.97	123496	8.65	61730	11.22	121499	13.43	94798	17.30	52316*	19.08

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 04-MAY-2005 CCV Filename: ve416
Sequence: 525179071 (ve4) Date Analyzed: 04-MAY-2005
Instrument ID: MSBNA03 Time Analyzed: 20:45

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	26204	6.92	111446	8.60	54239	11.17	107882	13.38	104835	17.24	90958	19.02
LOWER LIMIT	13102	6.42	55723	8.10	27120	10.67	53941	12.88	52418	16.74	45479	18.52
UPPER LIMIT	52408	7.42	222892	9.10	108478	11.67	215764	13.88	209670	17.74	181916	19.52

TYPE	SAMPLE	#										
CCV		016	26204	6.92	111446	8.60	54239	11.17	107882	13.38	104835	17.24	90958	19.02
BLANK	QC292646	017	27426	6.93	125744	8.61	64695	11.17	133335	13.39	154551	17.25	111809	19.02
LCS	QC292647	018	27254	6.92	123949	8.61	61770	11.17	123036	13.38	116237	17.24	99156	19.02
SAMPLE	179182-003	019	25132	6.92	111213	8.61	55814	11.17	110564	13.39	88343	17.25	59907	19.03
MSS	179144-001	020	27588	6.92	120254	8.61	61240	11.17	119952	13.39	96167	17.25	72722	19.03
MS	QC292648	021	26883	6.93	136340	8.61	61327	11.17	118824	13.39	93306	17.25	69818	19.03
MSD	QC292649	022	26560	6.93	141502	8.61	63564	11.17	117115	13.39	91458	17.25	79699	19.03

BNA03 8270 SIM 04/22/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

04/28/05

MB LCS MSS MS MSD 1,2,3

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 525179071 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 04-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	ve401	TUN	NP NL			04-MAY-2005 08:31	1.0	1.0			1	
002	ve402	CCV				04-MAY-2005 08:48	1.0	1.0		1	2	
003	ve403	BLANK	QC292467	101683	Soil	04-MAY-2005 09:36	1.0	0.03326		1	3	
004	ve404	LCS	QC292468	101683	Soil	04-MAY-2005 10:08	1.0	0.03321		1	3	
005	ve405	SAMPLE	179089-002	101683	Soil	04-MAY-2005 10:39	1.0	0.03299		1	3	
006	ve406	SAMPLE	179148-002	101683	Soil	04-MAY-2005 11:10	1.0	0.03328		1	3	
007	ve407	SAMPLE	179182-001	101683	Soil	04-MAY-2005 11:42	1.0	0.03312	1	1	3	
008	ve408	SAMPLE	179182-002	101683	Soil	04-MAY-2005 12:13	1.0	0.06667	1	1	3	
009	ve409	MSS	179148-001	101683	Soil	04-MAY-2005 12:44	1.0	0.03321		1	3	
010	ve410	MS	QC292469	101683	Soil	04-MAY-2005 13:15	1.0	0.03319		1	3	
011	ve411	MSD	QC292470	101683	Soil	04-MAY-2005 13:47	1.0	0.03324		1	3	
012	ve412	SAMPLE	179182-003	101683	Soil	04-MAY-2005 14:18	1.0	0.03311	9	1	3	8:PYR=39.7942
013	ve413	MS	QC292469	101683	Soil	04-MAY-2005 14:51	1.0	0.03319		1	3	
014	ve414	MSD	QC292470	101683	Soil	04-MAY-2005 15:22	1.0	0.03324		1	3	
015	ve415	TUN	NP NL			04-MAY-2005 20:23	1.0	1.0			1	
016	ve416	CCV				04-MAY-2005 20:45	1.0	1.0		1	2	
017	ve417	BLANK	QC292646	101730	Soil	04-MAY-2005 21:25	1.0	0.03331		1	3	
018	ve418	LCS	QC292647	101730	Soil	04-MAY-2005 21:57	1.0	0.03333		1	3	
019	ve419	SAMPLE	179182-003	101683	Soil	04-MAY-2005 22:30	5.0	0.03311		1	3	
020	ve420	MSS	179144-001	101730	Soil	04-MAY-2005 23:02	1.0	0.03323		1	3	
021	ve421	MS	QC292648	101730	Soil	04-MAY-2005 23:34	1.0	0.03317		1	3	
022	ve422	MSD	QC292649	101730	Soil	05-MAY-2005 00:06	1.0	0.03308		1	3	
023	ve423	CHECK				05-MAY-2005 00:37	1.0	1.0		1	4	
024	ve424	CHECK				05-MAY-2005 01:10	1.0	1.0	21	1	5	21:NO2BZD=25.3116
025	ve425	X	ENDBLANK			05-MAY-2005 01:35	1.0					
026	ve426	X	ENDBLANK			05-MAY-2005 01:46	1.0					
027	ve427	X	ENDBLANK			05-MAY-2005 01:57	1.0					

ve402 : OK
-Benzo(a)anthracene 1 fails recovery limits
ve416 : OK
-Benzo(a)anthracene 1 fails recovery limits
ve417 : OK
ve418 : OK

Stds used: 1=05WS0188 2=S490 3=05WS0254 4=S489 5=S488

Analyst: _____ Date: 5/5/05

Page 1 of 1

√ 5/5/05

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 18:39

Batch Number : 101683
Date Extracted: 03-MAY-2005
Extracted by : Jennifer R Dell
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S337A
Spike #2 ID : 05WS0096C
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type	Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001		Mactec, Inc.	Soil	30.43	g	1	0.032862	1		1	0		8270-SIM		
179089-002		Mactec, Inc.	Soil	30.31	g	1	0.032992	1		1	0		8270-SIM		
179089-003		Mactec, Inc.	Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
179148-001		Blasland, Bouck & Lee	Soil	30.11	g	1	0.033212	1		1	0		8270-SIM		mss
179148-002		Blasland, Bouck & Lee	Soil	30.05	g	1	0.033278	1		1	0		8270-SIM		
179182-001		Mactec, Inc.	Soil	30.19	g	1	0.033124	1		1	0		8270-SIM		
179182-002		Mactec, Inc.	Soil	30	g	2	0.066667	1		1	0		8270-SIM		
179182-003		Mactec, Inc.	Soil	30.2	g	1	0.033113	1		1	0		8270-SIM		
QC292467	MB		Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
QC292468	LCS		Soil	30.11	g	1	0.033212	1		1	1		8270-SIM		
QC292469	MS	of 179148-001	Soil	30.13	g	1	0.033190	1		1	1		8270-SIM		
QC292470	MSD	of 179148-001	Soil	30.08	g	1	0.033245	1		1	1		8270-SIM		

Prep Chemist: Jennifer Dell Reviewed By: [signature] Date: 5/5/05

Relinquished By: Jennifer Dell Received By: [signature] Date: 5/5/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 21 of 100

LIMS Batch No: 101683 Extraction Method:
LIMS Analysis 8270-SIM ☒ EPA 3550b Sonication
Extracted by: JRD ☐ EPA 3540c Soxhlet
Date Extracted: 5/3/05 ☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
179089-001	30.43	1.0		
-002	30.31			
-003	30.07			
179148-001	30.11			MSS
-002	30.05			
179182-001	30.19			
-002	30.00	2.0		lots of ~~sediment~~ ppt wouldn't come further JRD 5/3/05
-003	30.20	1.0		cloudy
MB QC292467	30.07			
LCS 68	30.11			
MS 69	30.13			
MSD 70	30.08			

JRD 5/3/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM4A028452	JRD 5/3/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM4A303507	
1.0 mL of surrogate solution was added to all samples	S337A	
1.0 mL of matrix spiking solution was added to all spikes	05WS0096C	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM45071	
Acetone	EM44233	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM4A303507	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

Jennifer L Dee 5/3/05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

5/4/05
Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001 A	49.76	TEH	MSS
179206-001 A	49.79	↓	
179213-001 A	49.84	↓	EM44258
MB	50.06	↓	↓
LCS	50.14	↓	179182-001A
MS	49.77	↓	↓
MSD	49.79	↓	
179213-001A	30.05	8270	
179213-001A	15.01	PCB	
179213-001A	15.21	8081	
179076-027A	30.38	8100	
179148-001A	30.11	8270-SIM	MSS
-MS	30.13	↓	179148-001A
-MSD	30.08	↓	↓
-LCS	~~30.07~~ 30.11	↓	EM44258
-MB	30.07	↓	↓

Continued on Page

Signed: [signature] Date: 5/3/05 95

Read and Understood By

Signed Date

5 Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
91[illegible]-001A	15.09	PCB/8081 TEH	
79148-002A	49.51		MSS 179148-002A
MS	49.91		
MSD	50.12		
79167-001A	50.07		
79098-004	14.87	PCB/8081 PCB	MSS, comp 1A, 2A, 3A 179098-004
MS	14.79		
MSD	14.84		
LCS	14.83		EM44258 Miscell.
79152-001B	49.51	TEHM	179152-001B
DUP	49.58		
79167-001	29.61	8100 8270 KMH 4/28/05	
79182-001A	49.62	TEHM	
-002	50.39		
-003	50.07		
79182-001	30.19	8270-SIM	
002	30.00		
003	30.20		
79182-001	15.15	8081	
002	15.02		
003	14.91		
79182-001	14.87	PCB	
-002	15.16		
-003	15.18		

JOM 4/29/05

Continued on Page

Read and Understood By

Signed 29Apr05 Date 96 Signed Date

Pesticides Results & QC Summary

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBD2TP105(11.5)	Batch#:	101667
Lab ID:	179182-001	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Moisture: 17%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.0	0.39
beta-BHC	ND	2.0	0.49
gamma-BHC	ND	2.0	0.43
delta-BHC	ND	2.0	0.40
Heptachlor	ND	2.0	0.58
Aldrin	ND	2.0	0.49
Heptachlor epoxide	ND	2.0	0.60
Endosulfan I	ND	2.0	1.1
Dieldrin	ND	3.9	0.77
4,4'-DDE	ND	3.9	0.64
Endrin	ND	3.9	0.80
Endosulfan II	ND	3.9	1.1
Endosulfan sulfate	ND	3.9	0.93
4,4'-DDD	ND	3.9	0.81
Endrin aldehyde	ND	3.9	0.87
4,4'-DDT	ND #	3.9	1.4
alpha-Chlordane	ND	2.0	0.60
gamma-Chlordane	ND	2.0	0.56
Methoxychlor	ND #	20	3.2
Toxaphene	ND	72	15

Surrogate	%REC	Limits
TCMX	88	43-130
Decachlorobiphenyl	100	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBD2TP105(15.0)	Batch#:	101667
Lab ID:	179182-002	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Moisture: 15%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.0	0.39
beta-BHC	ND	2.0	0.49
gamma-BHC	ND	2.0	0.43
delta-BHC	ND	2.0	0.40
Heptachlor	ND	2.0	0.57
Aldrin	ND	2.0	0.48
Heptachlor epoxide	ND	2.0	0.59
Endosulfan I	ND	2.0	1.0
Dieldrin	ND	3.9	0.75
4,4'-DDE	ND	3.9	0.63
Endrin	ND	3.9	0.79
Endosulfan II	ND	3.9	1.1
Endosulfan sulfate	ND	3.9	0.92
4,4'-DDD	ND	3.9	0.80
Endrin aldehyde	ND	3.9	0.86
4,4'-DDT	ND #	3.9	1.4
alpha-Chlordane	ND	2.0	0.59
gamma-Chlordane	ND	2.0	0.55
Methoxychlor	ND #	20	3.1
Toxaphene	ND	70	14

Surrogate	%REC	Limits
TCMX	63	43-130
Decachlorobiphenyl	91	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBD2TP106(2.0)	Batch#:	101667
Lab ID:	179182-003	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	5.000		

Moisture: 9% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.4	1.8
beta-BHC	ND	9.4	2.3
gamma-BHC	ND	9.4	2.0
delta-BHC	ND	9.4	1.9
Heptachlor	ND	9.4	2.7
Aldrin	ND	9.4	2.3
Heptachlor epoxide	ND	9.4	2.8
Endosulfan I	ND	9.4	4.9
Dieldrin	ND	18	3.5
4,4'-DDE	ND	18	2.9
Endrin	ND	18	3.7
Endosulfan II	ND	18	5.3
Endosulfan sulfate	ND	18	4.3
4,4'-DDD	ND	18	3.8
Endrin aldehyde	ND	18	4.0
4,4'-DDT	ND #	18	6.5
alpha-Chlordane	ND	9.4	2.8
gamma-Chlordane	ND	9.4	2.6
Methoxychlor	ND #	94	15
Toxaphene	ND	330	68

Surrogate	%REC	Limits
TCMX	103	43-130
Decachlorobiphenyl	98	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292396	Batch#:	101667
Matrix:	Soil	Prepared:	05/02/05
Units:	ug/Kg	Analyzed:	05/03/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.32
beta-BHC	ND	1.7	0.41
gamma-BHC	ND	1.7	0.36
delta-BHC	ND	1.7	0.33
Heptachlor	ND	1.7	0.48
Aldrin	ND	1.7	0.40
Heptachlor epoxide	ND	1.7	0.50
Endosulfan I	ND	1.7	0.88
Dieldrin	ND	3.3	0.63
4,4'-DDE	ND	3.3	0.53
Endrin	ND	3.3	0.66
Endosulfan II	ND	3.3	0.94
Endosulfan sulfate	ND	3.3	0.77
4,4'-DDD	ND	3.3	0.67
Endrin aldehyde	ND	3.3	0.72
4,4'-DDT	ND #	3.3	1.2
alpha-Chlordane	ND	1.7	0.49
gamma-Chlordane	ND	1.7	0.46
Methoxychlor	ND #	17	2.6
Toxaphene	ND	59	12

Surrogate	%REC	Limits
TCMX	79	43-130
Decachlorobiphenyl	90	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292397	Batch#:	101667
Matrix:	Soil	Prepared:	05/02/05
Units:	ug/Kg	Analyzed:	05/03/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.16	9.405	71	42-120
Heptachlor	13.16	9.709	74	49-126
Aldrin	13.16	9.690	74	52-120
Dieldrin	26.32	19.99	76	40-125
Endrin	26.32	20.05	76	38-135
4,4'-DDT	26.32	16.19 #	62	43-135

Surrogate	%REC	Limits
TCMX	76	43-130
Decachlorobiphenyl	71	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB02TP108(10.0)	Batch#:	101667
MSS Lab ID:	179089-003	Sampled:	04/25/05
Matrix:	Soil	Received:	04/26/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/03/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292398

Moisture: 18%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.4405	16.04	12.84	80	41-120
Heptachlor	<0.5900	16.04	13.13	82	48-130
Aldrin	<0.4936	16.04	13.76	86	42-126
Dieldrin	<0.7769	32.07	27.63	86	43-128
Endrin	<0.8142	32.07	27.86	87	45-137
4,4'-DDT	<1.423	32.07	22.01 #	69	31-151

Surrogate	%REC	Limits
TCMX	84	43-130
Decachlorobiphenyl	80	43-143

Type: MSD
Lab ID: QC292399

Moisture: 18%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	16.21	13.49	83	41-120	4	37
Heptachlor	16.21	12.95	80	48-130	2	43
Aldrin	16.21	13.44	83	42-126	3	36
Dieldrin	32.41	28.07	87	43-128	1	38
Endrin	32.41	26.66	82	45-137	5	39
4,4'-DDT	32.41	23.59 #	73	31-151	6	47

Surrogate	%REC	Limits
TCMX	91	43-130
Decachlorobiphenyl	75	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235170716001 Name: Type: (normal) Date: 28-APR-2005 21:19 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	118_015	235170716015	pest_1	28-APR-2005 21:19	S9
2	118_016	235170716016	pest_2	28-APR-2005 21:49	S10
3	118_017	235170716017	pest_3	28-APR-2005 22:20	S11
4	118_018	235170716018	pest_4	28-APR-2005 22:50	S243
5	118_019	235170716019	pest_5	28-APR-2005 23:22	S245
6	118_020	235170716020	pest_6	28-APR-2005 23:52	S13
7	118_021	235170716021	pest_7	29-APR-2005 00:23	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	2055.4	2100.2	2338.0	2603.3	2917.9	3518.4	3554.1	AVRG	R		3.667E-4		pg	2726.7	**23**	0.995	20	rsd ***
gamma-BHC	A	2066.7	2109.6	2387.0	2669.2	2975.7	3440.3	3362.9	AVRG	R		3.682E-4		pg	2715.9	**21**	0.995	20	rsd ***
beta-BHC	A	1535.9	1477.2	1568.2	1617.9	1731.7	1804.2	1666.6	AVRG	R		6.139E-4		pg	1628.8	7	0.995	20	
delta-BHC	A	1905.0	1826.7	2038.8	2303.9	2658.4	3168.7	3166.4	AVRG	R		4.101E-4		pg	2438.3	**23**	0.995	20	rsd ***
Heptachlor	A	2491.1	2411.1	2648.8	2843.0	3121.3	3308.6	3039.9	AVRG	R		3.524E-4		pg	2837.7	12	0.995	20	
Aldrin	A	2307.2	2270.2	2431.0	2567.1	2809.3	3085.3	2911.6	AVRG	R		3.808E-4		pg	2626.0	12	0.995	20	
Heptachlor epoxide	A	2671.7	2578.0	2742.6	2846.9	3083.2	3161.2	2806.4	AVRG	R		3.519E-4		pg	2841.4	7	0.995	20	
gamma-Chlordane	A	2848.0	2495.0	2668.7	2776.9	3062.1	3169.1	2851.3	AVRG	R		3.523E-4		pg	2838.7	8	0.995	20	
alpha-Chlordane	A	2608.1	2539.4	2722.9	2849.9	3120.0	3226.2	2860.7	AVRG	R		3.513E-4		pg	2846.8	9	0.995	20	
4,4'-DDE	A	2371.2	2300.3	2521.9	2654.0	2986.0	2991.4	2584.2	AVRG	R		3.802E-4		pg	2629.9	10	0.995	20	
Endosulfan I	A	2433.8	2471.0	2641.3	2758.4	3034.5	3142.9	2803.2	AVRG	R		3.630E-4		pg	2755.0	10	0.995	20	
Dieldrin	A	2182.4	2166.5	2397.7	2595.5	2911.9	2999.2	2621.2	AVRG	R		3.916E-4		pg	2553.5	13	0.995	20	
Endrin	A	2044.0	1927.8	2134.4	2307.6	2618.4	2626.1	2245.2	AVRG	R		4.402E-4		pg	2271.9	12	0.995	20	
4,4'-DDD	A	1462.1	1430.5	1591.2	1698.1	2024.1	2165.9	1924.5	AVRG	R		5.693E-4		pg	1756.6	16	0.995	20	
Endosulfan II	A	2281.4	2129.5	2334.3	2469.7	2809.1	2751.2	2346.9	AVRG	R		4.088E-4		pg	2446.0	10	0.995	20	
4,4'-DDT	A	1248.6	975.85	1226.4	1595.0	2045.5	2077.1	1855.8	AVRG	R		6.350E-4		pg	1574.9	**28**	0.995	20	rsd ***
Endrin aldehyde	A	2023.0	2003.8	2105.1	2061.6	2299.0	2208.8	1875.5	AVRG	R		4.802E-4		pg	2082.4	7	0.995	20	
Methoxychlor	A	836.20	684.78	810.39	879.12	1051.4	922.51	732.86	AVRG	R		0.001183		pg	845.33	14	0.995	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235170716001 Name: Type: (normal) Date: 28-APR-2005 21:19 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2205.6	2006.2	2193.4	2234.7	2547.2	2462.9	2067.7	AVRG	R		4.454E-4		pg	2245.4	9	0.995	20	
TCMX	A	2638.5	2703.9	2874.5	2855.2	2988.6	2982.5	2702.8	AVRG	R		3.545E-4		pg	2820.9	5	0.995	20	
Decachlorobiphenyl	A	2505.9	3299.1	3466.7	3146.5	3237.2	3080.4	2376.5	AVRG	R		3.316E-4		pg	3016.1	14	0.995	20	
alpha-BHC	B	7198.7	7031.8	7373.3	7434.2	7909.0	8186.5	7574.2	AVRG	R		1.328E-4		pg	7529.7	5	0.995	20	
gamma-BHC	B	6629.2	6247.7	6502.4	6534.8	6941.1	7082.7	6471.2	AVRG	R		1.508E-4		pg	6629.9	4	0.995	20	
beta-BHC	B	4524.4	3936.5	3832.6	3596.5	3709.2	3553.7	3108.7	AVRG	R		2.665E-4		pg	3751.7	11	0.995	20	
delta-BHC	B	6608.0	6097.3	6432.9	6472.0	7067.5	7242.5	6591.7	AVRG	R		1.505E-4		pg	6644.5	6	0.995	20	
Heptachlor	B	4869.1	4451.9	4668.6	4618.8	4916.7	4792.8	4194.4	AVRG	R		2.153E-4		pg	4644.6	5	0.995	20	
Aldrin	B	7033.9	6770.8	6734.2	6642.6	7068.9	6965.0	6113.1	AVRG	R		1.479E-4		pg	6761.2	5	0.995	20	
Heptachlor epoxide	B	6836.9	6313.6	6079.4	5781.0	5970.9	5740.5	4817.8	AVRG	R		1.685E-4		pg	5934.3	10	0.995	20	
gamma-Chlordane	B	7266.3	6611.6	6602.3	6497.1	6881.8	6670.5	5726.6	AVRG	R		1.513E-4		pg	6608.0	7	0.995	20	
alpha-Chlordane	B	7471.1	6779.1	6719.6	6488.0	6940.3	6620.8	5652.7	AVRG	R		1.500E-4		pg	6667.4	8	0.995	20	
4,4'-DDE	B	5410.9	5034.7	5381.1	5475.7	6019.6	5862.6	4975.3	AVRG	R		1.834E-4		pg	5451.4	7	0.995	20	
Endosulfan I	B	6951.8	6193.7	6069.6	5814.0	6194.0	5801.8	4844.3	AVRG	R		1.672E-4		pg	5981.3	11	0.995	20	
Dieldrin	B	5913.2	5451.5	5615.7	5509.5	5962.0	5609.5	4644.1	AVRG	R		1.809E-4		pg	5529.4	8	0.995	20	
Endrin	B	4914.2	4275.7	4337.4	4274.3	4597.1	4366.9	3559.3	AVRG	R		2.308E-4		pg	4332.1	9	0.995	20	
4,4'-DDD	B	3826.6	3639.3	3719.2	3496.5	3972.3	3879.4	3225.5	AVRG	R		2.718E-4		pg	3679.8	7	0.995	20	
Endosulfan II	B	5844.7	5220.5	5165.1	4796.4	5163.9	4785.6	3835.9	AVRG	R		2.011E-4		pg	4973.2	12	0.995	20	
4,4'-DDT	B	2497.0	2030.4	2319.0	2660.7	3133.9	3019.6	2580.5	AVRG	R		3.837E-4		pg	2605.9	15	0.995	20	
Endrin aldehyde	B	4720.9	4203.4	4101.4	3758.6	4092.6	3704.8	2974.3	AVRG	R		2.540E-4		pg	3936.6	14	0.995	20	
Methoxychlor	B	1171.3	946.97	985.26	991.38	1162.4	1009.4	812.29	AVRG	R		9.889E-4		pg	1011.3	12	0.995	20	
Endosulfan sulfate	B	5476.6	4685.7	4575.2	4293.0	4716.6	4235.5	3420.2	AVRG	R		2.229E-4		pg	4486.1	14	0.995	20	
TCMX	B	7079.9	6634.1	6614.6	6139.5	6327.9	5985.7	5279.2	AVRG	R		1.589E-4		pg	6294.4	9	0.995	20	
Decachlorobiphenyl	B	5170.7	4532.3	4491.8	3932.0	4379.2	3884.4	3073.3	AVRG	R		2.376E-4		pg	4209.1	16	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	13	20	
EPA 8081A	B	22	9	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :

ICV 235170716024 (118_024) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235170716024	29-APR-2005	25.000	23.475	pg	-6	15	
gamma-BHC	A	235170716024	29-APR-2005	25.000	23.476	pg	-6	15	
beta-BHC	A	235170716024	29-APR-2005	25.000	23.121	pg	-8	15	
delta-BHC	A	235170716024	29-APR-2005	25.000	23.763	pg	-5	15	
Heptachlor	A	235170716024	29-APR-2005	25.000	23.266	pg	-7	15	
Aldrin	A	235170716024	29-APR-2005	25.000	23.530	pg	-6	15	
Heptachlor epoxide	A	235170716024	29-APR-2005	25.000	24.010	pg	-4	15	
gamma-Chlordane	A	235170716024	29-APR-2005	25.000	23.121	pg	-8	15	
alpha-Chlordane	A	235170716024	29-APR-2005	25.000	23.986	pg	-4	15	
4,4'-DDE	A	235170716024	29-APR-2005	25.000	23.204	pg	-7	15	
Endosulfan I	A	235170716024	29-APR-2005	25.000	23.885	pg	-4	15	
Dieldrin	A	235170716024	29-APR-2005	25.000	22.169	pg	-11	15	
Endrin	A	235170716024	29-APR-2005	25.000	23.339	pg	-7	15	
4,4'-DDD	A	235170716024	29-APR-2005	25.000	22.988	pg	-8	15	
Endosulfan II	A	235170716024	29-APR-2005	25.000	23.776	pg	-5	15	
4,4'-DDT	A	235170716024	29-APR-2005	25.000	19.036	pg	**-24**	15	v- ***
Endrin aldehyde	A	235170716024	29-APR-2005	25.000	25.538	pg	2	15	
Methoxychlor	A	235170716024	29-APR-2005	25.000	20.634	pg	**-17**	15	v- ***
Endosulfan sulfate	A	235170716024	29-APR-2005	25.000	24.390	pg	-2	15	
alpha-BHC	B	235170716024	29-APR-2005	25.000	23.849	pg	-5	15	
gamma-BHC	B	235170716024	29-APR-2005	25.000	23.348	pg	-7	15	
beta-BHC	B	235170716024	29-APR-2005	25.000	22.459	pg	-10	15	
delta-BHC	B	235170716024	29-APR-2005	25.000	24.048	pg	-4	15	
Heptachlor	B	235170716024	29-APR-2005	25.000	22.886	pg	-8	15	
Aldrin	B	235170716024	29-APR-2005	25.000	23.187	pg	-7	15	
Heptachlor epoxide	B	235170716024	29-APR-2005	25.000	23.494	pg	-6	15	
gamma-Chlordane	B	235170716024	29-APR-2005	25.000	22.725	pg	-9	15	
alpha-Chlordane	B	235170716024	29-APR-2005	25.000	22.835	pg	-9	15	
4,4'-DDE	B	235170716024	29-APR-2005	25.000	24.026	pg	-4	15	
Endosulfan I	B	235170716024	29-APR-2005	25.000	23.296	pg	-7	15	
Dieldrin	B	235170716024	29-APR-2005	25.000	23.747	pg	-5	15	
Endrin	B	235170716024	29-APR-2005	25.000	25.152	pg	1	15	
4,4'-DDD	B	235170716024	29-APR-2005	25.000	24.887	pg	0	15	
Endosulfan II	B	235170716024	29-APR-2005	25.000	25.252	pg	1	15	
4,4'-DDT	B	235170716024	29-APR-2005	25.000	21.003	pg	**-16**	15	v- ***
Endrin aldehyde	B	235170716024	29-APR-2005	25.000	25.666	pg	3	15	
Methoxychlor	B	235170716024	29-APR-2005	25.000	27.568	pg	10	15	
Endosulfan sulfate	B	235170716024	29-APR-2005	25.000	25.120	pg	0	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	7	15	
EPA 8081A	B	20	6	15	✓

-=low bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235177693012 Run Name: Injected: 03-MAY-2005 15:26
Filename: 123_012 Standard(s): S306

Analyte	Ch	Area
Endrin	A	111993.62
Endrin aldehyde	A	931.53
Endrin ketone	A	3729.5

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	160850.87
4,4'-DDE	A	1212.83
4,4'-DDD	A	10395.06

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	211900.17
Endrin aldehyde	B	2982.48
Endrin ketone	B	9291.64

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	236085.62
4,4'-DDE	B	3297.33
4,4'-DDD	B	27049

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235177693026 Run Name: Injected: 03-MAY-2005 23:03
Filename: 123_026 Standard(s): S306

Analyte	Ch	Area
Endrin	A	123714.16
Endrin aldehyde	A	1125.43
Endrin ketone	A	5566.41

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	169984.03
4,4'-DDE	A	1322.44
4,4'-DDD	A	13378.57

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	230255.52
Endrin aldehyde	B	3789.77
Endrin ketone	B	12945.15

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	256183.87
4,4'-DDE	B	3131.47
4,4'-DDD	B	35112.7

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235177693035 Run Name: Injected: 04-MAY-2005 03:37
Filename: 123_035 Standard(s): S306

Analyte	Ch	Area
Endrin	A	102460.04
Endrin aldehyde	A	1687.83
Endrin ketone	A	5123.26

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	130470.94
4,4'-DDE	A	1200.31
4,4'-DDD	A	13502.74

4,4'-DDT Breakdown %: 10
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	197527.26
Endrin aldehyde	B	3966.12
Endrin ketone	B	11935.16

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	206643.19
4,4'-DDE	B	3345.56
4,4'-DDD	B	33786.17

4,4'-DDT Breakdown %: 15
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_5 IDF : 1.0
Seqnum : 235177693013 Filename : 123_013 Injected : 03-MAY-2005 15:57
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :
Standards: S245

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2726.7	2724.2	25.00000	24.97643	pg	0	15	rsd ***
gamma-BHC	A	2715.9	2766.1	25.00000	25.46154	pg	2	15	rsd ***
beta-BHC	A	1628.8	1638.4	25.00000	25.14698	pg	1	15	
delta-BHC	A	2438.3	2463.6	25.00000	25.25939	pg	1	15	rsd ***
Heptachlor	A	2837.7	2702.7	25.00000	23.81030	pg	-5	15	
Aldrin	A	2626.0	2664.3	25.00000	25.36513	pg	1	15	
Heptachlor epoxide	A	2841.4	2929.3	25.00000	25.77301	pg	3	15	
gamma-Chlordane	A	2838.7	2884.4	25.00000	25.40185	pg	2	15	
alpha-Chlordane	A	2846.8	3003.0	25.00000	26.37241	pg	5	15	
4,4'-DDE	A	2629.9	2847.5	50.00000	54.13735	pg	8	15	
Endosulfan I	A	2755.0	2835.7	25.00000	25.73224	pg	3	15	
Dieldrin	A	2553.5	2733.0	50.00000	53.51571	pg	7	15	
Endrin	A	2271.9	2435.6	50.00000	53.60137	pg	7	15	
4,4'-DDD	A	1756.6	1959.8	50.00000	55.78395	pg	12	15	
Endosulfan II	A	2446.0	2635.2	50.00000	53.86726	pg	8	15	
4,4'-DDT	A	1574.9	1544.3	50.00000	49.02848	pg	-2	15	rsd ***
Endrin aldehyde	A	2082.4	2180.1	50.00000	52.34579	pg	5	15	
Methoxychlor	A	845.33	837.64	250.0000	247.7271	pg	-1	15	
Endosulfan sulfate	A	2245.4	2406.3	50.00000	53.58418	pg	7	15	
TCMX	A	2820.9	2798.3	50.00000	49.60048	pg	-1	15	
Decachlorobiphenyl	A	3016.1	3220.0	50.00000	53.38101	pg	7	15	
alpha-BHC	B	7529.7	7526.6	25.00000	24.98996	pg	0	15	
gamma-BHC	B	6629.9	6541.3	25.00000	24.66594	pg	-1	15	
beta-BHC	B	3751.7	3530.1	25.00000	23.52330	pg	-6	15	
delta-BHC	B	6644.5	6684.2	25.00000	25.14931	pg	1	15	
Heptachlor	B	4644.6	4440.6	25.00000	23.90215	pg	-4	15	
Aldrin	B	6761.2	6796.4	25.00000	25.13011	pg	1	15	
Heptachlor epoxide	B	5934.3	5918.1	25.00000	24.93171	pg	0	15	
gamma-Chlordane	B	6608.0	6637.0	25.00000	25.10946	pg	0	15	
alpha-Chlordane	B	6667.4	6657.3	25.00000	24.96225	pg	0	15	
4,4'-DDE	B	5451.4	5710.0	50.00000	52.37196	pg	5	15	
Endosulfan I	B	5981.3	5992.3	25.00000	25.04597	pg	0	15	
Dieldrin	B	5529.4	5707.1	50.00000	51.60673	pg	3	15	
Endrin	B	4332.1	4468.3	50.00000	51.57163	pg	3	15	
4,4'-DDD	B	3679.8	3807.1	50.00000	51.72889	pg	3	15	
Endosulfan II	B	4973.2	5048.8	50.00000	50.75994	pg	2	15	
4,4'-DDT	B	2605.9	2438.7	50.00000	46.79178	pg	-6	15	
Endrin aldehyde	B	3936.6	3974.6	50.00000	50.48303	pg	1	15	
Methoxychlor	B	1011.3	932.02	250.0000	230.4096	pg	-8	15	
Endosulfan sulfate	B	4486.1	4523.7	50.00000	50.41889	pg	1	15	
TCMX	B	6294.4	6034.6	50.00000	47.93590	pg	-4	15	
Decachlorobiphenyl	B	4209.1	4067.3	50.00000	48.31544	pg	-3	15	
Average EPA 8081A	A		(count=22)				4	15	
Average EPA 8081A	B		(count=22)				3	15	

rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235177693027 Filename : 123_027 Injected : 03-MAY-2005 23:33
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2726.7	2199.1	10.00000	8.065072	pg	**-19**	15	c- rsd ***
gamma-BHC	A	2715.9	2223.8	10.00000	8.187896	pg	**-18**	15	c- rsd ***
beta-BHC	A	1628.8	1492.5	10.00000	9.162956	pg	-8	15	
delta-BHC	A	2438.3	1975.2	10.00000	8.100602	pg	**-19**	15	c- rsd ***
Heptachlor	A	2837.7	2274.5	10.00000	8.015206	pg	**-20**	15	c- ***
Aldrin	A	2626.0	2419.0	10.00000	9.211800	pg	-8	15	
Heptachlor epoxide	A	2841.4	2741.4	10.00000	9.647878	pg	-4	15	
gamma-Chlordane	A	2838.7	2648.4	10.00000	9.329570	pg	-7	15	
alpha-Chlordane	A	2846.8	2723.0	10.00000	9.565245	pg	-4	15	
4,4'-DDE	A	2629.9	2587.3	20.00000	19.67604	pg	-2	15	
Endosulfan I	A	2755.0	2593.7	10.00000	9.414328	pg	-6	15	
Dieldrin	A	2553.5	2394.7	20.00000	18.75629	pg	-6	15	
Endrin	A	2271.9	2024.2	20.00000	17.81916	pg	-11	15	
4,4'-DDD	A	1756.6	1725.8	20.00000	19.64907	pg	-2	15	
Endosulfan II	A	2446.0	2352.2	20.00000	19.23278	pg	-4	15	
4,4'-DDT	A	1574.9	851.49	20.00000	10.81335	pg	**-46**	15	c- rsd ***
Endrin aldehyde	A	2082.4	2134.9	20.00000	20.50404	pg	3	15	
Methoxychlor	A	845.33	576.84	100.0000	68.23847	pg	**-32**	15	c- ***
Endosulfan sulfate	A	2245.4	2230.7	20.00000	19.86892	pg	-1	15	
TCMX	A	2820.9	2708.8	20.00000	19.20548	pg	-4	15	
Decachlorobiphenyl	A	3016.1	3360.8	20.00000	22.28623	pg	11	15	
alpha-BHC	B	7529.7	7160.1	10.00000	9.509150	pg	-5	15	
gamma-BHC	B	6629.9	6364.5	10.00000	9.599703	pg	-4	15	
beta-BHC	B	3751.7	3796.5	10.00000	10.11947	pg	1	15	
delta-BHC	B	6644.5	6374.2	10.00000	9.593100	pg	-4	15	
Heptachlor	B	4644.6	4328.0	10.00000	9.318397	pg	-7	15	
Aldrin	B	6761.2	6754.2	10.00000	9.989636	pg	0	15	
Heptachlor epoxide	B	5934.3	6254.2	10.00000	10.53909	pg	5	15	
gamma-Chlordane	B	6608.0	6711.0	10.00000	10.15587	pg	2	15	
alpha-Chlordane	B	6667.4	6825.2	10.00000	10.23670	pg	2	15	
4,4'-DDE	B	5451.4	5568.8	20.00000	20.43067	pg	2	15	
Endosulfan I	B	5981.3	6246.5	10.00000	10.44340	pg	4	15	
Dieldrin	B	5529.4	5785.6	20.00000	20.92681	pg	5	15	
Endrin	B	4332.1	4275.5	20.00000	19.73829	pg	-1	15	
4,4'-DDD	B	3679.8	3983.7	20.00000	21.65180	pg	8	15	
Endosulfan II	B	4973.2	5330.8	20.00000	21.43836	pg	7	15	
4,4'-DDT	B	2605.9	1699.2	20.00000	13.04105	pg	**-35** -	15	c- ***
Endrin aldehyde	B	3936.6	4282.7	20.00000	21.75849	pg	9	15	
Methoxychlor	B	1011.3	749.78	100.0000	74.14248	pg	**-26** -	15	c- ***
Endosulfan sulfate	B	4486.1	4731.6	20.00000	21.09458	pg	5	15	
TCMX	B	6294.4	6330.7	20.00000	20.11522	pg	1	15	
Decachlorobiphenyl	B	4209.1	4397.5	20.00000	20.89529	pg	4	15	
Average EPA 8081A	A		(count=22)				11	15	
Average EPA 8081A	B		(count=22)				6	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235177693036 Filename : 123_036 Injected : 04-MAY-2005 04:08
Calnum : 235170716001 Caldate : 28-APR-2005 Caltype :
Standards: S243

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2726.7	2380.1	20.00000	17.45765	pg	-13	15	rsd ***
gamma-BHC	A	2715.9	2415.7	20.00000	17.78902	pg	-11	15	rsd ***
beta-BHC	A	1628.8	1487.5	20.00000	18.26507	pg	-9	15	
delta-BHC	A	2438.3	2115.8	20.00000	17.35456	pg	-13	15	rsd ***
Heptachlor	A	2837.7	2444.5	20.00000	17.22881	pg	-14	15	
Aldrin	A	2626.0	2436.1	20.00000	18.55430	pg	-7	15	
Heptachlor epoxide	A	2841.4	2693.1	20.00000	18.95627	pg	-5	15	
gamma-Chlordane	A	2838.7	2672.5	20.00000	18.82884	pg	-6	15	
alpha-Chlordane	A	2846.8	2711.9	20.00000	19.05243	pg	-5	15	
4,4'-DDE	A	2629.9	2535.5	40.00000	38.56399	pg	-4	15	
Endosulfan I	A	2755.0	2560.2	20.00000	18.58580	pg	-7	15	
Dieldrin	A	2553.5	2407.8	40.00000	37.71724	pg	-6	15	
Endrin	A	2271.9	2078.4	40.00000	36.59242	pg	-9	15	
4,4'-DDD	A	1756.6	1661.1	40.00000	37.82469	pg	-5	15	
Endosulfan II	A	2446.0	2309.9	40.00000	37.77365	pg	-6	15	
4,4'-DDT	A	1574.9	1114.7	40.00000	28.31312	pg	**-29**	15	c- rsd ***
Endrin aldehyde	A	2082.4	1941.8	40.00000	37.29847	pg	-7	15	
Methoxychlor	A	845.33	655.59	200.0000	155.1096	pg	**-22**	15	c- ***
Endosulfan sulfate	A	2245.4	2118.4	40.00000	37.73758	pg	-6	15	
TCMX	A	2820.9	2659.5	40.00000	37.71151	pg	-6	15	
Decachlorobiphenyl	A	3016.1	2788.0	40.00000	36.97560	pg	-8	15	
alpha-BHC	B	7529.7	7153.0	20.00000	18.99948	pg	-5	15	
gamma-BHC	B	6629.9	6345.8	20.00000	19.14311	pg	-4	15	
beta-BHC	B	3751.7	3481.6	20.00000	18.56041	pg	-7	15	
delta-BHC	B	6644.5	6277.0	20.00000	18.89380	pg	-6	15	
Heptachlor	B	4644.6	4323.0	20.00000	18.61496	pg	-7	15	
Aldrin	B	6761.2	6418.6	20.00000	18.98653	pg	-5	15	
Heptachlor epoxide	B	5934.3	5786.4	20.00000	19.50153	pg	-2	15	
gamma-Chlordane	B	6608.0	6257.9	20.00000	18.94027	pg	-5	15	
alpha-Chlordane	B	6667.4	6298.9	20.00000	18.89473	pg	-6	15	
4,4'-DDE	B	5451.4	5249.9	40.00000	38.52133	pg	-4	15	
Endosulfan I	B	5981.3	5673.0	20.00000	18.96902	pg	-5	15	
Dieldrin	B	5529.4	5353.1	40.00000	38.72463	pg	-3	15	
Endrin	B	4332.1	4158.6	40.00000	38.39748	pg	-4	15	
4,4'-DDD	B	3679.8	3679.3	40.00000	39.99435	pg	0	15	
Endosulfan II	B	4973.2	4866.7	40.00000	39.14386	pg	-2	15	
4,4'-DDT	B	2605.9	2066.2	40.00000	31.71616	pg	**-21**	15	c- ***
Endrin aldehyde	B	3936.6	3701.8	40.00000	37.61474	pg	-6	15	
Methoxychlor	B	1011.3	804.25	200.0000	159.0571	pg	**-20**	15	c- ***
Endosulfan sulfate	B	4486.1	4208.2	40.00000	37.52204	pg	-6	15	
TCMX	B	6294.4	5867.6	40.00000	37.28744	pg	-7	15	
Decachlorobiphenyl	B	4209.1	3563.5	40.00000	33.86502	pg	-15	15	
Average EPA 8081A	A		(count=22)				9	15	
Average EPA 8081A	B		(count=22)				7	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235170716 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 28-APR-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
005	118_005	CCV	pest_4			28-APR-2005 13:16	1.0					1	
006	118_006	CCV	pest_4			28-APR-2005 13:47	1.0					1	
012	118_012	X	hex			28-APR-2005 19:47	1.0						
013	118_013	PEM				28-APR-2005 20:18	1.0		1			2	
014	118_014	X	hex			28-APR-2005 20:48	1.0						
015	118_015	ICAL	pest_1			28-APR-2005 21:19	1.0					3	
016	118_016	ICAL	pest_2			28-APR-2005 21:49	1.0					4	
017	118_017	ICAL	pest_3			28-APR-2005 22:20	1.0					5	
018	118_018	ICAL	pest_4			28-APR-2005 22:50	1.0					1	
019	118_019	ICAL	pest_5			28-APR-2005 23:22	1.0					6	
020	118_020	ICAL	pest_6			28-APR-2005 23:52	1.0					7	
021	118_021	ICAL	pest_7			29-APR-2005 00:23	1.0					8	
023	118_023	X	icv			29-APR-2005 01:24	1.0					9	
024	118_024	ICV	icv			29-APR-2005 01:54	1.0	3	1			9	

113

Stds used: 1=S243 2=S306 3=S9 4=S10 5=S11 6=S245 7=S13 8=S14 9=S441

SEQUENCE SUMMARY FOR 179182 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235177693 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 03-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	123_001	PEM				03-MAY-2005 09:33	1.0	1.0			1	1	
002	123_002	X	ccv			03-MAY-2005 10:03	1.0					2	
003	123_003	CCV	pest_4			03-MAY-2005 10:34	1.0	1.0	4		1	2	
005	123_005	BLANK	QC292190	101610	Water	03-MAY-2005 11:52	1.0	0.01			1		
006	123_006	BS	QC292191	101610	Water	03-MAY-2005 12:23	1.0	0.01	4		1		
007	123_007	BSD	QC292192	101610	Water	03-MAY-2005 12:53	1.0	0.01	4		1		
008	123_008	SAMPLE	179161-001	101610	Water	03-MAY-2005 13:24	1.0	0.009901			1		
009	123_009	SAMPLE	179076-009	101575	Soil	03-MAY-2005 13:54	1.0	0.6618			1		
010	123_010	SAMPLE	179076-012	101575	Soil	03-MAY-2005 14:25	1.0	0.6566			1		
011	123_011	SAMPLE	179022-001	101575	Soil	03-MAY-2005 14:55	10.0	0.6676			1		
012	123_012	PEM				03-MAY-2005 15:26	1.0	1.0			1	1	
013	123_013	CCV	pest_5			03-MAY-2005 15:57	1.0	1.0	4		1	3	
015	123_015	BLANK	QC292396	101667	Soil	03-MAY-2005 17:26	1.0	0.6575	8		1		
016	123_016	LCS	QC292397	101667	Soil	03-MAY-2005 17:56	1.0	0.6579	8		1		
017	123_017	SAMPLE	179089-001	101667	Soil	03-MAY-2005 18:27	1.0	0.657	8		1		
018	123_018	SAMPLE	179089-002	101667	Soil	03-MAY-2005 18:57	1.0	0.6631	8		1		
019	123_019	MSS	179089-003	101667	Soil	03-MAY-2005 19:28	1.0	0.6623	8		1		
020	123_020	SAMPLE	179098-004	101667	Soil	03-MAY-2005 19:58	1.0	0.6658	8		1		
021	123_021	SAMPLE	179167-001	101667	Soil	03-MAY-2005 20:29	1.0	0.6557	5		1		
022	123_022	SAMPLE	179182-001	101667	Soil	03-MAY-2005 20:59	1.0	0.6601	8		1		
023	123_023	MS	QC292398	101667	Soil	03-MAY-2005 21:30	1.0	0.6575	8		1		
024	123_024	MSD	QC292399	101667	Soil	03-MAY-2005 22:00	1.0	0.6645	8		1		
026	123_026	PEM				03-MAY-2005 23:03	1.0	1.0			1	1	
027	123_027	CCV	pest_3			03-MAY-2005 23:33	1.0	1.0	8		1	4	
031	123_031	SAMPLE	179190-001	101667	Soil	04-MAY-2005 01:35	1.0	0.6627	5	4	1		
032	123_032	MSS	179182-002	101667	Soil	04-MAY-2005 02:06	1.0	0.6658	8		1		
033	123_033	SAMPLE	179182-003	101667	Soil	04-MAY-2005 02:36	5.0	0.6707	8		1		
035	123_035	PEM				04-MAY-2005 03:37	1.0	1.0			1	1	
036	123_036	CCV	pest_4			04-MAY-2005 04:08	1.0	1.0	7		1	2	

Stds used: 1=S306 2=S243 3=S245 4=S420

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 13:20

Batch Number : 101667
Date Extracted: 02-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S203B
Spike #3 ID : S284A
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001			Mactec, Inc.	Soil	15.22	g	10	0.657030	1		.02	0	0	8081		
179089-002			Mactec, Inc.	Soil	15.08	g	10	0.663130	1		.02	0	0	8081		
179089-003			Mactec, Inc.	Soil	15.1	g	10	0.662252	1		.02	0	0	8081		mss
179098-004			Iris Environmental	Soil	15.02	g	10	0.665779	1		.02	0	0	8081, PCB		
179167-001			Fugro West, Inc.	Soil	15.25	g	10	0.655738	1		.02	0	0	8081, PCB		
179182-001			Mactec, Inc.	Soil	15.15	g	10	0.660066	1		.02	0	0	8081, PCB		
179182-002			Mactec, Inc.	Soil	15.02	g	10	0.665779	1		.02	0	0	8081, PCB		mss
179182-003			Mactec, Inc.	Soil	14.91	g	10	0.670691	1		.02	0	0	8081, PCB		
179190-001			Fugro West, Inc.	Soil	15.09	g	10	0.662691	1		.02	0	0	8081, PCB		
QC292396	MB			Soil	15.21	g	10	0.657462	1		.02	0	0	8081		
QC292397	LCS			Soil	15.2	g	10	0.657895	1		.02	.025	0	8081		
QC292398	MS	of 179089-003		Soil	15.21	g	10	0.657462	1		.02	.025	0	8081		
QC292399	MSD	of 179089-003		Soil	15.05	g	10	0.664452	1		.02	.025	0	8081		
QC292400	LCS			Soil	15.23	g	10	0.656599	1		.02	0	.025	PCB		
QC292401	MS	of 179182-002		Soil	15.12	g	10	0.661376	1		.02	0	.025	PCB		
QC292402	MSD	of 179182-002		Soil	15	g	10	0.666667	1		.02	0	.025	PCB	3665A	

Prep Chemist: _____ Reviewed By: _____ Date: 5/3/05

Relinquished By: _____ Received By: _____ 05/03/05 Date: 5/3/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

Page 66

LIMS Batch No: 101667 **Extraction Method:**
LIMS Analysis: 8081/PCB ☐ EPA 3550b Sonication
Extracted by: KMH 5/2/05 ☑ EPA 3545 PFE (Mth# 10)
Date Extracted: 5/2/05 ☐ EPA 3540c Soxhlet
☐ _____

Cleanup Method:
☐ EPA 3640a GPC
☑ EPA 3620b Florisil
☐ _____

	Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
	179089-001	15.22	10.0	X	
	-002	15.08			
	-003	15.10			MSS
	179098-001	15.02			
5	179167-001	15.25			
	179182-001	15.15			
	-002	15.02			
	-003	14.91			
	179190-001	15.09			
10	MB QC292396	15.21			
	LCS 97	15.20			
	MS 98	15.21			
	MSD 99	15.05			
15					
20					

SHD 5/3/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	KMH 5/2/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	DIDNOT 040603	
0.2 mL of surrogate solution was added to all samples	S258B SHD 5/3/05	
0.25 mL of spike solution was added to all spikes	~~S284A(PCB)~~ S203B (8081)	
1:1 CH_2Cl_2 (lot# EMA5071):Acetone(lot# EM45033 was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	[redacted] D28	
Soxhlets on at:	[redacted]	SHD 5/3/05
Soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	N/A	
Exchanged 2x with Hexane	CW88	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	402290-BE	

Kristen Hansen 5/2/05
Extraction Chemist / Date

Continued from page 116
Continued on page _____

Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: SHD
Cleanup Date: 5/3/05

Benchbook # **BK 2068**
Page 68

	Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
	179089-001	101667	1.8	1.0	
	-002				
	-003				MS5
	179098-004				
5	179167-001				
	179182-001				
	-002				
	-003				
	179190-001				
10	MB QC192396				
	LCS 97				
	MS 98				
	MSD 99				
15					
20					
25					
30					

DM 3May05

Mfg & Lot # / Time / Program	Initials / Dat
Reagent 407290-BE	SHD 5/3/0
CN818	
Hexane B02E27	
Acetone EM944233	
✓	

☑ Extracts were cleaned up using Florisil cartridges
Florisil cartridges/ columns rinsed 3x with Hexane
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone
Concentrated to volumes as noted above

Extraction Chemist / Date

Continued from page
Continued on page

Jamie Mee 3 May 05
Reviewed by / Date

6 Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001A	15.09	PCB/8081 TEH	
179148-002A	49.51		MSS 179148-002A
MS	49.91		
MSD	50.12		
179167-001A	50.07		
179098-004	14.87	PCB/8081 PCB	MSS, comp 1A, 2A, 3A 179098-004
MS	14.79		
MSD	14.84		
LCS	14.83		EM44258 Miscell.
179152-001B	49.51	TEHM	179152-001B
DUP	49.58		
179167-001	29.61	8100 ~~8270~~ KMH 4/28/05	
179182-001 A	49.62	TEHM	
-002	50.39		
-003	50.07		
179182-001	30.19	8270-SIM	
002	30.00		
003	30.20		
179182-001	15.15	8081	
002	15.02		
003	14.91		
179182-001	14.87	PCB	
-002	15.16		
-003	15.18		

JOM 4/29/05

Continued on Page

Read and Understood By

Signed 29Apr05 Date

Signed Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179089-001A	15.22	PCB/8081	
-002A	15.08	8081	
~~-002~~ 002A	15.21	PCB	MSS
-MS	15.04		179089-002A
-MSD	15.25		↓
-LCS	15.23		EM44258
-MB	15.21	PCB/8081	↓
-003A	15.17	PCB	
-003A	15.10	8081	MSS
-MS	15.21		179089-003A
-MSD	15.05		↓
-LCS	15.20		EM44258
179098-004	15.02	PCB/8081	COMP 001*, 002*, 003A
179167-001A	15.25	PCB/8081	
179089-001A	30.43	8270-SIM	
-002	30.31		
-003	30.07		
179170-001A	50.34	TEH	
-002	50.29		
-003	50.02		
179190-001A	50.13	TEHM	
179190-001A	30.46	8100	
179190-001A	15.08	PCB	
179190-001A	15.09	8081	
179197-001A	50.17	TEHM	
-002	50.13		
-003	50.00		
-004	50.04		
-005	50.07		
179197-001A	30.37	8310	
-002	30.23		
-003	30.18		
-004	30.00		
-005	30.08		

Continued on Page

Signed 5/2/03 Read and Understood By

Signed Date Signed Date

REPORTING SUMMARY FOR 179182 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179182-001	alpha-BHC	GC16	B	05/03/05 20:59
179182-001	beta-BHC	GC16	B	05/03/05 20:59
179182-001	gamma-BHC	GC16	B	05/03/05 20:59
179182-001	delta-BHC	GC16	B	05/03/05 20:59
179182-001	Heptachlor	GC16	B	05/03/05 20:59
179182-001	Aldrin	GC16	B	05/03/05 20:59
179182-001	Heptachlor epoxide	GC16	B	05/03/05 20:59
179182-001	Endosulfan I	GC16	B	05/03/05 20:59
179182-001	Dieldrin	GC16	B	05/03/05 20:59
179182-001	4,4'-DDE	GC16	B	05/03/05 20:59
179182-001	Endrin	GC16	B	05/03/05 20:59
179182-001	Endosulfan II	GC16	B	05/03/05 20:59
179182-001	Endosulfan sulfate	GC16	B	05/03/05 20:59
179182-001	4,4'-DDD	GC16	B	05/03/05 20:59
179182-001	Endrin aldehyde	GC16	B	05/03/05 20:59
179182-001	4,4'-DDT	GC16	B	05/03/05 20:59
179182-001	alpha-Chlordane	GC16	B	05/03/05 20:59
179182-001	gamma-Chlordane	GC16	B	05/03/05 20:59
179182-001	Methoxychlor	GC16	B	05/03/05 20:59
179182-001	Toxaphene	GC16	B	05/03/05 20:59
179182-001	TCMX	GC16	B	05/03/05 20:59
179182-001	Decachlorobiphenyl	GC16	B	05/03/05 20:59
179182-002	alpha-BHC	GC16	B	05/04/05 02:06
179182-002	beta-BHC	GC16	B	05/04/05 02:06
179182-002	gamma-BHC	GC16	B	05/04/05 02:06
179182-002	delta-BHC	GC16	B	05/04/05 02:06
179182-002	Heptachlor	GC16	B	05/04/05 02:06
179182-002	Aldrin	GC16	B	05/04/05 02:06
179182-002	Heptachlor epoxide	GC16	B	05/04/05 02:06
179182-002	Endosulfan I	GC16	B	05/04/05 02:06
179182-002	Dieldrin	GC16	B	05/04/05 02:06
179182-002	4,4'-DDE	GC16	B	05/04/05 02:06
179182-002	Endrin	GC16	B	05/04/05 02:06
179182-002	Endosulfan II	GC16	B	05/04/05 02:06
179182-002	Endosulfan sulfate	GC16	B	05/04/05 02:06
179182-002	4,4'-DDD	GC16	B	05/04/05 02:06
179182-002	Endrin aldehyde	GC16	B	05/04/05 02:06
179182-002	4,4'-DDT	GC16	B	05/04/05 02:06
179182-002	alpha-Chlordane	GC16	B	05/04/05 02:06
179182-002	gamma-Chlordane	GC16	B	05/04/05 02:06
179182-002	Methoxychlor	GC16	B	05/04/05 02:06
179182-002	Toxaphene	GC16	B	05/04/05 02:06
179182-002	TCMX	GC16	B	05/04/05 02:06
179182-002	Decachlorobiphenyl	GC16	B	05/04/05 02:06
179182-003	alpha-BHC	GC16	B	05/04/05 02:36
179182-003	beta-BHC	GC16	B	05/04/05 02:36
179182-003	gamma-BHC	GC16	B	05/04/05 02:36
179182-003	delta-BHC	GC16	B	05/04/05 02:36
179182-003	Heptachlor	GC16	B	05/04/05 02:36
179182-003	Aldrin	GC16	B	05/04/05 02:36
179182-003	Heptachlor epoxide	GC16	B	05/04/05 02:36
179182-003	Endosulfan I	GC16	B	05/04/05 02:36

Sample ID	Analyte	Inst ID	Ch	Date & Time
179182-003	Dieldrin	GC16	B	05/04/05 02:36
179182-003	4,4'-DDE	GC16	B	05/04/05 02:36
179182-003	Endrin	GC16	B	05/04/05 02:36
179182-003	Endosulfan II	GC16	B	05/04/05 02:36
179182-003	Endosulfan sulfate	GC16	B	05/04/05 02:36
179182-003	4,4'-DDD	GC16	B	05/04/05 02:36
179182-003	Endrin aldehyde	GC16	B	05/04/05 02:36
179182-003	4,4'-DDT	GC16	B	05/04/05 02:36
179182-003	alpha-Chlordane	GC16	B	05/04/05 02:36
179182-003	gamma-Chlordane	GC16	B	05/04/05 02:36
179182-003	Methoxychlor	GC16	B	05/04/05 02:36
179182-003	Toxaphene	GC16	B	05/04/05 02:36
179182-003	TCMX	GC16	B	05/04/05 02:36
179182-003	Decachlorobiphenyl	GC16	B	05/04/05 02:36
QC292396	alpha-BHC	GC16	B	05/03/05 17:26
QC292396	beta-BHC	GC16	B	05/03/05 17:26
QC292396	gamma-BHC	GC16	B	05/03/05 17:26
QC292396	delta-BHC	GC16	B	05/03/05 17:26
QC292396	Heptachlor	GC16	B	05/03/05 17:26
QC292396	Aldrin	GC16	B	05/03/05 17:26
QC292396	Heptachlor epoxide	GC16	B	05/03/05 17:26
QC292396	Endosulfan I	GC16	B	05/03/05 17:26
QC292396	Dieldrin	GC16	B	05/03/05 17:26
QC292396	4,4'-DDE	GC16	B	05/03/05 17:26
QC292396	Endrin	GC16	B	05/03/05 17:26
QC292396	Endosulfan II	GC16	B	05/03/05 17:26
QC292396	Endosulfan sulfate	GC16	B	05/03/05 17:26
QC292396	4,4'-DDD	GC16	B	05/03/05 17:26
QC292396	Endrin aldehyde	GC16	B	05/03/05 17:26
QC292396	4,4'-DDT	GC16	B	05/03/05 17:26
QC292396	alpha-Chlordane	GC16	B	05/03/05 17:26
QC292396	gamma-Chlordane	GC16	B	05/03/05 17:26
QC292396	Methoxychlor	GC16	B	05/03/05 17:26
QC292396	Toxaphene	GC16	B	05/03/05 17:26
QC292396	TCMX	GC16	B	05/03/05 17:26
QC292396	Decachlorobiphenyl	GC16	B	05/03/05 17:26
QC292397	gamma-BHC	GC16	B	05/03/05 17:56
QC292397	Heptachlor	GC16	B	05/03/05 17:56
QC292397	Aldrin	GC16	B	05/03/05 17:56
QC292397	Dieldrin	GC16	B	05/03/05 17:56
QC292397	Endrin	GC16	B	05/03/05 17:56
QC292397	4,4'-DDT	GC16	B	05/03/05 17:56
QC292397	TCMX	GC16	B	05/03/05 17:56
QC292397	Decachlorobiphenyl	GC16	B	05/03/05 17:56
QC292398	gamma-BHC	GC16	B	05/03/05 21:30
QC292398	Heptachlor	GC16	B	05/03/05 21:30
QC292398	Aldrin	GC16	B	05/03/05 21:30
QC292398	Dieldrin	GC16	B	05/03/05 21:30
QC292398	Endrin	GC16	B	05/03/05 21:30
QC292398	4,4'-DDT	GC16	B	05/03/05 21:30
QC292398	TCMX	GC16	B	05/03/05 21:30

REPORTING SUMMARY FOR 179182 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC292398	Decachlorobiphenyl	GC16	B	05/03/05 21:30
QC292399	gamma-BHC	GC16	B	05/03/05 22:00
QC292399	Heptachlor	GC16	B	05/03/05 22:00
QC292399	Aldrin	GC16	B	05/03/05 22:00
QC292399	Dieldrin	GC16	B	05/03/05 22:00
QC292399	Endrin	GC16	B	05/03/05 22:00
QC292399	4,4'-DDT	GC16	B	05/03/05 22:00
QC292399	TCMX	GC16	B	05/03/05 22:00
QC292399	Decachlorobiphenyl	GC16	B	05/03/05 22:00

PCBs Results & QC Summary

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Diln Fac:	1.000	Prepared:	05/02/05
Batch#:	101667		

Field ID:	BBD2TP105(11.5)	Moisture:	17%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-001	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	5.3
Aroclor-1221	ND	23	17
Aroclor-1232	ND	11	7.1
Aroclor-1242	ND	11	3.9
Aroclor-1248	ND	11	7.4
Aroclor-1254	ND	11	5.2
Aroclor-1260	ND	11	4.7

Surrogate	%REC	Limits
TCMX	112	63-141
Decachlorobiphenyl	137	49-146

Field ID:	BBD2TP105(15.0)	Moisture:	15%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-002	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	5.2
Aroclor-1221	ND	23	17
Aroclor-1232	ND	11	7.0
Aroclor-1242	ND	11	3.8
Aroclor-1248	ND	11	7.2
Aroclor-1254	ND	11	5.1
Aroclor-1260	ND	11	4.7

Surrogate	%REC	Limits
TCMX	87	63-141
Decachlorobiphenyl	169 *	49-146

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	04/28/05
Units:	ug/Kg	Received:	04/29/05
Diln Fac:	1.000	Prepared:	05/02/05
Batch#:	101667		

Field ID:	BBD2TP106(2.0)	Moisture:	9%
Type:	SAMPLE	Analyzed:	05/04/05
Lab ID:	179182-003	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	4.9
Aroclor-1221	ND	21	16
Aroclor-1232	ND	11	6.6
Aroclor-1242	ND	11	3.6
Aroclor-1248	ND	11	6.8
Aroclor-1254	ND	11	4.8
Aroclor-1260	ND	11	4.4

Surrogate	%REC	Limits
TCMX	111	63-141
Decachlorobiphenyl	144	49-146

Type:	BLANK	Analyzed:	05/03/05
Lab ID:	QC292396	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	4.4
Aroclor-1221	ND	19	14
Aroclor-1232	ND	9.5	5.8
Aroclor-1242	ND	9.5	3.2
Aroclor-1248	ND	9.5	6.1
Aroclor-1254	ND	9.5	4.3
Aroclor-1260	ND	9.5	3.9

Surrogate	%REC	Limits
TCMX	107	63-141
Decachlorobiphenyl	123	49-146

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292400	Batch#:	101667
Matrix:	Soil	Prepared:	05/02/05
Units:	ug/Kg	Analyzed:	05/04/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1242	164.1	208.1	127	78-153

Surrogate	%REC	Limits
TCMX	131	63-141
Decachlorobiphenyl	158 *	49-146

*= Value outside of QC limits; see narrative

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBD2TP106(2.0)	Batch#:	101667
MSS Lab ID:	179182-003	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	ug/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/04/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292401
Moisture: 9%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1242	<3.609	181.7	205.6	113	64-161

Surrogate	%REC	Limits
TCMX	125	63-141
Decachlorobiphenyl	168 *	49-146

Type: MSD
Lab ID: QC292402
Moisture: 9%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1242	183.2	209.5	114	64-161	1	27

Surrogate	%REC	Limits
TCMX	108	63-141
Decachlorobiphenyl	131	49-146

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: MCH
Calnum: 205168483001 Name: Type: (normal) Date: 27-APR-2005 00:03 Inj Vol (uL): 1

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	116_014	205168483014	pcb10_2	27-APR-2005 00:03	05WS0223
2	116_015	205168483015	pcb25_5	27-APR-2005 00:36	05WS0030
3	116_016	205168483016	pcb100_20	27-APR-2005 01:10	S157
4	116_017	205168483017	pcb250_50	27-APR-2005 01:43	S40
5	116_018	205168483018	pcb500_100	27-APR-2005 02:16	S100
6	116_019	205168483019	pcb750_150	27-APR-2005 02:50	S101
7	116_020	205168483020	pcb1K_200	27-APR-2005 03:23	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	198.95	214.95	190.14	175.58	198.21	180.57	168.03	AVRG	R		0.005277		pg	189.49	8	.99	20	
Aroclor-1016 Peak # 2	A	403.72	434.96	364.83	333.16	360.92	322.74	287.61	AVRG	R		0.002791		pg	358.28	14	.99	20	
Aroclor-1016 Peak # 3	A	311.74	370.96	321.50	323.28	395.65	370.00	329.43	AVRG	R		0.002890		pg	346.08	9	.99	20	
Aroclor-1016 Peak # 4	A	234.43	253.00	227.97	221.65	265.24	239.59	212.42	AVRG	R		0.004231		pg	236.33	8	.99	20	
Aroclor-1016 Peak # 5	A	186.87	206.37	178.11	177.03	211.47	189.46	166.07	AVRG	R		0.005322		pg	187.91	9	.99	20	
Aroclor-1260 Peak # 1	A	392.25	430.06	350.83	336.44	392.85	345.63	294.54	AVRG	R		0.002753		pg	363.23	12	.99	20	
Aroclor-1260 Peak # 2	A	560.12	615.58	476.84	462.02	546.05	481.85	407.97	AVRG	R		0.001972		pg	507.20	14	.99	20	
Aroclor-1260 Peak # 3	A	250.11	294.61	231.66	229.22	272.40	242.37	205.55	AVRG	R		0.004056		pg	246.56	12	.99	20	
Aroclor-1260 Peak # 4	A	285.11	319.56	238.05	238.03	288.22	261.29	223.63	AVRG	R		0.003776		pg	264.84	13	.99	20	
Aroclor-1260 Peak # 5	A	200.26	252.21	199.60	215.51	276.18	258.32	221.89	AVRG	R		0.004310		pg	232.00	13	.99	20	
TCMX	A	5685.4	6322.3	5945.5	6200.2	7581.1	7159.1	6638.9	AVRG	R		1.537E-4		pg	6504.6	10	.99	20	
Decachlorobiphenyl	A	3351.1	4605.7	3262.3	3548.0	4089.7	3767.2	3265.2	AVRG	R		2.704E-4		pg	3698.5	14	.99	20	
Aroclor-1016 Peak # 1	B	132.93	149.22	130.09	124.87	141.97	130.17	117.93	AVRG	R		0.007550		pg	132.45	8	.99	20	
Aroclor-1016 Peak # 2	B	346.36	367.79	311.39	287.48	316.16	284.16	253.57	AVRG	R		0.003230		pg	309.56	13	.99	20	
Aroclor-1016 Peak # 3	B	181.95	191.40	165.33	157.66	181.40	165.22	148.24	AVRG	R		0.005876		pg	170.17	9	.99	20	
Aroclor-1016 Peak # 4	B	188.49	209.53	179.10	175.34	212.30	193.15	170.85	AVRG	R		0.005268		pg	189.82	9	.99	20	
Aroclor-1016 Peak # 5	B	135.91	147.48	127.55	126.51	153.78	138.85	122.34	AVRG	R		0.007350		pg	136.06	9	.99	20	
Aroclor-1260 Peak # 1	B	336.13	389.86	322.82	333.66	435.31	397.70	344.42	AVRG	R		0.002734		pg	365.70	12	.99	20	
Aroclor-1260 Peak # 2	B	194.41	223.31	184.72	184.96	222.94	200.73	171.09	AVRG	R		0.005065		pg	197.45	10	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: MCH
Calnum: 205168483001 Name: Type: (normal) Date: 27-APR-2005 00:03 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	182.01	215.72	173.77	178.92	223.48	204.67	176.18	AVRG	R		0.005167		pg	193.53	11	.99	20	
Aroclor-1260 Peak # 4	B	337.55	412.23	323.73	344.18	439.55	408.41	351.21	AVRG	R		0.002675		pg	373.84	12	.99	20	
Aroclor-1260 Peak # 5	B	152.81	187.20	155.00	168.98	223.39	212.43	184.21	AVRG	R		0.005452		pg	183.43	15	.99	20	
TCMX	B	4327.9	4713.1	4642.3	5084.7	6445.6	6128.3	5683.5	AVRG	R		1.891E-4		pg	5289.3	15	.99	20	
Decachlorobiphenyl	B	2547.3	3373.4	2522.7	2850.8	3403.9	3174.9	2795.9	AVRG	R		3.387E-4		pg	2952.7	12	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC06 Calname :
Calnum : 205168483001 Caldate : 27-APR-2005 Caltype :

ICV 205168483022 (116_022) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	205168483022	27-APR-2005	250.00	272.60	pg	9	15
Aroclor-1260	A	205168483022	27-APR-2005	250.00	258.33	pg	3	15
Aroclor-1016	B	205168483022	27-APR-2005	250.00	271.38	pg	9	15
Aroclor-1260	B	205168483022	27-APR-2005	250.00	266.39	pg	7	15

INITIAL CALIBRATION REPORT FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: RH
Calnum: 205170752001 Name: Type: (normal) Date: 28-APR-2005 16:04 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	118_004	205170752004	ar1242	28-APR-2005 16:04	S8

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1242 Peak # 1	A	161.91	AVRG	R		0.006176		pg	161.91	0	.99	20	
Aroclor-1242 Peak # 2	A	285.89	AVRG	R		0.003498		pg	285.89	0	.99	20	
Aroclor-1242 Peak # 3	A	269.63	AVRG	R		0.003709		pg	269.63	0	.99	20	
Aroclor-1242 Peak # 4	A	222.88	AVRG	R		0.004487		pg	222.88	0	.99	20	
Aroclor-1242 Peak # 5	A	156.86	AVRG	R		0.006375		pg	156.86	0	.99	20	
Aroclor-1242 Peak # 1	B	112.37	AVRG	R		0.008899		pg	112.37	0	.99	20	
Aroclor-1242 Peak # 2	B	246.07	AVRG	R		0.004064		pg	246.07	0	.99	20	
Aroclor-1242 Peak # 3	B	322.77	AVRG	R		0.003098		pg	322.77	0	.99	20	
Aroclor-1242 Peak # 4	B	157.35	AVRG	R		0.006355		pg	157.35	0	.99	20	
Aroclor-1242 Peak # 5	B	144.45	AVRG	R		0.006923		pg	144.45	0	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC06	A	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005			250.00	226.76	pg	-9	15	
GC06	B	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005			250.00	251.91	pg	1	15	
GC06	A	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005			100.00	112.19	pg	12	15	
GC06	B	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005			100.00	117.88	pg	**18**	15	c+ *** Ch A used
GC06	A	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005			500.00	501.44	pg	0	15	
GC06	B	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005			500.00	518.37	pg	4	15	

mca 5/11/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1242

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC06	A	205177803003	03-MAY-2005 12:30	205170752001	28-APR-2005			250.00	247.12	pg	-1	15	
GC06	B	205177803003	03-MAY-2005 12:30	205170752001	28-APR-2005			250.00	255.66	pg	2	15	
GC06	A	205177803018	04-MAY-2005 01:11	205170752001	28-APR-2005			250.00	269.39	pg	8	15	
GC06	B	205177803018	04-MAY-2005 01:11	205170752001	28-APR-2005			250.00	280.30	pg	12	15	
GC06	A	205177803033	04-MAY-2005 09:31	205170752001	28-APR-2005			250.00	261.87	pg	5	15	
GC06	B	205177803033	04-MAY-2005 09:31	205170752001	28-APR-2005			250.00	272.69	pg	9	15	
GC06	A	205177803047	04-MAY-2005 21:12	205170752001	28-APR-2005			250.00	258.31	pg	3	15	
GC06	B	205177803047	04-MAY-2005 21:12	205170752001	28-APR-2005			250.00	266.01	pg	6	15	

CONTINUING CALIBRATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC06	A	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005			250.00	239.94	pg	-4	15	
GC06	B	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005			250.00	268.10	pg	7	15	
GC06	A	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005			100.00	112.69	pg	13	15	
GC06	B	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005			100.00	122.76	pg	**23**	15	c+ ***
GC06	A	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005			500.00	498.20	pg	0	15	
GC06	B	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005			500.00	582.73	pg	**17**	15	c+ ***

ch. A used

mean 5/11/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC06	A	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005	6504.6	6545.4	50.000	50.313	pg	1	15	
GC06	B	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005	5289.3	5408.1	50.000	51.123	pg	2	15	
GC06	A	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005	6504.6	6610.5	20.000	20.325	pg	2	15	
GC06	B	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005	5289.3	5435.5	20.000	20.553	pg	3	15	
GC06	A	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005	6504.6	6960.3	100.00	107.00	pg	7	15	
GC06	B	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005	5289.3	6026.2	100.00	113.93	pg	14	15	
GC06	A	205177803046	04-MAY-2005 20:38	205168483001	27-APR-2005	6504.6	7320.6	50.000	56.272	pg	13	15	
GC06	B	205177803046	04-MAY-2005 20:38	205168483001	27-APR-2005	5289.3	6144.3	50.000	58.082	pg	**16**	15	c+

c+ Ch. A used

mcg 5/11/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC06	A	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005	3698.5	4123.3	50.000	55.743	pg	11	15	
GC06	B	205177803001	03-MAY-2005 11:23	205168483001	27-APR-2005	2952.7	3608.8	50.000	61.111	pg	22	15	c+
GC06	A	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005	3698.5	4782.2	20.000	25.861	pg	29	15	c+
GC06	B	205177803016	04-MAY-2005 00:05	205168483001	27-APR-2005	2952.7	4093.7	20.000	27.728	pg	39	15	c+
GC06	A	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005	3698.5	4356.9	100.00	117.80	pg	18	15	c+
GC06	B	205177803032	04-MAY-2005 08:57	205168483001	27-APR-2005	2952.7	3799.8	100.00	128.69	pg	29	15	c+
GC06	A	205177803046	04-MAY-2005 20:38	205168483001	27-APR-2005	3698.5	4892.0	50.000	66.136	pg	32	15	c+
GC06	B	205177803046	04-MAY-2005 20:38	205168483001	27-APR-2005	2952.7	4337.7	50.000	73.454	pg	47	15	c+

+=high bias c=CCV

SEQUENCE SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205168483 Instrument: GC06 Gas Chromatograph #6 ECD Begun: 26-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
013	116_013	X	hex			26-APR-2005 23:30	1.0						
014	116_014	ICAL	pcb10_2			27-APR-2005 00:03	1.0					1	
015	116_015	ICAL	pcb25_5			27-APR-2005 00:36	1.0					2	
016	116_016	ICAL	pcb100_20			27-APR-2005 01:10	1.0					3	
017	116_017	ICAL	pcb250_50			27-APR-2005 01:43	1.0					4	
018	116_018	ICAL	pcb500_100			27-APR-2005 02:16	1.0					5	
019	116_019	ICAL	pcb750_150			27-APR-2005 02:50	1.0					6	
020	116_020	ICAL	pcb1K_200			27-APR-2005 03:23	1.0					7	
022	116_022	ICV	accu_1660			27-APR-2005 04:30	1.0		1			8	
023	116_023	X	icv			27-APR-2005 05:03	1.0					8	
024	116_024	CCV	ar 1254			27-APR-2005 05:36	1.0		1			9	

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205170752 Instrument: GC06 Gas Chromatograph #6 ECD Begun: 28-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	118_002	X	pcb250_50			28-APR-2005 13:52	1.0	1.0			1	1	
003	118_003	CCV	ccv			28-APR-2005 14:25	1.0	1.0			1	1	
004	118_004	CCV/ICAL	ar1242 mcm 5/11/05			28-APR-2005 16:04	1.0	1.0			1	2	
005	118_005	X	ccv			28-APR-2005 16:37	1.0					2	
007	118_007	CCV	ar1221			28-APR-2005 19:55	1.0	1.0			1	3	
008	118_008	X	ccv			28-APR-2005 20:28	1.0					3	
010	118_010	BLANK	QC284381	99625	Soil	28-APR-2005 21:35	1.0	0.6667	18	1	1	eh	
011	118_011	MDL	177333-001	99625	Soil	28-APR-2005 22:08	1.0	0.6667	2		1	eh	
012	118_012	MDL	177333-002	99625	Soil	28-APR-2005 22:42	1.0	0.6667	2		1	eh	
013	118_013	MDL	177333-003	99625	Soil	28-APR-2005 23:15	1.0	0.6667	2		1	eh	
014	118_014	MDL	177333-004	99625	Soil	28-APR-2005 23:48	1.0	0.6667	2		1	eh	
015	118_015	MDL	177333-005	99625	Soil	29-APR-2005 00:21	1.0	0.6667	2		1	eh	
016	118_016	MDL	177333-006	99625	Soil	29-APR-2005 00:55	1.0	0.6667	2		1	eh	
017	118_017	MDL	177333-007	99625	Soil	29-APR-2005 01:28	1.0	0.6667	2		1	eh	
018	118_018	MDL	177333-008	99625	Soil	29-APR-2005 02:01	1.0	0.6667	2		1	eh	
020	118_020	CCV	pcb500_100			29-APR-2005 03:08	1.0	1.0			1	4	
021	118_021	X	ccv			29-APR-2005 03:41	1.0					4	
022	118_022	CCV	ar1221			29-APR-2005 04:14	1.0	1.0			1	3	
023	118_023	X	ccv			29-APR-2005 04:48	1.0					3	
025	118_025	BLANK	QC291454	101425	Water	29-APR-2005 05:54	1.0	0.025		1	1		
026	118_026	MDL	178050-001	101425	Water	29-APR-2005 06:27	1.0	0.025			1		
027	118_027	MDL	178050-002	101425	Water	29-APR-2005 07:01	1.0	0.025			1		
028	118_028	MDL	178050-003	101425	Water	29-APR-2005 07:34	1.0	0.025			1		
029	118_029	MDL	178050-004	101425	Water	29-APR-2005 08:07	1.0	0.025			1		
030	118_030	MDL	178050-005	101425	Water	29-APR-2005 08:41	1.0	0.025			1		
031	118_031	MDL	178050-006	101425	Water	29-APR-2005 09:14	1.0	0.025			1		
032	118_032	MDL	178050-007	101425	Water	29-APR-2005 09:47	1.0	0.025			1		
033	118_033	MDL	178050-008	101425	Water	29-APR-2005 10:20	1.0	0.025			1		
035	118_035	CCV	pcb100_20			29-APR-2005 11:27	1.0	1.0			1	5	
036	118_036	X	ccv			29-APR-2005 12:00	1.0					5	

Stds used: 1=S40 2=S8 3=S432 4=S100 5=S157
Flags used: eh=out of extract hold

SEQUENCE SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205170752 Instrument: GC06 Gas Chromatograph #6 ECD Begun: 28-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
037	118_037	CCV	ar1221			29-APR-2005 12:33	1.0	1.0		1	3	
038	118_038	X	ccv			29-APR-2005 13:07	1.0				3	

139

Stds used: 1=S40 2=S8 3=S432 4=S100 5=S157
Flags used: eh=out of extract hold

SEQUENCE SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205177803 Instrument: GC06 Gas Chromatograph #6 ECD Begun: 03-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	123_001	CCV	pcb250_50			03-MAY-2005 11:23	1.0	1.0			1	1	
002	123_002	X	ccv			03-MAY-2005 11:57	1.0					1	
003	123_003	CCV	ar1242			03-MAY-2005 12:30	1.0	1.0			1	2	
008	123_008	BLANK	QC292236	101623	Oil	03-MAY-2005 19:39	1.0	50.0		2	1		
009	123_009	BS	QC292237	101623	Oil	03-MAY-2005 20:12	1.0	50.0			1		
010	123_010	BSD	QC292238	101623	Oil	03-MAY-2005 20:45	1.0	50.0			1		
011	123_011	BLANK	QC292396	101667	Soil	03-MAY-2005 21:19	1.0	0.6575			1		
012	123_012	LCS	QC292400	101667	Soil	03-MAY-2005 21:52	1.0	0.6566		4	1		
013	123_013	SAMPLE	179166-001	101623	Oil	03-MAY-2005 22:25	1.0	49.85		2	1		
014	123_014	SAMPLE	179098-004	101667	Soil	03-MAY-2005 22:58	1.0	0.6658		2	1		
016	123_016	CCV	pcb100_20			04-MAY-2005 00:05	1.0	1.0	2		1	3	
017	123_017	X	ccv			04-MAY-2005 00:38	1.0					3	
018	123_018	CCV	ar1242			04-MAY-2005 01:11	1.0	1.0			1	2	
019	123_019	X	ccv			04-MAY-2005 01:45	1.0					2	
022	123_022	SAMPLE	179137-002	101623	Oil	04-MAY-2005 03:25	1.0	49.58		1	1		
023	123_023	SAMPLE	179167-001	101667	Soil	04-MAY-2005 03:58	1.0	0.6557		2	1		
024	123_024	SAMPLE	179190-001	101667	Soil	04-MAY-2005 04:31	1.0	0.6627		4	1		
025	123_025	SAMPLE	179182-001	101667	Soil	04-MAY-2005 05:04	1.0	0.6601			1		
026	123_026	SAMPLE	179182-002	101667	Soil	04-MAY-2005 05:38	1.0	0.6658		2	1		
027	123_027	MSS	179182-003	101667	Soil	04-MAY-2005 06:11	1.0	0.6707			1		
028	123_028	MS	QC292401	101667	Soil	04-MAY-2005 06:44	1.0	0.6614		2	1		
029	123_029	MSD	QC292402	101667	Soil	04-MAY-2005 07:18	1.0	0.6667		1	1		
031	123_031	X	pcb500_100			04-MAY-2005 08:24	1.0	1.0			1	4	
032	123_032	CCV	ccv			04-MAY-2005 08:57	1.0	1.0	1		1	4	
033	123_033	CCV	ar1242			04-MAY-2005 09:31	1.0	1.0			1	2	
034	123_034	X	ccv			04-MAY-2005 10:04	1.0					2	
037	123_037	SAMPLE	179190-001	101667	Soil	04-MAY-2005 13:24	1.0	0.6627		4	1		
038	123_038	LCS	QC292400	101667	Soil	04-MAY-2005 15:04	1.0	0.6566		2	1		
040	123_040	BLANK	QC292386	101664	Water	04-MAY-2005 17:18	1.0	0.025		1	1		
041	123_041	BS	QC292387	101664	Water	04-MAY-2005 17:52	1.0	0.025		1	1		
042	123_042	BSD	QC292388	101664	Water	04-MAY-2005 18:25	1.0	0.025		2	1		

Stds used: 1=S40 2=S8 3=S157 4=S100

SEQUENCE SUMMARY FOR 179182 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205177803 Instrument: GC06 Gas Chromatograph #6 ECD Begun: 03-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
043	123_043	SAMPLE	179211-001	101664	Water	04-MAY-2005 18:58	1.0	0.025		1		
045	123_045	X	pcb250_50			04-MAY-2005 20:05	1.0	1.0		1	1	
046	123_046	CCV	ccv			04-MAY-2005 20:38	1.0	1.0	1	1	1	
047	123_047	CCV	ar1242			04-MAY-2005 21:12	1.0	1.0		1	2	
048	123_048	X	ccv			04-MAY-2005 21:45	1.0				2	

141

Stds used: 1=S40 2=S8 3=S157 4=S100

Curtis & Tompkins Laboratories Sample Preparation Summary 05-MAY-2005 16:51

Batch Number : 101667
Date Extracted: 02-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S203B
Spike #3 ID : S284A
SOP Version : PCB-ASE_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179089-001			Mactec, Inc.	Soil	15.22	g	10	0.657030	1	.02	0	0	8081	3620B	
179089-002			Mactec, Inc.	Soil	15.08	g	10	0.663130	1	.02	0	0	8081	3620B	
179089-003			Mactec, Inc.	Soil	15.1	g	10	0.662252	1	.02	0	0	8081	3620B	mss
179098-004			Iris Environmental	Soil	15.02	g	10	0.665779	1	.02	0	0	8081, PCB	3665A	
179167-001			Fugro West, Inc.	Soil	15.25	g	10	0.655738	1	.02	0	0	8081, PCB	3665A	
179182-001			Mactec, Inc.	Soil	15.15	g	10	0.660066	1	.02	0	0	8081, PCB	3620B	
179182-002			Mactec, Inc.	Soil	15.02	g	10	0.665779	1	.02	0	0	8081, PCB	3620B	
179182-003			Mactec, Inc.	Soil	14.91	g	10	0.670691	1	.02	0	0	8081, PCB	3620B	mss
179190-001			Fugro West, Inc.	Soil	15.09	g	10	0.662691	1	.02	0	0	PCB	3620B	
QC292396	MB			Soil	15.21	g	10	0.657462	1	.02	0	0	8081	3665A	
QC292397	LCS			Soil	15.2	g	10	0.657895	1	.02	.025	0	8081	3620B	
QC292398	MS	of 179089-003		Soil	15.21	g	10	0.657462	1	.02	.025	0	8081	3620B	
QC292399	MSD	of 179089-003		Soil	15.05	g	10	0.664452	1	.02	.025	0	8081	3620B	
QC292400	LCS			Soil	15.23	g	10	0.656599	1	.02	0	.025	PCB	3665A	
QC292401	MS	of 179182-003		Soil	15.12	g	10	0.661376	1	.02	0	.025	PCB	3665A	
QC292402	MSD	of 179182-003		Soil	15	g	10	0.666667	1	.02	0	.025	PCB	3665A	

Prep Chemist: _____ Reviewed By: JRO for SHD Date: 5/3/05

Relinquished By: _____ Received By: _____ Date: 5/5/05

Curtis & Tompkins, Ltd. **PCB SOIL PREP LOG** BK 2098

Page 4

LIMS Batch No: 1016667
LIMS Analysis PCB/8081
Extracted by: KMH 5/2/05
Date Extracted: 5/2/05

☐ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☒ EPA 3545 PFE (ASE Method# 10)
☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	179098-001	15.02	10.0	
	179167-001	15.25		
	179182-001	15.15		
	-002	15.02		
5	-003	14.91		MSS
	179190-001	15.09		
	MB QC292316	15.21		
	LCS 400	15.23		
	MS 401	15.12		
10	MSD 402	15.00		
15				
20				

KMH 5/3/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM4402895B	KMH 5/2/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Dionex 040603	
0.02 mL of surrogate solution was added to all samples	S2588	
0.025 mL of spike solution 1212 was added to all spikes	S2844	
1:1 CH_2Cl_2 (lot# EM45071):Acetone(lot# EM45083) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
PFE (ASE) / soxhlets on at:	N/A	KMH 9/3/05
PFE (ASE) / soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	N/A	
Concentrated to volumes noted above after exchange to Hexane Lot#	CN818	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	A49034	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	

Continued from page 163
Continued on page _____

5/2/05
Extraction Chemist / Date

Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179182-001A	15.09	PCB/8081 TEH	
179148-002A	49.51		MSS
MS	49.91		179148-002A
MSD	50.12		
179167-001A	50.07		
179098-004	14.87	PCB/8081 PCB	MSS, comp-1A,-2A,-3A
MS	14.79		179098-004
MSD	14.84		
LCS	14.83	TEHM	EM44258
179152-001B	49.51		Miscell.
SDUP	49.58		179152-001B
179167-001	29.61	8100 ~~8270~~ KMH 4/29/05	
179182-001 A	49.62	TEHM	
-002	50.39		
-003	50.07	8270-SIM	
179182-001	30.19		
002	30.00		
003	30.20	8081	
179182-001	15.15		
002	15.02		
003	14.91		
179182-001	14.87	PCB	
-002	15.16		
-003	15.18		

JOM 4/29/05

Continued on Page

Read and Understood By

Signed 29Apr05 Date

Signed Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179089-001A	15.22	PCB/8081	
-002A	15.08	8081	
~~-002~~ 002A	15.21	PCB	
-MS	15.04		MS/S
-MSD	15.25		179089-002A
-LCS	15.23		↓
-MB	15.21		EM14258
-003A	15.17	PCB/8081	↓
-003A	15.10	PCB	
-MS	15.21	8081	MSS
-MSD	15.05		179089-003A
-LCS	15.20		↓
179098-004	15.02	PCB/8081	EM14258
179167-001A	15.25	PCB/8081	COMP 001*, 002A, 003A
179089-001A	30.43	8270-SIM	
-002	30.31		
-003	30.07		
179170-001A	50.34	TEH	
-002	50.29		
-003	50.02		
179190-001A	50.13	TEHM	
179190-001A	30.46	8100	
179190-001A	15.08	PCB	
179190-001A	15.09	8081	
179197-001A	50.17	TEHM	
-002	50.13		
-003	50.00		
-004	50.04		
-005	50.07		
179197-001A	30.37	8310	
-002	30.23		
-003	30.18		
-004	30.00		
-005	30.08		
MS	15.18	PCB	179182-003A
MSD	15.00		

Continued on Page

Signed — Date 5/2/03 — Read and Understood By: Signed — Date

REPORTING SUMMARY FOR 179182 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179182-001	Aroclor-1016	GC06	A	05/04/05 05:04
179182-001	Aroclor-1221	GC06	A	05/04/05 05:04
179182-001	Aroclor-1232	GC06	A	05/04/05 05:04
179182-001	Aroclor-1242	GC06	A	05/04/05 05:04
179182-001	Aroclor-1248	GC06	A	05/04/05 05:04
179182-001	Aroclor-1254	GC06	A	05/04/05 05:04
179182-001	Aroclor-1260	GC06	A	05/04/05 05:04
179182-001	TCMX	GC06	A	05/04/05 05:04
179182-001	Decachlorobiphenyl	GC06	A	05/04/05 05:04
179182-002	Aroclor-1016	GC06	A	05/04/05 05:38
179182-002	Aroclor-1221	GC06	A	05/04/05 05:38
179182-002	Aroclor-1232	GC06	A	05/04/05 05:38
179182-002	Aroclor-1242	GC06	A	05/04/05 05:38
179182-002	Aroclor-1248	GC06	A	05/04/05 05:38
179182-002	Aroclor-1254	GC06	A	05/04/05 05:38
179182-002	Aroclor-1260	GC06	A	05/04/05 05:38
179182-002	TCMX	GC06	A	05/04/05 05:38
179182-002	Decachlorobiphenyl	GC06	A	05/04/05 05:38
179182-003	Aroclor-1016	GC06	A	05/04/05 06:11
179182-003	Aroclor-1221	GC06	A	05/04/05 06:11
179182-003	Aroclor-1232	GC06	A	05/04/05 06:11
179182-003	Aroclor-1242	GC06	A	05/04/05 06:11
179182-003	Aroclor-1248	GC06	A	05/04/05 06:11
179182-003	Aroclor-1254	GC06	A	05/04/05 06:11
179182-003	Aroclor-1260	GC06	A	05/04/05 06:11
179182-003	TCMX	GC06	A	05/04/05 06:11
179182-003	Decachlorobiphenyl	GC06	A	05/04/05 06:11
QC292396	Aroclor-1016	GC06	A	05/03/05 21:19
QC292396	Aroclor-1221	GC06	A	05/03/05 21:19
QC292396	Aroclor-1232	GC06	A	05/03/05 21:19
QC292396	Aroclor-1242	GC06	A	05/03/05 21:19
QC292396	Aroclor-1248	GC06	A	05/03/05 21:19
QC292396	Aroclor-1254	GC06	A	05/03/05 21:19
QC292396	Aroclor-1260	GC06	A	05/03/05 21:19
QC292396	TCMX	GC06	A	05/03/05 21:19
QC292396	Decachlorobiphenyl	GC06	A	05/03/05 21:19
QC292400	Aroclor-1242	GC06	A	05/04/05 15:04
QC292400	TCMX	GC06	A	05/04/05 15:04
QC292400	Decachlorobiphenyl	GC06	A	05/04/05 15:04
QC292401	Aroclor-1242	GC06	A	05/04/05 06:44
QC292401	TCMX	GC06	A	05/04/05 06:44
QC292401	Decachlorobiphenyl	GC06	A	05/04/05 06:44
QC292402	Aroclor-1242	GC06	A	05/04/05 07:18
QC292402	TCMX	GC06	A	05/04/05 07:18
QC292402	Decachlorobiphenyl	GC06	A	05/04/05 07:18

METALS RESULTS & QC SUMMARY

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179182	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBD2TP105(11.5)	Basis:	dry
Lab ID:	179182-001	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	mg/Kg		

Moisture: 17%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.61	0.33	0.080	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	7.4	0.33	0.11	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Barium	95	3.3	0.33	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.34	0.33	0.069	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.16 J	0.33	0.014	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Chromium	63	3.3	0.69	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	18	0.33	0.0046	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Copper	20	0.33	0.13	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Lead	35	0.33	0.011	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.040	0.023	0.0044	1.000	101690	05/03/05	05/03/05	METHOD	EPA 7471A
Molybdenum	0.53	0.33	0.0070	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Nickel	89	3.9	3.9	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.26 J	0.33	0.13	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.042 J	0.33	0.0043	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.28 J	0.33	0.017	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	46	0.33	0.19	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Zinc	56	0.33	0.074	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179182	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBD2TP105(15.0)	Basis:	dry
Lab ID:	179182-002	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	mg/Kg		

Moisture: 15%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.29	0.29	0.069	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	5.8	0.29	0.095	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Barium	55	0.29	0.029	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.60	0.29	0.060	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.16 J	0.29	0.013	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Chromium	57	2.9	0.60	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	16	0.29	0.0040	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Copper	25	0.29	0.11	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Lead	7.7	0.29	0.0095	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Mercury	ND	0.024	0.0046	1.000	101690	05/03/05	05/03/05	METHOD	EPA 7471A
Molybdenum	0.63	0.29	0.0061	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Nickel	62	3.4	3.4	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.37	0.29	0.11	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.043 J	0.29	0.0037	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.25 J	0.29	0.015	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	49	2.9	1.7	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Zinc	52	0.29	0.064	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179182	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBD2TP106(2.0)	Basis:	dry
Lab ID:	179182-003	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	mg/Kg		

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.56	0.27	0.064	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Arsenic	4.2	0.27	0.088	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Barium	520	2.7	0.27	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Beryllium	0.33	0.27	0.056	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cadmium	0.50	0.27	0.012	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Chromium	77	2.7	0.56	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Cobalt	11	0.27	0.0037	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Copper	35	0.27	0.10	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Lead	200	2.7	0.088	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Mercury	0.49	0.025	0.0048	1.000	101690	05/03/05	05/03/05	METHOD	EPA 7471A
Molybdenum	0.53	0.27	0.0056	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Nickel	88	3.2	3.2	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Selenium	0.20 J	0.27	0.10	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Silver	0.19 J	0.27	0.0035	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Thallium	0.064 J	0.27	0.013	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Vanadium	46	0.27	0.16	5.000	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020
Zinc	420	2.7	0.60	50.00	101627	05/02/05	05/10/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC292252	Batch#:	101627
Matrix:	Soil	Prepared:	05/02/05
Units:	mg/Kg	Analyzed:	05/10/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	0.068 J	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	0.020 J	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	0.11 J	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	0.22 J	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292495	Batch#:	101690
Matrix:	Soil	Prepared:	05/03/05
Units:	mg/Kg	Analyzed:	05/03/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101627
Units:	mg/Kg	Prepared:	05/02/05
Basis:	as received	Analyzed:	05/10/05
Diln Fac:	5.000		

Type: BS Lab ID: QC292253

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	24.22	97	80-120
Arsenic	25.00	23.18	93	80-120
Barium	25.00	21.86	87	80-120
Beryllium	25.00	22.97	92	80-120
Cadmium	25.00	25.99	104	80-120
Chromium	25.00	22.99	92	80-120
Cobalt	25.00	23.26	93	80-120
Copper	25.00	26.51	106	80-120
Lead	25.00	22.93	92	80-120
Molybdenum	25.00	24.18	97	80-120
Nickel	25.00	24.48	98	80-125
Selenium	25.00	23.44	94	80-120
Silver	25.00	25.49	102	80-120
Thallium	25.00	24.00	96	66-120
Vanadium	25.00	22.75	91	80-120
Zinc	25.00	24.07	96	80-120

Type: BSD Lab ID: QC292254

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.62	94	80-120	2	20
Arsenic	25.00	23.23	93	80-120	0	20
Barium	25.00	21.66	87	80-120	1	20
Beryllium	25.00	23.06	92	80-120	0	20
Cadmium	25.00	25.99	104	80-120	0	20
Chromium	25.00	23.15	93	80-120	1	20
Cobalt	25.00	23.23	93	80-120	0	20
Copper	25.00	26.51	106	80-120	0	20
Lead	25.00	22.82	91	80-120	1	20
Molybdenum	25.00	24.32	97	80-120	1	20
Nickel	25.00	24.63	99	80-125	1	20
Selenium	25.00	23.36	93	80-120	0	20
Silver	25.00	25.47	102	80-120	0	20
Thallium	25.00	24.02	96	66-120	0	20
Vanadium	25.00	22.89	92	80-120	1	20
Zinc	25.00	24.25	97	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBD2TP105(11.5)	Batch#:	101627
MSS Lab ID:	179182-001	Sampled:	04/28/05
Matrix:	Soil	Received:	04/29/05
Units:	mg/Kg	Prepared:	05/02/05
Basis:	dry	Analyzed:	05/10/05

Type: MS Moisture: 17%
Lab ID: QC292255

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.6057	28.69	11.22	37	28-120	5.000
Arsenic	7.388	28.69	32.46	87	70-120	5.000
Barium	94.80	28.69	114.2	68	46-165	50.00
Beryllium	0.3444	28.69	27.19	94	72-120	5.000
Cadmium	0.1616	28.69	28.06	97	74-120	5.000
Chromium	62.64	28.69	91.97	102	45-160	50.00
Cobalt	18.16	28.69	46.33	98	62-136	5.000
Copper	19.54	28.69	46.55	94	47-164	5.000
Lead	35.40	28.69	47.30	41 *	60-140	5.000
Molybdenum	0.5344	28.69	25.98	89	74-120	5.000
Nickel	89.30	28.69	112.9	82	51-172	50.00
Selenium	0.2645	28.69	26.02	90	66-120	5.000
Silver	0.04216	28.69	27.06	94	74-120	5.000
Thallium	0.2772	28.69	26.45	91	57-120	5.000
Vanadium	46.29	28.69	65.35	66	19-177	50.00
Zinc	56.02	28.69	70.17	49	39-166	50.00

Type: MSD Moisture: 17%
Lab ID: QC292256

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	26.89	9.682	34	28-120	8	24	5.000
Arsenic	26.89	29.07	81	70-120	6	20	5.000
Barium	26.89	112.4	66	46-165	0	23	50.00
Beryllium	26.89	23.13	85	72-120	10	20	5.000
Cadmium	26.89	23.63	87	74-120	11	20	5.000
Chromium	26.89	80.03	65	45-160	12	29	50.00
Cobalt	26.89	38.39	75	62-136	15	20	5.000
Copper	26.89	41.74	83	47-164	7	21	5.000
Lead	26.89	40.15	18 *	60-140	14	24	5.000
Molybdenum	26.89	21.84	79	74-120	11	20	5.000
Nickel	26.89	99.94	40 *	51-172	11	22	50.00
Selenium	26.89	21.64	79	66-120	12	20	5.000
Silver	26.89	22.81	85	74-120	11	20	5.000
Thallium	26.89	21.80	80	57-120	13	20	5.000
Vanadium	26.89	59.17	48	19-177	8	30	50.00
Zinc	26.89	67.18	41	39-166	2	33	50.00

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBD2TP105(11.5)	Basis:	dry
Type:	Serial Dilution	Batch#:	101627
MSS Lab ID:	179182-001	Sampled:	04/28/05
Lab ID:	QC292257	Received:	04/29/05
Matrix:	Soil	Analyzed:	05/10/05
Units:	mg/Kg		

Moisture: 17%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim	Diln Fac
Antimony	0.6057	0.3310		0.8242 J	1.655		10	25.00
Arsenic	7.388	0.3310		8.063	1.655	9	10	25.00
Barium	94.80	3.310		88.71	16.55	6	10	250.0
Beryllium	0.3444	0.3310		0.3875 J	1.655		10	25.00
Cadmium	0.1616	0.3310		0.2550 J	1.655		10	25.00
Chromium	62.64	3.310		59.73	8.275	5	10	250.0
Cobalt	18.16	0.3310		19.50	1.655	7	10	25.00
Copper	19.54	0.3310		21.20	1.655	8	10	25.00
Lead	35.40	0.3310		35.60	1.655	1	10	25.00
Molybdenum	0.5344	0.3310		0.6395 J	1.655	20 *	10	25.00
Nickel	89.30	3.927		84.60	33.10		10	250.0
Selenium	0.2645	0.3310	ND		1.655		10	25.00
Silver	0.04216	0.3310		0.06527 J	1.655		10	25.00
Thallium	0.2772	0.3310		0.3538 J	1.655		10	25.00
Vanadium	46.29	0.3310		48.18	1.655	4	10	25.00
Zinc	56.02	1.324		69.44	16.55	24 *	10	25.00

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101690
Units:	mg/Kg	Prepared:	05/03/05
Basis:	as received	Analyzed:	05/03/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC292496	0.5000	0.5080	102	80-120		
BSD	QC292497	0.5000	0.4850	97	80-120	5	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	101690
MSS Lab ID:	179047-113	Sampled:	04/21/05
Matrix:	Soil	Received:	04/22/05
Units:	mg/Kg	Prepared:	05/03/05
Basis:	dry	Analyzed:	05/03/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC292498	0.3384	0.7259	1.047	98	64-139	18%		
MSD	QC292499		0.6352	0.9527	97	64-139	18%	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	101690
MSS Lab ID:	179047-113	Sampled:	04/21/05
Lab ID:	QC292500	Received:	04/22/05
Matrix:	Soil	Analyzed:	05/03/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture	% Diff	Lim
0.3384	0.02391	ND	0.1196	18%	110 *	10

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55186547167	Seqnum : 55186547171
Filename : e0913167	Filename : e0913171
IDF : 5.0	IDF : 5.0
PDF : 54.95	PDF : 54.95
Run type : MSS	Run type : PDS
Samplenum: 179182-001	Samplenum: QC292258
Matrix : Soil	Matrix : Soil
Batchnum : 101627	Batchnum : 101627
Inj : 10-MAY-2005 05:29	Inj : 10-MAY-2005 05:52
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	*** usable MSS data not found ***					
Arsenic	20.88	100.0	114.1	93	75-125	u
Barium	*** usable MSS data not found ***					
Beryllium	0.9900	100.0	97.06	96	75-125	u
Cadmium	0.5148	100.0	106.5	106	75-125	u
Calcium	12160	10000	19760	76	75-125	y
Chromium	*** usable MSS data not found ***					
Cobalt	52.00	100.0	148.9	97	75-125	u
Copper	59.04	100.0	146.7	88	75-125	u
Iron	*** usable MSS data not found ***					
Lead	98.82	100.0	196.9	98	75-125	u
Magnesium	10030	10000	18010	80	75-125	y
Manganese	*** usable MSS data not found ***					
Molybdenum	1.582	100.0	102.0	100	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	4102	10000	12420	83	75-125	
Selenium	1.447	100.0	98.58	97	75-125	u
Silver	0.1318	100.0	104.2	104	75-125	u
Sodium	548.8	10000	8884	83	75-125	
Thallium	0.7110	100.0	107.0	106	75-125	u
Vanadium	135.2	100.0	223.6 >LR	88	75-125	>LR b*
Zinc	159.1	100.0	238.6 >LR	80	75-125	>LR b*

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	300066	-21.71
Scandium	566573	518251	-8.53
Germanium	161713	130445	-19.34
Bismuth	1275587	878637	-31.12

>LR=overrange b=noncompliant u=use y=RL raised
Page 1 of 1

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179182 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179182-001	MET04	05/03/05 15:53	1.0										+							
179182-001	MET05	05/10/05 05:29	5.0																	
179182-001	MET05	05/10/05 06:39	50.0			+			+						+					
179182-001	MET05	05/10/05 17:24	5.0																	
179182-001	MET05	05/10/05 20:55	5.0	+	+		+	+		+	+	+		+		+	+	+	+	+
179182-001	MET05	05/10/05 21:54	500.0																	
179182-002	MET04	05/03/05 15:55	1.0										+							
179182-002	MET05	05/10/05 05:58	5.0		+	+	+	+		+	+	+		+		+	+	+		+
179182-002	MET05	05/10/05 07:03	50.0						+						+				+	
179182-002	MET05	05/10/05 21:59	5.0	+																
179182-003	MET04	05/03/05 16:02	1.0										+							
179182-003	MET05	05/10/05 06:04	5.0																	
179182-003	MET05	05/10/05 22:05	5.0	+	+		+	+		+	+			+		+	+	+	+	
179182-003	MET05	05/10/05 22:11	50.0			+			+			+			+					+
QC292252	MET05	05/10/05 04:47	5.0		+	+	+	+		+	+	+		+	+	+	+	+	+	+
QC292252	MET05	05/10/05 17:06	5.0																	
QC292252	MET05	05/10/05 20:38	5.0	+					+											
QC292253	MET05	05/10/05 05:17	5.0		+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC292253	MET05	05/10/05 17:12	5.0																	
QC292253	MET05	05/10/05 20:44	5.0	+																
QC292254	MET05	05/10/05 05:23	5.0		+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC292254	MET05	05/10/05 17:18	5.0																	
QC292254	MET05	05/10/05 20:50	5.0	+																
QC292255	MET05	05/10/05 05:40	5.0																	
QC292255	MET05	05/10/05 06:51	50.0			+			+						+				+	+
QC292255	MET05	05/10/05 17:35	5.0																	
QC292255	MET05	05/10/05 21:07	5.0	+	+		+	+		+	+	+		+		+	+	+		
QC292256	MET05	05/10/05 05:46	5.0																	
QC292256	MET05	05/10/05 06:57	50.0			+			+						+				+	+
QC292256	MET05	05/10/05 17:41	5.0																	
QC292256	MET05	05/10/05 21:13	5.0	+	+		+	+		+	+	+		+		+	+	+		
QC292257	MET05	05/10/05 05:34	25.0																	
QC292257	MET05	05/10/05 06:45	250.0			+			+						+					
QC292257	MET05	05/10/05 17:30	25.0																	
QC292257	MET05	05/10/05 21:01	25.0	+	+		+	+		+	+	+		+		+	+	+	+	+
QC292258	MET05	05/10/05 05:52	5.0		+		+	+		+	+	+		+		+	+	+		
QC292258	MET05	05/10/05 17:47	5.0																	
QC292258	MET05	05/10/05 21:18	5.0	+																

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179182 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
QC292495	MET04	05/03/05 15:32	1.0										+								
QC292496	MET04	05/03/05 15:34	1.0										+								
QC292497	MET04	05/03/05 15:37	1.0										+								
QC292498	MET04	05/03/05 15:43	1.0										+								
QC292499	MET04	05/03/05 15:45	1.0										+								
QC292500	MET04	05/03/05 16:23	5.0										+								
QC292501	MET04	05/03/05 16:30	1.0										+								

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e0913001	TUN	tune			09-MAY-2005 13:07	1.0	1.0				1	
003	e0913003	ICALBLK	std-blk			09-MAY-2005 13:18	1.0	1.0				2	
004	e0913004	ICAL	cs1			09-MAY-2005 13:23	1.0	1.0				3	
005	e0913005	ICAL	cs2			09-MAY-2005 13:28	1.0	1.0				4	
006	e0913006	ICAL	cs3			09-MAY-2005 13:33	1.0	1.0				5	
007	e0913007	ICAL	cs4			09-MAY-2005 13:39	1.0	1.0				6	
008	e0913008	ICAL	cs5			09-MAY-2005 13:44	1.0	1.0				7	
009	e0913009	ICAL	cs6			09-MAY-2005 13:49	1.0	1.0				8	
010	e0913010	ICV				09-MAY-2005 13:54	1.0	1.0			1	9	
012	e0913012	ICB				09-MAY-2005 14:06	1.0	1.0	1		1	2	
013	e0913013	ICSA				09-MAY-2005 14:12	1.0	1.0			1	10 2	7:CA=295200
014	e0913014	ICSAB				09-MAY-2005 14:17	1.0	1.0			1	11 2	12:CA=295000
016	e0913016	SER	QC291792	101506	Water	09-MAY-2005 14:29	5.0	1.0		1	1	2	
017	e0913017	MS	QC291790	101506	Water	09-MAY-2005 14:35	2.0	1.0			1	2	
018	e0913018	MSD	QC291791	101506	Water	09-MAY-2005 14:41	2.0	1.0			1	2	
019	e0913019	SAMPLE	179075-004	101506	Water	09-MAY-2005 14:47	2.0	1.0			1	2	
020	e0913020	SAMPLE	179075-006	101506	Water	09-MAY-2005 14:52	5.0	1.0			1	2	
021	e0913021	SAMPLE	179075-007	101506	Water	09-MAY-2005 14:58	2.0	1.0			1	2	
022	e0913022	SAMPLE	179075-011	101506	Water	09-MAY-2005 15:04	2.0	1.0	1		1	2	
023	e0913023	SAMPLE	179075-012	101506	Water	09-MAY-2005 15:10	2.0	1.0			1	2	
025	e0913025	CCV				09-MAY-2005 15:22	1.0	1.0			1	12 2	
027	e0913027	CCB				09-MAY-2005 15:33	1.0	1.0	1		1	2	
028	e0913028	SAMPLE	179075-013	101506	Water	09-MAY-2005 15:39	2.0	1.0			1	2	
029	e0913029	SAMPLE	179075-018	101506	Water	09-MAY-2005 15:45	2.0	1.0			1	2	
031	e0913031	CCV				09-MAY-2005 15:57	1.0	1.0			1	13 2	
033	e0913033	CCB				09-MAY-2005 16:09	1.0	1.0			1	2	
034	e0913034	ICSA				09-MAY-2005 16:15	1.0	1.0			1	10 2	7:CA=292900
035	e0913035	ICSAB				09-MAY-2005 16:21	1.0	1.0			1	11 2	11:CA=292500
037	e0913037	MSS	179132-001	101641	Filtra	09-MAY-2005 16:32	10.0	1.0			1	2	
038	e0913038	SER	QC292313	101641	Filtra	09-MAY-2005 16:52	50.0	1.0			1	2	
039	e0913039	MS	QC292311	101641	Filtra	09-MAY-2005 16:58	10.0	1.0		1	1	2	

162

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: MEB Date: 5/10/1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e0913040	MSD	QC292312	101641	Filtra	09-MAY-2005 17:04	10.0	1.0		2	1	2	
041	e0913041	SAMPLE	179132-006	101641	Filtra	09-MAY-2005 17:10	10.0	1.0			1	2	
042	e0913042	SAMPLE	179132-015	101641	Filtra	09-MAY-2005 17:16	5.0	1.0			1	2	2:NA=39280.0
043	e0913043	SAMPLE	179132-016	101641	Filtra	09-MAY-2005 17:22	50.0	1.0			1	2	
044	e0913044	SAMPLE	179132-017	101641	Filtra	09-MAY-2005 17:27	10.0	1.0			1	2	
046	e0913046	CCV				09-MAY-2005 17:39	1.0	1.0			1	12 2	
047	e0913047	X	rinse			09-MAY-2005 17:45	1.0					2	
048	e0913048	CCB				09-MAY-2005 17:51	1.0	1.0	1		1	2	
049	e0913049	SAMPLE	179132-018	101641	Filtra	09-MAY-2005 17:57	50.0	1.0			1	2	
050	e0913050	SAMPLE	179132-019	101641	Filtra	09-MAY-2005 18:03	5.0	1.0			1	2	3:CA=48920.0
051	e0913051	SAMPLE	179132-020	101641	Filtra	09-MAY-2005 18:09	5.0	1.0			1	2	1:NA=21860.0
052	e0913052	X	RINSE	101506		09-MAY-2005 18:14	1.0					2	
053	e0913053	BLANK	QC292136	101595	Water	09-MAY-2005 18:20	1.0	1.0			1	2	
054	e0913054	BS	QC292137	101595	Water	09-MAY-2005 18:26	1.0	1.0			1	2	
055	e0913055	BSD	QC292138	101595	Water	09-MAY-2005 18:32	1.0	1.0			1	2	
056	e0913056	MSS	179161-001	101595	Water	09-MAY-2005 18:38	1.0	1.0	2		1	2	2:CA=22330.0
057	e0913057	SER	QC292141	101595	Water	09-MAY-2005 18:44	5.0	1.0			1	2	
058	e0913058	MS	QC292139	101595	Water	09-MAY-2005 18:50	1.0	1.0	2		1	2	4:CA=32120.0
059	e0913059	MSD	QC292140	101595	Water	09-MAY-2005 18:56	1.0	1.0	2		1	2	4:CA=31200.0
061	e0913061	CCV				09-MAY-2005 19:07	1.0	1.0			1	12 2	
062	e0913062	X	rinse			09-MAY-2005 19:13	1.0					2	
063	e0913063	CCB				09-MAY-2005 19:19	1.0	1.0	1		1	2	
064	e0913064	PDS	QC292142	101595	Water	09-MAY-2005 19:25	1.0	1.0	2		1	14 2	4:CA=30950.0
065	e0913065	MSS	179161-001	101595	Water	09-MAY-2005 19:31	5.0	1.0			1	2	
066	e0913066	SER	QC292141	101595	Water	09-MAY-2005 19:37	25.0	1.0			1	2	
067	e0913067	MS	QC292139	101595	Water	09-MAY-2005 19:42	5.0	1.0			1	2	
068	e0913068	MSD	QC292140	101595	Water	09-MAY-2005 19:48	5.0	1.0			1	2	
069	e0913069	SAMPLE	179132-021	101595	Filtra	09-MAY-2005 19:54	1.0	1.0			1	2	3:NA=185600
070	e0913070	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:00	1.0	1.0	1		1	2	5:NA=111100
071	e0913071	SAMPLE	179132-022	101595	Filtra	09-MAY-2005 20:06	5.0	1.0			1	2	1:NA=21880.0
073	e0913073	CCV				09-MAY-2005 20:18	1.0	1.0			1	13 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 5/10/05

163

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
074	e0913074	X	rinse	101595		09-MAY-2005 20:24	1.0				2	
075	e0913075	CCB				09-MAY-2005 20:30	1.0	1.0		1	2	
076	e0913076	ICSA				09-MAY-2005 20:35	1.0	1.0		1	10 2	7:CA=288400
077	e0913077	ICSAB				09-MAY-2005 20:41	1.0	1.0		1	11 2	10:CA=282500
079	e0913079	TUN	tune			09-MAY-2005 20:53	1.0	1.0			1	
081	e0913081	SAMPLE	179176-001	101595	Water	09-MAY-2005 21:03	2.0	1.0		1	2	
082	e0913082	SAMPLE	179141-007	101595	Water	09-MAY-2005 21:09	5.0	1.0		1	2	4:MG=98600.0
083	e0913083	SAMPLE	179141-010	101595	Water	09-MAY-2005 21:15	10.0	1.0		1	2	
084	e0913084	SAMPLE	179141-013	101595	Water	09-MAY-2005 21:21	10.0	1.0		1	2	1:NA=62100.0
085	e0913085	SAMPLE	179141-019	101595	Water	09-MAY-2005 21:27	2.0	1.0		1	2	5:NA=63300.0
086	e0913086	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:33	2.0	1.0	2	1	2	2:AL=1888.50
087	e0913087	SAMPLE	179156-001	101595	Water	09-MAY-2005 21:39	20.0	1.0		1	2	
088	e0913088	SAMPLE	179156-002	101595	Water	09-MAY-2005 21:45	2.0	1.0	2	1	2	2:AL=503.500
090	e0913090	CCV				09-MAY-2005 21:57	1.0	1.0		1	12 2	
091	e0913091	X	rinse			09-MAY-2005 22:02	1.0				2	
092	e0913092	CCB				09-MAY-2005 22:08	1.0	1.0		1	2	
093	e0913093	SAMPLE	179156-003	101595	Water	09-MAY-2005 22:14	5.0	1.0		1	2	
094	e0913094	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:20	2.0	1.0	4	1	2	4:FE=23515.0
095	e0913095	SAMPLE	179156-004	101595	Water	09-MAY-2005 22:26	100.0	1.0		1	2	
096	e0913096	SAMPLE	179162-001	101595	Filtra	09-MAY-2005 22:32	1.0	1.0		1	2	3:MG=563000
097	e0913097	SAMPLE	179162-002	101595	Filtra	09-MAY-2005 22:38	1.0	1.0		1	2	3:MG=474700
098	e0913098	SAMPLE	179162-003	101595	Filtra	09-MAY-2005 22:44	1.0	1.0		1	2	3:MG=429100
099	e0913099	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:50	10.0	1.0	3	1	2	2:NA=207100
100	e0913100	SAMPLE	179127-001	101595	Water	09-MAY-2005 22:56	100.0	1.0	2	1	2	
101	e0913101	ICSA				09-MAY-2005 23:02	1.0	1.0		1	10 2	7:CA=286700
102	e0913102	ICSAB				09-MAY-2005 23:07	1.0	1.0		1	11 2	9:CA=285000
104	e0913104	CCV				09-MAY-2005 23:19	1.0	1.0		1	12 2	
105	e0913105	X	rinse			09-MAY-2005 23:25	1.0				2	
106	e0913106	CCB				09-MAY-2005 23:31	1.0	1.0	3	1	2	
107	e0913107	X	rinse	101595		09-MAY-2005 23:36	1.0				2	
108	e0913108	BLANK	QC291742	101496	Soil	09-MAY-2005 23:42	5.0	50.0	1	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: [signature] Date: 5/10/5

164

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS Begun: 09-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e0913109	BS	QC291743	101496	Soil	09-MAY-2005 23:48	5.0	50.0	1		1	2	
110	e0913110	BSD	QC291744	101496	Soil	09-MAY-2005 23:54	5.0	50.0	1		1	2	
111	e0913111	MSS	178846-002	101496	Soil	10-MAY-2005 00:00	5.0	50.0	7		1	2	6:FE=90920.0
112	e0913112	SER	QC291747	101496	Soil	10-MAY-2005 00:06	25.0	50.0		2	1	2	2:AL=4268.00
113	e0913113	MS	QC291745	101496	Soil	10-MAY-2005 00:12	5.0	46.73	1	1	1	2	7:FE=105040
114	e0913114	MSD	QC291746	101496	Soil	10-MAY-2005 00:18	5.0	37.88	2	2	1	2	8:FE=121700
115	e0913115	PDS	QC291748	101496	Soil	10-MAY-2005 00:23	5.0	50.0		16	1	15 16 2	6:FE=95900.0
116	e0913116	SAMPLE	178846-001	101496	Soil	10-MAY-2005 00:29	5.0	51.02	1		1	2	4:FE=31640.0
117	e0913117	SAMPLE	178951-001	101496	Soil	10-MAY-2005 00:35	5.0	42.74	6		1	2	10:FE=73240.0
119	e0913119	CCV				10-MAY-2005 00:47	1.0	1.0			1	12 2	
120	e0913120	X	rinse			10-MAY-2005 00:52	1.0					2	
121	e0913121	CCB				10-MAY-2005 00:58	1.0	1.0	1		1	2	
122	e0913122	SAMPLE	178951-002	101496	Soil	10-MAY-2005 01:04	5.0	37.04	5		1	2	9:MG=302200
123	e0913123	SAMPLE	178951-003	101496	Soil	10-MAY-2005 01:10	5.0	44.25	6		1	2	10:FE=92160.0
124	e0913124	SAMPLE	178951-004	101496	Soil	10-MAY-2005 01:16	5.0	31.45	8		1	2	13:FE=333400
125	e0913125	SAMPLE	179049-001	101496	Soil	10-MAY-2005 01:21	5.0	50.51	9		1	2	11:ZN=189860
126	e0913126	SAMPLE	179076-040	101496	Soil	10-MAY-2005 01:27	5.0	33.78			1	2	5:CA=109500
127	e0913127	SAMPLE	179076-041	101496	Soil	10-MAY-2005 01:33	5.0	35.97	1		1	2	5:FE=129460
128	e0913128	SAMPLE	179076-042	101496	Soil	10-MAY-2005 01:39	5.0	33.33			1	2	5:FE=137140
129	e0913129	SAMPLE	179076-043	101496	Soil	10-MAY-2005 01:45	5.0	50.51	1		1	2	8:FE=76140.0
130	e0913130	SAMPLE	179089-001	101496	Soil	10-MAY-2005 01:50	5.0	41.32	5		1	2	7:FE=89300.0
131	e0913131	SAMPLE	179089-002	101496	Soil	10-MAY-2005 01:56	5.0	47.17	5		1	2	7:FE=99780.0
133	e0913133	CCV				10-MAY-2005 02:08	1.0	1.0			1	12 2	
134	e0913134	X	rinse			10-MAY-2005 02:14	1.0					2	
135	e0913135	CCB				10-MAY-2005 02:20	1.0	1.0	4		1	2	
136	e0913136	SAMPLE	179089-003	101496	Soil	10-MAY-2005 02:26	5.0	48.54	2		1	2	4:FE=64480.0
137	e0913137	MSS	178846-002	101496	Soil	10-MAY-2005 02:31	50.0	50.0	3		1	2	1:AL=2188.00
138	e0913138	SER	QC291747	101496	Soil	10-MAY-2005 02:37	250.0	50.0		1	1	2	1:AL=428.000
139	e0913139	MS	QC291745	101496	Soil	10-MAY-2005 02:43	50.0	46.73		1	1	2	1:AL=2346.00
140	e0913140	MSD	QC291746	101496	Soil	10-MAY-2005 02:49	50.0	37.88		3	1	2	1:AL=2810.00
141	e0913141	PDS	QC291748	101496	Soil	10-MAY-2005 02:55	50.0	50.0		15	1	15 2	1:AL=2034.00

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: _____ Date: 8/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
142	e0913142	SAMPLE	178846-001	101496	Soil	10-MAY-2005 03:01	50.0	51.02	1		1	2	1:AL=1128.60
143	e0913143	SAMPLE	178951-001	101496	Soil	10-MAY-2005 03:07	50.0	42.74	1		1	2	1:AL=3446.00
144	e0913144	SAMPLE	178951-002	101496	Soil	10-MAY-2005 03:13	50.0	37.04	3		1	2	5:MG=39900.0
145	e0913145	SAMPLE	178951-003	101496	Soil	10-MAY-2005 03:19	50.0	44.25	1		1	2	2:AL=4054.00
147	e0913147	CCV				10-MAY-2005 03:31	1.0	1.0			1	12 2	
148	e0913148	X	rinse			10-MAY-2005 03:36	1.0					2	
149	e0913149	CCB				10-MAY-2005 03:42	1.0	1.0	3		1	2	
150	e0913150	SAMPLE	178951-004	101496	Soil	10-MAY-2005 03:48	50.0	31.45	5		1	2	7:FE=32960.0
151	e0913151	SAMPLE	179049-001	101496	Soil	10-MAY-2005 03:54	50.0	50.51	4		1	2	5:MN=53920.0
152	e0913152	SAMPLE	179076-040	101496	Soil	10-MAY-2005 04:00	50.0	33.78			1	2	3:CA=114320
153	e0913153	SAMPLE	179076-041	101496	Soil	10-MAY-2005 04:06	50.0	35.97			1	2	2:AL=3606.00
154	e0913154	SAMPLE	179076-042	101496	Soil	10-MAY-2005 04:12	50.0	33.33			1	2	2:AL=5556.00
155	e0913155	SAMPLE	179076-043	101496	Soil	10-MAY-2005 04:18	50.0	50.51	1		1	2	3:AL=2670.00
156	e0913156	SAMPLE	179089-001	101496	Soil	10-MAY-2005 04:24	50.0	41.32	2		1	2	1:AL=5494.00
157	e0913157	SAMPLE	179089-002	101496	Soil	10-MAY-2005 04:29	50.0	47.17	2		1	2	1:AL=6630.00
158	e0913158	SAMPLE	179089-003	101496	Soil	10-MAY-2005 04:35	50.0	48.54	2		1	2	1:AL=4162.00
160	e0913160	BLANK	QC292252	101627	Soil	10-MAY-2005 04:47	5.0	50.0	2		1	2	
162	e0913162	CCV				10-MAY-2005 04:59	1.0	1.0	1		1	12 2	
163	e0913163	X	rinse			10-MAY-2005 05:05	1.0					2	
164	e0913164	CCB				10-MAY-2005 05:11	1.0	1.0	1		1	2	
165	e0913165	BS	QC292253	101627	Soil	10-MAY-2005 05:17	5.0	50.0	2		1	2	1:AL=240.800
166	e0913166	BSD	QC292254	101627	Soil	10-MAY-2005 05:23	5.0	50.0	2		1	2	1:AL=240.400
167	e0913167	MSS	179182-001	101627	Soil	10-MAY-2005 05:29	5.0	54.95	7		1	2	6:FE=62860.0
168	e0913168	SER	QC292257	101627	Soil	10-MAY-2005 05:34	25.0	54.95		2	1	2	2:AL=5716.00
169	e0913169	MS	QC292255	101627	Soil	10-MAY-2005 05:40	5.0	47.62	2	1	1	2	8:FE=75280.0
170	e0913170	MSD	QC292256	101627	Soil	10-MAY-2005 05:46	5.0	44.64	3	1	1	2	9:FE=97560.0
171	e0913171	PDS	QC292258	101627	Soil	10-MAY-2005 05:52	5.0	54.95	2	14	1	15 16 2	8:FE=67740.(
172	e0913172	SAMPLE	179182-002	101627	Soil	10-MAY-2005 05:58	5.0	49.02	4		1	2	6:FE=101560
173	e0913173	SAMPLE	179182-003	101627	Soil	10-MAY-2005 06:04	5.0	48.54	6		1	2	9:FE=66860.0
174	e0913174	SAMPLE	179167-001	101627	Soil	10-MAY-2005 06:09	5.0	46.30	5		1	2	6:FE=67820.0
176	e0913176	CCV				10-MAY-2005 06:21	1.0	1.0			1	12 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Ma'Wa Date: 9/15/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55186547 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1

Begun: 09-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
177	e0913177	X	rinse			10-MAY-2005 06:27	1.0					2	
178	e0913178	CCB				10-MAY-2005 06:33	1.0	1.0	2		1	2	
179	e0913179	MSS	179182-001	101627	Soil	10-MAY-2005 06:39	50.0	54.95	3		1	2	2:AL=2926.00
180	e0913180	SER	QC292257	101627	Soil	10-MAY-2005 06:45	250.0	54.95		1	1	2	1:AL=573.600
181	e0913181	MS	QC292255	101627	Soil	10-MAY-2005 06:51	50.0	47.62		1	1	2	1:AL=3788.00
182	e0913182	MSD	QC292256	101627	Soil	10-MAY-2005 06:57	50.0	44.64		2	1	2	2:AL=3612.00
183	e0913183	SAMPLE	179182-002	101627	Soil	10-MAY-2005 07:03	50.0	49.02	1		1	2	1:AL=5238.00
185	e0913185	SAMPLE	179167-001	101627	Soil	10-MAY-2005 07:15	50.0	46.30			1	2	
186	e0913186	ICSA				10-MAY-2005 07:20	1.0	1.0			1	10 2	7:CA=277800
187	e0913187	ICSAB				10-MAY-2005 07:26	1.0	1.0			1	11 2	8:CA=286000
189	e0913189	CCV				10-MAY-2005 07:38	1.0	1.0			1	13 2	
190	e0913190	X	rinse blank			10-MAY-2005 07:44	1.0					2	
191	e0913191	CCB				10-MAY-2005 07:50	1.0	1.0	2		1	2	

167

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S400 14=S21 15=04SS227 16=04SS228

Analyst: Melissa Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e0913004	55186547004	cs1	09-MAY-2005 13:23	S395
2	e0913005	55186547005	cs2	09-MAY-2005 13:28	S396
3	e0913006	55186547006	cs3	09-MAY-2005 13:33	S397
4	e0913007	55186547007	cs4	09-MAY-2005 13:39	S398
5	e0913008	55186547008	cs5	09-MAY-2005 13:44	S393
6	e0913009	55186547009	cs6	09-MAY-2005 13:49	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		10.153	6.0829	0.9673	0.4588	0.4944	BLNK	R	-12.7573	2.210067		ug/L	3.6312	0.995	0.995	
Antimony	0.3589	0.3024	0.2578	0.2436	0.2337	0.2478	BLNK	R	-0.08506	4.084564		ug/L	0.2740	0.999	0.995	
Arsenic		0.3774	0.4193	0.3947	0.3766	0.3829	BLNK	R	-0.04706	2.621125		ug/L	0.3902	1.000	0.995	
Barium	0.2018	0.1403	0.1156	0.0928	0.0876	0.0901	BLNK	R	-0.25603	11.18257		ug/L	0.1214	1.000	0.995	
Beryllium	0.1783	0.1683	0.1540	0.1500	0.1445	0.1457	BLNK	R	-0.02094	6.876203		ug/L	0.1568	1.000	0.995	
Cadmium	0.7744	0.6967	0.5455	0.4842	0.4426	0.4420	BLNK	R	-0.13603	2.263259		ug/L	0.5642	1.000	0.995	
Calcium		0.0313	0.0234	0.0172	0.0161	0.0160	BLNK	R	-49.5055	62.77004		ug/L	0.0208	1.000	0.995	
Chromium		4.3383	3.2151	2.3460	2.1587	2.1661	BLNK	R	-0.42265	0.463105		ug/L	2.8448	1.000	0.995	
Cobalt	3.2625	3.0795	2.8275	2.6959	2.6101	2.6044	BLNK	R	-0.02149	0.383819		ug/L	2.8466	1.000	0.995	
Copper		0.8868	0.8511	0.7268	0.6781	0.6740	BLNK	R	-0.08651	1.482419		ug/L	0.7634	1.000	0.995	
Iron		0.1044	0.0819	0.0669	0.0641	0.0622	BLNK	R	-31.6243	16.01468		ug/L	0.0759	1.000	0.995	
Lead	1.0478	0.9807	0.8986	0.8612	0.8597	0.8871	BLNK	R	-0.03139	1.134540		ug/L	0.9225	1.000	0.995	
Magnesium		0.0678	0.0611	0.0610	0.0564	0.0576	BLNK	R	-5.71639	17.44594		ug/L	0.0608	1.000	0.995	
Manganese	4.5105	3.9500	3.4588	3.1803	3.0599	3.0148	BLNK	R	-0.08146	0.330840		ug/L	3.5290	1.000	0.995	
Molybdenum		1.1483	0.9339	0.8415	0.8048	0.8208	BLNK	R	-0.20816	1.224575		ug/L	0.9099	1.000	0.995	
Nickel	0.8173	0.7070	0.6359	0.6107	0.5632	0.5597	BLNK	R	-0.05945	1.784754		ug/L	0.6490	1.000	0.995	
Potassium		1.8843	1.2006	0.5984	0.5120	0.5175	BLNK	R	-123.524	1.950804		ug/L	0.9426	1.000	0.995	
Selenium		0.0701	0.0480	0.0293	0.0252	0.0252	BLNK	R	-0.73536	39.87147		ug/L	0.0396	1.000	0.995	
Silver	2.6099	2.4138	2.2920	2.2287	2.0847	2.1087	BLNK	R	-0.01765	0.475304		ug/L	2.2896	1.000	0.995	
Sodium		1.2550	0.9547	0.6219	0.5523	0.5624	BLNK	R	-52.6365	1.789812		ug/L	0.7893	1.000	0.995	

168

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55186547001 Name: Type: (normal) Date: 09-MAY-2005 13:18 Inj Vol (uL): 1

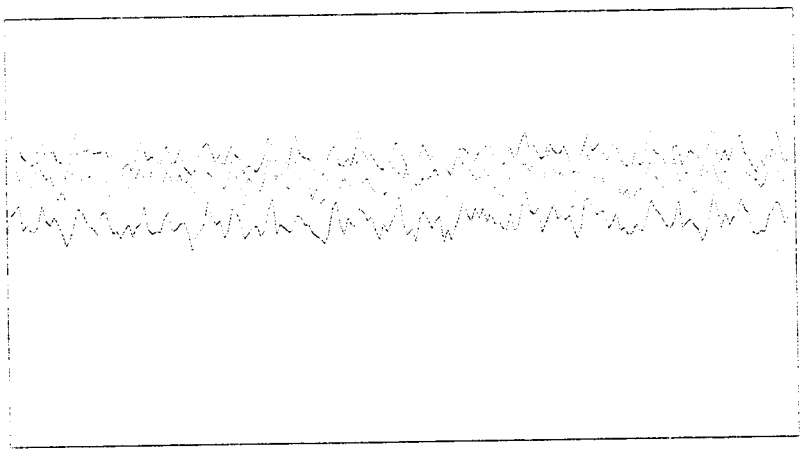
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.7544	0.6500	0.6312	0.6727	0.6795	BLNK	R	-0.05163	1.475366		ug/L	0.6776	1.000	0.995	
Vanadium		3.5450	2.9111	2.4600	2.4296	2.4164	BLNK	R	-0.17808	0.413830		ug/L	2.7524	1.000	0.995	
Zinc		1.5046	1.2129	0.4952	0.4057	0.3983	BLNK	R	-1.28422	2.520165		ug/L	0.8033	1.000	0.995	

169

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



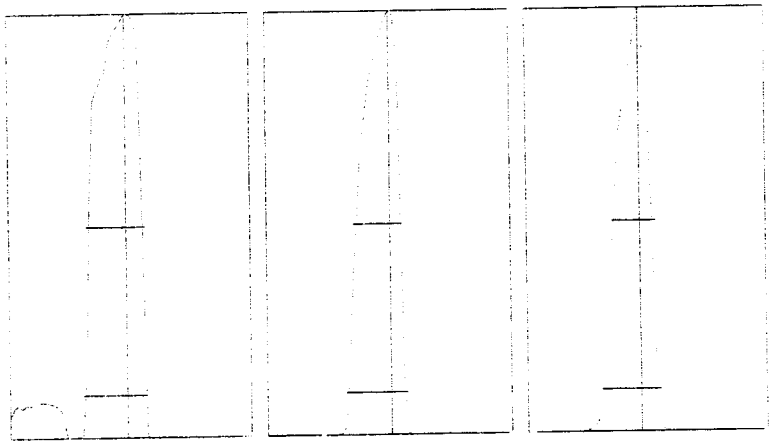
m/z:	7	89	205
Range:	20,000	50,000	100,000
Count:	10,232	32,303	56,142
Mean:	10247.6	33410.8	61381.1
RSD%:	5.00	3.85	4.60
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.40%
Doubly Charged: 70/140 0.69%

Background:

m/z:	7	89	205
Cps:	20.9	18.2	22.1



m/z:	7	89	205
Height:	10,325	33,774	69,064
Axis:	7.00	89.05	204.95
W-50%:	0.75	0.60	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-137 V	AMU Gain:	130
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0002
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.02 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	5 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 09, 2005 10:41:58
Printed : May 09, 2005 10:42:06

P/A Factor Tuning Report

Acquired:May 9 2005 11:06 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087637
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097864
45	Sc	0.093351
51	V	0.097956
52	Cr	0.099998
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101675
57	Fe	0.104597
59	Co	0.105141
60	Ni	Sensitivity too low
63	Cu	0.107023
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105980
95	Mo	Sensitivity too low
98	Mo	0.104137
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.114003
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.114449
118	(In)	Sensitivity too low
121	Sb	0.113109
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119372
166	Er	Sensitivity too low

205	Tl	0.127188
206	(Pb)	0.123052
207	(Pb)	0.122974
208	Pb	0.126240
209	Bi	0.125409
232	Th	0.127801
238	U	0.128284

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 9 2005 11:19 am

Mass[amu]	Element	P/A Factor
6	Li	Sensitivity too low
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087424
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097829
45	Sc	0.093447
51	V	0.097709
52	Cr	0.099861
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101644
57	Fe	0.104280
59	Co	0.104935
60	Ni	Sensitivity too low
63	Cu	0.107045
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106140
95	Mo	Sensitivity too low
98	Mo	0.103609
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113603
111	Cd	Sensitivity too low
114	Cd	0.111878
115	In	0.113939
118	(In)	0.112751
121	Sb	0.112520
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119176
166	Er	Sensitivity too low

205	Tl	0.126386
206	(Pb)	0.122394
207	(Pb)	0.121301
208	Pb	0.125098
209	Bi	0.124741
232	Th	0.127048
238	U	0.126846

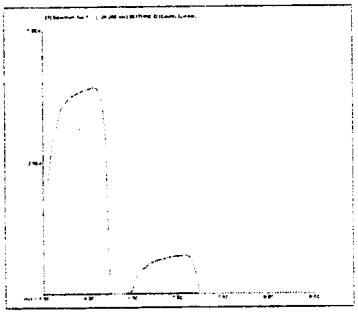
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

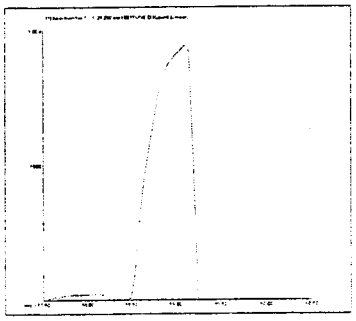
6020 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\001TUNE.D
Date Acquired: May 9 2005 01:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

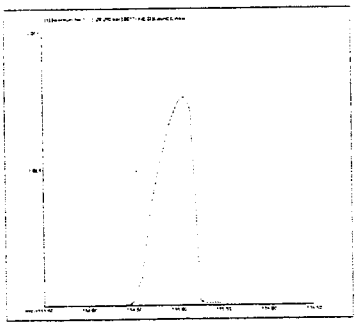
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.43	5.00	
115 In	1.12	5.00	
205 Tl	0.90	5.00	



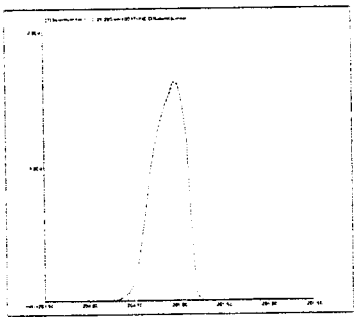


7 Li
Mass Calib.
Actual: 7.10
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.10
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 9 2005 01:12 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 09 2005 00:27 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01962	ppb	37.67	0.01962	1.00	
23 Na	-43.94	ppb	0.73	-43.94	1.00	
26 Mg	3.398	ppb	8.82	3.398	1.00	
27 Al	1.878	ppb	10.47	1.878	1.00	
39 K	-29.44	ppb	4.05	-29.44	1.00	
44 Ca	3.364	ppb	40.01	3.364	1.00	
51 V	0.07676	ppb	20.02	0.07676	1.00	
52 Cr	0.01954	ppb	87.56	0.01954	1.00	
55 Mn	0.004327	ppb	145.09	0.004327	1.00	
57 Fe	6.129	ppb	10.02	6.129	1.00	
59 Co	0.007675	ppb	55.04	0.007675	1.00	
60 Ni	0.01296	ppb	122.07	0.01296	1.00	
65 Cu	0.005624	ppb	130.71	0.005624	1.00	
66 Zn	0.1207	ppb	61.64	0.1207	1.00	
75 As	-0.0005196	ppb	13986.00	-0.00052	1.00	
82 Se	0.1292	ppb	181.97	0.1292	1.00	
95 Mo	0.2682	ppb	12.30	0.2682	1.00	
109 Ag	-0.0006557	ppb	128.85	-0.000656	1.00	
111 Cd	-0.01698	ppb	93.52	-0.01698	1.00	
121 Sb	0.02757	ppb	87.81	0.02757	1.00	
137 Ba	-0.01029	ppb	188.92	-0.01029	1.00	
205 Tl	-0.001022	ppb	423.19	-0.001022	1.00	
208 Pb	0.005026	ppb	28.45	0.005026	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	385913.31	1.24	---	#VALUE!	30 - 200	
45 Sc	579813.31	0.74	---	#VALUE!	30 - 200	
72 Ge	166277.11	0.91	---	#VALUE!	30 - 200	

115 In	1301750.40	0.98	---	#VALUE!	30 - 200
209 Bi	1283374.90	1.15	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E0913a.B\003CAL
Date Acquired:	May 9 2005 01:18 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 09 2005 00:27 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	383255.50	P	2928.00	0.76
9	Be	23.33	P	8.82	37.80
23	Na	333306.69	P	15010.00	4.50
26	Mg	3714.44	P	313.40	8.44
27	Al	65416.66	P	2181.00	3.33
39	K	717550.00	P	14920.00	2.08
44	Ca	8939.10	P	442.70	4.95
45	Sc	566573.31	P	5196.00	0.92
51	V	1393.93	P	609.90	43.75
52	Cr	2952.22	P	110.80	3.75
55	Mn	796.67	P	60.09	7.54
57	Fe	6386.67	P	64.29	1.01
59	Co	181.11	P	21.69	11.98
60	Ni	107.78	P	12.62	11.71
65	Cu	188.87	P	29.87	15.82
66	Zn	1647.80	P	70.03	4.25
72	Ge	161712.41	P	1363.00	0.84
75	As	58.31	P	44.00	75.46
82	Se	59.65	P	7.11	11.92
95	Mo	550.00	P	46.67	8.49
109	Ag	120.00	P	17.32	14.43
111	Cd	194.55	P	36.43	18.73
115	In	1281904.00	A	17700.00	1.38
121	Sb	534.44	P	93.95	17.58
137	Ba	586.67	P	40.96	6.98
205	Tl	893.33	P	106.00	11.87
208	Pb	705.56	P	51.78	7.34
209	Bi	1275587.00	A	13700.00	1.07
232	Th	740.00	P	63.33	8.56
238	U	246.67	P	14.53	5.89

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\004CALI.D\004CALI.D#
Date Acquired: May 9 2005 01:23 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	381658.91	P	6406.00	1.68
9 Be	340.00	P	15.28	4.49
23 Na	503082.19	P	5102.00	1.01
26 Mg	21435.55	P	425.80	1.99
27 Al	63396.66	P	201.20	0.32
39 K	921026.63	A	5986.00	0.65
44 Ca	14123.80	P	67.58	0.48
45 Sc	574345.63	P	9099.00	1.58
51 V	3325.88	P	223.90	6.73
52 Cr	5065.56	P	13.88	0.27
55 Mn	3686.67	P	35.12	0.95
57 Fe	12066.67	P	67.66	0.56
59 Co	2666.67	P	26.46	0.99
60 Ni	667.78	P	27.15	4.07
65 Cu	806.57	P	72.65	9.01
66 Zn	2573.44	P	59.26	2.30
72 Ge	163487.59	P	2285.00	1.40
75 As	510.06	P	86.56	16.97
82 Se	105.78	P	12.66	11.97
95 Mo	1196.67	P	138.90	11.61
109 Ag	2133.33	P	63.60	2.98
111 Cd	633.08	P	23.33	3.69
115 In	1290959.00	A	17010.00	1.32
121 Sb	2316.67	P	178.40	7.70
137 Ba	1302.22	P	32.03	2.46
205 Tl	5216.67	P	221.70	4.25
208 Pb	6642.22	P	126.00	1.90
209 Bi	1268362.00	A	24950.00	1.97
232 Th	2925.56	P	186.80	6.39
238 U	5856.67	P	60.83	1.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	381658.88	1.68	383255.53	99.6	30 - 200	
45 Sc	574345.56	1.58	566573.31	101.4	30 - 200	
72 Ge	163487.55	1.40	161712.45	101.1	30 - 200	
115 In	1290959.40	1.32	1281904.10	100.7	30 - 200	
209 Bi	1268362.10	1.97	1275586.80	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\005CALI.D\005CALI.D#
Date Acquired: May 9 2005 01:28 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	388543.31	P	6704.00	1.73
9 Be	654.44	P	69.95	10.69
23 Na	720465.63	M	53520.00	7.43
26 Mg	38891.11	P	203.40	0.52
27 Al	58248.88	P	605.70	1.04
39 K	1081261.00	A	8068.00	0.75
44 Ca	17968.38	P	26.04	0.14
45 Sc	573872.19	P	9184.00	1.60
51 V	5801.79	P	456.80	7.87
52 Cr	7103.33	P	123.50	1.74
55 Mn	6466.67	P	174.90	2.70
57 Fe	17103.33	P	175.70	1.03
59 Co	5042.22	P	75.82	1.50
60 Ni	1157.78	P	80.02	6.91
65 Cu	1453.17	P	100.90	6.94
66 Zn	2464.64	P	93.12	3.78
72 Ge	163775.59	P	2296.00	1.40
75 As	618.01	P	97.53	15.78
82 Se	114.84	P	18.26	15.90
95 Mo	1880.00	P	58.59	3.12
109 Ag	3953.33	P	100.70	2.55
111 Cd	1141.54	P	83.62	7.33
115 In	1302916.00	A	31930.00	2.45
121 Sb	3942.22	P	265.00	6.72
137 Ba	1827.78	P	89.46	4.89
205 Tl	9710.00	P	346.70	3.57
208 Pb	12620.00	P	375.60	2.98
209 Bi	1286918.00	A	14760.00	1.15
232 Th	5670.00	P	387.00	6.83
238 U	12016.67	P	179.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	388543.31	1.73	383255.53	101.4	30 - 200	
45 Sc	573872.19	1.60	566573.31	101.3	30 - 200	
72 Ge	163775.55	1.40	161712.45	101.3	30 - 200	
115 In	1302916.10	2.45	1281904.10	101.6	30 - 200	
209 Bi	1286917.50	1.15	1275586.80	100.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\006CALI.D\006CALI.D#
Date Acquired: May 9 2005 01:33 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	378866.69	P	1012.00	0.27
9	Be	1166.67	P	61.73	5.29
23	Na	1059123.00	A	15230.00	1.44
26	Mg	67734.44	P	290.70	0.43
27	Al	67477.78	P	900.40	1.33
39	K	1331844.00	A	11740.00	0.88
44	Ca	25958.08	P	633.30	2.44
45	Sc	554661.13	P	3920.00	0.71
51	V	9309.37	P	328.70	3.53
52	Cr	10281.11	P	180.30	1.75
55	Mn	11060.00	P	97.13	0.88
57	Fe	26186.67	P	47.02	0.18
59	Co	9041.11	P	56.80	0.63
60	Ni	2033.33	P	64.29	3.16
65	Cu	2721.94	P	83.82	3.08
66	Zn	3879.23	P	176.70	4.56
72	Ge	159886.91	P	1054.00	0.66
75	As	1340.70	P	49.37	3.68
82	Se	153.36	P	34.90	22.76
95	Mo	2985.56	P	137.30	4.60
109	Ag	7330.00	P	229.40	3.13
111	Cd	1744.86	P	131.90	7.56
115	In	1284396.00	A	7356.00	0.57
121	Sb	6622.22	P	85.27	1.29
137	Ba	2970.00	P	170.70	5.75
205	Tl	16626.67	P	280.50	1.69
208	Pb	22985.55	P	449.20	1.95
209	Bi	1278827.00	A	11910.00	0.93
232	Th	10770.00	P	415.30	3.86
238	U	21516.67	P	439.50	2.04

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	378866.66	0.27	383255.53	98.9	30 - 200	
45 Sc	554661.06	0.71	566573.31	97.9	30 - 200	
72 Ge	159886.89	0.66	161712.45	98.9	30 - 200	
115 In	1284395.60	0.57	1281904.10	100.2	30 - 200	
209 Bi	1278826.80	0.93	1275586.80	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\007CALI.D\007CALI.D#
Date Acquired: May 9 2005 01:39 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	373440.00	P	5622.00	1.51
9 Be	11201.11	P	320.10	2.86
23 Na	6985478.00	A	53770.00	0.77
26 Mg	685156.31	M	30550.00	4.46
27 Al	108658.90	P	2111.00	1.94
39 K	6721495.00	A	84880.00	1.26
44 Ca	193138.09	P	3493.00	1.81
45 Sc	561696.63	P	11480.00	2.04
51 V	79563.28	P	2277.00	2.86
52 Cr	75866.66	P	1479.00	1.95
55 Mn	102837.80	P	878.60	0.85
57 Fe	216431.09	P	1686.00	0.78
59 Co	87177.78	P	954.10	1.09
60 Ni	19746.67	P	52.92	0.27
65 Cu	23500.52	P	320.00	1.36
66 Zn	16014.54	P	280.90	1.75
72 Ge	161695.59	P	2721.00	1.68
75 As	12764.13	P	285.60	2.24
82 Se	947.73	P	37.30	3.94
95 Mo	27211.11	P	262.30	0.96
109 Ag	72074.44	P	1428.00	1.98
111 Cd	15658.37	P	351.50	2.24
115 In	1268975.00	A	8228.00	0.65
121 Sb	61817.78	P	996.20	1.61
137 Ba	23555.55	P	440.50	1.87
205 Tl	159404.41	P	4573.00	2.87
208 Pb	217473.30	P	3833.00	1.76
209 Bi	1262652.00	A	23180.00	1.84
232 Th	111372.20	P	5385.00	4.84
238 U	210833.30	P	4958.00	2.35

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	373440.00	1.51	383255.53	97.4	30 - 200	
45 Sc	561696.63	2.04	566573.31	99.1	30 - 200	
72 Ge	161695.55	1.68	161712.45	100.0	30 - 200	
115 In	1268975.10	0.65	1281904.10	99.0	30 - 200	
209 Bi	1262651.90	1.84	1275586.80	99.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#
Date Acquired: May 9 2005 01:44 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:41 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	384265.50	P	6338.00	1.65
9 Be	111040.00	P	2223.00	2.00
23 Na	64779380.00	A	914800.00	1.41
26 Mg	6611233.00	A	56080.00	0.85
27 Al	538136.63	P	10100.00	1.88
39 K	60055780.00	A	1021000.00	1.70
44 Ca	1886489.00	A	35790.00	1.90
45 Sc	586510.00	P	11090.00	1.89
51 V	815436.81	M	11310.00	1.39
52 Cr	724518.88	P	7612.00	1.05
55 Mn	1026897.00	A	2574.00	0.25
57 Fe	2150757.00	A	11590.00	0.54
59 Co	875879.50	M	8110.00	0.93
60 Ni	189035.59	P	2981.00	1.58
65 Cu	227604.91	P	3232.00	1.42
66 Zn	136166.41	P	2085.00	1.53
72 Ge	167832.00	P	2983.00	1.78
75 As	126410.40	P	2488.00	1.97
82 Se	8468.64	P	100.50	1.19
95 Mo	270137.81	P	4754.00	1.76
109 Ag	699755.50	P	12720.00	1.82
111 Cd	148551.20	P	2298.00	1.55
115 In	1290516.00	A	11120.00	0.86
121 Sb	603296.63	P	12550.00	2.08
137 Ba	226022.20	P	2894.00	1.28
205 Tl	1674851.00	A	11330.00	0.68
208 Pb	2140513.00	A	22340.00	1.04
209 Bi	1244905.00	A	17460.00	1.40
232 Th	1933230.00	A	52040.00	2.69
238 U	2220371.00	A	13630.00	0.61

ISTD Elements

C:\ICPCHEM\1\DATA\05E0913a.B\008CALI.D\008CALI.D#

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	384265.53	1.65	383255.53	100.3	30 - 200	
45 Sc	586510.00	1.89	566573.31	103.5	30 - 200	
72 Ge	167832.00	1.78	161712.45	103.8	30 - 200	
115 In	1290516.10	0.86	1281904.10	100.7	30 - 200	
209 Bi	1244904.60	1.40	1275586.80	97.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#
Date Acquired: May 9 2005 01:49 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 09 2005 01:46 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	387304.41	P	3457.00	0.89
9 Be	225693.30	P	2890.00	1.28
23 Na	130728600.00	A	458100.00	0.35
26 Mg	13381630.00	A	23150.00	0.17
27 Al	1149083.00	A	7759.00	0.68
39 K	120280500.00	A	1180000.00	0.98
44 Ca	3707841.00	A	36990.00	1.00
45 Sc	581156.63	P	9439.00	1.62
51 V	1624804.00	A	13860.00	0.85
52 Cr	1456411.00	A	13430.00	0.92
55 Mn	2026948.00	A	17110.00	0.84
57 Fe	4180162.00	A	10860.00	0.26
59 Co	1751228.00	A	15420.00	0.88
60 Ni	376336.69	P	1881.00	0.50
65 Cu	453202.41	P	3241.00	0.72
66 Zn	267803.59	P	2351.00	0.88
72 Ge	168117.09	P	2754.00	1.64
75 As	257446.70	P	3322.00	1.29
82 Se	16928.90	P	229.50	1.36
95 Mo	551943.31	P	6031.00	1.09
109 Ag	1417878.00	A	14610.00	1.03
111 Cd	297226.69	P	3533.00	1.19
115 In	1269237.00	A	11470.00	0.90
121 Sb	1257868.00	A	10450.00	0.83
137 Ba	457220.00	P	5570.00	1.22
205 Tl	3305613.00	A	41840.00	1.27
208 Pb	4316318.00	A	84220.00	1.95
209 Bi	1216527.00	A	29690.00	2.44
232 Th	4542415.00	A	78550.00	1.73
238 U	4488659.00	A	82940.00	1.85

ISTD Elements

C:\ICPCHEM\1\DATA\05E0913a.B\009CALI.D\009CALI.D#

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	387304.44	0.89	383255.53	101.1	30 - 200	
45 Sc	581156.63	1.62	566573.31	102.6	30 - 200	
72 Ge	168117.11	1.64	161712.45	104.0	30 - 200	
115 In	1269236.80	0.90	1281904.10	99.0	30 - 200	
209 Bi	1216526.80	2.44	1275586.80	95.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E0913a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 09, 2005 13:51
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e0913a.b\003calb.d\	003calb.d#	May 9 2005 01:18 pm
2	...hem\1\data\05e0913a.b\004cali.d\	004cali.d#	May 9 2005 01:23 pm
3	...hem\1\data\05e0913a.b\005cali.d\	005cali.d#	May 9 2005 01:28 pm
4	...hem\1\data\05e0913a.b\006cali.d\	006cali.d#	May 9 2005 01:33 pm
5	...hem\1\data\05e0913a.b\007cali.d\	007cali.d#	May 9 2005 01:39 pm
6	...hem\1\data\05e0913a.b\008cali.d\	008cali.d#	May 9 2005 01:44 pm
7	...hem\1\data\05e0913a.b\009cali.d\	009cali.d#	May 9 2005 01:49 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.454E-1*X +3.046E-3(blank)	---	ppb
Na	23	45	Y = 5.587E-1*X +2.941E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.732E-2*X +3.277E-1(blank)	---	ppb
Al	27	45	Y = 4.525E-1*X +5.772E+0(blank)	---	ppb
K	39	45	Y = 5.126E-1*X +6.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.593E-2*X +7.887E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.416E+0*X +4.303E-1(blank)	---	ppb
Cr	52	72	Y = 2.159E+0*X +9.127E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.023E+0*X +2.462E-1(blank)	---	ppb
Fe	57	72	Y = 6.244E-2*X +1.975E+0(blank)	---	ppb
Co	59	72	Y = 2.605E+0*X +5.598E-2(blank)	---	ppb
Ni	60	72	Y = 5.603E-1*X +3.331E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.746E-1*X +5.836E-2(blank)	---	ppb
Zn	66	72	Y = 3.968E-1*X +5.096E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.815E-1*X +1.796E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.508E-2*X +1.844E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.166E-1*X +1.700E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.104E+0*X +3.713E-2(blank)	---	ppb
Cd	111	72	Y = 4.418E-1*X +6.010E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.448E-1*X +2.082E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.942E-2*X +2.290E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.778E-1*X +3.499E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.767E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547010 Filename : e0913010 Injected : 09-MAY-2005 13:54
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S399

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
luminum	100.0000	95.24000	ug/L	-5	10	
ntimony	100.0000	98.46000	ug/L	-2	10	
rsenic	100.0000	100.5000	ug/L	1	10	
arium	100.0000	98.32000	ug/L	-2	10	
eryllium	100.0000	98.59000	ug/L	-1	10	
admium	100.0000	101.9000	ug/L	2	10	
alcium	10000.00	10110.00	ug/L	1	10	
hromium	100.0000	100.1000	ug/L	0	10	
obalt	100.0000	100.3000	ug/L	0	10	
opper	100.0000	101.2000	ug/L	1	10	
ron	10000.00	10260.00	ug/L	3	10	
ead	100.0000	98.27000	ug/L	-2	10	
lagnesium	10000.00	10060.00	ug/L	1	10	
langanese	100.0000	101.6000	ug/L	2	10	
lolybdenum	100.0000	100.6000	ug/L	1	10	
Nickel	100.0000	101.7000	ug/L	2	10	
Potassium	10000.00	10060.00	ug/L	1	10	
Selenium	100.0000	102.1000	ug/L	2	10	
Silver	100.0000	100.9000	ug/L	1	10	
Sodium	10000.00	10090.00	ug/L	1	10	
Thallium	100.0000	100.5000	ug/L	1	10	
Vanadium	100.0000	101.3000	ug/L	1	10	
Zinc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	397821	3.80
Scandium	566573	593270	4.71
Germanium	161713	169142	4.59
Indium	1281904	1313906	2.50
Bismuth	1275587	1269056	-0.51

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɐqnum : 55186547012 Filename : e0913012 Injected : 09-MAY-2005 14:06
ɔandards: 05WS0207

ınalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.380300	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɜarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɜeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔadmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔalcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɔhromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɔobalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔopper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɪron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ʟead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ʍagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ʍanganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ʍolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
:qnum : 55186547013 Filename : e0913013 Injected : 09-MAY-2005 14:12
:andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.391000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.555400	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.891700	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0090]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.0932]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.188000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.679000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.476000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.227000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.022000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.305000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.4896]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1480]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.1242]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.1340]	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	3.928000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	89980	ug/L	90
Calcium	55186547001	09-MAY-2005	300000	295200	ug/L	98
Iron	55186547001	09-MAY-2005	250000	241600	ug/L	97
Magnesium	55186547001	09-MAY-2005	100000	93590	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1902	ug/L	95
Potassium	55186547001	09-MAY-2005	100000	96440	ug/L	96
Sodium	55186547001	09-MAY-2005	250000	227100	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

nstid : MET05 Run Name :
eqnum : 55186547014 Filename : e0913014 Injected : 09-MAY-2005 14:17
alnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	88800.00	ug/L	-11		
Arsenic	100.0000	109.0000	ug/L	9	20	
Cadmium	100.0000	98.83000	ug/L	-1	20	
Calcium	300000.0	295000.0	ug/L	-2		
Chromium	200.0000	215.5000	ug/L	8	20	
Cobalt	200.0000	210.2000	ug/L	5	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	247100.0	ug/L	-1		
Magnesium	100000.0	91970.00	ug/L	-8		
Manganese	200.0000	217.9000	ug/L	9	20	
Molybdenum	2000.000	1929.000	ug/L	-4		
Nickel	200.0000	201.8000	ug/L	1	20	
Potassium	100000.0	95150.00	ug/L	-5		
Selenium	100.0000	101.5000	ug/L	2	20	
Silver	50.00000	48.38000	ug/L	-3	20	
Sodium	250000.0	224200.0	ug/L	-10		
Vanadium	200.0000	220.6000	ug/L	10	20	
Zinc	100.0000	101.8000	ug/L	2	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	598407	5.62
Germanium	161713	166732	3.10

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

istid : MET05
eqnum : 55186547025
alnum : 55186547001
tandards: S403, 05WS0207

Run Name :
Filename : e0913025
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 09-MAY-2005 15:22
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.6312	0.4842	150.0000	147.8000	ug/L	-1	10	
Antimony	0.2740	0.2317	150.0000	141.9000	ug/L	-5	10	
Arsenic	0.3902	0.3709	150.0000	145.8000	ug/L	-3	10	
Barium	0.1214	0.0872	150.0000	146.0000	ug/L	-3	10	
Beryllium	0.1568	0.1417	150.0000	146.1000	ug/L	-3	10	
Cadmium	0.5642	0.4444	150.0000	150.7000	ug/L	0	10	
Calcium	0.0208	0.0157	15000.00	14730.00	ug/L	-2	10	
Chromium	2.8448	2.1412	150.0000	148.3000	ug/L	-1	10	
Cobalt	2.8466	2.5911	150.0000	149.2000	ug/L	-1	10	
Copper	0.7634	0.6613	150.0000	147.0000	ug/L	-2	10	
Iron	0.0759	0.0618	15000.00	14820.00	ug/L	-1	10	
Lead	0.9225	0.8510	150.0000	144.8000	ug/L	-3	10	
Magnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
Manganese	3.5290	2.9760	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.9099	0.8045	150.0000	147.6000	ug/L	-2	10	
Nickel	0.6490	0.5499	150.0000	147.1000	ug/L	-2	10	
Potassium	0.9426	0.5046	15000.00	14640.00	ug/L	-2	10	
Selenium	0.0396	0.0248	150.0000	147.4000	ug/L	-2	10	
Silver	2.2896	2.1088	150.0000	150.3000	ug/L	0	10	
Sodium	0.7893	0.5501	15000.00	14720.00	ug/L	-2	10	
Thallium	0.6776	0.6635	150.0000	146.8000	ug/L	-2	10	
Vanadium	2.7524	2.4032	150.0000	149.0000	ug/L	-1	10	
Zinc	0.8033	0.3903	150.0000	146.3000	ug/L	-2	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	373026	-2.67
Scandium	566573	561004	-0.98
Germanium	161713	161836	0.08
Indium	1281904	1264407	-1.36
Bismuth	1275587	1249023	-2.08

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Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
ɛqnum : 55186547027 Filename : e0913027 Injected : 09-MAY-2005 15:33
:andards: 05WS0207

ınalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıluminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıntimony	55186547001	09-MAY-2005	0.260000	0.250000	ug/L	ib ***
ırsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɜarium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɜeryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
:hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
[ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
;ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Magnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Manganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Nickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Potassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Selenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Silver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
Sodium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
Thallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
Vanadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
Zinc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name : IDF : 1.0
:qnum : 55186547031 Filename : e0913031 Injected : 09-MAY-2005 15:57
ılnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
:andards: S400, 05WS0207

ınalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ıluminum	3.6312	0.4676	100.0000	90.59000	ug/L	-9	10	
ıntimony	0.2740	0.2331	100.0000	95.12000	ug/L	-5	10	
ırsenic	0.3902	0.3791	100.0000	99.32000	ug/L	-1	10	
ɜarium	0.1214	0.0880	100.0000	98.19000	ug/L	-2	10	
ɜeryllium	0.1568	0.1450	100.0000	99.70000	ug/L	0	10	
:admium	0.5642	0.4516	100.0000	102.1000	ug/L	2	10	
:alcium	0.0208	0.0164	10000.00	10220.00	ug/L	2	10	
:hromium	2.8448	2.1583	100.0000	99.53000	ug/L	0	10	
:obalt	2.8466	2.5857	100.0000	99.22000	ug/L	-1	10	
:opper	0.7634	0.6794	100.0000	100.6000	ug/L	1	10	
Iron	0.0759	0.0645	10000.00	10300.00	ug/L	3	10	
:ead	0.9225	0.8645	100.0000	98.05000	ug/L	-2	10	
Magnesium	0.0608	0.0583	10000.00	10160.00	ug/L	2	10	
Manganese	3.5290	3.1243	100.0000	103.3000	ug/L	3	10	
Molybdenum	0.9099	0.8182	100.0000	99.98000	ug/L	0	10	
Nickel	0.6490	0.5662	100.0000	101.0000	ug/L	1	10	
Potassium	0.9426	0.5241	10000.00	10100.00	ug/L	1	10	
Selenium	0.0396	0.0255	100.0000	100.9000	ug/L	1	10	
Silver	2.2896	2.1286	100.0000	101.2000	ug/L	1	10	
Sodium	0.7893	0.5663	10000.00	10080.00	ug/L	1	10	
Thallium	0.6776	0.6851	100.0000	101.0000	ug/L	1	10	
Vanadium	2.7524	2.4000	100.0000	99.14000	ug/L	-1	10	
Zinc	0.8033	0.4049	100.0000	100.8000	ug/L	1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	368057	-3.97
Scandium	566573	555167	-2.01
Germanium	161713	161141	-0.35
Indium	1281904	1267241	-1.14
Bismuth	1275587	1237819	-2.96

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stid : MET05 Run Name :
qnum : 55186547033 Filename : e0913033 Injected : 09-MAY-2005 16:09
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1836]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547034 Filename : e0913034 Injected : 09-MAY-2005 16:15
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.217000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.647500	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.803400	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0110]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	[0.1070]	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.182000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.621000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.499000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.185000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.014000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.330000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	[0.3223]	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	[0.1382]	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0349]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.0894]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.729000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55186547001	09-MAY-2005	100000	90860	ug/L	91
Calcium	55186547001	09-MAY-2005	300000	292900	ug/L	98
Iron	55186547001	09-MAY-2005	250000	237700	ug/L	95
Magnesium	55186547001	09-MAY-2005	100000	94090	ug/L	94
Molybdenum	55186547001	09-MAY-2005	2000	1944	ug/L	97
Potassium	55186547001	09-MAY-2005	100000	96540	ug/L	97
Sodium	55186547001	09-MAY-2005	250000	226900	ug/L	91

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

ıstid : MET05 Run Name :
eqnum : 55186547035 Filename : e0913035 Injected : 09-MAY-2005 16:21
ılnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
tandards: S402, 05WS0207

ınalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
ılluminum	100000.0	89450.00	ug/L	-11		
ırsenic	100.0000	106.2000	ug/L	6	20	
ıadmium	100.0000	98.87000	ug/L	-1	20	
ıalcium	300000.0	292500.0	ug/L	-3		
ıhromium	200.0000	206.3000	ug/L	3	20	
ıobalt	200.0000	204.6000	ug/L	2	20	
ıopper	200.0000	192.8000	ug/L	-4	20	
Iron	250000.0	237800.0	ug/L	-5		
Magnesium	100000.0	93040.00	ug/L	-7		
Manganese	200.0000	208.6000	ug/L	4	20	
Molybdenum	2000.000	1917.000	ug/L	-4		
Nickel	200.0000	196.3000	ug/L	-2	20	
Potassium	100000.0	95100.00	ug/L	-5		
Selenium	100.0000	99.09000	ug/L	-1	20	
Silver	50.00000	48.47000	ug/L	-3	20	
Sodium	250000.0	223600.0	ug/L	-11		
Vanadium	200.0000	212.9000	ug/L	6	20	
Zinc	100.0000	98.57000	ug/L	-1	20	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	566613	0.01
Germanium	161713	163447	1.07

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
gnum : 55186547046 Filename : e0913046 Injected : 09-MAY-2005 17:39
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
.uminum	3.6312	0.4749	150.0000	144.7000	ug/L	-4	10	
ıtimony	0.2740	0.2250	150.0000	137.7000	ug/L	-8	10	
:senic	0.3902	0.3648	150.0000	143.4000	ug/L	-4	10	
ırium	0.1214	0.0853	150.0000	142.9000	ug/L	-5	10	
ɜryllium	0.1568	0.1391	150.0000	143.4000	ug/L	-4	10	
ɑdmium	0.5642	0.4459	150.0000	151.2000	ug/L	1	10	
ɑlcium	0.0208	0.0155	15000.00	14550.00	ug/L	-3	10	
ɪromium	2.8448	2.1136	150.0000	146.4000	ug/L	-2	10	
ɔbalt	2.8466	2.5472	150.0000	146.6000	ug/L	-2	10	
ɔpper	0.7634	0.6531	150.0000	145.1000	ug/L	-3	10	
ron	0.0759	0.0620	15000.00	14850.00	ug/L	-1	10	
ead	0.9225	0.8358	150.0000	142.2000	ug/L	-5	10	
agnesium	0.0608	0.0565	15000.00	14780.00	ug/L	-1	10	
anganese	3.5290	2.9806	150.0000	147.8000	ug/L	-1	10	
olybdenum	0.9099	0.7972	150.0000	146.2000	ug/L	-3	10	
ickel	0.6490	0.5403	150.0000	144.6000	ug/L	-4	10	
otassium	0.9426	0.5038	15000.00	14620.00	ug/L	-3	10	
elenium	0.0396	0.0247	150.0000	147.1000	ug/L	-2	10	
ilver	2.2896	2.1293	150.0000	151.8000	ug/L	1	10	
odium	0.7893	0.5550	15000.00	14850.00	ug/L	-1	10	
'hallium	0.6776	0.6552	150.0000	144.9000	ug/L	-3	10	
'anadium	2.7524	2.3700	150.0000	146.9000	ug/L	-2	10	
;inc	0.8033	0.3843	150.0000	144.0000	ug/L	-4	10	

:STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ɹithium	383256	371734	-3.01
ɜcandium	566573	544232	-3.94
ɜermanium	161713	158308	-2.11
[ndium	1281904	1276514	-0.42
ɜismuth	1275587	1283726	0.64

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stid : MET05 Run Name :
qnum : 55186547048 Filename : e0913048 Injected : 09-MAY-2005 17:51
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.2093]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.559700	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

;tid : MET05
ɡnum : 55186547061
.num : 55186547001
ındards: S403, 05WS0207

Run Name :
Filename : e0913061
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 09-MAY-2005 19:07
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4622	150.0000	140.5000	ug/L	-6	10	
.timony	0.2740	0.2246	150.0000	137.5000	ug/L	-8	10	
·senic	0.3902	0.3614	150.0000	142.1000	ug/L	-5	10	
ırium	0.1214	0.0850	150.0000	142.2000	ug/L	-5	10	
:ryllium	0.1568	0.1384	150.0000	142.7000	ug/L	-5	10	
ıdmium	0.5642	0.4352	150.0000	147.6000	ug/L	-2	10	
ılcium	0.0208	0.0155	15000.00	14580.00	ug/L	-3	10	
ıromium	2.8448	2.1179	150.0000	146.7000	ug/L	-2	10	
ɔbalt	2.8466	2.5818	150.0000	148.6000	ug/L	-1	10	
ɔpper	0.7634	0.6536	150.0000	145.3000	ug/L	-3	10	
ron	0.0759	0.0622	15000.00	14900.00	ug/L	-1	10	
ead	0.9225	0.8200	150.0000	139.5000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14530.00	ug/L	-3	10	
anganese	3.5290	3.0047	150.0000	149.0000	ug/L	-1	10	
ɔlybdenum	0.9099	0.7924	150.0000	145.3000	ug/L	-3	10	
ickel	0.6490	0.5423	150.0000	145.1000	ug/L	-3	10	
otassium	0.9426	0.4942	15000.00	14340.00	ug/L	-4	10	
elenium	0.0396	0.0243	150.0000	144.8000	ug/L	-3	10	
ilver	2.2896	2.0791	150.0000	148.2000	ug/L	-1	10	
odium	0.7893	0.5429	15000.00	14520.00	ug/L	-3	10	
hallium	0.6776	0.6486	150.0000	143.5000	ug/L	-4	10	
anadium	2.7524	2.3733	150.0000	147.1000	ug/L	-2	10	
inc	0.8033	0.3850	150.0000	144.3000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	364584	-4.87
candium	566573	549159	-3.07
ermanium	161713	158082	-2.25
ndium	1281904	1258859	-1.80
ismuth	1275587	1233783	-3.28

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stid : MET05 Run Name :
gnum : 55186547063 Filename : e0913063 Injected : 09-MAY-2005 19:19
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
.uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıtimony	55186547001	09-MAY-2005	0.274200	0.250000	ug/L	ib ***
:senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ırium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɛryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ıdmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ılcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ɔbalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔpper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɛad	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔlybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ɔtassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.2043]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547073 Filename : e0913073 Injected : 09-MAY-2005 20:18
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S400, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4673	100.0000	90.51000	ug/L	-9	10	
ntimony	0.2740	0.2288	100.0000	93.37000	ug/L	-7	10	
rsenic	0.3902	0.3666	100.0000	96.04000	ug/L	-4	10	
arium	0.1214	0.0856	100.0000	95.47000	ug/L	-5	10	
eryllium	0.1568	0.1387	100.0000	95.34000	ug/L	-5	10	
admium	0.5642	0.4496	100.0000	101.6000	ug/L	2	10	
alcium	0.0208	0.0159	10000.00	9930.000	ug/L	-1	10	
hromium	2.8448	2.1183	100.0000	97.68000	ug/L	-2	10	
obalt	2.8466	2.5411	100.0000	97.51000	ug/L	-2	10	
opper	0.7634	0.6660	100.0000	98.64000	ug/L	-1	10	
ron	0.0759	0.0640	10000.00	10220.00	ug/L	2	10	
ead	0.9225	0.8380	100.0000	95.05000	ug/L	-5	10	
agnesium	0.0608	0.0574	10000.00	10010.00	ug/L	0	10	
anganese	3.5290	3.0535	100.0000	100.9000	ug/L	1	10	
olybdenum	0.9099	0.8014	100.0000	97.93000	ug/L	-2	10	
ickel	0.6490	0.5555	100.0000	99.08000	ug/L	-1	10	
otassium	0.9426	0.5068	10000.00	9764.000	ug/L	-2	10	
elenium	0.0396	0.0248	100.0000	98.04000	ug/L	-2	10	
ilver	2.2896	2.1066	100.0000	100.1000	ug/L	0	10	
odium	0.7893	0.5618	10000.00	10000.00	ug/L	0	10	
hallium	0.6776	0.6543	100.0000	96.49000	ug/L	-4	10	
anadium	2.7524	2.3544	100.0000	97.26000	ug/L	-3	10	
Zinc	0.8033	0.3978	100.0000	98.96000	ug/L	-1	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	380148	-0.81
Scandium	566573	554670	-2.10
Germanium	161713	160863	-0.53
Indium	1281904	1296859	1.17
Bismuth	1275587	1288713	1.03

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Curtis & Tompkins Laboratories

.stid : MET05 Run Name :
:qnum : 55186547075 Filename : e0913075 Injected : 09-MAY-2005 20:30
.andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1410]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547076 Filename : e0913076 Injected : 09-MAY-2005 20:35
andards: S401, 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ntimony	55186547001	09-MAY-2005	2.164000	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	0.849800	0.500000	ug/L	
arium	55186547001	09-MAY-2005	0.754800	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0173]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.402000	0.250000	ug/L	
hromium	55186547001	09-MAY-2005	1.676000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	3.095000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.990000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.152000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	1.476000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.796000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	1.035000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.275200	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0729]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.5942]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.645000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	89710	ug/L	90
alcium	55186547001	09-MAY-2005	300000	288400	ug/L	96
ron	55186547001	09-MAY-2005	250000	232000	ug/L	93
agnesium	55186547001	09-MAY-2005	100000	92800	ug/L	93
olybdenum	55186547001	09-MAY-2005	2000	1916	ug/L	96
otassium	55186547001	09-MAY-2005	100000	95190	ug/L	95
odium	55186547001	09-MAY-2005	250000	224900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547077 Filename : e0913077 Injected : 09-MAY-2005 20:41
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

ıalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88680.00	ug/L	-11		
rsenic	100.0000	104.0000	ug/L	4	20	
admium	100.0000	100.3000	ug/L	0	20	
alcium	300000.0	282500.0	ug/L	-6		
hromium	200.0000	200.5000	ug/L	0	20	
obalt	200.0000	199.2000	ug/L	0	20	
opper	200.0000	188.4000	ug/L	-6	20	
ron	250000.0	229700.0	ug/L	-8		
agnesium	100000.0	91480.00	ug/L	-9		
anganese	200.0000	202.9000	ug/L	1	20	
olybdenum	2000.000	1934.000	ug/L	-3		
ickel	200.0000	191.1000	ug/L	-4	20	
otassium	100000.0	92990.00	ug/L	-7		
elenium	100.0000	97.83000	ug/L	-2	20	
ilver	50.00000	49.27000	ug/L	-1	20	
odium	250000.0	220800.0	ug/L	-12		
anadium	200.0000	205.6000	ug/L	3	20	
inc	100.0000	94.58000	ug/L	-5	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	524903	-7.35
ermanium	161713	152927	-5.43

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547090 Filename : e0913090 Injected : 09-MAY-2005 21:57
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4441	150.0000	134.5000	ug/L	-10	10	
ntimony	0.2740	0.2267	150.0000	138.8000	ug/L	-7	10	
rsenic	0.3902	0.3603	150.0000	141.6000	ug/L	-6	10	
arium	0.1214	0.0859	150.0000	143.8000	ug/L	-4	10	
eryllium	0.1568	0.1381	150.0000	142.4000	ug/L	-5	10	
admium	0.5642	0.4419	150.0000	149.9000	ug/L	0	10	
alcium	0.0208	0.0155	15000.00	14560.00	ug/L	-3	10	
hromium	2.8448	2.1134	150.0000	146.4000	ug/L	-2	10	
obalt	2.8466	2.5717	150.0000	148.0000	ug/L	-1	10	
opper	0.7634	0.6520	150.0000	144.9000	ug/L	-3	10	
ron	0.0759	0.0625	15000.00	14970.00	ug/L	0	10	
ead	0.9225	0.8374	150.0000	142.5000	ug/L	-5	10	
agnesium	0.0608	0.0558	15000.00	14600.00	ug/L	-3	10	
anganese	3.5290	3.0052	150.0000	149.1000	ug/L	-1	10	
olybdenum	0.9099	0.7996	150.0000	146.7000	ug/L	-2	10	
ickel	0.6490	0.5407	150.0000	144.7000	ug/L	-4	10	
otassium	0.9426	0.4972	15000.00	14430.00	ug/L	-4	10	
elenium	0.0396	0.0244	150.0000	145.0000	ug/L	-3	10	
ilver	2.2896	2.1172	150.0000	150.9000	ug/L	1	10	
odium	0.7893	0.5486	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.6532	150.0000	144.5000	ug/L	-4	10	
anadium	2.7524	2.3781	150.0000	147.4000	ug/L	-2	10	
inc	0.8033	0.3860	150.0000	144.6000	ug/L	-4	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	332344	-13.28
candium	566573	500594	-11.65
ermanium	161713	147515	-8.78
ndium	1281904	1196146	-6.69
ismuth	1275587	1218836	-4.45

INSTRUMENT BLANK REPORT
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stid : MET05 Run Name :
qnum : 55186547092 Filename : e0913092 Injected : 09-MAY-2005 22:08
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1935]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lagnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
langanese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lolybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
lickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547101 Filename : e0913101 Injected : 09-MAY-2005 23:02
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
timony	55186547001	09-MAY-2005	2.055000	0.250000	ug/L	
senic	55186547001	09-MAY-2005	0.835800	0.500000	ug/L	
rium	55186547001	09-MAY-2005	0.760600	0.250000	ug/L	
ryllium	55186547001	09-MAY-2005	[0.0340]	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	0.389700	0.250000	ug/L	
romium	55186547001	09-MAY-2005	1.686000	0.500000	ug/L	
balt	55186547001	09-MAY-2005	3.051000	0.250000	ug/L	
pper	55186547001	09-MAY-2005	1.977000	0.500000	ug/L	
ad	55186547001	09-MAY-2005	1.131000	0.250000	ug/L	
nganese	55186547001	09-MAY-2005	1.590000	0.250000	ug/L	
ckel	55186547001	09-MAY-2005	1.808000	0.250000	ug/L	
lenium	55186547001	09-MAY-2005	0.814200	0.500000	ug/L	
lver	55186547001	09-MAY-2005	0.292200	0.250000	ug/L	
allium	55186547001	09-MAY-2005	[0.0177]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.5981]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	3.873000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88230	ug/L	88
alcium	55186547001	09-MAY-2005	300000	286700	ug/L	96
ron	55186547001	09-MAY-2005	250000	236400	ug/L	95
lagnesium	55186547001	09-MAY-2005	100000	91370	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1844	ug/L	92
otassium	55186547001	09-MAY-2005	100000	92300	ug/L	92
odium	55186547001	09-MAY-2005	250000	220800	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547102 Filename : e0913102 Injected : 09-MAY-2005 23:07
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S402, 05WS0207

nalyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	100000.0	88090.00	ug/L	-12		
rsenic	100.0000	100.6000	ug/L	1	20	
admium	100.0000	94.17000	ug/L	-6	20	
alcium	300000.0	285000.0	ug/L	-5		
hromium	200.0000	196.3000	ug/L	-2	20	
obalt	200.0000	196.8000	ug/L	-2	20	
opper	200.0000	185.2000	ug/L	-7	20	
ron	250000.0	232200.0	ug/L	-7		
agnesium	100000.0	91520.00	ug/L	-8		
anganese	200.0000	205.7000	ug/L	3	20	
olybdenum	2000.000	1829.000	ug/L	-9		
ickel	200.0000	188.6000	ug/L	-6	20	
otassium	100000.0	92260.00	ug/L	-8		
elenium	100.0000	94.08000	ug/L	-6	20	
ilver	50.00000	46.16000	ug/L	-8	20	
odium	250000.0	221600.0	ug/L	-11		
anadium	200.0000	202.2000	ug/L	1	20	
inc	100.0000	93.46000	ug/L	-7	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Scandium	566573	588738	3.91
Germanium	161713	171175	5.85

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 | Run Name : | IDF : 1.0
qnum : 55186547104 | Filename : e0913104 | Injected : 09-MAY-2005 23:19
lnum : 55186547001 | Caldate : 09-MAY-2005 | Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4816	150.0000	146.9000	ug/L	-2	10	
ntimony	0.2740	0.2208	150.0000	135.2000	ug/L	-10	10	
rsenic	0.3902	0.3531	150.0000	138.8000	ug/L	-7	10	
arium	0.1214	0.0838	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1379	150.0000	142.2000	ug/L	-5	10	
admium	0.5642	0.4284	150.0000	145.3000	ug/L	-3	10	
alcium	0.0208	0.0155	15000.00	14510.00	ug/L	-3	10	
hromium	2.8448	2.0770	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5468	150.0000	146.6000	ug/L	-2	10	
opper	0.7634	0.6408	150.0000	142.4000	ug/L	-5	10	
ron	0.0759	0.0615	15000.00	14750.00	ug/L	-2	10	
ead	0.9225	0.8210	150.0000	139.7000	ug/L	-7	10	
lagnesium	0.0608	0.0544	15000.00	14220.00	ug/L	-5	10	
langanese	3.5290	2.9731	150.0000	147.5000	ug/L	-2	10	
lolybdenum	0.9099	0.7836	150.0000	143.7000	ug/L	-4	10	
lickel	0.6490	0.5339	150.0000	142.9000	ug/L	-5	10	
otassium	0.9426	0.4881	15000.00	14160.00	ug/L	-6	10	
elenium	0.0396	0.0238	150.0000	141.7000	ug/L	-6	10	
ilver	2.2896	2.0654	150.0000	147.2000	ug/L	-2	10	
odium	0.7893	0.5389	15000.00	14410.00	ug/L	-4	10	
hallium	0.6776	0.6459	150.0000	142.9000	ug/L	-5	10	
anadium	2.7524	2.3446	150.0000	145.4000	ug/L	-3	10	
inc	0.8033	0.3778	150.0000	141.5000	ug/L	-6	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	354034	-7.62
Scandium	566573	572106	0.98
Germanium	161713	167746	3.73
Indium	1281904	1353822	5.61
Bismuth	1275587	1244487	-2.44

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547106 Filename : e0913106 Injected : 09-MAY-2005 23:31
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.266100	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[7.8940]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	[16.540]	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.509500	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	152.9000	50.00000	ug/L	ib ***
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.1644]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 | Run Name : | IDF : 1.0
gnum : 55186547119 | Filename : e0913119 | Injected : 10-MAY-2005 00:47
lnum : 55186547001 | Caldate : 09-MAY-2005 | Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
ntimony	0.2740	0.2207	150.0000	135.1000	ug/L	-10	10	
rsenic	0.3902	0.3591	150.0000	141.1000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1365	150.0000	140.8000	ug/L	-6	10	
admium	0.5642	0.4429	150.0000	150.2000	ug/L	0	10	
alcium	0.0208	0.0154	15000.00	14440.00	ug/L	-4	10	
hromium	2.8448	2.0623	150.0000	142.8000	ug/L	-5	10	
obalt	2.8466	2.5430	150.0000	146.4000	ug/L	-2	10	
opper	0.7634	0.6440	150.0000	143.1000	ug/L	-5	10	
ron	0.0759	0.0607	15000.00	14540.00	ug/L	-3	10	
ead	0.9225	0.8229	150.0000	140.0000	ug/L	-7	10	
agnesium	0.0608	0.0556	15000.00	14540.00	ug/L	-3	10	
anganese	3.5290	2.9299	150.0000	145.3000	ug/L	-3	10	
olybdenum	0.9099	0.7959	150.0000	146.0000	ug/L	-3	10	
ickel	0.6490	0.5358	150.0000	143.4000	ug/L	-4	10	
otassium	0.9426	0.4978	15000.00	14440.00	ug/L	-4	10	
elenium	0.0396	0.0240	150.0000	143.0000	ug/L	-5	10	
ilver	2.2896	2.1147	150.0000	150.8000	ug/L	1	10	
odium	0.7893	0.5374	15000.00	14380.00	ug/L	-4	10	
hallium	0.6776	0.6584	150.0000	145.7000	ug/L	-3	10	
anadium	2.7524	2.3251	150.0000	144.1000	ug/L	-4	10	
inc	0.8033	0.3749	150.0000	140.4000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	327369	-14.58
candium	566573	503498	-11.13
ermanium	161713	148418	-8.22
Indium	1281904	1233456	-3.78
ismuth	1275587	1161755	-8.92

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547121 Filename : e0913121 Injected : 10-MAY-2005 00:58
andards: 05WS0207

nalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.291700	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	ND	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	ND	0.250000	ug/L	
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547133 Filename : e0913133 Injected : 10-MAY-2005 02:08
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

nalyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4738	150.0000	144.3000	ug/L	-4	10	
ntimony	0.2740	0.2193	150.0000	134.3000	ug/L	-10	10	
rsenic	0.3902	0.3574	150.0000	140.5000	ug/L	-6	10	
arium	0.1214	0.0837	150.0000	140.2000	ug/L	-7	10	
eryllium	0.1568	0.1362	150.0000	140.5000	ug/L	-6	10	
admium	0.5642	0.4611	150.0000	156.4000	ug/L	4	10	
alcium	0.0208	0.0155	15000.00	14540.00	ug/L	-3	10	
hromium	2.8448	2.0076	150.0000	139.0000	ug/L	-7	10	
obalt	2.8466	2.4868	150.0000	143.1000	ug/L	-5	10	
opper	0.7634	0.6376	150.0000	141.7000	ug/L	-6	10	
ron	0.0759	0.0605	15000.00	14510.00	ug/L	-3	10	
ead	0.9225	0.8171	150.0000	139.0000	ug/L	-7	10	
lagnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
langanese	3.5290	2.9991	150.0000	148.8000	ug/L	-1	10	
lolybdenum	0.9099	0.8080	150.0000	148.2000	ug/L	-1	10	
lickel	0.6490	0.5282	150.0000	141.3000	ug/L	-6	10	
otassium	0.9426	0.5000	15000.00	14510.00	ug/L	-3	10	
elenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
ilver	2.2896	2.1831	150.0000	155.6000	ug/L	4	10	
odium	0.7893	0.5438	15000.00	14550.00	ug/L	-3	10	
hallium	0.6776	0.6476	150.0000	143.3000	ug/L	-4	10	
anadium	2.7524	2.2899	150.0000	142.0000	ug/L	-5	10	
inc	0.8033	0.3800	150.0000	142.4000	ug/L	-5	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	290486	-24.21
Scandium	566573	426922	-24.65
Germanium	161713	127442	-21.19
Indium	1281904	1121490	-12.51
Bismuth	1275587	1113799	-12.68

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stid : MET05 Run Name :
gnum : 55186547135 Filename : e0913135 Injected : 10-MAY-2005 02:20
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	0.275900	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
dmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
lcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
romium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[12.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.2292]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	3.056000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.556300	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	2.229000	1.000000	ug/L	ib ***

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547147 Filename : e0913147 Injected : 10-MAY-2005 03:31
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4614	150.0000	140.2000	ug/L	-7	10	
ntimony	0.2740	0.2218	150.0000	135.8000	ug/L	-9	10	
rsenic	0.3902	0.3599	150.0000	141.5000	ug/L	-6	10	
arium	0.1214	0.0840	150.0000	140.6000	ug/L	-6	10	
eryllium	0.1568	0.1372	150.0000	141.5000	ug/L	-6	10	
admium	0.5642	0.4655	150.0000	157.9000	ug/L	5	10	
alcium	0.0208	0.0156	15000.00	14620.00	ug/L	-3	10	
hromium	2.8448	2.0299	150.0000	140.6000	ug/L	-6	10	
obalt	2.8466	2.5088	150.0000	144.4000	ug/L	-4	10	
opper	0.7634	0.6448	150.0000	143.3000	ug/L	-4	10	
ron	0.0759	0.0605	15000.00	14490.00	ug/L	-3	10	
ead	0.9225	0.8192	150.0000	139.4000	ug/L	-7	10	
agnesium	0.0608	0.0568	15000.00	14850.00	ug/L	-1	10	
anganese	3.5290	2.9146	150.0000	144.6000	ug/L	-4	10	
olybdenum	0.9099	0.8154	150.0000	149.6000	ug/L	0	10	
ickel	0.6490	0.5336	150.0000	142.8000	ug/L	-5	10	
otassium	0.9426	0.5096	15000.00	14790.00	ug/L	-1	10	
elenium	0.0396	0.0243	150.0000	144.3000	ug/L	-4	10	
ilver	2.2896	2.1995	150.0000	156.8000	ug/L	5	10	
odium	0.7893	0.5477	15000.00	14650.00	ug/L	-2	10	
hallium	0.6776	0.6668	150.0000	147.5000	ug/L	-2	10	
anadium	2.7524	2.3045	150.0000	142.9000	ug/L	-5	10	
inc	0.8033	0.3761	150.0000	140.9000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	295190	-22.98
candium	566573	430569	-24.00
ermanium	161713	127088	-21.41
ndium	1281904	1117565	-12.82
ismuth	1275587	1051484	-17.57

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:tid : MET05 Run Name :
ɡnum : 55186547149 Filename : e0913149 Injected : 10-MAY-2005 03:42
ındards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
uminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
.timony	55186547001	09-MAY-2005	[0.2246]	0.250000	ug/L	
'senic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
.rium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
:ryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ıdmium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
ılcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
)balt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
)pper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
:on	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ɜad	55186547001	09-MAY-2005	[0.1014]	0.250000	ug/L	
ɑgnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.195000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	0.517200	0.500000	ug/L	ib ***
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
'hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
'anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
;inc	55186547001	09-MAY-2005	1.043000	1.000000	ug/L	ib ***

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547162
num : 55186547001
ndards: S403, 05WS0207

Run Name :
Filename : e0913162
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 04:59
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.4502	150.0000	136.5000	ug/L	-9	10	
timony	0.2740	0.2169	150.0000	132.8000	ug/L	-11	10	c- ***
senic	0.3902	0.3587	150.0000	141.0000	ug/L	-6	10	
rium	0.1214	0.0817	150.0000	136.8000	ug/L	-9	10	
ryllium	0.1568	0.1363	150.0000	140.6000	ug/L	-6	10	
dmium	0.5642	0.4600	150.0000	156.0000	ug/L	4	10	
lcium	0.0208	0.0156	15000.00	14610.00	ug/L	-3	10	
romium	2.8448	2.0237	150.0000	140.2000	ug/L	-7	10	
balt	2.8466	2.5161	150.0000	144.8000	ug/L	-3	10	
pper	0.7634	0.6437	150.0000	143.0000	ug/L	-5	10	
on	0.0759	0.0607	15000.00	14560.00	ug/L	-3	10	
ad	0.9225	0.8290	150.0000	141.0000	ug/L	-6	10	
gnesium	0.0608	0.0560	15000.00	14650.00	ug/L	-2	10	
anganese	3.5290	2.9288	150.0000	145.3000	ug/L	-3	10	
lybdenum	0.9099	0.8142	150.0000	149.3000	ug/L	0	10	
ickel	0.6490	0.5312	150.0000	142.2000	ug/L	-5	10	
otassium	0.9426	0.5043	15000.00	14630.00	ug/L	-2	10	
elenium	0.0396	0.0242	150.0000	143.9000	ug/L	-4	10	
ilver	2.2896	2.1764	150.0000	155.2000	ug/L	3	10	
odium	0.7893	0.5422	15000.00	14510.00	ug/L	-3	10	
hallium	0.6776	0.6898	150.0000	152.6000	ug/L	2	10	
anadium	2.7524	2.3205	150.0000	143.9000	ug/L	-4	10	
inc	0.8033	0.3758	150.0000	140.8000	ug/L	-6	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	290333	-24.25
candium	566573	433501	-23.49
ermanium	161713	127988	-20.85
ndium	1281904	1129581	-11.88
ismuth	1275587	973668	-23.67

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Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547164 Filename : e0913164 Injected : 10-MAY-2005 05:11
andards: 05WS0207

ıalyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ıtimony	55186547001	09-MAY-2005	[0.2283]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0799]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.855700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.8803]	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name : IDF : 1.0
qnum : 55186547176 Filename : e0913176 Injected : 10-MAY-2005 06:21
lnum : 55186547001 Caldate : 09-MAY-2005 Caltype :
andards: S403, 05WS0207

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
luminum	3.6312	0.4688	150.0000	142.6000	ug/L	-5	10	
ntimony	0.2740	0.2225	150.0000	136.2000	ug/L	-9	10	
rsenic	0.3902	0.3706	150.0000	145.7000	ug/L	-3	10	
arium	0.1214	0.0831	150.0000	139.1000	ug/L	-7	10	
eryllium	0.1568	0.1415	150.0000	146.0000	ug/L	-3	10	
admium	0.5642	0.4668	150.0000	158.4000	ug/L	6	10	
alcium	0.0208	0.0159	15000.00	14930.00	ug/L	0	10	
hromium	2.8448	2.0775	150.0000	143.9000	ug/L	-4	10	
obalt	2.8466	2.5922	150.0000	149.2000	ug/L	-1	10	
opper	0.7634	0.6615	150.0000	147.0000	ug/L	-2	10	
ron	0.0759	0.0623	15000.00	14940.00	ug/L	0	10	
ead	0.9225	0.8454	150.0000	143.8000	ug/L	-4	10	
agnesium	0.0608	0.0568	15000.00	14860.00	ug/L	-1	10	
anganese	3.5290	2.9983	150.0000	148.7000	ug/L	-1	10	
olybdenum	0.9099	0.8280	150.0000	151.9000	ug/L	1	10	
ickel	0.6490	0.5492	150.0000	147.0000	ug/L	-2	10	
otassium	0.9426	0.5165	15000.00	14990.00	ug/L	0	10	
elenium	0.0396	0.0247	150.0000	147.2000	ug/L	-2	10	
ilver	2.2896	2.2155	150.0000	157.9000	ug/L	5	10	
odium	0.7893	0.5489	15000.00	14680.00	ug/L	-2	10	
hallium	0.6776	0.7149	150.0000	158.2000	ug/L	5	10	
anadium	2.7524	2.3822	150.0000	147.7000	ug/L	-2	10	
inc	0.8033	0.3834	150.0000	143.6000	ug/L	-4	10	

ISTD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
Lithium	383256	282773	-26.22
Scandium	566573	434472	-23.32
Germanium	161713	127616	-21.08
Indium	1281904	1110413	-13.38
Bismuth	1275587	869999	-31.80

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547178 Filename : e0913178 Injected : 10-MAY-2005 06:33
andards: 05WS0207

ialyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
itimony	55186547001	09-MAY-2005	0.256600	0.250000	ug/L	ib ***
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0781]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	0.907700	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	[0.7570]	1.000000	ug/L	

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?age 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
gnum : 55186547186 Filename : e0913186 Injected : 10-MAY-2005 07:20
andards: S401, 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
ıtimony	55186547001	09-MAY-2005	1.989000	0.250000	ug/L	
:senic	55186547001	09-MAY-2005	0.989200	0.500000	ug/L	
ırium	55186547001	09-MAY-2005	0.727600	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	[0.0237]	0.250000	ug/L	
admium	55186547001	09-MAY-2005	0.365700	0.250000	ug/L	
ıromium	55186547001	09-MAY-2005	1.624000	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	2.991000	0.250000	ug/L	
opper	55186547001	09-MAY-2005	1.871000	0.500000	ug/L	
ead	55186547001	09-MAY-2005	1.225000	0.250000	ug/L	
anganese	55186547001	09-MAY-2005	2.276000	0.250000	ug/L	
ickel	55186547001	09-MAY-2005	1.822000	0.250000	ug/L	
elenium	55186547001	09-MAY-2005	0.993000	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	0.288600	0.250000	ug/L	
hallium	55186547001	09-MAY-2005	[0.0578]	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	[0.6500]	1.000000	ug/L	
inc	55186547001	09-MAY-2005	4.768000	1.000000	ug/L	

SPIKED INTERFERENTS

nalyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
luminum	55186547001	09-MAY-2005	100000	88650	ug/L	89
alcium	55186547001	09-MAY-2005	300000	277800	ug/L	93
ron	55186547001	09-MAY-2005	250000	220600	ug/L	88
agnesium	55186547001	09-MAY-2005	100000	90820	ug/L	91
olybdenum	55186547001	09-MAY-2005	2000	1959	ug/L	98
Potassium	55186547001	09-MAY-2005	100000	93220	ug/L	93
Sodium	55186547001	09-MAY-2005	250000	217200	ug/L	87

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

:tid : MET05 Run Name :
[num : 55186547187 Filename : e0913187 Injected : 10-MAY-2005 07:26
.num : 55186547001 Caldate : 09-MAY-2005 Caltype :
ındards: S402, 05WS0207

alyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	100000.0	91030.00	ug/L	-9		
senic	100.0000	103.0000	ug/L	3	20	
dmium	100.0000	105.6000	ug/L	6	20	
lcium	300000.0	286000.0	ug/L	-5		
ıromium	200.0000	195.5000	ug/L	-2	20	
balt	200.0000	197.1000	ug/L	-1	20	
pper	200.0000	186.4000	ug/L	-7	20	
on	250000.0	223800.0	ug/L	-10		
ıgnesium	100000.0	93160.00	ug/L	-7		
ınganese	200.0000	196.7000	ug/L	-2	20	
olybdenum	2000.000	1995.000	ug/L	0		
ickel	200.0000	188.2000	ug/L	-6	20	
otassium	100000.0	96400.00	ug/L	-4		
elenium	100.0000	97.03000	ug/L	-3	20	
ilver	50.00000	51.53000	ug/L	3	20	
odium	250000.0	222600.0	ug/L	-11		
anadium	200.0000	201.1000	ug/L	1	20	
inc	100.0000	92.34000	ug/L	-8	20	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
candium	566573	407477	-28.08
ermanium	161713	122547	-24.22

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

tid : MET05
num : 55186547189
num : 55186547001
ndards: S400, 05WS0207

Run Name :
Filename : e0913189
Caldate : 09-MAY-2005

IDF : 1.0
Injected : 10-MAY-2005 07:38
Caltype :

alyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
uminum	3.6312	0.5127	100.0000	100.5000	ug/L	1	10	
timony	0.2740	0.2253	100.0000	91.93000	ug/L	-8	10	
senic	0.3902	0.3668	100.0000	96.09000	ug/L	-4	10	
rium	0.1214	0.0850	100.0000	94.77000	ug/L	-5	10	
ryllium	0.1568	0.1390	100.0000	95.53000	ug/L	-4	10	
dmium	0.5642	0.4837	100.0000	109.3000	ug/L	9	10	
lcium	0.0208	0.0162	10000.00	10120.00	ug/L	1	10	
romium	2.8448	2.0567	100.0000	94.82000	ug/L	-5	10	
balt	2.8466	2.4820	100.0000	95.24000	ug/L	-5	10	
pper	0.7634	0.6631	100.0000	98.22000	ug/L	-2	10	
on	0.0759	0.0631	10000.00	10070.00	ug/L	1	10	
ad	0.9225	0.8048	100.0000	91.27000	ug/L	-9	10	
gnesium	0.0608	0.0576	10000.00	10040.00	ug/L	0	10	
nganese	3.5290	2.9534	100.0000	97.63000	ug/L	-2	10	
lybdenum	0.9099	0.8451	100.0000	103.3000	ug/L	3	10	
ickel	0.6490	0.5474	100.0000	97.64000	ug/L	-2	10	
tassium	0.9426	0.5191	10000.00	10000.00	ug/L	0	10	
lenium	0.0396	0.0250	100.0000	99.01000	ug/L	-1	10	
ilver	2.2896	2.2723	100.0000	108.0000	ug/L	8	10	
odium	0.7893	0.5530	10000.00	9845.000	ug/L	-2	10	
hallium	0.6776	0.6745	100.0000	99.47000	ug/L	-1	10	
anadium	2.7524	2.2699	100.0000	93.76000	ug/L	-6	10	
inc	0.8033	0.3931	100.0000	97.78000	ug/L	-2	10	

STD (ICALBLK=e0913003)	ICALBLK Abund	Abund	%Diff
ithium	383256	273038	-28.76
candium	566573	415113	-26.73
ermanium	161713	125004	-22.70
ndium	1281904	1128861	-11.94
ismuth	1275587	1063109	-16.66

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

stid : MET05 Run Name :
qnum : 55186547191 Filename : e0913191 Injected : 10-MAY-2005 07:50
andards: 05WS0207

alyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
luminum	55186547001	09-MAY-2005	ND	50.00000	ug/L	
ntimony	55186547001	09-MAY-2005	[0.1481]	0.250000	ug/L	
rsenic	55186547001	09-MAY-2005	ND	0.500000	ug/L	
arium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
eryllium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
admium	55186547001	09-MAY-2005	ND	0.250000	ug/L	
alcium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hromium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
obalt	55186547001	09-MAY-2005	ND	0.250000	ug/L	
opper	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ron	55186547001	09-MAY-2005	[11.110]	50.00000	ug/L	
ead	55186547001	09-MAY-2005	[0.0886]	0.250000	ug/L	
agnesium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
anganese	55186547001	09-MAY-2005	1.281000	0.250000	ug/L	ib ***
olybdenum	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ickel	55186547001	09-MAY-2005	ND	0.250000	ug/L	
otassium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
elenium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
ilver	55186547001	09-MAY-2005	ND	0.250000	ug/L	
odium	55186547001	09-MAY-2005	ND	50.00000	ug/L	
hallium	55186547001	09-MAY-2005	ND	0.500000	ug/L	
anadium	55186547001	09-MAY-2005	ND	1.000000	ug/L	
inc	55186547001	09-MAY-2005	1.070000	1.000000	ug/L	ib ***

.b=instrument blank
age 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55188356 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1019001	TUN	tune			10-MAY-2005 19:16	1.0	1.0				1	
003	e1019003	ICALBLK	std-blk			10-MAY-2005 19:27	1.0	1.0				2	
004	e1019004	ICAL	cs1			10-MAY-2005 19:32	1.0	1.0				3	
005	e1019005	ICAL	cs2			10-MAY-2005 19:37	1.0	1.0				4	
006	e1019006	ICAL	cs3			10-MAY-2005 19:42	1.0	1.0				5	
007	e1019007	ICAL	cs4			10-MAY-2005 19:47	1.0	1.0				6	
008	e1019008	ICAL	cs5			10-MAY-2005 19:53	1.0	1.0				7	
009	e1019009	ICAL	cs6			10-MAY-2005 19:58	1.0	1.0				8	
010	e1019010	ICV				10-MAY-2005 20:03	1.0	1.0			1	9	
012	e1019012	ICB				10-MAY-2005 20:14	1.0	1.0	1		1	2	
013	e1019013	ICSA				10-MAY-2005 20:20	1.0	1.0			1	10 2	7:CA=292800
014	e1019014	ICSAB				10-MAY-2005 20:26	1.0	1.0			1	11 2	10:CA=291200
016	e1019016	BLANK	QC292252	101627	Soil	10-MAY-2005 20:38	5.0	50.0	1		1	2	
017	e1019017	BS	QC292253	101627	Soil	10-MAY-2005 20:44	5.0	50.0	1	1	1	2	
018	e1019018	BSD	QC292254	101627	Soil	10-MAY-2005 20:50	5.0	50.0	1	1	1	2	
019	e1019019	MSS	179182-001	101627	Soil	10-MAY-2005 20:55	5.0	54.95	6		1	2	6:FE=66380.0
020	e1019020	SER	QC292257	101627	Soil	10-MAY-2005 21:01	25.0	54.95		7	1	2	2:AL=6224.00
021	e1019021	MS	QC292255	101627	Soil	10-MAY-2005 21:07	5.0	47.62	5	1	1	2	8:FE=79740.0
022	e1019022	MSD	QC292256	101627	Soil	10-MAY-2005 21:13	5.0	44.64	5	1	1	2	8:FE=94280.0
023	e1019023	PDS	QC292258	101627	Soil	10-MAY-2005 21:18	5.0	54.95	2	11	1	12	8:FE=69000.0
026	e1019026	CCV				10-MAY-2005 21:36	1.0	1.0	1		1	13	
027	e1019027	X	rinse			10-MAY-2005 21:42	1.0					2	
028	e1019028	CCB				10-MAY-2005 21:48	1.0	1.0	1		1	2	
029	e1019029	MSS	179182-001	101627	Soil	10-MAY-2005 21:54	500.0	54.95	1		1	2	1:AL=280.400
030	e1019030	SAMPLE	179182-002	101627	Soil	10-MAY-2005 21:59	5.0	49.02	3		1	2	6:FE=101620
031	e1019031	SAMPLE	179182-003	101627	Soil	10-MAY-2005 22:05	5.0	48.54	5		1	2	9:FE=75840.0
032	e1019032	SAMPLE	179182-003	101627	Soil	10-MAY-2005 22:11	50.0	48.54			1	2	1:AL=3318.00
033	e1019033	SAMPLE	179167-001	101627	Soil	10-MAY-2005 22:17	5.0	46.30	4		1	2	6:FE=66920.0
034	e1019034	SAMPLE	179167-001	101627	Soil	10-MAY-2005 22:23	10.0	46.30	2		1	2	4:FE=37800.0
036	e1019036	CCV				10-MAY-2005 22:34	1.0	1.0	1		1	14	
037	e1019037	X	rinse	101595		10-MAY-2005 22:40	1.0					2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=S403 14=S400 15=S21

Analyst: _____ Date: 5/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55188356 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
038	e1019038	CCB				10-MAY-2005 22:46	1.0	1.0			1	2	
039	e1019039	ICSA				10-MAY-2005 22:52	1.0	1.0			1	10 2	7:CA=289800
040	e1019040	ICSAB				10-MAY-2005 22:57	1.0	1.0			1	11 2	10:CA=294600
041	e1019041	X	rinse	101595		10-MAY-2005 23:03	1.0					2	
042	e1019042	BLANK	QC292421	101672	Water	10-MAY-2005 23:09	1.0	1.0	1		1	2	
043	e1019043	BS	QC292422	101672	Water	10-MAY-2005 23:15	1.0	1.0	1		1	2	
044	e1019044	BSD	QC292423	101672	Water	10-MAY-2005 23:21	1.0	1.0	1		1	2	
045	e1019045	MSS	179188-001	101672	Water	10-MAY-2005 23:27	1.0	1.0	2		1	2	1:CA=21390.0
046	e1019046	SER	QC292426	101672	Water	10-MAY-2005 23:33	5.0	1.0		1	1	2	
047	e1019047	MS	QC292424	101672	Water	10-MAY-2005 23:38	1.0	1.0	2	1	1	2	3:CA=30500.0
048	e1019048	MSD	QC292425	101672	Water	10-MAY-2005 23:44	1.0	1.0	2	1	1	2	3:CA=31200.0
049	e1019049	PDS	QC292427	101672	Water	10-MAY-2005 23:50	1.0	1.0	2	1	1	15	3:CA=30640.0
052	e1019052	CCV				11-MAY-2005 00:08	1.0	1.0	1		1	13	
053	e1019053	X	rinse			11-MAY-2005 00:13	1.0					2	
054	e1019054	CCB				11-MAY-2005 00:19	1.0	1.0	1		1	2	
055	e1019055	SAMPLE	179188-002	101672	Water	11-MAY-2005 00:25	1.0	1.0	1		1	2	
057	e1019057	SAMPLE	179188-004	101672	Water	11-MAY-2005 00:37	1.0	1.0	4		1	2	3:CA=42210.0
058	e1019058	SAMPLE	179188-005	101672	Water	11-MAY-2005 00:43	1.0	1.0	2		1	2	1:CA=23270.0
059	e1019059	SAMPLE	179188-006	101672	Water	11-MAY-2005 00:49	1.0	1.0	1		1	2	
060	e1019060	SAMPLE	179188-007	101672	Water	11-MAY-2005 00:55	1.0	1.0	2		1	2	1:CA=23280.0
061	e1019061	SAMPLE	179188-008	101672	Water	11-MAY-2005 01:01	1.0	1.0	1		1	2	
062	e1019062	SAMPLE	179188-009	101672	Water	11-MAY-2005 01:06	1.0	1.0	1		1	2	
063	e1019063	SAMPLE	179188-010	101672	Water	11-MAY-2005 01:12	1.0	1.0	2		1	2	1:NI=250.000
064	e1019064	SAMPLE	179188-011	101672	Water	11-MAY-2005 01:18	1.0	1.0	1		1	2	
065	e1019065	SAMPLE	179188-012	101672	Water	11-MAY-2005 01:24	1.0	1.0	2		1	2	1:CA=23250.0
068	e1019068	CCV				11-MAY-2005 01:42	1.0	1.0	1		1	13	
069	e1019069	X	rinse			11-MAY-2005 01:47	1.0					2	
070	e1019070	CCB				11-MAY-2005 01:53	1.0	1.0	1		1	2	
071	e1019071	SAMPLE	179188-013	101672	Water	11-MAY-2005 01:59	1.0	1.0	1		1	2	
072	e1019072	SAMPLE	179188-014	101672	Water	11-MAY-2005 02:05	1.0	1.0	1		1	2	
073	e1019073	SAMPLE	179188-015	101672	Water	11-MAY-2005 02:11	1.0	1.0	4		1	2	3:CA=29880.0

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=S403 14=S400 15=S21

Analyst: _____ Date: _____

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55188356 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
074	e1019074	SAMPLE	179188-016	101672	Water	11-MAY-2005 02:17	1.0	1.0	1		1	2	
075	e1019075	SAMPLE	179188-017	101672	Water	11-MAY-2005 02:23	1.0	1.0	2		1	2	1:CA=23380.0
076	e1019076	SAMPLE	179188-018	101672	Water	11-MAY-2005 02:29	1.0	1.0	2		1	2	1:CA=21460.0
077	e1019077	BLANK	QC292432	101674	Water	11-MAY-2005 02:35	1.0	1.0			1	2	
078	e1019078	BS	QC292433	101674	Water	11-MAY-2005 02:41	1.0	1.0	1		1	2	
079	e1019079	BSD	QC292434	101674	Water	11-MAY-2005 02:47	1.0	1.0	1		1	2	
080	e1019080	MSS	179188-019	101674	Water	11-MAY-2005 02:53	1.0	1.0	3		1	2	2:CA=20530.0
083	e1019083	CCV				11-MAY-2005 03:10	1.0	1.0	1		1	13	
084	e1019084	X	rinse			11-MAY-2005 03:16	1.0					2	
085	e1019085	CCB				11-MAY-2005 03:22	1.0	1.0	1		1	2	
086	e1019086	SER	QC292437	101674	Water	11-MAY-2005 03:28	5.0	1.0		1	1	2	
087	e1019087	MS	QC292435	101674	Water	11-MAY-2005 03:34	1.0	1.0	1	1	1	2	3:CA=29680.0
088	e1019088	MSD	QC292436	101674	Water	11-MAY-2005 03:40	1.0	1.0	1		1	2	3:CA=29730.0
089	e1019089	PDS	QC292438	101674	Water	11-MAY-2005 03:46	1.0	1.0	1	1	1	15	3:CA=29770.0
090	e1019090	SAMPLE	179188-020	101674	Water	11-MAY-2005 03:51	1.0	1.0	1		1	2	
091	e1019091	SAMPLE	179188-021	101674	Water	11-MAY-2005 03:57	1.0	1.0	1		1	2	
092	e1019092	SAMPLE	179188-022	101674	Water	11-MAY-2005 04:03	1.0	1.0	1		1	2	
093	e1019093	SAMPLE	179188-023	101674	Water	11-MAY-2005 04:09	1.0	1.0	1		1	2	
094	e1019094	SAMPLE	179188-024	101674	Water	11-MAY-2005 04:15	1.0	1.0	4		1	2	3:CA=29810.0
095	e1019095	SAMPLE	179188-025	101674	Water	11-MAY-2005 04:21	1.0	1.0	2		1	2	1:CA=21400.0
098	e1019098	CCV				11-MAY-2005 04:39	1.0	1.0	1		1	13	
099	e1019099	X	rinse			11-MAY-2005 04:44	1.0					2	
100	e1019100	CCB				11-MAY-2005 04:50	1.0	1.0	1		1	2	
101	e1019101	SAMPLE	179188-026	101674	Water	11-MAY-2005 04:56	1.0	1.0	1		1	2	
102	e1019102	SAMPLE	179188-027	101674	Water	11-MAY-2005 05:02	1.0	1.0	1		1	2	
103	e1019103	SAMPLE	179188-028	101674	Water	11-MAY-2005 05:08	1.0	1.0	4		1	2	3:CA=34870.0
104	e1019104	SAMPLE	179188-029	101674	Water	11-MAY-2005 05:14	1.0	1.0	4		1	2	3:CA=40380.0
105	e1019105	SAMPLE	179188-030	101674	Water	11-MAY-2005 05:20	1.0	1.0	3		1	2	2:CA=31750.0
106	e1019106	SAMPLE	179188-031	101674	Water	11-MAY-2005 05:26	1.0	1.0	1		1	2	
107	e1019107	SAMPLE	179188-032	101674	Water	11-MAY-2005 05:32	1.0	1.0	1		1	2	
108	e1019108	SAMPLE	179188-033	101674	Water	11-MAY-2005 05:38	1.0	1.0	1		1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=S403 14=S400 15=S21

Analyst: [signature] Date: 5/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55188356 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
109	e1019109	SAMPLE	179188-034	101674	Water	11-MAY-2005 05:44	1.0	1.0	1		1	2	
110	e1019110	SAMPLE	179188-035	101674	Water	11-MAY-2005 05:50	1.0	1.0	1		1	2	
113	e1019113	CCV				11-MAY-2005 06:07	1.0	1.0	1		1	13	
114	e1019114	X	rinse			11-MAY-2005 06:13	1.0					2	
115	e1019115	CCB				11-MAY-2005 06:19	1.0	1.0	1		1	2	
116	e1019116	SAMPLE	179188-036	101674	Water	11-MAY-2005 06:25	1.0	1.0	3		1	2	2:CA=28830.0
117	e1019117	SAMPLE	179188-037	101674	Water	11-MAY-2005 06:31	1.0	1.0	1		1	2	
120	e1019120	CCV				11-MAY-2005 06:48	1.0	1.0	1		1	14	
121	e1019121	X	rinse	101595		11-MAY-2005 06:54	1.0					2	
122	e1019122	CCB				11-MAY-2005 07:00	1.0	1.0			1	2	
123	e1019123	TUN	tune			11-MAY-2005 07:06	1.0	1.0				1	
124	e1019124	ICSA				11-MAY-2005 07:11	1.0	1.0			1	10 2	7:CA=284100
125	e1019125	ICSAB				11-MAY-2005 07:16	1.0	1.0			1	11 2	10:CA=289300
127	e1019127	BLANK	QC292583	101712	Filtra	11-MAY-2005 07:28	1.0	1.0	1		1	2	
128	e1019128	BS	QC292584	101712	Filtra	11-MAY-2005 07:34	1.0	1.0	1		1	2	
129	e1019129	BSD	QC292585	101712	Filtra	11-MAY-2005 07:40	1.0	1.0	1		1	2	
131	e1019131	MSS	179160-003	101712	Filtra	11-MAY-2005 07:52	1.0	1.0	3		1	2	3:CA=144100
132	e1019132	SER	QC292588	101712	Filtra	11-MAY-2005 07:57	5.0	1.0	1	1	1	2	2:CA=29140.0
133	e1019133	MS	QC292586	101712	Filtra	11-MAY-2005 08:03	1.0	1.0	2		1	2	4:CA=155000
134	e1019134	MSD	QC292587	101712	Filtra	11-MAY-2005 08:09	1.0	1.0	2		1	2	4:CA=152400
135	e1019135	PDS	QC292589	101712	Filtra	11-MAY-2005 08:15	1.0	1.0	2		1	15	4:CA=150400
138	e1019138	CCV				11-MAY-2005 08:32	1.0	1.0	1		1	13	
139	e1019139	X	rinse			11-MAY-2005 08:38	1.0					2	
140	e1019140	CCB				11-MAY-2005 08:44	1.0	1.0	1		1	2	
141	e1019141	X	rinse	101595		11-MAY-2005 08:50	1.0					2	
142	e1019142	SAMPLE	179160-001	101712	Filtra	11-MAY-2005 08:56	1.0	1.0			1	2	3:NA=264300
143	e1019143	SAMPLE	179160-002	101712	Filtra	11-MAY-2005 09:02	1.0	1.0			1	2	4:CA=109400
144	e1019144	SAMPLE	179160-004	101712	Filtra	11-MAY-2005 09:08	1.0	1.0			1	2	2:NA=157200
150	e1019150	ICSAB				11-MAY-2005 09:43	1.0	1.0			1	11 2	10:CA=290400
151	e1019151	X	rinse	101595		11-MAY-2005 09:49	1.0					2	
152	e1019152	ICSA				11-MAY-2005 09:55	1.0	1.0			1	10 2	7:CA=289600

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=S403 14=S400 15=S21

Analyst: _____ Date: 5/10/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55188356 Instrument: MET05 Agilent ICP-MS Begun: 10-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
154	e1019154	SAMPLE	179188-003	101672	Water	11-MAY-2005 10:07	1.0	1.0	4	1	2	3:CA=30290.0
155	e1019155	SAMPLE	179188-010	101672	Water	11-MAY-2005 10:13	2.0	1.0	1	1	2	
156	e1019156	SAMPLE	179196-001	101712	Water	11-MAY-2005 10:19	1.0	1.0		1	2	3:NA=155200
157	e1019157	SAMPLE	179196-002	101712	Water	11-MAY-2005 10:25	1.0	1.0		1	2	3:NA=159000
158	e1019158	X	RINSE	101712		11-MAY-2005 10:31	1.0				2	
159	e1019159	CCV				11-MAY-2005 10:37	1.0	1.0	1	1	14 2	
160	e1019160	X	RINSE	101712		11-MAY-2005 10:42	1.0				2	
161	e1019161	CCB				11-MAY-2005 10:48	1.0				2	

236

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=S403 14=S400 15=S21

Analyst: _____ Date: 5/10/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55188356001 Name: Type: (normal) Date: 10-MAY-2005 19:27 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1019004	55188356004	cs1	10-MAY-2005 19:32	S395
2	e1019005	55188356005	cs2	10-MAY-2005 19:37	S396
3	e1019006	55188356006	cs3	10-MAY-2005 19:42	S397
4	e1019007	55188356007	cs4	10-MAY-2005 19:47	S398
5	e1019008	55188356008	cs5	10-MAY-2005 19:53	S393
6	e1019009	55188356009	cs6	10-MAY-2005 19:58	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		4.4125	2.1482	1.2698	0.5169	0.4698	BLNK	R	-4.04536	2.131838		ug/L	1.7634	**0.992**	0.995	r2 ***
Antimony	0.2616	0.2340	0.2215	0.2148	0.2187	0.2157	BLNK	R	-0.05041	4.625546		ug/L	0.2277	1.000	0.995	
Arsenic		0.4348	0.3828	0.3681	0.3599	0.3486	BLNK	R	-0.04539	2.850565		ug/L	0.3789	1.000	0.995	
Barium	0.1305	0.1092	0.0917	0.0817	0.0820	0.0811	BLNK	R	-0.13812	12.31829		ug/L	0.0960	1.000	0.995	
Beryllium	0.1299	0.1390	0.1350	0.1321	0.1302	0.1291	BLNK	R	-0.01931	7.734846		ug/L	0.1325	1.000	0.995	
Cadmium	0.7109	0.5752	0.5257	0.4545	0.4288	0.4147	BLNK	R	-0.14660	2.396665		ug/L	0.5183	1.000	0.995	
Calcium		0.0234	0.0202	0.0168	0.0162	0.0155	BLNK	R	-22.0747	64.11131		ug/L	0.0184	0.999	0.995	
Chromium		4.4609	3.1779	2.3141	2.1941	2.0995	BLNK	R	-0.50075	0.473421		ug/L	2.8493	1.000	0.995	
Cobalt	2.6388	2.8450	2.7047	2.6670	2.6512	2.5201	BLNK	R	-0.01922	0.392729		ug/L	2.6711	0.999	0.995	
Copper		0.8836	0.7694	0.7093	0.6792	0.6491	BLNK	R	-0.09933	1.527054		ug/L	0.7381	0.999	0.995	
Iron		0.1012	0.0806	0.0658	0.0617	0.0584	BLNK	R	-35.2560	16.95581		ug/L	0.0735	0.999	0.995	
Lead	0.9019	0.8970	0.8423	0.8225	0.8309	0.8215	BLNK	R	-0.04083	1.214862		ug/L	0.8527	1.000	0.995	
Magnesium		0.0610	0.0592	0.0635	0.0581	0.0559	BLNK	R	-2.77925	17.76027		ug/L	0.0595	1.000	0.995	
Manganese	4.6974	3.8486	3.2497	3.0309	2.9705	2.8078	BLNK	R	-0.13524	0.352319		ug/L	3.4341	0.999	0.995	
Molybdenum		0.9086	0.8421	0.8216	0.7923	0.7754	BLNK	R	-0.10012	1.284701		ug/L	0.8280	1.000	0.995	
Nickel	0.6964	0.6681	0.6344	0.6000	0.5664	0.5447	BLNK	R	-0.05339	1.821581		ug/L	0.6183	1.000	0.995	
Potassium		1.8424	1.1884	0.6161	0.5334	0.5132	BLNK	R	-123.283	1.947246		ug/L	0.9387	1.000	0.995	
Selenium		0.0790	0.0545	0.0278	0.0248	0.0238	BLNK	R	-1.17819	41.97336		ug/L	0.0420	1.000	0.995	
Silver	2.1440	2.2552	2.1712	2.1507	2.0623	2.0141	BLNK	R	-0.01840	0.494131		ug/L	2.1329	1.000	0.995	

237

Flags used: r2=ICAL r^2 failure

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55188356001 Name: Type: (normal) Date: 10-MAY-2005 19:27 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Sodium		0.6569	0.6553	0.5880	0.5403	0.5198	BLNK	R	-11.3229	1.909724		ug/L	0.5920	1.000	0.995	
Thallium		0.6347	0.5906	0.5993	0.6591	0.6474	BLNK	R	-0.04106	1.539621		ug/L	0.6262	1.000	0.995	
Vanadium		3.6255	2.8635	2.5233	2.5089	2.4193	BLNK	R	-0.23475	0.410869		ug/L	2.7881	1.000	0.995	
Zinc		1.4922	1.3149	0.4299	0.3711	0.3475	BLNK	R	-1.32313	2.860793		ug/L	0.7911	0.999	0.995	

238

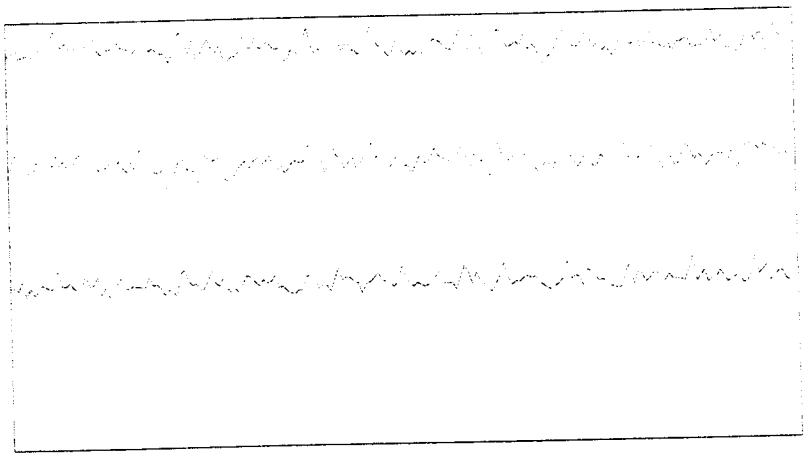
Flags used: r2=ICAL r^2 failure

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



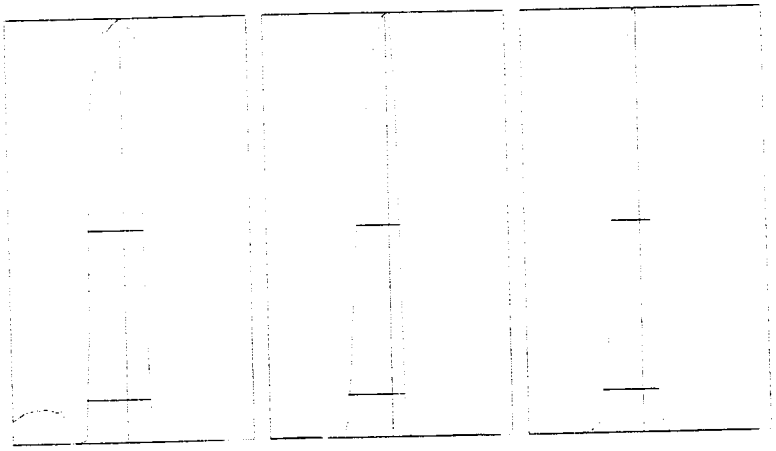
m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	18,256	46,074	65,738
Mean:	19091.0	46502.0	66216.5
RSD%:	4.00	1.97	2.80
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.38%
Doubly Charged:	70/140	0.69%

Background:

m/z:	7	89	205
Cps:	17.5	15.0	21.0



m/z:	7	89	205
Height:	19,050	46,889	75,835
Axis:	6.95	89.05	204.95
W-50%:	0.70	0.55	0.50
W-10%:	0.800	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===

RF Power:	1240 W
RF Matching:	1.7 V
Smpl Depth:	8 mm
Torch-H:	-0.2 mm
Torch-V:	-0.1 mm
Carrier Gas:	1.05 L/min
Makeup Gas:	0 L/min
Optional Gas:	--- %
PeriPump1:	0.1 rps
PeriPump2:	--- rps
S/C Temp:	2 degC

===Ion Lenses===

Extract 1:	-137 V
Extract 2:	-111 V
Einzel 1,3:	-100 V
Einzel 2:	-1 V
Omega Bias:	-38 V
Omega (+):	-2 V
Omega (-):	3 V
QP Focus:	5 V
Plate Bias:	-5 V

===Q-Pole Parameters===

AMU Gain:	130
AMU Offset:	126
Axis Gain:	1.0002
Axis Offset:	-0.01
QP Bias:	0 V

===Detector Parameters===

Discriminator:	9 mV
Analog HV:	2060 V
Pulse HV:	1820 V

Generated : May 10, 2005 10:16:54
Printed : May 10, 2005 10:17:00

Temp.p$$

P/A Factor Tuning Report

Acquired:May 10 2005 10:54 am

Mass[amu]	Element	P/A Factor
6	Li	0.065328
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086211
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096429
45	Sc	0.092462
51	V	0.096363
52	Cr	0.098525
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100421
57	Fe	0.103034
59	Co	0.103706
60	Ni	Sensitivity too low
63	Cu	0.106752
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105166
95	Mo	Sensitivity too low
98	Mo	0.103164
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112480
111	Cd	Sensitivity too low
114	Cd	0.110373
115	In	0.113433
118	(In)	0.111893
121	Sb	0.111500
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118093
166	Er	Sensitivity too low

205	Tl	0.124899
206	(Pb)	0.121288
207	(Pb)	0.120314
208	Pb	0.123932
209	Bi	0.123651
232	Th	0.124893
238	U	0.125077

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 10 2005 11:04 am

Mass[amu]	Element	P/A Factor
6	Li	0.065273
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086619
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097059
45	Sc	0.092805
51	V	0.096569
52	Cr	0.098962
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100792
57	Fe	0.103564
59	Co	0.104107
60	Ni	Sensitivity too low
63	Cu	0.107010
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105253
95	Mo	0.101878
98	Mo	0.103856
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113070
111	Cd	Sensitivity too low
114	Cd	0.110939
115	In	0.113128
118	(In)	0.109043
121	Sb	0.111760
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117772
166	Er	Sensitivity too low

205	Tl	0.125493
206	(Pb)	0.121742
207	(Pb)	0.120976
208	Pb	0.123902
209	Bi	0.123656
232	Th	0.125815
238	U	0.125933

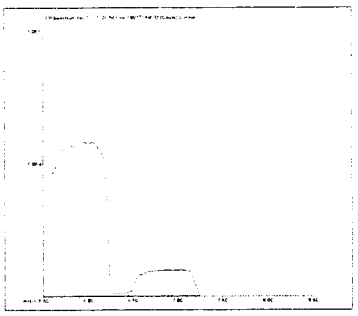
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

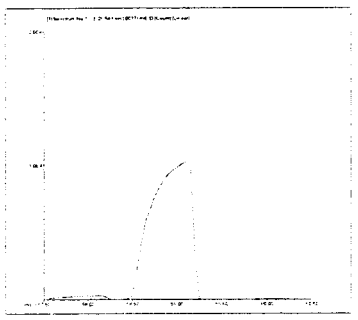
Data File: C:\ICPCHEM\1\DATA\05E1019a.B\001TUNE.D
Date Acquired: May 10 2005 07:16 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

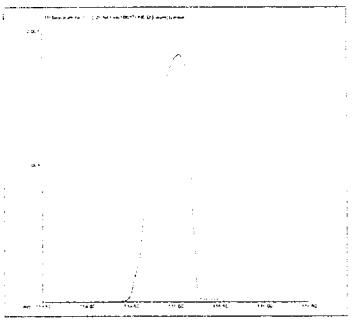
Element	Actual	Required	Flag
7 Li	0.81	5.00	
59 Co	1.88	5.00	
115 In	1.14	5.00	
205 Tl	2.04	5.00	



7 Li
Mass Calib.
Actual: 6.90
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

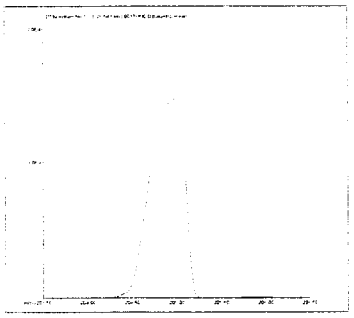


115 In
Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl
Mass Calib.

Actual:	204.95	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 10 2005 07:21 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 10 2005 01:34 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.006438	ppb	127.49	0.006438	1.00	
23 Na	-8.504	ppb	7.22	-8.504	1.00	
26 Mg	0.5824	ppb	24.98	0.5824	1.00	
27 Al	-0.1465	ppb	115.43	-0.1465	1.00	
39 K	0.2575	ppb	2312.60	0.2575	1.00	
44 Ca	-2.243	ppb	26.76	-2.243	1.00	
51 V	0.05325	ppb	41.92	0.05325	1.00	
52 Cr	0.0171	ppb	215.38	0.0171	1.00	
55 Mn	-0.1466	ppb	3.24	-0.1466	1.00	
57 Fe	3.624	ppb	27.20	3.624	1.00	
59 Co	0.007909	ppb	27.21	0.007909	1.00	
60 Ni	0.02987	ppb	32.04	0.02987	1.00	
65 Cu	0.01826	ppb	29.26	0.01826	1.00	
66 Zn	-0.2772	ppb	21.46	-0.2772	1.00	
75 As	0.008457	ppb	1143.10	0.008457	1.00	
82 Se	0.3148	ppb	45.24	0.3148	1.00	
95 Mo	-0.01498	ppb	86.18	-0.01498	1.00	
109 Ag	0.003596	ppb	57.93	0.003596	1.00	
111 Cd	-0.01232	ppb	101.95	-0.01232	1.00	
121 Sb	-0.006849	ppb	187.47	-0.006849	1.00	
137 Ba	0.009813	ppb	73.57	0.009813	1.00	
205 Tl	0.06136	ppb	11.09	0.06136	1.00	
208 Pb	-0.02891	ppb	10.03	-0.02891	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	609754.94	2.71	---	#VALUE!	30 - 200	
45 Sc	812533.38	4.53	---	#VALUE!	30 - 200	
72 Ge	202740.23	3.10	---	#VALUE!	30 - 200	

115 In	1731916.50	3.77	---	#VALUE!	30 - 200
209 Bi	1336490.60	3.96	---	#VALUE!	30 - 200

ISTD Ref File : ---

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\003CAL
Date Acquired: May 10 2005 07:27 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 01:34 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	578666.19	A	2867.00	0.50
9	Be	28.89	P	5.09	17.63
23	Na	85850.00	P	1762.00	2.05
26	Mg	2266.67	P	227.00	10.02
27	Al	27477.78	P	945.60	3.44
39	K	916679.50	A	13190.00	1.44
44	Ca	4985.79	P	204.30	4.10
45	Sc	723930.00	P	4949.00	0.68
51	V	2166.27	P	403.10	18.61
52	Cr	4010.00	P	205.40	5.12
55	Mn	1455.56	P	118.00	8.11
57	Fe	7882.22	P	113.60	1.44
59	Co	185.56	P	6.94	3.74
60	Ni	111.11	P	10.18	9.16
65	Cu	246.66	P	26.03	10.55
66	Zn	1753.35	P	32.83	1.87
72	Ge	189539.30	P	1179.00	0.62
75	As	60.45	P	37.81	62.55
82	Se	106.48	P	21.67	20.35
95	Mo	295.56	P	42.99	14.55
109	Ag	141.11	P	18.95	13.43
111	Cd	231.87	P	4.58	1.97
115	In	1595505.00	A	7641.00	0.48
121	Sb	347.78	P	55.81	16.05
137	Ba	357.78	P	3.85	1.08
205	Tl	673.33	P	33.33	4.95
208	Pb	848.89	P	70.11	8.26
209	Bi	1262195.00	A	14470.00	1.15
232	Th	755.56	P	21.69	2.87
238	U	217.78	P	22.69	10.42

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\004CALI.D\004CALI.D#
Date Acquired: May 10 2005 07:32 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:28 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	593431.88	A	6390.00	1.08
9 Be	385.56	P	45.26	11.74
23 Na	291150.00	P	2720.00	0.93
26 Mg	23920.00	P	235.50	0.98
27 Al	37001.11	P	785.80	2.12
39 K	1140691.00	A	14920.00	1.31
44 Ca	11237.96	P	54.53	0.49
45 Sc	749075.50	P	7145.00	0.95
51 V	4011.21	P	635.50	15.84
52 Cr	6287.78	P	195.00	3.10
55 Mn	4607.78	P	23.65	0.51
57 Fe	14418.89	P	126.20	0.88
59 Co	2588.89	P	180.00	6.95
60 Ni	683.33	P	43.72	6.40
65 Cu	863.23	P	49.10	5.69
66 Zn	2245.68	P	8.39	0.37
72 Ge	196187.80	P	1421.00	0.72
75 As	567.48	P	215.60	37.99
82 Se	126.84	P	37.72	29.74
95 Mo	1071.11	P	79.54	7.43
109 Ag	2103.33	P	74.46	3.54
111 Cd	697.67	P	66.62	9.55
115 In	1636215.00	A	22410.00	1.37
121 Sb	2140.00	P	49.10	2.29
137 Ba	1067.78	P	22.69	2.13
205 Tl	4013.33	P	398.80	9.94
208 Pb	5810.00	P	200.90	3.46
209 Bi	1288833.00	A	39430.00	3.06
232 Th	1845.56	P	80.02	4.34
238 U	4826.67	P	231.80	4.80

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	593431.88	1.08	578666.25	102.6	30 - 200	
45 Sc	749075.56	0.95	723930.00	103.5	30 - 200	
72 Ge	196187.77	0.72	189539.33	103.5	30 - 200	
115 In	1636214.90	1.37	1595504.50	102.6	30 - 200	
209 Bi	1288832.50	3.06	1262195.50	102.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\005CALI.D\005CALI.D#
Date Acquired: May 10 2005 07:37 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:34 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	575857.88	A	4475.00	0.78
9 Be	800.00	P	68.88	8.61
23 Na	479445.59	P	2419.00	0.50
26 Mg	44535.55	P	195.70	0.44
27 Al	32203.33	P	494.30	1.53
39 K	1344670.00	A	13200.00	0.98
44 Ca	17048.27	P	400.50	2.35
45 Sc	729854.38	P	2688.00	0.37
51 V	6988.36	P	745.70	10.67
52 Cr	8597.78	P	21.69	0.25
55 Mn	7417.78	P	63.01	0.85
57 Fe	19500.00	P	201.30	1.03
59 Co	5483.33	P	56.08	1.02
60 Ni	1287.78	P	23.65	1.84
65 Cu	1703.15	P	77.53	4.55
66 Zn	2875.78	P	146.70	5.10
72 Ge	192735.80	P	617.90	0.32
75 As	837.68	P	146.30	17.47
82 Se	152.33	P	3.83	2.51
95 Mo	1751.11	P	124.80	7.13
109 Ag	4346.67	P	61.73	1.42
111 Cd	1108.42	P	67.03	6.05
115 In	1592918.00	A	27250.00	1.71
121 Sb	3728.89	P	159.00	4.26
137 Ba	1738.89	P	46.83	2.69
205 Tl	7900.00	P	483.40	6.12
208 Pb	11161.11	P	152.00	1.36
209 Bi	1244419.00	A	13600.00	1.09
232 Th	3103.33	P	111.00	3.58
238 U	9626.67	P	352.50	3.66

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	575857.94	0.78	578666.25	99.5	30 - 200	
45 Sc	729854.38	0.37	723930.00	100.8	30 - 200	
72 Ge	192735.77	0.32	189539.33	101.7	30 - 200	
115 In	1592917.50	1.71	1595504.50	99.8	30 - 200	
209 Bi	1244418.60	1.09	1262195.50	98.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\006CALI.D\006CALI.D#
Date Acquired: May 10 2005 07:42 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:39 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	572238.81	A	1257.00	0.22
9 Be	1544.44	P	94.54	6.12
23 Na	958586.13	A	743.80	0.08
26 Mg	86644.44	P	1080.00	1.25
27 Al	31425.56	P	631.80	2.01
39 K	1738454.00	A	15800.00	0.91
44 Ca	29570.10	P	568.60	1.92
45 Sc	731427.69	P	2709.00	0.37
51 V	11046.49	P	1059.00	9.59
52 Cr	12261.11	P	144.30	1.18
55 Mn	12537.78	P	89.83	0.72
57 Fe	31078.89	P	97.89	0.31
59 Co	10435.56	P	438.20	4.20
60 Ni	2447.78	P	103.00	4.21
65 Cu	2968.53	P	159.90	5.39
66 Zn	5072.65	P	224.20	4.42
72 Ge	192909.59	P	511.60	0.27
75 As	1477.07	P	76.96	5.21
82 Se	210.37	P	23.00	10.93
95 Mo	3248.89	P	31.68	0.98
109 Ag	8376.67	P	86.22	1.03
111 Cd	2028.34	P	97.75	4.82
115 In	1607429.00	A	31360.00	1.95
121 Sb	7116.67	P	240.10	3.37
137 Ba	2947.78	P	86.43	2.93
205 Tl	14940.00	P	486.10	3.25
208 Pb	21306.67	P	449.40	2.11
209 Bi	1264629.00	A	12400.00	0.98
232 Th	6416.67	P	391.60	6.10
238 U	19387.78	P	727.40	3.75

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	572238.75	0.22	578666.25	98.9	30 - 200	
45 Sc	731427.75	0.37	723930.00	101.0	30 - 200	
72 Ge	192909.56	0.27	189539.33	101.8	30 - 200	
115 In	1607428.60	1.95	1595504.50	100.7	30 - 200	
209 Bi	1264628.90	0.98	1262195.50	100.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\007CALI.D\007CALI.D#
Date Acquired: May 10 2005 07:47 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:44 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	587516.13	A	4289.00	0.73
9 Be	15525.55	P	388.60	2.50
23 Na	8742477.00	A	89150.00	1.02
26 Mg	944885.63	A	9196.00	0.97
27 Al	188803.30	P	1996.00	1.06
39 K	9161494.00	A	74600.00	0.81
44 Ca	249206.41	P	2845.00	1.14
45 Sc	743488.88	P	10110.00	1.36
51 V	98539.22	P	893.90	0.91
52 Cr	90374.44	P	1328.00	1.47
55 Mn	118362.20	P	1474.00	1.25
57 Fe	256807.80	P	3142.00	1.22
59 Co	104161.10	P	2171.00	2.08
60 Ni	23431.11	P	443.10	1.89
65 Cu	27700.48	P	631.00	2.28
66 Zn	16785.84	P	267.60	1.59
72 Ge	195266.20	P	2446.00	1.25
75 As	14376.26	P	220.30	1.53
82 Se	1085.91	P	4.33	0.40
95 Mo	32084.44	P	447.10	1.39
109 Ag	83995.55	P	1394.00	1.66
111 Cd	17750.70	P	137.10	0.77
115 In	1614138.00	A	33530.00	2.08
121 Sb	69337.78	P	861.80	1.24
137 Ba	26358.89	P	295.30	1.12
205 Tl	150375.59	P	3145.00	2.09
208 Pb	206326.70	P	2295.00	1.11
209 Bi	1254508.00	A	24590.00	1.96
232 Th	79218.88	P	1040.00	1.31
238 U	190441.09	P	2871.00	1.51

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	587516.06	0.73	578666.25	101.5	30 - 200	
45 Sc	743488.88	1.36	723930.00	102.7	30 - 200	
72 Ge	195266.23	1.25	189539.33	103.0	30 - 200	
115 In	1614138.00	2.08	1595504.50	101.2	30 - 200	
209 Bi	1254508.00	1.96	1262195.50	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\008CALI.D\008CALI.D#
Date Acquired: May 10 2005 07:53 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:49 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	597711.50	A	4249.00	0.71
9 Be	155598.91	P	2047.00	1.32
23 Na	82706480.00	A	880100.00	1.06
26 Mg	8886398.00	A	57630.00	0.65
27 Al	791239.31	A	11770.00	1.49
39 K	81653616.00	A	1269000.00	1.55
44 Ca	2475891.00	A	33690.00	1.36
45 Sc	765372.19	P	5484.00	0.72
51 V	1004404.00	A	14940.00	1.49
52 Cr	878386.00	A	11460.00	1.30
55 Mn	1189158.00	A	9362.00	0.79
57 Fe	2471807.00	A	11670.00	0.47
59 Co	1061292.00	A	5933.00	0.56
60 Ni	226752.20	P	3011.00	1.33
65 Cu	271908.00	P	2721.00	1.00
66 Zn	148564.41	P	1033.00	0.70
72 Ge	200162.20	P	1921.00	0.96
75 As	144078.30	P	1636.00	1.14
82 Se	9936.95	P	117.30	1.18
95 Mo	317192.19	P	5800.00	1.83
109 Ag	825632.19	P	13850.00	1.68
111 Cd	171648.20	P	3043.00	1.77
115 In	1593708.00	A	7661.00	0.48
121 Sb	696967.69	P	9806.00	1.41
137 Ba	261228.91	P	3780.00	1.45
205 Tl	1615868.00	A	26890.00	1.66
208 Pb	2037017.00	A	29850.00	1.47
209 Bi	1225899.00	A	24160.00	1.97
232 Th	1773483.00	A	85620.00	4.83
238 U	2074466.00	A	15780.00	0.76

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	597711.56	0.71	578666.25	103.3	30 - 200	
45 Sc	765372.19	0.72	723930.00	105.7	30 - 200	
72 Ge	200162.23	0.96	189539.33	105.6	30 - 200	
115 In	1593708.30	0.48	1595504.50	99.9	30 - 200	
209 Bi	1225899.40	1.97	1262195.50	97.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1019a.B\009CALI.D\009CALI.D#
Date Acquired: May 10 2005 07:58 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 10 2005 07:54 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	581617.13	A	7846.00	1.35
9 Be	300282.19	P	2992.00	1.00
23 Na	155955100.00	A	1296000.00	0.83
26 Mg	16761230.00	A	57310.00	0.34
27 Al	1409706.00	A	13260.00	0.94
39 K	153991100.00	A	458800.00	0.30
44 Ca	4644081.00	A	51700.00	1.11
45 Sc	750115.50	P	3859.00	0.51
51 V	1883193.00	A	28720.00	1.53
52 Cr	1634255.00	A	12920.00	0.79
55 Mn	2185600.00	A	35120.00	1.61
57 Fe	4547996.00	A	42910.00	0.94
59 Co	1961698.00	A	23940.00	1.22
60 Ni	424003.31	P	4309.00	1.02
65 Cu	505279.00	P	4025.00	0.80
66 Zn	270517.19	P	2211.00	0.82
72 Ge	194597.59	P	983.40	0.51
75 As	271358.81	P	1735.00	0.64
82 Se	18512.59	P	175.50	0.95
95 Mo	603591.13	P	8499.00	1.41
109 Ag	1567830.00	A	34400.00	2.19
111 Cd	322852.91	P	6434.00	1.99
115 In	1546060.00	A	16820.00	1.09
121 Sb	1333749.00	A	20160.00	1.51
137 Ba	501392.19	P	9103.00	1.82
205 Tl	3080098.00	A	60490.00	1.96
208 Pb	3908202.00	A	80270.00	2.05
209 Bi	1189475.00	A	25500.00	2.14
232 Th	4025366.00	A	115500.00	2.87
238 U	4002321.00	A	30660.00	0.77

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	581617.13	1.35	578666.25	100.5	30 - 200	
45 Sc	750115.56	0.51	723930.00	103.6	30 - 200	
72 Ge	194597.56	0.51	189539.33	102.7	30 - 200	
115 In	1546060.00	1.09	1595504.50	96.9	30 - 200	
209 Bi	1189475.40	2.14	1262195.50	94.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1019a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 10, 2005 19:59
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1019a.b\003calb.d\	003calb.d#	May 10 2005 07:27 pm
2	...hem\1\data\05e1019a.b\004cali.d\	004cali.d#	May 10 2005 07:32 pm
3	...hem\1\data\05e1019a.b\005cali.d\	005cali.d#	May 10 2005 07:37 pm
4	...hem\1\data\05e1019a.b\006cali.d\	006cali.d#	May 10 2005 07:42 pm
5	...hem\1\data\05e1019a.b\007cali.d\	007cali.d#	May 10 2005 07:47 pm
6	...hem\1\data\05e1019a.b\008cali.d\	008cali.d#	May 10 2005 07:53 pm
7	...hem\1\data\05e1019a.b\009cali.d\	009cali.d#	May 10 2005 07:58 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.293E-1*X +2.497E-3(blank)	---	ppb
Na	23	45	Y = 5.236E-1*X +5.929E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.631E-2*X +1.565E-1(blank)	---	ppb
Al	27	45	Y = 4.691E-1*X +1.898E+0(blank)	---	ppb
K	39	45	Y = 5.135E-1*X +6.331E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.560E-2*X +3.443E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.434E+0*X +5.714E-1(blank)	---	ppb
Cr	52	72	Y = 2.112E+0*X +1.058E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.838E+0*X +3.839E-1(blank)	---	ppb
Fe	57	72	Y = 5.898E-2*X +2.079E+0(blank)	---	ppb
Co	59	72	Y = 2.546E+0*X +4.895E-2(blank)	---	ppb
Ni	60	72	Y = 5.490E-1*X +2.931E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.549E-1*X +6.504E-2(blank)	---	ppb
Zn	66	72	Y = 3.496E-1*X +4.625E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.508E-1*X +1.592E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.382E-2*X +2.807E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 7.784E-1*X +7.793E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.024E+0*X +3.723E-2(blank)	---	ppb
Cd	111	72	Y = 4.172E-1*X +6.117E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.162E-1*X +1.090E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.118E-2*X +1.121E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.495E-1*X +2.667E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.231E-1*X +3.361E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356010 Filename : e1019010 Injected : 10-MAY-2005 20:03
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	97.15000	ug/L	-3	10	
Antimony	100.0000	99.61000	ug/L	0	10	
Arsenic	100.0000	101.4000	ug/L	1	10	
Barium	100.0000	98.98000	ug/L	-1	10	
Beryllium	100.0000	99.15000	ug/L	-1	10	
Cadmium	100.0000	103.7000	ug/L	4	10	
Calcium	10000.00	10230.00	ug/L	2	10	
Chromium	100.0000	99.55000	ug/L	0	10	
Cobalt	100.0000	102.2000	ug/L	2	10	
Copper	100.0000	102.3000	ug/L	2	10	
Iron	10000.00	10440.00	ug/L	4	10	
Lead	100.0000	100.4000	ug/L	0	10	
Magnesium	10000.00	10320.00	ug/L	3	10	
Manganese	100.0000	102.6000	ug/L	3	10	
Molybdenum	100.0000	99.75000	ug/L	0	10	
Nickel	100.0000	101.9000	ug/L	2	10	
Potassium	10000.00	10230.00	ug/L	2	10	
Selenium	100.0000	101.9000	ug/L	2	10	
Silver	100.0000	101.5000	ug/L	2	10	
Sodium	10000.00	10180.00	ug/L	2	10	
Thallium	100.0000	98.77000	ug/L	-1	10	
Vanadium	100.0000	100.0000	ug/L	0	10	
Zinc	100.0000	102.0000	ug/L	2	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	580606	0.34
Scandium	723930	720777	-0.44
Germanium	189539	187758	-0.94
Indium	1595505	1518830	-4.81
Bismuth	1262196	1196618	-5.20

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356012 Filename : e1019012 Injected : 10-MAY-2005 20:14
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.363800	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356013 Filename : e1019013 Injected : 10-MAY-2005 20:20
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55188356001	10-MAY-2005	2.379000	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	0.715800	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	0.904800	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	[0.0066]	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	[0.0552]	0.250000	ug/L	
Chromium	55188356001	10-MAY-2005	1.309000	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	2.647000	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	1.597000	0.500000	ug/L	
Lead	55188356001	10-MAY-2005	1.199000	0.250000	ug/L	
Manganese	55188356001	10-MAY-2005	0.904100	0.250000	ug/L	
Nickel	55188356001	10-MAY-2005	1.491000	0.250000	ug/L	
Selenium	55188356001	10-MAY-2005	[0.2133]	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	[0.1386]	0.250000	ug/L	
Thallium	55188356001	10-MAY-2005	[0.0633]	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	[0.1146]	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	3.134000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55188356001	10-MAY-2005	100000	88330	ug/L	88
Calcium	55188356001	10-MAY-2005	300000	292800	ug/L	98
Iron	55188356001	10-MAY-2005	250000	235700	ug/L	94
Magnesium	55188356001	10-MAY-2005	100000	93900	ug/L	94
Molybdenum	55188356001	10-MAY-2005	2000	1927	ug/L	96
Potassium	55188356001	10-MAY-2005	100000	95970	ug/L	96
Sodium	55188356001	10-MAY-2005	250000	223900	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356014 Filename : e1019014 Injected : 10-MAY-2005 20:26
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	87800.00	ug/L	-12		
Arsenic	100.0000	106.5000	ug/L	7	20	
Cadmium	100.0000	100.7000	ug/L	1	20	
Calcium	300000.0	291200.0	ug/L	-3		
Chromium	200.0000	203.6000	ug/L	2	20	
Cobalt	200.0000	199.0000	ug/L	-1	20	
Copper	200.0000	189.0000	ug/L	-6	20	
Iron	250000.0	236300.0	ug/L	-5		
Magnesium	100000.0	93280.00	ug/L	-7		
Manganese	200.0000	202.7000	ug/L	1	20	
Molybdenum	2000.000	1955.000	ug/L	-2		
Nickel	200.0000	194.1000	ug/L	-3	20	
Potassium	100000.0	95920.00	ug/L	-4		
Selenium	100.0000	98.84000	ug/L	-1	20	
Silver	50.00000	48.98000	ug/L	-2	20	
Sodium	250000.0	222100.0	ug/L	-11		
Vanadium	200.0000	207.5000	ug/L	4	20	
Zinc	100.0000	93.37000	ug/L	-7	20	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Scandium	723930	672962	-7.04
Germanium	189539	174380	-8.00

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356026 Filename : e1019026 Injected : 10-MAY-2005 21:36
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4627	150.0000	143.9000	ug/L	-4	10	r2 ***
Antimony	0.2277	0.2138	150.0000	148.3000	ug/L	-1	10	
Arsenic	0.3789	0.3485	150.0000	149.0000	ug/L	-1	10	
Barium	0.0960	0.0799	150.0000	147.5000	ug/L	-2	10	
Beryllium	0.1325	0.1287	150.0000	149.3000	ug/L	0	10	
Cadmium	0.5183	0.4138	150.0000	148.6000	ug/L	-1	10	
Calcium	0.0184	0.0153	15000.00	14650.00	ug/L	-2	10	
Chromium	2.8493	2.1199	150.0000	150.0000	ug/L	0	10	
Cobalt	2.6711	2.5266	150.0000	148.8000	ug/L	-1	10	
Copper	0.7381	0.6524	150.0000	149.3000	ug/L	0	10	
Iron	0.0735	0.0586	15000.00	14860.00	ug/L	-1	10	
Lead	0.8527	0.8121	150.0000	148.0000	ug/L	-1	10	
Magnesium	0.0595	0.0536	15000.00	14280.00	ug/L	-5	10	
Manganese	3.4341	2.8426	150.0000	150.1000	ug/L	0	10	
Molybdenum	0.8280	0.7713	150.0000	148.5000	ug/L	-1	10	
Nickel	0.6183	0.5457	150.0000	149.0000	ug/L	-1	10	
Potassium	0.9387	0.5053	15000.00	14640.00	ug/L	-2	10	
Selenium	0.0420	0.0239	150.0000	149.4000	ug/L	0	10	
Silver	2.1329	2.0216	150.0000	149.8000	ug/L	0	10	
Sodium	0.5920	0.4969	15000.00	14220.00	ug/L	-5	10	
Thallium	0.6262	0.6439	150.0000	148.7000	ug/L	-1	10	
Vanadium	2.7881	2.4276	150.0000	149.4000	ug/L	0	10	
Zinc	0.7911	0.3474	150.0000	147.8000	ug/L	-1	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	558360	-3.51
Scandium	723930	767511	6.02
Germanium	189539	195105	2.94
Indium	1595505	1567464	-1.76
Bismuth	1262196	1157367	-8.31

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356028 Filename : e1019028 Injected : 10-MAY-2005 21:48
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.297800	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[9.1300]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356036 Filename : e1019036 Injected : 10-MAY-2005 22:34
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S400

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.5058	100.0000	103.8000	ug/L	4	10	r2 ***
Antimony	0.2277	0.2186	100.0000	101.1000	ug/L	1	10	
Arsenic	0.3789	0.3644	100.0000	103.8000	ug/L	4	10	
Barium	0.0960	0.0819	100.0000	100.7000	ug/L	1	10	
Beryllium	0.1325	0.1302	100.0000	100.7000	ug/L	1	10	
Cadmium	0.5183	0.4205	100.0000	100.6000	ug/L	1	10	
Calcium	0.0184	0.0161	10000.00	10290.00	ug/L	3	10	
Chromium	2.8493	2.2299	100.0000	105.1000	ug/L	5	10	
Cobalt	2.6711	2.6675	100.0000	104.7000	ug/L	5	10	
Copper	0.7381	0.6886	100.0000	105.0000	ug/L	5	10	
Iron	0.0735	0.0629	10000.00	10630.00	ug/L	6	10	
Lead	0.8527	0.8493	100.0000	103.1000	ug/L	3	10	
Magnesium	0.0595	0.0556	10000.00	9869.000	ug/L	-1	10	
Manganese	3.4341	3.0181	100.0000	106.2000	ug/L	6	10	
Molybdenum	0.8280	0.7866	100.0000	101.0000	ug/L	1	10	
Nickel	0.6183	0.5770	100.0000	105.1000	ug/L	5	10	
Potassium	0.9387	0.5278	10000.00	10160.00	ug/L	2	10	
Selenium	0.0420	0.0252	100.0000	104.8000	ug/L	5	10	
Silver	2.1329	2.0382	100.0000	100.7000	ug/L	1	10	
Sodium	0.5920	0.5096	10000.00	9721.000	ug/L	-3	10	
Thallium	0.6262	0.6792	100.0000	104.5000	ug/L	5	10	
Vanadium	2.7881	2.5598	100.0000	104.9000	ug/L	5	10	
Zinc	0.7911	0.3742	100.0000	105.7000	ug/L	6	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	585313	1.15
Scandium	723930	820738	13.37
Germanium	189539	204284	7.78
Indium	1595505	1602563	0.44
Bismuth	1262196	1115079	-11.66

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356038 Filename : e1019038 Injected : 10-MAY-2005 22:46
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	[0.1529]	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[10.460]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356039 Filename : e1019039 Injected : 10-MAY-2005 22:52
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55188356001	10-MAY-2005	2.229000	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	0.889600	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	0.896000	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	[0.0162]	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	[0.1314]	0.250000	ug/L	
Chromium	55188356001	10-MAY-2005	1.279000	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	2.569000	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	1.552000	0.500000	ug/L	
Lead	55188356001	10-MAY-2005	1.191000	0.250000	ug/L	
Manganese	55188356001	10-MAY-2005	0.925300	0.250000	ug/L	
Nickel	55188356001	10-MAY-2005	1.483000	0.250000	ug/L	
Selenium	55188356001	10-MAY-2005	[0.3256]	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	[0.1254]	0.250000	ug/L	
Thallium	55188356001	10-MAY-2005	[0.0912]	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	[0.1518]	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	2.945000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55188356001	10-MAY-2005	100000	85180	ug/L	85
Calcium	55188356001	10-MAY-2005	300000	289800	ug/L	97
Iron	55188356001	10-MAY-2005	250000	231700	ug/L	93
Magnesium	55188356001	10-MAY-2005	100000	90180	ug/L	90
Molybdenum	55188356001	10-MAY-2005	2000	1853	ug/L	93
Potassium	55188356001	10-MAY-2005	100000	94150	ug/L	94
Sodium	55188356001	10-MAY-2005	250000	215900	ug/L	86

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356040 Filename : e1019040 Injected : 10-MAY-2005 22:57
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	86710.00	ug/L	-13		
Arsenic	100.0000	106.2000	ug/L	6	20	
Cadmium	100.0000	95.63000	ug/L	-4	20	
Calcium	300000.0	294600.0	ug/L	-2		
Chromium	200.0000	202.3000	ug/L	1	20	
Cobalt	200.0000	198.5000	ug/L	-1	20	
Copper	200.0000	188.1000	ug/L	-6	20	
Iron	250000.0	234900.0	ug/L	-6		
Magnesium	100000.0	92080.00	ug/L	-8		
Manganese	200.0000	203.0000	ug/L	2	20	
Molybdenum	2000.000	1913.000	ug/L	-4		
Nickel	200.0000	192.7000	ug/L	-4	20	
Potassium	100000.0	95940.00	ug/L	-4		
Selenium	100.0000	97.32000	ug/L	-3	20	
Silver	50.00000	47.19000	ug/L	-6	20	
Sodium	250000.0	220700.0	ug/L	-12		
Vanadium	200.0000	205.4000	ug/L	3	20	
Zinc	100.0000	93.55000	ug/L	-6	20	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Scandium	723930	712023	-1.64
Germanium	189539	187594	-1.03

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356052 Filename : e1019052 Injected : 11-MAY-2005 00:08
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4600	150.0000	143.1000	ug/L	-5	10	r2 ***
Antimony	0.2277	0.2048	150.0000	142.0000	ug/L	-5	10	
Arsenic	0.3789	0.3382	150.0000	144.6000	ug/L	-4	10	
Barium	0.0960	0.0781	150.0000	144.2000	ug/L	-4	10	
Beryllium	0.1325	0.1230	150.0000	142.7000	ug/L	-5	10	
Cadmium	0.5183	0.3917	150.0000	140.7000	ug/L	-6	10	
Calcium	0.0184	0.0152	15000.00	14570.00	ug/L	-3	10	
Chromium	2.8493	2.0608	150.0000	145.8000	ug/L	-3	10	
Cobalt	2.6711	2.4893	150.0000	146.6000	ug/L	-2	10	
Copper	0.7381	0.6371	150.0000	145.8000	ug/L	-3	10	
Iron	0.0735	0.0586	15000.00	14870.00	ug/L	-1	10	
Lead	0.8527	0.7983	150.0000	145.4000	ug/L	-3	10	
Magnesium	0.0595	0.0538	15000.00	14320.00	ug/L	-5	10	
Manganese	3.4341	2.8064	150.0000	148.2000	ug/L	-1	10	
Molybdenum	0.8280	0.7414	150.0000	142.8000	ug/L	-5	10	
Nickel	0.6183	0.5336	150.0000	145.8000	ug/L	-3	10	
Potassium	0.9387	0.5028	15000.00	14560.00	ug/L	-3	10	
Selenium	0.0420	0.0233	150.0000	145.3000	ug/L	-3	10	
Silver	2.1329	1.9424	150.0000	144.0000	ug/L	-4	10	
Sodium	0.5920	0.5051	15000.00	14460.00	ug/L	-4	10	
Thallium	0.6262	0.6330	150.0000	146.1000	ug/L	-3	10	
Vanadium	2.7881	2.3520	150.0000	144.7000	ug/L	-4	10	
Zinc	0.7911	0.3430	150.0000	145.9000	ug/L	-3	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	542191	-6.30
Scandium	723930	742356	2.55
Germanium	189539	194691	2.72
Indium	1595505	1521918	-4.61
Bismuth	1262196	1144105	-9.36

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
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Instid : MET05 Run Name :
Seqnum : 55188356054 Filename : e1019054 Injected : 11-MAY-2005 00:19
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.336400	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[7.5320]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[10.010]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356068 Filename : e1019068 Injected : 11-MAY-2005 01:42
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4626	150.0000	143.9000	ug/L	-4	10	r2 ***
Antimony	0.2277	0.2013	150.0000	139.6000	ug/L	-7	10	
Arsenic	0.3789	0.3358	150.0000	143.5000	ug/L	-4	10	
Barium	0.0960	0.0778	150.0000	143.6000	ug/L	-4	10	
Beryllium	0.1325	0.1229	150.0000	142.6000	ug/L	-5	10	
Cadmium	0.5183	0.3959	150.0000	142.2000	ug/L	-5	10	
Calcium	0.0184	0.0152	15000.00	14570.00	ug/L	-3	10	
Chromium	2.8493	2.0529	150.0000	145.3000	ug/L	-3	10	
Cobalt	2.6711	2.4910	150.0000	146.7000	ug/L	-2	10	
Copper	0.7381	0.6324	150.0000	144.8000	ug/L	-3	10	
Iron	0.0735	0.0583	15000.00	14790.00	ug/L	-1	10	
Lead	0.8527	0.7937	150.0000	144.6000	ug/L	-4	10	
Magnesium	0.0595	0.0542	15000.00	14440.00	ug/L	-4	10	
Manganese	3.4341	2.7975	150.0000	147.7000	ug/L	-2	10	
Molybdenum	0.8280	0.7405	150.0000	142.6000	ug/L	-5	10	
Nickel	0.6183	0.5316	150.0000	145.2000	ug/L	-3	10	
Potassium	0.9387	0.4998	15000.00	14470.00	ug/L	-4	10	
Selenium	0.0420	0.0231	150.0000	144.2000	ug/L	-4	10	
Silver	2.1329	1.9549	150.0000	144.9000	ug/L	-3	10	
Sodium	0.5920	0.5109	15000.00	14620.00	ug/L	-3	10	
Thallium	0.6262	0.6210	150.0000	143.4000	ug/L	-4	10	
Vanadium	2.7881	2.3526	150.0000	144.8000	ug/L	-3	10	
Zinc	0.7911	0.3410	150.0000	145.0000	ug/L	-3	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	531070	-8.23
Scandium	723930	704576	-2.67
Germanium	189539	184948	-2.42
Indium	1595505	1471961	-7.74
Bismuth	1262196	1177065	-6.74

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
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Instid : MET05 Run Name :
Seqnum : 55188356070 Filename : e1019070 Injected : 11-MAY-2005 01:53
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.285000	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356083 Filename : e1019083 Injected : 11-MAY-2005 03:10
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4596	150.0000	142.9000	ug/L	-5	10	r2 ***
Antimony	0.2277	0.2009	150.0000	139.4000	ug/L	-7	10	
Arsenic	0.3789	0.3363	150.0000	143.7000	ug/L	-4	10	
Barium	0.0960	0.0772	150.0000	142.6000	ug/L	-5	10	
Beryllium	0.1325	0.1213	150.0000	140.7000	ug/L	-6	10	
Cadmium	0.5183	0.3932	150.0000	141.2000	ug/L	-6	10	
Calcium	0.0184	0.0152	15000.00	14610.00	ug/L	-3	10	
Chromium	2.8493	2.0648	150.0000	146.1000	ug/L	-3	10	
Cobalt	2.6711	2.4850	150.0000	146.4000	ug/L	-2	10	
Copper	0.7381	0.6348	150.0000	145.3000	ug/L	-3	10	
Iron	0.0735	0.0585	15000.00	14840.00	ug/L	-1	10	
Lead	0.8527	0.7962	150.0000	145.0000	ug/L	-3	10	
Magnesium	0.0595	0.0542	15000.00	14420.00	ug/L	-4	10	
Manganese	3.4341	2.8399	150.0000	149.9000	ug/L	0	10	
Molybdenum	0.8280	0.7423	150.0000	142.9000	ug/L	-5	10	
Nickel	0.6183	0.5326	150.0000	145.5000	ug/L	-3	10	
Potassium	0.9387	0.4972	15000.00	14400.00	ug/L	-4	10	
Selenium	0.0420	0.0233	150.0000	145.3000	ug/L	-3	10	
Silver	2.1329	1.9363	150.0000	143.5000	ug/L	-4	10	
Sodium	0.5920	0.5111	15000.00	14630.00	ug/L	-2	10	
Thallium	0.6262	0.6292	150.0000	145.3000	ug/L	-3	10	
Vanadium	2.7881	2.3688	150.0000	145.8000	ug/L	-3	10	
Zinc	0.7911	0.3424	150.0000	145.6000	ug/L	-3	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	519751	-10.18
Scandium	723930	694414	-4.08
Germanium	189539	183062	-3.42
Indium	1595505	1450295	-9.10
Bismuth	1262196	1129669	-10.50

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356085 Filename : e1019085 Injected : 11-MAY-2005 03:22
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.304500	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[7.5390]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[13.550]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356098 Filename : e1019098 Injected : 11-MAY-2005 04:39
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4607	150.0000	143.3000	ug/L	-4	10	r2 ***
Antimony	0.2277	0.2019	150.0000	140.1000	ug/L	-7	10	
Arsenic	0.3789	0.3341	150.0000	142.8000	ug/L	-5	10	
Barium	0.0960	0.0772	150.0000	142.6000	ug/L	-5	10	
Beryllium	0.1325	0.1231	150.0000	142.8000	ug/L	-5	10	
Cadmium	0.5183	0.3878	150.0000	139.3000	ug/L	-7	10	
Calcium	0.0184	0.0153	15000.00	14650.00	ug/L	-2	10	
Chromium	2.8493	2.0446	150.0000	144.7000	ug/L	-4	10	
Cobalt	2.6711	2.4714	150.0000	145.6000	ug/L	-3	10	
Copper	0.7381	0.6298	150.0000	144.2000	ug/L	-4	10	
Iron	0.0735	0.0584	15000.00	14810.00	ug/L	-1	10	
Lead	0.8527	0.7924	150.0000	144.4000	ug/L	-4	10	
Magnesium	0.0595	0.0539	15000.00	14340.00	ug/L	-4	10	
Manganese	3.4341	2.8291	150.0000	149.4000	ug/L	0	10	
Molybdenum	0.8280	0.7346	150.0000	141.5000	ug/L	-6	10	
Nickel	0.6183	0.5243	150.0000	143.2000	ug/L	-5	10	
Potassium	0.9387	0.4978	15000.00	14420.00	ug/L	-4	10	
Selenium	0.0420	0.0231	150.0000	144.1000	ug/L	-4	10	
Silver	2.1329	1.9378	150.0000	143.6000	ug/L	-4	10	
Sodium	0.5920	0.5066	15000.00	14500.00	ug/L	-3	10	
Thallium	0.6262	0.6293	150.0000	145.3000	ug/L	-3	10	
Vanadium	2.7881	2.3435	150.0000	144.2000	ug/L	-4	10	
Zinc	0.7911	0.3411	150.0000	145.1000	ug/L	-3	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	500320	-13.54
Scandium	723930	687384	-5.05
Germanium	189539	183375	-3.25
Indium	1595505	1433654	-10.14
Bismuth	1262196	1098113	-13.00

r2=ICAL r^2 failure

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Instid : MET05 Run Name :
Seqnum : 55188356100 Filename : e1019100 Injected : 11-MAY-2005 04:50
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.292000	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[7.7710]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[16.570]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356113 Filename : e1019113 Injected : 11-MAY-2005 06:07
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4536	150.0000	141.0000	ug/L	-6	10	r2 ***
Antimony	0.2277	0.1999	150.0000	138.7000	ug/L	-8	10	
Arsenic	0.3789	0.3351	150.0000	143.2000	ug/L	-5	10	
Barium	0.0960	0.0764	150.0000	141.0000	ug/L	-6	10	
Beryllium	0.1325	0.1231	150.0000	142.8000	ug/L	-5	10	
Cadmium	0.5183	0.3890	150.0000	139.7000	ug/L	-7	10	
Calcium	0.0184	0.0152	15000.00	14570.00	ug/L	-3	10	
Chromium	2.8493	2.0422	150.0000	144.5000	ug/L	-4	10	
Cobalt	2.6711	2.4756	150.0000	145.8000	ug/L	-3	10	
Copper	0.7381	0.6301	150.0000	144.2000	ug/L	-4	10	
Iron	0.0735	0.0587	15000.00	14890.00	ug/L	-1	10	
Lead	0.8527	0.7931	150.0000	144.5000	ug/L	-4	10	
Magnesium	0.0595	0.0531	15000.00	14150.00	ug/L	-6	10	
Manganese	3.4341	2.8339	150.0000	149.6000	ug/L	0	10	
Molybdenum	0.8280	0.7352	150.0000	141.6000	ug/L	-6	10	
Nickel	0.6183	0.5259	150.0000	143.7000	ug/L	-4	10	
Potassium	0.9387	0.4931	15000.00	14280.00	ug/L	-5	10	
Selenium	0.0420	0.0230	150.0000	143.9000	ug/L	-4	10	
Silver	2.1329	1.9436	150.0000	144.0000	ug/L	-4	10	
Sodium	0.5920	0.5031	15000.00	14400.00	ug/L	-4	10	
Thallium	0.6262	0.6390	150.0000	147.5000	ug/L	-2	10	
Vanadium	2.7881	2.3578	150.0000	145.1000	ug/L	-3	10	
Zinc	0.7911	0.3401	150.0000	144.6000	ug/L	-4	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	483662	-16.42
Scandium	723930	681609	-5.85
Germanium	189539	181807	-4.08
Indium	1595505	1427372	-10.54
Bismuth	1262196	1048749	-16.91

r2=ICAL r^2 failure
Page 1 of 1

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Instid : MET05 Run Name :
Seqnum : 55188356115 Filename : e1019115 Injected : 11-MAY-2005 06:19
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.280900	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[16.120]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356120 Filename : e1019120 Injected : 11-MAY-2005 06:48
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S400

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4628	100.0000	94.62000	ug/L	-5	10	r2 ***
Antimony	0.2277	0.2036	100.0000	94.13000	ug/L	-6	10	
Arsenic	0.3789	0.3422	100.0000	97.49000	ug/L	-3	10	
Barium	0.0960	0.0774	100.0000	95.16000	ug/L	-5	10	
Beryllium	0.1325	0.1236	100.0000	95.57000	ug/L	-4	10	
Cadmium	0.5183	0.3958	100.0000	94.70000	ug/L	-5	10	
Calcium	0.0184	0.0157	10000.00	10020.00	ug/L	0	10	
Chromium	2.8493	2.0561	100.0000	96.84000	ug/L	-3	10	
Cobalt	2.6711	2.5478	100.0000	100.0000	ug/L	0	10	
Copper	0.7381	0.6512	100.0000	99.34000	ug/L	-1	10	
Iron	0.0735	0.0611	10000.00	10320.00	ug/L	3	10	
Lead	0.8527	0.7846	100.0000	95.28000	ug/L	-5	10	
Magnesium	0.0595	0.0540	10000.00	9584.000	ug/L	-4	10	
Manganese	3.4341	2.9254	100.0000	102.9000	ug/L	3	10	
Molybdenum	0.8280	0.7453	100.0000	95.65000	ug/L	-4	10	
Nickel	0.6183	0.5390	100.0000	98.13000	ug/L	-2	10	
Potassium	0.9387	0.5059	10000.00	9728.000	ug/L	-3	10	
Selenium	0.0420	0.0239	100.0000	99.19000	ug/L	-1	10	
Silver	2.1329	1.9110	100.0000	94.41000	ug/L	-6	10	
Sodium	0.5920	0.5116	10000.00	9758.000	ug/L	-2	10	
Thallium	0.6262	0.6494	100.0000	99.94000	ug/L	0	10	
Vanadium	2.7881	2.3952	100.0000	98.18000	ug/L	-2	10	
Zinc	0.7911	0.3621	100.0000	102.3000	ug/L	2	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	495451	-14.38
Scandium	723930	696624	-3.77
Germanium	189539	184767	-2.52
Indium	1595505	1458699	-8.57
Bismuth	1262196	1054997	-16.42

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356122 Filename : e1019122 Injected : 11-MAY-2005 07:00
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	[0.1707]	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[7.7900]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[17.030]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356124 Filename : e1019124 Injected : 11-MAY-2005 07:11
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55188356001	10-MAY-2005	2.114000	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	0.645200	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	0.866200	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	[0.0094]	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	[0.0904]	0.250000	ug/L	
Chromium	55188356001	10-MAY-2005	1.236000	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	2.545000	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	1.566000	0.500000	ug/L	
Lead	55188356001	10-MAY-2005	1.184000	0.250000	ug/L	
Manganese	55188356001	10-MAY-2005	0.877100	0.250000	ug/L	
Nickel	55188356001	10-MAY-2005	1.432000	0.250000	ug/L	
Selenium	55188356001	10-MAY-2005	[0.3793]	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	[0.1318]	0.250000	ug/L	
Thallium	55188356001	10-MAY-2005	[0.1350]	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	[0.2275]	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	3.011000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55188356001	10-MAY-2005	100000	83740	ug/L	84
Calcium	55188356001	10-MAY-2005	300000	284100	ug/L	95
Iron	55188356001	10-MAY-2005	250000	229300	ug/L	92
Magnesium	55188356001	10-MAY-2005	100000	88870	ug/L	89
Molybdenum	55188356001	10-MAY-2005	2000	1852	ug/L	93
Potassium	55188356001	10-MAY-2005	100000	92050	ug/L	92
Sodium	55188356001	10-MAY-2005	250000	214400	ug/L	86

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356125 Filename : e1019125 Injected : 11-MAY-2005 07:16
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	84990.00	ug/L	-15		
Arsenic	100.0000	103.3000	ug/L	3	20	
Cadmium	100.0000	96.23000	ug/L	-4	20	
Calcium	300000.0	289300.0	ug/L	-4		
Chromium	200.0000	201.8000	ug/L	1	20	
Cobalt	200.0000	195.3000	ug/L	-2	20	
Copper	200.0000	184.6000	ug/L	-8	20	
Iron	250000.0	232800.0	ug/L	-7		
Magnesium	100000.0	89830.00	ug/L	-10		
Manganese	200.0000	203.3000	ug/L	2	20	
Molybdenum	2000.000	1895.000	ug/L	-5		
Nickel	200.0000	188.1000	ug/L	-6	20	
Potassium	100000.0	93640.00	ug/L	-6		
Selenium	100.0000	95.03000	ug/L	-5	20	
Silver	50.00000	47.01000	ug/L	-6	20	
Sodium	250000.0	216800.0	ug/L	-13		
Vanadium	200.0000	205.8000	ug/L	3	20	
Zinc	100.0000	90.42000	ug/L	-10	20	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Scandium	723930	635001	-12.28
Germanium	189539	165169	-12.86

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356138 Filename : e1019138 Injected : 11-MAY-2005 08:32
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4547	150.0000	141.4000	ug/L	-6	10	r2 ***
Antimony	0.2277	0.2041	150.0000	141.5000	ug/L	-6	10	
Arsenic	0.3789	0.3403	150.0000	145.5000	ug/L	-3	10	
Barium	0.0960	0.0802	150.0000	148.1000	ug/L	-1	10	
Beryllium	0.1325	0.1240	150.0000	143.9000	ug/L	-4	10	
Cadmium	0.5183	0.4122	150.0000	148.0000	ug/L	-1	10	
Calcium	0.0184	0.0154	15000.00	14830.00	ug/L	-1	10	
Chromium	2.8493	2.1017	150.0000	148.7000	ug/L	-1	10	
Cobalt	2.6711	2.5075	150.0000	147.7000	ug/L	-2	10	
Copper	0.7381	0.6343	150.0000	145.2000	ug/L	-3	10	
Iron	0.0735	0.0588	15000.00	14930.00	ug/L	0	10	
Lead	0.8527	0.7990	150.0000	145.6000	ug/L	-3	10	
Magnesium	0.0595	0.0538	15000.00	14330.00	ug/L	-4	10	
Manganese	3.4341	2.8688	150.0000	151.5000	ug/L	1	10	
Molybdenum	0.8280	0.7588	150.0000	146.1000	ug/L	-3	10	
Nickel	0.6183	0.5333	150.0000	145.7000	ug/L	-3	10	
Potassium	0.9387	0.5034	15000.00	14580.00	ug/L	-3	10	
Selenium	0.0420	0.0235	150.0000	146.6000	ug/L	-2	10	
Silver	2.1329	2.0379	150.0000	151.0000	ug/L	1	10	
Sodium	0.5920	0.4961	15000.00	14200.00	ug/L	-5	10	
Thallium	0.6262	0.6296	150.0000	145.4000	ug/L	-3	10	
Vanadium	2.7881	2.4099	150.0000	148.3000	ug/L	-1	10	
Zinc	0.7911	0.3392	150.0000	144.2000	ug/L	-4	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	479350	-17.16
Scandium	723930	650237	-10.18
Germanium	189539	167556	-11.60
Indium	1595505	1397899	-12.39
Bismuth	1262196	1140884	-9.61

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356140 Filename : e1019140 Injected : 11-MAY-2005 08:44
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	0.330900	0.250000	ug/L	ib ***
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[10.190]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[27.080]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356150 Filename : e1019150 Injected : 11-MAY-2005 09:43
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	86290.00	ug/L	-14		
Arsenic	100.0000	104.4000	ug/L	4	20	
Cadmium	100.0000	99.14000	ug/L	-1	20	
Calcium	300000.0	290400.0	ug/L	-3		
Chromium	200.0000	201.7000	ug/L	1	20	
Cobalt	200.0000	197.5000	ug/L	-1	20	
Copper	200.0000	186.9000	ug/L	-7	20	
Iron	250000.0	234400.0	ug/L	-6		
Magnesium	100000.0	90650.00	ug/L	-9		
Manganese	200.0000	203.2000	ug/L	2	20	
Molybdenum	2000.000	1956.000	ug/L	-2		
Nickel	200.0000	189.9000	ug/L	-5	20	
Potassium	100000.0	95340.00	ug/L	-5		
Selenium	100.0000	95.70000	ug/L	-4	20	
Silver	50.00000	49.22000	ug/L	-2	20	
Sodium	250000.0	218400.0	ug/L	-13		
Vanadium	200.0000	205.0000	ug/L	3	20	
Zinc	100.0000	91.03000	ug/L	-9	20	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Scandium	723930	566751	-21.71
Germanium	189539	148223	-21.80

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356152 Filename : e1019152 Injected : 11-MAY-2005 09:55
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55188356001	10-MAY-2005	2.171000	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	0.862500	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	0.958300	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	[0.0065]	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	[0.0913]	0.250000	ug/L	
Chromium	55188356001	10-MAY-2005	1.316000	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	2.605000	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	1.586000	0.500000	ug/L	
Lead	55188356001	10-MAY-2005	1.237000	0.250000	ug/L	
Manganese	55188356001	10-MAY-2005	0.917800	0.250000	ug/L	
Nickel	55188356001	10-MAY-2005	1.420000	0.250000	ug/L	
Selenium	55188356001	10-MAY-2005	0.519000	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	[0.1463]	0.250000	ug/L	
Thallium	55188356001	10-MAY-2005	[0.0602]	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	[0.1555]	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	3.013000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55188356001	10-MAY-2005	100000	85170	ug/L	85
Calcium	55188356001	10-MAY-2005	300000	289600	ug/L	97
Iron	55188356001	10-MAY-2005	250000	232100	ug/L	93
Magnesium	55188356001	10-MAY-2005	100000	89750	ug/L	90
Molybdenum	55188356001	10-MAY-2005	2000	1934	ug/L	97
Potassium	55188356001	10-MAY-2005	100000	94570	ug/L	95
Sodium	55188356001	10-MAY-2005	250000	217300	ug/L	87

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55188356159 Filename : e1019159 Injected : 11-MAY-2005 10:37
Calnum : 55188356001 Caldate : 10-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7634	0.4735	100.0000	96.89000	ug/L	-3	10	r2 ***
Antimony	0.2277	0.2149	100.0000	99.35000	ug/L	-1	10	
Arsenic	0.3789	0.3526	100.0000	100.5000	ug/L	1	10	
Barium	0.0960	0.0856	100.0000	105.4000	ug/L	5	10	
Beryllium	0.1325	0.1308	100.0000	101.2000	ug/L	1	10	
Cadmium	0.5183	0.4436	100.0000	106.2000	ug/L	6	10	
Calcium	0.0184	0.0162	10000.00	10380.00	ug/L	4	10	
Chromium	2.8493	2.1268	100.0000	100.2000	ug/L	0	10	
Cobalt	2.6711	2.5135	100.0000	98.69000	ug/L	-1	10	
Copper	0.7381	0.6601	100.0000	100.7000	ug/L	1	10	
Iron	0.0735	0.0617	10000.00	10420.00	ug/L	4	10	
Lead	0.8527	0.8188	100.0000	99.44000	ug/L	-1	10	
Magnesium	0.0595	0.0549	10000.00	9743.000	ug/L	-3	10	
Manganese	3.4341	2.9523	100.0000	103.9000	ug/L	4	10	
Molybdenum	0.8280	0.7922	100.0000	101.7000	ug/L	2	10	
Nickel	0.6183	0.5539	100.0000	100.8000	ug/L	1	10	
Potassium	0.9387	0.5288	10000.00	10170.00	ug/L	2	10	
Selenium	0.0420	0.0245	100.0000	101.6000	ug/L	2	10	
Silver	2.1329	2.1274	100.0000	105.1000	ug/L	5	10	
Sodium	0.5920	0.5089	10000.00	9707.000	ug/L	-3	10	
Thallium	0.6262	0.6385	100.0000	98.27000	ug/L	-2	10	
Vanadium	2.7881	2.4179	100.0000	99.11000	ug/L	-1	10	
Zinc	0.7911	0.3574	100.0000	100.9000	ug/L	1	10	

ISTD (ICALBLK=e1019003)	ICALBLK Abund	Abund	%Diff
Lithium	578666	438697	-24.19
Scandium	723930	602958	-16.71
Germanium	189539	156158	-17.61
Indium	1595505	1343119	-15.82
Bismuth	1262196	1164786	-7.72

r2=ICAL r^2 failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55188356161 Filename : e1019161 Injected : 11-MAY-2005 10:48
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Antimony	55188356001	10-MAY-2005	[0.1501]	0.250000	ug/L	
Arsenic	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Barium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Beryllium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Cadmium	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Calcium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Chromium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Cobalt	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Copper	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Iron	55188356001	10-MAY-2005	[11.900]	50.00000	ug/L	
Lead	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Magnesium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Manganese	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Nickel	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Potassium	55188356001	10-MAY-2005	[26.650]	50.00000	ug/L	
Selenium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Silver	55188356001	10-MAY-2005	ND	0.250000	ug/L	
Sodium	55188356001	10-MAY-2005	ND	50.00000	ug/L	
Thallium	55188356001	10-MAY-2005	ND	0.500000	ug/L	
Vanadium	55188356001	10-MAY-2005	ND	1.000000	ug/L	
Zinc	55188356001	10-MAY-2005	ND	1.000000	ug/L	

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAY-2005 14:51

Batch Number : 101627
Date Extracted: 02-MAY-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179167-001			Fugro West, Inc.	Soil	1.08	g	50	46.296296	1				MN, T26/ICP		
179182-001			Mactec, Inc.	Soil	.91	g	50	54.945055	1				T26/ICP		mss
179182-002			Mactec, Inc.	Soil	1.02	g	50	49.019608	1				T26/ICP		
179182-003			Mactec, Inc.	Soil	1.03	g	50	48.543689	1				T26/ICP		
QC292252	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC292253	BS			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC292254	BSD			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC292255	MS	of 179182-001		Soil	1.05	g	50	47.619048	1	.25	.25		ICAP		
QC292256	MSD	of 179182-001		Soil	1.12	g	50	44.642857	1	.25	.25		ICAP		
QC292257	SER	of 179182-001		Soil	.91	g	50	54.945055	1				ICAP		
QC292258	PDS	of 179182-001		Soil	.91	g	50	54.945055	1				ICAP		

293

Prep Chemist: [signature] Reviewed By: [signature] Date: 5/8/05

Relinquished By: [signature] Received By: [signature] Date: 5/8/05

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 101627
Date Digested: 4/29/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2103
Page 89

Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
PBKQC 292252		Ø	50.0	Y	
* BS 292253					
* BSD 292254					
* 179152-001 MS	A	1.05			
* ↓ -001 MSD	↓	1.12			
179167-001	A	1.00			
179152-001	A	0.91			MSS
↓ -002	↓	1.02			
↓ -003	↓	1.03		Y	

10

15

20

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95C	4/29/05
0.25 mL of spike solution was added to all spikes	045227 *	
	045228 *	
1:1 HNO3	A48046-042105	
concentrated HNO3	B0431 - JTBaker	
3mL 30% hydrogen peroxide	4B2874197 - VWR	
concentrated HCl	B01036 - JTBaker	
☒ filtered thru' Whatman # 541	F167/393	

4/29/05
Extraction Chemist / Date

Continued from page 0
Continued on page 0

Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	383256	566573	161713	1281904	1275587	1961549
LOWER LIMIT	114977	169972	48514	384571	382676	588465
UPPER LIMIT	459907	679888	194055	1538285	1530704	2353859

TYPE	SAMPLE	#						
ICB		012	398133	574338	165050	1295852	1262491	1986107
ICSA		013	346568	585480	165964	1206572	1034302	1885660
SER	QC291792	016	360601	574226	166189	1313972	1264223	1992797
MS	QC291790	017	357271	563392	161951	1250233	1207732	1944941
MSD	QC291791	018	360728	566869	163110	1255236	1222275	1952234
SAMPLE	179075-004	019	367478	568523	164798	1288704	1247558	1958562
SAMPLE	179075-006	020	367643	563823	163071	1287136	1263627	1974646
SAMPLE	179075-007	021	366643	570946	164159	1283858	1243530	1953644
SAMPLE	179075-011	022	373348	566936	165290	1287274	1246271	1978536
SAMPLE	179075-012	023	363108	562751	161001	1275896	1251362	1958231
CCV		025	373026	561004	161836	1264407	1249023	1999038
CCB		027	374726	557619	161013	1301082	1256526	1972729
SAMPLE	179075-013	028	367557	543752	158800	1252376	1225482	1956790
SAMPLE	179075-018	029	370487	555821	161480	1276264	1250542	1955957
CCV		031	368057	555167	161141	1267241	1237819	1955994
CCB		033	379843	559887	159132	1300645	1273674	1985667
ICSA		034	335479	563166	161577	1218668	1087887	1960268
MSS	179132-001	037	363368	580241	168272	1326575	1254419	2023380
SER	QC292313	038	380880	570299	165743	1338897	1303881	2013562
MS	QC292311	039	364544	555633	160719	1290844	1270339	1998090
MSD	QC292312	040	393580	609664	174058	1420429	1365235	2194455
SAMPLE	179132-006	041	389358	581682	167543	1348341	1299880	2079257
SAMPLE	179132-015	042	377470	565529	162974	1314638	1278674	2034845
SAMPLE	179132-016	043	400273	584930	170556	1374132	1362137	2079434
SAMPLE	179132-017	044	398669	576126	167928	1364855	1355156	2097381
CCV		046	371734	544232	158308	1276514	1283726	2019984
CCB		048	390733	573322	164831	1351990	1325322	2052989
BLANK	QC292136	053	406942	576746	165847	1344710	1337139	2051303

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-MAY-2005
Sequence: 55186547 (e0913)
Instrument ID: MET05

ICALBLK Filename: e0913003
Date Analyzed: 09-MAY-2005
Time Analyzed: 13:18

TYPE	SAMPLE	#						
CCV		061	364584	549159	158082	1258859	1233783	1958603
CCB		063	387047	566878	163345	1316900	1277659	2010396
CCV		073	380148	554670	160863	1296859	1288713	2034156
CCB		075	397508	581142	167853	1366726	1319500	2068160
ICSA		076	328713	543652	158612	1217096	1122198	1981217
CCV		090	332344	500594	147515	1196146	1218836	1910741
CCB		092	336386	514294	147596	1252830	1252315	1919669
ICSA		101	354346	616516	175729	1330694	1060028	1998550
CCV		104	354034	572106	167746	1353822	1244487	2034989
CCB		106	345220	541652	158905	1326647	1266398	1989079
BLANK	QC291742	108	321933	507433	147220	1247176	1219502	1887856
CCV		119	327369	503498	148418	1233456	1161755	1910155
CCB		121	351012	546596	158826	1340551	1260259	2008652
CCV		133	290486	426922	127442	1121490	1113799	1786266
CCB		135	290358	415531	122110	1105488	1103286	1719875
CCV		147	295190	430569	127088	1117565	1051484	1730252
CCB		149	306470	438276	128199	1164919	1098012	1755235
BLANK	QC292252	160	295062	433876	128080	1150518	1056366	1733581
CCV		162	290333	433501	127988	1129581	973668	1716457
CCB		164	298951	437758	128840	1159844	1020075	1716228
CCV		176	282773	434472	127616	1110413	869999	1663666
CCB		178	311364	475987	137998	1239853	1003583	1800998
ICSA		186	266251	437644	127903	1099918	861462	1734148
CCV		189	273038	415113	125004	1128861	1063109	1747302
CCB		191	280867	413918	123256	1141761	1086930	1735234

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005 ICALBLK Filename: e1019003
Sequence: 55188356 (e1019) Date Analyzed: 10-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:27

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	578666	723930	189539	1595505	1262196	2154139
LOWER LIMIT	173600	217179	56862	478652	378659	646242
UPPER LIMIT	694400	868716	227447	1914606	1514635	2584967

TYPE	SAMPLE	#					
ICB		012	599729	737714	190140	1580799	1236805	2130932
ICSA		013	497406	690284	177797	1399372	1042708	2071671
BLANK	QC292252	016	508686	627020	164565	1461803	1276997	2111636
BS	QC292253	017	495631	644427	163575	1444716	1206388	2081739
BSD	QC292254	018	531270	685239	174643	1506859	1240761	2163402
MSS	179182-001	019	567423	867523	189300	1571160	1251046	2218363
SER	QC292257	020	501972	662426	164722	1410006	1149410	1976578
MS	QC292255	021	553063	871066*	185211	1494132	1161919	2114719
MSD	QC292256	022	579373	938432*	194155	1638366	1257934	2333973
PDS	QC292258	023	551989	824800	182282	1493388	1177162	2112771
CCV		026	558360	767511	195105	1567464	1157367	2153096
CCB		028	575622	766015	196555	1602358	1188231	2093911
MSS	179182-001	029	593806	788386	201496	1630537	1194848	2135429
SAMPLE	179182-002	030	576802	996533*	192397	1540718	1161592	2160297
SAMPLE	179182-003	031	574631	943385*	192036	1581962	1198547	2183687
SAMPLE	179182-003	032	584606	819592	199590	1644415	1215433	2185370
SAMPLE	179167-001	033	605488	957978*	204540	1676398	1215291	2299230
SAMPLE	179167-001	034	592482	877173*	207051	1645336	1193499	2181454
CCV		036	585313	820738	204284	1602563	1115079	2080761
CCB		038	607559	830000	203875	1646883	1169597	2120410
ICSA		039	497603	739513	191068	1445101	995254	2039270
BLANK	QC292421	042	544878	719281	193215	1569578	1188004	2070786
BS	QC292422	043	527645	734087	190331	1509463	1141829	2042078
BSD	QC292423	044	558377	760633	195494	1541680	1176906	2091756
MSS	179188-001	045	541379	752526	194702	1531806	1163832	2057956
SER	QC292426	046	556936	754376	199675	1589488	1230735	2122527

297

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005 ICALBLK Filename: e1019003
Sequence: 55188356 (e1019) Date Analyzed: 10-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:27

TYPE	SAMPLE	#						
MS	QC292424	047	504986	726037	187310	1460965	1105307	2011799
MSD	QC292425	048	507260	722491	187246	1447139	1102870	1981421
PDS	QC292427	049	503288	720613	188432	1450869	1091931	2003478
CCV		052	542191	742356	194691	1521918	1144105	2048342
CCB		054	558646	744981	193317	1557135	1178267	2039718
SAMPLE	179188-002	055	518708	719082	187247	1476284	1149853	1990804
SAMPLE	179188-004	057	503853	704213	183502	1424621	1119331	1966818
SAMPLE	179188-005	058	515563	709203	186446	1484542	1151598	2024150
SAMPLE	179188-006	059	511375	707576	183315	1479134	1179774	2002740
SAMPLE	179188-007	060	514194	711368	185192	1466417	1167955	2020951
SAMPLE	179188-008	061	520760	714214	185940	1500133	1207929	2036569
SAMPLE	179188-009	062	515514	717691	188909	1507736	1214081	2060936
SAMPLE	179188-010	063	519111	707736	186638	1491026	1206208	2028625
SAMPLE	179188-011	064	515204	686624	182972	1453828	1173629	2008297
SAMPLE	179188-012	065	498177	680608	178689	1432902	1166079	1982171
CCV		068	531070	704576	184948	1471961	1177065	2033379
CCB		070	567212	743703	192662	1579935	1250887	2119132
SAMPLE	179188-013	071	512776	689980	179033	1450510	1183001	1998741
SAMPLE	179188-014	072	520623	711556	184470	1470991	1207426	2042377
SAMPLE	179188-015	073	505797	698677	181890	1448409	1178226	1994860
SAMPLE	179188-016	074	510291	693626	181786	1465562	1199647	1992351
SAMPLE	179188-017	075	499486	683109	179436	1427596	1159131	1957350
SAMPLE	179188-018	076	505561	695389	183868	1458095	1175122	2011641
BLANK	QC292432	077	548097	740241	195612	1590611	1248648	2107063
BS	QC292433	078	502266	662567	175859	1390645	1133045	1924883
BSD	QC292434	079	501171	673578	177943	1411008	1132422	1946262
MSS	179188-019	080	499395	680499	177468	1433066	1156911	1945583
CCV		083	519751	694414	183062	1450295	1129669	1976860
CCB		085	538369	711256	188220	1511989	1170382	1998739
SER	QC292437	086	530193	700128	183924	1497640	1181361	1998951
MS	QC292435	087	484120	672161	173213	1368693	1079026	1874716
MSD	QC292436	088	487488	676773	175269	1386420	1094587	1912065

298

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005 ICALBLK Filename: e1019003
Sequence: 55188356 (e1019) Date Analyzed: 10-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:27

TYPE	SAMPLE	#						
PDS	QC292438	089	485617	671241	174262	1375794	1074193	1889368
SAMPLE	179188-020	090	489005	678940	177279	1428840	1113919	1930980
SAMPLE	179188-021	091	474048	666761	176964	1414932	1118842	1898121
SAMPLE	179188-022	092	474554	669842	176145	1417987	1130154	1907286
SAMPLE	179188-023	093	475070	670710	177399	1423013	1125501	1926164
SAMPLE	179188-024	094	473205	665113	176865	1384211	1093177	1907657
SAMPLE	179188-025	095	470004	668330	177869	1416647	1122074	1911036
CCV		098	500320	687384	183375	1433654	1098113	1942395
CCB		100	521853	698481	185366	1502260	1127183	1947349
SAMPLE	179188-026	101	475162	668239	174675	1406751	1096891	1881035
SAMPLE	179188-027	102	471266	670302	175993	1412441	1102931	1869313
SAMPLE	179188-028	103	469478	666828	174831	1370564	1054458	1874268
SAMPLE	179188-029	104	462304	664411	173649	1373181	1048170	1881730
SAMPLE	179188-030	105	472442	673531	176083	1404300	1077547	1899011
SAMPLE	179188-031	106	467903	667594	175348	1412274	1093687	1881614
SAMPLE	179188-032	107	470938	659478	174858	1400562	1085635	1891565
SAMPLE	179188-033	108	468389	667421	176781	1410493	1100106	1907841
SAMPLE	179188-034	109	468257	664859	175802	1406077	1072950	1890848
SAMPLE	179188-035	110	461663	663717	175322	1399068	1073553	1871507
CCV		113	483662	681609	181807	1427372	1048749	1887631
CCB		115	514909	699870	185857	1495851	1108661	1954073
SAMPLE	179188-036	116	466291	665416	172507	1375421	1038254	1856218
SAMPLE	179188-037	117	485475	671396	177280	1424429	1054480	1888203
CCV		120	495451	696624	184767	1458699	1054997	1904790
CCB		122	506630	690361	184641	1486946	1076242	1928877
ICSA		124	434503	654468	169591	1328362	893749	1867558
BLANK	QC292583	127	467668	631000	169128	1411494	1112063	1870370
BS	QC292584	128	458846	638127	169736	1374175	1089804	1872037
BSD	QC292585	129	475864	641046	170095	1395477	1084136	1875493
MSS	179160-003	131	419523	587341	150118	1255295	889789	1753026
SER	QC292588	132	463877	646160	170549	1404882	1076221	1888401
MS	QC292586	133	421991	597344	151000	1240689	915018	1790382

299

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 10-MAY-2005 ICALBLK Filename: e1019003
Sequence: 55188356 (e1019) Date Analyzed: 10-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:27

TYPE	SAMPLE	#							
MSD	QC292587	134	424838	600170	152741	1266684	955102	1829917	
PDS	QC292589	135	420127	591581	150712	1247351	953107	1816353	
CCV		138	479350	650237	167556	1397899	1140884	1939475	
CCB		140	496711	647190	166895	1428141	1177273	1934786	
SAMPLE	179160-001	142	411452	573111	144805	1232471	958295	1778370	
SAMPLE	179160-002	143	436212	598099	150371	1288856	1041087	1876651	
SAMPLE	179160-004	144	418747	577416	147879	1265206	1019861	1805692	
ICSA		152	365646	541926	143377	1196504	953980	1807149	
SAMPLE	179188-003	154	395280	557431	144885	1250799	1094541	1852799	
SAMPLE	179188-010	155	412274	560902	149204	1323396	1174438	1891119	
SAMPLE	179196-001	156	376848	515260	133975	1168431	936458	1747193	
SAMPLE	179196-002	157	387664	537473	137817	1201255	962561	1781950	
CCV		159	438697	602958	156158	1343119	1164786	1943386	
CCB		161	436689	587472	152860	1349205	1176314	1909350	
SAMPLE	179167-001	165	413017	565981	145730	1322042	1166359	1923842	
CCV		166	395998	544214	143324	1261941	1102545	1845771	
CCB		167	414099	557642	145695	1324580	1154189	1887647	
SAMPLE	179233-004	168	409907	658436	139075	1235844	817886	1839032	
SAMPLE	179233-005	169	491849	784154	158727	1384595	982541	2207437	

300

* = Outside QC Limits

MOISTURE

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	101692
Matrix:	Soil	Sampled:	04/28/05
Units:	%	Received:	04/29/05
Diln Fac:	1.000	Analyzed:	05/03/05

Field ID	Lab ID	Result	RL
BBD2TP105(11.5)	179182-001	17	1
BBD2TP105(15.0)	179182-002	15	1
BBD2TP106(2.0)	179182-003	9	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179182	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	101692
MSS Lab ID:	179148-001	Sampled:	04/27/05
Lab ID:	QC292507	Received:	04/28/05
Matrix:	Soil	Analyzed:	05/03/05

MSS Result	Result	RL	RPD	Lim
4.703	5.105	1.000	8	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 101692
Date: 05/03/05
Method: CLP SOW 390
Analyst: KDG

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179047-110	15.2987	20.3002	19.0696	75	25
179047-111	15.7797	21.1910	20.2264	82	18
179047-112	15.4441	20.6156	19.4601	78	22
179047-113	15.2374	22.6097	21.2863	82	18
179047-114	15.0405	20.6094	20.0751	90	10
179047-115	15.5450	20.6658	20.4339	95	5
179148-001	15.4088	21.2624	20.9871	95	5
179148-002	15.2320	21.4424	21.2088	96	4
179182-001	15.2642	21.2137	20.2094	83	17
179182-002	15.3847	20.9286	20.1018	85	15
179182-003	15.1310	21.1572	20.6281	91	9
179213-001	15.5406	20.7317	20.1189	88	12
179214-001	15.5770	21.6304	20.8089	86	14
QC292507 of 179148-001	15.4770	21.1601	20.8700	95	5
			RPD:	0.4%	8.2%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101692
Date Started: 03-MAY-2005
Batched by : Kevin Gaines

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type		Client	Matrix	Analyses	Due Date
179047-110			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179047-111			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179047-112			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179047-113			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179047-114			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179047-115			Weston Solutions	Soil	MOISTURE	05-MAY-2005
179148-001			Blasland, Bouck &	Soil	MOISTURE	06-MAY-2005
179148-002			Blasland, Bouck &	Soil	MOISTURE	06-MAY-2005
179182-001			Mactec, Inc.	Soil	MOISTURE	11-MAY-2005
179182-002			Mactec, Inc.	Soil	MOISTURE	11-MAY-2005
179182-003			Mactec, Inc.	Soil	MOISTURE	11-MAY-2005
179213-001			CH2M Hill Construc	Soil	MOISTURE	13-MAY-2005
179214-001			RMT, Inc.	Soil	MOISTURE	04-MAY-2005
QC292507	SDUP	of 179148-001		Soil	MOISTURE	

5-3-05

101697

Sample	B.L. Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank	973	15.3512	—	15.3519	
175148-01 A	21	15.4088	21.2624	20.9871	
Dup -01	40	15.4770	21.1601	20.8700	
-02	134	15.2320	21.4424	21.2086	
182-01	DP	15.2642	21.2137	20.2094	
-02	34	15.3847	20.9284	20.1018	
-03	A	15.1310	21.1572	20.6281	
213-01 B	177	15.5406	20.7317	20.1189	
214-01 A	39	15.5770	21.6304	20.8086	
047-110	146	15.2987	20.3002	19.0696	comp's 69, 70, 71, 72
-111	4	15.7797	21.1910	20.2264	73, 74, 75, 76
-112	42	15.4441	20.6156	19.4601	77, 78, 79 80
-113	31	15.2374	22.6097	21.2863	81, 82, 83, 84
-114	B	15.0405	20.6094	20.0751	85, 86, 87, 88
-115	18	15.5450	20.6658	20.4336	89, 90, 91, 92

OVEN TEMP 103°C
TIME IN 1405 5/03/05
TIME OUT 8:15 A.M.

Continued on Page

Read and Understood By

Signed 5/03/05 Date

Signed Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 5/13/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	5-3-05	RSM				
103°C	5-4-05	RSM				

000072

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-26-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-2-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-3-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-4-05	0.2001	1.0000	10.0000	50.0001	RSM	35298

Continued on Page

Read and Understood By

R. Mann
Signed

4-21-05
Date

Signed

Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179266

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB1TP106(6.0)	179266-001
BB1TP106(3.5)	179266-002
BB1TP106(2.5)	179266-003
DUP(050405)	179266-004
BB1TP107(7.0)	179266-005
SOILCOMP	179266-006
BB1TP108(5.0)	179266-007

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 6/14/05
Operations Manager

Signature: _____ Date: 6/13/05
Project Manager

NELAP # 01107CA

Page 1 of ___

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	179266
Client:	Mactec, Inc.
Project:	57255 001 22
Location:	Presidio / Baker Beach
Request Date:	05/05/05
Samples Received:	05/05/05

This hardcopy data package contains sample and QC results for seven soil samples, requested for the above referenced project on 05/05/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
Diesel C10-C24 was detected between the MDL and the RL in the method blank for batch 101791; this analyte was either not detected in samples at or above the RL, or detected at a level at least ten times that of the blank. BB1TP108(5.0) (lab # 179266-007) and DUP(050405) (lab # 179266-004) were diluted due to the dark, viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Encore samples not analyzed within 48 hours were frozen. Low responses were observed for bromomethane and Freon 12 in the ICV analyzed 05/04/05 23:18; these analytes were not detected at or above the RL in the associated samples. High response was observed for Freon 113 in the ICV analyzed 05/04/05 23:51; this analyte was not detected at or above the RL in the associated samples. Low response was observed for carbon disulfide in the CCV analyzed 05/05/05 11:34; this analyte met minimum response criteria. High recoveries were observed for 1,1-dichloroethene in the MSD for batch 101759 and the MS/MSD of BB1TP108(5.0) (lab # 179266-007); the LCS was within limits, the associated RPDs were within limits, and this analyte was not detected at or above the RL in the associated samples. Methylene chloride was detected between the MDL and the RL in the method blank for batch 101759; this analyte was not detected in samples at or above the RL. Methylene chloride was detected between the MDL and the RL in many samples; this analyte is a common laboratory contaminant. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for benzo(g,h,i)perylene and dibenz(a,h)anthracene in the CCV analyzed 05/12/05 16:09; these analytes were not detected at or above the RL in the associated samples, and affected data was qualified with "b". Low internal standard response was observed for perylene-d12 in DUP(050405) (lab # 179266-004) and BB1TP108(5.0) (lab # 179266-007), due to matrix interference. High surrogate recoveries were observed for terphenyl-d14 in BB1TP106(6.0) (lab # 179266-001) and

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	179266
Client:	Mactec, Inc.
Project:	57255 001 22
Location:	Presidio / Baker Beach
Request Date:	05/05/05
Samples Received:	05/05/05

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
DUP(050405) (lab # 179266-004), due to matrix interference. These samples seem to be duplicates of each other. BB1TP106(6.0) (lab # 179266-001) was diluted due to the dark, viscous nature of the sample extract. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High ICAL percent RSD (relative standard deviation) was observed for 4,4'-DDT in the calibration analyzed 05/11/05 23:37; average ICAL %RSD met method requirements, and affected data was qualified with "b". High response was observed for methoxychlor in the ICV analyzed 05/12/05 12:27; average ICV drift met method requirements, and this analyte was not detected at or above the RL in the associated samples. Low responses were observed for 4,4'-DDT in the CCV analyzed 05/13/05 00:16, the CCV analyzed 05/13/05 12:50, and the CCV analyzed 05/13/05 23:23; average CCV drift met method requirements. High response was observed for 4,4'-DDD in the CCV analyzed 05/13/05 12:50; average CCV drift met method requirements. BB1TP106(3.5) (lab # 179266-002), BB1TP106(6.0) (lab # 179266-001), BB1TP108(5.0) (lab # 179266-007), and DUP(050405) (lab # 179266-004) were diluted due to the dark, viscous nature of the sample extracts. No other analytical problems were encountered.

PCBs (EPA 8082):
High response was observed for Aroclor-1260 in the CCV analyzed 05/07/05 01:48; this analyte was not detected at or above the RL in the associated sample. High surrogate recoveries were observed for TCMX in the MS/MSD of BB1TP108(5.0) (lab # 179266-007); the corresponding decachlorobiphenyl surrogate recoveries were within limits. No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for mercury in the MS/MSD of BB1TP107(7.0) (lab # 179266-005); the BS/BSD were within limits, and the associated RPD was within limits. Low recoveries were observed for chromium, nickel, and vanadium in the MSD of BB1TP106(6.0) (lab # 179266-001); the BS/BSD were within limits. High RPD was observed for many analytes in the MS/MSD of BB1TP106(6.0) (lab # 179266-001); the RPD was acceptable in the BS/BSD. High % differences were observed for mercury and molybdenum in the serial dilution of BB1TP106(6.0) (lab # 179266-001) and the serial dilution of BB1TP107(7.0) (lab # 179266-005). Molybdenum was detected between the MDL and the RL in the method blank for batch 101858. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	179266
Client:	Mactec, Inc.
Project:	57255 001 22
Location:	Presidio / Baker Beach
Request Date:	05/05/05
Samples Received:	05/05/05

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Dioxins and Furans (EPA 8290):
Eno River Labs, LLC in Durham, NC performed the analysis. Please see the Eno River Labs, LLC case narrative.

Chain of Custody

1792 66

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1408

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255. 005111

Name/Location: PRESIDIO SF - BRDA 1 PULT. REC.

Project Manager: M A JACOBVITZ Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER	DATE				STATION DESCRIPTION	
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL		YR 05 SEQ	YR	MO	DAY	TIME		DEPTH
	✓		7					BB1TP10 6(6.0)	05	05	04	1015	TRENCH 5, 36'S.	6-6.5'
	✓		7					BB1TP10 4(3.5)	05	05	04	1030		3.5-4'
	✓		7					BB1TP10 3(2.5)	05	05	04	1045		2.5-3'
	✓		7					BUP(0504 05)	05	05	04	1050		2.5-3'
	✓		7 PAH					BB1TP10 7(7.0)	05	05	04	1230	TRENCH5, 18'S.	7-7.5'
	✓		7					SOIL COMP	05	05	05	0830	SOIL PILE 20YD	
	✓		20					BB1TP10 8(5.0)	05	05	05	0910	TRENCH 5, 58'S	5-5.5

ANALYSIS REQUESTED

TPH-g (8015M)	VOC (8260B)	TPH-d (8015M w/ SG)	PAHs (8270 SIM)	TCL METALS (6010B/7000)	PESTICIDES (8081A)	PCB's (8082)	PERCENT MOIST.	DIOXINS/FURANS (8290)	
✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓		
				✓					
✓	✓	✓	✓	✓	✓	✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓	✓	8

ADDITIONAL INFORMATION

SAMPLE NUMBER YR	SEQ	TURNAROUND TIME/ REMARKS
05	BB1TP10 8(5.0)	MS/MSD - TRIPLE VOL PROVIDED.
		RESULTS TO C.A. LIEBERMAN
		701 793 3050
		CT17200502MP01 v2
		STANDARD TAT

CHAIN OF CUSTODY RECORD

	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	A H HENKE	MACTEC	5/5/05 1000
Received By (Signature)	Tony Lojas	C&T	5/05/05 1000
Relinquished By (Signature)			
Received By (Signature)			
Relinquished By (Signature)			
Received By (Signature)			

Method of Shipment: CT COURIER

F1008-B (5/04)

Laboratory Copy *White* — Project Office Copy *Yellow* — Field or Office Copy *Pink*

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 179266 Date Received: 5-5-95 Number of Coolers: 1
Client: Mactec Project: Baker Beach

A. Preliminary Examination Phase
Date Opened: 5-5-95 By (print): Troy Windsor (sign) Troy Windsor

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____ N/A
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... YES NO
   Type of ice: wet Temperature: Cold - no temp blank

B. Login Phase
Date Logged In: 5-5-95 By (print): Troy Windsor (sign) Troy Windsor

1. Describe type of packing in cooler: In ziplec type bags
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO N/A
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

TPH-PURGEABLE HYDROCARBONS IN SOIL

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101739
Units:	mg/Kg	Received:	05/05/05
Diln Fac:	1.000	Analyzed:	05/05/05

Field ID:	BB1TP10[8/9](6.0)	Basis:	dry
Type:	SAMPLE	Moisture:	13%
Lab ID:	179266-001	Sampled:	05/04/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.16	0.018

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	60-138
Bromofluorobenzene (FID)	113	66-148

Field ID:	BB1TP10[8/9](3.5)	Basis:	dry
Type:	SAMPLE	Moisture:	9%
Lab ID:	179266-002	Sampled:	05/04/05

Analyte	Result	RL	MDL
Gasoline C7-C12	0.057 J	0.19	0.021

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	60-138
Bromofluorobenzene (FID)	109	66-148

Field ID:	BB1TP10[8/9](2.5)	Basis:	dry
Type:	SAMPLE	Moisture:	13%
Lab ID:	179266-003	Sampled:	05/04/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.18	0.019

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	60-138
Bromofluorobenzene (FID)	77	66-148

Field ID:	DUP(050405)	Basis:	dry
Type:	SAMPLE	Moisture:	11%
Lab ID:	179266-004	Sampled:	05/04/05

Analyte	Result	RL	MDL
Gasoline C7-C12	0.033 J	0.17	0.019

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	60-138
Bromofluorobenzene (FID)	113	66-148

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101739
Units:	mg/Kg	Received:	05/05/05
Diln Fac:	1.000	Analyzed:	05/05/05

Field ID:	SOILCOMP	Basis:	dry
Type:	SAMPLE	Moisture:	14%
Lab ID:	179266-006	Sampled:	05/05/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.17	0.019

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	60-138
Bromofluorobenzene (FID)	107	66-148

Field ID:	BB1TP108(5.0)	Basis:	dry
Type:	SAMPLE	Moisture:	27%
Lab ID:	179266-007	Sampled:	05/05/05

Analyte	Result	RL	MDL
Gasoline C7-C12	0.039 J	0.33	0.036

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	60-138
Bromofluorobenzene (FID)	94	66-148

Type:	BLANK	Basis:	as received
Lab ID:	QC292674		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.20	0.022

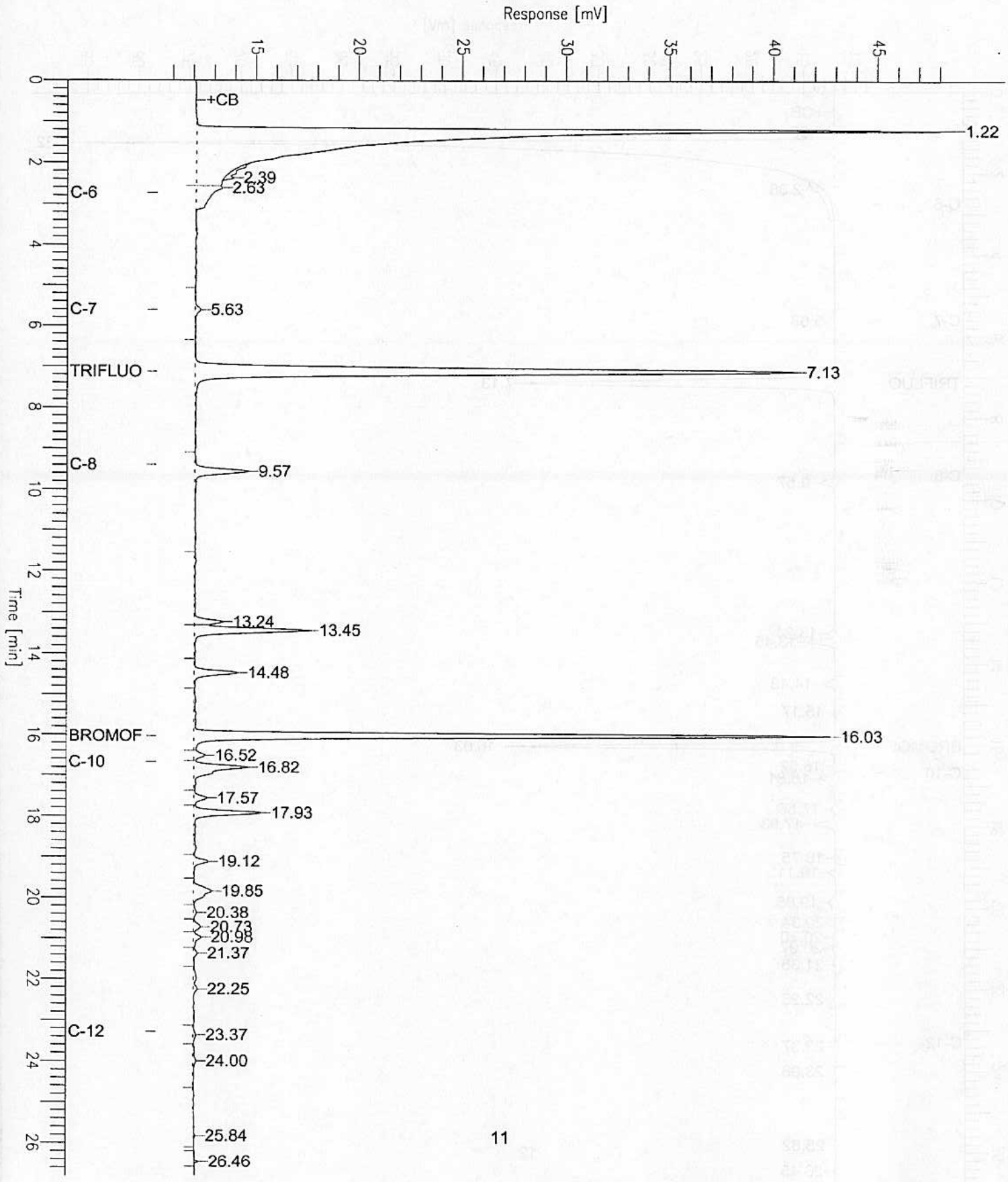
Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	60-138
Bromofluorobenzene (FID)	115	66-148

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC19 TVH 'X' Data File (FID)

Sample Name : 179266-002,101739,etvh only
FileName : G:\GC19\DATA\125X012.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 10 mV

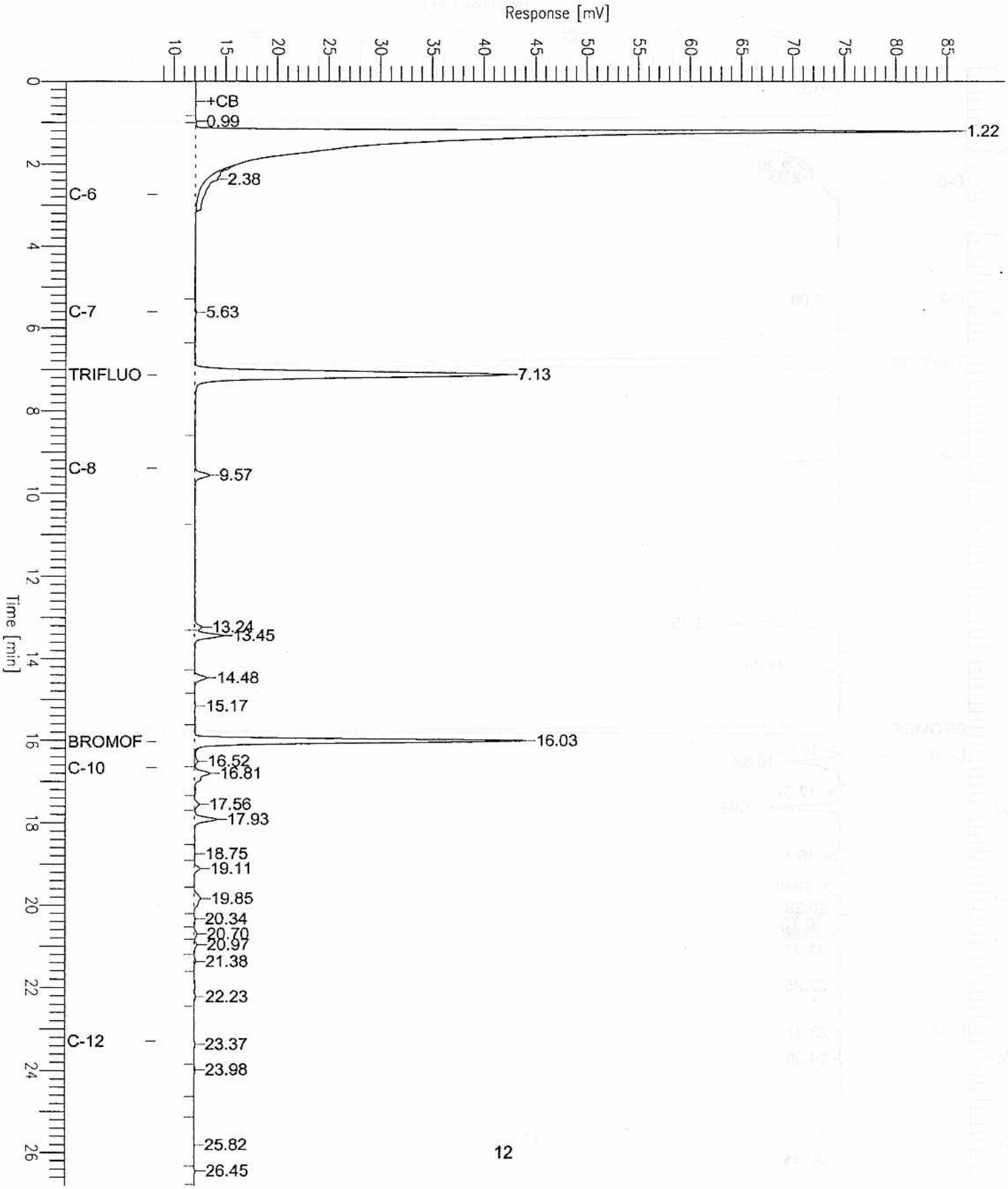
Sample #: b Page 1 of 1
Date : 5/5/05 04:33 PM
Time of Injection: 5/5/05 04:06 PM
Low Point : 10.22 mV High Point : 48.73 mV
Plot Scale: 38.5 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 179266-004,101739,etvh only
FileName : G:\GC19\DATA\125X014.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 8 mV

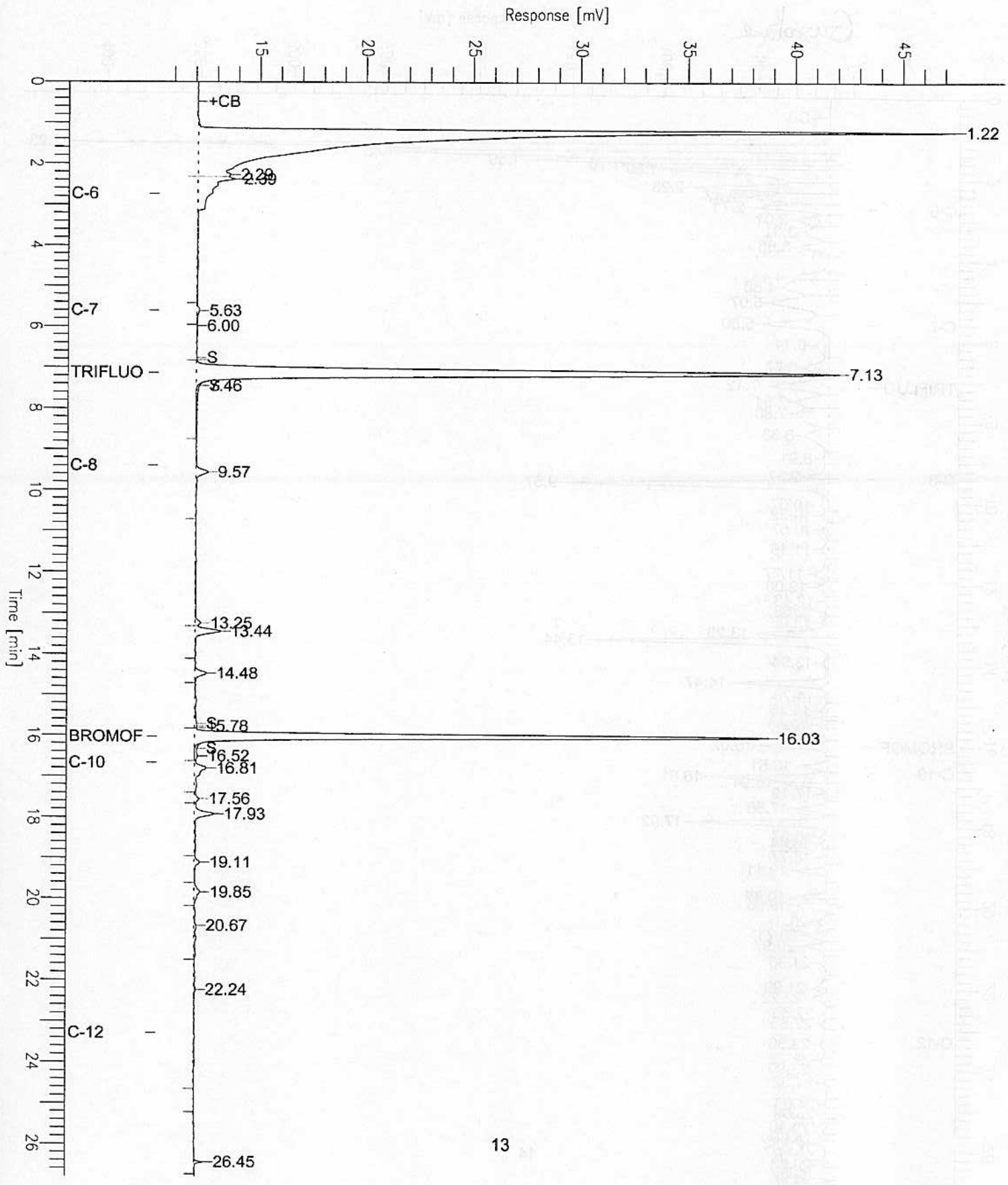
Sample #: b Page 1 of 1
Date : 5/5/05 05:41 PM
Time of Injection: 5/5/05 05:14 PM
Low Point : 8.35 mV High Point : 85.91 mV
Plot Scale: 77.6 mV



GC19 TVH 'X' Data File (FID)

Sample Name : 179266-007,101739,etvh only
FileName : G:\GC19\DATA\125X016.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 10 mV

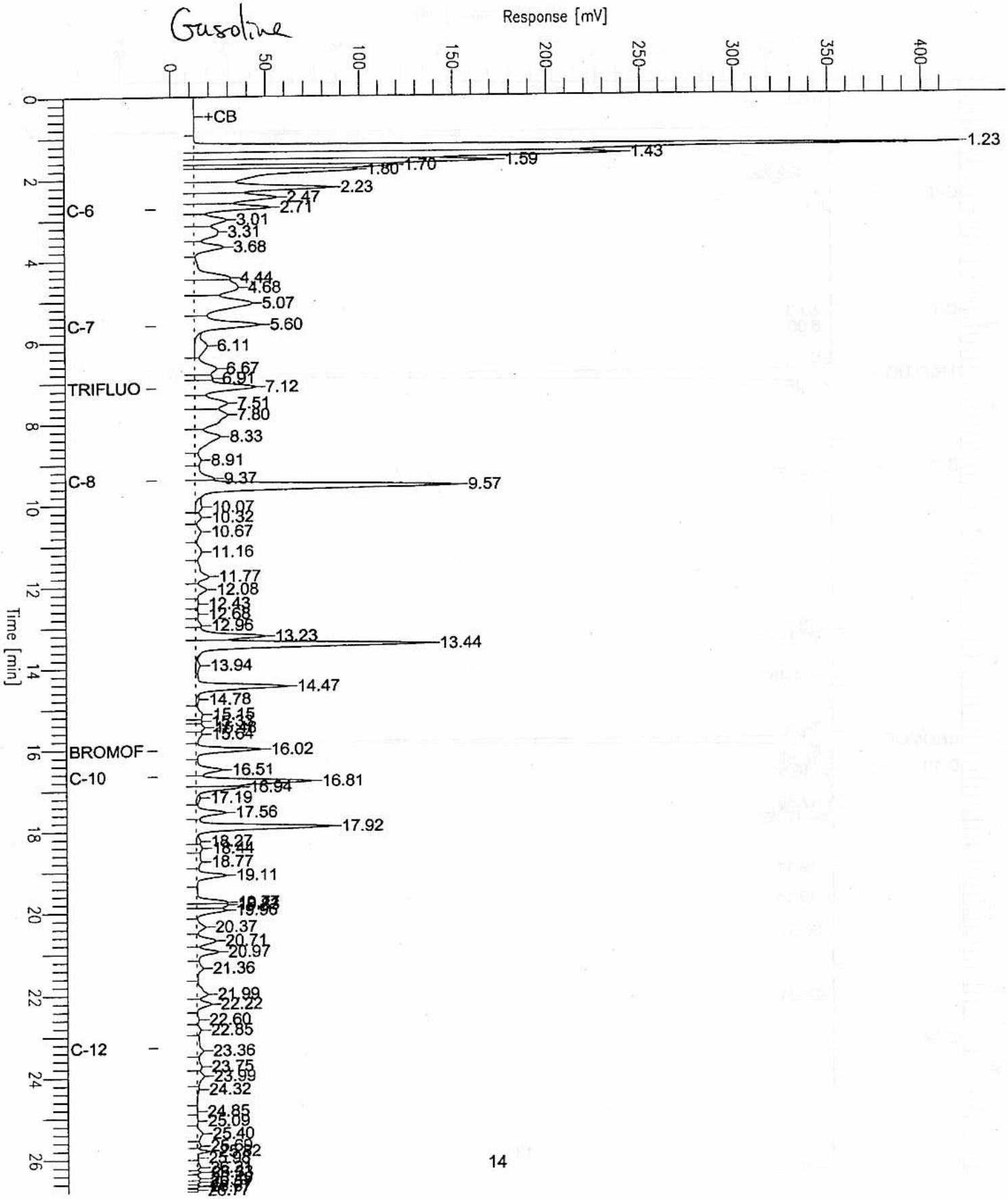
Sample #: b Page 1 of 1
Date : 5/6/05 08:15 AM
Time of Injection: 5/5/05 06:23 PM
Low Point : 10.25 mV High Point : 47.46 mV
Plot Scale: 37.2 mV



GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc292676,101739,S247,5/5000
FileName : G:\GC19\DATA\125X003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: -8 mV

Sample #:
Date : 5/5/05 09:04 AM
Time of Injection: 5/5/05 08:37 AM
Low Point : -8.15 mV High Point : 419.83 mV
Plot Scale: 428.0 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC292676	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101739
Units:	mg/Kg	Analyzed:	05/05/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	11.34	113	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	60-138
Bromofluorobenzene (FID)	125	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	179252-001	Batch#:	101739
Matrix:	Soil	Sampled:	05/04/05
Units:	mg/Kg	Received:	05/04/05
Basis:	as received	Analyzed:	05/05/05

Type: MS Lab ID: QC292728

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.126	9.901	7.674	66	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	122	60-138
Bromofluorobenzene (FID)	113	66-148

Type: MSD Lab ID: QC292729

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.00	8.395	73	43-120	8	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	131	60-138
Bromofluorobenzene (FID)	114	66-148

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BB1TP108(5.0)	Diln Fac:	1.000
MSS Lab ID:	179266-007	Batch#:	101739
Matrix:	Soil	Sampled:	05/05/05
Units:	mg/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/06/05

Type: MS
Lab ID: QC292791

Moisture: 27%

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.03869	3.549	2.827	79	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	60-138
Bromofluorobenzene (FID)	101	66-148

Type: MSD
Lab ID: QC292792

Moisture: 27%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	3.408	2.762	80	43-120	2	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	60-138
Bromofluorobenzene (FID)	106	66-148

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 344466119001 Name: tvh Type: (normal) Date: 18-NOV-2004 19:46 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_005	344466119005	tvh1	18-NOV-2004 19:46	04WS1982 (1000X), 04WS1966 (5000X)
2	323_006	344466119006	tvh2	18-NOV-2004 20:20	04WS1983 (1000X), 04WS1966 (5000X)
3	323_007	344466119007	tvh3	18-NOV-2004 20:54	04WS1984 (1000X), 04WS1966 (5000X)
4	323_008	344466119008	tvh4	18-NOV-2004 21:27	04WS1985 (2000X), 04WS1966 (5000X)
5	323_009	344466119009	tvh5	18-NOV-2004 22:02	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	X	737.22	634.99	621.54	791.38	779.53	AVRG R		0.001403		ng	712.93	11	0.995	20	

18

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC19 Calname : tvh
Calnum : 344466119001 Caldate : 18-NOV-2004 Caltype :

ICV 344466119011 (323_011) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	X	344466119011	18-NOV-2004	10000.0 11032	ng	10

INITIAL CALIBRATION REPORT FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Reviewed By: MCH
Calnum: 345035125001 Name: tft/bfb Type: (normal) Date: 24-JAN-2005 13:07 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	024_005	345035125005	tft/bfb 1	24-JAN-2005 13:07	04WS2267 (5000X)
2	024_006	345035125006	tft/bfb 2	24-JAN-2005 13:41	04WS2268 (5000X)
3	024_008	345035125008	tft/bfb 4	24-JAN-2005 14:49	04WS2270 (5000X)
4	024_009	345035125009	tft/bfb 5	24-JAN-2005 15:31	04WS2271 (5000X)
5	024_011	345035125011	tft/bfb 3	24-JAN-2005 16:40	04WS2269 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	X	750.53	723.43	681.76	623.54	687.79	AVRG	R		0.001442		ng	693.41	7	0.995	20	
Bromofluorobenzene (FID)	X	471.78	450.41	431.06	409.61	436.75	AVRG	R		0.002273		ng	439.92	5	0.995	20	

20

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC19	X	345180448003	05-MAY-2005 08:37	344466119001	18-NOV-2004	712.93	808.70	10000	11343	ng	13	15	u
GC19	X	345180448009	05-MAY-2005 13:10	344466119001	18-NOV-2004	712.93	699.46	15000	14716	ng	-2	15	
GC19	X	345180448020	05-MAY-2005 20:42	344466119001	18-NOV-2004	712.93	739.07	5000.0	5183.3	ng	4	15	
GC19	X	345180448021	05-MAY-2005 21:16	344466119001	18-NOV-2004	712.93	775.37	5000.0	5437.9	ng	9	15	
GC19	X	345180448024	06-MAY-2005 08:30	344466119001	18-NOV-2004	712.93	801.92	10000.0	11248	ng	12	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC19	X	345180448002	05-MAY-2005 08:02	345035125001	24-JAN-2005	693.41	698.36	450.00	453.21	ng	1	15	
GC19	X	345180448003	05-MAY-2005 08:37	345035125001	24-JAN-2005	693.41	860.83	450.00	558.65	ng	**24**	15	c+ u
GC19	X	345180448009	05-MAY-2005 13:10	345035125001	24-JAN-2005	693.41	845.76	450.00	548.87	ng	**22**	15	c+
GC19	X	345180448020	05-MAY-2005 20:42	345035125001	24-JAN-2005	693.41	847.36	450.00	549.90	ng	**22**	15	c+
GC19	X	345180448024	06-MAY-2005 08:30	345035125001	24-JAN-2005	693.41	856.04	450.00	555.54	ng	**23**	15	c+

PASS

mmp 5/9/05

Laboratory Limits:
60-138 %

CW 6/7/05

+=high bias c=CCV u=use
Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 179266 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC19	X	345180448002	05-MAY-2005 08:02	345035125001	24-JAN-2005	439.92	541.52	450.00	553.93	ng	23	15	c+
GC19	X	345180448003	05-MAY-2005 08:37	345035125001	24-JAN-2005	439.92	551.94	450.00	564.59	ng	25	15	c+ u
GC19	X	345180448009	05-MAY-2005 13:10	345035125001	24-JAN-2005	439.92	531.71	450.00	543.89	ng	21	15	c+
GC19	X	345180448020	05-MAY-2005 20:42	345035125001	24-JAN-2005	439.92	521.04	450.00	532.98	ng	18	15	c+
GC19	X	345180448024	06-MAY-2005 08:30	345035125001	24-JAN-2005	439.92	544.90	450.00	557.38	ng	24	15	c+

PASS

mmp 5/9/05

Laboratory Limits:
66 - 148 %
cw 6/7/05

+=high bias c=CCV u=use

PROJECT 6 C19 Kynar by GC

Notebook No. BK 1991

Continued From Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 344466119 Instrument: GC19 Gas Chromatograph #19 TVH/BTXE Begun: 18-NOV-2004
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	323_001	CCV/LCS	QC272899	96649	Water	18-NOV-2004 16:39	1.0				1 2 Naty	
002	323_002	CCV	minsp	96649		18-NOV-2004 17:13	1.0				3 2	
003	323_003	X	ib			18-NOV-2004 18:38	1.0				2	
004	323_004	X	ib			18-NOV-2004 19:12	1.0				2	
005	323_005	ICAL	tvh1			18-NOV-2004 19:46	1.0				4 2 Passives	
006	323_006	ICAL	tvh2			18-NOV-2004 20:20	1.0				5 2	
007	323_007	ICAL	tvh3			18-NOV-2004 20:54	1.0				6 2	
008	323_008	ICAL	tvh4			18-NOV-2004 21:27	1.0				7 2	
009	323_009	ICAL	tvh5			18-NOV-2004 22:02	1.0				7 2	
010	323_010	X	ib			18-NOV-2004 22:36	1.0				2	
011	323_011	ICV	tvh			18-NOV-2004 23:10	1.0	5000			1 2 Pass	
012	323_012	X	crbmrk			18-NOV-2004 23:44	1.0				8 9 2	
013	323_013	X	ib			19-NOV-2004 00:18	1.0				2	
014	323_014	X				19-NOV-2004 06:53	1.0				2	
015	323_015	ICAL	tft/bfb 1			19-NOV-2004 07:27	1.0				10 Passives	
016	323_016	ICAL	tft/bfb 2			19-NOV-2004 08:05	1.0				11	
017	323_017	ICAL	tft/bfb 3			19-NOV-2004 08:47	1.0				12	
018	323_018	ICAL	tft/bfb 4			19-NOV-2004 09:29	1.0				13	
019	323_019	ICAL	tft/bfb 5			19-NOV-2004 10:16	1.0				14	

Stds used: 1=04WB2194 2=04WB1966 3=04WB1162 4=04WB1982 5=04WB1983 6=04WB1984 7=04WB1985 8=0288420 9=0288421 10=04WB1886 11=04WB1887 12=04WB1888 13=04WB1889 14=04WB1890

Analyst: Date: 11-19-04

Page 1 of 1

11-19-04

Signed

Date 11/19/04 24

Read and Understood By

Signed

Date 11/19/04

Continued on Page

PROJECT 96 — Notebook No. BK1981 — Continued From Page —

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 345035125 Instrument: GC19 — Gas Chromatograph #19 TVH/BTXE — Begun: 24-JAN-2005
Analytical Method: EPA 8015B — SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B — SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	024_001	X	ib			24-JAN-2005 09:25	1.0					1	
002	024_002	X	QC280420	98560	Water	24-JAN-2005 09:59	1.0					2 1 Not used	
003	024_003	X	QC280421	98560	Water	24-JAN-2005 10:33	1.0	2	5000			3 1	
004	024_004	X	QC280419	98560	Water	24-JAN-2005 11:08	1.0	17	5000			1	
005	024_005	ICAL	tft/bfb 1			24-JAN-2005 13:07	1.0					4 pass	
006	024_006	ICAL	tft/bfb 2			24-JAN-2005 13:41	1.0					5	
007	024_007	X	tft/bfb 3			24-JAN-2005 14:15	1.0					6 Not used	
008	024_008	ICAL	tft/bfb 4			24-JAN-2005 14:49	1.0					7 pass	
009	024_009	ICAL	tft/bfb 5			24-JAN-2005 15:31	1.0					8	
010	024_010	X	ib			24-JAN-2005 16:06	1.0					1	
011	024_011	ICAL	tft/bfb 3			24-JAN-2005 16:40	1.0					6 pass	

Stds used: 1=05WS0068 2=04WS2416 3=04WS2408 4=04WS2267 5=04WS2268 6=04WS2269 7=04WS2270 8=04WS2271

Analyst: _____ Date: 1/25/05

Page 1 of 1

1/25/05

Signed — Date 1/25/05

25 Signed — Date 01/25/05

Read and Understood By

Continued on Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 345180448 Instrument: GC19
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #19 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 05-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	DH	Stds Used	>LR
001	125_001	X	ib			05-MAY-2005 07:28	1.0						1	
002	125_002	CCV/LCS	QC292675	101739	Soil	05-MAY-2005 08:02	1.0	1		5000			2 1 pass	
003	125_003	CCV/LCS	QC292676	101739	Soil	05-MAY-2005 08:37	1.0		2	5000			3 1	
004	125_004	CCV	stodd	101739		05-MAY-2005 09:11	1.0			5000			4 1	
005	125_005	BLANK	QC292674	101739	Soil	05-MAY-2005 09:45	1.0	3		5000			1	
006	125_006	MSS	179252-001	101739	Soil	05-MAY-2005 10:20	1.0	2		5000			1	
007	125_007	MS	QC292728	101739	Soil	05-MAY-2005 11:52	1.0		1	5000			3 1 pass	
008	125_008	MSD	QC292729	101739	Soil	05-MAY-2005 12:26	1.0		1	5000			3 1	
009	125_009	CCV	tvh	101739		05-MAY-2005 13:10	1.0			5000			3 1	
010	125_010	CCV	stodd	101739		05-MAY-2005 13:44	1.0			5000			4 1	
011	125_011	SAMPLE	179266-001	101739	Soil	05-MAY-2005 15:31	1.0			5000			1	
012	125_012	SAMPLE	179266-002	101739	Soil	05-MAY-2005 16:06	1.0			5000			1	
013	125_013	SAMPLE	179266-003	101739	Soil	05-MAY-2005 16:40	1.0			5000			1	
014	125_014	SAMPLE	179266-004	101739	Soil	05-MAY-2005 17:14	1.0			5000			1	
015	125_015	SAMPLE	179266-006	101739	Soil	05-MAY-2005 17:49	1.0			5000			1	
016	125_016	MSS	179266-007	101739	Soil	05-MAY-2005 18:23	1.0	2		5000			1	
017	125_017	SAMPLE	179269-001	101739	Soil	05-MAY-2005 18:58	1.0			5000			1	
018	125_018	X	QC292791	101739	Soil	05-MAY-2005 19:32	1.0			5000			3 1	
019	125_019	X	QC292792	101739	Soil	05-MAY-2005 20:07	1.0			5000			3 1	
020	125_020	CCV	tvh	101739		05-MAY-2005 20:42	1.0			5000			3 1	
021	125_021	CCV	tvh	101739		05-MAY-2005 21:16	1.0			5000			3 1	
022	125_022	MS	QC292791	101739	Soil	06-MAY-2005 07:21	1.0		1	5000			3 1	
023	125_023	MSD	QC292792	101739	Soil	06-MAY-2005 07:55	1.0		1	5000			3 1	
024	125_024	CCV	tvh	101739		06-MAY-2005 08:30	1.0			5000			3 1	

Stds used: 1=S224 2=S292 3=S247 4=04WS2196

Analyst: _____ Date: 5/6/05

Page 1 of 1

Signed _____ Date 5/6/05

Signed _____ Date 05/06/05

Read and Understood By

Continued on Page

Continued From Page

Notebook No. EK 2068

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101739
Date Started: 05-MAY-2005
Batched by : Adam Pereira

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
179252-001			Stellar Environmen	Soil	TVH	10-MAY-2005
179266-001			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179266-002			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179266-003			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179266-004			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179266-006			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179266-007			Mactec, Inc.	Soil	ETVH	17-MAY-2005
179269-001			URS Corporation	Soil	TVH	11-MAY-2005
QC292674	MB			Soil		
QC292675	LCS			Soil		
QC292676	LCS			Soil		
QC292728	MS	of 179252-001		Soil		
QC292729	MSD	of 179252-001		Soil		
QC292791	MS	of 179266-007		Soil		
QC292792	MSD	of 179266-007		Soil		

Project TH/MBTXG SOIL WEIGHT LOG BOOK BL 2106

Continued from Page —

Sample ID / Core ID / Jar	Weight (g)	Comp (Y)	NaHSO4 (Y)	Initials & Date
MSD 179252-001 A	1.00	No	No	mmp 5/5/05
179266-001 B	7.12			
-002	5.79			
-003	6.54			
-004	6.50			
-006	6.77			
-007	4.14			
MS 179266-007 C	3.11			
MSD 179266-007 D	3.87			
179269-007 Comp	1.03	Yes ABCD	No	mmp 5/5/05
MS 179269-007 H	3.86	No	No	APP 5/5
MSD I	4.57			
179307-003 A	0.98	No	No	mmp 5/9/05
-004	0.96			
-006	0.92			
-009	0.95			
-011	0.95			
-013	0.96			
-014 D	0.96			
MS 179307-009 A	0.99			
MSD	0.96			

Continued on Page

Michael McPherson — Signed

05/05/05 — Date

Read and Understood By

Signed

Date

TPH-EXTRACTABLES DATA

SOIL

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/06/05
Batch#:	101791		

Field ID:	BB1TP10[8/9](6.0)	Diln Fac:	1.000
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-001	Analyzed:	05/09/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	13%		

Analyte	Result	RL	MDL
Diesel C10-C24	35 H Y	1.2	0.24
Motor Oil C24-C36	100	5.8	1.2

Surrogate	%REC	Limits
Hexacosane	124	51-136

Field ID:	BB1TP10[8/9](3.5)	Diln Fac:	2.000
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-002	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	9%		

Analyte	Result	RL	MDL
Diesel C10-C24	220 H Y	2.2	0.46
Motor Oil C24-C36	280 H L	11	2.3

Surrogate	%REC	Limits
Hexacosane	94	51-136

Field ID:	BB1TP10[8/9](2.5)	Diln Fac:	1.000
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-003	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	13%		

Analyte	Result	RL	MDL
Diesel C10-C24	1.1 J Y	1.2	0.24
Motor Oil C24-C36	7.9 Y	5.8	0.75

Surrogate	%REC	Limits
Hexacosane	64	51-136

H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/06/05
Batch#:	101791		

Field ID:	DUP(050405)	Diln Fac:	3.000
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-004	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	11%		

Analyte	Result	RL	MDL
Diesel C10-C24	84 H Y	3.3	0.71
Motor Oil C24-C36	440	17	3.6

Surrogate	%REC	Limits
Hexacosane	101	51-136

Field ID:	SOILCOMP	Diln Fac:	1.000
Type:	SAMPLE	Sampled:	05/05/05
Lab ID:	179266-006	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	14%		

Analyte	Result	RL	MDL
Diesel C10-C24	6.3 H Y	1.2	0.25
Motor Oil C24-C36	40	5.8	0.76

Surrogate	%REC	Limits
Hexacosane	129	51-136

Field ID:	BB1TP108(5.0)	Diln Fac:	10.00
Type:	SAMPLE	Sampled:	05/05/05
Lab ID:	179266-007	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3630C
Moisture:	27%		

Analyte	Result	RL	MDL
Diesel C10-C24	690 H Y	14	2.9
Motor Oil C24-C36	3,500	69	15

Surrogate	%REC	Limits
Hexacosane	DO	51-136

H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/06/05
Batch#:	101791		

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC292868	Analyzed:	05/06/05
Basis:	as received	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C10-C24	0.48 J	1.0	0.21
Motor Oil C24-C36	ND	5.0	0.65

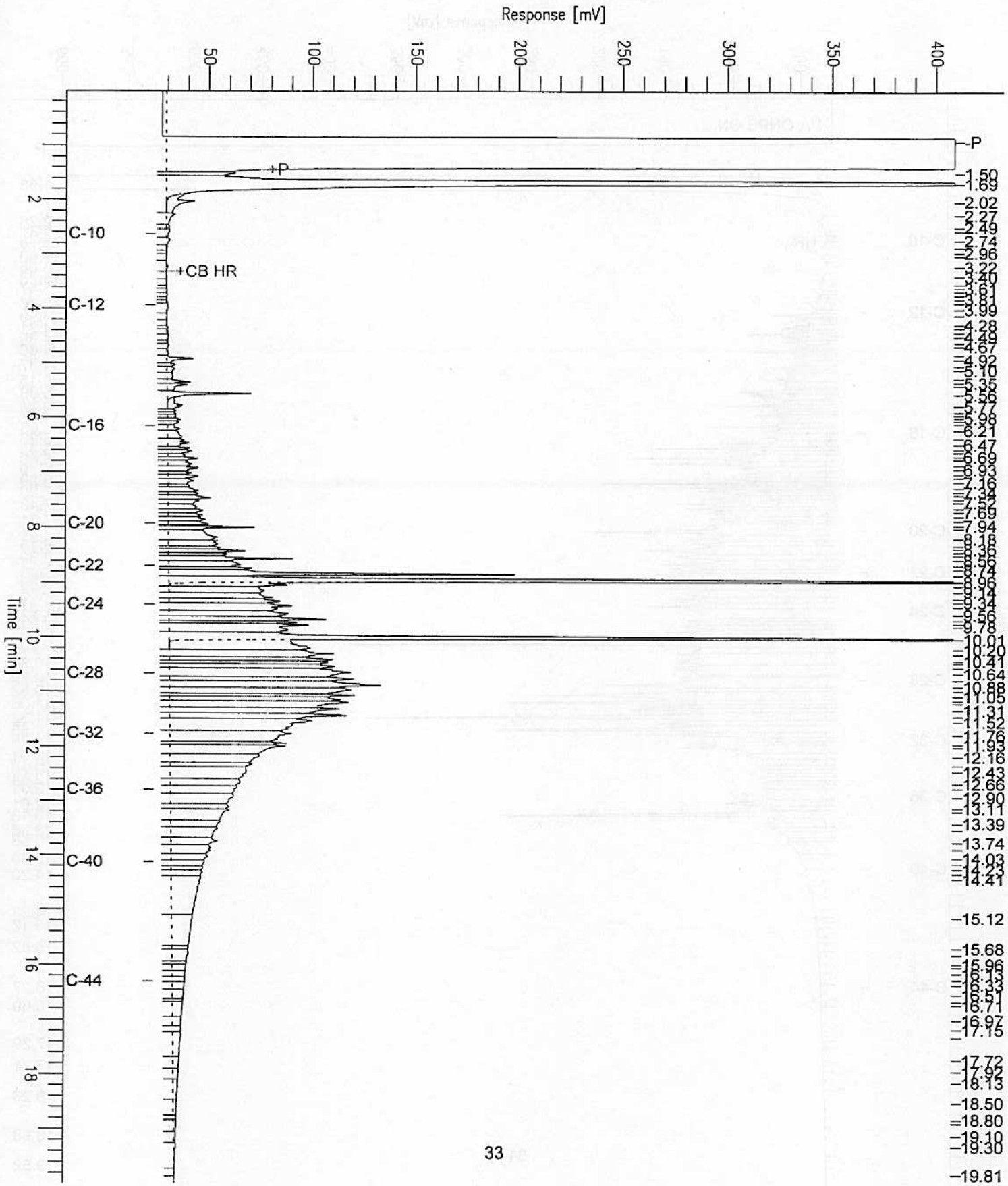
Surrogate	%REC	Limits
Hexacosane	90	51-136

H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 179266-001sg,101791
FileName : G:\GC13\CHB\129B005.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 24 mV

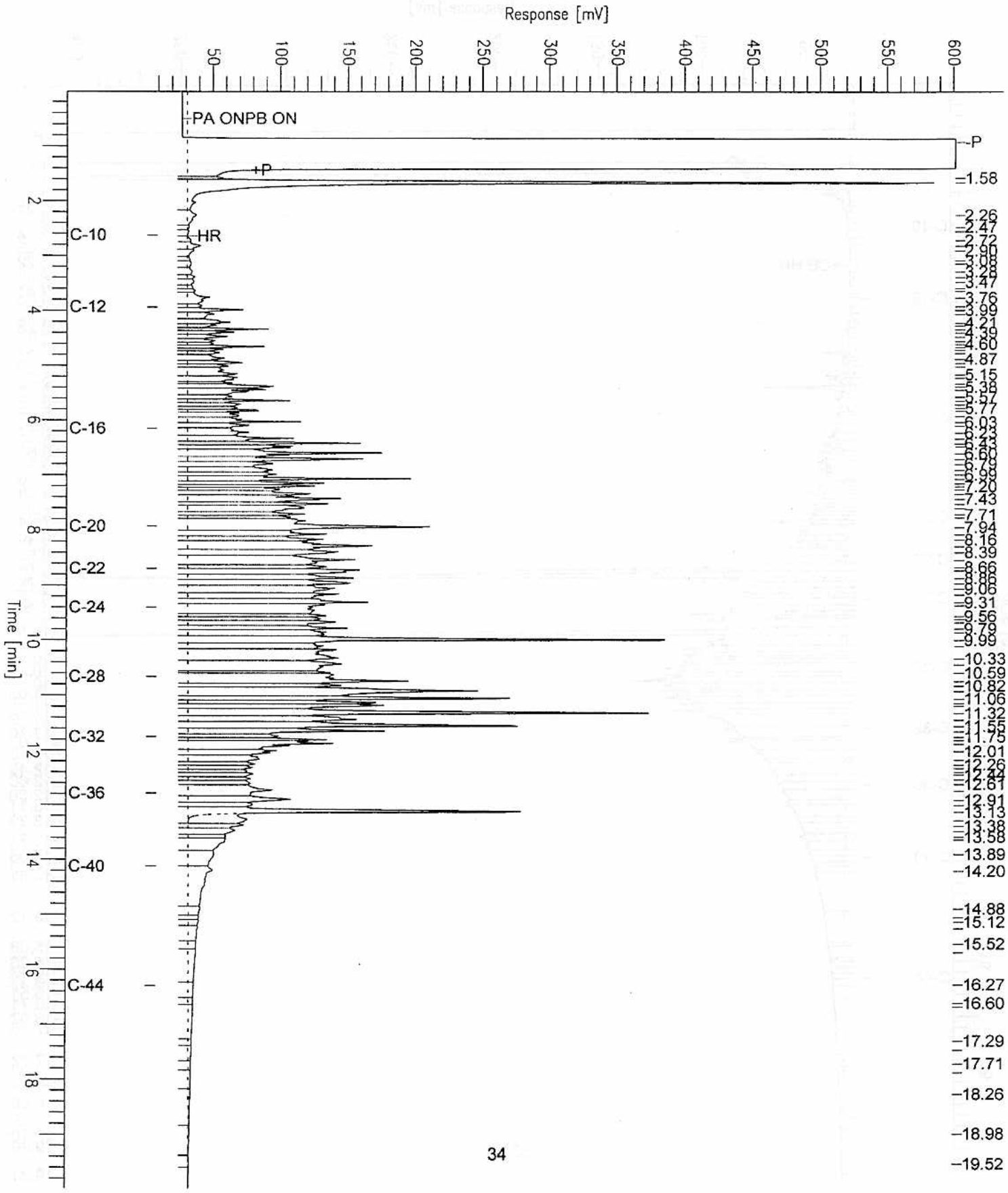
Sample #: 101791 Page 1 of 1
Date : 5/9/05 02:09 PM
Time of Injection: 5/9/05 01:46 PM
Low Point : 23.93 mV High Point : 408.87 mV
Plot Scale: 384.9 mV



Chromatogram

Sample Name : 179266-002sg,101791
FileName : G:\GC13\CHB\125B037.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 9 mV

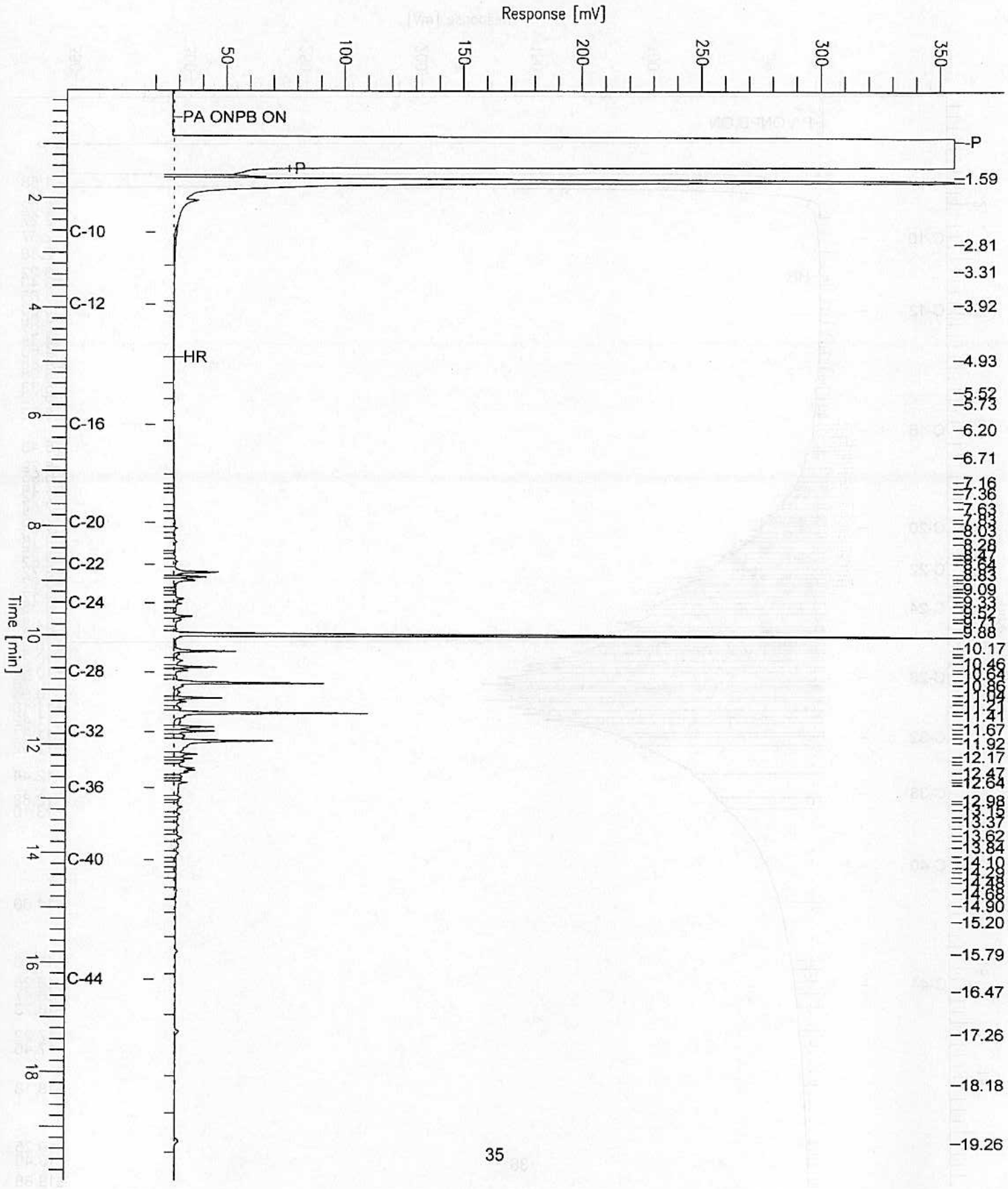
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:34 AM
Time of Injection: 5/6/05 07:54 PM
Low Point : 8.67 mV High Point : 601.31 mV
Plot Scale: 592.6 mV



Chromatogram

Sample Name : 179266-003,101791
FileName : G:\GC13\CHB\125B032.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 20 mV

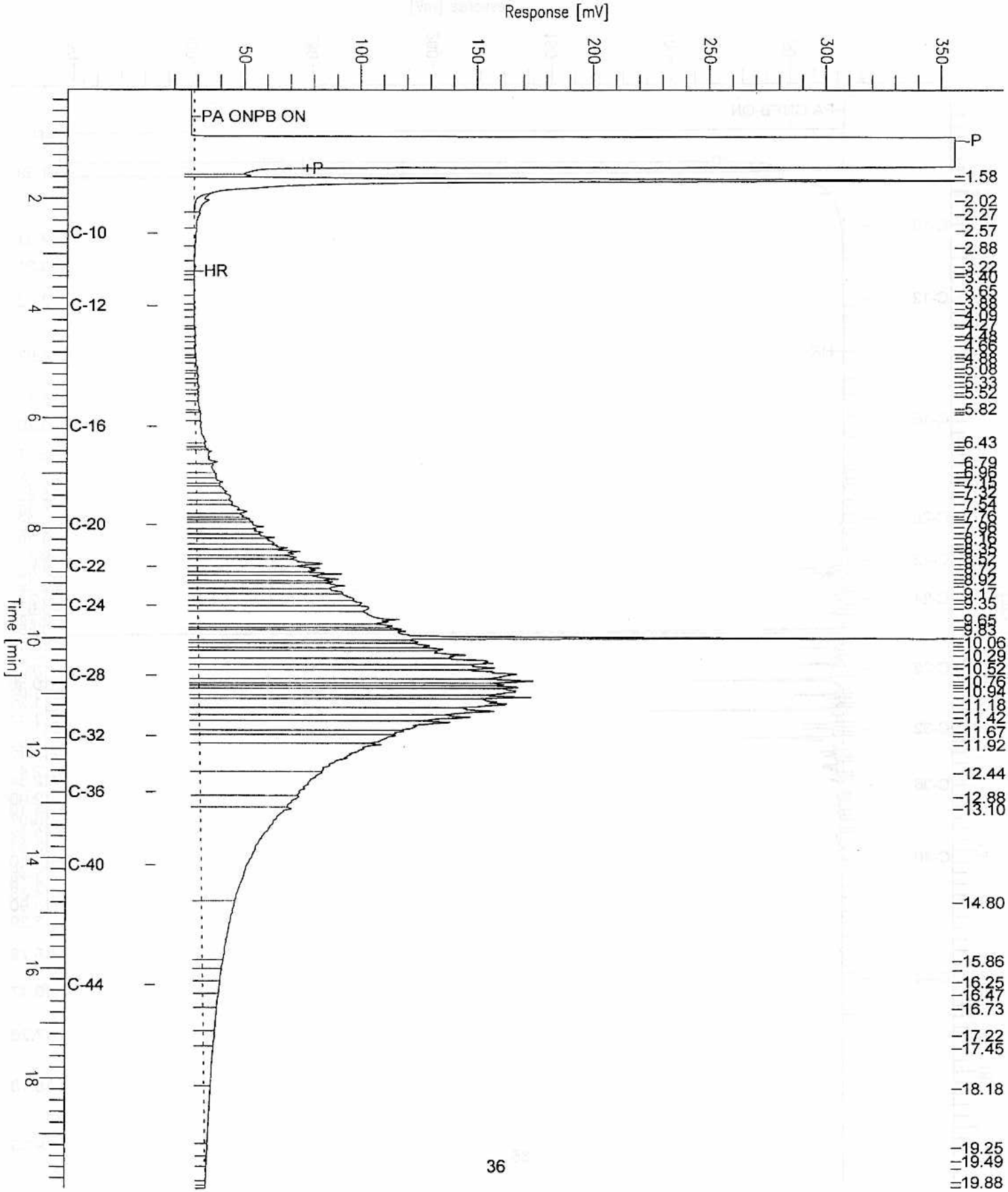
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:32 AM
Time of Injection: 5/6/05 05:35 PM
Low Point : 19.91 mV High Point : 355.91 mV
Plot Scale: 336.0 mV



Chromatogram

Sample Name : 179266-004sg,101791
FileName : G:\GC13\CHB\125B036.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

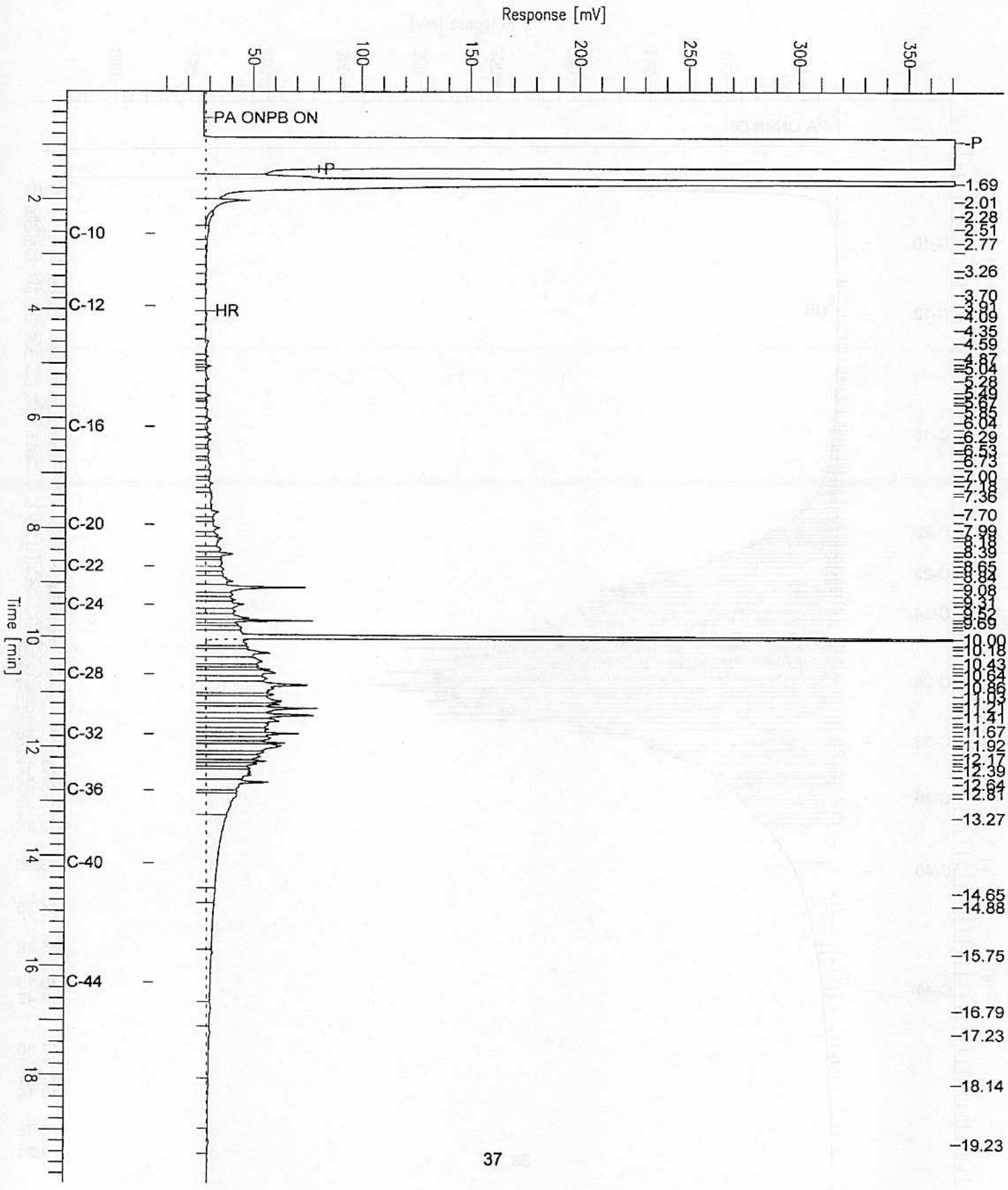
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:34 AM
Time of Injection: 5/6/05 07:26 PM
Low Point : 12.43 mV High Point : 355.93 mV
Plot Scale: 343.5 mV



Chromatogram

Sample Name : 179266-006sg,101791
FileName : G:\GC13\CHB\125B033.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 5 mV

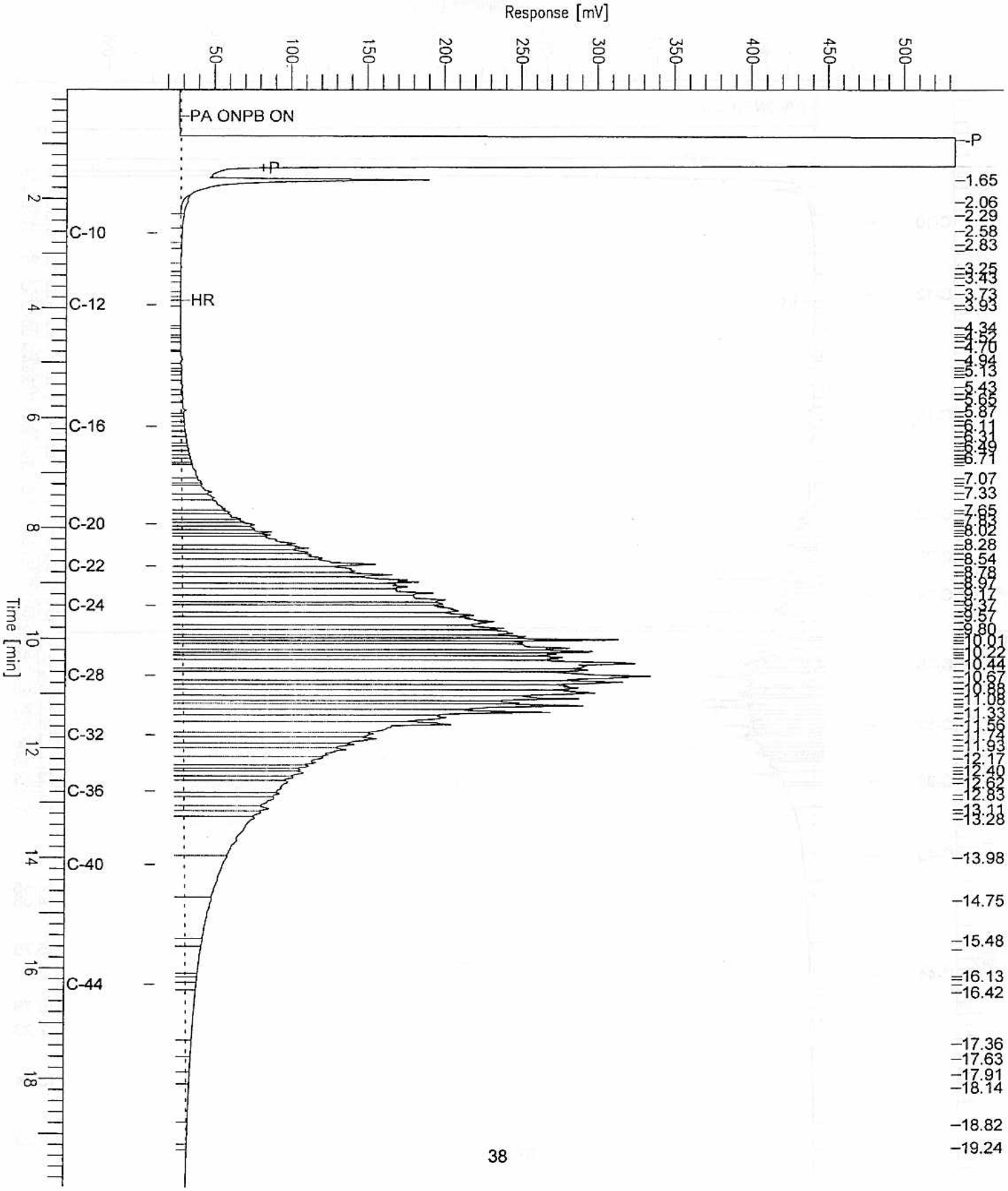
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:32 AM
Time of Injection: 5/6/05 06:03 PM
Low Point : 4.86 mV High Point : 371.02 mV
Plot Scale: 366.2 mV



Chromatogram

Sample Name : 179266-007sg,101791
FileName : G:\GC13\CHB\125B035.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

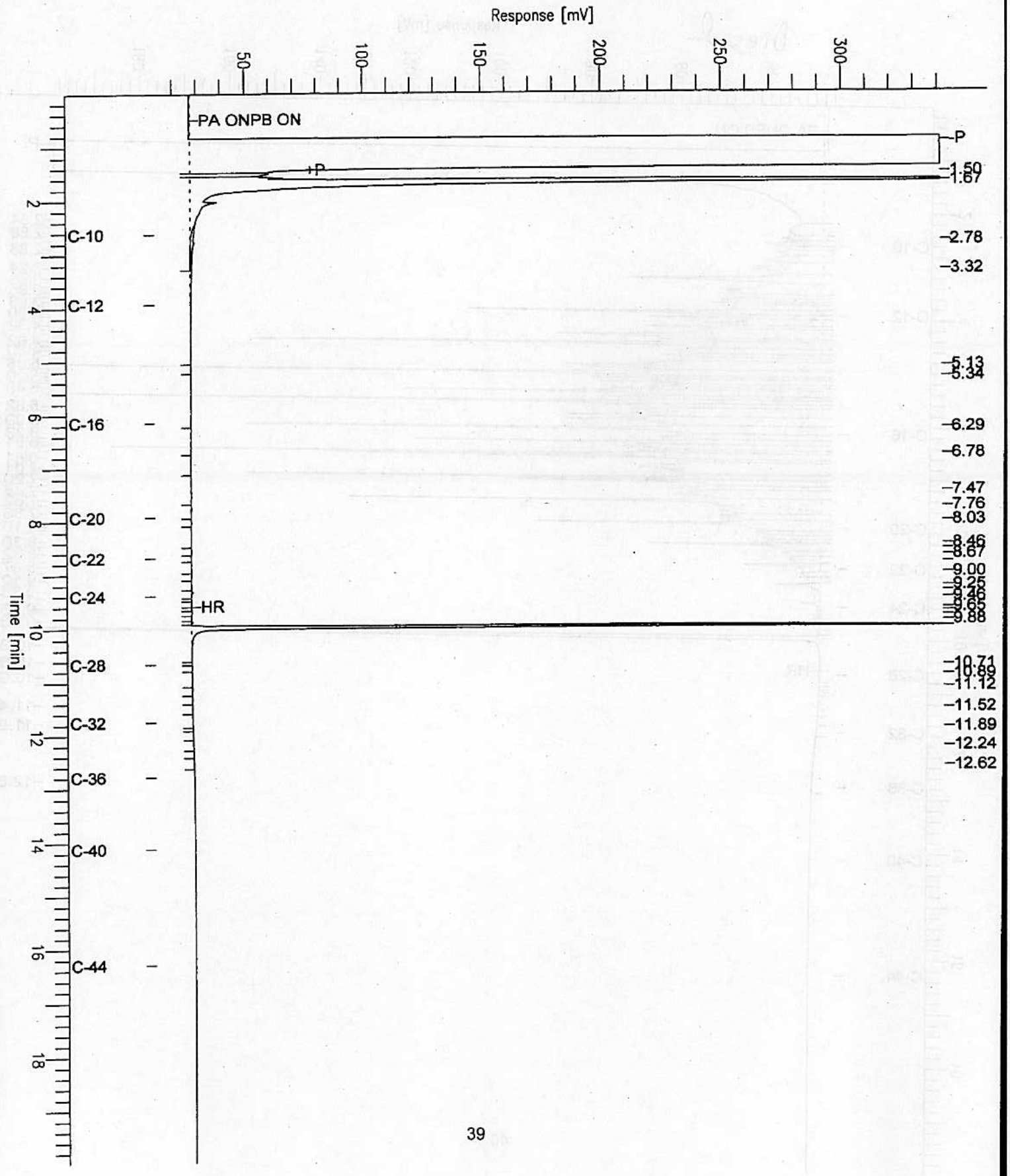
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:33 AM
Time of Injection: 5/6/05 06:58 PM
Low Point : 12.44 mV High Point : 533.40 mV
Plot Scale: 521.0 mV



Chromatogram

Sample Name : mb,qc292868sg,101791
FileName : G:\GC13\CHB\125B031.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

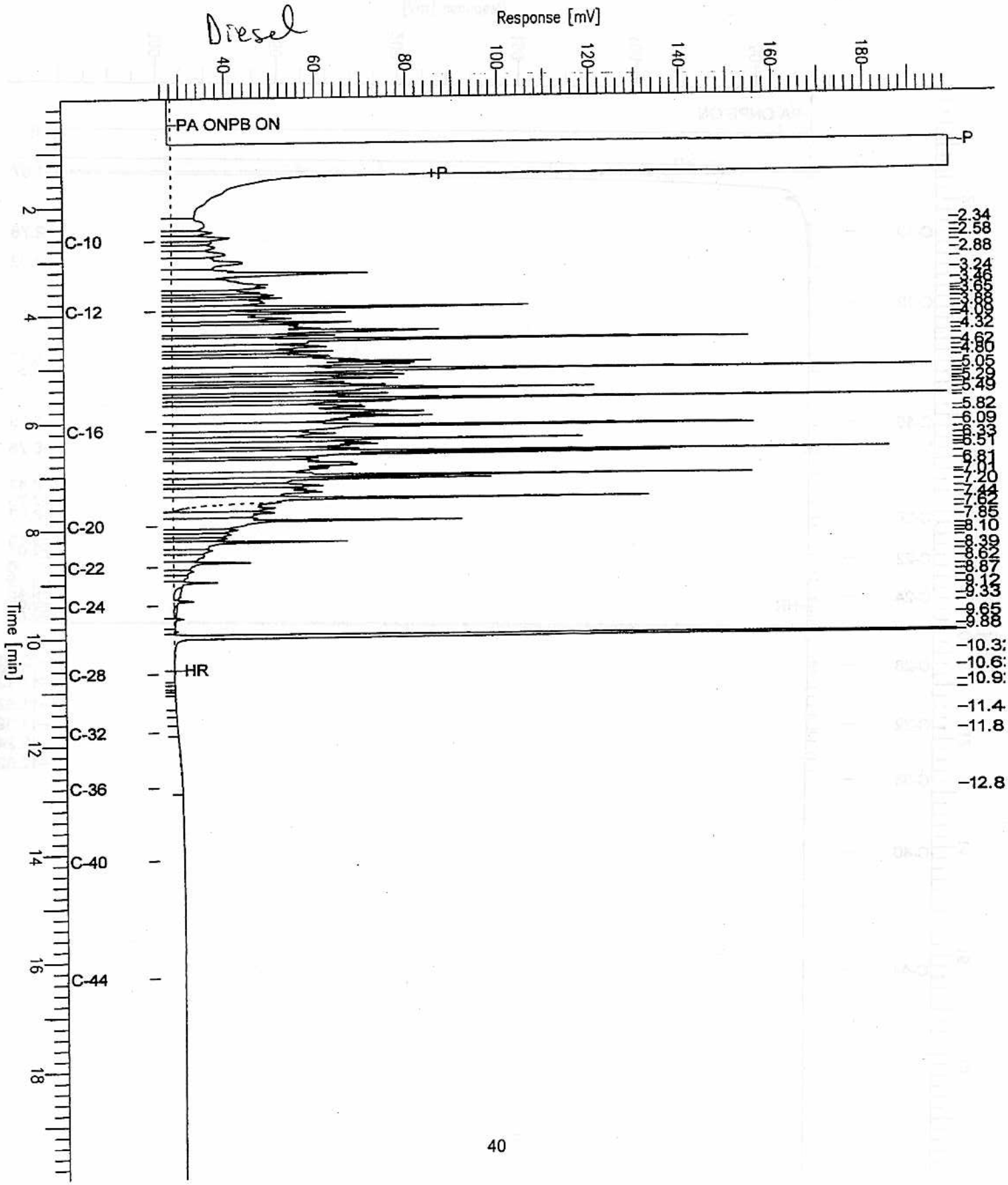
Sample #: 101791 Page 1 of 1
Date : 5/7/05 11:31 AM
Time of Injection: 5/6/05 05:07 PM
Low Point : 12.42 mV High Point : 340.91 mV
Plot Scale: 328.5 mV



Chromatogram

Sample Name : ccv,S467,dsl
FileName : G:\GC13\CHB\125B003.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 25 mV

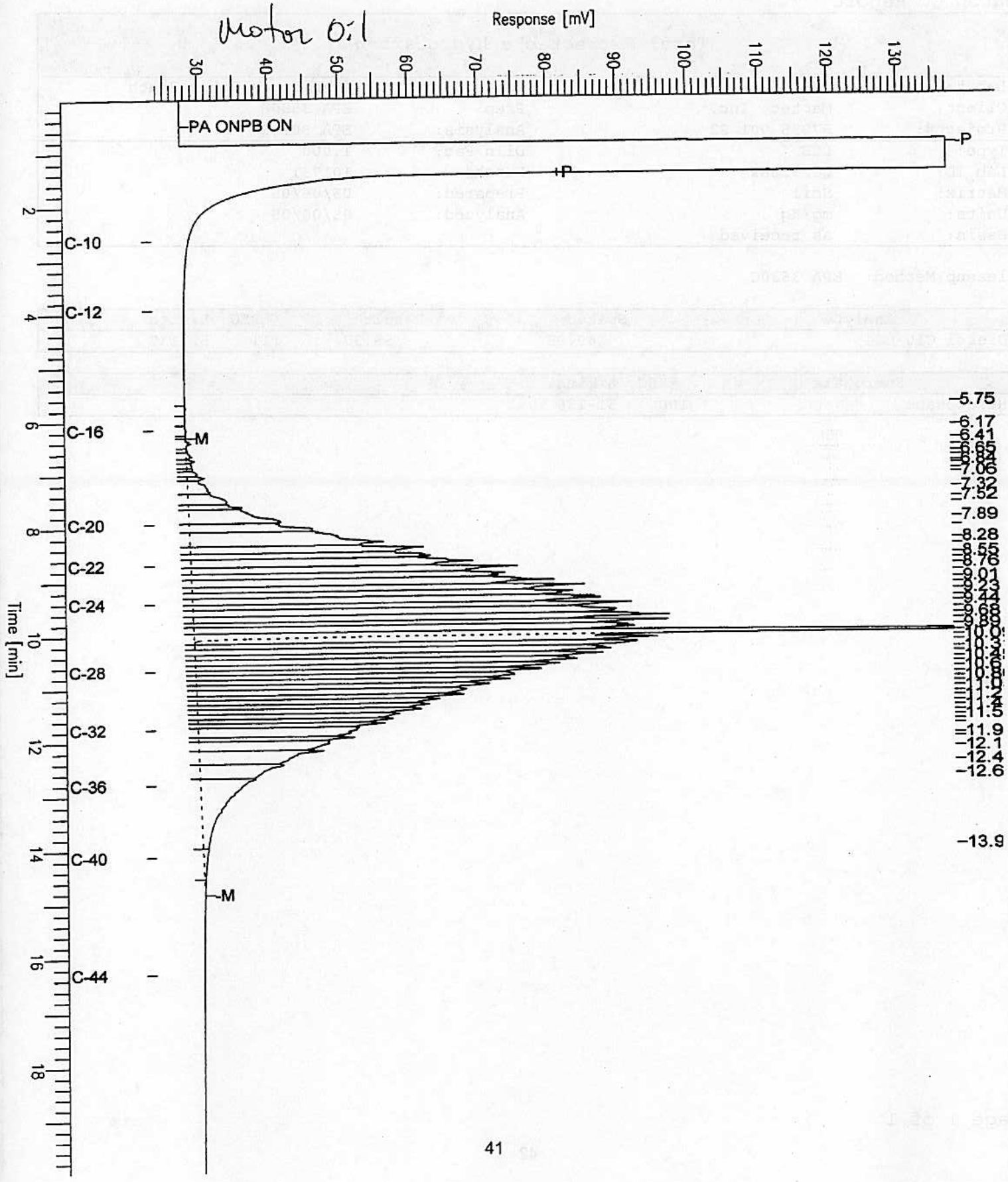
Sample #: 500mg/L
Date : 5/5/05 10:31 AM
Time of Injection: 5/5/05 09:51 AM
Low Point : 24.57 mV High Point : 198.98 mV
Plot Scale: 174.4 mV



Chromatogram

Sample Name : ccv,S442,mo
FileName : G:\GC13\CHB\125B004.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #: 500mg/L Page 1 of 1
Date : 5/5/05 11:07 AM
Time of Injection: 5/5/05 10:19 AM
Low Point : 23.21 mV High Point : 137.03 mV
Plot Scale: 113.8 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292869	Batch#:	101791
Matrix:	Soil	Prepared:	05/06/05
Units:	mg/Kg	Analyzed:	05/06/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.95	55.37	111	52-137

Surrogate	%REC	Limits
Hexacosane	100	51-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BB1TP10 (6.0)	Batch#:	101791
MSS Lab ID:	179266-001	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/06/05
Basis:	dry	Analyzed:	05/06/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292870

Moisture: 13%
Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	35.15	56.98	82.70	83	11-169

Surrogate	%REC	Limits
Hexacosane	109	51-136

Type: MSD
Lab ID: QC292871

Moisture: 13%
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	57.25	84.97	87	11-169	2	49

Surrogate	%REC	Limits
Hexacosane	108	51-136

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: MCH
Calnum: 145118824002 Name: dsl Type: (normal) Date: 23-MAR-2005 22:24 Inj Vol (uL): 3

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	082b012	145118824012	dsl10	23-MAR-2005 22:24	05WS0167
2	082b013	145118824013	dsl100	23-MAR-2005 22:52	05WS0169
3	082b014	145118824014	dsl250	23-MAR-2005 23:20	05WS0170
4	082b015	145118824015	dsl500	23-MAR-2005 23:48	05WS0171
5	082b016	145118824016	dsl1000	24-MAR-2005 00:17	05WS0172
6	082b017	145118824017	dsl2500	24-MAR-2005 00:45	05WS0173
7	082b018	145118824018	dsl5000	24-MAR-2005 01:13	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C10-C24	25181	22700	17958	23267	18682	19751	20580	AVRG R		4.726E-5		mg/L	21160	12	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC13B Calname : dsl
Calnum : 145118824002 Caldate : 23-MAR-2005 Caltype :

ICV 145118824020 (082b020) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	B	145118824020	24-MAR-2005	500.00	540.80	mg/L	8

INITIAL CALIBRATION REPORT FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: RH
Calnum: 145107088002 Name: mo Type: (normal) Date: 15-MAR-2005 17:15 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	074b013	145107088013	mo 50	15-MAR-2005 17:15	04WS2172
2	074b014	145107088014	mo 250	15-MAR-2005 17:43	04WS2173
3	074b015	145107088015	mo 500	15-MAR-2005 18:11	04WS2174
4	074b016	145107088016	mo 1000	15-MAR-2005 18:38	04WS2175
5	074b017	145107088017	mo 2500	15-MAR-2005 19:07	04WS2176
6	074b018	145107088018	mo 5000	15-MAR-2005 19:34	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	15505	16721	16352	15078	12216	9686.5	AVRG R		7.013E-5		mg/L	14260	19	0.995	20	

46

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: CW
Calnum: 145147550001 Name: Hexacosane Type: (normal) Date: 13-APR-2005 01:01 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102b019	145147550019	hex5	13-APR-2005 01:01	s112
2	102b020	145147550020	hex10	13-APR-2005 01:30	s113
3	102b021	145147550021	hex25	13-APR-2005 01:58	s114
4	102b022	145147550022	hex50	13-APR-2005 02:26	s115
5	102b023	145147550023	hex75	13-APR-2005 02:55	s116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	24111	24621	24792	26302	24569	AVRG R		4.019E-5		mg/L	24879	3	0.995	20	

47

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145180534029	06-MAY-2005 15:58	145118824002	23-MAR-2005	21160	22173	500.00	523.95	mg/L	5	15	
GC13B	B	145180534040	06-MAY-2005 21:18	145118824002	23-MAR-2005	21160	22991	250.00	271.63	mg/L	9	15	
GC13B	B	145180534046	07-MAY-2005 00:08	145118824002	23-MAR-2005	21160	23986	500.00	566.77	mg/L	13	15	
GC13B	B	145186292003	09-MAY-2005 09:49	145118824002	23-MAR-2005	21160	23755	500.00	561.32	mg/L	12	15	
GC13B	B	145186292008	09-MAY-2005 15:10	145118824002	23-MAR-2005	21160	20605	1000.0	973.76	mg/L	-3	15	

CONTINUING CALIBRATION SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145180534028	06-MAY-2005 15:28	145107088002	15-MAR-2005	14260	14970	500.00	524.91	mg/L	5	15	
GC13B	B	145180534041	06-MAY-2005 21:46	145107088002	15-MAR-2005	14260	12796	500.00	448.66	mg/L	-10	15	
GC13B	B	145186292004	09-MAY-2005 10:17	145107088002	15-MAR-2005	14260	13805	500.00	484.03	mg/L	-3	15	
GC13B	B	145186292007	09-MAY-2005 14:42	145107088002	15-MAR-2005	14260	13316	500.00	466.89	mg/L	-7	15	

CONTINUING CALIBRATION SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145180534028	06-MAY-2005 15:28	145147550001	13-APR-2005	24879	25295	50.000	50.836	mg/L	2	15	
GC13B	B	145180534040	06-MAY-2005 21:18	145147550001	13-APR-2005	24879	24930	50.000	50.102	mg/L	0	15	
GC13B	B	145180534046	07-MAY-2005 00:08	145147550001	13-APR-2005	24879	24735	50.000	49.712	mg/L	-1	15	
GC13B	B	145186292003	09-MAY-2005 09:49	145147550001	13-APR-2005	24879	24527	50.000	49.292	mg/L	-1	15	
GC13B	B	145186292007	09-MAY-2005 14:42	145147550001	13-APR-2005	24879	25583	50.000	51.415	mg/L	3	15	

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145107088 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 15-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	074b001	X	primer			15-MAR-2005 08:48	1.0						
002	074b002	X	ib			15-MAR-2005 09:16	1.0						
003	074b003	ICAL	dsl 10			15-MAR-2005 12:35	1.0					1	
004	074b004	ICAL	dsl 100			15-MAR-2005 13:03	1.0					2	
005	074b005	ICAL	dsl 250			15-MAR-2005 13:31	1.0					3	
006	074b006	ICAL	dsl 500			15-MAR-2005 13:58	1.0					4	
007	074b007	ICAL	dsl 1000			15-MAR-2005 14:26	1.0					5	
008	074b008	ICAL	dsl 2500			15-MAR-2005 14:54	1.0					6	
009	074b009	ICAL	dsl 5000			15-MAR-2005 15:22	1.0					7	
010	074b010	X	ib			15-MAR-2005 15:50	1.0						
011	074b011	ICV	dsl			15-MAR-2005 16:18	1.0		3			8	
012	074b012	X	ib			15-MAR-2005 16:47	1.0						
013	074b013	ICAL	mo 50			15-MAR-2005 17:15	1.0					9	
014	074b014	ICAL	mo 250			15-MAR-2005 17:43	1.0					10	
015	074b015	ICAL	mo 500			15-MAR-2005 18:11	1.0					11	51
016	074b016	ICAL	mo 1000			15-MAR-2005 18:38	1.0					12	
017	074b017	ICAL	mo 2500			15-MAR-2005 19:07	1.0					13	
018	074b018	ICAL	mo 5000			15-MAR-2005 19:34	1.0					14	
019	074b019	X	ib			15-MAR-2005 20:02	1.0						
020	074b020	ICAL	hex5			15-MAR-2005 20:30	1.0					15	
021	074b021	ICAL	hex10			15-MAR-2005 20:58	1.0					16	
022	074b022	ICAL	hex25			15-MAR-2005 21:26	1.0					17	
023	074b023	ICAL	hex50			15-MAR-2005 21:54	1.0					18	
024	074b024	ICAL	hex75			15-MAR-2005 22:22	1.0					19	
025	074b025	X	ib			15-MAR-2005 22:50	1.0						
026	074b026	X	c10-16			15-MAR-2005 23:18	1.0						
027	074b027	X	c12-60			15-MAR-2005 23:46	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145118824 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 23-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	082b001	X	primer			23-MAR-2005 11:56	1.0						
002	082b002	X	ib			23-MAR-2005 12:24	1.0						
003	082b003	CCV	dsl			23-MAR-2005 12:53	1.0	7	3			1	
004	082b004	CCV	mo			23-MAR-2005 13:21	1.0		3			2	
005	082b005	X	ib			23-MAR-2005 19:08	1.0						
006	082b006	ICAL	hex5			23-MAR-2005 19:36	1.0					3	
007	082b007	ICAL	hex10			23-MAR-2005 20:04	1.0					4	
008	082b008	ICAL	hex25			23-MAR-2005 20:32	1.0					5	
009	082b009	ICAL	hex50			23-MAR-2005 21:00	1.0					6	
010	082b010	ICAL	hex75			23-MAR-2005 21:28	1.0					7	
011	082b011	X	ib			23-MAR-2005 21:56	1.0						
012	082b012	ICAL	dsl10			23-MAR-2005 22:24	1.0					8	
013	082b013	ICAL	dsl100			23-MAR-2005 22:52	1.0					9	
014	082b014	ICAL	dsl250			23-MAR-2005 23:20	1.0					10	
015	082b015	ICAL	dsl500			23-MAR-2005 23:48	1.0					11	52
016	082b016	ICAL	dsl1000			24-MAR-2005 00:17	1.0					12	
017	082b017	ICAL	dsl2500			24-MAR-2005 00:45	1.0					13	
018	082b018	ICAL	dsl5000			24-MAR-2005 01:13	1.0					14	
019	082b019	X	ib			24-MAR-2005 01:41	1.0						
020	082b020	ICV	dsl			24-MAR-2005 02:09	1.0		3			15	
021	082b021	X	ib			24-MAR-2005 02:38	1.0						

Stds used: 1=S72 2=S97 3=S112 4=S113 5=S114 6=S115 7=S116 8=05WS0167 9=05WS0169 10=05WS0170 11=05WS0171 12=05WS0172 13=05WS0173 14=05WS0174 15=S110

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145147550 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	102b001	X	primer			12-APR-2005 11:10	1.0						
002	102b002	X	ib			12-APR-2005 11:38	1.0						
003	102b003	CCV	dsl			12-APR-2005 12:06	1.0					1	
004	102b004	CCV	mo			12-APR-2005 12:34	1.0					2	
005	102b005	X	ib			12-APR-2005 15:11	1.0						
006	102b006	CCV	dsl			12-APR-2005 15:39	1.0		3			1	
007	102b007	CCV	mo			12-APR-2005 16:07	1.0		3			2	
008	102b008	X	ib			12-APR-2005 19:52	1.0						
009	102b009	ICAL	dsl10			12-APR-2005 20:20	1.0					3	
010	102b010	ICAL	dsl100			12-APR-2005 20:48	1.0					4	
011	102b011	ICAL	dsl250			12-APR-2005 21:16	1.0					5	
012	102b012	ICAL	dsl500			12-APR-2005 21:44	1.0					6	
013	102b013	ICAL	dsl1000			12-APR-2005 22:12	1.0					7	
014	102b014	ICAL	dsl2500			12-APR-2005 22:40	1.0					8	
015	102b015	ICAL	dsl5000			12-APR-2005 23:09	1.0					9	63
016	102b016	X	ib			12-APR-2005 23:37	1.0						
017	102b017	ICV	dsl			13-APR-2005 00:05	1.0					10	
018	102b018	X	ib			13-APR-2005 00:33	1.0						
019	102b019	ICAL	hex5			13-APR-2005 01:01	1.0					11	
020	102b020	ICAL	hex10			13-APR-2005 01:30	1.0					12	
021	102b021	ICAL	hex25			13-APR-2005 01:58	1.0					13	
022	102b022	ICAL	hex50			13-APR-2005 02:26	1.0					14	
023	102b023	ICAL	hex75			13-APR-2005 02:55	1.0					15	
024	102b024	X	ib			13-APR-2005 03:23	1.0						
025	102b025	CCV	dsl			13-APR-2005 03:51	1.0		3			16	

Stds used: 1=S72 2=S294 3=05WS0167 4=05WS0169 5=05WS0170 6=05WS0171 7=05WS0172 8=05WS0173 9=05WS0174 10=S110 11=S112 12=S113 13=S114 14=S115 15=S116 16=S167

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145180534 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 05-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	125b001	X	primer			05-MAY-2005 08:54	1.0					
002	125b002	X	ib			05-MAY-2005 09:22	1.0					
003	125b003	CCV	dsl			05-MAY-2005 09:51	1.0	1.0		3	1	
004	125b004	CCV	mo			05-MAY-2005 10:19	1.0	1.0		3	2	
005	125b005	SAMPLE	179227-013	101711	Soil	05-MAY-2005 11:44	2.0	0.1000		3		
006	125b006	SAMPLE	179227-015	101711	Soil	05-MAY-2005 12:12	10.0	0.0996		3		
007	125b007	CCV	dsl			05-MAY-2005 13:42	1.0	1.0		3	3	
008	125b008	CCV	mo			05-MAY-2005 15:28	1.0	1.0		3	2	
009	125b009	BLANK	QC292618	101722	Water	05-MAY-2005 15:59	1.0	0.005	10	3		
010	125b010	MDL	178685-001	101722	Water	05-MAY-2005 16:27	1.0	0.005		3		
011	125b011	MDL	178685-002	101722	Water	05-MAY-2005 16:55	1.0	0.005		3		
012	125b012	MDL	178685-003	101722	Water	05-MAY-2005 17:23	1.0	0.005		3		
013	125b013	MDL	178685-004	101722	Water	05-MAY-2005 17:51	1.0	0.005		3		
014	125b014	MDL	178685-005	101722	Water	05-MAY-2005 18:20	1.0	0.005		3		
015	125b015	MDL	178685-006	101722	Water	06-MAY-2005 08:52	1.0	0.005		3		54
016	125b016	MDL	178685-007	101722	Water	06-MAY-2005 09:52	1.0	0.005		3		
017	125b017	MDL	178685-008	101722	Water	06-MAY-2005 10:20	1.0	0.005		3		
018	125b018	CCV	mo			06-MAY-2005 10:48	1.0	1.0		3	2	
019	125b019	BLANK	QC292663	101734	Soil	06-MAY-2005 11:16	1.0	0.1000	10	3		
020	125b020	MDL	178684-001	101734	Soil	06-MAY-2005 11:44	1.0	0.1000		3		
021	125b021	MDL	178684-002	101734	Soil	06-MAY-2005 12:12	1.0	0.1000		3		
022	125b022	MDL	178684-003	101734	Soil	06-MAY-2005 12:40	1.0	0.1000		3		
023	125b023	MDL	178684-004	101734	Soil	06-MAY-2005 13:08	1.0	0.1000		3		
024	125b024	MDL	178684-005	101734	Soil	06-MAY-2005 13:36	1.0	0.1000		3		
025	125b025	MDL	178684-006	101734	Soil	06-MAY-2005 14:04	1.0	0.1000		3		
026	125b026	MDL	178684-007	101734	Soil	06-MAY-2005 14:32	1.0	0.1000		3		
027	125b027	MDL	178684-008	101734	Soil	06-MAY-2005 15:00	1.0	0.1000		3		
028	125b028	CCV	mo			06-MAY-2005 15:28	1.0	1.0		3	2	
029	125b029	CCV	dsl			06-MAY-2005 15:58	1.0	1.0		3	1	
030	125b030	LCS	QC292869 S	101791	Soil	06-MAY-2005 16:39	1.0	0.0999		3		
031	125b031	BLANK	QC292868 S	101791	Soil	06-MAY-2005 17:07	1.0	0.09968	10	3		

Stds used: 1=S467 2=S442 3=S295 4=S351

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145180534 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 05-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum		Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
032	125b032	SAMPLE	179266-003		101791	Soil	06-MAY-2005 17:35	1.0	0.1004	3		
033	125b033	SAMPLE	179266-006	S	101791	Soil	06-MAY-2005 18:03	1.0	0.1003	3		
034	125b034	SAMPLE	179252-001		101791	Soil	06-MAY-2005 18:30	1.0	0.1002	3		
035	125b035	SAMPLE	179266-007	S	101791	Soil	06-MAY-2005 18:58	10.0	0.1006	3		
036	125b036	SAMPLE	179266-004	S	101791	Soil	06-MAY-2005 19:26	3.0	0.09907	3		
037	125b037	SAMPLE	179266-002	S	101791	Soil	06-MAY-2005 19:54	2.0	0.09962	3		
038	125b038	X	179266-001	S	101791	Soil	06-MAY-2005 20:22	1.0	0.1001	3		
039	125b039	SAMPLE	179213-001		101791	Soil	06-MAY-2005 20:50	10.0	0.0998	3		
040	125b040	CCV	dsl				06-MAY-2005 21:18	1.0	1.0	3	4	
041	125b041	CCV	mo				06-MAY-2005 21:46	1.0	1.0	3	2	
042	125b042	X	ccv				06-MAY-2005 22:14	1.0			4	
043	125b043	MS	QC292870	S	101791	Soil	06-MAY-2005 22:43	1.0	0.09915	3		
044	125b044	MSD	QC292871	S	101791	Soil	06-MAY-2005 23:11	1.0	0.09962	3		
045	125b045	SAMPLE	179269-001		101791	Soil	06-MAY-2005 23:39	1.0	0.1001	3		
046	125b046	CCV	dsl				07-MAY-2005 00:08	1.0	1.0	3	1	H
047	125b047	CCV	mo				07-MAY-2005 00:36	1.0	1.0	3	2	
048	125b048	X	ccv				07-MAY-2005 01:05	1.0			1	

Stds used: 1=S467 2=S442 3=S295 4=S351

SEQUENCE SUMMARY FOR 179266 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145186292 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 09-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC SPK uL		Stds Used	>LR
001	129b001	X	primer			09-MAY-2005 08:52	1.0					
002	129b002	X	ib			09-MAY-2005 09:20	1.0					
003	129b003	CCV	dsl			09-MAY-2005 09:49	1.0	1.0		3	1	
004	129b004	CCV	mo			09-MAY-2005 10:17	1.0	1.0		3	2	
005	129b005	MSS	179266-001 S	101791	Soil	09-MAY-2005 13:46	1.0	0.1001	10	3		
006	129b006	X	ccv			09-MAY-2005 14:14	1.0	1.0		3	3	
007	129b007	CCV	mo			09-MAY-2005 14:42	1.0	1.0		3	2	
008	129b008	CCV	dsl			09-MAY-2005 15:10	1.0	1.0		3	3	

56

Stds used: 1=S467 2=S442 3=S295

Curtis & Tompkins Laboratories Sample Preparation Summary 06-MAY-2005 16:39

Batch Number : 101791
Date Extracted: 06-MAY-2005
Extracted by : Sheila H. Dodson
Prep Method : 3550B

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S449B
Spike #2 ID : S305F
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179213-001			CH2M Hill Constructors Inc.	Soil	50.1	g	5	0.099800	1	1	0		TEHM		
179252-001			Stellar Environmental Solution	Soil	49.89	g	5	0.100220	1	1	0		TEHM		
179266-001			Mactec, Inc.	Soil	49.97	g	5	0.100060	1	1	0		TEHM	3630C	sg, mss
179266-002			Mactec, Inc.	Soil	50.19	g	5	0.099621	1	1	0		TEHM	3630C	sg
179266-003			Mactec, Inc.	Soil	49.78	g	5	0.100442	1	1	0		TEHM	3630C	sg
179266-004			Mactec, Inc.	Soil	50.47	g	5	0.099069	1	1	0		TEHM	3630C	sg
179266-006			Mactec, Inc.	Soil	49.85	g	5	0.100301	1	1	0		TEHM	3630C	sg
179266-007			Mactec, Inc.	Soil	49.68	g	5	0.100644	1	1	0		TEHM	3630C	sg
179269-001			URS Corporation	Soil	49.93	g	5	0.100140	1	1	0		TEHM		
QC292868	MB			Soil	50.16	g	5	0.099681	1	1	0		TEH	3630C	sg
QC292869	LCS			Soil	50.05	g	5	0.099900	1	1	1		TEH	3630C	sg
QC292870	MS	of 179266-001		Soil	50.43	g	5	0.099147	1	1	1		TEH	3630C	sg
QC292871	MSD	of 179266-001		Soil	50.19	g	5	0.099621	1	1	1		TEH	3630C	sg

Prep Chemist: JRD for SHD 5/16/05 Reviewed By: Jennifer Dodd Date: 5/16/05

Relinquished By: JRD for SHD 5/16/05 Received By: C.V. Date: 5/17/05

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2119

LIMS Batch No: 101791 Extraction Method: Cleanup Method (if necessary):

LIMS Analysis TEH ☐ Mechanical Shaker Table ☒ EPA 3630 Silica Gel

Extracted by: SHD ☒ EPA 3550 Sonication ☐ Other _____

Date Extracted: 5/6/05 ☐ Other _____

Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
179213-001	50.10	5.0		
179252-001	49.89			
1792666-001	49.97		X	MSS
-002	50.19			left black residue on reciever
-003	49.78			
-004	50.47			
~~-005~~	~~50.43~~			Client did not request
-006	49.85			
-007	49.108			left blk residue on reciever
179269-001	49.93			
MB QC2928168	50.16		X	
LCS 69	50.05			
MS SRM 670	50.43			
MSD 71	50.19			

SHD 5/6/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44028452	SHD 5/6/05
Samples were dried with CH2Cl2-rinsed ~~granular~~ Na2SO4	EM44135453	
1.0 mL of TEH_SURR surrogate solution was added to all samples	C4491B	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	5305F	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all CH_2Cl_2	45071	
Acetone	45033	
Samples were: ☑ sonicated 3 times ☐ placed on shaker table at:	N/A	
taken off shaker table at:	N/A	
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM44135453	
Concentrated to volumes as noted above	✓	

SHD 5/6/05

Extraction Chemist / Date

Continued from page ≠
Continued on page ≠

Jennifer Wilson 5/16/05

Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SHD
Cleanup Date: 5/6/05

Benchbook # **BK2130**
Page 3

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179216-001	101791	1.0	1.0	MSS
-002				
-003				
-004				* Used pre-fab cartridges
-006				*
-007				*
MB QC192806				
LCS 109				
MS 70				
MSD 71				

SHD 5/6/05

☒ Extracts were cleaned up using C&T assembled 1.0 g columns
* ☒ Extracts were cleaned up using 1.0 g cartridges
Extracts were eluted with ~~2.0~~ 1.0 mL CH_2Cl_2
Concentrated to volumes as noted above

Mfg & Lot # / Time / Program	Initials / Date
JTB V33532	SHD 5/6/05
SP 3401 Supelco	
EN/45071	

5/6/05
Extraction Chemist / Date

Continued from page —
Continued ~~to~~ page —

Jennifer Dell 5/6/05
Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179144-001G	50.26	TEH/M	MSS
179227-013	50.00		comp -001A, -002A, -003A, -004A
-014	49.84		comp -005A, -6A, -7A, -8A
-015	50.20		comp -9A, -10A, -11A, -12A
179230-005A	49.77		
-006	49.89		
-007	49.91		
-008	49.71		
-009	50.33		
-010	49.98		
-011	50.09		
-012	49.97		
179231-001	49.63		alias of 179095-003B
-002	50.03		-004B
MB	50.01		EM44258
LCS	50.40		
MS	50.20		179144-001G
MSD	49.78		
179144-001G	30.05	8270	MSS
-MS	30.42		179144-001G
-MSD	30.11		
-LCS	30.16		EM44258
-MB	30.10		
179144-001G	30.09	8270-SIM	MSS
-MS	30.15		179144-001G
-MSD	30.23		
-LCS	30.00		EM44258
-MB	30.02		
MB	30.08	8310	EM44258
BS	30.01		
BSD	29.81		
179213-001B	50.10	TEHM	MSS
-MS	50.23		179213-001B
-MSD	50.12		
-LCS	50.05		EM44258
-MB	50.16		

Continued on Page

Jessie Mee — Signed

4 May 05 — Date

Read and Understood By

Signed

Date

14 Project SOIL PREP OUT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
1792606-001	49.97	TCH	MSS
MS	50.43		
MSD	50.19		
1792606-002	50.19		
-003	49.78		
-004	50.47		
-005	50.43		
-006	49.85		
-007	49.68		
1792521-001	49.89		
1792609-001	49.93		
1791067-009	30.00	8310 MDL	COMP A,B,C,D
-010	30.00		FM4402 8452
-011	30.00		
MB	30.00		

Continued on Page

Read and Understood By

Signed 5/6/05 Date

61

Signed Date

PESTICIDE DATA

(SOIL)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB1TP10 8 (6.0)	Batch#:	101840
Lab ID:	179266-001	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	5.000		

Moisture: 13% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.6	1.9
beta-BHC	ND	9.6	2.3
gamma-BHC	ND	9.6	2.1
delta-BHC	ND	9.6	1.9
Heptachlor	ND	9.6	2.8
Aldrin	ND	9.6	2.3
Heptachlor epoxide	ND	9.6	2.8
Endosulfan I	ND	9.6	5.1
Dieldrin	42	19	3.6
4,4'-DDE	12 J	19	3.0
Endrin	ND	19	3.8
Endosulfan II	ND	19	5.4
Endosulfan sulfate	ND	19	4.4
4,4'-DDD	ND	19	3.9
Endrin aldehyde	ND	19	4.1
4,4'-DDT	52 #	19	6.7
alpha-Chlordane	ND	9.6	2.8
gamma-Chlordane	ND	9.6	2.7
Methoxychlor	ND	96	15
Toxaphene	ND	340	70

Surrogate	%REC	Limits
TCMX	89	43-130
Decachlorobiphenyl	80	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB1TP10 (3.5)	Batch#:	101840
Lab ID:	179266-002	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	5.000		

Moisture: 9%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.3	1.8
beta-BHC	ND	9.3	2.3
gamma-BHC	ND	9.3	2.0
delta-BHC	ND	9.3	1.9
Heptachlor	ND	9.3	2.7
Aldrin	ND	9.3	2.2
Heptachlor epoxide	ND	9.3	2.8
Endosulfan I	ND	9.3	4.9
Dieldrin	ND	18	3.5
4,4'-DDE	ND	18	2.9
Endrin	ND	18	3.7
Endosulfan II	ND	18	5.2
Endosulfan sulfate	ND	18	4.3
4,4'-DDD	ND	18	3.7
Endrin aldehyde	ND	18	4.0
4,4'-DDT	ND #	18	6.4
alpha-Chlordane	ND	9.3	2.7
gamma-Chlordane	ND	9.3	2.6
Methoxychlor	ND	93	15
Toxaphene	ND	330	67

Surrogate	%REC	Limits
TCMX	94	43-130
Decachlorobiphenyl	88	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001.22	Analysis:	EPA 8081A
Field ID:	BB1TP10(2.5)	Batch#:	101840
Lab ID:	179266-003	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	1.000		

Moisture: 13% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.37
beta-BHC	ND	1.9	0.47
gamma-BHC	ND	1.9	0.41
delta-BHC	ND	1.9	0.38
Heptachlor	ND	1.9	0.55
Aldrin	ND	1.9	0.46
Heptachlor epoxide	ND	1.9	0.57
Endosulfan I	ND	1.9	1.0
Dieldrin	ND	3.7	0.73
4,4'-DDE	ND	3.7	0.60
Endrin	ND	3.7	0.76
Endosulfan II	ND	3.7	1.1
Endosulfan sulfate	ND	3.7	0.88
4,4'-DDD	ND	3.7	0.77
Endrin aldehyde	ND	3.7	0.83
4,4'-DDT	ND #	3.7	1.3
alpha-Chlordane	ND	1.9	0.57
gamma-Chlordane	ND	1.9	0.53
Methoxychlor	ND	19	3.0
Toxaphene	ND	68	14

Surrogate	%REC	Limits
TCMX	70	43-130
Decachlorobiphenyl	68	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	DUP(050405)	Batch#:	101840
Lab ID:	179266-004	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	5.000		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.4	1.8
beta-BHC	ND	9.4	2.3
gamma-BHC	ND	9.4	2.0
delta-BHC	ND	9.4	1.9
Heptachlor	ND	9.4	2.7
Aldrin	ND	9.4	2.3
Heptachlor epoxide	ND	9.4	2.8
Endosulfan I	ND	9.4	4.9
Dieldrin	73	18	3.6
4,4'-DDE	68	18	3.0
Endrin	ND	18	3.7
Endosulfan II	ND	18	5.3
Endosulfan sulfate	ND	18	4.3
4,4'-DDD	38 #	18	3.8
Endrin aldehyde	ND	18	4.0
4,4'-DDT	390 # b	18	9.9
alpha-Chlordane	14 C	9.4	2.8
gamma-Chlordane	7.5 J	9.4	2.6
Methoxychlor	ND	94	15
Toxaphene	ND	330	68

Surrogate	%REC	Limits
TCMX	68	43-130
Decachlorobiphenyl	69	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	SOILCOMP	Batch#:	101840
Lab ID:	179266-006	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	1.000		

Moisture: 14% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.0	0.38
beta-BHC	ND	2.0	0.48
gamma-BHC	ND	2.0	0.42
delta-BHC	ND	2.0	0.39
Heptachlor	ND	2.0	0.56
Aldrin	ND	2.0	0.47
Heptachlor epoxide	ND	2.0	0.58
Endosulfan I	ND	2.0	1.0
Dieldrin	ND	3.8	0.74
4,4'-DDE	1.5 J	3.8	0.62
Endrin	ND	3.8	0.78
Endosulfan II	ND	3.8	1.1
Endosulfan sulfate	ND	3.8	0.90
4,4'-DDD	ND	3.8	0.78
Endrin aldehyde	ND	3.8	0.84
4,4'-DDT	ND #	3.8	1.4
alpha-Chlordane	1.4 C J	2.0	0.57
gamma-Chlordane	0.89 J	2.0	0.54
Methoxychlor	ND	20	3.1
Toxaphene	ND	69	14

Surrogate	%REC	Limits
TCMX	67	43-130
Decachlorobiphenyl	67	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB1TP108(5.0)	Batch#:	101840
Lab ID:	179266-007	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	10.00		

Moisture: 27% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	23	4.5
beta-BHC	ND	23	5.6
gamma-BHC	ND	23	5.0
delta-BHC	ND	23	4.6
Heptachlor	ND	23	6.6
Aldrin	ND	23	5.6
Heptachlor epoxide	ND	23	6.8
Endosulfan I	ND	23	12
Dieldrin	ND	45	8.7
4,4'-DDE	12 J	45	7.3
Endrin	ND	45	9.2
Endosulfan II	ND	45	13
Endosulfan sulfate	ND	45	11
4,4'-DDD	ND	45	9.3
Endrin aldehyde	ND	45	9.9
4,4'-DDT	ND #	45	16
alpha-Chlordane	ND	23	6.8
gamma-Chlordane	ND	23	6.4
Methoxychlor	ND	230	36
Toxaphene	ND	820	170

Surrogate	%REC	Limits
TCMX	DO	43-130
Decachlorobiphenyl	DO	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
J= Estimated value
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293051	Batch#:	101840
Matrix:	Soil	Prepared:	05/09/05
Units:	ug/Kg	Analyzed:	05/13/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.33
beta-BHC	ND	1.7	0.41
gamma-BHC	ND	1.7	0.36
delta-BHC	ND	1.7	0.34
Heptachlor	ND	1.7	0.49
Aldrin	ND	1.7	0.41
Heptachlor epoxide	ND	1.7	0.50
Endosulfan I	ND	1.7	0.89
Dieldrin	ND	3.3	0.64
4,4'-DDE	ND	3.3	0.53
Endrin	ND	3.3	0.67
Endosulfan II	ND	3.3	0.95
Endosulfan sulfate	ND	3.3	0.78
4,4'-DDD	ND	3.3	0.68
Endrin aldehyde	ND	3.3	0.73
4,4'-DDT	ND #	3.3	1.2
alpha-Chlordane	ND	1.7	0.50
gamma-Chlordane	ND	1.7	0.47
Methoxychlor	ND	17	2.7
Toxaphene	ND	60	12

Surrogate	%REC	Limits
TCMX	80	43-130
Decachlorobiphenyl	112	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293052	Batch#:	101840
Matrix:	Soil	Prepared:	05/09/05
Units:	ug/Kg	Analyzed:	05/13/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.15	11.11	85	42-120
Heptachlor	13.15	11.84	90	49-126
Aldrin	13.15	10.96	83	52-120
Dieldrin	26.30	23.55	90	40-125
Endrin	26.30	24.09	92	38-135
4,4'-DDT	26.30	23.39 #	89	43-135

Surrogate	%REC	Limits
TCMX	77	43-130
Decachlorobiphenyl	73	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB1TP10 (3.5)	Batch#:	101840
MSS Lab ID:	179266-002	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/09/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	5.000		

Type: MS
Lab ID: QC293053

Moisture: 9%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<1.994	14.50	13.89	96	41-120
Heptachlor	<2.670	14.50	15.39	106	48-130
Aldrin	<2.234	14.50	13.60	94	42-126
Dieldrin	<3.517	28.99	29.27	101	43-128
Endrin	<3.685	28.99	27.60	95	45-137
4,4'-DDT	<6.440	28.99	23.92 #	82	31-151

Surrogate	%REC	Limits
TCMX	94	43-130
Decachlorobiphenyl	83	43-143

Type: MSD
Lab ID: QC293054

Moisture: 9%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	14.42	13.13	91	41-120	5	37
Heptachlor	14.42	14.44	100	48-130	6	43
Aldrin	14.42	12.82	89	42-126	5	36
Dieldrin	28.84	28.55	99	43-128	2	38
Endrin	28.84	27.87	97	45-137	1	39
4,4'-DDT	28.84	18.36 #	64	31-151	26	47

Surrogate	%REC	Limits
TCMX	86	43-130
Decachlorobiphenyl	79	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	131_018	235189248018	pest_1	11-MAY-2005 23:37	S9
2	131_019	235189248019	pest_2	12-MAY-2005 00:07	S419
3	131_020	235189248020	pest_3	12-MAY-2005 00:37	S420
4	131_022	235189248022	pest_5	12-MAY-2005 01:40	S245
5	131_023	235189248023	pest_6	12-MAY-2005 02:11	S13
6	131_024	235189248024	pest_7	12-MAY-2005 02:41	S14
7	131_035	235189248035	pest_4	12-MAY-2005 10:56	S243

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	2082.4	1886.4	2242.2	3147.0	3178.7	3777.9	2362.0	AVRG	R		3.748E-4		pg	2668.1	26	0.995	20	rsd ***
gamma-BHC	A	2051.0	1910.2	2278.1	3161.5	3113.5	3575.8	2424.7	AVRG	R		3.781E-4		pg	2645.0	24	0.995	20	rsd ***
beta-BHC	A	1510.8	1337.6	1498.8	1822.6	1675.1	1782.7	1505.5	AVRG	R		6.288E-4		pg	1590.5	11	0.995	20	
delta-BHC	A	1927.8	1703.8	1996.9	2815.6	2895.5	3408.4	2169.9	AVRG	R		4.138E-4		pg	2416.8	26	0.995	20	rsd ***
Heptachlor	A	2419.2	2160.3	2493.0	3146.1	2908.4	3135.1	2544.3	AVRG	R		3.722E-4		pg	2686.6	14	0.995	20	
Aldrin	A	2390.1	2127.8	2431.5	3018.4	2880.4	3174.3	2367.5	AVRG	R		3.806E-4		pg	2627.2	15	0.995	20	
Heptachlor epoxide	A	2701.0	2403.2	2727.9	3221.2	2938.5	3031.9	2617.6	AVRG	R		3.564E-4		pg	2805.9	10	0.995	20	
gamma-Chlordane	A	2650.9	2327.5	2682.5	3205.6	2965.6	3125.5	2596.3	AVRG	R		3.580E-4		pg	2793.4	11	0.995	20	
alpha-Chlordane	A	2898.3	2428.7	2794.8	3330.8	3052.8	3164.2	2729.0	AVRG	R		3.432E-4		pg	2914.1	10	0.995	20	
4,4'-DDE	A	2515.5	2193.4	2616.1	3158.4	2871.6	2904.2	2591.6	AVRG	R		3.713E-4		pg	2693.0	12	0.995	20	
Endosulfan I	A	2567.4	2388.1	2724.8	3222.2	2989.2	3121.6	2546.4	AVRG	R		3.579E-4		pg	2794.3	11	0.995	20	
Dieldrin	A	2256.1	2030.8	2438.5	2985.5	2795.8	2872.7	2396.2	AVRG	R		3.938E-4		pg	2539.4	14	0.995	20	
Endrin	A	1890.1	1861.7	2205.4	2752.8	2491.0	2513.1	2225.1	AVRG	R		4.392E-4		pg	2277.0	15	0.995	20	
4,4'-DDD	A	1195.7	1273.3	1540.9	2043.7	1981.8	2124.5	1614.0	AVRG	R		5.945E-4		pg	1682.0	22	0.995	20	rsd ***
Endosulfan II	A	2371.3	1999.0	2389.3	2892.0	2614.4	2605.4	2352.9	AVRG	R		4.064E-4		pg	2460.6	11	0.995	20	
4,4'-DDT	A	1581.7	990.79	1267.5	1985.2	1901.3	2096.7	1585.4	AVRG	R		6.136E-4		pg	1629.8	25	0.995	20	rsd ***
Endrin aldehyde	A	2358.2	1934.8	2164.5	2327.9	2123.7	2074.6	1919.2	AVRG	R		4.697E-4		pg	2129.0	8	0.995	20	
Methoxychlor	A	759.99	641.93	803.26	1003.0	852.32	809.25	848.54	AVRG	R		0.001224		pg	816.90	13	0.995	20	

72

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2412.1	1923.4	2244.1	2626.6	2344.6	2316.2	2171.0	AVRG	R		4.365E-4		pg	2291.1	9	0.995	20	
TCMX	A	2694.2	2424.4	2778.6	3178.0	2806.1	2851.9	2620.7	AVRG	R		3.617E-4		pg	2764.8	8	0.995	20	
Decachlorobiphenyl	A	3725.6	3140.5	3534.5	3169.0	2793.2	2457.5	2783.3	AVRG	R		3.240E-4		pg	3086.2	14	0.995	20	
alpha-BHC	B	7286.2	6371.6	7169.4	8612.0	7754.6	8163.9	7876.6	AVRG	R		1.315E-4		pg	7604.9	10	0.995	20	
gamma-BHC	B	6893.6	5931.1	6529.3	7685.9	6847.7	7132.7	6931.4	AVRG	R		1.460E-4		pg	6850.2	8	0.995	20	
beta-BHC	B	4587.7	3766.8	3805.6	3996.1	3422.4	3377.3	3732.2	AVRG	R		2.623E-4		pg	3812.6	11	0.995	20	
delta-BHC	B	6891.1	5783.5	6358.2	7651.1	6950.7	7229.7	6847.2	AVRG	R		1.467E-4		pg	6815.9	9	0.995	20	
Heptachlor	B	5703.0	4707.9	5011.4	5613.4	4851.1	4850.5	5274.1	AVRG	R		1.944E-4		pg	5144.5	8	0.995	20	
Aldrin	B	7173.8	6186.8	6629.2	7444.6	6570.9	6602.3	6935.8	AVRG	R		1.472E-4		pg	6791.9	6	0.995	20	
Heptachlor epoxide	B	7824.4	6266.7	6371.4	6672.3	5657.7	5399.8	6095.4	AVRG	R		1.581E-4		pg	6326.8	12	0.995	20	
gamma-Chlordane	B	7431.5	6302.5	6651.6	7252.4	6320.2	6301.6	6744.3	AVRG	R		1.489E-4		pg	6714.9	7	0.995	20	
alpha-Chlordane	B	7577.4	6374.4	6784.7	7269.8	6316.8	6242.1	6840.5	AVRG	R		1.477E-4		pg	6772.2	7	0.995	20	
4,4'-DDE	B	5625.0	4830.0	5488.2	6232.6	5531.5	5472.8	5620.3	AVRG	R		1.804E-4		pg	5542.9	7	0.995	20	
Endosulfan I	B	6938.0	5835.8	6223.1	6466.6	5570.2	5275.5	6078.4	AVRG	R		1.651E-4		pg	6055.4	9	0.995	20	
Dieldrin	B	6049.4	5221.3	5733.8	6302.4	5403.6	5124.9	5776.6	AVRG	R		1.767E-4		pg	5658.9	8	0.995	20	
Endrin	B	4841.8	4319.6	4724.6	5120.7	4354.5	4151.7	4757.7	AVRG	R		2.169E-4		pg	4610.1	7	0.995	20	
4,4'-DDD	B	3929.5	3275.0	3676.3	4214.5	3765.2	3736.3	3633.9	AVRG	R		2.669E-4		pg	3747.2	8	0.995	20	
Endosulfan II	B	6204.2	4953.9	5272.6	5494.5	4640.9	4296.7	5064.6	AVRG	R		1.948E-4		pg	5132.5	12	0.995	20	
4,4'-DDT	B	2889.9	2227.5	2647.5	3194.6	2972.8	2963.3	2744.6	AVRG	R		3.564E-4		pg	2805.8	11	0.995	20	
Endrin aldehyde	B	5168.4	4081.1	4259.2	4285.7	3622.5	3326.7	3933.0	AVRG	R		2.441E-4		pg	4096.7	14	0.995	20	
Methoxychlor	B	1421.3	1053.0	1132.1	1264.8	1050.8	1021.0	1129.1	AVRG	R		8.672E-4		pg	1153.2	12	0.995	20	
Endosulfan sulfate	B	5424.3	4588.1	4817.8	4948.4	4150.6	3852.7	4561.3	AVRG	R		2.164E-4		pg	4620.5	11	0.995	20	
TCMX	B	7094.0	5935.2	6299.4	6635.1	5628.8	5546.3	6596.6	AVRG	R		1.601E-4		pg	6247.9	9	0.995	20	
Decachlorobiphenyl	B	5635.1	4339.3	4437.4	4486.3	3679.1	3500.1	4050.1	AVRG	R		2.323E-4		pg	4303.9	16	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	15	20	
EPA 8081A	B	22	10	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :

ICV 235189248038 (131_038) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235189248038	12-MAY-2005	25.000	24.309	pg	-3	15	
gamma-BHC	A	235189248038	12-MAY-2005	25.000	24.358	pg	-3	15	
beta-BHC	A	235189248038	12-MAY-2005	25.000	24.252	pg	-3	15	
delta-BHC	A	235189248038	12-MAY-2005	25.000	24.665	pg	-1	15	
Heptachlor	A	235189248038	12-MAY-2005	25.000	24.685	pg	-1	15	
Aldrin	A	235189248038	12-MAY-2005	25.000	24.137	pg	-3	15	
Heptachlor epoxide	A	235189248038	12-MAY-2005	25.000	24.683	pg	-1	15	
gamma-Chlordane	A	235189248038	12-MAY-2005	25.000	24.097	pg	-4	15	
alpha-Chlordane	A	235189248038	12-MAY-2005	25.000	24.091	pg	-4	15	
4,4'-DDE	A	235189248038	12-MAY-2005	25.000	23.889	pg	-4	15	
Endosulfan I	A	235189248038	12-MAY-2005	25.000	24.343	pg	-3	15	
Dieldrin	A	235189248038	12-MAY-2005	25.000	22.789	pg	-9	15	
Endrin	A	235189248038	12-MAY-2005	25.000	24.889	pg	0	15	
4,4'-DDD	A	235189248038	12-MAY-2005	25.000	24.002	pg	-4	15	
Endosulfan II	A	235189248038	12-MAY-2005	25.000	24.553	pg	-2	15	
4,4'-DDT	A	235189248038	12-MAY-2005	25.000	21.247	pg	-15	15	
Endrin aldehyde	A	235189248038	12-MAY-2005	25.000	25.221	pg	1	15	
Methoxychlor	A	235189248038	12-MAY-2005	25.000	25.561	pg	2	15	
Endosulfan sulfate	A	235189248038	12-MAY-2005	25.000	25.127	pg	1	15	
alpha-BHC	B	235189248038	12-MAY-2005	25.000	24.154	pg	-3	15	
gamma-BHC	B	235189248038	12-MAY-2005	25.000	23.525	pg	-6	15	
beta-BHC	B	235189248038	12-MAY-2005	25.000	22.593	pg	-10	15	
delta-BHC	B	235189248038	12-MAY-2005	25.000	24.323	pg	-3	15	
Heptachlor	B	235189248038	12-MAY-2005	25.000	23.600	pg	-6	15	
Aldrin	B	235189248038	12-MAY-2005	25.000	23.553	pg	-6	15	
Heptachlor epoxide	B	235189248038	12-MAY-2005	25.000	22.972	pg	-8	15	
gamma-Chlordane	B	235189248038	12-MAY-2005	25.000	23.049	pg	-8	15	
alpha-Chlordane	B	235189248038	12-MAY-2005	25.000	23.099	pg	-8	15	
4,4'-DDE	B	235189248038	12-MAY-2005	25.000	24.373	pg	-3	15	
Endosulfan I	B	235189248038	12-MAY-2005	25.000	23.527	pg	-6	15	
Dieldrin	B	235189248038	12-MAY-2005	25.000	24.523	pg	-2	15	
Endrin	B	235189248038	12-MAY-2005	25.000	25.642	pg	3	15	
4,4'-DDD	B	235189248038	12-MAY-2005	25.000	25.275	pg	1	15	
Endosulfan II	B	235189248038	12-MAY-2005	25.000	25.327	pg	1	15	
4,4'-DDT	B	235189248038	12-MAY-2005	25.000	22.084	pg	-12	15	
Endrin aldehyde	B	235189248038	12-MAY-2005	25.000	25.929	pg	4	15	
Methoxychlor	B	235189248038	12-MAY-2005	25.000	32.605	pg	**30**	15	v+ ***
Endosulfan sulfate	B	235189248038	12-MAY-2005	25.000	26.209	pg	5	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	3	15	
EPA 8081A	B	20	6	15	

+=high bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235189248057 Run Name: Injected: 12-MAY-2005 23:46
Filename: 131_057 Standard(s): S306

Analyte	Ch	Area
Endrin	A	110671.51
Endrin aldehyde	A	2948.94
Endrin ketone	A	4192.75

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	165029.66
4,4'-DDE	A	998.29
4,4'-DDD	A	5068.59

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	208893.94
Endrin aldehyde	B	7458.23
Endrin ketone	B	10423.75

Endrin Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	266711.55
4,4'-DDE	B	3372.91
4,4'-DDD	B	20009.11

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235189248073 Run Name: Injected: 13-MAY-2005 07:58
Filename: 131_073 Standard(s): S306

Analyte	Ch	Area
Endrin	A	120703.14
Endrin aldehyde	A	1355.25
Endrin ketone	A	5324.68

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	170772.01
4,4'-DDE	A	1036.98
4,4'-DDD	A	8952.13

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	216578.54
Endrin aldehyde	B	2880.39
Endrin ketone	B	9743.42

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	286785.46
4,4'-DDE	B	3226.67
4,4'-DDD	B	26819.16

4,4'-DDT Breakdown %: 9
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235192260001 Run Name: Injected: 13-MAY-2005 12:20
Filename: 133_001 Standard(s): S306

Analyte	Ch	Area
Endrin	A	123253.54
Endrin aldehyde	A	1755.76
Endrin ketone	A	4257.12

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	188854.28
4,4'-DDE	A	1033.53
4,4'-DDD	A	7559.12

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	220804.92
Endrin aldehyde	B	3420.93
Endrin ketone	B	9999.78

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	319808.68
4,4'-DDE	B	3643.41
4,4'-DDD	B	23031.37

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235192260016 Run Name: Injected: 13-MAY-2005 22:51
Filename: 133_016 Standard(s): S306

Analyte	Ch	Area
Endrin	A	122027.81
Endrin aldehyde	A	511.89
Endrin ketone	A	3583.92

Endrin Breakdown %: 3
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	168953.71
4,4'-DDE	A	922.44
4,4'-DDD	A	11017.34

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	233499.12
Endrin aldehyde	B	865.62
Endrin ketone	B	8034.55

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	266052.69
4,4'-DDE	B	2863.18
4,4'-DDD	B	29932.53

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235189248058 Filename : 131_058 Injected : 13-MAY-2005 00:16
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2246.1	10.00000	8.418530	pg	-16	15	c- rsd ***
gamma-BHC	A	2645.0	2300.4	10.00000	8.697284	pg	-13	15	rsd ***
beta-BHC	A	1590.5	1521.1	10.00000	9.564079	pg	-4	15	
delta-BHC	A	2416.8	2026.9	10.00000	8.386445	pg	-16	15	c- rsd ***
Heptachlor	A	2686.6	2478.8	10.00000	9.226530	pg	-8	15	
Aldrin	A	2627.2	2463.6	10.00000	9.377287	pg	-6	15	
Heptachlor epoxide	A	2805.9	2799.8	10.00000	9.978169	pg	0	15	
gamma-Chlordane	A	2793.4	2753.5	10.00000	9.856957	pg	-1	15	
alpha-Chlordane	A	2914.1	2859.4	10.00000	9.812432	pg	-2	15	
4,4'-DDE	A	2693.0	2664.8	20.00000	19.79084	pg	-1	15	
Endosulfan I	A	2794.3	2831.3	10.00000	10.13253	pg	1	15	
Dieldrin	A	2539.4	2513.6	20.00000	19.79727	pg	-1	15	
Endrin	A	2277.0	2193.3	20.00000	19.26423	pg	-4	15	
4,4'-DDD	A	1682.0	1766.6	20.00000	21.00590	pg	5	15	rsd ***
Endosulfan II	A	2460.6	2504.4	20.00000	20.35613	pg	2	15	
4,4'-DDT	A	1629.8	1163.8	20.00000	14.28168	pg	-29	15	c- rsd ***
Endrin aldehyde	A	2129.0	2273.1	20.00000	21.35361	pg	7	15	
Methoxychlor	A	816.90	766.56	100.0000	93.83835	pg	-6	15	
Endosulfan sulfate	A	2291.1	2372.7	20.00000	20.71231	pg	4	15	
TCMX	A	2764.8	2750.8	20.00000	19.89857	pg	-1	15	
Decachlorobiphenyl	A	3086.2	3666.8	20.00000	23.76234	pg	19	15	c+
alpha-BHC	B	7604.9	7269.6	10.00000	9.559160	pg	-4	15	
gamma-BHC	B	6850.2	6713.4	10.00000	9.800265	pg	-2	15	
beta-BHC	B	3812.6	3910.7	10.00000	10.25730	pg	3	15	
delta-BHC	B	6815.9	6562.4	10.00000	9.628046	pg	-4	15	
Heptachlor	B	5144.5	5058.2	10.00000	9.832191	pg	-2	15	
Aldrin	B	6791.9	6717.3	10.00000	9.890168	pg	-1	15	
Heptachlor epoxide	B	6326.8	6509.5	10.00000	10.28871	pg	3	15	
gamma-Chlordane	B	6714.9	6837.4	10.00000	10.18248	pg	2	15	
alpha-Chlordane	B	6772.2	6905.3	10.00000	10.19654	pg	2	15	
4,4'-DDE	B	5542.9	5685.4	20.00000	20.51413	pg	3	15	
Endosulfan I	B	6055.4	6265.7	10.00000	10.34739	pg	3	15	
Dieldrin	B	5658.9	5922.2	20.00000	20.93078	pg	5	15	
Endrin	B	4610.1	4632.2	20.00000	20.09581	pg	0	15	
4,4'-DDD	B	3747.2	4189.2	20.00000	22.35882	pg	12	15	
Endosulfan II	B	5132.5	5471.7	20.00000	21.32200	pg	7	15	
4,4'-DDT	B	2805.8	2367.9	20.00000	16.87884	pg	-16	15	c- ***
Endrin aldehyde	B	4096.7	4432.3	20.00000	21.63863	pg	8	15	
Methoxychlor	B	1153.2	1091.8	100.0000	94.67990	pg	-5	15	
Endosulfan sulfate	B	4620.5	5021.3	20.00000	21.73506	pg	9	15	
TCMX	B	6247.9	6262.5	20.00000	20.04668	pg	0	15	
Decachlorobiphenyl	B	4303.9	4691.7	20.00000	21.80184	pg	9	15	
Average EPA 8081A	A		(count=22)				7	15	
Average EPA 8081A	B		(count=22)				5	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_5 IDF : 1.0
Seqnum : 235189248074 Filename : 131_074 Injected : 13-MAY-2005 08:29
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S245

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2735.7	25.00000	25.63348	pg	3	15	rsd ***
gamma-BHC	A	2645.0	2798.1	25.00000	26.44782	pg	6	15	rsd ***
beta-BHC	A	1590.5	1654.7	25.00000	26.01059	pg	4	15	
delta-BHC	A	2416.8	2513.6	25.00000	26.00086	pg	4	15	rsd ***
Heptachlor	A	2686.6	2864.9	25.00000	26.65904	pg	7	15	
Aldrin	A	2627.2	2720.2	25.00000	25.88525	pg	4	15	
Heptachlor epoxide	A	2805.9	2975.2	25.00000	26.50829	pg	6	15	
gamma-Chlordane	A	2793.4	2951.8	25.00000	26.41699	pg	6	15	
alpha-Chlordane	A	2914.1	3060.4	25.00000	26.25503	pg	5	15	
4,4'-DDE	A	2693.0	2913.0	50.00000	54.08497	pg	8	15	
Endosulfan I	A	2794.3	3004.2	25.00000	26.87807	pg	8	15	
Dieldrin	A	2539.4	2688.6	50.00000	52.93777	pg	6	15	
Endrin	A	2277.0	2524.1	50.00000	55.42437	pg	11	15	
4,4'-DDD	A	1682.0	2035.3	50.00000	60.50436	pg	21	15	c+ rsd ***
Endosulfan II	A	2460.6	2695.2	50.00000	54.76753	pg	10	15	
4,4'-DDT	A	1629.8	1634.4	50.00000	50.14062	pg	0	15	rsd ***
Endrin aldehyde	A	2129.0	2138.7	50.00000	50.22946	pg	0	15	
Methoxychlor	A	816.90	887.73	250.0000	271.6779	pg	9	15	
Endosulfan sulfate	A	2291.1	2462.3	50.00000	53.73596	pg	7	15	
TCMX	A	2764.8	2809.1	50.00000	50.80123	pg	2	15	
Decachlorobiphenyl	A	3086.2	2837.5	50.00000	45.97083	pg	-8	15	
alpha-BHC	B	7604.9	7788.8	25.00000	25.60469	pg	2	15	
gamma-BHC	B	6850.2	7120.2	25.00000	25.98535	pg	4	15	
beta-BHC	B	3812.6	3786.2	25.00000	24.82720	pg	-1	15	
delta-BHC	B	6815.9	7090.4	25.00000	26.00677	pg	4	15	
Heptachlor	B	5144.5	5222.8	25.00000	25.38040	pg	2	15	
Aldrin	B	6791.9	6737.1	25.00000	24.79810	pg	-1	15	
Heptachlor epoxide	B	6326.8	6253.4	25.00000	24.70990	pg	-1	15	
gamma-Chlordane	B	6714.9	6677.2	25.00000	24.85963	pg	-1	15	
alpha-Chlordane	B	6772.2	6730.2	25.00000	24.84489	pg	-1	15	
4,4'-DDE	B	5542.9	5753.4	50.00000	51.89913	pg	4	15	
Endosulfan I	B	6055.4	5980.4	25.00000	24.69038	pg	-1	15	
Dieldrin	B	5658.9	5827.4	50.00000	51.48893	pg	3	15	
Endrin	B	4610.1	4781.1	50.00000	51.85429	pg	4	15	
4,4'-DDD	B	3747.2	4286.8	50.00000	57.19906	pg	14	15	
Endosulfan II	B	5132.5	5113.8	50.00000	49.81816	pg	0	15	
4,4'-DDT	B	2805.8	2533.6	50.00000	45.14994	pg	-10	15	
Endrin aldehyde	B	4096.7	3944.9	50.00000	48.14836	pg	-4	15	
Methoxychlor	B	1153.2	1147.5	250.0000	248.7745	pg	0	15	
Endosulfan sulfate	B	4620.5	4621.2	50.00000	50.00831	pg	0	15	
TCMX	B	6247.9	5964.7	50.00000	47.73335	pg	-5	15	
Decachlorobiphenyl	B	4303.9	3839.2	50.00000	44.60079	pg	-11	15	
Average EPA 8081A	A		(count=22)				7	15	
Average EPA 8081A	B		(count=22)				3	15	

+=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235192260002 Filename : 133_002 Injected : 13-MAY-2005 12:50
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2216.2	10.00000	8.306367	pg	-17	15	c- rsd ***
gamma-BHC	A	2645.0	2269.5	10.00000	8.580579	pg	-14	15	rsd ***
beta-BHC	A	1590.5	1510.6	10.00000	9.497821	pg	-5	15	
delta-BHC	A	2416.8	2001.9	10.00000	8.282987	pg	-17	15	c- rsd ***
Heptachlor	A	2686.6	2410.5	10.00000	8.972118	pg	-10	15	
Aldrin	A	2627.2	2441.2	10.00000	9.292142	pg	-7	15	
Heptachlor epoxide	A	2805.9	2781.1	10.00000	9.911567	pg	-1	15	
gamma-Chlordane	A	2793.4	2731.6	10.00000	9.778769	pg	-2	15	
alpha-Chlordane	A	2914.1	2853.8	10.00000	9.793171	pg	-2	15	
4,4'-DDE	A	2693.0	2665.2	20.00000	19.79386	pg	-1	15	
Endosulfan I	A	2794.3	2775.4	10.00000	9.932451	pg	-1	15	
Dieldrin	A	2539.4	2510.5	20.00000	19.77222	pg	-1	15	
Endrin	A	2277.0	2201.3	20.00000	19.33475	pg	-3	15	
4,4'-DDD	A	1682.0	1840.1	20.00000	21.87964	pg	9	15	rsd ***
Endosulfan II	A	2460.6	2492.8	20.00000	20.26126	pg	1	15	
4,4'-DDT	A	1629.8	902.86	20.00000	11.07924	pg	-45	15	c- rsd ***
Endrin aldehyde	A	2129.0	2248.7	20.00000	21.12504	pg	6	15	
Methoxychlor	A	816.90	673.71	100.0000	82.47158	pg	-18	15	c- ***
Endosulfan sulfate	A	2291.1	2358.3	20.00000	20.58672	pg	3	15	
TCMX	A	2764.8	2690.7	20.00000	19.46392	pg	-3	15	
Decachlorobiphenyl	A	3086.2	3574.8	20.00000	23.16614	pg	16	15	c+
alpha-BHC	B	7604.9	7422.4	10.00000	9.760074	pg	-2	15	
gamma-BHC	B	6850.2	6784.6	10.00000	9.904121	pg	-1	15	
beta-BHC	B	3812.6	3947.3	10.00000	10.35327	pg	4	15	
delta-BHC	B	6815.9	6672.8	10.00000	9.790041	pg	-2	15	
Heptachlor	B	5144.5	5080.6	10.00000	9.875915	pg	-1	15	
Aldrin	B	6791.9	6876.3	10.00000	10.12427	pg	1	15	
Heptachlor epoxide	B	6326.8	6701.3	10.00000	10.59189	pg	6	15	
gamma-Chlordane	B	6714.9	6985.2	10.00000	10.40263	pg	4	15	
alpha-Chlordane	B	6772.2	7064.8	10.00000	10.43199	pg	4	15	
4,4'-DDE	B	5542.9	5819.3	20.00000	20.99709	pg	5	15	
Endosulfan I	B	6055.4	6473.4	10.00000	10.69028	pg	7	15	
Dieldrin	B	5658.9	6098.6	20.00000	21.55400	pg	8	15	
Endrin	B	4610.1	4843.1	20.00000	21.01079	pg	5	15	
4,4'-DDD	B	3747.2	4402.4	20.00000	23.49677	pg	17	15	c+ ***
Endosulfan II	B	5132.5	5583.1	20.00000	21.75607	pg	9	15	
4,4'-DDT	B	2805.8	2103.7	20.00000	14.99559	pg	-25	15	c- ***
Endrin aldehyde	B	4096.7	4479.2	20.00000	21.86758	pg	9	15	
Methoxychlor	B	1153.2	1007.3	100.0000	87.35196	pg	-13	15	
Endosulfan sulfate	B	4620.5	5118.2	20.00000	22.15463	pg	11	15	
TCMX	B	6247.9	6333.5	20.00000	20.27395	pg	1	15	
Decachlorobiphenyl	B	4303.9	4657.8	20.00000	21.64456	pg	8	15	
Average EPA 8081A	A		(count=22)				8	15	
Average EPA 8081A	B		(count=22)				7	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235192260017 Filename : 133_017 Injected : 13-MAY-2005 23:23
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S243

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2414.6	20.00000	18.09952	pg	-10	15	rsd ***
gamma-BHC	A	2645.0	2471.0	20.00000	18.68474	pg	-7	15	rsd ***
beta-BHC	A	1590.5	1525.0	20.00000	19.17679	pg	-4	15	
delta-BHC	A	2416.8	2192.7	20.00000	18.14525	pg	-9	15	rsd ***
Heptachlor	A	2686.6	2626.2	20.00000	19.55003	pg	-2	15	
Aldrin	A	2627.2	2462.1	20.00000	18.74365	pg	-6	15	
Heptachlor epoxide	A	2805.9	2765.0	20.00000	19.70867	pg	-1	15	
gamma-Chlordane	A	2793.4	2724.8	20.00000	19.50849	pg	-2	15	
alpha-Chlordane	A	2914.1	2834.6	20.00000	19.45471	pg	-3	15	
4,4'-DDE	A	2693.0	2696.5	40.00000	40.05235	pg	0	15	
Endosulfan I	A	2794.3	2741.3	20.00000	19.62086	pg	-2	15	
Dieldrin	A	2539.4	2585.5	40.00000	40.72615	pg	2	15	
Endrin	A	2277.0	2325.4	40.00000	40.85053	pg	2	15	
4,4'-DDD	A	1682.0	1878.2	40.00000	44.66607	pg	12	15	rsd ***
Endosulfan II	A	2460.6	2504.8	40.00000	40.71826	pg	2	15	
4,4'-DDT	A	1629.8	1350.9	40.00000	33.15523	pg	-17	15	c- rsd ***
Endrin aldehyde	A	2129.0	2053.9	40.00000	38.58982	pg	-4	15	
Methoxychlor	A	816.90	829.48	200.0000	203.0808	pg	2	15	
Endosulfan sulfate	A	2291.1	2291.1	40.00000	39.99870	pg	0	15	
TCMX	A	2764.8	2632.0	40.00000	38.07761	pg	-5	15	
Decachlorobiphenyl	A	3086.2	2851.9	40.00000	36.96305	pg	-8	15	
alpha-BHC	B	7604.9	7247.9	20.00000	19.06115	pg	-5	15	
gamma-BHC	B	6850.2	6628.7	20.00000	19.35329	pg	-3	15	
beta-BHC	B	3812.6	3613.1	20.00000	18.95354	pg	-5	15	
delta-BHC	B	6815.9	6551.3	20.00000	19.22352	pg	-4	15	
Heptachlor	B	5144.5	4924.7	20.00000	19.14555	pg	-4	15	
Aldrin	B	6791.9	6386.2	20.00000	18.80538	pg	-6	15	
Heptachlor epoxide	B	6326.8	6029.2	20.00000	19.05913	pg	-5	15	
gamma-Chlordane	B	6714.9	6405.7	20.00000	19.07930	pg	-5	15	
alpha-Chlordane	B	6772.2	6447.8	20.00000	19.04185	pg	-5	15	
4,4'-DDE	B	5542.9	5480.3	40.00000	39.54837	pg	-1	15	
Endosulfan I	B	6055.4	5825.3	20.00000	19.24017	pg	-4	15	
Dieldrin	B	5658.9	5619.9	40.00000	39.72473	pg	-1	15	
Endrin	B	4610.1	4615.1	40.00000	40.04347	pg	0	15	
4,4'-DDD	B	3747.2	4054.9	40.00000	43.28462	pg	8	15	
Endosulfan II	B	5132.5	4997.9	40.00000	38.95118	pg	-3	15	
4,4'-DDT	B	2805.8	2450.7	40.00000	34.93792	pg	-13	15	
Endrin aldehyde	B	4096.7	3840.2	40.00000	37.49625	pg	-6	15	
Methoxychlor	B	1153.2	1069.5	200.0000	185.4858	pg	-7	15	
Endosulfan sulfate	B	4620.5	4502.2	40.00000	38.97616	pg	-3	15	
TCMX	B	6247.9	5742.0	40.00000	36.76130	pg	-8	15	
Decachlorobiphenyl	B	4303.9	3805.7	40.00000	35.36954	pg	-12	15	
Average EPA 8081A	A		(count=22)				5	15	
Average EPA 8081A	B		(count=22)				5	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	131_002	X	ccv			11-MAY-2005 10:08	1.0					1	
003	131_003	X	ccv			11-MAY-2005 10:41	1.0					1	
004	131_004	X	ccv			11-MAY-2005 12:12	1.0					1	
016	131_016	PEM				11-MAY-2005 22:34	1.0	1.0			1	2	
017	131_017	X	hex			11-MAY-2005 23:06	1.0						
018	131_018	ICAL	pest_1			11-MAY-2005 23:37	1.0	1.0				3	
019	131_019	ICAL	pest_2			12-MAY-2005 00:07	1.0	1.0				4	
020	131_020	ICAL	pest_3			12-MAY-2005 00:37	1.0	1.0			1	1	
022	131_022	ICAL	pest_5			12-MAY-2005 01:40	1.0	1.0			1	5 ac	
023	131_023	ICAL	pest_6			12-MAY-2005 02:11	1.0	1.0				6	
024	131_024	ICAL	pest_7			12-MAY-2005 02:41	1.0	1.0				7	
031	131_031	X				12-MAY-2005 06:21	1.0					1	
032	131_032	X				12-MAY-2005 06:51	1.0					1	
035	131_035	ICAL	pest_4			12-MAY-2005 10:56	1.0	1.0				8	
037	131_037	X	icv			12-MAY-2005 11:57	1.0					9	
038	131_038	ICV				12-MAY-2005 12:27	1.0	1.0	1		1	9	83
039	131_039	PEM				12-MAY-2005 12:58	1.0	1.0			1	2	
041	131_041	SAMPLE	179372-009	101914	Soil	12-MAY-2005 14:03	1.0	0.6566			1		
042	131_042	PEM				12-MAY-2005 14:33	1.0	1.0			1	2	
043	131_043	CCV	pest_4			12-MAY-2005 15:04	1.0	1.0	5		1	8	
046	131_046	SAMPLE	179307-003	101914	Soil	12-MAY-2005 18:07	1.0	0.6667	3		1		
047	131_047	SAMPLE	179307-004	101914	Soil	12-MAY-2005 18:37	1.0	0.6649	3		1		
048	131_048	SAMPLE	179307-006	101914	Soil	12-MAY-2005 19:08	1.0	0.6605	3		1		
049	131_049	SAMPLE	179307-009	101914	Soil	12-MAY-2005 19:38	1.0	0.6662	3		1		
050	131_050	SAMPLE	179307-011	101914	Soil	12-MAY-2005 20:09	1.0	0.6636	3		1		
051	131_051	MSS	179307-013	101914	Soil	12-MAY-2005 20:39	1.0	0.6631	4		1		
052	131_052	SAMPLE	179307-014	101914	Soil	12-MAY-2005 21:10	5.0	0.6667	3		1		
053	131_053	SAMPLE	179384-001	101914	Soil	12-MAY-2005 21:42	1.0	0.657	4		1		
054	131_054	MS	QC293338	101914	Soil	12-MAY-2005 22:12	1.0	0.6623	6		1		
055	131_055	MSD	QC293339	101914	Soil	12-MAY-2005 22:44	1.0	0.6667	6	4	1		

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
057	131_057	PEM				12-MAY-2005 23:46	1.0	1.0			1	2	
058	131_058	CCV	pest_3			13-MAY-2005 00:16	1.0	1.0	6		1	1	
059	131_059	X	ccv			13-MAY-2005 00:47	1.0					1	
063	131_063	BS	QC293387	101926	Water	13-MAY-2005 02:51	1.0	0.01	6		1		
064	131_064	BSD	QC293388	101926	Water	13-MAY-2005 03:23	1.0	0.01	6	2	1		
065	131_065	BLANK	QC293051	101840	Soil	13-MAY-2005 03:54	1.0	0.6662	4		1		
066	131_066	LCS	QC293052	101840	Soil	13-MAY-2005 04:24	1.0	0.6575	6		1		
067	131_067	SAMPLE	179238-001	101926	Water	13-MAY-2005 04:55	1.0	0.009615	5	2	1		
068	131_068	SAMPLE	179288-010	101926	Water	13-MAY-2005 05:25	1.0	0.009524	4	2	1		
069	131_069	MSS	179266-002	101840	Soil	13-MAY-2005 05:56	5.0	0.6653	4		1		
070	131_070	MS	QC293053	101840	Soil	13-MAY-2005 06:27	5.0	0.6596	6		1		
071	131_071	MSD	QC293054	101840	Soil	13-MAY-2005 06:57	5.0	0.6562	6		1		
073	131_073	PEM				13-MAY-2005 07:58	1.0	1.0			1	2	
074	131_074	CCV	pest_5			13-MAY-2005 08:29	1.0	1.0	5		1	5	

84

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179266 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235192260 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 13-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	133_001	PEM				13-MAY-2005 12:20	1.0	1.0			1	1	
002	133_002	CCV	pest_3			13-MAY-2005 12:50	1.0	1.0	8		1	2	
003	133_003	X	ccv			13-MAY-2005 13:21	1.0	1.0			1	2	
006	133_006	BLANK	QC293386	101926	Water	13-MAY-2005 17:44	1.0	0.01	5		1		
007	133_007	BS	QC293387	101926	Water	13-MAY-2005 18:15	1.0	0.01	8		1		
008	133_008	BSD	QC293388	101926	Water	13-MAY-2005 18:45	1.0	0.01	8	4	1		
009	133_009	SAMPLE	179335-006	101926	Water	13-MAY-2005 19:16	10.0	0.009709	5		1		
010	133_010	SAMPLE	179266-001	101840	Soil	13-MAY-2005 19:47	5.0	0.6579	5		1		
011	133_011	SAMPLE	179266-003	101840	Soil	13-MAY-2005 20:17	1.0	0.6566	5		1		
012	133_012	SAMPLE	179266-004	101840	Soil	13-MAY-2005 20:48	5.0	0.6592	7		1		
013	133_013	SAMPLE	179266-006	101840	Soil	13-MAY-2005 21:18	1.0	0.6614	5		1		
014	133_014	SAMPLE	179266-007	101840	Soil	13-MAY-2005 21:49	10.0	0.6636	5		1		
016	133_016	PEM				13-MAY-2005 22:51	1.0	1.0			1	1	
017	133_017	CCV	pest_4			13-MAY-2005 23:23	1.0	1.0	5		1	3	
031	133_031	PEM				14-MAY-2005 06:33	1.0	1.0			1	1	
032	133_032	CCV	pest_5			14-MAY-2005 07:03	1.0	1.0	17		1	4 ac	85
033	133_033	CCV	pest_5			14-MAY-2005 07:34	1.0	1.0	23		1	4 ac	
048	133_048	PEM				14-MAY-2005 15:17	1.0	1.0			1	1	
049	133_049	CCV	pest_3			14-MAY-2005 15:47	1.0	1.0	23		1	2 ac	

Stds used: 1=S306 2=S420 3=S243 4=S613
Flags used: ac=average CCV drift out

Curtis & Tompkins Laboratories **Sample Preparation Summary** **10-MAY-2005 18:44**

Batch Number : 101840
Date Extracted: 09-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258A
Spike #2 ID : 04SS445E
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.f.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179266-001			Mactec, Inc.	Soil	15.2	g	10	0.657895	1	.02	0		8081	3620B	
179266-002			Mactec, Inc.	Soil	15.03	g	10	0.665336	1	.02	0		8081	3620B	mss
179266-003			Mactec, Inc.	Soil	15.23	g	10	0.656599	1	.02	0		8081	3620B	
179266-004			Mactec, Inc.	Soil	15.17	g	10	0.659196	1	.02	0		8081	3620B	
179266-006			Mactec, Inc.	Soil	15.12	g	10	0.661376	1	.02	0		8081	3620B	
179266-007			Mactec, Inc.	Soil	15.07	g	10	0.663570	1	.02	0		8081	3620B	
QC293051	MB			Soil	15.01	g	10	0.666223	1	.02	0		8081	3620B	
QC293052	LCS			Soil	15.21	g	10	0.657462	1	.02	.025		8081	3620B	
QC293053	MS	of 179266-002		Soil	15.16	g	10	0.659631	1	.02	.025		8081	3620B	
QC293054	MSD	of 179266-002		Soil	15.24	g	10	0.656168	1	.02	.025		8081	3620B	

Prep Chemist: _____ Reviewed By: _____ Date: 5/10/05

Relinquished By: _____ Received By: _____ Date: 05/11/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

LIMS Batch No: 101840 **Extraction Method:** **Cleanup Method:** Page 68

LIMS Analysis: 8081 ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: KMH 5/4/05 ☑ EPA 3545 PFE (Mth# 10) ☑ EPA 3620b Florisil

Date Extracted: 5/9/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
179266-001	15.20	10	X	
2	15.03			MSS
3	15.23			
4	15.17			
6	15.12			
7	15.07			
MB QC293051	15.01			
LCS KMH 5/4/05 52	15.21 KMH 5/4/05			
MS 3	15.24 KMH 5/9/05			
MSD 4	15.24			

KMH 5/10/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	KMH 5/10/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	DIONEX 040603	
0.02 mL of surrogate solution was added to all samples	S258A	
EM45071 KMH 5/4/05 0.025 mL of spike solution was added to all spikes	045545E	
1:1 CH_2Cl_2 (lot# EM44233):Acetone(lot# EM44233) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	WHATMAN 528	
Soxhlets on at:	N/A	
Soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	N/A	
Exchanged 2x with Hexane	802E27	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	✓	

Louis 5/10/05
Extraction Chemist / Date

Continued from page —
Continued on page —

Jennifer Dell 5/10/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: KMH
Cleanup Date: 5/10/05

Benchbook # **BK 2068**
Page 71

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179266-001	101840	1.0	1.0	
2				MSS
3				
4				
5 6				
7				
MB QC293051				
LCS 2				
MS 3				
MSD 4				
				KMH 5/10/05

	Mfg & Lot # / Time / Program	Initials / Date
☒ Extracts were cleaned up using Florisil cartridges	Resprep 402290-BE	KMH 5/10/05
Florisil cartridges/ columns rinsed 3x with Hexane	CN818	
Extracts were eluted with 90 mL 9:1 Hexane/Acetone	Hexane JTBR02E27	
	Acetone EM44233	
Concentrated to volumes as noted above		

Kristin Hansen 5/10/05
Extraction Chemist / Date

Continued from page —
Continued on page —

Jennifer Lee 5/10/05

196 Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179266-001A	30.06	8270-SIM	MSS
-MS	30.38		179266-001A
-MSD	30.19		↓
-LCS	30.11		EM44028452
-MB	30.29		↓
-002A	30.15		
-003A	30.02		
-004	30.23		
-006	30.29		
-007	30.26		
179266-001A	15.20	8081	
-002	15.03		MSS
-MS	15.16		179266-002A
-MSD	15.24		↓
-LCS	15.21		EM44028452 EM44028452
-003A	15.23		
-004	15.17		
-006	15.12		
-007	15.07		
-MB	15.01		EM44028457
179301-008	60.20	TEH	COMP 001A, 002A, 003A, 004A, 005A, 006A, 007
179293-001A	50.27	TEH	MSS
-MS	50.06		179293-001A
-MSD	50.47		↓
-LCS	50.41		EM44028452
-MB	50.42		↓
-002A	50.42		
-003	50.43		

Continued on Page

Signed 5/9/05 Date

Read and Understood By

Signed Date

Confirmation Report for 179266 8081 Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
179266-001	BB1TP105(6.0)	Dieldrin	42.40	33.86	22	-20
179266-001	BB1TP105(6.0)	4,4'-DDE	11.56 J	10.65	8	-8
179266-001	BB1TP105(6.0)	4,4'-DDT	52.06	48.99	6	-6
179266-004	DUP(050405)	Dieldrin	73.04	67.65	8	-7
179266-004	DUP(050405)	4,4'-DDE	67.62	66.71	1	-1
179266-004	DUP(050405)	4,4'-DDD	38.17	29.86	24	-22
179266-004	DUP(050405)	4,4'-DDT	385.4	339.5	13	-12
179266-004	DUP(050405)	alpha-Chlordane	13.57 C	7.073	63	-48
179266-004	DUP(050405)	gamma-Chlordane	7.453 J	6.182	19	-17
179266-006	SOILCOMP	4,4'-DDE	1.541 J	1.237	22	-20
179266-006	SOILCOMP	alpha-Chlordane	1.418 J C	0.6267	77	-56
179266-006	SOILCOMP	gamma-Chlordane	0.8916 J	0.7586	16	-15
179266-007	BB1TP108(5.0)	4,4'-DDE	11.72 J	11.73	0	0

C=RPD between columns exceeds 40% J=estimated

REPORTING SUMMARY FOR 179266 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179266-003	Dieldrin	GC16	B	05/13/05 20:17
179266-003	4,4'-DDE	GC16	B	05/13/05 20:17
179266-003	Endrin	GC16	B	05/13/05 20:17
179266-003	Endosulfan II	GC16	B	05/13/05 20:17
179266-003	Endosulfan sulfate	GC16	B	05/13/05 20:17
179266-003	4,4'-DDD	GC16	B	05/13/05 20:17
179266-003	Endrin aldehyde	GC16	B	05/13/05 20:17
179266-003	4,4'-DDT	GC16	B	05/13/05 20:17
179266-003	alpha-Chlordane	GC16	B	05/13/05 20:17
179266-003	gamma-Chlordane	GC16	B	05/13/05 20:17
179266-003	Methoxychlor	GC16	B	05/13/05 20:17
179266-003	Toxaphene	GC16	B	05/13/05 20:17
179266-003	TCMX	GC16	B	05/13/05 20:17
179266-003	Decachlorobiphenyl	GC16	B	05/13/05 20:17
179266-004	alpha-BHC	GC16	B	05/13/05 20:48
179266-004	beta-BHC	GC16	B	05/13/05 20:48
179266-004	gamma-BHC	GC16	B	05/13/05 20:48
179266-004	delta-BHC	GC16	B	05/13/05 20:48
179266-004	Heptachlor	GC16	B	05/13/05 20:48
179266-004	Aldrin	GC16	B	05/13/05 20:48
179266-004	Heptachlor epoxide	GC16	B	05/13/05 20:48
179266-004	Endosulfan I	GC16	B	05/13/05 20:48
179266-004	Dieldrin	GC16	B	05/13/05 20:48
179266-004	4,4'-DDE	GC16	A	05/13/05 20:48
179266-004	Endrin	GC16	B	05/13/05 20:48
179266-004	Endosulfan II	GC16	B	05/13/05 20:48
179266-004	Endosulfan sulfate	GC16	B	05/13/05 20:48
179266-004	4,4'-DDD	GC16	B	05/13/05 20:48
179266-004	Endrin aldehyde	GC16	B	05/13/05 20:48
179266-004	4,4'-DDT	GC16	A	05/13/05 20:48
179266-004	alpha-Chlordane	GC16	A	05/13/05 20:48
179266-004	gamma-Chlordane	GC16	B	05/13/05 20:48
179266-004	Methoxychlor	GC16	B	05/13/05 20:48
179266-004	Toxaphene	GC16	B	05/13/05 20:48
179266-004	TCMX	GC16	B	05/13/05 20:48
179266-004	Decachlorobiphenyl	GC16	B	05/13/05 20:48
179266-006	alpha-BHC	GC16	B	05/13/05 21:18
179266-006	beta-BHC	GC16	B	05/13/05 21:18
179266-006	gamma-BHC	GC16	B	05/13/05 21:18
179266-006	delta-BHC	GC16	B	05/13/05 21:18
179266-006	Heptachlor	GC16	B	05/13/05 21:18
179266-006	Aldrin	GC16	B	05/13/05 21:18
179266-006	Heptachlor epoxide	GC16	B	05/13/05 21:18
179266-006	Endosulfan I	GC16	B	05/13/05 21:18
179266-006	Dieldrin	GC16	B	05/13/05 21:18
179266-006	4,4'-DDE	GC16	B	05/13/05 21:18
179266-006	Endrin	GC16	B	05/13/05 21:18
179266-006	Endosulfan II	GC16	B	05/13/05 21:18
179266-006	Endosulfan sulfate	GC16	B	05/13/05 21:18
179266-006	4,4'-DDD	GC16	B	05/13/05 21:18
179266-006	Endrin aldehyde	GC16	B	05/13/05 21:18
179266-006	4,4'-DDT	GC16	B	05/13/05 21:18

REPORTING SUMMARY FOR 179266 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179266-001	alpha-BHC	GC16	B	05/13/05 19:47
179266-001	beta-BHC	GC16	B	05/13/05 19:47
179266-001	gamma-BHC	GC16	B	05/13/05 19:47
179266-001	delta-BHC	GC16	B	05/13/05 19:47
179266-001	Heptachlor	GC16	B	05/13/05 19:47
179266-001	Aldrin	GC16	B	05/13/05 19:47
179266-001	Heptachlor epoxide	GC16	B	05/13/05 19:47
179266-001	Endosulfan I	GC16	B	05/13/05 19:47
179266-001	Dieldrin	GC16	B	05/13/05 19:47
179266-001	4,4'-DDE	GC16	B	05/13/05 19:47
179266-001	Endrin	GC16	B	05/13/05 19:47
179266-001	Endosulfan II	GC16	B	05/13/05 19:47
179266-001	Endosulfan sulfate	GC16	B	05/13/05 19:47
179266-001	4,4'-DDD	GC16	B	05/13/05 19:47
179266-001	Endrin aldehyde	GC16	B	05/13/05 19:47
179266-001	4,4'-DDT	GC16	B	05/13/05 19:47
179266-001	alpha-Chlordane	GC16	B	05/13/05 19:47
179266-001	gamma-Chlordane	GC16	B	05/13/05 19:47
179266-001	Methoxychlor	GC16	B	05/13/05 19:47
179266-001	Toxaphene	GC16	B	05/13/05 19:47
179266-001	TCMX	GC16	B	05/13/05 19:47
179266-001	Decachlorobiphenyl	GC16	B	05/13/05 19:47
179266-002	alpha-BHC	GC16	B	05/13/05 05:56
179266-002	beta-BHC	GC16	B	05/13/05 05:56
179266-002	gamma-BHC	GC16	B	05/13/05 05:56
179266-002	delta-BHC	GC16	B	05/13/05 05:56
179266-002	Heptachlor	GC16	B	05/13/05 05:56
179266-002	Aldrin	GC16	B	05/13/05 05:56
179266-002	Heptachlor epoxide	GC16	B	05/13/05 05:56
179266-002	Endosulfan I	GC16	B	05/13/05 05:56
179266-002	Dieldrin	GC16	B	05/13/05 05:56
179266-002	4,4'-DDE	GC16	B	05/13/05 05:56
179266-002	Endrin	GC16	B	05/13/05 05:56
179266-002	Endosulfan II	GC16	B	05/13/05 05:56
179266-002	Endosulfan sulfate	GC16	B	05/13/05 05:56
179266-002	4,4'-DDD	GC16	B	05/13/05 05:56
179266-002	Endrin aldehyde	GC16	B	05/13/05 05:56
179266-002	4,4'-DDT	GC16	B	05/13/05 05:56
179266-002	alpha-Chlordane	GC16	B	05/13/05 05:56
179266-002	gamma-Chlordane	GC16	B	05/13/05 05:56
179266-002	Methoxychlor	GC16	B	05/13/05 05:56
179266-002	Toxaphene	GC16	B	05/13/05 05:56
179266-002	TCMX	GC16	B	05/13/05 05:56
179266-002	Decachlorobiphenyl	GC16	B	05/13/05 05:56
179266-003	alpha-BHC	GC16	B	05/13/05 20:17
179266-003	beta-BHC	GC16	B	05/13/05 20:17
179266-003	gamma-BHC	GC16	B	05/13/05 20:17
179266-003	delta-BHC	GC16	B	05/13/05 20:17
179266-003	Heptachlor	GC16	B	05/13/05 20:17
179266-003	Aldrin	GC16	B	05/13/05 20:17
179266-003	Heptachlor epoxide	GC16	B	05/13/05 20:17
179266-003	Endosulfan I	GC16	B	05/13/05 20:17

REPORTING SUMMARY FOR 179266 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179266-006	alpha-Chlordane	GC16	A	05/13/05 21:18
179266-006	gamma-Chlordane	GC16	B	05/13/05 21:18
179266-006	Methoxychlor	GC16	B	05/13/05 21:18
179266-006	Toxaphene	GC16	B	05/13/05 21:18
179266-006	TCMX	GC16	B	05/13/05 21:18
179266-006	Decachlorobiphenyl	GC16	B	05/13/05 21:18
179266-007	alpha-BHC	GC16	B	05/13/05 21:49
179266-007	beta-BHC	GC16	B	05/13/05 21:49
179266-007	gamma-BHC	GC16	B	05/13/05 21:49
179266-007	delta-BHC	GC16	B	05/13/05 21:49
179266-007	Heptachlor	GC16	B	05/13/05 21:49
179266-007	Aldrin	GC16	B	05/13/05 21:49
179266-007	Heptachlor epoxide	GC16	B	05/13/05 21:49
179266-007	Endosulfan I	GC16	B	05/13/05 21:49
179266-007	Dieldrin	GC16	B	05/13/05 21:49
179266-007	4,4'-DDE	GC16	B	05/13/05 21:49
179266-007	Endrin	GC16	B	05/13/05 21:49
179266-007	Endosulfan II	GC16	B	05/13/05 21:49
179266-007	Endosulfan sulfate	GC16	B	05/13/05 21:49
179266-007	4,4'-DDD	GC16	B	05/13/05 21:49
179266-007	Endrin aldehyde	GC16	B	05/13/05 21:49
179266-007	4,4'-DDT	GC16	B	05/13/05 21:49
179266-007	alpha-Chlordane	GC16	B	05/13/05 21:49
179266-007	gamma-Chlordane	GC16	B	05/13/05 21:49
179266-007	Methoxychlor	GC16	B	05/13/05 21:49
179266-007	Toxaphene	GC16	B	05/13/05 21:49
179266-007	TCMX	GC16	B	05/13/05 21:49
179266-007	Decachlorobiphenyl	GC16	B	05/13/05 21:49
QC293051	alpha-BHC	GC16	B	05/13/05 03:54
QC293051	beta-BHC	GC16	B	05/13/05 03:54
QC293051	gamma-BHC	GC16	B	05/13/05 03:54
QC293051	delta-BHC	GC16	B	05/13/05 03:54
QC293051	Heptachlor	GC16	B	05/13/05 03:54
QC293051	Aldrin	GC16	B	05/13/05 03:54
QC293051	Heptachlor epoxide	GC16	B	05/13/05 03:54
QC293051	Endosulfan I	GC16	B	05/13/05 03:54
QC293051	Dieldrin	GC16	B	05/13/05 03:54
QC293051	4,4'-DDE	GC16	B	05/13/05 03:54
QC293051	Endrin	GC16	B	05/13/05 03:54
QC293051	Endosulfan II	GC16	B	05/13/05 03:54
QC293051	Endosulfan sulfate	GC16	B	05/13/05 03:54
QC293051	4,4'-DDD	GC16	B	05/13/05 03:54
QC293051	Endrin aldehyde	GC16	B	05/13/05 03:54
QC293051	4,4'-DDT	GC16	B	05/13/05 03:54
QC293051	alpha-Chlordane	GC16	B	05/13/05 03:54
QC293051	gamma-Chlordane	GC16	B	05/13/05 03:54
QC293051	Methoxychlor	GC16	B	05/13/05 03:54
QC293051	Toxaphene	GC16	B	05/13/05 03:54
QC293051	TCMX	GC16	B	05/13/05 03:54
QC293051	Decachlorobiphenyl	GC16	B	05/13/05 03:54
QC293052	gamma-BHC	GC16	B	05/13/05 04:24

REPORTING SUMMARY FOR 179266 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC293052	Heptachlor	GC16	B	05/13/05 04:24
QC293052	Aldrin	GC16	B	05/13/05 04:24
QC293052	Dieldrin	GC16	B	05/13/05 04:24
QC293052	Endrin	GC16	B	05/13/05 04:24
QC293052	4,4'-DDT	GC16	B	05/13/05 04:24
QC293052	TCMX	GC16	B	05/13/05 04:24
QC293052	Decachlorobiphenyl	GC16	B	05/13/05 04:24
QC293053	gamma-BHC	GC16	B	05/13/05 06:27
QC293053	Heptachlor	GC16	B	05/13/05 06:27
QC293053	Aldrin	GC16	B	05/13/05 06:27
QC293053	Dieldrin	GC16	B	05/13/05 06:27
QC293053	Endrin	GC16	B	05/13/05 06:27
QC293053	4,4'-DDT	GC16	B	05/13/05 06:27
QC293053	TCMX	GC16	B	05/13/05 06:27
QC293053	Decachlorobiphenyl	GC16	B	05/13/05 06:27
QC293054	gamma-BHC	GC16	B	05/13/05 06:57
QC293054	Heptachlor	GC16	B	05/13/05 06:57
QC293054	Aldrin	GC16	B	05/13/05 06:57
QC293054	Dieldrin	GC16	B	05/13/05 06:57
QC293054	Endrin	GC16	B	05/13/05 06:57
QC293054	4,4'-DDT	GC16	B	05/13/05 06:57
QC293054	TCMX	GC16	B	05/13/05 06:57
QC293054	Decachlorobiphenyl	GC16	B	05/13/05 06:57

Polychlorinated Biphenyls
Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101799
Units:	ug/Kg	Received:	05/05/05
Diln Fac:	1.000	Prepared:	05/06/05

Field ID:	BB1TP106(6.0)	Moisture:	13%
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-001	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	2.2
Aroclor-1221	ND	27	14
Aroclor-1232	ND	14	2.2
Aroclor-1242	ND	14	3.6
Aroclor-1248	ND	14	3.6
Aroclor-1254	ND	14	3.8
Aroclor-1260	ND	14	2.1

Surrogate	%REC	Limits
TCMX	125	63-141
Decachlorobiphenyl	110	49-146

Field ID:	BB1TP106(3.5)	Moisture:	9%
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-002	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	2.1
Aroclor-1221	ND	26	14
Aroclor-1232	ND	13	2.2
Aroclor-1242	ND	13	3.5
Aroclor-1248	ND	13	3.5
Aroclor-1254	ND	13	3.7
Aroclor-1260	ND	13	2.1

Surrogate	%REC	Limits
TCMX	132	63-141
Decachlorobiphenyl	126	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101799
Units:	ug/Kg	Received:	05/05/05
Diln Fac:	1.000	Prepared:	05/06/05

Field ID:	BB1TP10(2.5)	Moisture:	13%
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-003	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	2.2
Aroclor-1221	ND	28	14
Aroclor-1232	ND	14	2.3
Aroclor-1242	ND	14	3.7
Aroclor-1248	ND	14	3.6
Aroclor-1254	ND	14	3.8
Aroclor-1260	ND	14	2.2

Surrogate	%REC	Limits
TCMX	122	63-141
Decachlorobiphenyl	112	49-146

Field ID:	DUP(050405)	Moisture:	11%
Type:	SAMPLE	Sampled:	05/04/05
Lab ID:	179266-004	Analyzed:	05/06/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	2.2
Aroclor-1221	ND	27	14
Aroclor-1232	ND	14	2.2
Aroclor-1242	ND	14	3.6
Aroclor-1248	ND	14	3.6
Aroclor-1254	ND	14	3.8
Aroclor-1260	ND	14	2.1

Surrogate	%REC	Limits
TCMX	133	63-141
Decachlorobiphenyl	125	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101799
Units:	ug/Kg	Received:	05/05/05
Diln Fac:	1.000	Prepared:	05/06/05

Field ID:	SOILCOMP	Moisture:	14%
Type:	SAMPLE	Sampled:	05/05/05
Lab ID:	179266-006	Analyzed:	05/07/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	2.2
Aroclor-1221	ND	28	15
Aroclor-1232	ND	14	2.3
Aroclor-1242	ND	14	3.8
Aroclor-1248	ND	14	3.7
Aroclor-1254	ND	14	3.9
Aroclor-1260	86	14	2.2

Surrogate	%REC	Limits
TCMX	131	63-141
Decachlorobiphenyl	129	49-146

Field ID:	BB1TP108(5.0)	Moisture:	27%
Type:	SAMPLE	Sampled:	05/05/05
Lab ID:	179266-007	Analyzed:	05/07/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	16	2.6
Aroclor-1221	ND	33	17
Aroclor-1232	ND	16	2.7
Aroclor-1242	ND	16	4.4
Aroclor-1248	ND	16	4.3
Aroclor-1254	ND	16	4.6
Aroclor-1260	ND	16	2.6

Surrogate	%REC	Limits
TCMX	128	63-141
Decachlorobiphenyl	125	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	101799
Units:	ug/Kg	Received:	05/05/05
Diln Fac:	1.000	Prepared:	05/06/05

Type:	BLANK	Analyzed:	05/06/05
Lab ID:	QC292904	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	4.4
Aroclor-1221	ND	24	5.8
Aroclor-1232	ND	12	2.6
Aroclor-1242	ND	12	3.9
Aroclor-1248	ND	12	1.7
Aroclor-1254	ND	12	6.1
Aroclor-1260	ND	12	5.1

Surrogate	%REC	Limits
TCMX	118	63-141
Decachlorobiphenyl	103	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC292905	Batch#:	101799
Matrix:	Soil	Prepared:	05/06/05
Units:	ug/Kg	Analyzed:	05/06/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	168.2	132.6	79	78-150

Surrogate	%REC	Limits
TCMX	107	63-141
Decachlorobiphenyl	99	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BB1TP108(5.0)	Batch#:	101799
MSS Lab ID:	179266-007	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/06/05
Basis:	dry	Analyzed:	05/07/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC292906

Moisture: 27%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<2.713	225.7	223.3	99	61-167

Surrogate	%REC	Limits
TCMX	142 *	63-141
Decachlorobiphenyl	129	49-146

Type: MSD
Lab ID: QC292907

Moisture: 27%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	227.9	224.4	98	61-167	0	36

Surrogate	%REC	Limits
TCMX	150 *	63-141
Decachlorobiphenyl	133	49-146

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_003	255150953003	pcb10_2	14-APR-2005 19:53	05WS0223
2	104_004	255150953004	pcb25_5	14-APR-2005 20:19	05WS0030
3	104_005	255150953005	pcb100_20	14-APR-2005 20:46	S157
4	104_006	255150953006	pcb250_50	14-APR-2005 21:13	S40
5	104_007	255150953007	pcb500_100	14-APR-2005 21:39	S100
6	104_008	255150953008	pcb750_150	14-APR-2005 22:06	S101
7	104_009	255150953009	pcb1K_200	14-APR-2005 22:33	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	311.44	297.35	273.50	254.34	241.44	229.07	225.17	AVRG	R		0.003820		pg	261.76	13	.99	20	
Aroclor-1016 Peak # 2	A	603.96	577.15	537.33	491.67	466.16	439.80	437.20	AVRG	R		0.001970		pg	507.61	13	.99	20	
Aroclor-1016 Peak # 3	A	773.55	721.22	695.67	645.78	615.19	624.02	597.23	AVRG	R		0.001489		pg	671.81	9	.99	20	
Aroclor-1016 Peak # 4	A	480.47	454.81	435.41	389.02	374.89	358.64	350.10	AVRG	R		0.002462		pg	406.19	12	.99	20	
Aroclor-1016 Peak # 5	A	365.11	369.58	341.88	307.56	295.86	281.48	275.12	AVRG	R		0.003130		pg	319.51	12	.99	20	
Aroclor-1260 Peak # 1	A	1358.9	1344.3	1171.9	1074.2	1035.6	989.70	1003.5	AVRG	R		8.774E-4		pg	1139.7	14	.99	20	
Aroclor-1260 Peak # 2	A	1346.9	1260.9	1086.4	1018.4	923.32	877.93	946.53	AVRG	R		9.383E-4		pg	1065.8	17	.99	20	
Aroclor-1260 Peak # 3	A	926.98	809.08	719.65	621.25	594.43	561.70	576.48	AVRG	R		0.001455		pg	687.08	20	.99	20	
Aroclor-1260 Peak # 4	A	642.42	570.82	608.36	550.05	531.16	498.62	512.26	AVRG	R		0.001789		pg	559.10	9	.99	20	
Aroclor-1260 Peak # 5	A	1699.1	1627.8	1500.5	1403.3	1409.3	1373.6	1481.2	AVRG	R		6.670E-4		pg	1499.3	8	.99	20	
TCMX	A	15744	15150	14219	13524	13267	12725	12857	AVRG	R		7.181E-5		pg	13926	8	.99	20	
Decachlorobiphenyl	A	9633.0	8471.8	8393.8	7724.9	8610.1	8390.1	9192.4	AVRG	R		1.159E-4		pg	8630.9	7	.99	20	
Aroclor-1016 Peak # 1	B	377.75	391.61	371.84	340.90	313.43	311.37	306.48	AVRG	R		0.002901		pg	344.77	10	.99	20	
Aroclor-1016 Peak # 2	B	832.44	805.50	737.73	667.22	611.91	611.72	600.39	AVRG	R		0.001438		pg	695.27	14	.99	20	
Aroclor-1016 Peak # 3	B	1768.4	1730.4	1566.4	1416.5	1316.9	1301.7	1263.3	AVRG	R		6.754E-4		pg	1480.5	14	.99	20	
Aroclor-1016 Peak # 4	B	735.21	675.00	625.42	561.73	518.83	522.53	511.89	AVRG	R		0.001687		pg	592.94	15	.99	20	
Aroclor-1016 Peak # 5	B	513.59	501.84	488.09	416.51	387.49	389.27	381.87	AVRG	R		0.002274		pg	439.81	13	.99	20	
Aroclor-1260 Peak # 1	B	969.42	944.36	875.52	745.20	711.37	698.33	677.23	AVRG	R		0.001245		pg	803.06	15	.99	20	
Aroclor-1260 Peak # 2	B	1398.9	1347.1	1246.3	1084.9	1039.3	1022.3	1004.4	AVRG	R		8.596E-4		pg	1163.3	14	.99	20	

102

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	970.39	955.89	857.34	742.61	731.27	720.26	707.50	AVRG	R		0.001231		pg	812.18	14	.99	20	
Aroclor-1260 Peak # 4	B	808.55	813.70	731.17	642.53	622.80	609.49	599.52	AVRG	R		0.001450		pg	689.68	14	.99	20	
Aroclor-1260 Peak # 5	B	457.61	430.44	403.91	354.82	343.78	338.70	335.24	AVRG	R		0.002627		pg	380.64	13	.99	20	
TCMX	B	20555	20240	18611	17309	15585	15486	15237	AVRG	R		5.690E-5		pg	17575	13	.99	20	
Decachlorobiphenyl	B	9988.0	9388.0	8258.3	7593.2	8005.8	8552.6	8411.5	AVRG	R		1.163E-4		pg	8599.6	10	.99	20	

103

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :

ICV 255150953011 (104_011) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255150953011	14-APR-2005	250.00	275.76	pg	10	15
Aroclor-1260	A	255150953011	14-APR-2005	250.00	266.52	pg	7	15
Aroclor-1016	B	255150953011	14-APR-2005	250.00	274.23	pg	10	15
Aroclor-1260	B	255150953011	14-APR-2005	250.00	278.29	pg	11	15

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953002 Name: Type: (normal) Date: 15-APR-2005 00:19 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_013	255150953013	ar1254	15-APR-2005 00:19	S39

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	390.89	AVRG	R		0.002558		pg	390.89	0	.99	20	
Aroclor-1254 Peak # 2	A	549.73	AVRG	R		0.001819		pg	549.73	0	.99	20	
Aroclor-1254 Peak # 3	A	423.39	AVRG	R		0.002362		pg	423.39	0	.99	20	
Aroclor-1254 Peak # 4	A	728.11	AVRG	R		0.001373		pg	728.11	0	.99	20	
Aroclor-1254 Peak # 5	A	643.80	AVRG	R		0.001553		pg	643.80	0	.99	20	
Aroclor-1254 Peak # 1	B	351.39	AVRG	R		0.002846		pg	351.39	0	.99	20	
Aroclor-1254 Peak # 2	B	635.56	AVRG	R		0.001573		pg	635.56	0	.99	20	
Aroclor-1254 Peak # 3	B	744.74	AVRG	R		0.001343		pg	744.74	0	.99	20	
Aroclor-1254 Peak # 4	B	567.27	AVRG	R		0.001763		pg	567.27	0	.99	20	
Aroclor-1254 Peak # 5	B	1049.6	AVRG	R		9.527E-4		pg	1049.6	0	.99	20	

105

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825146913001 Name: Type: (normal) Date: 12-APR-2005 00:33 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101_011	825146913011	pcb10_2	12-APR-2005 00:33	05WS0223
2	101_012	825146913012	pcb25_5	12-APR-2005 01:01	05WS0030
3	101_013	825146913013	pcb100_20	12-APR-2005 01:28	S157
4	101_014	825146913014	pcb250_50	12-APR-2005 01:56	S40
5	101_015	825146913015	pcb500_100	12-APR-2005 02:24	S100
6	101_016	825146913016	pcb750_150	12-APR-2005 02:51	S101
7	101_017	825146913017	pcb1K_200	12-APR-2005 03:19	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	582.65	471.78	471.17	483.90	473.17	425.44	481.27	AVRG	R		0.002065		pg	484.20	10	.99	20	
Aroclor-1016 Peak # 2	A	1147.5	931.85	886.89	902.14	892.20	805.65	947.67	AVRG	R		0.001075		pg	930.55	11	.99	20	
Aroclor-1016 Peak # 3	A	2258.9	1930.5	1983.8	2086.4	2239.2	2102.2	2725.3	AVRG	R		4.567E-4		pg	2189.5	12	.99	20	
Aroclor-1016 Peak # 4	A	912.31	762.18	791.97	814.24	797.55	718.87	851.93	AVRG	R		0.001239		pg	807.01	8	.99	20	
Aroclor-1016 Peak # 5	A	506.17	397.60	464.23	471.60	455.69	388.56	451.16	AVRG	R		0.002233		pg	447.86	9	.99	20	
Aroclor-1260 Peak # 1	A	1398.9	1080.2	1129.4	1161.7	1176.3	1055.4	1346.5	AVRG	R		8.385E-4		pg	1192.6	11	.99	20	
Aroclor-1260 Peak # 2	A	2575.2	1949.5	2056.6	2106.5	2237.2	2050.6	2705.3	AVRG	R		4.464E-4		pg	2240.1	13	.99	20	
Aroclor-1260 Peak # 3	A	1155.3	886.77	946.86	959.06	940.93	826.56	1040.9	AVRG	R		0.001036		pg	965.20	11	.99	20	
Aroclor-1260 Peak # 4	A	1240.6	993.35	1062.6	1084.7	1079.0	948.35	1216.9	AVRG	R		9.180E-4		pg	1089.4	10	.99	20	
Aroclor-1260 Peak # 5	A	1672.0	1188.4	1320.1	1352.2	1370.3	1227.7	1648.1	AVRG	R		7.158E-4		pg	1397.0	14	.99	20	
TCMX	A	26024	22355	25529	35133	29390	23127	20182	AVRG	R		3.852E-5		pg	25963	19	.99	20	
Decachlorobiphenyl	A	23857	16287	18193	20036	25734	23995	23911	AVRG	R		4.605E-5		pg	21716	16	.99	20	
Aroclor-1016 Peak # 1	B	294.22	256.00	268.21	291.28	245.15	256.50	270.64	AVRG	R		0.003719		pg	268.86	7	.99	20	
Aroclor-1016 Peak # 2	B	415.58	365.36	369.45	403.73	337.64	354.73	382.43	AVRG	R		0.002663		pg	375.56	7	.99	20	
Aroclor-1016 Peak # 3	B	1356.6	1234.7	1216.5	1366.9	1217.3	1418.9	1675.4	AVRG	R		7.379E-4		pg	1355.2	12	.99	20	
Aroclor-1016 Peak # 4	B	480.00	448.07	463.02	505.58	436.24	463.77	509.39	AVRG	R		0.002117		pg	472.29	6	.99	20	
Aroclor-1016 Peak # 5	B	346.28	332.29	337.95	366.35	299.57	316.05	338.84	AVRG	R		0.002995		pg	333.90	6	.99	20	
Aroclor-1260 Peak # 1	B	1112.1	992.88	1104.4	1121.0	898.42	974.29	1133.3	AVRG	R		9.541E-4		pg	1048.1	9	.99	20	
Aroclor-1260 Peak # 2	B	1172.0	1029.6	1185.0	1200.5	959.01	1057.8	1242.5	AVRG	R		8.921E-4		pg	1120.9	9	.99	20	

106

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825146913001 Name: Type: (normal) Date: 12-APR-2005 00:33 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	479.90	451.12	537.69	533.90	410.56	436.34	475.48	AVRG	R		0.002105		pg	475.00	10	.99	20	
Aroclor-1260 Peak # 4	B	538.75	489.06	578.95	577.26	442.56	470.99	521.66	AVRG	R		0.001934		pg	517.03	10	.99	20	
Aroclor-1260 Peak # 5	B	743.20	658.24	788.81	784.44	589.27	648.47	723.11	AVRG	R		0.001418		pg	705.08	11	.99	20	
TCMX	B	16514	15772	16462	25133	19705	16432		AVRG	R		5.454E-5		pg	18336	20	.99	20	
Decachlorobiphenyl	B	10706	10291	11440	11624	8849.8	11560	14652	AVRG	R		8.847E-5		pg	11303	16	.99	20	

107

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC25 Calname :
Calnum : 825146913001 Caldate : 12-APR-2005 Caltype :

ICV 825146913019 (101_019) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	825146913019	12-APR-2005	250.00	230.72	pg	-8	15
Aroclor-1260	A	825146913019	12-APR-2005	250.00	213.41	pg	-15	15
Aroclor-1016	B	825146913019	12-APR-2005	250.00	267.49	pg	7	15
Aroclor-1260	B	825146913019	12-APR-2005	250.00	256.23	pg	2	15

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825150740001 Name: Type: (normal) Date: 14-APR-2005 19:17 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_006	825150740006	ccv	14-APR-2005 19:17	s39

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	819.15	AVRG	R		0.001221		pg	819.15	0	.99	20	
Aroclor-1254 Peak # 2	A	1160.8	AVRG	R		8.615E-4		pg	1160.8	0	.99	20	
Aroclor-1254 Peak # 3	A	929.69	AVRG	R		0.001076		pg	929.69	0	.99	20	
Aroclor-1254 Peak # 4	A	1653.5	AVRG	R		6.048E-4		pg	1653.5	0	.99	20	
Aroclor-1254 Peak # 5	A	1266.7	AVRG	R		7.894E-4		pg	1266.7	0	.99	20	
Aroclor-1254 Peak # 1	B	512.99	AVRG	R		0.001949		pg	512.99	0	.99	20	
Aroclor-1254 Peak # 2	B	584.51	AVRG	R		0.001711		pg	584.51	0	.99	20	
Aroclor-1254 Peak # 3	B	487.68	AVRG	R		0.002051		pg	487.68	0	.99	20	
Aroclor-1254 Peak # 4	B	861.89	AVRG	R		0.001160		pg	861.89	0	.99	20	
Aroclor-1254 Peak # 5	B	902.00	AVRG	R		0.001109		pg	902.00	0	.99	20	

109

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825176487002 Name: Type: (normal) Date: 03-MAY-2005 02:36 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	122_021	825176487021	ar1232	03-MAY-2005 02:36	S431

Analyte	Ch	Ll	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	597.99	AVRG	R		0.001672		pg	597.99	0	.99	20	
Aroclor-1232 Peak # 2	A	434.88	AVRG	R		0.002300		pg	434.88	0	.99	20	
Aroclor-1232 Peak # 3	A	962.81	AVRG	R		0.001039		pg	962.81	0	.99	20	
Aroclor-1232 Peak # 4	A	394.95	AVRG	R		0.002532		pg	394.95	0	.99	20	
Aroclor-1232 Peak # 5	A	266.21	AVRG	R		0.003756		pg	266.21	0	.99	20	
Aroclor-1232 Peak # 1	B	334.33	AVRG	R		0.002991		pg	334.33	0	.99	20	
Aroclor-1232 Peak # 2	B	304.09	AVRG	R		0.003289		pg	304.09	0	.99	20	
Aroclor-1232 Peak # 3	B	180.26	AVRG	R		0.005548		pg	180.26	0	.99	20	
Aroclor-1232 Peak # 4	B	583.77	AVRG	R		0.001713		pg	583.77	0	.99	20	
Aroclor-1232 Peak # 5	B	229.60	AVRG	R		0.004355		pg	229.60	0	.99	20	

110

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005			250.00	258.82	pg	4	15	
GC22	B	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005			250.00	220.47	pg	-12	15	
GC22	A	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005			100.00	113.16	pg	13	15	
GC22	B	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005			100.00	91.528	pg	-8	15	
GC25	A	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005			250.00	268.07	pg	7	15	
GC25	B	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005			250.00	235.82	pg	-6	15	
GC25	A	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005			100.00	110.13	pg	10	15	
GC25	B	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005			100.00	110.83	pg	11	15	

CONTINUING CALIBRATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1232

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825182561003	06-MAY-2005 20:16	825176487002	03-MAY-2005			250.00	263.22	pg	5	15	
GC25	B	825182561003	06-MAY-2005 20:16	825176487002	03-MAY-2005			250.00	250.65	pg	0	15	
GC25	A	825182561017	07-MAY-2005 02:43	825176487002	03-MAY-2005			250.00	260.66	pg	4	15	
GC25	B	825182561017	07-MAY-2005 02:43	825176487002	03-MAY-2005			250.00	287.01	pg	15	15	

CONTINUING CALIBRATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005			250.00	244.76	pg	-2	15	
GC22	B	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005			250.00	221.25	pg	-12	15	
GC22	A	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005			100.00	112.52	pg	13	15	
GC22	B	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005			100.00	93.147	pg	-7	15	
GC25	A	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005			250.00	282.65	pg	13	15	
GC25	B	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005			250.00	273.62	pg	9	15	
GC25	A	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005			100.00	117.50	pg	(18)	15	c+ *** samples ND
GC25	B	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005			100.00	129.62	pg	30	15	c+ *** confirm

Chrom
CW 6/7/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005	13926	15524	50.000	55.734	pg	11	15	
GC22	B	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005	17575	16408	50.000	46.680	pg	-7	15	
GC22	A	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005	13926	15861	20.000	22.778	pg	14	15	
GC22	B	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005	17575	17050	20.000	19.403	pg	-3	15	
GC25	A	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005	25963	37936	50.000	73.058	pg	46	15	c+ Courtney cleared on 6/7/05
GC25	B	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005	18336	20184	50.000	55.038	pg	10	15	
GC25	A	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005	25963	27847	20.000	21.451	pg	7	15	
GC25	B	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005	18336	18232	20.000	19.887	pg	-1	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005	8630.9	8300.0	50.000	48.083	pg	-4	15	
GC22	B	255182692007	06-MAY-2005 21:19	255150953001	14-APR-2005	8599.6	8219.4	50.000	47.789	pg	-4	15	
GC22	A	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005	8630.9	9627.0	20.000	22.308	pg	12	15	
GC22	B	255182692017	07-MAY-2005 01:45	255150953001	14-APR-2005	8599.6	8514.1	20.000	19.801	pg	-1	15	
GC25	A	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005	21716	23830	50.000	54.868	pg	10	15	
GC25	B	825182561001	06-MAY-2005 18:41	825146913001	12-APR-2005	11303	10135	50.000	44.831	pg	-10	15	
GC25	A	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005	21716	23519	20.000	21.661	pg	8	15	
GC25	B	825182561015	07-MAY-2005 01:48	825146913001	12-APR-2005	11303	12173	20.000	21.539	pg	8	15	

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255150953 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
002	104_002	X	hex			14-APR-2005 19:26	1.0					
003	104_003	ICAL	pcb10_2			14-APR-2005 19:53	1.0				1	
004	104_004	ICAL	pcb25_5			14-APR-2005 20:19	1.0				2	
005	104_005	ICAL	pcb100_20			14-APR-2005 20:46	1.0				3	
006	104_006	ICAL	pcb250_50			14-APR-2005 21:13	1.0				4	
007	104_007	ICAL	pcb500_100			14-APR-2005 21:39	1.0				5	
008	104_008	ICAL	pcb750_150			14-APR-2005 22:06	1.0				6	
009	104_009	ICAL	pcb1K_200			14-APR-2005 22:33	1.0				7	
011	104_011	ICV	accu_1660			14-APR-2005 23:26	1.0	1			8	
012	104_012	X	icv			14-APR-2005 23:52	1.0				8	
013	104_013	CCV	ar1254			15-APR-2005 00:19	1.0	1			9	

116

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255182692 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 06-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
006	126_006	X	pcb250_50			06-MAY-2005 20:52	1.0			1	
007	126_007	CCV	ccv			06-MAY-2005 21:19	1.0	1.0	1	1	
010	126_010	SAMPLE	179266-001	101799	Soil	06-MAY-2005 22:39	1.0	0.8221	1		
011	126_011	SAMPLE	179266-002	101799	Soil	06-MAY-2005 23:05	1.0	0.8344	1		
012	126_012	SAMPLE	179266-003	101799	Soil	06-MAY-2005 23:32	1.0	0.8317	1		
013	126_013	SAMPLE	179266-004	101799	Soil	06-MAY-2005 23:59	1.0	0.8403	1		
014	126_014	SAMPLE	179266-006	101799	Soil	07-MAY-2005 00:25	1.0	0.8398	1		
015	126_015	MSS	179266-007	101799	Soil	07-MAY-2005 00:52	1.0	0.8339	1		
017	126_017	CCV	pcb100_20			07-MAY-2005 01:45	1.0	1.0	1	2	
018	126_018	X	ccv			07-MAY-2005 02:12	1.0			2	

117

Stds used: 1=S40 2=S157

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825146913 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 12-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
010	101_010	X	hex			12-APR-2005 00:06	1.0					
011	101_011	ICAL	pcb10_2			12-APR-2005 00:33	1.0				1	
012	101_012	ICAL	pcb25_5			12-APR-2005 01:01	1.0				2	
013	101_013	ICAL	pcb100_20			12-APR-2005 01:28	1.0				3	
014	101_014	ICAL	pcb250_50			12-APR-2005 01:56	1.0				4	
015	101_015	ICAL	pcb500_100			12-APR-2005 02:24	1.0				5	
016	101_016	ICAL	pcb750_150			12-APR-2005 02:51	1.0				6	
017	101_017	ICAL	pcb1K_200			12-APR-2005 03:19	1.0				7	
019	101_019	ICV	accu_1660			12-APR-2005 04:14	1.0	1			8	
020	101_020	X	icv			12-APR-2005 04:42	1.0				8	

118

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825150740 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	104_002	CCV	pcb250_50			14-APR-2005 16:20	1.0	1.0		1	1	
003	104_003	X	ccv			14-APR-2005 16:48	1.0				1	
006	104_006	ICAL	ccv			14-APR-2005 19:17	1.0	1.0			2	
008	104_008	SAMPLE	178762-005	101157	Soil	14-APR-2005 20:12	1.0	0.6614		1		
009	104_009	SAMPLE	178762-006	101157	Soil	14-APR-2005 20:40	1.0	0.6588		1		
010	104_010	SAMPLE	178762-008	101157	Soil	14-APR-2005 21:08	1.0	0.6592		1		
011	104_011	SAMPLE	178762-009	101157	Soil	14-APR-2005 21:36	1.0	0.6653		1		
012	104_012	SAMPLE	178762-010	101157	Soil	14-APR-2005 22:03	1.0	0.6658		1		
013	104_013	SAMPLE	178762-011	101157	Soil	14-APR-2005 22:31	1.0	0.6596		1		
014	104_014	SAMPLE	178851-001	101157	Soil	14-APR-2005 22:59	1.0	0.6575		1		
015	104_015	SAMPLE	178851-002	101157	Soil	14-APR-2005 23:26	1.0	0.6596		1		
016	104_016	SAMPLE	178851-003	101157	Soil	14-APR-2005 23:54	1.0	0.6596		1		
017	104_017	SAMPLE	178851-004	101157	Soil	15-APR-2005 00:22	1.0	0.6667		1		
019	104_019	X	pcb100_20			15-APR-2005 01:17	1.0				3	
020	104_020	CCV	ccv			15-APR-2005 01:45	1.0	1.0	1	1	3	119
023	104_023	CCV	ccv			15-APR-2005 03:07	1.0	1.0		1	2	
025	104_025	SAMPLE	178851-005	101157	Soil	15-APR-2005 04:03	1.0	0.6592		1		
026	104_026	SAMPLE	178851-006	101157	Soil	15-APR-2005 04:30	1.0	0.6636		1		
027	104_027	SAMPLE	178851-008	101157	Soil	15-APR-2005 04:58	1.0	0.6592		1		
029	104_029	X	pcb500_100			15-APR-2005 05:53	1.0				4	
030	104_030	CCV	ccv			15-APR-2005 06:21	1.0	1.0		1	4	

Stds used: 1=S40 2=S39 3=S157 4=S100

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825176487 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	122_002	X	pcb250_50			02-MAY-2005 13:27	1.0					1	
003	122_003	CCV	ccv			02-MAY-2005 13:54	1.0	1.0	1		1	1	
004	122_004	CCV	ar1248			02-MAY-2005 18:46	1.0	1.0			1	2	
005	122_005	X	ccv			02-MAY-2005 19:13	1.0					2	
007	122_007	BLANK	QC292341	101648	Soil	02-MAY-2005 20:09	1.0	0.8333		1	1		
008	122_008	MDL	177841-001	101648	Soil	02-MAY-2005 20:36	1.0	0.8333			1		
009	122_009	MDL	177841-002	101648	Soil	02-MAY-2005 21:04	1.0	0.8333			1		
010	122_010	MDL	177841-003	101648	Soil	02-MAY-2005 21:32	1.0	0.8333			1		
011	122_011	MDL	177841-004	101648	Soil	02-MAY-2005 21:59	1.0	0.8333			1		
012	122_012	MDL	177841-005	101648	Soil	02-MAY-2005 22:27	1.0	0.8333			1		
013	122_013	MDL	177841-006	101648	Soil	02-MAY-2005 22:55	1.0	0.8333			1		
014	122_014	MDL	177841-007	101648	Soil	02-MAY-2005 23:22	1.0	0.8333			1		
015	122_015	MDL	177841-008	101648	Soil	02-MAY-2005 23:50	1.0	0.8333			1		
017	122_017	X	pcb500_100			03-MAY-2005 00:45	1.0					3	
018	122_018	CCV	ccv			03-MAY-2005 01:13	1.0	1.0			1	3	
019	122_019	X	ar1248			03-MAY-2005 01:40	1.0					2	120
020	122_020	CCV	ccv			03-MAY-2005 02:08	1.0	1.0			1	2	
021	122_021	CCV	ar1232			03-MAY-2005 02:36	1.0	1.0			1	4	
022	122_022	X	ccv			03-MAY-2005 03:03	1.0					4	
024	122_024	BLANK	QC292289	101635	Soil	03-MAY-2005 03:58	1.0	0.8333		1	1		
025	122_025	MDL	177900-001	101635	Soil	03-MAY-2005 04:26	1.0	0.8333			1		
026	122_026	MDL	177900-002	101635	Soil	03-MAY-2005 04:54	1.0	0.8333			1		
027	122_027	MDL	177900-003	101635	Soil	03-MAY-2005 05:21	1.0	0.8333			1		
028	122_028	MDL	177900-004	101635	Soil	03-MAY-2005 05:49	1.0	0.8333			1		
029	122_029	MDL	177900-005	101635	Soil	03-MAY-2005 06:17	1.0	0.8333			1		
030	122_030	MDL	177900-006	101635	Soil	03-MAY-2005 06:44	1.0	0.8333			1		
031	122_031	MDL	177900-007	101635	Soil	03-MAY-2005 07:12	1.0	0.8333			1		
032	122_032	MDLCHEC	177900-008	101635	Soil	03-MAY-2005 07:40	1.0	0.8333			1		
034	122_034	CCV	pcb100_20			03-MAY-2005 08:35	1.0	1.0			1	5	
035	122_035	X	ccv			03-MAY-2005 09:03	1.0					5	
036	122_036	CCV	ar1232			03-MAY-2005 09:30	1.0	1.0			1	4	

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825176487 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
037	122_037	X	ccv			03-MAY-2005 09:58	1.0			4	

121

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157

SEQUENCE SUMMARY FOR 179266 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825182561 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 06-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	126_001	CCV	pcb250_50			06-MAY-2005 18:41	1.0	1.0			1	1	
002	126_002	X	ccv			06-MAY-2005 19:09	1.0					1	
003	126_003	CCV	ar1232			06-MAY-2005 20:16	1.0	1.0			1	2	
004	126_004	X	ccv			06-MAY-2005 20:44	1.0					2	
007	126_007	BLANK	QC292904	101799	Soil	06-MAY-2005 22:07	1.0	0.8251		1	1		
008	126_008	LCS	QC292905	101799	Soil	06-MAY-2005 22:34	1.0	0.8412		1	1		
009	126_009	SAMPLE	179190-001	101799	Soil	06-MAY-2005 23:02	1.0	0.8446		1	1		
010	126_010	SAMPLE	179213-001	101799	Soil	06-MAY-2005 23:30	1.0	0.8432	2	1	1		
011	126_011	SAMPLE	179302-001	101799	Soil	06-MAY-2005 23:57	1.0	0.8418	20	1	1	sh	4:PCB101=9595.42
012	126_012	MS	QC292906	101799	Soil	07-MAY-2005 00:25	1.0	0.8237		2	1		
013	126_013	MSD	QC292907	101799	Soil	07-MAY-2005 00:52	1.0	0.8319		2	1		
015	126_015	CCV	pcb100_20			07-MAY-2005 01:48	1.0	1.0	2		1	3	
016	126_016	X	ccv			07-MAY-2005 02:15	1.0					3	
017	126_017	CCV	ar1232			07-MAY-2005 02:43	1.0	1.0			1	2	
018	126_018	X	ccv			07-MAY-2005 03:11	1.0					2	

122

Stds used: 1=S40 2=S431 3=S157
Flags used: sh=out of sample hold

Curtis & Tompkins Laboratories Sample Preparation Summary 06-MAY-2005 18:42

Batch Number : 101799
Date Extracted: 06-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3550B

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S498A
Spike #3 ID :
SOP Version : PCB_s_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179190-001			Fugro West, Inc.	Soil	29.6	g	25	0.844595	1	.05	0		PCB	3665A	
179213-001			CH2M Hill Constructors Inc.	Soil	29.65	g	25	0.843170	1	.05	0		PCB	3665A	
179266-001			Mactec, Inc.	Soil	30.41	g	25	0.822098	1	.05	0		PCB	3665A	
179266-002			Mactec, Inc.	Soil	29.96	g	25	0.834446	1	.05	0		PCB	3665A	
179266-003			Mactec, Inc.	Soil	30.06	g	25	0.831670	1	.05	0		PCB	3665A	
179266-004			Mactec, Inc.	Soil	29.75	g	25	0.840336	1	.05	0		PCB	3665A	
179266-006			Mactec, Inc.	Soil	29.77	g	25	0.839772	1	.05	0		PCB	3665A	
179266-007			Mactec, Inc.	Soil	29.98	g	25	0.833889	1	.05	0		PCB	3665A	
179302-001			Montezuma Wetlands LLC	Soil	29.7	g	25	0.841751	1	.05	0		PCB	3665A	
QC292904	MB			Soil	30.3	g	25	0.825083	1	.05	0		PCB	3665A	
QC292905	LCS			Soil	29.72	g	25	0.841184	1	.05	.05		PCB	3665A	
QC292906	MS	of 179266-007		Soil	30.35	g	25	0.823723	1	.05	.05		PCB	3665A	
QC292907	MSD	of 179266-007		Soil	30.05	g	25	0.831947	1	.05	.05		PCB	3665A	

123

Prep Chemist: _____ Reviewed By: _____ Date: 5/16/05

Relinquished By: _____ Received By: _____ Date: 5/9/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

BK 2098

Page 46

LIMS Batch No: 101799
LIMS Analysis PCB
Extracted by: KMH
Date Extracted: 5/6/05

- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ EPA 3545 PFE (ASE Method# ____)
- ☐ Other ____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	179266-001	30.41	25.0	
	2	29.96		
	3	30.06		
	4	29.75		
5	6	29.77		
	7	29.98		MSS
	MB QC292904	30.30		
	LCS 5	29.72		
	MS 6	30.35		
10	MSD 7	30.05		
	~~178828-001~~	29.70		179302-001 in computer
added after 7 out KMH 5/6/05	179190-001	29.60		
	179213-001	29.65		
15				
20				
				KMH 5/6/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	KMH 5/6/05
dried with CH_2Cl_2-rinsed ☑ ~~granular~~ powder Na_2SO_4 ☐ diatomaceous earth	EM44/35453	
0.05 mL of surrogate solution was added to all samples	5258A	
0.05 mL of spike solution Ar1232 was added to all spikes	5498A	✓
1:1 CH_2Cl_2 (lot# EM45071):Acetone(lot# EM44283) was added to all		✓
☑ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted		
ASE Cellulose Filters used:	N/A	
PFE (ASE) / soxhlets on at:	N/A	
PFE (ASE) / soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM44302507	
Concentrated to volumes noted above after exchange to Hexane Lot#	802E27	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	AA9634	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	

Continued from page ____
Continued on page ____

Extraction Chemist / Date

Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
178045-001	30.0	PCB-MOL's	
2			
3			
4			
5			
6			
7			
8			
MB			
178528-001	29.70	PCB	COMP A, B, C
MB	30.27		EMA4028452
LCS	29.90		↓
MS	29.68		178528-001
MSD	29.52		↓
177843-001	30.0	PCB-MOL's	
2			
3			
4			
5			
6			
7			
8			
MB			

Continued on Page

Read and Understood By

5/5/05

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
1792606-001	49.97	TEH	MSS
MS	50.43		
MSD	50.19		
1792606-002	50.19		
-003	49.78		
-004	50.47		
-005	50.43		
-006	49.85		
-007	49.68		
1792521-001	49.89		
1792609-001	49.93		COMP A,B,C,D
1788067-009	30.00	8310 MDL	EM440284552
-010	30.00		
-011	30.00		
MB	30.00		
1792606-001	30.41	PCB	rocks
2	29.96		
3	30.06		
4	29.75		
6	29.77		
7	29.98		MSS
MB	30.30		
MSLCS	29.72		
MS	30.35		
MSD	30.05		
1792183-001A	29.65	PCB	
1792190-001A	29.60	PCB	

Continued on Page

Signed 5/6/05

Signed Date

Read and Understood By

Signed Date

Hit Report for 179266 PCB Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result
179266-006	SOILCOMP	Aroclor-1260	86.06

REPORTING SUMMARY FOR 179266 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179266-001	Aroclor-1016	GC22	A	05/06/05 22:39
179266-001	Aroclor-1221	GC22	A	05/06/05 22:39
179266-001	Aroclor-1232	GC22	A	05/06/05 22:39
179266-001	Aroclor-1242	GC22	A	05/06/05 22:39
179266-001	Aroclor-1248	GC22	A	05/06/05 22:39
179266-001	Aroclor-1254	GC22	A	05/06/05 22:39
179266-001	Aroclor-1260	GC22	A	05/06/05 22:39
179266-001	TCMX	GC22	A	05/06/05 22:39
179266-001	Decachlorobiphenyl	GC22	A	05/06/05 22:39
179266-002	Aroclor-1016	GC22	A	05/06/05 23:05
179266-002	Aroclor-1221	GC22	A	05/06/05 23:05
179266-002	Aroclor-1232	GC22	A	05/06/05 23:05
179266-002	Aroclor-1242	GC22	A	05/06/05 23:05
179266-002	Aroclor-1248	GC22	A	05/06/05 23:05
179266-002	Aroclor-1254	GC22	A	05/06/05 23:05
179266-002	Aroclor-1260	GC22	A	05/06/05 23:05
179266-002	TCMX	GC22	A	05/06/05 23:05
179266-002	Decachlorobiphenyl	GC22	A	05/06/05 23:05
179266-003	Aroclor-1016	GC22	A	05/06/05 23:32
179266-003	Aroclor-1221	GC22	A	05/06/05 23:32
179266-003	Aroclor-1232	GC22	A	05/06/05 23:32
179266-003	Aroclor-1242	GC22	A	05/06/05 23:32
179266-003	Aroclor-1248	GC22	A	05/06/05 23:32
179266-003	Aroclor-1254	GC22	A	05/06/05 23:32
179266-003	Aroclor-1260	GC22	A	05/06/05 23:32
179266-003	TCMX	GC22	A	05/06/05 23:32
179266-003	Decachlorobiphenyl	GC22	A	05/06/05 23:32
179266-004	Aroclor-1016	GC22	A	05/06/05 23:59
179266-004	Aroclor-1221	GC22	A	05/06/05 23:59
179266-004	Aroclor-1232	GC22	A	05/06/05 23:59
179266-004	Aroclor-1242	GC22	A	05/06/05 23:59
179266-004	Aroclor-1248	GC22	A	05/06/05 23:59
179266-004	Aroclor-1254	GC22	A	05/06/05 23:59
179266-004	Aroclor-1260	GC22	A	05/06/05 23:59
179266-004	TCMX	GC22	A	05/06/05 23:59
179266-004	Decachlorobiphenyl	GC22	A	05/06/05 23:59
179266-006	Aroclor-1016	GC22	A	05/07/05 00:25
179266-006	Aroclor-1221	GC22	A	05/07/05 00:25
179266-006	Aroclor-1232	GC22	A	05/07/05 00:25
179266-006	Aroclor-1242	GC22	A	05/07/05 00:25
179266-006	Aroclor-1248	GC22	A	05/07/05 00:25
179266-006	Aroclor-1254	GC22	A	05/07/05 00:25
179266-006	Aroclor-1260	GC22	A	05/07/05 00:25
179266-006	TCMX	GC22	A	05/07/05 00:25
179266-006	Decachlorobiphenyl	GC22	A	05/07/05 00:25
179266-007	Aroclor-1016	GC22	A	05/07/05 00:52
179266-007	Aroclor-1221	GC22	A	05/07/05 00:52
179266-007	Aroclor-1232	GC22	A	05/07/05 00:52
179266-007	Aroclor-1242	GC22	A	05/07/05 00:52

REPORTING SUMMARY FOR 179266 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179266-007	Aroclor-1248	GC22	A	05/07/05 00:52
179266-007	Aroclor-1254	GC22	A	05/07/05 00:52
179266-007	Aroclor-1260	GC22	A	05/07/05 00:52
179266-007	TCMX	GC22	A	05/07/05 00:52
179266-007	Decachlorobiphenyl	GC22	A	05/07/05 00:52
QC292904	Aroclor-1016	GC25	B	05/06/05 22:07
QC292904	Aroclor-1221	GC25	B	05/06/05 22:07
QC292904	Aroclor-1232	GC25	B	05/06/05 22:07
QC292904	Aroclor-1242	GC25	B	05/06/05 22:07
QC292904	Aroclor-1248	GC25	B	05/06/05 22:07
QC292904	Aroclor-1254	GC25	B	05/06/05 22:07
QC292904	Aroclor-1260	GC25	B	05/06/05 22:07
QC292904	TCMX	GC25	B	05/06/05 22:07
QC292904	Decachlorobiphenyl	GC25	B	05/06/05 22:07
QC292905	Aroclor-1232	GC25	B	05/06/05 22:34
QC292905	TCMX	GC25	B	05/06/05 22:34
QC292905	Decachlorobiphenyl	GC25	B	05/06/05 22:34
QC292906	Aroclor-1232	GC25	B	05/07/05 00:25
QC292906	TCMX	GC25	B	05/07/05 00:25
QC292906	Decachlorobiphenyl	GC25	B	05/07/05 00:25
QC292907	Aroclor-1232	GC25	B	05/07/05 00:52
QC292907	TCMX	GC25	B	05/07/05 00:52
QC292907	Decachlorobiphenyl	GC25	B	05/07/05 00:52

Curtis & Tompkins, Ltd.

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001.22	Analysis:	EPA 8260B
Field ID:	BB1TP10@(6.0)	Diln Fac:	0.7463
Lab ID:	179266-001	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 13%

Analyte	Result	RL	MDL
Freon 12	ND	8.6	0.42
Chloromethane	ND	8.6	0.71
Vinyl Chloride	ND	8.6	0.67
Bromomethane	ND	8.6	1.2
Chloroethane	ND	8.6	0.52
Trichlorofluoromethane	ND	4.3	0.68
Acetone	ND	17	1.4
Freon 113	ND	4.3	0.69
1,1-Dichloroethene	ND	4.3	0.60
Methylene Chloride	1.3 J	17	0.33
Carbon Disulfide	ND	4.3	3.4
MTBE	ND	4.3	0.37
trans-1,2-Dichloroethene	ND	4.3	0.40
Vinyl Acetate	ND	43	0.57
1,1-Dichloroethane	ND	4.3	0.41
2-Butanone	ND	8.6	1.7
cis-1,2-Dichloroethene	ND	4.3	0.68
2,2-Dichloropropane	ND	4.3	0.67
Chloroform	ND	4.3	0.62
Bromochloromethane	ND	4.3	0.48
1,1,1-Trichloroethane	ND	4.3	0.86
1,1-Dichloropropene	ND	4.3	0.56
Carbon Tetrachloride	ND	4.3	0.50
1,2-Dichloroethane	ND	4.3	0.44
Benzene	ND	4.3	0.49
Trichloroethene	ND	4.3	0.46
1,2-Dichloropropane	ND	4.3	0.85
Bromodichloromethane	ND	4.3	0.61
Dibromomethane	ND	4.3	0.51
4-Methyl-2-Pentanone	ND	8.6	1.4
cis-1,3-Dichloropropene	ND	4.3	0.45
Toluene	ND	4.3	0.40
trans-1,3-Dichloropropene	ND	4.3	0.68
1,1,2-Trichloroethane	ND	4.3	0.67
2-Hexanone	ND	8.6	0.70
1,3-Dichloropropane	ND	4.3	0.44
Tetrachloroethene	ND	4.3	0.53
Dibromochloromethane	ND	4.3	0.43
1,2-Dibromoethane	ND	4.3	0.36
Chlorobenzene	ND	4.3	0.50
1,1,1,2-Tetrachloroethane	ND	4.3	0.49
Ethylbenzene	ND	4.3	0.36
m,p-Xylenes	ND	4.3	1.0
o-Xylene	ND	4.3	0.28
Styrene	ND	4.3	0.29
Bromoform	ND	4.3	0.70
Isopropylbenzene	ND	4.3	0.61
1,1,2,2-Tetrachloroethane	ND	4.3	0.82
1,2,3-Trichloropropane	ND	4.3	1.3
Propylbenzene	ND	4.3	0.56
Bromobenzene	ND	4.3	0.73

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP10~~6.0~~ 9(6.0)	Diln Fac:	0.7463
Lab ID:	179266-001	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.3	0.63
2-Chlorotoluene	ND	4.3	0.50
4-Chlorotoluene	ND	4.3	0.51
tert-Butylbenzene	ND	4.3	0.42
1,2,4-Trimethylbenzene	ND	4.3	0.68
sec-Butylbenzene	ND	4.3	0.60
para-Isopropyl Toluene	ND	4.3	0.59
1,3-Dichlorobenzene	ND	4.3	0.54
1,4-Dichlorobenzene	ND	4.3	0.48
n-Butylbenzene	ND	4.3	0.73
1,2-Dichlorobenzene	ND	4.3	0.34
1,2-Dibromo-3-Chloropropane	ND	4.3	1.3
1,2,4-Trichlorobenzene	ND	4.3	0.72
Hexachlorobutadiene	ND	4.3	0.98
Naphthalene	ND	4.3	0.66
1,2,3-Trichlorobenzene	ND	4.3	0.51

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	111	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	108	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP106 ~~(3.5)~~ 9(3.5)	Diln Fac:	0.8621
Lab ID:	179266-002	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 9%

Analyte	Result	RL	MDL
Freon 12	ND	9.5	0.46
Chloromethane	ND	9.5	0.78
Vinyl Chloride	ND	9.5	0.74
Bromomethane	ND	9.5	1.4
Chloroethane	ND	9.5	0.57
Trichlorofluoromethane	ND	4.7	0.76
Acetone	3.6 J	19	1.6
Freon 113	ND	4.7	0.76
1,1-Dichloroethene	ND	4.7	0.66
Methylene Chloride	0.89 J	19	0.36
Carbon Disulfide	ND	4.7	3.8
MTBE	ND	4.7	0.41
trans-1,2-Dichloroethene	ND	4.7	0.44
Vinyl Acetate	ND	47	0.63
1,1-Dichloroethane	ND	4.7	0.45
2-Butanone	ND	9.5	1.9
cis-1,2-Dichloroethene	ND	4.7	0.75
2,2-Dichloropropane	ND	4.7	0.74
Chloroform	ND	4.7	0.68
Bromochloromethane	ND	4.7	0.53
1,1,1-Trichloroethane	ND	4.7	0.94
1,1-Dichloropropene	ND	4.7	0.62
Carbon Tetrachloride	ND	4.7	0.56
1,2-Dichloroethane	ND	4.7	0.48
Benzene	ND	4.7	0.55
Trichloroethene	ND	4.7	0.51
1,2-Dichloropropane	ND	4.7	0.94
Bromodichloromethane	ND	4.7	0.68
Dibromomethane	ND	4.7	0.56
4-Methyl-2-Pentanone	ND	9.5	1.5
cis-1,3-Dichloropropene	ND	4.7	0.49
Toluene	0.77 J	4.7	0.45
trans-1,3-Dichloropropene	ND	4.7	0.76
1,1,2-Trichloroethane	ND	4.7	0.74
2-Hexanone	ND	9.5	0.77
1,3-Dichloropropane	ND	4.7	0.49
Tetrachloroethene	ND	4.7	0.58
Dibromochloromethane	ND	4.7	0.47
1,2-Dibromoethane	ND	4.7	0.40
Chlorobenzene	ND	4.7	0.55
1,1,1,2-Tetrachloroethane	ND	4.7	0.55
Ethylbenzene	ND	4.7	0.39
m,p-Xylenes	1.4 J	4.7	1.1
o-Xylene	0.58 J	4.7	0.31
Styrene	ND	4.7	0.32
Bromoform	ND	4.7	0.77
Isopropylbenzene	ND	4.7	0.67
1,1,2,2-Tetrachloroethane	ND	4.7	0.90
1,2,3-Trichloropropane	ND	4.7	1.4
Propylbenzene	ND	4.7	0.62
Bromobenzene	ND	4.7	0.80

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP106~~(3.5)~~ 9(3.5)	Diln Fac:	0.8621
Lab ID:	179266-002	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.7	0.70
2-Chlorotoluene	ND	4.7	0.55
4-Chlorotoluene	ND	4.7	0.56
tert-Butylbenzene	ND	4.7	0.47
1,2,4-Trimethylbenzene	0.81 J	4.7	0.75
sec-Butylbenzene	ND	4.7	0.66
para-Isopropyl Toluene	ND	4.7	0.65
1,3-Dichlorobenzene	ND	4.7	0.59
1,4-Dichlorobenzene	ND	4.7	0.53
n-Butylbenzene	ND	4.7	0.80
1,2-Dichlorobenzene	ND	4.7	0.38
1,2-Dibromo-3-Chloropropane	ND	4.7	1.5
1,2,4-Trichlorobenzene	ND	4.7	0.80
Hexachlorobutadiene	ND	4.7	1.1
Naphthalene	ND	4.7	0.72
1,2,3-Trichlorobenzene	ND	4.7	0.57

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-120
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP106~~(2.5)~~ 9(2.5)	Diln Fac:	0.7813
Lab ID:	179266-003	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 13%

Analyte	Result	RL	MDL
Freon 12	ND	9.0	0.44
Chloromethane	ND	9.0	0.74
Vinyl Chloride	ND	9.0	0.71
Bromomethane	ND	9.0	1.3
Chloroethane	ND	9.0	0.54
Trichlorofluoromethane	ND	4.5	0.72
Acetone	ND	18	1.5
Freon 113	ND	4.5	0.72
1,1-Dichloroethene	ND	4.5	0.63
Methylene Chloride	1.1 J	18	0.34
Carbon Disulfide	ND	4.5	3.6
MTBE	ND	4.5	0.39
trans-1,2-Dichloroethene	ND	4.5	0.42
Vinyl Acetate	ND	45	0.60
1,1-Dichloroethane	ND	4.5	0.43
2-Butanone	ND	9.0	1.8
cis-1,2-Dichloroethene	ND	4.5	0.71
2,2-Dichloropropane	ND	4.5	0.70
Chloroform	ND	4.5	0.65
Bromochloromethane	ND	4.5	0.50
1,1,1-Trichloroethane	ND	4.5	0.90
1,1-Dichloropropene	ND	4.5	0.59
Carbon Tetrachloride	ND	4.5	0.53
1,2-Dichloroethane	ND	4.5	0.46
Benzene	ND	4.5	0.52
Trichloroethene	ND	4.5	0.48
1,2-Dichloropropane	ND	4.5	0.89
Bromodichloromethane	ND	4.5	0.64
Dibromomethane	ND	4.5	0.53
4-Methyl-2-Pentanone	ND	9.0	1.4
cis-1,3-Dichloropropene	ND	4.5	0.47
Toluene	ND	4.5	0.42
trans-1,3-Dichloropropene	ND	4.5	0.72
1,1,2-Trichloroethane	ND	4.5	0.70
2-Hexanone	ND	9.0	0.73
1,3-Dichloropropane	ND	4.5	0.46
Tetrachloroethene	ND	4.5	0.55
Dibromochloromethane	ND	4.5	0.45
1,2-Dibromoethane	ND	4.5	0.38
Chlorobenzene	ND	4.5	0.52
1,1,1,2-Tetrachloroethane	ND	4.5	0.52
Ethylbenzene	ND	4.5	0.37
m,p-Xylenes	ND	4.5	1.1
o-Xylene	ND	4.5	0.30
Styrene	ND	4.5	0.31
Bromoform	ND	4.5	0.73
Isopropylbenzene	ND	4.5	0.63
1,1,2,2-Tetrachloroethane	ND	4.5	0.86
1,2,3-Trichloropropane	ND	4.5	1.4
Propylbenzene	ND	4.5	0.59
Bromobenzene	ND	4.5	0.76

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP106~~(2.5)~~9(2,5)	Diln Fac:	0.7813
Lab ID:	179266-003	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.5	0.66
2-Chlorotoluene	ND	4.5	0.52
4-Chlorotoluene	ND	4.5	0.53
tert-Butylbenzene	ND	4.5	0.44
1,2,4-Trimethylbenzene	ND	4.5	0.71
sec-Butylbenzene	ND	4.5	0.63
para-Isopropyl Toluene	ND	4.5	0.61
1,3-Dichlorobenzene	ND	4.5	0.56
1,4-Dichlorobenzene	ND	4.5	0.50
n-Butylbenzene	ND	4.5	0.76
1,2-Dichlorobenzene	ND	4.5	0.36
1,2-Dibromo-3-Chloropropane	ND	4.5	1.4
1,2,4-Trichlorobenzene	ND	4.5	0.76
Hexachlorobutadiene	ND	4.5	1.0
Naphthalene	ND	4.5	0.69
1,2,3-Trichlorobenzene	ND	4.5	0.54

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-120
1,2-Dichloroethane-d4	109	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	DUP(050405)	Diln Fac:	0.7813
Lab ID:	179266-004	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	8.8	0.43
Chloromethane	ND	8.8	0.72
Vinyl Chloride	ND	8.8	0.69
Bromomethane	ND	8.8	1.3
Chloroethane	ND	8.8	0.53
Trichlorofluoromethane	ND	4.4	0.70
Acetone	ND	18	1.5
Freon 113	ND	4.4	0.71
1,1-Dichloroethene	ND	4.4	0.61
Methylene Chloride	0.75 J	18	0.33
Carbon Disulfide	ND	4.4	3.5
MTBE	ND	4.4	0.38
trans-1,2-Dichloroethene	ND	4.4	0.41
Vinyl Acetate	ND	44	0.58
1,1-Dichloroethane	ND	4.4	0.42
2-Butanone	ND	8.8	1.7
cis-1,2-Dichloroethene	ND	4.4	0.69
2,2-Dichloropropane	ND	4.4	0.68
Chloroform	ND	4.4	0.63
Bromochloromethane	ND	4.4	0.49
1,1,1-Trichloroethane	ND	4.4	0.88
1,1-Dichloropropene	ND	4.4	0.57
Carbon Tetrachloride	ND	4.4	0.52
1,2-Dichloroethane	ND	4.4	0.45
Benzene	ND	4.4	0.51
Trichloroethene	ND	4.4	0.47
1,2-Dichloropropane	ND	4.4	0.87
Bromodichloromethane	ND	4.4	0.63
Dibromomethane	ND	4.4	0.52
4-Methyl-2-Pentanone	ND	8.8	1.4
cis-1,3-Dichloropropene	ND	4.4	0.46
Toluene	ND	4.4	0.41
trans-1,3-Dichloropropene	ND	4.4	0.70
1,1,2-Trichloroethane	ND	4.4	0.68
2-Hexanone	ND	8.8	0.72
1,3-Dichloropropane	ND	4.4	0.45
Tetrachloroethene	ND	4.4	0.54
Dibromochloromethane	ND	4.4	0.44
1,2-Dibromoethane	ND	4.4	0.37
Chlorobenzene	ND	4.4	0.51
1,1,1,2-Tetrachloroethane	ND	4.4	0.51
Ethylbenzene	ND	4.4	0.36
m,p-Xylenes	ND	4.4	1.0
o-Xylene	ND	4.4	0.29
Styrene	ND	4.4	0.30
Bromoform	ND	4.4	0.72
Isopropylbenzene	ND	4.4	0.62
1,1,2,2-Tetrachloroethane	ND	4.4	0.84
1,2,3-Trichloropropane	ND	4.4	1.3
Propylbenzene	ND	4.4	0.57
Bromobenzene	ND	4.4	0.74

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	DUP(050405)	Diln Fac:	0.7813
Lab ID:	179266-004	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.4	0.65
2-Chlorotoluene	ND	4.4	0.51
4-Chlorotoluene	ND	4.4	0.52
tert-Butylbenzene	ND	4.4	0.43
1,2,4-Trimethylbenzene	ND	4.4	0.69
sec-Butylbenzene	ND	4.4	0.61
para-Isopropyl Toluene	ND	4.4	0.60
1,3-Dichlorobenzene	ND	4.4	0.55
1,4-Dichlorobenzene	ND	4.4	0.49
n-Butylbenzene	ND	4.4	0.74
1,2-Dichlorobenzene	ND	4.4	0.35
1,2-Dibromo-3-Chloropropane	ND	4.4	1.3
1,2,4-Trichlorobenzene	ND	4.4	0.74
Hexachlorobutadiene	ND	4.4	1.0
Naphthalene	ND	4.4	0.67
1,2,3-Trichlorobenzene	ND	4.4	0.52

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	94	80-120
Bromofluorobenzene	108	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	SOILCOMP	Diln Fac:	0.7937
Lab ID:	179266-006	Batch#:	101759
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 14%

Analyte	Result	RL	MDL
Freon 12	ND	9.2	0.45
Chloromethane	ND	9.2	0.76
Vinyl Chloride	ND	9.2	0.72
Bromomethane	ND	9.2	1.3
Chloroethane	ND	9.2	0.56
Trichlorofluoromethane	ND	4.6	0.74
Acetone	ND	18	1.5
Freon 113	ND	4.6	0.74
1,1-Dichloroethene	ND	4.6	0.64
Methylene Chloride	0.67 J	18	0.35
Carbon Disulfide	ND	4.6	3.7
MTBE	ND	4.6	0.40
trans-1,2-Dichloroethene	ND	4.6	0.43
Vinyl Acetate	ND	46	0.61
1,1-Dichloroethane	ND	4.6	0.44
2-Butanone	ND	9.2	1.8
cis-1,2-Dichloroethene	ND	4.6	0.73
2,2-Dichloropropane	ND	4.6	0.72
Chloroform	ND	4.6	0.66
Bromochloromethane	ND	4.6	0.52
1,1,1-Trichloroethane	ND	4.6	0.92
1,1-Dichloropropene	ND	4.6	0.60
Carbon Tetrachloride	ND	4.6	0.54
1,2-Dichloroethane	ND	4.6	0.47
Benzene	ND	4.6	0.53
Trichloroethene	ND	4.6	0.50
1,2-Dichloropropane	ND	4.6	0.91
Bromodichloromethane	ND	4.6	0.66
Dibromomethane	ND	4.6	0.54
4-Methyl-2-Pentanone	ND	9.2	1.5
cis-1,3-Dichloropropene	ND	4.6	0.48
Toluene	ND	4.6	0.43
trans-1,3-Dichloropropene	ND	4.6	0.74
1,1,2-Trichloroethane	ND	4.6	0.72
2-Hexanone	ND	9.2	0.75
1,3-Dichloropropane	ND	4.6	0.47
Tetrachloroethene	ND	4.6	0.57
Dibromochloromethane	ND	4.6	0.46
1,2-Dibromoethane	ND	4.6	0.39
Chlorobenzene	ND	4.6	0.53
1,1,1,2-Tetrachloroethane	ND	4.6	0.53
Ethylbenzene	ND	4.6	0.38
m,p-Xylenes	ND	4.6	1.1
o-Xylene	ND	4.6	0.30
Styrene	ND	4.6	0.31
Bromoform	ND	4.6	0.75
Isopropylbenzene	ND	4.6	0.65
1,1,2,2-Tetrachloroethane	ND	4.6	0.88
1,2,3-Trichloropropane	ND	4.6	1.4
Propylbenzene	ND	4.6	0.60
Bromobenzene	ND	4.6	0.78

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	SOILCOMP	Diln Fac:	0.7937
Lab ID:	179266-006	Batch#:	101759
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.6	0.68
2-Chlorotoluene	ND	4.6	0.53
4-Chlorotoluene	ND	4.6	0.54
tert-Butylbenzene	ND	4.6	0.46
1,2,4-Trimethylbenzene	ND	4.6	0.73
sec-Butylbenzene	ND	4.6	0.64
para-Isopropyl Toluene	ND	4.6	0.63
1,3-Dichlorobenzene	ND	4.6	0.58
1,4-Dichlorobenzene	ND	4.6	0.52
n-Butylbenzene	ND	4.6	0.78
1,2-Dichlorobenzene	ND	4.6	0.37
1,2-Dibromo-3-Chloropropane	ND	4.6	1.4
1,2,4-Trichlorobenzene	ND	4.6	0.78
Hexachlorobutadiene	ND	4.6	1.1
Naphthalene	ND	4.6	0.70
1,2,3-Trichlorobenzene	ND	4.6	0.55

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-120
1,2-Dichloroethane-d4	112	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP108(5.0)	Diln Fac:	1.111
Lab ID:	179266-007	Batch#:	101759
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Moisture: 27%

Analyte	Result	RL	MDL
Freon 12	ND	15	0.75
Chloromethane	ND	15	1.3
Vinyl Chloride	ND	15	1.2
Bromomethane	ND	15	2.2
Chloroethane	ND	15	0.92
Trichlorofluoromethane	ND	7.6	1.2
Acetone	ND	30	2.5
Freon 113	ND	7.6	1.2
1,1-Dichloroethene	ND	7.6	1.1
Methylene Chloride	2.4 J	30	0.58
Carbon Disulfide	ND	7.6	6.1
MTBE	ND	7.6	0.66
trans-1,2-Dichloroethene	ND	7.6	0.71
Vinyl Acetate	ND	76	1.0
1,1-Dichloroethane	ND	7.6	0.73
2-Butanone	ND	15	3.0
cis-1,2-Dichloroethene	ND	7.6	1.2
2,2-Dichloropropane	ND	7.6	1.2
Chloroform	ND	7.6	1.1
Bromochloromethane	ND	7.6	0.85
1,1,1-Trichloroethane	ND	7.6	1.5
1,1-Dichloropropene	ND	7.6	0.99
Carbon Tetrachloride	ND	7.6	0.90
1,2-Dichloroethane	ND	7.6	0.77
Benzene	1.7 J	7.6	0.88
Trichloroethene	ND	7.6	0.82
1,2-Dichloropropane	ND	7.6	1.5
Bromodichloromethane	ND	7.6	1.1
Dibromomethane	ND	7.6	0.90
4-Methyl-2-Pentanone	ND	15	2.5
cis-1,3-Dichloropropene	ND	7.6	0.80
Toluene	1.6 J	7.6	0.72
trans-1,3-Dichloropropene	ND	7.6	1.2
1,1,2-Trichloroethane	ND	7.6	1.2
2-Hexanone	ND	15	1.2
1,3-Dichloropropane	ND	7.6	0.78
Tetrachloroethene	ND	7.6	0.93
Dibromochloromethane	ND	7.6	0.76
1,2-Dibromoethane	ND	7.6	0.64
Chlorobenzene	ND	7.6	0.88
1,1,1,2-Tetrachloroethane	ND	7.6	0.88
Ethylbenzene	ND	7.6	0.63
m,p-Xylenes	2.8 J	7.6	1.8
o-Xylene	1.3 J	7.6	0.50
Styrene	ND	7.6	0.52
Bromoform	ND	7.6	1.2
Isopropylbenzene	ND	7.6	1.1
1,1,2,2-Tetrachloroethane	ND	7.6	1.5
1,2,3-Trichloropropane	ND	7.6	2.3
Propylbenzene	ND	7.6	1.0
Bromobenzene	ND	7.6	1.3

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP108(5.0)	Diln Fac:	1.111
Lab ID:	179266-007	Batch#:	101759
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Analyzed:	05/05/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	7.6	1.1
2-Chlorotoluene	ND	7.6	0.88
4-Chlorotoluene	ND	7.6	0.90
tert-Butylbenzene	ND	7.6	0.75
1,2,4-Trimethylbenzene	3.1 J	7.6	1.2
sec-Butylbenzene	ND	7.6	1.1
para-Isopropyl Toluene	ND	7.6	1.0
1,3-Dichlorobenzene	ND	7.6	0.95
1,4-Dichlorobenzene	ND	7.6	0.85
n-Butylbenzene	ND	7.6	1.3
1,2-Dichlorobenzene	ND	7.6	0.61
1,2-Dibromo-3-Chloropropane	ND	7.6	2.3
1,2,4-Trichlorobenzene	ND	7.6	1.3
Hexachlorobutadiene	ND	7.6	1.7
Naphthalene	ND	7.6	1.2
1,2,3-Trichlorobenzene	ND	7.6	0.91

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-120
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	118	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC292755	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101759
Units:	ug/Kg	Analyzed:	05/05/05

Analyte	Result	RL	MDL
Freon 12	ND	10	0.49
Chloromethane	ND	10	0.82
Vinyl Chloride	ND	10	0.79
Bromomethane	ND	10	1.4
Chloroethane	ND	10	0.60
Trichlorofluoromethane	ND	5.0	0.80
Acetone	ND	20	1.7
Freon 113	ND	5.0	0.81
1,1-Dichloroethene	ND	5.0	0.70
Methylene Chloride	1.9 J	20	0.38
Carbon Disulfide	ND	5.0	4.0
MTBE	ND	5.0	0.43
trans-1,2-Dichloroethene	ND	5.0	0.47
Vinyl Acetate	ND	50	0.66
1,1-Dichloroethane	ND	5.0	0.48
2-Butanone	ND	10	2.0
cis-1,2-Dichloroethene	ND	5.0	0.79
2,2-Dichloropropane	ND	5.0	0.78
Chloroform	ND	5.0	0.72
Bromochloromethane	ND	5.0	0.56
1,1,1-Trichloroethane	ND	5.0	1.0
1,1-Dichloropropene	ND	5.0	0.65
Carbon Tetrachloride	ND	5.0	0.59
1,2-Dichloroethane	ND	5.0	0.51
Benzene	ND	5.0	0.58
Trichloroethene	ND	5.0	0.54
1,2-Dichloropropane	ND	5.0	0.99
Bromodichloromethane	ND	5.0	0.71
Dibromomethane	ND	5.0	0.59
4-Methyl-2-Pentanone	ND	10	1.6
cis-1,3-Dichloropropene	ND	5.0	0.52
Toluene	ND	5.0	0.47
trans-1,3-Dichloropropene	ND	5.0	0.80
1,1,2-Trichloroethane	ND	5.0	0.78
2-Hexanone	ND	10	0.81
1,3-Dichloropropane	ND	5.0	0.51
Tetrachloroethene	ND	5.0	0.61
Dibromochloromethane	ND	5.0	0.50
1,2-Dibromoethane	ND	5.0	0.42
Chlorobenzene	ND	5.0	0.58
1,1,1,2-Tetrachloroethane	ND	5.0	0.58
Ethylbenzene	ND	5.0	0.42
m,p-Xylenes	ND	5.0	1.2
o-Xylene	ND	5.0	0.33
Styrene	ND	5.0	0.34
Bromoform	ND	5.0	0.82
Isopropylbenzene	ND	5.0	0.71
1,1,2,2-Tetrachloroethane	ND	5.0	0.95
1,2,3-Trichloropropane	ND	5.0	1.5
Propylbenzene	ND	5.0	0.65
Bromobenzene	ND	5.0	0.85
1,3,5-Trimethylbenzene	ND	5.0	0.74
2-Chlorotoluene	ND	5.0	0.58

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC292755	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101759
Units:	ug/Kg	Analyzed:	05/05/05

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	0.59
tert-Butylbenzene	ND	5.0	0.50
1,2,4-Trimethylbenzene	ND	5.0	0.79
sec-Butylbenzene	ND	5.0	0.70
para-Isopropyl Toluene	ND	5.0	0.68
1,3-Dichlorobenzene	ND	5.0	0.63
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.40
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.84
Hexachlorobutadiene	ND	5.0	1.1
Naphthalene	ND	5.0	0.76
1,2,3-Trichlorobenzene	ND	5.0	0.60

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-120
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC292754	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101759
Units:	ug/Kg	Analyzed:	05/05/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.85	103	77-124
Benzene	25.00	24.80	99	80-120
Trichloroethene	25.00	25.43	102	80-120
Toluene	25.00	24.81	99	80-120
Chlorobenzene	25.00	25.57	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	179252-001	Batch#:	101759
Matrix:	Soil	Sampled:	05/04/05
Units:	ug/Kg	Received:	05/04/05
Basis:	as received	Analyzed:	05/05/05

Type: MS Lab ID: QC292756

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.6852	50.00	59.70	119	70-120
Benzene	<0.5652	50.00	44.48	89	70-120
Trichloroethene	<0.5292	50.00	46.01	92	65-126
Toluene	<0.4612	50.00	41.48	83	64-120
Chlorobenzene	<0.5680	50.00	38.43	77	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-120

Type: MSD Lab ID: QC292757

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	62.06	124 *	70-120	4	20
Benzene	50.00	45.56	91	70-120	2	20
Trichloroethene	50.00	47.72	95	65-126	4	20
Toluene	50.00	41.84	84	64-120	1	20
Chlorobenzene	50.00	38.96	78	59-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-120
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	105	80-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1TP108(5.0)	Diln Fac:	1.000
MSS Lab ID:	179266-007	Batch#:	101759
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	as received	Analyzed:	05/05/05

Type: MS Lab ID: QC292797

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.7766	50.00	67.75	136 *	70-120
Benzene	1.215	50.00	53.24	104	70-120
Trichloroethene	<0.5997	50.00	54.36	109	65-126
Toluene	1.184	50.00	53.03	104	64-120
Chlorobenzene	<0.6437	50.00	48.78	98	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-120
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-120

Type: MSD Lab ID: QC292798

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	65.78	132 *	70-120	3	20
Benzene	50.00	50.63	99	70-120	5	20
Trichloroethene	50.00	52.22	104	65-126	4	20
Toluene	50.00	49.87	97	64-120	6	20
Chlorobenzene	50.00	45.69	91	59-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-120
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	108	80-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

MS VOA 2 8260/600X 1GAL TUNE

Data File: \\GCHSSERVER\DD\ohem\HSVOA02.i\050405.b\BE404.D

Date : 04-MAY-2005 16:23

Client ID: bfb tune std

Sample Info: BFB,04WS2425

Volume Injected (uL): 1.0

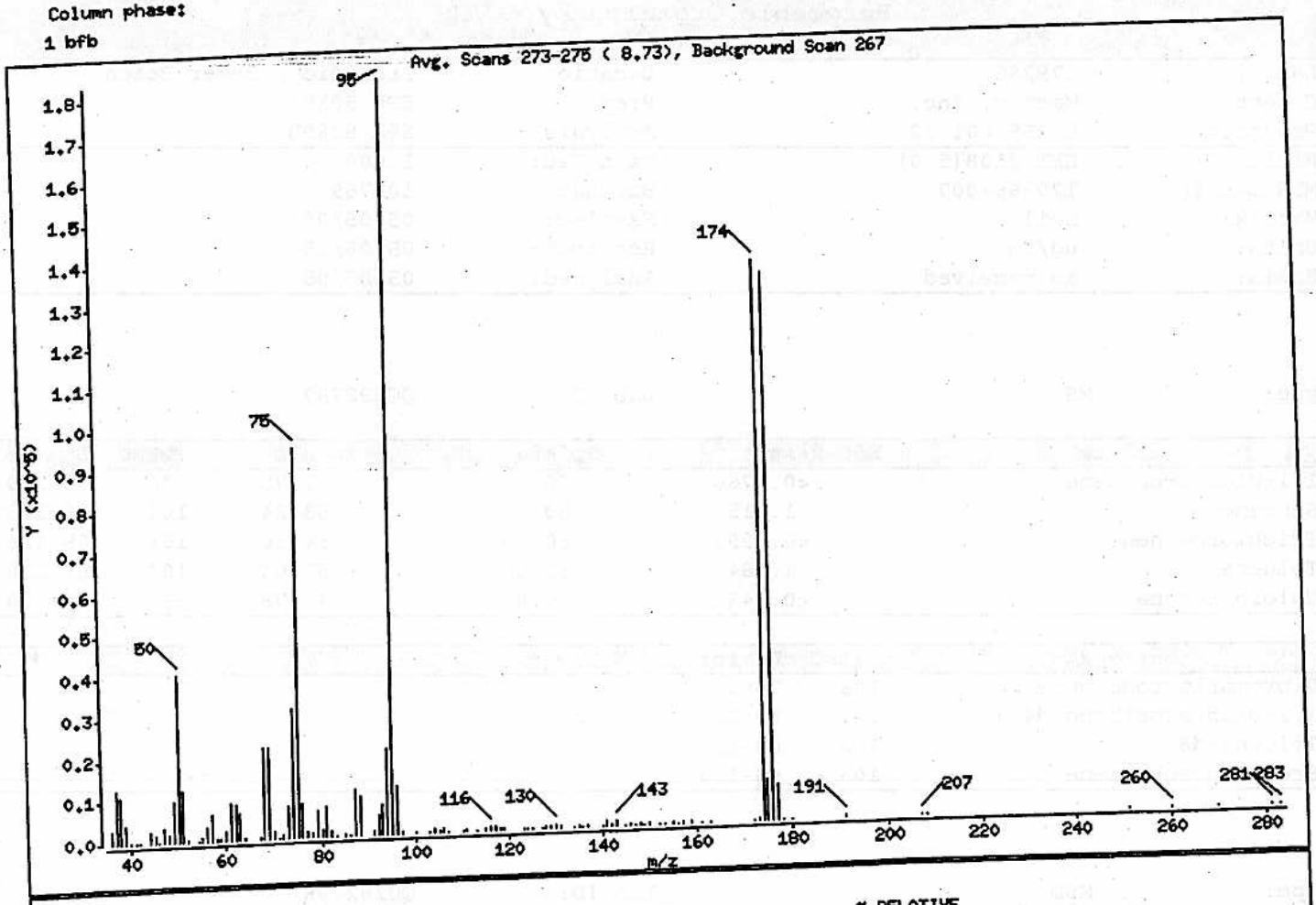
Column phase:

Instrument: HSVOA02.i

Operator: AJA

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.17
75	30.00 - 60.00% of mass 95	51.54
96	5.00 - 9.00% of mass 95	6.15
173	Less than 2.00% of mass 174	0.13 (0.17)
174	50.00 - 99.99% of mass 95	74.30
175	5.00 - 9.00% of mass 174	5.21 (7.01)
176	95.01 - 100.99% of mass 174	72.70 (97.85)
177	5.00 - 9.00% of mass 176	4.54 (6.25)

5/4/05

05/05/05

Data File: \\GCMSSERVER\DD\chem\MSVOA02.i\050505.b\BE501.D

Date : 05-MAY-2005 10:31

Client ID: bfb tune std

Sample Info: BFB,04WS2425

Volume Injected (uL): 1.0

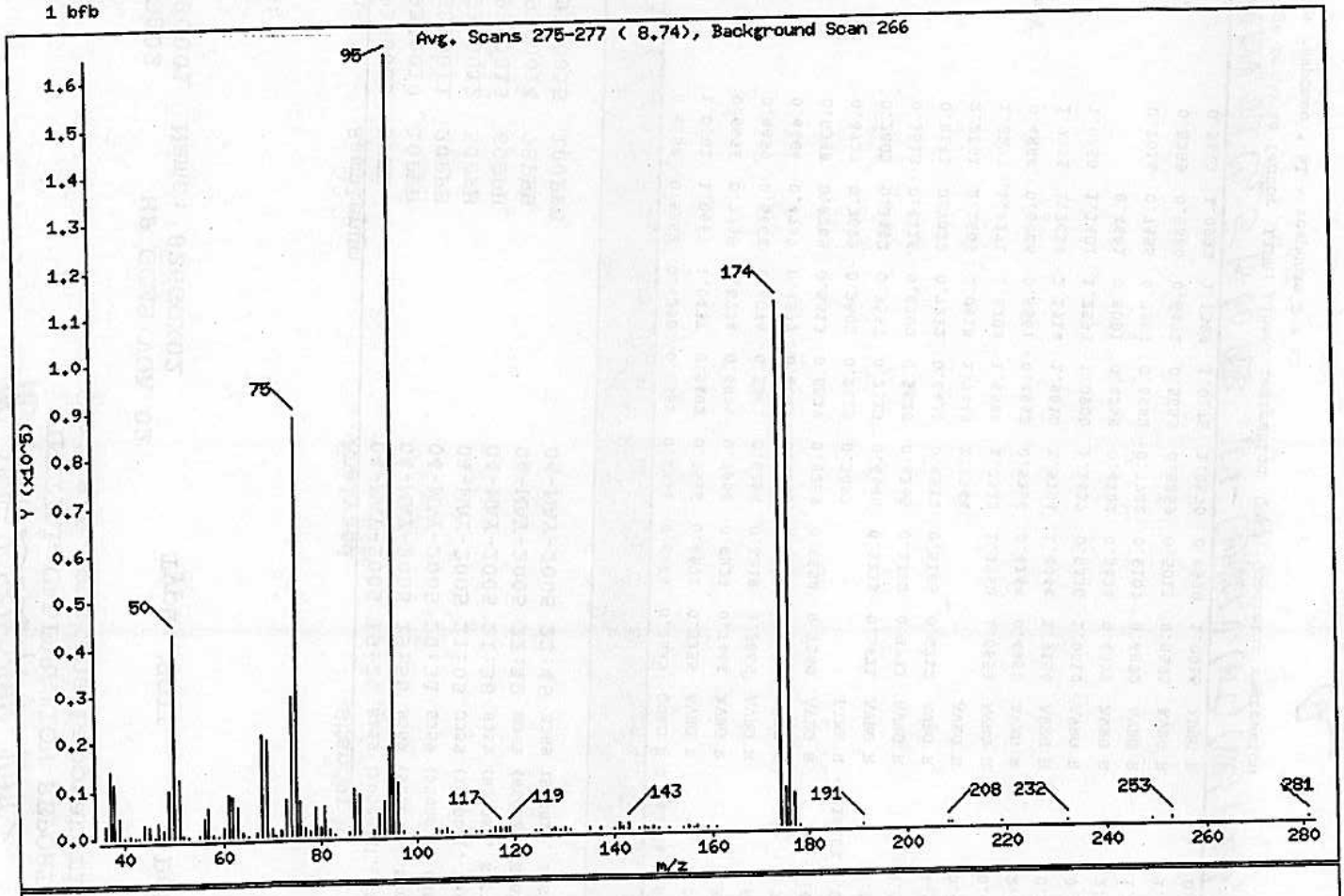
Column phase:

Instrument: MSVOA02.i

Operator: AJA

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.98
75	30.00 - 60.00% of mass 95	53.59
96	5.00 - 9.00% of mass 95	6.33
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	67.37
175	5.00 - 9.00% of mass 174	4.85 (7.20)
176	95.01 - 100.99% of mass 174	65.51 (97.24)
177	5.00 - 9.00% of mass 176	4.16 (6.35)

5/5/05

05/06/05

MS VOA 2 8260/GOX ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA02 HP GCMS VOA 02 Reviewed By:
Calnum: 415179390001 Name: 826GOX02 Type: SOIL Date: 04-MAY-2005 19:24 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	be409	415179390009	5PPB	04-MAY-2005 19:24	S359 (100000X), S367 (100000X), S95 (5000X)
2	be410	415179390010	10PPB	04-MAY-2005 19:58	S359 (50000X), S367 (50000X), S95 (5000X)
3	be411	415179390011	20PPB	04-MAY-2005 20:31	S359 (25000X), S367 (25000X), S95 (5000X)
4	be412	415179390012	50PPB	04-MAY-2005 21:05	S359 (10000X), S367 (10000X), S95 (5000X)
5	be413	415179390013	60PPB	04-MAY-2005 21:38	S359 (8333X), S367 (8333X), S95 (5000X)
6	be414	415179390014	75PPB	04-MAY-2005 22:12	S359 (6667X), S367 (6667X), S95 (5000X)
7	be415	415179390015	100PPB	04-MAY-2005 22:45	S359 (5000X), S367 (5000X), S95 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4198	0.5552	0.4290	0.5551	0.6734	0.5869	0.6339	QUAD	R	2.643724	1.675423	-0.00234	ug/L	0.5505	0.990	0.0500	0.99	15	
Chloromethane	1.0662	1.0667	1.0437	0.9402	0.9546	0.8972	0.9355	AVRG	R		1.013905		ug/L	0.9863	7	0.1000	0.99	15	
Vinyl Chloride	0.6671	0.7755	0.6724	0.6875	0.7806	0.6933	0.7444	AVRG	R		1.394218		ug/L	0.7172	7	0.0500	0.99	15	
Bromomethane	0.4459	0.5666	0.6074	0.5862	0.6396	0.6318	0.6666	AVRG	R		1.689099		ug/L	0.5920	12	0.0500	0.99	15	
Chloroethane	0.4664	0.4737	0.4577	0.4022	0.4399	0.4100	0.4243	AVRG	R		2.277040		ug/L	0.4392	6	0.0500	0.99	15	
Trichlorofluoromethane	0.6348	0.8209	0.5513	0.6539	0.8259	0.6558	0.7560	AVRG	R		1.428949		ug/L	0.6998	15	0.0500	0.99	15	
Acetone	0.4727	0.3629	0.3502	0.2812	0.3093			LINR	R	-3.10453	3.519226		ug/L	0.3552	0.992	0.0500	0.99	15	
Freon 113	0.2803	0.3442	0.3553	0.3313	0.4446	0.3233	0.3621	AVRG	R		2.867542		ug/L	0.3487	14	0.0500	0.99	15	
1,1-Dichloroethene	0.3513	0.4216	0.4200	0.3626	0.4365	0.3322	0.3773	AVRG	R		2.591334		ug/L	0.3859	10	0.0500	0.99	15	
Methylene Chloride	0.8141	0.7022	0.7212	0.6430	0.6512	0.5165	0.6312	AVRG	R		1.495904		ug/L	0.6685	14	0.0500	0.99	15	
Carbon Disulfide	2.2661	2.1666	2.0418	1.7449	1.8944			AVRG	R		0.494371		ug/L	2.0228	10	0.0500	0.99	15	
MTBE	1.5277	1.6371	1.8703	1.6908	1.7332	1.3760	1.6653	AVRG	R		0.608673		ug/L	1.6429	10	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.4866	0.5085	0.5581	0.4842	0.5356	0.4164	0.4950	AVRG	R		2.008860		ug/L	0.4978	9	0.0500	0.99	15	
Vinyl Acetate	1.7765	1.9634	2.1714	1.9810	1.9794	1.4044	1.9154	AVRG	R		0.530643		ug/L	1.8845	13	0.0500	0.99	15	
1,1-Dichloroethane	1.0858	1.1401	1.2593	1.0900	1.1437	0.8336	1.0810	AVRG	R		0.917013		ug/L	1.0905	12	0.1000	0.99	15	
2-Butanone		0.4681	0.5091	0.4299	0.4702	0.3434	0.4328	AVRG	R		2.261235		ug/L	0.4422	13	0.0500	0.99	15	
2,2-Dichloropropane	0.7014	0.7455	0.7967	0.6882	0.7782	0.6107	0.6872	AVRG	R		1.397824		ug/L	0.7154	9	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5359	0.5880	0.6471	0.5659	0.5859	0.5011	0.5591	AVRG	R		1.757457		ug/L	0.5690	8	0.0500	0.99	15	
Chloroform	0.9913	1.0922	1.1388	1.0175	1.0570	0.8830	1.0015	AVRG	R		0.974763		ug/L	1.0259	8	0.0500	0.99	15	

150

ICAL - Good; Acetone and CS_2 5 to 60 RSD ICV - Cyclohex ↓ (NT) (MC; F12 ↓; Freon ↓; F113 ↑)

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

5/5/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA02 HP GCMS VOA 02 Reviewed By:
Calnum: 415179390001 Name: 826GOX02 Type: SOIL Date: 04-MAY-2005 19:24 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	MnR^2	MxRSD	Flags
Bromochloromethane	0.2488	0.2676	0.2923	0.2654	0.2770	0.2522	0.2756	AVRG R		3.725603		ug/L	0.2684	6	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6071	0.6315	0.6648	0.5649	0.6573	0.5481	0.5898	AVRG R		1.641807		ug/L	0.6091	7	0.0500	0.99	15	
1,1-Dichloropropene	0.4150	0.4169	0.4574	0.3933	0.4681	0.3784	0.4102	AVRG R		2.381493		ug/L	0.4199	8	0.0500	0.99	15	
Carbon Tetrachloride	0.2640	0.2833	0.2960	0.2647	0.3302	0.2933	0.2862	AVRG R		3.469414		ug/L	0.2882	8	0.0500	0.99	15	
1,2-Dichloroethane	0.4805	0.5395	0.5781	0.5069	0.5261	0.4606	0.5077	AVRG R		1.944733		ug/L	0.5142	8	0.0500	0.99	15	
Benzene	1.4152	1.5153	1.6163	1.4016	1.5038	1.3113	1.4234	AVRG R		0.687157		ug/L	1.4553	7	0.0500	0.99	15	
Trichloroethene	0.3204	0.3280	0.3540	0.3047	0.3390	0.3081	0.3114	AVRG R		3.089922		ug/L	0.3236	6	0.0500	0.99	15	
1,2-Dichloropropane	0.4140	0.4405	0.4727	0.4200	0.4442	0.4226	0.4273	AVRG R		2.301572		ug/L	0.4345	5	0.0500	0.99	15	
Bromodichloromethane	0.4421	0.4776	0.5316	0.4732	0.4955	0.4608	0.4803	AVRG R		2.082690		ug/L	0.4801	6	0.0500	0.99	15	
Dibromomethane	0.2273	0.2539	0.2685	0.2498	0.2576	0.2496	0.2512	AVRG R		3.981782		ug/L	0.2511	5	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.5724	0.6138	0.5579	0.5903	0.5898	0.5822	AVRG R		1.711136		ug/L	0.5844	3	0.0500	0.99	15	
Tetramethyl THF	0.9767	1.0976	1.1921	1.0809	1.0965	1.0690	1.0737	AVRG R		0.922696		ug/L	1.0838	6	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.5632	0.6140	0.6716	0.6133	0.6356	0.5848	0.6161	AVRG R		1.628435		ug/L	0.6141	6	0.0500	0.99	15	
Toluene	0.7046	0.7682	0.8104	0.7383	0.7653	0.6855	0.7337	AVRG R		1.344622		ug/L	0.7437	6	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4974	0.5389	0.5995	0.5390	0.5649	0.5214	0.5491	AVRG R		1.837154		ug/L	0.5443	6	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1640	0.1793	0.1988	0.1822	0.1839	0.1717	0.1816	AVRG R		5.548417		ug/L	0.1802	6	0.0500	0.99	15	
2-Hexanone		0.5126	0.5752	0.5076	0.5367	0.5380	0.5345	AVRG R		1.872336		ug/L	0.5341	4	0.0500	0.99	15	
1,3-Dichloropropane	0.6659	0.7427	0.7778	0.6961	0.7299	0.6996	0.7265	AVRG R		1.389292		ug/L	0.7198	5	0.0500	0.99	15	
Tetrachloroethene	0.2926	0.3208	0.3325	0.2965	0.3470	0.2946	0.3201	AVRG R		3.176050		ug/L	0.3149	7	0.0500	0.99	15	
Dibromochloromethane	0.3462	0.3617	0.4229	0.3769	0.4066	0.3882	0.4177	AVRG R		2.573338		ug/L	0.3886	7	0.0500	0.99	15	
1,2-Dibromoethane	0.2763	0.3027	0.3179	0.2986	0.3070	0.2809	0.3015	AVRG R		3.357619		ug/L	0.2978	5	0.0500	0.99	15	
Chlorobenzene	0.9037	0.9948	1.0277	0.9341	0.9654	0.8868	0.9525	AVRG R		1.050272		ug/L	0.9521	5	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3142	0.3387	0.3756	0.3389	0.3536	0.3258	0.3594	AVRG R		2.908990		ug/L	0.3438	6	0.0500	0.99	15	
Ethylbenzene	1.6412	1.8286	1.8884	1.6714	1.7737	1.5989	1.7068	AVRG R		0.578084		ug/L	1.7299	6	0.0500	0.99	15	
m,p-Xylenes	0.5450	0.6112	0.6251	0.5735	0.6082	0.5460	0.5945	AVRG R		1.705869		ug/L	0.5862	5	0.0500	0.99	15	
o-Xylene	0.5154	0.5912	0.6181	0.5652	0.5907	0.5348	0.5880	AVRG R		1.748456		ug/L	0.5719	6	0.0500	0.99	15	
Styrene	0.9316	1.0205	1.1247	1.0162	1.0798	0.9815	1.0825	AVRG R		0.967274		ug/L	1.0338	6	0.0500	0.99	15	
Bromoform	0.2326	0.2475	0.2774	0.2610	0.2815	0.2669	0.2884	AVRG R		3.773081		ug/L	0.2650	7	0.1000	0.99	15	
Isopropylbenzene	2.5770	2.8650	2.9041	2.5693	2.7924	2.4728	2.6847	AVRG R		0.371049		ug/L	2.6951	6	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	1.1171	1.1637	1.2805	1.1314	1.1719	1.1181	1.2103	AVRG R		0.854387		ug/L	1.1704	5	0.3000	0.99	15	
1,2,3-Trichloropropane	0.2359	0.2542	0.2787	0.2509	0.2587	0.2461	0.2637	AVRG R		3.914579		ug/L	0.2555	5	0.0500	0.99	15	
Propylbenzene	3.6778	4.1557	4.1950	3.6442	3.9132	3.4671	3.7535	AVRG R		0.261131		ug/L	3.8295	7	0.0500	0.99	15	

151

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA02 HP GCMS VOA 02 Reviewed By:
Calnum: 415179390001 Name: 826GOX02 Type: SOIL Date: 04-MAY-2005 19:24 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Bromobenzene	0.7387	0.8370	0.8860	0.8111	0.8122	0.7450	0.8542	AVRG	R		1.231500		ug/L	0.8120	7	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.2851	2.5202	2.5545	2.2297	2.3893	2.1074	2.3111	AVRG	R		0.426896		ug/L	2.3425	7	0.0500	0.99	15	
2-Chlorotoluene	2.6718	2.8570	2.8769	2.5880	2.6659	2.4290	2.6374	AVRG	R		0.373811		ug/L	2.6752	6	0.0500	0.99	15	
4-Chlorotoluene	2.4167	2.6918	2.7243	2.4461	2.4683	2.2211	2.4469	AVRG	R		0.401948		ug/L	2.4879	7	0.0500	0.99	15	
tert-Butylbenzene	1.7476	1.8995	1.8568	1.6252	1.8205	1.5903	1.7325	AVRG	R		0.570381		ug/L	1.7532	7	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1816	2.4848	2.5254	2.2397	2.3571	2.0652	2.2948	AVRG	R		0.433472		ug/L	2.3070	7	0.0500	0.99	15	
sec-Butylbenzene	2.8453	3.1406	2.9892	2.6116	2.9568	2.5744	2.7128	AVRG	R		0.352987		ug/L	2.8330	7	0.0500	0.99	15	
para-Isopropyl Toluene	2.2398	2.4425	2.3524	2.0303	2.2619	1.9808	2.0826	AVRG	R		0.454835		ug/L	2.1986	8	0.0500	0.99	15	
1,3-Dichlorobenzene	1.3660	1.5548	1.5752	1.3890	1.4281	1.2758	1.4412	AVRG	R		0.697892		ug/L	1.4329	7	0.0500	0.99	15	
1,4-Dichlorobenzene	1.3971	1.5593	1.6011	1.4219	1.4689	1.3132	1.4575	AVRG	R		0.685003		ug/L	1.4598	7	0.0500	0.99	15	
n-Butylbenzene	2.4211	2.7551	2.5223	2.1739	2.4436	2.1054	2.1955	AVRG	R		0.421258		ug/L	2.3738	10	0.0500	0.99	15	
1,2-Dichlorobenzene	1.2615	1.4693	1.4951	1.3482	1.3423	1.2182	1.3590	AVRG	R		0.737346		ug/L	1.3562	7	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2153	0.2193	0.2275	0.1972	0.2055	0.1924	0.2063	AVRG	R		4.783115		ug/L	0.2091	6	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.6689	0.7954	0.7906	0.7135	0.7490	0.6468	0.7074	AVRG	R		1.380269		ug/L	0.7245	8	0.0500	0.99	15	
Hexachlorobutadiene	0.3996	0.4690	0.3855	0.3350	0.3965	0.3366	0.3531	AVRG	R		2.616469		ug/L	0.3822	12	0.0500	0.99	15	
Naphthalene	1.2488	1.4718	1.6174	1.5456	1.6135	1.4574	1.6600	AVRG	R		0.659482		ug/L	1.5163	9	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.5920	0.7581	0.7514	0.6908	0.7171	0.6376	0.7108	AVRG	R		1.440987		ug/L	0.6940	9	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0794	0.0843	0.0972	0.0843	0.0892	0.0670	0.0870	AVRG	R		11.89795		ug/L	0.0840	11	0.0050	0.99	15	
Isopropyl Ether (DIPE)	2.5950	2.7359	3.0218	2.7351	2.7636	1.9328	2.6278	AVRG	R		0.380184		ug/L	2.6303	13	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.8293	1.9621	2.1436	1.9412	1.9493	1.4885	1.8852	AVRG	R		0.530340		ug/L	1.8856	11	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	1.0079	1.0917	1.1427	1.0654	1.1076	1.0008	1.0906	AVRG	R		0.932492		ug/L	1.0724	5	0.0500	0.99	15	
Cyclohexanone	0.1611	0.1313	0.1620	0.1271	0.1689	0.1454	0.1299	AVRG	R		6.824522		ug/L	0.1465	12	0.0050	0.99	15	
Ethanol	0.0116	0.0120	0.0130	0.0119	0.0129	0.0079	0.0123	AVRG	R		85.63014		ug/L	0.0117	15	5.0E-4	0.99	15	
Isopropanol	0.0735	0.0656	0.0700	0.0597	0.0637	0.0443	0.0604	AVRG	R		16.01235		ug/L	0.0625	15	0.0050	0.99	15	
Tetrahydrofuran	0.2259	0.2345	0.2634	0.2235	0.2387	0.1735	0.2246	AVRG	R		4.418842		ug/L	0.2263	12	0.0050	0.99	15	
Dibromofluoromethane	0.5632	0.5660	0.5654	0.5628	0.5522	0.5275	0.5469	AVRG	R		1.802241		ug/L	0.5549	3	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.4374	0.4408	0.4421	0.4224	0.4194	0.3907	0.4102	AVRG	R		2.362431		ug/L	0.4233	4	0.0500	0.99	15	
Trifluorotoluene	0.3382	0.3711	0.3990	0.3580	0.4431	0.3716	0.3911	AVRG	R		2.619556		ug/L	0.3817	9	0.0500	0.99	15	
Toluene-d8	1.0755	1.0888	1.0886	1.1001	1.0906	1.0544	1.0786	AVRG	R		0.923879		ug/L	1.0824	1	0.0500	0.99	15	
Bromofluorobenzene	1.1950	1.1913	1.1819	1.1748	1.1437	1.1656	1.1845	AVRG	R		0.849848		ug/L	1.1767	1	0.0500	0.99	15	

152

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA02 Run Name : 50PPB Injected : 04-MAY-2005 23:18
Seqnum : 415179390016 Filename : be416 Caltype : SOIL
Calnum : 415179390001 Caldate : 04-MAY-2005
Standards: S491 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	39.66550	ug/L	-21	30	!v-
Chloromethane	50.00000	39.88150	ug/L	-20	30	
Vinyl Chloride	50.00000	43.78450	ug/L	-12	20	
Bromomethane	50.00000	36.70180	ug/L	-27	30	!v-
Chloroethane	50.00000	47.38740	ug/L	-5	30	
Trichlorofluoromethane	50.00000	43.48350	ug/L	-13	30	

ISTD (ICAL=be412)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	603664	656521	8.76	11.54	11.53	-0.01
1,4-Difluorobenzene	948510	1020302	7.57	12.76	12.76	0.01
1,4-Dichlorobenzene-d4	388712	374196	-3.73	20.73	20.73	0.01

5/5/05

5/5/05

!=warning -=low bias v=ICV
Page 1 of 1

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA02 Run Name : 50PPB Injected : 04-MAY-2005 23:51
Seqnum : 415179390017 Filename : be417 Caltype : SOIL
Calnum : 415179390001 Caldate : 04-MAY-2005
Standards: S285 (5000X), S139 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Acetone	50.00000	47.94400	ug/L	-4	40	
Freon 113	50.00000	63.85580	ug/L	28	30	!v+
1,1-Dichloroethene	50.00000	54.61000	ug/L	9	20	
Methylene Chloride	50.00000	48.75790	ug/L	-2	30	
Carbon Disulfide	50.00000	51.92450	ug/L	4	30	
MTBE	50.00000	48.27080	ug/L	-3	30	
trans-1,2-Dichloroethene	50.00000	51.35140	ug/L	3	30	
Vinyl Acetate	50.00000	40.18220	ug/L	-20	40	
1,1-Dichloroethane	50.00000	49.98040	ug/L	0	30	
2-Butanone	50.00000	51.99720	ug/L	4	40	
2,2-Dichloropropane	50.00000	50.87070	ug/L	2	30	
cis-1,2-Dichloroethene	50.00000	51.46860	ug/L	3	30	
Chloroform	50.00000	48.40610	ug/L	-3	20	
Bromochloromethane	50.00000	48.85080	ug/L	-2	30	
1,1,1-Trichloroethane	50.00000	51.64860	ug/L	3	30	
1,1-Dichloropropene	50.00000	55.60900	ug/L	11	30	
Carbon Tetrachloride	50.00000	56.96990	ug/L	14	30	
1,2-Dichloroethane	50.00000	48.24560	ug/L	-4	30	
Benzene	50.00000	49.29850	ug/L	-1	30	
Trichloroethene	50.00000	49.46120	ug/L	-1	30	
1,2-Dichloropropane	50.00000	47.16060	ug/L	-6	20	
Bromodichloromethane	50.00000	52.06700	ug/L	4	30	
Dibromomethane	50.00000	47.68980	ug/L	-5	30	
4-Methyl-2-Pentanone	50.00000	51.02400	ug/L	2	40	
Tetramethyl THF	50.00000	49.06870	ug/L	-2	30	
cis-1,3-Dichloropropene	50.00000	48.86990	ug/L	-2	30	
Toluene	50.00000	50.89320	ug/L	2	20	
trans-1,3-Dichloropropene	50.00000	45.70910	ug/L	-9	30	
1,1,2-Trichloroethane	50.00000	49.11930	ug/L	-2	30	
2-Hexanone	50.00000	51.91500	ug/L	4	40	
1,3-Dichloropropane	50.00000	49.39030	ug/L	-1	30	
Tetrachloroethene	50.00000	54.95180	ug/L	10	30	
Dibromochloromethane	50.00000	51.29080	ug/L	3	30	
1,2-Dibromoethane	50.00000	48.75210	ug/L	-2	30	
Chlorobenzene	50.00000	49.64410	ug/L	-1	30	
1,1,1,2-Tetrachloroethane	50.00000	48.80510	ug/L	-2	30	
Ethylbenzene	50.00000	51.27850	ug/L	3	20	
m,p-Xylenes	100.0000	101.8914	ug/L	2	30	
o-Xylene	50.00000	51.49280	ug/L	3	30	
Styrene	50.00000	51.00410	ug/L	2	30	
Bromoform	50.00000	51.18470	ug/L	2	30	
Isopropylbenzene	50.00000	50.62260	ug/L	1	30	
1,1,2,2-Tetrachloroethane	50.00000	50.26430	ug/L	1	30	
1,2,3-Trichloropropane	50.00000	50.40050	ug/L	1	30	
Propylbenzene	50.00000	54.98560	ug/L	10	30	
Bromobenzene	50.00000	51.30900	ug/L	3	30	
1,3,5-Trimethylbenzene	50.00000	52.68310	ug/L	5	30	

!=warning +=high bias -=low bias v=ICV

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA02 Run Name : 50PPB Injected : 04-MAY-2005 23:51
Seqnum : 415179390017 Filename : be417 Caltype : SOIL
Calnum : 415179390001 Caldate : 04-MAY-2005
Standards: S285 (5000X), S139 (5000X), S95 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
2-Chlorotoluene	50.00000	51.68140	ug/L	3	30	
4-Chlorotoluene	50.00000	49.92930	ug/L	0	30	
tert-Butylbenzene	50.00000	56.45450	ug/L	13	30	
1,2,4-Trimethylbenzene	50.00000	51.45860	ug/L	3	30	
sec-Butylbenzene	50.00000	58.49820	ug/L	17	30	
para-Isopropyl Toluene	50.00000	53.48640	ug/L	7	30	
1,3-Dichlorobenzene	50.00000	50.07700	ug/L	0	30	
1,4-Dichlorobenzene	50.00000	50.20350	ug/L	0	30	
n-Butylbenzene	50.00000	56.40810	ug/L	13	30	
1,2-Dichlorobenzene	50.00000	49.98060	ug/L	0	30	
1,2-Dibromo-3-Chloropropane	50.00000	51.13370	ug/L	2	30	
1,2,4-Trichlorobenzene	50.00000	48.53160	ug/L	-3	30	
Hexachlorobutadiene	50.00000	59.76300	ug/L	20	30	
Naphthalene	50.00000	51.31470	ug/L	3	30	
1,2,3-Trichlorobenzene	50.00000	48.95430	ug/L	-2	30	
tert-Butyl Alcohol (TBA)	250.0000	270.9256	ug/L	8	30	
Isopropyl Ether (DIPE)	50.00000	49.83900	ug/L	0	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	53.31800	ug/L	7	30	
Methyl tert-Amyl Ether (TAME)	50.00000	50.99940	ug/L	2	30	
Cyclohexanone	500.0000	161.0934	ug/L	-68	30	v- ***
Ethanol	5000.000	5094.827	ug/L	2	30	
Isopropanol	500.0000	519.4481	ug/L	4	30	
Tetrahydrofuran	500.0000	544.4405	ug/L	9	30	

ISTD (ICAL=be412)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	603664	657198	8.87	11.54	11.54	0.01
1,4-Difluorobenzene	948510	1007986	6.27	12.76	12.76	0.01
Chlorobenzene-d5	769334	796914	3.58	17.34	17.34	0.00
1,4-Dichlorobenzene-d4	388712	390778	0.53	20.73	20.73	0.01

5/5/05

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!=warning +=high bias -=low bias v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA02 Run Name : 25PPB IDF : 1.0
Seqnum : 415180631003 Filename : be503 Injected : 05-MAY-2005 11:34
Calnum : 415179390001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S359 (20000X), S367 (20000X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.5505	0.6566	25.00000	29.51510	ug/L	18	30	0.0500	
Chloromethane	0.9863	1.0391	25.00000	26.33750	ug/L	5	30	0.1000	
Vinyl Chloride	0.7172	0.7697	25.00000	26.82970	ug/L	7	20	0.0500	
Bromomethane	0.5920	0.6626	25.00000	27.98040	ug/L	12	30	0.0500	
Chloroethane	0.4392	0.4604	25.00000	26.21060	ug/L	5	30	0.0500	
Trichlorofluoromethane	0.6998	0.7357	25.00000	26.28200	ug/L	5	30	0.0500	
Acetone	0.3552	0.3546	25.00000	28.08970	ug/L	12	40	0.0500	
Freon 113	0.3487	0.3236	25.00000	23.20010	ug/L	-7	30	0.0500	
1,1-Dichloroethene	0.3859	0.3742	25.00000	24.24060	ug/L	-3	20	0.0500	
Methylene Chloride	0.6685	0.7153	25.00000	26.74940	ug/L	7	30	0.0500	
Carbon Disulfide	2.0228	1.5681	25.00000	19.38070	ug/L	**-22**	30	0.0500	!c-
MTBE	1.6429	1.6271	25.00000	24.75960	ug/L	-1	30	0.0500	
trans-1,2-Dichloroethene	0.4978	0.4932	25.00000	24.77180	ug/L	-1	30	0.0500	
Vinyl Acetate	1.8845	1.8958	25.00000	25.15030	ug/L	1	40	0.0500	
1,1-Dichloroethane	1.0905	1.1025	25.00000	25.27550	ug/L	1	30	0.1000	
2-Butanone	0.4422	0.4766	25.00000	26.94420	ug/L	8	40	0.0500	
2,2-Dichloropropane	0.7154	0.6887	25.00000	24.06820	ug/L	-4	30	0.0500	
cis-1,2-Dichloroethene	0.5690	0.5435	25.00000	23.87860	ug/L	-4	30	0.0500	
Chloroform	1.0259	0.9864	25.00000	24.03880	ug/L	-4	20	0.0500	
Bromochloromethane	0.2684	0.2516	25.00000	23.43840	ug/L	-6	30	0.0500	
1,1,1-Trichloroethane	0.6091	0.5656	25.00000	23.21370	ug/L	-7	30	0.0500	
1,1-Dichloropropene	0.4199	0.3950	25.00000	23.51920	ug/L	-6	30	0.0500	
Carbon Tetrachloride	0.2882	0.2615	25.00000	22.68460	ug/L	-9	30	0.0500	
1,2-Dichloroethane	0.5142	0.4990	25.00000	24.26030	ug/L	-3	30	0.0500	
Benzene	1.4553	1.4057	25.00000	24.14890	ug/L	-3	30	0.0500	
Trichloroethene	0.3236	0.3116	25.00000	24.07280	ug/L	-4	30	0.0500	
1,2-Dichloropropane	0.4345	0.4267	25.00000	24.54980	ug/L	-2	20	0.0500	
Bromodichloromethane	0.4801	0.4622	25.00000	24.06500	ug/L	-4	30	0.0500	
Dibromomethane	0.2511	0.2446	25.00000	24.35170	ug/L	-3	30	0.0500	
4-Methyl-2-Pentanone	0.5844	0.5582	25.00000	23.87750	ug/L	-4	40	0.0500	
Tetramethyl THF	1.0838	1.0560	25.00000	24.35830	ug/L	-3	30	0.0500	
cis-1,3-Dichloropropene	0.6141	0.6017	25.00000	24.49570	ug/L	-2	30	0.0500	
Toluene	0.7437	0.7271	25.00000	24.44070	ug/L	-2	20	0.0500	
trans-1,3-Dichloropropene	0.5443	0.5254	25.00000	24.12880	ug/L	-3	30	0.0500	
1,1,2-Trichloroethane	0.1802	0.1713	25.00000	23.76050	ug/L	-5	30	0.0500	
2-Hexanone	0.5341	0.5192	25.00000	24.30350	ug/L	-3	40	0.0500	
1,3-Dichloropropane	0.7198	0.6924	25.00000	24.04850	ug/L	-4	30	0.0500	
Tetrachloroethene	0.3149	0.2959	25.00000	23.49760	ug/L	-6	30	0.0500	
Dibromochloromethane	0.3886	0.3715	25.00000	23.90190	ug/L	-4	30	0.0500	
1,2-Dibromoethane	0.2978	0.2729	25.00000	22.90830	ug/L	-8	30	0.0500	
Chlorobenzene	0.9521	0.9450	25.00000	24.81140	ug/L	-1	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3438	0.3272	25.00000	23.79740	ug/L	-5	30	0.0500	
Ethylbenzene	1.7299	1.7431	25.00000	25.19120	ug/L	1	20	0.0500	
m,p-Xylenes	0.5862	0.5875	50.00000	50.11050	ug/L	0	30	0.0500	
o-Xylene	0.5719	0.5792	25.00000	25.31790	ug/L	1	30	0.0500	
Styrene	1.0338	1.0281	25.00000	24.86100	ug/L	-1	30	0.0500	

!=warning +=high bias -=low bias c=CCV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA02 Run Name : 25PPB IDF : 1.0
Seqnum : 415180631003 Filename : be503 Injected : 05-MAY-2005 11:34
Calnum : 415179390001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S359 (20000X), S367 (20000X), S95 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.2650	0.2418	25.00000	22.80950	ug/L	-9	30	0.1000	
Isopropylbenzene	2.6951	2.6873	25.00000	24.92830	ug/L	0	30	0.0500	
1,1,2,2-Tetrachloroethane	1.1704	1.1254	25.00000	24.03830	ug/L	-4	30	0.3000	
1,2,3-Trichloropropane	0.2555	0.2559	25.00000	25.04860	ug/L	0	30	0.0500	
Propylbenzene	3.8295	3.9059	25.00000	25.49900	ug/L	2	30	0.0500	
Bromobenzene	0.8120	0.8029	25.00000	24.71960	ug/L	-1	30	0.0500	
1,3,5-Trimethylbenzene	2.3425	2.3555	25.00000	25.13880	ug/L	1	30	0.0500	
2-Chlorotoluene	2.6752	2.7339	25.00000	25.54930	ug/L	2	30	0.0500	
4-Chlorotoluene	2.4879	2.6017	25.00000	26.14400	ug/L	5	30	0.0500	
tert-Butylbenzene	1.7532	1.7177	25.00000	24.49330	ug/L	-2	30	0.0500	
1,2,4-Trimethylbenzene	2.3070	2.3390	25.00000	25.34750	ug/L	1	30	0.0500	
sec-Butylbenzene	2.8330	2.6912	25.00000	23.74910	ug/L	-5	30	0.0500	
para-Isopropyl Toluene	2.1986	2.0793	25.00000	23.64350	ug/L	-5	30	0.0500	
1,3-Dichlorobenzene	1.4329	1.4864	25.00000	25.93340	ug/L	4	30	0.0500	
1,4-Dichlorobenzene	1.4598	1.5146	25.00000	25.93810	ug/L	4	30	0.0500	
n-Butylbenzene	2.3738	2.2634	25.00000	23.83730	ug/L	-5	30	0.0500	
1,2-Dichlorobenzene	1.3562	1.3823	25.00000	25.48090	ug/L	2	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2091	0.2033	25.00000	24.31290	ug/L	-3	30	0.0500	
1,2,4-Trichlorobenzene	0.7245	0.7453	25.00000	25.71910	ug/L	3	30	0.0500	
Hexachlorobutadiene	0.3822	0.3243	25.00000	21.21610	ug/L	-15	30	0.0500	
Naphthalene	1.5163	1.5114	25.00000	24.91930	ug/L	0	30	0.0500	
1,2,3-Trichlorobenzene	0.6940	0.6880	25.00000	24.78590	ug/L	-1	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0840	0.0847	250.0000	251.9392	ug/L	1	30	0.0050	
Isopropyl Ether (DIPE)	2.6303	2.6972	25.00000	25.63600	ug/L	3	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.8856	1.8498	25.00000	24.52550	ug/L	-2	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0724	1.0456	25.00000	24.37450	ug/L	-3	30	0.0500	
Cyclohexanone	0.1465	0.2488	250.0000	424.5108	ug/L	70	30	0.0050	c+
Ethanol	0.0117	0.0127	2500.000	2711.301	ug/L	8	30	5.0E-4	
Isopropanol	0.0625	0.0591	250.0000	236.6030	ug/L	-5	30	0.0050	
Tetrahydrofuran	0.2263	0.2258	250.0000	249.4557	ug/L	0	30	0.0050	
Dibromofluoromethane	0.5549	0.5530	50.00000	49.83540	ug/L	0	30	0.0500	
1,2-Dichloroethane-d4	0.4233	0.4301	50.00000	50.80590	ug/L	2	30	0.0500	
Trifluorotoluene	0.3817	0.3677	25.00000	24.07740	ug/L	-4	30	0.0500	
Toluene-d8	1.0824	1.0891	50.00000	50.30900	ug/L	1	30	0.0500	
Bromofluorobenzene	1.1767	1.2036	50.00000	51.14460	ug/L	2	30	0.0500	

ISTD (ICAL=be412)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	603664	713092	18.13	11.54	11.53	-0.01
1,4-Difluorobenzene	948510	1098710	15.84	12.76	12.75	-0.01
Chlorobenzene-d5	769334	864610	12.38	17.34	17.35	0.01
1,4-Dichlorobenzene-d4	388712	429062	10.38	20.73	20.72	-0.01

5/5/05

!=warning +=high bias -=low bias c=CCV

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 05-MAY-2005
Sequence: 415180631 (be5)
Instrument ID: MSVOA02

ICAL Filename: be412
Date Analyzed: 04-MAY-2005
Time Analyzed: 21:05

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	603664	11.54	948510	12.76	769334	17.34	388712	20.73
LOWER LIMIT	301832	11.04	474255	12.26	384667	16.84	194356	20.23
UPPER LIMIT	1207328	12.04	1897020	13.26	1538668	17.84	777424	21.23

TYPE	SAMPLE	#								
CCV	25PPB	002	726703	11.53	1130109	12.75	882851	17.34	428630	20.72
CCV	25PPB	003	713092	11.53	1098710	12.75	864610	17.35	429062	20.72
LCS	QC292754	004	716071	11.54	1114054	12.76	874163	17.34	431929	20.73
BLANK	QC292755	006	655290	11.53	1051306	12.75	827082	17.34	389357	20.72
MSS	179252-001	007	625035	11.54	1000072	12.76	767551	17.34	347651	20.73
SAMPLE	179144-001	008	740821	11.54	1111436	12.76	839102	17.34	394736	20.73
MS	QC292756	010	677209	11.53	1050670	12.76	811952	17.35	380462	20.72
SAMPLE	179266-001	012	582369	11.54	892148	12.76	686402	17.34	303680	20.73
SAMPLE	179266-002	013	707139	11.54	1138561	12.76	886711	17.34	420786	20.73
SAMPLE	179266-003	014	666719	11.53	1068698	12.75	856051	17.34	393800	20.72
SAMPLE	179266-004	015	644619	11.53	952142	12.75	684731	17.35	306043	20.72
SAMPLE	179266-006	016	613205	11.54	996789	12.76	777319	17.34	371700	20.73
MSS	179266-007	017	643965	11.53	1034478	12.75	739413	17.34	278935	20.72
MS	QC292797	018	652615	11.53	1031262	12.75	784733	17.34	348697	20.72
MSD	QC292798	019	723523	11.53	1130184	12.75	858045	17.34	382918	20.72
MSD	QC292757	021	674819	11.53	1047018	12.75	803368	17.34	374662	20.72
SAMPLE	179173-001	025	715534	11.53	1109248	12.75	862378	17.34	396011	20.72

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 415179390 Instrument: MSVOA02 HP GCMS VOA 02
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

Begun: 04-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	be401	X	IB			04-MAY-2005 13:50	1.0					1	
002	be402	X	IB			04-MAY-2005 14:22	1.0					1	
003	be403	X	IB			04-MAY-2005 14:55	1.0					1	
004	be404	TUN	BFB			04-MAY-2005 16:23	1.0					2	
005	be405	X	IB			04-MAY-2005 17:12	1.0					1	
006	be406	X	IB			04-MAY-2005 17:44	1.0					1	
007	be407	X	IB			04-MAY-2005 18:18	1.0					1	
008	be408	X	CALIB			04-MAY-2005 18:51	1.0					1	
009	be409	ICAL	5PPB			04-MAY-2005 19:24	1.0					3 4 1	
010	be410	ICAL	10PPB			04-MAY-2005 19:58	1.0					3 4 1	
011	be411	ICAL	20PPB			04-MAY-2005 20:31	1.0					3 4 1	
012	be412	ICAL	50PPB			04-MAY-2005 21:05	1.0					3 4 1	
013	be413	ICAL	60PPB			04-MAY-2005 21:38	1.0					3 4 1	
014	be414	ICAL	75PPB			04-MAY-2005 22:12	1.0					3 4 1	
015	be415	ICAL	100PPB			04-MAY-2005 22:45	1.0					3 4 1	159
016	be416	ICV	50PPB			04-MAY-2005 23:18	1.0		5000			5 1	
017	be417	ICV	50PPB			04-MAY-2005 23:51	1.0	1	5000			6 7 1	
018	be418	X	IB			05-MAY-2005 00:25	1.0					1	
019	be419	X	IB			05-MAY-2005 00:58	1.0					1	
020	be420	X	IB			05-MAY-2005 01:31	1.0					1	

ICAL - Good; Acetone and CS_2 5 to 60 PPB ICV - Cyclohex ↓ (MVC; F12 ↓; BrMe ↓; F113 ↑)

Stds used: 1=S95 2=04WS2425 3=S359 4=S367 5=S491 6=S285 7=S139

Analyst: [signature] Date: 5/5/05

Page 1 of 1

05/05/05

1-7

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 415180631 Instrument: MSVOA02 HP GCMS VOA 02 Begun: 05-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	be501	TUN	BFB			05-MAY-2005 10:31	1.0						1	
002	be502	CCV	25PPB			05-MAY-2005 10:49	1.0	25		5000			2 3 4 cc+ Not Used	
003	be503	CCV	25PPB			05-MAY-2005 11:34	1.0	1		5000			2 3 4	
004	be504	LCS	QC292754	101759	Soil	05-MAY-2005 12:26	1.0	1		5000			5 6 7 4	
005	be505	X	IB			05-MAY-2005 12:59	1.0						4	
006	be506	BLANK	QC292755	101759	Soil	05-MAY-2005 13:32	1.0		1	5000			4	
007	be507	MSS	179252-001	101759	Soil	05-MAY-2005 14:04	0.9804		1	5000	A	Soil	4	
008	be508	SAMPLE	179144-001	101759	Soil	05-MAY-2005 14:37	1.0		1	5000	G		4	1:TBA=1178.59
009	be509	X	QC292756	101759	Soil	05-MAY-2005 15:10	1.0			5000	A		5 6 7 4 Not Used	1:ACE=135.108
010	be510	MS	QC292756	101759	Soil	05-MAY-2005 15:42	1.0	2		5000	↓	↓	5 6 7 4	1:ACE=95.3140
011	be511	X	IB			05-MAY-2005 16:15	1.0						4	
012	be512	SAMPLE	179266-001	101759	Soil	05-MAY-2005 16:47	0.7463		1	5000	C	Soil	4	
013	be513	SAMPLE	179266-002	101759	Soil	05-MAY-2005 17:20	0.8621	1	1	5000			4	
014	be514	SAMPLE	179266-003	101759	Soil	05-MAY-2005 17:53	0.7813		1	5000			4	
015	be515	SAMPLE	179266-004	101759	Soil	05-MAY-2005 18:26	0.7813	1	1	5000			4	
016	be516	SAMPLE	179266-006	101759	Soil	05-MAY-2005 18:59	0.7937	1	1	5000			4	
017	be517	MSS	179266-007	101759	Soil	05-MAY-2005 19:32	1.111	1	1	5000	E		4	
018	be518	MS	QC292797	101759	Soil	05-MAY-2005 20:05	1.0	2	1	5000	F		5 6 7 4	1:ACE=62.7580
019	be519	MSD	QC292798	101759	Soil	05-MAY-2005 20:38	1.0	1	1	5000	G		5 6 7 4	
020	be520	X	QC292756	101759	Soil	05-MAY-2005 21:11	1.0			5000	A		5 6 7 4 Not Used.	
021	be521	MSD	QC292757	101759	Soil	05-MAY-2005 21:44	1.0	2	1	5000	↓	↓	5 6 7 4	1:ACE=157.785
022	be522	X	IB			05-MAY-2005 22:17	1.0						4	
023	be523	X	IB			05-MAY-2005 22:51	1.0						4	
024	be524	X	IB			05-MAY-2005 23:23	1.0						4	
025	be525	SAMPLE	179173-001	101759	Soil	05-MAY-2005 23:57	1.0	72	1	5000			4 <<t Freezer Blank	

160

ICAL - Good ICV - Cyclohex ↓ (Incl: F12 ↓; BrMe ↓; FIB ↑) CCV - Cyclohex ↑ (Incl: CS_2 ↓)

Stds used: 1=04WS2425 2=S359 3=S367 4=S95 5=S139 6=S491 7=S285
Flags used: +=high bias <<t=out of clock cc=CCV CCC failure

Analyst: [signature] Date: 5/6/05

Page 1 of 1

05/06/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: ~~5/4/05~~ 5/5/05

LOG Prepped by: [illegible]

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	~~179144-1~~	~~10.0~~	~~G~~	~~X~~	~~2~~	~~MS/MSD~~ screened 514		
2	179252-1	5.1	A		2	MS/MSD/MSD		
3	179144-1	5.0	G		1			
4								
5	179252-1	5.1	A		2	MS/MSD PR IX		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
21								
22								
23								
24								
25	179173-1				2	Freezer Blank		
26			A					

CC BB

LL

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179266-1	6.7	C		2			
2	2	5.8						
3	3	6.4						
4	4	6.4						
5	6	6.3						
6	7	4.5	E					
7	7	4.6	F			MS		
8	7	4.1	G			MSD		
9								
10								
11								
12								
14								
15								
16								
17						161		

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1TP10~~6 (6.0)~~ 9(6.0)	Batch#:	101977
Lab ID:	179266-001	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	2.000		

Moisture: 13%

Analyte	Result	RL	MDL
Naphthalene	2.8 J	11	1.8
Acenaphthylene	6.6 J	11	3.4
Acenaphthene	ND	11	1.8
Fluorene	ND	11	2.6
Phenanthrene	15	11	2.2
Anthracene	5.1 J	11	2.8
Fluoranthene	24	11	3.1
Pyrene	45	11	2.6
Benzo(a)anthracene	24	11	2.4
Chrysene	38	11	2.2
Benzo(b)fluoranthene	35	11	2.5
Benzo(k)fluoranthene	20	11	1.4
Benzo(a)pyrene	37	11	2.1
Indeno(1,2,3-cd)pyrene	15	11	2.2
Dibenz(a,h)anthracene	8.6 J	11	2.0
Benzo(g,h,i)perylene	16	11	2.0

Surrogate	%REC	Limits
Nitrobenzene-d5	123	37-140
2-Fluorobiphenyl	107	38-120
Terphenyl-d14	142 *	44-137

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1TP10~~6(3-5)~~ 9(3,5)	Batch#:	101977
Lab ID:	179266-002	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Moisture: 9%

Analyte	Result	RL	MDL
Naphthalene	ND	5.5	0.84
Acenaphthylene	ND	5.5	1.6
Acenaphthene	ND	5.5	0.84
Fluorene	ND	5.5	1.2
Phenanthrene	2.2 J	5.5	1.0
Anthracene	ND	5.5	1.3
Fluoranthene	1.8 J	5.5	1.5
Pyrene	2.8 J	5.5	1.2
Benzo(a)anthracene	1.8 J	5.5	1.1
Chrysene	2.0 J	5.5	1.1
Benzo(b)fluoranthene	1.4 J	5.5	1.2
Benzo(k)fluoranthene	0.89 J	5.5	0.65
Benzo(a)pyrene	1.7 J	5.5	0.99
Indeno(1,2,3-cd)pyrene	1.7 J	5.5	1.1
Dibenz(a,h)anthracene	ND	5.5	0.97
Benzo(g,h,i)perylene	1.4 J b	5.5	0.96

Surrogate	%REC	Limits
Nitrobenzene-d5	97	37-140
2-Fluorobiphenyl	90	38-120
Terphenyl-d14	102	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1TP10~~6 (2.5)~~ 9 (2,5)	Batch#:	101977
Lab ID:	179266-003	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Moisture: 13%

Analyte	Result	RL	MDL
Naphthalene	ND	5.7	0.88
Acenaphthylene	ND	5.7	1.7
Acenaphthene	ND	5.7	0.88
Fluorene	ND	5.7	1.3
Phenanthrene	ND	5.7	1.1
Anthracene	ND	5.7	1.4
Fluoranthene	ND	5.7	1.5
Pyrene	ND	5.7	1.3
Benzo(a)anthracene	ND	5.7	1.2
Chrysene	ND	5.7	1.1
Benzo(b)fluoranthene	ND	5.7	1.2
Benzo(k)fluoranthene	0.72 J	5.7	0.69
Benzo(a)pyrene	ND	5.7	1.0
Indeno(1,2,3-cd)pyrene	ND	5.7	1.1
Dibenz(a,h)anthracene	ND	5.7	1.0
Benzo(g,h,i)perylene	ND	5.7	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	111	37-140
2-Fluorobiphenyl	100	38-120
Terphenyl-d14	111	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	DUP(050405)	Batch#:	101977
Lab ID:	179266-004	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	2.2 J	5.6	0.86
Acenaphthylene	4.2 J	5.6	1.6
Acenaphthene	ND	5.6	0.85
Fluorene	ND	5.6	1.3
Phenanthrene	15	5.6	1.1
Anthracene	4.9 J	5.6	1.3
Fluoranthene	25	5.6	1.5
Pyrene	44	5.6	1.3
Benzo(a)anthracene	19	5.6	1.2
Chrysene	24	5.6	1.1
Benzo(b)fluoranthene	23	5.6	1.2
Benzo(k)fluoranthene	22	5.6	0.67
Benzo(a)pyrene	27	5.6	1.0
Indeno(1,2,3-cd)pyrene	8.1	5.6	1.1
Dibenz(a,h)anthracene	4.7 J	5.6	0.99
Benzo(g,h,i)perylene	8.6	5.6	0.98

Surrogate	%REC	Limits
Nitrobenzene-d5	133	37-140
2-Fluorobiphenyl	101	38-120
Terphenyl-d14	140 *	44-137

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	SOILCOMP	Diln Fac:	1.000
Lab ID:	179266-006	Batch#:	101977
Matrix:	Soil	Sampled:	05/05/05
Units:	ug/Kg	Received:	05/05/05
Basis:	dry	Prepared:	05/12/05

Moisture: 14%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	1.1 J	5.8	0.89	05/12/05
Acenaphthylene	1.8 J	5.8	1.7	05/12/05
Acenaphthene	ND	5.8	0.88	05/12/05
Fluorene	ND	5.8	1.3	05/12/05
Phenanthrene	7.7	5.8	1.1	05/12/05
Anthracene	ND	5.8	1.4	05/12/05
Fluoranthene	13	5.8	1.5	05/12/05
Pyrene	17	5.8	1.3	05/12/05
Benzo(a)anthracene	6.7	5.8	1.2	05/12/05
Chrysene	10	5.8	1.1	05/12/05
Benzo(b)fluoranthene	7.5	5.8	1.2	05/12/05
Benzo(k)fluoranthene	5.4 J	5.8	0.69	05/12/05
Benzo(a)pyrene	7.8	5.8	1.0	05/12/05
Indeno(1,2,3-cd)pyrene	5.2 J	5.8	1.1	05/12/05
Dibenz(a,h)anthracene	3.5 J	5.8	1.0	05/13/05
Benzo(g,h,i)perylene	8.9	5.8	1.0	05/13/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	105	37-140	05/12/05
2-Fluorobiphenyl	92	38-120	05/12/05
Terphenyl-d14	106	44-137	05/12/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1TP108(5.0)	Batch#:	101977
Lab ID:	179266-007	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/13/05
Diln Fac:	1.000		

Moisture: 27%

Analyte	Result	RL	MDL
Naphthalene	ND	6.8	1.0
Acenaphthylene	ND	6.8	2.0
Acenaphthene	ND	6.8	1.0
Fluorene	ND	6.8	1.5
Phenanthrene	3.5 J	6.8	1.3
Anthracene	ND	6.8	1.6
Fluoranthene	9.3	6.8	1.8
Pyrene	39	6.8	1.5
Benzo(a)anthracene	6.5 J	6.8	1.4
Chrysene	73	6.8	1.3
Benzo(b)fluoranthene	54	6.8	1.5
Benzo(k)fluoranthene	100	6.8	0.81
Benzo(a)pyrene	70	6.8	1.2
Indeno(1,2,3-cd)pyrene	13	6.8	1.3
Dibenz(a,h)anthracene	9.7	6.8	1.2
Benzo(g,h,i)perylene	15	6.8	1.2

Surrogate	%REC	Limits
Nitrobenzene-d5	103	37-140
2-Fluorobiphenyl	92	38-120
Terphenyl-d14	126	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293592	Batch#:	101977
Matrix:	Soil	Prepared:	05/12/05
Units:	ug/Kg	Analyzed:	05/12/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.77
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.76
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.95
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.3
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	0.96
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.60
Benzo(a)pyrene	ND	5.0	0.90
Indeno(1,2,3-cd)pyrene	ND	5.0	0.96
Dibenz(a,h)anthracene	ND	5.0	0.89
Benzo(g,h,i)perylene	ND	5.0	0.87

Surrogate	%REC	Limits
Nitrobenzene-d5	90	37-140
2-Fluorobiphenyl	96	38-120
Terphenyl-d14	108	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293593	Batch#:	101977
Matrix:	Soil	Prepared:	05/12/05
Units:	ug/Kg	Analyzed:	05/12/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.26	36.02	108	49-128
Pyrene	33.26	34.57	104	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	108	37-140
2-Fluorobiphenyl	102	38-120
Terphenyl-d14	102	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB2ASB100(4.0)	Batch#:	101977
MSS Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC293594

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8727	37.88	39.37	104	39-138
Pyrene	<1.291	37.88	39.56	104	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	101	37-140
2-Fluorobiphenyl	93	38-120
Terphenyl-d14	99	44-137

Type: MSD Moisture: 13%
Lab ID: QC293595

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	37.85	37.85	100	39-138	4	39
Pyrene	37.85	37.58	99	28-159	5	45

Surrogate	%REC	Limits
Nitrobenzene-d5	98	37-140
2-Fluorobiphenyl	90	38-120
Terphenyl-d14	94	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

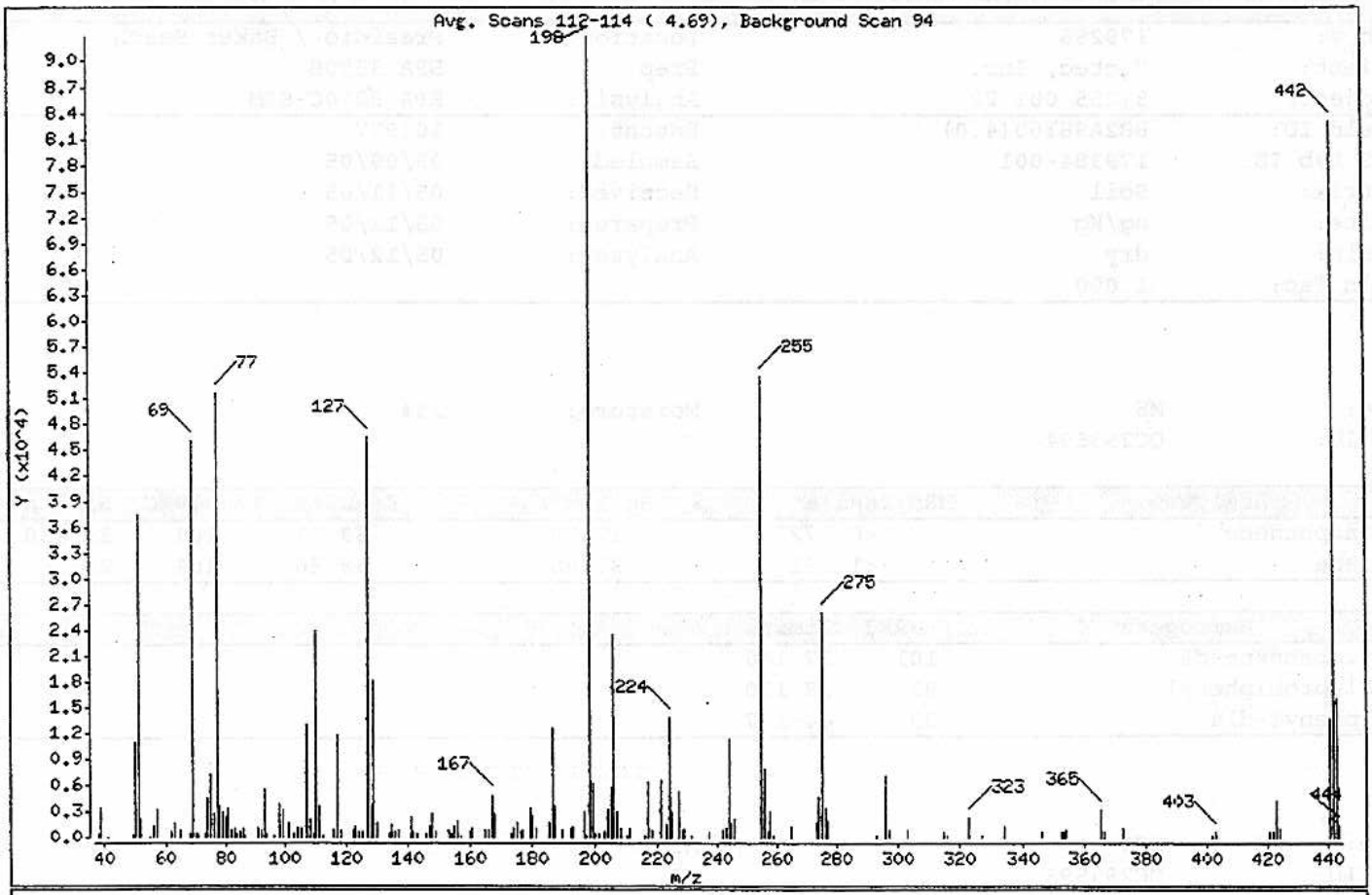
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	69.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM FCAL

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051205.b\VEC01.D

Date : 12-MAY-2005 15:49

Client ID: dftpp tune std

Instrument: MSBNA03.i

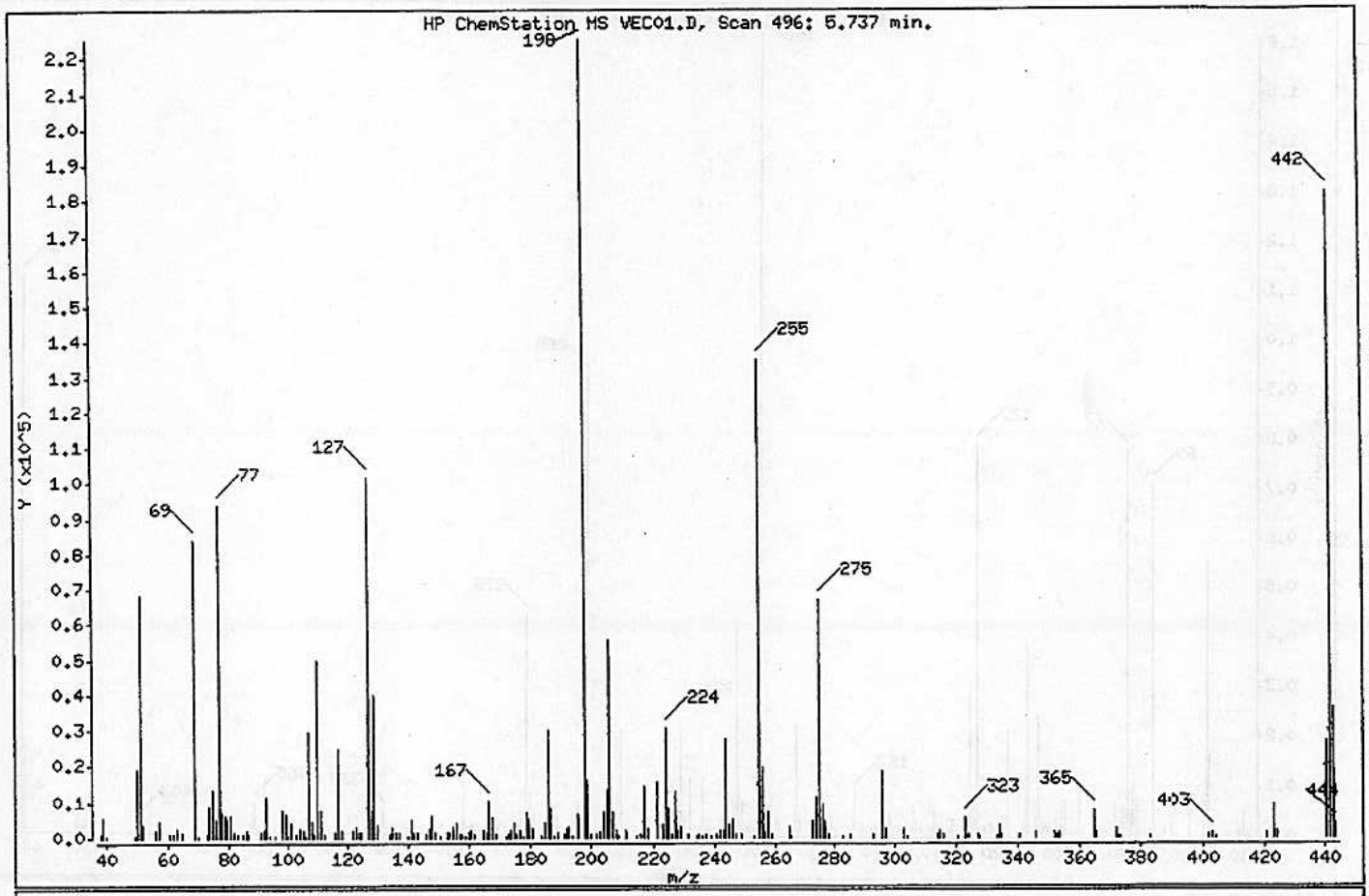
Sample Info: TUN,S513

Operator: BNA

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	30.44
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.33
70	Less than 2.00% of mass 69	0.23 (0.61)
127	40.00 - 60.00% of mass 198	45.25
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.07
275	10.00 - 30.00% of mass 198	29.65
365	Greater than 1.00% of mass 198	3.34
441	Present, but less than mass 443	12.08
442	40.00 - 99.99% of mass 198	80.94
443	17.00 - 23.00% of mass 442	16.19 (20.00)

D.F 13/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051305.b\VED01.D

Date : 13-MAY-2005 09:15

Client ID: dftpp tune std

Instrument: MSBNA03.i

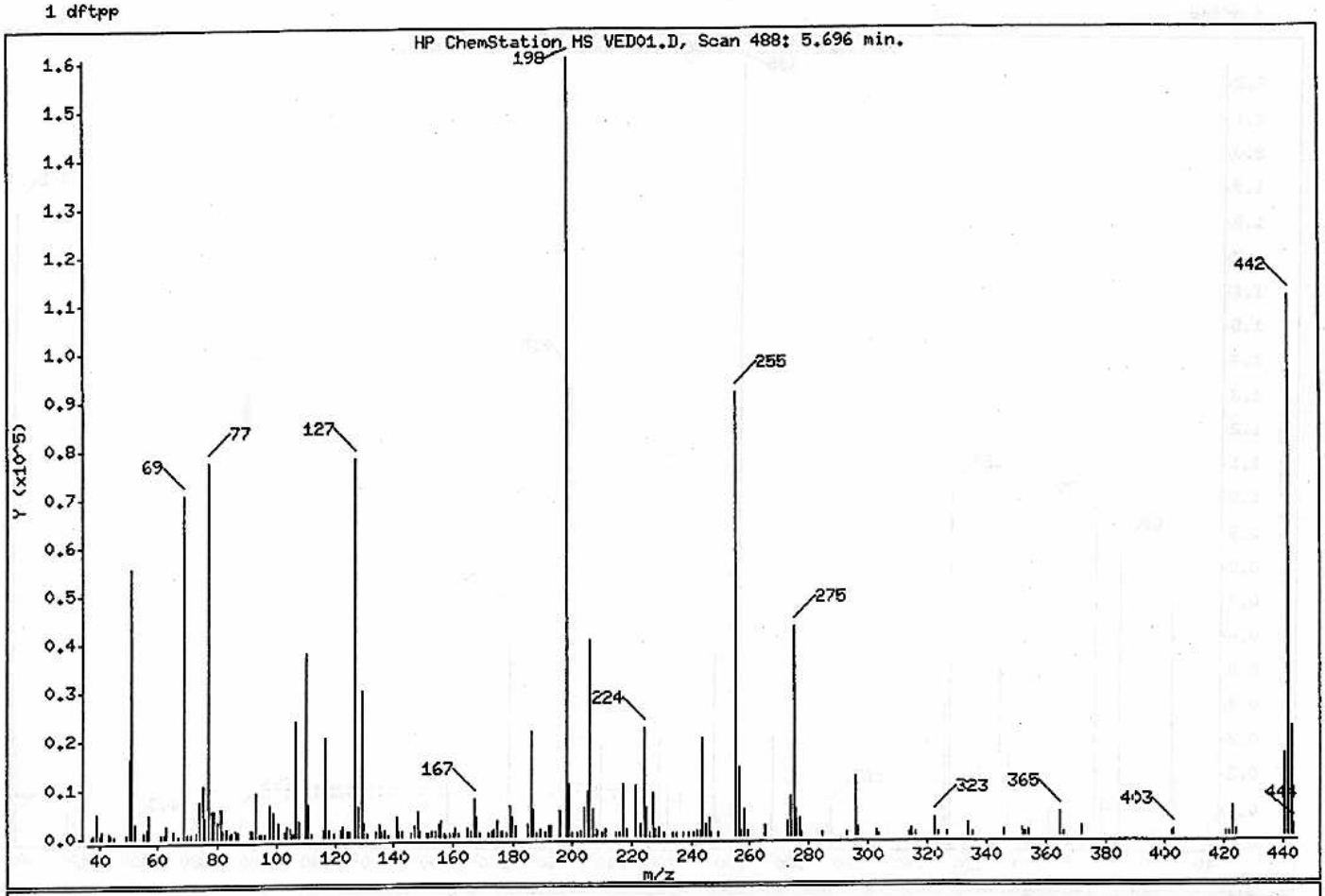
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.66
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	43.93
70	Less than 2.00% of mass 69	0.50 (1.13)
127	40.00 - 60.00% of mass 198	48.72
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	26.80
365	Greater than 1.00% of mass 198	3.06
441	Present, but less than mass 443	10.34
442	40.00 - 99.99% of mass 198	69.03
443	17.00 - 23.00% of mass 442	13.77 (19.95)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051305.b\VED08.D

Date : 13-MAY-2005 15:13

Client ID: dftpp tune std

Instrument: MSBNA03.i

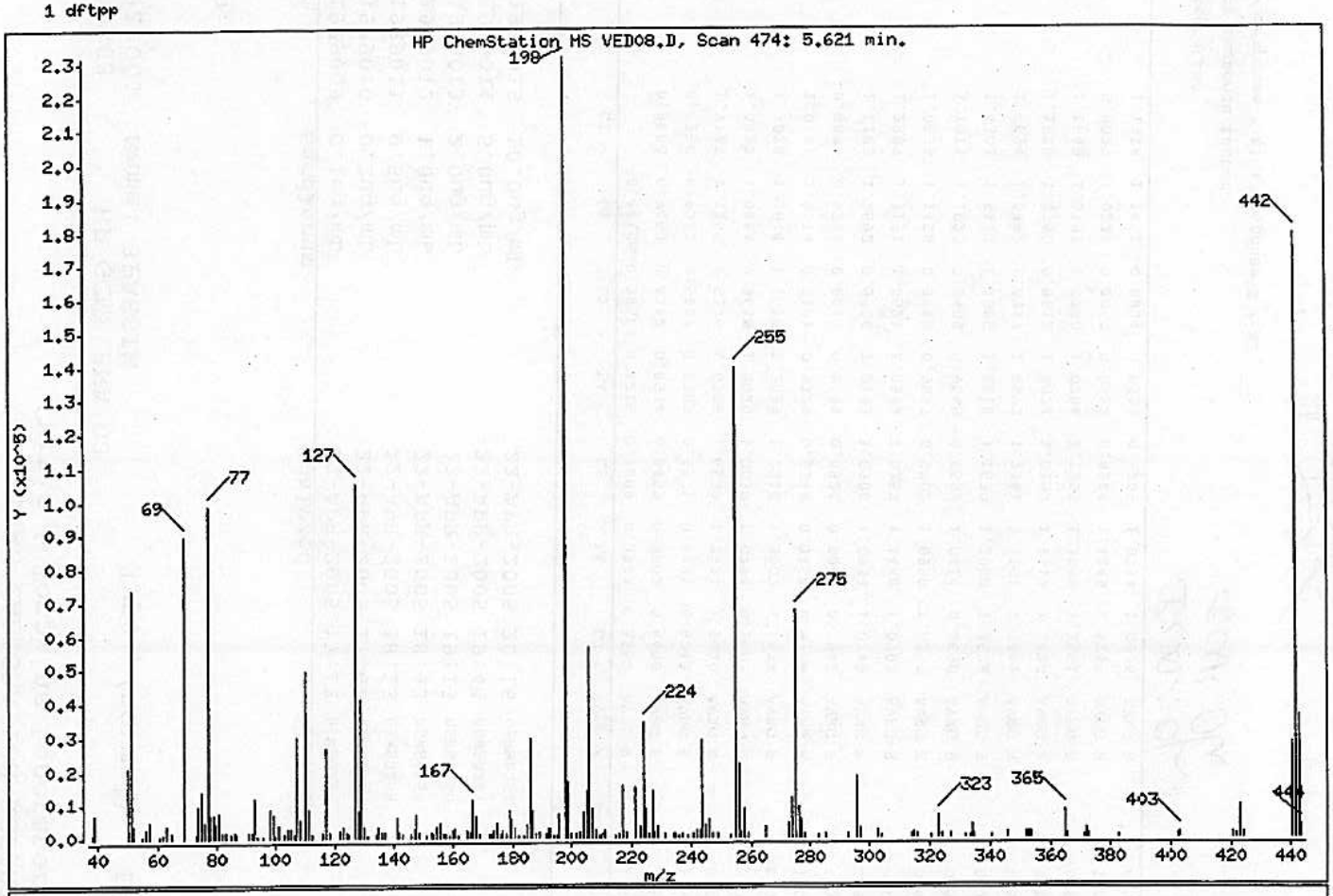
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	31.85
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	38.73
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	45.42
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.06
275	10.00 - 30.00% of mass 198	29.01
365	Greater than 1.00% of mass 198	3.40
441	Present, but less than mass 443	12.26
442	40.00 - 99.99% of mass 198	77.44
443	17.00 - 23.00% of mass 442	15.64 (20.20)

BNA05 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

176

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: OK
BCV: OK

4/25/05

4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

177

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : PAHDIOX IDF : 1.0
Seqnum : 525191029002 Filename : vec02 Injected : 12-MAY-2005 16:09
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4602	1.000000	1.157000	ng	16	30	0.0500	m
Naphthalene	0.8875	0.9943	1.000000	1.120300	ng	12	30	0.0500	
2-Methylnaphthalene	0.6056	0.7007	1.000000	1.157000	ng	16	30	0.0500	
Acenaphthylene	1.6578	1.7704	1.000000	1.067900	ng	7	30	0.0500	
Acenaphthene	1.0255	1.1609	1.000000	1.132000	ng	13	20	0.0500	
Fluorene	1.2395	1.3767	1.000000	1.110700	ng	11	30	0.0500	
Phenanthrene	0.9650	1.0773	1.000000	1.116300	ng	12	30	0.0500	
Anthracene	0.8558	0.9029	1.000000	1.055000	ng	6	30	0.0500	
Fluoranthene	1.0752	1.1348	1.000000	1.055400	ng	6	20	0.0500	
Pyrene	1.1306	1.2184	1.000000	1.077600	ng	8	30	0.0500	
Benzo(a)anthracene	1.0288	1.0375	1.000000	1.008400	ng	1	30	0.0500	
Chrysene	1.0217	1.1412	1.000000	1.117000	ng	12	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.5201	1.000000	1.148100	ng	15	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.8357	1.000000	1.022900	ng	2	30	0.0500	
Benzo(a)pyrene	1.1063	1.0924	1.000000	0.987400	ng	-1	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4238	1.000000	1.178600	ng	18	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.1944	1.000000	1.241600	ng	24	30	0.0500	!c+
Benzo(g,h,i)perylene	1.0276	1.2512	1.000000	1.217600	ng	22	30	0.0500	!c+
Nitrobenzene-d5	0.2512	0.2730	1.000000	1.086700	ng	9	30	0.0500	
2-Fluorobiphenyl	1.3678	1.5717	1.000000	1.149100	ng	15	30	0.0500	
Terphenyl-d14	0.9054	0.9926	1.000000	1.096300	ng	10	30	0.0500	

5/13/05

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525192075002 Filename : ved02 Injected : 13-MAY-2005 09:38
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: 05WS0258

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3517	0.500000	0.442000	ng	-12	30	0.0500	m
Naphthalene	0.8875	0.9991	0.500000	0.562800	ng	13	30	0.0500	
2-Methylnaphthalene	0.6056	0.6578	0.500000	0.543100	ng	9	30	0.0500	
Acenaphthylene	1.6578	1.6356	0.500000	0.493300	ng	-1	30	0.0500	
Acenaphthene	1.0255	0.9786	0.500000	0.477100	ng	-5	20	0.0500	
Fluorene	1.2395	1.2099	0.500000	0.488100	ng	-2	30	0.0500	
Phenanthrene	0.9650	0.8886	0.500000	0.460400	ng	-8	30	0.0500	
Anthracene	0.8558	0.8323	0.500000	0.486300	ng	-3	30	0.0500	
Fluoranthene	1.0752	1.0182	0.500000	0.473500	ng	-5	20	0.0500	
Pyrene	1.1306	1.0614	0.500000	0.469400	ng	-6	30	0.0500	
Benzo(a)anthracene	1.0288	0.9930	0.500000	0.482600	ng	-3	30	0.0500	
Chrysene	1.0217	0.9174	0.500000	0.449000	ng	-10	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.5432	0.500000	0.582800	ng	17	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.5382	0.500000	0.428500	ng	-14	30	0.0500	
Benzo(a)pyrene	1.1063	0.9672	0.500000	0.437100	ng	-13	20	0.0500	m
Indeno(1,2,3-cd)pyrene	1.2081	1.3771	0.500000	0.569900	ng	14	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.1141	0.500000	0.579100	ng	16	30	0.0500	m
Benzo(g,h,i)perylene	1.0276	1.0670	0.500000	0.519200	ng	4	30	0.0500	m
Nitrobenzene-d5	0.2512	0.3228	0.500000	0.642600	ng	29	30	0.0500	!c+
2-Fluorobiphenyl	1.3678	1.3122	0.500000	0.479700	ng	-4	30	0.0500	
Terphenyl-d14	0.9054	0.8364	0.500000	0.461900	ng	-8	30	0.0500	

5/13/05

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525192075010 Filename : ved10 Injected : 13-MAY-2005 16:19
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3891	1.000000	0.978300	ng	-2	30	0.0500	m
Naphthalene	0.8875	0.9758	1.000000	1.099400	ng	10	30	0.0500	
2-Methylnaphthalene	0.6056	0.6499	1.000000	1.073200	ng	7	30	0.0500	
Acenaphthylene	1.6578	1.9546	1.000000	1.179100	ng	18	30	0.0500	
Acenaphthene	1.0255	1.1694	1.000000	1.140300	ng	14	20	0.0500	
Fluorene	1.2395	1.4208	1.000000	1.146300	ng	15	30	0.0500	
Phenanthrene	0.9650	1.0529	1.000000	1.091000	ng	9	30	0.0500	
Anthracene	0.8558	0.9691	1.000000	1.132500	ng	13	30	0.0500	
Fluoranthene	1.0752	1.1602	1.000000	1.079100	ng	8	20	0.0500	
Pyrene	1.1306	1.2734	1.000000	1.126400	ng	13	30	0.0500	
Benzo(a)anthracene	1.0288	1.1613	1.000000	1.128800	ng	13	30	0.0500	
Chrysene	1.0217	1.1336	1.000000	1.109500	ng	11	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3518	1.000000	1.021000	ng	2	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.6595	1.000000	0.924700	ng	-8	30	0.0500	
Benzo(a)pyrene	1.1063	1.1692	1.000000	1.056800	ng	6	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3139	1.000000	1.087600	ng	9	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0575	1.000000	1.099200	ng	10	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.0574	1.000000	1.029000	ng	3	30	0.0500	
Nitrobenzene-d5	0.2512	0.3669	1.000000	1.460800	ng	46	30	0.0500	c+ m
2-Fluorobiphenyl	1.3678	1.5663	1.000000	1.145100	ng	15	30	0.0500	
Terphenyl-d14	0.9054	1.0492	1.000000	1.158900	ng	16	30	0.0500	

5/16/05

+=high bias c=CCV m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 12-MAY-2005
Sequence: 525191029 (vec)
Instrument ID: MSBNA03

CCV Filename: vec02
Date Analyzed: 12-MAY-2005
Time Analyzed: 16:09

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24686	6.85	99117	8.52	48941	11.08	92391	13.29	88362	17.15	75514	18.93
LOWER LIMIT	12343	6.35	49559	8.02	24471	10.58	46196	12.79	44181	16.65	37757	18.43
UPPER LIMIT	49372	7.35	198234	9.02	97882	11.58	184782	13.79	176724	17.65	151028	19.43

TYPE	SAMPLE	#											
CCV	PAHDIOX	002	24686	6.85	99117	8.52	48941	11.08	92391	13.29	88362	17.15	75514	18.93
BLANK	QC293592	003	22966	6.85	102584	8.52	50536	11.08	96943	13.29	86957	17.15	76165	18.93
LCS	QC293593	004	23362	6.85	105809	8.52	51415	11.08	101165	13.29	94298	17.15	81732	18.93
MSS	179384-001	005	21925	6.85	100604	8.52	48855	11.08	95270	13.29	85899	17.15	74922	18.93
MS	QC293594	006	23634	6.85	105102	8.52	53175	11.08	102870	13.29	96287	17.15	86119	18.93
MSD	QC293595	007	24656	6.85	113040	8.52	55047	11.08	107605	13.29	101626	17.15	93706	18.93
SAMPLE	179266-003	008	24281	6.85	110159	8.52	55360	11.08	110346	13.29	94547	17.15	87748	18.93
SAMPLE	179266-006	009	25340	6.85	110943	8.52	58515	11.08	114247	13.29	94051	17.15	77668	18.93
SAMPLE	179266-002	010	25282	6.85	112020	8.52	55587	11.08	102688	13.29	77637	17.15	68715	18.93
SAMPLE	179413-002	011	24151	6.85	109204	8.52	56950	11.08	95604	13.29	79387	17.15	69697	18.93
SAMPLE	179266-001	012	23869	6.85	108422	8.52	55222	11.08	105510	13.29	63776	17.16	38088	18.94
SAMPLE	179266-007	013	24773	6.85	111146	8.52	57548	11.08	106703	13.29	49039	17.18	13525*	19.00
SAMPLE	179266-004	014	25154	6.85	107370	8.52	59622	11.09	115823	13.29	68193	17.16	28040*	18.94

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-MAY-2005
Sequence: 525192075 (ved)
Instrument ID: MSBNA03

CCV Filename: ved02
Date Analyzed: 13-MAY-2005
Time Analyzed: 09:38

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	29034	6.80	107523	8.47	64678	11.03	127164	13.25	126788	17.11	84589	18.89
LOWER LIMIT	14517	6.30	53762	7.97	32339	10.53	63582	12.75	63394	16.61	42295	18.40
UPPER LIMIT	58068	7.30	215046	8.97	129356	11.53	254328	13.75	253576	17.61	169178	19.40

TYPE	SAMPLE	#										
CCV		002	29034	6.80	107523	8.47	64678	11.03	127164	13.25	126788	17.11	84589	18.90
BLANK	QC293578	003	23642	6.80	95591	8.49	52470	11.04	104498	13.25	99770	17.11	89676	18.89
BS	QC293579	004	24524	6.80	97482	8.47	54212	11.03	109297	13.25	103971	17.11	94983	18.88
BSD	QC293580	005	23583	6.81	92993	8.49	52434	11.03	104863	13.25	98544	17.11	90264	18.88
SAMPLE	179413-001	006	23839	6.80	93710	8.49	53019	11.03	105128	13.25	98682	17.11	88275	18.88
SAMPLE	179266-006	007	22888	6.81	93311	8.49	53183	11.03	105950	13.25	87146	17.11	55040	18.90

183

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-MAY-2005
Sequence: 525192075 (ved)
Instrument ID: MSBNA03

CCV Filename: ved10
Date Analyzed: 13-MAY-2005
Time Analyzed: 16:19

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	23989	6.75	94260	8.42	48951	10.97	94612	13.18	87756	17.04	78613	18.81
LOWER LIMIT	11995	6.25	47130	7.92	24476	10.47	47306	12.68	43878	16.54	39307	18.31
UPPER LIMIT	47978	7.25	188520	8.92	97902	11.47	189224	13.68	175512	17.54	157226	19.31

TYPE	SAMPLE	#										
CCV		010	23989	6.75	94260	8.42	48951	10.97	94612	13.18	87756	17.04	78613	18.81
SAMPLE	179266-006	011	22040	6.75	89551	8.42	50684	10.96	101769	13.18	81005	17.04	62682	18.83
SAMPLE	179266-001	012	22878	6.75	92064	8.42	51751	10.96	99478	13.17	62018	17.04	45352	18.83
SAMPLE	179266-007	013	22905	6.75	92662	8.42	52808	10.96	98813	13.18	48340	17.07	16070*	18.88
SAMPLE	179266-004	014	22156	6.75	98440	8.42	52786	10.97	102171	13.18	61544	17.05	28866*	18.84

184

* = Outside QC Limits

VSNA03 8270 SIM CALIBRATION

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	185
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/25/05

Page 1 of 1

4/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525191029 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 12-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vec01	TUN	NP NL			12-MAY-2005 15:49	1.0	1.0				1	
002	vec02	CCV	PAHDIOX			12-MAY-2005 16:09	1.0	1.0			1	2	
003	vec03	BLANK	QC293592	101977	Soil	12-MAY-2005 20:07	1.0	0.03327			1	3	
004	vec04	LCS	QC293593	101977	Soil	12-MAY-2005 20:38	1.0	0.03326			1	3	
005	vec05	MSS	179384-001	101977	Soil	12-MAY-2005 21:10	1.0	0.03303			1	3	
006	vec06	MS	QC293594	101977	Soil	12-MAY-2005 21:42	1.0	0.03296			1	3	
007	vec07	MSD	QC293595	101977	Soil	12-MAY-2005 22:13	1.0	0.03293			1	3	
008	vec08	SAMPLE	179266-003	101977	Soil	12-MAY-2005 22:44	1.0	0.03331			1	3	
009	vec09	SAMPLE	179266-006	101977	Soil	12-MAY-2005 23:16	1.0	0.03301	2		1	3	
010	vec10	SAMPLE	179266-002	101977	Soil	12-MAY-2005 23:47	1.0	0.03317	1		1	3	
011	vec11	SAMPLE	179413-002	101977	Soil	13-MAY-2005 00:19	1.0	0.03312			1	3	
012	vec12	SAMPLE	179266-001	101977	Soil	13-MAY-2005 00:51	2.0	0.03327	2	1	1	3	
013	vec13	SAMPLE	179266-007	101977	Soil	13-MAY-2005 01:22	1.0	0.03305	2		1	3	
014	vec14	SAMPLE	179266-004	101977	Soil	13-MAY-2005 01:54	1.0	0.03308	2		1	3	
015	vec15	X	ENDBLANK			13-MAY-2005 02:19	1.0						
016	vec16	X	ENDBLANK			13-MAY-2005 02:30	1.0						
017	vec17	X	ENDBLANK			13-MAY-2005 02:41	1.0						
018	vec18	X	ENDBLANK			13-MAY-2005 02:51	1.0						
019	vec19	X	ENDBLANK			13-MAY-2005 03:02	1.0						
020	vec20	X	ENDBLANK			13-MAY-2005 03:13	1.0						
021	vec21	X	ENDBLANK			13-MAY-2005 03:24	1.0						

186

CCV: OK
- Dibenz(a,h)anthracene ↑; Benzo(ghi)perylene ↑ but monthly matrix

ICAL: OK
ICV: OK

Stds used: 1=S513 2=S490 3=05WS0254

Analyst: _____ Date: 5/13/05 ✓ LH 5/13/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525192075 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 13-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	ved01	TUN	NP NL			13-MAY-2005 09:15	1.0	1.0				1	
002	ved02	CCV				13-MAY-2005 09:38	1.0	1.0			1	2	
003	ved03	BLANK	QC293578	101973	Water	13-MAY-2005 11:56	1.0	0.001		1	1	3	
004	ved04	BS	QC293579	101973	Water	13-MAY-2005 12:27	1.0	0.001			1	3	
005	ved05	BSD	QC293580	101973	Water	13-MAY-2005 12:58	1.0	0.001		1	1	3	
006	ved06	SAMPLE	179413-001	101973	Water	13-MAY-2005 13:29	1.0	0.0009524		1	1	3	
007	ved07	SAMPLE	179266-006	101977	Soil	13-MAY-2005 14:00	1.0	0.03301		1	1	3	
008	ved08	TUN	NP NL			13-MAY-2005 15:13	1.0	1.0				1	
009	ved09	CCV				13-MAY-2005 15:32	1.0	1.0	1		1	2	cc-
010	ved10	CCV				13-MAY-2005 16:19	1.0	1.0			1	4	
011	ved11	SAMPLE	179266-006	101977	Soil	13-MAY-2005 16:50	1.0	0.03301		1	1	3	
012	ved12	SAMPLE	179266-001	101977	Soil	13-MAY-2005 17:21	2.0	0.03327		2	1	3	
013	ved13	SAMPLE	179266-007	101977	Soil	13-MAY-2005 17:53	1.0	0.03305		1	1	3	
014	ved14	SAMPLE	179266-004	101977	Soil	13-MAY-2005 18:24	1.0	0.03308		1	1	3	

187

CCV: ved02: Oh
- Nitrobenzene-d5 ↑ Curls necessary limits
ved10: Nitrobenzene-d5 ↑ Cals ok

BCKL: Oh
CCV: Oh

JW 5/16/05

Stds used: 1=05WS0188 2=05WS0258 3=05WS0254 4=S490
Flags used: -=low bias cc=CCV CCC failure

Analyst: _____ Date: 5/16/05

Curtis & Tompkins Laboratories Sample Preparation Summary 12-MAY-2005 17:59

Batch Number : 101977
Date Extracted: 12-MAY-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S369F
Spike #2 ID : S212B
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.f.	Clean D.f.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179266-001			Mactec, Inc.	Soil	30.06	g	1	0.033267	1		1	0		8270-SIM		
179266-002			Mactec, Inc.	Soil	30.15	g	1	0.033167	1		1	0		8270-SIM		
179266-003			Mactec, Inc.	Soil	30.02	g	1	0.033311	1		1	0		8270-SIM		
179266-004			Mactec, Inc.	Soil	30.23	g	1	0.033080	1		1	0		8270-SIM		
179266-006			Mactec, Inc.	Soil	30.29	g	1	0.033014	1		1	0		8270-SIM		
179266-007			Mactec, Inc.	Soil	30.26	g	1	0.033047	1		1	0		8270-SIM		
179384-001			Mactec, Inc.	Soil	30.28	g	1	0.033025	1		1	0		8270-SIM		mss
179413-002			Montezuma Wetlands LLC	Soil	30.19	g	1	0.033124	1		1	0		8270-SIM		
QC293592	MB			Soil	30.06	g	1	0.033267	1		1	0		8270-SIM		
QC293593	LCS			Soil	30.07	g	1	0.033256	1		1	1		8270-SIM		
QC293594	MS	of 179384-001		Soil	30.34	g	1	0.032960	1		1	1		8270-SIM		
QC293595	MSD	of 179384-001		Soil	30.37	g	1	0.032927	1		1	1		8270-SIM		

188

Prep Chemist: _____ Reviewed By: Jennifer L... Date: 5/12/05

Relinquished By: _____ Received By: _____ Date: 5/13/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 28 of 100

LIMS Batch No: 101977 Extraction Method:
LIMS Analysis 8270-SIM ☑ EPA 3550b Sonication
Extracted by: SLC ☐ EPA 3540c Soxhlet
Date Extracted: 05/12/05 ☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
MB QC 293592	30.06	1.0		
LCS 3	30.07			
MS 4	30.34			179384-001
MSD 5	30.37			↓
179266-001	30.06			
-002	30.15			
-003	30.52			
-004	30.23			
-006	30.29			
-007	30.26			
179384-001	30.28			MSS
179413-002	30.19			

SLC 05/12/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM 440 28452	SLC 05/12/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM 41303507	
1.0 mL of surrogate solution was added to all samples	S369F	
1.0 mL of matrix spiking solution was added to all spikes	32128	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM 45071	
Acetone	EM 44233	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM 44363507 / EM 44139163	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume TOCAN	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

05/12/05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

Jennifer Dell 5/12/05
Reviewed by / Date

Project SOIL ALIQUOT BK 2/35

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179372-001A	15.22	8081	
-002	15.03		
-003	15.17		
-004	15.15		
-005	15.15		
-006	15.20		
-007	15.15		
-008	15.15		MSS 179372-008A
-MS	15.20		EM4402845 2
-MSD	15.01		
-LCS	15.00		
-MB	15.10		
-009A	15.23		
179307-009A	15.07	PCB	MSS 179307-009A
-MS	15.17		EM4402845 2
-MSD	15.01		
-LCS	15.00		
-MB	15.10		
179382-001A	30.10	8270	
179382-001A	5000	TEHM	
179384-001A	15.24	PCB	
179384-001A	15.22	8081	
179384-001A	30.28	8270-SIM	MSS 179384-001A
-MS	30.34		EM4402845 2
-MSD	30.37		
-LCS	30.07		
-MB	30.06		

Continued on Page

Signed — Date 5/11/05 — 190 Read and Understood By — Signed — Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179266-001A	30.06	8270-SIM	MS
-MS	30.38		179266-001A
-MSD	30.19		↓
-~~OPR~~ LCS	30.11		EM44028452
-MB	30.29		↓
-002A	30.15		
-003A	30.02		
-004	30.23		
-006	30.29		
-007	30.26		
179266-001A	15.20	8081	
-002	15.03		MS
-MS	15.16		179266-002A
-MSD	15.24		↓
-LCS	15.21		~~EM44028458~~ EM44028451
-003A	15.23		
-004	15.17		
-006	15.12		
-007	15.07		
-MB	15.01		EM44028452
179301-008	60.20	TEH	COMP 001A, 002A, 003A, 004A, 005A, 006A, 007
179293-001A	50.27	TEH	MS
-MS	50.06		179293-001A
-MSD	50.47		↓
-LCS	50.41		EM44028452
-MB	50.42		↓
-002A	50.42		
-003	50.43		

Continued on Page

5/9/05

Signed Date

Read and Understood By

Signed Date

Curtis & Tompkins, Ltd.

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP10~~6 (6.0)~~ 9 (6.0)	Basis:	dry
Lab ID:	179266-001	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 13%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.27	0.26	0.063	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Arsenic	6.6	0.26	0.087	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Barium	150	2.6	0.27	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Beryllium	0.48	0.26	0.055	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Cadmium	0.31	0.26	0.012	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Chromium	63	2.6	0.55	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	13	0.26	0.0037	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Copper	31	0.26	0.10	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Lead	120	2.6	0.087	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Mercury	0.18	0.017	0.0033	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.51	0.26	0.0055	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Nickel	64	3.1	3.1	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	0.35	0.26	0.10	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Silver	0.084 J	0.26	0.0034	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Thallium	0.073 J	0.26	0.013	5.000	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Vanadium	51	2.6	1.5	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Zinc	140	11	0.59	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP10~~6 (3-5)~~ 9 (3,5)	Basis:	dry
Lab ID:	179266-002	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 9%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.084 J	0.23	0.056	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Arsenic	1.1	0.23	0.077	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Barium	39	0.23	0.023	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Beryllium	0.18 J	0.23	0.049	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Cadmium	0.068 J	0.23	0.010	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Chromium	53	2.3	0.49	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	8.4	0.23	0.0033	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Copper	5.9	0.23	0.090	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Lead	4.1	0.23	0.0077	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Mercury	0.048	0.019	0.0036	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.26	0.23	0.0049	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Nickel	51	2.8	2.8	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	0.11 J	0.23	0.090	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Silver	0.025 J	0.23	0.0030	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Thallium	0.044 J	0.23	0.012	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Vanadium	35	0.23	0.14	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Zinc	35	0.93	0.052	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP10~~6 (2.5)~~ 9(2.5)	Basis:	dry
Lab ID:	179266-003	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 13%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.34	0.28	0.068	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Arsenic	2.0	0.28	0.093	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Barium	54	0.28	0.028	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Beryllium	0.17 J	0.28	0.059	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Cadmium	0.17 J	0.28	0.012	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Chromium	250	2.8	0.59	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	35	0.28	0.0039	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Copper	14	0.28	0.11	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Lead	6.6	0.28	0.0093	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Mercury	0.061	0.020	0.0038	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.45	0.28	0.0059	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Nickel	300	3.3	3.3	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	0.25 J	0.28	0.11	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Silver	0.080 J	0.28	0.0036	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Thallium	0.050 J	0.28	0.014	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Vanadium	42	0.28	0.17	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Zinc	77	11	0.63	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	DUP(050405)	Basis:	dry
Lab ID:	179266-004	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 11%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.17 J	0.25	0.061	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Arsenic	2.6	0.25	0.083	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Barium	120	2.5	0.25	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Beryllium	0.37	0.25	0.053	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Cadmium	0.23 J	0.25	0.011	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Chromium	37	0.25	0.053	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Cobalt	11	0.25	0.0035	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Copper	37	0.25	0.098	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Lead	45	2.5	0.083	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Mercury	0.50	0.017	0.0033	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.30	0.25	0.0053	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Nickel	38	0.30	0.30	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Selenium	0.24 J	0.25	0.098	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Silver	0.039 J	0.25	0.0033	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Thallium	0.059 J	0.25	0.013	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Vanadium	34	0.25	0.15	5.000	101858	05/10/05	05/13/05	EPA 3050B	EPA 6020
Zinc	88	10	0.57	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP107(7.0)	Basis:	dry
Lab ID:	179266-005	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 13%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.097 J	0.27	0.065	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Arsenic	3.3	0.27	0.089	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Barium	67	2.7	0.27	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Beryllium	0.31	0.27	0.056	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cadmium	0.078 J	0.27	0.012	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Chromium	110	2.7	0.56	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	12	0.27	0.0038	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Copper	11	0.27	0.10	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Lead	5.5	0.27	0.0088	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Mercury	0.26	0.025	0.0048	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.41	0.27	0.0056	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Nickel	100	3.2	3.2	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	0.37	0.27	0.10	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Silver	0.046 J	0.27	0.0035	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Thallium	0.062 J	0.27	0.014	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Vanadium	50	2.7	1.6	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Zinc	34	1.1	0.060	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	SOILCOMP	Basis:	dry
Lab ID:	179266-006	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 14%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.18 J	0.26	0.063	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Arsenic	4.3	0.26	0.087	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Barium	110	2.6	0.27	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Beryllium	0.43	0.26	0.055	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cadmium	0.098 J	0.26	0.012	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Chromium	56	2.6	0.55	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	14	0.26	0.0037	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Copper	27	0.26	0.10	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Lead	12	0.26	0.0087	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Mercury	0.080	0.019	0.0037	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	0.36	0.26	0.0055	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Nickel	60	3.1	3.1	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	0.31	0.26	0.10	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Silver	0.033 J	0.26	0.0034	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Thallium	0.071 J	0.26	0.013	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Vanadium	49	0.26	0.15	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Zinc	42	1.1	0.059	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179266	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1TP108(5.0)	Basis:	dry
Lab ID:	179266-007	Sampled:	05/05/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg		

Moisture: 27%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.0	0.34	0.082	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Arsenic	6.7	0.34	0.11	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Barium	2,500	17	1.7	250.0	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020
Beryllium	0.20 J	0.34	0.072	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cadmium	4.5	0.34	0.015	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Chromium	64	3.4	0.72	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Cobalt	12	0.34	0.0048	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Copper	370	3.4	1.3	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Lead	420	3.4	0.11	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Mercury	0.56	0.028	0.0054	1.000	101939	05/12/05	05/12/05	METHOD	EPA 7471A
Molybdenum	14	0.34	0.0072	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Nickel	87	4.1	4.1	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Selenium	ND	3.4	1.3	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Silver	140	3.4	0.044	50.00	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Thallium	0.036 J	0.34	0.017	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Vanadium	39	0.34	0.20	5.000	101858	05/10/05	05/14/05	EPA 3050B	EPA 6020
Zinc	930	68	3.8	250.0	101858	05/10/05	05/16/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC293127	Batch#:	101858
Matrix:	Soil	Prepared:	05/10/05
Units:	mg/Kg	Analyzed:	05/13/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	0.19 J	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293429	Batch#:	101939
Matrix:	Soil	Prepared:	05/12/05
Units:	mg/Kg	Analyzed:	05/12/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	101858
Units:	mg/Kg	Prepared:	05/10/05
Basis:	as received	Analyzed:	05/13/05
Diln Fac:	5.000		

Type: BS Lab ID: QC293128

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	24.16	97	80-120
Arsenic	25.00	25.14	101	80-120
Barium	25.00	24.07	96	80-120
Beryllium	25.00	24.53	98	80-120
Cadmium	25.00	25.55	102	80-120
Chromium	25.00	25.27	101	80-120
Cobalt	25.00	25.68	103	80-120
Copper	25.00	25.63	103	80-120
Lead	25.00	24.60	98	80-120
Molybdenum	25.00	24.48	98	80-120
Nickel	25.00	25.52	102	80-125
Selenium	25.00	24.90	100	80-120
Silver	25.00	24.85	99	80-120
Thallium	25.00	24.30	97	66-120
Vanadium	25.00	25.59	102	80-120
Zinc	25.00	26.31	105	80-120

Type: BSD Lab ID: QC293129

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.57	94	80-120	2	20
Arsenic	25.00	24.63	99	80-120	2	20
Barium	25.00	23.30	93	80-120	3	20
Beryllium	25.00	23.90	96	80-120	3	20
Cadmium	25.00	24.76	99	80-120	3	20
Chromium	25.00	24.40	98	80-120	4	20
Cobalt	25.00	24.93	100	80-120	3	20
Copper	25.00	25.82	103	80-120	1	20
Lead	25.00	24.07	96	80-120	2	20
Molybdenum	25.00	23.83	95	80-120	3	20
Nickel	25.00	24.94	100	80-125	2	20
Selenium	25.00	24.53	98	80-120	1	20
Silver	25.00	24.14	97	80-120	3	20
Thallium	25.00	23.57	94	66-120	3	20
Vanadium	25.00	24.77	99	80-120	3	20
Zinc	25.00	26.08	104	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101939
Units:	mg/Kg	Prepared:	05/12/05
Basis:	as received	Analyzed:	05/12/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC293430	0.5000	0.5110	102	80-120		
BSD	QC293431	0.5000	0.5060	101	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1TP10~~6(6.0)~~ 9(6.0)	Batch#:	101858
MSS Lab ID:	179266-001	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/10/05
Basis:	dry		

Type: MS Moisture: 13%
Lab ID: QC293130

Analyte	MSS Result	Spiked	Result	%REC	Limits	Dil'n Fac	Analyzed
Antimony	0.2742	24.15	7.640	31	28-120	5.000	05/13/05
Arsenic	6.591	24.15	28.06	89	70-120	5.000	05/13/05
Barium	146.7	24.15	155.6	37 NM	46-165	50.00	05/14/05
Beryllium	0.4767	24.15	24.23	98	72-120	5.000	05/13/05
Cadmium	0.3074	24.15	24.53	100	74-120	5.000	05/13/05
Chromium	63.01	24.15	74.52	48	45-160	50.00	05/14/05
Cobalt	13.29	24.15	40.05	111	62-136	5.000	05/13/05
Copper	31.13	24.15	50.71	81	47-164	50.00	05/14/05
Lead	124.5	24.15	92.87	-131 NM	60-140	50.00	05/14/05
Molybdenum	0.5148	24.15	21.26	86	74-120	5.000	05/13/05
Nickel	63.85	24.15	78.24	60	51-172	50.00	05/14/05
Selenium	0.3469	24.15	19.00	77	66-120	50.00	05/14/05
Silver	0.08447	24.15	23.40	97	74-120	5.000	05/13/05
Thallium	0.07324	24.15	23.74	98	57-120	5.000	05/13/05
Vanadium	51.17	24.15	72.68	89	19-177	50.00	05/14/05
Zinc	142.5	24.15	132.8	-40 NM	39-166	50.00	05/14/05

Type: MSD Moisture: 13%
Lab ID: QC293131

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dil'n Fac	Analyzed
Antimony	26.36	10.81	40	28-120	26 *	24	5.000	05/13/05
Arsenic	26.36	27.96	81	70-120	7	20	5.000	05/13/05
Barium	26.36	105.5	-157 NM	46-165	40 *	23	50.00	05/14/05
Beryllium	26.36	27.73	103	72-120	5	20	5.000	05/13/05
Cadmium	26.36	28.03	105	74-120	5	20	5.000	05/13/05
Chromium	26.36	43.56	-74 *	45-160	55 *	29	50.00	05/14/05
Cobalt	26.36	38.18	94	62-136	11	20	5.000	05/13/05
Copper	26.36	56.73	97	47-164	7	21	50.00	05/14/05
Lead	26.36	57.05	-256 NM	60-140	49 *	24	50.00	05/14/05
Molybdenum	26.36	25.15	93	74-120	8	20	5.000	05/13/05
Nickel	26.36	44.12	-75 *	51-172	58 *	22	50.00	05/14/05
Selenium	26.36	22.13	83	66-120	7	20	50.00	05/14/05
Silver	26.36	26.82	101	74-120	5	20	5.000	05/13/05
Thallium	26.36	26.77	101	57-120	3	20	5.000	05/13/05
Vanadium	26.36	43.49	-29 *	19-177	53 *	30	50.00	05/14/05
Zinc	26.36	71.18	-271 NM	39-166	62 *	33	50.00	05/14/05

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

47.0

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BB1TP107(7.0)	Batch#:	101939
MSS Lab ID:	179266-005	Sampled:	05/04/05
Matrix:	Soil	Received:	05/05/05
Units:	mg/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC293432	0.2611	0.6114	0.6420	62 *	64-139	13%		
MSD	QC293433		0.6842	0.6856	62 *	64-139	13%	1	20

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1TP10~~6 (6-0)~~ 9(6,0)	Basis:	dry
Type:	Serial Dilution	Batch#:	101858
MSS Lab ID:	179266-001	Sampled:	05/04/05
Lab ID:	QC293132	Received:	05/05/05
Matrix:	Soil	Analyzed:	05/16/05
Units:	mg/Kg		

Moisture: 13%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.2742	0.2636	ND	1.318		10	25.00
Arsenic	6.591	0.2636	6.253	1.318	5	10	25.00
Barium	146.7	2.636	156.4	13.18	7	10	250.0
Beryllium	0.4767	0.2636	0.4878 J	1.318		10	25.00
Cadmium	0.3074	0.2636	0.2662 J	1.318		10	25.00
Chromium	63.01	2.636	69.55	6.591	10	10	250.0
Cobalt	13.29	0.2636	13.43	1.318	1	10	25.00
Copper	31.13	0.2636	32.14	1.318	3	10	25.00
Lead	124.5	2.636	135.2	13.18	9	10	250.0
Molybdenum	0.5148	0.2636	0.7545 J	1.318	47 *	10	25.00
Nickel	63.85	3.128	66.86	26.36		10	250.0
Selenium	0.3469	0.2636	ND	1.318		10	25.00
Silver	0.08447	0.2636	0.09327 J	1.318		10	25.00
Thallium	0.07324	0.2636	ND	1.318		10	25.00
Vanadium	51.17	2.636	56.68	13.18		10	250.0
Zinc	142.5	10.55	150.1	131.8	5	10	250.0

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	BB1TP107(7.0)	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	101939
MSS Lab ID:	179266-005	Sampled:	05/04/05
Lab ID:	QC293434	Received:	05/05/05
Matrix:	Soil	Analyzed:	05/12/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture	% Diff	Lim
0.2611	0.02499	0.2999	0.1249	13%	15 *	10

*= Value outside of QC limits; see narrative
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55196561018	Seqnum : 55196561021
Filename : e1611018	Filename : e1611021
IDF : 5.0	IDF : 5.0
PDF : 45.87	PDF : 45.87
Run type : MSS	Run type : PDS
Samplenum: 179266-001	Samplenum: QC293133
Matrix : Soil	Matrix : Soil
Batchnum : 101858	Batchnum : 101858
Inj : 16-MAY-2005 13:35	Inj : 16-MAY-2005 13:53
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	1.040	100.0	105.1	104	75-125	u
Arsenic	25.00	100.0	129.5	105	75-125	u
Barium	*** usable MSS data not found ***					
Beryllium	1.808	100.0	109.8	108	75-125	u
Cadmium	1.166	100.0	103.6	102	75-125	u
Calcium	12740	10000	22200	>LR	95 75-125	>LR y b*
Chromium	*** usable MSS data not found ***					
Cobalt	50.42	100.0	162.8	112	75-125	u
Copper	118.1	100.0	225.6	>LR	108 75-125	>LR b*
Iron	*** usable MSS data not found ***					
Lead	*** usable MSS data not found ***					
Magnesium	17280	10000	28580	>LR	113 75-125	>LR y b*
Manganese	*** usable MSS data not found ***					
Molybdenum	1.953	100.0	101.8	100	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	2542	10000	11740	92	75-125	
Selenium	1.316	100.0	105.4	104	75-125	u
Silver	0.3204	100.0	100.1	100	75-125	u
Sodium	532.6	10000	10040	95	75-125	
Thallium	0.2778	100.0	106.9	107	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	*** usable MSS data not found ***					

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Lithium	897509	876183	-2.38
Scandium	917167	1036999	13.07
Germanium	175975	165193	-6.13
Indium	934954	806656	-13.72
Bismuth	509269	400522	-21.35

>LR=overrange b=noncompliant u=use y=RL raised
Page 1 of 1

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05
Seqnum : 55192791045
Filename : e1321045
IDF : 50.0
PDF : 45.87
Run type : MSS
Samplenum: 179266-001
Matrix : Soil
Batchnum : 101858
Inj : 14-MAY-2005 01:21
Units : ug/L

Instid : MET05
Seqnum : 55196561022
Filename : e1611022
IDF : 50.0
PDF : 45.87
Run type : PDS
Samplenum: QC293133
Matrix : Soil
Batchnum : 101858
Inj : 16-MAY-2005 14:04

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	20.00	10.46	52*	75-125	
Arsenic	2.190	20.00	12.84	53*	75-125	
Barium	55.66	20.00	75.68	100	75-125	u
Beryllium	ND	20.00	10.77	54*	75-125	
Cadmium	0.05748	20.00	10.71	53*	75-125	
Calcium	1322	2000	2668	67*	75-125	y
Chromium	23.90	20.00	40.78	84	75-125	u y
Cobalt	4.462	20.00	16.87	62*	75-125	
Copper	11.85	20.00	24.32	62*	75-125	u
Iron	9804	2000	13250	172	75-125	: y
Lead	47.24	20.00	66.18	95	75-125	u
Magnesium	1821	2000	3608	89	75-125	y
Manganese	173.9	20.00	225.0 >LR	255	75-125	: >LR u
Molybdenum	0.09894	20.00	10.54	52*	75-125	
Nickel	24.22	20.00	39.52	77	75-125	u
Potassium	273.0	2000	1317	52*	75-125	
Selenium	ND	20.00	10.92	55*	75-125	
Silver	0.02092	20.00	10.43	52*	75-125	
Sodium	72.12	2000	1043	49*	75-125	
Thallium	ND	20.00	10.12	51*	75-125	
Vanadium	19.41	20.00	35.44	80	75-125	u
Zinc	54.06	20.00	73.44	97	75-125	u

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Lithium	897509	884828	-1.41
Scandium	917167	867012	-5.47
Germanium	175975	160283	-8.92
Indium	934954	805576	-13.84
Bismuth	509269	416702	-18.18

:=recovery not meaningful >LR=overrange u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179266 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179266-001	MET04	05/12/05 11:15	1.0										+							
179266-001	MET05	05/13/05 22:50	5.0																	
179266-001	MET05	05/14/05 01:21	50.0			+			+			+			+				+	+
179266-001	MET05	05/16/05 13:35	5.0	+	+		+	+		+	+			+		+	+	+		
179266-002	MET04	05/12/05 11:18	1.0										+							
179266-002	MET05	05/13/05 23:43	5.0	+	+	+	+	+		+	+	+		+		+	+	+	+	+
179266-002	MET05	05/14/05 01:45	50.0						+						+					
179266-003	MET04	05/12/05 11:21	1.0										+							
179266-003	MET05	05/13/05 23:48	5.0	+	+	+	+	+		+	+	+		+		+	+	+	+	
179266-003	MET05	05/14/05 01:51	50.0						+						+					+
179266-004	MET04	05/12/05 11:23	1.0										+							
179266-004	MET05	05/13/05 23:54	5.0	+	+		+	+	+	+	+			+	+	+	+	+	+	
179266-004	MET05	05/14/05 01:57	50.0			+						+								+
179266-005	MET04	05/12/05 11:08	1.0										+							
179266-005	MET05	05/14/05 00:00	5.0	+	+		+	+		+	+	+		+		+	+	+		+
179266-005	MET05	05/14/05 02:26	50.0			+			+						+				+	
179266-006	MET04	05/12/05 11:31	1.0										+							
179266-006	MET05	05/14/05 00:06	5.0	+	+		+	+		+	+	+		+		+	+	+	+	+
179266-006	MET05	05/14/05 02:32	50.0			+			+						+					
179266-007	MET04	05/12/05 11:34	1.0										+							
179266-007	MET05	05/14/05 00:12	5.0	+	+		+	+		+				+				+	+	
179266-007	MET05	05/14/05 02:38	50.0						+		+	+			+	+	+			
179266-007	MET05	05/16/05 14:09	250.0			+														+
QC293127	MET05	05/13/05 22:33	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293128	MET05	05/13/05 22:39	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293129	MET05	05/13/05 22:45	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293130	MET05	05/13/05 23:02	5.0	+	+		+	+		+				+			+	+		
QC293130	MET05	05/14/05 01:27	50.0			+			+		+	+			+	+			+	+
QC293131	MET05	05/13/05 23:08	5.0	+	+		+	+		+				+			+	+		
QC293131	MET05	05/14/05 01:33	50.0			+			+		+	+			+	+			+	+
QC293132	MET05	05/16/05 13:41	25.0	+	+		+	+		+	+			+		+	+	+		
QC293132	MET05	05/16/05 13:47	250.0			+			+			+			+				+	+
QC293133	MET05	05/16/05 13:53	5.0	+	+		+	+		+				+		+	+	+		
QC293133	MET05	05/16/05 14:04	50.0			+			+		+	+			+				+	+

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179266 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
QC293429	MET04	05/12/05 10:59	1.0										+								
QC293430	MET04	05/12/05 11:02	1.0										+								
QC293431	MET04	05/12/05 11:05	1.0										+								
QC293432	MET04	05/12/05 11:10	1.0										+								
QC293433	MET04	05/12/05 11:12	1.0										+								
QC293434	MET04	05/12/05 12:15	5.0										+								
QC293435	MET04	05/12/05 12:20	1.0										+								

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55192791 Instrument: MET05 Agilent ICP-MS Begun: 13-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1321001	TUN	tune			13-MAY-2005 21:11	1.0	1.0				1	
003	e1321003	ICALBLK	std-blk			13-MAY-2005 21:22	1.0	1.0				2	
004	e1321004	ICAL	cs1			13-MAY-2005 21:27	1.0	1.0				3	
005	e1321005	ICAL	cs2			13-MAY-2005 21:32	1.0	1.0				4	
006	e1321006	ICAL	cs3			13-MAY-2005 21:37	1.0	1.0				5	
007	e1321007	ICAL	cs4			13-MAY-2005 21:43	1.0	1.0				6	
008	e1321008	ICAL	cs5			13-MAY-2005 21:48	1.0	1.0				7	
009	e1321009	ICAL	cs6			13-MAY-2005 21:53	1.0	1.0				8	
010	e1321010	ICV				13-MAY-2005 21:58	1.0	1.0			1	9 2	
012	e1321012	ICB				13-MAY-2005 22:10	1.0	1.0	1		1	2	
013	e1321013	ICSA				13-MAY-2005 22:15	1.0	1.0			1	10 2	7:CA=285200
014	e1321014	ICSAB				13-MAY-2005 22:21	1.0	1.0			1	11 2	11:CA=295300
016	e1321016	BLANK	QC293127	101858	Soil	13-MAY-2005 22:33	5.0	50.0			1	2	
017	e1321017	BS	QC293128	101858	Soil	13-MAY-2005 22:39	5.0	50.0			1	2	
018	e1321018	BSD	QC293129	101858	Soil	13-MAY-2005 22:45	5.0	50.0			1	2	
019	e1321019	MSS	179266-001	101858	Soil	13-MAY-2005 22:50	5.0	45.87	10		1	2	9:FE=103720
020	e1321020	X		101858	Soil	13-MAY-2005 22:56	25.0	45.87			1	2	1:AL=977.600
021	e1321021	MS	QC293130	101858	Soil	13-MAY-2005 23:02	5.0	42.02	3		1	2	12:FE=117760
022	e1321022	MSD	QC293131	101858	Soil	13-MAY-2005 23:08	5.0	45.87	1	3	1	2	9:FE=69040.0
023	e1321023	SAMPLE	179190-001	101858	Soil	13-MAY-2005 23:13	5.0	42.74	1		1	2	3:FE=25520.0
025	e1321025	CCV				13-MAY-2005 23:25	1.0	1.0			1	12 2	
026	e1321026	X	RINSE			13-MAY-2005 23:31	1.0					2	
027	e1321027	CCB				13-MAY-2005 23:37	1.0	1.0	1		1	2	
028	e1321028	SAMPLE	179266-002	101858	Soil	13-MAY-2005 23:43	5.0	42.37	2		1	2	5:FE=62860.0
029	e1321029	SAMPLE	179266-003	101858	Soil	13-MAY-2005 23:48	5.0	49.02	3		1	2	7:FE=91420.0
030	e1321030	SAMPLE	179266-004	101858	Soil	13-MAY-2005 23:54	5.0	45.05	3		1	2	6:FE=70520.0
031	e1321031	SAMPLE	179266-005	101858	Soil	14-MAY-2005 00:00	5.0	46.73	4		1	2	7:FE=92220.0
032	e1321032	SAMPLE	179266-006	101858	Soil	14-MAY-2005 00:06	5.0	45.45	3		1	2	6:FE=89580.0
033	e1321033	SAMPLE	179266-007	101858	Soil	14-MAY-2005 00:12	5.0	50.0	8		1	2	11:FE=83760.0
034	e1321034	SAMPLE	179307-003	101858	Soil	14-MAY-2005 00:17	5.0	49.50			1	2	3:FE=30440.0
035	e1321035	SAMPLE	179307-004	101858	Soil	14-MAY-2005 00:23	5.0	47.17	2		1	2	5:FE=61640.0

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21

Analyst: Mark Date: 5/16/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55192791 Instrument: MET05 Agilent ICP-MS Begun: 13-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
036	e1321036	SAMPLE	179307-006	101858	Soil	14-MAY-2005 00:29	5.0	44.64	4		1	2	8:FE=133560
037	e1321037	SAMPLE	179307-009	101858	Soil	14-MAY-2005 00:35	5.0	47.17	3		1	2	6:FE=31880.0
039	e1321039	CCV				14-MAY-2005 00:46	1.0	1.0			1	12 2	
040	e1321040	X	RINSE			14-MAY-2005 00:52	1.0					2	
041	e1321041	CCB				14-MAY-2005 00:58	1.0	1.0	1		1	2	
042	e1321042	SAMPLE	179307-011	101858	Soil	14-MAY-2005 01:04	5.0	45.87			1	2	3:FE=34300.0
043	e1321043	SAMPLE	179307-013	101858	Soil	14-MAY-2005 01:10	5.0	43.10	2		1	2	6:FE=82900.0
044	e1321044	SAMPLE	179307-014	101858	Soil	14-MAY-2005 01:15	5.0	47.17			1	2	3:FE=39480.0
045	e1321045	MSS	179266-001	101858	Soil	14-MAY-2005 01:21	50.0	45.87	1		1	2	1:AL=4366.00
046	e1321046	MS	QC293130	101858	Soil	14-MAY-2005 01:27	50.0	42.02		3	1	2	2:AL=4538.00
047	e1321047	MSD	QC293131	101858	Soil	14-MAY-2005 01:33	50.0	45.87		12	1	2	2:AL=1914.00
048	e1321048	SAMPLE	179190-001	101858	Soil	14-MAY-2005 01:39	50.0	42.74			1	2	1:AL=1073.40
049	e1321049	SAMPLE	179266-002	101858	Soil	14-MAY-2005 01:45	50.0	42.37			1	2	1:AL=2440.00
050	e1321050	SAMPLE	179266-003	101858	Soil	14-MAY-2005 01:51	50.0	49.02			1	2	1:AL=1697.40
051	e1321051	SAMPLE	179266-004	101858	Soil	14-MAY-2005 01:57	50.0	45.05			1	2	2:AL=2676.00
053	e1321053	CCV				14-MAY-2005 02:08	1.0	1.0			1	12 2	
054	e1321054	X	RINSE			14-MAY-2005 02:14	1.0					2	
055	e1321055	CCB				14-MAY-2005 02:20	1.0	1.0	1		1	2	
056	e1321056	SAMPLE	179266-005	101858	Soil	14-MAY-2005 02:26	50.0	46.73			1	2	1:AL=3448.00
057	e1321057	SAMPLE	179266-006	101858	Soil	14-MAY-2005 02:32	50.0	45.45			1	2	1:AL=4414.00
058	e1321058	SAMPLE	179266-007	101858	Soil	14-MAY-2005 02:38	50.0	50.0	2		1	2	3:AL=6140.00
059	e1321059	SAMPLE	179307-003	101858	Soil	14-MAY-2005 02:43	50.0	49.50			1	2	1:AL=1385.00
060	e1321060	SAMPLE	179307-004	101858	Soil	14-MAY-2005 02:49	50.0	47.17			1	2	1:AL=3326.00
061	e1321061	SAMPLE	179307-006	101858	Soil	14-MAY-2005 02:55	50.0	44.64	1		1	2	2:AL=1759.60
062	e1321062	SAMPLE	179307-009	101858	Soil	14-MAY-2005 03:01	50.0	47.17	3		1	2	5:AL=1388.20
063	e1321063	SAMPLE	179307-011	101858	Soil	14-MAY-2005 03:07	50.0	45.87			1	2	1:AL=1491.00
064	e1321064	SAMPLE	179307-013	101858	Soil	14-MAY-2005 03:13	50.0	43.10			1	2	1:AL=4462.00
065	e1321065	SAMPLE	179307-014	101858	Soil	14-MAY-2005 03:19	50.0	47.17			1	2	1:AL=1580.60
067	e1321067	CCV				14-MAY-2005 03:31	1.0	1.0			1	12 2	
068	e1321068	X	RINSE			14-MAY-2005 03:36	1.0					2	
069	e1321069	CCB				14-MAY-2005 03:42	1.0	1.0	1		1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21

Analyst: _____ Date: 5/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55192791 Instrument: MET05 Agilent ICP-MS Begun: 13-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
070	e1321070	X	RINSE	101905		14-MAY-2005 03:48	1.0					2	
071	e1321071	BLANK	QC293648	101991	Filtra	14-MAY-2005 03:54	1.0	1.0			1	2	
072	e1321072	BS	QC293649	101991	Filtra	14-MAY-2005 04:00	1.0	1.0			1	2	
073	e1321073	BSD	QC293650	101991	Filtra	14-MAY-2005 04:05	1.0	1.0			1	2	
074	e1321074	X	RINSE	101905		14-MAY-2005 04:11	1.0					2	
075	e1321075	MSS	179373-007	101991	Filtra	14-MAY-2005 04:17	1.0	1.0	1		1	2	1:NA=25100.0
076	e1321076	SER	QC293653	101991	Filtra	14-MAY-2005 04:23	5.0	1.0		1	1	2	
077	e1321077	MS	QC293651	101991	Filtra	14-MAY-2005 04:29	1.0	1.0			1	2	1:NA=34430.0
078	e1321078	MSD	QC293652	101991	Filtra	14-MAY-2005 04:35	1.0	1.0			1	2	1:NA=34030.0
079	e1321079	PDS	QC293654	101991	Filtra	14-MAY-2005 04:40	1.0	1.0			1	13 2	1:NA=34050.0
080	e1321080	X	RINSE	101905		14-MAY-2005 04:46	1.0					2	
081	e1321081	SAMPLE	179373-001	101991	Filtra	14-MAY-2005 04:52	1.0	1.0			1	2	1:MN=424.300
082	e1321082	SAMPLE	179373-002	101991	Filtra	14-MAY-2005 04:58	1.0	1.0			1	2	1:MN=1451.00
084	e1321084	CCV				14-MAY-2005 05:10	1.0	1.0			1	12 2	
085	e1321085	X	RINSE			14-MAY-2005 05:15	1.0					2	
086	e1321086	CCB				14-MAY-2005 05:21	1.0	1.0	1		1	2	
087	e1321087	SAMPLE	179373-003	101991	Filtra	14-MAY-2005 05:27	1.0	1.0			1	2	1:NA=39220.0
088	e1321088	SAMPLE	179373-004	101991	Filtra	14-MAY-2005 05:33	1.0	1.0			1	2	1:NA=23640.0
089	e1321089	SAMPLE	179373-005	101991	Filtra	14-MAY-2005 05:39	1.0	1.0			1	2	2:NA=26380.0
090	e1321090	SAMPLE	179373-006	101991	Filtra	14-MAY-2005 05:45	1.0	1.0			1	2	1:NA=28390.0
091	e1321091	SAMPLE	179373-008	101991	Filtra	14-MAY-2005 05:50	1.0	1.0			1	2	3:NA=39880.0
092	e1321092	SAMPLE	179373-009	101991	Filtra	14-MAY-2005 05:56	1.0	1.0			1	2	
093	e1321093	SAMPLE	179373-010	101991	Filtra	14-MAY-2005 06:02	1.0	1.0			1	2	1:NA=26370.0
094	e1321094	SAMPLE	179373-011	101991	Filtra	14-MAY-2005 06:08	1.0	1.0			1	2	1:NA=39120.0
095	e1321095	SAMPLE	179410-001	101991	Filtra	14-MAY-2005 06:14	1.0	1.0			1	2	2:NA=32130.0
096	e1321096	SAMPLE	179410-002	101991	Filtra	14-MAY-2005 06:20	1.0	1.0			1	2	1:NA=39310.0
098	e1321098	CCV				14-MAY-2005 06:31	1.0	1.0			1	12 2	
099	e1321099	X	RINSE			14-MAY-2005 06:37	1.0					2	
100	e1321100	CCB				14-MAY-2005 06:43	1.0	1.0	1		1	2	
101	e1321101	SAMPLE	179410-003	101991	Filtra	14-MAY-2005 06:49	1.0	1.0			1	2	4:NA=29340.0
102	e1321102	SAMPLE	179410-004	101991	Filtra	14-MAY-2005 06:55	1.0	1.0			1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21

Analyst: _____ Date: 5/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55192791 Instrument: MET05 Agilent ICP-MS Begun: 13-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
103	e1321103	SAMPLE	179410-005	101991	Filtra	14-MAY-2005 07:01	1.0	1.0		1	2	4:CA=33840.0
104	e1321104	SAMPLE	179410-006	101991	Filtra	14-MAY-2005 07:06	1.0	1.0		1	2	1:NA=32260.0
105	e1321105	SAMPLE	179410-007	101991	Filtra	14-MAY-2005 07:12	1.0	1.0		1	2	1:NA=33860.0
106	e1321106	SAMPLE	179410-008	101991	Filtra	14-MAY-2005 07:18	1.0	1.0		1	2	4:CA=33540.0
107	e1321107	ICSA				14-MAY-2005 07:24	1.0	1.0		1	10 2	7:CA=281700
108	e1321108	ICSAB				14-MAY-2005 07:30	1.0	1.0		1	11 2	10:CA=291700
110	e1321110	CCV				14-MAY-2005 07:41	1.0	1.0	1	1	12 2	
111	e1321111	X	rinse blank			14-MAY-2005 07:47	1.0				2	
112	e1321112	CCB				14-MAY-2005 07:53	1.0	1.0	1	1	2	

215

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21

Analyst: Meiw Date: 5/16/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55192791001 Name: Type: (normal) Date: 13-MAY-2005 21:22 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1321004	55192791004	cs1	13-MAY-2005 21:27	S395
2	e1321005	55192791005	cs2	13-MAY-2005 21:32	S396
3	e1321006	55192791006	cs3	13-MAY-2005 21:37	S397
4	e1321007	55192791007	cs4	13-MAY-2005 21:43	S398
5	e1321008	55192791008	cs5	13-MAY-2005 21:48	S393
6	e1321009	55192791009	cs6	13-MAY-2005 21:53	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		1.2645	0.8660	0.3245	0.2726	0.2733	BLNK	R	-1.36370	3.690437		ug/L	0.6002	1.000	0.995	
Antimony	0.1734	0.1611	0.1501	0.1418	0.1396	0.1489	BLNK	R	-0.04815	6.804550		ug/L	0.1525	0.999	0.995	
Arsenic		0.3069	0.2762	0.2531	0.2440	0.2477	BLNK	R	-0.10159	4.052041		ug/L	0.2656	1.000	0.995	
Barium	0.0663	0.0561	0.0535	0.0485	0.0485	0.0495	BLNK	R	-0.05914	20.27892		ug/L	0.0537	1.000	0.995	
Beryllium	0.0965	0.0974	0.0945	0.0874	0.0876	0.0900	BLNK	R	-0.01726	11.17508		ug/L	0.0922	1.000	0.995	
Cadmium	0.5385	0.3655	0.3007	0.2421	0.2262	0.2255	BLNK	R	-0.30315	4.439552		ug/L	0.3164	1.000	0.995	
Calcium		0.0134	0.0117	0.0098	0.0097	0.0095	BLNK	R	-17.7733	104.9023		ug/L	0.0108	1.000	0.995	
Chromium		2.8791	2.1950	1.5651	1.4842	1.4957	BLNK	R	-0.44530	0.671396		ug/L	1.9238	1.000	0.995	
Cobalt	1.8310	1.7701	1.7343	1.6888	1.6896	1.6647	BLNK	R	-0.02115	0.598982		ug/L	1.7298	1.000	0.995	
Copper		0.6457	0.4855	0.4381	0.4119	0.4091	BLNK	R	-0.04902	2.441291		ug/L	0.4781	1.000	0.995	
Iron		0.0755	0.0588	0.0430	0.0419	0.0405	BLNK	R	-43.5693	24.56551		ug/L	0.0519	1.000	0.995	
Lead	0.6176	0.5551	0.5290	0.5180	0.5099	0.5249	BLNK	R	-0.03862	1.916715		ug/L	0.5424	1.000	0.995	
Magnesium		0.0356	0.0352	0.0367	0.0337	0.0334	BLNK	R	-2.74762	29.85376		ug/L	0.0349	1.000	0.995	
Manganese	2.7954	2.4072	2.1813	2.0573	2.0257	1.9840	BLNK	R	-0.08315	0.502139		ug/L	2.2418	1.000	0.995	
Molybdenum		0.4807	0.4702	0.4537	0.4375	0.4461	BLNK	R	-0.07174	2.251381		ug/L	0.4576	1.000	0.995	
Nickel	0.4155	0.4084	0.3875	0.3723	0.3511	0.3506	BLNK	R	-0.05085	2.851791		ug/L	0.3809	1.000	0.995	
Potassium		1.3371	0.8294	0.3581	0.2998	0.2966	BLNK	R	-176.055	3.399867		ug/L	0.6242	1.000	0.995	
Selenium		0.0676	0.0382	0.0180	0.0148	0.0147	BLNK	R	-1.45027	68.65543		ug/L	0.0306	1.000	0.995	
Silver	1.2225	1.2064	1.1651	1.1362	1.0785	1.1031	BLNK	R	-0.02252	0.910669		ug/L	1.1520	1.000	0.995	
Sodium		0.5133	0.4391	0.3583	0.3341	0.3309	BLNK	R	-16.6070	3.018928		ug/L	0.3951	1.000	0.995	

216

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55192791001 Name: Type: (normal) Date: 13-MAY-2005 21:22 Inj Vol (uL): 1

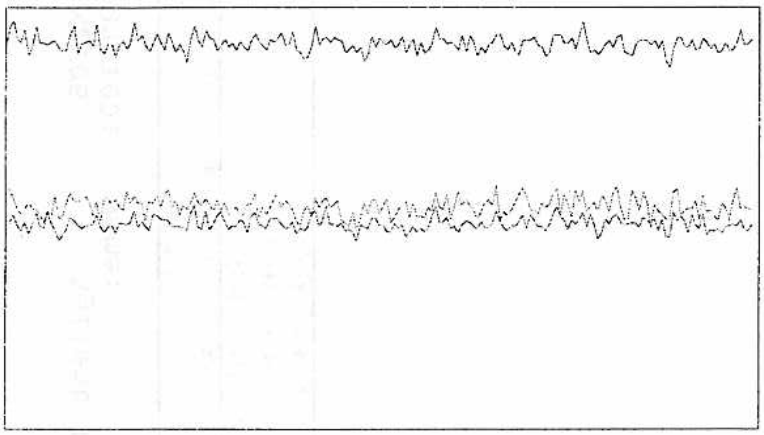
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.3872	0.3687	0.3563	0.4051	0.4011	BLNK	R	-0.04432	2.489259		ug/L	0.3837	1.000	0.995	
Vanadium		2.4351	2.1420	1.7529	1.7480	1.7462	BLNK	R	-0.21655	0.573312		ug/L	1.9648	1.000	0.995	
Zinc		0.6334	0.4439	0.2792	0.2460	0.2444	BLNK	R	-0.31515	4.092712		ug/L	0.3694	1.000	0.995	

217

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



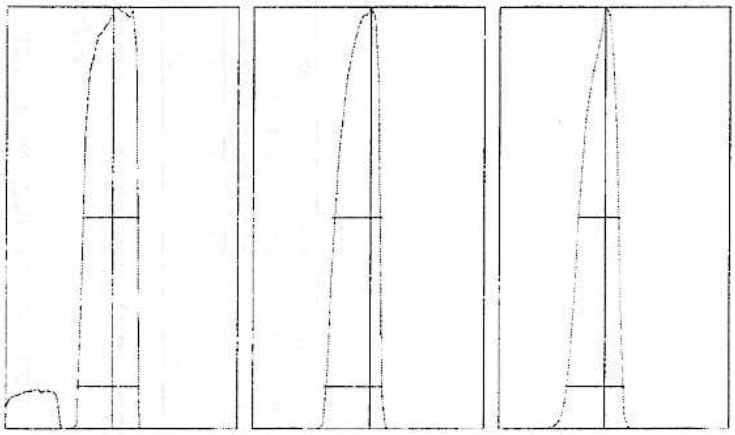
m/z:	7	89	205
Range:	20,000	100,000	100,000
Count:	18,454	48,300	51,930
Mean:	18260.9	48589.0	52765.2
RSD%:	2.05	3.24	4.13
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.39%
Doubly Charged:	70/140	0.96%

Background:

m/z:	7	89	205
Cps:	22.5	18.6	32.5



m/z:	7	89	205
Height:	18,375	49,391	59,374
Axis:	6.90	89.05	204.90
W-50%:	0.75	0.65	0.55
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1280 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 13, 2005 11:24:01
Printed : May 13, 2005 11:24:08

P/A Factor Tuning Report

Acquired:May 13 2005 11:32 am

Mass[amu]	Element	P/A Factor
6	Li	0.067227
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087428
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.098233
45	Sc	0.094391
51	V	0.098154
52	Cr	0.100616
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.102651
57	Fe	0.105648
59	Co	0.106140
60	Ni	Sensitivity too low
63	Cu	0.108796
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.107000
95	Mo	Sensitivity too low
98	Mo	0.105040
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.115109
111	Cd	Sensitivity too low
114	Cd	0.112134
115	In	0.115618
118	(In)	0.114162
121	Sb	0.113719
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119672
166	Er	Sensitivity too low

205	Tl	0.126924
206	(Pb)	0.122235
207	(Pb)	Sensitivity too low
208	Pb	0.125274
209	Bi	0.125562
232	Th	0.126315
238	U	0.126450

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 13 2005 11:39 am

Mass[amu]	Element	P/A Factor
6	Li	0.067018
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.087271
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097298
45	Sc	0.094138
51	V	0.097384
52	Cr	0.099821
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.102018
57	Fe	0.104844
59	Co	0.105210
60	Ni	Sensitivity too low
63	Cu	0.107492
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106627
95	Mo	Sensitivity too low
98	Mo	0.103825
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.113501
111	Cd	Sensitivity too low
114	Cd	0.112134
115	In	0.115110
118	(In)	0.112194
121	Sb	0.112172
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.119224
166	Er	Sensitivity too low

205	Tl	0.125386
206	(Pb)	0.122235
207	(Pb)	Sensitivity too low
208	Pb	0.123889
209	Bi	0.124870
232	Th	0.124910
238	U	0.124828

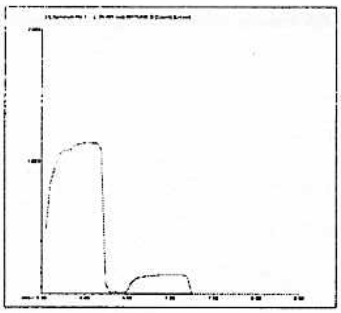
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

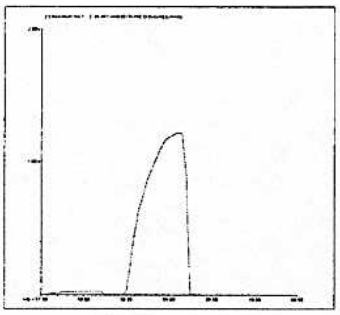
Data File: C:\ICPCHEM\1\DATA\05E1321a.B\001TUNE.D
Date Acquired: May 13 2005 09:11 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

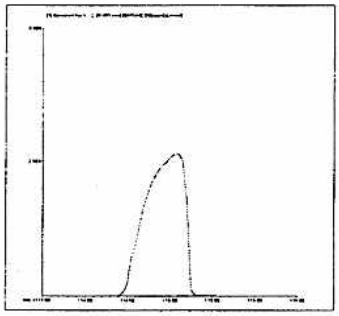
Element	Actual	Required	Flag
7 Li	0.32	5.00	
59 Co	1.66	5.00	
115 In	0.69	5.00	
205 Tl	2.64	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



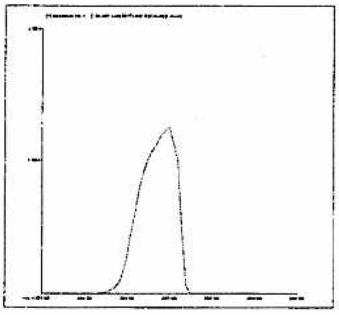
115 In

Mass Calib.

Actual:	115.10	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.65
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 13 2005 09:16 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 13 2005 02:08 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.01053	ppb	53.36	-0.01053	1.00	
23 Na	-17.69	ppb	3.62	-17.69	1.00	
26 Mg	-3.923	ppb	7.55	-3.923	1.00	
27 Al	-6.781	ppb	2.20	-6.781	1.00	
39 K	-18.1	ppb	29.27	-18.1	1.00	
44 Ca	-29.19	ppb	3.58	-29.19	1.00	
51 V	0.0005738	ppb	2981.90	0.0005738	1.00	
52 Cr	-0.1255	ppb	9.41	-0.1255	1.00	
55 Mn	-0.07607	ppb	10.77	-0.07607	1.00	
57 Fe	-18.12	ppb	4.20	-18.12	1.00	
59 Co	-0.01185	ppb	26.24	-0.01185	1.00	
60 Ni	-0.05658	ppb	9.07	-0.05658	1.00	
65 Cu	-0.2086	ppb	1.95	-0.2086	1.00	
66 Zn	-1.468	ppb	3.04	-1.468	1.00	
75 As	0.0106	ppb	202.92	0.0106	1.00	
82 Se	-0.5982	ppb	33.12	-0.5982	1.00	
95 Mo	-0.7067	ppb	0.59	-0.7067	1.00	
109 Ag	-0.01655	ppb	23.63	-0.01655	1.00	
111 Cd	0.005774	ppb	348.80	0.005774	1.00	
121 Sb	-0.118	ppb	6.23	-0.118	1.00	
137 Ba	-0.1024	ppb	5.74	-0.1024	1.00	
205 Tl	-0.08272	ppb	3.31	-0.08272	1.00	
208 Pb	-0.08589	ppb	1.48	-0.08589	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1091259.30	0.63	---	#VALUE!	30 - 200	
45 Sc	1504339.60	0.78	---	#VALUE!	30 - 200	
72 Ge	343204.44	1.57	---	#VALUE!	30 - 200	

115 In	2303160.00	0.88	---	#VALUE!	30 - 200
209 Bi	1561603.80	0.97	---	#VALUE!	30 - 200

ISTD Ref File : ---

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Pass
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\003CAL
Date Acquired: May 13 2005 09:22 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 02:08 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1113066.00	A	13490.00	1.21
9	Be	34.44	P	11.71	34.00
23	Na	169401.09	P	435.40	0.26
26	Mg	2834.44	P	102.50	3.62
27	Al	11377.78	P	673.10	5.92
39	K	1594972.00	A	52760.00	3.31
44	Ca	5217.64	P	50.11	0.96
45	Sc	1539924.00	A	21420.00	1.39
51	V	2639.28	P	417.70	15.83
52	Cr	4627.78	P	102.90	2.22
55	Mn	1155.56	P	13.47	1.17
57	Fe	12381.11	P	352.20	2.84
59	Co	246.67	P	18.56	7.52
60	Ni	124.44	P	15.03	12.08
65	Cu	139.99	P	17.64	12.60
66	Zn	537.79	P	54.30	10.10
72	Ge	348997.31	P	6189.00	1.77
75	As	176.05	P	233.10	132.40
82	Se	147.28	P	32.28	21.92
95	Mo	222.22	P	19.53	8.79
109	Ag	172.22	P	35.01	20.33
111	Cd	476.07	P	38.09	8.00
115	In	2362006.00	A	33120.00	1.40
121	Sb	334.44	P	42.47	12.70
137	Ba	137.78	P	17.11	12.42
205	Tl	575.56	P	15.03	2.61
208	Pb	651.11	P	80.02	12.29
209	Bi	1616339.00	A	15160.00	0.94
232	Th	2221.11	P	35.33	1.59
238	U	246.67	P	12.02	4.87

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\004CALI.D\004CALI.D#
Date Acquired: May 13 2005 09:27 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1118712.00	A	8094.00	0.72
9	Be	540.00	P	49.33	9.14
23	Na	439424.41	P	8054.00	1.83
26	Mg	29306.67	P	306.80	1.05
27	Al	16948.89	P	475.90	2.81
39	K	1835189.00	A	42080.00	2.29
44	Ca	13506.28	P	469.00	3.47
45	Sc	1546870.00	A	32600.00	2.11
51	V	6123.00	P	516.70	8.44
52	Cr	7473.33	P	200.40	2.68
55	Mn	4925.56	P	132.10	2.68
57	Fe	19766.67	P	519.70	2.63
59	Co	3226.67	P	26.67	0.83
60	Ni	732.22	P	13.88	1.90
65	Cu	990.99	P	63.01	6.36
66	Zn	1600.15	P	56.07	3.50
72	Ge	352492.19	P	3935.00	1.12
75	As	628.97	P	134.30	21.35
82	Se	180.79	P	10.93	6.05
95	Mo	1002.22	P	66.19	6.60
109	Ag	2154.44	P	32.38	1.50
111	Cd	949.02	P	25.95	2.73
115	In	2348253.00	A	48850.00	2.08
121	Sb	2035.56	P	35.64	1.75
137	Ba	778.89	P	42.21	5.42
205	Tl	3732.22	P	238.70	6.40
208	Pb	5051.11	P	29.12	0.58
209	Bi	1635783.00	A	17600.00	1.08
232	Th	3540.00	P	82.53	2.33
238	U	4125.56	P	51.68	1.25

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1118712.00	0.72	1113066.30	100.5	30 - 200	
45 Sc	1546870.00	2.11	1539924.00	100.5	30 - 200	
72 Ge	352492.22	1.12	348997.34	101.0	30 - 200	
115 In	2348252.50	2.08	2362005.80	99.4	30 - 200	
209 Bi	1635783.30	1.08	1616338.80	101.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\005CALI.D\005CALI.D#
Date Acquired: May 13 2005 09:32 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:29 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1103475.00	A	7841.00	0.71
9	Be	1074.44	P	19.25	1.79
23	Na	789041.31	A	7222.00	0.92
26	Mg	54783.33	P	1145.00	2.09
27	Al	19442.22	P	701.30	3.61
39	K	2055756.00	A	60110.00	2.92
44	Ca	20655.91	P	546.80	2.65
45	Sc	1537318.00	A	13450.00	0.87
51	V	8481.89	P	420.40	4.96
52	Cr	10028.89	P	334.90	3.34
55	Mn	8383.33	P	57.83	0.69
57	Fe	26294.44	P	381.70	1.45
59	Co	6165.56	P	232.00	3.76
60	Ni	1422.22	P	102.40	7.20
65	Cu	2249.76	P	231.40	10.29
66	Zn	2205.83	P	20.09	0.91
72	Ge	348294.19	P	4419.00	1.27
75	As	1069.79	P	164.90	15.41
82	Se	235.64	P	63.49	26.94
95	Mo	1674.44	P	44.01	2.63
109	Ag	4202.22	P	91.55	2.18
111	Cd	1273.14	P	45.85	3.60
115	In	2342242.00	A	46420.00	1.98
121	Sb	3772.22	P	68.34	1.81
137	Ba	1313.33	P	52.92	4.03
205	Tl	6247.78	P	141.60	2.27
208	Pb	8957.78	P	388.00	4.33
209	Bi	1613325.00	A	23170.00	1.44
232	Th	5477.78	P	114.20	2.08
238	U	7534.44	P	275.70	3.66

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1103474.50	0.71	1113066.30	99.1	30 - 200	
45 Sc	1537318.10	0.87	1539924.00	99.8	30 - 200	
72 Ge	348294.22	1.27	348997.34	99.8	30 - 200	
115 In	2342241.80	1.98	2362005.80	99.2	30 - 200	
209 Bi	1613324.60	1.44	1616338.80	99.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\006CALI.D\006CALI.D#
Date Acquired: May 13 2005 09:37 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:34 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1111320.00	A	10460.00	0.94
9 Be	2101.11	P	38.63	1.84
23 Na	1365675.00	A	6269.00	0.46
26 Mg	109470.00	P	2468.00	2.25
27 Al	26936.67	P	538.10	2.00
39 K	2579829.00	A	62580.00	2.43
44 Ca	36310.94	P	624.00	1.72
45 Sc	1555112.00	A	15700.00	1.01
51 V	15138.89	P	1005.00	6.64
52 Cr	15514.44	P	361.00	2.33
55 Mn	15415.55	P	145.80	0.95
57 Fe	41574.44	P	318.10	0.77
59 Co	12256.67	P	87.37	0.71
60 Ni	2738.89	P	13.88	0.51
65 Cu	3431.75	P	135.70	3.95
66 Zn	3137.21	P	75.13	2.39
72 Ge	353369.31	P	2810.00	0.80
75 As	1951.68	P	123.80	6.34
82 Se	269.73	P	23.04	8.54
95 Mo	3323.33	P	85.05	2.56
109 Ag	8234.44	P	204.60	2.48
111 Cd	2125.29	P	36.02	1.69
115 In	2391493.00	A	35980.00	1.50
121 Sb	7181.11	P	95.30	1.33
137 Ba	2560.00	P	86.67	3.39
205 Tl	12143.33	P	417.40	3.44
208 Pb	17420.00	P	347.70	2.00
209 Bi	1646395.00	A	19860.00	1.21
232 Th	9571.11	P	250.50	2.62
238 U	15805.55	P	256.20	1.62

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1111319.90	0.94	1113066.30	99.8	30 - 200	
45 Sc	1555111.60	1.01	1539924.00	101.0	30 - 200	
72 Ge	353369.34	0.80	348997.34	101.3	30 - 200	
115 In	2391493.00	1.50	2362005.80	101.2	30 - 200	
209 Bi	1646394.50	1.21	1616338.80	101.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\007CALI.D\007CALI.D#
Date Acquired: May 13 2005 09:43 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:39 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1117052.00	A	13160.00	1.18
9 Be	19517.78	P	498.90	2.56
23 Na	11215790.00	A	144200.00	1.29
26 Mg	1149889.00	A	17440.00	1.52
27 Al	101575.50	P	2113.00	2.08
39 K	11208000.00	A	257200.00	2.29
44 Ca	306411.69	P	2520.00	0.82
45 Sc	1564987.00	A	11720.00	0.75
51 V	124201.20	P	867.60	0.70
52 Cr	110900.00	P	1866.00	1.68
55 Mn	145777.80	P	1965.00	1.35
57 Fe	304354.41	P	4567.00	1.50
59 Co	119671.10	P	2839.00	2.37
60 Ni	26374.44	P	455.60	1.73
65 Cu	31040.54	P	391.80	1.26
66 Zn	19782.42	P	585.50	2.96
72 Ge	354278.91	P	3828.00	1.08
75 As	17935.74	P	622.60	3.47
82 Se	1274.61	P	55.03	4.32
95 Mo	32146.67	P	496.60	1.54
109 Ag	80505.55	P	1230.00	1.53
111 Cd	17151.42	P	345.30	2.01
115 In	2416736.00	A	2070.00	0.09
121 Sb	68534.44	P	78.34	0.11
137 Ba	23445.55	P	619.30	2.64
205 Tl	117597.80	P	5407.00	4.60
208 Pb	170927.80	P	3968.00	2.32
209 Bi	1649877.00	A	20570.00	1.25
232 Th	88174.44	P	1753.00	1.99
238 U	154692.20	P	1660.00	1.07

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1117051.60	1.18	1113066.30	100.4	30 - 200	
45 Sc	1564987.50	0.75	1539924.00	101.6	30 - 200	
72 Ge	354278.88	1.08	348997.34	101.5	30 - 200	
115 In	2416735.80	0.09	2362005.80	102.3	30 - 200	
209 Bi	1649877.40	1.25	1616338.80	102.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\008CALI.D\008CALI.D#
Date Acquired: May 13 2005 09:48 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:45 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1067383.00	A	11300.00	1.06
9	Be	186920.00	P	2460.00	1.32
23	Na	101749600.00	A	1713000.00	1.68
26	Mg	10257740.00	A	152600.00	1.49
27	Al	830107.63	A	18680.00	2.25
39	K	91295760.00	A	2198000.00	2.41
44	Ca	2943793.00	A	44600.00	1.52
45	Sc	1522742.00	A	23460.00	1.54
51	V	1215644.00	A	18460.00	1.52
52	Cr	1032127.00	A	11970.00	1.16
55	Mn	1408699.00	A	13820.00	0.98
57	Fe	2915409.00	A	21960.00	0.75
59	Co	1175053.00	A	16440.00	1.40
60	Ni	244190.00	P	5088.00	2.08
65	Cu	286501.31	P	6485.00	2.26
66	Zn	171107.91	P	2507.00	1.47
72	Ge	347724.00	P	4764.00	1.37
75	As	169671.91	P	2855.00	1.68
82	Se	10259.99	P	112.50	1.10
95	Mo	304291.09	P	6106.00	2.01
109	Ag	750094.38	P	12620.00	1.68
111	Cd	157315.59	P	2630.00	1.67
115	In	2297887.00	A	32720.00	1.42
121	Sb	641782.19	P	11880.00	1.85
137	Ba	222764.41	P	3946.00	1.77
205	Tl	1263736.00	A	22260.00	1.76
208	Pb	1590914.00	P	37440.00	2.35
209	Bi	1560148.00	A	38670.00	2.48
232	Th	1389296.00	A	64230.00	4.62
238	U	1601117.00	A	7387.00	0.46

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1067382.90	1.06	1113066.30	95.9	30 - 200	
45 Sc	1522741.80	1.54	1539924.00	98.9	30 - 200	
72 Ge	347724.00	1.37	348997.34	99.6	30 - 200	
115 In	2297886.80	1.42	2362005.80	97.3	30 - 200	
209 Bi	1560148.10	2.48	1616338.80	96.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1321a.B\009CALI.D\009CALI.D#
Date Acquired: May 13 2005 09:53 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 13 2005 09:50 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1057752.00	A	6813.00	0.64
9	Be	380733.31	P	7035.00	1.85
23	Na	202972990.00	A	2583000.00	1.27
26	Mg	20519850.00	A	370300.00	1.80
27	Al	1676612.00	A	33440.00	1.99
39	K	181946800.00	A	4060000.00	2.23
44	Ca	5834415.00	A	51650.00	0.89
45	Sc	1533650.00	A	27310.00	1.78
51	V	2443781.00	A	23820.00	0.97
52	Cr	2093297.00	A	34390.00	1.64
55	Mn	2776615.00	A	30260.00	1.09
57	Fe	5672914.00	A	73500.00	1.30
59	Co	2329888.00	A	49070.00	2.11
60	Ni	490764.41	P	12720.00	2.59
65	Cu	572615.31	P	12510.00	2.18
66	Zn	342074.81	P	5976.00	1.75
72	Ge	349878.00	P	4624.00	1.32
75	As	346639.31	P	6740.00	1.94
82	Se	20536.90	P	396.90	1.93
95	Mo	624274.38	P	9709.00	1.56
109	Ag	1543671.00	A	9429.00	0.61
111	Cd	315584.31	P	4614.00	1.46
115	In	2281807.00	A	51490.00	2.26
121	Sb	1358499.00	A	19890.00	1.46
137	Ba	452153.31	P	8307.00	1.84
205	Tl	2494212.00	A	103000.00	4.13
208	Pb	3263209.00	A	59880.00	1.84
209	Bi	1554333.00	A	10660.00	0.69
232	Th	3247813.00	A	63360.00	1.95
238	U	3160009.00	A	60680.00	1.92

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1057751.50	0.64	1113066.30	95.0	30 - 200	
45 Sc	1533650.00	1.78	1539924.00	99.6	30 - 200	
72 Ge	349878.00	1.32	348997.34	100.3	30 - 200	
115 In	2281807.50	2.26	2362005.80	96.6	30 - 200	
209 Bi	1554332.60	0.69	1616338.80	96.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1321a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 13, 2005 21:55
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1321a.b\003calb.d\	003calb.d#	May 13 2005 09:22 pm
2	...hem\1\data\05e1321a.b\004cali.d\	004cali.d#	May 13 2005 09:27 pm
3	...hem\1\data\05e1321a.b\005cali.d\	005cali.d#	May 13 2005 09:32 pm
4	...hem\1\data\05e1321a.b\006cali.d\	006cali.d#	May 13 2005 09:37 pm
5	...hem\1\data\05e1321a.b\007cali.d\	007cali.d#	May 13 2005 09:43 pm
6	...hem\1\data\05e1321a.b\008cali.d\	008cali.d#	May 13 2005 09:48 pm
7	...hem\1\data\05e1321a.b\009cali.d\	009cali.d#	May 13 2005 09:53 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 8.948E-2*X +1.545E-3(blank)	---	ppb
Na	23	45	Y = 3.312E-1*X +5.501E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 3.350E-2*X +9.204E-2(blank)	---	ppb
Al	27	45	Y = 2.710E-1*X +3.695E-1(blank)	---	ppb
K	39	45	Y = 2.941E-1*X +5.178E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 9.533E-3*X +1.694E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 1.744E+0*X +3.777E-1(blank)	---	ppb
Cr	52	72	Y = 1.489E+0*X +6.632E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 1.991E+0*X +1.656E-1(blank)	---	ppb
Fe	57	72	Y = 4.071E-2*X +1.774E+0(blank)	---	ppb
Co	59	72	Y = 1.669E+0*X +3.532E-2(blank)	---	ppb
Ni	60	72	Y = 3.507E-1*X +1.783E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 4.096E-1*X +2.008E-2(blank)	---	ppb
Zn	66	72	Y = 2.443E-1*X +7.700E-2(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 2.468E-1*X +2.507E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.457E-2*X +2.112E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 4.442E-1*X +3.187E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.098E+0*X +2.473E-2(blank)	---	ppb
Cd	111	72	Y = 2.252E-1*X +6.828E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.470E-1*X +7.076E-3(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 4.931E-2*X +2.916E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.017E-1*X +1.781E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 5.217E-1*X +2.015E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791010 Filename : e1321010 Injected : 13-MAY-2005 21:58
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S399, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	100.6000	ug/L	1	10	
Antimony	100.0000	98.00000	ug/L	-2	10	
Arsenic	100.0000	98.96000	ug/L	-1	10	
Barium	100.0000	96.95000	ug/L	-3	10	
Beryllium	100.0000	97.94000	ug/L	-2	10	
Cadmium	100.0000	100.3000	ug/L	0	10	
Calcium	10000.00	9960.000	ug/L	0	10	
Chromium	100.0000	99.27000	ug/L	-1	10	
Cobalt	100.0000	99.00000	ug/L	-1	10	
Copper	100.0000	99.59000	ug/L	0	10	
Iron	10000.00	9978.000	ug/L	0	10	
Lead	100.0000	97.20000	ug/L	-3	10	
Magnesium	10000.00	9881.000	ug/L	-1	10	
Manganese	100.0000	100.1000	ug/L	0	10	
Molybdenum	100.0000	99.29000	ug/L	-1	10	
Nickel	100.0000	99.16000	ug/L	-1	10	
Potassium	10000.00	9899.000	ug/L	-1	10	
Selenium	100.0000	99.99000	ug/L	0	10	
Silver	100.0000	98.79000	ug/L	-1	10	
Sodium	10000.00	9791.000	ug/L	-2	10	
Thallium	100.0000	99.64000	ug/L	0	10	
Vanadium	100.0000	99.47000	ug/L	-1	10	
Zinc	100.0000	99.38000	ug/L	-1	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	1082596	-2.74
Scandium	1539924	1559229	1.25
Germanium	348997	353511	1.29
Indium	2362006	2347500	-0.61
Bismuth	1616339	1602604	-0.85

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791012 Filename : e1321012 Injected : 13-MAY-2005 22:10
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.519600	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	[0.2289]	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791013 Filename : e1321013 Injected : 13-MAY-2005 22:15
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55192791001	13-MAY-2005	2.376000	0.250000	ug/L	
Arsenic	55192791001	13-MAY-2005	0.690500	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	0.841400	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	[0.0055]	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	[0.0460]	0.250000	ug/L	
Chromium	55192791001	13-MAY-2005	1.244000	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	2.541000	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	1.502000	0.500000	ug/L	
Lead	55192791001	13-MAY-2005	1.165000	0.250000	ug/L	
Manganese	55192791001	13-MAY-2005	0.891500	0.250000	ug/L	
Nickel	55192791001	13-MAY-2005	1.375000	0.250000	ug/L	
Selenium	55192791001	13-MAY-2005	[0.2711]	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	[0.1453]	0.250000	ug/L	
Thallium	55192791001	13-MAY-2005	[0.1845]	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	[0.1885]	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	2.943000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55192791001	13-MAY-2005	100000	88700	ug/L	89
Calcium	55192791001	13-MAY-2005	300000	285200	ug/L	95
Iron	55192791001	13-MAY-2005	250000	232800	ug/L	93
Magnesium	55192791001	13-MAY-2005	100000	93960	ug/L	94
Molybdenum	55192791001	13-MAY-2005	2000	1933	ug/L	97
Potassium	55192791001	13-MAY-2005	100000	93850	ug/L	94
Sodium	55192791001	13-MAY-2005	250000	222600	ug/L	89

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791014 Filename : e1321014 Injected : 13-MAY-2005 22:21
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	91490.00	ug/L	-9		
Arsenic	100.0000	105.7000	ug/L	6	20	
Cadmium	100.0000	95.20000	ug/L	-5	20	
Calcium	300000.0	295300.0	ug/L	-2		
Chromium	200.0000	205.8000	ug/L	3	20	
Cobalt	200.0000	201.3000	ug/L	1	20	
Copper	200.0000	194.6000	ug/L	-3	20	
Iron	250000.0	241800.0	ug/L	-3		
Magnesium	100000.0	97960.00	ug/L	-2		
Manganese	200.0000	207.1000	ug/L	4	20	
Molybdenum	2000.000	1953.000	ug/L	-2		
Nickel	200.0000	196.0000	ug/L	-2	20	
Potassium	100000.0	95880.00	ug/L	-4		
Selenium	100.0000	99.05000	ug/L	-1	20	
Silver	50.00000	46.21000	ug/L	-8	20	
Sodium	250000.0	232000.0	ug/L	-7		
Vanadium	200.0000	211.6000	ug/L	6	20	
Zinc	100.0000	102.2000	ug/L	2	20	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Scandium	1539924	1494035	-2.98
Germanium	348997	325973	-6.60

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791025 Filename : e1321025 Injected : 13-MAY-2005 23:25
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2899	150.0000	159.1000	ug/L	6	10	
Antimony	0.1525	0.1458	150.0000	148.7000	ug/L	-1	10	
Arsenic	0.2656	0.2495	150.0000	151.6000	ug/L	1	10	
Barium	0.0537	0.0496	150.0000	150.7000	ug/L	0	10	
Beryllium	0.0922	0.0900	150.0000	150.9000	ug/L	1	10	
Cadmium	0.3164	0.2279	150.0000	151.5000	ug/L	1	10	
Calcium	0.0108	0.0097	15000.00	15280.00	ug/L	2	10	
Chromium	1.9238	1.5124	150.0000	151.9000	ug/L	1	10	
Cobalt	1.7298	1.6811	150.0000	151.0000	ug/L	1	10	
Copper	0.4781	0.4140	150.0000	151.6000	ug/L	1	10	
Iron	0.0519	0.0408	15000.00	14980.00	ug/L	0	10	
Lead	0.5424	0.5212	150.0000	149.8000	ug/L	0	10	
Magnesium	0.0349	0.0336	15000.00	15050.00	ug/L	0	10	
Manganese	2.2418	2.0219	150.0000	152.2000	ug/L	1	10	
Molybdenum	0.4576	0.4462	150.0000	150.6000	ug/L	0	10	
Nickel	0.3809	0.3530	150.0000	151.0000	ug/L	1	10	
Potassium	0.6242	0.3031	15000.00	15280.00	ug/L	2	10	
Selenium	0.0306	0.0149	150.0000	151.8000	ug/L	1	10	
Silver	1.1520	1.1097	150.0000	151.6000	ug/L	1	10	
Sodium	0.3951	0.3318	15000.00	15010.00	ug/L	0	10	
Thallium	0.3837	0.4040	150.0000	150.8000	ug/L	1	10	
Vanadium	1.9648	1.7869	150.0000	153.5000	ug/L	2	10	
Zinc	0.3694	0.2463	150.0000	150.9000	ug/L	1	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	1053429	-5.36
Scandium	1539924	1536538	-0.22
Germanium	348997	349075	0.02
Indium	2362006	2289144	-3.08
Bismuth	1616339	1552990	-3.92

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791027 Filename : e1321027 Injected : 13-MAY-2005 23:37
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	[1.1940]	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.333900	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	[0.1830]	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791039 Filename : e1321039 Injected : 14-MAY-2005 00:46
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2922	150.0000	160.4000	ug/L	7	10	
Antimony	0.1525	0.1447	150.0000	147.6000	ug/L	-2	10	
Arsenic	0.2656	0.2505	150.0000	152.2000	ug/L	1	10	
Barium	0.0537	0.0488	150.0000	148.3000	ug/L	-1	10	
Beryllium	0.0922	0.0905	150.0000	151.7000	ug/L	1	10	
Cadmium	0.3164	0.2313	150.0000	153.7000	ug/L	2	10	
Calcium	0.0108	0.0096	15000.00	15030.00	ug/L	0	10	
Chromium	1.9238	1.5196	150.0000	152.6000	ug/L	2	10	
Cobalt	1.7298	1.6812	150.0000	151.0000	ug/L	1	10	
Copper	0.4781	0.4130	150.0000	151.2000	ug/L	1	10	
Iron	0.0519	0.0410	15000.00	15070.00	ug/L	0	10	
Lead	0.5424	0.5238	150.0000	150.6000	ug/L	0	10	
Magnesium	0.0349	0.0328	15000.00	14700.00	ug/L	-2	10	
Manganese	2.2418	2.0269	150.0000	152.6000	ug/L	2	10	
Molybdenum	0.4576	0.4490	150.0000	151.5000	ug/L	1	10	
Nickel	0.3809	0.3510	150.0000	150.1000	ug/L	0	10	
Potassium	0.6242	0.2984	15000.00	15040.00	ug/L	0	10	
Selenium	0.0306	0.0151	150.0000	153.6000	ug/L	2	10	
Silver	1.1520	1.1377	150.0000	155.4000	ug/L	4	10	
Sodium	0.3951	0.3206	15000.00	14500.00	ug/L	-3	10	
Thallium	0.3837	0.4002	150.0000	149.4000	ug/L	0	10	
Vanadium	1.9648	1.7828	150.0000	153.1000	ug/L	2	10	
Zinc	0.3694	0.2455	150.0000	150.4000	ug/L	0	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	995049	-10.60
Scandium	1539924	1500840	-2.54
Germanium	348997	338557	-2.99
Indium	2362006	2298340	-2.70
Bismuth	1616339	1570153	-2.86

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Instid : MET05 Run Name :
Seqnum : 55192791041 Filename : e1321041 Injected : 14-MAY-2005 00:58
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	[2.2280]	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.322100	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	[7.3800]	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	[0.2489]	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	[0.1202]	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	[0.2109]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791053 Filename : e1321053 Injected : 14-MAY-2005 02:08
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2871	150.0000	157.6000	ug/L	5	10	
Antimony	0.1525	0.1482	150.0000	151.2000	ug/L	1	10	
Arsenic	0.2656	0.2539	150.0000	154.2000	ug/L	3	10	
Barium	0.0537	0.0498	150.0000	151.3000	ug/L	1	10	
Beryllium	0.0922	0.0919	150.0000	154.0000	ug/L	3	10	
Cadmium	0.3164	0.2380	150.0000	158.2000	ug/L	5	10	
Calcium	0.0108	0.0098	15000.00	15400.00	ug/L	3	10	
Chromium	1.9238	1.5360	150.0000	154.2000	ug/L	3	10	
Cobalt	1.7298	1.7036	150.0000	153.0000	ug/L	2	10	
Copper	0.4781	0.4178	150.0000	152.9000	ug/L	2	10	
Iron	0.0519	0.0413	15000.00	15190.00	ug/L	1	10	
Lead	0.5424	0.5309	150.0000	152.6000	ug/L	2	10	
Magnesium	0.0349	0.0334	15000.00	14980.00	ug/L	0	10	
Manganese	2.2418	2.0570	150.0000	154.9000	ug/L	3	10	
Molybdenum	0.4576	0.4602	150.0000	155.3000	ug/L	4	10	
Nickel	0.3809	0.3550	150.0000	151.8000	ug/L	1	10	
Potassium	0.6242	0.3053	15000.00	15390.00	ug/L	3	10	
Selenium	0.0306	0.0153	150.0000	155.8000	ug/L	4	10	
Silver	1.1520	1.1608	150.0000	158.5000	ug/L	6	10	
Sodium	0.3951	0.3274	15000.00	14810.00	ug/L	-1	10	
Thallium	0.3837	0.4142	150.0000	154.6000	ug/L	3	10	
Vanadium	1.9648	1.7986	150.0000	154.5000	ug/L	3	10	
Zinc	0.3694	0.2461	150.0000	150.8000	ug/L	1	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	973609	-12.53
Scandium	1539924	1448681	-5.93
Germanium	348997	330607	-5.27
Indium	2362006	2248232	-4.82
Bismuth	1616339	1559589	-3.51

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Instid : MET05 Run Name :
Seqnum : 55192791055 Filename : e1321055 Injected : 14-MAY-2005 02:20
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	[2.6200]	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.331400	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	[8.3810]	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	[0.1018]	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	[0.1200]	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791067 Filename : e1321067 Injected : 14-MAY-2005 03:31
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2847	150.0000	156.2000	ug/L	4	10	
Antimony	0.1525	0.1441	150.0000	147.1000	ug/L	-2	10	
Arsenic	0.2656	0.2485	150.0000	150.9000	ug/L	1	10	
Barium	0.0537	0.0483	150.0000	146.9000	ug/L	-2	10	
Beryllium	0.0922	0.0912	150.0000	152.8000	ug/L	2	10	
Cadmium	0.3164	0.2288	150.0000	152.0000	ug/L	1	10	
Calcium	0.0108	0.0095	15000.00	14980.00	ug/L	0	10	
Chromium	1.9238	1.5043	150.0000	151.1000	ug/L	1	10	
Cobalt	1.7298	1.6692	150.0000	149.9000	ug/L	0	10	
Copper	0.4781	0.4115	150.0000	150.6000	ug/L	0	10	
Iron	0.0519	0.0408	15000.00	15000.00	ug/L	0	10	
Lead	0.5424	0.5178	150.0000	148.8000	ug/L	-1	10	
Magnesium	0.0349	0.0329	15000.00	14710.00	ug/L	-2	10	
Manganese	2.2418	2.0061	150.0000	151.0000	ug/L	1	10	
Molybdenum	0.4576	0.4461	150.0000	150.6000	ug/L	0	10	
Nickel	0.3809	0.3508	150.0000	150.0000	ug/L	0	10	
Potassium	0.6242	0.2992	15000.00	15080.00	ug/L	1	10	
Selenium	0.0306	0.0148	150.0000	150.5000	ug/L	0	10	
Silver	1.1520	1.1256	150.0000	153.7000	ug/L	2	10	
Sodium	0.3951	0.3218	15000.00	14560.00	ug/L	-3	10	
Thallium	0.3837	0.4000	150.0000	149.3000	ug/L	0	10	
Vanadium	1.9648	1.7975	150.0000	154.4000	ug/L	3	10	
Zinc	0.3694	0.2436	150.0000	149.2000	ug/L	-1	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	1003428	-9.85
Scandium	1539924	1522514	-1.13
Germanium	348997	342870	-1.76
Indium	2362006	2310559	-2.18
Bismuth	1616339	1578546	-2.34

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Instid : MET05 Run Name :
Seqnum : 55192791069 Filename : e1321069 Injected : 14-MAY-2005 03:42
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	[3.9450]	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.332400	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	[10.320]	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	[0.1407]	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	[0.1456]	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791084 Filename : e1321084 Injected : 14-MAY-2005 05:10
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2744	150.0000	150.5000	ug/L	0	10	
Antimony	0.1525	0.1466	150.0000	149.6000	ug/L	0	10	
Arsenic	0.2656	0.2531	150.0000	153.7000	ug/L	2	10	
Barium	0.0537	0.0492	150.0000	149.6000	ug/L	0	10	
Beryllium	0.0922	0.0909	150.0000	152.4000	ug/L	2	10	
Cadmium	0.3164	0.2449	150.0000	162.8000	ug/L	9	10	
Calcium	0.0108	0.0096	15000.00	15030.00	ug/L	0	10	
Chromium	1.9238	1.5394	150.0000	154.6000	ug/L	3	10	
Cobalt	1.7298	1.6849	150.0000	151.4000	ug/L	1	10	
Copper	0.4781	0.4098	150.0000	150.0000	ug/L	0	10	
Iron	0.0519	0.0414	15000.00	15200.00	ug/L	1	10	
Lead	0.5424	0.5177	150.0000	148.8000	ug/L	-1	10	
Magnesium	0.0349	0.0319	15000.00	14270.00	ug/L	-5	10	
Manganese	2.2418	2.0540	150.0000	154.6000	ug/L	3	10	
Molybdenum	0.4576	0.4687	150.0000	158.2000	ug/L	5	10	
Nickel	0.3809	0.3506	150.0000	149.9000	ug/L	0	10	
Potassium	0.6242	0.2976	15000.00	15000.00	ug/L	0	10	
Selenium	0.0306	0.0154	150.0000	156.8000	ug/L	5	10	
Silver	1.1520	1.1894	150.0000	162.4000	ug/L	8	10	
Sodium	0.3951	0.3096	15000.00	14000.00	ug/L	-7	10	
Thallium	0.3837	0.4017	150.0000	150.0000	ug/L	0	10	
Vanadium	1.9648	1.7988	150.0000	154.5000	ug/L	3	10	
Zinc	0.3694	0.2438	150.0000	149.4000	ug/L	0	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	944965	-15.10
Scandium	1539924	1454522	-5.55
Germanium	348997	327609	-6.13
Indium	2362006	2326951	-1.48
Bismuth	1616339	1657766	2.56

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Instid : MET05 Run Name :
Seqnum : 55192791086 Filename : e1321086 Injected : 14-MAY-2005 05:21
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.330100	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	[0.1671]	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791098 Filename : e1321098 Injected : 14-MAY-2005 06:31
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2730	150.0000	149.7000	ug/L	0	10	
Antimony	0.1525	0.1456	150.0000	148.6000	ug/L	-1	10	
Arsenic	0.2656	0.2514	150.0000	152.7000	ug/L	2	10	
Barium	0.0537	0.0489	150.0000	148.8000	ug/L	-1	10	
Beryllium	0.0922	0.0905	150.0000	151.7000	ug/L	1	10	
Cadmium	0.3164	0.2461	150.0000	163.6000	ug/L	9	10	
Calcium	0.0108	0.0095	15000.00	15010.00	ug/L	0	10	
Chromium	1.9238	1.5335	150.0000	154.0000	ug/L	3	10	
Cobalt	1.7298	1.6656	150.0000	149.6000	ug/L	0	10	
Copper	0.4781	0.4060	150.0000	148.6000	ug/L	-1	10	
Iron	0.0519	0.0406	15000.00	14930.00	ug/L	0	10	
Lead	0.5424	0.5158	150.0000	148.3000	ug/L	-1	10	
Magnesium	0.0349	0.0318	15000.00	14240.00	ug/L	-5	10	
Manganese	2.2418	2.0321	150.0000	153.0000	ug/L	2	10	
Molybdenum	0.4576	0.4683	150.0000	158.1000	ug/L	5	10	
Nickel	0.3809	0.3465	150.0000	148.2000	ug/L	-1	10	
Potassium	0.6242	0.2971	15000.00	14970.00	ug/L	0	10	
Selenium	0.0306	0.0153	150.0000	155.8000	ug/L	4	10	
Silver	1.1520	1.1954	150.0000	163.3000	ug/L	9	10	
Sodium	0.3951	0.3095	15000.00	14000.00	ug/L	-7	10	
Thallium	0.3837	0.4005	150.0000	149.5000	ug/L	0	10	
Vanadium	1.9648	1.7890	150.0000	153.6000	ug/L	2	10	
Zinc	0.3694	0.2406	150.0000	147.4000	ug/L	-2	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	924336	-16.96
Scandium	1539924	1426787	-7.35
Germanium	348997	325497	-6.73
Indium	2362006	2348060	-0.59
Bismuth	1616339	1658071	2.58

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Instid : MET05 Run Name :
Seqnum : 55192791100 Filename : e1321100 Injected : 14-MAY-2005 06:43
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.317400	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	[10.190]	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791107 Filename : e1321107 Injected : 14-MAY-2005 07:24
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55192791001	13-MAY-2005	2.063000	0.250000	ug/L	
Arsenic	55192791001	13-MAY-2005	0.877800	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	0.846400	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	[0.0050]	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	[0.0914]	0.250000	ug/L	
Chromium	55192791001	13-MAY-2005	1.274000	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	2.514000	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	1.450000	0.500000	ug/L	
Lead	55192791001	13-MAY-2005	1.214000	0.250000	ug/L	
Manganese	55192791001	13-MAY-2005	1.214000	0.250000	ug/L	
Nickel	55192791001	13-MAY-2005	1.383000	0.250000	ug/L	
Selenium	55192791001	13-MAY-2005	0.657100	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	[0.1377]	0.250000	ug/L	
Thallium	55192791001	13-MAY-2005	[0.0445]	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	[0.1545]	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	2.990000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55192791001	13-MAY-2005	100000	84110	ug/L	84
Calcium	55192791001	13-MAY-2005	300000	281700	ug/L	94
Iron	55192791001	13-MAY-2005	250000	230800	ug/L	92
Magnesium	55192791001	13-MAY-2005	100000	88890	ug/L	89
Molybdenum	55192791001	13-MAY-2005	2000	2014	ug/L	101
Potassium	55192791001	13-MAY-2005	100000	92430	ug/L	92
Sodium	55192791001	13-MAY-2005	250000	208600	ug/L	83

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791108 Filename : e1321108 Injected : 14-MAY-2005 07:30
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	86460.00	ug/L	-14		
Arsenic	100.0000	107.1000	ug/L	7	20	
Cadmium	100.0000	102.9000	ug/L	3	20	
Calcium	300000.0	291700.0	ug/L	-3		
Chromium	200.0000	210.3000	ug/L	5	20	
Cobalt	200.0000	200.0000	ug/L	0	20	
Copper	200.0000	191.4000	ug/L	-4	20	
Iron	250000.0	240600.0	ug/L	-4		
Magnesium	100000.0	91370.00	ug/L	-9		
Manganese	200.0000	208.6000	ug/L	4	20	
Molybdenum	2000.000	2064.000	ug/L	3		
Nickel	200.0000	194.4000	ug/L	-3	20	
Potassium	100000.0	95550.00	ug/L	-4		
Selenium	100.0000	102.2000	ug/L	2	20	
Silver	50.00000	50.09000	ug/L	0	20	
Sodium	250000.0	214100.0	ug/L	-14		
Vanadium	200.0000	214.4000	ug/L	7	20	
Zinc	100.0000	99.77000	ug/L	0	20	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Scandium	1539924	1414328	-8.16
Germanium	348997	309688	-11.26

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55192791110 Filename : e1321110 Injected : 14-MAY-2005 07:41
Calnum : 55192791001 Caldate : 13-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.6002	0.2856	150.0000	156.8000	ug/L	5	10	
Antimony	0.1525	0.1449	150.0000	147.8000	ug/L	-1	10	
Arsenic	0.2656	0.2506	150.0000	152.2000	ug/L	1	10	
Barium	0.0537	0.0491	150.0000	149.4000	ug/L	0	10	
Beryllium	0.0922	0.0894	150.0000	149.8000	ug/L	0	10	
Cadmium	0.3164	0.2492	150.0000	165.6000	ug/L	10	10	
Calcium	0.0108	0.0096	15000.00	15140.00	ug/L	1	10	
Chromium	1.9238	1.5430	150.0000	155.0000	ug/L	3	10	
Cobalt	1.7298	1.6771	150.0000	150.7000	ug/L	0	10	
Copper	0.4781	0.4086	150.0000	149.6000	ug/L	0	10	
Iron	0.0519	0.0415	15000.00	15240.00	ug/L	2	10	
Lead	0.5424	0.5194	150.0000	149.3000	ug/L	0	10	
Magnesium	0.0349	0.0315	15000.00	14110.00	ug/L	-6	10	
Manganese	2.2418	2.0624	150.0000	155.3000	ug/L	4	10	
Molybdenum	0.4576	0.4788	150.0000	161.6000	ug/L	8	10	
Nickel	0.3809	0.3499	150.0000	149.6000	ug/L	0	10	
Potassium	0.6242	0.3003	15000.00	15140.00	ug/L	1	10	
Selenium	0.0306	0.0154	150.0000	156.6000	ug/L	4	10	
Silver	1.1520	1.2191	150.0000	166.5000	ug/L	11	10	c+ ***
Sodium	0.3951	0.3074	15000.00	13900.00	ug/L	-7	10	
Thallium	0.3837	0.4035	150.0000	150.6000	ug/L	0	10	
Vanadium	1.9648	1.8024	150.0000	154.8000	ug/L	3	10	
Zinc	0.3694	0.2410	150.0000	147.6000	ug/L	-2	10	

ISTD (ICALBLK=e1321003)	ICALBLK Abund	Abund	%Diff
Lithium	1113066	920178	-17.33
Scandium	1539924	1430786	-7.09
Germanium	348997	326151	-6.55
Indium	2362006	2381304	0.82
Bismuth	1616339	1699312	5.13

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55192791112 Filename : e1321112 Injected : 14-MAY-2005 07:53
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55192791001	13-MAY-2005	[3.1600]	50.00000	ug/L	
Antimony	55192791001	13-MAY-2005	0.324700	0.250000	ug/L	ib ***
Arsenic	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Barium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Beryllium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Cadmium	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Calcium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Chromium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Cobalt	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Copper	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Iron	55192791001	13-MAY-2005	[9.0140]	50.00000	ug/L	
Lead	55192791001	13-MAY-2005	[0.0735]	0.250000	ug/L	
Magnesium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Manganese	55192791001	13-MAY-2005	[0.0790]	0.250000	ug/L	
Molybdenum	55192791001	13-MAY-2005	[0.3722]	0.500000	ug/L	
Nickel	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Potassium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Selenium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Silver	55192791001	13-MAY-2005	ND	0.250000	ug/L	
Sodium	55192791001	13-MAY-2005	ND	50.00000	ug/L	
Thallium	55192791001	13-MAY-2005	ND	0.500000	ug/L	
Vanadium	55192791001	13-MAY-2005	ND	1.000000	ug/L	
Zinc	55192791001	13-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55196561 Instrument: MET05 Agilent ICP-MS Begun: 16-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1611001	TUN	tune			16-MAY-2005 12:01	1.0	1.0				1	
003	e1611003	ICALBLK	std-blk			16-MAY-2005 12:12	1.0	1.0				2	
004	e1611004	ICAL	cs1			16-MAY-2005 12:17	1.0	1.0				3	
005	e1611005	ICAL	cs2			16-MAY-2005 12:23	1.0	1.0				4	
006	e1611006	ICAL	cs3			16-MAY-2005 12:28	1.0	1.0				5	
007	e1611007	ICAL	cs4			16-MAY-2005 12:33	1.0	1.0				6	
008	e1611008	ICAL	cs5			16-MAY-2005 12:38	1.0	1.0				7	
009	e1611009	ICAL	cs6			16-MAY-2005 12:43	1.0	1.0				8	
010	e1611010	ICV				16-MAY-2005 12:48	1.0	1.0			1	9	
014	e1611014	ICB				16-MAY-2005 13:12	1.0	1.0	1		1	2	
015	e1611015	ICSA				16-MAY-2005 13:18	1.0	1.0			1	10 2	7:CA=291800
016	e1611016	ICSAB				16-MAY-2005 13:24	1.0	1.0			1	11 2	13:CA=298500
018	e1611018	MSS	179266-001	101858	Soil	16-MAY-2005 13:35	5.0	45.87	9		1	2	9:FE=104960
019	e1611019	SER	QC293132	101858	Soil	16-MAY-2005 13:41	25.0	45.87		3	1	2	3:FE=21960.0
020	e1611020	SER	QC293132	101858	Soil	16-MAY-2005 13:47	250.0	45.87		3	1	2	1:AL=1015.6
021	e1611021	PDS	QC293133	101858	Soil	16-MAY-2005 13:53	5.0	45.87	3		1	12 13 2	12:FE=12184(
022	e1611022	PDS	QC293133	101858	Soil	16-MAY-2005 14:04	50.0	45.87		13	1	12 13 2	2:AL=5690.0(
023	e1611023	SAMPLE	179266-007	101858	Soil	16-MAY-2005 14:09	250.0	50.0			1	2	1:AL=1275.20
025	e1611025	CCV				16-MAY-2005 14:21	1.0	1.0			1	14 2	
026	e1611026	X	RINSE			16-MAY-2005 14:27	1.0					2	
027	e1611027	CCB				16-MAY-2005 14:33	1.0	1.0	1		1	2	
028	e1611028	SAMPLE	179307-006	101858	Soil	16-MAY-2005 14:39	100.0	44.64			1	2	1:AL=1179.00
029	e1611029	SAMPLE	179307-009	101858	Soil	16-MAY-2005 14:45	250.0	47.17			1	2	1:AL=276.280
030	e1611030	BLANK	QC293814	102036	Filtra	16-MAY-2005 14:51	1.0	1.0			1	2	
031	e1611031	BS	QC293815	102036	Filtra	16-MAY-2005 14:57	1.0	1.0			1	2	
032	e1611032	BSD	QC293816	102036	Filtra	16-MAY-2005 15:03	1.0	1.0			1	2	
033	e1611033	X		102036	Filtra	16-MAY-2005 15:08	1.0	1.0			1	2	
035	e1611035	PDS	QC293820	102036	Filtra	16-MAY-2005 15:20	1.0	1.0		4	1	15 2	
036	e1611036	SAMPLE	179304-002	102036	Filtra	16-MAY-2005 15:30	1.0	1.0			1	2	3:NA=430900
037	e1611037	MSS	179304-001	102036	Filtra	16-MAY-2005 15:36	1.0	1.0	3		1	2	2:CA=593800
040	e1611040	CCV				16-MAY-2005 15:53	1.0	1.0			1	14 2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=04SS228 14=S403 15=S

Analyst: Melissa Date: 5/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55196561 Instrument: MET05 Agilent ICP-MS Begun: 16-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
042	e1611042	CCB				16-MAY-2005 16:05	1.0	1.0	2		1	2	
043	e1611043	SER	QC293819	102036	Filtra	16-MAY-2005 16:11	5.0	1.0	1	1	1	2	3:NA=378600
044	e1611044	MS	QC293817	102036	Filtra	16-MAY-2005 16:17	1.0	1.0		4	1	2	
045	e1611045	MSD	QC293818	102036	Filtra	16-MAY-2005 16:23	1.0	1.0		4	1	2	
047	e1611047	SER	QC293819	102036	Filtra	16-MAY-2005 16:35	5.0	1.0		2	1	2	2:CA=114240
048	e1611048	ICSA				16-MAY-2005 16:40	1.0	1.0			1	10 2	7:CA=289000
049	e1611049	ICSAB				16-MAY-2005 16:46	1.0	1.0			1	11 2	10:CA=294200

263

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=04SS227 13=04SS228 14=S403 15=S

Analyst: _____ Date: _____

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55196561002 Name: Type: (normal) Date: 16-MAY-2005 12:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1611004	55196561004	cs1	16-MAY-2005 12:17	S395
2	e1611005	55196561005	cs2	16-MAY-2005 12:23	S396
3	e1611006	55196561006	cs3	16-MAY-2005 12:28	S397
4	e1611007	55196561007	cs4	16-MAY-2005 12:33	S398
5	e1611008	55196561008	cs5	16-MAY-2005 12:38	S393
6	e1611009	55196561009	cs6	16-MAY-2005 12:43	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		0.9745	0.5788	0.3783	0.3599	0.3365	BLNK	R	-0.68380	2.943000		ug/L	0.5256	0.999	0.995	
Antimony	0.2172	0.1767	0.1587	0.1472	0.1510	0.1534	BLNK	R	-0.13103	6.544888		ug/L	0.1674	1.000	0.995	
Arsenic		0.3017	0.3138	0.2765	0.2659	0.2667	BLNK	R	-0.19283	3.755747		ug/L	0.2849	1.000	0.995	
Barium	0.0807	0.0642	0.0565	0.0527	0.0499	0.0506	BLNK	R	-0.10957	19.82856		ug/L	0.0591	1.000	0.995	
Beryllium	0.1096	0.1035	0.1044	0.1032	0.1037	0.1035	BLNK	R	-0.02812	9.656733		ug/L	0.1047	1.000	0.995	
Cadmium	0.5310	0.3598	0.2695	0.2094	0.1956	0.1918	BLNK	R	-0.45593	5.207246		ug/L	0.2928	1.000	0.995	
Calcium		0.0225	0.0163	0.0108	0.0105	0.0100	BLNK	R	-68.8744	99.43609		ug/L	0.0140	0.999	0.995	
Chromium		3.8430	2.7561	1.9374	1.8367	1.7970	BLNK	R	-0.52049	0.555729		ug/L	2.4341	1.000	0.995	
Cobalt	2.3791	2.2404	2.0955	1.9876	2.0707	1.9750	BLNK	R	-0.03453	0.501581		ug/L	2.1247	0.999	0.995	
Copper		0.8347	0.6895	0.5306	0.4941	0.4787	BLNK	R	-0.29372	2.078914		ug/L	0.6055	1.000	0.995	
Iron		0.1043	0.0760	0.0495	0.0494	0.0468	BLNK	R	-59.5016	21.21343		ug/L	0.0652	0.999	0.995	
Lead	0.9272	0.7495	0.6436	0.5713	0.5850	0.5672	BLNK	R	-0.15476	1.753825		ug/L	0.6740	1.000	0.995	
Magnesium		0.0440	0.0430	0.0464	0.0431	0.0408	BLNK	R	-0.81573	24.25295		ug/L	0.0435	0.999	0.995	
Manganese	4.2039	3.3091	2.7949	2.3937	2.3559	2.2813	BLNK	R	-0.19678	0.435996		ug/L	2.8898	1.000	0.995	
Molybdenum		0.4885	0.4389	0.4279	0.4142	0.4239	BLNK	R	-0.09120	2.371392		ug/L	0.4387	1.000	0.995	
Nickel	0.7483	0.6686	0.4989	0.4457	0.4439	0.4289	BLNK	R	-0.16983	2.317597		ug/L	0.5391	1.000	0.995	
Potassium		2.3833	1.3733	0.4526	0.3536	0.3361	BLNK	R	-323.288	3.001624		ug/L	0.9798	1.000	0.995	
Selenium		0.0380	0.0256	0.0161	0.0143	0.0141	BLNK	R	-0.81757	71.07621		ug/L	0.0216	1.000	0.995	
Silver	1.2292	1.1013	1.0578	0.9897	0.9821	0.9577	BLNK	R	-0.04817	1.039129		ug/L	1.0530	1.000	0.995	
Sodium		2.3473	1.3999	0.5392	0.4430	0.4212	BLNK	R	-250.987	2.385034		ug/L	1.0301	1.000	0.995	

264

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55196561002 Name: Type: (normal) Date: 16-MAY-2005 12:12 Inj Vol (uL): 1

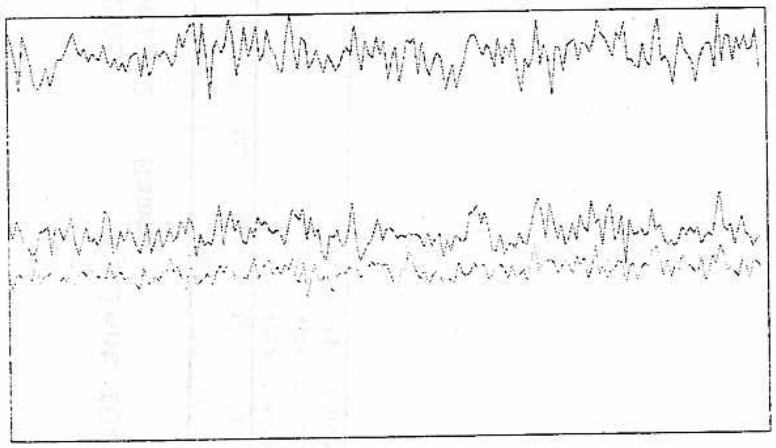
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.4636	0.4259	0.4283	0.4513	0.4385	BLNK	R	-0.07966	2.268415		ug/L	0.4415	1.000	0.995	
Vanadium		3.0158	2.4486	2.1480	2.1668	2.1204	BLNK	R	-0.16293	0.470023		ug/L	2.3799	1.000	0.995	
Zinc		0.8275	0.4851	0.3000	0.2704	0.2639	BLNK	R	-0.59909	3.783625		ug/L	0.4294	1.000	0.995	

265

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



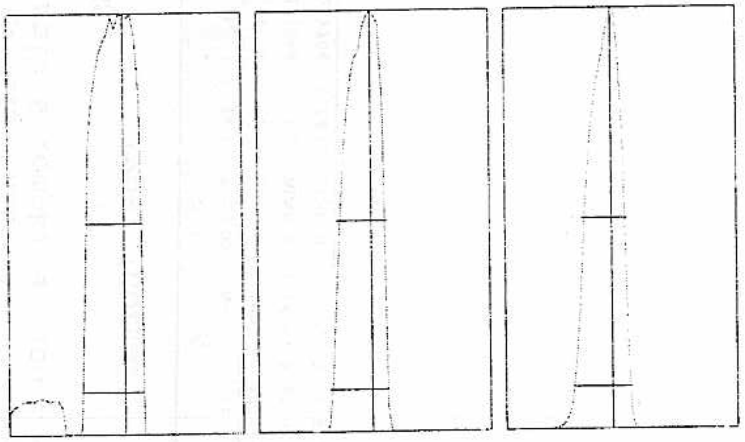
m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	17,237	23,355	19,596
Mean:	18096.1	24207.7	19666.5
RSD%:	4.29	6.50	5.21
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.55%
Doubly Charged:	70/140	2.07%

Background:

m/z:	7	89	205
Cps:	55.2	47.4	71.2



m/z:	7	89	205
Height:	18,346	24,674	23,625
Axis:	7.00	89.00	204.90
W-50%:	0.75	0.65	0.60
W-10%:	0.800	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1280 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	126
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	0.01
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 16, 2005 11:02:48
Printed : May 16, 2005 11:02:55

P/A Factor Tuning Report

Acquired:May 16 2005 11:33 am

Mass[amu]	Element	P/A Factor
6	Li	0.062218
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.082663
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.092770
45	Sc	0.090357
51	V	0.092929
52	Cr	0.095313
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.096791
57	Fe	0.099878
59	Co	0.100585
60	Ni	Sensitivity too low
63	Cu	Sensitivity too low
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.102914
95	Mo	Sensitivity too low
98	Mo	Sensitivity too low
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	Sensitivity too low
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.110994
118	(In)	Sensitivity too low
121	Sb	Sensitivity too low
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.115152
166	Er	Sensitivity too low

205	Tl	0.119691
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	Sensitivity too low
209	Bi	0.120101
232	Th	0.118946
238	U	0.119230

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 16 2005 11:51 am

Mass[amu]	Element	P/A Factor
6	Li	0.062786
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.083265
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.094386
45	Sc	0.090842
51	V	0.094191
52	Cr	0.096396
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.098370
57	Fe	0.100992
59	Co	0.101661
60	Ni	Sensitivity too low
63	Cu	0.104286
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103450
95	Mo	Sensitivity too low
98	Mo	Sensitivity too low
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109462
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.111374
118	(In)	0.108423
121	Sb	0.108302
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.115252
166	Er	Sensitivity too low

205	Tl	0.120924
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.119539
209	Bi	0.120792
232	Th	0.121658
238	U	0.120842

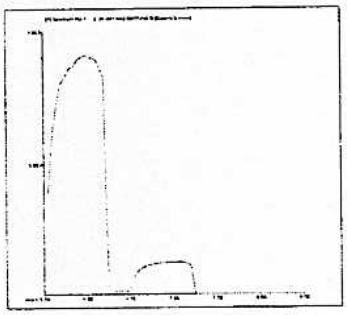
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

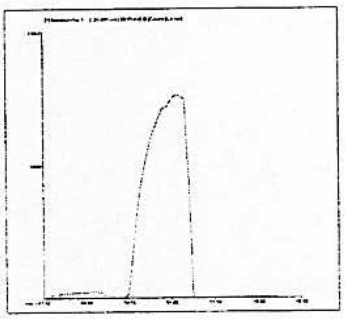
Data File: C:\ICPCHEM\1\DATA\05E1611a.B\001TUNE.D
Date Acquired: May 16 2005 12:01 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

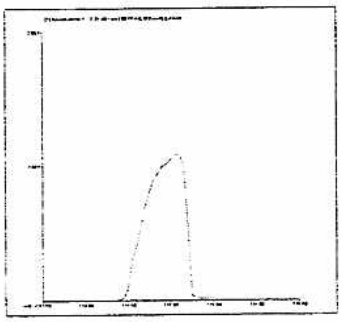
Element	Actual	Required	Flag
7 Li	1.16	5.00	
59 Co	0.68	5.00	
115 In	0.94	5.00	
205 Tl	1.77	5.00	



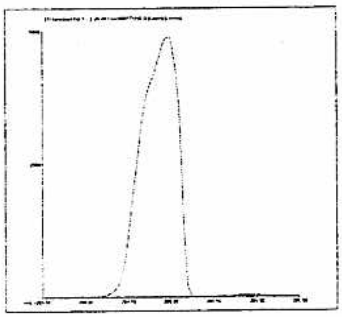
7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.10
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 16 2005 12:06 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 13 2005 09:55 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.0131	ppb	54.69	0.0131	1.00	
23 Na	262.9	ppb	2.90	262.9	1.00	
26 Mg	-1.74	ppb	4.25	-1.74	1.00	
27 Al	-0.467	ppb	5.96	-0.467	1.00	
39 K	167	ppb	4.14	167	1.00	
44 Ca	57.29	ppb	5.44	57.29	1.00	
51 V	-0.0584	ppb	131.61	-0.0584	1.00	
52 Cr	0.1927	ppb	8.34	0.1927	1.00	
55 Mn	0.1506	ppb	2.87	0.1506	1.00	
57 Fe	21.27	ppb	6.19	21.27	1.00	
59 Co	0.01778	ppb	19.83	0.01778	1.00	
60 Ni	0.1408	ppb	17.69	0.1408	1.00	
65 Cu	0.2769	ppb	10.65	0.2769	1.00	
66 Zn	0.3959	ppb	10.26	0.3959	1.00	
75 As	0.04362	ppb	318.20	0.04362	1.00	
82 Se	-0.6043	ppb	35.46	-0.6043	1.00	
95 Mo	0.01112	ppb	74.75	0.01112	1.00	
109 Ag	0.01674	ppb	42.10	0.01674	1.00	
111 Cd	0.03807	ppb	234.31	0.03807	1.00	
121 Sb	0.1192	ppb	18.41	0.1192	1.00	
137 Ba	0.02828	ppb	49.47	0.02828	1.00	
205 Tl	0.1104	ppb	16.24	0.1104	1.00	
208 Pb	0.1313	ppb	9.25	0.1313	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	919645.50	1.16	---	#VALUE!	30 - 200	
45 Sc	970274.94	2.92	---	#VALUE!	30 - 200	
72 Ge	185576.44	3.84	---	#VALUE!	30 - 200	

115 In	993577.44	1.96	---	#VALUE!	30 - 200
209 Bi	541068.88	2.13	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E1611a.B\003CAL
Date Acquired:	May 16 2005 12:12 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 13 2005 09:55 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	897509.00	A	5474.00	0.61
9	Be	52.22	P	16.78	32.13
23	Na	1929978.00	A	14630.00	0.76
26	Mg	617.78	P	81.94	13.26
27	Al	4263.33	P	201.70	4.73
39	K	1976234.00	A	82280.00	4.16
44	Ca	12709.08	P	518.30	4.08
45	Sc	917167.50	A	19320.00	2.11
51	V	1227.04	P	506.20	41.25
52	Cr	3297.78	P	179.70	5.45
55	Mn	1587.78	P	35.64	2.24
57	Fe	9875.55	P	469.80	4.76
59	Co	242.22	P	6.94	2.86
60	Ni	257.78	P	12.62	4.90
65	Cu	496.66	P	29.63	5.97
66	Zn	557.78	P	47.18	8.46
72	Ge	175974.91	P	3815.00	2.17
75	As	182.57	P	144.80	79.31
82	Se	40.53	P	3.87	9.55
95	Mo	135.56	P	17.11	12.62
109	Ag	163.33	P	20.00	12.25
111	Cd	308.37	P	32.35	10.49
115	In	934954.13	A	2214.00	0.24
121	Sb	374.44	P	57.38	15.32
137	Ba	103.33	P	17.64	17.07
205	Tl	357.78	P	35.95	10.05
208	Pb	898.89	P	54.30	6.04
209	Bi	509268.91	P	2804.00	0.55
232	Th	3578.89	P	240.10	6.71
238	U	110.00	P	11.55	10.50

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\004CALI.D\004CALI.D#
Date Acquired: May 16 2005 12:17 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	905236.31	A	23350.00	2.58
9 Be	496.67	P	49.33	9.93
23 Na	2104663.00	A	32050.00	1.52
26 Mg	20570.00	P	742.70	3.61
27 Al	7485.56	P	364.80	4.87
39 K	2116364.00	A	76700.00	3.62
44 Ca	16463.01	P	820.40	4.98
45 Sc	918402.50	A	14440.00	1.57
51 V	2846.50	P	317.60	11.16
52 Cr	4886.67	P	220.10	4.50
55 Mn	3734.44	P	300.20	8.04
57 Fe	13688.89	P	486.30	3.55
59 Co	2111.11	P	21.43	1.02
60 Ni	664.44	P	64.06	9.64
65 Cu	1022.13	P	96.45	9.44
66 Zn	1022.33	P	39.77	3.89
72 Ge	177522.70	P	3584.00	2.02
75 As	337.71	P	30.92	9.16
82 Se	46.05	P	7.12	15.45
95 Mo	444.44	P	46.71	10.51
109 Ag	1091.11	P	32.03	2.94
111 Cd	472.20	P	108.40	22.96
115 In	970465.88	A	34160.00	3.52
121 Sb	1055.56	P	104.00	9.85
137 Ba	391.11	P	15.03	3.84
205 Tl	1465.56	P	174.20	11.89
208 Pb	2393.33	P	119.30	4.98
209 Bi	516643.31	P	8613.00	1.67
232 Th	3322.22	P	230.00	6.92
238 U	1377.78	P	116.10	8.43

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	905236.31	2.58	897509.00	100.9	30 - 200	
45 Sc	918402.44	1.57	917167.44	100.1	30 - 200	
72 Ge	177522.67	2.02	175974.89	100.9	30 - 200	
115 In	970465.88	3.52	934954.13	103.8	30 - 200	
209 Bi	516643.31	1.67	509268.88	101.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\005CALI.D\005CALI.D#
Date Acquired: May 16 2005 12:23 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	914321.19	A	18250.00	2.00
9 Be	946.67	P	23.33	2.46
23 Na	2210284.00	A	29800.00	1.35
26 Mg	41425.55	P	758.70	1.83
27 Al	9176.67	P	278.70	3.04
39 K	2244299.00	A	77410.00	3.45
44 Ca	21228.61	P	384.30	1.81
45 Sc	941717.63	A	14010.00	1.49
51 V	5314.61	P	303.40	5.71
52 Cr	6775.56	P	230.60	3.40
55 Mn	5834.44	P	182.10	3.12
57 Fe	18385.55	P	97.89	0.53
59 Co	3950.00	P	187.50	4.75
60 Ni	1178.89	P	30.97	2.63
65 Cu	1472.04	P	100.80	6.85
66 Zn	1459.10	P	49.48	3.39
72 Ge	176302.91	P	1931.00	1.10
75 As	532.33	P	73.97	13.90
82 Se	67.06	P	10.44	15.57
95 Mo	861.11	P	24.57	2.85
109 Ag	1942.22	P	104.60	5.39
111 Cd	634.21	P	10.91	1.72
115 In	950543.00	A	11480.00	1.21
121 Sb	1680.00	P	56.96	3.39
137 Ba	610.00	P	33.33	5.46
205 Tl	2431.11	P	132.40	5.45
208 Pb	3930.00	P	69.36	1.76
209 Bi	524418.88	P	5043.00	0.96
232 Th	3505.55	P	119.70	3.41
238 U	2776.67	P	56.86	2.05

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	914321.19	2.00	897509.00	101.9	30 - 200	
45 Sc	941717.56	1.49	917167.44	102.7	30 - 200	
72 Ge	176302.89	1.10	175974.89	100.2	30 - 200	
115 In	950543.00	1.21	934954.13	101.7	30 - 200	
209 Bi	524418.88	0.96	509268.88	103.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\006CALI.D\006CALI.D#
Date Acquired: May 16 2005 12:28 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	914098.63	A	10590.00	1.16
9 Be	1908.89	P	52.10	2.73
23 Na	2612992.00	A	63670.00	2.44
26 Mg	80255.55	P	1390.00	1.73
27 Al	10804.44	P	358.50	3.32
39 K	2562963.00	A	48400.00	1.89
44 Ca	30440.76	P	1147.00	3.77
45 Sc	933184.38	A	17950.00	1.92
51 V	8742.72	P	509.50	5.83
52 Cr	9845.55	P	292.00	2.97
55 Mn	9984.44	P	137.10	1.37
57 Fe	27143.33	P	652.10	2.40
59 Co	7486.67	P	350.80	4.69
60 Ni	1782.22	P	86.94	4.88
65 Cu	2462.98	P	36.66	1.49
66 Zn	1732.62	P	19.53	1.13
72 Ge	178616.00	P	2145.00	1.20
75 As	1121.10	P	79.17	7.06
82 Se	91.24	P	13.97	15.31
95 Mo	1567.78	P	60.49	3.86
109 Ag	3780.00	P	200.30	5.30
111 Cd	962.41	P	54.15	5.63
115 In	957220.69	A	23290.00	2.43
121 Sb	3034.44	P	161.80	5.33
137 Ba	1081.11	P	29.88	2.76
205 Tl	4473.33	P	12.02	0.27
208 Pb	6764.44	P	284.30	4.20
209 Bi	525343.31	P	12480.00	2.38
232 Th	4702.22	P	35.64	0.76
238 U	5203.33	P	46.31	0.89

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	914098.63	1.16	897509.00	101.8	30 - 200	
45 Sc	933184.44	1.92	917167.44	101.7	30 - 200	
72 Ge	178616.00	1.20	175974.89	101.5	30 - 200	
115 In	957220.69	2.43	934954.13	102.4	30 - 200	
209 Bi	525343.31	2.38	509268.88	103.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\007CALI.D\007CALI.D#
Date Acquired: May 16 2005 12:33 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	906307.63	A	36930.00	4.07
9 Be	18683.33	P	222.80	1.19
23 Na	9968858.00	A	197700.00	1.98
26 Mg	858533.50	A	17800.00	2.07
27 Al	69953.33	P	2165.00	3.09
39 K	8371126.00	A	345900.00	4.13
44 Ca	199795.09	P	6718.00	3.36
45 Sc	924917.63	A	37200.00	4.02
51 V	76571.79	P	2430.00	3.17
52 Cr	69050.00	P	1632.00	2.36
55 Mn	85284.44	P	977.30	1.15
57 Fe	176360.00	P	3289.00	1.86
59 Co	70843.33	P	2271.00	3.21
60 Ni	15891.11	P	594.90	3.74
65 Cu	18914.07	P	528.80	2.80
66 Zn	10687.63	P	408.70	3.82
72 Ge	178280.00	P	7154.00	4.01
75 As	9852.43	P	210.40	2.14
82 Se	574.61	P	21.52	3.75
95 Mo	15251.11	P	418.10	2.74
109 Ag	35276.67	P	1104.00	3.13
111 Cd	7465.78	P	380.20	5.09
115 In	945742.13	A	31540.00	3.33
121 Sb	27832.22	P	988.60	3.55
137 Ba	9972.22	P	416.40	4.18
205 Tl	44160.00	P	1233.00	2.79
208 Pb	58900.00	P	1349.00	2.29
209 Bi	515455.59	P	5386.00	1.04
232 Th	32140.00	P	583.00	1.81
238 U	50207.77	P	1568.00	3.12

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	906307.56	4.07	897509.00	101.0	30 - 200	
45 Sc	924917.56	4.02	917167.44	100.8	30 - 200	
72 Ge	178280.00	4.01	175974.89	101.3	30 - 200	
115 In	945742.13	3.33	934954.13	101.2	30 - 200	
209 Bi	515455.56	1.04	509268.88	101.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\008CALI.D\008CALI.D#
Date Acquired: May 16 2005 12:38 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	886859.69	A	13820.00	1.56
9 Be	183925.59	P	3069.00	1.67
23 Na	82355024.00	A	1902000.00	2.31
26 Mg	8008631.00	A	196100.00	2.45
27 Al	669140.13	A	17720.00	2.65
39 K	65737600.00	A	2186000.00	3.33
44 Ca	1961295.00	A	48980.00	2.50
45 Sc	929482.63	A	14980.00	1.61
51 V	790642.31	A	24150.00	3.05
52 Cr	670287.00	A	26120.00	3.90
55 Mn	859473.19	A	18550.00	2.16
57 Fe	1801295.00	A	51420.00	2.85
59 Co	755443.50	A	13220.00	1.75
60 Ni	162002.20	P	5719.00	3.53
65 Cu	180298.30	P	5201.00	2.88
66 Zn	98657.82	P	3018.00	3.06
72 Ge	182441.80	P	4756.00	2.61
75 As	97037.39	P	3306.00	3.41
82 Se	5232.90	P	126.40	2.42
95 Mo	151094.41	P	2035.00	1.35
109 Ag	358354.41	P	10300.00	2.87
111 Cd	71359.73	P	2918.00	4.09
115 In	968979.31	A	40620.00	4.19
121 Sb	292485.50	P	11460.00	3.92
137 Ba	96707.78	P	3329.00	3.44
205 Tl	461785.59	P	14510.00	3.14
208 Pb	598521.13	P	13230.00	2.21
209 Bi	511597.69	P	8478.00	1.66
232 Th	485272.19	P	18440.00	3.80
238 U	534351.13	P	17230.00	3.22

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	886859.63	1.56	897509.00	98.8	30 - 200	
45 Sc	929482.56	1.61	917167.44	101.3	30 - 200	
72 Ge	182441.77	2.61	175974.89	103.7	30 - 200	
115 In	968979.31	4.19	934954.13	103.6	30 - 200	
209 Bi	511597.75	1.66	509268.88	100.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1611a.B\009CALI.D\009CALI.D#
Date Acquired: May 16 2005 12:43 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 16 2005 00:40 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	890156.31	A	9199.00	1.03
9 Be	368663.31	P	3686.00	1.00
23 Na	160897600.00	A	4967000.00	3.09
26 Mg	15567510.00	A	588100.00	3.78
27 Al	1285203.00	A	45850.00	3.57
39 K	128387300.00	A	3341000.00	2.60
44 Ca	3816404.00	A	143200.00	3.75
45 Sc	955319.19	A	25700.00	2.69
51 V	1555915.00	A	23160.00	1.49
52 Cr	1318206.00	A	19820.00	1.50
55 Mn	1674472.00	A	50060.00	2.99
57 Fe	3435014.00	A	121700.00	3.54
59 Co	1449957.00	A	58630.00	4.04
60 Ni	314872.19	P	11670.00	3.71
65 Cu	351369.31	P	12140.00	3.46
66 Zn	193706.70	P	5426.00	2.80
72 Ge	183502.20	P	5041.00	2.75
75 As	195776.59	P	5740.00	2.93
82 Se	10338.18	P	269.70	2.61
95 Mo	311075.50	P	6877.00	2.21
109 Ag	703240.38	M	34180.00	4.86
111 Cd	140786.41	P	4160.00	2.95
115 In	965740.38	A	25410.00	2.63
121 Sb	592645.38	M	17480.00	2.95
137 Ba	195456.70	P	5165.00	2.64
205 Tl	929005.19	A	33050.00	3.56
208 Pb	1201839.00	P	51610.00	4.29
209 Bi	529602.19	P	12260.00	2.31
232 Th	1166209.00	A	44890.00	3.85
238 U	1133245.00	A	33260.00	2.93

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	890156.31	1.03	897509.00	99.2	30 - 200	
45 Sc	955319.25	2.69	917167.44	104.2	30 - 200	
72 Ge	183502.23	2.75	175974.89	104.3	30 - 200	
115 In	965740.38	2.63	934954.13	103.3	30 - 200	
209 Bi	529602.19	2.31	509268.88	104.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1611a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 16, 2005 12:45
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1611a.b\003calb.d\	003calb.d#	May 16 2005 12:12 pm
2	...hem\1\data\05e1611a.b\004cali.d\	004cali.d#	May 16 2005 12:17 pm
3	...hem\1\data\05e1611a.b\005cali.d\	005cali.d#	May 16 2005 12:23 pm
4	...hem\1\data\05e1611a.b\006cali.d\	006cali.d#	May 16 2005 12:28 pm
5	...hem\1\data\05e1611a.b\007cali.d\	007cali.d#	May 16 2005 12:33 pm
6	...hem\1\data\05e1611a.b\008cali.d\	008cali.d#	May 16 2005 12:38 pm
7	...hem\1\data\05e1611a.b\009cali.d\	009cali.d#	May 16 2005 12:43 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.036E-1*X +2.912E-3(blank)	---	ppb
Na	23	45	Y = 4.193E-1*X +1.052E+2(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.123E-2*X +3.363E-2(blank)	---	ppb
Al	27	45	Y = 3.398E-1*X +2.323E-1(blank)	---	ppb
K	39	45	Y = 3.332E-1*X +1.077E+2(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.006E-2*X +6.926E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.128E+0*X +3.466E-1(blank)	---	ppb
Cr	52	72	Y = 1.799E+0*X +9.366E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.294E+0*X +4.513E-1(blank)	---	ppb
Fe	57	72	Y = 4.714E-2*X +2.805E+0(blank)	---	ppb
Co	59	72	Y = 1.994E+0*X +6.883E-2(blank)	---	ppb
Ni	60	72	Y = 4.315E-1*X +7.328E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 4.810E-1*X +1.413E-1(blank)	---	ppb
Zn	66	72	Y = 2.643E-1*X +1.583E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 2.663E-1*X +5.134E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.407E-2*X +1.150E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 4.217E-1*X +3.846E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 9.623E-1*X +4.636E-2(blank)	---	ppb
Cd	111	72	Y = 1.920E-1*X +8.756E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.528E-1*X +2.002E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 5.043E-2*X +5.526E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.408E-1*X +3.512E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 5.702E-1*X +8.824E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561010 Filename : e1611010 Injected : 16-MAY-2005 12:48
Calnum : 55196561002 Caldate : 16-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	107.4000	ug/L	7	10	
Antimony	100.0000	104.3000	ug/L	4	10	
Arsenic	100.0000	102.1000	ug/L	2	10	
Barium	100.0000	101.3000	ug/L	1	10	
Beryllium	100.0000	99.16000	ug/L	-1	10	
Cadmium	100.0000	104.7000	ug/L	5	10	
Calcium	10000.00	10330.00	ug/L	3	10	
Chromium	100.0000	103.9000	ug/L	4	10	
Cobalt	100.0000	104.7000	ug/L	5	10	
Copper	100.0000	105.3000	ug/L	5	10	
Iron	10000.00	10390.00	ug/L	4	10	
Lead	100.0000	101.8000	ug/L	2	10	
Magnesium	10000.00	10640.00	ug/L	6	10	
Manganese	100.0000	103.5000	ug/L	4	10	
Molybdenum	100.0000	101.4000	ug/L	1	10	
Nickel	100.0000	104.4000	ug/L	4	10	
Potassium	10000.00	10280.00	ug/L	3	10	
Selenium	100.0000	103.7000	ug/L	4	10	
Silver	100.0000	105.6000	ug/L	6	10	
Sodium	10000.00	10280.00	ug/L	3	10	
Thallium	100.0000	101.3000	ug/L	1	10	
Vanadium	100.0000	103.8000	ug/L	4	10	
Zinc	100.0000	104.1000	ug/L	4	10	

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Lithium	897509	890063	-0.83
Scandium	917167	938096	2.28
Germanium	175975	178551	1.46
Indium	934954	948223	1.42
Bismuth	509269	515770	1.28

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561014 Filename : e1611014 Injected : 16-MAY-2005 13:12
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55196561002	16-MAY-2005	[6.1320]	50.00000	ug/L	
Antimony	55196561002	16-MAY-2005	[0.1072]	0.250000	ug/L	
Arsenic	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Barium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Beryllium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Cadmium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Calcium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Chromium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Cobalt	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Copper	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Iron	55196561002	16-MAY-2005	[8.6390]	50.00000	ug/L	
Lead	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Magnesium	55196561002	16-MAY-2005	[6.8070]	50.00000	ug/L	
Manganese	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55196561002	16-MAY-2005	0.507100	0.500000	ug/L	ib ***
Nickel	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Potassium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Selenium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Silver	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Sodium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Thallium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Vanadium	55196561002	16-MAY-2005	ND	1.000000	ug/L	
Zinc	55196561002	16-MAY-2005	[0.2239]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561015 Filename : e1611015 Injected : 16-MAY-2005 13:18
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55196561002	16-MAY-2005	2.450000	0.250000	ug/L	
Arsenic	55196561002	16-MAY-2005	1.282000	0.500000	ug/L	
Barium	55196561002	16-MAY-2005	1.068000	0.250000	ug/L	
Beryllium	55196561002	16-MAY-2005	[0.0305]	0.250000	ug/L	
Cadmium	55196561002	16-MAY-2005	[0.0000]	0.250000	ug/L	
Chromium	55196561002	16-MAY-2005	1.435000	0.500000	ug/L	
Cobalt	55196561002	16-MAY-2005	2.688000	0.250000	ug/L	
Copper	55196561002	16-MAY-2005	1.489000	0.500000	ug/L	
Lead	55196561002	16-MAY-2005	1.267000	0.250000	ug/L	
Manganese	55196561002	16-MAY-2005	1.007000	0.250000	ug/L	
Nickel	55196561002	16-MAY-2005	1.600000	0.250000	ug/L	
Selenium	55196561002	16-MAY-2005	[0.2013]	0.500000	ug/L	
Silver	55196561002	16-MAY-2005	[0.1441]	0.250000	ug/L	
Thallium	55196561002	16-MAY-2005	[0.0449]	0.500000	ug/L	
Vanadium	55196561002	16-MAY-2005	[0.1654]	1.000000	ug/L	
Zinc	55196561002	16-MAY-2005	3.634000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55196561002	16-MAY-2005	100000	96250	ug/L	96
Calcium	55196561002	16-MAY-2005	300000	291800	ug/L	97
Iron	55196561002	16-MAY-2005	250000	239800	ug/L	96
Magnesium	55196561002	16-MAY-2005	100000	103100	ug/L	103
Molybdenum	55196561002	16-MAY-2005	2000	1977	ug/L	99
Potassium	55196561002	16-MAY-2005	100000	96670	ug/L	97
Sodium	55196561002	16-MAY-2005	250000	250400	ug/L	100

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561016 Filename : e1611016 Injected : 16-MAY-2005 13:24
Calnum : 55196561002 Caldate : 16-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	97970.00	ug/L	-2		
Arsenic	100.0000	107.4000	ug/L	7	20	
Cadmium	100.0000	95.00000	ug/L	-5	20	
Calcium	300000.0	298500.0	ug/L	-1		
Chromium	200.0000	213.0000	ug/L	7	20	
Cobalt	200.0000	205.6000	ug/L	3	20	
Copper	200.0000	200.5000	ug/L	0	20	
Iron	250000.0	240900.0	ug/L	-4		
Magnesium	100000.0	104000.0	ug/L	4		
Manganese	200.0000	208.8000	ug/L	4	20	
Molybdenum	2000.000	1994.000	ug/L	0		
Nickel	200.0000	202.6000	ug/L	1	20	
Potassium	100000.0	98870.00	ug/L	-1		
Selenium	100.0000	100.0000	ug/L	0	20	
Silver	50.00000	46.67000	ug/L	-7	20	
Sodium	250000.0	250800.0	ug/L	0		
Vanadium	200.0000	218.3000	ug/L	9	20	
Zinc	100.0000	103.8000	ug/L	4	20	

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Scandium	917167	684715	-25.34
Germanium	175975	127817	-27.37

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55196561025 Filename : e1611025 Injected : 16-MAY-2005 14:21
Calnum : 55196561002 Caldate : 16-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.5256	0.3683	150.0000	161.9000	ug/L	8	10	
Antimony	0.1674	0.1424	150.0000	139.6000	ug/L	-7	10	
Arsenic	0.2849	0.2526	150.0000	142.1000	ug/L	-5	10	
Barium	0.0591	0.0485	150.0000	144.1000	ug/L	-4	10	
Beryllium	0.1047	0.0993	150.0000	143.8000	ug/L	-4	10	
Cadmium	0.2928	0.1753	150.0000	136.5000	ug/L	-9	10	
Calcium	0.0140	0.0099	15000.00	14720.00	ug/L	-2	10	
Chromium	2.4341	1.7947	150.0000	149.1000	ug/L	-1	10	
Cobalt	2.1247	1.9912	150.0000	149.8000	ug/L	0	10	
Copper	0.6055	0.4782	150.0000	148.8000	ug/L	-1	10	
Iron	0.0652	0.0478	15000.00	15150.00	ug/L	1	10	
Lead	0.6740	0.5436	150.0000	142.9000	ug/L	-5	10	
Magnesium	0.0435	0.0440	15000.00	16000.00	ug/L	7	10	
Manganese	2.8898	2.2581	150.0000	147.5000	ug/L	-2	10	
Molybdenum	0.4387	0.3946	150.0000	140.3000	ug/L	-6	10	
Nickel	0.5391	0.4274	150.0000	148.4000	ug/L	-1	10	
Potassium	0.9798	0.3386	15000.00	14920.00	ug/L	-1	10	
Selenium	0.0216	0.0133	150.0000	141.1000	ug/L	-6	10	
Silver	1.0530	0.8954	150.0000	139.5000	ug/L	-7	10	
Sodium	1.0301	0.4376	15000.00	15400.00	ug/L	3	10	
Thallium	0.4415	0.4218	150.0000	143.5000	ug/L	-4	10	
Vanadium	2.3799	2.1110	150.0000	148.7000	ug/L	-1	10	
Zinc	0.4294	0.2538	150.0000	143.4000	ug/L	-4	10	

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Lithium	897509	720127	-19.76
Scandium	917167	704869	-23.15
Germanium	175975	134038	-23.83
Indium	934954	680742	-27.19
Bismuth	509269	343278	-32.59

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561027 Filename : e1611027 Injected : 16-MAY-2005 14:33
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55196561002	16-MAY-2005	[0.8801]	50.00000	ug/L	
Antimony	55196561002	16-MAY-2005	0.279300	0.250000	ug/L	ib ***
Arsenic	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Barium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Beryllium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Cadmium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Calcium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Chromium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Cobalt	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Copper	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Iron	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Lead	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Magnesium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Manganese	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Nickel	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Potassium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Selenium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Silver	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Sodium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Thallium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Vanadium	55196561002	16-MAY-2005	ND	1.000000	ug/L	
Zinc	55196561002	16-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55196561040 Filename : e1611040 Injected : 16-MAY-2005 15:53
Calnum : 55196561002 Caldate : 16-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.5256	0.3506	150.0000	154.1000	ug/L	3	10	
Antimony	0.1674	0.1444	150.0000	141.6000	ug/L	-6	10	
Arsenic	0.2849	0.2514	150.0000	141.4000	ug/L	-6	10	
Barium	0.0591	0.0484	150.0000	143.8000	ug/L	-4	10	
Beryllium	0.1047	0.0953	150.0000	138.1000	ug/L	-8	10	
Cadmium	0.2928	0.1768	150.0000	137.7000	ug/L	-8	10	
Calcium	0.0140	0.0099	15000.00	14720.00	ug/L	-2	10	
Chromium	2.4341	1.8192	150.0000	151.1000	ug/L	1	10	
Cobalt	2.1247	1.9298	150.0000	145.2000	ug/L	-3	10	
Copper	0.6055	0.4831	150.0000	150.3000	ug/L	0	10	
Iron	0.0652	0.0476	15000.00	15100.00	ug/L	1	10	
Lead	0.6740	0.5455	150.0000	143.3000	ug/L	-4	10	
Magnesium	0.0435	0.0428	15000.00	15580.00	ug/L	4	10	
Manganese	2.8898	2.3350	150.0000	152.5000	ug/L	2	10	
Molybdenum	0.4387	0.3895	150.0000	138.5000	ug/L	-8	10	
Nickel	0.5391	0.4247	150.0000	147.5000	ug/L	-2	10	
Potassium	0.9798	0.3289	15000.00	14480.00	ug/L	-3	10	
Selenium	0.0216	0.0134	150.0000	142.1000	ug/L	-5	10	
Silver	1.0530	0.8953	150.0000	139.5000	ug/L	-7	10	
Sodium	1.0301	0.4324	15000.00	15220.00	ug/L	1	10	
Thallium	0.4415	0.4230	150.0000	143.8000	ug/L	-4	10	
Vanadium	2.3799	2.1646	150.0000	152.4000	ug/L	2	10	
Zinc	0.4294	0.2550	150.0000	144.1000	ug/L	-4	10	

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Lithium	897509	621158	-30.79
Scandium	917167	605562	-33.97
Germanium	175975	111368	-36.71
Indium	934954	564695	-39.60
Bismuth	509269	276754	-45.66

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561042 Filename : e1611042 Injected : 16-MAY-2005 16:05
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55196561002	16-MAY-2005	[0.7786]	50.00000	ug/L	
Antimony	55196561002	16-MAY-2005	0.462300	0.250000	ug/L	ib ***
Arsenic	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Barium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Beryllium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Cadmium	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Calcium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Chromium	55196561002	16-MAY-2005	[0.1066]	0.500000	ug/L	
Cobalt	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Copper	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Iron	55196561002	16-MAY-2005	[8.8590]	50.00000	ug/L	
Lead	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Magnesium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Manganese	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Nickel	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Potassium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Selenium	55196561002	16-MAY-2005	0.716100	0.500000	ug/L	ib ***
Silver	55196561002	16-MAY-2005	ND	0.250000	ug/L	
Sodium	55196561002	16-MAY-2005	ND	50.00000	ug/L	
Thallium	55196561002	16-MAY-2005	ND	0.500000	ug/L	
Vanadium	55196561002	16-MAY-2005	ND	1.000000	ug/L	
Zinc	55196561002	16-MAY-2005	[0.1641]	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561048 Filename : e1611048 Injected : 16-MAY-2005 16:40
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55196561002	16-MAY-2005	2.174000	0.250000	ug/L	
Arsenic	55196561002	16-MAY-2005	1.406000	0.500000	ug/L	
Barium	55196561002	16-MAY-2005	0.965400	0.250000	ug/L	
Beryllium	55196561002	16-MAY-2005	[0.0451]	0.250000	ug/L	
Cadmium	55196561002	16-MAY-2005	[0.0520]	0.250000	ug/L	
Chromium	55196561002	16-MAY-2005	1.492000	0.500000	ug/L	
Cobalt	55196561002	16-MAY-2005	2.647000	0.250000	ug/L	
Copper	55196561002	16-MAY-2005	1.521000	0.500000	ug/L	
Lead	55196561002	16-MAY-2005	1.223000	0.250000	ug/L	
Manganese	55196561002	16-MAY-2005	1.082000	0.250000	ug/L	
Nickel	55196561002	16-MAY-2005	1.605000	0.250000	ug/L	
Selenium	55196561002	16-MAY-2005	1.638000	0.500000	ug/L	
Silver	55196561002	16-MAY-2005	[0.1463]	0.250000	ug/L	
Thallium	55196561002	16-MAY-2005	[0.1668]	0.500000	ug/L	
Vanadium	55196561002	16-MAY-2005	[0.3619]	1.000000	ug/L	
Zinc	55196561002	16-MAY-2005	4.062000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55196561002	16-MAY-2005	100000	95950	ug/L	96
Calcium	55196561002	16-MAY-2005	300000	289000	ug/L	96
Iron	55196561002	16-MAY-2005	250000	230400	ug/L	92
Magnesium	55196561002	16-MAY-2005	100000	103500	ug/L	104
Molybdenum	55196561002	16-MAY-2005	2000	1848	ug/L	92
Potassium	55196561002	16-MAY-2005	100000	97400	ug/L	97
Sodium	55196561002	16-MAY-2005	250000	246800	ug/L	99

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55196561049 Filename : e1611049 Injected : 16-MAY-2005 16:46
Calnum : 55196561002 Caldate : 16-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	94880.00	ug/L	-5		
Arsenic	100.0000	104.2000	ug/L	4	20	
Cadmium	100.0000	91.16000	ug/L	-9	20	
Calcium	300000.0	294200.0	ug/L	-2		
Chromium	200.0000	204.5000	ug/L	2	20	
Cobalt	200.0000	197.4000	ug/L	-1	20	
Copper	200.0000	192.0000	ug/L	-4	20	
Iron	250000.0	236900.0	ug/L	-5		
Magnesium	100000.0	102200.0	ug/L	2		
Manganese	200.0000	207.9000	ug/L	4	20	
Molybdenum	2000.000	1931.000	ug/L	-3		
Nickel	200.0000	191.2000	ug/L	-4	20	
Potassium	100000.0	97140.00	ug/L	-3		
Selenium	100.0000	99.76000	ug/L	0	20	
Silver	50.00000	45.05000	ug/L	-10	20	
Sodium	250000.0	241900.0	ug/L	-3		
Vanadium	200.0000	209.8000	ug/L	5	20	
Zinc	100.0000	101.6000	ug/L	2	20	

ISTD (ICALBLK=e1611003)	ICALBLK Abund	Abund	%Diff
Scandium	917167	844264	-7.95
Germanium	175975	158313	-10.04

Curtis & Tompkins Laboratories Sample Preparation Summary 10-MAY-2005 09:05

Batch Number : 101858
Date Extracted: 10-MAY-2005
Extracted by : Kevin Gaines
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179190-001			Fugro West, Inc.	Soil	1.17	g	50	42.735043	1				MN, T26/ICP		
179266-001			Mactec, Inc.	Soil	1.09	g	50	45.871560	1				T26/ICP		
179266-002			Mactec, Inc.	Soil	1.18	g	50	42.372881	1				T26/ICP		
179266-003			Mactec, Inc.	Soil	1.02	g	50	49.019608	1				T26/ICP		
179266-004			Mactec, Inc.	Soil	1.11	g	50	45.045045	1				T26/ICP		
179266-005			Mactec, Inc.	Soil	1.07	g	50	46.728972	1				T26/ICP		
179266-006			Mactec, Inc.	Soil	1.1	g	50	45.454545	1				T26/ICP		
179266-007			Mactec, Inc.	Soil	1	g	50	50.000000	1				T26/ICP		
179307-003			Fugro West, Inc.	Soil	1.01	g	50	49.504950	1				T26/ICP		
179307-004			Fugro West, Inc.	Soil	1.06	g	50	47.169811	1				T26/ICP		
179307-006			Fugro West, Inc.	Soil	1.12	g	50	44.642857	1				T26/ICP		
179307-009			Fugro West, Inc.	Soil	1.06	g	50	47.169811	1				T26/ICP		
179307-011			Fugro West, Inc.	Soil	1.09	g	50	45.871560	1				T26/ICP		
179307-013			Fugro West, Inc.	Soil	1.16	g	50	43.103448	1				T26/ICP		
179307-014			Fugro West, Inc.	Soil	1.06	g	50	47.169811	1				T26/ICP		
QC293127	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC293128	BS			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC293129	BSD			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC293130	MS	of 179266-001		Soil	1.19	g	50	42.016807	1	.25	.25		ICAP		
QC293131	MSD	of 179266-001		Soil	1.09	g	50	45.871560	1	.25	.25		ICAP		
QC293132	SER	of 179266-001		Soil	1.09	g	50	45.871560	1				ICAP		
QC293133	PDS	of 179266-001		Soil	1.09	g	50	45.871560	1				ICAP		

300

Prep Chemist: [signature] 5/10/05 Reviewed By: [signature] Date: 5/16/05

Relinquished By: [signature] 5/10/05 Received By: [signature] Date: 5/16/05

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 101855
Date Digested: 5/10/05
Digested by: KLA

Digestion Method
☑ EPA 3050b
☐ _____

BK 2133
Page 1

	Sample # and letter	Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK	0	50	y	
	BS	↓	↓	↓	
	BSD	↓	↓	↓	
	MS-01A	1.19	↓	↓	
5	MSD-01	1.09	↓	↓	
	MB266-01	1.09	↓	↓	
	-02	1.18	↓	↓	
	-03	1.02	↓	↓	
	-04	1.11	↓	↓	
10	-05	1.07	↓	↓	
	-06	1.10	↓	↓	
	-07	1.0	↓	↓	
	307-03	1.01	↓	↓	
	-04D	1.06	↓	↓	
15	-06A	1.12	↓	↓	
	-09	1.06	↓	↓	
	-11	1.09	↓	↓	
	-13	1.16	↓	↓	
	-14D	1.06	↓	↓	
20	190-01A	1.17	↓	↓	

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95	KLA 5/10
0.25 mL of spike solution was added to all spikes	0455227	
	0455228	
1:1 HNO3	A48046 042105	
concentrated HNO3	B04037 BAKER	
3mL 30% hydrogen peroxide	43287414 LOT	
concentrated HCl	B01038 BAKER	
☐ filtered thru' Whatman # 541	K16 713493	↓

Extraction Chemist / Date

Continued from page _____
Continued on page 1

Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-MAY-2005
Sequence: 55192791 (e1321)
Instrument ID: MET05

ICALBLK Filename: e1321003
Date Analyzed: 13-MAY-2005
Time Analyzed: 21:22

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	1113066	1539924	348997	2362006	1616339	2827523
LOWER LIMIT	333920	461977	104699	708602	484902	848257
UPPER LIMIT	1335679	1847909	418797	2834407	1939607	3393028

TYPE	SAMPLE	#					
ICB		012	1086932	1522196	345964	2339569	1612780	2811692
ICSA		013	978708	1451678	322234	2048272	1349935	2601280
BLANK	QC293127	016	1122023	1592900	358622	2402248	1610154	2876143
BS	QC293128	017	1111309	1575285	355851	2326648	1551141	2828209
BSD	QC293129	018	1113675	1577372	356811	2362883	1586403	2871962
MSS	179266-001	019	1136558	1844159	350035	2310859	1580747	2871987
MS	QC293130	021	1099793	1888032*	347257	2244949	1530622	2800154
MSD	QC293131	022	1073954	1764782	348618	2320265	1542963	2831158
SAMPLE	179190-001	023	1078887	1595733	345370	2326474	1591093	2804126
CCV		025	1053429	1536538	349075	2289144	1552990	2779066
CCB		027	1082262	1539128	345462	2335231	1581956	2781535
SAMPLE	179266-002	028	1077914	1788318	344561	2306386	1584510	2871412
SAMPLE	179266-003	029	1052763	1716867	343607	2292406	1577515	2819282
SAMPLE	179266-004	030	1072168	1767794	346840	2309490	1587086	2844811
SAMPLE	179266-005	031	1047386	1729837	339657	2270614	1554787	2791166
SAMPLE	179266-006	032	1067498	1780733	342631	2294296	1610363	2846675
SAMPLE	179266-007	033	1028421	1603091	339605	2309025	1614057	2851207
SAMPLE	179307-003	034	1034969	1594589	339251	2325020	1610154	2834028
SAMPLE	179307-004	035	1055946	1741011	343499	2354376	1627579	2911097
SAMPLE	179307-006	036	1039781	1578197	338557	2289904	1619763	2824201
SAMPLE	179307-009	037	1045483	1603164	342201	2373059	1642857	2910491
CCV		039	995049	1500840	338557	2298340	1570153	2772249
CCB		041	1024537	1502254	336622	2359715	1612751	2822182
SAMPLE	179307-011	042	1015837	1545246	329873	2265448	1560651	2758302
SAMPLE	179307-013	043	1020614	1711394	329648	2214228	1520748	2740254
SAMPLE	179307-014	044	1015150	1586381	337295	2331544	1601130	2801197

302

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-MAY-2005 ICALBLK Filename: e1321003
Sequence: 55192791 (e1321) Date Analyzed: 13-MAY-2005
Instrument ID: MET05 Time Analyzed: 21:22

TYPE	SAMPLE	#							
MSS	179266-001	045	1087755	1620852	363460	2556562	1790559	3095069	
MS	QC293130	046	1077464	1629508	366281	2581268	1848671	3118445	
MSD	QC293131	047	1048866	1601040	361086	2570124	1811383	3084910	
SAMPLE	179190-001	048	1032066	1548431	356565	2533663	1790098	3028619	
SAMPLE	179266-002	049	1043033	1587033	358800	2535360	1823526	3070931	
SAMPLE	179266-003	050	1048772	1592432	359081	2544109	1810305	3085103	
SAMPLE	179266-004	051	1052354	1589174	358973	2588441	1826318	3096515	
CCV		053	973609	1448681	330607	2248232	1559589	2754259	
CCB		055	1011075	1513650	335418	2386322	1643568	2857063	
SAMPLE	179266-005	056	1064331	1617964	361323	2608830	1881748	3146162	
SAMPLE	179266-006	057	1058093	1573918	356470	2562186	1833486	3087275	
SAMPLE	179266-007	058	1056353	1584078	359179	2541293	1801537	3071920	
SAMPLE	179307-003	059	1066170	1587966	363508	2577968	1807505	3109856	
SAMPLE	179307-004	060	1081078	1635060	366264	2585773	1792776	3092858	
SAMPLE	179307-006	061	1088039	1641365	370300	2634171	1846275	3137199	
SAMPLE	179307-009	062	1076458	1605140	366430	2556407	1784265	3079823	
SAMPLE	179307-011	063	1075608	1624052	365208	2550351	1804546	3055514	
SAMPLE	179307-013	064	1085576	1636059	366591	2569842	1788247	3094460	
SAMPLE	179307-014	065	1081818	1618365	367916	2618459	1826128	3089110	
CCV		067	1003428	1522514	342870	2310559	1578546	2797774	
CCB		069	1037531	1492467	337384	2360530	1616681	2806794	
BLANK	QC293648	071	1028476	1492808	335148	2339750	1638893	2812026	
BS	QC293649	072	941260	1393977	312950	2168453	1497901	2658658	
BSD	QC293650	073	944249	1394770	315036	2184051	1532543	2673273	
MSS	179373-007	075	923795	1390266	313228	2217683	1515338	2685941	
SER	QC293653	076	976610	1477713	334390	2417435	1679347	2877996	
MS	QC293651	077	883281	1360951	307524	2153960	1491137	2660283	
MSD	QC293652	078	886724	1368116	308869	2173711	1513105	2695365	
PDS	QC293654	079	881309	1370274	307541	2163422	1525954	2686077	
SAMPLE	179373-001	081	908937	1376731	312078	2233574	1552650	2729501	
SAMPLE	179373-002	082	916398	1395320	313917	2258128	1569120	2723407	
CCV		084	944965	1454522	327609	2326951	1657766	2871743	

303

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-MAY-2005 ICALBLK Filename: e1321003
Sequence: 55192791 (e1321) Date Analyzed: 13-MAY-2005
Instrument ID: MET05 Time Analyzed: 21:22

TYPE	SAMPLE	#						
CCB		086	966479	1453168	324756	2399589	1699845	2902375
SAMPLE	179373-003	087	892805	1357789	308050	2209376	1523772	2705791
SAMPLE	179373-004	088	898192	1382924	312820	2245065	1558431	2764297
SAMPLE	179373-005	089	895991	1371924	311704	2254545	1529549	2735708
SAMPLE	179373-006	090	914553	1383654	315292	2270519	1559682	2763780
SAMPLE	179373-008	091	907091	1392591	315149	2264296	1538146	2748005
SAMPLE	179373-009	092	922533	1402503	317236	2283311	1590711	2788478
SAMPLE	179373-010	093	913380	1385735	315867	2272006	1584472	2775343
SAMPLE	179373-011	094	915892	1377771	315701	2249697	1564595	2767360
SAMPLE	179410-001	095	887762	1366369	310963	2195013	1532359	2719116
SAMPLE	179410-002	096	890261	1337800	307641	2202099	1556938	2697895
CCV		098	924336	1426787	325497	2348060	1658071	2892136
CCB		100	948908	1411625	322376	2418214	1712945	2922713
SAMPLE	179410-003	101	858229	1336342	302776	2217875	1539327	2742418
SAMPLE	179410-004	102	896394	1364306	312399	2276924	1594730	2811470
SAMPLE	179410-005	103	883233	1370677	311729	2216168	1558257	2754886
SAMPLE	179410-006	104	910273	1394221	317719	2292085	1575849	2800271
SAMPLE	179410-007	105	897203	1365146	314781	2275277	1590894	2797416
SAMPLE	179410-008	106	895463	1387367	314762	2256812	1589364	2830926
ICSA		107	893576	1416877	312194	2137912	1450498	2776608
CCV		110	920178	1430786	326151	2381304	1699312	2976848
CCB		112	943583	1457478	328443	2472713	1751433	2989629

304

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 16-MAY-2005 ICALBLK Filename: e1611003
Sequence: 55196561 (e1611) Date Analyzed: 16-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:12

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	897509	917167	175975	934954	509269	1007687
LOWER LIMIT	269253	275150	52792	280486	152781	302306
UPPER LIMIT	1077011	1100601	211170	1121945	611123	1209224

TYPE	SAMPLE	#						
ICB		014	865902	825429	154366	812797	434454	833308
ICSA		015	705571	671187	126680	588246	310528	661015
MSS	179266-001	018	897700	1043273	155078	755558	392269	834727
SER	QC293132	019	905036	883530	158439	799732	416987	838426
SER	QC293132	020	889348	898859	162820	808232	410487	837847
PDS	QC293133	021	876183	1036999	165193	806656	400522	845890
PDS	QC293133	022	884828	867012	160283	805576	416702	826151
SAMPLE	179266-007	023	890177	899609	163564	845552	425759	853758
CCV		025	720127	704869	134038	680742	343278	714434
CCB		027	732626	708976	132835	688395	353424	713687
SAMPLE	179307-006	028	743941	709468	132679	684613	350564	697500
SAMPLE	179307-009	029	811262	791618	148027	756663	386202	794465
BLANK	QC293814	030	795957	782749	145255	744659	383041	779731
BS	QC293815	031	772584	720758	141426	697049	360757	750133
BSD	QC293816	032	763750	757455	140825	694087	356482	739688
PDS	QC293820	035	845780	848456	159649	786921	406448	835032
SAMPLE	179304-002	036	773446	800606	146845	717923	348622	750501
MSS	179304-001	037	551899	545785	97978	472127	204542	492910
CCV		040	621158	605562	111368	564695	276754	576306
CCB		042	771570	738166	140292	713944	360724	720943
SER	QC293819	043	589985	622901	110548	540717	260157	585866
MS	QC293817	044	765281	757679	142530	683379	343052	712058
MSD	QC293818	045	747435	734244	136200	677003	336907	705457
SER	QC293819	047	726618	781855	139481	691860	317050	721539
ICSA		048	744580	761008	144991	691940	336652	760918

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45190708 Instrument: MET04 HydraAA HG Analyzer Begun: 12-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101939	ICALBLK	Std01Rep1				12-MAY-2005 10:28	1.0	1.0									
002	101939	ICAL	Std02Rep1				12-MAY-2005 10:31	1.0	1.0									
003	101939	ICAL	Std03Rep1				12-MAY-2005 10:33	1.0	1.0									
004	101939	ICAL	Std04Rep1				12-MAY-2005 10:36	1.0	1.0									
005	101939	ICAL	Std05Rep1				12-MAY-2005 10:38	1.0	1.0									
006	101939	ICAL	Std06Rep1				12-MAY-2005 10:41	1.0	1.0									
007	101939	ICV					12-MAY-2005 10:54	1.0	1.0	2	5.000	45190708001	5.270		ug/L	105		
008	101939	ICB					12-MAY-2005 10:56	1.0	1.0			45190708001	[0.004000]	0.20	ug/L			
009	101939	BLANK	QC293429		101939	Soil	12-MAY-2005 10:59	1.0	100.0			45190708001	ND	0.020	mg/Kg			u
010	101939	BS	QC293430		101939	Soil	12-MAY-2005 11:02	1.0	100.0		0.5000	45190708001	0.5110	0.020	mg/Kg	102		u
011	101939	BSD	QC293431		101939	Soil	12-MAY-2005 11:05	1.0	100.0		0.5000	45190708001	0.5060	0.020	mg/Kg	101	1	u
012	101939	MSS	179266-005		101939	Soil	12-MAY-2005 11:08	1.0	108.7			45190708001	0.23	0.022	mg/Kg			u
013	101939	MS	QC293432	179266-005	101939	Soil	12-MAY-2005 11:10	1.0	106.4		0.5319	45190708001	0.5585	0.021	mg/Kg	62*		u
014	101939	MSD	QC293433	179266-005	101939	Soil	12-MAY-2005 11:12	1.0	119.0		0.5952	45190708001	0.5964	0.024	mg/Kg	62*	1	u
015	101939	SAMPLE	179266-001		101939	Soil	12-MAY-2005 11:15	1.0	75.76			45190708001	0.16	0.015	mg/Kg			u
016	101939	SAMPLE	179266-002		101939	Soil	12-MAY-2005 11:18	1.0	86.21			45190708001	0.044	0.017	mg/Kg			u
017	101939	SAMPLE	179266-003		101939	Soil	12-MAY-2005 11:21	1.0	86.21			45190708001	0.053	0.017	mg/Kg			u
018	101939	SAMPLE	179266-004		101939	Soil	12-MAY-2005 11:23	1.0	76.92			45190708001	0.44	0.015	mg/Kg			u
019	101939	CCV					12-MAY-2005 11:26	1.0	1.0	3	2.500	45190708001	2.730		ug/L	109		
020	101939	CCB					12-MAY-2005 11:29	1.0	1.0			45190708001	[0.01700]	0.20	ug/L			
021	101939	SAMPLE	179266-006		101939	Soil	12-MAY-2005 11:31	1.0	83.33			45190708001	0.069	0.017	mg/Kg			u
022	101939	SAMPLE	179266-007		101939	Soil	12-MAY-2005 11:34	1.0	102.0			45190708001	0.41	0.020	mg/Kg			u
023	101939	SAMPLE	179274-001		101939	Miscel	12-MAY-2005 11:37	1.0	119.0			45190708001	0.43	0.024	mg/Kg			u
024	101939	SAMPLE	179275-001		101939	Miscel	12-MAY-2005 11:40	1.0	98.04			45190708001	0.080	0.020	mg/Kg			u
025	101939	SAMPLE	179310-001		101939	Soil	12-MAY-2005 11:42	1.0	106.4			45190708001	0.38	0.021	mg/Kg			u
026	101939	SAMPLE	179310-002		101939	Soil	12-MAY-2005 11:45	1.0	113.6			45190708001	0.049	0.023	mg/Kg			u
027	101939	SAMPLE	179310-003		101939	Soil	12-MAY-2005 11:48	1.0	92.59			45190708001	0.021	0.019	mg/Kg			u
028	101939	SAMPLE	179310-004		101939	Soil	12-MAY-2005 11:51	1.0	73.53			45190708001	0.15	0.015	mg/Kg			u
029	101939	SAMPLE	179310-005		101939	Soil	12-MAY-2005 11:53	1.0	81.97			45190708001	0.13	0.016	mg/Kg			u
030	101939	SAMPLE	179349-001		101939	Soil	12-MAY-2005 11:57	1.0	67.57			45190708001	0.054	0.014	mg/Kg			u
031	101939	CCV					12-MAY-2005 11:59	1.0	1.0	4	5.000	45190708001	5.370		ug/L	107		
032	101939	CCB					12-MAY-2005 12:02	1.0	1.0			45190708001	[0.1800]	0.20	ug/L			
033	101939	SAMPLE	179349-002		101939	Soil	12-MAY-2005 12:04	1.0	57.47			45190708001	0.037	0.011	mg/Kg			u
034	101939	SAMPLE	179349-003		101939	Soil	12-MAY-2005 12:07	1.0	111.1			45190708001	0.025	0.022	mg/Kg			u
035	101939	SAMPLE	179349-004		101939	Soil	12-MAY-2005 12:10	1.0	80.65			45190708001	0.064	0.016	mg/Kg			u
036	101939	SAMPLE	179349-005		101939	Soil	12-MAY-2005 12:12	1.0	56.82			45190708001	0.046	0.011	mg/Kg			u
037	101939	SER	QC293434	179266-005	101939	Soil	12-MAY-2005 12:15	5.0	108.7			45190708001	0.26	0.11	mg/Kg		15	u
038	101939	PDS	QC293435	179266-005	101939	Soil	12-MAY-2005 12:20	1.0	108.7	1	0.5435	45190708001	0.7228	0.022	mg/Kg	91		u
039	101939	CCV					12-MAY-2005 12:25	1.0	1.0	5	7.500	45190708001	7.510		ug/L	100		
040	101939	CCB					12-MAY-2005 12:27	1.0	1.0			45190708001	[0.02600]	0.20	ug/L			

206

Stds used: 1=S561 2=S563 3=S564 4=S565 5=S566
Flags used: u=use

Analyst: Andrés Marin Date: 5/12/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45190708001 Name: Type: SOIL Date: 12-MAY-2005 10:28 Inj Vol (uL): 2000

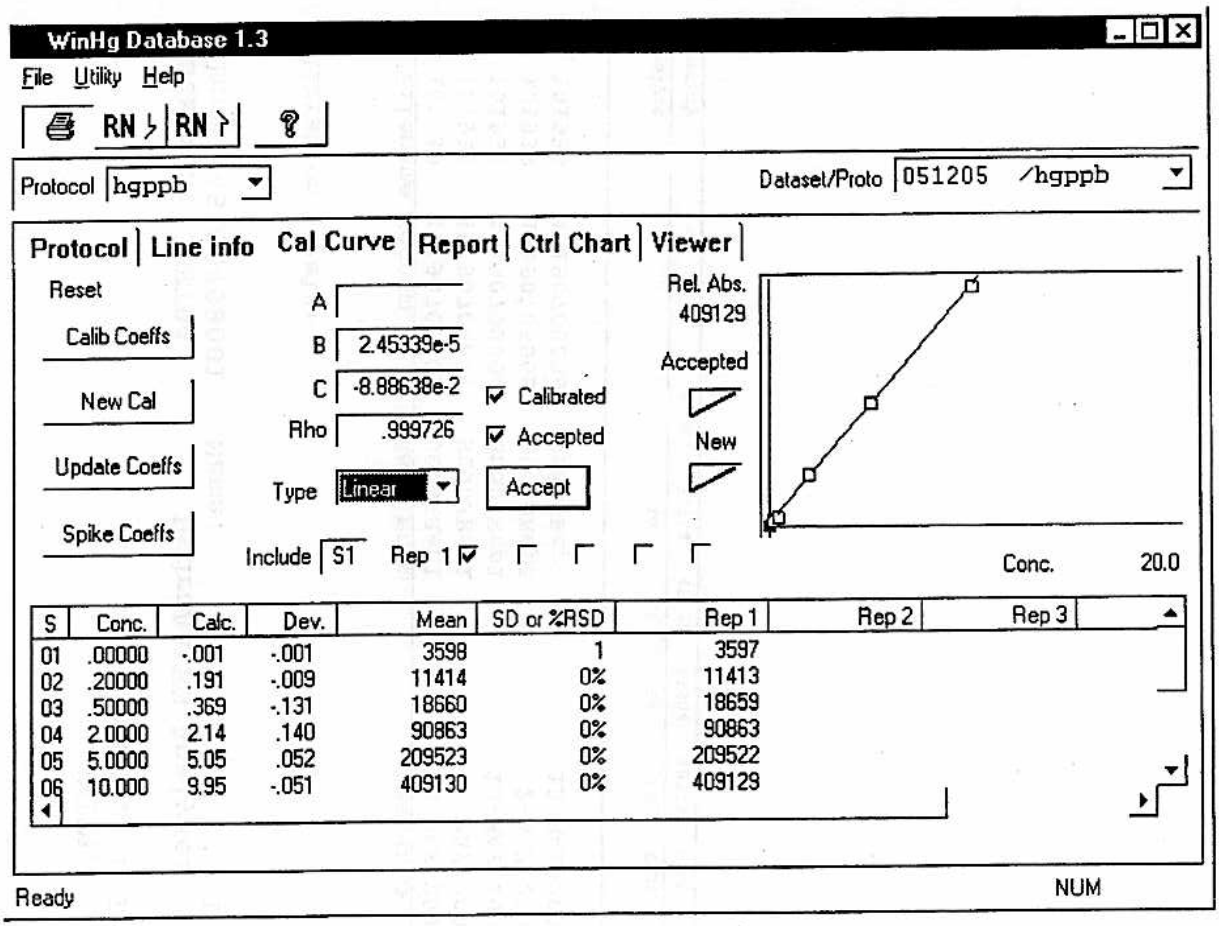
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101939	45190708002	Std02Rep1	12-MAY-2005 10:31	S561 (500X)
2	101939	45190708003	Std03Rep1	12-MAY-2005 10:33	S561 (200X)
3	101939	45190708004	Std04Rep1	12-MAY-2005 10:36	S561 (50X)
4	101939	45190708005	Std05Rep1	12-MAY-2005 10:38	S561 (20X)
5	101939	45190708006	Std06Rep1	12-MAY-2005 10:41	S561 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	57065	37318	45432	41904	40913	LINR	R	-0.08886	2.453E-5		ug/L	44526	0.999	.99	

307

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 051205 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.45339e-5
C -8.88638e-2
Rho .999726
Type Linear
Calibrated
Accepted
Accept
Include S1 Rep 1
Rel. Abs.
409129
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.001 -.001 3598 1 3597
02 .20000 .191 -.009 11414 0% 11413
03 .50000 .369 -.131 18660 0% 18659
04 2.0000 2.14 .140 90863 0% 90863
05 5.0000 5.05 .052 209523 0% 209522
06 10.000 9.95 -.051 409130 0% 409129
Ready
NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 5		10:28:14 12 May 05			HG
Hg	.000	ppb	3597						
		Bkgd 1	9503805						
*** Standard: 2 Rep: 1				Seq: 6		10:31:11 12 May 05			HG
Hg	.200	ppb	11413						
		Bkgd 1	9505160						
*** Standard: 3 Rep: 1				Seq: 7		10:33:45 12 May 05			HG
Hg	.500	ppb	18659						
		Bkgd 1	9505147						
*** Standard: 4 Rep: 1				Seq: 8		10:36:12 12 May 05			HG
Hg	2.00	ppb	90863						
		Bkgd 1	9503351						
*** Standard: 5 Rep: 1				Seq: 9		10:38:36 12 May 05			HG
Hg	5.00	ppb	209522						
		Bkgd 1	9504676						
*** Standard: 6 Rep: 1				Seq: 10		10:41:21 12 May 05			HG
Hg	10.0	ppb	409129						
		Bkgd 1	9500900						
*** Check Standard: 2			Ck2S563	Seq: 12		10:54:34 12 May 05			HG
Line	Flag		Intensities						
Hg			218385						
		Bkgd 1	9495191						
*** Check Standard: 1			Ck1ICB	Seq: 13		10:56:59 12 May 05			HG
Line	Flag		Intensities						
Hg			3797						
		Bkgd 1	9489067						
*** Sample ID: qc293429			101939 101939,1	Seq: 14		10:59:44 12 May 05			HG
Hg	.024	ppb	4617						
		Bkgd 1	9491188						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45190708 Instrument: MET04 HydraAA HG Analyzer Begun: 12-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	101939	ICALBLK	Std01Rep1				12-MAY-2005 10:28	1.0	1.0									
002	101939	ICAL	Std02Rep1				12-MAY-2005 10:31	1.0	1.0									
003	101939	ICAL	Std03Rep1				12-MAY-2005 10:33	1.0	1.0									
004	101939	ICAL	Std04Rep1				12-MAY-2005 10:36	1.0	1.0									
005	101939	ICAL	Std05Rep1				12-MAY-2005 10:38	1.0	1.0									
006	101939	ICAL	Std06Rep1				12-MAY-2005 10:41	1.0	1.0									
007	101939	ICV					12-MAY-2005 10:54	1.0	1.0	2	5.000	45190708001	5.270		ug/L	105		
008	101939	ICB					12-MAY-2005 10:56	1.0	1.0			45190708001	[0.004000]	0.20	ug/L			
009	101939	BLANK	QC293429		101939	Soil	12-MAY-2005 10:59	1.0	100.0			45190708001	ND	0.020	mg/Kg			u
010	101939	BS	QC293430		101939	Soil	12-MAY-2005 11:02	1.0	100.0		0.5000	45190708001	0.5110	0.020	mg/Kg	102		u
011	101939	BSD	QC293431		101939	Soil	12-MAY-2005 11:05	1.0	100.0		0.5000	45190708001	0.5060	0.020	mg/Kg	101	1	u
012	101939	MSS	179266-005		101939	Soil	12-MAY-2005 11:08	1.0	108.7			45190708001	0.23	0.022	mg/Kg			u
013	101939	MS	QC293432	179266-005	101939	Soil	12-MAY-2005 11:10	1.0	106.4		0.5319	45190708001	0.5585	0.021	mg/Kg	62*		u
014	101939	MSD	QC293433	179266-005	101939	Soil	12-MAY-2005 11:12	1.0	119.0		0.5952	45190708001	0.5964	0.024	mg/Kg	62*	1	u
015	101939	SAMPLE	179266-001		101939	Soil	12-MAY-2005 11:15	1.0	75.76			45190708001	0.16	0.015	mg/Kg			u
016	101939	SAMPLE	179266-002		101939	Soil	12-MAY-2005 11:18	1.0	86.21			45190708001	0.044	0.017	mg/Kg			u
017	101939	SAMPLE	179266-003		101939	Soil	12-MAY-2005 11:21	1.0	86.21			45190708001	0.053	0.017	mg/Kg			u
018	101939	SAMPLE	179266-004		101939	Soil	12-MAY-2005 11:23	1.0	76.92			45190708001	0.44	0.015	mg/Kg			u
019	101939	CCV					12-MAY-2005 11:26	1.0	1.0	3	2.500	45190708001	2.730		ug/L	109		
020	101939	CCB					12-MAY-2005 11:29	1.0	1.0			45190708001	[0.01700]	0.20	ug/L			
021	101939	SAMPLE	179266-006		101939	Soil	12-MAY-2005 11:31	1.0	83.33			45190708001	0.069	0.017	mg/Kg			u
022	101939	SAMPLE	179266-007		101939	Soil	12-MAY-2005 11:34	1.0	102.0			45190708001	0.41	0.020	mg/Kg			u
023	101939	SAMPLE	179274-001		101939	Miscel	12-MAY-2005 11:37	1.0	119.0			45190708001	0.43	0.024	mg/Kg			u
024	101939	SAMPLE	179275-001		101939	Miscel	12-MAY-2005 11:40	1.0	98.04			45190708001	0.080	0.020	mg/Kg			u
025	101939	SAMPLE	179310-001		101939	Soil	12-MAY-2005 11:42	1.0	106.4			45190708001	0.38	0.021	mg/Kg			u
026	101939	SAMPLE	179310-002		101939	Soil	12-MAY-2005 11:45	1.0	113.6			45190708001	0.049	0.023	mg/Kg			u
027	101939	SAMPLE	179310-003		101939	Soil	12-MAY-2005 11:48	1.0	92.59			45190708001	0.021	0.019	mg/Kg			u
028	101939	SAMPLE	179310-004		101939	Soil	12-MAY-2005 11:51	1.0	73.53			45190708001	0.15	0.015	mg/Kg			u
029	101939	SAMPLE	179310-005		101939	Soil	12-MAY-2005 11:53	1.0	81.97			45190708001	0.13	0.016	mg/Kg			u
030	101939	SAMPLE	179349-001		101939	Soil	12-MAY-2005 11:57	1.0	67.57			45190708001	0.054	0.014	mg/Kg			u
031	101939	CCV					12-MAY-2005 11:59	1.0	1.0	4	5.000	45190708001	5.370		ug/L	107		
032	101939	CCB					12-MAY-2005 12:02	1.0	1.0			45190708001	[0.1800]	0.20	ug/L			
033	101939	SAMPLE	179349-002		101939	Soil	12-MAY-2005 12:04	1.0	57.47			45190708001	0.037	0.011	mg/Kg			u
034	101939	SAMPLE	179349-003		101939	Soil	12-MAY-2005 12:07	1.0	111.1			45190708001	0.025	0.022	mg/Kg			u
035	101939	SAMPLE	179349-004		101939	Soil	12-MAY-2005 12:10	1.0	80.65			45190708001	0.064	0.016	mg/Kg			u
036	101939	SAMPLE	179349-005		101939	Soil	12-MAY-2005 12:12	1.0	56.82			45190708001	0.046	0.011	mg/Kg			u
037	101939	SER	QC293434	179266-005	101939	Soil	12-MAY-2005 12:15	5.0	108.7			45190708001	0.26	0.11	mg/Kg		15	u
038	101939	PDS	QC293435	179266-005	101939	Soil	12-MAY-2005 12:20	1.0	108.7	1	0.5435	45190708001	0.7228	0.022	mg/Kg	91		u
039	101939	CCV					12-MAY-2005 12:25	1.0	1.0	5	7.500	45190708001	7.510		ug/L	100		
040	101939	CCB					12-MAY-2005 12:27	1.0	1.0			45190708001	[0.02600]	0.20	ug/L			

Stds used: 1=S561 2=S563 3=S564 4=S565 5=S566
Flags used: u=use

Analyst: Andrés Maria Date: 5/12/05
Page 1 of 1

Curtis & Tompkins Laboratories Sample Preparation Summary 12-MAY-2005 10:47

Batch Number : 101939
Date Extracted: 12-MAY-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S561
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179266-001			Mactec, Inc.	Soil	.66	g	50	75.757576	1					T26/HG		
179266-002			Mactec, Inc.	Soil	.58	g	50	86.206897	1					T26/HG		
179266-003			Mactec, Inc.	Soil	.58	g	50	86.206897	1					T26/HG		
179266-004			Mactec, Inc.	Soil	.65	g	50	76.923077	1					T26/HG		
179266-005			Mactec, Inc.	Soil	.46	g	50	108.695652	1					T26/HG		
179266-006			Mactec, Inc.	Soil	.6	g	50	83.333333	1					T26/HG		
179266-007			Mactec, Inc.	Soil	.49	g	50	102.040816	1					T26/HG		
179274-001			City of Berkeley - Toxics	Miscell.	.42	g	50	119.047619	1					T26/HG		
179275-001			Sherwin Williams	Miscell.	.51	g	50	98.039216	1					T26/HG		
179310-001			URS Corporation	Soil	.47	g	50	106.382979	1					T26/HG		
179310-002			URS Corporation	Soil	.44	g	50	113.636364	1					T26/HG		
179310-003			URS Corporation	Soil	.54	g	50	92.592593	1					T26/HG		
179310-004			URS Corporation	Soil	.68	g	50	73.529412	1					T26/HG		
179310-005			URS Corporation	Soil	.61	g	50	81.967213	1					T26/HG		
179349-001			Stellar Environmental Solution	Soil	.74	g	50	67.567568	1					PP13/HG		
179349-002			Stellar Environmental Solution	Soil	.87	g	50	57.471264	1					PP13/HG		
179349-003			Stellar Environmental Solution	Soil	.45	g	50	111.111111	1					PP13/HG		
179349-004			Stellar Environmental Solution	Soil	.62	g	50	80.645161	1					PP13/HG		
179349-005			Stellar Environmental Solution	Soil	.88	g	50	56.818182	1					PP13/HG		
QC293429	MB			Soil	.5	g	50	100.000000	1					HG		
QC293430	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC293431	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC293432	MS	of 179266-005		Soil	.47	g	50	106.382979	1		2.5			HG		
QC293433	MSD	of 179266-005		Soil	.42	g	50	119.047619	1		2.5			HG		
QC293434	SER	of 179266-005		Soil	.46	g	50	108.695652	1					HG		
QC293435	PDS	of 179266-005		Soil	.46	g	50	108.695652	1					HG		

311

Prep Chemist: Andres Marin Reviewed By: [signature] Date: 5/12/05

Relinquished By: [signature] Received By: [signature] Date: 5/12/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 101139

Date Digested: 5/11/05

Digested by: AM

Digestion Method

☑ EPA 7471A

☐ _____

BK 2086

Page 67

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	179266-001 A	.56	50		TTL
	2	.58			
	3	.58			
	4	.65			
5	5	.46		✓	MSS
	6	.60			
	7	.49		✓	
	179274-001 A	.42		✓	
	179275-001 A	.51			yarn
10	179310-001 A	.47			
	2 A	.44			
	3 A	.54			
	4 A	.68			
	5 A	.61			
15	179349-001 A	.74			
	2 A	.87			
	3 A	.45			
	4 A	.62			
	5 A	.88			
20	MS	.47		✓	
	MSD	.42		✓	
	MB			✓	
	BS			✓	
	BSD			✓	

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	S 561	AM 5/12
ICAL Source WS#	S 561	
ICV / CCV WS#	S 563, 64, 65, 66	
Digestion of Samples & Standards: Time ON / Temperature ON	13:30 95°C	
Time OFF/ Temperature OFF	14:00 95°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 05 1105	
5% $KMnO_4$	K 042905	
5% $K_2S_2O_8$	K2 042905	
NaCl.hydroxylamine hydrochloride	Hy 042905	
Stannous Chloride	SnCh 050905	
☑ filtered thru' 0.45 um syringe filter	3NH 60231 Millipore	✓

Andrea Main 5/11/05

Prep Chemist / Date

Continued from page 1 (312)

Continued on page 1

Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	101902
Matrix:	Soil	Received:	05/05/05
Units:	%	Analyzed:	05/11/05
Diln Fac:	1.000		

Field ID	Lab ID	Result	RL	Sampled
BB1TP106(6.0)	179266-001	13	1	05/04/05
BB1TP106(3.5)	179266-002	9	1	05/04/05
BB1TP106(2.5)	179266-003	13	1	05/04/05
DUP(050405)	179266-004	11	1	05/04/05
BB1TP107(7.0)	179266-005	13	1	05/04/05
SOILCOMP	179266-006	14	1	05/05/05
BB1TP108(5.0)	179266-007	27	1	05/05/05

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179266	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	BB1TP108(5.0)	Diln Fac:	1.000
Type:	SDUP	Batch#:	101902
MSS Lab ID:	179266-007	Sampled:	05/05/05
Lab ID:	QC293288	Received:	05/05/05
Matrix:	Soil	Analyzed:	05/11/05

MSS Result	Result	RL	RPD	Lim
26.54	27.50	1.000	4	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 101902
Date: 05/11/05
Method: CLP SOW 390
Analyst: RSM

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179266-001	11.0955	18.4051	17.4901	87	13
179266-002	10.9335	18.8367	18.1193	91	9
179266-003	15.8100	22.2418	21.4367	87	13
179266-004	15.4505	22.8268	21.9943	89	11
179266-005	15.2939	22.6382	21.6760	87	13
179266-006	10.9960	18.3954	17.3447	86	14
179266-007	11.1550	18.3968	16.4745	73	27
179271-102	15.2003	22.1503	22.0432	98	2
QC293288	11.1089	18.6450	16.5728	73	27
of 179266-007			RPD:	1.3%	3.5%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101902
Date Started: 11-MAY-2005
Batched by : Rodellio S. Manuel

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179266-001		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-002		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-003		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-004		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-005		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-006		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179266-007		Mactec, Inc.	Soil	MOISTURE	17-MAY-2005
179271-102		Presidio Trust	Soil	MOISTURE	17-MAY-2005
QC293288	SDUP of 179266-007		Soil	MOISTURE	

5/11/05

101902

Sample	B.L. Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank	B104	11.0417	—	11.0417	
179271-102A	XXX	15.2003	22.1503	22.0432	
179266-1	V11	11.0455	18.4051	~~17.4901~~ 17.4901	
2	RC	10.9385	18.8367	18.1193	
3	LCM	15.8100	22.2418	21.4367	
4	Mottis	15.4505	22.8268	21.9943	
5	GL	15.2939	22.6382	21.6760	
6	G2	10.4960	18.3954	17.3447	
7	B115	11.1550	18.3968	16.4745	
DUP 7	FFF	11.1089	18.6450	16.5728	

OVEN TEMP: 103°

TIME IN: 3:45 P.M.

TIME OUT: 9:30 A.M.

ON: 5/11/05

Continued on Page

Read and Understood By

R. M. 5/10/05 — Signed / Date

Signed / Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 5/13/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	5-3-05	RSM				
103°C	5-4-05	RSM				
104°C	5-5-05	RSM				
104°C	5-6-05	RSM				
103°C	5-9-05	RSM				
103°C	5-10-05	RSM				
104°C	5-11-05	RSM				

000072

62

PROJECT METTLER AE-200 BALANCE Notebook No. 0752

Continued From Page ϕ

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-26-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-2-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-3-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-4-05	0.2001	1.0000	10.0000	50.0001	RSM	35298
5-5-05	0.2000	1.0001	10.0000	50.0003	RSM	35298
5-6-05	0.2001	1.0001	10.0001	50.0002	RSM	35298
5-9-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-10-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
5-11-05	0.2001	1.0000	10.0001	50.0003	RSM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date

Signed Date

ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio / Baker Beach

Project Summary 65087r1
Method 8290
Concentrations shown in pg/g

	BLANK	BB1TP108(5.0)
Total TEQ	**0.4**	**67.6**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 0.1	4.2
1,2,3,7,8-PeCDD	< 0.1	5.5
1,2,3,4,7,8-HxCDD	< 0.2	11.0
1,2,3,6,7,8-HxCDD	< 0.2	47.1
1,2,3,7,8,9-HxCDD	< 0.2	27.1
1,2,3,4,6,7,8-HpCDD	2.0 J	2180 D
1,2,3,4,6,7,8,9-OCDD	19.4	21390 D
2,3,7,8-TCDF	< 0.08	3.1 C
1,2,3,7,8-PeCDF	< 0.1	5.5
2,3,4,7,8-PeCDF	< 0.1	1.5 J
1,2,3,4,7,8-HxCDF	< 0.1	12.4
1,2,3,6,7,8-HxCDF	< 0.1	6.9
2,3,4,6,7,8-HxCDF	< 0.1	10.7
1,2,3,7,8,9-HxCDF	< 0.2	[8.0] X
1,2,3,4,6,7,8-HpCDF	< 0.2	230
1,2,3,4,7,8,9-HpCDF	< 0.2	22.4
1,2,3,4,6,7,8,9-OCDF	[2.0] J	1190
Total TCDD	< 0.1	8.4
Total PeCDD	< 0.1	[29.4]
Total HxCDD	< 0.2	[480]
Total HpCDD	3.7	8310 D
Total TCDF	[0.53] X	[37.5] X
Total PeCDF	< 0.1	[109] X
Total HxCDF	0.44	[382] X
Total HpCDF	[0.66]	[1090]
Extraction Date	5/11/2005	5/11/2005
Analysis Date	5/13/2005	5/14/2005
Primary Filename	T051423	S051430
Confirm Filename	N/A	P052222
Dilution Filename	N/A	S051550

Data Flag Descriptions:
< Not detected -Sample Specific Detection Limits reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1
Printed: 06/02/05 22:05

Curtis & Tompkins, Ltd

Subcontracted Analyses

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-p-dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	June 2, 2005
Client ID:	Curtis & Tompkins
P.O. Number:	179266
Project Number:	65087r1

Eno River Labs, LLC has acquired the assets of Triangle Laboratories, Inc. and will continue its operations.

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Overview

The sample and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during sample handling will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analysis of one soil sample.

Quality Control Samples

A laboratory method blank was prepared along with each batch of samples.

A laboratory control spike (LCS) sample was extracted and analyzed along with the sample. A report summarizing the analyte recoveries for this sample is included in the data package.

Matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Curtis & Tompkins analytical data by Eno River Labs, LLC was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: One soil sample was received from Curtis & Tompkins at 3°C in good condition on May 6, 2005 and stored in a refrigerator at 4°C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: Sample BB1TP108 (5.0) has been diluted by a factor of ten and reanalyzed in order to bring the results within the calibration range. Only those results that are flagged "E" in the original analysis have been reported from the diluted analysis. Because additional internal standard solution has been added to the extract, the results are not recovery-corrected.

The analyte recoveries and/or associated relative percent differences (RPD) for 1,2,3,4,6,7,8-HpCDD, OCDD and OCDF in the matrix spike (MS) and matrix spike

duplicate (MSD) analyses are outside method requirements. These variances are due to high levels of the associated analytes in the native sample. When the amount in the native sample approaches more than one-forth the spiked analyte level, statistical analysis becomes unreliable and the RPDs and analyte recoveries can not be assessed using the QC samples.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the laboratory blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

EMPC stands for **E**stimated **M**aximum **P**ossible **C**oncentration. A dioxin or furan analyte is quantitated as an EMPC when the detected analyte meets the retention time criteria of a dioxin or furan, but not the isotopic ratio criteria. Interferences, such as PCBs, may co-elute or cause quantitative interference, causing a peak ratio to be outside criteria. Low level peaks that are close to the detection limits can be significantly affected by instrument and chemical noise, causing the ratio to be outside criteria. As a result, the reported value(s) should be considered estimated at the highest level possible.

The analytical results presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the results. Should Curtis & Tompkins have any questions or comments regarding this data package, please feel free to contact our customer service at (919) 281-4013.

Released by,

Kenneth Varley

Report Preparation Chemist
Eno River Labs, LLC

The total number of pages in the data package is : 118 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the amount of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ENO RIVER LABS

ACCREDITED IN ACCORDANCE WITH nelac
FL-E87769 NJ-NC851

ENO RIVER LABS, LLC
LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). **Secondary NELAP Certificate: SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of Alabama, Department of Environmental Management. Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires July 31, 2005.

State of Alaska, Department of Environmental Conservation. Certificate #NC1706-05. EPA 1613B, Dioxin (2378-TCDD). Expires December 21, 2005.

State of Arizona, Department of Health Services. Certificate #AZ0423. Drinking Water for Dioxin, Dioxins in Waste Water and Solid or Hazardous Waste. Expires May 25, 2005.

State of Arkansas, Department of Environmental Quality. Certificate # 04-060-0. Dioxins and Furans. Expires September 1, 2005.

State of California, Department of Health Services, Certificate No. I-2583. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires March 31, 2006.

State of Colorado, Department of Public Health and Environment. SDWA, Dioxin by EPA 1613. Expires April 30, 2005.

State of Connecticut, Department of Health Services. Registration # PH-0117. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires September 30, 2005.

2445 S. Alston Avenue, Durham NC 27713 ◎ 919-281-4040 ◎ FAX 919-281-4070 ◎ www.enoriverlabs.com

Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Georgia Department of Environmental Quality. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles; reciprocity based on FL-DOH NELAP Certificate, expires June 30, 2005.

Georgia Department of Natural Resources, ID # 953. SDWA 2,3,7,8-TCDD (Dioxin) by Method 1613B. Expires July 31, 2005.

Hawaii Department of Health. Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes. Expires June 30, 2005.

Idaho Department of Health and Welfare. Dioxin in drinking water, EPA Method 1613. Expires July 31, 2004. Renewal pending.

Secondary NELAP Certificate: Illinois Environmental Protection Agency. Accreditation Number #200007, Certificate #001168; Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Organic, Methods 1613; Hazardous and Solid Waste, Organic, Methods 8280A and 8290. Expires 30 September 2005.

Indiana Department of Health. Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01. Expires July 31, 2005.

Secondary NELAP Certificate: State of Kansas. Certificate # E-10215. Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Methods 1613; Hazardous and Solid Waste, Methods 8280A and 8290. Expires July 31, 2005.

Commonwealth of Kentucky, Department for Environmental Protection. Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires December 31, 2005.

Secondary NELAP Certificate: State of Louisiana Department of Environmental Quality. Certificate # 01979. CAA, TO-9A and TO-13A; **CWA**, Method 1613 PCDDs/PCDFs; **RCRA**, Methods 8280A & 8290 PCDDs/PCDFs; Misc. Methods 1613, 8280A & 8290. Expires 30 June 2005.

Secondary NELAP Certificate: State of Louisiana Department of Health & Hospitals. Certificate # LA040020. SDWA, Dioxin (2,3,7,8-TCDD) in Drinking Water. Expires December 31, 2005.

Maine Department of Human Services. Certification #: NC140. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF. Expires May 30, 2005.

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Maryland Department of Health and Mental Hygiene. Certification # 235, SOC 21(Dioxin) Expires September 30, 2005.

Commonwealth of Massachusetts, Department of Environmental Protection, does not require Certification for Drinking Water Dioxin/Furan analysis.

State of Michigan, Department of Environmental Quality. SDWA; 2,3,7,8 TCDD by Method 1613. Expires July 31, 2005.

Minnesota Department of Health. The certification program in MN does not include dioxins/furans for CWA, SDWA of RCRA. See U.S. EPA Region V.

Mississippi State Department of Health. Dioxin in drinking water. No expiration date.

State of Montana Department of Public Health and Human Services. Dioxin in drinking water. December 31, 2004.

State of Nebraska Department of Health and Human Services. Reciprocal certification with the Florida DOH NELAP Certification. **SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water. Expires June 30, 2005.

State of Nevada, Division of Environmental Protection. Lab Certificate No. NC140-2004-75. SDWA, Method 1613B, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613B, expires July 31, 2005.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). **Secondary NELAP Certificate: SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of New Mexico, Environment Department. Safe Drinking Water Act; 2,3,7,8-TCDD by Method 1613. Expires June 30, 2005.

Secondary NELAP Certificate: New York State Department of Health, LAB ID #11026. Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 26053; **Non-Potable Water,** 2,3,7,8-TCDD, EPA 1613, Serial # 26054. Expires 1 April, 2006.

State of North Carolina, Department of Health and Human Services. Certificate # 37751. Dioxin in drinking water. Expires July 31, 2005.

North Dakota State Department of Health. Certificate # R-076. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA,** Methods 8280A/8290, PCDD/PCDF. Expires July 31, 2005.

Ohio EPA. Ohio does not offer out-of-state lab certifications; certification by EPA Region 5 is honored. Ohio EPA #29382, Analyst #9999.

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Oklahoma Department of Environmental Quality. Laboratory #9951. 2,3,7,8 TCDD of 118 (Dioxin). Expires August 31, 2005.

Secondary NELAP Certificate: **Oregon Environmental Laboratory Accreditation Program, Certificate No:-NC200001-002. SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA**, Methods 8280/8290, PCDD/PCDFs. Expires January 31, 2006.

Pennsylvania Department of Environmental Protection. 2,3,7,8 TCDD (Dioxin) in Drinking water, EPA 1613 . Expires July 9, 2005.

State of Tennessee. Department of Environment and Conservation. ID #02992. Dioxin in Drinking water. Expires July 30, 2005.

Texas Natural Resource Conservation Commission. Certification Number: TX264-2002A. SDWA: Chemistry, Dioxin (2378-TCDD), EPA 1613. Expires March 31, 2006.

U.S. EPA Region V. 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613B. Expires February 03, 2006. [Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin]

U.S. EPA Region VIII, for the State of Wyoming. EPA Method 1613 for Dioxin in drinking water. Expires 20 October 2005.

U.S. Navy, NFESC IR QA; NFESC 413. Acceptance to perform samples analysis; water and solids by EPA Methods 8280A, 8290 and 1613B. Expires April 21, 2006.

Secondary NELAP Certificate: **State of Utah, Department of Health. ID # TRIA, Account # 9195445729 SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF & totals; RCRA, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613B. Expires June 30, 2005.

State of Washington, Department of Ecology. Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613, 8280, and 8290 in potable and non-potable water. Expires February 8, 2005.

State of West Virginia, Department of Health & Human Resources. Certificate No. 9923C. 2,3,7,8-TCDD (Dioxin), 1613B. Expires December 31, 2005.

State of Wisconsin, Department of Natural Resources. Laboratory ID Number 999869530. Certified for 2,3,7,8-TCDD (Dioxin) in drinking water and for PCDD/PCDF. Expires August 31, 2005.

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State of Wyoming, see U.S. EPA Region VIII above.

PHARMACEUTICAL

Clinical Laboratory Improvement Amendments (CLIA) Registration. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration. Certificate for the Acceptance of Human Specimens for the purposes of performing laboratory examinations or procedures - Chemistry, Toxicology, HCFA. Expires May 30, 2005.

U.S. Dept of Justice, Drug Enforcement Agency (DEA). Registration number RE0317811. Controlled substance registration for schedules 1,2,3,3N,4,5. Expires 8/31/05.

N.C. Department of Health and Human Services. Registration number NC-PE 0000 2493. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6. Expires 10/31/2005.

Food & Drug Administration (FDA) Registration. ID #'s 001500 3004570112. Annual registration of drug establishment.

OTHER

U.S. Department of Agriculture Soil Permit. Permit No. S-68701. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis. Expires September 30, 2009.

U.S. EPA Large Quantity Hazardous Waste Generator. EPA ID #NCR000137232. Permit indicates that the laboratory is a large generator of hazardous waste. No expiration date.

U.S. Fish and Wildlife Permit. Number LE027890-1. Authorization to import/export wildlife and/or wildlife products. Expires April 30, 2005.

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ENO RIVER LABS, LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS

Project: 65087 - r1
Matrix: SAND
Method: 8290

Isomer	T051423 ID: BLANK Sample (pg/g)	S051429 ID: LCS With Spike (pg/g)	Percent Recovery
2378-TCDD	ND	41.4	104
12378-PeCDD	ND	189	94.3
123478-HxCDD	ND	219	110
123678-HxCDD	ND	179	89.3
123789-HxCDD	ND	176	87.9
1234678-HpCDD	2.0	206	102
OCDD	19.4	413	98.4
2378-TCDF	ND	39.4	98.4
12378-PeCDF	ND	202	101
23478-PeCDF	ND	192	95.8
123478-HxCDF	ND	192	96.2
123678-HxCDF	ND	214	107
234678-HxCDF	ND	189	94.6
123789-HxCDF	ND	187	93.7
1234678-HpCDF	ND	210	105
1234789-HpCDF	ND	202	101
OCDF	[2.0]	410	102

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: KLV Date: 06/02/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

ENO RIVER LABS, LLC
MATRIX SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 65087r1
Matrix: SOIL
Method: 8290

Isomer	S051428 ID: 402-96-6A Sample (pg/g)	T051430 ID: 402-96-6AMS With Spike (pg/g)	Percent Recovery	T051431 ID: 402-96-6AMSD Spike Dup (pg/g)	Percent Recovery	Relative Percent Difference
2378-TCDD	0.45	34.4	86.1	32.7	80.9	6.23
12378-PeCDD	5.7	169	82.7	169	81.6	1.34
123478-HxCDD	17.1	239	113	239	111	1.79
123678-HxCDD	57.8	236	90.4	242	92.2	1.97
123789-HxCDD	36.8	216	90.6	202	83.0	8.76
1234678-HpCDD	1900	2060	82.5	2180	142	53.0
OCDD	20910	18260	-672	20810	-24.9	186
2378-TCDF	1.3	35.5	86.7	35.2	85.1	1.86
12378-PeCDF	1.5	206	104	198	98.7	5.23
23478-PeCDF	2.2	205	103	189	93.8	9.35
123478-HxCDF	13.2	207	98.1	216	102	3.90
123678-HxCDF	13.2	216	103	235	111	7.48
234678-HxCDF	19.7	210	96.3	194	87.3	9.80
123789-HxCDF	[11.9]	205	97.9	197	92.6	5.56
1234678-HpCDF	344	542	100	583	120	18.2
1234789-HpCDF	30.0	237	105	222	96.4	8.54
OCDF	1700	1650	-12.5	1930	57.3	312

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: Pat Date: 06/02/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
- TCDD/TCDF..: 0.4 ng
- PeCDD/PeCDF: 2.0 ng
- HxCDD/HxCDF: 2.0 ng
- HpCDD/HpCDF: 2.0 ng
- OCDD/OCDF..: 4.0 ng

ENO RIVER LABS

SAMPLE DATA

Lab Project: **65087r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BLANK** Analysis File: **T051423**

Client Project:	**Presidio / Baker Beach**				
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
Lab ID:	**BLANK**	Date Extracted:	**05/11/2005**	ICal:	**TF5O224**
		Date Analyzed:	**05/13/2005**	ConCal:	**T051422**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**T051423**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**n/a**

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.1				
1,2,3,7,8-PeCDD	ND	0.1				
1,2,3,4,7,8-HxCDD	ND	0.2				
1,2,3,6,7,8-HxCDD	ND	0.2				
1,2,3,7,8,9-HxCDD	ND	0.2				
1,2,3,4,6,7,8-HpCDD	2.0			1.05	37:53	J
1,2,3,4,6,7,8,9-OCDD	19.4			0.92	41:37	
2,3,7,8-TCDF	ND	0.08				
1,2,3,7,8-PeCDF	ND	0.1				
2,3,4,7,8-PeCDF	ND	0.1				
1,2,3,4,7,8-HxCDF	ND	0.1				
1,2,3,6,7,8-HxCDF	ND	0.1				
2,3,4,6,7,8-HxCDF	ND	0.1				
1,2,3,7,8,9-HxCDF	ND	0.2				
1,2,3,4,6,7,8-HpCDF	ND	0.2				
1,2,3,4,7,8,9-HpCDF	ND	0.2				
1,2,3,4,6,7,8,9-OCDF	EMPC		2.0			J

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	ND		0.1		
Total PeCDD	ND		0.1		
Total HxCDD	ND		0.2		
Total HpCDD	3.7	2			
Total TCDF	EMPC			0.53	X
Total PeCDF	ND		0.1		
Total HxCDF	0.44	1			
Total HpCDF	EMPC			0.66	

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Printed: 21:55 06/02/2005

Lab Project: **65087r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BLANK** Analysis File: **T051423**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	160	80.2	40%-135%	0.74	26:26	
$^{13}C_{12}$-2,3,7,8-TCDD	156	77.8	40%-135%	0.80	27:08	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	154	77.0	40%-135%	1.48	30:19	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	183	91.3	40%-135%	1.46	31:21	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	167	83.6	40%-135%	0.50	33:51	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	176	87.8	40%-135%	1.21	34:33	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	171	85.5	40%-135%	0.43	36:48	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	159	79.5	40%-135%	1.02	37:52	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	320	80.1	40%-135%	0.82	41:36	

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	145	72.4	40%-135%	1.51	31:01	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	172	85.9	40%-135%	0.49	33:45	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	185	92.6	40%-135%	1.19	34:28	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	162	81.0	40%-135%	0.41	38:23	

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	14.0	70.1	40%-135%	27:09	

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	175	87.7	40%-135%	0.49	35:08	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	158	79.2	40%-135%	0.49	34:21	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	26:58	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:52	

Data Reviewer: KLV 06/02/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 21:55 06/02/2005

Data Review By: Initial KW ....Date... 6/2/05

Calculated Noise Height: 0.05

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T051423B.dbf
06/02/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.878-1.071			
304-306	DC	NL		Height			0.03	0.00	0.03				
	DC	SN	24:42	RO		3.50	0.07			0.934			
	DC	SN	25:20	RO		1.88	0.14			0.958			
D	D	SN	26:26			0.81	0.87			1.000	2378-TCDF	AN	
	DC	SN	27:05	RO		3.67	0.05			1.025			
X		X	27:31	RO		0.76	2.15	0.93	1.22	1.041			J
X		X	27:52	RO		1.35	0.71	0.54	0.40	1.054			J
	DC	WH	28:27			0.68	0.64			1.076			
304-306		2	Peaks				2.86						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL		Height			0.09	0.03	0.06				
			26:02			0.66	1.94	0.77	1.17	0.985			
			26:26			0.74	842.32	357.29	485.03	1.000	13C12-2378-TCDF	IS0	
				Height			245.47	103.50	141.97				
316-318		2	Peaks				844.26						
---------- Above: TCDF / TCDD Follows ----------													
TCDD				0.65-0.89						0.903-1.043			
320-322	DC	NL		Height			0.04	0.02	0.02				
	DC	SN	24:49	RO		0.63	0.11			0.915			
	DC	SN	24:51	RO		1.67	0.05			0.916			
	DC	SN	25:04	RO		1.00	0.16			0.924	1379-TCDD	AN	
	DC	SN	25:22	RO		0.25	0.09			0.935			
	DC	SN	25:35	RO		1.13	0.14			0.943			
	DC	SN	25:55	RO		1.00	0.09			0.955			
	DC	SN	26:02	RO		1.00	0.09			0.959			
	DC	SN	26:27	RO		3.64	0.25			0.975			
	DC	SN	27:01	RO		0.54	0.30			0.996			
	DC	SN	27:09	RO		0.48	0.37			1.001	2378-TCDD	AN	
	DC	SN	28:00	RO		0.57	0.09			1.032			
	DC	SN	28:10	RO		1.50	0.11			1.038			
	DC	SN	28:18	RO		0.30	0.07			1.043			
	DC	WH	28:31	RO		0.20	0.07			1.051			
320-322		0	Peaks				0.00						
37Cl-TCDD										0.926-1.074			
328	DC	NL		Height			0.02	0.02					
	DC	WL	24:49				0.09			0.915			
	DC	WL	24:59				0.06			0.921			
	DC	WL	25:04				0.08			0.924			
	DC	SN	25:09				0.09			0.927			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		25:18			0.06			0.932			
	DC	SN		25:26			0.06			0.937			
	DC	SN		25:29			0.08			0.939			
	DC	SN		25:41			0.12			0.947			
				25:49			1.99	1.99		0.951			
				25:59			0.15	0.15		0.958			
	DC	SN		26:08			0.06			0.963			
	DC	SN		26:10			0.05			0.964			
	DC	SN		26:21			0.09			0.971			
	DC	SN		26:46			0.11			0.986			
				27:09			56.80	56.80		1.001	37Cl-TCDD		CLS
	DC	SN		27:25			0.16			1.010			
	DC	SN		27:32			0.14			1.015			
	DC	SN		27:34			0.19			1.016			
				27:44			0.22	0.22		1.022			
	DC	SN		27:49			0.17			1.025			
	DC	SN		28:07			0.13			1.036			
	DC	SN		28:13			0.14			1.040			
	DC	SN		28:26			0.19			1.048			
	DC	SN		28:36			0.21			1.054			
328		4	Peaks				59.16						
13C12-TCDD				0.65-0.89						0.926-1.074			
332-334	DC	NL			Height		0.13	0.13		0.00			
				26:58		0.81	704.11	315.59	388.52	0.994	13C12-1234-TCDD		RS1
				27:08		0.80	603.82	268.20	335.62	1.000	13C12-2378-TCDD		IS1
					Height		174.06	75.53	98.53				
				27:29		0.74	0.54	0.23	0.31	1.013			
332-334		3	Peaks				1,308.47						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.930-1.061			
340-342	DC	NL			Height		0.03	0.00		0.03			
	DC	SN		28:23	RO	0.69	0.18			0.936			
	DC	SN		28:33	RO	3.00	0.03			0.942			
	DC	SN		28:39	RO	0.14	0.02			0.945			
	DC	SN		29:03	RO	0.48	0.33			0.958			
	DC	SN		29:39	RO	0.25	0.16			0.978			
D	d	SN		30:21	RO	0.34	0.38			1.001	12378-PeCDF		AN
	DC	SN		30:34	RO	0.64	0.15			1.008			
	DC	SN		30:45	RO	0.44	0.07			1.014			
D	d	SN		31:01	RO	1.23	0.63			1.023	23478-PeCDF		AN
	DC	SN		31:26	RO	0.75	0.15			1.037			
D	d	SN		31:46	RO	0.84	0.51			1.048			
	DC	WH		32:29	RO	0.91	0.66			1.071			
340-342		0	Peaks				0.00						
13C12-PeCDF				1.32-1.78						0.868-1.132			
352-354	DC	NL			Height		<0.01	0.00		0.00			
				29:28		1.42	1.60	0.94	0.66	0.972			
				30:19		1.48	654.56	390.51	264.05	1.000	13C12-PeCDF 123		IS2
					Height		207.35	124.36	82.99				

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				30:38	RO	1.17	8.36	3.85	3.28	1.010			
				31:01		1.51	633.38	380.93	252.45	1.023	13C12-PeCDF 234	SUR1	
				31:22	RO	1.12	0.87	0.38	0.34	1.035			
				31:59		1.63	6.15	3.81	2.34	1.055			
352-354			6 Peaks				1,304.92						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD						1.32-1.78				0.939-1.021			
356-358	DC	NL				Height	0.04	0.04	0.00				
	DC	SN	29:33	RO	0.74		0.33			0.943			
	DC	SN	29:46	RO	0.11		0.03			0.949			
	DC	SN	30:05	RO	0.67		0.16			0.960			
	DC	SN	31:38	RO	0.75		0.10			1.009			
	DC	SN	31:46	RO	1.11		0.23			1.013			
	DC	WH	32:06	RO	2.20		0.13			1.024			
356-358			0 Peaks				0.00						
13C12-PeCDD						1.32-1.78				0.872-1.128			
368-370	DC	NL				Height	0.03	0.03	0.00				
				30:17		1.34	0.82	0.47	0.35	0.966			
				30:25		1.60	1.64	1.01	0.63	0.970			
				31:21		1.46	437.86	260.13	177.73	1.000	13C12-PeCDD 123	IS3	
						Height	142.20	84.37	57.83				
				31:48	RO	2.22	0.46	0.40	0.18	1.014			
368-370			4 Peaks				440.78						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF						1.05-1.43				0.965-1.046			
374-376	DC	NL				Height	0.20	0.16	0.04				
	DC	SN	32:56			1.06	0.35			0.973			
	DC	SN	33:03	RO	0.20		0.04			0.976			
				33:25		1.28	1.21	0.68	0.53	0.987			J
D	D	SN	33:46	RO	0.86		0.58			0.998	123478-HxCDF	AN	
D	D	SN	33:52	RO	1.45		0.45			1.000	123678-HxCDF	AN	
	DC	SN	33:58		1.33		0.14			1.003			
D	D	SN	34:03	RO	0.59		0.29			1.006			
	DC	SN	34:15	RO	28.00		0.02			1.012			
D	D	SN	34:22	RO	2.26		0.78			1.015	234678-HxCDF	AN	
	DC	WH	35:25	RO	5.71		0.16			1.046			
	DC	WH	35:39	RO	1.72		0.40			1.053			
374-376			1 Peak				1.21						
13C12-HxCDF						0.43-0.59				0.882-1.118			
384-386	DC	NL				Height	0.29	0.11	0.18				
				32:47	RO	0.33	0.65	0.22	0.66	0.968			
				33:45		0.49	484.93	159.98	324.95	0.997	13C12-HxCDF 478	SUR2	
				33:51		0.50	479.63	159.27	320.36	1.000	13C12-HxCDF 678	IS4	
						Height	158.71	53.05	105.66				
				34:05	RO	0.23	0.44	0.15	0.65	1.007			
				34:10	RO	0.33	0.38	0.13	0.39	1.009			

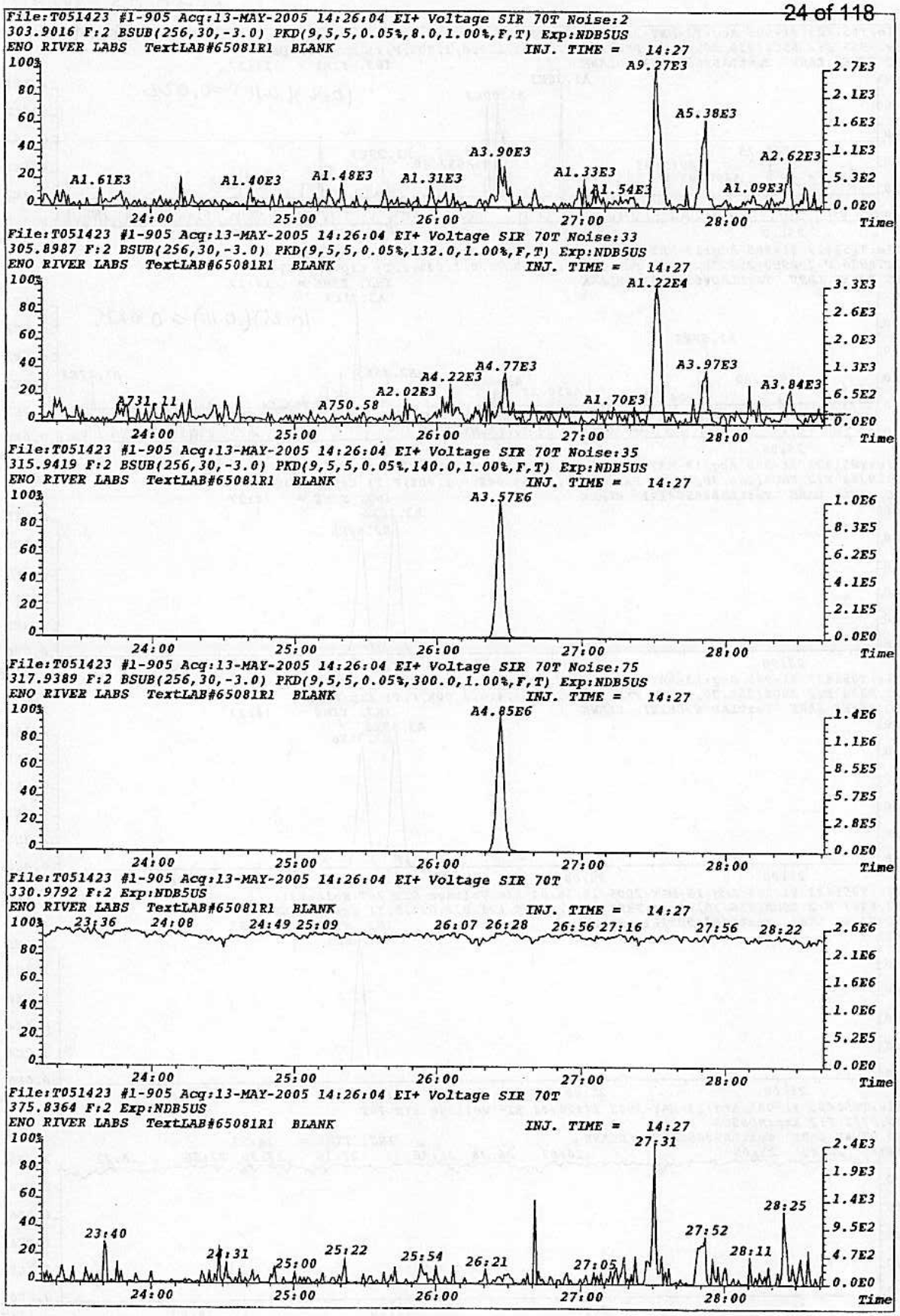
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				34:21		0.49	464.61	153.32	311.29	1.015	13C12-HxCDF 234	ALT2	
	DC	SN		34:42	RO	0.25	0.24			1.025			
				35:08		0.49	425.74	140.08	285.66	1.038	13C12-HxCDF 789	ALT1	
				35:31	RO	0.40	0.41	0.14	0.35	1.049			
384-386			8	Peaks			1,856.79						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD						1.05-1.43				0.959-1.014			
390-392	DC	NL				Height	0.30	0.20	0.10				
D	D	SN		33:44	RO	10.00	0.11			0.976			
	DC	SN		34:34	RO	2.92	0.27			1.000	123678-HxCDD	AN	
D	D	SN		34:52		1.32	0.51			1.009	123789-HxCDD	AN	
	DC	WH		35:16	RO	0.73	0.40			1.021			
	DC	WH		35:21	RO	3.36	0.31			1.023			
390-392			0	Peaks			0.00						
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404	DC	NL				Height	0.18	0.07	0.11				
				33:56		1.11	3.31	1.74	1.57	0.982			
				34:04	RO	0.28	0.14	0.08	0.29	0.986			
				34:28		1.19	338.43	184.00	154.43	0.998	13C12-HxCDD 478	SUR3	
				34:33		1.21	362.31	198.54	163.77	1.000	13C12-HxCDD 678	IS5	
						Height	120.76	65.61	55.15				
				34:52		1.21	389.12	213.26	175.86	1.009	13C12-HxCDD 789	RS2	
				35:01	RO	2.34	1.66	1.73	0.74	1.014			
				35:07	RO	6.55	0.25	0.72	0.11	1.016			
				35:14	RO	0.30	0.14	0.08	0.27	1.020			
402-404			8	Peaks			1,095.36						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF						0.88-1.20				0.995-1.048			
408-410	DC	NL				Height	0.22	0.14	0.08				
D	D	SN		36:48	RO	1.61	1.16			1.000	1234678-HpCDF	AN	
M				37:15	RO	1.22	1.41	0.84	0.69	1.012			J
	DC	SN		37:29	RO	2.67	0.12			1.019			
408-410			1	Peak			1.41						
13C12-HpCDF						0.37-0.51				0.946-1.109			
418-420	DC	NL				Height	0.39	0.23	0.16				
				36:48		0.43	311.82	94.46	217.36	1.000	13C12-HpCDF 678	IS6	
						Height	91.77	28.26	63.51				
				38:23		0.41	251.37	73.35	178.02	1.043	13C12-HpCDF 789	SUR4	
418-420			2	Peaks			563.19						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20				0.976-1.005			
424-426	DC	NL				Height	0.36	0.24	0.12				
				37:08		0.89	2.40	1.13	1.27	0.981			J
	DC	SN		37:35	RO	1.73	0.31			0.993			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		37:39	RO	1.90	0.63			0.994			
M				37:53		1.05	2.75	1.41	1.34	1.000	1234678-HpCDD	AN	J
424-426			2 Peaks				5.15						
13C12-HpCDD				0.88-1.20						0.974-1.026			
436-438	DC	NL		Height			0.29	0.12	0.17				
				37:52		1.02	271.78	137.52	134.26	1.000	13C12-HpCDD 678	IS7	
				Height			71.71	36.25	35.46				
436-438			1 Peak				271.78						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF				0.76-1.02						0.904-1.096			
442-444	DC	NL		Height			0.07	0.03	0.04				
	DC	WL		36:31	RO	1.25	0.08			0.878			
	DC	WL		36:38	RO	1.60	0.09			0.881			
	DC	WL		36:47	RO	1.08	0.25			0.884			
	DC	WL		37:04	RO	5.33	0.06			0.891			
	DC	SN		38:24	RO	1.57	0.13			0.923			
	DC	SN		38:47	RO	2.71	0.13			0.932			
	DC	SN		38:56	RO	0.38	0.06			0.936			
	DC	SN		39:28	RO	1.63	0.15			0.949			
	DC	SN		39:44	RO	1.80	0.09			0.955			
	DC	SN		40:04		1.00	0.12			0.963			
	DC	SN		40:36	RO	0.70	0.15			0.976			
	DC	SN		40:57	RO	1.09	0.21			0.984			
	DC	SN		41:19	RO	0.67	0.08			0.993			
	DC	SN		41:23	RO	1.14	0.13			0.995			
	DC	SN		41:32	RO	1.40	0.19			0.998			
				41:50	RO	1.10	2.74	1.60	1.45	1.006	OCDF	AN	J
	DC	SN		42:22	RO	0.33	0.08			1.018			
	DC	SN		43:06	RO	2.86	0.13			1.036			
	DC	SN		43:13	RO	0.75	0.06			1.039			
	DC	SN		43:15	RO	0.50	0.06			1.040			
	DC	SN		43:40	RO	1.80	0.09			1.050			
	DC	SN		43:45	RO	4.00	0.04			1.052			
	DC	SN		44:13	RO	3.00	0.13			1.063			
	DC	SN		44:26	RO	1.43	0.13			1.068			
	DC	SN		44:33	RO	0.67	0.13			1.071			
	DC	SN		44:42	RO	11.00	0.02			1.075			
	DC	SN		44:49	RO	0.25	0.06			1.077			
442-444			1 Peak				2.74						
OCDD				0.76-1.02						0.904-1.096			
458-460	DC	NL		Height			0.05	0.03	0.02				
	DC	WL		36:23	RO	5.00	0.06			0.875			
	DC	WL		36:46	RO	1.67	0.11			0.884			
	DC	WL		37:23	RO	3.00	0.04			0.899			
	DC	SN		37:38	RO	4.00	0.09			0.905			
	DC	SN		37:54	RO	1.29	0.13			0.911			
	DC	SN		38:07	RO	0.38	0.11			0.916			
	DC	SN		38:37	RO	3.17	0.11			0.928			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		38:46	RO	5.00	0.04			0.932			
	DC	SN		38:48	RO	1.60	0.09			0.933			
	DC	SN		39:19		0.91	0.42			0.945			
	DC	SN		39:50	RO	2.00	0.09			0.958			
	DC	SN		40:08		1.00	0.12			0.965			
	DC	SN		40:27	RO	1.17	0.11			0.972			
	DC	SN		40:34	RO	1.50	0.15			0.975			
	DC	SN		40:49	RO	1.67	0.11			0.981			
	DC	SN		40:57		1.00	0.08			0.984			
				41:37		0.92	20.39	9.78	10.61	1.000	OCDD		AN
	DC	SN		42:08	RO	1.43	0.13			1.013			
	DC	SN		42:18	RO	2.09	0.21			1.017			
	DC	SN		42:40	RO	1.50	0.11			1.026			
	DC	SN		43:06	RO	0.46	0.13			1.036			
	DC	SN		43:34	RO	1.25	0.08			1.047			
	DC	SN		44:19	RO	0.60	0.06			1.065			
	DC	SN		44:40	RO	0.60	0.06			1.074			
	DC	SN		44:53	RO	2.00	0.09			1.079			
458-460			1	Peak			20.39						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472	DC	NL				Height	0.23	0.14	0.09				
				41:36		0.82	393.44	177.44	216.00	1.000	13C12-OCDD		IS8
						Height	88.88	39.03	49.85				
				41:56	RO	1.12	0.49	0.29	0.26	1.008			
				42:00	RO	0.69	0.42	0.20	0.29	1.010			
	DC	SN		42:10	RO	0.24	0.21			1.014			
				42:33		0.88	0.60	0.28	0.32	1.023			
	DC	SN		42:55	RO	0.33	0.17			1.032			
	DC	SN		43:12	RO	1.19	0.30			1.038			
	DC	SN		43:17	RO	0.17	0.11			1.040			
470-472			4	Peaks			394.95						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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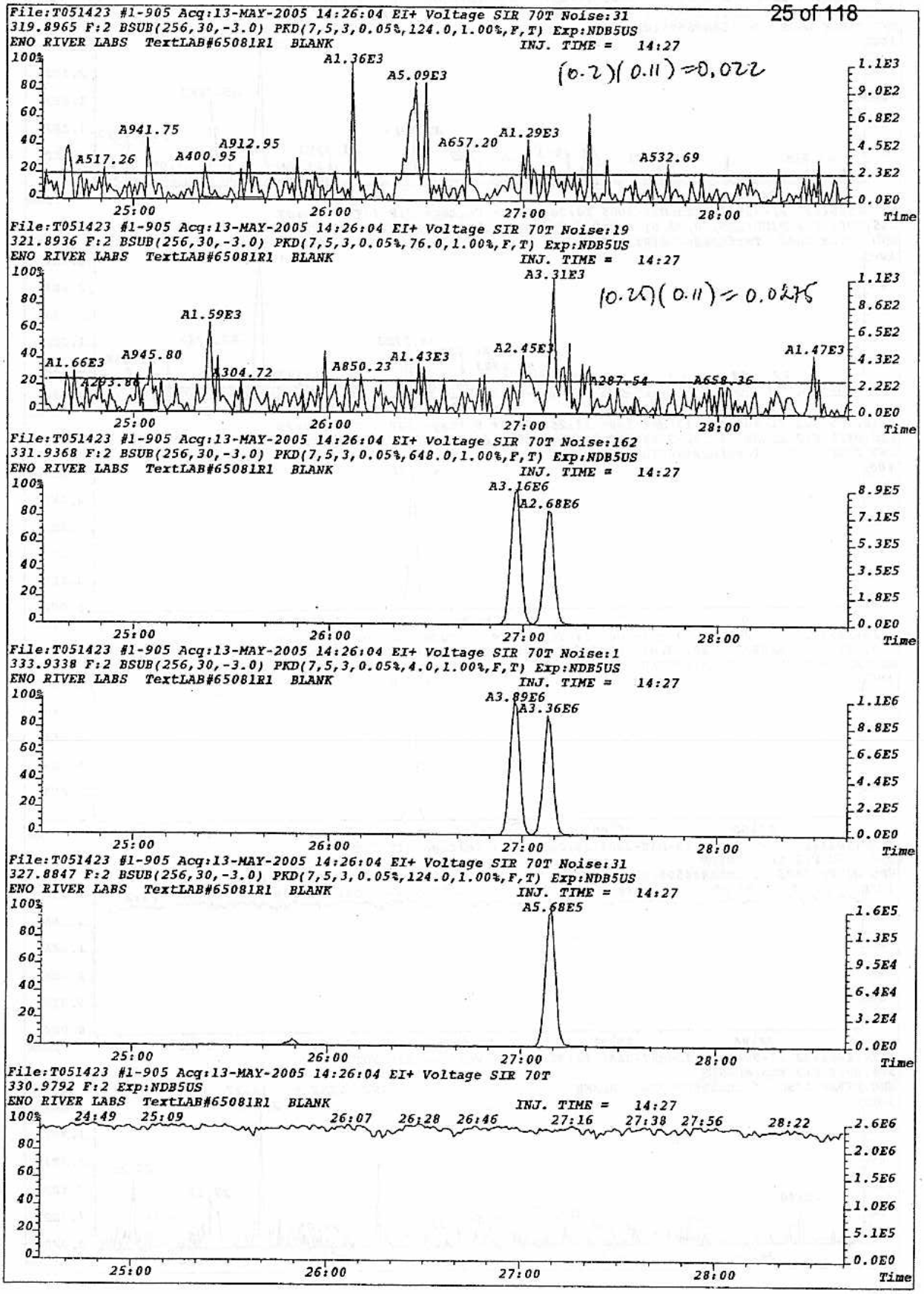
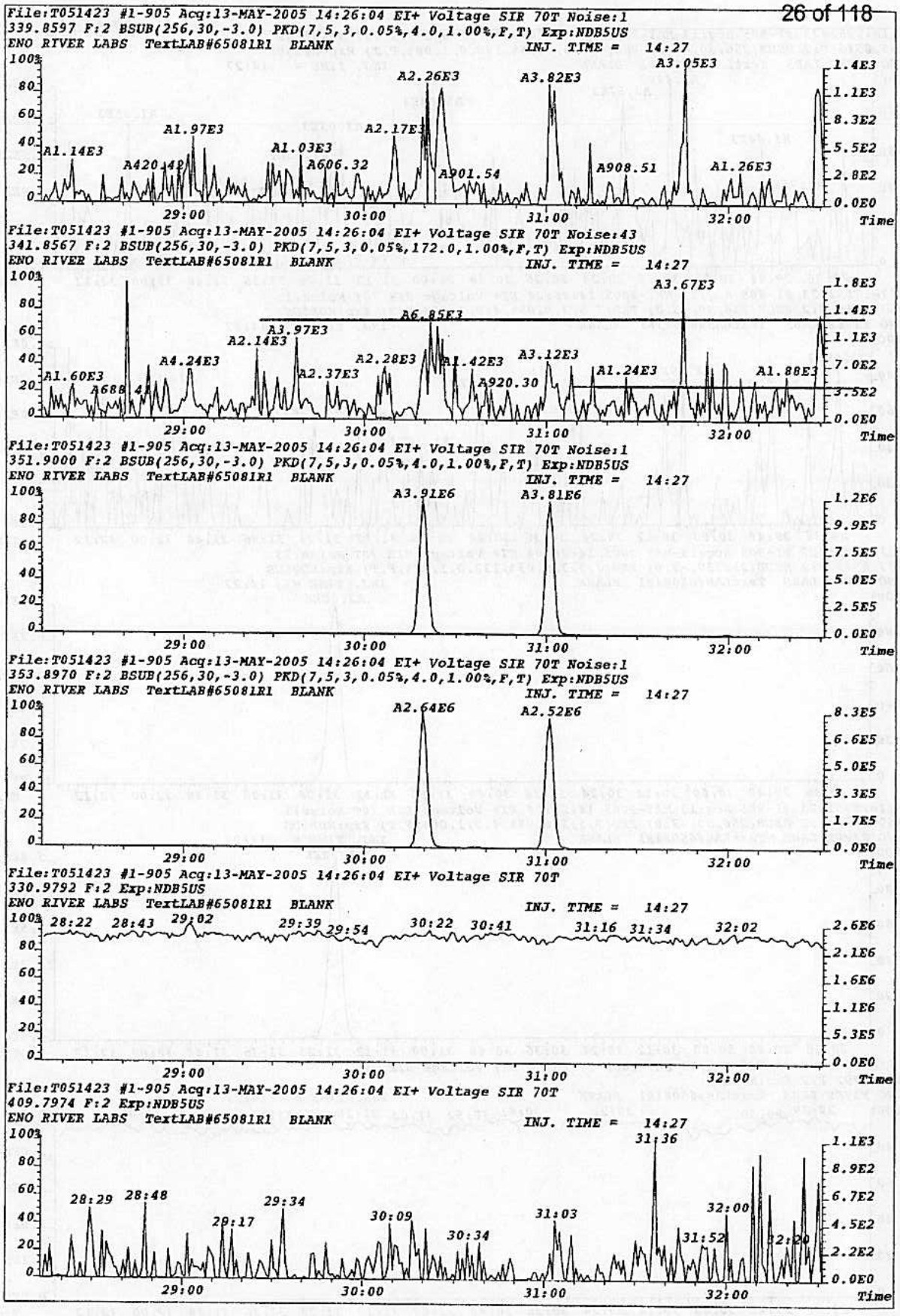
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A9.27E3
A5.38E3
A3.90E3
A2.62E3
A1.61E3
A1.40E3
A1.48E3
A1.31E3
A1.33E3
A1.54E3
A1.09E3
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:33
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,132.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.22E4
A4.77E3
A4.22E3
A3.97E3
A2.02E3
A3.84E3
A731.11
A750.58
A1.70E3
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:35
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,140.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A3.57E6
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:75
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,300.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A4.85E6
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
23:36
24:08
24:49
25:09
26:07
26:28
26:56
27:16
27:56
28:22
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
27:31
28:25
27:52
23:40
24:31
25:00
25:22
25:54
26:21
27:05
28:11
Time

N=0.05 JSY 5/13/05

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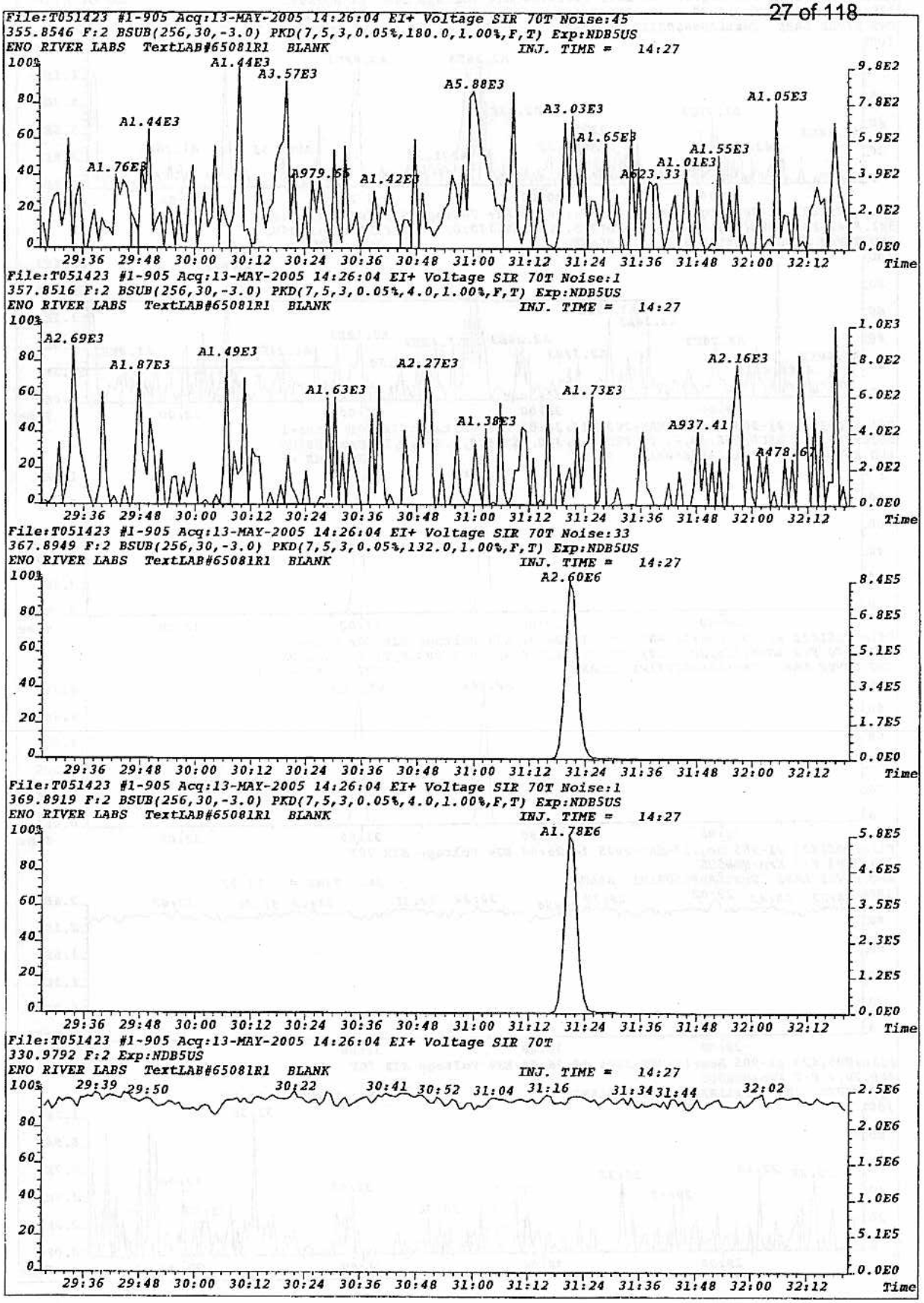
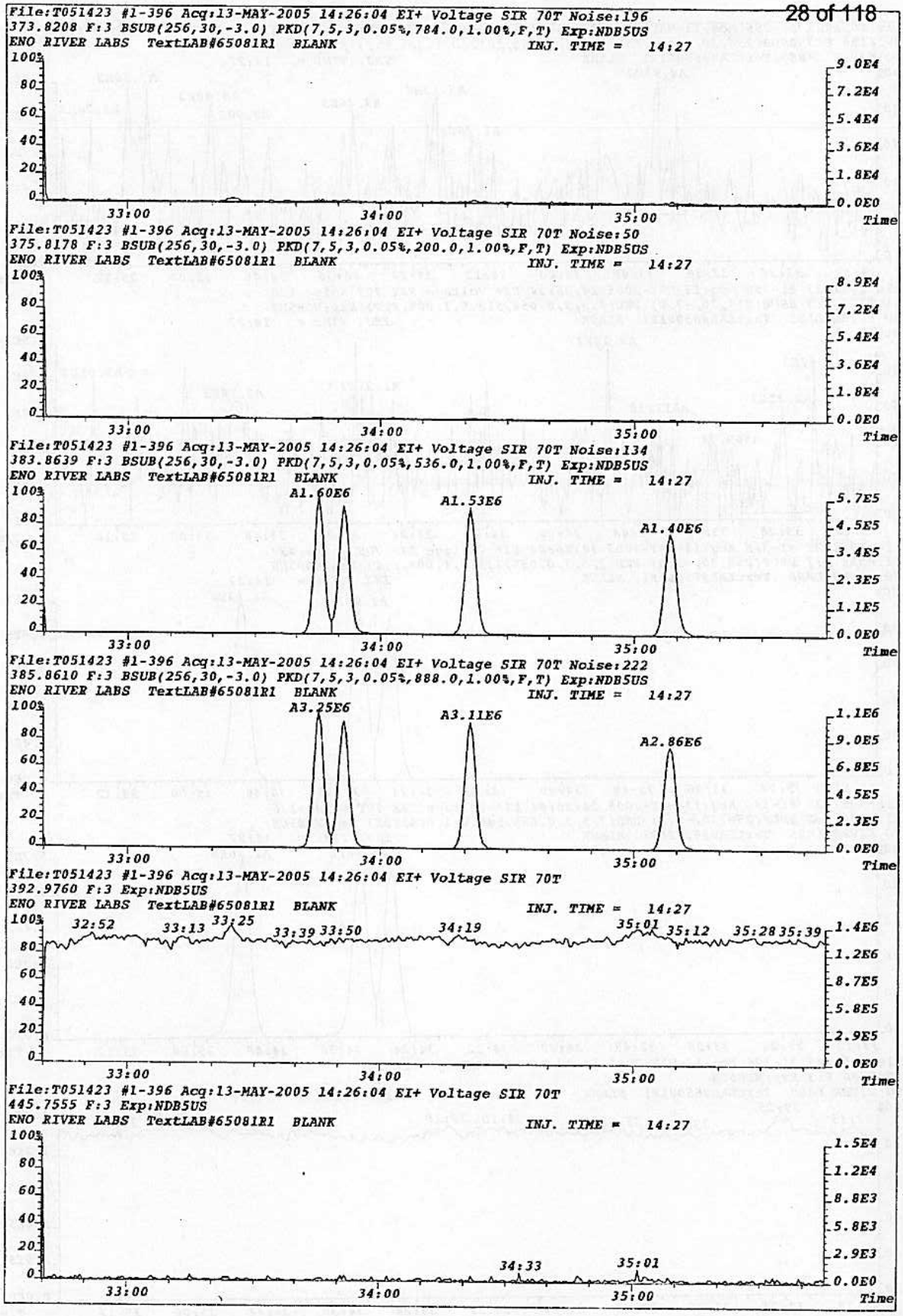
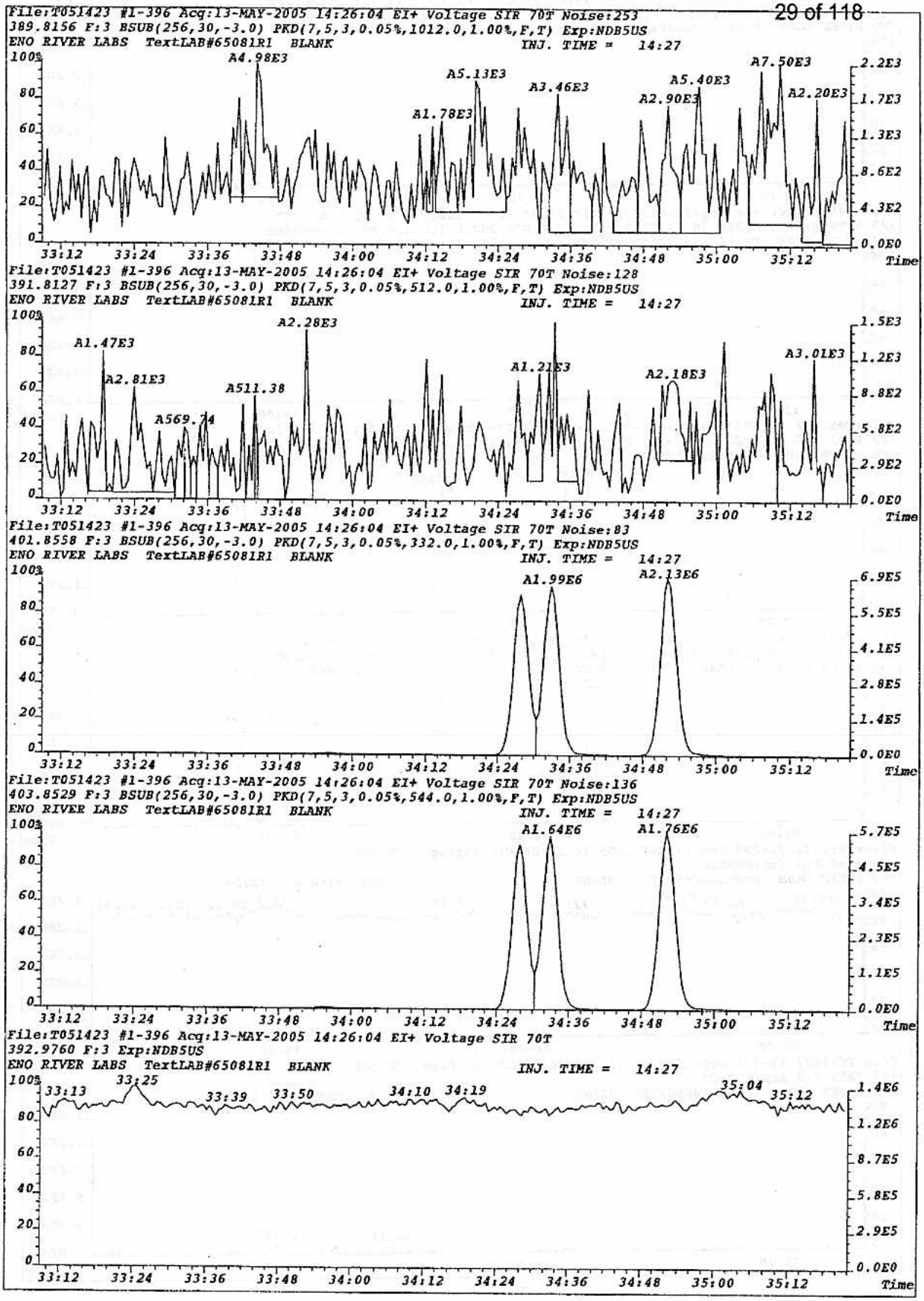
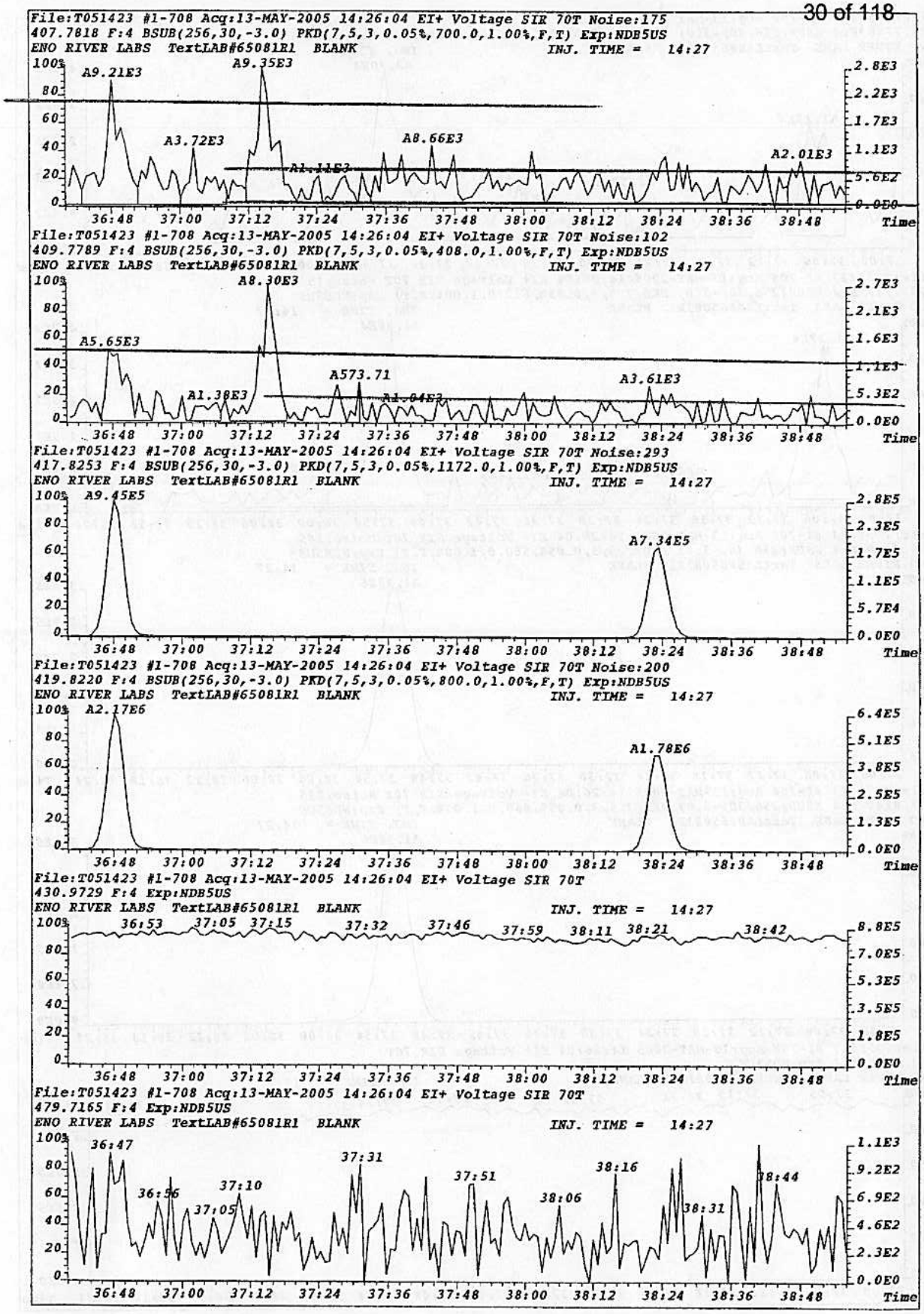
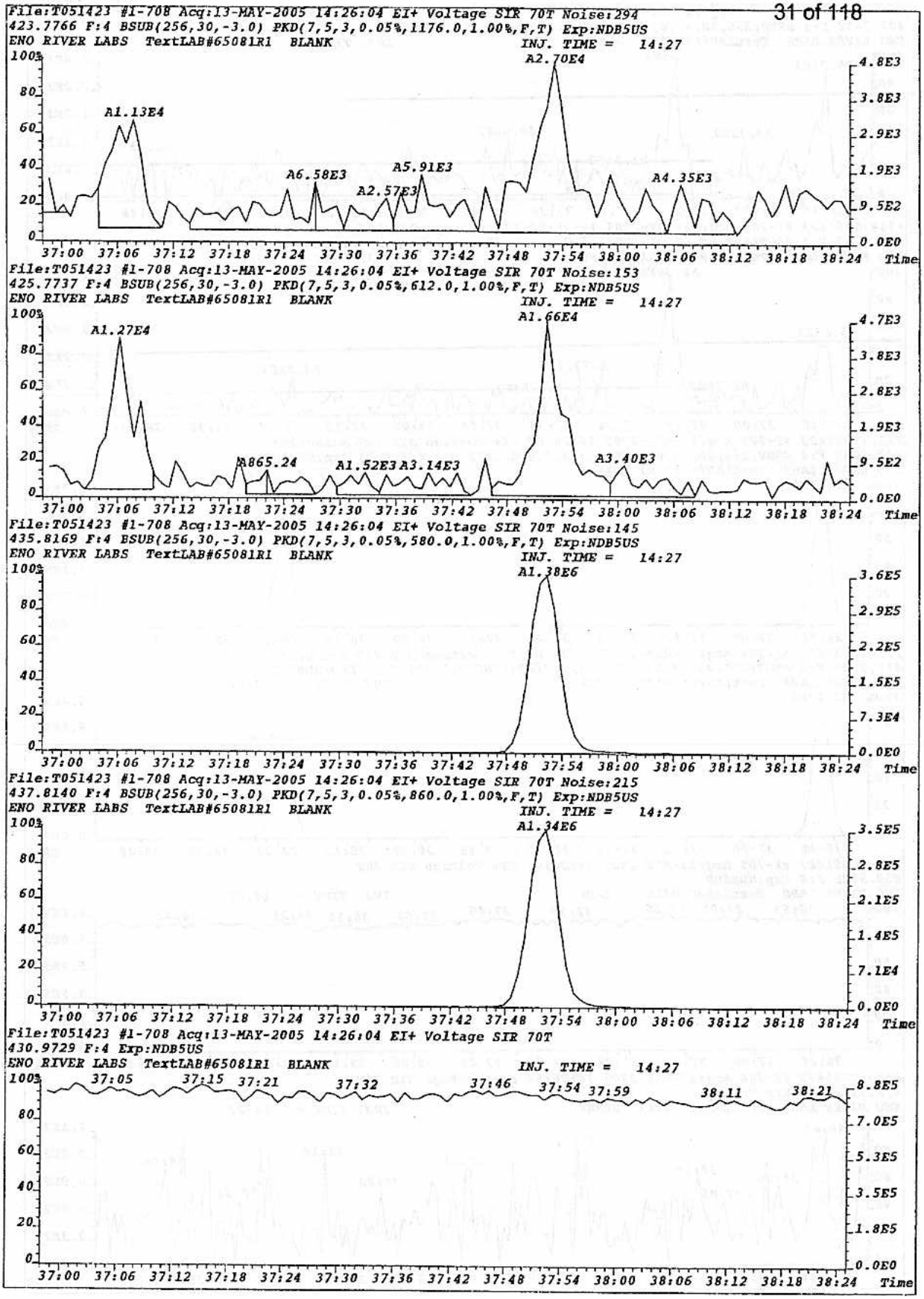
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.14E3
A420.42
A1.97E3
A1.03E3
A606.32
A2.17E3
A2.26E3
A901.54
A3.82E3
A908.51
A3.05E3
A1.26E3
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:43
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.60E3
A688.4
A4.24E3
A2.14E3
A3.97E3
A2.37E3
A2.28E3
A6.85E3
A1.42E3
A920.30
A3.12E3
A1.24E3
A3.67E3
A1.88E3
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:1
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A3.91E6
A3.81E6
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:1
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.64E6
A2.52E6
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
28:22
28:43
29:02
29:39
29:54
30:22
30:41
31:16
31:34
32:02
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
28:29
28:48
29:17
29:34
30:09
30:34
31:03
31:36
31:52
32:00
32:20
29:00
30:00
31:00
32:00
Time

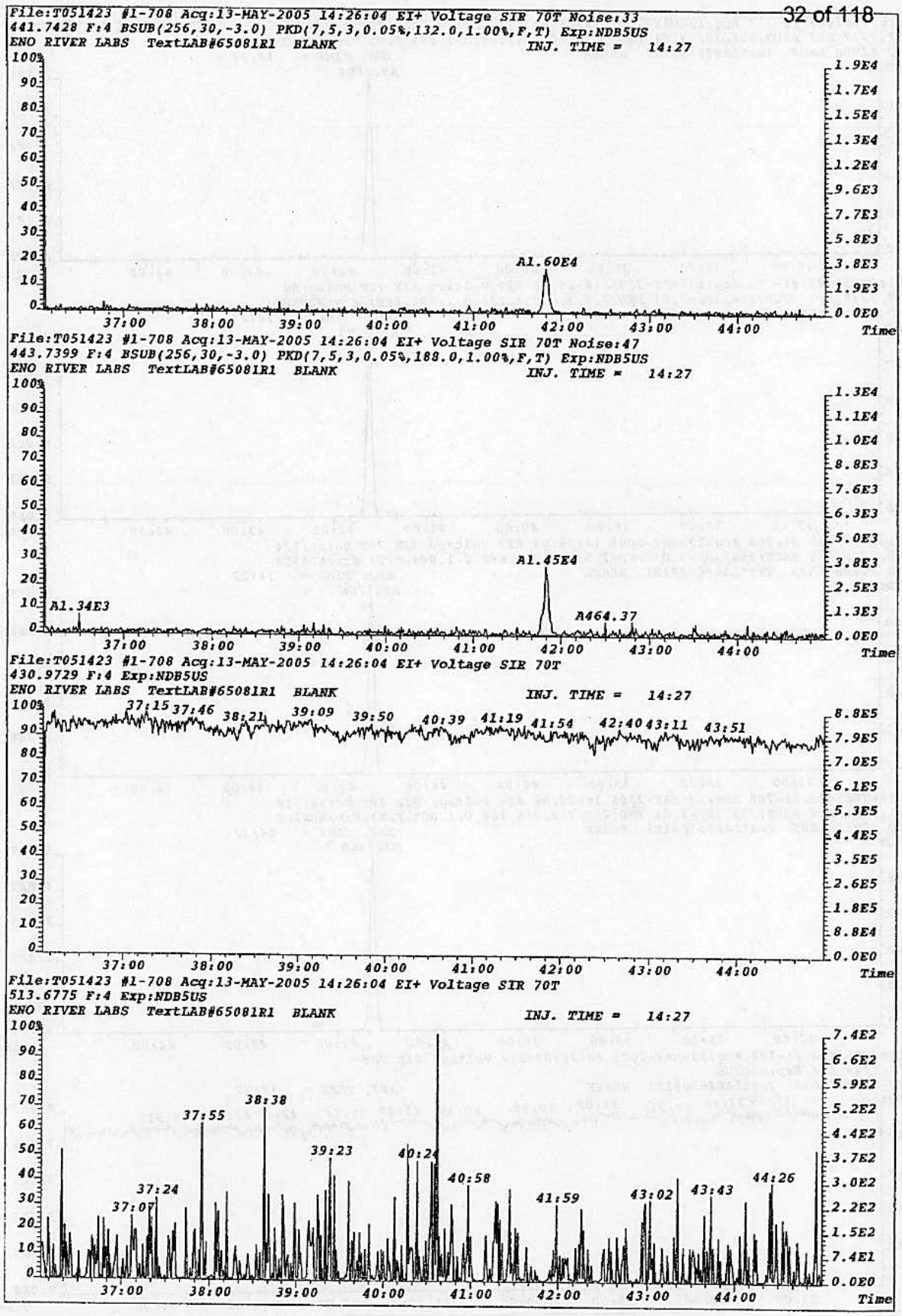

File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:45
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,180.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.44E3
A3.57E3
A5.88E3
A3.03E3
A1.05E3
A1.44E3
A1.76E3
A1.65E3
A1.55E3
A1.01E3
A979.55
A1.42E3
A623.33
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:1
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.69E3
A1.87E3
A1.49E3
A2.27E3
A1.63E3
A1.73E3
A2.16E3
A1.38E3
A937.41
A478.67
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:33
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,132.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.60E6
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:1
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.78E6
Time
File:T051423 #1-905 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
29:39 29:50 30:22 30:41 30:52 31:04 31:16 31:34 31:44 32:02
Time

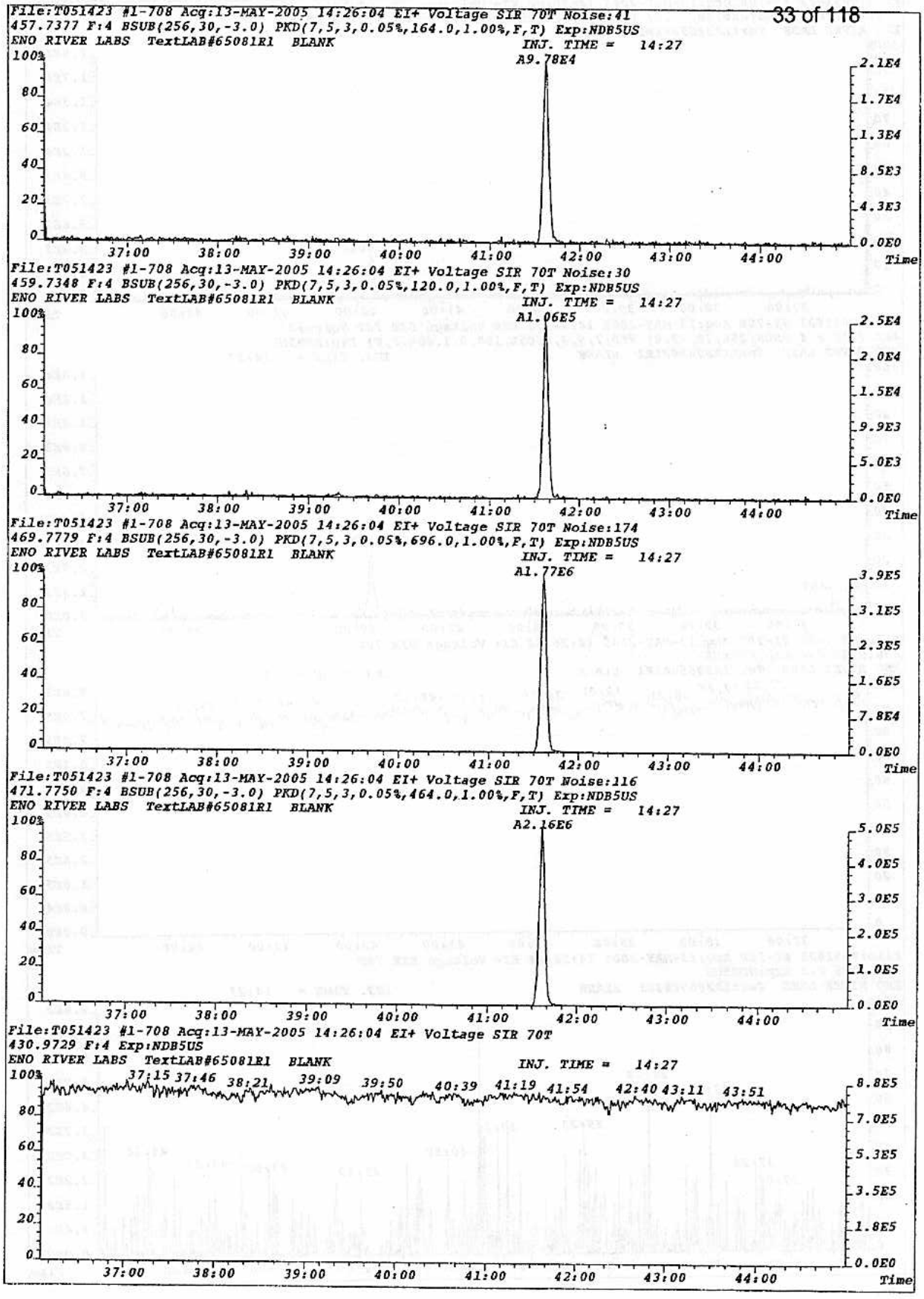

File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:196
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,784.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:50
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,200.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:134
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,536.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.60E6
A1.53E6
A1.40E6
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:222
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,888.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A3.25E6
A3.11E6
A2.86E6
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
32:52
33:13
33:25
33:39
33:50
34:19
35:01
35:12
35:28
35:39
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
34:33
35:01
33:00
34:00
35:00
Time

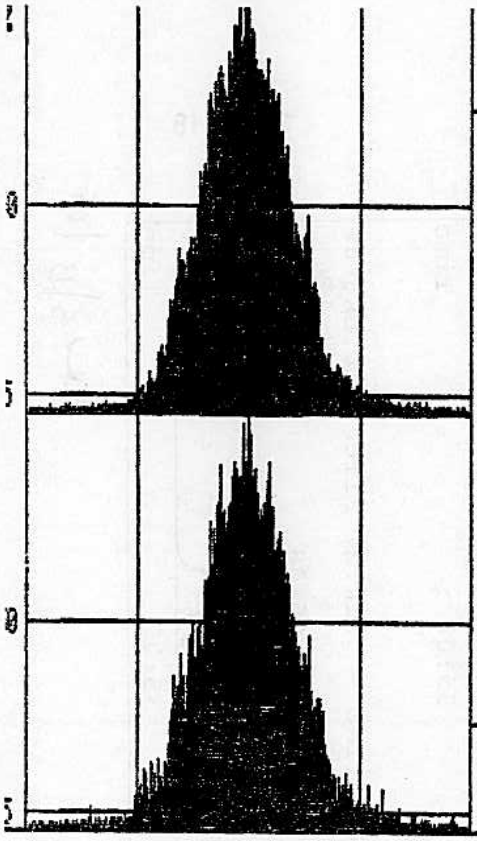

File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:253
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1012.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A4.98E3
A5.13E3
A3.46E3
A1.78E3
A2.90E3
A5.40E3
A7.50E3
A2.20E3
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:128
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,512.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.47E3
A2.28E3
A2.81E3
A511.38
A569.74
A1.21E3
A2.18E3
A3.01E3
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:83
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.99E6
A2.13E6
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:136
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,544.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.64E6
A1.76E6
File:T051423 #1-396 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
Time


File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:175
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,700.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A9.21E3
A9.35E3
A3.72E3
A8.66E3
A2.01E3
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:102
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,408.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A8.30E3
A5.65E3
A573.71
A1.38E3
A3.61E3
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:293
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A9.45E5
A7.34E5
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:200
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,800.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.17E6
A1.78E6
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
Time


File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:294
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1176.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.70E4
A1.13E4
A6.58E3
A5.91E3
A2.57E3
A4.35E3
4.8E3
3.8E3
2.9E3
1.9E3
9.5E2
0.0E0
37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06 38:12 38:18 38:24 Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:153
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,612.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.66E4
A1.27E4
A865.24
A1.52E3
A3.14E3
A3.40E3
4.7E3
3.8E3
2.8E3
1.9E3
9.5E2
0.0E0
37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06 38:12 38:18 38:24 Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:145
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,580.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.38E6
3.6E5
2.9E5
2.2E5
1.5E5
7.3E4
0.0E0
37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06 38:12 38:18 38:24 Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:215
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,860.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.34E6
3.5E5
2.8E5
2.1E5
1.4E5
7.1E4
0.0E0
37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06 38:12 38:18 38:24 Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
37:05 37:15 37:21 37:32 37:46 37:54 37:59 38:11 38:21
8.8E5
7.0E5
5.3E5
3.5E5
1.8E5
0.0E0
37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00 38:06 38:12 38:18 38:24 Time


File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:33
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,132.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.60E4
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:47
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,188.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.45E4
A1.34E3
A464.37
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
37:15 37:46 38:21 39:09 39:50 40:39 41:19 41:54 42:40 43:11 43:51
Time
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
37:07 37:24 37:55 38:38 39:23 40:24 40:58 41:59 43:02 43:43 44:26
Time


File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:41
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,164.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A9.78E4
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:30
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,120.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.06E5
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:174
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,696.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A1.77E6
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T Noise:116
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,464.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
A2.16E6
File:T051423 #1-708 Acq:13-MAY-2005 14:26:04 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27
37:15 37:46 38:21 39:09 39:50 40:39 41:19 41:54 42:40 43:11 43:51
Time

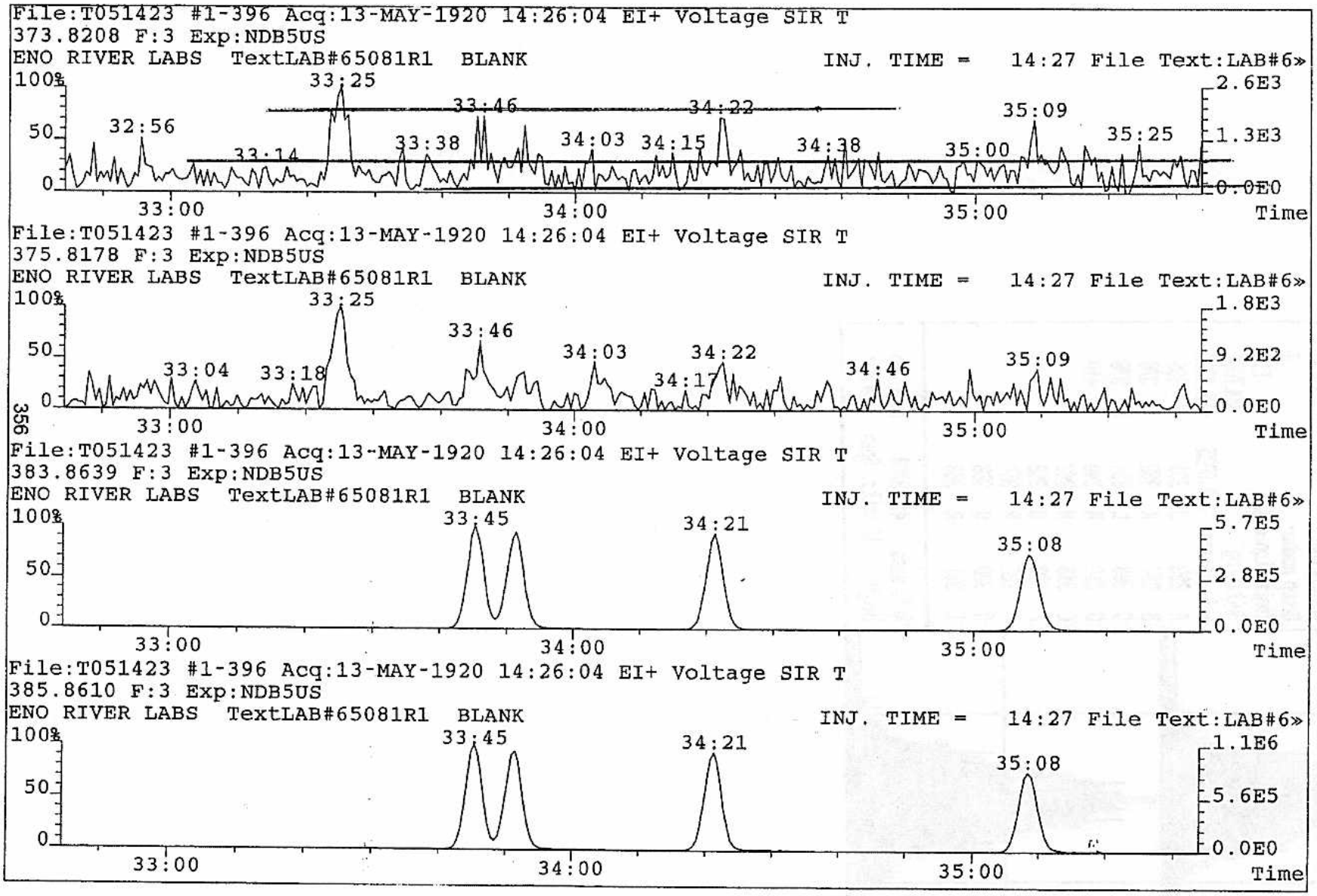


Channel	I 330.9792		Peak top
Height	.94 volts	Span	200 ppm

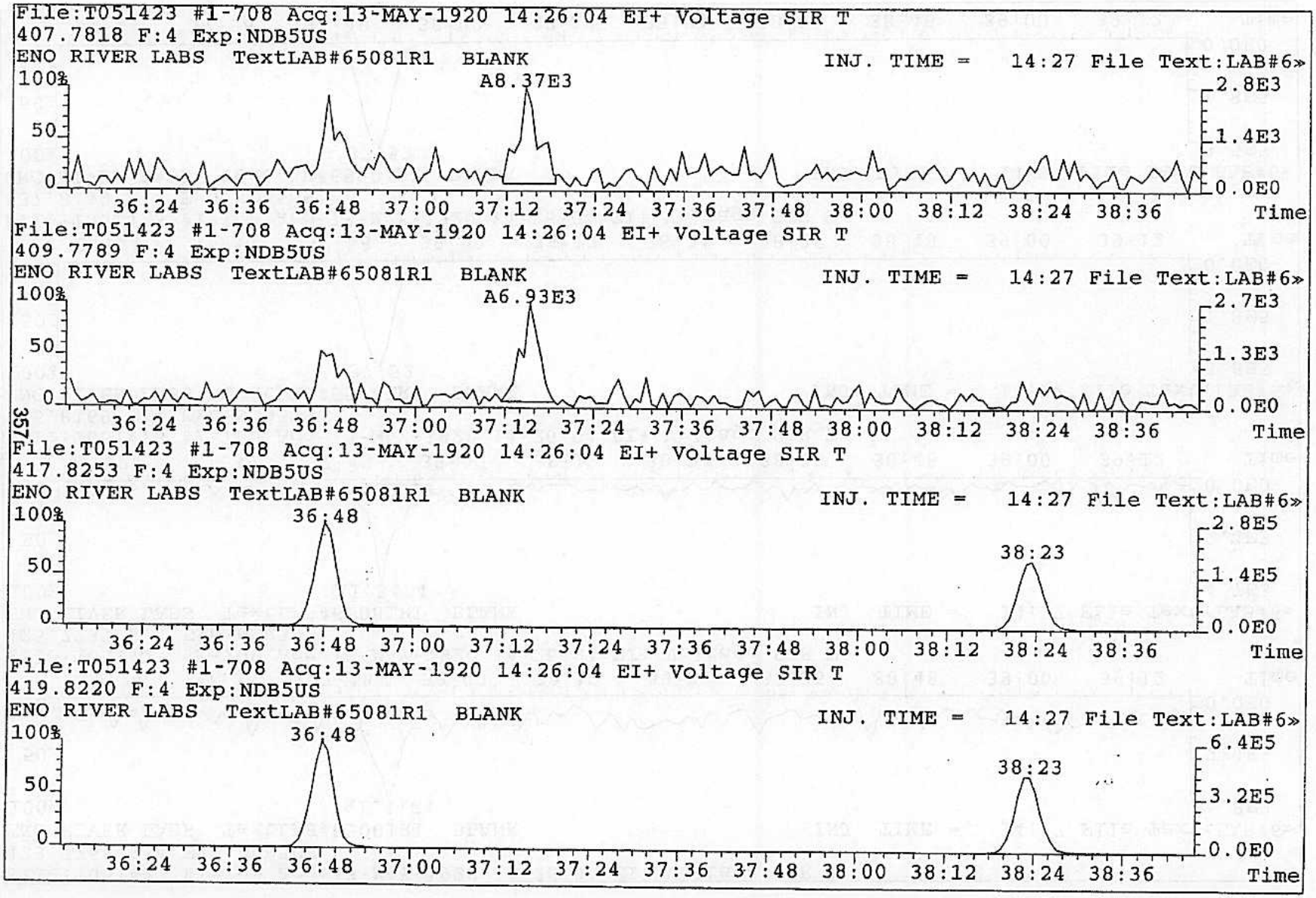
System file name	NDB5US
Data file name	A:T513051
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

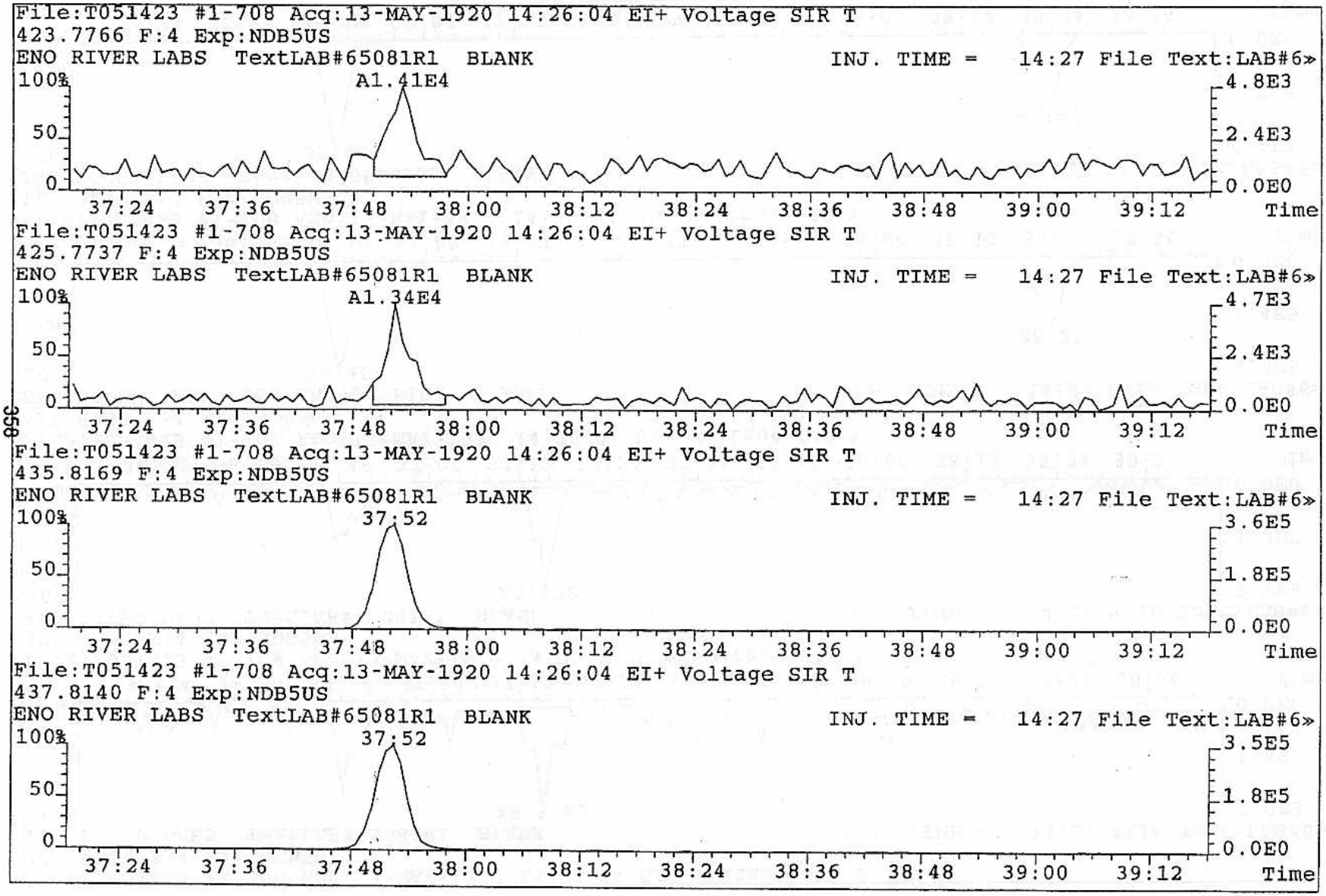
Ref. mass	416.9760		Peak top
Height	.12 volts	Span	200 ppm


File:T051423 #1-396 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
373.8208 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
100%
50
0
32:56
33:14
33:25
33:38
33:46
34:03
34:15
34:22
34:38
35:00
35:09
35:25
2.6E3
1.3E3
0.0E0
33:00
34:00
35:00
Time
File:T051423 #1-396 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
375.8178 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
100%
50
0
33:04
33:18
33:25
33:46
34:03
34:17
34:22
34:46
35:09
1.8E3
9.2E2
0.0E0
33:00
34:00
35:00
Time
File:T051423 #1-396 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
383.8639 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
100%
50
0
33:45
34:21
35:08
5.7E5
2.8E5
0.0E0
33:00
34:00
35:00
Time
File:T051423 #1-396 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
385.8610 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
100%
50
0
33:45
34:21
35:08
1.1E6
5.6E5
0.0E0
33:00
34:00
35:00
Time

KWS 5/13/05


File:T051423 #1-708 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
407.7818 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
A8.37E3
2.8E3
1.4E3
0.0E0
36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 Time
File:T051423 #1-708 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
409.7789 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
A6.93E3
2.7E3
1.3E3
0.0E0
36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 Time
File:T051423 #1-708 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
417.8253 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
36:48
38:23
2.8E5
1.4E5
0.0E0
36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 Time
File:T051423 #1-708 Acq:13-MAY-1920 14:26:04 EI+ Voltage SIR T
419.8220 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 BLANK
INJ. TIME = 14:27 File Text:LAB#6»
36:48
38:23
6.4E5
3.2E5
0.0E0
36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12 38:24 38:36 Time

KLU 5/13/05



350

KLO 5/13/05

Lab Project: 65087r1 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BB1TP108(5.0)** Analysis File: **S051430**

Client Project:	Presidio / Baker Beach			ICal:	SF5N164
Sample Matrix:	SOIL	Date Received:	05/06/2005	Spike File:	SPMIT322
Lab ID:	403-3-1	Date Extracted:	05/11/2005	1st CCal:	S051417
		Date Analyzed:	05/14/2005	End CCal:	S051431
Sample Size:	12.990 g	Dilution Factor:	n/a	% Moisture:	22.7
Dry Weight:	10.041 g	Blank File:	T051423	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	77.3

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	4.2			0.81	26:55	
1,2,3,7,8-PeCDD	5.5			1.53	31:08	
1,2,3,4,7,8-HxCDD	11.0			1.18	34:15	
1,2,3,6,7,8-HxCDD	47.1			1.18	34:20	
1,2,3,7,8,9-HxCDD	27.1			1.21	34:39	
1,2,3,4,6,7,8-HpCDD	2370			1.02	37:37	E
1,2,3,4,6,7,8,9-OCDD	23850			0.82	41:17	E
2,3,7,8-TCDF	4.1			0.89	26:12	
1,2,3,7,8-PeCDF	5.5			1.49	30:06	
2,3,4,7,8-PeCDF	1.5			1.35	30:48	J
1,2,3,4,7,8-HxCDF	12.4			1.27	33:33	
1,2,3,6,7,8-HxCDF	6.9			1.23	33:39	
2,3,4,6,7,8-HxCDF	10.7			1.26	34:08	
1,2,3,7,8,9-HxCDF	EMPC		8.0			X
1,2,3,4,6,7,8-HpCDF	230			1.04	36:34	
1,2,3,4,7,8,9-HpCDF	22.4			0.98	38:07	
1,2,3,4,6,7,8,9-OCDF	1190			0.86	41:28	

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total TCDD	8.4	6			
Total PeCDD	22.2	8		29.4	
Total HxCDD	480	7		480	
Total HpCDD	10010	2			E
Total TCDF	10.2	11		37.5	X
Total PeCDF	44.7	11		109	X
Total HxCDF	257	6		382	X
Total HpCDF	1040	3		1090	

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 12:17 06/02/2005

Lab Project: **65087r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BB1TP108(5.0)** Analysis File: **S051430**

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	139	69.9	40%-135%	0.75	26:11	
$^{13}C_{12}$-2,3,7,8-TCDD	131	65.9	40%-135%	0.82	26:53	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	141	70.9	40%-135%	1.46	30:06	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	157	78.6	40%-135%	1.49	31:08	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	159	79.7	40%-135%	0.47	33:38	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	174	87.2	40%-135%	1.19	34:19	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	173	86.7	40%-135%	0.43	36:33	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	160	80.2	40%-135%	1.03	37:36	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	384	96.3	40%-135%	0.84	41:16	

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	144	72.4	40%-135%	1.50	30:47	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	158	79.3	40%-135%	0.50	33:33	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	169	84.8	40%-135%	1.19	34:14	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	165	82.9	40%-135%	0.43	38:06	

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	13.6	68.3	40%-135%	26:54	

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	156	78.4	40%-135%	0.51	34:54	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	155	77.8	40%-135%	0.48	34:08	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.85	26:43	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.15	34:39	

Data Reviewer: PaB 06/02/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 12:17 06/02/2005

Initial ....Date...

Data Review By: PAB 6/2/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of S051430B.dbf
06/02/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.962-1.229			
304-306		DC	NL			Height	0.20	0.08	0.12				
	D	D	SN	23:04	RO	1.00	1.13			0.881	1368-TCDF	AN	
	M			23:33		0.83	4.81	2.18	2.63	0.899			J
				23:48	RO	0.94	11.26	5.96	6.36	0.909			
				24:10		0.83	4.40	2.00	2.40	0.923			J
				24:18		0.80	3.29	1.46	1.83	0.928			J
	M			24:33		0.75	5.14	2.20	2.94	0.938			J
	M			24:50		0.85	5.54	2.54	3.00	0.948			J
				25:11		0.82	4.63	2.08	2.55	0.962			J
				25:25	RO	1.28	1.52	1.10	0.86	0.971			J
	M			25:37		0.82	3.85	1.74	2.11	0.978			J
				25:45		0.80	5.70	2.53	3.17	0.983			J
	D	D	SN	26:02	RO	1.51	0.76			0.994			
	M			26:12		0.89	27.40	12.90	14.50	1.001	2378-TCDF	AN	
				26:37		0.78	2.12	0.93	1.19	1.017			J
				26:48		0.66	1.44	0.57	0.87	1.024			J
	X		X	27:02	RO	0.73	13.12	5.52	7.60	1.032			
	X		X	27:17	RO	0.79	122.67	54.29	68.38	1.042			
	X		X	27:36	RO	0.75	35.39	15.18	20.21	1.054			
		DC	WH	28:13		0.88	28.01			1.078			
304-306			16	Peaks			252.28						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318		DC	NL			Height	0.79	0.38	0.41				
		DC	WL	24:04	RO	2.18	1.35			0.919			
		DC	WL	24:39		0.85	5.76			0.941			
				25:46		0.70	4.45	1.84	2.61	0.984			
				26:11		0.75	1,071.35	457.66	613.69	1.000	13C12-2378-TCDF	IS0	
						Height	295.13	124.05	171.08				
				26:33		0.67	34.68	13.97	20.71	1.014			
				26:42	RO	1.18	1.42	0.94	0.80	1.020			
316-318			4	Peaks			1,111.90						

---------- Above: TCDF / TCDD Follows ----------

TCDD						0.65-0.89				0.963-1.223			
320-322		DC	NL			Height	0.13	0.06	0.07				
				24:25		0.77	2.69	1.17	1.52	0.908	1368-TCDD	AN	J
				24:46		0.69	1.86	0.76	1.10	0.921	1379-TCDD	AN	J
				25:05		0.69	2.50	1.02	1.48	0.933			J
		DC	SN	25:15		0.76	0.30			0.939			
		DC	SN	25:38	RO	2.80	0.27			0.954			
				25:43		0.75	5.21	2.24	2.97	0.957			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		25:57	RO	1.04	0.97			0.965			
D	D	SN		26:22	RO	1.56	0.57			0.981			
				26:44		0.81	5.69	2.54	3.15	0.994			
				26:55		0.81	17.98	8.07	9.91	1.001	2378-TCDD		AN
D	D	SN		27:15	RO	1.28	1.26			1.014			
	DC	SN		27:29	RO	1.41	0.30			1.022			
	DC	SN		27:55		0.87	0.86			1.038			
320-322			6	Peaks			35.93						
37Cl-TCDD										0.926-1.074			
328	DC	NL				Height	0.08	0.08					
	DC	WL		24:06			0.91			0.896			
	DC	WL		24:25			0.45			0.908			
	DC	WL		24:28			0.33			0.910			
	DC	WL		24:46			0.70			0.921			
	DC	SN		24:57			0.19			0.928			
	DC	SN		25:05			0.27			0.933			
				25:17			0.39	0.39		0.940			
				25:33			14.66	14.66		0.950			
	DC	SN		25:43			0.41			0.957			
	DC	SN		25:53			0.22			0.963			
	DC	SN		26:00			0.32			0.967			
	DC	SN		26:05			0.16			0.970			
	DC	SN		26:10			0.16			0.973			
	DC	SN		26:20			0.18			0.980			
	DC	SN		26:22			0.06			0.981			
	DC	SN		26:24			0.27			0.982			
	DC	SN		26:33			0.16			0.988			
	DC	SN		26:41			0.24			0.993			
	DC	SN		26:44			0.08			0.994			
				26:54			75.49	75.49		1.001	37Cl-TCDD		CLS
				27:07			0.39	0.39		1.009			
				27:17			1.27	1.27		1.015			
	DC	SN		27:23			0.28			1.019			
	DC	SN		27:30			0.19			1.023			
	DC	SN		27:41			0.30			1.030			
				27:54			0.41	0.41		1.038			
	DC	SN		28:05			0.08			1.045			
				28:14			0.75	0.75		1.050			
328			7	Peaks			93.36						
13C12-TCDD						0.65-0.89				0.926-1.074			
332-334	DC	NL				Height	0.31	0.22	0.09				
				26:43		0.85	1,221.03	559.81	661.22	0.994	13C12-1234-TCDD		RSI
				26:53		0.82	751.37	338.94	412.43	1.000	13C12-2378-TCDD		ISI
						Height	213.77	95.16	118.61				
332-334			2	Peaks			1,972.40						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF						1.32-1.78				0.867-1.133			
340-342	DC	NL				Height	0.17	0.07	0.10				

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				28:08		1.40	77.05	44.95	32.10	0.935			
				28:27	RO	1.13	6.50	2.87	2.55	0.945			J
		DC	SN	28:35	RO	0.24	0.16			0.950			
				28:59	RO	1.05	4.18	1.73	1.64	0.963			J
				29:16		1.42	38.39	22.51	15.88	0.972			
				29:25		1.60	3.59	2.21	1.38	0.977			J
				29:44		1.36	8.92	5.14	3.78	0.988			J
				29:50		1.39	7.23	4.21	3.02	0.991			J
	A			30:01		1.45	5.80	3.43	2.37	0.997			J
	AN			30:06		1.49	25.60	15.30	10.30	1.000	12378-PeCDF	AN	
	MX		X	30:11	RO	1.47	140.70	83.70	57.00	1.003			
				30:25		1.49	22.07	13.20	8.87	1.011			J
	M			30:48		1.35	6.71	3.85	2.86	1.023	23478-PeCDF	AN	J
				31:01		1.59	10.82	6.65	4.17	1.030			J
		DC	SN	31:08	RO	2.00	0.33			1.034			
				31:16		1.47	1.31	0.78	0.53	1.039			J
	MX		X	31:31	RO	1.48	147.10	87.90	59.20	1.047			
				31:52	RO	0.28	0.49	0.30	1.09	1.059			J
		DC	WH	32:02	RO	0.89	2.09			1.064			
		DC	WH	32:14		1.43	14.30			1.071			
340-342			16	Peaks			506.46						
13C12-PeCDF					1.32-1.78				0.867-1.133				
352-354		DC	NL		Height		0.11	0.05	0.06				
				29:14		1.77	2.16	1.38	0.78	0.971			
				30:06		1.46	808.48	480.25	328.23	1.000	13C12-PeCDF 123	IS2	
					Height		262.82	157.74	105.08				
				30:23	RO	1.20	11.73	5.53	4.60	1.009			
				30:47		1.50	818.08	490.45	327.63	1.023	13C12-PeCDF 234	SUR1	
				31:08	RO	1.19	1.63	0.76	0.64	1.034			
				31:45		1.51	11.59	6.98	4.61	1.055			
352-354			6	Peaks			1,653.67						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD					1.32-1.78				0.872-1.128				
356-358		DC	NL		Height		0.15	0.09	0.06				
				29:22	RO	1.22	18.11	8.65	7.10	0.943			
		DC	SN	29:37	RO	3.67	0.38			0.951			
				29:50		1.51	16.38	9.86	6.52	0.958			
				30:04		1.51	4.02	2.42	1.60	0.966			J
				30:13		1.58	7.68	4.70	2.98	0.971			J
				30:23	RO	1.95	2.83	2.16	1.11	0.976			J
	M			30:34		1.68	13.86	8.68	5.18	0.982			J
	D	D	CO	30:38	RO	1.85	6.60			0.984			
				30:50		1.59	5.61	3.44	2.17	0.990			J
				30:58		1.48	3.97	2.37	1.60	0.995			J
				31:08		1.53	17.66	10.69	6.97	1.000	12378-PeCDD	AN	
	A			31:14		1.61	1.83	1.13	0.70	1.003			J
				31:37	RO	2.19	2.24	1.93	0.88	1.016			J
356-358			11	Peaks			94.19						

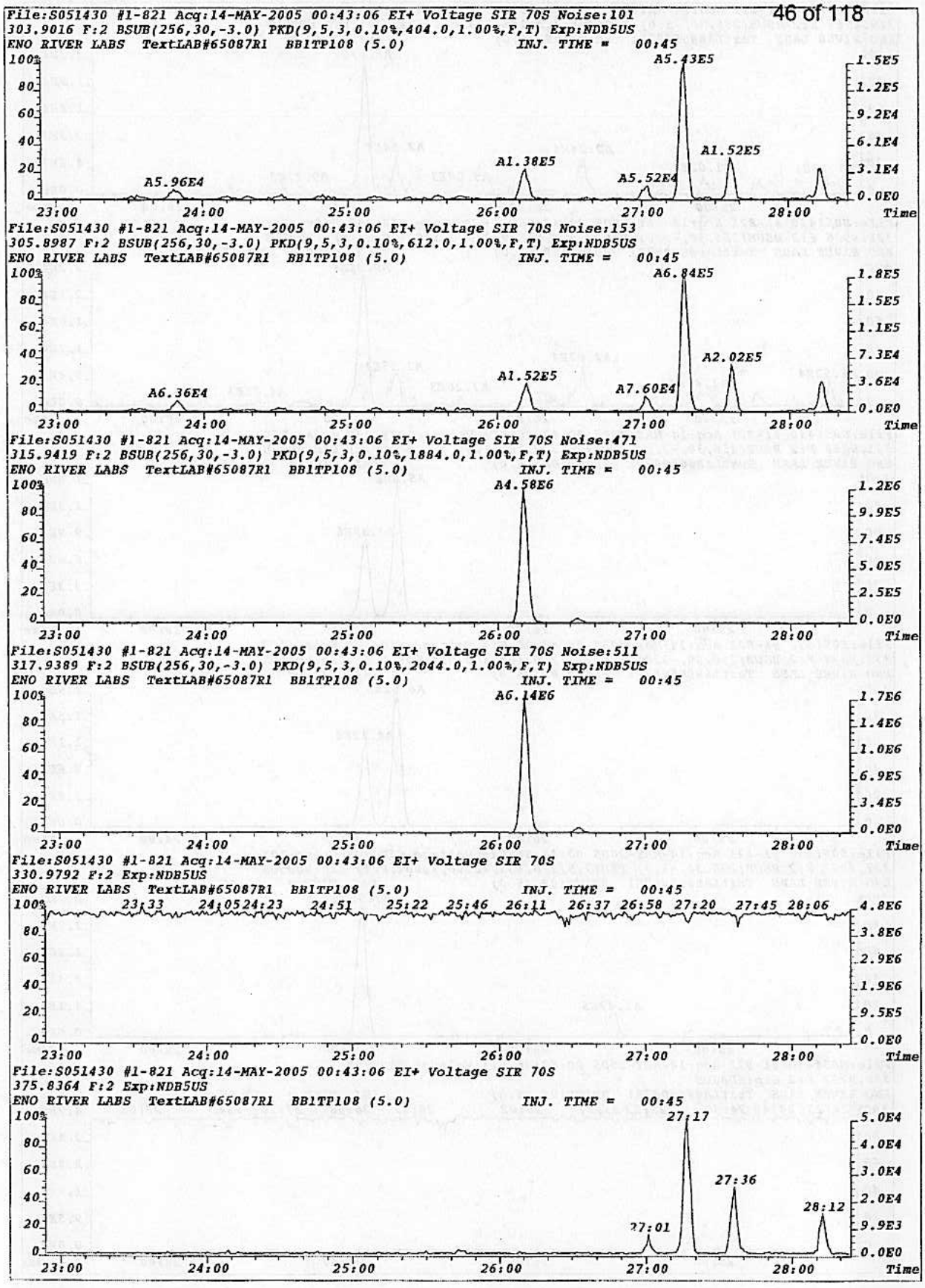
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-PeCDD				1.32-1.78					0.872-1.128				
368-370	DC	NL		Height			0.14	0.08	0.06				
	DC	SN		29:25	RO	1.00	0.33			0.945			
	DC	SN		29:37	RO	1.07	0.38			0.951			
	DC	SN		29:44	RO	0.85	0.18			0.955			
				30:02		1.42	1.55	0.91	0.64	0.965			
				30:12	RO	1.81	1.84	1.30	0.72	0.970			
				31:08		1.49	514.01	307.58	206.43	1.000	13C12-PeCDD 123	IS3	
					Height		165.90	99.74	66.16				
				31:16	RO	1.84	4.11	2.97	1.61	1.004			
	DC	SN		31:31	RO	0.33	0.30			1.012			
368-370			4	Peaks			521.51						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.881-1.119				
374-376	DC	NL		Height			0.43	0.24	0.19				
				32:36		1.24	76.96	42.65	34.31	0.969			
				32:44		1.23	257.40	142.12	115.28	0.973			
D	D	SN		32:54	RO	0.91	0.96			0.978			
D	D	SN		32:58	RO	1.58	2.37			0.980			
D	D	SN		33:01	RO	0.86	3.96			0.982			
				33:11		1.21	585.18	320.85	264.33	0.987			
X		X		33:26	RO	1.35	29.24	16.78	12.46	0.994			
				33:33		1.27	50.98	28.54	22.44	0.998	123478-HxCDF	AN	
				33:39		1.23	29.18	16.08	13.10	1.000	123678-HxCDF	AN	
X		X		33:51	RO	1.24	434.34	240.85	193.49	1.006			
				34:08		1.26	47.14	26.30	20.84	1.015	234678-HxCDF	AN	
	DC	SN		34:28	RO	2.89	0.20			1.025			
				34:47	RO	3.13	0.18	0.25	0.08	1.034			J
X		X		34:54	RO	1.21	27.42	14.99	12.43	1.038	123789-HxCDF	AN	
				34:59	RO	1.51	9.07	6.13	4.05	1.040			J
	DC	SN		35:09		1.25	0.63			1.045			
	DC	WB		35:26		1.22	67.96			1.054			
374-376			11	Peaks			1,547.09						
13C12-HxCDF				0.43-0.59					0.881-1.119				
384-386	DC	NL		Height			0.27	0.12	0.15				
				32:34	RO	0.42	1.27	0.43	1.03	0.968			
				33:33		0.50	682.74	226.27	456.47	0.998	13C12-HxCDF 478	SUR2	
				33:38		0.47	674.36	216.63	457.73	1.000	13C12-HxCDF 678	IS4	
					Height		234.20	77.75	156.45				
				33:47	RO	0.95	1.24	0.42	0.44	1.004			
				33:51	RO	0.29	0.77	0.26	0.89	1.006			
	DC	SN		33:58	RO	1.57	0.21			1.010			
				34:08		0.48	654.30	211.46	442.84	1.015	13C12-HxCDF 234	ALT2	
				34:54		0.51	552.29	185.73	366.56	1.038	13C12-HxCDF 789	ALT1	
384-386			7	Peaks			2,566.97						
---------- Above: HxCDF / HxCDD Follows ----------													

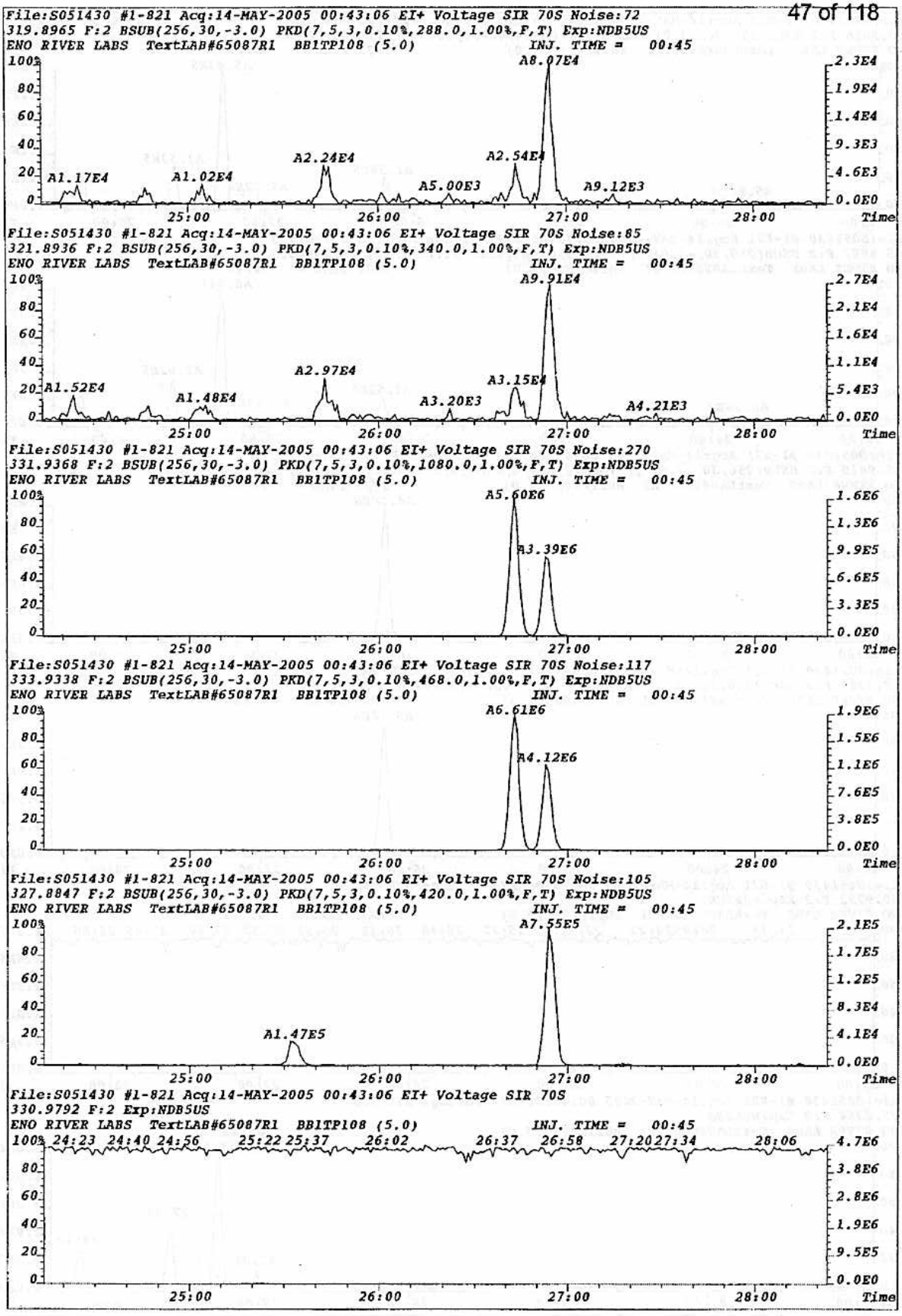
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
HxCDD				1.05-1.43					0.884-1.116				
390-392	DC	NL		Height			0.55	0.29	0.26				
				33:05		1.21	530.35	290.16	240.19	0.964			
				33:31		1.19	97.52	52.89	44.63	0.977			
				33:44		1.20	382.04	208.33	173.71	0.983			
				33:54		1.21	168.02	92.07	75.95	0.988			
				34:08	RO	1.02	1.03	0.47	0.46	0.995			J
				34:15		1.18	31.63	17.10	14.53	0.998	123478-HxCDD	AN	
				34:20		1.18	139.22	75.41	63.81	1.000	123678-HxCDD	AN	
				34:39		1.21	84.23	46.07	38.16	1.010	123789-HxCDD	AN	
	DC	WH		34:54	RO	0.85	0.79			1.017			
	DC	WH		35:01		1.05	0.80			1.020			
390-392			8	Peaks			1,434.04						
13C12-HxCDD				1.05-1.43					0.971-1.029				
402-404	DC	NL		Height			0.24	0.14	0.10				
				33:30	RO	2.00	0.36	0.32	0.16	0.976			
				33:43		1.43	4.56	2.68	1.88	0.983			
				34:14		1.19	457.50	249.03	208.47	0.998	13C12-HxCDD 478	SUR3	
				34:19		1.19	503.39	273.99	229.40	1.000	13C12-HxCDD 678	IS5	
				Height			171.44	94.80	76.64				
				34:39		1.15	641.71	342.75	298.96	1.010	13C12-HxCDD 789	RS2	
				34:53	RO	0.77	1.16	0.64	0.83	1.017			
				34:57	RO	0.28	0.20	0.11	0.40	1.018			
402-404			7	Peaks			1,608.88						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20					0.891-1.109				
408-410	DC	NL		Height			0.67	0.35	0.32				
				36:34		1.04	801.00	408.21	392.79	1.000	1234678-HpCDF	AN	
X		X		36:51	RO	1.03	142.51	72.36	70.15	1.008			
				36:59		1.05	2,482.67	1,273.35	1,209.32	1.012			
				38:07		0.98	62.50	30.91	31.59	1.043	1234789-HpCDF	AN	
408-410			4	Peaks			3,488.68						
13C12-HpCDF				0.37-0.51					0.945-1.109				
418-420	DC	NL		Height			0.27	0.15	0.12				
				36:33		0.43	439.12	131.20	307.92	1.000	13C12-HpCDF 678	IS6	
				Height			131.09	38.81	92.28				
	DC	SN		36:50	RO	0.71	1.37			1.008			
				37:45	RO	1.30	0.86	0.78	0.60	1.033			
				38:06		0.43	349.42	105.51	243.91	1.042	13C12-HpCDF 789	SUR4	
418-420			3	Peaks			789.40						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD				0.88-1.20					0.894-1.106				
424-426	DC	NL		Height			1.85	0.89	0.96				
				36:51		1.02	15,193.50	7,681.80	7,511.70	0.980			E
				37:37		1.02	4,712.00	2,384.07	2,327.93	1.000	1234678-HpCDD	AN	E
424-426			2	Peaks			19,905.50						

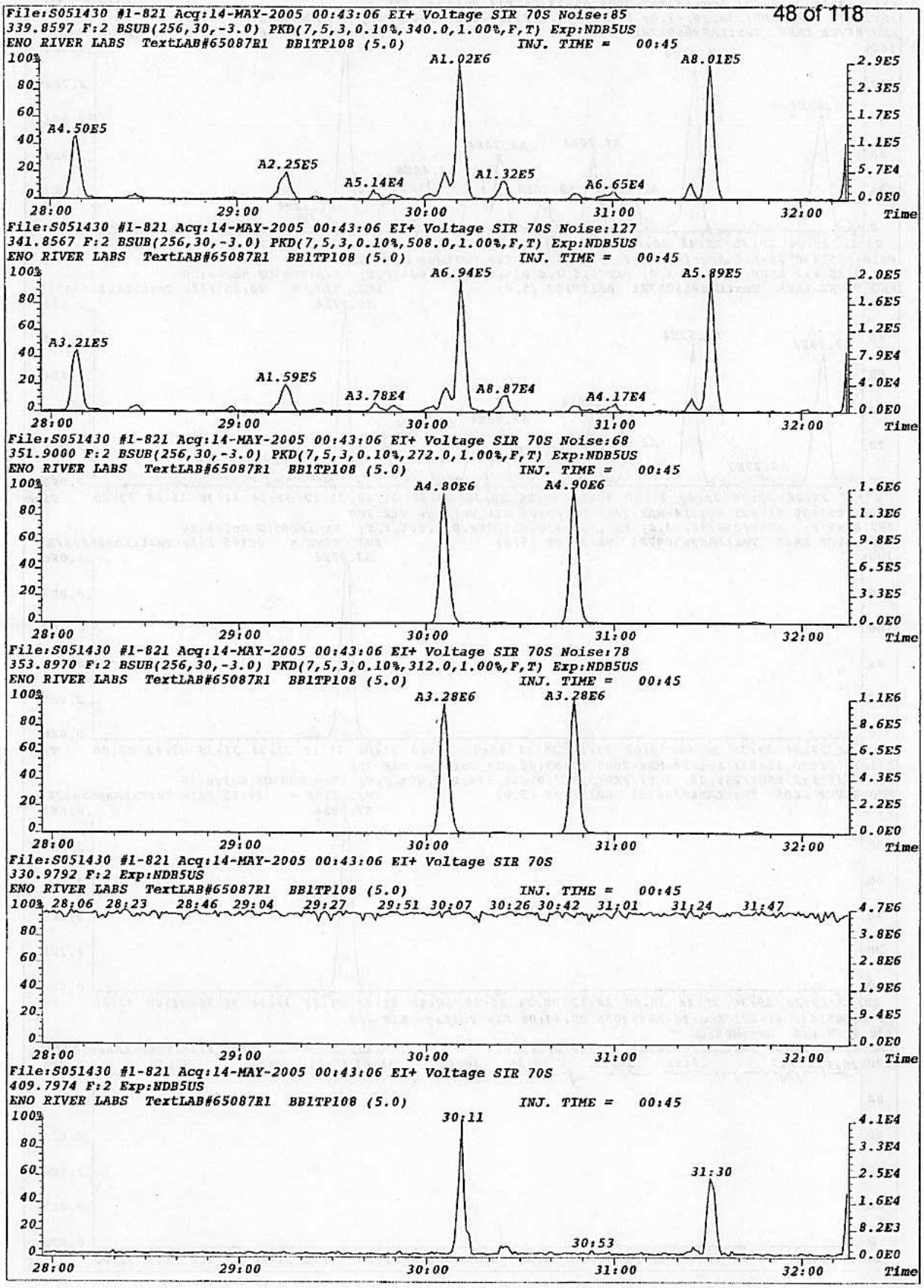
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	0.18	0.09	0.09				
				36:51		1.20	1.83	1.00	0.83	0.980			
				37:36		1.03	394.14	199.80	194.34	1.000	13C12-HpCDD	678	IS7
						Height	113.04	58.21	54.83				
436-438			2 Peaks				395.97						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02				0.903-1.097			
442-444	DC	NL				Height	0.17	0.08	0.09				
	DC	WL		36:18		0.81	4.30			0.880			
	DC	WL		36:51	RO	0.72	3.29			0.893			
				39:02	RO	0.75	12.13	5.71	7.59	0.946			
				39:13		0.84	37.81	17.26	20.55	0.950			
				41:16		0.91	35.77	17.02	18.75	1.000			
				41:28		0.86	2,618.71	1,214.57	1,404.14	1.005	OCDF		AN
442-444			4 Peaks				2,704.42						
OCDD						0.76-1.02				0.903-1.097			
458-460	DC	NL				Height	0.17	0.07	0.10				
				39:01		0.83	535.09	243.35	291.74	0.945			
				41:17		0.82	39,861.20	18,013.80	21,847.40	1.000	OCDD		AN E
458-460			2 Peaks				40,396.29						
13C12-OCDD						0.76-1.02				0.952-1.048			
470-472	DC	NL				Height	0.23	0.07	0.16				
	DC	WL		36:50		0.86	0.78			0.893			
				41:16		0.84	636.42	291.30	345.12	1.000	13C12-OCDD		IS8
						Height	148.35	67.25	81.10				
470-472			1 Peak				636.42						

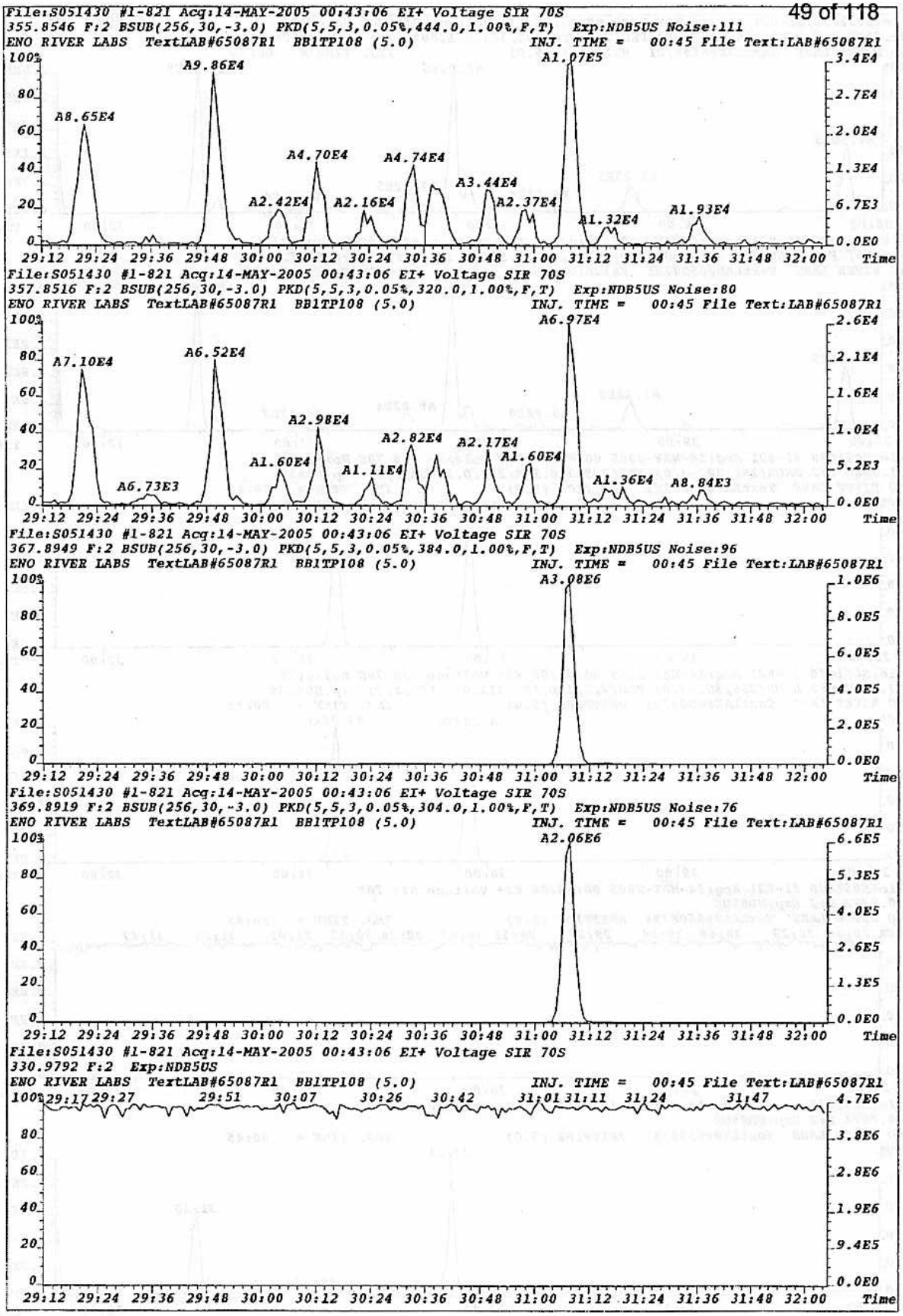
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

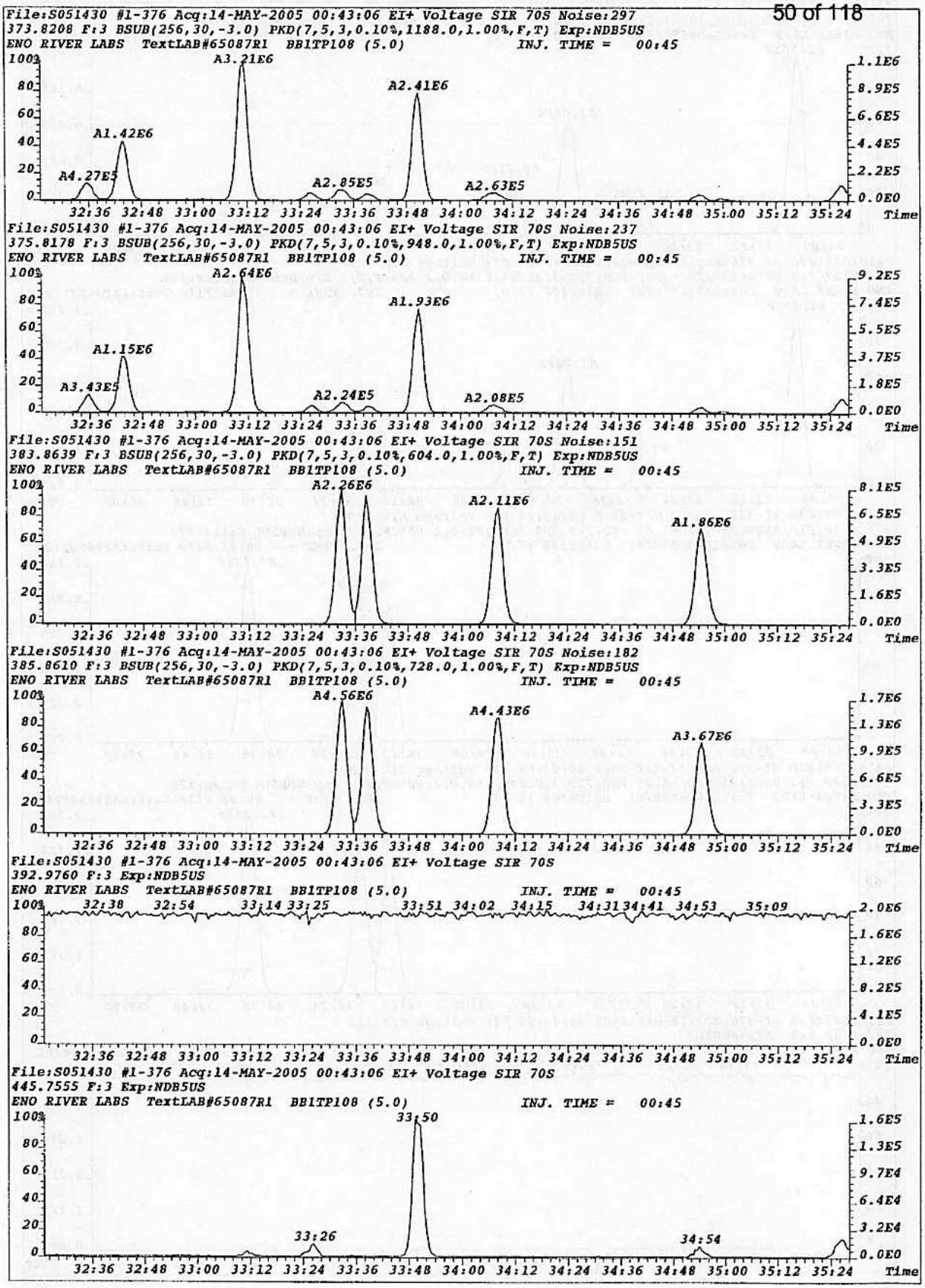
*** End of Report ***

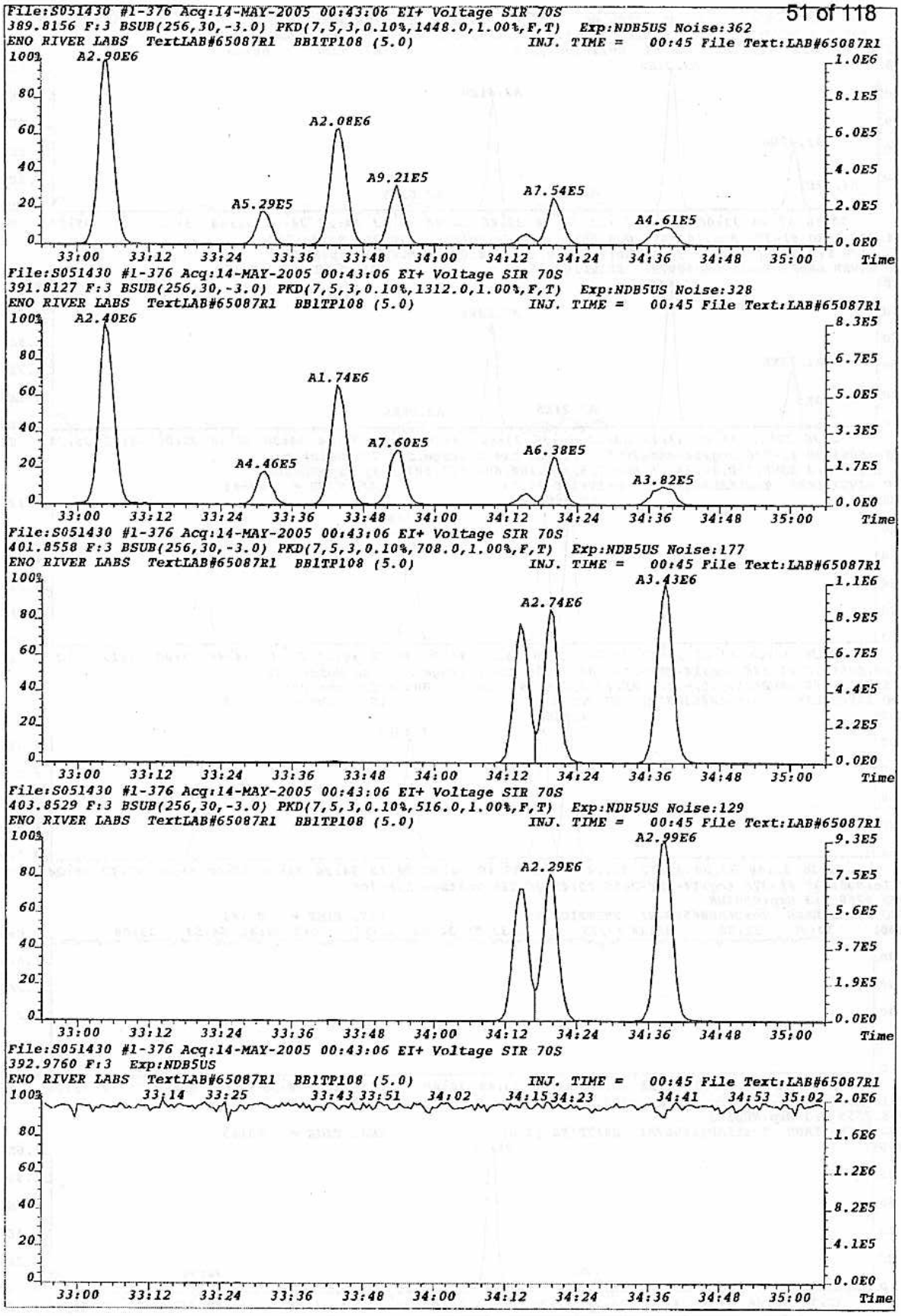

File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:101
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,404.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A5.43E5
A1.38E5
A1.52E5
A5.96E4
A5.52E4
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:153
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,612.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A6.84E5
A2.02E5
A1.52E5
A6.36E4
A7.60E4
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:471
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,1884.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A4.58E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:511
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,2044.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A6.14E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
27:17
27:36
28:12
27:01
Time

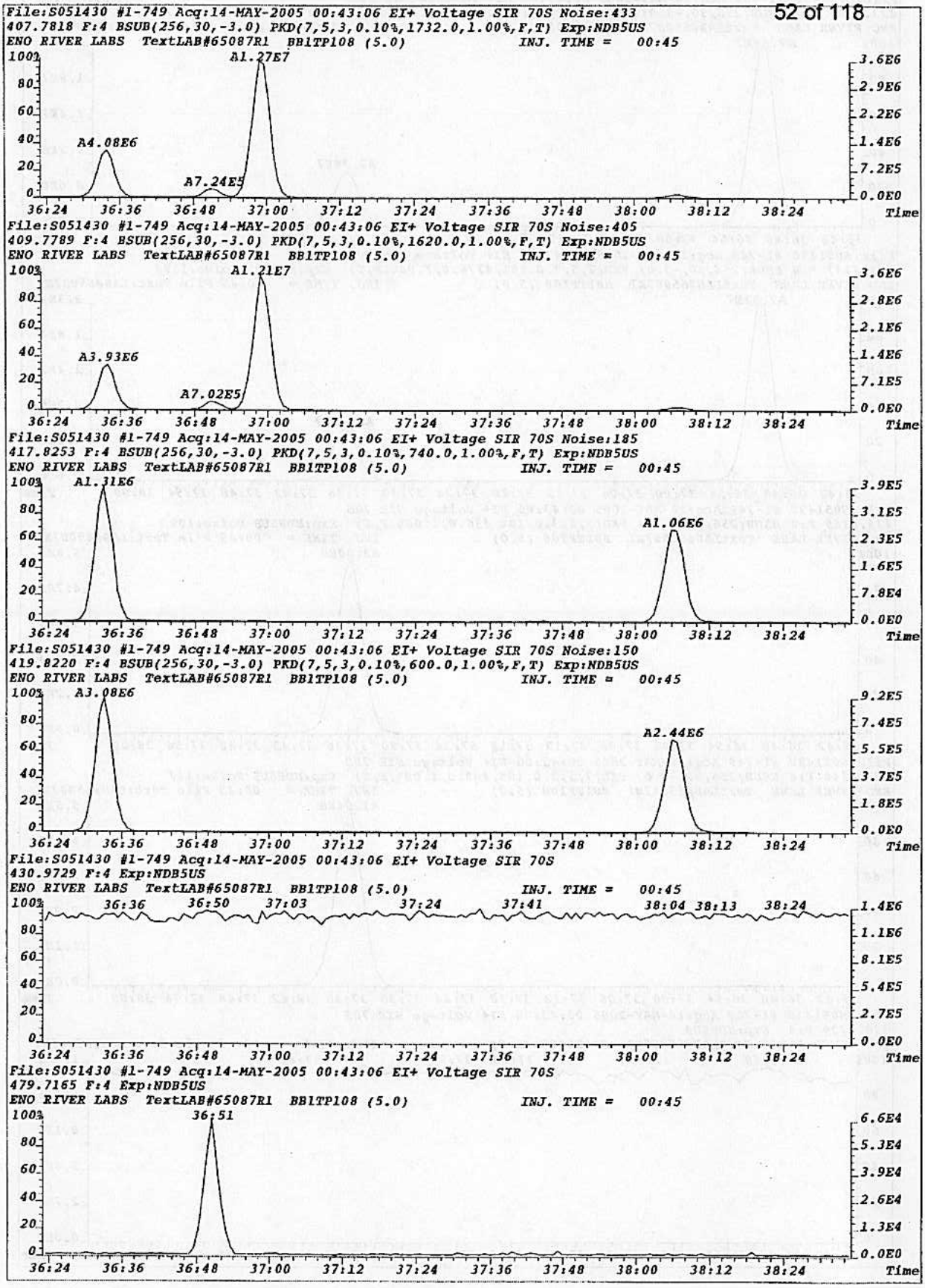

File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:72
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,288.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A8.07E4
A2.24E4
A2.54E4
A1.17E4
A1.02E4
A5.00E3
A9.12E3
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:85
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,340.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A9.91E4
A2.97E4
A3.15E4
A1.52E4
A1.48E4
A3.20E3
A4.21E3
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:270
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1080.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A5.60E6
A3.39E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:117
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,468.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A6.61E6
A4.12E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:105
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,420.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A7.55E5
A1.47E5
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
24:23 24:40 24:56 25:22 25:37 26:02 26:37 26:58 27:20 27:34 28:06
25:00 26:00 27:00 28:00 Time

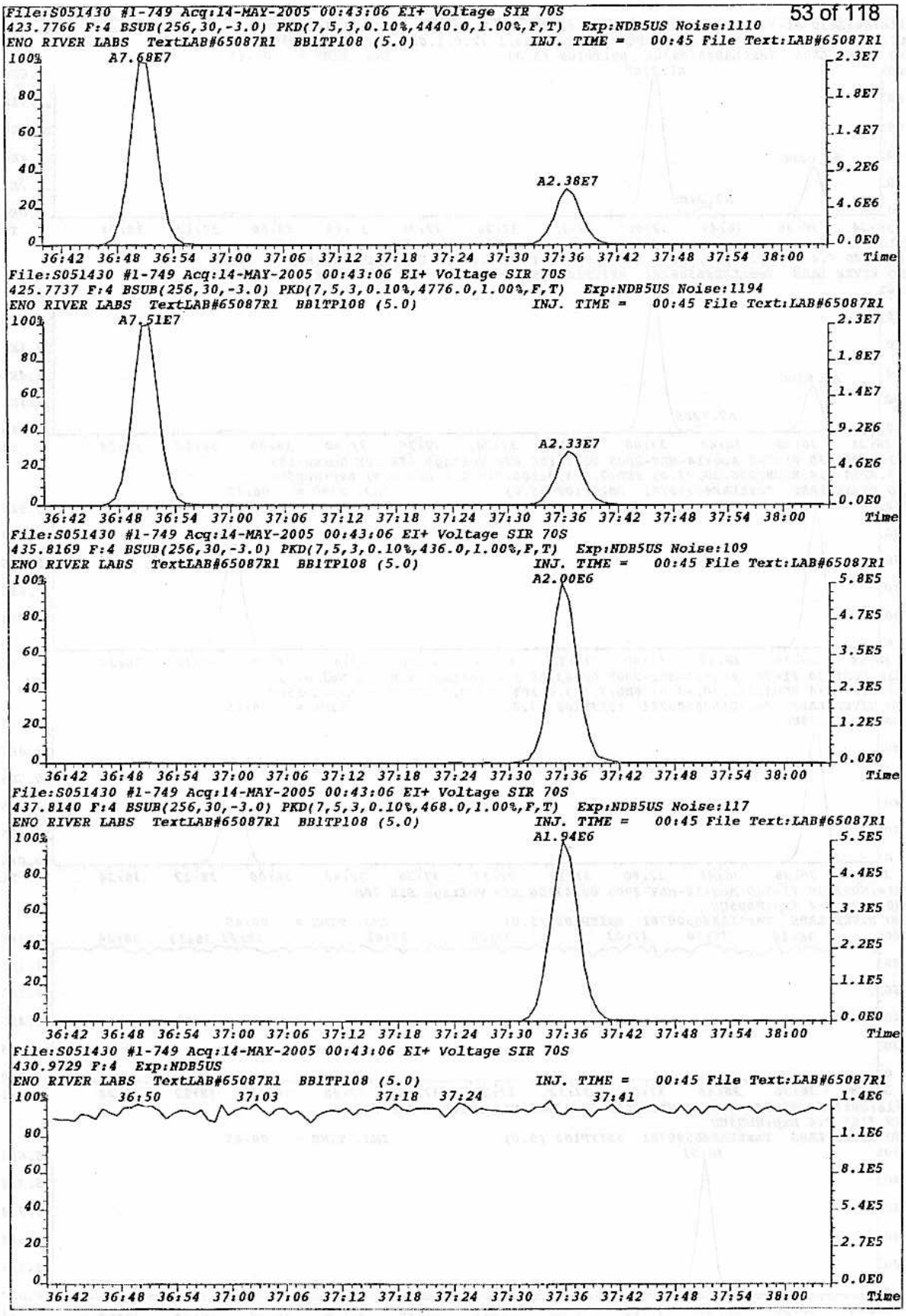

File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:85
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,340.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A4.50E5
A2.25E5
A5.14E4
A1.02E6
A1.32E5
A6.65E4
A8.01E5
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:127
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,508.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A3.21E5
A1.59E5
A3.78E4
A6.94E5
A8.87E4
A4.17E4
A5.89E5
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:68
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,272.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A4.80E6
A4.90E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:78
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,312.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A3.28E6
A3.28E6
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
30:11
30:53
31:30
Time

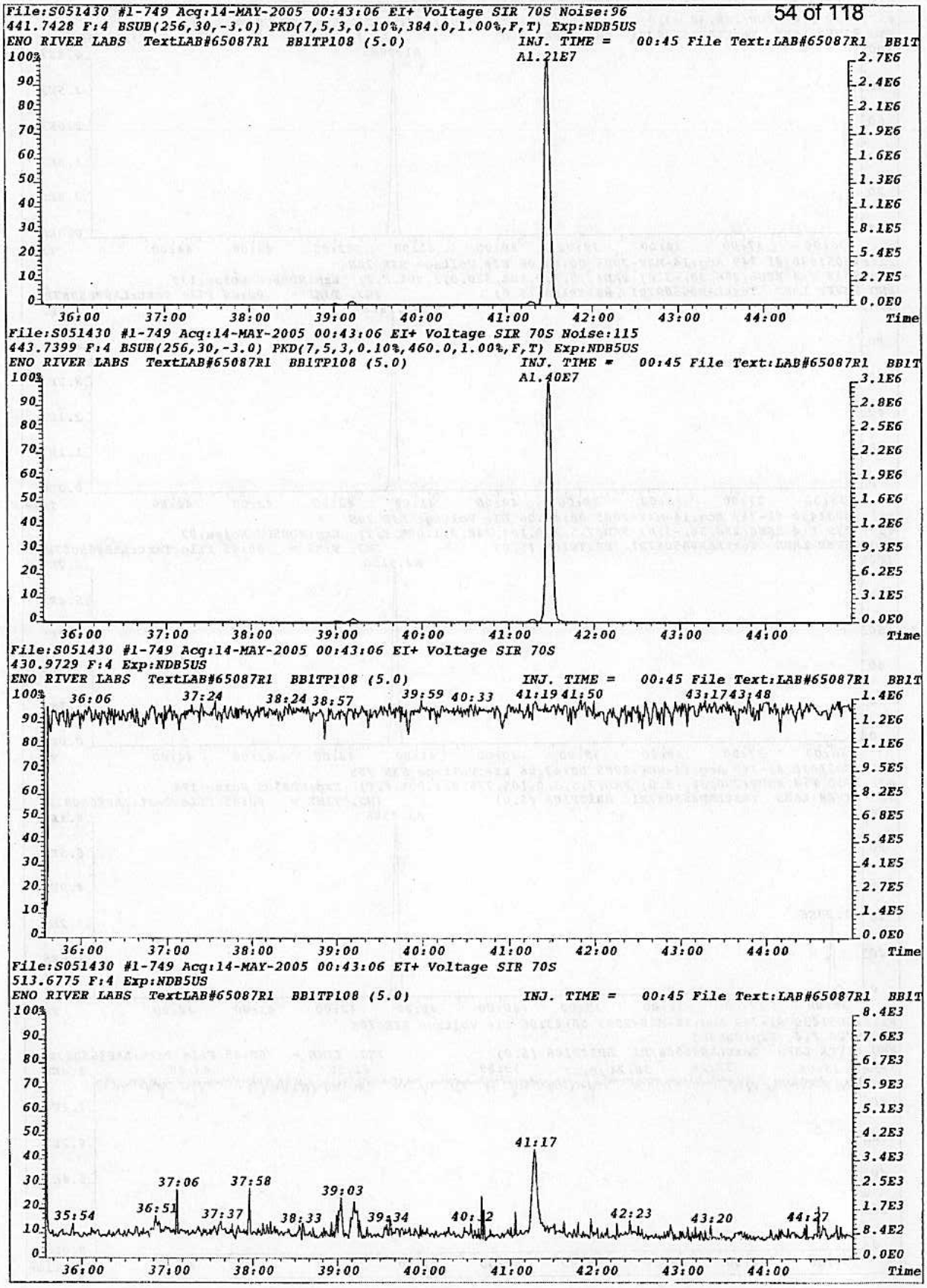

File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
355.8546 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,444.0,1.00%,F,T) Exp:NDB5US Noise:111
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1
A8.65E4
A9.86E4
A4.70E4
A4.74E4
A3.44E4
A1.07E5
A2.42E4
A2.16E4
A2.37E4
A1.32E4
A1.93E4
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
357.8516 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US Noise:80
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1
A7.10E4
A6.52E4
A6.97E4
A2.98E4
A2.82E4
A2.17E4
A1.60E4
A1.11E4
A1.60E4
A6.73E3
A1.36E4
A8.84E3
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
367.8949 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,384.0,1.00%,F,T) Exp:NDB5US Noise:96
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1
A3.08E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
369.8919 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,304.0,1.00%,F,T) Exp:NDB5US Noise:76
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1
A2.06E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1
29:17 29:27 29:51 30:07 30:26 30:42 31:01 31:11 31:24 31:47
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time

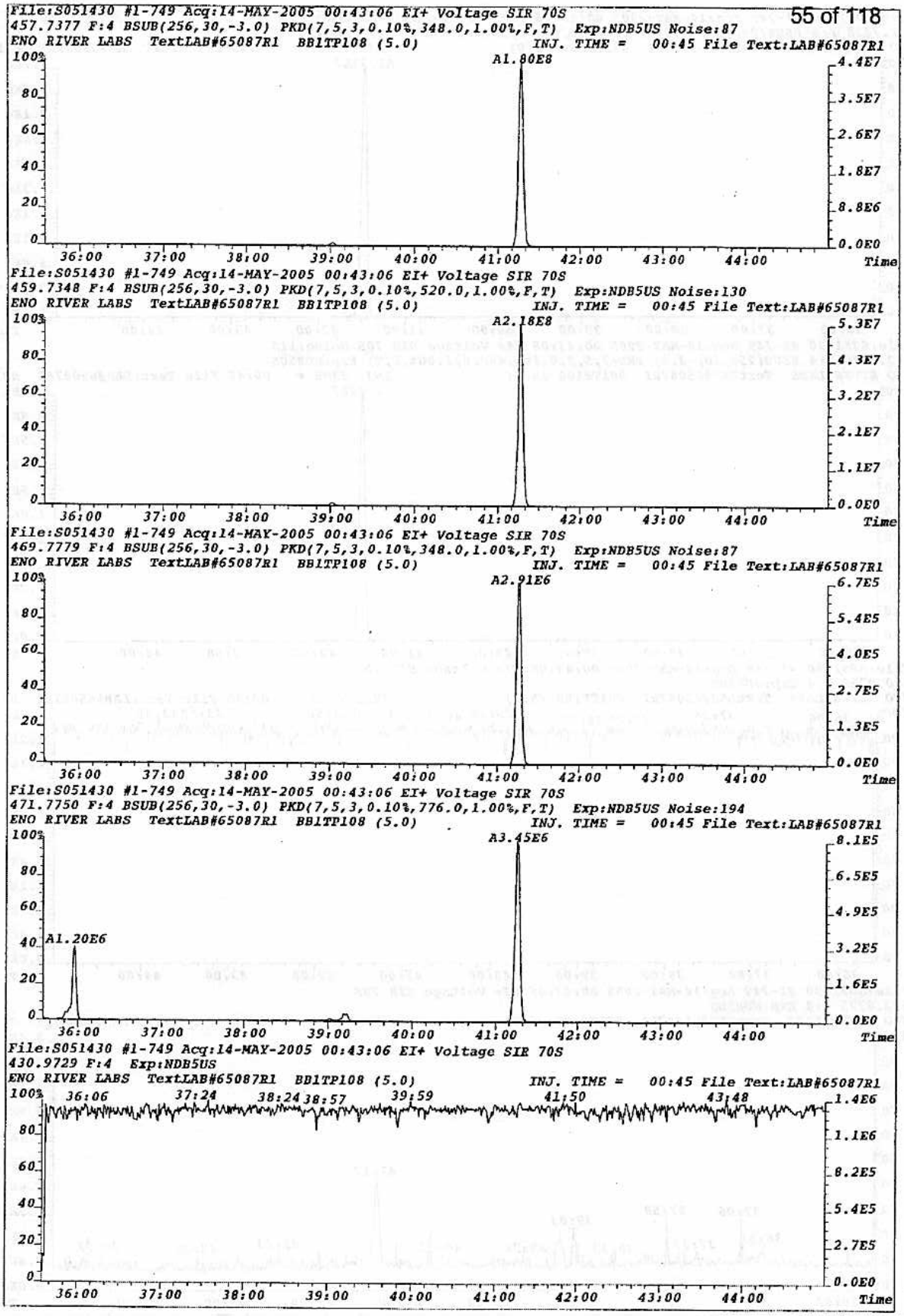

File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:297
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1188.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A3.21E6
A2.41E6
A1.42E6
A4.27E5
A2.85E5
A2.63E5
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:237
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,948.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A2.64E6
A1.93E6
A1.15E6
A3.43E5
A2.24E5
A2.08E5
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:151
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,604.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A2.26E6
A2.11E6
A1.86E6
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:182
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,728.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A4.56E6
A4.43E6
A3.67E6
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
33:50
33:26
34:54
Time

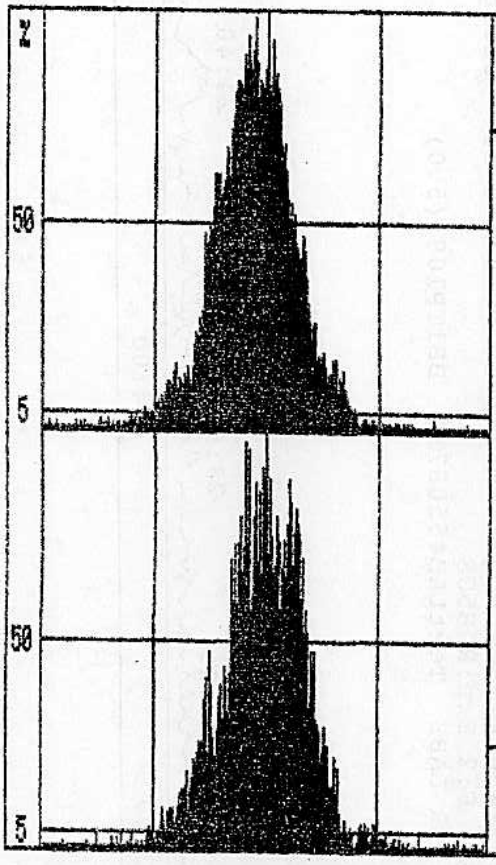

File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1448.0,1.00%,F,T) Exp:NDB5US Noise:362
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.90E6
A5.29E5
A2.08E6
A9.21E5
A7.54E5
A4.61E5
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1312.0,1.00%,F,T) Exp:NDB5US Noise:328
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.40E6
A4.46E5
A1.74E6
A7.60E5
A6.38E5
A3.82E5
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,708.0,1.00%,F,T) Exp:NDB5US Noise:177
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.74E6
A3.43E6
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,516.0,1.00%,F,T) Exp:NDB5US Noise:129
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.29E6
A2.99E6
File:S051430 #1-376 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time


File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:433
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1732.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A1.27E7
A4.08E6
A7.24E5
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:405
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1620.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A1.21E7
A3.93E6
A7.02E5
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:185
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,740.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A1.31E6
A1.06E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:150
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,600.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
A3.08E6
A2.44E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45
36:51
Time

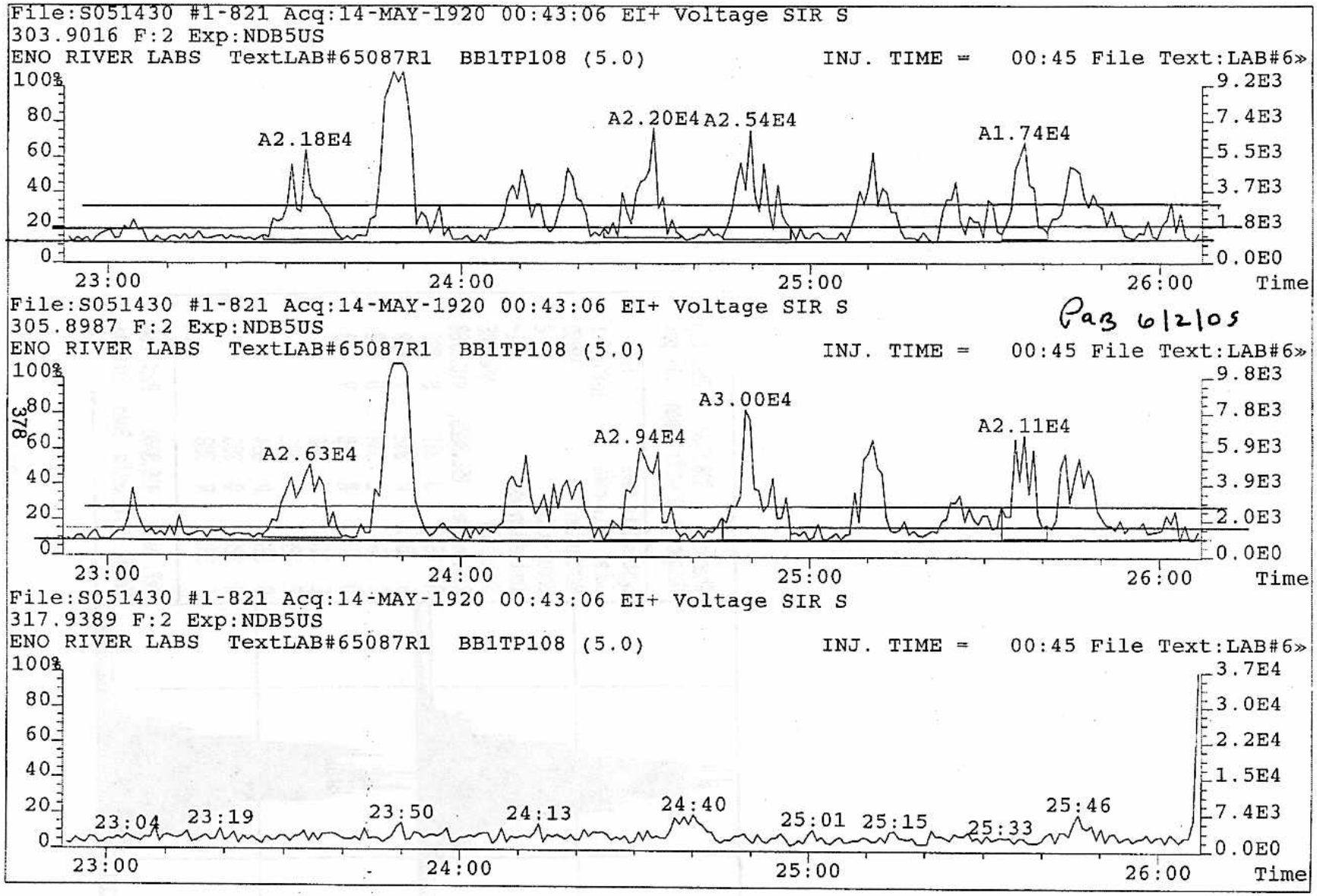

File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4440.0,1.00%,F,T) Exp:NDB5US Noise:1110
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A7.68E7
A2.38E7
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4776.0,1.00%,F,T) Exp:NDB5US Noise:1194
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A7.51E7
A2.33E7
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,436.0,1.00%,F,T) Exp:NDB5US Noise:109
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.00E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,468.0,1.00%,F,T) Exp:NDB5US Noise:117
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A1.94E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
36:50
37:03
37:18
37:24
37:41
Time


File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:96
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,384.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1 BB1T
A1.21E7
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S Noise:115
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,460.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1 BB1T
A1.40E7
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1 BB1T
36:06 37:24 38:24 38:57 39:59 40:33 41:19 41:50 43:17 43:48
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#65087R1 BB1T
35:54 36:51 37:06 37:37 37:58 38:33 39:03 39:34 40:12 41:17 42:23 43:20 44:27
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time

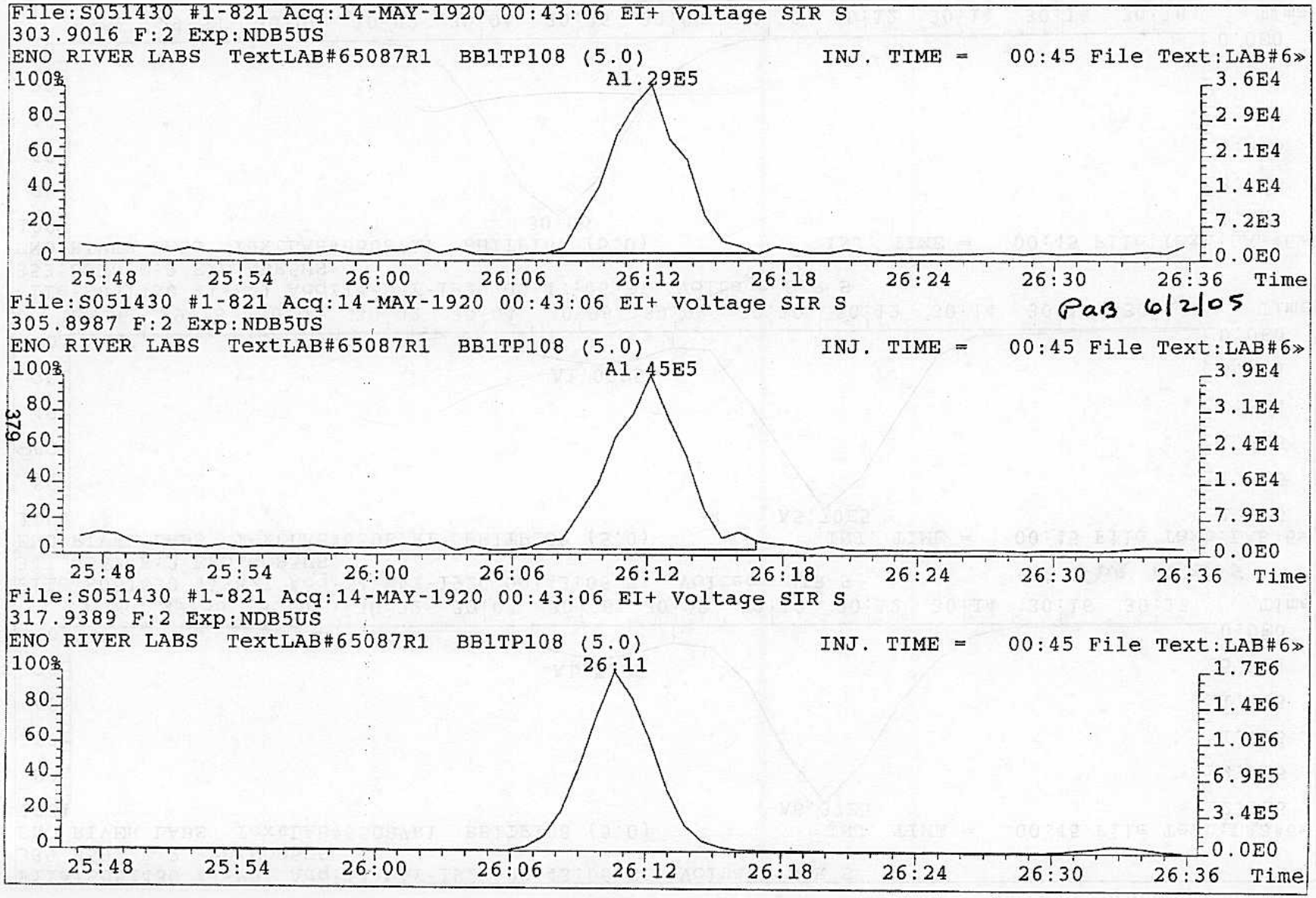

File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,348.0,1.00%,F,T) Exp:NDB5US Noise:87
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A1.80E8
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,520.0,1.00%,F,T) Exp:NDB5US Noise:130
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.18E8
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,348.0,1.00%,F,T) Exp:NDB5US Noise:87
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A2.91E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,776.0,1.00%,F,T) Exp:NDB5US Noise:194
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
A3.45E6
A1.20E6
File:S051430 #1-749 Acq:14-MAY-2005 00:43:06 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#65087R1
36:06 37:24 38:24 38:57 39:59 41:50 43:48
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00
Time



Channel	I	330.9792		Peak top	
Height	1.11 volts		Span	200 ppm	
System file name				NOESUS	
Data file name				A:S513051	
Resolution				10000	
Group number				2	
Ionization mode				EI+	
Switching				VOLTAGE	
Ref. masses	292.9825,			416.9760	
A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		
Ref. mass	416.9760			Peak top	
Height	.11 volts		Span	200 ppm	

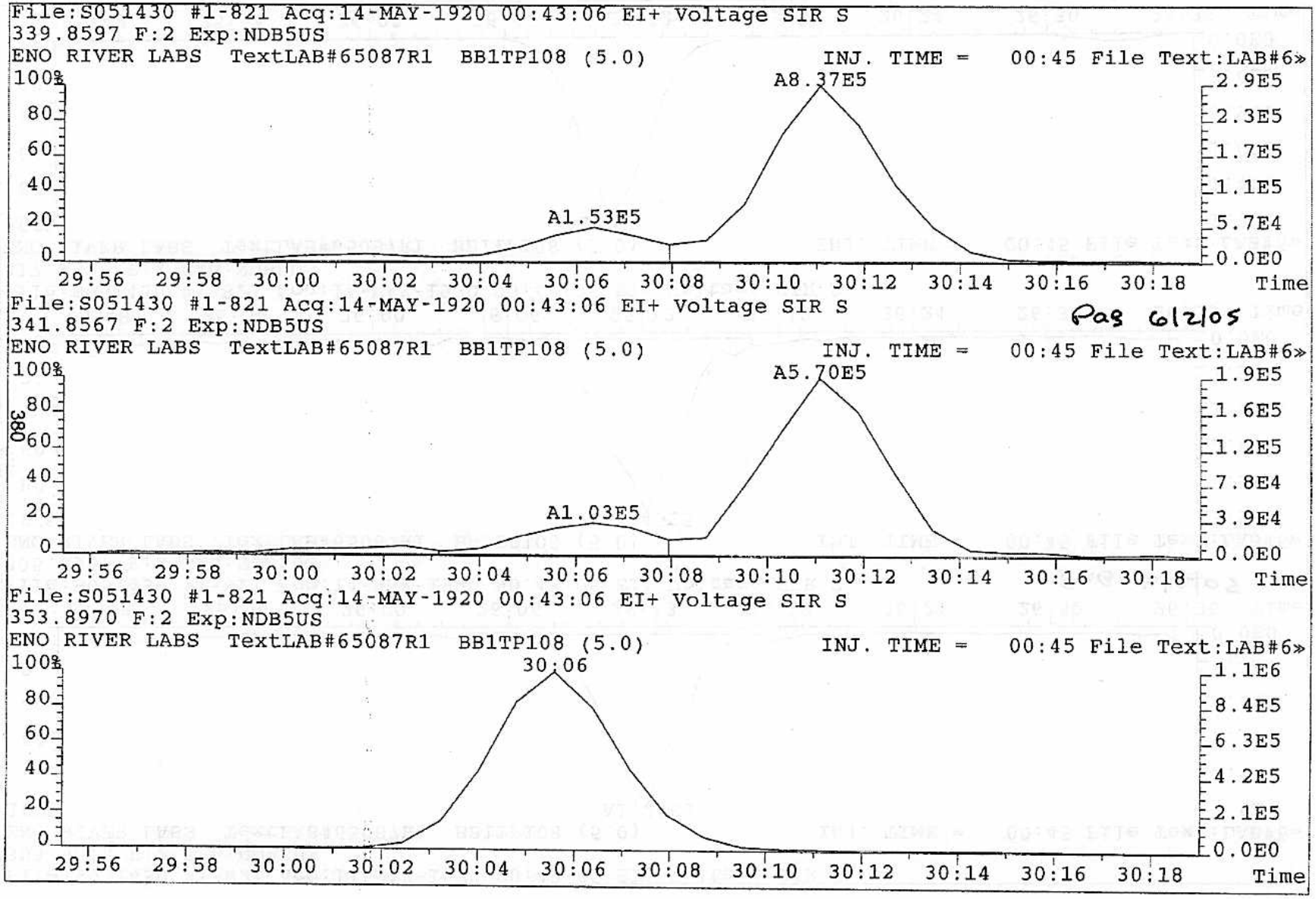

File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
303.9016 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A2.18E4
A2.20E4
A2.54E4
A1.74E4
Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
305.8987 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A2.63E4
A2.94E4
A3.00E4
A2.11E4
Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
317.9389 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
23:04
23:19
23:50
24:13
24:40
25:01
25:15
25:33
25:46
Time

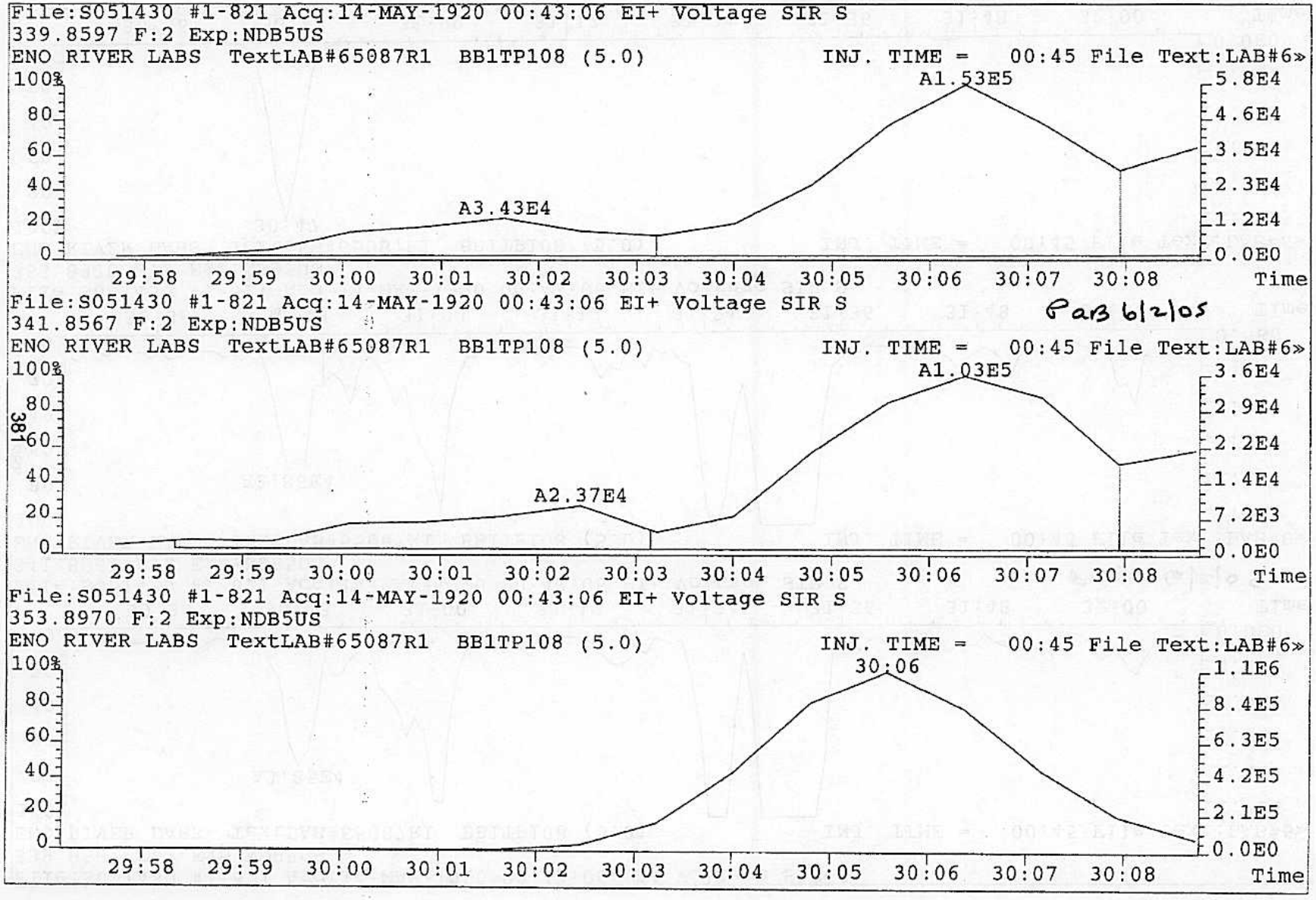
Pas 6/2/05


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
303.9016 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A1.29E5
100%
80
60
40
20
0
3.6E4
2.9E4
2.1E4
1.4E4
7.2E3
0.0E0
25:48 25:54 26:00 26:06 26:12 26:18 26:24 26:30 26:36 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
305.8987 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A1.45E5
100%
80
60
40
20
0
3.9E4
3.1E4
2.4E4
1.6E4
7.9E3
0.0E0
25:48 25:54 26:00 26:06 26:12 26:18 26:24 26:30 26:36 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
317.9389 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
26:11
100%
80
60
40
20
0
1.7E6
1.4E6
1.0E6
6.9E5
3.4E5
0.0E0
25:48 25:54 26:00 26:06 26:12 26:18 26:24 26:30 26:36 Time

PaB 6/2/05

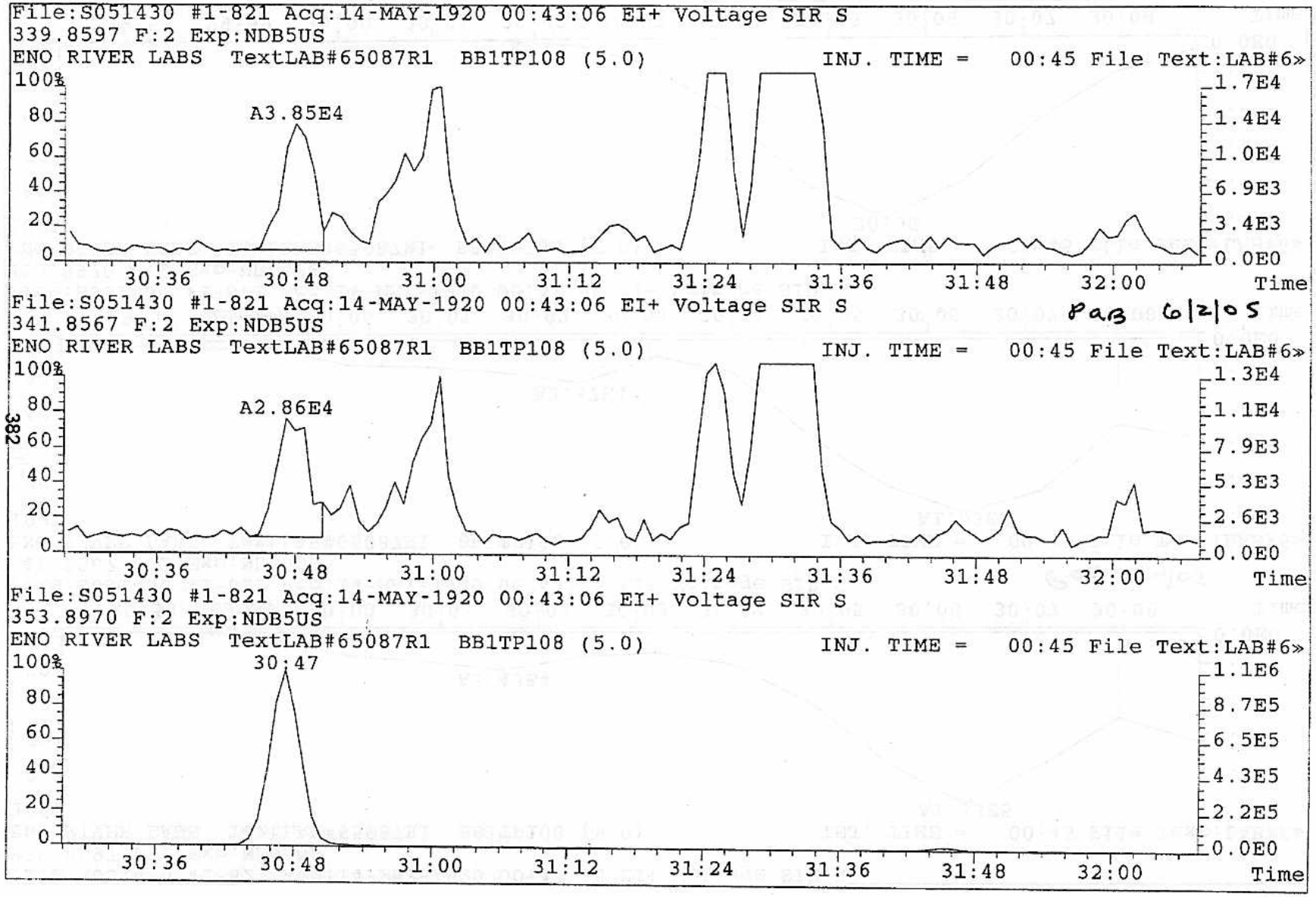
379


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
339.8597 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A8.37E5
A1.53E5
2.9E5
2.3E5
1.7E5
1.1E5
5.7E4
0.0E0
29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 30:12 30:14 30:16 30:18 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
341.8567 F:2 Exp:NDB5US
Pas 6/2/05
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A5.70E5
A1.03E5
1.9E5
1.6E5
1.2E5
7.8E4
3.9E4
0.0E0
29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 30:12 30:14 30:16 30:18 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
353.8970 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
30:06
1.1E6
8.4E5
6.3E5
4.2E5
2.1E5
0.0E0
29:56 29:58 30:00 30:02 30:04 30:06 30:08 30:10 30:12 30:14 30:16 30:18 Time


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
339.8597 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A1.53E5
A3.43E4
100%
80
60
40
20
0
5.8E4
4.6E4
3.5E4
2.3E4
1.2E4
0.0E0
29:58 29:59 30:00 30:01 30:02 30:03 30:04 30:05 30:06 30:07 30:08
Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
341.8567 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A1.03E5
A2.37E4
3.6E4
2.9E4
2.2E4
1.4E4
7.2E3
0.0E0
29:58 29:59 30:00 30:01 30:02 30:03 30:04 30:05 30:06 30:07 30:08
Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
353.8970 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
30:06
1.1E6
8.4E5
6.3E5
4.2E5
2.1E5
0.0E0
29:58 29:59 30:00 30:01 30:02 30:03 30:04 30:05 30:06 30:07 30:08
Time

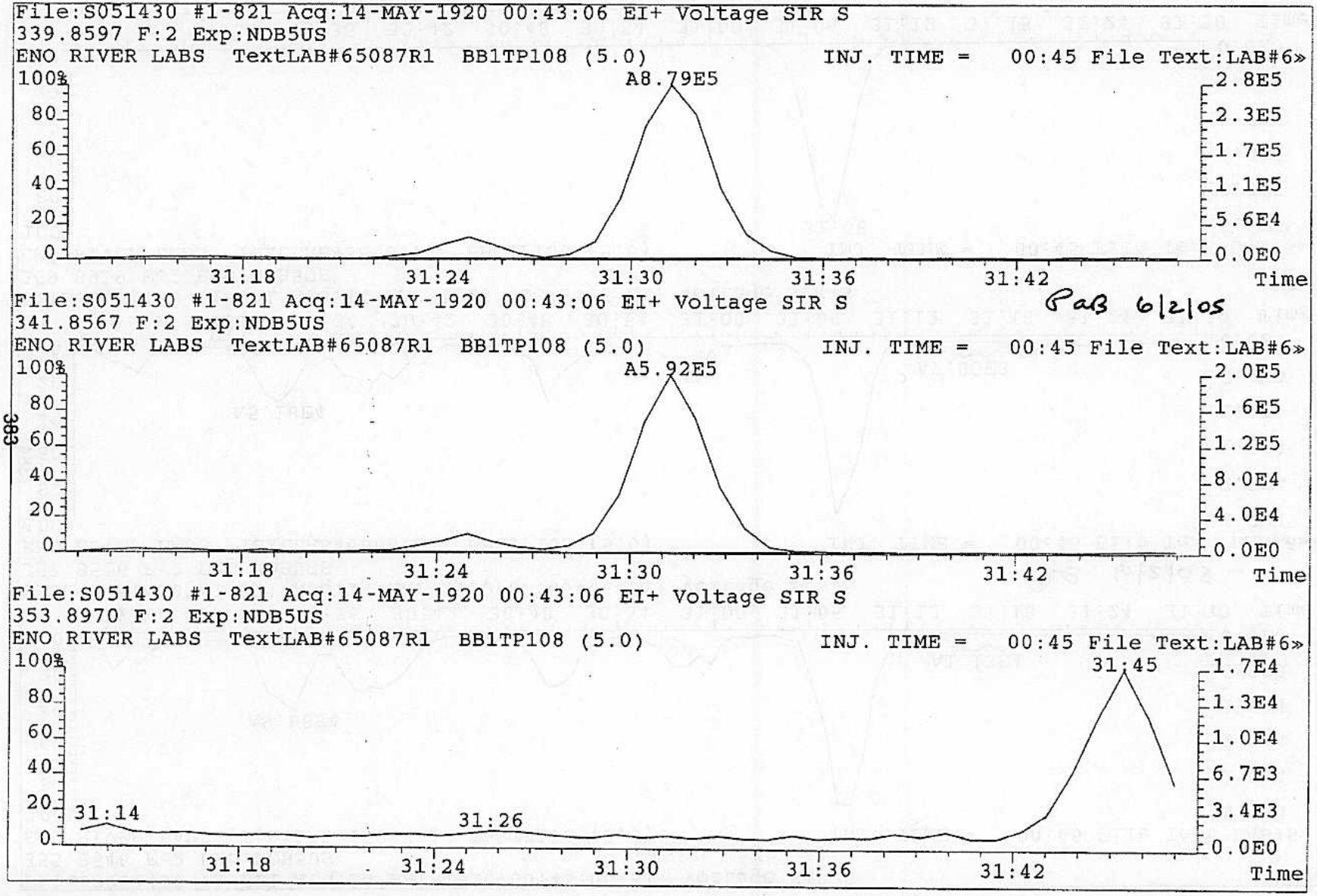
PaB 6/2/05

381


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
339.8597 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A3.85E4
1.7E4
1.4E4
1.0E4
6.9E3
3.4E3
0.0E0
30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
341.8567 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A2.86E4
1.3E4
1.1E4
7.9E3
5.3E3
2.6E3
0.0E0
30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
353.8970 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
30:47
1.1E6
8.7E5
6.5E5
4.3E5
2.2E5
0.0E0
30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time

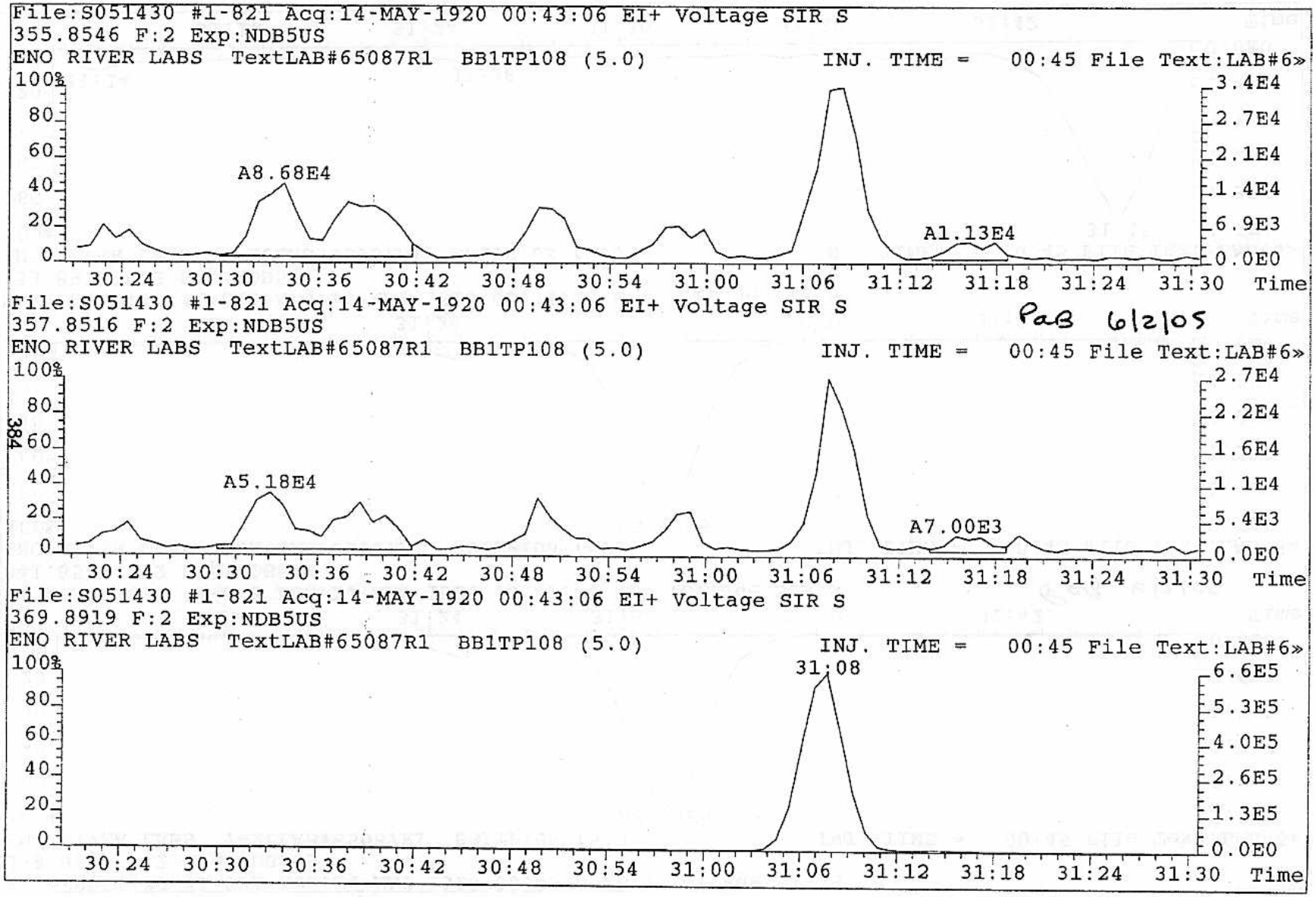
PAB 6/2/05

382


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
339.8597 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A8.79E5
2.8E5
2.3E5
1.7E5
1.1E5
5.6E4
0.0E0
31:18
31:24
31:30
31:36
31:42
Time
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
341.8567 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
A5.92E5
2.0E5
1.6E5
1.2E5
8.0E4
4.0E4
0.0E0
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
353.8970 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
31:45
31:14
31:26
1.7E4
1.3E4
1.0E4
6.7E3
3.4E3
0.0E0

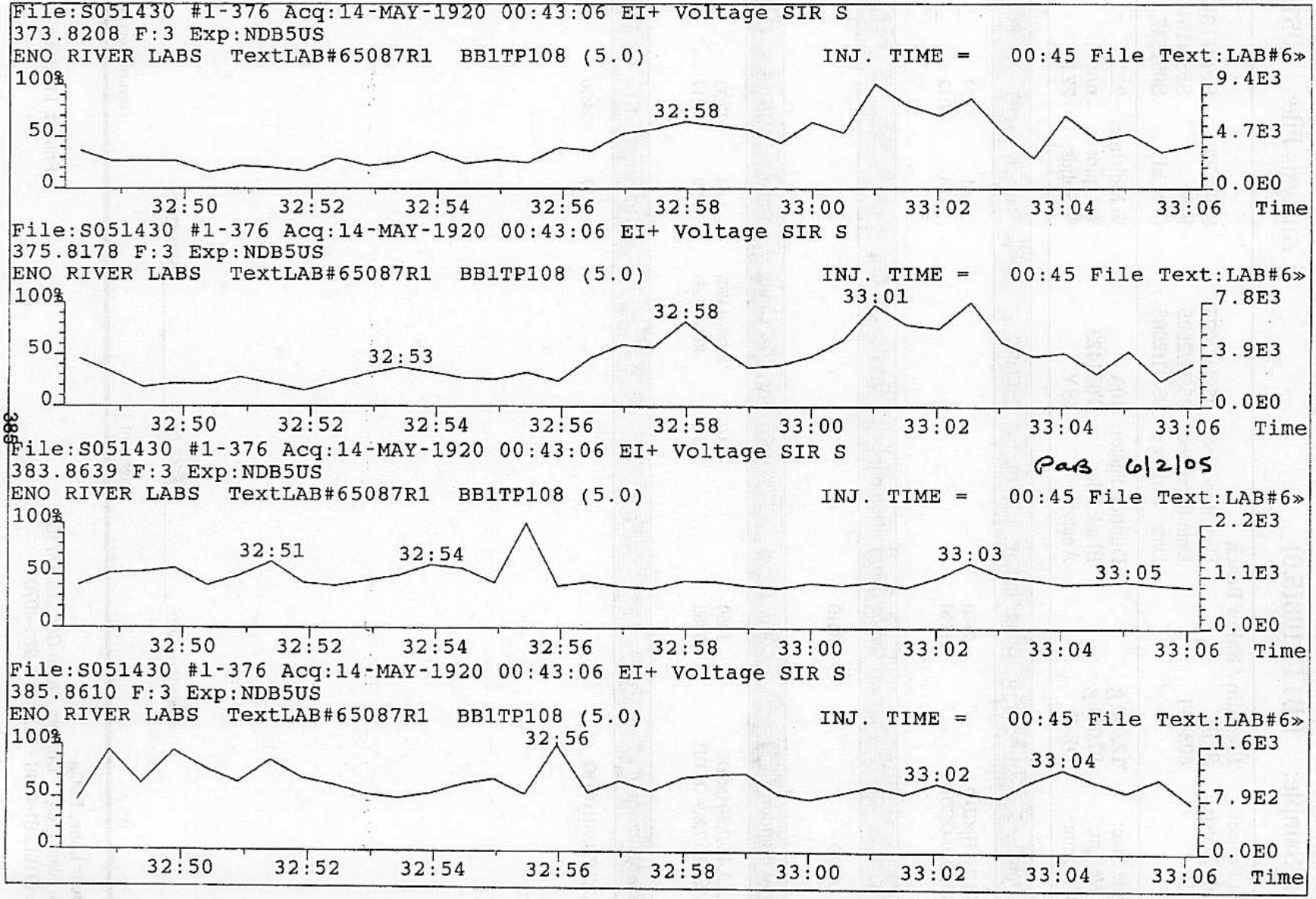
PAB 6/2/05

383


File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
355.8546 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A8.68E4
A1.13E4
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
357.8516 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
A5.18E4
A7.00E3
File:S051430 #1-821 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
369.8919 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0)
INJ. TIME = 00:45 File Text:LAB#6»
31:08
Time

PaB 6/2/05

384


File:S051430 #1-376 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
373.8208 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
100%
50
0
32:58
9.4E3
4.7E3
0.0E0
32:50 32:52 32:54 32:56 32:58 33:00 33:02 33:04 33:06 Time
File:S051430 #1-376 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
375.8178 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
100%
50
0
32:53
32:58
33:01
7.8E3
3.9E3
0.0E0
32:50 32:52 32:54 32:56 32:58 33:00 33:02 33:04 33:06 Time
File:S051430 #1-376 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
383.8639 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
100%
50
0
32:51
32:54
33:03
33:05
2.2E3
1.1E3
0.0E0
32:50 32:52 32:54 32:56 32:58 33:00 33:02 33:04 33:06 Time
File:S051430 #1-376 Acq:14-MAY-1920 00:43:06 EI+ Voltage SIR S
385.8610 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 00:45 File Text:LAB#6»
100%
50
0
32:56
33:02
33:04
1.6E3
7.9E2
0.0E0
32:50 32:52 32:54 32:56 32:58 33:00 33:02 33:04 33:06 Time

386

PaB 6/2/05

Lab Project: 65087r1 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: BB1TP108(5.0) Analysis File: S051550

Client Project:	Presidio / Baker Beach				
Sample Matrix:	SOIL	Date Received:	05/06/2005	Spike File:	SPMIT3J2
Lab ID:	403-3-1	Date Extracted:	05/11/2005	ICal:	SF5N164
		Date Analyzed:	05/31/2005	ConCal:	S051537
Sample Size:	12.990 g	Dilution Factor:	10X	% Moisture:	22.7
Dry Weight:	10.041 g	Blank File:	T051423	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	77.3

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
1,2,3,4,6,7,8-HpCDD	2180			1.01	37:34	
1,2,3,4,6,7,8,9-OCDD	21390			0.84	41:12	

Totals	Conc. (pg/g)	Number	DL	EMPC	Flags
Total HpCDD	8310	2			

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1860	84.7	40%-135%	1.04	37:33	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3460	78.9	40%-135%	0.90	41:12	

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.17	34:36	

Data Reviewer: PaB 06/02/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 11:49 06/02/2005

Initial ....Date...

Data Review By: PaB 6/2/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

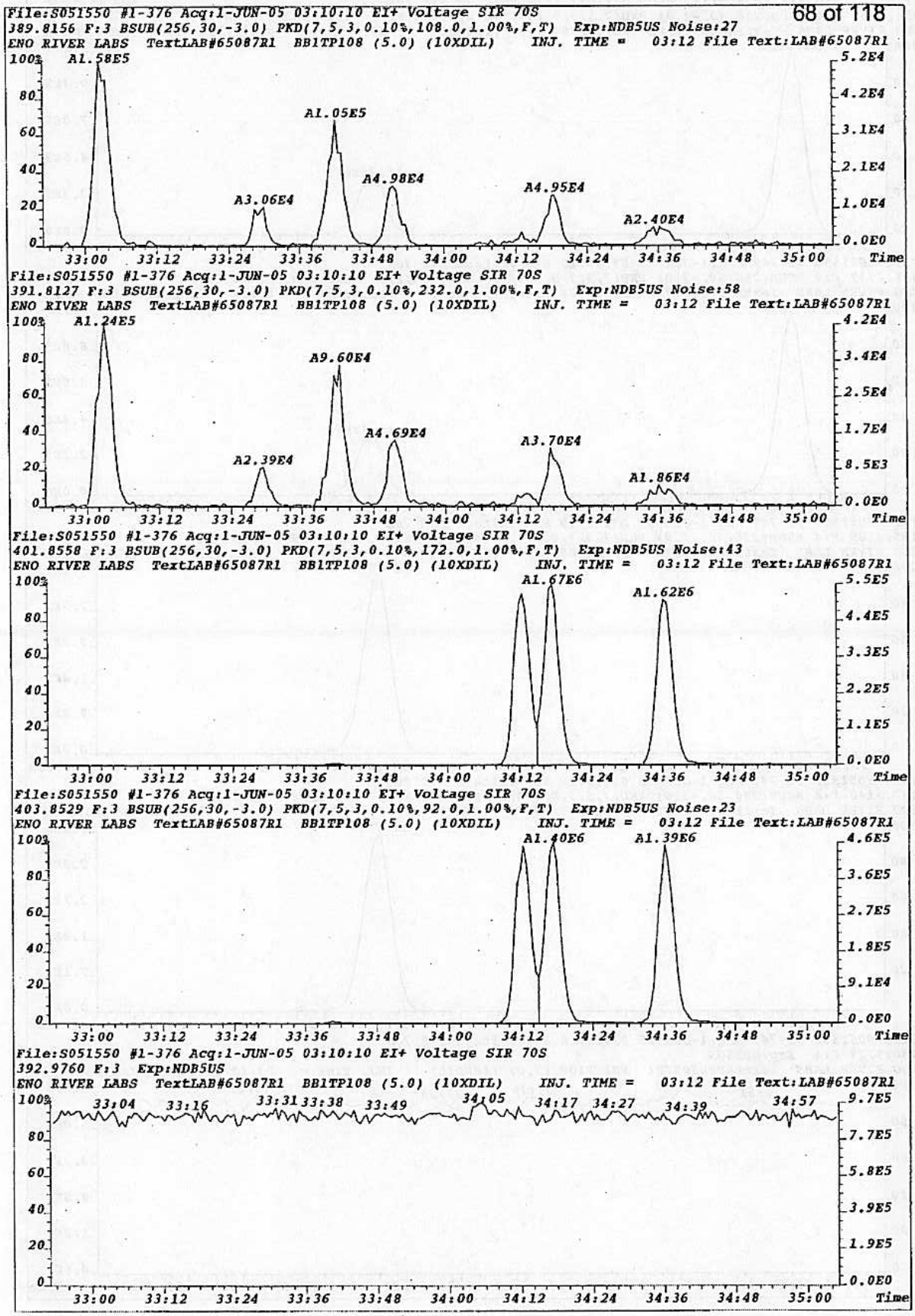
Page No. 1 Listing of S051550B.dbf
06/02/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL		Height			0.05	0.03	0.02				
				33:41		1.14	3.45	1.84	1.61	0.982			
				34:12		1.20	299.51	163.09	136.42	0.998	13C12-HxCDD	478	SUR3
				34:17		1.19	307.94	167.46	140.48	1.000	13C12-HxCDD	678	IS5
				Height			101.06	55.48	45.58				
				34:36		1.17	301.12	162.06	139.06	1.009	13C12-HxCDD	789	RS2
				34:47	RO	0.72	0.60	0.33	0.46	1.015			
				34:52	RO	0.82	0.76	0.42	0.51	1.017			
				35:03	RO	1.90	0.45	0.38	0.20	1.022			
402-404			7 Peaks				913.83						
---------- Above: HxCDD / HpCDD Follows ----------													
HpCDD				0.88-1.20						0.975-1.004			
424-426	DC	NL		Height			0.25	0.20	0.05				
				36:48		1.03	754.07	382.73	371.34	0.980			
				37:34		1.01	268.87	135.04	133.83	1.000	1234678-HpCDD		AN
	DC	WH		38:04		1.06	0.68			1.014			
424-426			2 Peaks				1,022.94						
13C12-HpCDD				0.88-1.20						0.973-1.027			
436-438	DC	NL		Height			0.04	0.02	0.02				
				36:47	RO	0.76	0.55	0.28	0.37	0.980			
				37:09	RO	0.71	0.10	0.05	0.07	0.989			
				37:33		1.04	258.78	131.87	126.91	1.000	13C12-HpCDD	678	IS7
				Height			71.44	36.12	35.32				
				37:56	RO	3.58	0.24	0.43	0.12	1.010			
				38:02	RO	0.44	0.33	0.17	0.39	1.013			
436-438			5 Peaks				260.00						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDD				0.76-1.02						0.903-1.097			
458-460	DC	NL		Height			0.04	0.02	0.02				
				38:58		0.80	38.17	16.99	21.18	0.946			
				39:09	RO	0.51	1.97	0.93	1.82	0.950			
				41:12		0.84	1,947.30	889.32	1,057.98	1.000	OCDD		AN
458-460			3 Peaks				1,987.44						
13C12-OCDD				0.76-1.02						0.951-1.049			
470-472	DC	NL		Height			0.04	0.02	0.02				
				39:12	RO	0.08	0.23	0.11	1.31	0.951			
				41:12		0.90	366.61	173.24	193.37	1.000	13C12-OCDD		IS8
				Height			82.28	39.45	42.83				

Compound/ M_Z....	OC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				41:26	RO	0.70	0.93	0.44	0.63	1.006			
				42:56	RO	1.38	0.15	0.11	0.08	1.042			
				43:10	RO	1.12	0.32	0.19	0.17	1.048			
470-472				5 Peaks			368.24						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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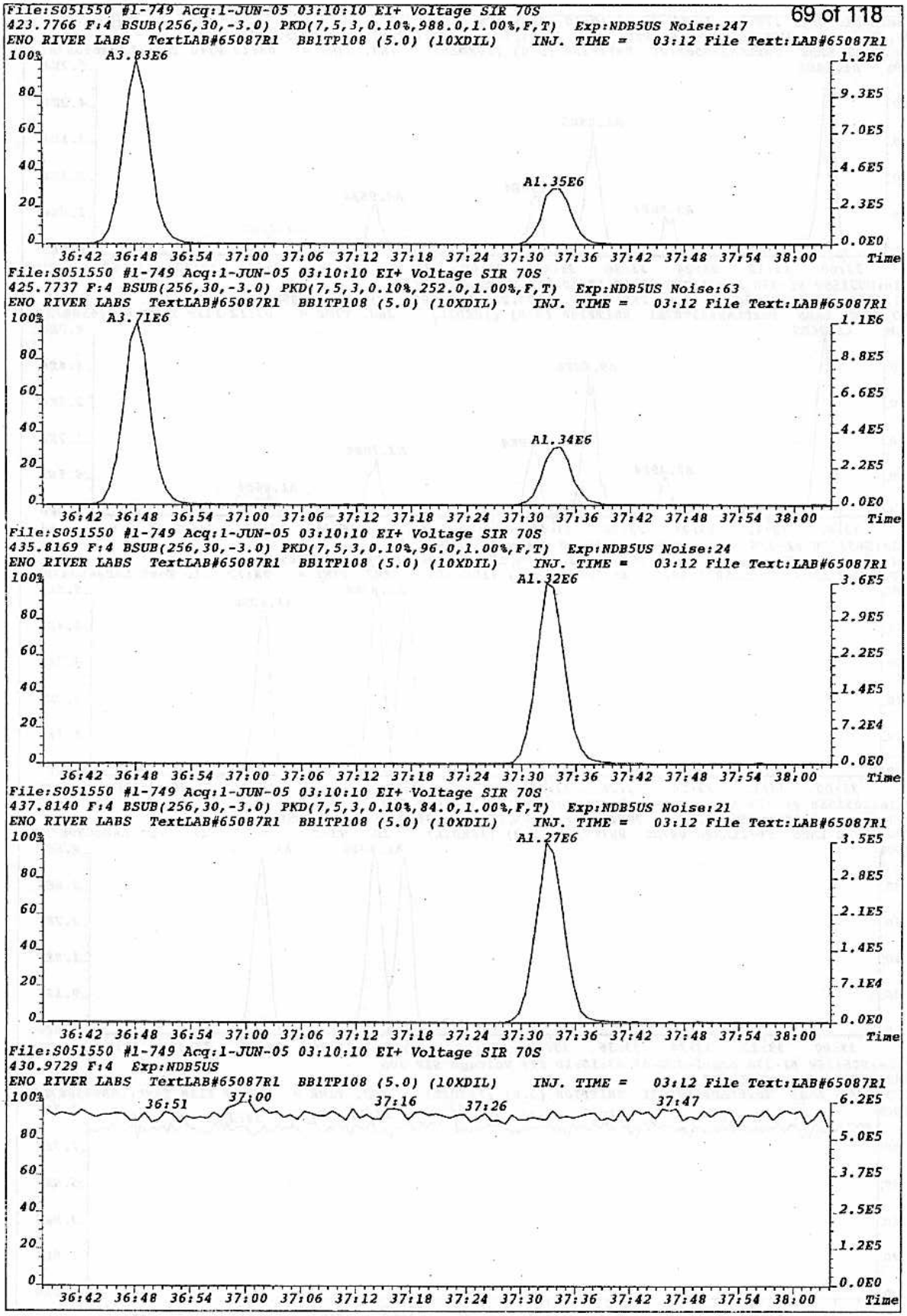
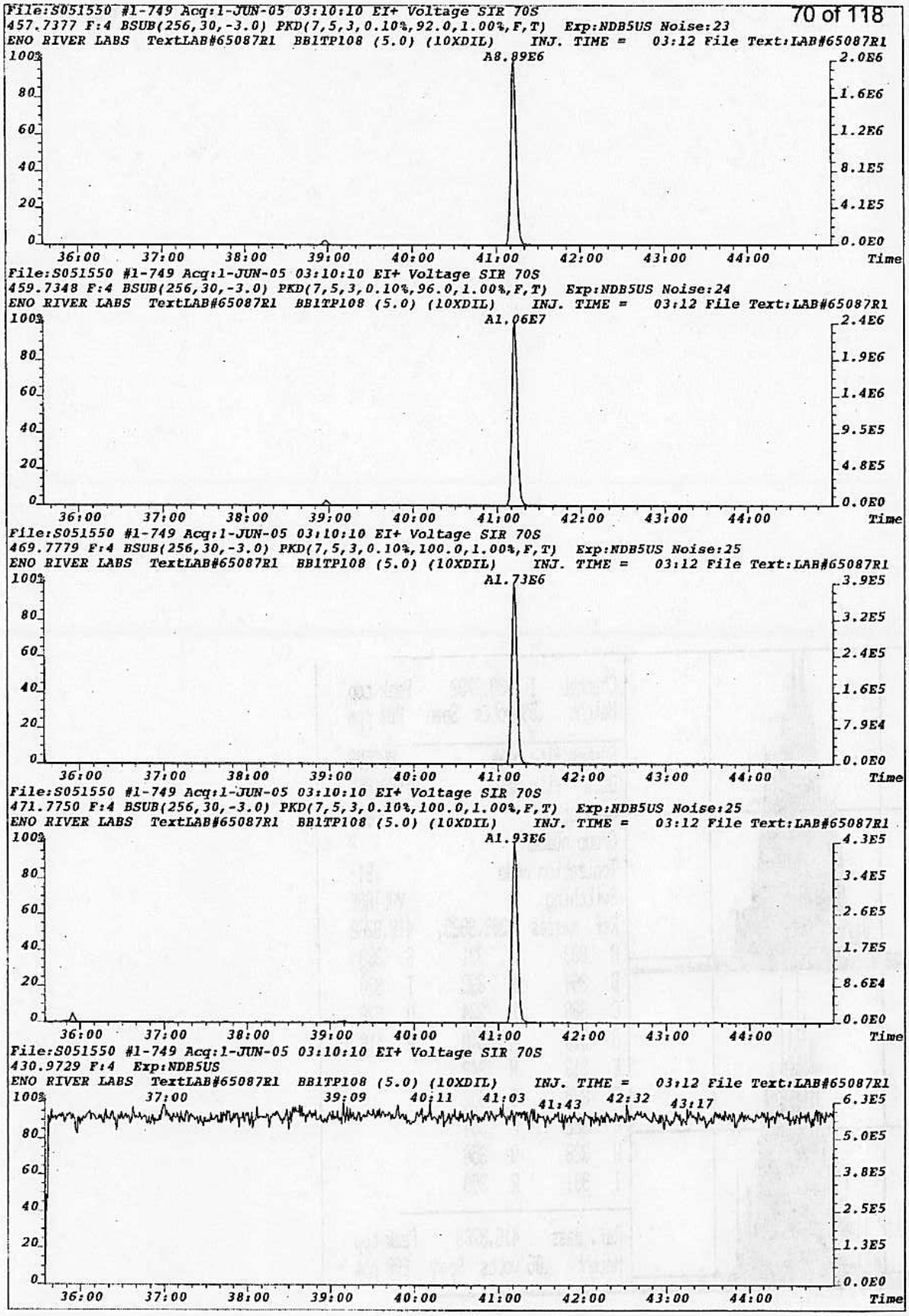
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,108.0,1.00%,F,T) Exp:NDB5US Noise:27
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.58E5
A1.05E5
A4.98E4
A3.06E4
A4.95E4
A2.40E4
File:S051550 #1-376 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,232.0,1.00%,F,T) Exp:NDB5US Noise:58
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.24E5
A9.60E4
A4.69E4
A2.39E4
A3.70E4
A1.86E4
File:S051550 #1-376 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,172.0,1.00%,F,T) Exp:NDB5US Noise:43
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.67E6
A1.62E6
File:S051550 #1-376 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,92.0,1.00%,F,T) Exp:NDB5US Noise:23
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.40E6
A1.39E6
File:S051550 #1-376 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
33:04
33:16
33:31
33:38
33:49
34:05
34:17
34:27
34:39
34:57
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,988.0,1.00%,F,T) Exp:NDB5US Noise:247
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A3.83E6
A1.35E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,252.0,1.00%,F,T) Exp:NDB5US Noise:63
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A3.71E6
A1.34E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,96.0,1.00%,F,T) Exp:NDB5US Noise:24
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.32E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,84.0,1.00%,F,T) Exp:NDB5US Noise:21
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.27E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
36:51
37:00
37:16
37:26
37:47
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time


File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,92.0,1.00%,F,T) Exp:NDB5US Noise:23
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A8.89E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,96.0,1.00%,F,T) Exp:NDB5US Noise:24
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.06E7
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,100.0,1.00%,F,T) Exp:NDB5US Noise:25
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.73E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,100.0,1.00%,F,T) Exp:NDB5US Noise:25
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
A1.93E6
File:S051550 #1-749 Acq:1-JUN-05 03:10:10 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) (10XDIL) INJ. TIME = 03:12 File Text:LAB#65087R1
37:00 39:09 40:11 41:03 41:43 42:32 43:17
100%
80
60
40
20
0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00
Time
2.0E6 1.6E6 1.2E6 8.1E5 4.1E5 0.0E0
2.4E6 1.9E6 1.4E6 9.5E5 4.8E5 0.0E0
3.9E5 3.2E5 2.4E5 1.6E5 7.9E4 0.0E0
4.3E5 3.4E5 2.6E5 1.7E5 8.6E4 0.0E0
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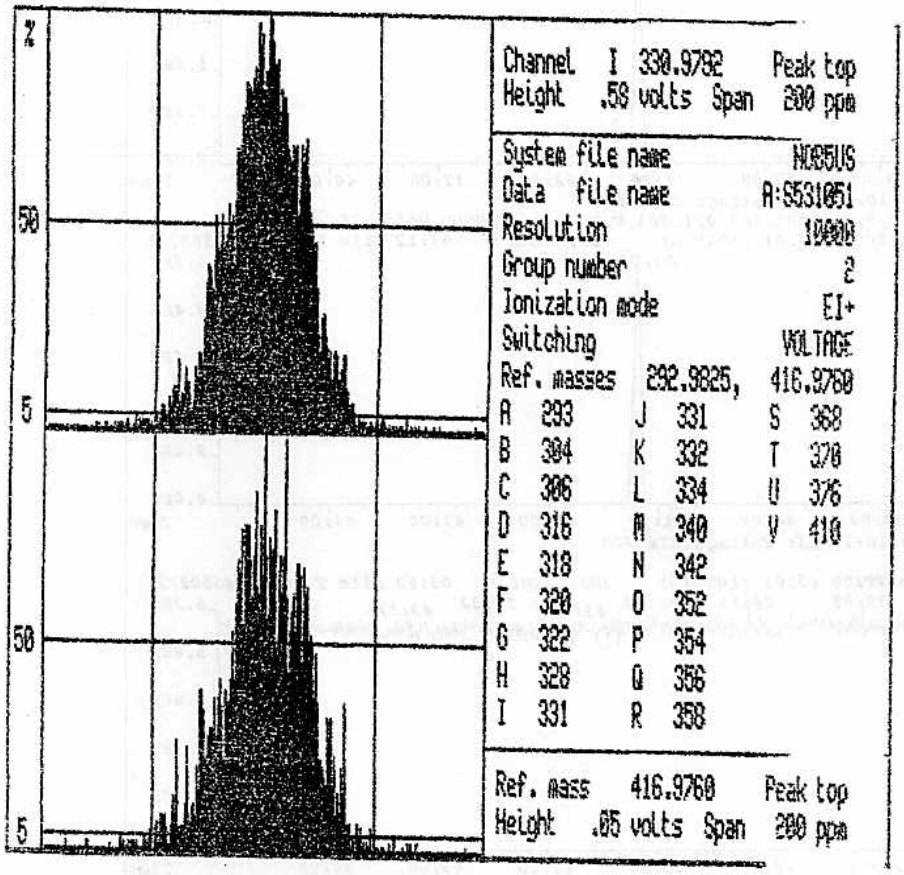
%
50
5
50
5
Channel I 330.9782 Peak top
Height .58 volts Span 200 ppm
System file name NOSSUS
Data file name A:S531051
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 416.9760
A 293 J 331 S 368
B 304 K 332 T 370
C 306 L 334 U 376
D 316 M 340 V 410
E 318 N 342
F 320 O 352
G 322 P 354
H 328 Q 356
I 331 R 358
Ref. mass 416.9760 Peak top
Height .05 volts Span 200 ppm

Lab Project: 65087r1 Method 8290 TCDD/TCDF Analysis (DB-225)
Client Sample: BB1TP108(5.0) Analysis File: P052222

Client Project:	Presidio / Baker Beach				
Sample Matrix:	SOIL	Date Received:	05/06/2005	Spike File:	SPC2NF22
Lab ID:	403-3-1	Date Extracted:	05/11/2005	ICal:	PF22215
		Date Analyzed:	05/18/2005	ConCal:	P052214
Sample Size:	12.990 g	Dilution Factor:	n/a	% Moisture:	22.7
Dry Weight:	10.041 g	Blank File:	T051423	% Lipid:	n/a
GC Column:	DB-225	Analyst:	JSY	% Solids:	77.3

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDF	3.1			0.67	22:48	—

Internal Standard	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	149	74.7	40%-130%	0.76	22:46	—

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	21:35	—

Data Reviewer: Pab 06/02/2005

C2NF_PSR v2.03, LARS 6.25.06

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Printed: 12:16 06/02/2005

Initial ....Date...

Data Review By: RAB 6/2/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of P052222B.dbf
06/02/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89					0.784-1.103				
304-306	DC	NL		Height			0.17	0.07	0.10				
	DC	SN		19:20	RO	1.03	0.55			1.054			
				19:28	RO	0.64	1.03	0.45	0.70	1.061			J
				19:58	RO	0.41	0.78	0.34	0.83	1.088			J
				20:07		0.76	0.90	0.39	0.51	1.096			J
	DC	WH		20:17	RO	0.64	0.94			1.105			
	DC	WH		20:27	RO	0.56	2.69			1.114			
	DC	WH		20:49	RO	0.07	0.14			1.134			
	DC	WH		20:53	RO	1.54	0.23			1.138			
	DC	WH		21:18	RO	0.50	0.32			1.161			
	DC	WH		21:23	RO	0.29	0.14			1.165			
	DC	WH		21:35		0.67	0.77			1.176			
	DC	WH		22:13		0.84	2.84			1.211			
	DC	WH		22:24		0.74	29.60			1.221			
	DC	WH		22:40		0.72	7.99			1.235			
KN				22:48		0.67	7.84	3.14	4.70	1.243	2378-TCDF	AN	
	DC	WH		23:43		0.67	5.50			1.292			
	DC	WH		24:06	RO	0.62	0.18			1.313			
	DC	WH		24:19		0.70	3.34			1.325			
	DC	WH		24:42	RO	1.50	0.92			1.346			
	DC	WH		25:22		0.72	14.97			1.382			
304-306			4	Peaks			10.55						
13C12-TCDF				0.65-0.89					0.956-1.044				
316-318	DC	NL		Height			0.43	0.23	0.20				
				17:49		0.89	2.67	1.26	1.41	0.971			
N				18:21		0.74	946.20	402.18	544.02	1.000			
	DC	WH		19:10		0.66	2.26			1.045			
	DC	WH		20:32		0.83	8.75			1.119			
NK				22:46		0.76	425.15	183.78	241.37	1.241	13C12-2378-TCDF	IS0	
				Height			82.50	34.74	47.76				
	DC	WH		23:33		0.70	64.41			1.283			
316-318			3	Peaks			1,374.02						

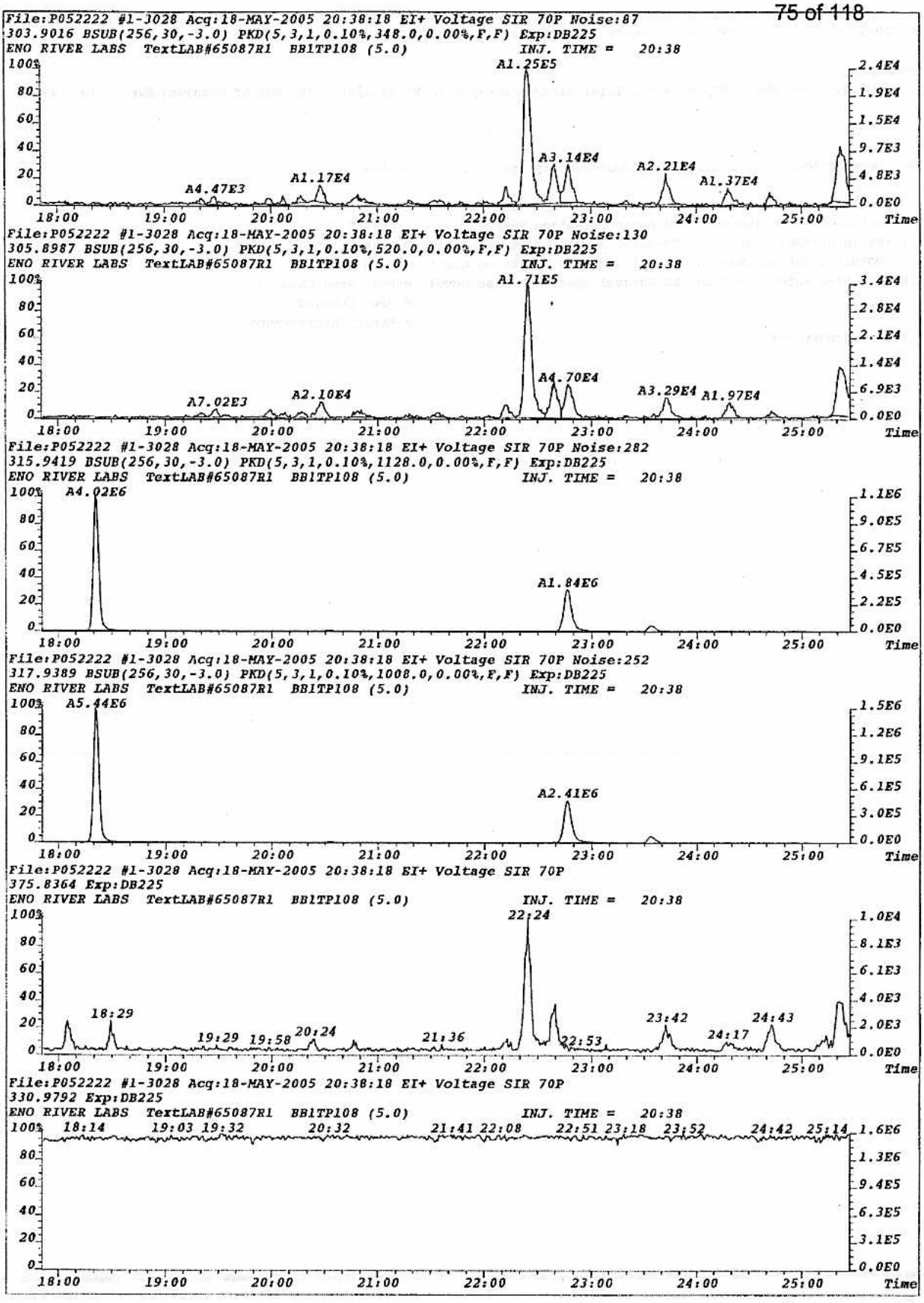
---------- Above: TCDF / TCDD Follows ----------

13C12-TCDD				0.65-0.89					0.906-1.094				
332-334	DC	NL		Height			0.25	0.19	0.06				
N				21:20		0.80	272.18	121.26	150.92	0.988	13C12-2378-TCDD	IS1	
				Height			62.35	27.27	35.08				
N				21:35		0.82	455.26	205.69	249.57	1.000	13C12-1234-TCDD	RS1	
332-334			2	Peaks			727.44						

Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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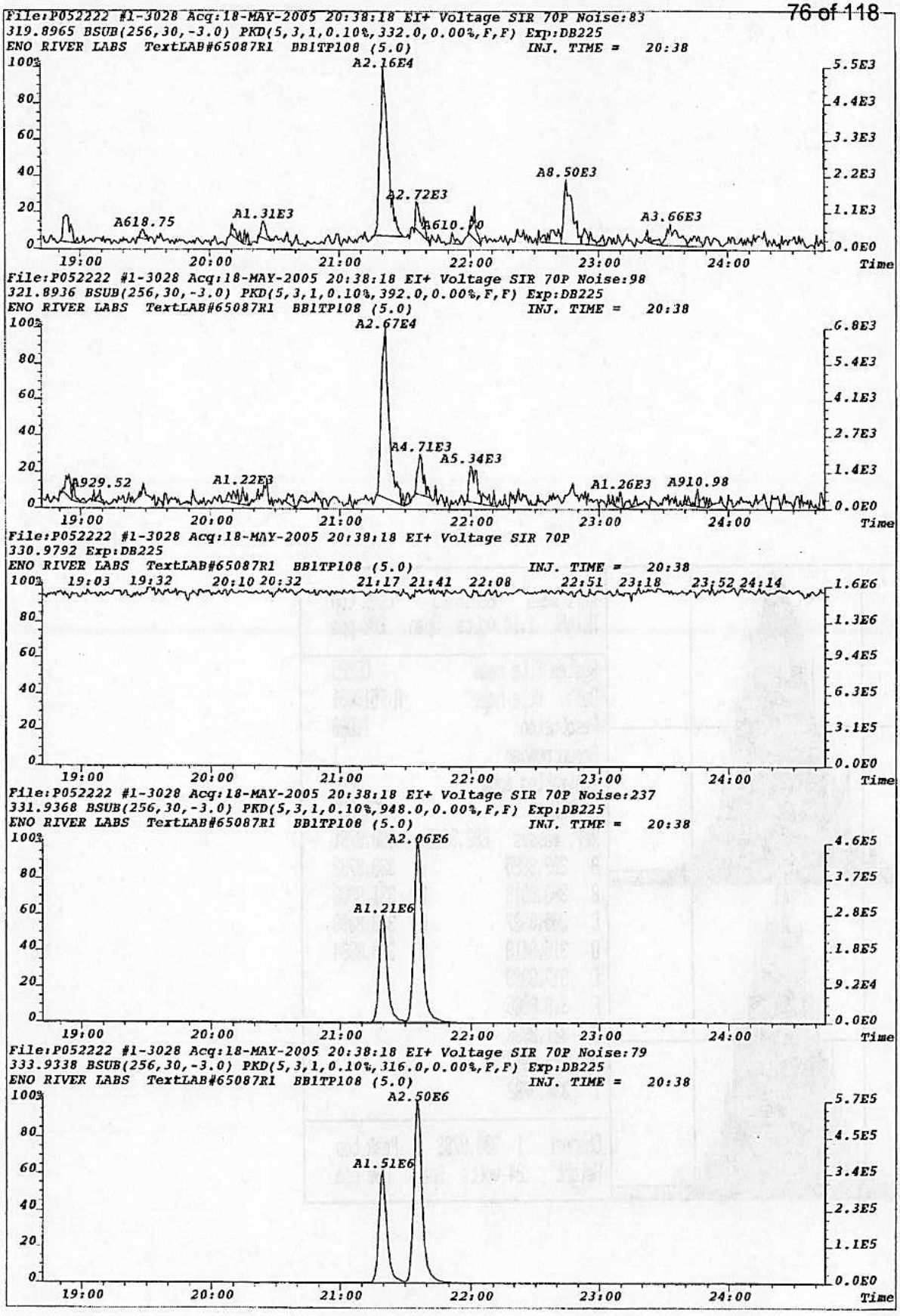
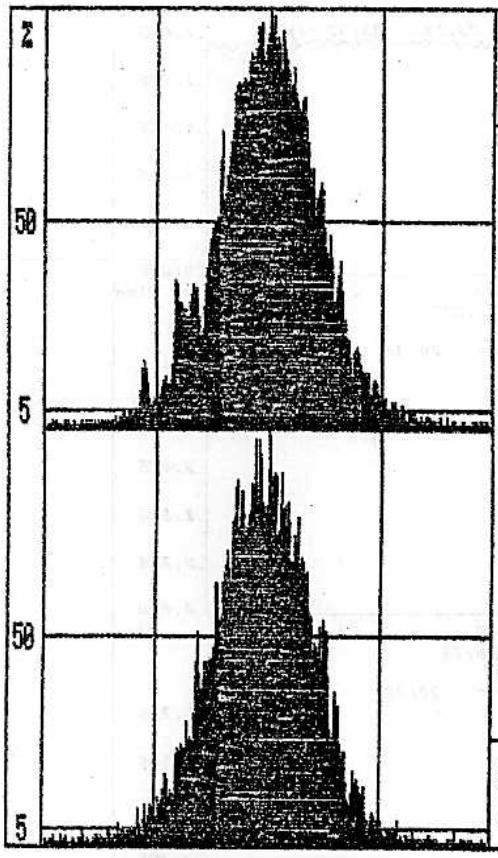
303.9016 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,348.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A1.25E5
A3.14E4
A2.21E4
A1.37E4
A1.17E4
A4.47E3
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:130
305.8987 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,520.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A1.71E5
A4.70E4
A3.29E4
A1.97E4
A2.10E4
A7.02E3
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:282
315.9419 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,1128.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A4.02E6
A1.84E6
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:252
317.9389 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,1008.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A5.44E6
A2.41E6
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P
375.8364 Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
22:24
18:29
19:29
19:58
20:24
21:36
22:53
23:42
24:17
24:43
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
18:14
19:03
19:32
20:32
21:41
22:08
22:51
23:18
23:52
24:42
25:14
Time


File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:83
319.8965 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,332.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A2.16E4
A8.50E3
A2.72E3
A618.75
A1.31E3
A610.70
A3.66E3
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:98
321.8936 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,392.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A2.67E4
A4.71E3
A5.34E3
A929.52
A1.22E3
A1.26E3
A910.98
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P
330.9792 Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:237
331.9368 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,948.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A2.06E6
A1.21E6
File:P052222 #1-3028 Acq:18-MAY-2005 20:38:18 EI+ Voltage SIR 70P Noise:79
333.9338 BSUB(256,30,-3.0) PKD(5,3,1,0.10%,316.0,0.00%,F,F) Exp:DB225
ENO RIVER LABS TextLAB#65087R1 BB1TP108 (5.0) INJ. TIME = 20:38
A2.50E6
A1.51E6
Time



Ref. mass	292.9825	Peak top	
Height	1.14 volts	Span	200 ppm

System file name	DB225
Data file name	A:P518051
Resolution	10000
Group number	1
Ionization mode	EI+
Switching	VOLTAGE

Ref. masses	292.9825,		380.9761
A	292.9825	J	330.9792
B	303.9016	K	331.9368
C	305.8987	L	333.9338
D	315.9419	M	375.8364
E	317.9389		
F	319.8965		
G	321.8936		
H	327.8847		
I	330.9792		

Channel	I	330.9792		Peak top	
Height	.24 volts		Span	200 ppm	

Lab Project: 65087r1 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: LCS Analysis File: S051429

Client Project:	Presidio / Baker Beach			ICal:	SF5N164
Sample Matrix:	SAND	Date Received:	/ /	Spike File:	SPMIT32S
Lab ID:	LCS	Date Extracted:	05/11/2005	1st CCal:	S051417
		Date Analyzed:	05/13/2005	End CCal:	S051431
Sample Size:	10.000 g	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T051423	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/g)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	41.4			0.78	26:54	
1,2,3,7,8-PeCDD	189			1.58	31:08	
1,2,3,4,7,8-HxCDD	219			1.21	34:15	
1,2,3,6,7,8-HxCDD	179			1.22	34:20	
1,2,3,7,8,9-HxCDD	176			1.17	34:39	
1,2,3,4,6,7,8-HpCDD	206			1.05	37:36	
1,2,3,4,6,7,8,9-OCDD	413			0.83	41:16	
2,3,7,8-TCDF	39.4			0.78	26:12	
1,2,3,7,8-PeCDF	202			1.51	30:06	
2,3,4,7,8-PeCDF	192			1.50	30:47	
1,2,3,4,7,8-HxCDF	192			1.25	33:33	
1,2,3,6,7,8-HxCDF	214			1.27	33:39	
2,3,4,6,7,8-HxCDF	189			1.22	34:08	
1,2,3,7,8,9-HxCDF	187			1.24	34:55	
1,2,3,4,6,7,8-HpCDF	210			1.06	36:33	
1,2,3,4,7,8,9-HpCDF	202			1.03	38:07	
1,2,3,4,6,7,8,9-OCDF	410			0.90	41:28	

Internal Standards	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	171	85.7	40%-135%	0.73	26:11	
$^{13}C_{12}$-2,3,7,8-TCDD	165	82.4	40%-135%	0.82	26:53	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	158	78.9	40%-135%	1.44	30:06	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	153	76.3	40%-135%	1.44	31:07	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	166	82.9	40%-135%	0.50	33:38	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	179	89.4	40%-135%	1.18	34:19	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	153	76.6	40%-135%	0.44	36:32	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	134	67.0	40%-135%	1.06	37:35	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	236	59.1	40%-135%	0.84	41:15	

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 16:21 05/24/2005

Lab Project: **65087r1** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCS** Analysis File: **S051429**

Surrogate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	144	72.2	40%-135%	1.45	30:46	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	160	80.0	40%-135%	0.50	33:32	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	175	87.7	40%-135%	1.20	34:14	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	156	78.0	40%-135%	0.47	38:05	___

Other Standard	Conc. (pg/g)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	18.3	91.5	40%-135%	26:54	___

Alternate Standards (Type B)	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	159	79.4	40%-135%	0.51	34:54	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	162	81.0	40%-135%	0.49	34:07	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:43	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.17	34:38	___

Data Reviewer: Rab 05/24/2005

MIT3_PSR v1.00, LARS 6.25.06

Eno River Labs, LLC®
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Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 16:21 05/24/2005

Initial ....Date...

Data Review By: PAB 5/14/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside
ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of S051429B.dbf
05/14/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89			0.874-1.073				
304-306	DC	NL				Height	0.19	0.10	0.09				
				23:04		0.89	12.58	5.94	6.64	0.881	1368-TCDF	AN	
	DC	SN		23:18	RO	2.00	0.25			0.890			
	DC	SN		23:26	RO	1.77	0.23			0.895			
	DC	SN		23:37		0.79	0.52			0.902			
	DC	SN		23:49	RO	2.33	0.21			0.910			
	DC	SN		24:06	RO	0.44	0.28			0.920			
				25:48		0.71	6.91	2.88	4.03	0.985	1278-TCDF	AN	
				26:12		0.78	243.90	107.19	136.71	1.001	2378-TCDF	AN	
	DC	SN		27:45	RO	1.19	0.46			1.060			
304-306			3	Peaks			263.39						
13C12-TCDF						0.65-0.89			0.962-1.038				
316-318	DC	NL				Height	0.20	0.11	0.09				
				25:49	RO	1.04	2.99	1.75	1.69	0.986			
				26:11		0.73	990.44	418.78	571.66	1.000	13C12-2378-TCDF	ISO	
						Height	275.47	113.67	161.80				
316-318			2	Peaks			993.43						
---------- Above: TCDF / TCDD Follows ----------													
TCDD						0.65-0.89			0.900-1.043				
320-322	DC	NL				Height	0.14	0.06	0.08				
	DC	SN		24:13	RO	0.57	0.09			0.901			
	DC	SN		24:30	RO	1.74	0.69			0.911			
	DC	SN		24:46	RO	0.33	0.18			0.921	1379-TCDD	AN	
	DC	SN		25:38		0.69	0.27			0.954			
	DC	SN		25:45	RO	0.96	0.60			0.958			
	DC	SN		26:04	RO	1.00	0.18			0.970			
				26:11	RO	1.16	0.80	0.52	0.45	0.974			J
				26:54		0.78	165.30	72.28	93.02	1.001	2378-TCDD	AN	
320-322			2	Peaks			166.10						
37Cl-TCDD									0.926-1.074				
328	DC	NL				Height	0.10	0.10					
	DC	WL		24:07			0.32			0.897			
	DC	WL		24:47			0.41			0.922			
	DC	SN		25:07			0.11			0.934			
	DC	SN		25:12			0.20			0.937			
				25:36			0.73	0.73		0.952			
	DC	SN		25:45			0.17			0.958			
	DC	SN		25:59			0.12			0.967			
	DC	SN		26:10			0.38			0.973			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		26:15			0.22			0.976			
	DC	SN		26:25			0.15			0.983			
	DC	SN		26:36			0.23			0.989			
	DC	SN		26:40			0.32			0.992			
				26:54			76.27	76.27		1.001	37Cl-TCDD		CLS
				27:09			0.42	0.42		1.010			
	DC	SN		27:12			0.29			1.012			
	DC	SN		27:53			0.39			1.037			
	DC	SN		27:56			0.22			1.039			
				28:04			0.40	0.40		1.044			
				28:12			0.73	0.73		1.049			
				28:24			0.43	0.43		1.056			
328			6	Peaks			78.38						
13C12-TCDD					0.65-0.89					0.926-1.074			
332-334	DC	NL			Height		0.37	0.27	0.10				
				26:43		0.83	828.91	375.06	453.85	0.994	13C12-1234-TCDD		RS1
				26:53		0.82	708.25	320.13	388.12	1.000	13C12-2378-TCDD		IS1
					Height		199.27	91.37	107.90				
	DC	SN		27:11		0.65	1.52			1.011			
	DC	SN		27:31		0.67	1.12			1.024			
332-334			2	Peaks			1,537.16						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF					1.32-1.78					0.929-1.061			
340-342	DC	NL			Height		0.17	0.08	0.09				
				29:17		1.37	3.68	2.13	1.55	0.973			J
				29:46	RO	0.86	1.94	1.18	1.37	0.989			J
				30:06		1.51	785.42	472.10	313.32	1.000	12378-PeCDF		AN
				30:16		1.41	5.14	3.01	2.13	1.006			J
				30:24		1.45	13.28	7.86	5.42	1.010			J
				30:47		1.50	740.70	444.30	296.40	1.023	23478-PeCDF		AN
				30:56		1.50	6.78	4.07	2.71	1.028			J
				31:05		1.51	1.71	1.03	0.68	1.033			J
				31:45		1.73	2.46	1.56	0.90	1.055			J
340-342			9	Peaks			1,561.11						
13C12-PeCDF					1.32-1.78					0.867-1.133			
352-354	DC	NL			Height		0.14	0.06	0.08				
				29:15		1.76	2.37	1.51	0.86	0.972			
				30:06		1.44	678.24	399.84	278.40	1.000	13C12-PeCDF 123		IS2
					Height		227.92	136.13	91.79				
				30:23	RO	1.26	8.57	4.25	3.36	1.009			
				30:46		1.45	614.91	363.67	251.24	1.022	13C12-PeCDF 234		SUR1
				31:08		1.39	0.91	0.53	0.38	1.034			
				31:45		1.34	8.30	4.75	3.55	1.055			
352-354			6	Peaks			1,313.30						
---------- Above: PeCDF / PeCDD Follows ----------													

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
PeCDD				1.32-1.78					0.938-1.021				
356-358	DC	NL		Height			0.16	0.09	0.07				
	DC	SN		29:21	RO	1.90	0.26			0.943			
	DC	SN		29:31	RO	0.56	0.25			0.949			
				29:55		1.63	1.26	0.78	0.48	0.961			J
				30:11	RO	0.90	0.59	0.36	0.40	0.970			J
				31:08		1.58	440.79	270.05	170.74	1.001	12378-PeCDD	AN	
	DC	SN		31:38	RO	2.33	0.38			1.017			
	DC	SN		31:45	RO	0.75	0.30			1.020			
	DC	WH		31:51	RO	1.16	0.48			1.024			
	DC	WH		31:56	RO	0.47	0.26			1.026			
	DC	WH		32:08		1.53	0.48			1.033			
356-358			3	Peaks			442.64						
13C12-PeCDD				1.32-1.78					0.872-1.128				
368-370	DC	NL		Height			0.16	0.09	0.07				
				30:04		1.47	1.36	0.81	0.55	0.966			
				30:12		1.55	2.55	1.55	1.00	0.971			
	DC	SN		30:35		1.40	0.24			0.983			
				31:07		1.44	376.37	222.04	154.33	1.000	13C12-PeCDD 123	IS3	
				Height			130.13	77.39	52.74				
				31:16	RO	0.89	1.91	1.16	1.31	1.005			
	DC	SN		31:23	RO	1.18	0.56			1.009			
				31:35	RO	1.08	0.66	0.28	0.26	1.015			
	DC	SN		31:45	RO	2.56	0.23			1.020			
368-370			5	Peaks			382.85						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.964-1.045				
374-376	DC	NL		Height			0.40	0.25	0.15				
				32:44		1.22	1.95	1.07	0.88	0.973			J
	DC	SN		32:55		1.20	0.66			0.979			
	DC	SN		33:01	RO	1.89	0.40			0.982			
	DC	SN		33:10	RO	0.78	0.58			0.986			
				33:33		1.25	501.65	278.38	223.27	0.998	123478-HxCDF	AN	
				33:39		1.27	571.77	320.34	251.43	1.000	123678-HxCDF	AN	
				34:08		1.22	529.88	291.65	238.23	1.015	234678-HxCDF	AN	
				34:19	RO	1.56	2.17	1.51	0.97	1.020			J
	DC	SN		34:29		1.41	0.77			1.025			
				34:55		1.24	406.49	224.76	181.73	1.038	123789-HxCDF	AN	
374-376			6	Peaks			2,013.91						
13C12-HxCDF				0.43-0.59					0.881-1.119				
384-386	DC	NL		Height			0.28	0.12	0.16				
				32:42	RO	1.25	0.60	0.50	0.40	0.972			
				33:32		0.50	421.31	139.98	281.33	0.997	13C12-HxCDF 478	SUR2	
				33:38		0.50	429.08	143.64	285.44	1.000	13C12-HxCDF 678	IS4	
				Height			147.84	49.08	98.76				
				34:07		0.49	416.50	137.41	279.09	1.014	13C12-HxCDF 234	ALT2	
				34:19	RO	0.60	0.77	0.26	0.43	1.020			
				34:54		0.51	342.51	114.94	227.57	1.038	13C12-HxCDF 789	ALT1	

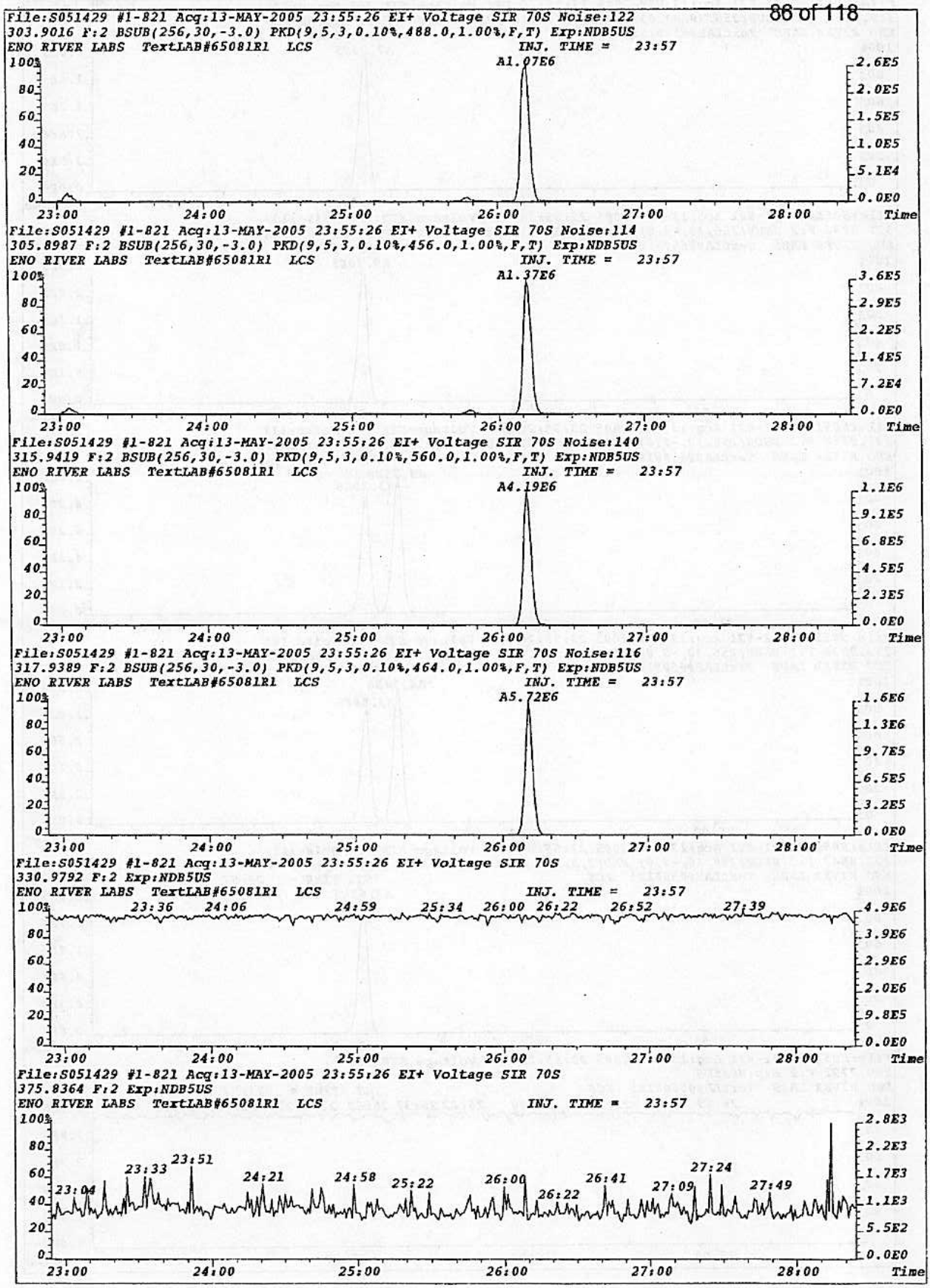
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		35:12	RO	0.33	0.38			1.047			
	DC	SN		35:21		0.49	0.73			1.051			
384-386			6	Peaks			1,610.77						
	---------- Above: HxCDF / HxCDD Follows ----------												
HxCDD						1.05-1.43				0.959-1.014			
390-392	DC	NL				Height	0.31	0.18	0.13				
	DC	SN		33:30	RO	3.08	0.29			0.976			
				34:15		1.21	395.45	216.31	179.14	0.998	123478-HxCDD	AN	
				34:20		1.22	329.72	180.96	148.76	1.000	123678-HxCDD	AN	
				34:30	RO	0.68	0.87	0.48	0.71	1.005			J
				34:39		1.17	341.14	183.94	157.20	1.010	123789-HxCDD	AN	
	DC	WH		34:53	RO	1.49	0.78			1.017			
	DC	WH		35:00	RO	4.27	0.25			1.020			
390-392			4	Peaks			1,067.18						
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404	DC	NL				Height	0.28	0.17	0.11				
	DC	SN		33:30	RO	0.91	0.36			0.976			
				33:43		1.13	4.12	2.19	1.93	0.983			
	DC	SN		33:49	RO	0.21	0.13			0.985			
	DC	SN		33:57	RO	4.36	0.25			0.989			
				34:14		1.20	289.48	157.87	131.61	0.998	13C12-HxCDD 478	SUR3	
				34:19		1.18	315.53	171.09	144.44	1.000	13C12-HxCDD 678	IS5	
						Height	103.56	56.90	46.66				
				34:28		1.37	0.71	0.41	0.30	1.004			
				34:38		1.17	353.28	190.35	162.93	1.009	13C12-HxCDD 789	RS2	
	DC	SN		35:06	RO	0.78	0.25			1.023			
402-404			5	Peaks			963.12						
	---------- Above: HxCDD / HpCDF Follows ----------												
HpCDF						0.88-1.20				0.996-1.047			
408-410	DC	NL				Height	0.48	0.31	0.17				
				36:33		1.06	393.54	202.75	190.79	1.000	1234678-HpCDF	AN	
	DC	SN		36:51	RO	1.28	1.22			1.009			
				36:58		0.93	3.17	1.53	1.64	1.012			J
	DC	SN		37:25	RO	0.19	0.43			1.024			
	DC	SN		37:33	RO	0.24	0.31			1.028			
	DC	SN		37:52	RO	1.33	0.37			1.036			
				38:07		1.03	302.41	153.49	148.92	1.043	1234789-HpCDF	AN	
	DC	WH		38:23	RO	0.20	0.69			1.051			
	DC	WH		38:29	RO	4.51	0.96			1.053			
408-410			3	Peaks			699.12						
13C12-HpCDF						0.37-0.51				0.945-1.109			
418-420	DC	NL				Height	0.21	0.11	0.10				
				36:32		0.44	237.33	72.64	164.69	1.000	13C12-HpCDF 678	IS6	
						Height	70.06	20.78	49.28				
				36:50	RO	0.87	1.51	0.46	0.53	1.008			
	DC	SN		36:55	RO	0.94	0.56			1.010			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		37:03	RO	0.31	0.16			1.014			
	DC	SN		37:35	RO	2.25	0.17			1.029			
				38:05		0.47	201.07	64.56	136.51	1.042	13C12-HpCDF 789	SUR4	
				38:18	RO	1.84	0.62	0.79	0.43	1.048			
418-420			4	Peaks			440.53						
	---------- Above: HpCDF / HpCDD Follows ----------												
HpCDD						0.88-1.20				0.976-1.004			
424-426	DC	NL				Height	0.24	0.13	0.11				
				36:51		0.98	3.37	1.67	1.70	0.980			J
				37:36		1.05	208.80	107.01	101.79	1.000	1234678-HpCDD	AN	
	DC	WH		38:03	RO	1.27	0.33			1.012			
424-426			2	Peaks			212.17						
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	0.27	0.17	0.10				
				37:35		1.06	201.48	103.51	97.97	1.000	13C12-HpCDD 678	IS7	
						Height	57.80	30.00	27.80				
	DC	SN		37:49	RO	0.21	0.31			1.006			
436-438			1	Peak			201.48						
	---------- Above: HpCDD / Octa-CDD and CDF Follows ----------												
OCDF						0.76-1.02				0.903-1.097			
442-444	DC	NL				Height	0.15	0.07	0.08				
	DC	WL		36:01	RO	0.73	0.87			0.873			
	DC	WL		36:43		0.77	0.23			0.890			
	DC	SN		38:03	RO	0.50	0.32			0.922			
				40:16	RO	1.21	0.36	0.23	0.19	0.976			
				41:28		0.90	337.46	159.71	177.75	1.005	OCDF	AN	
				41:57	RO	1.34	0.55	0.39	0.29	1.017			
	DC	SN		42:07		0.90	0.19			1.021			
	DC	SN		43:05	RO	2.00	0.25			1.044			
	DC	SN		43:24		0.93	0.58			1.052			
	DC	SN		44:11	RO	0.71	0.21			1.071			
	DC	SN		44:39	RO	0.36	0.19			1.082			
	DC	SN		44:45	RO	1.25	0.38			1.085			
	DC	SN		44:49	RO	1.86	0.42			1.086			
442-444			3	Peaks			338.37						
OCDD						0.76-1.02				0.903-1.097			
458-460	DC	NL				Height	0.14	0.07	0.07				
	DC	WL		36:37	RO	1.11	0.17			0.888			
	DC	WL		36:57	RO	0.33	0.11			0.896			
	DC	WL		37:12	RO	1.67	0.23			0.902			
	DC	SN		39:00	RO	0.27	0.25			0.945			
	DC	SN		39:42	RO	2.00	0.21			0.962			
	DC	SN		39:50	RO	2.13	0.15			0.966			
	DC	SN		40:02	RO	1.27	0.21			0.971			
	DC	SN		40:17	RO	0.21	0.06			0.977			
	DC	SN		40:20	RO	0.60	0.13			0.978			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				41:16		0.83	258.00	117.40	140.60	1.000	OCDD		AN
				41:30	RO	1.18	0.95	0.59	0.50	1.006			
				41:39	RO	0.16	0.19	0.09	0.56	1.010			
		DC	SN	41:47	RO	0.22	0.32			1.013			
		DC	SN	42:08	RO	2.67	0.11			1.021			
		DC	SN	42:14	RO	0.74	0.30			1.024			
		DC	SN	42:25	RO	0.75	0.32			1.028			
		DC	SN	42:45	RO	0.17	0.06			1.036			
		DC	SN	42:51	RO	0.58	0.23			1.039			
		DC	SN	44:14	RO	0.39	0.19			1.072			
		DC	SN	44:21	RO	0.75	0.32			1.075			
458-460			3	Peaks			259.14						
13C12-OCDD					0.76-1.02					0.952-1.048			
470-472		DC	NL			Height	0.18	0.11	0.07				
		DC	WL	36:07	RO	1.84	0.47			0.876			
		DC	WL	36:56	RO	4.60	0.09			0.895			
		DC	WL	37:10	RO	2.27	0.21			0.901			
		DC	WL	38:58	RO	5.00	0.13			0.945			
		DC	WL	39:05		0.79	0.34			0.947			
		DC	SN	39:47	RO	3.58	0.36			0.964			
				40:01	RO	3.73	0.21	0.41	0.11	0.970			
		DC	SN	40:06	RO	2.06	0.34			0.972			
				41:01	RO	0.42	0.38	0.18	0.43	0.994			
				41:15		0.84	238.83	108.72	130.11	1.000	13C12-OCDD		IS8
						Height	53.86	24.89	28.97				
		DC	SN	41:39	RO	0.65	0.55			1.010			
		DC	SN	41:56	RO	0.72	0.38			1.017			
		DC	WH	43:37	RO	0.57	0.25			1.057			
		DC	WH	44:44	RO	2.12	0.32			1.084			
		DC	WH	44:51	RO	0.67	0.47			1.087			
470-472			3	Peaks			239.42						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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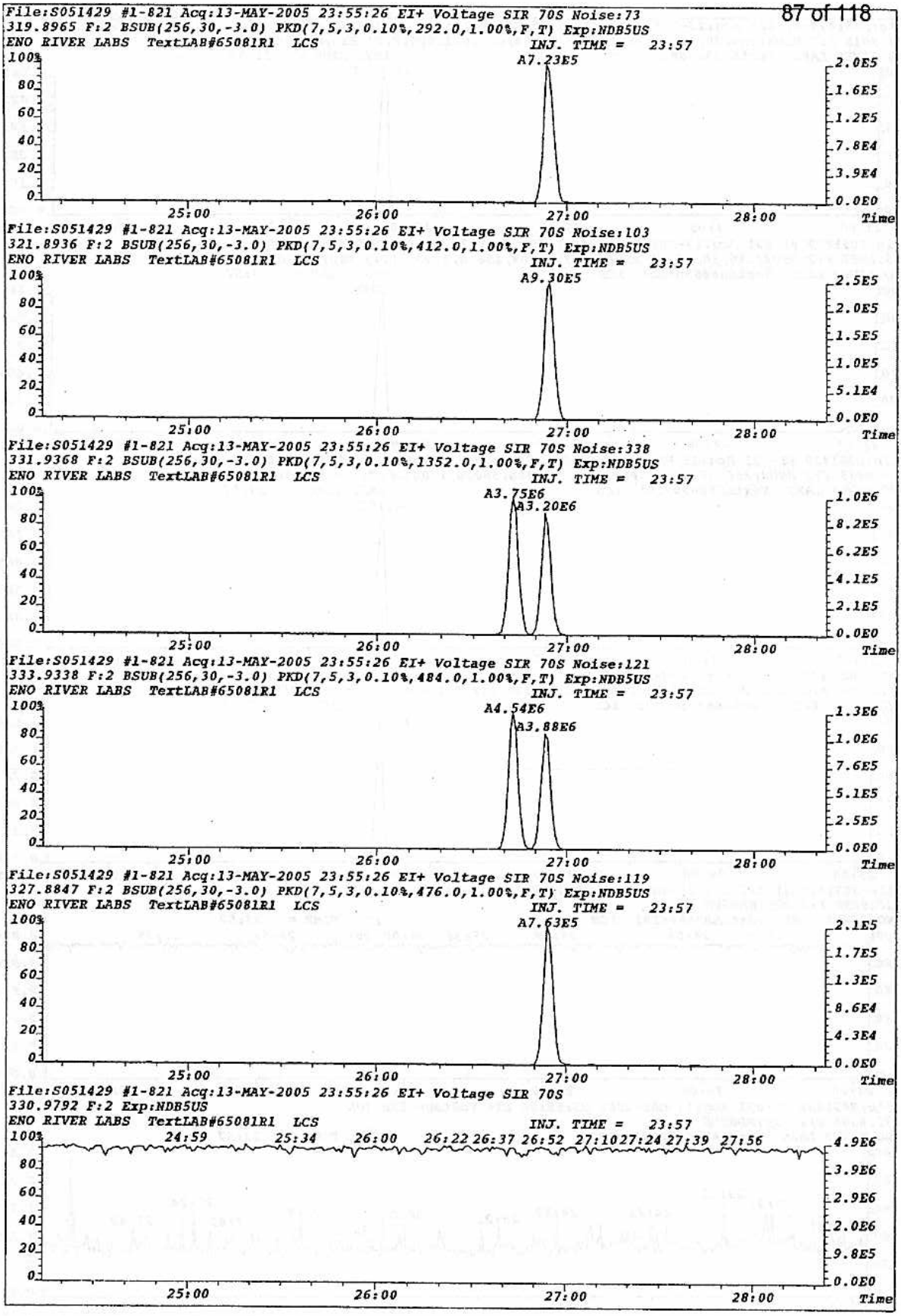
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,488.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A1.07E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:114
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,456.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A1.37E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:140
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,560.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A4.19E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:116
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,464.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A5.72E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
Time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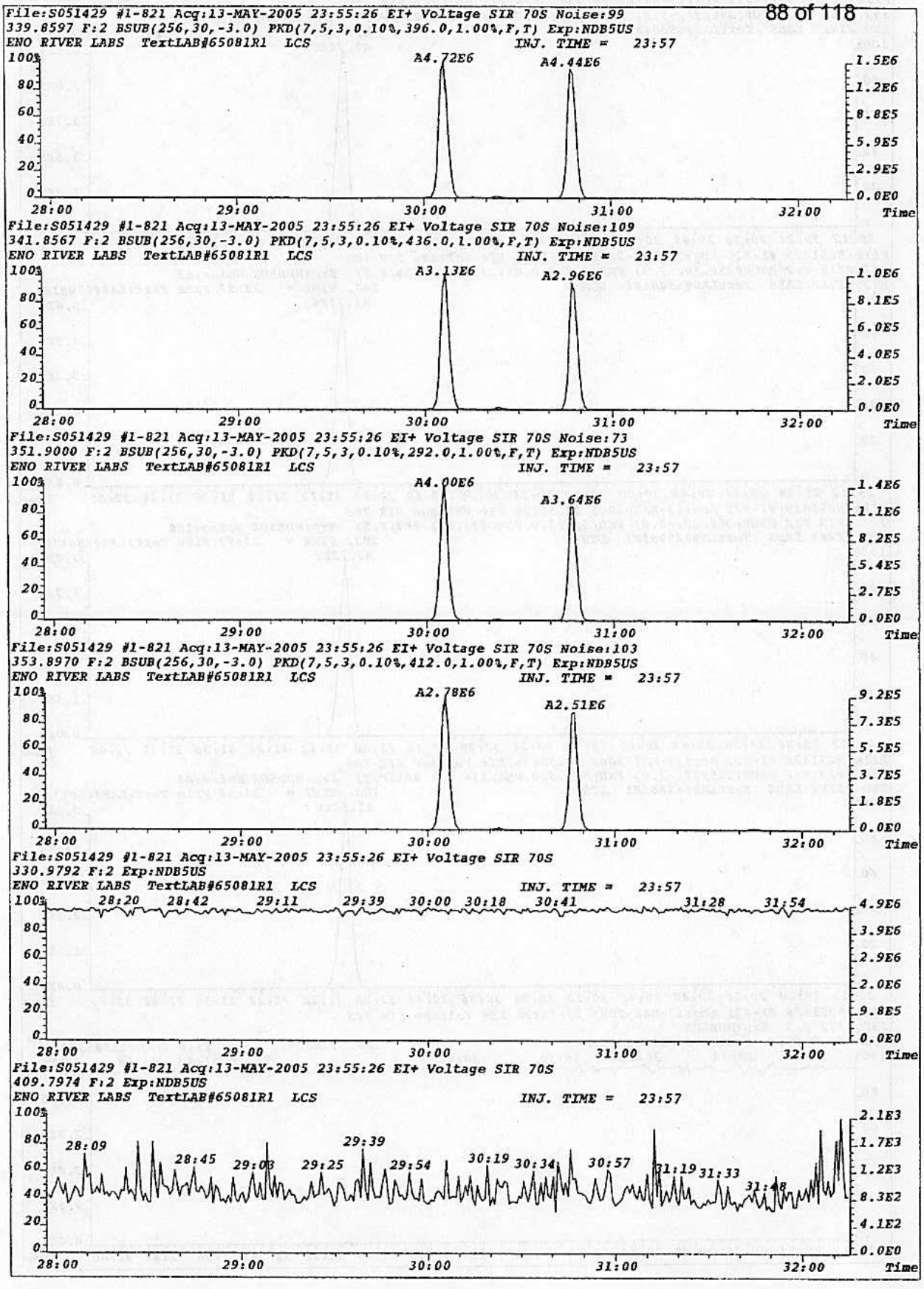
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,292.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A7.23E5
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:103
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,412.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A9.30E5
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:338
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1352.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A3.75E6
A3.20E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:121
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,484.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A4.54E6
A3.88E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:119
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,476.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A7.63E5
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
24:59 25:34 26:00 26:22 26:37 26:52 27:10 27:24 27:39 27:56
25:00 26:00 27:00 28:00 Time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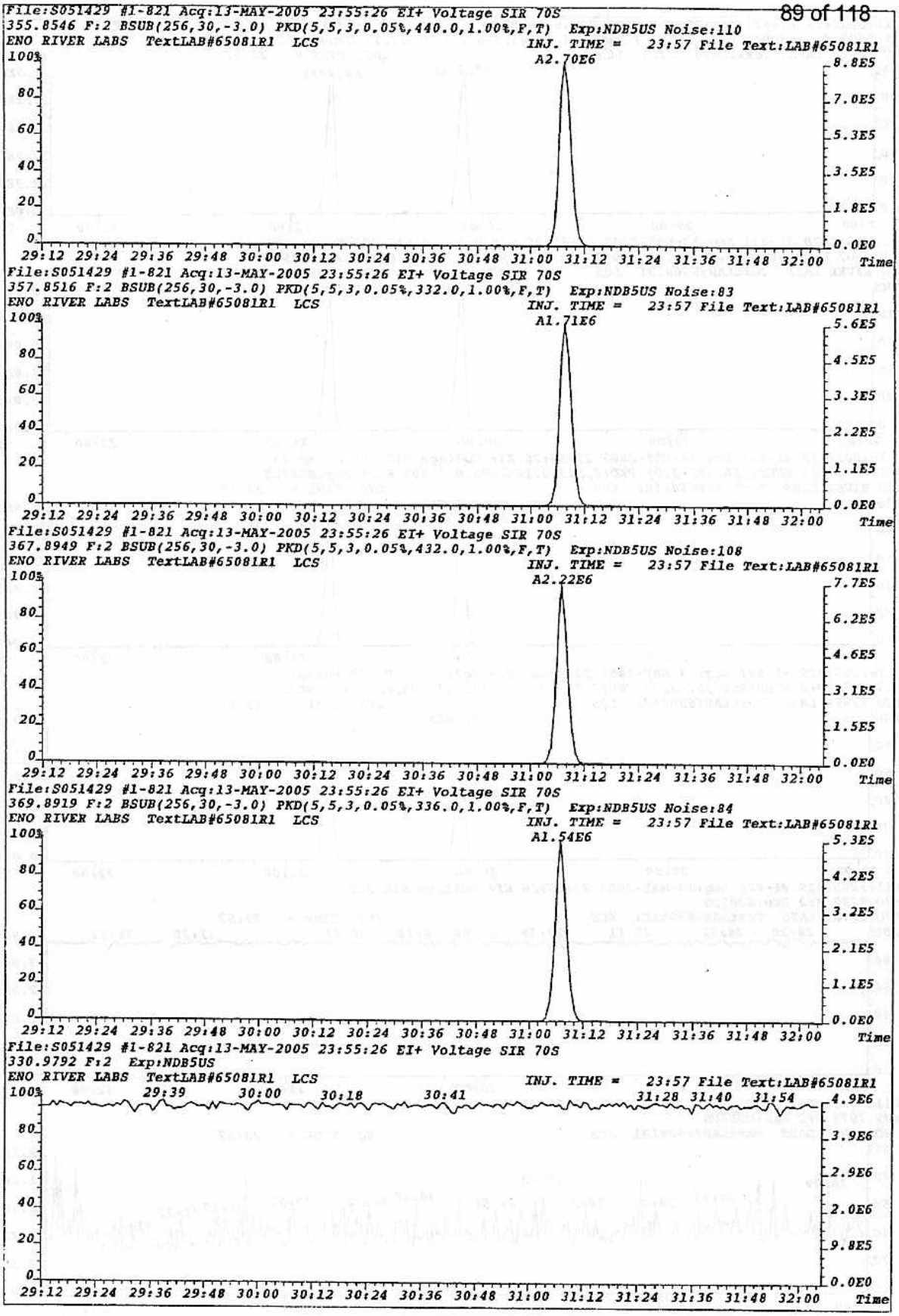
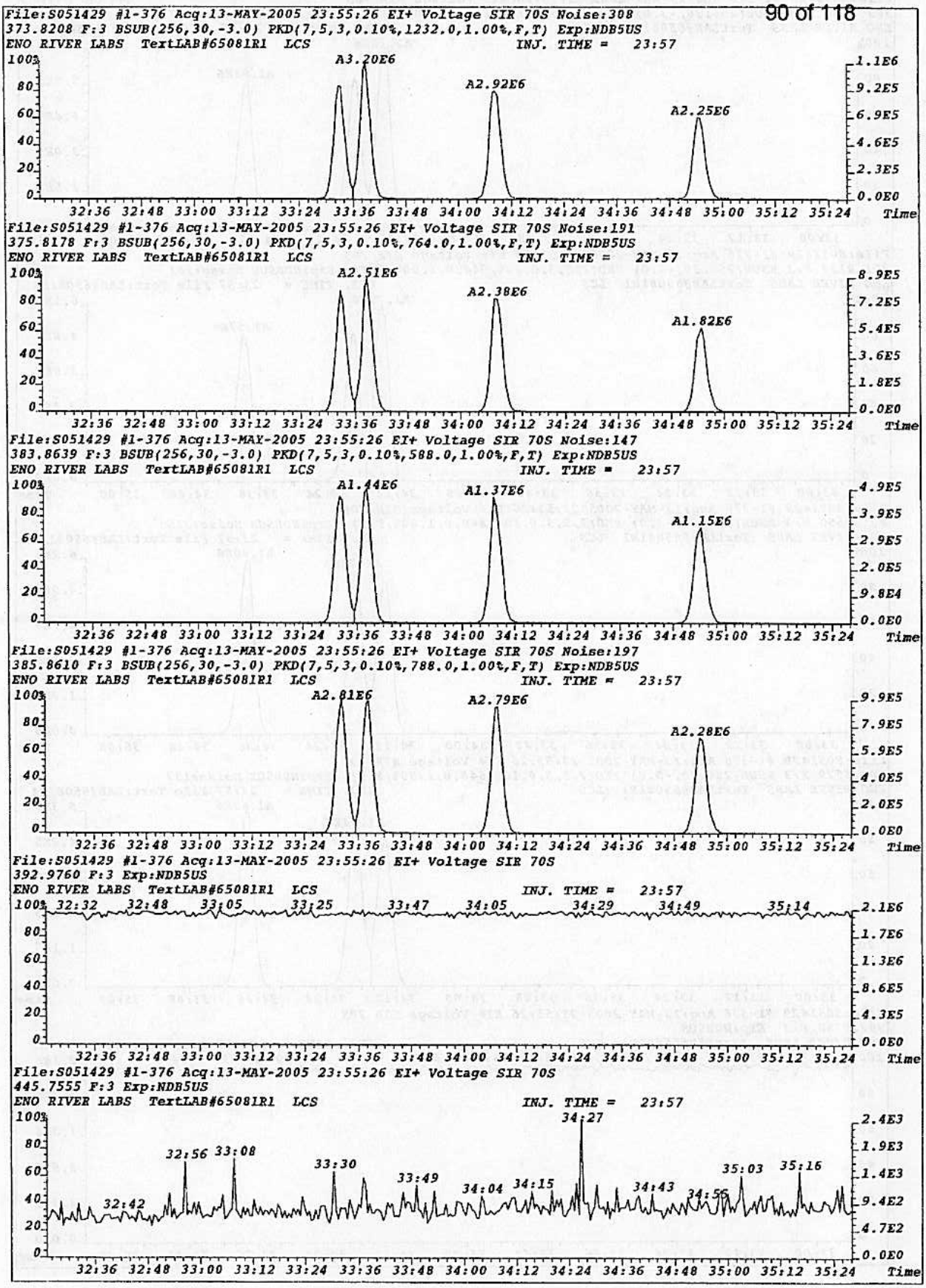
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,396.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A4.72E6
A4.44E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:109
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,436.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A3.13E6
A2.96E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:73
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,292.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A4.00E6
A3.64E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:103
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,412.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A2.78E6
A2.51E6
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
Time


File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
355.8546 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,440.0,1.00%,F,T) Exp:NDB5US Noise:110
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A2.70E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
357.8516 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US Noise:83
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.71E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
367.8949 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,432.0,1.00%,F,T) Exp:NDB5US Noise:108
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A2.22E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
369.8919 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,336.0,1.00%,F,T) Exp:NDB5US Noise:84
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.54E6
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time
File:S051429 #1-821 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
29:39 30:00 30:18 30:41 31:28 31:40 31:54
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 Time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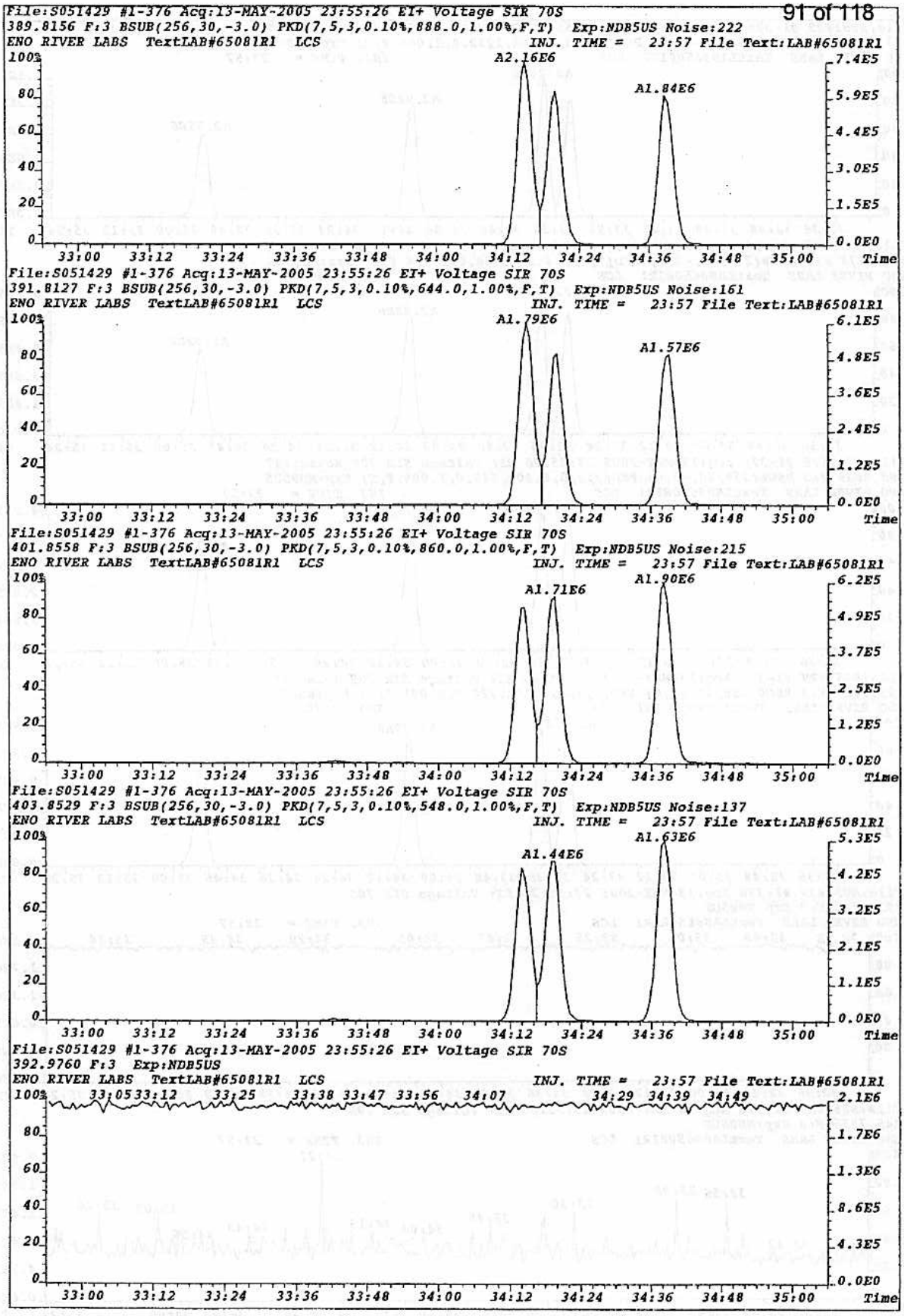
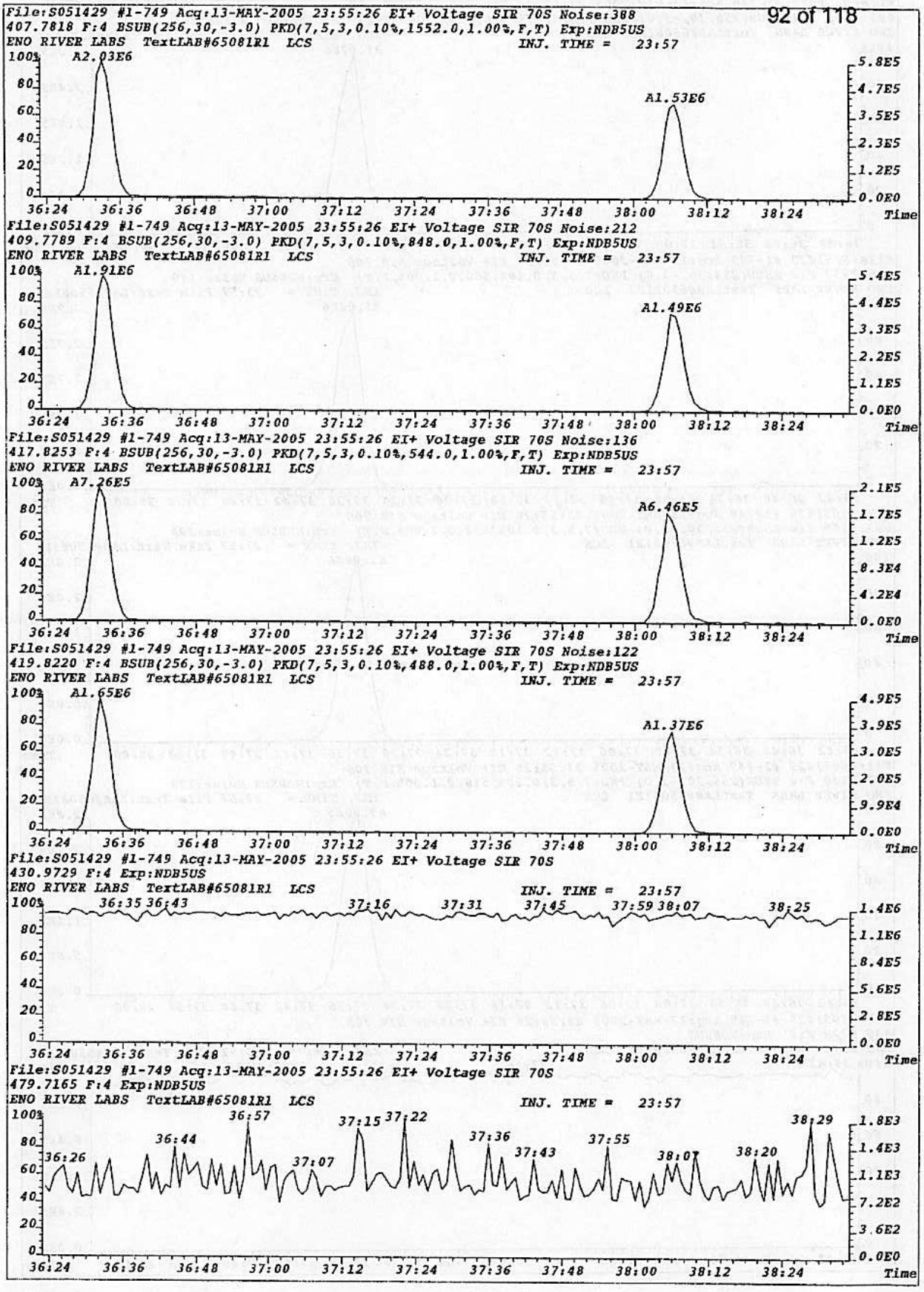
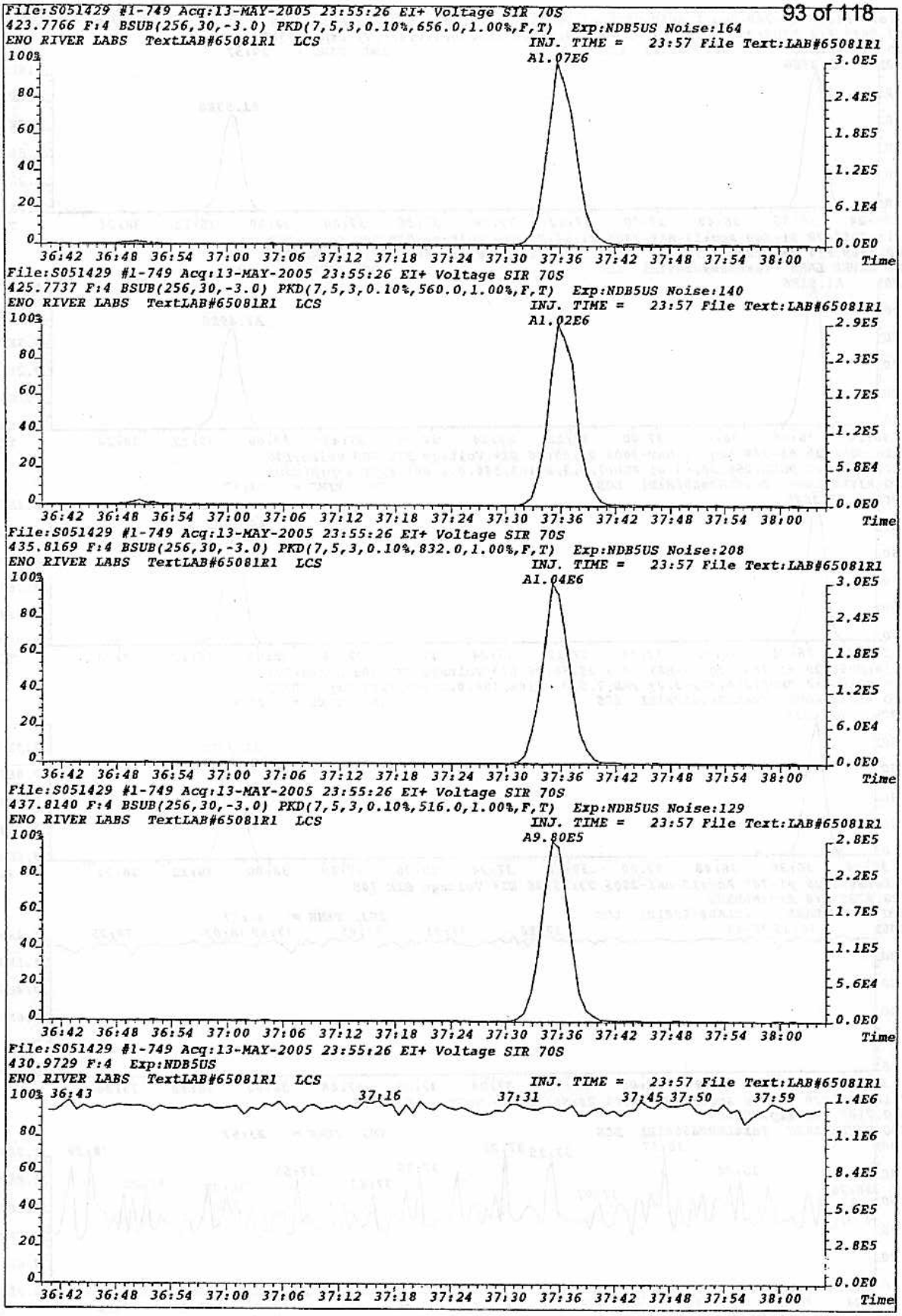
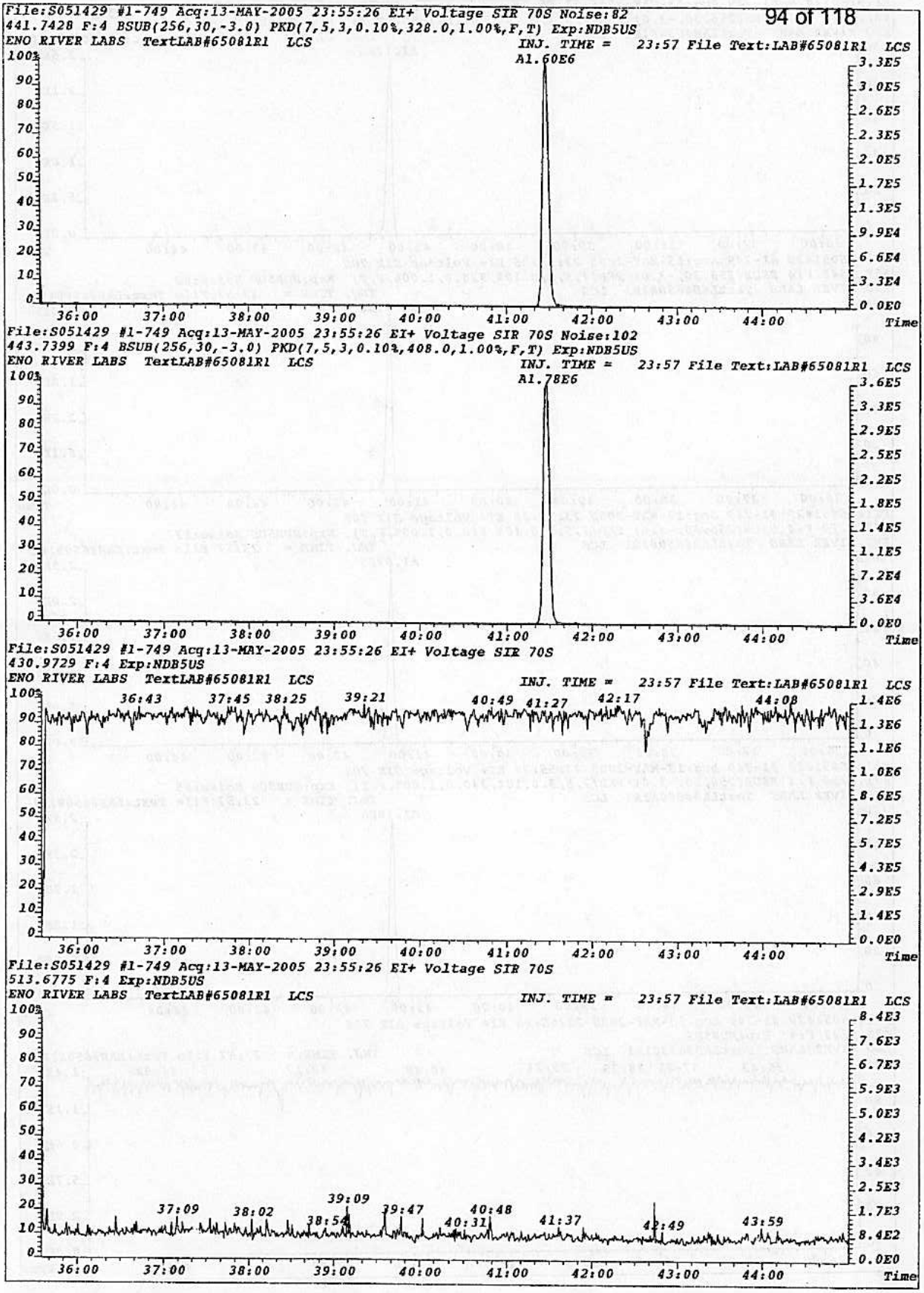
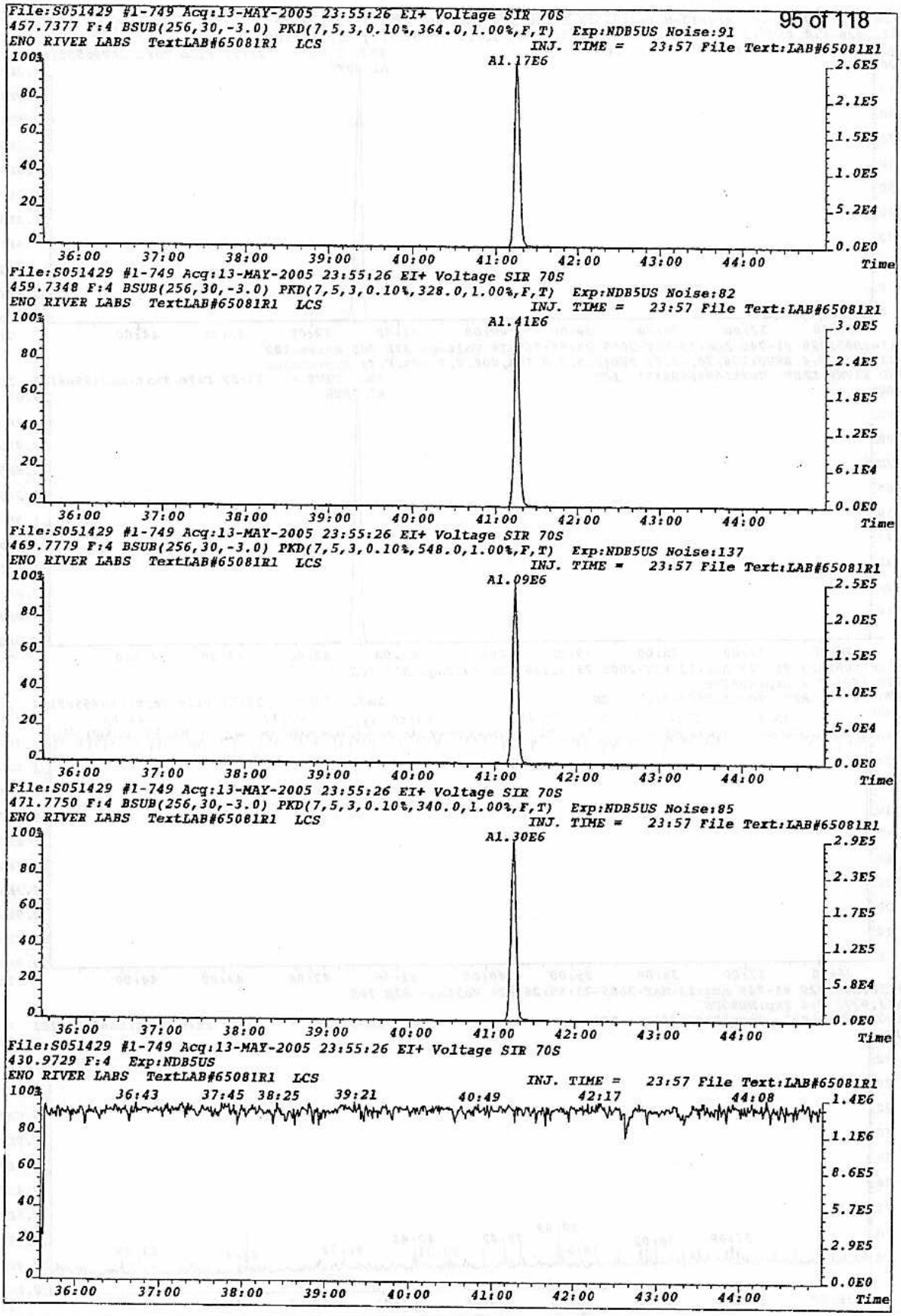
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1232.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A3.20E6
A2.92E6
A2.25E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:191
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,764.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A2.51E6
A2.38E6
A1.82E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:147
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,588.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A1.44E6
A1.37E6
A1.15E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:197
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,788.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A2.81E6
A2.79E6
A2.28E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
34:27
32:56
33:08
33:30
33:49
34:04
34:15
34:43
35:03
35:16
32:42
Time

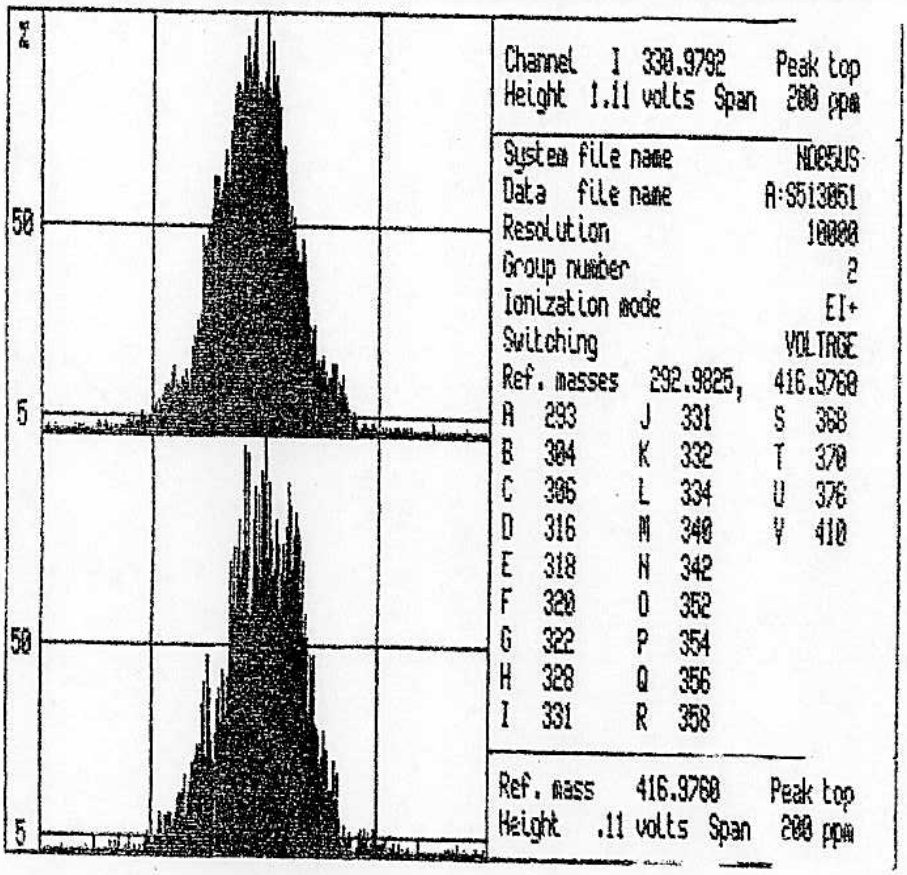

File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,888.0,1.00%,F,T) Exp:NDB5US Noise:222
ENO RIVER LABS TextLAB#65081R1 LCS INJ. TIME = 23:57 File Text:LAB#65081R1
A2.16E6
A1.84E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,644.0,1.00%,F,T) Exp:NDB5US Noise:161
ENO RIVER LABS TextLAB#65081R1 LCS INJ. TIME = 23:57 File Text:LAB#65081R1
A1.79E6
A1.57E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,860.0,1.00%,F,T) Exp:NDB5US Noise:215
ENO RIVER LABS TextLAB#65081R1 LCS INJ. TIME = 23:57 File Text:LAB#65081R1
A1.71E6
A1.90E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,548.0,1.00%,F,T) Exp:NDB5US Noise:137
ENO RIVER LABS TextLAB#65081R1 LCS INJ. TIME = 23:57 File Text:LAB#65081R1
A1.44E6
A1.63E6
File:S051429 #1-376 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS INJ. TIME = 23:57 File Text:LAB#65081R1
Time


File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:388
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1552.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A2.03E6
A1.53E6
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:212
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A1.91E6
A1.49E6
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:136
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,544.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A7.26E5
A6.46E5
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:122
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,488.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
A1.65E6
A1.37E6
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57
Time


File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,656.0,1.00%,F,T) Exp:NDB5US Noise:164
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.07E6
3.0E5
2.4E5
1.8E5
1.2E5
6.1E4
0.0E0
36:42 36:48 36:54 37:00 37:06 37:12 37:18 37:24 37:30 37:36 37:42 37:48 37:54 38:00
Time
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,560.0,1.00%,F,T) Exp:NDB5US Noise:140
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.02E6
2.9E5
2.3E5
1.7E5
1.2E5
5.8E4
0.0E0
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,832.0,1.00%,F,T) Exp:NDB5US Noise:208
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.04E6
3.0E5
2.4E5
1.8E5
1.2E5
6.0E4
0.0E0
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,516.0,1.00%,F,T) Exp:NDB5US Noise:129
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A9.80E5
2.8E5
2.2E5
1.7E5
1.1E5
5.6E4
0.0E0
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
36:43
37:16
37:31
37:45
37:50
37:59
1.4E6
1.1E6
8.4E5
5.6E5
2.8E5
0.0E0


File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:82
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,328.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1 LCS
A1.60E6
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S Noise:102
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,408.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1 LCS
A1.78E6
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1 LCS
36:43 37:45 38:25 39:21 40:49 41:27 42:17 44:08
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1 LCS
37:09 38:02 38:54 39:09 39:47 40:31 40:48 41:37 42:49 43:59
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00
Time


File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,364.0,1.00%,F,T) Exp:NDB5US Noise:91
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.17E6
2.6E5
2.1E5
1.5E5
1.0E5
5.2E4
0.0E0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,328.0,1.00%,F,T) Exp:NDB5US Noise:82
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.41E6
3.0E5
2.4E5
1.8E5
1.2E5
6.1E4
0.0E0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,548.0,1.00%,F,T) Exp:NDB5US Noise:137
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.09E6
2.5E5
2.0E5
1.5E5
1.0E5
5.0E4
0.0E0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,340.0,1.00%,F,T) Exp:NDB5US Noise:85
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
A1.30E6
2.9E5
2.3E5
1.7E5
1.2E5
5.8E4
0.0E0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051429 #1-749 Acq:13-MAY-2005 23:55:26 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65081R1 LCS
INJ. TIME = 23:57 File Text:LAB#65081R1
36:43 37:45 38:25 39:21 40:49 42:17 44:08
1.4E6
1.1E6
8.6E5
5.7E5
2.9E5
0.0E0
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time


%
50
5
50
5
Channel I 330.9792 Peak top
Height 1.11 volts Span 200 ppm
System file name NL05US
Data file name A:S513051
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 416.9760
A 293 J 331 S 368
B 304 K 332 T 370
C 306 L 334 U 376
D 316 M 340 V 410
E 318 N 342
F 320 O 352
G 322 P 354
H 328 Q 356
I 331 R 358
Ref. mass 416.9760 Peak top
Height .11 volts Span 200 ppm

ENO RIVER LABS

DOCUMENT CONTROL

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

LEVEL III

Project Number: 179266
Site: Presidio / Baker Beach

COPY

Subcontract Laboratory:
Eno River Labs, LLC
2445 South Alston Ave
ferris@enoriverlabs.com
Durham, NC 27713
(919) 281-4053
ATTN: Shawn Ferris

COPY

Results due: 17-MAY-2005 JAW 5-5-05 Report Level: III
Please send report to: Patricia Flynn
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
BB1TP108(5.0)	05/05	Soil	8290	179266-007	Dioxins/Furans

Notes:	Relinquished By:	Received By:
	Date/Time: 5-5-5 1534	Date/Time: 5/6/05 10:10

Signature on this form constitutes a firm Purchase Order for the services requested above.

ENO RIVER LABS, LLC -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A
Sample Seals: Absent
Container...: Intact

Lab Project Number 65087
Client: CUT02 - Curtis & Tompkins
Project: 179266

Book 403

Date Received 05/06/05 By

Page 3

Ice Chest ICE/ICE PACKS Temp 3.0 C

Carrier and Number UPIZ9X31690140404179

Lab Number.. / mR/H:CPM.	Client Sample ID..... / Client COC ID.....*	Matrix / Location.....	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
403-3-1	BB1TP108(5.0)	SOIL	IC	5/9/05	IC	5/11/05					
	BB1TP108(5.0)	C02									

Receiving Remarks:

Archive Remarks:

Form Revised 05/27/1997 -- Page 1 OF 1

ENO RIVER LABS, LLC
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

Lab Proj#: 65087-r1	Samples: 1	TurnAround.: 21 Day(s)
Prod Code: D01012	Matrix.: Soil	Hold Time..: 30 Day(s)
DetectLim: 1 ppt	Type...: B	Start Date.: 05/06/05
	Recvd..: 05/06/05	Ship By....: 05/25/05
		DWL Due Dt.: 05/19/05

Analyte List.: Tetra - Octa

Method.....: Method 8290: Tetra-Octa		
Client Proj..: Presidio / Baker Beach		
Client.....: Curtis & Tompkins (CUT02)		
P.O. No.....: 179266	Collect Dt/Tm:	05/05/05
Contact.....: Patricia Flynn	Phone.....:	510-486-0900
Proj. Mgr....: Client Services	Fax.....:	510-486-0532
	Sample Origin:	

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA	Prespike Standard:	n/a
	Extraction Exp...:	06/04/05
	EDD(s).....:	A130

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option III

See MILES for Instructions/Communications.

Completed by: _____/ mcr DATE: 5/11/05

Reviewed by: _____/_____ DATE: _____ (PMGT01

ENO RIVER LABS, LLC
Percent Moisture/Solid Calculations
Project: 65087-r1

Sample #	crd	R	Empty Vial.Wt	Wet Vial Weight...	Dry Vial Weight...	Entered.By.....	Date....	Time....	%Moist	%Solid	Valid Weight From.....-To.....	Target Weight...
002		Y	22.7300	0.0000	0.0000	mcdonald	05/11/05	18:42:16	22.7	77.3	12.4191-13.4541	12.9366

Percent Moisture/Solid Summary

TLI.MILES.ID....	TLI.Number..	Client.Id.Number.....	%Moist	%Solid	ExtrctWt	DryWtEqu	RPD..
65087-r1 -002	403-3-1	BB1TP108(5.0)	22.7	77.3	12.990	10.041	

*** End of Report ***

421

Eno River Labs,LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Date: 05/09/05
Time: 20:54

ENO RIVER LABS, LLC
Wet Lab Extraction and Observations
Project: 65087

PRDPERC v4.05
Page: 1

Sample #	crd	TLI_Number..	Customer.Sample.Id.....	Init. pH...	NaOH Adj. mL..	pH.1.	H2SO4 Adj. mL...	pH.2.	Appearance.	Color.....	Odor...	Vol.	Cl2	Entered.By.....	Date....	Time....	S
002		403-3-1	BB1TP108(5.0)	n/a	n/a	n/a	n/a	n/a	SOIL	BROWN	NO	0	n/	MIMS	05/09	20:48	F

*** End of Report ***

422

Extraction

Type: Soxhlet / RapidScreen / Sep Funnel / Cont LL / (ASE) / Waste Diln. / SPE / Sonication / Tumbler / Food Oil Oil Column

S.O.P: 261 Version: 4

Solvent / Solution	Lot Number / ID
3:1 Tol:Ace:Hex	ESPL2-9-1

For Waters, any filtered? No Yes
If Yes, which ones? _____

Comments / Observations: Blank & LCS = preserved Smed Lot # 503-10-841
Obs: All samples in batch = Brown Soil No odor
KH 5/11/05

Concentration

Type: (Rotovap) / KD / Speedvac

Analyst(s)/ Date: KH 5.12-05

S.O.P: 124 Version: 20 Logged in by: KH

Solvent Exchange	Lot Number
Heptane	044758

Tridecane Lot # FT-1-25- 314 F

Division: 50%/50% (____mL / ____mL) % Lipids (5 mL / 20 mL) (None)

Comments / Observations: _____

Cleanup

S.O.P: ESP280 Version: 19 Analyst(s)/ Date: KH 5/12/05
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____

If DSP 280 needed complete the following areas:

Glasswool Lot #: GW-02-_____
Sodium Sulfate Lot #: _____
Acid Coated Silica Gel Lot #: SGA-_____
Heptane Lot#: _____
50g used for: 100g used for:

MeCl2/Hept Solutions
2% ID: CHSPL-23-106 1
20% ID: CHSPL-23-106 2
6% ID:

Comments / Observations: _____

Transfer

Type: Speedvac / N2

Analyst(s)/ Date: KH 5/12/05

S.O.P: 272 Version: 12

Solvent	Lot Number
Heptane	044758
Toluene	034363

Division: 90:10 None

90%/10% for samples: (018) 402-96-64 90:10 Spl-1
(____mL/____mL)

Comments / Observations: 65087 403-3-1 90:10

Method: 8240
Matrix: SOIL
Ext. Date: 05/11/05
Analyst: K.M.

Project-Sample ID / Internal ID			Gross Weight Before	Gross Weight After	Sample Size g / mL	9034N WSF-MS 12/10/05 05/11/05 21:00 0.10 ug/mL 20 uL	8270D WSF-MX 10/07/05 05/11/05 21:04 0.01 ug/mL 40 uL	KT 8999X WSF-C 10/07/05 05/12/05 09:00 0.01 ug/mL 20 uL	/ / / / : ug/mL uL	Chemist Spike # Spike ID " Exp. " Date " Time Concen. Volume
65081 r1	1	BLANK	N/A	N/A	10.00	KM		KT		Any Left ~~Yes / No~~
65081 r1	2	402-96-1A-E	156.83	144.31	12.52			KT		Yes / No
65081 r1	3	402-96-2A-E	157.77	145.11	12.54			KT		Yes / No
65081 r1	4	402-96-3A-E	156.91	144.84	12.08			KT		Yes / No
65081 r1	5	402-96-4A-E	157.17	145.18	12.00			KT		Yes / No
65081 r1	6	402-96-5A-E	156.92	144.16	12.75			KT		Yes / No
65081 r1	7	402-96-6A-E	157.18	144.92	12.27			KT		Yes / No
65081 r1	8	402-96-6AMS	728.54		11.75		KM	KT		Yes / No
65081 r1	9	02-96-6AMSD		705.22	11.62		KM	KT		Yes / No
65081 r1	10	402-96-7A-E	156.38	143.98	12.42			KT		Yes / No
65081 r1	11	402-96-8A-E	157.06	145.09	11.97			KT		Yes / No
65081 r1	12	402-96-9A-E	157.24	144.99	12.25			KT		Yes / No
65081 r1	13	402-96-10A-E	157.35	145.45	11.84			KT		Yes / No
65081 r1	14	402-96-11A-E	158.84	147.16	11.68	KM		KT		Yes / No

Method: 8240
Matrix: Soil
Ext. Date: 05/11/05
Analyst: KM

Project-Sample ID / Internal ID			Gross Weight Before	Gross Weight After	Sample Size (g) / mL					Chemist
						KM	KM	KT		Spike #
						9034N	8998P	8999X		Spike ID
						USF-AHS	USF-MX	USF-C		" Exp.
						12/10/05	10/07/05	10/07/05	/ /	" Date
						05/11/05	05/11/05	05/12/05	/ /	" Time
						21:00	21:04	09:00	:	Concen.
						0.10 ug/mL	0.01 ug/mL	0.01 ug/mL	ug/mL	Volume
						20 uL	40 uL	20 uL	uL	
65081 r1	15	402-96-12A-E	158.14	147.08	11.11	KM		KT		Yes / No
65081 r1	16	402-96-13A-E	156.38	143.83	12.55			KT		Yes / No
65081 r1	17	402-96-14A-E	158.47	146.65	11.84			KT		Yes / No
65081 r1	18	402-96-6A	705.22	693.45	11.75			KT		Yes / No
65081 r1	19	LCS	N/A	N/A	10.00		KM	KT		~~Yes / No~~
65087 r1	2	403-3-1	856.78	843.51	12.99	KM		KT		Yes / No
										Yes / No
										Yes / No
										Yes / No
										Yes / No
										Yes / No
										Yes / No
										Yes / No
										Yes / No

Project-Sample ID / Internal ID			1	2/3	4/7	8	9							
65081 r1	1	BLANK	KJ	KJ 5-12-05	KJ 5-12-05	BJW 5/11/05	BJW 5/18/05							
65081 r1	2	402-96-1A-E												
65081 r1	3	402-96-2A-E												
65081 r1	4	402-96-3A-E												
65081 r1	5	402-96-4A-E												
65081 r1	6	402-96-5A-E												
65081 r1	7	402-96-6A-E												
65081 r1	8	402-96-6AMS												
65081 r1	9	02-96-6AMSD												
65081 r1	10	402-96-7A-E												
65081 r1	11	402-96-8A-E												
65081 r1	12	402-96-9A-E												
65081 r1	13	402-96-10A-E												
65081 r1	14	402-96-11A-E	5/11/05	KJ 5-12-05	KJ 5-12-05	BJW 5/12/05	BJW 5/12/05							

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate {10 mL / 3 mL / Tridecane} 5) Combine
6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup (ESP260 / ESP280 / Alumina 9) Transfer ( ) Other:
___%:____% Carbon / RS / AgNO3 / Copper)

Project-Sample ID / Internal ID			1	2/3	4/5	8	9							
65081 r1	15	402-96-12A-E	K	KJ 5-12-05	KJ 5-12-05	5/12/05	5/12/05							
65081 r1	16	402-96-13A-E												
65081 r1	17	402-96-14A-E												
65081 r1	18	402-96-6A												
65081 r1	19	LCS												
65087 r1	2	403-3-1	5/11/05	KJ 5-12-05	KJ 5-12-05	5/12/05	5/12/05							

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate (10 mL / 3 mL / Tridecane) 5) Combine 6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup (ESP280 / ESP280 / Alumina 9) Transfer ( ) Other: ___ %:___ % Carbon / RS / AgNO3 / Copper)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70P-45	DB225	4919245	TTI	2 µl	DB225	DB225

Signature: Johnson Flynn Date: 5/16/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
P052212	5/16/05	—	—	—	Ending resp lot	—	DSF 5/16/05	—	—	
P052213	5/18/05	13:51	—	9038A	RTCHK	21%	DSF 5/18/05	1	DSF 5/19/05	
14		14:36	—	9004C	8290/1613 Coweal 10	1.4 E6		2		Good all outputs. DSF 5/18/05
15		15:21	—	9033N	RS-100	2.1 E6		3		
16		16:06	G5027F	402-42-102	F05-474	8.1 E5		4		
17		16:52		-103	-475	1.2 E6		5		
18		17:37		-104	-476	8.4 E5		6		
19		18:22		-105	-477	9.4 E5		7		
20		19:07	G5027F	-106	-478	1.0 E6		8		
21		19:53	G5027A-1	402-42-17	F04-368	8.3 E5		9		
22		20:38	G5087-1	403-3-1	BBITP108 (5.0)	4.6 E5		10		
P052223	5/18/05	21:23	—	9004C	8290/1613 Coweal 10	4.8 E5	DSF 5/18/05	11		Good FTB. DSF 5/18/05

427

117 118

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Project Information:

Client Code.:CUT02	Received on.:05/06/05	PO Number...:179266
Quote Ref#..:0500000161	Carrier.....:UP1Z9X31690140404	WorkOrder#..:
Samples In..: 1	Book/Page...: 403/ 3	Contact Name:Patricia Flynn
2nd ShipCode:	Ship OvrRide:	Phone Number:510-486-0900
Ackn OvrRide:	LARS OvrRide:	FAX Number..:510-486-0532
Bill OvrRide:	Temperature.: 3.0 C	ShipTo Name.:Curtis & Tompkins
Partial Ship:	Ship Date...:06/03/05	ShipTo Addr.:2323 5th Street
Dioxin Proj.:	Organic Proj:	ShipTo A L3.:
Metals Proj.:	XAD Project.:	ShipTo C/S/Z:Berkeley, CA 94710
Imported....:N	Sample Orign:	Country.....:
Reg Sls Mgr.:UN	OrderAckSign:N	Cust's ProjN:Presidio / Baker Beach
Intac/Damage:I		Study Id....:

Rcvg Remark1:
Rcvg Remark2:
Rcvg Remark3:

Applicable Agencies:
- Risk Assessment Project

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179384

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB2ASB100(4.0)	179384-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 6/2/05
Operations Manager

Signature: _____ Date: 5/31/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	179384
Client:	Mactec, Inc.
Project:	57255 001 22
Location:	Presidio / Baker Beach
Request Date:	05/11/05
Samples Received:	05/11/05

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 05/11/05. The sample was received on ice and intact.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for benzo(g,h,i)perylene and dibenz(a,h)anthracene in the CCV analyzed 05/12/05 16:09; these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High ICAL percent RSD (relative standard deviation) was observed for methoxychlor in the calibration analyzed 05/02/05 18:37; average ICAL %RSD met method requirements, and this analyte was not detected at or above the RL in the associated sample. High response was observed for methoxychlor in the ICV analyzed 05/12/05 12:27; average ICV drift met method requirements, and this analyte was not detected at or above the RL in the associated sample. Low responses were observed for 4,4'-DDT, endrin aldehyde, and methoxychlor in the ICV analyzed 05/02/05 22:47; average ICV drift met method requirements. High responses were observed for a number of analytes in the CCV analyzed 05/12/05 03:57; average CCV drift met method requirements. High responses were observed for a number of analytes in the CCV analyzed 05/11/05 16:27; average CCV drift met method requirements. Low response was observed for 4,4'-DDT in the CCV analyzed 05/13/05 00:16; average CCV drift met method requirements. Low surrogate recoveries were observed for decachlorobiphenyl and TCMX in the MSD for batch 101914; the parent sample was not a project sample. All other samples and QC in the batch have surrogate recoveries within criteria. All spike recoveries in the MSD were within criteria. No other analytical problems were encountered.

PCBs (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
High recovery was observed for zinc in the MS of BB2ASB100(4.0) (lab # 179384-001); the BS/BSD were within limits. High RPD was also observed for zinc in the MSD of BB2ASB100(4.0) (lab # 179384-001); the RPD was acceptable in the BS/BSD. Response exceeding the instrument's linear range was observed for barium in the MS/MSD of BB2ASB100(4.0) (lab # 179384-001). High % difference was observed for molybdenum in the serial dilution of BB2ASB100(4.0) (lab # 179384-001). A number of analytes were detected between

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	179384
Client:	Mactec, Inc.
Project:	57255 001 22
Location:	Presidio / Baker Beach
Request Date:	05/11/05
Samples Received:	05/11/05

Metals (EPA 6020 and EPA 7471A):
the MDL and the RL in the method blank for batch 102065. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

179384 Seq. No.: № 1410

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255

Name/Location: PRESIDIO SF - BDDA

Project Manager: M A JACOBVITZ Recorder: (Signature Required)

MATRIX				# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED					
Water	Soil	Air		Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	PAH's (8270 SIM)	TPH-MOTOR	PESTICIDES (8081A)	PCBs (8082)	PERCENT MOIST.	
	✓			/						BBZASB100		05	05	09	0848	BBZASB100	(4-4.5')	✓	✓	✓	✓	✓	
																							5

ADDITIONAL INFORMATION

SAMPLE NUMBER YR	SAMPLE NUMBER SEQ	TURNAROUND TIME/ REMARKS
		STANDARD TAT
		RESULTS TO G.A. LIEBERMAN
		707 793 3858
		CT 17200502MP01v2

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
A H HENKE		MACTEC	5/11/05 1253
Received By (Signature)	(Print Name)	(Company)	Date/Time
Tony Rojas	Tony Rojas	CT	5/11/05 1253
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: CT COURIER

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 179384 Date Received: 5/11/05 Number of Coolers: 1
Client: MACTEC Project: Presidio - BBDA

A. Preliminary Examination Phase
Date Opened: 5/11/05 By (print): Peter P. (sign)

1. Did cooler come with a shipping slip (airbill, etc.)? ... YES (NO)
   If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? ... YES (NO)
   How many and where? Seal date: Seal name:
3. Were custody seals unbroken and intact at the date and time of arrival? ... YES NO N/A
4. Were custody papers dry and intact when received? ... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ... (YES) NO
6. Did you sign the custody papers in the appropriate place? ... (YES) NO
7. Was project identifiable from custody papers? ... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ... YES NO
   Type of ice: WET Temperature: On ICE

B. Login Phase
Date Logged In: 5/11/05 By (print): Peter P. (sign)

1. Describe type of packing in cooler: Bubblewrap
2. Did all bottles arrive unbroken? ... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ... (YES) NO
5. Were appropriate containers used for the tests indicated? ... (YES) NO
6. Were correct preservatives added to samples? ... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ... YES NO N/A
9. Was the client contacted concerning this sample delivery? ... YES NO
   If YES, give details below.
   Who was called? By whom? Date:

Additional Comments:

PESTICIDE DATA

(SOIL)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB2ASB100(4.0)	Batch#:	101914
Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	ug/Kg	Prepared:	05/11/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Moisture: 13%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.37
beta-BHC	ND	1.9	0.47
gamma-BHC	ND	1.9	0.41
delta-BHC	ND	1.9	0.38
Heptachlor	ND	1.9	0.55
Aldrin	ND	1.9	0.46
Heptachlor epoxide	ND	1.9	0.57
Endosulfan I	ND	1.9	1.0
Dieldrin	ND	3.7	0.73
4,4'-DDE	ND	3.7	0.60
Endrin	ND	3.7	0.76
Endosulfan II	ND	3.7	1.1
Endosulfan sulfate	ND	3.7	0.88
4,4'-DDD	ND	3.7	0.77
Endrin aldehyde	ND	3.7	0.83
4,4'-DDT	ND #	3.7	1.3
alpha-Chlordane	ND	1.9	0.57
gamma-Chlordane	ND	1.9	0.53
Methoxychlor	ND	19	3.0
Toxaphene	ND	68	14

Surrogate	%REC	Limits
TCMX	83	43-130
Decachlorobiphenyl	73	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293336	Batch#:	101914
Matrix:	Soil	Prepared:	05/11/05
Units:	ug/Kg	Analyzed:	05/11/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.51
beta-BHC	ND	1.7	0.70
gamma-BHC	ND	1.7	0.52
delta-BHC	ND	1.7	0.60
Heptachlor	ND	1.7	0.66
Aldrin	ND	1.7	0.55
Heptachlor epoxide	ND	1.7	0.54
Endosulfan I	ND	1.7	0.77
Dieldrin	ND	3.3	1.3
4,4'-DDE	ND	3.3	1.2
Endrin	ND	3.3	1.6
Endosulfan II	ND	3.3	1.3
Endosulfan sulfate	ND	3.3	1.3
4,4'-DDD	ND	3.3	1.4
Endrin aldehyde	ND	3.3	1.5
4,4'-DDT	ND	3.3	1.6
alpha-Chlordane	ND	1.7	0.63
gamma-Chlordane	ND	1.7	0.56
Methoxychlor	ND	17	7.8
Toxaphene	ND	59	10

Surrogate	%REC	Limits
TCMX	83	43-130
Decachlorobiphenyl	79	43-143

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293337	Batch#:	101914
Matrix:	Soil	Prepared:	05/11/05
Units:	ug/Kg	Analyzed:	05/11/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.30	10.33	78	42-120
Heptachlor	13.30	10.13	76	49-126
Aldrin	13.30	9.873	74	52-120
Dieldrin	26.60	22.49 #	85	40-125
Endrin	26.60	20.64	78	38-135
4,4'-DDT	26.60	18.63	70	43-135

Surrogate	%REC	Limits
TCMX	83	43-130
Decachlorobiphenyl	60	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	101914
MSS Lab ID:	179307-013	Sampled:	05/06/05
Matrix:	Soil	Received:	05/06/05
Units:	ug/Kg	Prepared:	05/11/05
Basis:	as received	Analyzed:	05/12/05
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3620B
Lab ID: QC293338

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.3617	13.25	10.27	78	41-120
Heptachlor	<0.4844	13.25	11.19	85	48-130
Aldrin	<0.4053	13.25	10.55	80	42-126
Dieldrin	<0.6379	26.49	23.13	87	43-128
Endrin	<0.6685	26.49	23.42	88	45-137
4,4'-DDT	<1.168	26.49	22.28 #	84	31-151

Surrogate	%REC	Limits
TCMX	77	43-130
Decachlorobiphenyl	78	43-143

Type: MSD Cleanup Method: EPA 3620B
Lab ID: QC293339

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.33	12.37	93	41-120	18	37
Heptachlor	13.33	12.77	96	48-130	13	43
Aldrin	13.33	12.42	93	42-126	16	36
Dieldrin	26.67	26.99	101	43-128	15	38
Endrin	26.67	26.86	101	45-137	13	39
4,4'-DDT	26.67	24.51 #	92	31-151	9	47

Surrogate	%REC	Limits
TCMX	1 *	43-130
Decachlorobiphenyl	1 *	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	131_018	235189248018	pest_1	11-MAY-2005 23:37	S9
2	131_019	235189248019	pest_2	12-MAY-2005 00:07	S419
3	131_020	235189248020	pest_3	12-MAY-2005 00:37	S420
4	131_022	235189248022	pest_5	12-MAY-2005 01:40	S245
5	131_023	235189248023	pest_6	12-MAY-2005 02:11	S13
6	131_024	235189248024	pest_7	12-MAY-2005 02:41	S14
7	131_035	235189248035	pest_4	12-MAY-2005 10:56	S243

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	2082.4	1886.4	2242.2	3147.0	3178.7	3777.9	2362.0	AVRG	R		3.748E-4		pg	2668.1	**26**	0.995	20	rsd ***
gamma-BHC	A	2051.0	1910.2	2278.1	3161.5	3113.5	3575.8	2424.7	AVRG	R		3.781E-4		pg	2645.0	**24**	0.995	20	rsd ***
beta-BHC	A	1510.8	1337.6	1498.8	1822.6	1675.1	1782.7	1505.5	AVRG	R		6.288E-4		pg	1590.5	11	0.995	20	
delta-BHC	A	1927.8	1703.8	1996.9	2815.6	2895.5	3408.4	2169.9	AVRG	R		4.138E-4		pg	2416.8	**26**	0.995	20	rsd ***
Heptachlor	A	2419.2	2160.3	2493.0	3146.1	2908.4	3135.1	2544.3	AVRG	R		3.722E-4		pg	2686.6	14	0.995	20	
Aldrin	A	2390.1	2127.8	2431.5	3018.4	2880.4	3174.3	2367.5	AVRG	R		3.806E-4		pg	2627.2	15	0.995	20	
Heptachlor epoxide	A	2701.0	2403.2	2727.9	3221.2	2938.5	3031.9	2617.6	AVRG	R		3.564E-4		pg	2805.9	10	0.995	20	
gamma-Chlordane	A	2650.9	2327.5	2682.5	3205.6	2965.6	3125.5	2596.3	AVRG	R		3.580E-4		pg	2793.4	11	0.995	20	
alpha-Chlordane	A	2898.3	2428.7	2794.8	3330.8	3052.8	3164.2	2729.0	AVRG	R		3.432E-4		pg	2914.1	10	0.995	20	
4,4'-DDE	A	2515.5	2193.4	2616.1	3158.4	2871.6	2904.2	2591.6	AVRG	R		3.713E-4		pg	2693.0	12	0.995	20	
Endosulfan I	A	2567.4	2388.1	2724.8	3222.2	2989.2	3121.6	2546.4	AVRG	R		3.579E-4		pg	2794.3	11	0.995	20	
Dieldrin	A	2256.1	2030.8	2438.5	2985.5	2795.8	2872.7	2396.2	AVRG	R		3.938E-4		pg	2539.4	14	0.995	20	
Endrin	A	1890.1	1861.7	2205.4	2752.8	2491.0	2513.1	2225.1	AVRG	R		4.392E-4		pg	2277.0	15	0.995	20	
4,4'-DDD	A	1195.7	1273.3	1540.9	2043.7	1981.8	2124.5	1614.0	AVRG	R		5.945E-4		pg	1682.0	**22**	0.995	20	rsd ***
Endosulfan II	A	2371.3	1999.0	2389.3	2892.0	2614.4	2605.4	2352.9	AVRG	R		4.064E-4		pg	2460.6	11	0.995	20	
4,4'-DDT	A	1581.7	990.79	1267.5	1985.2	1901.3	2096.7	1585.4	AVRG	R		6.136E-4		pg	1629.8	**25**	0.995	20	rsd ***
Endrin aldehyde	A	2358.2	1934.8	2164.5	2327.9	2123.7	2074.6	1919.2	AVRG	R		4.697E-4		pg	2129.0	8	0.995	20	
Methoxychlor	A	759.99	641.93	803.26	1003.0	852.32	809.25	848.54	AVRG	R		0.001224		pg	816.90	13	0.995	20	

12

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2412.1	1923.4	2244.1	2626.6	2344.6	2316.2	2171.0	AVRG	R		4.365E-4		pg	2291.1	9	0.995	20	
TCMX	A	2694.2	2424.4	2778.6	3178.0	2806.1	2851.9	2620.7	AVRG	R		3.617E-4		pg	2764.8	8	0.995	20	
Decachlorobiphenyl	A	3725.6	3140.5	3534.5	3169.0	2793.2	2457.5	2783.3	AVRG	R		3.240E-4		pg	3086.2	14	0.995	20	
alpha-BHC	B	7286.2	6371.6	7169.4	8612.0	7754.6	8163.9	7876.6	AVRG	R		1.315E-4		pg	7604.9	10	0.995	20	
gamma-BHC	B	6893.6	5931.1	6529.3	7685.9	6847.7	7132.7	6931.4	AVRG	R		1.460E-4		pg	6850.2	8	0.995	20	
beta-BHC	B	4587.7	3766.8	3805.6	3996.1	3422.4	3377.3	3732.2	AVRG	R		2.623E-4		pg	3812.6	11	0.995	20	
delta-BHC	B	6891.1	5783.5	6358.2	7651.1	6950.7	7229.7	6847.2	AVRG	R		1.467E-4		pg	6815.9	9	0.995	20	
Heptachlor	B	5703.0	4707.9	5011.4	5613.4	4851.1	4850.5	5274.1	AVRG	R		1.944E-4		pg	5144.5	8	0.995	20	
Aldrin	B	7173.8	6186.8	6629.2	7444.6	6570.9	6602.3	6935.8	AVRG	R		1.472E-4		pg	6791.9	6	0.995	20	
Heptachlor epoxide	B	7824.4	6266.7	6371.4	6672.3	5657.7	5399.8	6095.4	AVRG	R		1.581E-4		pg	6326.8	12	0.995	20	
gamma-Chlordane	B	7431.5	6302.5	6651.6	7252.4	6320.2	6301.6	6744.3	AVRG	R		1.489E-4		pg	6714.9	7	0.995	20	
alpha-Chlordane	B	7577.4	6374.4	6784.7	7269.8	6316.8	6242.1	6840.5	AVRG	R		1.477E-4		pg	6772.2	7	0.995	20	
4,4'-DDE	B	5625.0	4830.0	5488.2	6232.6	5531.5	5472.8	5620.3	AVRG	R		1.804E-4		pg	5542.9	7	0.995	20	
Endosulfan I	B	6938.0	5835.8	6223.1	6466.6	5570.2	5275.5	6078.4	AVRG	R		1.651E-4		pg	6055.4	9	0.995	20	
Dieldrin	B	6049.4	5221.3	5733.8	6302.4	5403.6	5124.9	5776.6	AVRG	R		1.767E-4		pg	5658.9	8	0.995	20	
Endrin	B	4841.8	4319.6	4724.6	5120.7	4354.5	4151.7	4757.7	AVRG	R		2.169E-4		pg	4610.1	7	0.995	20	
4,4'-DDD	B	3929.5	3275.0	3676.3	4214.5	3765.2	3736.3	3633.9	AVRG	R		2.669E-4		pg	3747.2	8	0.995	20	
Endosulfan II	B	6204.2	4953.9	5272.6	5494.5	4640.9	4296.7	5064.6	AVRG	R		1.948E-4		pg	5132.5	12	0.995	20	
4,4'-DDT	B	2889.9	2227.5	2647.5	3194.6	2972.8	2963.3	2744.6	AVRG	R		3.564E-4		pg	2805.8	11	0.995	20	
Endrin aldehyde	B	5168.4	4081.1	4259.2	4285.7	3622.5	3326.7	3933.0	AVRG	R		2.441E-4		pg	4096.7	14	0.995	20	
Methoxychlor	B	1421.3	1053.0	1132.1	1264.8	1050.8	1021.0	1129.1	AVRG	R		8.672E-4		pg	1153.2	12	0.995	20	
Endosulfan sulfate	B	5424.3	4588.1	4817.8	4948.4	4150.6	3852.7	4561.3	AVRG	R		2.164E-4		pg	4620.5	11	0.995	20	
TCMX	B	7094.0	5935.2	6299.4	6635.1	5628.8	5546.3	6596.6	AVRG	R		1.601E-4		pg	6247.9	9	0.995	20	
Decachlorobiphenyl	B	5635.1	4339.3	4437.4	4486.3	3679.1	3500.1	4050.1	AVRG	R		2.323E-4		pg	4303.9	16	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	15	20	
EPA 8081A	B	22	10	20	

13

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :

ICV 235189248038 (131_038) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235189248038	12-MAY-2005	25.000	24.309	pg	-3	15	
gamma-BHC	A	235189248038	12-MAY-2005	25.000	24.358	pg	-3	15	
beta-BHC	A	235189248038	12-MAY-2005	25.000	24.252	pg	-3	15	
delta-BHC	A	235189248038	12-MAY-2005	25.000	24.665	pg	-1	15	
Heptachlor	A	235189248038	12-MAY-2005	25.000	24.685	pg	-1	15	
Aldrin	A	235189248038	12-MAY-2005	25.000	24.137	pg	-3	15	
Heptachlor epoxide	A	235189248038	12-MAY-2005	25.000	24.683	pg	-1	15	
gamma-Chlordane	A	235189248038	12-MAY-2005	25.000	24.097	pg	-4	15	
alpha-Chlordane	A	235189248038	12-MAY-2005	25.000	24.091	pg	-4	15	
4,4'-DDE	A	235189248038	12-MAY-2005	25.000	23.889	pg	-4	15	
Endosulfan I	A	235189248038	12-MAY-2005	25.000	24.343	pg	-3	15	
Dieldrin	A	235189248038	12-MAY-2005	25.000	22.789	pg	-9	15	
Endrin	A	235189248038	12-MAY-2005	25.000	24.889	pg	0	15	
4,4'-DDD	A	235189248038	12-MAY-2005	25.000	24.002	pg	-4	15	
Endosulfan II	A	235189248038	12-MAY-2005	25.000	24.553	pg	-2	15	
4,4'-DDT	A	235189248038	12-MAY-2005	25.000	21.247	pg	-15	15	
Endrin aldehyde	A	235189248038	12-MAY-2005	25.000	25.221	pg	1	15	
Methoxychlor	A	235189248038	12-MAY-2005	25.000	25.561	pg	2	15	
Endosulfan sulfate	A	235189248038	12-MAY-2005	25.000	25.127	pg	1	15	
alpha-BHC	B	235189248038	12-MAY-2005	25.000	24.154	pg	-3	15	
gamma-BHC	B	235189248038	12-MAY-2005	25.000	23.525	pg	-6	15	
beta-BHC	B	235189248038	12-MAY-2005	25.000	22.593	pg	-10	15	
delta-BHC	B	235189248038	12-MAY-2005	25.000	24.323	pg	-3	15	
Heptachlor	B	235189248038	12-MAY-2005	25.000	23.600	pg	-6	15	
Aldrin	B	235189248038	12-MAY-2005	25.000	23.553	pg	-6	15	
Heptachlor epoxide	B	235189248038	12-MAY-2005	25.000	22.972	pg	-8	15	
gamma-Chlordane	B	235189248038	12-MAY-2005	25.000	23.049	pg	-8	15	
alpha-Chlordane	B	235189248038	12-MAY-2005	25.000	23.099	pg	-8	15	
4,4'-DDE	B	235189248038	12-MAY-2005	25.000	24.373	pg	-3	15	
Endosulfan I	B	235189248038	12-MAY-2005	25.000	23.527	pg	-6	15	
Dieldrin	B	235189248038	12-MAY-2005	25.000	24.523	pg	-2	15	
Endrin	B	235189248038	12-MAY-2005	25.000	25.642	pg	3	15	
4,4'-DDD	B	235189248038	12-MAY-2005	25.000	25.275	pg	1	15	
Endosulfan II	B	235189248038	12-MAY-2005	25.000	25.327	pg	1	15	
4,4'-DDT	B	235189248038	12-MAY-2005	25.000	22.084	pg	-12	15	
Endrin aldehyde	B	235189248038	12-MAY-2005	25.000	25.929	pg	4	15	
Methoxychlor	B	235189248038	12-MAY-2005	25.000	32.605	pg	30	15	v+ ***
Endosulfan sulfate	B	235189248038	12-MAY-2005	25.000	26.209	pg	5	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	3	15	
EPA 8081A	B	20	6	15	

+=high bias v=ICV
Page 1 of 1

INITIAL CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805176351001 Name: Type: (normal) Date: 02-MAY-2005 18:37 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	122_017	805176351017	pest_1	02-MAY-2005 18:37	S9
2	122_018	805176351018	pest_2	02-MAY-2005 19:04	S10
3	122_019	805176351019	pest_3	02-MAY-2005 19:32	S11
4	122_020	805176351020	pest_4	02-MAY-2005 20:00	S243
5	122_021	805176351021	pest_5	02-MAY-2005 20:28	S245
6	122_022	805176351022	pest_6	02-MAY-2005 20:56	S13

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	40519	40967	44819	52925	55358	56722	AVRG	R		2.060E-5		pg	48552	15	0.995	20	
gamma-BHC	A	40046	38515	40110	46354	48607	52237	AVRG	R		2.257E-5		pg	44312	13	0.995	20	
beta-BHC	A	19807	16050	15487	15216	15695	17085	AVRG	R		6.040E-5		pg	16557	10	0.995	20	
delta-BHC	A	42599	37985	40068	46110	49000	51446	AVRG	R		2.245E-5		pg	44535	12	0.995	20	
Heptachlor	A	34316	31988	34184	38521	40649	45900	AVRG	R		2.660E-5		pg	37593	14	0.995	20	
Aldrin	A	32034	30924	33199	36133	38354	43268	AVRG	R		2.805E-5		pg	35652	13	0.995	20	
Heptachlor epoxide	A	29462	26312	29183	30692	33121	35990	AVRG	R		3.247E-5		pg	30793	11	0.995	20	
gamma-Chlordane	A	28183	25576	28822	30039	32817	36199	AVRG	R		3.303E-5		pg	30273	12	0.995	20	
alpha-Chlordane	A	27688	24674	28065	28611	31483	33905	AVRG	R		3.440E-5		pg	29071	11	0.995	20	
4,4'-DDE	A	24843	24174	30949	33207	38551	27690	AVRG	R		3.344E-5		pg	29902	18	0.995	20	
Endosulfan I	A	24998	23780	27430	26587	29148	31841	AVRG	R		3.663E-5		pg	27297	11	0.995	20	
Dieldrin	A	27580	25793	31800	35341	40329	29557	AVRG	R		3.151E-5		pg	31733	17	0.995	20	
Endrin	A	22753	20790	23932	26656	30222	26740	AVRG	R		3.971E-5		pg	25182	13	0.995	20	
4,4'-DDD	A	21144	19216	22551	24488	28630	24982	AVRG	R		4.255E-5		pg	23502	14	0.995	20	
Endosulfan II	A	23151	21012	24720	27149	30713	26914	AVRG	R		3.905E-5		pg	25610	13	0.995	20	
4,4'-DDT	A	20147	16774	20649	23301	27292	24496	AVRG	R		4.523E-5		pg	22110	17	0.995	20	
Endrin aldehyde	A	22340	16662	18911	19264	21391	22306	AVRG	R		4.964E-5		pg	20146	11	0.995	20	
Methoxychlor	A	8388.2	7506.6	10345	11241	10485	6363.4	AVRG	R		1.104E-4		pg	9055.0	**21**	0.995	20	rsd ***
Endosulfan sulfate	A	19130	17410	19604	21397	23427	23281	AVRG	R		4.829E-5		pg	20708	12	0.995	20	

15

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805176351001 Name: Type: (normal) Date: 02-MAY-2005 18:37 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
TCMX	A	27401	28126	30138	35490	36753	34399	AVRG	R		3.120E-5		pg	32051	12	0.995	20	
Decachlorobiphenyl	A	11227	10083	11418	12264	12836	12319	AVRG	R		8.554E-5		pg	11691	8	0.995	20	
alpha-BHC	B	30255	27227	28652	32022	33208	43582	AVRG	R		3.078E-5		pg	32491	18	0.995	20	
gamma-BHC	B	27993	24601	26021	27686	28843	38934	AVRG	R		3.447E-5		pg	29013	18	0.995	20	
beta-BHC	B	12213	10335	10536	10381	10085	10722	AVRG	R		9.335E-5		pg	10712	7	0.995	20	
delta-BHC	B	27067	24108	25589	27788	28474	38519	AVRG	R		3.498E-5		pg	28591	18	0.995	20	
Heptachlor	B	20179	17588	18237	19878	19821	26175	AVRG	R		4.923E-5		pg	20313	15	0.995	20	
Aldrin	B	24906	19824	21397	22351	21582	28854	AVRG	R		4.319E-5		pg	23152	14	0.995	20	
Heptachlor epoxide	B	22783	17480	19015	19530	18875	24004	AVRG	R		4.931E-5		pg	20281	12	0.995	20	
gamma-Chlordane	B	22171	17100	18927	19636	18742	24565	AVRG	R		4.953E-5		pg	20190	13	0.995	20	
alpha-Chlordane	B	21033	16858	18545	19062	17798	23279	AVRG	R		5.147E-5		pg	19429	12	0.995	20	
4,4'-DDE	B	19815	15620	18467	22126	22026	24270	AVRG	R		4.905E-5		pg	20387	15	0.995	20	
Endosulfan I	B	20322	15896	17350	17750	16635	20884	AVRG	R		5.513E-5		pg	18140	11	0.995	20	
Dieldrin	B	20129	16304	19031	22419	22288	25179	AVRG	R		4.787E-5		pg	20892	15	0.995	20	
Endrin	B	14257	10682	12179	12907	13729	20951	AVRG	R		7.083E-5		pg	14117	**25**	0.995	20	rsd ***
4,4'-DDD	B	16409	13147	14902	16632	16157	21490	AVRG	R		6.077E-5		pg	16456	17	0.995	20	
Endosulfan II	B	17382	13739	15389	17808	17333	22649	AVRG	R		5.753E-5		pg	17384	17	0.995	20	
4,4'-DDT	B	12330	9190.8	11090	13056	13283	19727	AVRG	R		7.626E-5		pg	13113	**27**	0.995	20	rsd ***
Endrin aldehyde	B	15947	11602	12547	12964	12478	16761	AVRG	R		7.290E-5		pg	13717	15	0.995	20	
Methoxychlor	B	4437.4	3347.8	4245.0	5572.8	5902.1	5485.1	AVRG	R		2.070E-4		pg	4831.7	20	0.995	20	
Endosulfan sulfate	B	15040	11410	12594	13008	12909	18000	AVRG	R		7.232E-5		pg	13827	17	0.995	20	
TCMX	B	20391	18496	19366	21839	22622	26770	AVRG	R		4.634E-5		pg	21581	14	0.995	20	
Decachlorobiphenyl	B	10070	7295.1	8217.9	7107.6	7048.3	10312	AVRG	R		1.199E-4		pg	8341.7	18	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	13	20	
EPA 8081A	B	22	16	20	

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805176351001 Caldate : 02-MAY-2005 Caltype :

ICV 805176351026 (122_026) standards: S371

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max		
alpha-BHC	A	805176351026	02-MAY-2005	25.000	25.600	pg	2	15		
gamma-BHC	A	805176351026	02-MAY-2005	25.000	24.319	pg	-3	15		
beta-BHC	A	805176351026	02-MAY-2005	25.000	21.179	pg	-15	15		
delta-BHC	A	805176351026	02-MAY-2005	25.000	25.139	pg	1	15		
Heptachlor	A	805176351026	02-MAY-2005	25.000	24.358	pg	-3	15		
Aldrin	A	805176351026	02-MAY-2005	25.000	23.774	pg	-5	15		
Heptachlor epoxide	A	805176351026	02-MAY-2005	25.000	23.753	pg	-5	15		
gamma-Chlordane	A	805176351026	02-MAY-2005	25.000	23.225	pg	-7	15		
alpha-Chlordane	A	805176351026	02-MAY-2005	25.000	23.115	pg	-8	15		
4,4'-DDE	A	805176351026	02-MAY-2005	25.000	21.840	pg	-13	15		
Endosulfan I	A	805176351026	02-MAY-2005	25.000	23.033	pg	-8	15		
Dieldrin	A	805176351026	02-MAY-2005	25.000	21.382	pg	-14	15		
Endrin	A	805176351026	02-MAY-2005	25.000	21.526	pg	-14	15		
4,4'-DDD	A	805176351026	02-MAY-2005	25.000	21.481	pg	-14	15		
Endosulfan II	A	805176351026	02-MAY-2005	25.000	21.205	pg	-15	15		
4,4'-DDT	A	805176351026	02-MAY-2005	25.000	19.685	pg	**-21**	15	v-	***
Endrin aldehyde	A	805176351026	02-MAY-2005	25.000	20.064	pg	**-20**	15	v-	***
Methoxychlor	A	805176351026	02-MAY-2005	25.000	20.198	pg	**-19**	15	v-	***
Endosulfan sulfate	A	805176351026	02-MAY-2005	25.000	21.164	pg	-15	15		
alpha-BHC	B	805176351026	02-MAY-2005	25.000	25.026	pg	0	15		
gamma-BHC	B	805176351026	02-MAY-2005	25.000	24.334	pg	-3	15		
beta-BHC	B	805176351026	02-MAY-2005	25.000	23.583	pg	-6	15		
delta-BHC	B	805176351026	02-MAY-2005	25.000	25.576	pg	2	15		
Heptachlor	B	805176351026	02-MAY-2005	25.000	23.757	pg	-5	15		
Aldrin	B	805176351026	02-MAY-2005	25.000	24.430	pg	-2	15		
Heptachlor epoxide	B	805176351026	02-MAY-2005	25.000	24.187	pg	-3	15		
gamma-Chlordane	B	805176351026	02-MAY-2005	25.000	23.696	pg	-5	15		
alpha-Chlordane	B	805176351026	02-MAY-2005	25.000	24.297	pg	-3	15		
4,4'-DDE	B	805176351026	02-MAY-2005	25.000	23.149	pg	-7	15		
Endosulfan I	B	805176351026	02-MAY-2005	25.000	24.489	pg	-2	15		
Dieldrin	B	805176351026	02-MAY-2005	25.000	22.083	pg	-12	15		
Endrin	B	805176351026	02-MAY-2005	25.000	22.067	pg	-12	15		
4,4'-DDD	B	805176351026	02-MAY-2005	25.000	23.240	pg	-7	15		
Endosulfan II	B	805176351026	02-MAY-2005	25.000	22.797	pg	-9	15		
4,4'-DDT	B	805176351026	02-MAY-2005	25.000	20.894	pg	**-16**	15	v-	***
Endrin aldehyde	B	805176351026	02-MAY-2005	25.000	23.771	pg	-5	15		
Methoxychlor	B	805176351026	02-MAY-2005	25.000	22.398	pg	-10	15		
Endosulfan sulfate	B	805176351026	02-MAY-2005	25.000	23.049	pg	-8	15		

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	11	15	
EPA 8081A	B	20	6	15	

-=low bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235189248042 Run Name: Injected: 12-MAY-2005 14:33
Filename: 131_042 Standard(s): S306

Analyte	Ch	Area
Endrin	A	116245.27
Endrin aldehyde	A	3992.69
Endrin ketone	A	4419.51

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	182799.5
4,4'-DDE	A	1186.69
4,4'-DDD	A	4772.9

4,4'-DDT Breakdown %: 3
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	223522.67
Endrin aldehyde	B	10544.29
Endrin ketone	B	10961.87

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	304212.67
4,4'-DDE	B	4218.25
4,4'-DDD	B	15190.27

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235189248057 Run Name: Injected: 12-MAY-2005 23:46
Filename: 131_057 Standard(s): S306

Analyte	Ch	Area
Endrin	A	110671.51
Endrin aldehyde	A	2948.94
Endrin ketone	A	4192.75

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	165029.66
4,4'-DDE	A	998.29
4,4'-DDD	A	5068.59

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	208893.94
Endrin aldehyde	B	7458.23
Endrin ketone	B	10423.75

Endrin Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	266711.55
4,4'-DDE	B	3372.91
4,4'-DDD	B	20009.11

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805189257014 Run Name: Injected: 11-MAY-2005 21:27
Filename: 131_014 Standard(s): S306

Analyte	Ch	Area
Endrin	A	1260366.24
Endrin aldehyde	A	93582.31
Endrin ketone	A	107968.98

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	2523799.53
4,4'-DDE	A	29374.28
4,4'-DDD	A	157176.95

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	571396.76
Endrin aldehyde	B	80052.22
Endrin ketone	B	97568.24

Endrin Breakdown %: **24 P *****
Breakdown Limit %: 15

Ch. A used

mcw 5/20/05

Analyte	Ch	Area
4,4'-DDT	B	1612416.9
4,4'-DDE	B	10059.25
4,4'-DDD	B	137454.29

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

P=PEM failure
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805189257027 Run Name: Injected: 12-MAY-2005 03:29
Filename: 131_027 Standard(s): S306

Analyte	Ch	Area
Endrin	A	1205501.49
Endrin aldehyde	A	67814
Endrin ketone	A	92497.72

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	2437572.94
4,4'-DDE	A	8536.8
4,4'-DDD	A	130830.98

4,4'-DDT Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	589103.16
Endrin aldehyde	B	72969.77
Endrin ketone	B	102518.88

Endrin Breakdown %: **23 P *****
Breakdown Limit %: 15

Ch. A used

mcw 5/20/05

Analyte	Ch	Area
4,4'-DDT	B	1536457.25
4,4'-DDE	B	9333
4,4'-DDD	B	148165.54

4,4'-DDT Breakdown %: 9
Breakdown Limit %: 15

P=PEM failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235189248043 Filename : 131_043 Injected : 12-MAY-2005 15:04
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S243

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2422.4	20.00000	18.15847	pg	-9	15	rsd ***
gamma-BHC	A	2645.0	2470.1	20.00000	18.67748	pg	-7	15	rsd ***
beta-BHC	A	1590.5	1491.9	20.00000	18.76041	pg	-6	15	
delta-BHC	A	2416.8	2114.5	20.00000	17.49846	pg	-13	15	rsd ***
Heptachlor	A	2686.6	2545.7	20.00000	18.95102	pg	-5	15	
Aldrin	A	2627.2	2412.9	20.00000	18.36870	pg	-8	15	
Heptachlor epoxide	A	2805.9	2628.8	20.00000	18.73730	pg	-6	15	
gamma-Chlordane	A	2793.4	2584.0	20.00000	18.50055	pg	-7	15	
alpha-Chlordane	A	2914.1	2678.8	20.00000	18.38489	pg	-8	15	
4,4'-DDE	A	2693.0	2485.2	40.00000	36.91439	pg	-8	15	
Endosulfan I	A	2794.3	2580.3	20.00000	18.46845	pg	-8	15	
Dieldrin	A	2539.4	2346.4	40.00000	36.96091	pg	-8	15	
Endrin	A	2277.0	2158.8	40.00000	37.92217	pg	-5	15	
4,4'-DDD	A	1682.0	1554.9	40.00000	36.97753	pg	-8	15	rsd ***
Endosulfan II	A	2460.6	2327.3	40.00000	37.83262	pg	-5	15	
4,4'-DDT	A	1629.8	1424.6	40.00000	34.96264	pg	-13	15	rsd ***
Endrin aldehyde	A	2129.0	1949.0	40.00000	36.61822	pg	-8	15	
Methoxychlor	A	816.90	805.55	200.0000	197.2229	pg	-1	15	
Endosulfan sulfate	A	2291.1	2130.6	40.00000	37.19717	pg	-7	15	
TCMX	A	2764.8	2685.1	40.00000	38.84588	pg	-3	15	
Decachlorobiphenyl	A	3086.2	2809.1	40.00000	36.40787	pg	-9	15	
alpha-BHC	B	7604.9	7322.7	20.00000	19.25795	pg	-4	15	
gamma-BHC	B	6850.2	6563.4	20.00000	19.16251	pg	-4	15	
beta-BHC	B	3812.6	3524.2	20.00000	18.48717	pg	-8	15	
delta-BHC	B	6815.9	6359.7	20.00000	18.66137	pg	-7	15	
Heptachlor	B	5144.5	4877.9	20.00000	18.96344	pg	-5	15	
Aldrin	B	6791.9	6370.3	20.00000	18.75860	pg	-6	15	
Heptachlor epoxide	B	6326.8	5812.1	20.00000	18.37302	pg	-8	15	
gamma-Chlordane	B	6714.9	6179.7	20.00000	18.40593	pg	-8	15	
alpha-Chlordane	B	6772.2	6238.4	20.00000	18.42341	pg	-8	15	
4,4'-DDE	B	5542.9	5214.0	40.00000	37.62636	pg	-6	15	
Endosulfan I	B	6055.4	5629.3	20.00000	18.59289	pg	-7	15	
Dieldrin	B	5658.9	5399.8	40.00000	38.16912	pg	-5	15	
Endrin	B	4610.1	4297.6	40.00000	37.28860	pg	-7	15	
4,4'-DDD	B	3747.2	3523.2	40.00000	37.60874	pg	-6	15	
Endosulfan II	B	5132.5	4745.4	40.00000	36.98292	pg	-8	15	
4,4'-DDT	B	2805.8	2637.0	40.00000	37.59464	pg	-6	15	
Endrin aldehyde	B	4096.7	3697.4	40.00000	36.10164	pg	-10	15	
Methoxychlor	B	1153.2	1067.3	200.0000	185.1007	pg	-7	15	
Endosulfan sulfate	B	4620.5	4302.2	40.00000	37.24485	pg	-7	15	
TCMX	B	6247.9	5921.9	40.00000	37.91269	pg	-5	15	
Decachlorobiphenyl	B	4303.9	3799.9	40.00000	35.31595	pg	-12	15	
Average EPA 8081A	A		(count=22)				7	15	
Average EPA 8081A	B		(count=22)				7	15	

rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235189248058 Filename : 131_058 Injected : 13-MAY-2005 00:16
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2246.1	10.00000	8.418530	pg	**-16**	15	c- rsd ***
gamma-BHC	A	2645.0	2300.4	10.00000	8.697284	pg	-13	15	rsd ***
beta-BHC	A	1590.5	1521.1	10.00000	9.564079	pg	-4	15	
delta-BHC	A	2416.8	2026.9	10.00000	8.386445	pg	**-16**	15	c- rsd ***
Heptachlor	A	2686.6	2478.8	10.00000	9.226530	pg	-8	15	
Aldrin	A	2627.2	2463.6	10.00000	9.377287	pg	-6	15	
Heptachlor epoxide	A	2805.9	2799.8	10.00000	9.978169	pg	0	15	
gamma-Chlordane	A	2793.4	2753.5	10.00000	9.856957	pg	-1	15	
alpha-Chlordane	A	2914.1	2859.4	10.00000	9.812432	pg	-2	15	
4,4'-DDE	A	2693.0	2664.8	20.00000	19.79084	pg	-1	15	
Endosulfan I	A	2794.3	2831.3	10.00000	10.13253	pg	1	15	
Dieldrin	A	2539.4	2513.6	20.00000	19.79727	pg	-1	15	
Endrin	A	2277.0	2193.3	20.00000	19.26423	pg	-4	15	
4,4'-DDD	A	1682.0	1766.6	20.00000	21.00590	pg	5	15	rsd ***
Endosulfan II	A	2460.6	2504.4	20.00000	20.35613	pg	2	15	
4,4'-DDT	A	1629.8	1163.8	20.00000	14.28168	pg	**-29**	15	c- rsd ***
Endrin aldehyde	A	2129.0	2273.1	20.00000	21.35361	pg	7	15	
Methoxychlor	A	816.90	766.56	100.0000	93.83835	pg	-6	15	
Endosulfan sulfate	A	2291.1	2372.7	20.00000	20.71231	pg	4	15	
TCMX	A	2764.8	2750.8	20.00000	19.89857	pg	-1	15	
Decachlorobiphenyl	A	3086.2	3666.8	20.00000	23.76234	pg	**19**	15	c+
alpha-BHC	B	7604.9	7269.6	10.00000	9.559160	pg	-4	15	
gamma-BHC	B	6850.2	6713.4	10.00000	9.800265	pg	-2	15	
beta-BHC	B	3812.6	3910.7	10.00000	10.25730	pg	3	15	
delta-BHC	B	6815.9	6562.4	10.00000	9.628046	pg	-4	15	
Heptachlor	B	5144.5	5058.2	10.00000	9.832191	pg	-2	15	
Aldrin	B	6791.9	6717.3	10.00000	9.890168	pg	-1	15	
Heptachlor epoxide	B	6326.8	6509.5	10.00000	10.28871	pg	3	15	
gamma-Chlordane	B	6714.9	6837.4	10.00000	10.18248	pg	2	15	
alpha-Chlordane	B	6772.2	6905.3	10.00000	10.19654	pg	2	15	
4,4'-DDE	B	5542.9	5685.4	20.00000	20.51413	pg	3	15	
Endosulfan I	B	6055.4	6265.7	10.00000	10.34739	pg	3	15	
Dieldrin	B	5658.9	5922.2	20.00000	20.93078	pg	5	15	
Endrin	B	4610.1	4632.2	20.00000	20.09581	pg	0	15	
4,4'-DDD	B	3747.2	4189.2	20.00000	22.35882	pg	12	15	
Endosulfan II	B	5132.5	5471.7	20.00000	21.32200	pg	7	15	
4,4'-DDT	B	2805.8	2367.9	20.00000	16.87884	pg	**-16**	15	c- ***
Endrin aldehyde	B	4096.7	4432.3	20.00000	21.63863	pg	8	15	
Methoxychlor	B	1153.2	1091.8	100.0000	94.67990	pg	-5	15	
Endosulfan sulfate	B	4620.5	5021.3	20.00000	21.73506	pg	9	15	
TCMX	B	6247.9	6262.5	20.00000	20.04668	pg	0	15	
Decachlorobiphenyl	B	4303.9	4691.7	20.00000	21.80184	pg	9	15	
Average EPA 8081A	A		(count=22)				7	15	
Average EPA 8081A	B		(count=22)				5	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805189257013 Filename : 131_013 Injected : 11-MAY-2005 16:27
Calnum : 805176351001 Caldate : 02-MAY-2005 Caltype :
Standards: S243

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	48552	53806	20.00000	22.16458	pg	11	15	
gamma-BHC	A	44312	47431	20.00000	21.40791	pg	7	15	
beta-BHC	A	16557	16010	20.00000	19.33996	pg	-3	15	
delta-BHC	A	44535	48234	20.00000	21.66150	pg	8	15	
Heptachlor	A	37593	39106	20.00000	20.80481	pg	4	15	
Aldrin	A	35652	38673	20.00000	21.69455	pg	8	15	
Heptachlor epoxide	A	30793	33485	20.00000	21.74807	pg	9	15	
gamma-Chlordane	A	30273	33021	20.00000	21.81596	pg	9	15	
alpha-Chlordane	A	29071	32077	20.00000	22.06830	pg	10	15	
4,4'-DDE	A	29902	36278	40.00000	48.52927	pg	21	15	c+ ***
Endosulfan I	A	27297	29830	20.00000	21.85590	pg	9	15	
Dieldrin	A	31733	38124	40.00000	48.05541	pg	20	15	c+ ***
Endrin	A	25182	27287	40.00000	43.34291	pg	8	15	
4,4'-DDD	A	23502	27606	40.00000	46.98506	pg	17	15	c+ ***
Endosulfan II	A	25610	29219	40.00000	45.63650	pg	14	15	
4,4'-DDT	A	22110	22810	40.00000	41.26679	pg	3	15	
Endrin aldehyde	A	20146	18240	40.00000	36.21651	pg	-9	15	
Methoxychlor	A	9055.0	11001	200.0000	242.9800	pg	21	15	c+ rsd ***
Endosulfan sulfate	A	20708	22273	40.00000	43.02334	pg	8	15	
TCMX	A	32051	35171	40.00000	43.89406	pg	10	15	
Decachlorobiphenyl	A	11691	11277	40.00000	38.58416	pg	-4	15	
alpha-BHC	B	32491	31081	20.00000	19.13216	pg	-4	15	
gamma-BHC	B	29013	27258	20.00000	18.79023	pg	-6	15	
beta-BHC	B	10712	10369	20.00000	19.35856	pg	-3	15	
delta-BHC	B	28591	27773	20.00000	19.42816	pg	-3	15	
Heptachlor	B	20313	20461	20.00000	20.14535	pg	1	15	
Aldrin	B	23152	22625	20.00000	19.54408	pg	-2	15	
Heptachlor epoxide	B	20281	19879	20.00000	19.60395	pg	-2	15	
gamma-Chlordane	B	20190	19914	20.00000	19.72605	pg	-1	15	
alpha-Chlordane	B	19429	19009	20.00000	19.56799	pg	-2	15	
4,4'-DDE	B	20387	22412	40.00000	43.97135	pg	10	15	
Endosulfan I	B	18140	17623	20.00000	19.42999	pg	-3	15	
Dieldrin	B	20892	22880	40.00000	43.80632	pg	10	15	
Endrin	B	14117	14892	40.00000	42.19422	pg	5	15	rsd ***
4,4'-DDD	B	16456	17500	40.00000	42.53707	pg	6	15	
Endosulfan II	B	17384	18039	40.00000	41.50913	pg	4	15	
4,4'-DDT	B	13113	12220	40.00000	37.27463	pg	-7	15	rsd ***
Endrin aldehyde	B	13717	12334	40.00000	35.96868	pg	-10	15	
Methoxychlor	B	4831.7	5968.6	200.0000	247.0604	pg	24	15	c+ ***
Endosulfan sulfate	B	13827	13493	40.00000	39.03582	pg	-2	15	
TCMX	B	21581	20115	40.00000	37.28441	pg	-7	15	
Decachlorobiphenyl	B	8341.7	7589.0	40.00000	36.39029	pg	-9	15	
Average EPA 8081A	A		(count=22)				10	15	
Average EPA 8081A	B		(count=22)				6	15	

+=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_5 IDF : 1.0
Seqnum : 805189257028 Filename : 131_028 Injected : 12-MAY-2005 03:57
Calnum : 805176351001 Caldate : 02-MAY-2005 Caltype :
Standards: S245

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	48552	57510	25.00000	29.61283	pg	**18**	15	c+ ***
gamma-BHC	A	44312	50212	25.00000	28.32873	pg	13	15	
beta-BHC	A	16557	15957	25.00000	24.09452	pg	-4	15	
delta-BHC	A	44535	49945	25.00000	28.03730	pg	12	15	
Heptachlor	A	37593	41393	25.00000	27.52664	pg	10	15	
Aldrin	A	35652	40416	25.00000	28.34038	pg	13	15	
Heptachlor epoxide	A	30793	34570	25.00000	28.06673	pg	12	15	
gamma-Chlordane	A	30273	34027	25.00000	28.10016	pg	12	15	
alpha-Chlordane	A	29071	32689	25.00000	28.11152	pg	12	15	
4,4'-DDE	A	29902	39231	50.00000	65.59929	pg	**31**	15	c+ ***
Endosulfan I	A	27297	31447	25.00000	28.80073	pg	15	15	
Dieldrin	A	31733	41399	50.00000	65.22917	pg	**30**	15	c+ ***
Endrin	A	25182	28721	50.00000	57.02596	pg	14	15	
4,4'-DDD	A	23502	29682	50.00000	63.14855	pg	**26**	15	c+ ***
Endosulfan II	A	25610	31097	50.00000	60.71260	pg	**21**	15	c+ ***
4,4'-DDT	A	22110	24224	50.00000	54.78080	pg	10	15	
Endrin aldehyde	A	20146	19673	50.00000	48.82635	pg	-2	15	
Methoxychlor	A	9055.0	10067	250.0000	277.9267	pg	11	15	rsd ***
Endosulfan sulfate	A	20708	22785	50.00000	55.01346	pg	10	15	
TCMX	A	32051	38055	50.00000	59.36589	pg	**19**	15	c+
Decachlorobiphenyl	A	11691	11436	50.00000	48.90703	pg	-2	15	
alpha-BHC	B	32491	34648	25.00000	26.65952	pg	7	15	
gamma-BHC	B	29013	30561	25.00000	26.33413	pg	5	15	
beta-BHC	B	10712	10649	25.00000	24.85196	pg	-1	15	
delta-BHC	B	28591	30824	25.00000	26.95275	pg	8	15	
Heptachlor	B	20313	22333	25.00000	27.48603	pg	10	15	
Aldrin	B	23152	24629	25.00000	26.59391	pg	6	15	
Heptachlor epoxide	B	20281	21245	25.00000	26.18810	pg	5	15	
gamma-Chlordane	B	20190	21104	25.00000	26.13120	pg	5	15	
alpha-Chlordane	B	19429	20454	25.00000	26.31868	pg	5	15	
4,4'-DDE	B	20387	25053	50.00000	61.44188	pg	**23**	15	c+ ***
Endosulfan I	B	18140	18759	25.00000	25.85425	pg	3	15	
Dieldrin	B	20892	25601	50.00000	61.26995	pg	**23**	15	c+ ***
Endrin	B	14117	15684	50.00000	55.54981	pg	11	15	rsd ***
4,4'-DDD	B	16456	18643	50.00000	56.64437	pg	13	15	
Endosulfan II	B	17384	19173	50.00000	55.14767	pg	10	15	
4,4'-DDT	B	13113	13052	50.00000	49.76871	pg	0	15	rsd ***
Endrin aldehyde	B	13717	13163	50.00000	47.98264	pg	-4	15	
Methoxychlor	B	4831.7	6768.1	250.0000	350.1911	pg	**40**	15	c+ ***
Endosulfan sulfate	B	13827	14015	50.00000	50.67987	pg	1	15	
TCMX	B	21581	22586	50.00000	52.32862	pg	5	15	
Decachlorobiphenyl	B	8341.7	7233.9	50.00000	43.35978	pg	-13	15	
Average EPA 8081A	A		(count=22)				15	15	
Average EPA 8081A	B		(count=22)				9	15	

+=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805176351 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
004	122_004	PEM				02-MAY-2005 10:43	1.0	1.0		1	1	1:DDT44=105.283
005	122_005	X	pest_4			02-MAY-2005 11:11	1.0				2	
006	122_006	X	ccv			02-MAY-2005 11:38	1.0				2	
014	122_014	X	hex			02-MAY-2005 17:14	1.0					
015	122_015	X	pem			02-MAY-2005 17:41	1.0	1.0		1	1	
017	122_017	ICAL	pest_1			02-MAY-2005 18:37	1.0	1.0			3	
018	122_018	ICAL	pest_2			02-MAY-2005 19:04	1.0	1.0			4	
019	122_019	ICAL	pest_3			02-MAY-2005 19:32	1.0	1.0			5	
020	122_020	ICAL	pest_4			02-MAY-2005 20:00	1.0	1.0			2	
021	122_021	ICAL	pest_5			02-MAY-2005 20:28	1.0	1.0			6	
022	122_022	ICAL	pest_6			02-MAY-2005 20:56	1.0	1.0			7	
023	122_023	ICAL	pest_7			02-MAY-2005 21:23	1.0				8	
025	122_025	X	icv			02-MAY-2005 22:19	1.0				9	
026	122_026	ICV	icv			02-MAY-2005 22:47	1.0	1.0	4	1	9	
027	122_027	X	hex			02-MAY-2005 23:14	1.0				1	
029	122_029	SAMPLE	179011-001	101475	Soil	03-MAY-2005 00:10	5.0	0.6596		1		
031	122_031	PEM				03-MAY-2005 01:05	1.0	1.0		1	1	2:DDT44=148.580
032	122_032	CCV	pest_3			03-MAY-2005 01:33	1.0	1.0	3	1	5	
033	122_033	X	ccv			03-MAY-2005 02:01	1.0				5	

26

Stds used: 1=S306 2=S243 3=S9 4=S10 5=S11 6=S245 7=S13 8=S14 9=S371

SEQUENCE SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	131_002	X	ccv			11-MAY-2005 10:08	1.0					1	
003	131_003	X	ccv			11-MAY-2005 10:41	1.0					1	
004	131_004	X	ccv			11-MAY-2005 12:12	1.0					1	
016	131_016	PEM				11-MAY-2005 22:34	1.0	1.0			1	2	
017	131_017	X	hex			11-MAY-2005 23:06	1.0						
018	131_018	ICAL	pest_1			11-MAY-2005 23:37	1.0	1.0				3	
019	131_019	ICAL	pest_2			12-MAY-2005 00:07	1.0	1.0				4	
020	131_020	ICAL	pest_3			12-MAY-2005 00:37	1.0	1.0			1	1	
022	131_022	ICAL	pest_5			12-MAY-2005 01:40	1.0	1.0			1	5 ac	
023	131_023	ICAL	pest_6			12-MAY-2005 02:11	1.0	1.0				6	
024	131_024	ICAL	pest_7			12-MAY-2005 02:41	1.0	1.0				7	
031	131_031	X				12-MAY-2005 06:21	1.0					1	
032	131_032	X				12-MAY-2005 06:51	1.0					1	
035	131_035	ICAL	pest_4			12-MAY-2005 10:56	1.0	1.0				8	
037	131_037	X	icv			12-MAY-2005 11:57	1.0					9	
038	131_038	ICV				12-MAY-2005 12:27	1.0	1.0	1		1	9	27
039	131_039	PEM				12-MAY-2005 12:58	1.0	1.0			1	2	
041	131_041	SAMPLE	179372-009	101914	Soil	12-MAY-2005 14:03	1.0	0.6566			1		
042	131_042	PEM				12-MAY-2005 14:33	1.0	1.0			1	2	
043	131_043	CCV	pest_4			12-MAY-2005 15:04	1.0	1.0	5		1	8	
046	131_046	SAMPLE	179307-003	101914	Soil	12-MAY-2005 18:07	1.0	0.6667	3		1		
047	131_047	SAMPLE	179307-004	101914	Soil	12-MAY-2005 18:37	1.0	0.6649	3		1		
048	131_048	SAMPLE	179307-006	101914	Soil	12-MAY-2005 19:08	1.0	0.6605	3		1		
049	131_049	SAMPLE	179307-009	101914	Soil	12-MAY-2005 19:38	1.0	0.6662	3		1		
050	131_050	SAMPLE	179307-011	101914	Soil	12-MAY-2005 20:09	1.0	0.6636	3		1		
051	131_051	MSS	179307-013	101914	Soil	12-MAY-2005 20:39	1.0	0.6631	4		1		
052	131_052	SAMPLE	179307-014	101914	Soil	12-MAY-2005 21:10	5.0	0.6667	3		1		
053	131_053	SAMPLE	179384-001	101914	Soil	12-MAY-2005 21:42	1.0	0.657	4		1		
054	131_054	MS	QC293338	101914	Soil	12-MAY-2005 22:12	1.0	0.6623	6		1		
055	131_055	MSD	QC293339	101914	Soil	12-MAY-2005 22:44	1.0	0.6667	6	4	1		

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
057	131_057	PEM				12-MAY-2005 23:46	1.0	1.0			1	2	
058	131_058	CCV	pest_3			13-MAY-2005 00:16	1.0	1.0	6		1	1	
059	131_059	X	ccv			13-MAY-2005 00:47	1.0					1	
063	131_063	BS	QC293387	101926	Water	13-MAY-2005 02:51	1.0	0.01	6		1		
064	131_064	BSD	QC293388	101926	Water	13-MAY-2005 03:23	1.0	0.01	6	2	1		
065	131_065	BLANK	QC293051	101840	Soil	13-MAY-2005 03:54	1.0	0.6662	4		1		
066	131_066	LCS	QC293052	101840	Soil	13-MAY-2005 04:24	1.0	0.6575	6		1		
067	131_067	SAMPLE	179238-001	101926	Water	13-MAY-2005 04:55	1.0	0.009615	5	2	1		
068	131_068	SAMPLE	179288-010	101926	Water	13-MAY-2005 05:25	1.0	0.009524	4	2	1		
069	131_069	MSS	179266-002	101840	Soil	13-MAY-2005 05:56	5.0	0.6653	4		1		
070	131_070	MS	QC293053	101840	Soil	13-MAY-2005 06:27	5.0	0.6596	6		1		
071	131_071	MSD	QC293054	101840	Soil	13-MAY-2005 06:57	5.0	0.6562	6		1		
073	131_073	PEM				13-MAY-2005 07:58	1.0	1.0			1	2	
074	131_074	CCV	pest_5			13-MAY-2005 08:29	1.0	1.0	5		1	5	

28

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179384 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805189257 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	131_002	X	ccv			11-MAY-2005 10:17	1.0				1	
003	131_003	X	ccv			11-MAY-2005 10:45	1.0				1	
008	131_008	X	pem			11-MAY-2005 13:18	1.0				2	
009	131_009	X	ccv			11-MAY-2005 13:46	1.0				1	
010	131_010	X	ccv			11-MAY-2005 14:14	1.0				1	
011	131_011	X	ccv			11-MAY-2005 15:01	1.0				1	
012	131_012	X	ccv			11-MAY-2005 15:39	1.0	1.0		1	3	
013	131_013	CCV	pest_4			11-MAY-2005 16:27	1.0	1.0	7	1	3	
014	131_014	PEM				11-MAY-2005 21:27	1.0	1.0		1	2	2:DDT44=122.963
016	131_016	BLANK	QC293336	101914	Soil	11-MAY-2005 22:23	1.0	0.6575		1		
017	131_017	LCS	QC293337	101914	Soil	11-MAY-2005 22:51	1.0	0.6649	12	1		
018	131_018	SAMPLE	179372-001	101914	Soil	11-MAY-2005 23:19	1.0	0.657		1		
019	131_019	SAMPLE	179372-002	101914	Soil	11-MAY-2005 23:46	1.0	0.6653		1		
020	131_020	SAMPLE	179372-003	101914	Soil	12-MAY-2005 00:14	1.0	0.6592		1		
021	131_021	SAMPLE	179372-004	101914	Soil	12-MAY-2005 00:42	1.0	0.6601		1		
022	131_022	SAMPLE	179372-005	101914	Soil	12-MAY-2005 01:10	1.0	0.6601		1		
023	131_023	SAMPLE	179372-006	101914	Soil	12-MAY-2005 01:37	1.0	0.6579		1		
024	131_024	SAMPLE	179372-007	101914	Soil	12-MAY-2005 02:05	1.0	0.6601		1		
025	131_025	SAMPLE	179372-008	101914	Soil	12-MAY-2005 02:33	1.0	0.6601		1		
027	131_027	PEM				12-MAY-2005 03:29	1.0	1.0		1	2	2:DDT44=117.170
028	131_028	CCV	pest_5			12-MAY-2005 03:57	1.0	1.0	12	1	4	
029	131_029	X	ccv			12-MAY-2005 04:24	1.0	1.0		1	4	ac
030	131_030	X	pem			12-MAY-2005 04:52	1.0	1.0		1	2	2:DDT44=110.177
039	131_039	MS	QC293338	101914	Soil	12-MAY-2005 09:02	1.0					
043	131_043	PEM				12-MAY-2005 10:54	1.0	1.0		1	1	2:DDT44=109.811
044	131_044	CCV	pest_3			12-MAY-2005 11:22	1.0				1	
045	131_045	CCV	pest_3			12-MAY-2005 11:49	1.0	1.0	23	1	1	ac

29

Stds used: 1=S420 2=S306 3=S243 4=S245
Flags used: ac=average CCV drift out

Curtis & Tompkins Laboratories Sample Preparation Summary 11-MAY-2005 18:21

Batch Number : 101914
Date Extracted: 11-MAY-2005
Extracted by : Sheila H. Dodson
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258A
Spike #2 ID : S203F
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179307-003			Fugro West, Inc.	Soil	15	g	10	0.000000	0		.02	0		8081	3620B	
179307-004			Fugro West, Inc.	Soil	15.04	g	10	0.000000	0		.02	0		8081	3620B	
179307-006			Fugro West, Inc.	Soil	15.14	g	10	0.000000	0		.02	0		8081	3620B	
179307-009			Fugro West, Inc.	Soil	15.01	g	10	0.000000	0		.02	0		8081	3620B	
179307-011			Fugro West, Inc.	Soil	15.07	g	10	0.000000	0		.02	0		8081	3620B	
179307-013			Fugro West, Inc.	Soil	15.08	g	10	0.000000	0		.02	0		8081	3620B	mss
179307-014			Fugro West, Inc.	Soil	15	g	10	0.000000	0		.02	0		8081	3620B	
179372-001			Treadwell & Rollo	Soil	15.22	g	10	0.657030	1		.02	0		8081	3620B	
179372-002			Treadwell & Rollo	Soil	15.03	g	10	0.665336	1		.02	0		8081	3620B	
179372-003			Treadwell & Rollo	Soil	15.17	g	10	0.659196	1		.02	0		8081	3620B	
179372-004			Treadwell & Rollo	Soil	15.15	g	10	0.660066	1		.02	0		8081	3620B	
179372-005			Treadwell & Rollo	Soil	15.15	g	10	0.660066	1		.02	0		8081	3620B	
179372-006			Treadwell & Rollo	Soil	15.2	g	10	0.657895	1		.02	0		8081	3620B	
179372-007			Treadwell & Rollo	Soil	15.15	g	10	0.660066	1		.02	0		8081	3620B	
179372-008			Treadwell & Rollo	Soil	15.15	g	10	0.660066	1		.02	0		8081	3620B	
179372-009			Treadwell & Rollo	Soil	15.23	g	10	0.656599	1		.02	0		8081	3620B	
179384-001			Mactec, Inc.	Soil	15.22	g	10	0.657030	1		.02	0		8081	3620B	
QC293336	MB			Soil	15.21	g	10	0.000000	0		.02	0		8081	3620B	
QC293337	LCS			Soil	15.04	g	10	0.000000	0		.02	.025		8081	3620B	
QC293338	MS	of 179307-013		Soil	15.1	g	10	0.000000	0		.02	.025		8081	3620B	
QC293339	MSD	of 179307-013		Soil	15	g	10	0.000000	0		.02	.025		8081	3620B	

5/11/05 KHH split ~2 mL before transfer to scintillation vial

30

Prep Chemist: _____ Reviewed By: Jennifer Dodd Date: 5/11/05

Relinquished By: _____ Received By: _____ Date: 05/11/05

Curtis & Tompkins, Ltd.

8081 SOIL PREP LOG

BK 2065

Page 69

LIMS Batch No: 101914
LIMS Analysis: 8081
Extracted by: SHD
Date Extracted: 5/11/05

Extraction Method:
- ☐ EPA 3550b Sonication
- ☐ EPA 3545 PFE (Mth#_____)
- ☐ EPA 3540c Soxhlet
- ☐ _____

Cleanup Method:
- ☐ EPA 3640a GPC
- ☐ EPA 3620b Florisil
- ☐ _____

Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
179307-003	15.0	10.0	X	
-004	15.04			
-006	15.14			
-009	15.01			
-011	15.07			
-013	15.08			MSS
-014	15.00			
MB QC293336	15.21			
LCS 37	15.04			
MS 38	15.10			
MSD 39	15.00		↓	
179372-001	15.22		X	
-002	15.03			
-003	15.17			
-004	15.15			
-005	15.15			
-006	15.20			
-007	15.15			
-008	15.15			
-009	15.23			
179384-001	15.22		↓	
		JRD 5/11/05		

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	SHD 5/11/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	Dionex 040603	
0.02 mL of surrogate solution was added to all samples	5258A	
0.025 mL of spike solution was added to all spikes	5203F	
1:1 CH_2Cl_2 (lot# EM45071):Acetone(lot# 45019) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
Soxhlets on at:	N/A	
Soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM44135453	
Exchanged 2x with Hexane	B02E27	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	✓	JRD 5/11/05

Extraction Chemist / Date

Continued from page _____
Continued on page _____

Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JRD
Cleanup Date: 5/11/05

Benchbook # **BK 2068**
Page 72

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179307-003	101914	1.0	1.0	
-004				
-006				
-009				
-011				
-013				
-014				
MB QC293336				
LCS 37				
MS 38				
MSD 39				

JRD 5/11/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using Florisil cartridges	RESPREP 402290-BE	JRD 5/11/05
Florisil cartridges/ columns rinsed 3x with Hexane	JTB B02E27	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone — Hexane	↓	
Acetone	EM 44233	
Concentrated to volumes as noted above	✓	

Jennifer Dell 5/11/05
Extraction Chemist / Date

Continued from page —
Continued on page —

Reviewed by / Date

Curtis & Tompkins, Ltd.

Florisil Cleanup

EPA 3620B

Prep Chemist: KMH

Cleanup Date: 5/11/05

Benchbook # **BK 2068**

Page 73

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179372-001	101914	1.0	1.0	
-002				
-003				
-004				
-005				
-006				
-007				
-008				
-009				
179384-001				

JRD 5/11/05

	Mfg & Lot # / Time / Program	Initials / Date
☒ Extracts were cleaned up using Florisil cartridges	Resprep 902290-BE	KMH 5/12/05
Florisil cartridges/ columns rinsed 3x with Hexane	CN818	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone	Hexane JTB B02E27	
	Acetone EM4033	
Concentrated to volumes as noted above	✓	

5/12/05

Extraction Chemist / Date

Continued from page —

Continued on page —

Jennifer Deel 5/14/05

Reviewed by / Date

Project SOIL ALIQUOT BK2088

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179307-003A	30.07	8100	
-004	30.21		
-006	30.08		
-009	30.04		
-011	30.32		
-013	30.06		
-014	30.09		
179307-003A	50.11	TEHM	
-004	50.05		
-006	50.07		
-009	50.03		
-011	50.14		
-013	50.03		
-014	50.04		
179307-003A	15.05	PCB	
-004A	15.17		MSS 179307-004A → EM 44028452
-MS	15.13		
-MSD	15.16		
-LCS	15.03		
-MB	15.12		
-006A	15.03		
-009	15.24		
-011	15.07		
-013	15.17		
-014	15.00		
179307-003A	15.00	8081	
-004	15.04		
-006	15.14		
-009	15.01		
-011	15.07		
-013	15.08		MSS 179307-013A → EM 44028452
-MS	15.10		
-MSD	15.00		
-LCS	15.04		
-MB	15.21		
-014A	15.00		

Continued on Page

Signed — Date 5/9/08

Read and Understood By

Signed — Date

Project SOIL ALIQUOT BK 2/35

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179372-001A	15.22	8081	
-002	15.03		
-003	15.17		
-004	15.15		
-005	15.15		
-006	15.20		
-007	15.15		
-008	15.15		MSS 179372-008A
-MS	15.20		↓
-MSD	15.01		EM44028452
-LCS	15.00		↓
-MB	15.10		
-009A	15.23		
179307-009A	15.07	PCB	MSS 179307-009A
-MS	15.17		↓
-MSD	15.01		EM44028452
-LCS	15.00		↓
-MB	15.10		
179382-001A	30.10	8270 TEHM	
179382-001A	5000		
179384-001A	15.24	PCB 8081	
179384-001A	15.22		
179384-001A	30.28	8270-SIM	MSS 179384-001A
-MS	30.34		↓
-MSD	30.37		EM44028452
-LCS	30.07		↓
-MB	30.06		

Continued on Page

Read and Understood By

Signed — Date — Signed — Date

5/11/05

REPORTING SUMMARY FOR 179384 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179384-001	alpha-BHC	GC16	B	05/12/05 21:42
179384-001	beta-BHC	GC16	B	05/12/05 21:42
179384-001	gamma-BHC	GC16	B	05/12/05 21:42
179384-001	delta-BHC	GC16	B	05/12/05 21:42
179384-001	Heptachlor	GC16	B	05/12/05 21:42
179384-001	Aldrin	GC16	B	05/12/05 21:42
179384-001	Heptachlor epoxide	GC16	B	05/12/05 21:42
179384-001	Endosulfan I	GC16	B	05/12/05 21:42
179384-001	Dieldrin	GC16	B	05/12/05 21:42
179384-001	4,4'-DDE	GC16	B	05/12/05 21:42
179384-001	Endrin	GC16	B	05/12/05 21:42
179384-001	Endosulfan II	GC16	B	05/12/05 21:42
179384-001	Endosulfan sulfate	GC16	B	05/12/05 21:42
179384-001	4,4'-DDD	GC16	B	05/12/05 21:42
179384-001	Endrin aldehyde	GC16	B	05/12/05 21:42
179384-001	4,4'-DDT	GC16	B	05/12/05 21:42
179384-001	alpha-Chlordane	GC16	B	05/12/05 21:42
179384-001	gamma-Chlordane	GC16	B	05/12/05 21:42
179384-001	Methoxychlor	GC16	B	05/12/05 21:42
179384-001	Toxaphene	GC16	B	05/12/05 21:42
179384-001	TCMX	GC16	B	05/12/05 21:42
179384-001	Decachlorobiphenyl	GC16	B	05/12/05 21:42
QC293336	alpha-BHC	GC23	A	05/11/05 22:23
QC293336	beta-BHC	GC23	A	05/11/05 22:23
QC293336	gamma-BHC	GC23	A	05/11/05 22:23
QC293336	delta-BHC	GC23	A	05/11/05 22:23
QC293336	Heptachlor	GC23	A	05/11/05 22:23
QC293336	Aldrin	GC23	A	05/11/05 22:23
QC293336	Heptachlor epoxide	GC23	A	05/11/05 22:23
QC293336	Endosulfan I	GC23	A	05/11/05 22:23
QC293336	Dieldrin	GC23	A	05/11/05 22:23
QC293336	4,4'-DDE	GC23	A	05/11/05 22:23
QC293336	Endrin	GC23	A	05/11/05 22:23
QC293336	Endosulfan II	GC23	A	05/11/05 22:23
QC293336	Endosulfan sulfate	GC23	A	05/11/05 22:23
QC293336	4,4'-DDD	GC23	A	05/11/05 22:23
QC293336	Endrin aldehyde	GC23	A	05/11/05 22:23
QC293336	4,4'-DDT	GC23	A	05/11/05 22:23
QC293336	alpha-Chlordane	GC23	A	05/11/05 22:23
QC293336	gamma-Chlordane	GC23	A	05/11/05 22:23
QC293336	Methoxychlor	GC23	A	05/11/05 22:23
QC293336	Toxaphene	GC23	A	05/11/05 22:23
QC293336	TCMX	GC23	A	05/11/05 22:23
QC293336	Decachlorobiphenyl	GC23	A	05/11/05 22:23
QC293337	gamma-BHC	GC23	A	05/11/05 22:51
QC293337	Heptachlor	GC23	A	05/11/05 22:51
QC293337	Aldrin	GC23	A	05/11/05 22:51
QC293337	Dieldrin	GC23	A	05/11/05 22:51
QC293337	Endrin	GC23	A	05/11/05 22:51
QC293337	4,4'-DDT	GC23	A	05/11/05 22:51
QC293337	TCMX	GC23	A	05/11/05 22:51
QC293337	Decachlorobiphenyl	GC23	A	05/11/05 22:51

REPORTING SUMMARY FOR 179384 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC293338	gamma-BHC	GC16	B	05/12/05 22:12
QC293338	Heptachlor	GC16	B	05/12/05 22:12
QC293338	Aldrin	GC16	B	05/12/05 22:12
QC293338	Dieldrin	GC16	B	05/12/05 22:12
QC293338	Endrin	GC16	B	05/12/05 22:12
QC293338	4,4'-DDT	GC16	B	05/12/05 22:12
QC293338	TCMX	GC16	B	05/12/05 22:12
QC293338	Decachlorobiphenyl	GC16	B	05/12/05 22:12
QC293339	gamma-BHC	GC16	B	05/12/05 22:44
QC293339	Heptachlor	GC16	B	05/12/05 22:44
QC293339	Aldrin	GC16	B	05/12/05 22:44
QC293339	Dieldrin	GC16	B	05/12/05 22:44
QC293339	Endrin	GC16	B	05/12/05 22:44
QC293339	4,4'-DDT	GC16	B	05/12/05 22:44
QC293339	TCMX	GC16	B	05/12/05 22:44
QC293339	Decachlorobiphenyl	GC16	B	05/12/05 22:44

Polychlorinated Biphenyls Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BB2ASB100(4.0)	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	ug/Kg	Prepared:	05/11/05
Diln Fac:	1.000	Analyzed:	05/12/05
Batch#:	101942		

Type:	SAMPLE	Moisture:	13%
Lab ID:	179384-001	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	2.9
Aroclor-1221	ND	22	4.6
Aroclor-1232	ND	11	1.7
Aroclor-1242	ND	11	3.8
Aroclor-1248	ND	11	2.8
Aroclor-1254	ND	11	4.5
Aroclor-1260	ND	11	1.6

Surrogate	%REC	Limits
TCMX	82	63-141
Decachlorobiphenyl	79	49-146

Type:	BLANK	Basis:	as received
Lab ID:	QC293445	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	2.6
Aroclor-1221	ND	19	4.0
Aroclor-1232	ND	9.5	1.5
Aroclor-1242	ND	9.5	3.3
Aroclor-1248	ND	9.5	2.4
Aroclor-1254	ND	9.5	3.9
Aroclor-1260	ND	9.5	1.4

Surrogate	%REC	Limits
TCMX	98	63-141
Decachlorobiphenyl	98	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293446	Batch#:	101942
Matrix:	Soil	Prepared:	05/11/05
Units:	ug/Kg	Analyzed:	05/12/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	166.7	142.9	86	78-150

Surrogate	%REC	Limits
TCMX	91	63-141
Decachlorobiphenyl	81	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	101942
MSS Lab ID:	179307-009	Sampled:	05/06/05
Matrix:	Soil	Received:	05/06/05
Units:	ug/Kg	Prepared:	05/11/05
Basis:	as received	Analyzed:	05/12/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC293447

Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<1.453	164.8	131.6	80	61-167

Surrogate	%REC	Limits
TCMX	86	63-141
Decachlorobiphenyl	92	49-146

Type: MSD
Lab ID: QC293448

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	166.6	153.1	92	61-167	14	36

Surrogate	%REC	Limits
TCMX	88	63-141
Decachlorobiphenyl	75	49-146

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_003	255150953003	pcb10_2	14-APR-2005 19:53	05WS0223
2	104_004	255150953004	pcb25_5	14-APR-2005 20:19	05WS0030
3	104_005	255150953005	pcb100_20	14-APR-2005 20:46	S157
4	104_006	255150953006	pcb250_50	14-APR-2005 21:13	S40
5	104_007	255150953007	pcb500_100	14-APR-2005 21:39	S100
6	104_008	255150953008	pcb750_150	14-APR-2005 22:06	S101
7	104_009	255150953009	pcb1K_200	14-APR-2005 22:33	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	311.44	297.35	273.50	254.34	241.44	229.07	225.17	AVRG	R		0.003820		pg	261.76	13	.99	20	
Aroclor-1016 Peak # 2	A	603.96	577.15	537.33	491.67	466.16	439.80	437.20	AVRG	R		0.001970		pg	507.61	13	.99	20	
Aroclor-1016 Peak # 3	A	773.55	721.22	695.67	645.78	645.19	624.02	597.23	AVRG	R		0.001489		pg	671.81	9	.99	20	
Aroclor-1016 Peak # 4	A	480.47	454.81	435.41	389.02	374.89	358.64	350.10	AVRG	R		0.002462		pg	406.19	12	.99	20	
Aroclor-1016 Peak # 5	A	365.11	369.58	341.88	307.56	295.86	281.48	275.12	AVRG	R		0.003130		pg	319.51	12	.99	20	
Aroclor-1260 Peak # 1	A	1358.9	1344.3	1171.9	1074.2	1035.6	989.70	1003.5	AVRG	R		8.774E-4		pg	1139.7	14	.99	20	
Aroclor-1260 Peak # 2	A	1346.9	1260.9	1086.4	1018.4	923.32	877.93	946.53	AVRG	R		9.383E-4		pg	1065.8	17	.99	20	
Aroclor-1260 Peak # 3	A	926.98	809.08	719.65	621.25	594.43	561.70	576.48	AVRG	R		0.001455		pg	687.08	20	.99	20	
Aroclor-1260 Peak # 4	A	642.42	570.82	608.36	550.05	531.16	498.62	512.26	AVRG	R		0.001789		pg	559.10	9	.99	20	
Aroclor-1260 Peak # 5	A	1699.1	1627.8	1500.5	1403.3	1409.3	1373.6	1481.2	AVRG	R		6.670E-4		pg	1499.3	8	.99	20	
TCMX	A	15744	15150	14219	13524	13267	12725	12857	AVRG	R		7.181E-5		pg	13926	8	.99	20	
Decachlorobiphenyl	A	9633.0	8471.8	8393.8	7724.9	8610.1	8390.1	9192.4	AVRG	R		1.159E-4		pg	8630.9	7	.99	20	
Aroclor-1016 Peak # 1	B	377.75	391.61	371.84	340.90	313.43	311.37	306.48	AVRG	R		0.002901		pg	344.77	10	.99	20	
Aroclor-1016 Peak # 2	B	832.44	805.50	737.73	667.22	611.91	611.72	600.39	AVRG	R		0.001438		pg	695.27	14	.99	20	
Aroclor-1016 Peak # 3	B	1768.4	1730.4	1566.4	1416.5	1316.9	1301.7	1263.3	AVRG	R		6.754E-4		pg	1480.5	14	.99	20	
Aroclor-1016 Peak # 4	B	735.21	675.00	625.42	561.73	518.83	522.53	511.89	AVRG	R		0.001687		pg	592.94	15	.99	20	
Aroclor-1016 Peak # 5	B	513.59	501.84	488.09	416.51	387.49	389.27	381.87	AVRG	R		0.002274		pg	439.81	13	.99	20	
Aroclor-1260 Peak # 1	B	969.42	944.36	875.52	745.20	711.37	698.33	677.23	AVRG	R		0.001245		pg	803.06	15	.99	20	
Aroclor-1260 Peak # 2	B	1398.9	1347.1	1246.3	1084.9	1039.3	1022.3	1004.4	AVRG	R		8.596E-4		pg	1163.3	14	.99	20	

42

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	970.39	955.89	857.34	742.61	731.27	720.26	707.50	AVRG	R		0.001231		pg	812.18	14	.99	20	
Aroclor-1260 Peak # 4	B	808.55	813.70	731.17	642.53	622.80	609.49	599.52	AVRG	R		0.001450		pg	689.68	14	.99	20	
Aroclor-1260 Peak # 5	B	457.61	430.44	403.91	354.82	343.78	338.70	335.24	AVRG	R		0.002627		pg	380.64	13	.99	20	
TCMX	B	20555	20240	18611	17309	15585	15486	15237	AVRG	R		5.690E-5		pg	17575	13	.99	20	
Decachlorobiphenyl	B	9988.0	9388.0	8258.3	7593.2	8005.8	8552.6	8411.5	AVRG	R		1.163E-4		pg	8599.6	10	.99	20	

43

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :

ICV 255150953011 (104_011) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255150953011	14-APR-2005	250.00	275.76	pg	10	15
Aroclor-1260	A	255150953011	14-APR-2005	250.00	266.52	pg	7	15
Aroclor-1016	B	255150953011	14-APR-2005	250.00	274.23	pg	10	15
Aroclor-1260	B	255150953011	14-APR-2005	250.00	278.29	pg	11	15

INITIAL CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255176493003 Name: Type: (normal) Date: 03-MAY-2005 02:28 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	122_021	255176493021	ar1232	03-MAY-2005 02:28	S431

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	318.75	AVRG	R		0.003137		pg	318.75	0	.99	20	
Aroclor-1232 Peak # 2	A	238.72	AVRG	R		0.004189		pg	238.72	0	.99	20	
Aroclor-1232 Peak # 3	A	310.46	AVRG	R		0.003221		pg	310.46	0	.99	20	
Aroclor-1232 Peak # 4	A	199.18	AVRG	R		0.005021		pg	199.18	0	.99	20	
Aroclor-1232 Peak # 5	A	136.98	AVRG	R		0.007300		pg	136.98	0	.99	20	
Aroclor-1232 Peak # 1	B	365.09	AVRG	R		0.002739		pg	365.09	0	.99	20	
Aroclor-1232 Peak # 2	B	292.20	AVRG	R		0.003422		pg	292.20	0	.99	20	
Aroclor-1232 Peak # 3	B	589.60	AVRG	R		0.001696		pg	589.60	0	.99	20	
Aroclor-1232 Peak # 4	B	242.61	AVRG	R		0.004122		pg	242.61	0	.99	20	
Aroclor-1232 Peak # 5	B	167.84	AVRG	R		0.005958		pg	167.84	0	.99	20	

45

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Run Name : pcb250_50 IDF : 1.0
Seqnum : 255190880002 Filename : 132_002 Injected : 12-MAY-2005 13:20
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :
Standards: S40

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1016	A			250.0000	275.5606	pg	10	15	
Aroclor-1260	A			250.0000	267.4728	pg	7	15	
TCMX	A	13926	16155	50.00000	58.00139	pg	**16**	15	c+ confirm channel cws/31/05
Decachlorobiphenyl	A	8630.9	9300.4	50.00000	53.87877	pg	8	15	
Aroclor-1016	B			250.0000	221.5276	pg	-11	15	
Aroclor-1260	B			250.0000	218.0735	pg	-13	15	
TCMX	B	17575	16680	50.00000	47.45371	pg	-5	15	
Decachlorobiphenyl	B	8599.6	8176.7	50.00000	47.54075	pg	-5	15	

+=high bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instid	: GC22	Run Name	: ar1232	IDF	: 1.0
Seqnum	: 255190880004	Filename	: 132_004	Injected	: 12-MAY-2005 14:22
Calnum	: 255176493003	Caldate	: 03-MAY-2005	Caltype	:
Standards:	S507				

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1232	A			250.0000	268.7287	pg	7	15	
Aroclor-1232	B			250.0000	268.6026	pg	7	15	

CONTINUING CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Run Name : pcb100_20 IDF : 1.0
Seqnum : 255190880012 Filename : 132_012 Injected : 12-MAY-2005 18:16
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :
Standards: S157

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1016	A			100.0000	110.9414	pg	11	15	
Aroclor-1260	A			100.0000	104.5161	pg	5	15	
TCMX	A	13926	15821	20.00000	22.72037	pg	14	15	
Decachlorobiphenyl	A	8630.9	8651.0	20.00000	20.04669	pg	0	15	
Aroclor-1016	B			100.0000	94.71714	pg	-5	15	
Aroclor-1260	B			100.0000	95.04890	pg	-5	15	
TCMX	B	17575	17293	20.00000	19.67937	pg	-2	15	
Decachlorobiphenyl	B	8599.6	8507.4	20.00000	19.78546	pg	-1	15	

CONTINUING CALIBRATION REPORT FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Run Name : ar1232 IDF : 1.0
Seqnum : 255190880013 Filename : 132_013 Injected : 12-MAY-2005 18:50
Calnum : 255176493003 Caldate : 03-MAY-2005 Caltype :
Standards: S507

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1232	A			250.0000	257.1112	pg	3	15	
Aroclor-1232	B			250.0000	246.6126	pg	-1	15	

SEQUENCE SUMMARY FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255150953 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
002	104_002	X	hex			14-APR-2005 19:26	1.0					
003	104_003	ICAL	pcb10_2			14-APR-2005 19:53	1.0				1	
004	104_004	ICAL	pcb25_5			14-APR-2005 20:19	1.0				2	
005	104_005	ICAL	pcb100_20			14-APR-2005 20:46	1.0				3	
006	104_006	ICAL	pcb250_50			14-APR-2005 21:13	1.0				4	
007	104_007	ICAL	pcb500_100			14-APR-2005 21:39	1.0				5	
008	104_008	ICAL	pcb750_150			14-APR-2005 22:06	1.0				6	
009	104_009	ICAL	pcb1K_200			14-APR-2005 22:33	1.0				7	
011	104_011	ICV	accu_1660			14-APR-2005 23:26	1.0	1			8	
012	104_012	X	icv			14-APR-2005 23:52	1.0				8	
013	104_013	CCV	ar1254			15-APR-2005 00:19	1.0	1			9	

50

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255176493 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	122_002	CCV	pcb250_50			02-MAY-2005 13:33	1.0	1.0		1	1	
003	122_003	X	ccv			02-MAY-2005 13:59	1.0				1	
004	122_004	ICAL	ar1248			02-MAY-2005 18:56	1.0	1.0			2	
005	122_005	X	ccv			02-MAY-2005 19:22	1.0				2	
007	122_007	BLANK	QC292341	101648	Soil	02-MAY-2005 20:16	1.0	0.8333	2	1		
008	122_008	X	177841-001	101648	Soil	02-MAY-2005 20:42	1.0	0.8333		1		
009	122_009	MDL	177841-002	101648	Soil	02-MAY-2005 21:09	1.0	0.8333		1		
010	122_010	MDL	177841-003	101648	Soil	02-MAY-2005 21:35	1.0	0.8333		1		
011	122_011	MDL	177841-004	101648	Soil	02-MAY-2005 22:02	1.0	0.8333		1		
012	122_012	MDL	177841-005	101648	Soil	02-MAY-2005 22:28	1.0	0.8333		1		
013	122_013	MDL	177841-006	101648	Soil	02-MAY-2005 22:55	1.0	0.8333		1		
014	122_014	MDL	177841-007	101648	Soil	02-MAY-2005 23:22	1.0	0.8333		1		
015	122_015	MDL	177841-008	101648	Soil	02-MAY-2005 23:48	1.0	0.8333		1		
017	122_017	X	pcb500_100			03-MAY-2005 00:41	1.0				3	
018	122_018	CCV	ccv			03-MAY-2005 01:08	1.0	1.0	2	1	3	
019	122_019	CCV	ar1248			03-MAY-2005 01:34	1.0	1.0		1	2	51
020	122_020	X	ccv			03-MAY-2005 02:01	1.0				2	
021	122_021	CCV/ICAL	ar1232 mcb 5/23/05			03-MAY-2005 02:28	1.0	1.0		1	4	
022	122_022	X	ccv			03-MAY-2005 02:54	1.0				4	
024	122_024	BLANK	QC292289	101635	Soil	03-MAY-2005 03:47	1.0	0.8333	2	1		
025	122_025	MDL	177900-001	101635	Soil	03-MAY-2005 04:14	1.0	0.8333		1		
026	122_026	MDL	177900-002	101635	Soil	03-MAY-2005 04:41	1.0	0.8333		1		
027	122_027	MDL	177900-003	101635	Soil	03-MAY-2005 05:07	1.0	0.8333		1		
028	122_028	MDL	177900-004	101635	Soil	03-MAY-2005 05:34	1.0	0.8333		1		
029	122_029	MDL	177900-005	101635	Soil	03-MAY-2005 06:00	1.0	0.8333		1		
030	122_030	MDL	177900-006	101635	Soil	03-MAY-2005 06:27	1.0	0.8333		1		
031	122_031	MDL	177900-007	101635	Soil	03-MAY-2005 06:54	1.0	0.8333		1		
032	122_032	MDL	177900-008	101635	Soil	03-MAY-2005 07:20	1.0	0.8333		1		
034	122_034	X	pcb100_20			03-MAY-2005 08:13	1.0	1.0		1	5	
035	122_035	CCV	ccv			03-MAY-2005 08:40	1.0	1.0		1	5	
036	122_036	CCV	ar1232			03-MAY-2005 09:07	1.0	1.0		1	4	

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157 6=S8

SEQUENCE SUMMARY FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255176493 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
037	122_037	X	ccv			03-MAY-2005 09:33	1.0				4	
039	122_039	ICAL	ar1242			03-MAY-2005 11:18	1.0	1.0			6	
041	122_041	BLANK	QC292196	101612	Water	03-MAY-2005 12:11	1.0	0.025	2	1		
042	122_042	BS	QC292197	101612	Water	03-MAY-2005 12:37	1.0	0.025		1		
043	122_043	BSD	QC292198	101612	Water	03-MAY-2005 13:04	1.0	0.025		1		
044	122_044	SAMPLE	179161-001	101612	Water	03-MAY-2005 13:30	1.0	0.03846	2	1		
046	122_046	X	pcb250_50			03-MAY-2005 14:24	1.0	1.0		1	1	
047	122_047	CCV	ccv			03-MAY-2005 14:50	1.0	1.0	2	1	1	
048	122_048	CCV	ar1242			03-MAY-2005 15:17	1.0	1.0		1	6	

52

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157 6=S8

SEQUENCE SUMMARY FOR 179384 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255190880 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 12-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	132_002	CCV	pcb250_50			12-MAY-2005 13:20	1.0	1.0			1	1	
003	132_003	X	ccv			12-MAY-2005 13:46	1.0					1	
004	132_004	CCV	ar1232			12-MAY-2005 14:22	1.0	1.0			1	2	
006	132_006	BLANK	QC293445	101942	Soil	12-MAY-2005 15:29	1.0	0.6623			1		
007	132_007	LCS	QC293446	101942	Soil	12-MAY-2005 15:56	1.0	0.6667			1		
008	132_008	MSS	179307-009	101942	Soil	12-MAY-2005 16:22	1.0	0.6636			1		
009	132_009	SAMPLE	179384-001	101942	Soil	12-MAY-2005 16:57	1.0	0.6562			1		
010	132_010	MS	QC293447	101942	Soil	12-MAY-2005 17:23	1.0	0.6592			1		
011	132_011	MSD	QC293448	101942	Soil	12-MAY-2005 17:50	1.0	0.6662			1		
012	132_012	CCV	pcb100_20			12-MAY-2005 18:16	1.0	1.0			1	3	
013	132_013	CCV	ar1232			12-MAY-2005 18:50	1.0	1.0			1	2	
016	132_016	BLANK	QC293581	101974	Soil	12-MAY-2005 21:00	1.0	0.8358	1	1	1		
017	132_017	LCS	QC293582	101974	Soil	12-MAY-2005 21:27	1.0	0.8322		2	1		
018	132_018	MSS	179413-002	101974	Soil	12-MAY-2005 21:53	1.0	0.8353	1		1		
019	132_019	MS	QC293583	101974	Soil	12-MAY-2005 22:20	1.0	0.8443		2	1	2:PCB101=1023.31	
020	132_020	MSD	QC293584	101974	Soil	12-MAY-2005 22:47	1.0	0.8202			1		
021	132_021	X	hex			12-MAY-2005 23:13	1.0						
022	132_022	CCV	pcb500_100			12-MAY-2005 23:40	1.0	1.0	1		1	4	
023	132_023	X	ccv			13-MAY-2005 00:07	1.0					4	
024	132_024	CCV	ar1232			13-MAY-2005 00:33	1.0	1.0			1	2	
025	132_025	X	ccv			13-MAY-2005 01:00	1.0					2	

Stds used: 1=S40 2=S507 3=S157 4=S100

Curtis & Tompkins Laboratories Sample Preparation Summary 12-MAY-2005 14:43

Batch Number : 101942
Date Extracted: 11-MAY-2005
Extracted by : Kristine Harrison
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258A
Spike #2 ID : S498A
Spike #3 ID :
SOP Version : PCB-ASE_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179307-009			Fugro West, Inc.	Soil	15.07	g	10	0.663570	1		.025	0		PCB	3665A	mss
179384-001			Mactec, Inc.	Soil	15.24	g	10	0.656168	1		.025	0		PCB	3665A	
QC293445	MB			Soil	15.1	g	10	0.662252	1		.025	0		PCB	3665A	
QC293446	LCS			Soil	15	g	10	0.666667	1		.025	.025		PCB	3665A	
QC293447	MS	of 179307-009		Soil	15.17	g	10	0.659196	1		.025	.025		PCB	3665A	
QC293448	MSD	of 179307-009		Soil	15.01	g	10	0.666223	1		.025	.025		PCB	3665A	

Prep Chemist: _____ Reviewed By: _____ Date: 5/12/05

Relinquished By: _____ Received By: _____ Date: 5/12/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

LIMS Batch No: 101942
LIMS Analysis: PCB
Extracted by: KMH 5/11/05
Date Extracted: 5/11/05

- ☐ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☒ EPA 3545 PFE (ASE Method# 10)
- ☐ Other _____

Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
179307-009	15.07	~~10.0~~ 5.0 AMS 5/12/05	MSS
179384-001	15.29	↓	
MB QC29345	15.10	↓	
LCS 46	15.00	↓	
MS 47	15.17	↓	
MSD 48	15.01	↓	

AMS 5/12/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM14028452	KMH 5/11/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Dionex 040603	
0.025 mL of surrogate solution was added to all samples	S258A	
0.025 mL of spike solution 1233 was added to all spikes	S498A	
1:1 CH_2Cl_2 (lot# EM45071):Acetone(lot# EM45019) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	↓
PFE (ASE) / soxhlets on at:	N/A	AMS 5/12/05
PFE (ASE) / soxhlets off at:	↓	↓
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	↓	
Concentrated to volumes noted above after exchange to Hexane Lot#	LN818	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	JTBA47034	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	↓

Extraction Chemist / Date

Continued from page ____
Continued on page 55

Reviewed by / Date

Project SOIL AUQUOT BK2/35

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179372-001A	15.22	8081	
-002	15.03		
-003	15.17		
-004	15.15		
-005	15.15		
-006	15.20		
-007	15.15		
-008	15.15		MSS 179372-008A → EM44028452
-MS	15.20		
-MSD	15.01		
-LCS	15.00		
-MB	15.10		
-009A	15.23		
179307-009A	15.07	PCB	MSS 179307-009A → EM44028452
-MS	15.17		
-MSD	15.01		
-LCS	15.00		
-MB	15.10		
179382-001A	30.10	8310	
179382-001A	5000	TEHM	
179384-001A	15.24	PCB	
179384-001A	15.22	8081	
179384-001A	30.28	8270-SIM	MSS 179384-001A → EM44028452
-MS	30.34		
-MSD	30.37		
-LCS	30.07		
-MB	30.06		

Continued on Page

Signed 5/11/05 Date

Read and Understood By

Signed Date

REPORTING SUMMARY FOR 179384 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179384-001	Aroclor-1016	GC22	A	05/12/05 16:57
179384-001	Aroclor-1221	GC22	A	05/12/05 16:57
179384-001	Aroclor-1232	GC22	A	05/12/05 16:57
179384-001	Aroclor-1242	GC22	A	05/12/05 16:57
179384-001	Aroclor-1248	GC22	A	05/12/05 16:57
179384-001	Aroclor-1254	GC22	A	05/12/05 16:57
179384-001	Aroclor-1260	GC22	A	05/12/05 16:57
179384-001	TCMX	GC22	B	05/12/05 16:57
179384-001	Decachlorobiphenyl	GC22	B	05/12/05 16:57
QC293445	Aroclor-1016	GC22	A	05/12/05 15:29
QC293445	Aroclor-1221	GC22	A	05/12/05 15:29
QC293445	Aroclor-1232	GC22	A	05/12/05 15:29
QC293445	Aroclor-1242	GC22	A	05/12/05 15:29
QC293445	Aroclor-1248	GC22	A	05/12/05 15:29
QC293445	Aroclor-1254	GC22	A	05/12/05 15:29
QC293445	Aroclor-1260	GC22	A	05/12/05 15:29
QC293445	TCMX	GC22	B	05/12/05 15:29
QC293445	Decachlorobiphenyl	GC22	B	05/12/05 15:29
QC293446	Aroclor-1232	GC22	A	05/12/05 15:56
QC293446	TCMX	GC22	B	05/12/05 15:56
QC293446	Decachlorobiphenyl	GC22	B	05/12/05 15:56
QC293447	Aroclor-1232	GC22	A	05/12/05 17:23
QC293447	TCMX	GC22	B	05/12/05 17:23
QC293447	Decachlorobiphenyl	GC22	B	05/12/05 17:23
QC293448	Aroclor-1232	GC22	A	05/12/05 17:50
QC293448	TCMX	GC22	B	05/12/05 17:50
QC293448	Decachlorobiphenyl	GC22	B	05/12/05 17:50

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB2ASB100(4.0)	Batch#:	101977
Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Moisture: 13%

Analyte	Result	RL	MDL
Naphthalene	ND	5.7	0.88
Acenaphthylene	ND	5.7	1.7
Acenaphthene	ND	5.7	0.87
Fluorene	ND	5.7	1.3
Phenanthrene	ND	5.7	1.1
Anthracene	ND	5.7	1.4
Fluoranthene	ND	5.7	1.5
Pyrene	ND	5.7	1.3
Benzo(a)anthracene	ND	5.7	1.2
Chrysene	ND	5.7	1.1
Benzo(b)fluoranthene	ND	5.7	1.2
Benzo(k)fluoranthene	ND	5.7	0.68
Benzo(a)pyrene	ND	5.7	1.0
Indeno(1,2,3-cd)pyrene	ND	5.7	1.1
Dibenz(a,h)anthracene	ND	5.7	1.0
Benzo(g,h,i)perylene	ND	5.7	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	100	37-140
2-Fluorobiphenyl	94	38-120
Terphenyl-d14	104	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293592	Batch#:	101977
Matrix:	Soil	Prepared:	05/12/05
Units:	ug/Kg	Analyzed:	05/12/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.77
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.76
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.95
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.3
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	0.96
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.60
Benzo(a)pyrene	ND	5.0	0.90
Indeno(1,2,3-cd)pyrene	ND	5.0	0.96
Dibenz(a,h)anthracene	ND	5.0	0.89
Benzo(g,h,i)perylene	ND	5.0	0.87

Surrogate	%REC	Limits
Nitrobenzene-d5	90	37-140
2-Fluorobiphenyl	96	38-120
Terphenyl-d14	108	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293593	Batch#:	101977
Matrix:	Soil	Prepared:	05/12/05
Units:	ug/Kg	Analyzed:	05/12/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.26	36.02	108	49-128
Pyrene	33.26	34.57	104	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	108	37-140
2-Fluorobiphenyl	102	38-120
Terphenyl-d14	102	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB2ASB100(4.0)	Batch#:	101977
MSS Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	ug/Kg	Prepared:	05/12/05
Basis:	dry	Analyzed:	05/12/05
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC293594

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8727	37.88	39.37	104	39-138
Pyrene	<1.291	37.88	39.56	104	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	101	37-140
2-Fluorobiphenyl	93	38-120
Terphenyl-d14	99	44-137

Type: MSD Moisture: 13%
Lab ID: QC293595

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	37.85	37.85	100	39-138	4	39
Pyrene	37.85	37.58	99	28-159	5	45

Surrogate	%REC	Limits
Nitrobenzene-d5	98	37-140
2-Fluorobiphenyl	90	38-120
Terphenyl-d14	94	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

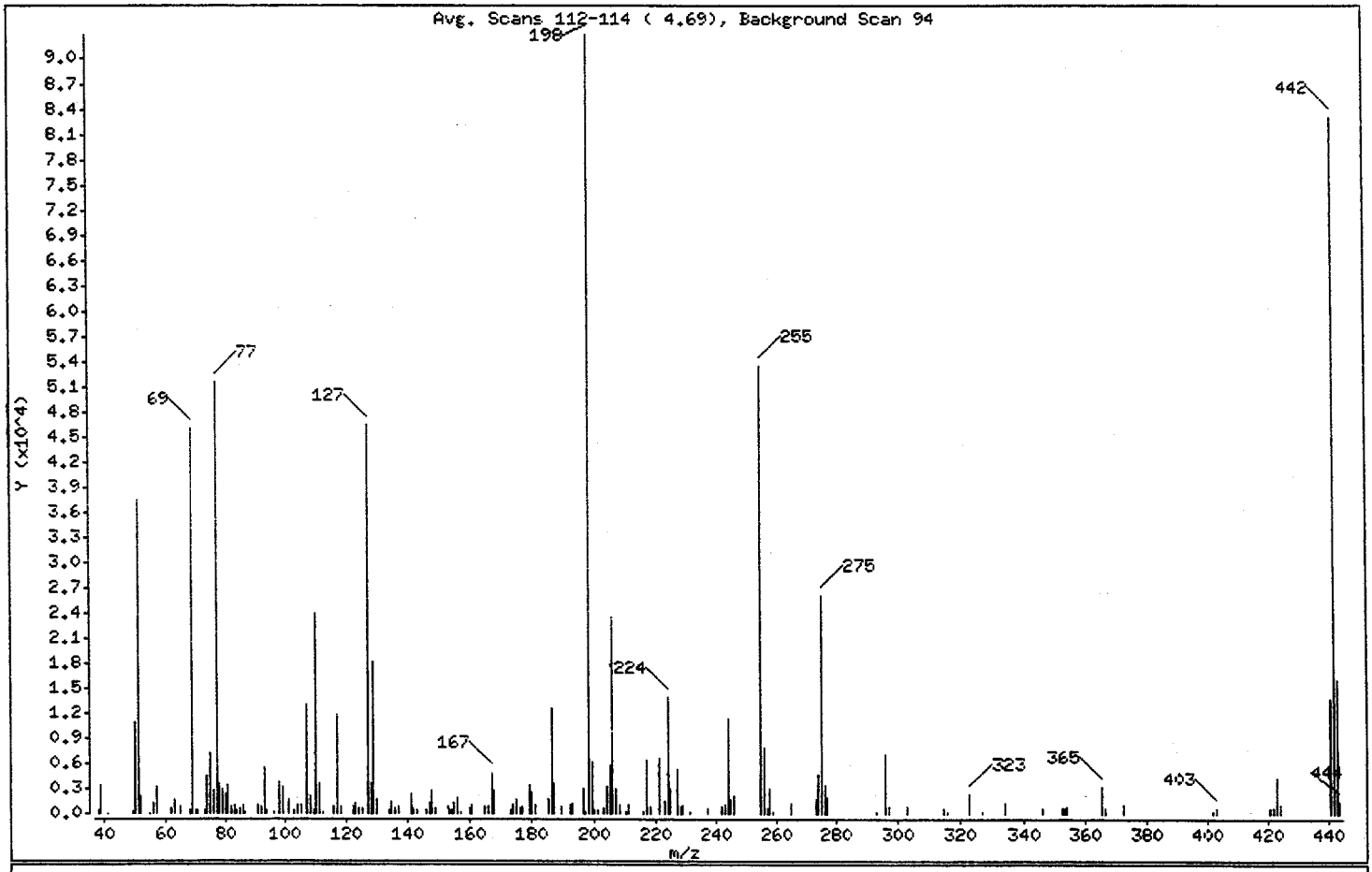
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	69.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM SCAN

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051205.b\VEC01.D

Date : 12-MAY-2005 15:49

Client ID: dftpp tune std

Instrument: MSBNA03.i

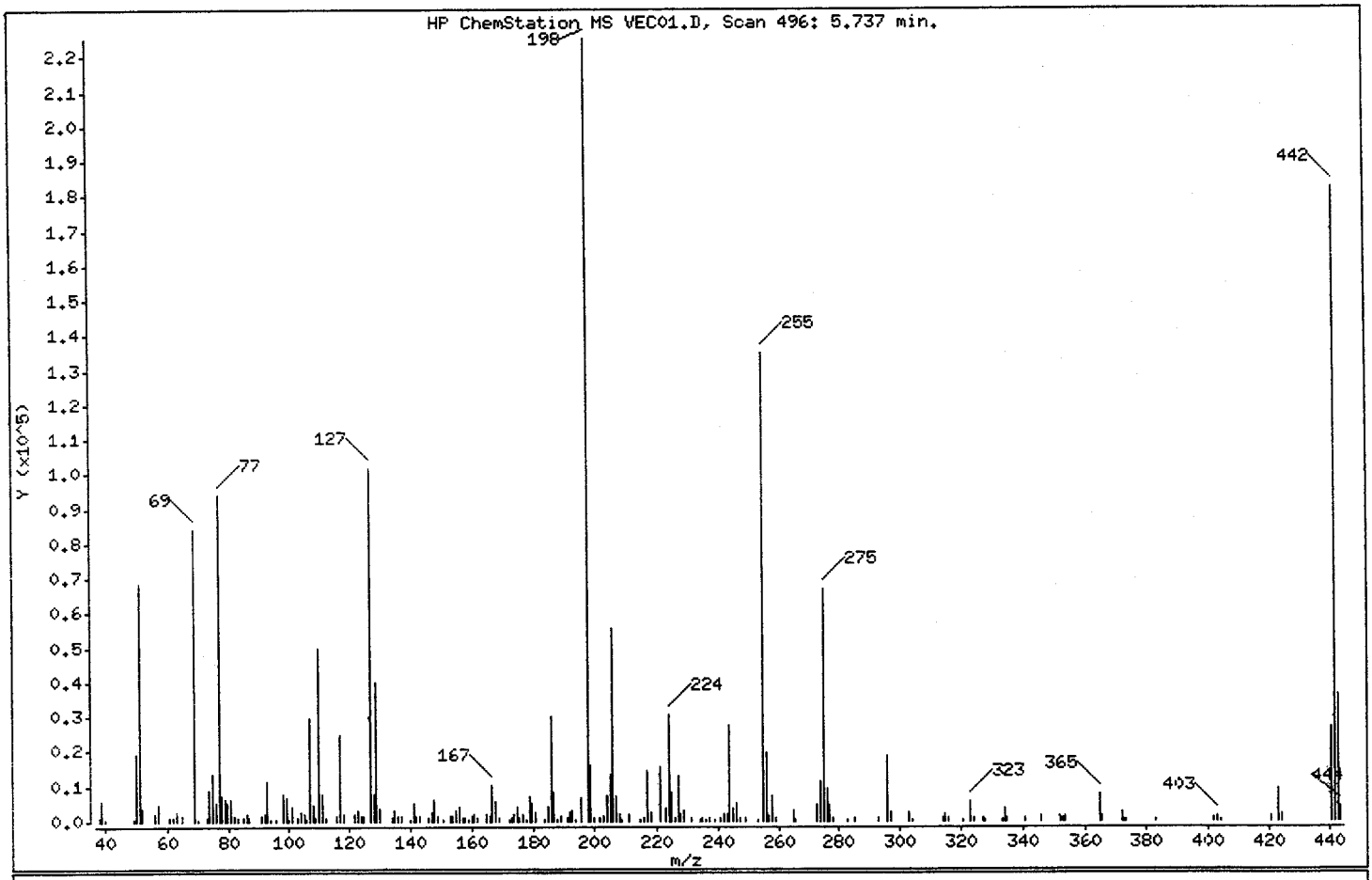
Sample Info: TUN,S513

Operator: BNA

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	30.44
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.33
70	Less than 2.00% of mass 69	0.23 (0.61)
127	40.00 - 60.00% of mass 198	45.25
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.07
275	10.00 - 30.00% of mass 198	29.65
365	Greater than 1.00% of mass 198	3.34
441	Present, but less than mass 443	12.08
442	40.00 - 99.99% of mass 198	80.94
443	17.00 - 23.00% of mass 442	16.19 (20.00)

T. F 13/05

BNA05 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

65

ICAL: OK
BNA: OK

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

4/25/05

4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

99

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : PAHDIOX IDF : 1.0
Seqnum : 525191029002 Filename : vec02 Injected : 12-MAY-2005 16:09
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4602	1.000000	1.157000	ng	16	30	0.0500	m
Naphthalene	0.8875	0.9943	1.000000	1.120300	ng	12	30	0.0500	
2-Methylnaphthalene	0.6056	0.7007	1.000000	1.157000	ng	16	30	0.0500	
Acenaphthylene	1.6578	1.7704	1.000000	1.067900	ng	7	30	0.0500	
Acenaphthene	1.0255	1.1609	1.000000	1.132000	ng	13	20	0.0500	
Fluorene	1.2395	1.3767	1.000000	1.110700	ng	11	30	0.0500	
Phenanthrene	0.9650	1.0773	1.000000	1.116300	ng	12	30	0.0500	
Anthracene	0.8558	0.9029	1.000000	1.055000	ng	6	30	0.0500	
Fluoranthene	1.0752	1.1348	1.000000	1.055400	ng	6	20	0.0500	
Pyrene	1.1306	1.2184	1.000000	1.077600	ng	8	30	0.0500	
Benzo(a)anthracene	1.0288	1.0375	1.000000	1.008400	ng	1	30	0.0500	
Chrysene	1.0217	1.1412	1.000000	1.117000	ng	12	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.5201	1.000000	1.148100	ng	15	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.8357	1.000000	1.022900	ng	2	30	0.0500	
Benzo(a)pyrene	1.1063	1.0924	1.000000	0.987400	ng	-1	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4238	1.000000	1.178600	ng	18	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.1944	1.000000	1.241600	ng	**24**	30	0.0500	!c+
Benzo(g,h,i)perylene	1.0276	1.2512	1.000000	1.217600	ng	**22**	30	0.0500	!c+
Nitrobenzene-d5	0.2512	0.2730	1.000000	1.086700	ng	9	30	0.0500	
2-Fluorobiphenyl	1.3678	1.5717	1.000000	1.149100	ng	15	30	0.0500	
Terphenyl-d14	0.9054	0.9926	1.000000	1.096300	ng	10	30	0.0500	

5/13/05

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 12-MAY-2005
Sequence: 525191029 (vec)
Instrument ID: MSBNA03

CCV Filename: vec02
Date Analyzed: 12-MAY-2005
Time Analyzed: 16:09

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24686	6.85	99117	8.52	48941	11.08	92391	13.29	88362	17.15	75514	18.93
LOWER LIMIT	12343	6.35	49559	8.02	24471	10.58	46196	12.79	44181	16.65	37757	18.43
UPPER LIMIT	49372	7.35	198234	9.02	97882	11.58	184782	13.79	176724	17.65	151028	19.43

TYPE	SAMPLE	#										
CCV	PAHDIOX	002	24686	6.85	99117	8.52	48941	11.08	92391	13.29	88362	17.15	75514	18.93
BLANK	QC293592	003	22966	6.85	102584	8.52	50536	11.08	96943	13.29	86957	17.15	76165	18.93
LCS	QC293593	004	23362	6.85	105809	8.52	51415	11.08	101165	13.29	94298	17.15	81732	18.93
MSS	179384-001	005	21925	6.85	100604	8.52	48855	11.08	95270	13.29	85899	17.15	74922	18.93
MS	QC293594	006	23634	6.85	105102	8.52	53175	11.08	102870	13.29	96287	17.15	86119	18.93
MSD	QC293595	007	24656	6.85	113040	8.52	55047	11.08	107605	13.29	101626	17.15	93706	18.93
SAMPLE	179266-003	008	24281	6.85	110159	8.52	55360	11.08	110346	13.29	94547	17.15	87748	18.93
SAMPLE	179266-006	009	25340	6.85	110943	8.52	58515	11.08	114247	13.29	94051	17.15	77668	18.93
SAMPLE	179266-002	010	25282	6.85	112020	8.52	55587	11.08	102688	13.29	77637	17.15	68715	18.93
SAMPLE	179413-002	011	24151	6.85	109204	8.52	56950	11.08	95604	13.29	79387	17.15	69697	18.93
SAMPLE	179266-001	012	23869	6.85	108422	8.52	55222	11.08	105510	13.29	63776	17.16	38088	18.94
SAMPLE	179266-007	013	24773	6.85	111146	8.52	57548	11.08	106703	13.29	49039	17.18	13525*	19.00
SAMPLE	179266-004	014	25154	6.85	107370	8.52	59622	11.09	115823	13.29	68193	17.16	28040*	18.94

* = Outside QC Limits

VSNA03 8270 SIM CONTINUING

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	70
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

Page 1 of 1

CC 04/27/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525191029 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 12-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vec01	TUN	NP NL			12-MAY-2005 15:49	1.0	1.0				1	
002	vec02	CCV	PAHDIOX			12-MAY-2005 16:09	1.0	1.0			1	2	
003	vec03	BLANK	QC293592	101977	Soil	12-MAY-2005 20:07	1.0	0.03327			1	3	
004	vec04	LCS	QC293593	101977	Soil	12-MAY-2005 20:38	1.0	0.03326			1	3	
005	vec05	MSS	179384-001	101977	Soil	12-MAY-2005 21:10	1.0	0.03303			1	3	
006	vec06	MS	QC293594	101977	Soil	12-MAY-2005 21:42	1.0	0.03296			1	3	
007	vec07	MSD	QC293595	101977	Soil	12-MAY-2005 22:13	1.0	0.03293			1	3	
008	vec08	SAMPLE	179266-003	101977	Soil	12-MAY-2005 22:44	1.0	0.03331			1	3	
009	vec09	SAMPLE	179266-006	101977	Soil	12-MAY-2005 23:16	1.0	0.03301	2		1	3	
010	vec10	SAMPLE	179266-002	101977	Soil	12-MAY-2005 23:47	1.0	0.03317	1		1	3	
011	vec11	SAMPLE	179413-002	101977	Soil	13-MAY-2005 00:19	1.0	0.03312			1	3	
012	vec12	SAMPLE	179266-001	101977	Soil	13-MAY-2005 00:51	2.0	0.03327	2	1	1	3	
013	vec13	SAMPLE	179266-007	101977	Soil	13-MAY-2005 01:22	1.0	0.03305	2		1	3	
014	vec14	SAMPLE	179266-004	101977	Soil	13-MAY-2005 01:54	1.0	0.03308	2		1	3	
015	vec15	X	ENDBLANK			13-MAY-2005 02:19	1.0						
016	vec16	X	ENDBLANK			13-MAY-2005 02:30	1.0						
017	vec17	X	ENDBLANK			13-MAY-2005 02:41	1.0						
018	vec18	X	ENDBLANK			13-MAY-2005 02:51	1.0						
019	vec19	X	ENDBLANK			13-MAY-2005 03:02	1.0						
020	vec20	X	ENDBLANK			13-MAY-2005 03:13	1.0						
021	vec21	X	ENDBLANK			13-MAY-2005 03:24	1.0						

CCV: OK
- Dibenz(a,h)anthracene ↑; Benzo(ghi)perylene ↑ but variability meets
ICAL: OK
ICV: OK

Stds used: 1=S513 2=S490 3=05WS0254

Analyst: _____ Date: 5/13/05 ✓ LH 5/13/05

Curtis & Tompkins Laboratories Sample Preparation Summary 12-MAY-2005 17:59

Batch Number : 101977
Date Extracted: 12-MAY-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S369F
Spike #2 ID : S212B
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.f.	Clean D.f.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179266-001			Mactec, Inc.	Soil	30.06	g	1	0.033267	1		1	0		8270-SIM		
179266-002			Mactec, Inc.	Soil	30.15	g	1	0.033167	1		1	0		8270-SIM		
179266-003			Mactec, Inc.	Soil	30.02	g	1	0.033311	1		1	0		8270-SIM		
179266-004			Mactec, Inc.	Soil	30.23	g	1	0.033080	1		1	0		8270-SIM		
179266-006			Mactec, Inc.	Soil	30.29	g	1	0.033014	1		1	0		8270-SIM		
179266-007			Mactec, Inc.	Soil	30.26	g	1	0.033047	1		1	0		8270-SIM		
179384-001			Mactec, Inc.	Soil	30.28	g	1	0.033025	1		1	0		8270-SIM		mss
179413-002			Montezuma Wetlands LLC	Soil	30.19	g	1	0.033124	1		1	0		8270-SIM		
QC293592	MB			Soil	30.06	g	1	0.033267	1		1	0		8270-SIM		
QC293593	LCS			Soil	30.07	g	1	0.033256	1		1	1		8270-SIM		
QC293594	MS	of 179384-001		Soil	30.34	g	1	0.032960	1		1	1		8270-SIM		
QC293595	MSD	of 179384-001		Soil	30.37	g	1	0.032927	1		1	1		8270-SIM		

72

Prep Chemist: _____ Reviewed By: _____ Date: 5/12/05

Relinquished By: _____ Received By: _____ Date: 5/13/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG**

LIMS Batch No: 101977
LIMS Analysis 8270-SIM
Extracted by: SLK
Date Extracted: 05/12/05

Extraction Method:
- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ Other _____

Cleanup Method (if necessary):
- ☐ EPA 3640a GPC
- ☐ EPA 3630c Silica Gel
- ☐ Other _____

Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
MB QC 293592	30.06	1.0		
LCS 3	30.07			
MS 4	30.34			179384-001
MSD 5	30.37			↓
179266-001	30.06			
-002	30.15			
-003	30.52			
-004	30.23			
-006	30.29			
-007	30.26			
179384-001	30.28			MSS
179413-002	30.19			

SLK 05/12/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM 4028452	SLK 05/12/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM 4130507	
1.0 mL of surrogate solution was added to all samples	S369F	
1.0 mL of matrix spiking solution was added to all spikes	S212B	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM 45071	
Acetone	EM 44233	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM 4436507 / EM 4413463	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

TOTAN

05/12/05
Extraction Chemist / Date

Continued from page —
Continued on page —

Jennifer Dee 5/12/05
Reviewed by / Date

Project SOIL ALIQUOT BK2/35

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179372-001A	15.22	8081	
-002	15.03		
-003	15.17		
-004	15.15		
-005	15.15		
-006	15.20		
-007	15.15		
-008	15.15		MSS 179372-008A
-MS	15.20		↓
-MSD	15.01		EM4402845Z
-LCS	15.00		↓
-MB	15.10		
-009A	15.23		
179307-009A	15.07	PCB	MSS 179307-009A
-MS	15.17		↓
-MSD	15.01		EM4402845Z
-LCS	15.00		↓
-MB	15.10		
179382-001A	30.10	8310	
179382-001A	5000	TEHM	
179384-001A	15.24	PCB	
179384-001A	15.22	8081	
179384-001A	30.28	8270-SIM	MSS 179384-001A
-MS	30.34		↓
-MSD	30.37		EM4402845Z
-LCS	30.07		↓
-MB	30.06		

Continued on Page

Signed — Date 5/11/05 — Read and Understood By: Signed — Date

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179384	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB2ASB100(4.0)	Basis:	dry
Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	mg/Kg		

Moisture: 13%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.43	0.27	0.065	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Arsenic	4.0	0.27	0.089	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Barium	130	1.1	0.11	20.00	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.38	0.27	0.057	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Cadmium	0.064 J	0.27	0.012	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Chromium	66	0.54	0.11	10.00	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Cobalt	26	0.27	0.0038	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Copper	16	0.27	0.10	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Lead	5.8	0.27	0.0089	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Mercury	ND	0.018	0.0034	1.000	102047	05/16/05	05/16/05	METHOD	EPA 7471A
Molybdenum	0.54	0.27	0.0057	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Nickel	68	0.64	0.64	10.00	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Selenium	0.26 J	0.27	0.11	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Silver	0.017 J	0.27	0.0035	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Thallium	0.15 J	0.27	0.014	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Vanadium	66	0.54	0.32	10.00	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020
Zinc	35	1.1	0.061	5.000	102065	05/17/05	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293857	Batch#:	102047
Matrix:	Soil	Prepared:	05/16/05
Units:	mg/Kg	Analyzed:	05/16/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC293915	Batch#:	102065
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	0.095 J	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	0.0038 J	0.25	0.0035
Copper	ND	0.25	0.097
Lead	0.012 J	0.25	0.0082
Molybdenum	0.028 J	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	0.035 J	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102047
Units:	mg/Kg	Prepared:	05/16/05
Basis:	as received	Analyzed:	05/16/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC293858	0.5000	0.5130	103	80-120		
BSD	QC293859	0.5000	0.5070	101	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	102065
Units:	mg/Kg	Prepared:	05/17/05
Basis:	as received	Analyzed:	05/17/05
Diln Fac:	5.000		

Type: BS Lab ID: QC293916

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	22.78	91	80-120
Arsenic	25.00	23.71	95	80-120
Barium	25.00	22.73	91	80-120
Beryllium	25.00	21.50	86	80-120
Cadmium	25.00	22.51	90	80-120
Chromium	25.00	25.89	104	80-120
Cobalt	25.00	24.82	99	80-120
Copper	25.00	24.67	99	80-120
Lead	25.00	25.01	100	80-120
Molybdenum	25.00	22.31	89	80-120
Nickel	25.00	24.70	99	80-125
Selenium	25.00	22.96	92	80-120
Silver	25.00	22.36	89	80-120
Thallium	25.00	23.58	94	66-120
Vanadium	25.00	25.64	103	80-120
Zinc	25.00	24.88	100	80-120

Type: BSD Lab ID: QC293917

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.77	95	80-120	4	20
Arsenic	25.00	24.31	97	80-120	2	20
Barium	25.00	23.48	94	80-120	3	20
Beryllium	25.00	22.03	88	80-120	2	20
Cadmium	25.00	22.99	92	80-120	2	20
Chromium	25.00	26.22	105	80-120	1	20
Cobalt	25.00	26.26	105	80-120	6	20
Copper	25.00	25.40	102	80-120	3	20
Lead	25.00	25.24	101	80-120	1	20
Molybdenum	25.00	23.07	92	80-120	3	20
Nickel	25.00	26.13	105	80-125	6	20
Selenium	25.00	23.76	95	80-120	3	20
Silver	25.00	23.16	93	80-120	4	20
Thallium	25.00	23.28	93	66-120	1	20
Vanadium	25.00	26.31	105	80-120	3	20
Zinc	25.00	25.22	101	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	102047
MSS Lab ID:	179329-013	Sampled:	05/09/05
Matrix:	Soil	Received:	05/10/05
Units:	mg/Kg	Prepared:	05/16/05
Basis:	dry	Analyzed:	05/16/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC293860	0.3546	0.7178	1.187	116	64-139	19%		
MSD	QC293861		0.6430	1.021	104	64-139	19%	8	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	MS	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293918	Received:	05/11/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05

Moisture: 13%

Analyte	MSS Result	Spiked	Result	%REC	Limits	Dil'n Fac
Antimony	0.4269	27.90	10.40	36	28-120	5.000
Arsenic	4.035	27.90	28.57	88	70-120	5.000
Barium	131.9	27.90	123.4 >LR	-30 NM	46-165	5.000
Beryllium	0.3849	27.90	24.48	86	72-120	5.000
Cadmium	0.06392	27.90	25.18	90	74-120	5.000
Chromium	65.60	27.90	88.55	82	45-160	50.00
Cobalt	25.77	27.90	51.24	91	62-136	50.00
Copper	15.91	27.90	41.66	92	47-164	5.000
Lead	5.753	27.90	32.36	95	60-140	5.000
Molybdenum	0.5438	27.90	24.29	85	74-120	5.000
Nickel	67.66	27.90	89.83	79	51-172	50.00
Selenium	0.2556	27.90	24.18	86	66-120	5.000
Silver	0.01749	27.90	24.70	88	74-120	5.000
Thallium	0.1505	27.90	25.44	91	57-120	5.000
Vanadium	65.55	27.90	85.26	71	19-177	50.00
Zinc	34.95	27.90	172.7	494 *	39-166	50.00

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	MSD	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293928	Received:	05/11/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05

Moisture: 13%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dil'n Fac
Antimony	28.45	11.28	38	28-120	6	24	5.000
Arsenic	28.45	29.73	90	70-120	2	20	5.000
Barium	28.45	123.8 >LR	-29 NM	46-165	NC	23	5.000
Beryllium	28.45	25.76	89	72-120	3	20	5.000
Cadmium	28.45	26.25	92	74-120	2	20	5.000
Chromium	28.45	92.64	95	45-160	4	29	50.00
Cobalt	28.45	58.32	114	62-136	12	20	50.00
Copper	28.45	43.36	96	47-164	3	21	5.000
Lead	28.45	34.55	101	60-140	5	24	5.000
Molybdenum	28.45	25.72	88	74-120	4	20	5.000
Nickel	28.45	98.44	108	51-172	9	22	50.00
Selenium	28.45	25.17	88	66-120	2	20	5.000
Silver	28.45	26.04	91	74-120	3	20	5.000
Thallium	28.45	27.63	97	57-120	6	20	5.000
Vanadium	28.45	93.04	97	19-177	8	30	50.00
Zinc	28.45	64.41	104	39-166	92 *	33	50.00

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	102047
MSS Lab ID:	179329-013	Sampled:	05/09/05
Lab ID:	QC293862	Received:	05/10/05
Matrix:	Soil	Analyzed:	05/16/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture	% Diff	Lim
0.3546	0.02627	0.3448	0.1313	19%	3	10

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	Serial Dilution	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293919	Received:	05/11/05
Matrix:	Soil	Analyzed:	05/17/05
Units:	mg/Kg		

Moisture: 13%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim	Dilu Fac
Antimony	0.4269	0.2711		0.7612 J	1.355		10	25.00
Arsenic	4.035	0.2711		4.224	1.355		10	25.00
Barium	131.9	1.084		138.0	5.422	5	10	100.0
Beryllium	0.3849	0.2711		0.4007 J	1.355		10	25.00
Cadmium	0.06392	0.2711	ND		1.355		10	25.00
Chromium	65.60	0.5422		63.22	1.355	4	10	50.00
Cobalt	25.77	0.2711		26.71	1.355	4	10	25.00
Copper	15.91	0.2711		17.24	1.355	8	10	25.00
Lead	5.753	0.2711		5.704	1.355	1	10	25.00
Molybdenum	0.5438	0.2711		0.6609 J	1.355	22 *	10	25.00
Nickel	67.66	0.6433		66.69	5.422	1	10	50.00
Selenium	0.2556	0.2711		0.6278 J	1.355		10	25.00
Silver	0.01749	0.2711		0.02615 J	1.355		10	25.00
Thallium	0.1505	0.2711		0.2194 J	1.355		10	25.00
Vanadium	65.55	0.5422		61.65	2.711	6	10	50.00
Zinc	34.95	1.084		36.78	13.55	5	10	25.00

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid	: MET05	Instid	: MET05
Seqnum	: 55197993024	Seqnum	: 55197993040
Filename	: e1711024	Filename	: e1711040
IDF	: 5.0	IDF	: 5.0
PDF	: 47.17	PDF	: 47.17
Run type	: MSS	Run type	: PDS
Samplenum	: 179384-001	Samplenum	: QC293920
Matrix	: Soil	Matrix	: Soil
Batchnum	: 102065	Batchnum	: 102065
Inj	: 17-MAY-2005 14:06	Inj	: 17-MAY-2005 15:41
Units	: ug/L		

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	1.575	100.0	101.4	100	75-125	u
Arsenic	14.88	100.0	111.7	97	75-125	u
Barium	*** usable MSS data not found ***					
Beryllium	1.420	100.0	91.78	90	75-125	u
Cadmium	0.2358	100.0	93.24	93	75-125	u
Calcium	3532	10000	11360	78	75-125	i+ y
Chromium	*** usable MSS data not found ***					
Cobalt	95.06	100.0	191.0	96	75-125	u
Copper	58.70	100.0	154.5	96	75-125	u
Iron	*** usable MSS data not found ***					
Lead	21.22	100.0	123.6	102	75-125	u
Magnesium	14340	10000	20920 >LR	66	75-125	>LR i+ y b*
Manganese	*** usable MSS data not found ***					
Molybdenum	2.006	100.0	97.78	96	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1832	10000	9498	77	75-125	i+
Selenium	0.9430	100.0	96.38	95	75-125	u
Silver	0.06452	100.0	92.94	93	75-125	u
Sodium	945.6	10000	9106	82	75-125	i+
Thallium	0.5552	100.0	98.22	98	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	128.9	100.0	222.0 >LR	93	75-125	>LR b*

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	808168	4.35
Scandium	932275	1124308	20.60 *
Germanium	198061	184478	-6.86
Indium	1221416	1028630	-15.78
Bismuth	808221	621939	-23.05

+=high bias >LR=overrange b=noncompliant i=ISTD failure u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179384 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179384-001	MET04	05/16/05 15:23	1.0										+							
179384-001	MET07	05/17/05 12:26	1.0																	
179384-001	MET05	05/17/05 14:06	5.0	+	+		+	+		+	+	+		+		+	+	+		+
179384-001	MET05	05/17/05 14:53	10.0						+						+				+	
179384-001	MET05	05/17/05 15:05	20.0			+														
179384-001	MET05	05/17/05 15:23	5.0																	
QC293857	MET04	05/16/05 14:35	1.0										+							
QC293858	MET04	05/16/05 14:38	1.0										+							
QC293859	MET04	05/16/05 14:41	1.0										+							
QC293860	MET04	05/16/05 14:48	1.0										+							
QC293861	MET04	05/16/05 14:51	1.0										+							
QC293862	MET04	05/16/05 16:00	5.0										+							
QC293863	MET04	05/16/05 16:03	1.0										+							
QC293915	MET05	05/17/05 13:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293916	MET05	05/17/05 13:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293917	MET05	05/17/05 13:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC293918	MET05	05/17/05 15:29	5.0	+	+	+	+	+			+	+		+		+	+	+		
QC293918	MET05	05/17/05 15:46	50.0						+	+					+				+	+
QC293919	MET05	05/17/05 14:12	25.0	+	+		+	+		+	+	+		+		+	+	+		+
QC293919	MET05	05/17/05 14:59	50.0						+						+				+	
QC293919	MET05	05/17/05 15:17	100.0			+														
QC293920	MET05	05/17/05 15:41	5.0	+	+		+	+		+	+	+		+		+	+	+		
QC293920	MET05	05/17/05 16:33	50.0																	
QC293928	MET05	05/17/05 15:35	5.0	+	+	+	+	+			+	+		+		+	+	+		
QC293928	MET05	05/17/05 16:28	50.0						+	+					+				+	+

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45196691 Instrument: MET04 HydraAA HG Analyzer Begun: 16-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102047	ICALBLK	Std01Rep1				16-MAY-2005 14:11	1.0	1.0									
002	102047	ICAL	Std02Rep1				16-MAY-2005 14:14	1.0	1.0									
003	102047	ICAL	Std03Rep1				16-MAY-2005 14:16	1.0	1.0									
004	102047	ICAL	Std04Rep1				16-MAY-2005 14:19	1.0	1.0									
005	102047	ICAL	Std05Rep1				16-MAY-2005 14:21	1.0	1.0									
006	102047	ICAL	Std06Rep1				16-MAY-2005 14:24	1.0	1.0									
007	102047	ICV					16-MAY-2005 14:29	1.0	1.0	2	7.500	45196691001	7.720		ug/L	103		
008	102047	ICB					16-MAY-2005 14:32	1.0	1.0			45196691001	ND	0.20	ug/L			
009	102047	BLANK	QC293857		102047	Soil	16-MAY-2005 14:35	1.0	100.0			45196691001	ND	0.020	mg/Kg			u
010	102047	BS	QC293858		102047	Soil	16-MAY-2005 14:38	1.0	100.0		0.5000	45196691001	0.5130	0.020	mg/Kg	103		u
011	102047	BSD	QC293859		102047	Soil	16-MAY-2005 14:41	1.0	100.0		0.5000	45196691001	0.5070	0.020	mg/Kg	101	1	u
012	102047	MSS	179329-013		102047	Soil	16-MAY-2005 14:45	1.0	106.4			45196691001	0.29	0.021	mg/Kg			u
013	102047	MS	QC293860	179329-013	102047	Soil	16-MAY-2005 14:48	1.0	116.3		0.5814	45196691001	0.9616	0.023	mg/Kg	116		u
014	102047	MSD	QC293861	179329-013	102047	Soil	16-MAY-2005 14:51	1.0	104.2		0.5208	45196691001	0.8271	0.021	mg/Kg	104	8	u
015	102047	SAMPLE	179329-014		102047	Soil	16-MAY-2005 14:55	1.0	51.55			45196691001	1.5 >LR	0.010	mg/Kg			>LR b*
016	102047	SAMPLE	179329-015		102047	Soil	16-MAY-2005 14:58	1.0	90.91			45196691001	1.4 >LR	0.018	mg/Kg			! >LR c
017	102047	SAMPLE	179329-028		102047	Soil	16-MAY-2005 15:01	1.0	116.3			45196691001	0.95	0.023	mg/Kg			u
018	102047	SAMPLE	179329-029		102047	Soil	16-MAY-2005 15:04	1.0	80.65			45196691001	0.88 >LR	0.016	mg/Kg			>LR b*
019	102047	CCV					16-MAY-2005 15:08	1.0	1.0	3	2.500	45196691001	2.510		ug/L	100		
020	102047	CCB					16-MAY-2005 15:11	1.0	1.0			45196691001	ND	0.20	ug/L			
021	102047	SAMPLE	179329-030		102047	Soil	16-MAY-2005 15:14	1.0	104.2			45196691001	1.1 >LR	0.021	mg/Kg			! >LR c
022	102047	SAMPLE	179329-039		102047	Soil	16-MAY-2005 15:16	1.0	69.44			45196691001	1.9 >LR	0.014	mg/Kg			>LR b*
023	102047	SAMPLE	179329-040		102047	Soil	16-MAY-2005 15:20	1.0	96.15			45196691001	14 >LR	0.019	mg/Kg			! >LR c
024	102047	SAMPLE	179384-001		102047	Soil	16-MAY-2005 15:23	1.0	78.13			45196691001	ND	0.016	mg/Kg			u
025	102047	SAMPLE	179388-001		102047	Soil	16-MAY-2005 15:25	1.0	50.51			45196691001	0.069	0.010	mg/Kg			u
026	102047	SAMPLE	179388-002		102047	Soil	16-MAY-2005 15:28	1.0	100.0			45196691001	0.049	0.020	mg/Kg			u
027	102047	SAMPLE	179388-003		102047	Soil	16-MAY-2005 15:31	1.0	72.46			45196691001	0.054	0.014	mg/Kg			u
028	102047	SAMPLE	179388-004		102047	Soil	16-MAY-2005 15:34	1.0	72.46			45196691001	0.72	0.014	mg/Kg			u
029	102047	SAMPLE	179388-005		102047	Soil	16-MAY-2005 15:36	1.0	90.91			45196691001	ND	0.018	mg/Kg			u
030	102047	SAMPLE	179388-006		102047	Soil	16-MAY-2005 15:39	1.0	113.6			45196691001	0.081	0.023	mg/Kg			u
031	102047	CCV					16-MAY-2005 15:43	1.0	1.0	4	5.000	45196691001	5.440		ug/L	109		
032	102047	CCB					16-MAY-2005 15:45	1.0	1.0			45196691001	ND	0.20	ug/L			
033	102047	SAMPLE	179388-007		102047	Soil	16-MAY-2005 15:48	1.0	62.50			45196691001	0.049	0.013	mg/Kg			u
034	102047	SAMPLE	179446-002		102047	Soil	16-MAY-2005 15:50	1.0	86.21			45196691001	ND	0.017	mg/Kg			u
035	102047	SAMPLE	179457-002		102047	Soil	16-MAY-2005 15:53	1.0	104.2			45196691001	0.043	0.021	mg/Kg			u
036	102047	SAMPLE	179457-003		102047	Soil	16-MAY-2005 15:56	1.0	104.2			45196691001	0.044	0.021	mg/Kg			u
037	102047	SAMPLE	179457-004		102047	Soil	16-MAY-2005 15:58	1.0	68.49			45196691001	0.035	0.014	mg/Kg			u
038	102047	SER	QC293862	179329-013	102047	Soil	16-MAY-2005 16:00	5.0	106.4			45196691001	0.28	0.11	mg/Kg		3	u
039	102047	PDS	QC293863	179329-013	102047	Soil	16-MAY-2005 16:03	1.0	106.4	1	0.5319	45196691001	1.016	0.021	mg/Kg	137*		u
040	102047	SAMPLE	179329-014		102047	Soil	16-MAY-2005 16:08	10.0	51.55			45196691001	1.6	0.10	mg/Kg			u
041	102047	SAMPLE	179329-015		102047	Soil	16-MAY-2005 16:11	10.0	90.91			45196691001	1.4	0.18	mg/Kg			u
042	102047	SAMPLE	179329-029		102047	Soil	16-MAY-2005 16:13	2.0	80.65			45196691001	0.89	0.032	mg/Kg			u

Stds used: 1=S614 2=S619 3=S617 4=S618
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: Fabian Marin Date: 5/17/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45196691 Instrument: MET04 HydraAA HG Analyzer Begun: 16-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
043	102047	CCV					16-MAY-2005 16:16	1.0	1.0	2	7.500	45196691001	7.910		ug/L	105		
044	102047	CCB					16-MAY-2005 16:18	1.0	1.0			45196691001	ND	0.20	ug/L			
045	102047	SAMPLE	179329-030		102047	Soil	16-MAY-2005 16:21	2.0	104.2			45196691001	1.1	0.042	mg/Kg			u
046	102047	SAMPLE	179329-039		102047	Soil	16-MAY-2005 16:23	10.0	69.44			45196691001	2.0	0.14	mg/Kg			u
047	102047	SAMPLE	179329-040		102047	Soil	16-MAY-2005 16:25	50.0	96.15			45196691001	20	0.96	mg/Kg			u
048	102047	CCV					16-MAY-2005 16:28	1.0	1.0	3	2.500	45196691001	2.730		ug/L	109		
049	102047	CCB					16-MAY-2005 16:30	1.0	1.0			45196691001	ND	0.20	ug/L			

89

Stds used: 1=S614 2=S619 3=S617 4=S618
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: [signature] Date: 5/17/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45196691001 Name: Type: SOIL Date: 16-MAY-2005 14:11 Inj Vol (uL): 2000

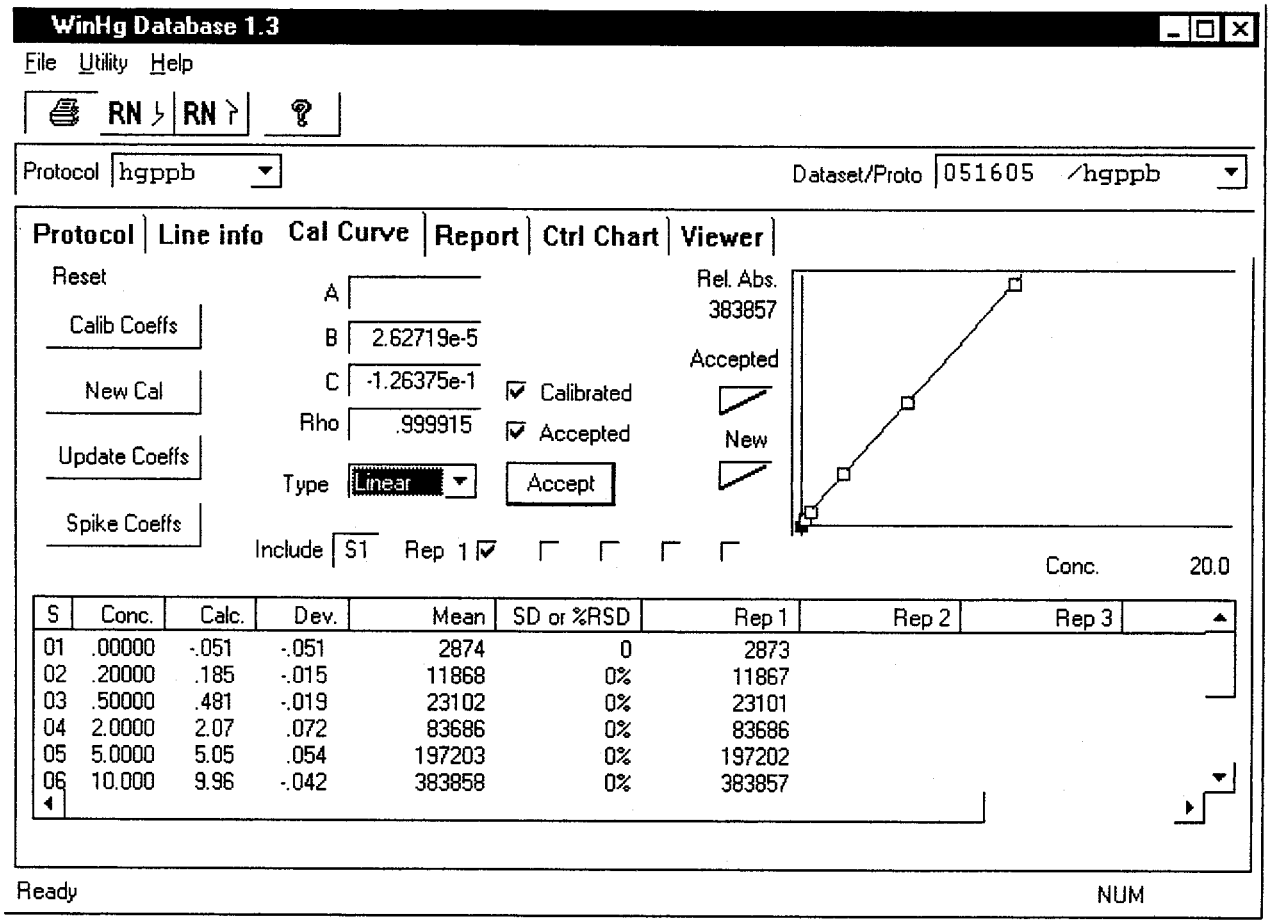
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102047	45196691002	Std02Rep1	16-MAY-2005 14:14	S614 (500X)
2	102047	45196691003	Std03Rep1	16-MAY-2005 14:16	S614 (200X)
3	102047	45196691004	Std04Rep1	16-MAY-2005 14:19	S614 (50X)
4	102047	45196691005	Std05Rep1	16-MAY-2005 14:21	S614 (20X)
5	102047	45196691006	Std06Rep1	16-MAY-2005 14:24	S614 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	59335	46202	41843	39440	38386	LINR	R	-0.12637	2.627E-5		ug/L	45041	1.000	.99	

06

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 051605 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.62719e-5
C -1.26375e-1
Rho .999915
Type Linear
Calibrated
Accepted
Accept
Include S1 Rep 1
Rel. Abs.
383857
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.051 -.051 2874 0 2873
02 .20000 .185 -.015 11868 0% 11867
03 .50000 .481 -.019 23102 0% 23101
04 2.0000 2.07 .072 83686 0% 83686
05 5.0000 5.05 .054 197203 0% 197202
06 10.000 9.96 -.042 383858 0% 383857
Ready
NUM

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 53		14:11:03 16 May 05			HG
Hg	.000	ppb	2873						
		Bkgd 1	9401221						
*** Standard: 2 Rep: 1				Seq: 54		14:14:07 16 May 05			HG
Hg	.200	ppb	11867						
		Bkgd 1	9403570						
*** Standard: 3 Rep: 1				Seq: 55		14:16:39 16 May 05			HG
Hg	.500	ppb	23101						
		Bkgd 1	9400861						
*** Standard: 4 Rep: 1				Seq: 56		14:19:14 16 May 05			HG
Hg	2.00	ppb	83686						
		Bkgd 1	9402206						
*** Standard: 5 Rep: 1				Seq: 57		14:21:55 16 May 05			HG
Hg	5.00	ppb	197202						
		Bkgd 1	9401457						
*** Standard: 6 Rep: 1				Seq: 58		14:24:40 16 May 05			HG
Hg	10.0	ppb	383857						
		Bkgd 1	9399559						
*** Check Standard: 4			Ck4s619	Seq: 59		14:29:14 16 May 05			HG
Line	Flag		Intensities						
Hg			298562						
		Bkgd 1	9399538						
*** Check Standard: 6			Ck6CCB	Seq: 60		14:32:32 16 May 05			HG
Line	Flag		Intensities						
Hg			-2733						
		Bkgd 1	9391887						
*** Sample ID: qc293857				Seq: 61		14:35:43 16 May 05			HG
			102047,1						
Hg	-.021	ppb	4019						
		Bkgd 1	9391535						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45196691 Instrument: MET04 HydraAA HG Analyzer Begun: 16-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102047	ICALBLK	Std01Rep1				16-MAY-2005 14:11	1.0	1.0									
002	102047	ICAL	Std02Rep1				16-MAY-2005 14:14	1.0	1.0									
003	102047	ICAL	Std03Rep1				16-MAY-2005 14:16	1.0	1.0									
004	102047	ICAL	Std04Rep1				16-MAY-2005 14:19	1.0	1.0									
005	102047	ICAL	Std05Rep1				16-MAY-2005 14:21	1.0	1.0									
006	102047	ICAL	Std06Rep1				16-MAY-2005 14:24	1.0	1.0									
007	102047	ICV					16-MAY-2005 14:29	1.0	1.0	2	7.500	45196691001	7.720		ug/L	103		
008	102047	ICB					16-MAY-2005 14:32	1.0	1.0			45196691001	ND	0.20	ug/L			
009	102047	BLANK	QC293857		102047	Soil	16-MAY-2005 14:35	1.0	100.0			45196691001	ND	0.020	mg/Kg			u
010	102047	BS	QC293858		102047	Soil	16-MAY-2005 14:38	1.0	100.0		0.5000	45196691001	0.5130	0.020	mg/Kg	103		u
011	102047	BSD	QC293859		102047	Soil	16-MAY-2005 14:41	1.0	100.0		0.5000	45196691001	0.5070	0.020	mg/Kg	101	1	u
012	102047	MSS	179329-013		102047	Soil	16-MAY-2005 14:45	1.0	106.4			45196691001	0.29	0.021	mg/Kg			u
013	102047	MS	QC293860	179329-013	102047	Soil	16-MAY-2005 14:48	1.0	116.3		0.5814	45196691001	0.9616	0.023	mg/Kg	116		u
014	102047	MSD	QC293861	179329-013	102047	Soil	16-MAY-2005 14:51	1.0	104.2		0.5208	45196691001	0.8271	0.021	mg/Kg	104	8	u
015	102047	SAMPLE	179329-014		102047	Soil	16-MAY-2005 14:55	1.0	51.55			45196691001	1.5 >LR	0.010	mg/Kg			>LR b*
016	102047	SAMPLE	179329-015		102047	Soil	16-MAY-2005 14:58	1.0	90.91			45196691001	1.4 >LR	0.018	mg/Kg			! >LR c
017	102047	SAMPLE	179329-028		102047	Soil	16-MAY-2005 15:01	1.0	116.3			45196691001	0.95	0.023	mg/Kg			u
018	102047	SAMPLE	179329-029		102047	Soil	16-MAY-2005 15:04	1.0	80.65			45196691001	0.88 >LR	0.016	mg/Kg			>LR b*
019	102047	CCV					16-MAY-2005 15:08	1.0	1.0	3	2.500	45196691001	2.510		ug/L	100		
020	102047	CCB					16-MAY-2005 15:11	1.0	1.0			45196691001	ND	0.20	ug/L			
021	102047	SAMPLE	179329-030		102047	Soil	16-MAY-2005 15:14	1.0	104.2			45196691001	1.1 >LR	0.021	mg/Kg			! >LR c
022	102047	SAMPLE	179329-039		102047	Soil	16-MAY-2005 15:16	1.0	69.44			45196691001	1.9 >LR	0.014	mg/Kg			>LR b*
023	102047	SAMPLE	179329-040		102047	Soil	16-MAY-2005 15:20	1.0	96.15			45196691001	14 >LR	0.019	mg/Kg			! >LR c
024	102047	SAMPLE	179384-001		102047	Soil	16-MAY-2005 15:23	1.0	78.13			45196691001	ND	0.016	mg/Kg			u
025	102047	SAMPLE	179388-001		102047	Soil	16-MAY-2005 15:25	1.0	50.51			45196691001	0.069	0.010	mg/Kg			u
026	102047	SAMPLE	179388-002		102047	Soil	16-MAY-2005 15:28	1.0	100.0			45196691001	0.049	0.020	mg/Kg			u
027	102047	SAMPLE	179388-003		102047	Soil	16-MAY-2005 15:31	1.0	72.46			45196691001	0.054	0.014	mg/Kg			u
028	102047	SAMPLE	179388-004		102047	Soil	16-MAY-2005 15:34	1.0	72.46			45196691001	0.72	0.014	mg/Kg			u
029	102047	SAMPLE	179388-005		102047	Soil	16-MAY-2005 15:36	1.0	90.91			45196691001	ND	0.018	mg/Kg			u
030	102047	SAMPLE	179388-006		102047	Soil	16-MAY-2005 15:39	1.0	113.6			45196691001	0.081	0.023	mg/Kg			u
031	102047	CCV					16-MAY-2005 15:43	1.0	1.0	4	5.000	45196691001	5.440		ug/L	109		
032	102047	CCB					16-MAY-2005 15:45	1.0	1.0			45196691001	ND	0.20	ug/L			
033	102047	SAMPLE	179388-007		102047	Soil	16-MAY-2005 15:48	1.0	62.50			45196691001	0.049	0.013	mg/Kg			u
034	102047	SAMPLE	179446-002		102047	Soil	16-MAY-2005 15:50	1.0	86.21			45196691001	ND	0.017	mg/Kg			u
035	102047	SAMPLE	179457-002		102047	Soil	16-MAY-2005 15:53	1.0	104.2			45196691001	0.043	0.021	mg/Kg			u
036	102047	SAMPLE	179457-003		102047	Soil	16-MAY-2005 15:56	1.0	104.2			45196691001	0.044	0.021	mg/Kg			u
037	102047	SAMPLE	179457-004		102047	Soil	16-MAY-2005 15:58	1.0	68.49			45196691001	0.035	0.014	mg/Kg			u
038	102047	SER	QC293862	179329-013	102047	Soil	16-MAY-2005 16:00	5.0	106.4			45196691001	0.28	0.11	mg/Kg		3	u
039	102047	PDS	QC293863	179329-013	102047	Soil	16-MAY-2005 16:03	1.0	106.4	1	0.5319	45196691001	1.016	0.021	mg/Kg	137*		u
040	102047	SAMPLE	179329-014		102047	Soil	16-MAY-2005 16:08	10.0	51.55			45196691001	1.6	0.10	mg/Kg			u
041	102047	SAMPLE	179329-015		102047	Soil	16-MAY-2005 16:11	10.0	90.91			45196691001	1.4	0.18	mg/Kg			u
042	102047	SAMPLE	179329-029		102047	Soil	16-MAY-2005 16:13	2.0	80.65			45196691001	0.89	0.032	mg/Kg			u

Stds used: 1=S614 2=S619 3=S617 4=S618
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: Adrian Marin Date: 5/17/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45196691 Instrument: MET04 HydraAA HG Analyzer Begun: 16-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
043	102047	CCV					16-MAY-2005 16:16	1.0	1.0	2	7.500	45196691001	7.910		ug/L	105		
044	102047	CCB					16-MAY-2005 16:18	1.0	1.0			45196691001	ND	0.20	ug/L			
045	102047	SAMPLE	179329-030		102047	Soil	16-MAY-2005 16:21	2.0	104.2			45196691001	1.1	0.042	mg/Kg			u
046	102047	SAMPLE	179329-039		102047	Soil	16-MAY-2005 16:23	10.0	69.44			45196691001	2.0	0.14	mg/Kg			u
047	102047	SAMPLE	179329-040		102047	Soil	16-MAY-2005 16:25	50.0	96.15			45196691001	20	0.96	mg/Kg			u
048	102047	CCV					16-MAY-2005 16:28	1.0	1.0	3	2.500	45196691001	2.730		ug/L	109		
049	102047	CCB					16-MAY-2005 16:30	1.0	1.0			45196691001	ND	0.20	ug/L			

94

Stds used: 1=S614 2=S619 3=S617 4=S618
Flags used: !=calc err >LR=overrange b=noncompliant calc=calculation error u=use

Analyst: Andrea Main Date: 5/17/05

Curtis & Tompkins Laboratories Sample Preparation Summary 16-MAY-2005 13:13

Batch Number : 102047
Date Extracted: 16-MAY-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S614
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179329-013			Weston Solutions	Soil	.47	g	50	106.382979	1				T26/HG		
179329-014			Weston Solutions	Soil	.97	g	50	51.546392	1				T26/HG		
179329-015			Weston Solutions	Soil	.55	g	50	90.909091	1				T26/HG		
179329-028			Weston Solutions	Soil	.43	g	50	116.279070	1				T26/HG		
179329-029			Weston Solutions	Soil	.62	g	50	80.645161	1				T26/HG		
179329-030			Weston Solutions	Soil	.48	g	50	104.166667	1				T26/HG		
179329-039			Weston Solutions	Soil	.72	g	50	69.444444	1				T26/HG		
179329-040			Weston Solutions	Soil	.52	g	50	96.153846	1				T26/HG		
179384-001			Mactec, Inc.	Soil	.64	g	50	78.125000	1				T26/HG		
179388-001			AGS, Inc.	Soil	.99	g	50	50.505051	1				T26/HG		
179388-002			AGS, Inc.	Soil	.5	g	50	100.000000	1				T26/HG		
179388-003			AGS, Inc.	Soil	.69	g	50	72.463768	1				T26/HG		
179388-004			AGS, Inc.	Soil	.69	g	50	72.463768	1				T26/HG		
179388-005			AGS, Inc.	Soil	.55	g	50	90.909091	1				T26/HG		
179388-006			AGS, Inc.	Soil	.44	g	50	113.636364	1				T26/HG		
179388-007			AGS, Inc.	Soil	.8	g	50	62.500000	1				T26/HG		
179446-002			Shaw Environmental	Soil	.58	g	50	86.206897	1				T26/HG		
179457-002			Geomatrix Consultants	Soil	.48	g	50	104.166667	1				T26/HG		
179457-003			Geomatrix Consultants	Soil	.48	g	50	104.166667	1				T26/HG		
179457-004			Geomatrix Consultants	Soil	.73	g	50	68.493151	1				T26/HG		
QC293857	MB			Soil	.5	g	50	100.000000	1				HG		
QC293858	BS			Soil	.5	g	50	100.000000	1	2.5			HG		
QC293859	BSD			Soil	.5	g	50	100.000000	1	2.5			HG		
QC293860	MS	of 179329-013		Soil	.43	g	50	116.279070	1	2.5			HG		
QC293861	MSD	of 179329-013		Soil	.48	g	50	104.166667	1	2.5			HG		
QC293862	SER	of 179329-013		Soil	.47	g	50	106.382979	1				HG		
QC293863	PDS	of 179329-013		Soil	.47	g	50	106.382979	1				HG		

Prep Chemist: Andres Marin Reviewed By: K Carlyon Date: 5/16/05

Relinquished By: [signature] Received By: [signature] Date: 5/16/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 162049
Date Digested: 5/16/05
Digested by: AM

Digestion Method
☑ EPA 7471A
☐ _____

BK 2086
Page 71

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	179329-013 MSS	.47	50	N	comps
	014	.97			
	15	.55			
	28	.43			
5	29	.62			
	30	.48			
	39	.72			
	40	.52			
	179384-001	.64			
10	179388-001 A	.99		✓	
	2	.5		N	
	3	.69			
	4	.69			
	5	.55			
15	6	.44			
	7	.8			
	179446-002	.58			
	~~179454-001~~ AMSL IC				
	179457-002 A	.48			
20	3	.48			
	4	.73			
	MS	.47			
	MSD	.48		✓	
	BS	.5		✓	
	BSD	.5		✓	
	MB	.5		✓	

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	SG14	
ICAL Source WS#	SG14	
ICV / CCV WS#	SG16, 17, 18, 19	
Digestion of Samples & Standards: Time ON / Temperature ON	11:30 AM 95°C	
Time OFF/ Temperature OFF	1200 PM 95°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 051605	
5% $KMnO_4$	K 051205	
5% $K_2S_2O_8$	—	
NaCl.hydroxylamine hydrochloride	Hy 042805	
Stannous Chloride	SnCl 051605	
☐ filtered thru' 0.45 um syringe filter		

Prep Chemist / Date

Continued from page 1

Continued on page 1

Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1711001	TUN	tune			17-MAY-2005 11:53	1.0	1.0				1	
003	e1711003	ICALBLK	std-blk			17-MAY-2005 12:03	1.0	1.0				2	
004	e1711004	ICAL	cs1			17-MAY-2005 12:09	1.0	1.0				3	
005	e1711005	ICAL	cs2			17-MAY-2005 12:14	1.0	1.0				4	
006	e1711006	ICAL	cs3			17-MAY-2005 12:19	1.0	1.0				5	
007	e1711007	ICAL	cs4			17-MAY-2005 12:24	1.0	1.0				6	
008	e1711008	ICAL	cs5			17-MAY-2005 12:30	1.0	1.0				7	
009	e1711009	ICAL	cs6			17-MAY-2005 12:35	1.0	1.0				8	
010	e1711010	ICV				17-MAY-2005 12:40	1.0	1.0			1	9	
012	e1711012	ICB				17-MAY-2005 12:51	1.0	1.0	1		1	2	
013	e1711013	ICSA				17-MAY-2005 12:57	1.0	1.0			1	10 2	7:CA=286500
014	e1711014	ICSAB				17-MAY-2005 13:03	1.0	1.0			1	11 2	11:CA=293200
016	e1711016	BS	QC293616	101983	SPLP L	17-MAY-2005 13:15	10.0	1.0	1	1	1	2	1:AL=1858.00
017	e1711017	BSD	QC293617	101983	SPLP L	17-MAY-2005 13:20	10.0	1.0	1		1	2	1:AL=1805.00
018	e1711018	SSPIKE	QC293619	101983	SPLP L	17-MAY-2005 13:27	10.0	1.0			1	2	1:AL=2100.00
019	e1711019	X	RINSE	101904		17-MAY-2005 13:32	1.0					2	97
020	e1711020	BLANK	QC293915	102065	Soil	17-MAY-2005 13:42	5.0	50.0			1	2	
021	e1711021	BS	QC293916	102065	Soil	17-MAY-2005 13:48	5.0	50.0			1	2	
022	e1711022	BSD	QC293917	102065	Soil	17-MAY-2005 13:54	5.0	50.0			1	2	
024	e1711024	MSS	179384-001	102065	Soil	17-MAY-2005 14:06	5.0	47.17	7		1	2	7:FE=100660
025	e1711025	SER	QC293919	102065	Soil	17-MAY-2005 14:12	25.0	47.17		3	1	2	3:FE=21212.0
029	e1711029	CCV				17-MAY-2005 14:35	1.0	1.0			1	12	
031	e1711031	CCB				17-MAY-2005 14:47	1.0	1.0	1		1	2	
032	e1711032	MSS	179384-001	102065	Soil	17-MAY-2005 14:53	10.0	47.17	4		1	2	4:FE=50910.0
033	e1711033	SER	QC293919	102065	Soil	17-MAY-2005 14:59	50.0	47.17		2	1	2	2:AL=6928.00
034	e1711034	MSS	179384-001	102065	Soil	17-MAY-2005 15:05	20.0	47.17	3		1	2	3:FE=25585.0
035	e1711035	X				17-MAY-2005 15:11	1.0					2	
036	e1711036	SER	QC293919	102065	Soil	17-MAY-2005 15:17	100.0	47.17		2	1	2	1:AL=3796.00
037	e1711037	MSS	179384-001	102065	Soil	17-MAY-2005 15:23	5.0	47.17	7		1	2	7:FE=96720.0
038	e1711038	MS	QC293918	102065	Soil	17-MAY-2005 15:29	5.0	48.54	5		1	2	9:FE=104380
039	e1711039	MSD	QC293928	102065	Soil	17-MAY-2005 15:35	5.0	49.50	6		1	2	10:FE=104660

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: [signature] Date: 5/17/1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e1711040	PDS	QC293920	102065	Soil	17-MAY-2005 15:41	5.0	47.17	2		1	13 2	9:FE=104060
041	e1711041	MS	QC293918	102065	Soil	17-MAY-2005 15:46	50.0	48.54		1	1	2	2:AL=6622.00
043	e1711043	CCV				17-MAY-2005 15:58	1.0	1.0			1	14 2	
047	e1711047	CCB				17-MAY-2005 16:22	1.0	1.0	1		1	2	
048	e1711048	MSD	QC293928	102065	Soil	17-MAY-2005 16:28	50.0	49.50		1	1	2	2:AL=6510.00
049	e1711049	PDS	QC293920	102065	Soil	17-MAY-2005 16:33	50.0	47.17			1	13 2	2:AL=6732.00
050	e1711050	SAMPLE	179408-002	102065	Soil	17-MAY-2005 16:39	10.0	53.76			1	2	12:FE=28370.0
051	e1711051	SAMPLE	179408-003	102065	Soil	17-MAY-2005 16:45	10.0	37.88			1	2	16:FE=41970.0
053	e1711053	MSS	179290-001	101904	Water	17-MAY-2005 16:57	2.0	1.0			1	2	
054	e1711054	SER	QC293303	101904	Water	17-MAY-2005 17:03	10.0	1.0		3	1	2	
055	e1711055	MS	QC293301	101904	Water	17-MAY-2005 17:09	2.0	1.0		1	1	2	
056	e1711056	MSD	QC293302	101904	Water	17-MAY-2005 17:15	2.0	1.0		2	1	2	
057	e1711057	PDS	QC293304	101904	Water	17-MAY-2005 17:21	2.0	1.0		1	1	13 2	
059	e1711059	SAMPLE	179290-002	101904	Water	17-MAY-2005 17:33	2.0	1.0			1	2	
061	e1711061	CCV				17-MAY-2005 17:44	1.0	1.0			1	14 2	
063	e1711063	CCB				17-MAY-2005 17:56	1.0	1.0	1		1	2	98
064	e1711064	SAMPLE	179290-003	101904	Water	17-MAY-2005 18:02	5.0	1.0			1	2	
065	e1711065	SAMPLE	179290-004	101904	Water	17-MAY-2005 18:08	1.0	1.0			1	2	
066	e1711066	SAMPLE	179290-007	101904	Water	17-MAY-2005 18:14	2.0	1.0			1	2	
067	e1711067	SAMPLE	179290-013	101904	Water	17-MAY-2005 18:20	2.0	1.0	1		1	2	1:CA=24585.0
068	e1711068	SAMPLE	179290-013	101904	Water	17-MAY-2005 18:26	5.0	1.0	1		1	2	
069	e1711069	SAMPLE	179290-014	101904	Water	17-MAY-2005 18:31	1.0	1.0	1		1	2	1:NA=20520.0
070	e1711070	SAMPLE	179290-015	101904	Water	17-MAY-2005 18:37	1.0	1.0	2		1	2	2:CA=26120.0
071	e1711071	SAMPLE	179290-016	101904	Water	17-MAY-2005 18:43	1.0	1.0			1	2	
072	e1711072	SAMPLE	179290-017	101904	Water	17-MAY-2005 18:49	1.0	1.0	1		1	2	1:CA=22860.0
073	e1711073	ICSA				17-MAY-2005 18:55	1.0	1.0			1	10 2	7:CA=285700
077	e1711077	CCV				17-MAY-2005 19:18	1.0	1.0			1	12 2	
079	e1711079	CCB				17-MAY-2005 19:30	1.0	1.0	1		1	2	
080	e1711080	ICSAB				17-MAY-2005 19:36	1.0	1.0			1	11 2	10:CA=288900
084	e1711084	CCV				17-MAY-2005 19:59	1.0	1.0			1	12 2	
086	e1711086	CCB				17-MAY-2005 20:11	1.0	1.0	1		1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: _____ Date: 5/17/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
087	e1711087	SAMPLE	179445-001	102065	Soil	17-MAY-2005 20:17	5.0	49.02	3	1	2	6:FE=77620.0
088	e1711088	SAMPLE	179445-002	102065	Soil	17-MAY-2005 20:22	5.0	39.06	5	1	2	8:FE=99480.0
089	e1711089	SAMPLE	179445-003	102065	Soil	17-MAY-2005 20:28	5.0	44.64	4	1	2	6:FE=91100.0
090	e1711090	SAMPLE	179445-004	102065	Soil	17-MAY-2005 20:34	5.0	54.35	3	1	2	6:FE=39560.0
091	e1711091	SAMPLE	179445-005	102065	Soil	17-MAY-2005 20:40	5.0	32.05	4	1	2	8:FE=167040
092	e1711092	SAMPLE	179445-006	102065	Soil	17-MAY-2005 20:46	5.0	54.35	3	1	2	7:CA=34160.0
093	e1711093	SAMPLE	179445-007	102065	Soil	17-MAY-2005 20:52	5.0	44.64	3	1	2	7:FE=59760.0
094	e1711094	SAMPLE	179445-008	102065	Soil	17-MAY-2005 20:57	5.0	39.06	6	1	2	10:FE=155740
095	e1711095	SAMPLE	179445-009	102065	Soil	17-MAY-2005 21:03	5.0	33.56	2	1	2	7:FE=83960.0
096	e1711096	SAMPLE	179445-010	102065	Soil	17-MAY-2005 21:09	5.0	40.0	1	1	2	6:FE=68960.0
098	e1711098	CCV				17-MAY-2005 21:21	1.0	1.0	1	1	12 2	
100	e1711100	CCB				17-MAY-2005 21:32	1.0	1.0	1	1	2	
101	e1711101	SAMPLE	179445-011	102065	Soil	17-MAY-2005 21:38	5.0	38.76		1	2	3:FE=41100.0
102	e1711102	SAMPLE	179445-001	102065	Soil	17-MAY-2005 21:44	50.0	49.02		1	2	1:AL=3574.00
103	e1711103	SAMPLE	179445-002	102065	Soil	17-MAY-2005 21:50	50.0	39.06		1	2	2:AL=3462.00
104	e1711104	SAMPLE	179445-003	102065	Soil	17-MAY-2005 21:56	50.0	44.64		1	2	1:AL=3954.00
105	e1711105	SAMPLE	179445-004	102065	Soil	17-MAY-2005 22:02	50.0	54.35		1	2	1:AL=1610.60
106	e1711106	SAMPLE	179445-005	102065	Soil	17-MAY-2005 22:08	50.0	32.05		1	2	1:AL=7022.00
107	e1711107	SAMPLE	179445-006	102065	Soil	17-MAY-2005 22:13	50.0	54.35	1	1	2	2:AL=1397.60
108	e1711108	SAMPLE	179445-007	102065	Soil	17-MAY-2005 22:19	50.0	44.64		1	2	1:AL=2692.00
109	e1711109	SAMPLE	179445-008	102065	Soil	17-MAY-2005 22:25	50.0	39.06		1	2	2:AL=8518.00
110	e1711110	SAMPLE	179445-009	102065	Soil	17-MAY-2005 22:31	50.0	33.56		1	2	1:AL=2390.00
112	e1711112	CCV				17-MAY-2005 22:43	1.0	1.0		1	12 2	
114	e1711114	CCB				17-MAY-2005 22:54	1.0	1.0	1	1	2	
115	e1711115	ICSA				17-MAY-2005 23:00	1.0	1.0		1	10 2	7:CA=275100
116	e1711116	ICSAB				17-MAY-2005 23:06	1.0	1.0		1	11 2	8:CA=286300

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: _____ Date: 5/17/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55197993001 Name: Type: (normal) Date: 17-MAY-2005 12:03 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1711004	55197993004	cs1	17-MAY-2005 12:09	S395
2	e1711005	55197993005	cs2	17-MAY-2005 12:14	S396
3	e1711006	55197993006	cs3	17-MAY-2005 12:19	S397
4	e1711007	55197993007	cs4	17-MAY-2005 12:24	S398
5	e1711008	55197993008	cs5	17-MAY-2005 12:30	S393
6	e1711009	55197993009	cs6	17-MAY-2005 12:35	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		1.7836	0.8643	0.4032	0.3565	0.3547	BLNK	R	-1.64312	2.844153		ug/L	0.7525	1.000	0.995	
Antimony	0.2228	0.2017	0.1772	0.1736	0.1763	0.1755	BLNK	R	-0.07676	5.696527		ug/L	0.1878	1.000	0.995	
Arsenic		0.3937	0.3615	0.3105	0.3035	0.3028	BLNK	R	-0.16698	3.303751		ug/L	0.3344	1.000	0.995	
Barium	0.0876	0.0703	0.0607	0.0579	0.0589	0.0581	BLNK	R	-0.11101	17.16617		ug/L	0.0656	1.000	0.995	
Beryllium	0.1290	0.1189	0.1188	0.1138	0.1146	0.1147	BLNK	R	-0.02503	8.719888		ug/L	0.1183	1.000	0.995	
Cadmium	0.5164	0.3628	0.3331	0.2659	0.2555	0.2488	BLNK	R	-0.26538	4.004209		ug/L	0.3304	1.000	0.995	
Calcium		0.0172	0.0141	0.0116	0.0118	0.0113	BLNK	R	-22.5316	87.69603		ug/L	0.0132	1.000	0.995	
Chromium		4.0456	2.9669	2.0400	1.9309	1.8945	BLNK	R	-0.52019	0.527442		ug/L	2.5756	1.000	0.995	
Cobalt	2.2665	2.1681	2.1786	2.1753	2.1325	2.0806	BLNK	R	-0.01609	0.478247		ug/L	2.1669	1.000	0.995	
Copper		0.9491	0.7438	0.5716	0.5396	0.5248	BLNK	R	-0.33684	1.898513		ug/L	0.6658	1.000	0.995	
Iron		0.0929	0.0718	0.0541	0.0527	0.0504	BLNK	R	-41.0660	19.70676		ug/L	0.0644	1.000	0.995	
Lead	0.8562	0.7288	0.6699	0.6393	0.6434	0.6334	BLNK	R	-0.08175	1.574567		ug/L	0.6952	1.000	0.995	
Magnesium		0.0450	0.0444	0.0477	0.0452	0.0436	BLNK	R	-0.72977	22.75601		ug/L	0.0452	1.000	0.995	
Manganese	3.9301	3.2811	2.8283	2.5714	2.5434	2.4701	BLNK	R	-0.12176	0.402724		ug/L	2.9374	1.000	0.995	
Molybdenum		0.5588	0.5116	0.5133	0.5126	0.5113	BLNK	R	-0.03833	1.955134		ug/L	0.5215	1.000	0.995	
Nickel	0.6737	0.6021	0.4968	0.4872	0.4640	0.4547	BLNK	R	-0.10136	2.191375		ug/L	0.5298	1.000	0.995	
Potassium		2.1357	1.2583	0.4515	0.3735	0.3633	BLNK	R	-246.119	2.777437		ug/L	0.9165	1.000	0.995	
Selenium		0.0872	0.0480	0.0206	0.0173	0.0170	BLNK	R	-1.77558	59.32904		ug/L	0.0380	1.000	0.995	
Silver	1.4860	1.3964	1.3177	1.2852	1.2662	1.2270	BLNK	R	-0.03179	0.809931		ug/L	1.3297	1.000	0.995	
Sodium		1.1253	0.7729	0.4828	0.4547	0.4334	BLNK	R	-64.8941	2.293507		ug/L	0.6538	0.999	0.995	

100

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55197993001 Name: Type: (normal) Date: 17-MAY-2005 12:03 Inj Vol (uL): 1

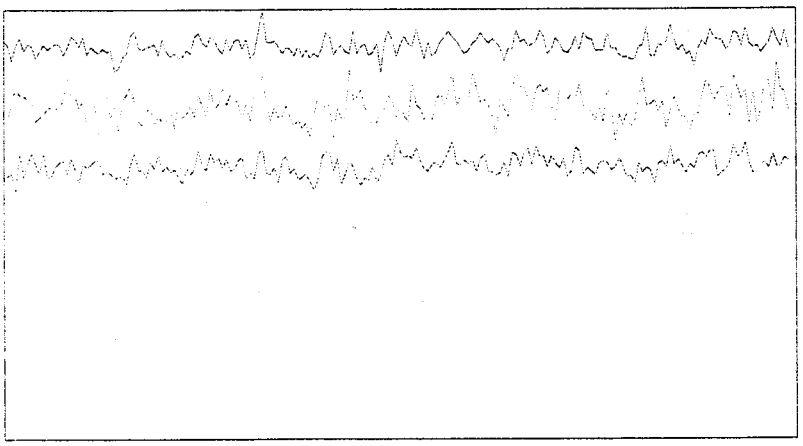
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.4745	0.4463	0.4545	0.4865	0.4963	BLNK	R	-0.05186	2.023925		ug/L	0.4716	1.000	0.995	
Vanadium		3.4466	2.7166	2.2606	2.2712	2.2172	BLNK	R	-0.14231	0.449207		ug/L	2.5825	1.000	0.995	
Zinc		1.4373	0.7293	0.3618	0.3134	0.3014	BLNK	R	-1.39653	3.319091		ug/L	0.6286	1.000	0.995	

101

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : Autotune.u

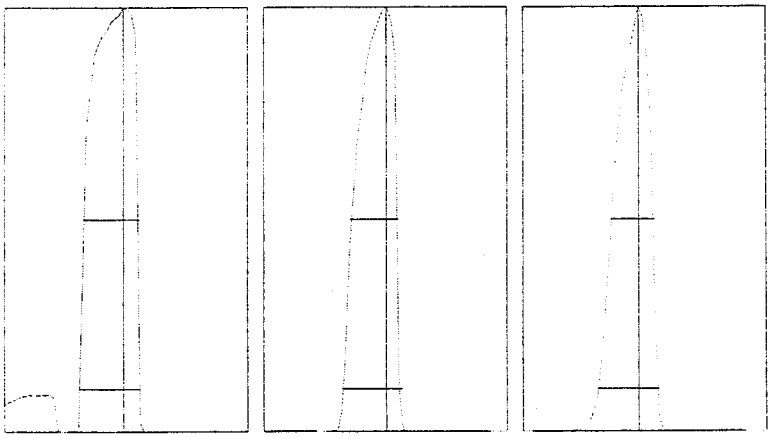


m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	18,127	32,472	38,085
Mean:	18308.4	31957.2	38955.3
RSD%:	2.23	3.61	4.30
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.37%
Doubly Charged: 70/140 1.08%
Background:

m/z:	7	89	205
Cps:	36.7	32.2	55.3



m/z:	7	89	205
Height:	18,356	32,686	40,111
Axis:	7.00	89.05	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1280 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 17, 2005 10:31:30
Printed : May 17, 2005 10:31:35

P/A Factor Tuning Report

Acquired:May 17 2005 11:07 am

Mass[amu]	Element	P/A Factor
6	Li	0.064325
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085306
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096313
45	Sc	0.092627
51	V	0.095859
52	Cr	0.098266
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100393
57	Fe	0.102948
59	Co	0.103533
60	Ni	Sensitivity too low
63	Cu	0.106145
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105501
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112721
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113648
118	(In)	0.111419
121	Sb	0.110743
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117861
166	Er	Sensitivity too low

Temp.p$$

205	Tl	0.124777
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.122988
209	Bi	0.123741
232	Th	0.124484
238	U	0.124619

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

Temp.p$$

P/A Factor Tuning Report

Acquired:May 17 2005 11:13 am

Mass[amu]	Element	P/A Factor
6	Li	0.064080
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085120
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.095560
45	Sc	0.092485
51	V	0.095136
52	Cr	0.097441
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099422
57	Fe	0.102087
59	Co	0.102572
60	Ni	Sensitivity too low
63	Cu	0.104711
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.104950
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110856
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113049
118	(In)	0.108947
121	Sb	0.109081
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117444
166	Er	Sensitivity too low

205	Tl	0.123345
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.121247
209	Bi	0.123047
232	Th	0.123326
238	U	0.122989

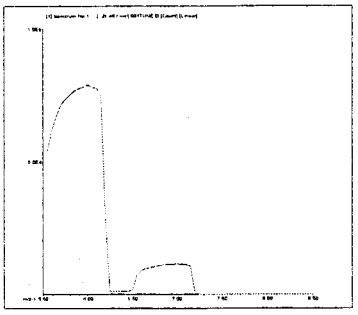
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

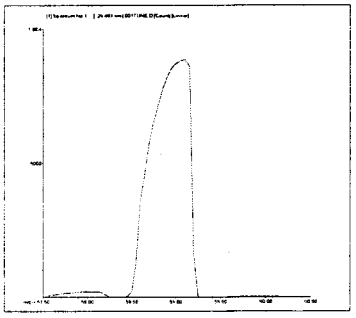
Data File: C:\ICPCHEM\1\DATA\05E1711a.B\001TUNE.D
Date Acquired: May 17 2005 11:53 am
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

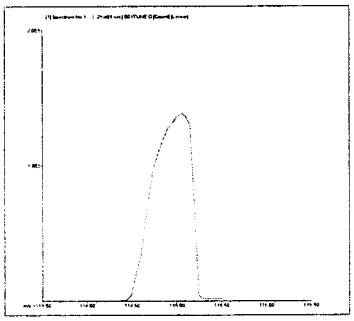
Element	Actual	Required	Flag
7 Li	0.86	5.00	
59 Co	1.44	5.00	
115 In	1.93	5.00	
205 Tl	2.05	5.00	



7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



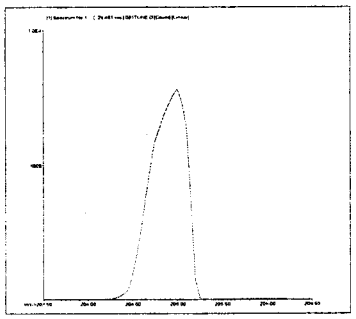
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 17 2005 11:57 am
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 17 2005 00:19 am
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.005079	ppb	151.68	-0.005079	1.00	
23 Na	50.6	ppb	1.77	50.6	1.00	
26 Mg	-2.189	ppb	2.91	-2.189	1.00	
27 Al	-0.1839	ppb	8.75	-0.1839	1.00	
39 K	39.22	ppb	7.54	39.22	1.00	
44 Ca	-1.032	ppb	74.24	-1.032	1.00	
51 V	-0.124	ppb	42.21	-0.124	1.00	
52 Cr	-0.01917	ppb	80.28	-0.01917	1.00	
55 Mn	0.01895	ppb	58.89	0.01895	1.00	
57 Fe	-26.21	ppb	2.79	-26.21	1.00	
59 Co	-0.01703	ppb	19.91	-0.01703	1.00	
60 Ni	0.01573	ppb	75.65	0.01573	1.00	
65 Cu	0.1589	ppb	15.32	0.1589	1.00	
66 Zn	0.8511	ppb	3.92	0.8511	1.00	
75 As	0.129	ppb	61.12	0.129	1.00	
82 Se	-0.08294	ppb	678.56	-0.08294	1.00	
95 Mo	-0.06099	ppb	12.17	-0.06099	1.00	
109 Ag	-0.004969	ppb	31.17	-0.004969	1.00	
111 Cd	-0.06014	ppb	26.99	-0.06014	1.00	
121 Sb	-0.1302	ppb	16.77	-0.1302	1.00	
137 Ba	-0.02302	ppb	83.84	-0.02302	1.00	
205 Tl	-0.005507	ppb	224.99	-0.005507	1.00	
208 Pb	-0.0204	ppb	28.89	-0.0204	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	767089.81	0.20	---	#VALUE!	30 - 200	
45 Sc	928955.19	2.22	---	#VALUE!	30 - 200	
72 Ge	197731.56	1.48	---	#VALUE!	30 - 200	

115 In	1218860.00	1.37	---		#VALUE!	30 - 200
209 Bi	793554.38	1.09	---		#VALUE!	30 - 200

ISTD Ref File : ---

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\003CAL
Date Acquired: May 17 2005 12:03 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:19 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	774508.13	A	3891.00	0.50
9	Be	44.44	P	6.94	15.61
23	Na	527485.63	P	4331.00	0.82
26	Mg	597.78	P	26.94	4.51
27	Al	10775.56	P	511.30	4.75
39	K	1652542.00	A	59580.00	3.61
44	Ca	4792.85	P	297.30	6.20
45	Sc	932274.81	A	18590.00	1.99
51	V	1259.18	P	616.50	48.96
52	Cr	3907.78	P	156.90	4.02
55	Mn	1198.89	P	141.10	11.77
57	Fe	8258.89	P	572.90	6.94
59	Co	133.33	P	15.28	11.46
60	Ni	183.33	P	26.03	14.20
65	Cu	703.33	P	64.38	9.15
66	Zn	1666.67	P	49.10	2.95
72	Ge	198061.30	P	2944.00	1.49
75	As	200.21	P	36.64	18.30
82	Se	118.79	P	25.34	21.33
95	Mo	77.78	P	15.03	19.32
109	Ag	155.56	P	15.75	10.13
111	Cd	262.59	P	11.86	4.52
115	In	1221416.00	A	32000.00	2.62
121	Sb	330.00	P	69.28	20.99
137	Ba	157.78	P	18.36	11.64
205	Tl	414.44	P	24.11	5.82
208	Pb	837.78	P	87.71	10.47
209	Bi	808221.13	P	22440.00	2.78
232	Th	2748.89	P	282.30	10.27
238	U	71.11	P	15.03	21.14

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\004CALI.D\004CALI.D#
Date Acquired: May 17 2005 12:09 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:05 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	778491.88	A	12950.00	1.66
9 Be	502.22	P	45.26	9.01
23 Na	804675.38	A	2898.00	0.36
26 Mg	21945.55	P	559.40	2.55
27 Al	13646.67	P	398.90	2.92
39 K	1853843.00	A	53830.00	2.90
44 Ca	10323.29	P	285.70	2.77
45 Sc	949376.63	A	8850.00	0.93
51 V	3791.04	P	131.50	3.47
52 Cr	6186.67	P	133.70	2.16
55 Mn	3962.22	P	138.90	3.51
57 Fe	13626.67	P	356.30	2.61
59 Co	2284.44	P	21.43	0.94
60 Ni	680.00	P	62.45	9.18
65 Cu	1353.24	P	83.73	6.19
66 Zn	2197.89	P	38.92	1.77
72 Ge	201678.20	P	4634.00	2.30
75 As	498.43	P	40.24	8.07
82 Se	132.01	P	22.61	17.13
95 Mo	661.11	P	41.14	6.22
109 Ag	1497.78	P	82.21	5.49
111 Cd	520.68	P	44.13	8.48
115 In	1229925.00	A	30340.00	2.47
121 Sb	1370.00	P	60.83	4.44
137 Ba	538.89	P	36.72	6.81
205 Tl	2114.44	P	115.30	5.45
208 Pb	3456.67	P	141.10	4.08
209 Bi	807367.69	P	23130.00	2.86
232 Th	3867.78	P	225.20	5.82
238 U	2437.78	P	21.17	0.87

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	778491.94	1.66	774508.13	100.5	30 - 200	
45 Sc	949376.63	0.93	932274.88	101.8	30 - 200	
72 Ge	201678.23	2.30	198061.33	101.8	30 - 200	
115 In	1229925.40	2.47	1221416.10	100.7	30 - 200	
209 Bi	807367.75	2.86	808221.06	99.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\005CALI.D\005CALI.D#
Date Acquired: May 17 2005 12:14 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:11 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	771978.00	A	10430.00	1.35
9 Be	917.78	P	42.86	4.67
23 Na	1059269.00	A	27800.00	2.62
26 Mg	42381.11	P	1519.00	3.58
27 Al	16790.00	P	379.50	2.26
39 K	2010721.00	A	72070.00	3.58
44 Ca	16176.86	P	552.00	3.41
45 Sc	941295.69	A	17740.00	1.88
51 V	6909.61	P	186.00	2.69
52 Cr	8108.89	P	113.80	1.40
55 Mn	6577.78	P	228.90	3.48
57 Fe	18623.33	P	423.30	2.27
59 Co	4346.67	P	187.70	4.32
60 Ni	1206.67	P	28.48	2.36
65 Cu	1903.15	P	103.50	5.44
66 Zn	2880.21	P	44.84	1.56
72 Ge	200451.59	P	2878.00	1.44
75 As	789.03	P	131.20	16.63
82 Se	175.15	P	37.27	21.28
95 Mo	1120.00	P	21.86	1.95
109 Ag	2800.00	P	148.90	5.32
111 Cd	727.25	P	36.09	4.96
115 In	1238283.00	A	25930.00	2.09
121 Sb	2497.78	P	96.97	3.88
137 Ba	870.00	P	60.00	6.90
205 Tl	3784.44	P	247.40	6.54
208 Pb	5810.00	P	76.23	1.31
209 Bi	797203.31	P	12190.00	1.53
232 Th	4688.89	P	88.34	1.88
238 U	4770.00	P	106.50	2.23

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	771978.00	1.35	774508.13	99.7	30 - 200	
45 Sc	941295.69	1.88	932274.88	101.0	30 - 200	
72 Ge	200451.56	1.44	198061.33	101.2	30 - 200	
115 In	1238283.30	2.09	1221416.10	101.4	30 - 200	
209 Bi	797203.31	1.53	808221.06	98.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\006CALI.D\006CALI.D#
Date Acquired: May 17 2005 12:19 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:16 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	782552.31	A	14770.00	1.89
9 Be	1860.00	P	99.39	5.34
23 Na	1458930.00	A	20130.00	1.38
26 Mg	83802.22	P	1795.00	2.14
27 Al	16318.89	P	417.60	2.56
39 K	2376060.00	A	79960.00	3.37
44 Ca	26538.75	P	1032.00	3.89
45 Sc	944017.81	A	22650.00	2.40
51 V	10936.41	P	560.40	5.12
52 Cr	11941.11	P	289.90	2.43
55 Mn	11388.89	P	296.70	2.61
57 Fe	28904.44	P	735.00	2.54
59 Co	8772.22	P	175.60	2.00
60 Ni	2000.00	P	27.28	1.36
65 Cu	2994.08	P	76.04	2.54
66 Zn	2937.09	P	117.80	4.01
72 Ge	201324.70	P	3625.00	1.80
75 As	1457.22	P	151.70	10.41
82 Se	193.33	P	10.33	5.34
95 Mo	2061.11	P	130.40	6.33
109 Ag	5305.56	P	114.30	2.15
111 Cd	1342.17	P	86.74	6.46
115 In	1256256.00	A	25320.00	2.02
121 Sb	4453.33	P	165.00	3.71
137 Ba	1523.33	P	52.07	3.42
205 Tl	7242.22	P	344.60	4.76
208 Pb	10864.44	P	247.30	2.28
209 Bi	811102.19	P	21860.00	2.70
232 Th	7185.56	P	409.00	5.69
238 U	9400.00	P	144.30	1.54

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	782552.25	1.89	774508.13	101.0	30 - 200	
45 Sc	944017.75	2.40	932274.88	101.3	30 - 200	
72 Ge	201324.67	1.80	198061.33	101.6	30 - 200	
115 In	1256256.10	2.02	1221416.10	102.9	30 - 200	
209 Bi	811102.19	2.70	808221.06	100.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\007CALI.D\007CALI.D#
Date Acquired: May 17 2005 12:24 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:21 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	780765.88	A	5946.00	0.76
9	Be	17774.44	P	268.00	1.51
23	Na	9194793.00	A	124800.00	1.36
26	Mg	908182.38	A	15840.00	1.74
27	Al	76798.88	P	2020.00	2.63
39	K	8600165.00	A	227700.00	2.65
44	Ca	220548.09	P	6420.00	2.91
45	Sc	952282.50	A	21790.00	2.29
51	V	90737.33	P	2415.00	2.66
52	Cr	81876.66	P	1295.00	1.58
55	Mn	103218.90	P	2814.00	2.73
57	Fe	217175.59	P	5517.00	2.54
59	Co	87314.44	P	2354.00	2.70
60	Ni	19558.89	P	639.50	3.27
65	Cu	22944.98	P	623.60	2.72
66	Zn	14520.10	P	226.30	1.56
72	Ge	200728.41	P	5596.00	2.79
75	As	12464.43	P	231.20	1.85
82	Se	828.26	P	28.69	3.46
95	Mo	20598.89	P	216.90	1.05
109	Ag	51576.66	P	531.40	1.03
111	Cd	10670.92	P	375.00	3.51
115	In	1233715.00	A	14930.00	1.21
121	Sb	42815.55	P	501.20	1.17
137	Ba	14297.78	P	596.20	4.17
205	Tl	73023.33	P	2169.00	2.97
208	Pb	102716.70	P	1646.00	1.60
209	Bi	803276.63	P	9018.00	1.12
232	Th	57501.11	P	1191.00	2.07
238	U	96883.33	P	1153.00	1.19

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	780765.88	0.76	774508.13	100.8	30 - 200	
45 Sc	952282.44	2.29	932274.88	102.1	30 - 200	
72 Ge	200728.44	2.79	198061.33	101.3	30 - 200	
115 In	1233715.00	1.21	1221416.10	101.0	30 - 200	
209 Bi	803276.63	1.12	808221.06	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\008CALI.D\008CALI.D#
Date Acquired: May 17 2005 12:30 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:26 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	748304.38	A	2732.00	0.37
9 Be	171471.09	P	1507.00	0.88
23 Na	82776864.00	A	1482000.00	1.79
26 Mg	8221546.00	A	144300.00	1.76
27 Al	648971.13	P	15060.00	2.32
39 K	68001040.00	A	1789000.00	2.63
44 Ca	2147469.00	A	32980.00	1.54
45 Sc	910174.38	A	14460.00	1.59
51 V	901351.88	A	17320.00	1.92
52 Cr	766203.31	M	6166.00	0.80
55 Mn	1009300.00	A	13370.00	1.32
57 Fe	2091667.00	A	32230.00	1.54
59 Co	846552.50	M	30720.00	3.63
60 Ni	184182.20	P	4563.00	2.48
65 Cu	214158.80	P	3686.00	1.72
66 Zn	124370.00	P	951.30	0.76
72 Ge	198447.30	P	4512.00	2.27
75 As	120477.70	P	2971.00	2.47
82 Se	6857.16	P	155.80	2.27
95 Mo	203447.80	P	4873.00	2.40
109 Ag	502467.69	P	9117.00	1.81
111 Cd	101410.00	P	3737.00	3.69
115 In	1193298.00	A	25300.00	2.12
121 Sb	420605.50	P	3959.00	0.94
137 Ba	140583.30	P	4181.00	2.97
205 Tl	763935.50	P	12110.00	1.59
208 Pb	1010594.00	P	19370.00	1.92
209 Bi	785583.31	P	24260.00	3.09
232 Th	858683.31	P	38300.00	4.46
238 U	1016535.00	A	14040.00	1.38

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	748304.38	0.37	774508.13	96.6	30 - 200	
45 Sc	910174.44	1.59	932274.88	97.6	30 - 200	
72 Ge	198447.33	2.27	198061.33	100.2	30 - 200	
115 In	1193297.50	2.12	1221416.10	97.7	30 - 200	
209 Bi	785583.31	3.09	808221.06	97.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\009CALI.D\009CALI.D#
Date Acquired: May 17 2005 12:35 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:31 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	731310.63	A	8339.00	1.14
9 Be	335612.19	P	3250.00	0.97
23 Na	158845100.00	A	3068000.00	1.93
26 Mg	15991220.00	A	247300.00	1.55
27 Al	1300105.00	A	26070.00	2.01
39 K	133163200.00	A	3468000.00	2.60
44 Ca	4150441.00	A	88940.00	2.14
45 Sc	916227.38	A	10090.00	1.10
51 V	1748485.00	A	16440.00	0.94
52 Cr	1494102.00	A	24570.00	1.64
55 Mn	1947897.00	A	20120.00	1.03
57 Fe	3975184.00	A	59710.00	1.50
59 Co	1641063.00	A	37440.00	2.28
60 Ni	358596.69	P	5892.00	1.64
65 Cu	413862.50	P	7060.00	1.71
66 Zn	237681.09	P	4606.00	1.94
72 Ge	197173.80	P	3775.00	1.91
75 As	238833.91	P	3537.00	1.48
82 Se	13383.90	P	165.40	1.24
95 Mo	403298.91	P	8989.00	2.23
109 Ag	967642.19	A	19390.00	2.00
111 Cd	196207.59	P	5202.00	2.65
115 In	1174700.00	A	34430.00	2.93
121 Sb	824442.81	M	20450.00	2.48
137 Ba	273095.50	P	3570.00	1.31
205 Tl	1547387.00	A	38410.00	2.48
208 Pb	1974768.00	A	39370.00	1.99
209 Bi	779494.38	P	19070.00	2.45
232 Th	2037374.00	A	61560.00	3.02
238 U	1986484.00	A	39040.00	1.97

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	731310.63	1.14	774508.13	94.4	30 - 200	
45 Sc	916227.38	1.10	932274.88	98.3	30 - 200	
72 Ge	197173.77	1.91	198061.33	99.6	30 - 200	
115 In	1174699.50	2.93	1221416.10	96.2	30 - 200	
209 Bi	779494.38	2.45	808221.06	96.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 17, 2005 12:36
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1711a.b\003calb.d\	003calb.d#	May 17 2005 12:03 pm
2	...hem\1\data\05e1711a.b\004cali.d\	004cali.d#	May 17 2005 12:09 pm
3	...hem\1\data\05e1711a.b\005cali.d\	005cali.d#	May 17 2005 12:14 pm
4	...hem\1\data\05e1711a.b\006cali.d\	006cali.d#	May 17 2005 12:19 pm
5	...hem\1\data\05e1711a.b\007cali.d\	007cali.d#	May 17 2005 12:24 pm
6	...hem\1\data\05e1711a.b\008cali.d\	008cali.d#	May 17 2005 12:30 pm
7	...hem\1\data\05e1711a.b\009cali.d\	009cali.d#	May 17 2005 12:35 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.147E-1*X +2.871E-3(blank)	---	ppb
Na	23	45	Y = 4.360E-1*X +2.829E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.394E-2*X +3.207E-2(blank)	---	ppb
Al	27	45	Y = 3.516E-1*X +5.777E-1(blank)	---	ppb
K	39	45	Y = 3.600E-1*X +8.861E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.140E-2*X +2.569E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.226E+0*X +3.168E-1(blank)	---	ppb
Cr	52	72	Y = 1.896E+0*X +9.863E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.483E+0*X +3.023E-1(blank)	---	ppb
Fe	57	72	Y = 5.074E-2*X +2.084E+0(blank)	---	ppb
Co	59	72	Y = 2.091E+0*X +3.363E-2(blank)	---	ppb
Ni	60	72	Y = 4.563E-1*X +4.626E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 5.267E-1*X +1.774E-1(blank)	---	ppb
Zn	66	72	Y = 3.013E-1*X +4.208E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.027E-1*X +5.054E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.686E-2*X +2.993E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 5.115E-1*X +1.960E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.235E+0*X +3.925E-2(blank)	---	ppb
Cd	111	72	Y = 2.497E-1*X +6.627E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.755E-1*X +1.347E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 5.825E-2*X +6.467E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.941E-1*X +2.562E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 6.351E-1*X +5.192E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993010 Filename : e1711010 Injected : 17-MAY-2005 12:40
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	103.6000	ug/L	4	10	
Antimony	100.0000	105.3000	ug/L	5	10	
Arsenic	100.0000	102.2000	ug/L	2	10	
Barium	100.0000	101.8000	ug/L	2	10	
Beryllium	100.0000	101.3000	ug/L	1	10	
Cadmium	100.0000	103.6000	ug/L	4	10	
Calcium	10000.00	10470.00	ug/L	5	10	
Chromium	100.0000	103.6000	ug/L	4	10	
Cobalt	100.0000	104.1000	ug/L	4	10	
Copper	100.0000	103.8000	ug/L	4	10	
Iron	10000.00	10460.00	ug/L	5	10	
Lead	100.0000	103.2000	ug/L	3	10	
Magnesium	10000.00	10460.00	ug/L	5	10	
Manganese	100.0000	103.9000	ug/L	4	10	
Molybdenum	100.0000	102.5000	ug/L	3	10	
Nickel	100.0000	103.1000	ug/L	3	10	
Potassium	10000.00	10250.00	ug/L	3	10	
Selenium	100.0000	102.0000	ug/L	2	10	
Silver	100.0000	104.5000	ug/L	5	10	
Sodium	10000.00	10430.00	ug/L	4	10	
Thallium	100.0000	100.1000	ug/L	0	10	
Vanadium	100.0000	103.1000	ug/L	3	10	
Zinc	100.0000	102.5000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	748826	-3.32
Scandium	932275	913321	-2.03
Germanium	198061	197783	-0.14
Indium	1221416	1186640	-2.85
Bismuth	808221	779636	-3.54

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993012 Filename : e1711012 Injected : 17-MAY-2005 12:51
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.540000	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.1981]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993013 Filename : e1711013 Injected : 17-MAY-2005 12:57
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.550000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.780600	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.964700	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0063]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1050]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.222000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.646000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.370000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.224000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	0.928500	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.338000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.4087]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1452]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.1661]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.1936]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.721000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	90100	ug/L	90
Calcium	55197993001	17-MAY-2005	300000	286500	ug/L	96
Iron	55197993001	17-MAY-2005	250000	241600	ug/L	97
Magnesium	55197993001	17-MAY-2005	100000	96400	ug/L	96
Molybdenum	55197993001	17-MAY-2005	2000	1905	ug/L	95
Potassium	55197993001	17-MAY-2005	100000	92490	ug/L	92
Sodium	55197993001	17-MAY-2005	250000	232000	ug/L	93

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993014 Filename : e1711014 Injected : 17-MAY-2005 13:03
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	96060.00	ug/L	-4		
Arsenic	100.0000	100.4000	ug/L	0	20	
Cadmium	100.0000	85.81000	ug/L	-14	20	
Calcium	300000.0	293200.0	ug/L	-2		
Chromium	200.0000	209.5000	ug/L	5	20	
Cobalt	200.0000	203.9000	ug/L	2	20	
Copper	200.0000	188.9000	ug/L	-6	20	
Iron	250000.0	248300.0	ug/L	-1		
Magnesium	100000.0	101100.0	ug/L	1		
Manganese	200.0000	211.2000	ug/L	6	20	
Molybdenum	2000.000	1853.000	ug/L	-7		
Nickel	200.0000	194.1000	ug/L	-3	20	
Potassium	100000.0	98610.00	ug/L	-1		
Selenium	100.0000	92.67000	ug/L	-7	20	
Silver	50.00000	43.98000	ug/L	-12	20	
Sodium	250000.0	248300.0	ug/L	-1		
Vanadium	200.0000	213.6000	ug/L	7	20	
Zinc	100.0000	98.94000	ug/L	-1	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	690779	-25.90
Germanium	198061	138802	-29.92

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993029 Filename : e1711029 Injected : 17-MAY-2005 14:35
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3585	150.0000	151.3000	ug/L	1	10	
Antimony	0.1878	0.1714	150.0000	146.4000	ug/L	-2	10	
Arsenic	0.3344	0.2873	150.0000	142.2000	ug/L	-5	10	
Barium	0.0656	0.0570	150.0000	146.6000	ug/L	-2	10	
Beryllium	0.1183	0.1028	150.0000	134.4000	ug/L	-10	10	
Cadmium	0.3304	0.2283	150.0000	136.9000	ug/L	-9	10	
Calcium	0.0132	0.0113	15000.00	14900.00	ug/L	-1	10	
Chromium	2.5756	1.9746	150.0000	155.7000	ug/L	4	10	
Cobalt	2.1669	2.1546	150.0000	154.6000	ug/L	3	10	
Copper	0.6658	0.5255	150.0000	149.3000	ug/L	0	10	
Iron	0.0644	0.0530	15000.00	15610.00	ug/L	4	10	
Lead	0.6952	0.6331	150.0000	149.4000	ug/L	0	10	
Magnesium	0.0452	0.0435	15000.00	14840.00	ug/L	-1	10	
Manganese	2.9374	2.5994	150.0000	156.9000	ug/L	5	10	
Molybdenum	0.5215	0.4734	150.0000	138.8000	ug/L	-7	10	
Nickel	0.5298	0.4626	150.0000	152.0000	ug/L	1	10	
Potassium	0.9165	0.3478	15000.00	14250.00	ug/L	-5	10	
Selenium	0.0380	0.0160	150.0000	140.8000	ug/L	-6	10	
Silver	1.3297	1.1398	150.0000	138.4000	ug/L	-8	10	
Sodium	0.6538	0.4406	15000.00	15090.00	ug/L	1	10	
Thallium	0.4716	0.4959	150.0000	150.5000	ug/L	0	10	
Vanadium	2.5825	2.3214	150.0000	156.3000	ug/L	4	10	
Zinc	0.6286	0.3071	150.0000	151.5000	ug/L	1	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	762797	-1.51
Scandium	932275	844639	-9.40
Germanium	198061	169930	-14.20
Indium	1221416	918815	-24.77
Bismuth	808221	573036	-29.10

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Instid : MET05 Run Name :
Seqnum : 55197993031 Filename : e1711031 Injected : 17-MAY-2005 14:47
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[1.2490]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.503800	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[11.430]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993043 Filename : e1711043 Injected : 17-MAY-2005 15:58
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3789	100.0000	106.1000	ug/L	6	10	
Antimony	0.1878	0.1654	100.0000	94.15000	ug/L	-6	10	
Arsenic	0.3344	0.2868	100.0000	94.60000	ug/L	-5	10	
Barium	0.0656	0.0556	100.0000	95.35000	ug/L	-5	10	
Beryllium	0.1183	0.1028	100.0000	89.59000	ug/L	-10	10	
Cadmium	0.3304	0.2284	100.0000	91.19000	ug/L	-9	10	
Calcium	0.0132	0.0114	10000.00	9989.000	ug/L	0	10	
Chromium	2.5756	1.9989	100.0000	104.9000	ug/L	5	10	
Cobalt	2.1669	2.1305	100.0000	101.9000	ug/L	2	10	
Copper	0.6658	0.5323	100.0000	100.7000	ug/L	1	10	
Iron	0.0644	0.0538	10000.00	10560.00	ug/L	6	10	
Lead	0.6952	0.6247	100.0000	98.27000	ug/L	-2	10	
Magnesium	0.0452	0.0440	10000.00	10000.00	ug/L	0	10	
Manganese	2.9374	2.6363	100.0000	106.0000	ug/L	6	10	
Molybdenum	0.5215	0.4751	100.0000	92.84000	ug/L	-7	10	
Nickel	0.5298	0.4550	100.0000	99.61000	ug/L	0	10	
Potassium	0.9165	0.3548	10000.00	9607.000	ug/L	-4	10	
Selenium	0.0380	0.0163	100.0000	94.64000	ug/L	-5	10	
Silver	1.3297	1.1544	100.0000	93.46000	ug/L	-7	10	
Sodium	0.6538	0.4492	10000.00	10240.00	ug/L	2	10	
Thallium	0.4716	0.4650	100.0000	94.07000	ug/L	-6	10	
Vanadium	2.5825	2.2981	100.0000	103.1000	ug/L	3	10	
Zinc	0.6286	0.3058	100.0000	100.1000	ug/L	0	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	805350	3.98
Scandium	932275	920830	-1.23
Germanium	198061	184563	-6.82
Indium	1221416	1059209	-13.28
Bismuth	808221	643191	-20.42

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Instid : MET05 Run Name :
Seqnum : 55197993047 Filename : e1711047 Injected : 17-MAY-2005 16:22
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[2.2410]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.476700	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[12.260]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.0899]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2124]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	[0.1605]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993061 Filename : e1711061 Injected : 17-MAY-2005 17:44
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3906	100.0000	109.4000	ug/L	9	10	
Antimony	0.1878	0.1695	100.0000	96.49000	ug/L	-4	10	
Arsenic	0.3344	0.2964	100.0000	97.76000	ug/L	-2	10	
Barium	0.0656	0.0567	100.0000	97.27000	ug/L	-3	10	
Beryllium	0.1183	0.1054	100.0000	91.85000	ug/L	-8	10	
Cadmium	0.3304	0.2358	100.0000	94.16000	ug/L	-6	10	
Calcium	0.0132	0.0119	10000.00	10450.00	ug/L	5	10	
Chromium	2.5756	2.0471	100.0000	107.5000	ug/L	8	10	
Cobalt	2.1669	2.2121	100.0000	105.8000	ug/L	6	10	
Copper	0.6658	0.5407	100.0000	102.3000	ug/L	2	10	
Iron	0.0644	0.0552	10000.00	10840.00	ug/L	8	10	
Lead	0.6952	0.6320	100.0000	99.44000	ug/L	-1	10	
Magnesium	0.0452	0.0473	10000.00	10760.00	ug/L	8	10	
Manganese	2.9374	2.7057	100.0000	108.8000	ug/L	9	10	
Molybdenum	0.5215	0.4880	100.0000	95.37000	ug/L	-5	10	
Nickel	0.5298	0.4727	100.0000	103.5000	ug/L	4	10	
Potassium	0.9165	0.3763	10000.00	10210.00	ug/L	2	10	
Selenium	0.0380	0.0166	100.0000	96.60000	ug/L	-3	10	
Silver	1.3297	1.1720	100.0000	94.89000	ug/L	-5	10	
Sodium	0.6538	0.4785	10000.00	10910.00	ug/L	9	10	
Thallium	0.4716	0.4702	100.0000	95.10000	ug/L	-5	10	
Vanadium	2.5825	2.3855	100.0000	107.0000	ug/L	7	10	
Zinc	0.6286	0.3127	100.0000	102.4000	ug/L	2	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	816223	5.39
Scandium	932275	895334	-3.96
Germanium	198061	183432	-7.39
Indium	1221416	1041952	-14.69
Bismuth	808221	647621	-19.87

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Instid : MET05 Run Name :
Seqnum : 55197993063 Filename : e1711063 Injected : 17-MAY-2005 17:56
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[0.8441]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.314400	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	[0.2353]	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[9.9040]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.4435]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993073 Filename : e1711073 Injected : 17-MAY-2005 18:55
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.080000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.873500	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.947600	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0257]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1307]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.305000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.646000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.331000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.174000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	1.089000	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.416000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1306]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.0920]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.0000]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.610000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	93030	ug/L	93
Calcium	55197993001	17-MAY-2005	300000	285700	ug/L	95
Iron	55197993001	17-MAY-2005	250000	237900	ug/L	95
Magnesium	55197993001	17-MAY-2005	100000	98410	ug/L	98
Molybdenum	55197993001	17-MAY-2005	2000	1811	ug/L	91
Potassium	55197993001	17-MAY-2005	100000	94130	ug/L	94
Sodium	55197993001	17-MAY-2005	250000	239800	ug/L	96

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993077 Filename : e1711077 Injected : 17-MAY-2005 19:18
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3854	150.0000	162.8000	ug/L	9	10	
Antimony	0.1878	0.1712	150.0000	146.2000	ug/L	-3	10	
Arsenic	0.3344	0.2907	150.0000	143.9000	ug/L	-4	10	
Barium	0.0656	0.0549	150.0000	141.3000	ug/L	-6	10	
Beryllium	0.1183	0.1029	150.0000	134.5000	ug/L	-10	10	
Cadmium	0.3304	0.2371	150.0000	142.1000	ug/L	-5	10	
Calcium	0.0132	0.0114	15000.00	14990.00	ug/L	0	10	
Chromium	2.5756	2.0097	150.0000	158.5000	ug/L	6	10	
Cobalt	2.1669	2.1818	150.0000	156.5000	ug/L	4	10	
Copper	0.6658	0.5206	150.0000	147.9000	ug/L	-1	10	
Iron	0.0644	0.0550	15000.00	16220.00	ug/L	8	10	
Lead	0.6952	0.6500	150.0000	153.4000	ug/L	2	10	
Magnesium	0.0452	0.0458	15000.00	15650.00	ug/L	4	10	
Manganese	2.9374	2.6917	150.0000	162.5000	ug/L	8	10	
Molybdenum	0.5215	0.4904	150.0000	143.8000	ug/L	-4	10	
Nickel	0.5298	0.4557	150.0000	149.7000	ug/L	0	10	
Potassium	0.9165	0.3651	15000.00	14960.00	ug/L	0	10	
Selenium	0.0380	0.0164	150.0000	144.1000	ug/L	-4	10	
Silver	1.3297	1.1540	150.0000	140.2000	ug/L	-7	10	
Sodium	0.6538	0.4681	15000.00	16040.00	ug/L	7	10	
Thallium	0.4716	0.5069	150.0000	153.8000	ug/L	3	10	
Vanadium	2.5825	2.3318	150.0000	157.0000	ug/L	5	10	
Zinc	0.6286	0.3129	150.0000	154.4000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	862198	11.32
Scandium	932275	953441	2.27
Germanium	198061	190882	-3.62
Indium	1221416	1079218	-11.64
Bismuth	808221	645656	-20.11

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Instid : MET05 Run Name :
Seqnum : 55197993079 Filename : e1711079 Injected : 17-MAY-2005 19:30
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[2.5140]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.393600	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[12.640]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.0733]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2117]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993080 Filename : e1711080 Injected : 17-MAY-2005 19:36
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	90410.00	ug/L	-10		
Arsenic	100.0000	97.22000	ug/L	-3	20	
Cadmium	100.0000	85.38000	ug/L	-15	20	
Calcium	300000.0	288900.0	ug/L	-4		
Chromium	200.0000	204.6000	ug/L	2	20	
Cobalt	200.0000	195.8000	ug/L	-2	20	
Copper	200.0000	183.9000	ug/L	-8	20	
Iron	250000.0	241100.0	ug/L	-4		
Magnesium	100000.0	95980.00	ug/L	-4		
Manganese	200.0000	206.3000	ug/L	3	20	
Molybdenum	2000.000	1844.000	ug/L	-8		
Nickel	200.0000	187.1000	ug/L	-6	20	
Potassium	100000.0	93280.00	ug/L	-7		
Selenium	100.0000	91.97000	ug/L	-8	20	
Silver	50.00000	42.67000	ug/L	-15	20	
Sodium	250000.0	233200.0	ug/L	-7		
Vanadium	200.0000	207.9000	ug/L	4	20	
Zinc	100.0000	97.21000	ug/L	-3	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	918468	-1.48
Germanium	198061	180697	-8.77

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993084 Filename : e1711084 Injected : 17-MAY-2005 19:59
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3852	150.0000	162.7000	ug/L	8	10	
Antimony	0.1878	0.1729	150.0000	147.7000	ug/L	-2	10	
Arsenic	0.3344	0.2899	150.0000	143.5000	ug/L	-4	10	
Barium	0.0656	0.0582	150.0000	149.8000	ug/L	0	10	
Beryllium	0.1183	0.1063	150.0000	139.1000	ug/L	-7	10	
Cadmium	0.3304	0.2351	150.0000	140.9000	ug/L	-6	10	
Calcium	0.0132	0.0118	15000.00	15510.00	ug/L	3	10	
Chromium	2.5756	1.9959	150.0000	157.4000	ug/L	5	10	
Cobalt	2.1669	2.1502	150.0000	154.2000	ug/L	3	10	
Copper	0.6658	0.5284	150.0000	150.1000	ug/L	0	10	
Iron	0.0644	0.0540	15000.00	15920.00	ug/L	6	10	
Lead	0.6952	0.6608	150.0000	156.0000	ug/L	4	10	
Magnesium	0.0452	0.0461	15000.00	15730.00	ug/L	5	10	
Manganese	2.9374	2.6892	150.0000	162.3000	ug/L	8	10	
Molybdenum	0.5215	0.4859	150.0000	142.5000	ug/L	-5	10	
Nickel	0.5298	0.4615	150.0000	151.6000	ug/L	1	10	
Potassium	0.9165	0.3684	15000.00	15100.00	ug/L	1	10	
Selenium	0.0380	0.0165	150.0000	144.8000	ug/L	-3	10	
Silver	1.3297	1.1688	150.0000	142.0000	ug/L	-5	10	
Sodium	0.6538	0.4736	15000.00	16230.00	ug/L	8	10	
Thallium	0.4716	0.5103	150.0000	154.9000	ug/L	3	10	
Vanadium	2.5825	2.3307	150.0000	156.9000	ug/L	5	10	
Zinc	0.6286	0.3093	150.0000	152.6000	ug/L	2	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	876285	13.14
Scandium	932275	1010653	8.41
Germanium	198061	206897	4.46
Indium	1221416	1155413	-5.40
Bismuth	808221	696058	-13.88

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993086 Filename : e1711086 Injected : 17-MAY-2005 20:11
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[5.5840]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.510900	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[20.100]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	[7.1940]	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1478]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2886]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993098 Filename : e1711098 Injected : 17-MAY-2005 21:21
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3945	150.0000	166.6000	ug/L	11	10	c+ ***
Antimony	0.1878	0.1740	150.0000	148.6000	ug/L	-1	10	
Arsenic	0.3344	0.2962	150.0000	146.6000	ug/L	-2	10	
Barium	0.0656	0.0577	150.0000	148.5000	ug/L	-1	10	
Beryllium	0.1183	0.1086	150.0000	142.0000	ug/L	-5	10	
Cadmium	0.3304	0.2359	150.0000	141.4000	ug/L	-6	10	
Calcium	0.0132	0.0118	15000.00	15530.00	ug/L	4	10	
Chromium	2.5756	1.9965	150.0000	157.4000	ug/L	5	10	
Cobalt	2.1669	2.1602	150.0000	155.0000	ug/L	3	10	
Copper	0.6658	0.5351	150.0000	152.1000	ug/L	1	10	
Iron	0.0644	0.0534	15000.00	15750.00	ug/L	5	10	
Lead	0.6952	0.6617	150.0000	156.2000	ug/L	4	10	
Magnesium	0.0452	0.0459	15000.00	15650.00	ug/L	4	10	
Manganese	2.9374	2.6503	150.0000	160.0000	ug/L	7	10	
Molybdenum	0.5215	0.4920	150.0000	144.3000	ug/L	-4	10	
Nickel	0.5298	0.4595	150.0000	150.9000	ug/L	1	10	
Potassium	0.9165	0.3690	15000.00	15130.00	ug/L	1	10	
Selenium	0.0380	0.0167	150.0000	146.8000	ug/L	-2	10	
Silver	1.3297	1.1655	150.0000	141.6000	ug/L	-6	10	
Sodium	0.6538	0.4734	15000.00	16220.00	ug/L	8	10	
Thallium	0.4716	0.5163	150.0000	156.7000	ug/L	4	10	
Vanadium	2.5825	2.3377	150.0000	157.4000	ug/L	5	10	
Zinc	0.6286	0.3146	150.0000	155.2000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	878469	13.42
Scandium	932275	1043893	11.97
Germanium	198061	216426	9.27
Indium	1221416	1200918	-1.68
Bismuth	808221	729227	-9.77

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993100 Filename : e1711100 Injected : 17-MAY-2005 21:32
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[3.3790]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.350600	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[16.110]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	[0.0502]	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1227]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993112 Filename : e1711112 Injected : 17-MAY-2005 22:43
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3890	150.0000	164.3000	ug/L	10	10	
Antimony	0.1878	0.1733	150.0000	148.0000	ug/L	-1	10	
Arsenic	0.3344	0.2966	150.0000	146.8000	ug/L	-2	10	
Barium	0.0656	0.0587	150.0000	150.9000	ug/L	1	10	
Beryllium	0.1183	0.1081	150.0000	141.3000	ug/L	-6	10	
Cadmium	0.3304	0.2345	150.0000	140.6000	ug/L	-6	10	
Calcium	0.0132	0.0116	15000.00	15170.00	ug/L	1	10	
Chromium	2.5756	1.9839	150.0000	156.4000	ug/L	4	10	
Cobalt	2.1669	2.1393	150.0000	153.5000	ug/L	2	10	
Copper	0.6658	0.5310	150.0000	150.9000	ug/L	1	10	
Iron	0.0644	0.0533	15000.00	15710.00	ug/L	5	10	
Lead	0.6952	0.6322	150.0000	149.2000	ug/L	-1	10	
Magnesium	0.0452	0.0455	15000.00	15540.00	ug/L	4	10	
Manganese	2.9374	2.6343	150.0000	159.0000	ug/L	6	10	
Molybdenum	0.5215	0.4902	150.0000	143.7000	ug/L	-4	10	
Nickel	0.5298	0.4602	150.0000	151.2000	ug/L	1	10	
Potassium	0.9165	0.3681	15000.00	15090.00	ug/L	1	10	
Selenium	0.0380	0.0166	150.0000	146.3000	ug/L	-2	10	
Silver	1.3297	1.1506	150.0000	139.8000	ug/L	-7	10	
Sodium	0.6538	0.4609	15000.00	15790.00	ug/L	5	10	
Thallium	0.4716	0.5038	150.0000	152.9000	ug/L	2	10	
Vanadium	2.5825	2.3069	150.0000	155.3000	ug/L	4	10	
Zinc	0.6286	0.3123	150.0000	154.1000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	889823	14.89
Scandium	932275	1074823	15.29
Germanium	198061	218612	10.38
Indium	1221416	1216992	-0.36
Bismuth	808221	749119	-7.31

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993114 Filename : e1711114 Injected : 17-MAY-2005 22:54
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[4.5770]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.309000	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[18.600]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	[0.0548]	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1610]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993115 Filename : e1711115 Injected : 17-MAY-2005 23:00
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.285000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.941700	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.946500	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0198]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1562]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.355000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.528000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.377000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.274000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	1.145000	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.488000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.2804]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1298]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.0967]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.3092]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.576000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	86460	ug/L	86
Calcium	55197993001	17-MAY-2005	300000	275100	ug/L	92
Iron	55197993001	17-MAY-2005	250000	233400	ug/L	93
Magnesium	55197993001	17-MAY-2005	100000	92100	ug/L	92
Molybdenum	55197993001	17-MAY-2005	2000	1791	ug/L	90
Potassium	55197993001	17-MAY-2005	100000	88260	ug/L	88
Sodium	55197993001	17-MAY-2005	250000	226200	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993116 Filename : e1711116 Injected : 17-MAY-2005 23:06
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	90630.00	ug/L	-9		
Arsenic	100.0000	97.68000	ug/L	-2	20	
Cadmium	100.0000	86.99000	ug/L	-13	20	
Calcium	300000.0	286300.0	ug/L	-5		
Chromium	200.0000	196.0000	ug/L	-2	20	
Cobalt	200.0000	193.6000	ug/L	-3	20	
Copper	200.0000	178.7000	ug/L	-11	20	
Iron	250000.0	242300.0	ug/L	-3		
Magnesium	100000.0	96300.00	ug/L	-4		
Manganese	200.0000	203.2000	ug/L	2	20	
Molybdenum	2000.000	1821.000	ug/L	-9		
Nickel	200.0000	185.8000	ug/L	-7	20	
Potassium	100000.0	93040.00	ug/L	-7		
Selenium	100.0000	91.31000	ug/L	-9	20	
Silver	50.00000	42.47000	ug/L	-15	20	
Sodium	250000.0	235900.0	ug/L	-6		
Vanadium	200.0000	198.9000	ug/L	-1	20	
Zinc	100.0000	94.61000	ug/L	-5	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	1034581	10.97
Germanium	198061	212150	7.11

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	774508	932275	198061	1221416	808221	1456677
LOWER LIMIT	232352	279682	59418	366425	242466	437003
UPPER LIMIT	929410	1118730	237674	1465699	969865	1748012

TYPE	SAMPLE	#						
ICB		012	780455	964093	202559	1262445	820183	1501865
ICSA		013	738333	904793	187948	1043395	648420	1267944
BS	QC293616	016	720978	717170	143293	806294	493438	909328
BSD	QC293617	017	758029	767082	149739	850111	532224	979078
SSPIKE	QC293619	018	768932	783736	158141	893432	550066	1020657
BLANK	QC293915	020	801765	843554	169312	961162	582310	1068903
BS	QC293916	021	756305	776997	157746	872846	535520	1005272
BSD	QC293917	022	756516	806902	161146	891174	559472	1033744
MSS	179384-001	024	797599	1017166	164644	896472	548017	1027967
SER	QC293919	025	782964	867851	163255	912472	562694	1013369
CCV		029	762797	844639	169930	918815	573036	1076242
CCB		031	771057	833195	168203	925991	578617	1066133
MSS	179384-001	032	819232	981780	173839	951154	586896	1097519
SER	QC293919	033	794306	871662	170684	929499	589812	1079134
MSS	179384-001	034	854956	946595	183686	1014508	615418	1131896
SER	QC293919	036	792421	838285	169520	924036	576148	1063698
MSS	179384-001	037	792197	1053248	170744	897047	551754	1029312
MS	QC293918	038	789729	1039993	172195	953494	582243	1123797
MSD	QC293928	039	804912	1104132	181296	1001358	603302	1182195
PDS	QC293920	040	808168	1124308*	184478	1028630	621939	1208348
MS	QC293918	041	840704	969017	191686	1096041	649874	1259461
CCV		043	805350	920830	184563	1059209	643191	1227766
CCB		047	792265	858930	177867	995214	612911	1155809
MSD	QC293928	048	818159	945358	179317	1041393	604660	1161250
SAMPLE	179408-002	050	850077	960034	189934	1077423	679822	1255209
SAMPLE	179408-003	051	840771	987278	194682	1093797	681219	1277829

148

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

TYPE	SAMPLE	#						
MSS	179290-001	053	777947	887944	175558	1023463	597827	1148160
SER	QC293303	054	811856	922014	181067	1041008	624681	1166347
MS	QC293301	055	789278	886872	177350	980513	601591	1143336
MSD	QC293302	056	784209	860844	176476	954132	590067	1126478
PDS	QC293304	057	783945	856642	175316	943694	595169	1111063
SAMPLE	179290-002	059	787221	873650	171663	967011	572466	1103692
CCV		061	816223	895334	183432	1041952	647621	1189594
CCB		063	830984	926897	185307	1057478	639950	1199501
SAMPLE	179290-003	064	811143	889530	181544	1039545	628309	1181887
SAMPLE	179290-004	065	800773	884272	172841	985020	595042	1129092
SAMPLE	179290-007	066	787204	824883	167931	929463	565981	1080239
SAMPLE	179290-013	067	771402	803721	160897	886468	524712	1000199
SAMPLE	179290-013	068	795894	833999	167945	909824	553744	1050396
SAMPLE	179290-014	069	768802	823177	161060	860571	533896	992748
SAMPLE	179290-015	070	761997	810890	161778	865367	546526	1008827
SAMPLE	179290-016	071	812813	839548	166149	905246	556752	1032718
SAMPLE	179290-017	072	789722	829138	163410	903660	541331	1034173
ICSA		073	785799	919891	186942	1007270	601770	1211314
CCV		077	862198	953441	190882	1079218	645656	1241541
CCB		079	878265	973799	191637	1122342	669087	1293887
CCV		084	876285	1010653	206897	1155413	696058	1338775
CCB		086	904432	1030072	204901	1185017	725012	1350599
SAMPLE	179445-001	087	894127	1234908*	198894	1116862	664721	1272821
SAMPLE	179445-002	088	925597	1262355*	211398	1192014	704526	1372646
SAMPLE	179445-003	089	939856*	1280501*	215746	1208667	720056	1380650
SAMPLE	179445-004	090	935629*	1167268*	216797	1237272	735184	1398743
SAMPLE	179445-005	091	972494*	1279162*	212421	1165783	701773	1371319
SAMPLE	179445-006	092	942691*	1179742*	225609	1276781	830027	1465047
SAMPLE	179445-007	093	916561	1207322*	222520	1234156	781236	1449936
SAMPLE	179445-008	094	992305*	1453342*	218498	1196005	715677	1434341
SAMPLE	179445-009	095	892090	1210483*	219381	1212589	764093	1459690
SAMPLE	179445-010	096	893721	1188478*	219424	1226636	743554	1468490

149

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

TYPE	SAMPLE	#							
CCV		098	878469	1043893	216426	1200918	729227	1375456	
CCB		100	916808	1050203	213729	1216560	770919	1404166	
SAMPLE	179445-011	101	886555	1106379	210775	1192006	729271	1374970	
SAMPLE	179445-001	102	990603*	1188887*	233704	1343687	843504	1504884	
SAMPLE	179445-002	103	1009532*	1198300*	237409	1374184	869931	1543145	
SAMPLE	179445-003	104	993525*	1178134*	235859	1354803	827698	1501551	
SAMPLE	179445-004	105	997008*	1174852*	237830*	1373197	845197	1514502	
SAMPLE	179445-005	106	985080*	1198525*	236087	1360359	846049	1509947	
SAMPLE	179445-006	107	977459*	1134230*	232039	1319054	828069	1530313	
SAMPLE	179445-007	108	978569*	1179379*	240186*	1339589	863776	1531012	
SAMPLE	179445-008	109	962974*	1164714*	235835	1325453	824558	1476215	
SAMPLE	179445-009	110	973943*	1195333*	240089*	1377626	859914	1563120	
CCV		112	889823	1074823	218612	1216992	749119	1445373	
CCB		114	906021	1084244	217719	1255193	758488	1420971	
ICSA		115	852825	1065207	213743	1188786	692002	1469390	150

* = Outside QC Limits

Curtis & Tompkins Laboratories Sample Preparation Summary 17-MAY-2005 04:23

Batch Number : 102065
Date Extracted: 17-MAY-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179384-001			Mactec, Inc.	Soil	1.06	g	50	47.169811	1					T26/ICP		mss
179408-002			QC-PE Samples	Soil	.93	g	50	53.763441	1					AG		
179408-003			QC-PE Samples	Soil	1.32	g	50	37.878788	1					AG		
179445-001			Mactec, Inc.	Soil	1.02	g	50	49.019608	1					T26/ICP		
179445-002			Mactec, Inc.	Soil	1.28	g	50	39.062500	1					T26/ICP		
179445-003			Mactec, Inc.	Soil	1.12	g	50	44.642857	1					T26/ICP		
179445-004			Mactec, Inc.	Soil	.92	g	50	54.347826	1					T26/ICP		
179445-005			Mactec, Inc.	Soil	1.56	g	50	32.051282	1					T26/ICP		
179445 006			Mactec, Inc.	Soil	.92	g	50	54.347826	1					T26/ICP		
179445-007			Mactec, Inc.	Soil	1.12	g	50	44.642857	1					T26/ICP		
179445-008			Mactec, Inc.	Soil	1.28	g	50	39.062500	1					T26/ICP		
179445-009			Mactec, Inc.	Soil	1.49	g	50	33.557047	1					T26/ICP		
179445-010			Mactec, Inc.	Soil	1.25	g	50	40.000000	1					T26/ICP		
179445-011			Mactec, Inc.	Soil	1.29	g	50	38.759690	1					T26/ICP		
QC293915	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC293916	BS			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC293917	BSD			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC293918	MS	of 179384-001		Soil	1.03	g	50	48.543689	1		.25	.25		ICAP		
QC293919	SER	of 179384-001		Soil	1.06	g	50	47.169811	1					ICAP		
QC293920	PDS	of 179384-001		Soil	1.06	g	50	47.169811	1					ICAP		
QC293928	MSD	of 179384-001		Soil	1.01	g	50	49.504950	1		.25	.25		ICAP		

151

Prep Chemist: _____ Reviewed By: _____ Date: 5/17/05

Relinquished By: _____ Received By: _____ Date: 5/17/05

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 102065
Date Digested: 5/16/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2133
Page 15

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BW-QC 293915		Ø	50.0	Y	
*	85 293916					
*	85D 293917					
*	179384-001 MS	A	1.03			
*	-001 MSD		1.01			
	-001		1.06			MSS
	179408-002	A	0.93			
	003		1.32			
	179445-001	A	1.07			
10	-002		1.28			
	-003		1.12			
	-004	S	0.92			
	-005	G	1.56			
	-006		0.92			
15	-007		1.12			
	-008		1.28			
	-009	*	1.49			
	-010	F	1.25			
*	-011	G	1.29			
20						

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95°C	VV 5/16/05
0.25 mL of spike solution was added to all spikes	041552278 ~~AHS174~~ * VV 5/16/05	
	041552278 ~~AHS173~~ *	
1:1 HNO3	AH80416-042105	
concentrated HNO3	B04031 - JT Baker	
3mL 30% hydrogen peroxide	43794114 VWR	
concentrated HCl	AH80334 - JT Baker	
☒ filtered thru' Whatman # 541	FL671393	

5/16/05
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

5/17/05
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	BB2ASB100(4.0)	Batch#:	102002
Lab ID:	179384-001	Sampled:	05/09/05
Matrix:	Soil	Received:	05/11/05
Units:	%	Analyzed:	05/13/05

Result	RL
13	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	179384	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	BB2ASB100(4.0)	Diln Fac:	1.000
Type:	SDUP	Batch#:	102002
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293676	Received:	05/11/05
Matrix:	Soil	Analyzed:	05/13/05

MSS Result	Result	RL	RPD	Lim
13.21	12.85	1.000	3	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 102002
Date: 05/13/05
Method: CLP SOW 390
Analyst: ARM

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179310-001	15.5416	22.3918	21.1407	82	18
179310-002	15.4424	22.1507	20.9161	82	18
179310-003	14.8334	22.2816	20.7673	80	20
179310-004	14.5863	21.2407	20.0548	82	18
179310-005	15.6268	22.9752	21.9492	86	14
179361-001	15.6846	22.5224	22.1024	94	6
179361-002	15.5559	23.3053	22.9263	95	5
179361-003	15.3140	22.4110	21.7467	91	9
179361-004	15.3245	22.8785	21.8636	87	13
179361-005	15.3002	22.2993	20.8457	79	21
179361-006	15.2105	22.5194	21.6283	88	12
179361-007	15.4747	22.8792	22.3730	93	7
179361-008	15.0959	22.2377	20.3581	74	26
179361-009	15.2443	22.4563	21.4263	86	14
179361-010	15.0203	22.1628	21.2055	87	13
179361-011	15.3416	22.6977	21.7858	88	12
179361-012	15.2932	22.6117	21.9221	91	9
179384-001	15.6273	22.3116	21.4287	87	13
QC293676	15.5802	22.5114	21.6206	87	13
of 179384-001			RPD:	0.4%	2.7%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 102002
Date Started: 13-MAY-2005
Batched by : Aaron Maroni

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179310-001		URS Corporation	Soil	MOISTURE	13-MAY-2005
179310-002		URS Corporation	Soil	MOISTURE	13-MAY-2005
179310-003		URS Corporation	Soil	MOISTURE	13-MAY-2005
179310-004		URS Corporation	Soil	MOISTURE	13-MAY-2005
179310-005		URS Corporation	Soil	MOISTURE	13-MAY-2005
179361-001		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-002		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-003		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-004		Weston Solutions	Soil	MOISTURE	13-MAY-2005
179361-005		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-006		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-007		Weston Solutions	Soil	MOISTURE	13-MAY-2005
179361-008		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-009		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-010		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-011		Weston Solutions	Soil	MOISTURE	18-MAY-2005
179361-012		Weston Solutions	Soil	MOISTURE	13-MAY-2005
179384-001		Mactec, Inc.	Soil	MOISTURE	23-MAY-2005
QC293676	SDUP of 179384-001		Soil	MOISTURE	

5-12-05

102002

Sample	B.L.	Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank		29	15.6385	—	15.6389	
179310-1	A-E	78	15.5416	22.3918	21.1407	COMP. A-E
2	A-E	42	15.4424	22.1507	20.9161	A E
3	A-D	~~T~~	~~14.5860~~			A D
4	AB	T	14.5863	21.2407	20.0548	A B
5	ABC	41	15.6268	22.9752	21.9492	ABC
179306-1	A	11	15.6846	22.5224	22.1024	
1		~~M-2~~	~~15.1792~~	~~22.1588~~	~~21.7180~~	
2	S/S	88	15.5559	23.3053	22.9363	
3		46	15.3140	22.4110	21.7467	
4		9	15.3245	22.8785	21.8636	
5		146	15.3002	22.2993	20.8457	
6		44	15.2105	22.5194	21.6283	
7		40	15.4747	22.8792	22.3730	
8		7	15.0959	22.2377	20.3581	
9		134	15.2443	22.4563	21.4263	
10		141	15.0203	22.1628	21.2055	
11		HI-DEL	15.3416	22.6977	21.7858	
12		24	15.2932	22.6117	21.9921	
179306-1		101	15.6273	22.3116	21.4287	
DUP		39	15.5802	22.5114	21.6206	
179310-3	A-D	F	14.8334	22.2816	20.7673	COMP. A-D

OVEN TEMP: 103°C
TIME IN: 12:40
TIME OUT: 9:50 87°C ON: 5/13/2005

Continued on Page

Read and Understood By

Aaron Mena 5/12/05 — D. Mena 5/13/05
Signed Date Signed Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 5/13/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	5-3-05	RSM				
103°C	5-4-05	RSM				
104°C	5-5-05	RSM				
104°C	5-6-05	RSM				
103°C	5-9-05	RSM				
103°C	5-10-05	RSM				
104°C	5-11-05	RSM				
103°C	5-12-05	RSM				
103°C	5-13-05	RSM				

000072

PROJECT METTLER AE-200 BALANCE Notebook No. 0752

Continued From Page ϕ

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-28-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-2-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-3-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-4-05	0.2001	1.0000	10.0000	50.0001	RSM	35298
5-5-05	0.2000	1.0001	10.0001	50.0003	RSM	35298
5-6-05	0.2001	1.0001	10.0001	50.0002	RSM	35298
5-9-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-10-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
5-11-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
5-12-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-13-05	0.2000	1.0001	10.0000	50.0002	RSM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date Signed Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179445

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB19B110(3.5)	179445-001
BB29B102(0.0)	179445-002
BB29B102(2.0)	179445-003
BBSB108(0.0)	179445-004
BBSB108(2.0)	179445-005
BBSB109(0.0)	179445-006
DUP(050512)	179445-007
BBSB109(2.0)	179445-008
BB2ASB112(0.5)	179445-009
BB1SB113(0.5)	179445-010
BB1SB114(0.5)	179445-011

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 5/27/05
Operations Manager

Signature: _____ Date: 5/27/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179445**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/13/05**
Samples Received:	**05/13/05**

This hardcopy data package contains sample and QC results for eleven soil samples, requested for the above referenced project on 05/13/05. The samples were received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Low surrogate recoveries were observed for bromofluorobenzene (FID) in BBSB109(0.0) (lab # 179445-006), DUP(050512) (lab # 179445-007), and the MSD of BBSB108(0.0) (lab # 179445-004), due to matrix interference; the corresponding trifluorotoluene (FID) surrogate recoveries were within limits, and these low surrogate recoveries were confirmed by re-analysis. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
Low surrogate recovery was observed for hexacosane in the MSD for batch 102056; the parent sample was not a project sample. High surrogate recovery was also observed for hexacosane in DUP(050512) (lab # 179445-007), due to matrix interference. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low responses were observed for bromomethane and chloromethane in the ICV analyzed 05/05/05 13:30; these analytes were not detected at or above the RL in the associated samples. High response was observed for hexachlorobutadiene in the ICV analyzed 05/05/05 13:30; this analyte was not detected at or above the RL in the associated samples. Low responses were observed for 1,1,2,2-tetrachloroethane and 1,2,3-trichloropropane in the CCV analyzed 05/17/05 10:28; these analytes met minimum response criteria. High responses were observed for many analytes in the CCV analyzed 05/16/05 10:21 and the CCV analyzed 05/16/05 11:23; these analytes were not detected at or above the RL in the associated samples. All samples were analyzed outside of hold time due to a communication error during analysis. The client was notified and requested analysis of the samples to continue. The Encore samples were all analyzed by May 16, 2005; affected data was qualified with "b". This data is valid for informational purposes. Low recoveries were observed for a number of analytes in the MS/MSD of BBSB108(0.0) (lab # 179445-004), due to matrix interference; these low recoveries were confirmed by re-analysis, and the LCS was within limits. High RPD was observed for toluene, chlorobenzene, and trichloroethene, due to matrix interference; the high RPD was confirmed by re-analysis, and these analytes were not detected at or above the RL in the associated samples. High recovery was observed for 1,1-dichloroethene in the MSD for batch 102078; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and the high recovery

#

70.0

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179445**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/13/05**
Samples Received:	**05/13/05**

Volatile Organics by GC/MS (EPA 8260B):
was not associated with any reported results. Methylene chloride was detected above the RL in BBSB108(2.0) (lab # 179445-005), BBSB109(2.0) (lab # 179445-008), and BB2ASB112(0.5) (lab # 179445-009); this analyte is a common laboratory contaminant. Methylene chloride was also detected between the MDL and the RL in a number of samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for benzo(g,h,i)perylene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene in the CCV analyzed 05/17/05 20:04; these analytes were not detected at or above the RL in the associated samples, and affected data was qualified with "b". Low internal standard response was observed for perylene-d12 in a number of samples, due to the dark, viscous nature of the sample extracts. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High ICAL percent RSDs (relative standard deviations) were observed for beta-BHC and delta-BHC in the calibration analyzed 05/17/05 23:14; average ICAL %RSD met method requirements, and these analytes were not detected at or above the RL in the associated samples. Low responses were observed for beta-BHC and endrin aldehyde in the ICV analyzed 05/18/05 02:57; average ICV drift met method requirements, and these analytes were not detected at or above the RL in the associated samples. High response was observed for methoxychlor in the ICV analyzed 05/12/05 12:27; average ICV drift met method requirements, and this analyte was not detected at or above the RL in the associated sample. Low responses were observed for beta-BHC, delta-BHC, and endrin aldehyde in the CCV analyzed 05/18/05 16:51 and the CCV analyzed 05/19/05 00:06; average CCV drift met method requirements. High responses were observed for 4,4'-DDD, 4,4'-DDE, and dieldrin in the CCV analyzed 05/19/05 00:06; average CCV drift met method requirements. All samples were diluted due to the dark, viscous nature of the sample extracts. No other analytical problems were encountered.

PCBs (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
High recovery was observed for zinc in the MS of BB2ASB100(4.0) (lab # 179384-001); the BS/BSD were within limits. High RPD was also observed for zinc in the MSD of BB2ASB100(4.0) (lab # 179384-001); the RPD was acceptable

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179445**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/13/05**
Samples Received:	**05/13/05**

Metals (EPA 6020 and EPA 7471A):
in the BS/BSD. Response exceeding the instrument's linear range was observed for barium in the MS/MSD of BB2ASB100(4.0) (lab # 179384-001). High % difference was observed for molybdenum in the serial dilution of BB2ASB100(4.0) (lab # 179384-001). A number of analytes were detected between the MDL and the RL in the method blank for batch 102065. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

179445

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1419

1/2

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 005127 57255. 005102

Name/Location: PRESIDIO SF. BARA / EQ. STAG.

Project Manager: M A JACOBVITZ Recorder: (Signature Required)

	MATRIX			# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED																				
	Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	PAH (8270 SIM)	22 METALS	PESTICIDES (8081A)	PCBs (8082)	PERCENT MOIST			VOC (8260B)												
-1		✓		1						BB1SB110	(3.5)	05	05	12	1025			✓	✓	✓	✓	✓			✓												
-2		✓		1						BB2SB102	(0.0)	05	05	12	1400			✓	✓	✓		✓															
-3		✓		1						BB2SB102	(2.0)	05	05	12	1415			✓	✓	✓		✓															
-4		✓		19						BBSB108	(0.0)	05	05	12	1420			✓	✓		✓	✓	✓	✓	✓												
-5		✓		7						BBSB108	(2.0)	05	05	12	1430	MS/MSD		✓	✓		✓	✓	✓	✓	✓												
-6		✓		7						BBSB109	(0.0)	05	05	12	1445			✓	✓		✓	✓	✓	✓	✓												
-7		✓		7						DUP(05051 | 2)	05	05	12	1450			✓	✓		✓	✓	✓	✓	✓												
-8		✓		7						BBSB109	(2.0)	05	05	12	1515			✓	✓		✓	✓	✓	✓	✓												
-9		✓		7						BB2ASB112	(0.5)	05	05	13	0700			✓	✓		✓	✓	✓	✓	✓												
-10		✓		6						BB1SB113	(0.5)	05	05	13	0715			✓	✓		✓	✓	✓	✓	✓												

ADDITIONAL INFORMATION

SAMPLE NUMBER YR	SAMPLE NUMBER SEQ	TURNAROUND TIME/ REMARKS
		STANDARD TAT
		RESULTS TO G.A. LIEBERMAN
		707 793 3858
		CT 17200502MPQ1 v2

CHAIN OF CUSTODY RECORD

A H HENKE	MACTEC	5/13/05: 1130	
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Tony Rojas	Tony Rojas	CET	5/13/05 1130
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: CT COURIER

179445

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1420

2/2

Samplers: A H [redacted]

Lab: CURTIS TOMPKINS

Job Number: 57255

Name/Location: PRESIDIO SF-[redacted]OA

Project Manager: M A JACOBVITZ Recorder: [signature] (Signature Required)

| MATRIX | | | # CONTAINERS & PRESERV. | | | | | | SAMPLE NUMBER | | DATE | | | | STATION DESCRIPTION | | ANALYSIS REQUESTED | | | | | |

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 179445 Date Received: 5-13-05 Number of Coolers: 1
Client: Mactec Project: Presidio

A. Preliminary Examination Phase
Date Opened: 5-13-05 By (print): Troy Windsor (sign) Troy E Windsor

1. Did cooler come with a shipping slip (airbill, etc.)? YES (NO)
   If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? YES (NO)
   How many and where: Seal date: Seal name: N/A
3. Were custody seals unbroken and intact at the date and time of arrival? YES NO
4. Were custody papers dry and intact when received? (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO
6. Did you sign the custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. (YES) NO
   Type of ice: Wet Temperature: Cold - no temp blank

B. Login Phase
Date Logged In: 5-13-05 By (print): Troy Windsor (sign) Troy E Windsor

1. Describe type of packing in cooler: In ziploc type bags
2. Did all bottles arrive unbroken? (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? (YES) NO
4. Did bottle labels agree with custody papers? (YES) NO
5. Were appropriate containers used for the tests indicated? (YES) NO
6. Were correct preservatives added to samples? YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below. YES NO N/A
9. Was the client contacted concerning this sample delivery? YES NO
   If YES, give details below.
   Who was called? By whom? Date:

Additional Comments:

TPH-PURGEABLE HYDROCARBONS IN SOIL

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101984
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000		

Field ID:	BBSB108(0.0)	Moisture:	29%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-004	Analyzed:	05/14/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.32	0.038

Surrogate	%REC	Limits
Trifluorotoluene (FID)	67	60-138
Bromofluorobenzene (FID)	68	66-148

Field ID:	BBSB108(2.0)	Moisture:	17%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-005	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.18	0.022

Surrogate	%REC	Limits
Trifluorotoluene (FID)	85	60-138
Bromofluorobenzene (FID)	102	66-148

Field ID:	BBSB109(0.0)	Moisture:	40%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-006	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.30	0.036

Surrogate	%REC	Limits
Trifluorotoluene (FID)	71	60-138
Bromofluorobenzene (FID)	56 *	66-148

Field ID:	DUP(050512)	Moisture:	33%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-007	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.16 J	0.28	0.033

Surrogate	%REC	Limits
Trifluorotoluene (FID)	69	60-138
Bromofluorobenzene (FID)	60 *	66-148

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101984
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000		

Field ID:	BBSB109(2.0)	Moisture:	21%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-008	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.20	0.023

Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	60-138
Bromofluorobenzene (FID)	100	66-148

Field ID:	BB2ASB112(0.5)	Moisture:	4%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-009	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.21	0.024

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	60-138
Bromofluorobenzene (FID)	102	66-148

Field ID:	BB1SB113(0.5)	Moisture:	6%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-010	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.21	0.025

Surrogate	%REC	Limits
Trifluorotoluene (FID)	84	60-138
Bromofluorobenzene (FID)	90	66-148

Field ID:	BB1SB114(0.5)	Moisture:	10%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-011	Analyzed:	05/13/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.029 J	0.21	0.025

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	60-138
Bromofluorobenzene (FID)	105	66-148

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	101984
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000		

Type:	BLANK	Basis:	as received
Lab ID:	QC293620	Analyzed:	05/13/05

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	0.20	0.024

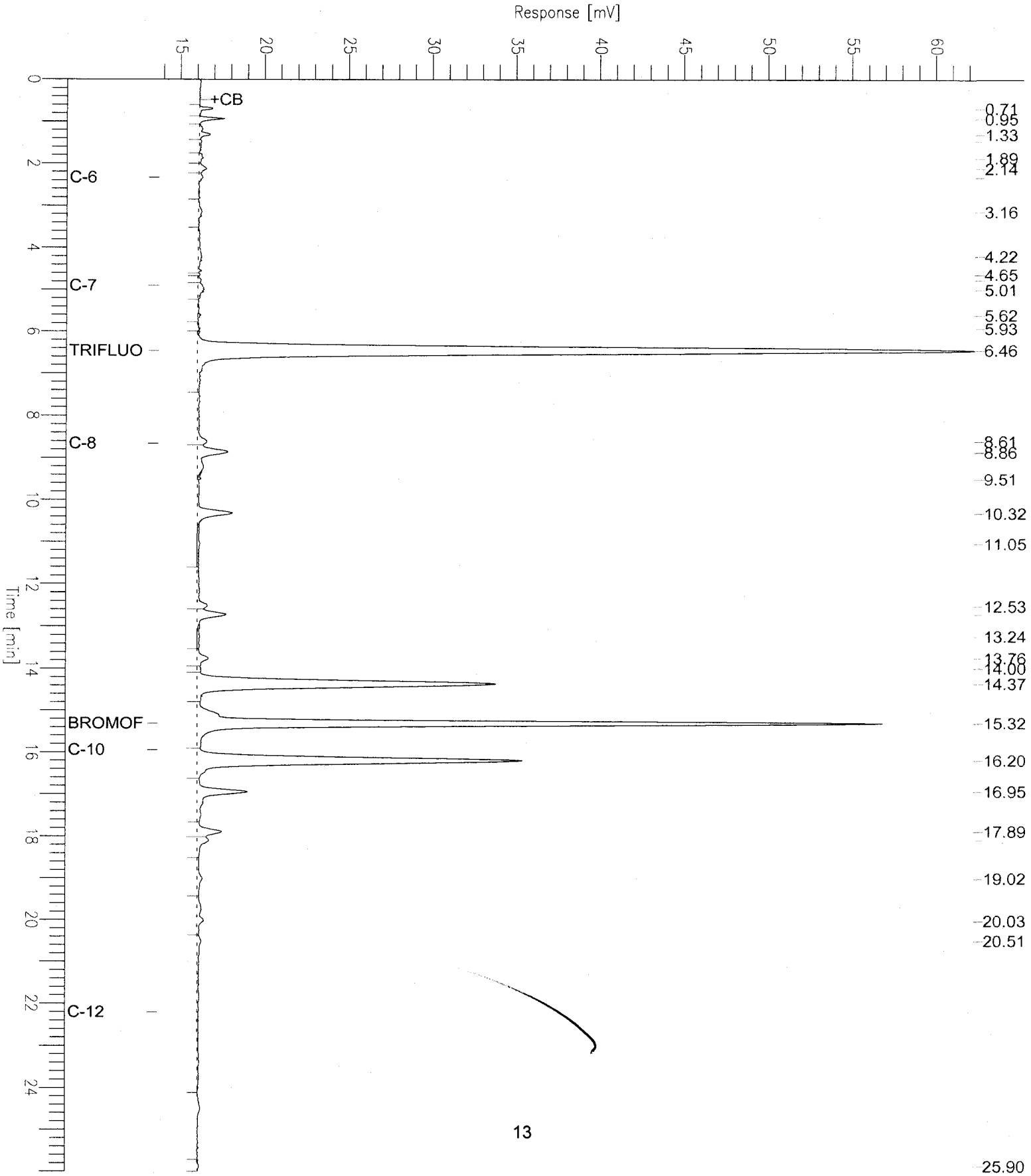
Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	60-138
Bromofluorobenzene (FID)	104	66-148

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 179445-007,101984,etvh only
FileName : G:\GC07\DATA\133A018.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 14 mV

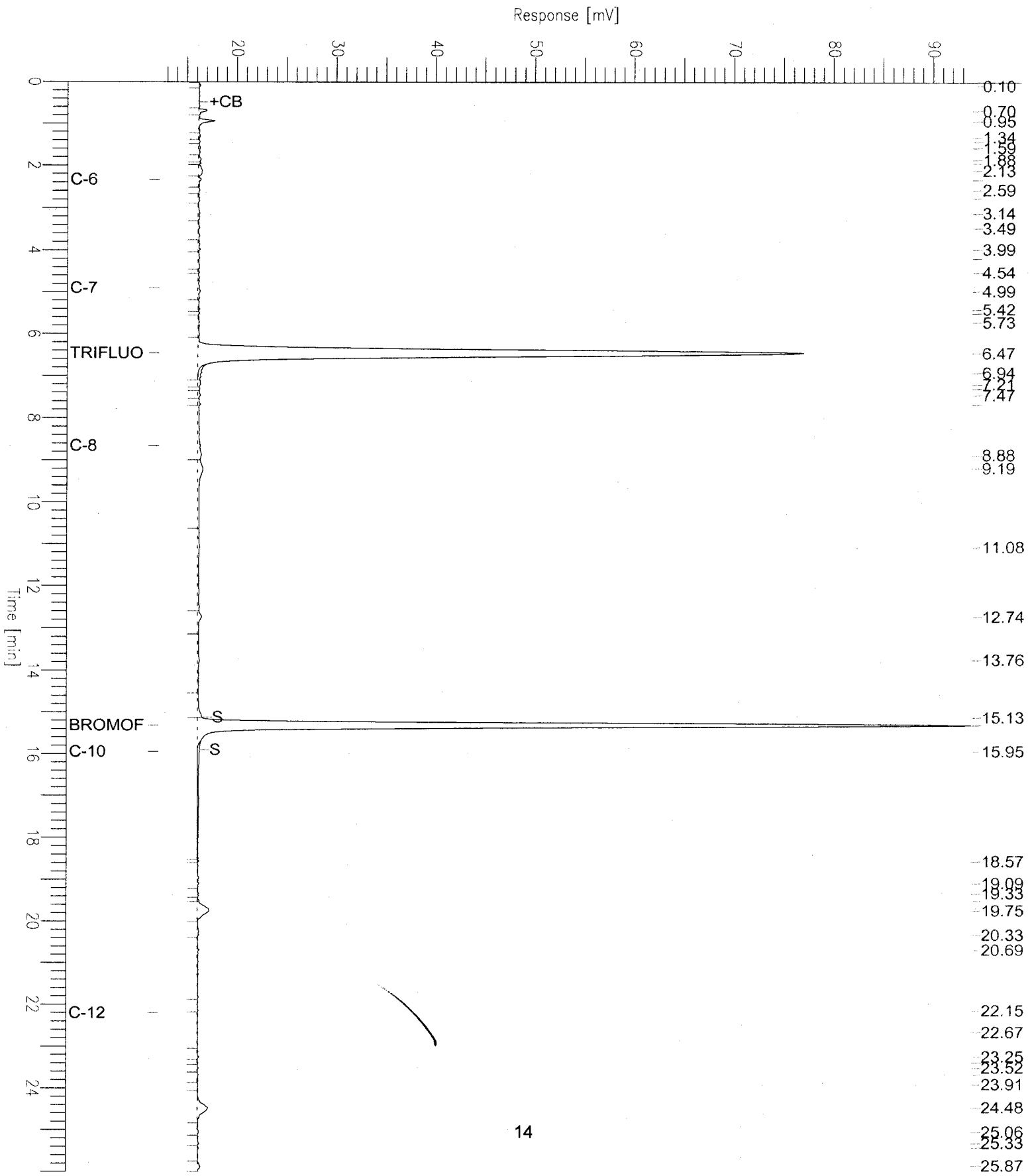
Sample #: a Page 1 of 1
Date : 5/13/05 08:18 PM
Time of Injection: 5/13/05 07:52 PM
Low Point : 13.70 mV High Point : 62.31 mV
Plot Scale: 48.6 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : 179445-011,101984,etvh only
FileName : G:\GC07\DATA\133A022.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 12 mV

Sample #: a Page 1 of 1
Date : 5/16/05 07:39 AM
Time of Injection: 5/13/05 10:12 PM
Low Point : 12.18 mV High Point : 93.98 mV
Plot Scale: 81.8 mV

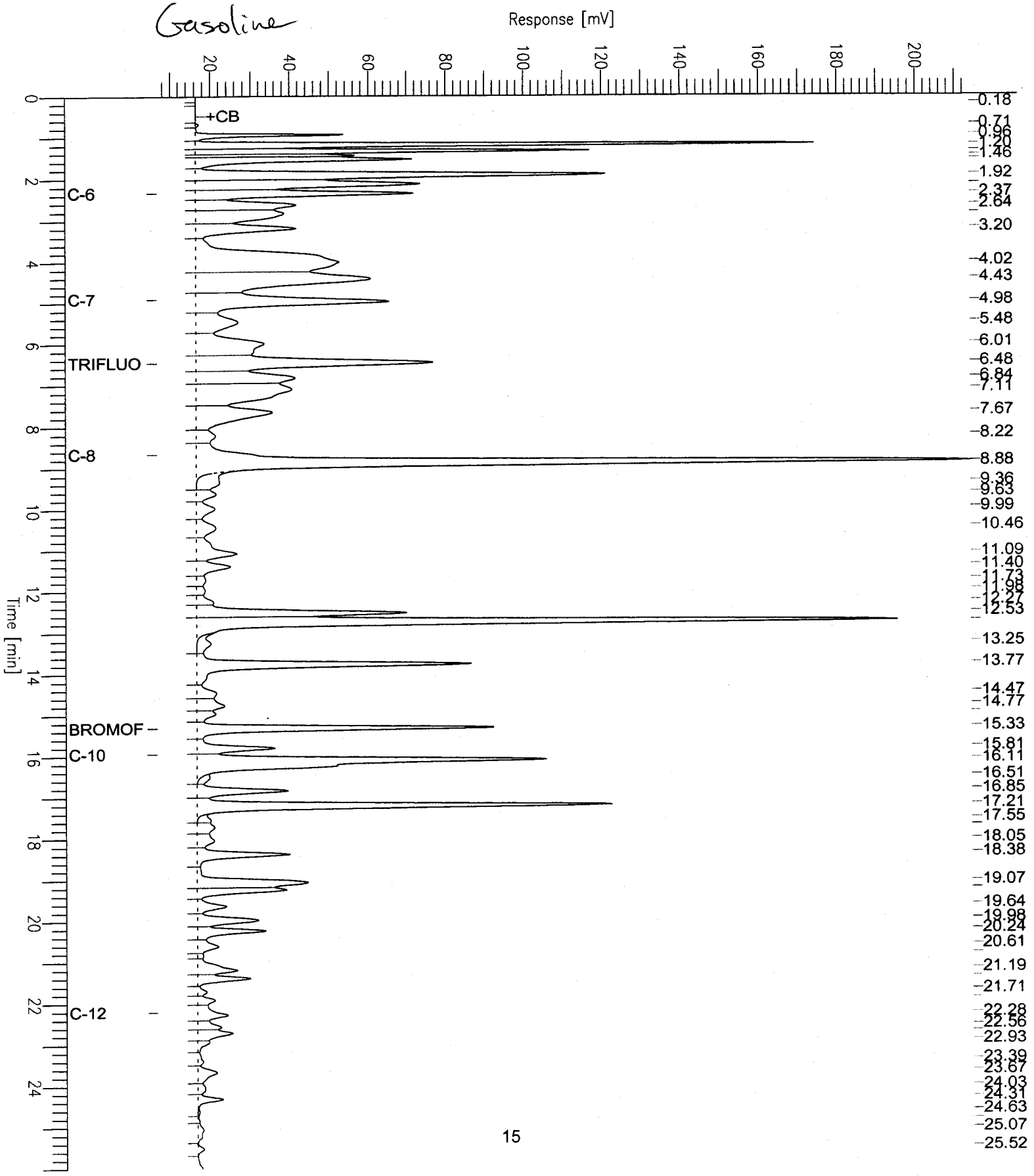


GC07 TVH 'A' Data File RTX 502

Sample Name : ccv/lcs,qc293621,101984,S601,5/5000
FileName : G:\GC07\DATA\133A002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 7 mV

Sample #: Page 1 of 1
Date : 5/13/05 09:14 AM
Time of Injection: 5/13/05 08:48 AM
Low Point : 6.52 mV High Point : 213.76 mV
Plot Scale: 207.2 mV

Gasoline



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC293621	Diln Fac:	1.000
Matrix:	Soil	Batch#:	101984
Units:	mg/Kg	Analyzed:	05/13/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	11.32	113	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	60-138
Bromofluorobenzene (FID)	105	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	179425-001	Batch#:	101984
Matrix:	Soil	Sampled:	05/12/05
Units:	mg/Kg	Received:	05/12/05
Basis:	as received	Analyzed:	05/14/05

Type: MS Lab ID: QC293680

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1108	10.64	6.125	58	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	60-138
Bromofluorobenzene (FID)	100	66-148

Type: MSD Lab ID: QC293681

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.10	6.689	66	43-120	14	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	60-138
Bromofluorobenzene (FID)	101	66-148

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBSB108(0.0)	Diln Fac:	1.000
MSS Lab ID:	179445-004	Batch#:	101984
Matrix:	Soil	Sampled:	05/12/05
Units:	mg/Kg	Received:	05/13/05
Basis:	as received	Analyzed:	05/14/05

Type: MS Lab ID: QC293731

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.02670	1.946	0.8717	45	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	90	60-138
Bromofluorobenzene (FID)	67	66-148

Type: MSD Lab ID: QC293732

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.980	0.8833	45	43-120	0	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	85	60-138
Bromofluorobenzene (FID)	63 *	66-148

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC07 Gas Chromatograph #7 TVH/BTXE Reviewed By: MCH
Calnum: 324496060003 Name: TVH Type: (normal) Date: 10-DEC-2004 13:00 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	344_028	324496060028	tvh1	10-DEC-2004 13:00	04WS1982 (1000X), 04WS2266 (5000X)
2	344_029	324496060029	tvh2	10-DEC-2004 13:38	04WS1983 (1000X), 04WS2266 (5000X)
3	344_030	324496060030	tvh3	10-DEC-2004 14:13	04WS1984 (1000X), 04WS2266 (5000X)
4	344_031	324496060031	tvh4	10-DEC-2004 14:48	04WS1985 (2000X), 04WS2266 (5000X)
5	344_032	324496060032	tvh5	10-DEC-2004 15:23	04WS1985 (1000X), 04WS2266 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	A	1360.5	941.85	878.16	1166.1	1174.6	AVRG	R		9.056E-4		ng	1104.2	18	0.995	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC07 Calname : TVH
Calnum : 324496060003 Caldate : 10-DEC-2004 Caltype :

ICV 324496060035 (344_035) standards: 04WS2235 (1000X), 04WS2266 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	A	324496060035	10-DEC-2004	10000.0 10701	ng	7

INITIAL CALIBRATION REPORT FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC07 Gas Chromatograph #7 TVH/BTXE Reviewed By: MCH
Calnum: 325105878001 Name: TFT/BFB Type: (normal) Date: 14-MAR-2005 13:14 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	073_002	325105878002	tft/bfb 1	14-MAR-2005 13:14	S67 (5000X)
2	073_003	325105878003	tft/bfb 2	14-MAR-2005 13:49	S68 (5000X)
3	073_004	325105878004	tft/bfb 3	14-MAR-2005 15:31	S69 (5000X)
4	073_005	325105878005	tft/bfb 4	14-MAR-2005 16:18	S70 (5000X)
5	073_006	325105878006	tft/bfb 5	14-MAR-2005 16:58	S71 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	r^2 MxRSD	Flags
Trifluorotoluene (FID)	A	1904.3	1732.5	1785.5	1597.3	1557.3	AVRG	R		5.830E-4		ng	1715.4	8	0.995	20	
Bromofluorobenzene (FID)	A	1355.2	1240.2	1319.1	1088.6	1105.7	AVRG	R		8.185E-4		ng	1221.8	10	0.995	20	

21

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Segnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC07	A	325192013002	13-MAY-2005 08:48	324496060003	10-DEC-2004	1104.2	1250.1	10000	11321	ng	13	15	u
GC07	A	325192013012	13-MAY-2005 16:22	324496060003	10-DEC-2004	1104.2	1240.4	15000	16850	ng	12	15	
GC07	A	325192013023	13-MAY-2005 22:47	324496060003	10-DEC-2004	1104.2	1103.4	10000.0	9992.7	ng	0	15	
GC07	A	325192013024	13-MAY-2005 23:22	324496060003	10-DEC-2004	1104.2	1107.1	10000.0	10026	ng	0	15	
GC07	A	325192013032	14-MAY-2005 04:02	324496060003	10-DEC-2004	1104.2	1193.8	5000.0	5405.7	ng	8	15	
GC07	A	325192013033	14-MAY-2005 04:37	324496060003	10-DEC-2004	1104.2	1189.4	5000.0	5385.6	ng	8	15	
GC07	A	325192013037	14-MAY-2005 14:47	324496060003	10-DEC-2004	1104.2	1190.4	10000.0	10780	ng	8	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC07	A	325192013002	13-MAY-2005 08:48	325105878001	14-MAR-2005	1715.4	1714.4	450.00	449.74	ng	0	15	u
GC07	A	325192013012	13-MAY-2005 16:22	325105878001	14-MAR-2005	1715.4	1869.5	450.00	490.43	ng	9	15	
GC07	A	325192013023	13-MAY-2005 22:47	325105878001	14-MAR-2005	1715.4	1698.0	450.00	445.45	ng	-1	15	
GC07	A	325192013032	14-MAY-2005 04:02	325105878001	14-MAR-2005	1715.4	1686.5	450.00	442.44	ng	-2	15	
GC07	A	325192013037	14-MAY-2005 14:47	325105878001	14-MAR-2005	1715.4	1713.4	450.00	449.48	ng	0	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 179445 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC07	A	325192013002	13-MAY-2005 08:48	325105878001	14-MAR-2005	1221.8	1285.0	450.00	473.28	ng	5	15	u
GC07	A	325192013012	13-MAY-2005 16:22	325105878001	14-MAR-2005	1221.8	1328.8	450.00	489.44	ng	9	15	
GC07	A	325192013023	13-MAY-2005 22:47	325105878001	14-MAR-2005	1221.8	1263.4	450.00	465.33	ng	3	15	
GC07	A	325192013032	14-MAY-2005 04:02	325105878001	14-MAR-2005	1221.8	1253.2	450.00	461.57	ng	3	15	
GC07	A	325192013037	14-MAY-2005 14:47	325105878001	14-MAR-2005	1221.8	1303.7	450.00	480.20	ng	7	15	

u=use

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 324496060 Instrument: GC07
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #7 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 09-DEC-2004

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
001	344_001	X	tvh			09-DEC-2004 11:40	1.0				1	
002	344_002	X	btxe high			09-DEC-2004 12:35	1.0				1	
003	344_003	X	ib			09-DEC-2004 13:24	1.0				1	
004	344_004	ICAL	tft/bfb 1			09-DEC-2004 13:59	1.0				2 pass	
005	344_005	ICAL	tft/bfb 2			09-DEC-2004 14:34	1.0				3	
006	344_006	ICAL	tft/bfb 3			09-DEC-2004 15:16	1.0				4	
007	344_007	ICAL	tft/bfb 4			09-DEC-2004 15:51	1.0				5	
008	344_008	ICAL	tft/bfb 5			09-DEC-2004 16:26	1.0				6	
009	344_009	ICAL	btxe 1			09-DEC-2004 17:01	1.0				7 1	
010	344_010	ICAL	mtbe 1			09-DEC-2004 17:36	1.0				8 1	
011	344_011	ICAL	mbtxe 2			09-DEC-2004 18:11	1.0				8 1	
012	344_012	ICAL	mbtxe 4			09-DEC-2004 18:46	1.0				9 1	
013	344_013	ICAL	mbtxe 5			09-DEC-2004 19:31	1.0				9 1	
014	344_014	ICAL	mbtxe 6			09-DEC-2004 20:05	1.0				9 1	
015	344_015	ICAL	mbtxe 7			09-DEC-2004 20:40	1.0				10 1	
016	344_016	X	ib			09-DEC-2004 21:15	1.0				1	
017	344_017	X	ib			09-DEC-2004 21:50	1.0				1	
018	344_018	X	mbtxe			09-DEC-2004 22:25	1.0				11 1 Not used	
019	344_019	X	mbtxe			09-DEC-2004 23:00	1.0				11 1	
020	344_020	X	ib			09-DEC-2004 23:35	1.0				1	
021	344_021	X	ib			10-DEC-2004 00:10	1.0				1	
022	344_022	X	ib			10-DEC-2004 07:35	1.0				1	
023	344_023	ICAL	mbtxe 3			10-DEC-2004 08:09	1.0				8 1 pass (poor due to machine error)	
024	344_024	X	ib			10-DEC-2004 08:44	1.0				1	
025	344_025	X	mbtxe			10-DEC-2004 09:19	1.0				11 1 Not used	
026	344_026	ICV	mbtxe			10-DEC-2004 10:20	1.0				11 1 pass	
027	344_027	X	ib			10-DEC-2004 11:51	1.0				1	
028	344_028	ICAL	tvh1			10-DEC-2004 13:00	1.0				12 1 pass	
029	344_029	ICAL	tvh2			10-DEC-2004 13:38	1.0				13 1	

Stds used: 1=04WS2266 2=04WS2267 3=04WS2268 4=04WS2269 5=04WS2270 6=04WS2271 7=04WS2141 8=04WS2142 9=04WS2143 10=04WS2144 11=04WS1964 12=04WS1982 13=04WS1983 14=04WS1984
15=04WS1985 16=04WS2235 17=02SS420 18=02SS421

Analyst: _____ Date: 12/15/04
Page 1 of 2

12/15/04

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 324496060 Instrument: GC07
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #7 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 09-DEC-2004

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC SPK uL	VL	pH	Stds Used	>LR
030	344_030	ICAL	tvh3			10-DEC-2004 14:13	1.0				14 1 pass	
031	344_031	ICAL	tvh4			10-DEC-2004 14:48	1.0				15 1	
032	344_032	ICAL	tvh5			10-DEC-2004 15:23	1.0				15 1	
033	344_033	X	ib			10-DEC-2004 15:58	1.0				1	
034	344_034	X	tvh			10-DEC-2004 16:33	1.0				16 1 Not used	
035	344_035	ICV	tvh			10-DEC-2004 17:08	1.0	5000			16 1 pass	
036	344_036	X	carbmark			10-DEC-2004 17:43	1.0				17 18 1 used	
037	344_037	X				13-DEC-2004 17:01	1.0				1 plagiarism	
038	344_038	X	ib			13-DEC-2004 17:36	1.0				1	
039	344_039	X	ib			13-DEC-2004 18:11	1.0				1	
040	344_040	X	ib			13-DEC-2004 18:45	1.0				1	
041	344_041	X	ib			13-DEC-2004 19:21	1.0				1	
042	344_042	X	ib			13-DEC-2004 19:55	1.0				1	
043	344_043	X	ib			13-DEC-2004 20:30	1.0				1	
044	344_044	X	ib			13-DEC-2004 21:05	1.0				1	
045	344_045	X	ib			13-DEC-2004 21:40	1.0				1	
046	344_046	X	ib			13-DEC-2004 22:14	1.0				1	
047	344_047	X				14-DEC-2004 16:00	1.0				1	
048	344_048	X				14-DEC-2004 16:36	1.0				1	
049	344_049	X				14-DEC-2004 17:10	1.0				1	
050	344_050	X				14-DEC-2004 17:45	1.0				1	
051	344_051	X				14-DEC-2004 18:20	1.0				1	
052	344_052	X				14-DEC-2004 18:55	1.0				1	

12/15/04

Stds used: 1=04WS2266 2=04WS2267 3=04WS2268 4=04WS2269 5=04WS2270 6=04WS2271 7=04WS2141 8=04WS2142 9=04WS2143 10=04WS2144 11=04WS1964 12=04WS1982 13=04WS1983 14=04WS1984
15=04WS1985 16=04WS2235 17=02SS420 18=02SS421

Analyst: _____ Date: 12/15/04
Page 2 of 2

Continued on Page

12/15/04 Read and Understood By

Signed

12/15/04 Date

Signed

12/15/04 Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 325105878 Instrument: GC07 Gas Chromatograph #7 TVH/BTXE Begun: 14-MAR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
001	073_001	X	ib			14-MAR-2005 12:38	1.0					1	
002	073_002	ICAL	tft/bfb 1			14-MAR-2005 13:14	1.0					2	PASS
003	073_003	ICAL	tft/bfb 2			14-MAR-2005 13:49	1.0					3	
004	073_004	ICAL	tft/bfb 3			14-MAR-2005 15:31	1.0					4	
005	073_005	ICAL	tft/bfb 4			14-MAR-2005 16:18	1.0					5	
006	073_006	ICAL	tft/bfb 5			14-MAR-2005 16:58	1.0					6	
007	073_007	CCV/LCS	QC285987	100059	Water	14-MAR-2005 18:44	1.0	1	5000			7 1	PASS
008	073_008	CCV/LCS	QC285988	100059	Water	14-MAR-2005 19:20	1.0		5000			8 1	
009	073_009	BLANK	QC285986	100059	Water	14-MAR-2005 19:55	1.0	6	5000			1	2 1/2 DL
010	073_010	SAMPLE	178221-002	100059	Water	14-MAR-2005 20:30	1.0		5000	B	1.0	1	
011	073_011	SAMPLE	178221-004	100059	Water	14-MAR-2005 21:05	1.0		5000			1	
012	073_012	MSS	178237-001	100059	Water	14-MAR-2005 21:40	1.0	3	5000			1	
013	073_013	SAMPLE	178237-002	100059	Water	14-MAR-2005 22:15	1.0		5000			1	
014	073_014	SAMPLE	178237-003	100059	Water	14-MAR-2005 22:50	1.0		5000			1	
015	073_015	SAMPLE	178237-004	100059	Water	14-MAR-2005 23:25	1.0		5000			1	
016	073_016	SAMPLE	178237-006	100059	Water	14-MAR-2005 23:59	1.0		5000			1	
017	073_017	CCV	mbtxe	100059		15-MAR-2005 00:35	1.0	1	5000			7 1	PASS
018	073_018	CCV	mbtxe	100059		15-MAR-2005 01:09	1.0	1	5000			7 1	
019	073_019	CCV	tvh	100059		15-MAR-2005 01:45	1.0		5000			8 1	
020	073_020	CCV	tvh	100059		15-MAR-2005 02:20	1.0		5000			8 1	
021	073_021	SAMPLE	178237-007	100059	Water	15-MAR-2005 02:55	1.0		5000	B	1.0	1	
022	073_022	SAMPLE	178237-008	100059	Water	15-MAR-2005 03:31	1.0		5000			1	
023	073_023	SAMPLE	178237-009	100059	Water	15-MAR-2005 04:06	1.0		5000			1	
024	073_024	SAMPLE	178237-010	100059	Water	15-MAR-2005 04:41	1.0		5000			1	
025	073_025	SAMPLE	178237-011	100059	Water	15-MAR-2005 05:16	1.0		5000			1	
026	073_026	SAMPLE	178237-012	100059	Water	15-MAR-2005 05:51	1.0		5000			1	
027	073_027	SAMPLE	178237-013	100059	Water	15-MAR-2005 06:27	1.0		5000			1	
028	073_028	SAMPLE	178237-017	100059	Water	15-MAR-2005 07:02	1.0		5000			1	
029	073_029	MS	QC285989	100059	Water	15-MAR-2005 07:37	1.0		5000			8 1	PASS
030	073_030	MSD	QC285990	100059	Water	15-MAR-2005 08:12	1.0		5000			8 1	

Stds used: 1=05WS0068 2=S67 3=S68 4=S69 5=S70 6=S71 7=S76 8=S73

Analyst: Date: 3/15/05
Page 1 of 2

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 325105878 Instrument: GC07 Gas Chromatograph #7 TVH/BTXE Begun: 14-MAR-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
031	073_031	CCV	tvh	100059		15-MAR-2005 08:47	1.0		5000			8 1	PASS
032	073_032	CCV	tvh	100059		15-MAR-2005 09:22	1.0		5000			8 1	

Stds used: 1=05WS0068 2=S67 3=S68 4=S69 5=S70 6=S71 7=S76 8=S73

Analyst: Date: 3/15/05
Page 2 of 2

Continued on Page

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Signed Date 3/15/05 Signed Date 3.1

AP 5/16/05

PROJECT GC07 Sequence Log Bk

Notebook No. BK2078

Continued From Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 325192013 Instrument: GC07
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #7 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 13-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK	uL	Vu	DH	Stds Used	>LR
			ib			13-MAY-2005 08:13	1.0						1	
001	133_001	X				13-MAY-2005 08:48	1.0	2	1	5000			2 1 pass	
002	133_002	CCV/LCS	QC293621	101984	Soil	13-MAY-2005 09:22	1.0	11		5000			1 2 1 pass	
003	133_003	BLANK	QC293620	101984	Soil	13-MAY-2005 11:42	1.0	8		5000	A		1	
004	133_004	MSS	179425-001	101984	Soil	13-MAY-2005 12:17	1.0			5000			1	
005	133_005	SAMPLE	179425-002	101984	Soil	13-MAY-2005 12:51	1.0			5000			1	
006	133_006	SAMPLE	179425-003	101984	Soil	13-MAY-2005 13:27	1.0			5000			1	
007	133_007	SAMPLE	179425-004	101984	Soil	13-MAY-2005 14:02	1.0			5000			1	
008	133_008	SAMPLE	179425-005	101984	Soil	13-MAY-2005 14:38	1.0			5000			1	
009	133_009	SAMPLE	179425-006	101984	Soil	13-MAY-2005 15:12	1.0			5000			1	
010	133_010	SAMPLE	179425-007	101984	Soil	13-MAY-2005 15:48	1.0			5000			1	
011	133_011	SAMPLE	179425-008	101984	Soil	13-MAY-2005 16:22	1.0	2		5000			2 1 pass	
012	133_012	CCV	tvh	101984		13-MAY-2005 16:57	1.0			5000	A		1	
013	133_013	SAMPLE	179425-009	101984	Soil	13-MAY-2005 17:32	1.0			5000			1	
014	133_014	SAMPLE	179425-010	101984	Soil	13-MAY-2005 18:07	1.0	8	1	5000			1	
015	133_015	MSS	179445-004	101984	Soil	13-MAY-2005 18:42	1.0			5000			1	
016	133_016	SAMPLE	179445-005	101984	Soil	13-MAY-2005 19:17	1.0		1	5000			1	
017	133_017	SAMPLE	179445-006	101984	Soil	13-MAY-2005 19:52	1.0		1	5000			1	
018	133_018	SAMPLE	179445-007	101984	Soil	13-MAY-2005 20:28	1.0			5000			1	
019	133_019	SAMPLE	179445-008	101984	Soil	13-MAY-2005 21:02	1.0			5000			1	
020	133_020	SAMPLE	179445-009	101984	Soil	13-MAY-2005 21:37	1.0			5000			1	
021	133_021	SAMPLE	179445-010	101984	Soil	13-MAY-2005 22:12	1.0			5000			1	
022	133_022	SAMPLE	179445-011	101984	Soil	13-MAY-2005 22:47	1.0			5000			2 1 pass	
023	133_023	CCV	tvh	101984		13-MAY-2005 23:22	1.0			5000			2 1 ↓	
024	133_024	CCV	tvh	101984		13-MAY-2005 23:58	1.0			5000	A		1	
025	133_025	SAMPLE	179425-011	101984	Soil	14-MAY-2005 00:33	1.0	1	1	5000	B		2 1 pass	
026	133_026	MS	QC293731	101984	Soil	14-MAY-2005 01:08	1.0	1	2	5000	C		2 1 C ↓ surr	
027	133_027	MSD	QC293732	101984	Soil	14-MAY-2005 01:43	1.0				D		2 1	
028	133_028	X	QC293731	101984	Soil	14-MAY-2005 02:18	1.0				B		2 1 ↓	
029	133_029	X	QC293732	101984	Soil	14-MAY-2005 02:52	1.0	1		5000	A		2 1 pass	
030	133_030	MS	QC293680	101984	Soil	14-MAY-2005 03:27	1.0	1		5000	A		2 1 pass	
031	133_031	MSD	QC293681	101984	Soil	14-MAY-2005 04:02	1.0	1		5000			2 1	
032	133_032	CCV	tvh	101984		14-MAY-2005 04:37	1.0	1		5000			2 1 ↓	
033	133_033	CCV	tvh	101984		14-MAY-2005 13:03	1.0	8		5000	E		1	
034	133_034	MSS	179445-004	101984	Soil	14-MAY-2005 13:38	1.0		1	5000	B		1	
035	133_035	SAMPLE	179445-006	101984	Soil	14-MAY-2005 14:12	1.0		1	5000	B		1	
036	133_036	SAMPLE	179445-007	101984	Soil	14-MAY-2005 14:47	1.0	1		5000			2 1 pass	
037	133_037	CCV	tvh	101984		14-MAY-2005 15:22	1.0	1		5000			2 1 ↓	
038	133_038	CCV	tvh	101984										

Stds used: 1=8224 2=8601

Analyst: AP Date: 5/16/05

Page 1 of 2

AP 5/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 325192013 Instrument: GC07
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #7 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 13-MAY-2005

Stds used: 1=8224 2=8601

Analyst: AP Date: 5/16/05

Page 2 of 2

Spike used in DL = EM128971 – M104/164

Continued on Page

Read and Understood By

AP 5/16/05
Signed Date

Michael K. Lynch 5/16/05
Signed Date

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 101984
Date Started: 13-MAY-2005
Batched by : Adam Pereira

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
179425-001			Iris Environmental	Soil	TVH	18-MAY-2005
179425-002			Iris Environmental	Soil	TVH	18-MAY-2005
179425-003			Iris Environmental	Soil	TVH	18-MAY-2005
179425-004			Iris Environmental	Soil	TVH	18-MAY-2005
179425-005			Iris Environmental	Soil	TVH	18-MAY-2005
179425-006			Iris Environmental	Soil	TVH	18-MAY-2005
179425-007			Iris Environmental	Soil	TVH	18-MAY-2005
179425-008			Iris Environmental	Soil	TVH	18-MAY-2005
179425-009			Iris Environmental	Soil	TVH	18-MAY-2005
179425-010			Iris Environmental	Soil	TVH	18-MAY-2005
179425-011			Iris Environmental	Soil	TVH	18-MAY-2005
179445-004			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-005			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-006			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-007			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-008			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-009			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-010			Mactec, Inc.	Soil	ETVH	25-MAY-2005
179445-011			Mactec, Inc.	Soil	ETVH	25-MAY-2005
QC293620	MB			Soil		
QC293621	LCS			Soil		
QC293680	MS	of 179425-001		Soil		
QC293681	MSD	of 179425-001		Soil		
QC293731	MS	of 179445-004		Soil		
QC293732	MSD	of 179445-004		Soil		

30 Project TNT/MBTKe Soil Weight log Book BK2106

Continued from Page

Sample #	Vore ID	Tare	Weight (g)	Comp (?)	Natsoy (?)	Initials & Date
179425-	001	A	1.07	No	No	ARP 5/13/05
	002		1.09			
	003		1.04			
	004		1.02			
	005		1.08			
	006		0.93			
	007		0.92			
	008		0.93			
	009		1.06			
	010		1.04			
	011		0.93			
MS (425-001 A)			0.94			
MSD			0.99			
179445-	004	A	5.13	No	No	mmp 5/13/05
	005		6.64			
	006		5.55			
	007		5.35			
	008		6.39			
	009		5.08			
	010		5.12			
	011		5.26			
MS of 179445-	004	B	5.14			
MSD	004	C	5.05			
MS	004	D	4.23			
MSD	004	E	4.40			
179445-	004	F	4.44	No	No	mmp 5/13/05
	006	D	4.99			
	007	B	4.56			

Continued on Page

Read and Understood By

Signed 05/13/05 Date

29

Signed Date

TPH-EXTRACTABLES DATA

SOIL

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	102056
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BBSB108(0.0)	Moisture:	29%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-004	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	27 H Y	1.4
Fuel Oil C24-C36	120 L	7.0

Surrogate	%REC	Limits
Hexacosane	117	65-135

Field ID:	BBSB108(2.0)	Moisture:	17%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-005	Analyzed:	05/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	8.5 H Y	1.2
Fuel Oil C24-C36	51 L	6.0

Surrogate	%REC	Limits
Hexacosane	118	65-135

Field ID:	BBSB109(0.0)	Moisture:	40%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-006	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	43 H Y	1.7
Fuel Oil C24-C36	230	8.3

Surrogate	%REC	Limits
Hexacosane	97	65-135

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	102056
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	DUP(050512)	Moisture:	33%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-007	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	62 H Y	1.5
Fuel Oil C24-C36	270	7.4

Surrogate	%REC	Limits
Hexacosane	140 *	65-135

Field ID:	BBSB109(2.0)	Moisture:	21%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-008	Analyzed:	05/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.3
Fuel Oil C24-C36	7.4	6.3

Surrogate	%REC	Limits
Hexacosane	91	65-135

Field ID:	BB2ASB112(0.5)	Moisture:	4%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-009	Analyzed:	05/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.0
Fuel Oil C24-C36	ND	5.2

Surrogate	%REC	Limits
Hexacosane	132	65-135

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	102056
Units:	mg/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BB1SB113(0.5)	Moisture:	6%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-010	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	1.3 H Y	1.1
Fuel Oil C24-C36	ND	5.3

Surrogate	%REC	Limits
Hexacosane	132	65-135

Field ID:	BB1SB114(0.5)	Moisture:	10%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-011	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.1
Fuel Oil C24-C36	ND	5.5

Surrogate	%REC	Limits
Hexacosane	124	65-135

Type:	BLANK	Analyzed:	05/16/05
Lab ID:	QC293893	Cleanup Method:	EPA 3630C
Basis:	as received		

Analyte	Result	RL
Diesel C12-C24	ND	0.99
Fuel Oil C24-C36	ND	5.0

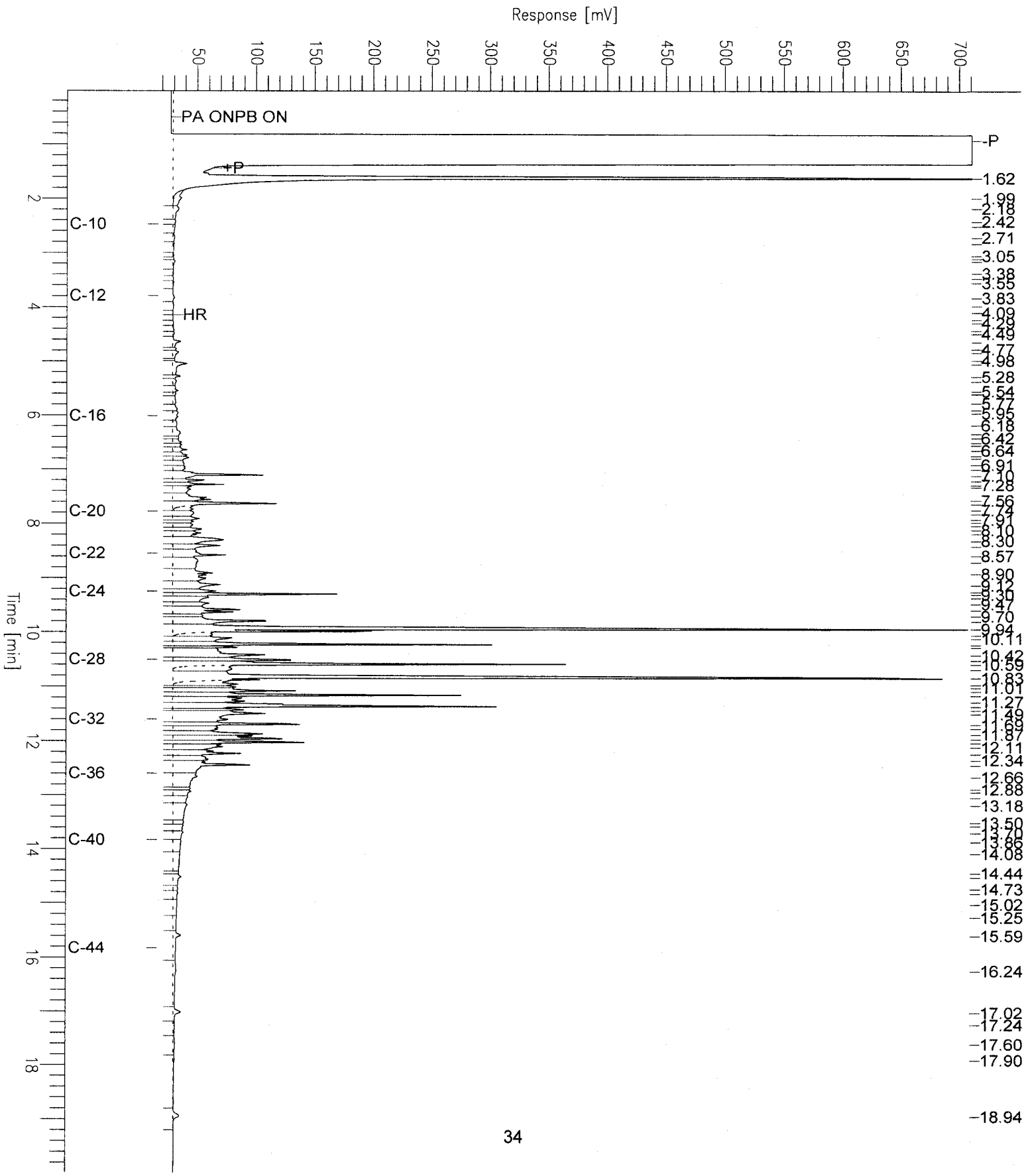
Surrogate	%REC	Limits
Hexacosane	92	65-135

*= Value outside of QC limits; see narrative
H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 179445-004sg,102056
FileName : G:\GC13\CHB\136B020.RAW
Method : BTEH136S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 16 mV

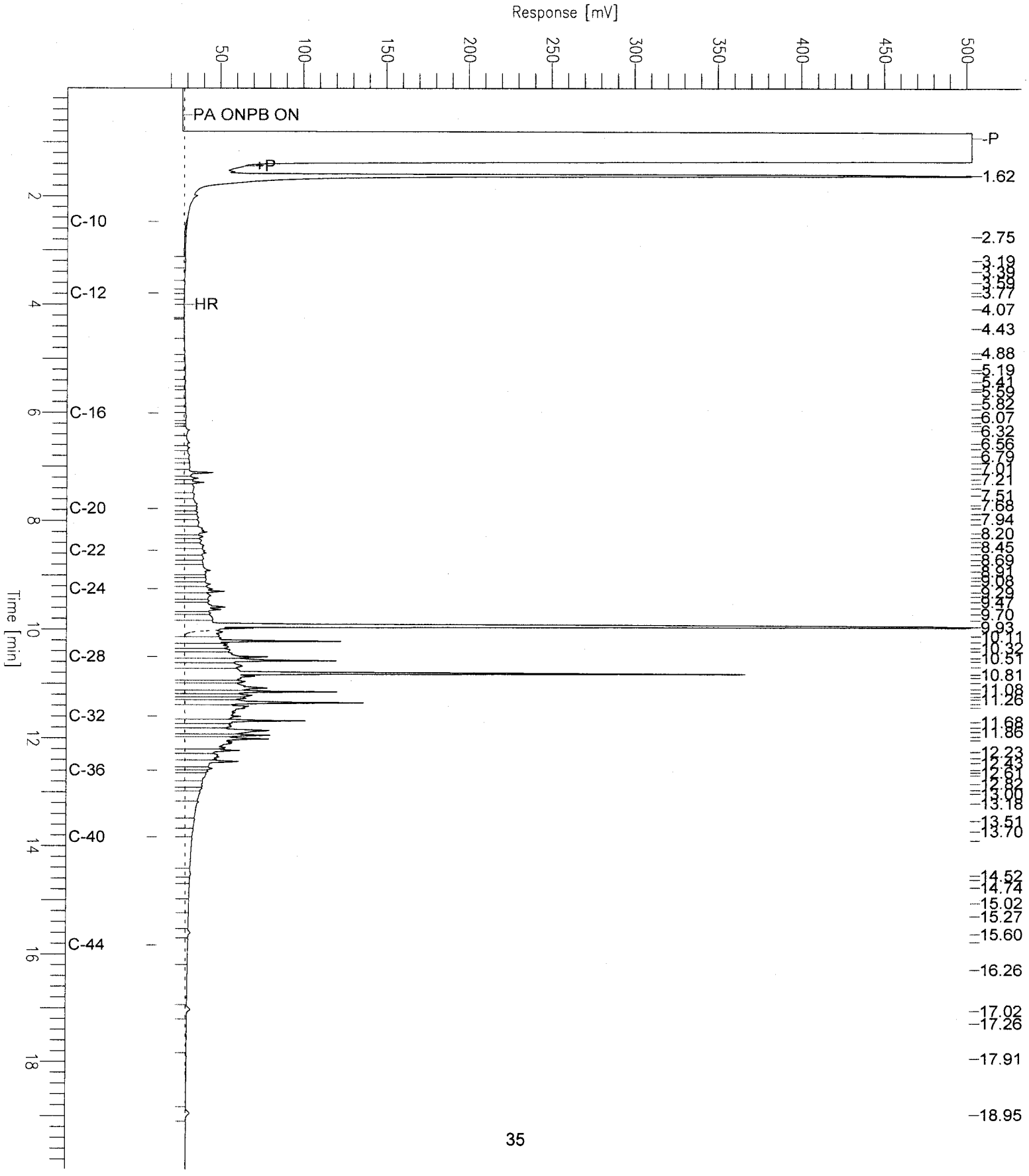
Sample #: 102056 Page 1 of 1
Date : 5/17/05 07:42 AM
Time of Injection: 5/17/05 12:23 AM
Low Point : 16.14 mV High Point : 710.74 mV
Plot Scale: 694.6 mV



Chromatogram

Sample Name : 179445-005sg,102056
FileName : G:\GC13\CHB\136B019.RAW
Method : BTEH136S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 12 mV

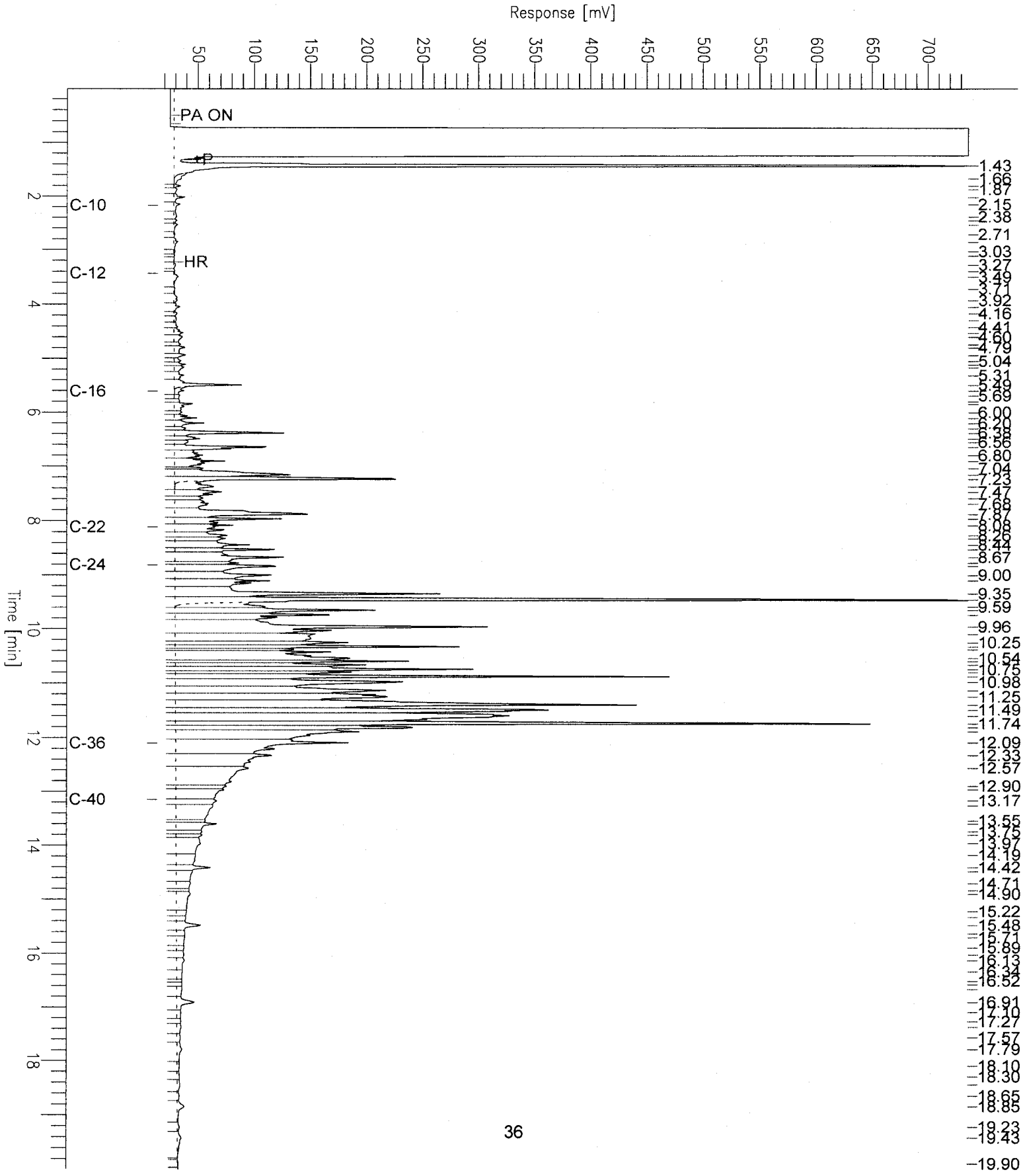
Sample #: 102056 Page 1 of 1
Date : 5/17/05 07:42 AM
Time of Injection: 5/16/05 11:55 PM
Low Point : 12.43 mV High Point : 503.19 mV
Plot Scale: 490.8 mV



Chromatogram

Sample Name : 179445-006sg,102056
FileName : G:\GC17\CHA\136A047.RAW
Method : ATEH136.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 14 mV

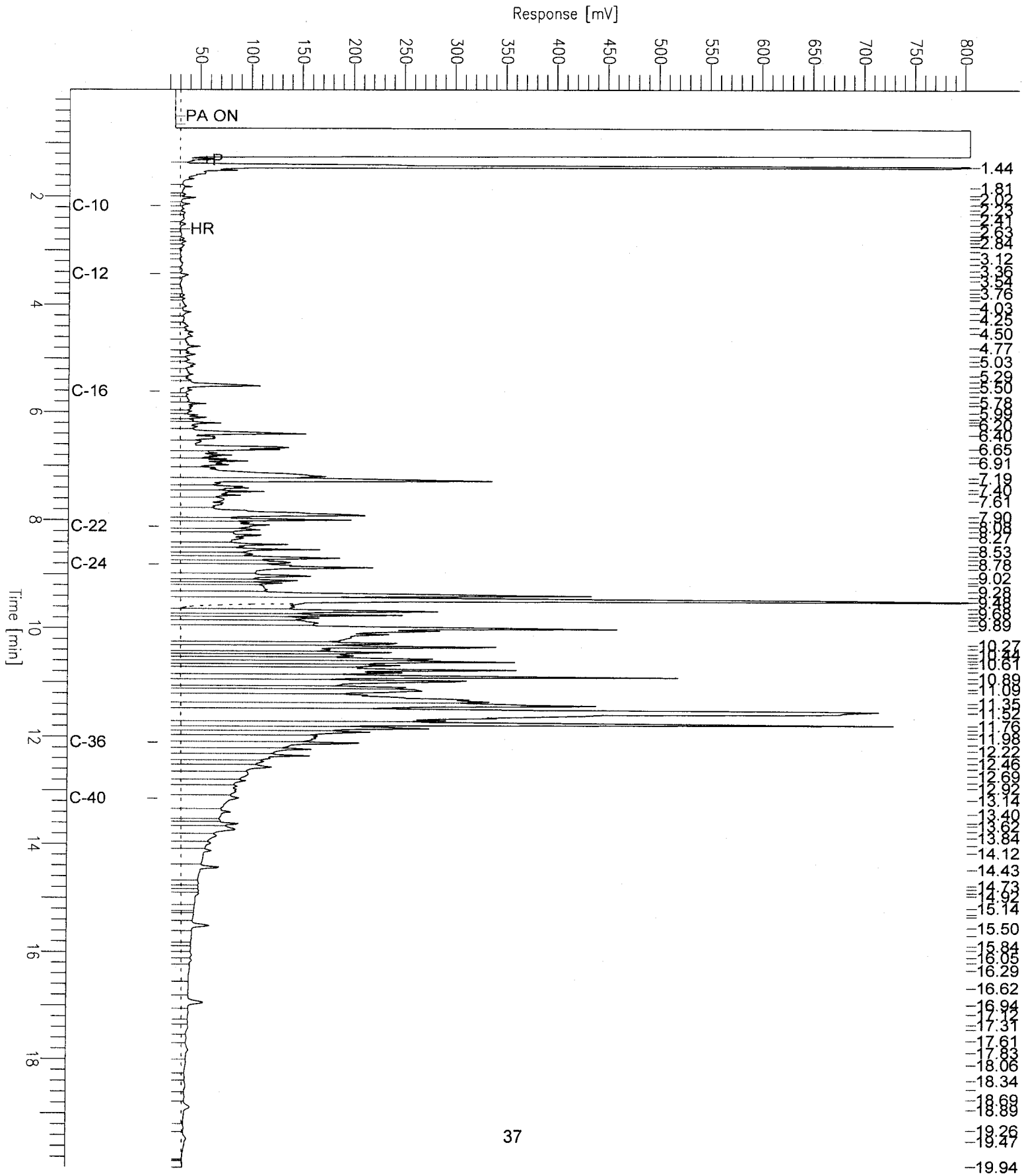
Sample #: 102056 Page 1 of 1
Date : 5/18/05 08:18 AM
Time of Injection: 5/17/05 09:32 PM
Low Point : 13.90 mV High Point : 736.50 mV
Plot Scale: 722.6 mV



Chromatogram

Sample Name : 179445-007sg,102056
FileName : G:\GC17\CHA\136A048.RAW
Method : ATEH136.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 10 mV

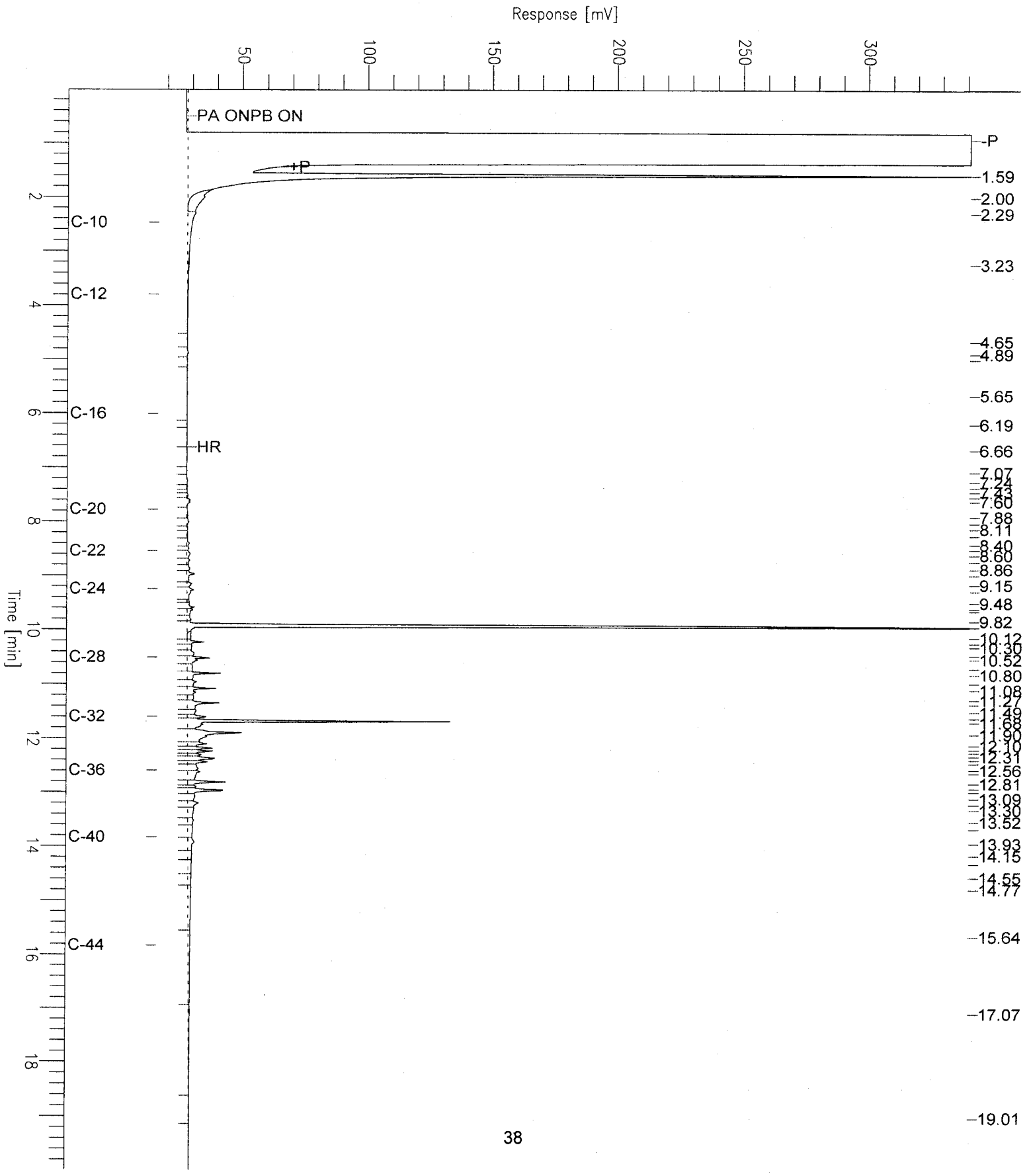
Sample #: 102056 Page 1 of 1
Date : 5/18/05 08:18 AM
Time of Injection: 5/17/05 10:01 PM
Low Point : 10.18 mV High Point : 804.58 mV
Plot Scale: 794.4 mV



Chromatogram

Sample Name : 179445-008sg,102056
FileName : G:\GC13\CHB\136B015.RAW
Method : BTEH136S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 16 mV

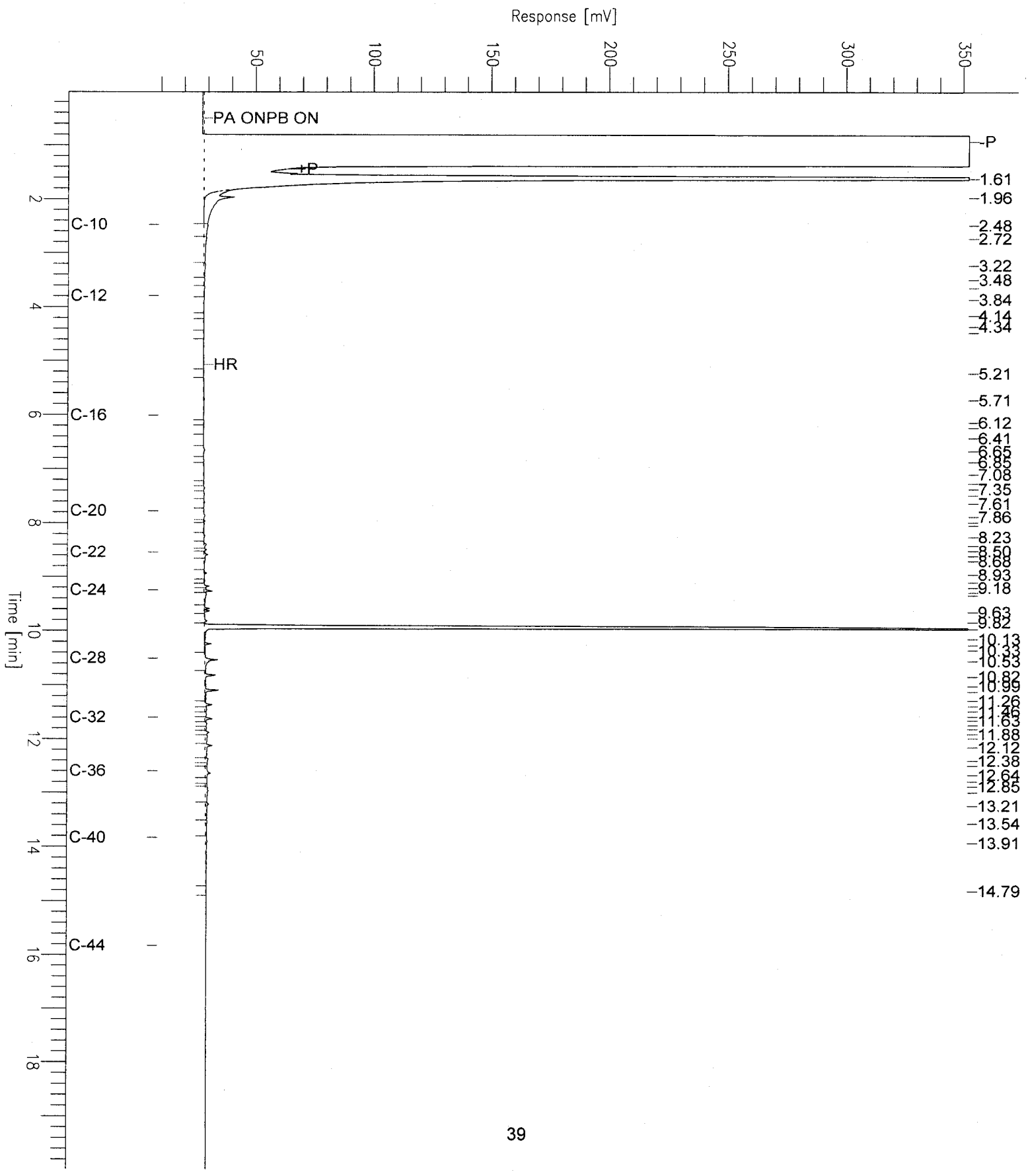
Sample #: 102056 Page 1 of 1
Date : 5/17/05 07:34 AM
Time of Injection: 5/16/05 10:03 PM
Low Point : 16.33 mV High Point : 340.90 mV
Plot Scale: 324.6 mV



Chromatogram

Sample Name : 179445-009sg,102056
FileName : G:\GC13\CHB\136B014.RAW
Method : BTEH136S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 9 mV

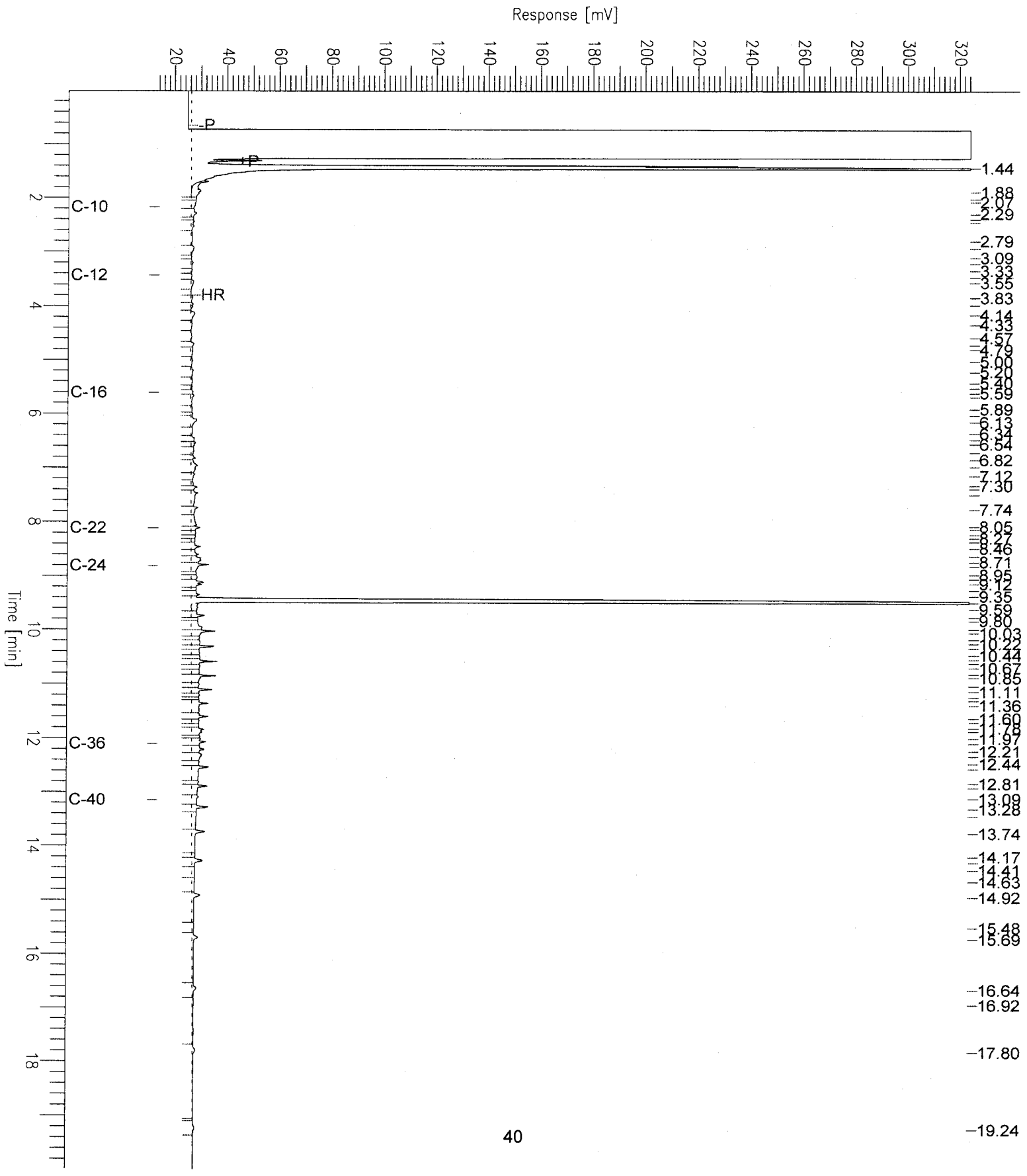
Sample #: 102056 Page 1 of 1
Date : 5/17/05 07:34 AM
Time of Injection: 5/16/05 09:35 PM
Low Point : 8.90 mV High Point : 352.38 mV
Plot Scale: 343.5 mV



Chromatogram

Sample Name : 179445-010sg,102056
FileName : G:\GC17\CHA\136A043.RAW
Method : ATEH136.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 14 mV

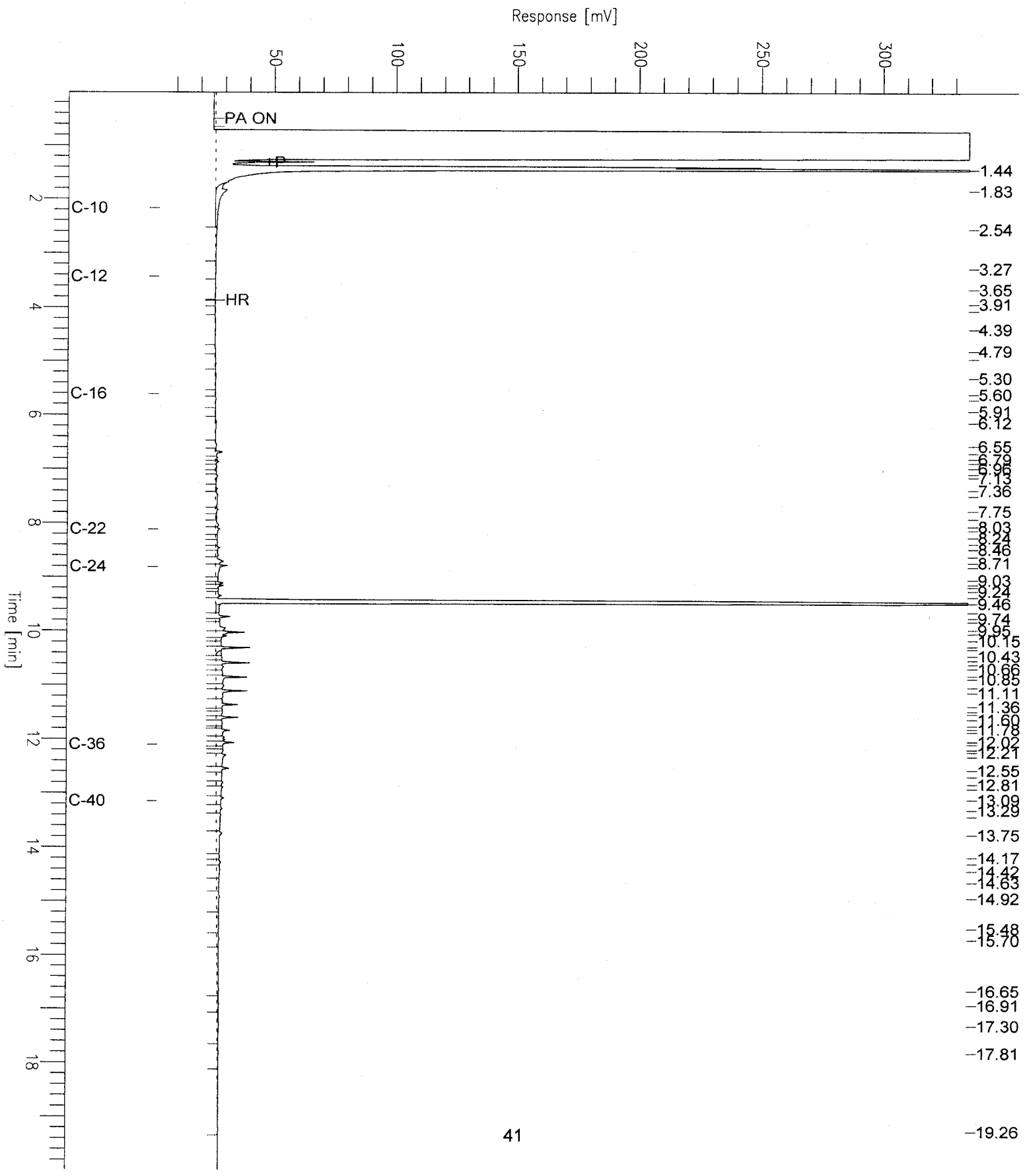
Sample #: 102056 Page 1 of 1
Date : 5/18/05 08:16 AM
Time of Injection: 5/17/05 07:38 PM
Low Point : 13.98 mV High Point : 324.15 mV
Plot Scale: 310.2 mV



Chromatogram

Sample Name : 179445-011sg,102056
FileName : G:\GC17\CHA\136A044.RAW
Method : ATEH136.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 3 mV

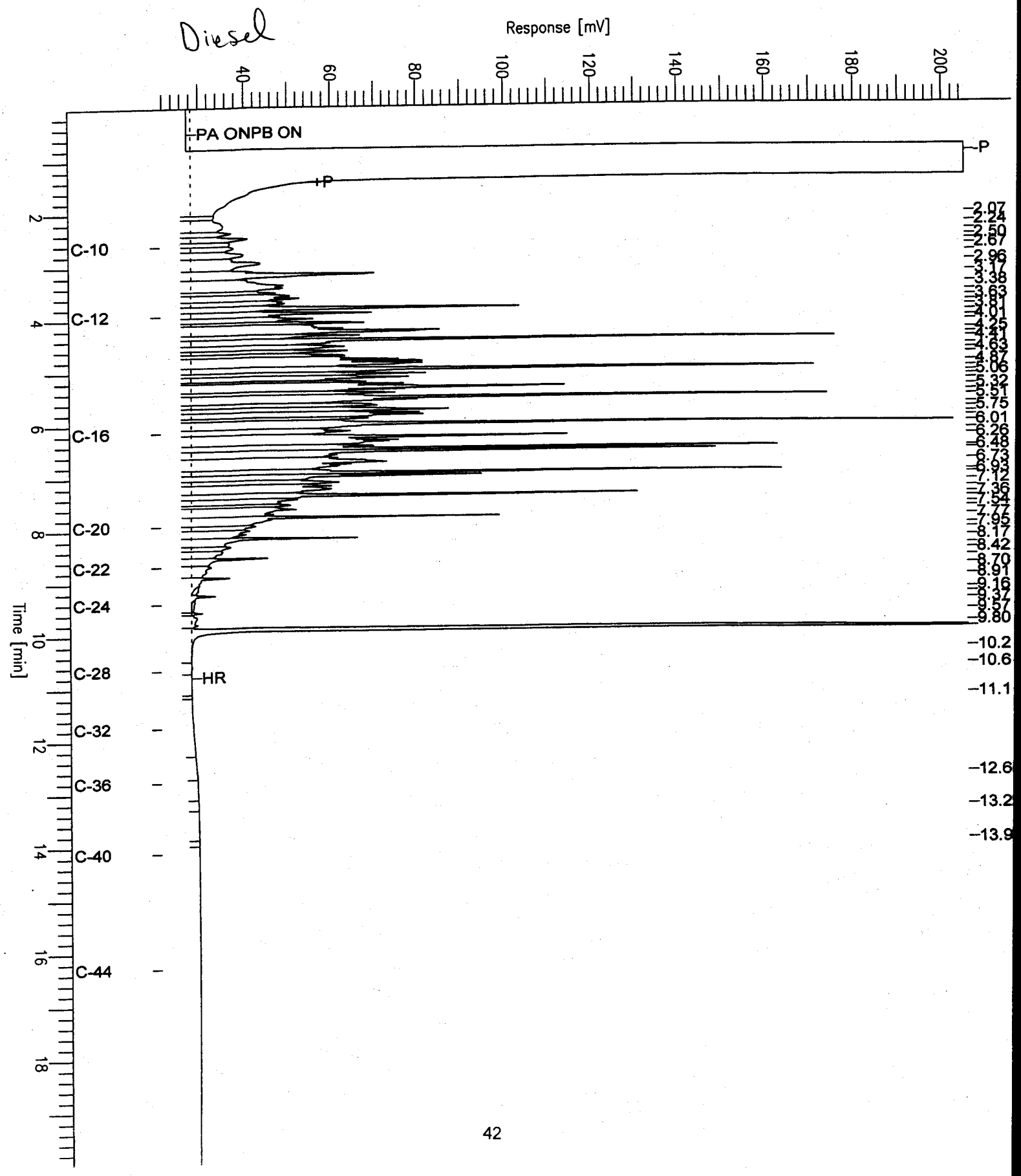
Sample #: 102056 Page 1 of 1
Date : 5/18/05 08:16 AM
Time of Injection: 5/17/05 08:06 PM
Low Point : 2.52 mV High Point : 335.56 mV
Plot Scale: 333.0 mV



Chromatogram

Sample Name : ccv,s467,dsl
FileName : G:\GC13\CHB\136B006.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min
End Time : 19.99 min
Scale Factor: 0.0
Plot Offset: 22 mV

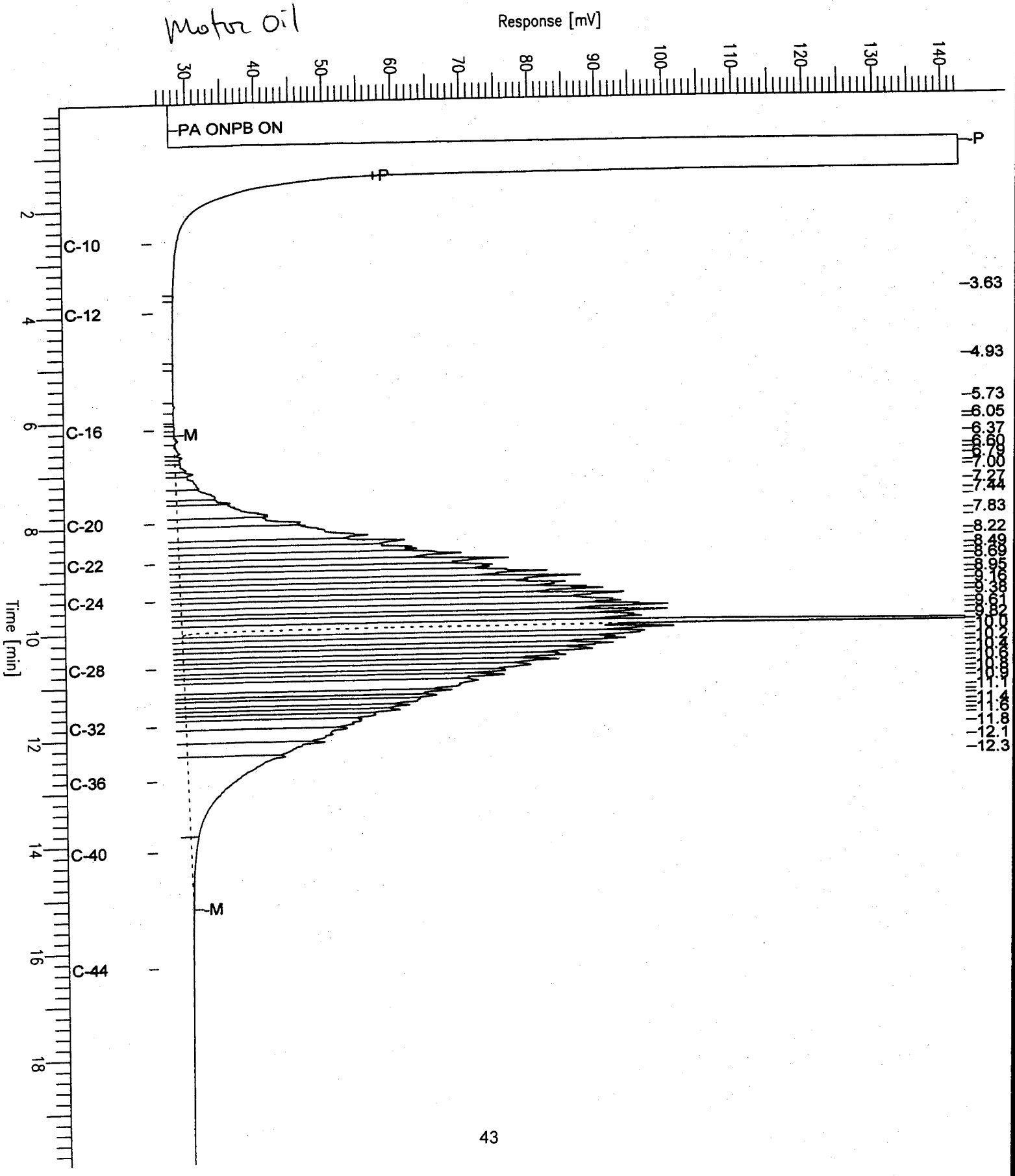
Sample #: 500mg/L
Date : 5/16/05 02:44 PM
Time of Injection: 5/16/05 01:59 PM
Low Point : 21.50 mV
High Point : 204.97 mV
Plot Scale: 183.5 mV



Chromatogram

Sample Name : ccv,s442,mo
FileName : G:\GC13\CHB\136B007.RAW
Method : BTEH115S.MTH
Start Time : 0.01 min
Scale Factor: 0.0
End Time : 19.99 min
Plot Offset: 25 mV

Sample #: 500mg/L
Date : 5/16/05 02:52 PM
Time of Injection: 5/16/05 02:27 PM
Low Point : 25.10 mV
High Point : 142.42 mV
Plot Scale: 117.3 mV



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293894	Batch#:	102056
Matrix:	Soil	Prepared:	05/16/05
Units:	mg/Kg	Analyzed:	05/16/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	49.93	53.45	107	65-135

Surrogate	%REC	Limits
Hexacosane	100	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293894	Batch#:	102056
Matrix:	Soil	Prepared:	05/16/05
Units:	mg/Kg	Analyzed:	05/16/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	49.93	53.45	107	65-135

Surrogate	%REC	Limits
Hexacosane	100	65-135

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: MCH
Calnum: 145118824002 Name: dsl Type: (normal) Date: 23-MAR-2005 22:24 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	082b012	145118824012	dsl10	23-MAR-2005 22:24	05WS0167
2	082b013	145118824013	dsl100	23-MAR-2005 22:52	05WS0169
3	082b014	145118824014	dsl250	23-MAR-2005 23:20	05WS0170
4	082b015	145118824015	dsl500	23-MAR-2005 23:48	05WS0171
5	082b016	145118824016	dsl1000	24-MAR-2005 00:17	05WS0172
6	082b017	145118824017	dsl2500	24-MAR-2005 00:45	05WS0173
7	082b018	145118824018	dsl5000	24-MAR-2005 01:13	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C10-C24	25181	22700	17958	23267	18682	19751	20580	AVRG R		4.726E-5		mg/L	21160	12	0.995	20	

46

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC13B Calname : dsl
Calnum : 145118824002 Caldate : 23-MAR-2005 Caltype :

ICV 145118824020 (082b020) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	B	145118824020	24-MAR-2005	500.00	540.80	mg/L	8

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: RH
Calnum: 145107088002 Name: mo Type: (normal) Date: 15-MAR-2005 17:15 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	074b013	145107088013	mo 50	15-MAR-2005 17:15	04WS2172
2	074b014	145107088014	mo 250	15-MAR-2005 17:43	04WS2173
3	074b015	145107088015	mo 500	15-MAR-2005 18:11	04WS2174
4	074b016	145107088016	mo 1000	15-MAR-2005 18:38	04WS2175
5	074b017	145107088017	mo 2500	15-MAR-2005 19:07	04WS2176
6	074b018	145107088018	mo 5000	15-MAR-2005 19:34	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Motor Oil C24-C36	15505	16721	16352	15078	12216	9686.5	AVRG R		7.013E-5		mg/L	14260	19	0.995 20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Reviewed By: CW
Calnum: 145147550001 Name: Hexacosane Type: (normal) Date: 13-APR-2005 01:01 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102b019	145147550019	hex5	13-APR-2005 01:01	S112
2	102b020	145147550020	hex10	13-APR-2005 01:30	S113
3	102b021	145147550021	hex25	13-APR-2005 01:58	S114
4	102b022	145147550022	hex50	13-APR-2005 02:26	S115
5	102b023	145147550023	hex75	13-APR-2005 02:55	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	24111	24621	24792	26302	24569	AVRG R		4.019E-5		mg/L	24879	3	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769001 Name: dsl Type: (normal) Date: 12-APR-2005 15:46 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a003	175147769003	dsl10	12-APR-2005 15:46	05WS0167
2	102a004	175147769004	dsl100	12-APR-2005 16:15	05WS0169
3	102a005	175147769005	dsl250	12-APR-2005 16:43	05WS0170
4	102a006	175147769006	dsl500	12-APR-2005 17:12	05WS0171
5	102a007	175147769007	dsl1000	12-APR-2005 17:40	05WS0172
6	102a008	175147769008	dsl2500	12-APR-2005 18:09	05WS0173
7	102a009	175147769009	dsl5000	12-APR-2005 18:37	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C10-C24	25738	30678	29352	30492	30341	30615	30232	AVRG R		3.374E-5		mg/L	29636	6	0.995	20	

50

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC17A Calname : dsl
Calnum : 175147769001 Caldate : 12-APR-2005 Caltype :

ICV 175147769011 (102a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	A	175147769011	12-APR-2005	500.00	494.04	mg/L	-1

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769002 Name: mo Type: (normal) Date: 12-APR-2005 20:32 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a013	175147769013	mo50	12-APR-2005 20:32	04WS2172
2	102a014	175147769014	mo250	12-APR-2005 21:00	04WS2173
3	102a015	175147769015	mo500	12-APR-2005 21:29	04WS2174
4	102a016	175147769016	mo1000	12-APR-2005 21:57	04WS2175
5	102a017	175147769017	mo2500	12-APR-2005 22:26	04WS2176
6	102a018	175147769018	mo5000	12-APR-2005 22:55	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Motor Oil C24-C36	19368	20746	21476	21316	21490	20562	AVRG R		4.802E-5		mg/L	20827	4	0.995 20	

52

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769003 Name: hex Type: (normal) Date: 12-APR-2005 23:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a020	175147769020	hex5	12-APR-2005 23:52	S112
2	102a021	175147769021	hex10	13-APR-2005 00:21	S113
3	102a022	175147769022	hex25	13-APR-2005 00:49	S114
4	102a023	175147769023	hex50	13-APR-2005 01:18	S115
5	102a024	175147769024	hex75	13-APR-2005 01:47	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	34053	35110	33549	32398	34102	AVRG R		2.955E-5		mg/L	33842	3	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145196438006	16-MAY-2005 13:59	145118824002	23-MAR-2005	21160	22061	500.00	521.29	mg/L	4	15	
GC13B	B	145196438022	17-MAY-2005 01:20	145118824002	23-MAR-2005	21160	23814	250.00	281.36	mg/L	13	15	
GC17A	A	175196552007	16-MAY-2005 15:48	175147769001	12-APR-2005	29636	26661	500.00	449.81	mg/L	-10	15	
GC17A	A	175196552018	17-MAY-2005 00:36	175147769001	12-APR-2005	29636	27480	250.00	231.82	mg/L	-7	15	
GC17A	A	175196552038	17-MAY-2005 10:08	175147769001	12-APR-2005	29636	28219	250.00	238.05	mg/L	-5	15	
GC17A	A	175196552053	18-MAY-2005 00:25	175147769001	12-APR-2005	29636	27710	500.00	467.52	mg/L	-6	15	

CONTINUING CALIBRATION SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145196438007	16-MAY-2005 14:27	145107088002	15-MAR-2005	14260	15893	500.00	557.27	mg/L	11	15	
GC13B	B	145196438023	17-MAY-2005 01:49	145107088002	15-MAR-2005	14260	16383	500.00	574.45	mg/L	15	15	
GC17A	A	175196552006	16-MAY-2005 15:00	175147769002	12-APR-2005	20827	21676	500.00	520.39	mg/L	4	15	
GC17A	A	175196552019	17-MAY-2005 01:04	175147769002	12-APR-2005	20827	21833	500.00	524.17	mg/L	5	15	
GC17A	A	175196552039	17-MAY-2005 10:37	175147769002	12-APR-2005	20827	23337	500.00	560.26	mg/L	12	15	
GC17A	A	175196552054	18-MAY-2005 00:54	175147769002	12-APR-2005	20827	20340	500.00	488.33	mg/L	-2	15	

CONTINUING CALIBRATION SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC13B	B	145196438006	16-MAY-2005 13:59	145147550001	13-APR-2005	24879	25751	50.000	51.752	mg/L	4	15	
GC13B	B	145196438022	17-MAY-2005 01:20	145147550001	13-APR-2005	24879	26217	50.000	52.690	mg/L	5	15	
GC17A	A	175196552006	16-MAY-2005 15:00	175147769003	12-APR-2005	33842	32281	50.000	47.693	mg/L	-5	15	
GC17A	A	175196552018	17-MAY-2005 00:36	175147769003	12-APR-2005	33842	33023	50.000	48.789	mg/L	-2	15	
GC17A	A	175196552038	17-MAY-2005 10:08	175147769003	12-APR-2005	33842	32890	50.000	48.594	mg/L	-3	15	
GC17A	A	175196552053	18-MAY-2005 00:25	175147769003	12-APR-2005	33842	32132	50.000	47.473	mg/L	-5	15	

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145107088 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 15-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	074b001	X	primer			15-MAR-2005 08:48	1.0					
002	074b002	X	ib			15-MAR-2005 09:16	1.0					
003	074b003	ICAL	dsl 10			15-MAR-2005 12:35	1.0				1	
004	074b004	ICAL	dsl 100			15-MAR-2005 13:03	1.0				2	
005	074b005	ICAL	dsl 250			15-MAR-2005 13:31	1.0				3	
006	074b006	ICAL	dsl 500			15-MAR-2005 13:58	1.0				4	
007	074b007	ICAL	dsl 1000			15-MAR-2005 14:26	1.0				5	
008	074b008	ICAL	dsl 2500			15-MAR-2005 14:54	1.0				6	
009	074b009	ICAL	dsl 5000			15-MAR-2005 15:22	1.0				7	
010	074b010	X	ib			15-MAR-2005 15:50	1.0					
011	074b011	ICV	dsl			15-MAR-2005 16:18	1.0	3			8	
012	074b012	X	ib			15-MAR-2005 16:47	1.0					
013	074b013	ICAL	mo 50			15-MAR-2005 17:15	1.0				9	
014	074b014	ICAL	mo 250			15-MAR-2005 17:43	1.0				10	
015	074b015	ICAL	mo 500			15-MAR-2005 18:11	1.0				11	
016	074b016	ICAL	mo 1000			15-MAR-2005 18:38	1.0				12	
017	074b017	ICAL	mo 2500			15-MAR-2005 19:07	1.0				13	
018	074b018	ICAL	mo 5000			15-MAR-2005 19:34	1.0				14	
019	074b019	X	ib			15-MAR-2005 20:02	1.0					
020	074b020	ICAL	hex5			15-MAR-2005 20:30	1.0				15	
021	074b021	ICAL	hex10			15-MAR-2005 20:58	1.0				16	
022	074b022	ICAL	hex25			15-MAR-2005 21:26	1.0				17	
023	074b023	ICAL	hex50			15-MAR-2005 21:54	1.0				18	
024	074b024	ICAL	hex75			15-MAR-2005 22:22	1.0				19	
025	074b025	X	ib			15-MAR-2005 22:50	1.0					
026	074b026	X	c10-16			15-MAR-2005 23:18	1.0					
027	074b027	X	c12-60			15-MAR-2005 23:46	1.0					

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145118824 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 23-MAR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	082b001	X	primer			23-MAR-2005 11:56	1.0						
002	082b002	X	ib			23-MAR-2005 12:24	1.0						
003	082b003	CCV	dsl			23-MAR-2005 12:53	1.0	7	3			1	
004	082b004	CCV	mo			23-MAR-2005 13:21	1.0		3			2	
005	082b005	X	ib			23-MAR-2005 19:08	1.0						
006	082b006	ICAL	hex5			23-MAR-2005 19:36	1.0					3	
007	082b007	ICAL	hex10			23-MAR-2005 20:04	1.0					4	
008	082b008	ICAL	hex25			23-MAR-2005 20:32	1.0					5	
009	082b009	ICAL	hex50			23-MAR-2005 21:00	1.0					6	
010	082b010	ICAL	hex75			23-MAR-2005 21:28	1.0					7	
011	082b011	X	ib			23-MAR-2005 21:56	1.0						
012	082b012	ICAL	dsl10			23-MAR-2005 22:24	1.0					8	
013	082b013	ICAL	dsl100			23-MAR-2005 22:52	1.0					9	
014	082b014	ICAL	dsl250			23-MAR-2005 23:20	1.0					10	
015	082b015	ICAL	dsl500			23-MAR-2005 23:48	1.0					11	58
016	082b016	ICAL	dsl1000			24-MAR-2005 00:17	1.0					12	
017	082b017	ICAL	dsl2500			24-MAR-2005 00:45	1.0					13	
018	082b018	ICAL	dsl5000			24-MAR-2005 01:13	1.0					14	
019	082b019	X	ib			24-MAR-2005 01:41	1.0						
020	082b020	ICV	dsl			24-MAR-2005 02:09	1.0		3			15	
021	082b021	X	ib			24-MAR-2005 02:38	1.0						

Stds used: 1=S72 2=S97 3=S112 4=S113 5=S114 6=S115 7=S116 8=05WS0167 9=05WS0169 10=05WS0170 11=05WS0171 12=05WS0172 13=05WS0173 14=05WS0174 15=S110

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145147550 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	102b001	X	primer			12-APR-2005 11:10	1.0						
002	102b002	X	ib			12-APR-2005 11:38	1.0						
003	102b003	CCV	dsl			12-APR-2005 12:06	1.0					1	
004	102b004	CCV	mo			12-APR-2005 12:34	1.0					2	
005	102b005	X	ib			12-APR-2005 15:11	1.0						
006	102b006	CCV	dsl			12-APR-2005 15:39	1.0		3			1	
007	102b007	CCV	mo			12-APR-2005 16:07	1.0		3			2	
008	102b008	X	ib			12-APR-2005 19:52	1.0						
009	102b009	ICAL	dsl10			12-APR-2005 20:20	1.0					3	
010	102b010	ICAL	dsl100			12-APR-2005 20:48	1.0					4	
011	102b011	ICAL	dsl250			12-APR-2005 21:16	1.0					5	
012	102b012	ICAL	dsl500			12-APR-2005 21:44	1.0					6	
013	102b013	ICAL	dsl1000			12-APR-2005 22:12	1.0					7	
014	102b014	ICAL	dsl2500			12-APR-2005 22:40	1.0					8	
015	102b015	ICAL	dsl5000			12-APR-2005 23:09	1.0					9	59
016	102b016	X	ib			12-APR-2005 23:37	1.0						
017	102b017	ICV	dsl			13-APR-2005 00:05	1.0					10	
018	102b018	X	ib			13-APR-2005 00:33	1.0						
019	102b019	ICAL	hex5			13-APR-2005 01:01	1.0					11	
020	102b020	ICAL	hex10			13-APR-2005 01:30	1.0					12	
021	102b021	ICAL	hex25			13-APR-2005 01:58	1.0					13	
022	102b022	ICAL	hex50			13-APR-2005 02:26	1.0					14	
023	102b023	ICAL	hex75			13-APR-2005 02:55	1.0					15	
024	102b024	X	ib			13-APR-2005 03:23	1.0						
025	102b025	CCV	dsl			13-APR-2005 03:51	1.0		3			16	

Stds used: 1=S72 2=S294 3=05WS0167 4=05WS0169 5=05WS0170 6=05WS0171 7=05WS0172 8=05WS0173 9=05WS0174 10=S110 11=S112 12=S113 13=S114 14=S115 15=S116 16=S167

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175147769 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	102a001	X	primer			12-APR-2005 14:49	1.0						
002	102a002	X	ib			12-APR-2005 15:18	1.0						
003	102a003	ICAL	dsl10			12-APR-2005 15:46	1.0					1	
004	102a004	ICAL	dsl100			12-APR-2005 16:15	1.0					2	
005	102a005	ICAL	dsl250			12-APR-2005 16:43	1.0					3	
006	102a006	ICAL	dsl500			12-APR-2005 17:12	1.0					4	
007	102a007	ICAL	dsl1000			12-APR-2005 17:40	1.0					5	
008	102a008	ICAL	dsl2500			12-APR-2005 18:09	1.0					6	
009	102a009	ICAL	dsl5000			12-APR-2005 18:37	1.0					7	
010	102a010	X	ib			12-APR-2005 19:06	1.0						
011	102a011	ICV	dsl			12-APR-2005 19:34	1.0		3			8	
012	102a012	X	ib			12-APR-2005 20:03	1.0						
013	102a013	ICAL	mo50			12-APR-2005 20:32	1.0					9	
014	102a014	ICAL	mo250			12-APR-2005 21:00	1.0					10	
015	102a015	ICAL	mo500			12-APR-2005 21:29	1.0					11	60
016	102a016	ICAL	mo1000			12-APR-2005 21:57	1.0					12	
017	102a017	ICAL	mo2500			12-APR-2005 22:26	1.0					13	
018	102a018	ICAL	mo5000			12-APR-2005 22:55	1.0					14	
019	102a019	X	ib			12-APR-2005 23:23	1.0						
020	102a020	ICAL	hex5			12-APR-2005 23:52	1.0					15	
021	102a021	ICAL	hex10			13-APR-2005 00:21	1.0					16	
022	102a022	ICAL	hex25			13-APR-2005 00:49	1.0					17	
023	102a023	ICAL	hex50			13-APR-2005 01:18	1.0					18	
024	102a024	ICAL	hex75			13-APR-2005 01:47	1.0					19	
025	102a025	X	ib			13-APR-2005 02:16	1.0						

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145196438 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 16-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	136b001	X	primer			16-MAY-2005 09:58	1.0						
002	136b002	X	ib			16-MAY-2005 10:26	1.0						
003	136b003	X	C10-16			16-MAY-2005 11:30	1.0						
004	136b004	X	C12-60			16-MAY-2005 11:58	1.0						
005	136b005	X	ib			16-MAY-2005 12:46	1.0						
006	136b006	CCV	dsl			16-MAY-2005 13:59	1.0	1.0			3	1	
007	136b007	CCV	mo			16-MAY-2005 14:27	1.0	1.0	1		3	2	
008	136b008	?SAMPLE	179454-001			16-MAY-2005 15:14	1.0						
009	136b009	?SAMPLE	179454-001			16-MAY-2005 17:28	1.0						
010	136b010	X	ib			16-MAY-2005 19:43	1.0						
011	136b011	SAMPLE	179425-009	S	102056 Soil	16-MAY-2005 20:11	1.0	0.09954			3		
012	136b012	SAMPLE	179425-010	S	102056 Soil	16-MAY-2005 20:39	1.0	0.09962			3		
013	136b013	SAMPLE	179425-011	S	102056 Soil	16-MAY-2005 21:07	1.0	0.09907			3		
014	136b014	SAMPLE	179445-009	S	102056 Soil	16-MAY-2005 21:35	1.0	0.0998			3		
015	136b015	SAMPLE	179445-008	S	102056 Soil	16-MAY-2005 22:03	1.0	0.09921			3		6
016	136b016	SAMPLE	179445-010	S	102056 Soil	16-MAY-2005 22:31	1.0	0.09974		1	3		
017	136b017	SAMPLE	179445-011	S	102056 Soil	16-MAY-2005 22:59	1.0	0.09944		1	3		
018	136b018	X	179446-002		102056 Soil	16-MAY-2005 23:27	1.0	0.09948			3	7:DSL:12=7889.44	
019	136b019	SAMPLE	179445-005	S	102056 Soil	16-MAY-2005 23:55	1.0	0.09907			3		
020	136b020	SAMPLE	179445-004	S	102056 Soil	17-MAY-2005 00:23	1.0	0.09919			3		
021	136b021	X	ib			17-MAY-2005 00:52	1.0						
022	136b022	CCV	dsl			17-MAY-2005 01:20	1.0	1.0			3	3	
023	136b023	CCV	mo			17-MAY-2005 01:49	1.0	1.0	1		3	2	
024	136b024	X	ccv			17-MAY-2005 02:17	1.0					3	
025	136b025	SAMPLE	179425-001	S	102056 Soil	17-MAY-2005 02:45	10.0	0.09915	1		3		
026	136b026	SAMPLE	179425-008	S	102056 Soil	17-MAY-2005 03:13	1.0	0.0993	1	1	3		
027	136b027	SAMPLE	179445-006	S	102056 Soil	17-MAY-2005 03:41	1.0	0.1000	1		3		
028	136b028	SAMPLE	179445-007	S	102056 Soil	17-MAY-2005 04:09	1.0	0.09932	1		3		
029	136b029	X	ib			17-MAY-2005 04:38	1.0						
030	136b030	X	ib			17-MAY-2005 05:06	1.0						
031	136b031	BLANK	QC293852		102045 Water	17-MAY-2005 05:34	1.0	0.005	10		3		

Stds used: 1=S467 2=S442 3=S351

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 145196438 Instrument: GC13B Gas Chromatograph #13 (Channel B) TEH Begun: 16-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
032	136b032	MDL	179308-001	102045	Water	17-MAY-2005 06:02	1.0	0.005	7	3		
033	136b033	MDL	179308-002	102045	Water	17-MAY-2005 06:31	1.0	0.005	7	3		
034	136b034	MDL	179308-003	102045	Water	17-MAY-2005 06:59	1.0	0.005	7	3		
035	136b035	MDL	179308-004	102045	Water	17-MAY-2005 07:27	1.0	0.005	7	3		
036	136b036	MDL	179308-005	102045	Water	17-MAY-2005 07:56	1.0	0.005	7	3		
037	136b037	CCV	dsl			17-MAY-2005 08:24	1.0	1.0	7	3	1	
038	136b038	CCV	mo			17-MAY-2005 08:52	1.0	1.0		3	2	
039	136b039	X	dsl			17-MAY-2005 09:20	1.0	1.0		3	1	
040	136b040	MDL	179308-006	102045	Water	17-MAY-2005 09:48	1.0	0.005	7	3		
041	136b041	MDL	179308-007	102045	Water	17-MAY-2005 10:16	1.0	0.005	7	3		
042	136b042	MDL	179308-008	102045	Water	17-MAY-2005 10:44	1.0	0.005	7	3		
043	136b043	X	dsl			17-MAY-2005 11:12	1.0	1.0		3	3	
044	136b044	CCV	mo			17-MAY-2005 11:39	1.0	1.0	3	3	2	
045	136b045	CCV	dsl			17-MAY-2005 12:08	1.0	1.0		3	3	

62

Stds used: 1=S467 2=S442 3=S351

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175196552 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 16-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	136a001	X	primer			16-MAY-2005 11:52	1.0					
002	136a002	X	ib			16-MAY-2005 12:21	1.0					
003	136a003	X	c10-16			16-MAY-2005 12:49	1.0					
004	136a004	X	c12-40			16-MAY-2005 13:18	1.0					
005	136a005	CCV	dsl			16-MAY-2005 14:31	1.0				1	
006	136a006	CCV	mo			16-MAY-2005 15:00	1.0	1.0		3	2	
007	136a007	CCV	dsl			16-MAY-2005 15:48	1.0	1.0		3	1	
008	136a008	SAMPLE	179371-001 S	102016	Water	16-MAY-2005 19:51	1.0	0.005		3		
009	136a009	SAMPLE	179371-001	102016	Water	16-MAY-2005 20:19	1.0	0.005		3		
010	136a010	SAMPLE	179409-003 S	102016	Water	16-MAY-2005 20:48	5.0	0.005		3		
011	136a011	LCS	QC293894 S	102056	Soil	16-MAY-2005 21:16	1.0	0.09986		3		
012	136a012	BLANK	QC293893 S	102056	Soil	16-MAY-2005 21:45	1.0	0.09929	8	3		
013	136a013	SAMPLE	179425-002 S	102056	Soil	16-MAY-2005 22:13	1.0	0.09966		3		
014	136a014	SAMPLE	179425-003 S	102056	Soil	16-MAY-2005 22:42	1.0	0.09976		3		
015	136a015	SAMPLE	179425-006 S	102056	Soil	16-MAY-2005 23:10	1.0	0.09966		3		8
016	136a016	MS	QC293895	102056	Soil	16-MAY-2005 23:39	1.0	0.09948		3	7:BUNKC:=23256.1	
017	136a017	MSD	QC293896	102056	Soil	17-MAY-2005 00:07	1.0	0.09929		1 3	8:BUNKC:=27402.5	
018	136a018	CCV	dsl			17-MAY-2005 00:36	1.0	1.0		3	3	
019	136a019	CCV	mo			17-MAY-2005 01:04	1.0	1.0		3	2	
020	136a020	X	ccv			17-MAY-2005 01:33	1.0				3	
021	136a021	SAMPLE	179425-004 S	102056	Soil	17-MAY-2005 02:02	1.0	0.09954		3		
022	136a022	SAMPLE	179425-007 S	102056	Soil	17-MAY-2005 02:31	1.0	0.09925		3		
023	136a023	SAMPLE	179425-005 S	102056	Soil	17-MAY-2005 02:59	1.0	0.0995		1 3		
024	136a024	X	ib			17-MAY-2005 03:28	1.0					
025	136a025	X	ib			17-MAY-2005 03:57	1.0					
026	136a026	BLANK	QC293852	102045	Water	17-MAY-2005 04:25	1.0	0.005	8	3		
027	136a027	MDL	179308-001	102045	Water	17-MAY-2005 04:54	1.0	0.005		3		
028	136a028	MDL	179308-002	102045	Water	17-MAY-2005 05:23	1.0	0.005		3		
029	136a029	MDL	179308-003	102045	Water	17-MAY-2005 05:52	1.0	0.005		3		
030	136a030	MDL	179308-004	102045	Water	17-MAY-2005 06:20	1.0	0.005		3		
031	136a031	MDL	179308-005	102045	Water	17-MAY-2005 06:49	1.0	0.005		3		

Stds used: 1=S467 2=S442 3=S351

SEQUENCE SUMMARY FOR 179445 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175196552 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 16-MAY-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
032	136a032	MDL	179308-006	102045	Water	17-MAY-2005 07:17	1.0	0.005			3		
033	136a033	CCV	dsl			17-MAY-2005 07:46	1.0	1.0			3	1	
034	136a034	CCV	mo			17-MAY-2005 08:14	1.0	1.0			3	2	
035	136a035	X	ccv			17-MAY-2005 08:43	1.0					1	
036	136a036	MDL	179308-007	102045	Water	17-MAY-2005 09:11	1.0	0.005			3		
037	136a037	MDL	179308-008	102045	Water	17-MAY-2005 09:40	1.0	0.005			3		
038	136a038	CCV	dsl			17-MAY-2005 10:08	1.0	1.0			3	3	
039	136a039	CCV	mo			17-MAY-2005 10:37	1.0	1.0			3	2	
040	136a040	X	ccv			17-MAY-2005 11:06	1.0					3	
041	136a041	?SAMPLE	179454-001			17-MAY-2005 17:07	1.0						
042	136a042	X	ib			17-MAY-2005 19:09	1.0						
043	136a043	SAMPLE	179445-010 S	102056	Soil	17-MAY-2005 19:38	1.0	0.09974			3		
044	136a044	SAMPLE	179445-011 S	102056	Soil	17-MAY-2005 20:06	1.0	0.09944			3		
045	136a045	SAMPLE	179446-001	102026	Water	17-MAY-2005 20:35	50.0	0.01			3		1:BUNKC:=6972.28
046	136a046	MSS	179446-002	102056	Soil	17-MAY-2005 21:04	2.0	0.09948	8		3		1:BUNKC:=10988.2
047	136a047	SAMPLE	179445-006 S	102056	Soil	17-MAY-2005 21:32	1.0	0.1000			3		
048	136a048	SAMPLE	179445-007 S	102056	Soil	17-MAY-2005 22:01	1.0	0.09932		1	3		
049	136a049	X	ib			17-MAY-2005 22:29	1.0						
050	136a050	SAMPLE	179425-001 S	102056	Soil	17-MAY-2005 22:58	10.0	0.09915			3		
051	136a051	SAMPLE	179425-008 S	102056	Soil	17-MAY-2005 23:27	1.0	0.0993			3		1:BUNKC:=5074.59
052	136a052	X	ib			17-MAY-2005 23:56	1.0						
053	136a053	CCV	dsl			18-MAY-2005 00:25	1.0	1.0			3	1	
054	136a054	CCV	mo			18-MAY-2005 00:54	1.0	1.0			3	2	
055	136a055	X	ccv			18-MAY-2005 01:23	1.0					1	

Stds used: 1=S467 2=S442 3=S351

Curtis & Tompkins Laboratories Sample Preparation Summary 16-MAY-2005 14:10

Batch Number : 102056
Date Extracted: 16-MAY-2005
Extracted by : Sharon L. Karagozlu
Prep Method : SHAKER TABLE

Analysis : TEHM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S449C
Spike #2 ID : S305D
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.f.	Clean D.f.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179425-001			Iris Environmental	Soil	50.43	g	5	0.099147	1	1	0		TEHM	3630C	sg
179425-002			Iris Environmental	Soil	50.17	g	5	0.099661	1	1	0		TEHM	3630C	sg
179425-003			Iris Environmental	Soil	50.12	g	5	0.099761	1	1	0		TEHM	3630C	sg
179425-004			Iris Environmental	Soil	50.23	g	5	0.099542	1	1	0		TEHM	3630C	sg
179425-005			Iris Environmental	Soil	50.25	g	5	0.099502	1	1	0		TEHM	3630C	sg
179425-006			Iris Environmental	Soil	50.17	g	5	0.099661	1	1	0		TEHM	3630C	sg
179425-007			Iris Environmental	Soil	50.38	g	5	0.099246	1	1	0		TEHM	3630C	sg
179425-008			Iris Environmental	Soil	50.35	g	5	0.099305	1	1	0		TEHM	3630C	sg
179425-009			Iris Environmental	Soil	50.23	g	5	0.099542	1	1	0		TEHM	3630C	sg
179425-010			Iris Environmental	Soil	50.19	g	5	0.099621	1	1	0		TEHM	3630C	sg
179425-011			Iris Environmental	Soil	50.47	g	5	0.099069	1	1	0		TEHM	3630C	sg
179445-004			Mactec, Inc.	Soil	50.41	g	5	0.099187	1	1	0		TEHM	3630C	sg
179445-005			Mactec, Inc.	Soil	50.47	g	5	0.099069	1	1	0		TEHM	3630C	sg
179445-006			Mactec, Inc.	Soil	50	g	5	0.100000	1	1	0		TEHM	3630C	sg
179445-007			Mactec, Inc.	Soil	50.34	g	5	0.099325	1	1	0		TEHM	3630C	sg
179445-008			Mactec, Inc.	Soil	50.4	g	5	0.099206	1	1	0		TEHM	3630C	sg
179445-009			Mactec, Inc.	Soil	50.1	g	5	0.099800	1	1	0		TEHM	3630C	sg
179445-010			Mactec, Inc.	Soil	50.13	g	5	0.099741	1	1	0		TEHM	3630C	sg
179445-011			Mactec, Inc.	Soil	50.28	g	5	0.099443	1	1	0		TEHM	3630C	sg
179446-002			Shaw Environmental	Soil	50.26	g	5	0.099483	1	1	0		TEHM		mss
QC293893	MB			Soil	50.36	g	5	0.099285	1	1	0		TEHM	3630C	sg
QC293894	LCS			Soil	50.07	g	5	0.099860	1	1	1		TEHM	3630C	sg
QC293895	MS	of 179446-002		Soil	50.26	g	5	0.099483	1	1	1		TEHM		
QC293896	MSD	of 179446-002		Soil	50.36	g	5	0.099285	1	1	1		TEHM		

Prep Chemist: _____ Reviewed By: _____ Date: 5/16/05

Relinquished By: _____ Received By: _____ Date: 5/17/05

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2119

LIMS Batch No: 102056
LIMS Analysis TEHM
Extracted by: SLK
Date Extracted: 05/16/05

Extraction Method:
☑ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☑ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC 29 3893	50.36	5.0	X	
	LCS 94	50.07		↓	
	MS 95	50.26			179446-002
	MSD ↓ 96	50.36			↓
5	179425-001	50.43		X	
	-002	50.17			
	-003	50.12			
	-004	50.23			
	-005	50.25			
10	-006	50.17			
	-007	50.38			
	-008	50.35			
	-009	50.23			
	-010	50.19			
15	↓ -011	50.47			
	179445-004	50.41			
	-005	50.47			
	-006	50.00			
	-007	50.34			
20	-008	50.40			
	-009	50.10			
	-010	50.13			
	-011	50.28		↓	
	179446-002	50.26	↓		MSS
			SLK 05/16/05		

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM 44029452	SLK 05/16/05
Samples were dried with CH2Cl2-rinsed granular Na2SO4	EM 44135453	
1.0 mL of TEH_SURR surrogate solution was added to all samples	S449C	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	S305D	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all CH_2Cl_2	EM 45005	
Acetone	EM 45033	
Samples were: ☐ sonicated 3 times ☑ placed on shaker table at:	1330	
taken off shaker table at:	1530	
Extracts filtered through baked, rinsed powdered Na_2SO_4	EM 44135453 | EM 44303507	
Concentrated to volumes as noted above	✓	

05/16/05
Extraction Chemist / Date

Continued from page ___
Continued on page 66

5/16/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SLK
Cleanup Date: 05/16/05

Benchbook # **BK2130**
Page 12

	Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
	MBQC293893	102056	1.0 SLK 05/16/05	1.0	
	LCS ↓ 4				
	179425-001				
	-002				
5	-003				
	-004				
	-005				
	-006				
	-007				
10	-008				
	-009				
	-010				
	-011				
	179445-004				
15	-005				
	-006				
	-007				
	-008				
	-009				
20	-010				
	-011				
25			SLK 05/16/05		
30					

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	SLK 05/16/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP3812	
Extracts were eluted with 2.0 mL CH_2Cl_2	EM45071	
Concentrated to volumes as noted above		

SLK 05/16/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

Jennifer 5/16/05
Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179383-001A	30.07	8100	MSS
-MS	30.22		179383-001A
-MSD	30.33		↓
-LCS	30.00		EM44028452
-MB	30.09		↓
-002A	30.34		
-003A	30.00		
-004A	30.21		
-005A	30.43		
-006A	30.49		
179428-001A	30.40	8270	MSS
-MS	30.46		179428-001A
-MSD	30.17		↓
-LCS	30.17		EM44028452
-MB	30.43		↓
-002A	30.19		
-003 ↓	30.01		
179446-002A	50.26	TPHM	MSS
-MS	50.26		179446-002A
-MSD	50.36		↓
-LCS	50.07		EM44028452
-MB	50.36		↓
179425-~~00~~-011A (as 5/16)	30.35	8270	
-013	30.13		comp 004^005^
-014	30.35		006^007^
-016	30.28		001^002^003^
-017	30.32		008^009^010^

Continued on Page

Project SOIL ALIQUOT BK2/35

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179425-001A	50.43	TEHM	
-002	50.17		
-003	50.12		
-004	50.23		
-005	50.25		
-006	50.11		
-007	50.38		
-008	50.35		
-009	50.23		
-010	50.19		
-011	50.47		
~~179445-001~~ 5/5/16			
179445-001A	15.06	8081	
-002	15.05		
-003	15.06		MSS
-MS	15.24		179445-003A
-MSD	15.14		EM44028452
-LCS	15.09		
-MB	15.15		
179387-10A	30.23	8270	
MB	15.13	PCB	IDOC, EM44028452
LCS-1	15.10		
LCS-2	14.89		
LCS-3	15.02		
LCS-4	15.18		
179445-004S	50.41	TEHM	
-005D	50.47		
-006	50.00		
-007	50.34		
-008	50.40		
-009	50.10		
-010F	50.13		
-011D	50.28		

Continued on Page

Signed

5/16/05

Date

Read and Understood By

Signed

Date

PESTICIDE DATA

(SOIL)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB19B110(3.5)	Batch#:	102108
Lab ID:	179445-001	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	5.000		

Moisture: 12% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.6	3.3
beta-BHC	ND #	9.6	3.0
gamma-BHC	ND	9.6	3.3
delta-BHC	ND #	9.6	3.5
Heptachlor	ND	9.6	3.0
Aldrin	ND	9.6	3.3
Heptachlor epoxide	ND	9.6	3.6
Endosulfan I	ND	9.6	4.3
Dieldrin	23 #	19	8.6
4,4'-DDE	ND	19	8.8
Endrin	ND	19	9.0
Endosulfan II	ND	19	9.2
Endosulfan sulfate	ND	19	9.8
4,4'-DDD	ND	19	8.3
Endrin aldehyde	ND #	19	10
4,4'-DDT	ND	19	9.7
alpha-Chlordane	ND	9.6	4.1
gamma-Chlordane	ND	9.6	4.1
Methoxychlor	ND	96	55
Toxaphene	ND	340	60

Surrogate	%REC	Limits
TCMX	91	43-130
Decachlorobiphenyl	111	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB29B102(0.0)	Batch#:	102108
Lab ID:	179445-002	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	5.000		

Moisture: 22%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	11	3.7
beta-BHC	ND #	11	3.4
gamma-BHC	ND	11	3.8
delta-BHC	ND #	11	3.9
Heptachlor	ND	11	3.4
Aldrin	ND	11	3.7
Heptachlor epoxide	ND	11	4.1
Endosulfan I	ND	11	4.8
Dieldrin	ND	21	9.8
4,4'-DDE	ND	21	9.9
Endrin	ND	21	10
Endosulfan II	ND	21	10
Endosulfan sulfate	ND	21	11
4,4'-DDD	ND	21	9.3
Endrin aldehyde	ND #	21	12
4,4'-DDT	ND	21	11
alpha-Chlordane	ND	11	4.6
gamma-Chlordane	ND	11	4.6
Methoxychlor	ND	110	62
Toxaphene	ND	380	68

Surrogate	%REC	Limits
TCMX	95	43-130
Decachlorobiphenyl	92	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB29B102(2.0)	Batch#:	102108
Lab ID:	179445-003	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	5.000		

Moisture: 13% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.7	3.4
beta-BHC	ND #	9.7	3.0
gamma-BHC	ND	9.7	3.4
delta-BHC	ND #	9.7	3.5
Heptachlor	ND	9.7	3.0
Aldrin	ND	9.7	3.3
Heptachlor epoxide	ND	9.7	3.7
Endosulfan I	ND	9.7	4.3
Dieldrin	ND	19	8.7
4,4'-DDE	ND	19	8.9
Endrin	ND	19	9.1
Endosulfan II	ND	19	9.3
Endosulfan sulfate	ND	19	9.9
4,4'-DDD	ND	19	8.4
Endrin aldehyde	ND #	19	10
4,4'-DDT	ND	19	9.9
alpha-Chlordane	ND	9.7	4.1
gamma-Chlordane	ND	9.7	4.1
Methoxychlor	ND	97	56
Toxaphene	ND	340	61

Surrogate	%REC	Limits
TCMX	77	43-130
Decachlorobiphenyl	93	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC294068	Batch#:	102108
Matrix:	Soil	Prepared:	05/17/05
Units:	ug/Kg	Analyzed:	05/19/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.32
beta-BHC	ND	1.7	0.41
gamma-BHC	ND	1.7	0.36
delta-BHC	ND	1.7	0.33
Heptachlor	ND	1.7	0.48
Aldrin	ND	1.7	0.40
Heptachlor epoxide	ND	1.7	0.50
Endosulfan I	ND	1.7	0.88
Dieldrin	ND	3.3	0.63
4,4'-DDE	ND	3.3	0.53
Endrin	ND	3.3	0.67
Endosulfan II	ND	3.3	0.95
Endosulfan sulfate	ND	3.3	0.77
4,4'-DDD	ND	3.3	0.67
Endrin aldehyde	ND	3.3	0.72
4,4'-DDT	ND	3.3	1.2
alpha-Chlordane	ND	1.7	0.50
gamma-Chlordane	ND	1.7	0.47
Methoxychlor	ND	17	2.6
Toxaphene	ND	59	12

Surrogate	%REC	Limits
TCMX	99	43-130
Decachlorobiphenyl	92	43-143

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC294069	Batch#:	102108
Matrix:	Soil	Prepared:	05/17/05
Units:	ug/Kg	Analyzed:	05/19/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.25	14.01	106	42-120
Heptachlor	13.25	13.89	105	49-126
Aldrin	13.25	13.32	100	52-120
Dieldrin	26.51	28.84	109	40-125
Endrin	26.51	28.57	108	38-135
4,4'-DDT	26.51	26.64	101	43-135

Surrogate	%REC	Limits
TCMX	114	43-130
Decachlorobiphenyl	100	43-143

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BB29B102(2.0)	Batch#:	102108
MSS Lab ID:	179445-003	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	5.000		

Type: MS
Lab ID: QC294070

Moisture: 13%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<3.368	15.11	11.91	79	41-120
Heptachlor	<3.038	15.11	12.55	83	48-130
Aldrin	<3.316	15.11	12.36	82	42-126
Dieldrin	<8.737	30.23	25.49 #	84	43-128
Endrin	<9.139	30.23	27.09	90	45-137
4,4'-DDT	<9.862	30.23	32.13	106	31-151

Surrogate	%REC	Limits
TCMX	96	43-130
Decachlorobiphenyl	109	43-143

Type: MSD
Lab ID: QC294071

Moisture: 13%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	15.18	10.75	71	41-120	11	37
Heptachlor	15.18	11.66	77	48-130	8	43
Aldrin	15.18	11.08	73	42-126	11	36
Dieldrin	30.37	23.30 #	77	43-128	9	38
Endrin	30.37	24.23	80	45-137	12	39
4,4'-DDT	30.37	28.38	93	31-151	13	47

Surrogate	%REC	Limits
TCMX	92	43-130
Decachlorobiphenyl	101	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	131_018	235189248018	pest_1	11-MAY-2005 23:37	S9
2	131_019	235189248019	pest_2	12-MAY-2005 00:07	S419
3	131_020	235189248020	pest_3	12-MAY-2005 00:37	S420
4	131_022	235189248022	pest_5	12-MAY-2005 01:40	S245
5	131_023	235189248023	pest_6	12-MAY-2005 02:11	S13
6	131_024	235189248024	pest_7	12-MAY-2005 02:41	S14
7	131_035	235189248035	pest_4	12-MAY-2005 10:56	S243

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	2082.4	1886.4	2242.2	3147.0	3178.7	3777.9	2362.0	AVRG	R		3.748E-4		pg	2668.1	**26**	0.995	20	rsd ***
gamma-BHC	A	2051.0	1910.2	2278.1	3161.5	3113.5	3575.8	2424.7	AVRG	R		3.781E-4		pg	2645.0	**24**	0.995	20	rsd ***
beta-BHC	A	1510.8	1337.6	1498.8	1822.6	1675.1	1782.7	1505.5	AVRG	R		6.288E-4		pg	1590.5	11	0.995	20	
delta-BHC	A	1927.8	1703.8	1996.9	2815.6	2895.5	3408.4	2169.9	AVRG	R		4.138E-4		pg	2416.8	**26**	0.995	20	rsd ***
Heptachlor	A	2419.2	2160.3	2493.0	3146.1	2908.4	3135.1	2544.3	AVRG	R		3.722E-4		pg	2686.6	14	0.995	20	
Aldrin	A	2390.1	2127.8	2431.5	3018.4	2880.4	3174.3	2367.5	AVRG	R		3.806E-4		pg	2627.2	15	0.995	20	
Heptachlor epoxide	A	2701.0	2403.2	2727.9	3221.2	2938.5	3031.9	2617.6	AVRG	R		3.564E-4		pg	2805.9	10	0.995	20	
gamma-Chlordane	A	2650.9	2327.5	2682.5	3205.6	2965.6	3125.5	2596.3	AVRG	R		3.580E-4		pg	2793.4	11	0.995	20	
alpha-Chlordane	A	2898.3	2428.7	2794.8	3330.8	3052.8	3164.2	2729.0	AVRG	R		3.432E-4		pg	2914.1	10	0.995	20	
4,4'-DDE	A	2515.5	2193.4	2616.1	3158.4	2871.6	2904.2	2591.6	AVRG	R		3.713E-4		pg	2693.0	12	0.995	20	
Endosulfan I	A	2567.4	2388.1	2724.8	3222.2	2989.2	3121.6	2546.4	AVRG	R		3.579E-4		pg	2794.3	11	0.995	20	
Dieldrin	A	2256.1	2030.8	2438.5	2985.5	2795.8	2872.7	2396.2	AVRG	R		3.938E-4		pg	2539.4	14	0.995	20	
Endrin	A	1890.1	1861.7	2205.4	2752.8	2491.0	2513.1	2225.1	AVRG	R		4.392E-4		pg	2277.0	15	0.995	20	
4,4'-DDD	A	1195.7	1273.3	1540.9	2043.7	1981.8	2124.5	1614.0	AVRG	R		5.945E-4		pg	1682.0	**22**	0.995	20	rsd ***
Endosulfan II	A	2371.3	1999.0	2389.3	2892.0	2614.4	2605.4	2352.9	AVRG	R		4.064E-4		pg	2460.6	11	0.995	20	
4,4'-DDT	A	1581.7	990.79	1267.5	1985.2	1901.3	2096.7	1585.4	AVRG	R		6.136E-4		pg	1629.8	**25**	0.995	20	rsd ***
Endrin aldehyde	A	2358.2	1934.8	2164.5	2327.9	2123.7	2074.6	1919.2	AVRG	R		4.697E-4		pg	2129.0	8	0.995	20	
Methoxychlor	A	759.99	641.93	803.26	1003.0	852.32	809.25	848.54	AVRG	R		0.001224		pg	816.90	13	0.995	20	

77

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235189248001 Name: Type: (normal) Date: 11-MAY-2005 23:37 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2412.1	1923.4	2244.1	2626.6	2344.6	2316.2	2171.0	AVRG	R		4.365E-4		pg	2291.1	9	0.995	20	
TCMX	A	2694.2	2424.4	2778.6	3178.0	2806.1	2851.9	2620.7	AVRG	R		3.617E-4		pg	2764.8	8	0.995	20	
Decachlorobiphenyl	A	3725.6	3140.5	3534.5	3169.0	2793.2	2457.5	2783.3	AVRG	R		3.240E-4		pg	3086.2	14	0.995	20	
alpha-BHC	B	7286.2	6371.6	7169.4	8612.0	7754.6	8163.9	7876.6	AVRG	R		1.315E-4		pg	7604.9	10	0.995	20	
gamma-BHC	B	6893.6	5931.1	6529.3	7685.9	6847.7	7132.7	6931.4	AVRG	R		1.460E-4		pg	6850.2	8	0.995	20	
beta-BHC	B	4587.7	3766.8	3805.6	3996.1	3422.4	3377.3	3732.2	AVRG	R		2.623E-4		pg	3812.6	11	0.995	20	
delta-BHC	B	6891.1	5783.5	6358.2	7651.1	6950.7	7229.7	6847.2	AVRG	R		1.467E-4		pg	6815.9	9	0.995	20	
Heptachlor	B	5703.0	4707.9	5011.4	5613.4	4851.1	4850.5	5274.1	AVRG	R		1.944E-4		pg	5144.5	8	0.995	20	
Aldrin	B	7173.8	6186.8	6629.2	7444.6	6570.9	6602.3	6935.8	AVRG	R		1.472E-4		pg	6791.9	6	0.995	20	
Heptachlor epoxide	B	7824.4	6266.7	6371.4	6672.3	5657.7	5399.8	6095.4	AVRG	R		1.581E-4		pg	6326.8	12	0.995	20	
gamma-Chlordane	B	7431.5	6302.5	6651.6	7252.4	6320.2	6301.6	6744.3	AVRG	R		1.489E-4		pg	6714.9	7	0.995	20	
alpha-Chlordane	B	7577.4	6374.4	6784.7	7269.8	6316.8	6242.1	6840.5	AVRG	R		1.477E-4		pg	6772.2	7	0.995	20	
4,4'-DDE	B	5625.0	4830.0	5488.2	6232.6	5531.5	5472.8	5620.3	AVRG	R		1.804E-4		pg	5542.9	7	0.995	20	
Endosulfan I	B	6938.0	5835.8	6223.1	6466.6	5570.2	5275.5	6078.4	AVRG	R		1.651E-4		pg	6055.4	9	0.995	20	
Dieldrin	B	6049.4	5221.3	5733.8	6302.4	5403.6	5124.9	5776.6	AVRG	R		1.767E-4		pg	5658.9	8	0.995	20	
Endrin	B	4841.8	4319.6	4724.6	5120.7	4354.5	4151.7	4757.7	AVRG	R		2.169E-4		pg	4610.1	7	0.995	20	
4,4'-DDD	B	3929.5	3275.0	3676.3	4214.5	3765.2	3736.3	3633.9	AVRG	R		2.669E-4		pg	3747.2	8	0.995	20	
Endosulfan II	B	6204.2	4953.9	5272.6	5494.5	4640.9	4296.7	5064.6	AVRG	R		1.948E-4		pg	5132.5	12	0.995	20	
4,4'-DDT	B	2889.9	2227.5	2647.5	3194.6	2972.8	2963.3	2744.6	AVRG	R		3.564E-4		pg	2805.8	11	0.995	20	
Endrin aldehyde	B	5168.4	4081.1	4259.2	4285.7	3622.5	3326.7	3933.0	AVRG	R		2.441E-4		pg	4096.7	14	0.995	20	
Methoxychlor	B	1421.3	1053.0	1132.1	1264.8	1050.8	1021.0	1129.1	AVRG	R		8.672E-4		pg	1153.2	12	0.995	20	
Endosulfan sulfate	B	5424.3	4588.1	4817.8	4948.4	4150.6	3852.7	4561.3	AVRG	R		2.164E-4		pg	4620.5	11	0.995	20	
TCMX	B	7094.0	5935.2	6299.4	6635.1	5628.8	5546.3	6596.6	AVRG	R		1.601E-4		pg	6247.9	9	0.995	20	
Decachlorobiphenyl	B	5635.1	4339.3	4437.4	4486.3	3679.1	3500.1	4050.1	AVRG	R		2.323E-4		pg	4303.9	16	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	15	20	
EPA 8081A	B	22	10	20	

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :

ICV 235189248038 (131_038) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235189248038	12-MAY-2005	25.000	24.309	pg	-3	15	
gamma-BHC	A	235189248038	12-MAY-2005	25.000	24.358	pg	-3	15	
beta-BHC	A	235189248038	12-MAY-2005	25.000	24.252	pg	-3	15	
delta-BHC	A	235189248038	12-MAY-2005	25.000	24.665	pg	-1	15	
Heptachlor	A	235189248038	12-MAY-2005	25.000	24.685	pg	-1	15	
Aldrin	A	235189248038	12-MAY-2005	25.000	24.137	pg	-3	15	
Heptachlor epoxide	A	235189248038	12-MAY-2005	25.000	24.683	pg	-1	15	
gamma-Chlordane	A	235189248038	12-MAY-2005	25.000	24.097	pg	-4	15	
alpha-Chlordane	A	235189248038	12-MAY-2005	25.000	24.091	pg	-4	15	
4,4'-DDE	A	235189248038	12-MAY-2005	25.000	23.889	pg	-4	15	
Endosulfan I	A	235189248038	12-MAY-2005	25.000	24.343	pg	-3	15	
Dieldrin	A	235189248038	12-MAY-2005	25.000	22.789	pg	-9	15	
Endrin	A	235189248038	12-MAY-2005	25.000	24.889	pg	0	15	
4,4'-DDD	A	235189248038	12-MAY-2005	25.000	24.002	pg	-4	15	
Endosulfan II	A	235189248038	12-MAY-2005	25.000	24.553	pg	-2	15	
4,4'-DDT	A	235189248038	12-MAY-2005	25.000	21.247	pg	-15	15	
Endrin aldehyde	A	235189248038	12-MAY-2005	25.000	25.221	pg	1	15	
Methoxychlor	A	235189248038	12-MAY-2005	25.000	25.561	pg	2	15	
Endosulfan sulfate	A	235189248038	12-MAY-2005	25.000	25.127	pg	1	15	
alpha-BHC	B	235189248038	12-MAY-2005	25.000	24.154	pg	-3	15	
gamma-BHC	B	235189248038	12-MAY-2005	25.000	23.525	pg	-6	15	
beta-BHC	B	235189248038	12-MAY-2005	25.000	22.593	pg	-10	15	
delta-BHC	B	235189248038	12-MAY-2005	25.000	24.323	pg	-3	15	
Heptachlor	B	235189248038	12-MAY-2005	25.000	23.600	pg	-6	15	
Aldrin	B	235189248038	12-MAY-2005	25.000	23.553	pg	-6	15	
Heptachlor epoxide	B	235189248038	12-MAY-2005	25.000	22.972	pg	-8	15	
gamma-Chlordane	B	235189248038	12-MAY-2005	25.000	23.049	pg	-8	15	
alpha-Chlordane	B	235189248038	12-MAY-2005	25.000	23.099	pg	-8	15	
4,4'-DDE	B	235189248038	12-MAY-2005	25.000	24.373	pg	-3	15	
Endosulfan I	B	235189248038	12-MAY-2005	25.000	23.527	pg	-6	15	
Dieldrin	B	235189248038	12-MAY-2005	25.000	24.523	pg	-2	15	
Endrin	B	235189248038	12-MAY-2005	25.000	25.642	pg	3	15	
4,4'-DDD	B	235189248038	12-MAY-2005	25.000	25.275	pg	1	15	
Endosulfan II	B	235189248038	12-MAY-2005	25.000	25.327	pg	1	15	
4,4'-DDT	B	235189248038	12-MAY-2005	25.000	22.084	pg	-12	15	
Endrin aldehyde	B	235189248038	12-MAY-2005	25.000	25.929	pg	4	15	
Methoxychlor	B	235189248038	12-MAY-2005	25.000	32.605	pg	30	15	v+ ***
Endosulfan sulfate	B	235189248038	12-MAY-2005	25.000	26.209	pg	5	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	3	15	
EPA 8081A	B	20	6	15	

+=high bias v=ICV
Page 1 of 1

INITIAL CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805198618001 Name: Type: (normal) Date: 17-MAY-2005 23:14 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	137_013	805198618013	pest_1	17-MAY-2005 23:14	S9
2	137_014	805198618014	pest_2	17-MAY-2005 23:42	S419
3	137_015	805198618015	pest_3	18-MAY-2005 00:10	S420
4	137_016	805198618016	pest_4	18-MAY-2005 00:38	S243
5	137_017	805198618017	pest_5	18-MAY-2005 01:05	S613
6	137_018	805198618018	pest_6	18-MAY-2005 01:33	S13

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	44478	41687	41023	57125	55043	57499	AVRG	R		2.021E-5		pg	49476	16	0.995	20	
gamma-BHC	A	42507	38453	37859	51022	49177	54038	AVRG	R		2.197E-5		pg	45509	15	0.995	20	
beta-BHC	A	33666	20330	15999	17863	16672	19598	AVRG	R		4.834E-5		pg	20688	**32**	0.995	20	rsd ***
delta-BHC	A	95559	53265	43181	55421	52394	54785	AVRG	R		1.692E-5		pg	59101	**31**	0.995	20	rsd ***
Heptachlor	A	41034	32403	30803	43701	39660	48574	AVRG	R		2.540E-5		pg	39362	17	0.995	20	
Aldrin	A	39618	33742	32057	42776	40613	48760	AVRG	R		2.526E-5		pg	39594	15	0.995	20	
Heptachlor epoxide	A	35047	31235	28852	37885	36279	44856	AVRG	R		2.802E-5		pg	35692	16	0.995	20	
gamma-Chlordane	A	33832	30477	28518	38098	36103	45086	AVRG	R		2.829E-5		pg	35352	17	0.995	20	
alpha-Chlordane	A	32518	30320	27398	36739	35430	44237	AVRG	R		2.904E-5		pg	34440	17	0.995	20	
4,4'-DDE	A	32126	30769	31060	45352	41720	30269	AVRG	R		2.840E-5		pg	35216	19	0.995	20	
Endosulfan I	A	30905	28958	25921	34026	33052	42825	AVRG	R		3.066E-5		pg	32614	18	0.995	20	
Dieldrin	A	32777	31915	32214	47109	44269	31944	AVRG	R		2.724E-5		pg	36705	19	0.995	20	
Endrin	A	28119	23277	21187	34218	28091	30026	AVRG	R		3.638E-5		pg	27486	17	0.995	20	
4,4'-DDD	A	27488	25684	24734	34500	34759	29216	AVRG	R		3.402E-5		pg	29397	15	0.995	20	
Endosulfan II	A	30705	26891	25534	36084	35354	30349	AVRG	R		3.245E-5		pg	30819	14	0.995	20	
4,4'-DDT	A	22978	20082	18447	29904	26178	27869	AVRG	R		4.125E-5		pg	24243	19	0.995	20	
Endrin aldehyde	A	36398	29950	23236	24588	27367	25776	AVRG	R		3.586E-5		pg	27886	17	0.995	20	
Methoxychlor	A	10321	9589.8	9289.9	12557	10327		AVRG	R		9.600E-5		pg	10417	12	0.995	20	
Endosulfan sulfate	A	26484	22610	20370	27369	26034	27672	AVRG	R		3.986E-5		pg	25090	12	0.995	20	

80

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805198618001 Name: Type: (normal) Date: 17-MAY-2005 23:14 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
TCMX	A	29537	27468	26669	35674	35488	33856	AVRG	R		3.180E-5		pg	31449	13	0.995	20	
Decachlorobiphenyl	A	12938	12342	10376	12811	11778	16188	AVRG	R		7.850E-5		pg	12739	15	0.995	20	
alpha-BHC	B	34068	33021	34325	42728	44952	48292	AVRG	R		2.528E-5		pg	39564	17	0.995	20	
gamma-BHC	B	31059	30043	31185	37755	40312	44725	AVRG	R		2.790E-5		pg	35847	17	0.995	20	
beta-BHC	B	24506	15180	13386	13318	13528	14300	AVRG	R		6.368E-5		pg	15703	**28**	0.995	20	rsd ***
delta-BHC	B	63585	36922	34073	38973	42201	45081	AVRG	R		2.300E-5		pg	43472	**24**	0.995	20	rsd ***
Heptachlor	B	24661	23412	24519	28152	31135	36596	AVRG	R		3.561E-5		pg	28079	18	0.995	20	
Aldrin	B	28361	26550	27048	30835	34524	39545	AVRG	R		3.211E-5		pg	31144	16	0.995	20	
Heptachlor epoxide	B	24759	24104	23963	25982	29536	32628	AVRG	R		3.727E-5		pg	26829	13	0.995	20	
gamma-Chlordane	B	25208	23508	23927	26139	30172	34694	AVRG	R		3.666E-5		pg	27275	16	0.995	20	
alpha-Chlordane	B	25194	22748	22873	24710	29094	33042	AVRG	R		3.806E-5		pg	26277	15	0.995	20	
4,4'-DDE	B	24328	23001	24747	30282	36431	26795	AVRG	R		3.624E-5		pg	27597	18	0.995	20	
Endosulfan I	B	24221	21477	21324	22648	26188	28653	AVRG	R		4.152E-5		pg	24085	12	0.995	20	
Dieldrin	B	24167	23617	25321	30428	35878	27914	AVRG	R		3.586E-5		pg	27888	17	0.995	20	
Endrin	B	18444	16287	16748	21003	22052	24321	AVRG	R		5.048E-5		pg	19809	16	0.995	20	
4,4'-DDD	B	19603	18978	19110	22623	27025	24265	AVRG	R		4.559E-5		pg	21934	15	0.995	20	
Endosulfan II	B	21057	19965	20315	24095	27925	25767	AVRG	R		4.313E-5		pg	23187	14	0.995	20	
4,4'-DDT	B	15463	13767	15041	18679	21782		AVRG	R		5.901E-5		pg	16947	19	0.995	20	
Endrin aldehyde	B	25636	17861	16392	17088	20157	21348	AVRG	R		5.064E-5		pg	19747	17	0.995	20	
Methoxychlor	B	6377.3	5688.3	6816.0	8789.3	8796.0	5962.1	AVRG	R		1.414E-4		pg	7071.5	20	0.995	20	
Endosulfan sulfate	B	19464	16705	16516	18594	21329	22778	AVRG	R		5.200E-5		pg	19231	13	0.995	20	
TCMX	B	22094	21483	22527	27884	28914	28298	AVRG	R		3.968E-5		pg	25200	14	0.995	20	
Decachlorobiphenyl	B	12669	11597	12190	13862	15789	16284	AVRG	R		7.282E-5		pg	13732	14	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	17	20	
EPA 8081A	B	22	17	20	

81

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805198618001 Caldate : 17-MAY-2005 Caltype :

ICV 805198618021 (137_021) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max		
alpha-BHC	A	805198618021	18-MAY-2005	25.000	29.229	pg	**17**	15	v+	***
gamma-BHC	A	805198618021	18-MAY-2005	25.000	28.016	pg	12	15		
beta-BHC	A	805198618021	18-MAY-2005	25.000	20.853	pg	**-17**	15	v-	***
delta-BHC	A	805198618021	18-MAY-2005	25.000	23.532	pg	-6	15		
Heptachlor	A	805198618021	18-MAY-2005	25.000	27.323	pg	9	15		
Aldrin	A	805198618021	18-MAY-2005	25.000	27.163	pg	9	15		
Heptachlor epoxide	A	805198618021	18-MAY-2005	25.000	27.152	pg	9	15		
gamma-Chlordane	A	805198618021	18-MAY-2005	25.000	26.814	pg	7	15		
alpha-Chlordane	A	805198618021	18-MAY-2005	25.000	27.098	pg	8	15		
4,4'-DDE	A	805198618021	18-MAY-2005	25.000	26.699	pg	7	15		
Endosulfan I	A	805198618021	18-MAY-2005	25.000	27.266	pg	9	15		
Dieldrin	A	805198618021	18-MAY-2005	25.000	25.840	pg	3	15		
Endrin	A	805198618021	18-MAY-2005	25.000	27.918	pg	12	15		
4,4'-DDD	A	805198618021	18-MAY-2005	25.000	26.474	pg	6	15		
Endosulfan II	A	805198618021	18-MAY-2005	25.000	25.183	pg	1	15		
4,4'-DDT	A	805198618021	18-MAY-2005	25.000	25.580	pg	2	15		
Endrin aldehyde	A	805198618021	18-MAY-2005	25.000	20.924	pg	**-16**	15	v-	***
Methoxychlor	A	805198618021	18-MAY-2005	25.000	24.411	pg	-2	15		
Endosulfan sulfate	A	805198618021	18-MAY-2005	25.000	25.132	pg	1	15		
alpha-BHC	B	805198618021	18-MAY-2005	25.000	26.007	pg	4	15		
gamma-BHC	B	805198618021	18-MAY-2005	25.000	24.671	pg	-1	15		
beta-BHC	B	805198618021	18-MAY-2005	25.000	19.120	pg	**-24**	15	v-	***
delta-BHC	B	805198618021	18-MAY-2005	25.000	21.744	pg	-13	15		
Heptachlor	B	805198618021	18-MAY-2005	25.000	24.680	pg	-1	15		
Aldrin	B	805198618021	18-MAY-2005	25.000	24.315	pg	-3	15		
Heptachlor epoxide	B	805198618021	18-MAY-2005	25.000	24.284	pg	-3	15		
gamma-Chlordane	B	805198618021	18-MAY-2005	25.000	24.209	pg	-3	15		
alpha-Chlordane	B	805198618021	18-MAY-2005	25.000	24.104	pg	-4	15		
4,4'-DDE	B	805198618021	18-MAY-2005	25.000	23.078	pg	-8	15		
Endosulfan I	B	805198618021	18-MAY-2005	25.000	24.385	pg	-2	15		
Dieldrin	B	805198618021	18-MAY-2005	25.000	22.686	pg	-9	15		
Endrin	B	805198618021	18-MAY-2005	25.000	22.878	pg	-8	15		
4,4'-DDD	B	805198618021	18-MAY-2005	25.000	22.338	pg	-11	15		
Endosulfan II	B	805198618021	18-MAY-2005	25.000	22.148	pg	-11	15		
4,4'-DDT	B	805198618021	18-MAY-2005	25.000	22.926	pg	-8	15		
Endrin aldehyde	B	805198618021	18-MAY-2005	25.000	20.226	pg	**-19**	15	v-	***
Methoxychlor	B	805198618021	18-MAY-2005	25.000	21.826	pg	-13	15		
Endosulfan sulfate	B	805198618021	18-MAY-2005	25.000	21.494	pg	-14	15		

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	8	15	
EPA 8081A	B	20	8	15	

+=high bias -=low bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235200975004 Run Name: Injected: 19-MAY-2005 13:35
Filename: 139_004 Standard(s): S306

Analyte	Ch	Area
Endrin	A	119138.61
Endrin aldehyde	A	1487.47
Endrin ketone	A	5533.11

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	177337.06
4,4'-DDE	A	875.38
4,4'-DDD	A	9016.5

4,4'-DDT Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	217961.87
Endrin aldehyde	B	3511.81
Endrin ketone	B	12842.56

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	254421.71
4,4'-DDE	B	3410.79
4,4'-DDD	B	22168.83

4,4'-DDT Breakdown %: 9
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235200975019 Run Name: Injected: 19-MAY-2005 22:05
Filename: 139_019 Standard(s): S306

Analyte	Ch	Area
Endrin	A	133174.48
Endrin aldehyde	A	842.16
Endrin ketone	A	6816.23

Endrin Breakdown %: 5
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	196262.1
4,4'-DDE	A	830.4
4,4'-DDD	A	11235.76

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	195218.23
Endrin aldehyde	B	1806.23
Endrin ketone	B	11943.1

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	253413.15
4,4'-DDE	B	2260.2
4,4'-DDD	B	26874.24

4,4'-DDT Breakdown %: 10
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805199671004 Run Name: Injected: 18-MAY-2005 15:51
Filename: 138_004 Standard(s): S306

Analyte	Ch	Area
Endrin	A	1924188.45
Endrin aldehyde	A	77834.3
Endrin ketone	A	65882.94

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	2801022.31
4,4'-DDE	A	8886.42
4,4'-DDD	A	117878.63

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	1212770.28
Endrin aldehyde	B	37295.61
Endrin ketone	B	46829.5

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	2408503.5
4,4'-DDE	B	7399.92
4,4'-DDD	B	80675.72

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805199671018 Run Name: Injected: 18-MAY-2005 23:10
Filename: 138_018 Standard(s): S306

Analyte	Ch	Area
Endrin	A	1608987.11
Endrin aldehyde	A	40513.54
Endrin ketone	A	93682.1

Endrin Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	2617012.85
4,4'-DDE	A	10715.25
4,4'-DDD	A	189335.67

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	989452.57
Endrin aldehyde	B	20835.03
Endrin ketone	B	51505.5

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	2083162.89
4,4'-DDE	B	6277.89
4,4'-DDD	B	138718.56

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235200975005 Filename : 139_005 Injected : 19-MAY-2005 14:05
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S420

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	2567.2	10.00000	9.622004	pg	-4	15	rsd ***
gamma-BHC	A	2645.0	2616.0	10.00000	9.890557	pg	-1	15	rsd ***
beta-BHC	A	1590.5	1673.2	10.00000	10.52059	pg	5	15	
delta-BHC	A	2416.8	2290.7	10.00000	9.478023	pg	-5	15	rsd ***
Heptachlor	A	2686.6	2534.4	10.00000	9.433549	pg	-6	15	
Aldrin	A	2627.2	2837.4	10.00000	10.80016	pg	8	15	
Heptachlor epoxide	A	2805.9	3128.8	10.00000	11.15062	pg	12	15	
gamma-Chlordane	A	2793.4	3066.3	10.00000	10.97676	pg	10	15	
alpha-Chlordane	A	2914.1	3179.9	10.00000	10.91210	pg	9	15	
4,4'-DDE	A	2693.0	2807.1	20.00000	20.84776	pg	4	15	
Endosulfan I	A	2794.3	3164.6	10.00000	11.32521	pg	13	15	
Dieldrin	A	2539.4	2799.7	20.00000	22.05007	pg	10	15	
Endrin	A	2277.0	2330.0	20.00000	20.46486	pg	2	15	
4,4'-DDD	A	1682.0	1880.0	20.00000	22.35404	pg	12	15	rsd ***
Endosulfan II	A	2460.6	2728.1	20.00000	22.17382	pg	11	15	
4,4'-DDT	A	1629.8	1397.9	20.00000	17.15462	pg	-14	15	rsd ***
Endrin aldehyde	A	2129.0	2367.6	20.00000	22.24167	pg	11	15	
Methoxychlor	A	816.90	863.99	100.0000	105.7653	pg	6	15	
Endosulfan sulfate	A	2291.1	2447.7	20.00000	21.36690	pg	7	15	
TCMX	A	2764.8	2973.7	20.00000	21.51074	pg	8	15	
Decachlorobiphenyl	A	3086.2	3334.2	20.00000	21.60697	pg	8	15	
alpha-BHC	B	7604.9	7663.4	10.00000	10.07699	pg	1	15	
gamma-BHC	B	6850.2	7040.1	10.00000	10.27720	pg	3	15	
beta-BHC	B	3812.6	4052.8	10.00000	10.63018	pg	6	15	
delta-BHC	B	6815.9	6824.2	10.00000	10.01207	pg	0	15	
Heptachlor	B	5144.5	4997.2	10.00000	9.713728	pg	-3	15	
Aldrin	B	6791.9	7052.7	10.00000	10.38393	pg	4	15	
Heptachlor epoxide	B	6326.8	6720.1	10.00000	10.62162	pg	6	15	
gamma-Chlordane	B	6714.9	7207.7	10.00000	10.73402	pg	7	15	
alpha-Chlordane	B	6772.2	7302.1	10.00000	10.78238	pg	8	15	
4,4'-DDE	B	5542.9	5809.9	20.00000	20.96328	pg	5	15	
Endosulfan I	B	6055.4	6548.0	10.00000	10.81358	pg	8	15	
Dieldrin	B	5658.9	6264.7	20.00000	22.14126	pg	11	15	
Endrin	B	4610.1	4669.1	20.00000	20.25593	pg	1	15	
4,4'-DDD	B	3747.2	4114.9	20.00000	21.96248	pg	10	15	
Endosulfan II	B	5132.5	5646.7	20.00000	22.00395	pg	10	15	
4,4'-DDT	B	2805.8	2410.0	20.00000	17.17895	pg	-14	15	
Endrin aldehyde	B	4096.7	4486.9	20.00000	21.90502	pg	10	15	
Methoxychlor	B	1153.2	1070.9	100.0000	92.86338	pg	-7	15	
Endosulfan sulfate	B	4620.5	4985.5	20.00000	21.58003	pg	8	15	
TCMX	B	6247.9	6470.2	20.00000	20.71156	pg	4	15	
Decachlorobiphenyl	B	4303.9	4296.2	20.00000	19.96425	pg	0	15	
Average EPA 8081A	A		(count=22)				8	15	
Average EPA 8081A	B		(count=22)				6	15	

rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235200975020 Filename : 139_020 Injected : 19-MAY-2005 22:35
Calnum : 235189248001 Caldate : 11-MAY-2005 Caltype :
Standards: S243

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2668.1	3085.0	20.00000	23.12508	pg	**16**	15	c+ rsd ***
gamma-BHC	A	2645.0	3095.9	20.00000	23.41011	pg	**17**	15	c+ rsd ***
beta-BHC	A	1590.5	1819.8	20.00000	22.88394	pg	14	15	
delta-BHC	A	2416.8	2700.9	20.00000	22.35057	pg	12	15	rsd ***
Heptachlor	A	2686.6	2927.4	20.00000	21.79268	pg	9	15	
Aldrin	A	2627.2	3138.4	20.00000	23.89211	pg	**19**	15	c+ ***
Heptachlor epoxide	A	2805.9	3400.2	20.00000	24.23622	pg	**21**	15	c+ ***
gamma-Chlordane	A	2793.4	3336.6	20.00000	23.88874	pg	**19**	15	c+ ***
alpha-Chlordane	A	2914.1	3469.9	20.00000	23.81430	pg	**19**	15	c+ ***
4,4'-DDE	A	2693.0	3088.8	40.00000	45.87901	pg	15	15	
Endosulfan I	A	2794.3	3359.4	20.00000	24.04525	pg	**20**	15	c+ ***
Dieldrin	A	2539.4	3155.7	40.00000	49.70775	pg	**24**	15	c+ ***
Endrin	A	2277.0	2633.1	40.00000	46.25531	pg	**16**	15	c+ ***
4,4'-DDD	A	1682.0	2080.4	40.00000	49.47441	pg	**24**	15	c+ rsd ***
Endosulfan II	A	2460.6	2926.3	40.00000	47.56992	pg	**19**	15	c+ ***
4,4'-DDT	A	1629.8	1691.6	40.00000	41.51619	pg	4	15	rsd ***
Endrin aldehyde	A	2129.0	2321.9	40.00000	43.62437	pg	9	15	
Methoxychlor	A	816.90	945.24	200.0000	231.4216	pg	**16**	15	c+ ***
Endosulfan sulfate	A	2291.1	2589.3	40.00000	45.20608	pg	13	15	
TCMX	A	2764.8	3039.1	40.00000	43.96834	pg	10	15	
Decachlorobiphenyl	A	3086.2	2899.0	40.00000	37.57366	pg	-6	15	
alpha-BHC	B	7604.9	8547.9	20.00000	22.47990	pg	12	15	
gamma-BHC	B	6850.2	7723.8	20.00000	22.55052	pg	13	15	
beta-BHC	B	3812.6	4106.8	20.00000	21.54332	pg	8	15	
delta-BHC	B	6815.9	7513.3	20.00000	22.04617	pg	10	15	
Heptachlor	B	5144.5	5349.5	20.00000	20.79715	pg	4	15	
Aldrin	B	6791.9	7314.1	20.00000	21.53759	pg	8	15	
Heptachlor epoxide	B	6326.8	6711.3	20.00000	21.21545	pg	6	15	
gamma-Chlordane	B	6714.9	7238.3	20.00000	21.55897	pg	8	15	
alpha-Chlordane	B	6772.2	7263.6	20.00000	21.45118	pg	7	15	
4,4'-DDE	B	5542.9	5959.5	40.00000	43.00664	pg	8	15	
Endosulfan I	B	6055.4	6472.4	20.00000	21.37729	pg	7	15	
Dieldrin	B	5658.9	6303.8	40.00000	44.55860	pg	11	15	
Endrin	B	4610.1	4903.1	40.00000	42.54237	pg	6	15	
4,4'-DDD	B	3747.2	4273.1	40.00000	45.61382	pg	14	15	
Endosulfan II	B	5132.5	5519.2	40.00000	43.01393	pg	8	15	
4,4'-DDT	B	2805.8	2714.1	40.00000	38.69321	pg	-3	15	
Endrin aldehyde	B	4096.7	4096.6	40.00000	39.99931	pg	0	15	
Methoxychlor	B	1153.2	1145.0	200.0000	198.5796	pg	-1	15	
Endosulfan sulfate	B	4620.5	4773.8	40.00000	41.32707	pg	3	15	
TCMX	B	6247.9	6481.5	40.00000	41.49575	pg	4	15	
Decachlorobiphenyl	B	4303.9	3929.4	40.00000	36.51911	pg	-9	15	
Average EPA 8081A	A		(count=22)				15	15	
Average EPA 8081A	B		(count=22)				7	15	

+=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805199671006 Filename : 138_006 Injected : 18-MAY-2005 16:51
Calnum : 805198618001 Caldate : 17-MAY-2005 Caltype :
Standards: S243

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	49476	55280	20.00000	22.34619	pg	12	15	
gamma-BHC	A	45509	50170	20.00000	22.04810	pg	10	15	
beta-BHC	A	20688	17044	20.00000	16.47732	pg	**-18**	15	c- rsd ***
delta-BHC	A	59101	52985	20.00000	17.93023	pg	-10	15	rsd ***
Heptachlor	A	39362	42234	20.00000	21.45896	pg	7	15	
Aldrin	A	39594	42328	20.00000	21.38096	pg	7	15	
Heptachlor epoxide	A	35692	37347	20.00000	20.92710	pg	5	15	
gamma-Chlordane	A	35352	37428	20.00000	21.17427	pg	6	15	
alpha-Chlordane	A	34440	36230	20.00000	21.03935	pg	5	15	
4,4'-DDE	A	35216	45137	40.00000	51.26857	pg	**28**	15	c+ ***
Endosulfan I	A	32614	33584	20.00000	20.59463	pg	3	15	
Dieldrin	A	36705	47075	40.00000	51.30101	pg	**28**	15	c+ ***
Endrin	A	27486	32512	40.00000	47.31326	pg	**18**	15	c+ ***
4,4'-DDD	A	29397	34093	40.00000	46.39062	pg	**16**	15	c+ ***
Endosulfan II	A	30819	35803	40.00000	46.46796	pg	**16**	15	c+ ***
4,4'-DDT	A	24243	29633	40.00000	48.89383	pg	**22**	15	c+ ***
Endrin aldehyde	A	27886	25409	40.00000	36.44662	pg	-9	15	
Methoxychlor	A	10417	12628	200.0000	242.4441	pg	**21**	15	c+ ***
Endosulfan sulfate	A	25090	26740	40.00000	42.63151	pg	7	15	
TCMX	A	31449	35722	40.00000	45.43588	pg	14	15	
Decachlorobiphenyl	A	12739	13748	40.00000	43.16864	pg	8	15	
alpha-BHC	B	39564	40481	20.00000	20.46357	pg	2	15	
gamma-BHC	B	35847	35655	20.00000	19.89286	pg	-1	15	
beta-BHC	B	15703	12391	20.00000	15.78179	pg	**-21**	15	c- rsd ***
delta-BHC	B	43472	36220	20.00000	16.66364	pg	**-17**	15	c- rsd ***
Heptachlor	B	28079	25620	20.00000	18.24865	pg	-9	15	
Aldrin	B	31144	29544	20.00000	18.97264	pg	-5	15	
Heptachlor epoxide	B	26829	24882	20.00000	18.54884	pg	-7	15	
gamma-Chlordane	B	27275	25376	20.00000	18.60797	pg	-7	15	
alpha-Chlordane	B	26277	24288	20.00000	18.48653	pg	-8	15	
4,4'-DDE	B	27597	30326	40.00000	43.95512	pg	10	15	
Endosulfan I	B	24085	22023	20.00000	18.28740	pg	-9	15	
Dieldrin	B	27888	29799	40.00000	42.74215	pg	7	15	
Endrin	B	19809	18562	40.00000	37.48081	pg	-6	15	
4,4'-DDD	B	21934	22320	40.00000	40.70426	pg	2	15	
Endosulfan II	B	23187	23669	40.00000	40.83029	pg	2	15	
4,4'-DDT	B	16947	17488	40.00000	41.27899	pg	3	15	
Endrin aldehyde	B	19747	16495	40.00000	33.41267	pg	**-16**	15	c- ***
Methoxychlor	B	7071.5	7679.7	200.0000	217.2011	pg	9	15	
Endosulfan sulfate	B	19231	18169	40.00000	37.79159	pg	-6	15	
TCMX	B	25200	26740	40.00000	42.44477	pg	6	15	
Decachlorobiphenyl	B	13732	12487	40.00000	36.37396	pg	-9	15	
Average EPA 8081A	A		(count=22)				13	15	
Average EPA 8081A	B		(count=22)				7	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_5 IDF : 1.0
Seqnum : 805199671020 Filename : 138_020 Injected : 19-MAY-2005 00:06
Calnum : 805198618001 Caldate : 17-MAY-2005 Caltype :
Standards: S613

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	49476	47708	25.00000	24.10648	pg	-4	15	
gamma-BHC	A	45509	42701	25.00000	23.45707	pg	-6	15	
beta-BHC	A	20688	14436	25.00000	17.44465	pg	**-30**	15	c- rsd ***
delta-BHC	A	59101	45963	25.00000	19.44276	pg	**-22**	15	c- rsd ***
Heptachlor	A	39362	34169	25.00000	21.70135	pg	-13	15	
Aldrin	A	39594	36824	25.00000	23.25111	pg	-7	15	
Heptachlor epoxide	A	35692	32252	25.00000	22.59003	pg	-10	15	
gamma-Chlordane	A	35352	32221	25.00000	22.78589	pg	-9	15	
alpha-Chlordane	A	34440	31459	25.00000	22.83571	pg	-9	15	
4,4'-DDE	A	35216	38722	50.00000	54.97729	pg	10	15	
Endosulfan I	A	32614	30075	25.00000	23.05367	pg	-8	15	
Dieldrin	A	36705	40366	50.00000	54.98754	pg	10	15	
Endrin	A	27486	25335	50.00000	46.08676	pg	-8	15	
4,4'-DDD	A	29397	31780	50.00000	54.05368	pg	8	15	
Endosulfan II	A	30819	30523	50.00000	49.51929	pg	-1	15	
4,4'-DDT	A	24243	20366	50.00000	42.00426	pg	**-16**	15	c- ***
Endrin aldehyde	A	27886	21782	50.00000	39.05562	pg	**-22**	15	c- ***
Methoxychlor	A	10417	9370.5	250.0000	224.8870	pg	-10	15	
Endosulfan sulfate	A	25090	22604	50.00000	45.04611	pg	-10	15	
TCMX	A	31449	31138	50.00000	49.50669	pg	-1	15	
Decachlorobiphenyl	A	12739	10844	50.00000	42.56226	pg	-15	15	
alpha-BHC	B	39564	39777	25.00000	25.13426	pg	1	15	
gamma-BHC	B	35847	35569	25.00000	24.80619	pg	-1	15	
beta-BHC	B	15703	11852	25.00000	18.86968	pg	**-25**	15	c- rsd ***
delta-BHC	B	43472	36435	25.00000	20.95280	pg	**-16**	15	c- rsd ***
Heptachlor	B	28079	27028	25.00000	24.06415	pg	-4	15	
Aldrin	B	31144	31159	25.00000	25.01184	pg	0	15	
Heptachlor epoxide	B	26829	26853	25.00000	25.02253	pg	0	15	
gamma-Chlordane	B	27275	27506	25.00000	25.21165	pg	1	15	
alpha-Chlordane	B	26277	26611	25.00000	25.31818	pg	1	15	
4,4'-DDE	B	27597	33806	50.00000	61.24917	pg	**22**	15	c+ ***
Endosulfan I	B	24085	23999	25.00000	24.91016	pg	0	15	
Dieldrin	B	27888	32952	50.00000	59.07936	pg	**18**	15	c+ ***
Endrin	B	19809	20215	50.00000	51.02431	pg	2	15	
4,4'-DDD	B	21934	27752	50.00000	63.26268	pg	**27**	15	c+ ***
Endosulfan II	B	23187	26091	50.00000	56.26061	pg	13	15	
4,4'-DDT	B	16947	16480	50.00000	48.62254	pg	-3	15	
Endrin aldehyde	B	19747	18220	50.00000	46.13311	pg	-8	15	
Methoxychlor	B	7071.5	7848.9	250.0000	277.4838	pg	11	15	
Endosulfan sulfate	B	19231	19938	50.00000	51.83872	pg	4	15	
TCMX	B	25200	25523	50.00000	50.64136	pg	1	15	
Decachlorobiphenyl	B	13732	14004	50.00000	50.99159	pg	2	15	
Average EPA 8081A	A		(count=22)				10	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	131_002	X	ccv			11-MAY-2005 10:08	1.0					1	
003	131_003	X	ccv			11-MAY-2005 10:41	1.0					1	
004	131_004	X	ccv			11-MAY-2005 12:12	1.0					1	
016	131_016	PEM				11-MAY-2005 22:34	1.0	1.0			1	2	
017	131_017	X	hex			11-MAY-2005 23:06	1.0						
018	131_018	ICAL	pest_1			11-MAY-2005 23:37	1.0	1.0				3	
019	131_019	ICAL	pest_2			12-MAY-2005 00:07	1.0	1.0				4	
020	131_020	ICAL	pest_3			12-MAY-2005 00:37	1.0	1.0			1	1	
022	131_022	ICAL	pest_5			12-MAY-2005 01:40	1.0	1.0			1	5	ac
023	131_023	ICAL	pest_6			12-MAY-2005 02:11	1.0	1.0				6	
024	131_024	ICAL	pest_7			12-MAY-2005 02:41	1.0	1.0				7	
031	131_031	X				12-MAY-2005 06:21	1.0					1	
032	131_032	X				12-MAY-2005 06:51	1.0					1	
035	131_035	ICAL	pest_4			12-MAY-2005 10:56	1.0	1.0				8	
037	131_037	X	icv			12-MAY-2005 11:57	1.0					9	
038	131_038	ICV				12-MAY-2005 12:27	1.0	1.0	1		1	9	
039	131_039	PEM				12-MAY-2005 12:58	1.0	1.0			1	2	
041	131_041	SAMPLE	179372-009	101914	Soil	12-MAY-2005 14:03	1.0	0.6566			1		
042	131_042	PEM				12-MAY-2005 14:33	1.0	1.0			1	2	
043	131_043	CCV	pest_4			12-MAY-2005 15:04	1.0	1.0	5		1	8	
046	131_046	SAMPLE	179307-003	101914	Soil	12-MAY-2005 18:07	1.0	0.6667	3		1		
047	131_047	SAMPLE	179307-004	101914	Soil	12-MAY-2005 18:37	1.0	0.6649	3		1		
048	131_048	SAMPLE	179307-006	101914	Soil	12-MAY-2005 19:08	1.0	0.6605	3		1		
049	131_049	SAMPLE	179307-009	101914	Soil	12-MAY-2005 19:38	1.0	0.6662	3		1		
050	131_050	SAMPLE	179307-011	101914	Soil	12-MAY-2005 20:09	1.0	0.6636	3		1		
051	131_051	MSS	179307-013	101914	Soil	12-MAY-2005 20:39	1.0	0.6631	4		1		
052	131_052	SAMPLE	179307-014	101914	Soil	12-MAY-2005 21:10	5.0	0.6667	3		1		
053	131_053	SAMPLE	179384-001	101914	Soil	12-MAY-2005 21:42	1.0	0.657	4		1		
054	131_054	MS	QC293338	101914	Soil	12-MAY-2005 22:12	1.0	0.6623	6		1		
055	131_055	MSD	QC293339	101914	Soil	12-MAY-2005 22:44	1.0	0.6667	6	4	1		

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235189248 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
057	131_057	PEM				12-MAY-2005 23:46	1.0	1.0			1	2	
058	131_058	CCV	pest_3			13-MAY-2005 00:16	1.0	1.0	6		1	1	
059	131_059	X	ccv			13-MAY-2005 00:47	1.0					1	
063	131_063	BS	QC293387	101926	Water	13-MAY-2005 02:51	1.0	0.01	6		1		
064	131_064	BSD	QC293388	101926	Water	13-MAY-2005 03:23	1.0	0.01	6	2	1		
065	131_065	BLANK	QC293051	101840	Soil	13-MAY-2005 03:54	1.0	0.6662	4		1		
066	131_066	LCS	QC293052	101840	Soil	13-MAY-2005 04:24	1.0	0.6575	6		1		
067	131_067	SAMPLE	179238-001	101926	Water	13-MAY-2005 04:55	1.0	0.009615	5	2	1		
068	131_068	SAMPLE	179288-010	101926	Water	13-MAY-2005 05:25	1.0	0.009524	4	2	1		
069	131_069	MSS	179266-002	101840	Soil	13-MAY-2005 05:56	5.0	0.6653	4		1		
070	131_070	MS	QC293053	101840	Soil	13-MAY-2005 06:27	5.0	0.6596	6		1		
071	131_071	MSD	QC293054	101840	Soil	13-MAY-2005 06:57	5.0	0.6562	6		1		
073	131_073	PEM				13-MAY-2005 07:58	1.0	1.0			1	2	
074	131_074	CCV	pest_5			13-MAY-2005 08:29	1.0	1.0	5		1	5	

92

Stds used: 1=S420 2=S306 3=S9 4=S419 5=S245 6=S13 7=S14 8=S243 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805198618 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 17-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
011	137_011	PEM				17-MAY-2005 22:18	1.0		1			1	2:DDT44=178.788
012	137_012	X	hex			17-MAY-2005 22:46	1.0						
013	137_013	ICAL	pest_1			17-MAY-2005 23:14	1.0					2	
014	137_014	ICAL	pest_2			17-MAY-2005 23:42	1.0					3	
015	137_015	ICAL	pest_3			18-MAY-2005 00:10	1.0					4	
016	137_016	ICAL	pest_4			18-MAY-2005 00:38	1.0					5	
017	137_017	ICAL	pest_5			18-MAY-2005 01:05	1.0					6	
018	137_018	ICAL	pest_6			18-MAY-2005 01:33	1.0					7	
019	137_019	ICAL	pest_7			18-MAY-2005 02:01	1.0					7	
020	137_020	X	hex			18-MAY-2005 02:29	1.0						
021	137_021	ICV				18-MAY-2005 02:57	1.0	5	1			8	
022	137_022	X	icv			18-MAY-2005 03:25	1.0					8	

93

Stds used: 1=S306 2=S9 3=S419 4=S420 5=S243 6=S613 7=S13 8=S441

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805199671 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 18-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
004	138_004	PEM				18-MAY-2005 15:51	1.0	1.0			1	1	3:MTXYCL=269.652
006	138_006	CCV	pest_4			18-MAY-2005 16:51	1.0	1.0	13		1	2	
009	138_009	SAMPLE	179469-061	102108	Soil	18-MAY-2005 18:58	1.0	0.6667	11		1		1:DDT44=84.0234
010	138_010	SAMPLE	179469-063	102108	Soil	18-MAY-2005 19:27	5.0	0.6636	7		1		
011	138_011	SAMPLE	179383-005	102014	Soil	18-MAY-2005 19:54	1.0	0.668	8		1		
012	138_012	SAMPLE	179445-001	102108	Soil	18-MAY-2005 20:22	5.0	0.664	8		1		
013	138_013	SAMPLE	179445-002	102108	Soil	18-MAY-2005 20:50	5.0	0.6645	7		1		
014	138_014	MSS	179445-003	102108	Soil	18-MAY-2005 21:18	5.0	0.664	7		1		
015	138_015	MS	QC294070	102108	Soil	18-MAY-2005 21:46	5.0	0.6575	17	1	1		
016	138_016	MSD	QC294071	102108	Soil	18-MAY-2005 22:14	5.0	0.6605	17		1		
018	138_018	PEM				18-MAY-2005 23:10	1.0	1.0			1	1	3:MTXYCL=255.137
019	138_019	X	ccv			18-MAY-2005 23:38	1.0	1.0			1	3	
020	138_020	CCV	pest_5			19-MAY-2005 00:06	1.0	1.0	9		1	3	
030	138_030	X				19-MAY-2005 04:45	1.0	1.0			1	1	1:DDT44=125.643
031	138_031	X	pest_3			19-MAY-2005 05:13	1.0	1.0			1	4 ac	
032	138_032	X	pest_3			19-MAY-2005 05:40	1.0	1.0			1	4 ac	

Stds used: 1=S306 2=S243 3=S613 4=S420
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235200975 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 19-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
004	139_004	PEM				19-MAY-2005 13:35	1.0	1.0			1	1	
005	139_005	CCV	pest_3			19-MAY-2005 14:05	1.0	1.0	5		1	2	
006	139_006	X	ccv			19-MAY-2005 14:36	1.0	1.0			1	2	
008	139_008	BLANK	QC294014	102091	Water	19-MAY-2005 15:53	1.0	0.01			1		
009	139_009	BS	QC294015	102091	Water	19-MAY-2005 16:24	1.0	0.01	15		1		
010	139_010	BSD	QC294016	102091	Water	19-MAY-2005 17:31	1.0	0.01	15		1		
011	139_011	SAMPLE	179288-012	102091	Water	19-MAY-2005 18:01	1.0	0.009524	46	2	1	sh	
012	139_012	BLANK	QC294068	102108	Soil	19-MAY-2005 18:32	1.0	0.6601			1		
013	139_013	LCS	QC294069	102108	Soil	19-MAY-2005 19:02	1.0	0.6627	15		1		
014	139_014	SAMPLE	179469-003	102108	Soil	19-MAY-2005 19:33	1.0	0.6662			1		
015	139_015	SAMPLE	179469-004	102108	Soil	19-MAY-2005 20:03	1.0	0.6605			1		
016	139_016	SAMPLE	179469-005	102108	Soil	19-MAY-2005 20:34	1.0	0.6562			1		
017	139_017	SAMPLE	179469-009	102108	Soil	19-MAY-2005 21:04	1.0	0.6588	1		1		
019	139_019	PEM				19-MAY-2005 22:05	1.0	1.0			1	1	
020	139_020	CCV	pest_4			19-MAY-2005 22:35	1.0	1.0	15		1	3	
021	139_021	X	ccv			19-MAY-2005 23:05	1.0	1.0			1	3 ac	
024	139_024	SAMPLE	179469-015	102108	Soil	20-MAY-2005 00:36	2.0	0.6575	6		1		4:DDT44=677.509
025	139_025	SAMPLE	179469-025	102108	Soil	20-MAY-2005 01:07	1.0	0.6596	3		1		
026	139_026	SAMPLE	179469-030	102108	Soil	20-MAY-2005 01:37	1.0	0.6658	7		1		4:DDE44=396.626
027	139_027	SAMPLE	179469-038	102108	Soil	20-MAY-2005 02:08	2.0	0.6566	5		1		
028	139_028	SAMPLE	179469-039	102108	Soil	20-MAY-2005 02:38	1.0	0.6653	3		1		
029	139_029	SAMPLE	179469-044	102108	Soil	20-MAY-2005 03:08	1.0	0.6636	5		1		
030	139_030	SAMPLE	179469-046	102108	Soil	20-MAY-2005 03:39	10.0	0.6618	6		1		
031	139_031	SAMPLE	179469-051	102108	Soil	20-MAY-2005 04:09	2.0	0.6623	12	2	1		5:DDT44=2434.10
032	139_032	SAMPLE	179469-057	102108	Soil	20-MAY-2005 04:40	1.0	0.6662	5		1		
033	139_033	SAMPLE	179469-059	102108	Soil	20-MAY-2005 05:10	1.0	0.6653	6		1		
035	139_035	PEM				20-MAY-2005 06:11	1.0	1.0			1	1	
036	139_036	CCV	pest_5			20-MAY-2005 06:42	1.0	1.0	7		1	4	
037	139_037	X	ccv			20-MAY-2005 07:12	1.0	1.0			1	4	
040	139_040	BLANK	QC294182	102135	Soil	20-MAY-2005 08:44	1.0	0.6592	4	4	1		

Stds used: 1=S306 2=S420 3=S243 4=S613
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179445 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235200975 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 19-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
041	139_041	LCS	QC294183	102135	Soil	20-MAY-2005 09:14	1.0	0.6631	9		1		
042	139_042	SAMPLE	179469-067	102135	Soil	20-MAY-2005 09:45	1.0	0.6645	8		1	4:DDT44=2038.63	
043	139_043	MSS	179469-069	102135	Soil	20-MAY-2005 10:16	1.0	0.657	9		1	6:DDT44=2513.93	
044	139_044	BLANK	QC294182	102135	Soil	20-MAY-2005 10:46	1.0	0.6592	4	4	1		
045	139_045	SAMPLE	179489-001	102135	Soil	20-MAY-2005 11:55	1.0	0.6671	2		1		
046	139_046	SAMPLE	179489-003	102135	Soil	20-MAY-2005 12:26	1.0	0.6605	2		1		
047	139_047	SAMPLE	179489-006	102135	Soil	20-MAY-2005 12:56	1.0	0.6748	2		1		
048	139_048	SAMPLE	179489-007	102135	Soil	20-MAY-2005 13:27	1.0	0.6618	2		1		
049	139_049	SAMPLE	179489-009	102135	Soil	20-MAY-2005 13:57	1.0	0.6623	2		1		
051	139_051	PEM				20-MAY-2005 14:58	1.0	1.0			1	1	
052	139_052	CCV	pest_3			20-MAY-2005 15:29	1.0	1.0	9		1	2	

96

Stds used: 1=S306 2=S420 3=S243 4=S613
Flags used: ac=average CCV drift out sh=out of sample hold

Curtis & Tompkins Laboratories Sample Preparation Summary 18-MAY-2005 16:11

Batch Number : 102108
Date Extracted: 17-MAY-2005
Extracted by : Jennifer R Dell
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S203F
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179445-001			Mactec, Inc.	Soil	15.06	g	10	0.664011	1	.02	0		8081	3620B	
179445-002			Mactec, Inc.	Soil	15.05	g	10	0.664452	1	.02	0		8081	3620B	
179445-003			Mactec, Inc.	Soil	15.06	g	10	0.664011	1	.02	0		8081	3620B	mss
179469-003			LFR Levine Fricke	Soil	15.01	g	10	0.666223	1	.02	0		8081	3620B	
179469-004			LFR Levine Fricke	Soil	15.14	g	10	0.660502	1	.02	0		8081	3620B	
179469-005			LFR Levine Fricke	Soil	15.24	g	10	0.656168	1	.02	0		8081	3620B	
179469-009			LFR Levine Fricke	Soil	15.18	g	10	0.658762	1	.02	0		8081	3620B	
179469-015			LFR Levine Fricke	Soil	15.21	g	10	0.657462	1	.02	0		8081	3620B	
179469-025			LFR Levine Fricke	Soil	15.16	g	10	0.659631	1	.02	0		8081	3620B	
179469-030			LFR Levine Fricke	Soil	15.02	g	10	0.665779	1	.02	0		8081	3620B	
179469-038			LFR Levine Fricke	Soil	15.23	g	10	0.656599	1	.02	0		8081	3620B	
179469-039			LFR Levine Fricke	Soil	15.03	g	10	0.665336	1	.02	0		8081	3620B	
179469-044			LFR Levine Fricke	Soil	15.07	g	10	0.663570	1	.02	0		8081	3620B	
179469-046			LFR Levine Fricke	Soil	15.11	g	10	0.661813	1	.02	0		8081	3620B	
179469-051			LFR Levine Fricke	Soil	15.1	g	10	0.662252	1	.02	0		8081	3620B	
179469-057			LFR Levine Fricke	Soil	15.01	g	10	0.666223	1	.02	0		8081	3620B	
179469-059			LFR Levine Fricke	Soil	15.03	g	10	0.665336	1	.02	0		8081	3620B	
179469-061			LFR Levine Fricke	Soil	15	g	10	0.666667	1	.02	0		8081	3620B	
179469-063			LFR Levine Fricke	Soil	15.07	g	10	0.663570	1	.02	0		8081	3620B	
QC294068	MB			Soil	15.15	g	10	0.660066	1	.02	0		8081	3620B	
QC294069	LCS			Soil	15.09	g	10	0.662691	1	.02	.025		8081	3620B	
QC294070	MS	of 179445-003		Soil	15.21	g	10	0.657462	1	.02	.025		8081	3620B	
QC294071	MSD	of 179445-003		Soil	15.14	g	10	0.660502	1	.02	.025		8081	3620B	

Prep Chemist: Jennifer Dell Reviewed By: Jessie Mee Date: 18May05

Relinquished By: Jessie Mee Received By: JB Date: 05/18/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

LIMS Batch No: 102108 **Extraction Method:** **Cleanup Method:** Page 73

LIMS Analysis: 8081 ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: JRD ☒ EPA 3545 PFE (Mth# 10) ☑ EPA 3620b Florisil

Date Extracted: 5/17/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

	Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
	179445-001	15.06	10.0		
	-002	15.05			
	-003	15.06			MSS
	179469-003	15.01			
5	-004	15.14			
	-005	15.24			
	-009	15.18			
	-015	15.21			
	-025	15.16			
10	-030	15.02			
	-038	15.23			
	-039	15.03			
	-044	15.07			
	-046	15.11			
15	-051	15.10			
	-057	15.01			
	-059	15.03			
	-061	15.00			
	-063	15.07			
20	MB QC 294068	15.15			
	LCS 69	15.09			
	MS 70	15.21			
	MSD 71	15.14			
					JDM 18May05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	JRD 5/17/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	Dionex 040603	
0.02 mL of surrogate solution was added to all samples	S258B	
0.025 mL of spike solution was added to all spikes	S203F	
1:1 CH_2Cl_2 (lot# EM45071):Acetone(lot# EM45049) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
Soxhlets on at:	N/A	JDM 18May05
Soxhlets off at:		
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4		
Exchanged 2x with Hexane	CN816	
Concentrated: ☒ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☒ Florisil	✓	

Jennifer L Dell 5/17/05
Extraction Chemist / Date

Continued from page —
Continued on page —

Jessie Mee 18May05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JDM
Cleanup Date: 18 May 05

Benchbook # **BK 2068**
Page 76

	Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
	179445-001	102108	1.0	1.0	
	-002				
	-003				MSS
	179469-003				
5	-004				
	-005				
	-009				
	-015				
	-025				
10	-030				
	-038				
	-039				
	-044				
	-046				
15	-051				
	-057				
	-059				
	-061				
	-063				
20	MB QC294068				
	LCS 69				
	MS 70				
	MSD 71				
25			JRD 5/18/05		
30					

☒ Extracts were cleaned up using Florisil cartridges
Florisil cartridges/ columns rinsed 3x with Hexane
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone
Concentrated to volumes as noted above

	Mfg & Lot # / Time / Program	Initials / Date
	Restrep 402290-BE	JDM 18 May 05
Florisil cartridges/ columns rinsed 3x with Hexane	CN818	
Hexane	CN818	
Acetone	EM44233	
Concentrated to volumes as noted above	✓	

Jessie Mee 18 May 05
Extraction Chemist / Date

Continued from page 99
Continued on page ___

Jennifer Dell 5/18/05
Reviewed by / Date

Project SOIL ALIQUOT BK2/35

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179425-001A	50.43	TEHM	
-002	50.17		
-003	50.12		
-004	50.23		
-005	50.25		
-006	50.11		
-007	50.38		
-008	50.35		
-009	50.23		
-010	50.19		
-011	50.47		
~~179445-001~~ 5/5/16			
179445-001A	15.06	8081	
-002	15.05		
-003	15.06		MSS
-MS	15.24		179445-003A
-MSD	15.14		EM44028452
-LCS	15.09		
-MB	15.15		
179387-10A	30.23	8270	
MB	15.13	PCB	IDOC, EM44028452
LCS-1	15.10		
LCS-2	14.89		
LCS-3	15.02		
LCS-4	15.18		
179445-004S	50.41	TEHM	
-005D	50.47		
-006	50.00		
-007	50.34		
-008	50.40		
-009	50.10		
-010F	50.13		
-011D	50.28		

Continued on Page

Signed Date 5/16/05 Read and Understood By

Signed Date

SOIL ALIQUOT

BK2435

Project

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
1794G9-003A	15.01	SOIL	
-004	15.14		
-005	15.24		
-007	15.18		
-015	15.21		
-025	15.16		
-030	15.02		
-038	15.23		
-037	15.03		
-044	15.07		
-046	15.11		
-051	15.10		
-057	15.01		
-059	15.03		
-061	15.00		
-063	15.07		
-067	15.05		
-069	15.22		MSS 1794G9-069A → EM4402845Z
-MS	15.17		
-MSD	15.07		
-LCS	15.08		
-MB	15.17		

Continued on Page

Signed

5/17/05

Date

Read and Understood By

Signed

Date

Confirmation Report for 179445 8081 Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
179445-001	BB19B110(3.5)	Dieldrin	23.05	18.15	24	-21

REPORTING SUMMARY FOR 179445 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179445-001	alpha-BHC	GC23	B	05/18/05 20:22
179445-001	beta-BHC	GC23	B	05/18/05 20:22
179445-001	gamma-BHC	GC23	B	05/18/05 20:22
179445-001	delta-BHC	GC23	B	05/18/05 20:22
179445-001	Heptachlor	GC23	B	05/18/05 20:22
179445-001	Aldrin	GC23	B	05/18/05 20:22
179445-001	Heptachlor epoxide	GC23	B	05/18/05 20:22
179445-001	Endosulfan I	GC23	B	05/18/05 20:22
179445-001	Dieldrin	GC23	B	05/18/05 20:22
179445-001	4,4'-DDE	GC23	B	05/18/05 20:22
179445-001	Endrin	GC23	B	05/18/05 20:22
179445-001	Endosulfan II	GC23	B	05/18/05 20:22
179445-001	Endosulfan sulfate	GC23	B	05/18/05 20:22
179445-001	4,4'-DDD	GC23	B	05/18/05 20:22
179445-001	Endrin aldehyde	GC23	B	05/18/05 20:22
179445-001	4,4'-DDT	GC23	B	05/18/05 20:22
179445-001	alpha-Chlordane	GC23	B	05/18/05 20:22
179445-001	gamma-Chlordane	GC23	B	05/18/05 20:22
179445-001	Methoxychlor	GC23	B	05/18/05 20:22
179445-001	Toxaphene	GC23	A	05/18/05 20:22
179445-001	TCMX	GC23	B	05/18/05 20:22
179445-001	Decachlorobiphenyl	GC23	B	05/18/05 20:22
179445-002	alpha-BHC	GC23	B	05/18/05 20:50
179445-002	beta-BHC	GC23	B	05/18/05 20:50
179445-002	gamma-BHC	GC23	B	05/18/05 20:50
179445-002	delta-BHC	GC23	B	05/18/05 20:50
179445-002	Heptachlor	GC23	B	05/18/05 20:50
179445-002	Aldrin	GC23	B	05/18/05 20:50
179445-002	Heptachlor epoxide	GC23	B	05/18/05 20:50
179445-002	Endosulfan I	GC23	B	05/18/05 20:50
179445-002	Dieldrin	GC23	B	05/18/05 20:50
179445-002	4,4'-DDE	GC23	B	05/18/05 20:50
179445-002	Endrin	GC23	B	05/18/05 20:50
179445-002	Endosulfan II	GC23	B	05/18/05 20:50
179445-002	Endosulfan sulfate	GC23	B	05/18/05 20:50
179445-002	4,4'-DDD	GC23	B	05/18/05 20:50
179445-002	Endrin aldehyde	GC23	B	05/18/05 20:50
179445-002	4,4'-DDT	GC23	B	05/18/05 20:50
179445-002	alpha-Chlordane	GC23	B	05/18/05 20:50
179445-002	gamma-Chlordane	GC23	B	05/18/05 20:50
179445-002	Methoxychlor	GC23	B	05/18/05 20:50
179445-002	Toxaphene	GC23	A	05/18/05 20:50
179445-002	TCMX	GC23	B	05/18/05 20:50
179445-002	Decachlorobiphenyl	GC23	B	05/18/05 20:50
179445-003	alpha-BHC	GC23	B	05/18/05 21:18
179445-003	beta-BHC	GC23	B	05/18/05 21:18
179445-003	gamma-BHC	GC23	B	05/18/05 21:18
179445-003	delta-BHC	GC23	B	05/18/05 21:18
179445-003	Heptachlor	GC23	B	05/18/05 21:18
179445-003	Aldrin	GC23	B	05/18/05 21:18
179445-003	Heptachlor epoxide	GC23	B	05/18/05 21:18
179445-003	Endosulfan I	GC23	B	05/18/05 21:18

REPORTING SUMMARY FOR 179445 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179445-003	Dieldrin	GC23	B	05/18/05 21:18
179445-003	4,4'-DDE	GC23	B	05/18/05 21:18
179445-003	Endrin	GC23	B	05/18/05 21:18
179445-003	Endosulfan II	GC23	B	05/18/05 21:18
179445-003	Endosulfan sulfate	GC23	B	05/18/05 21:18
179445-003	4,4'-DDD	GC23	B	05/18/05 21:18
179445-003	Endrin aldehyde	GC23	B	05/18/05 21:18
179445-003	4,4'-DDT	GC23	B	05/18/05 21:18
179445-003	alpha-Chlordane	GC23	B	05/18/05 21:18
179445-003	gamma-Chlordane	GC23	B	05/18/05 21:18
179445-003	Methoxychlor	GC23	B	05/18/05 21:18
179445-003	Toxaphene	GC23	A	05/18/05 21:18
179445-003	TCMX	GC23	B	05/18/05 21:18
179445-003	Decachlorobiphenyl	GC23	B	05/18/05 21:18
QC294068	alpha-BHC	GC16	B	05/19/05 18:32
QC294068	beta-BHC	GC16	B	05/19/05 18:32
QC294068	gamma-BHC	GC16	B	05/19/05 18:32
QC294068	delta-BHC	GC16	B	05/19/05 18:32
QC294068	Heptachlor	GC16	B	05/19/05 18:32
QC294068	Aldrin	GC16	B	05/19/05 18:32
QC294068	Heptachlor epoxide	GC16	B	05/19/05 18:32
QC294068	Endosulfan I	GC16	B	05/19/05 18:32
QC294068	Dieldrin	GC16	B	05/19/05 18:32
QC294068	4,4'-DDE	GC16	B	05/19/05 18:32
QC294068	Endrin	GC16	B	05/19/05 18:32
QC294068	Endosulfan II	GC16	B	05/19/05 18:32
QC294068	Endosulfan sulfate	GC16	B	05/19/05 18:32
QC294068	4,4'-DDD	GC16	B	05/19/05 18:32
QC294068	Endrin aldehyde	GC16	B	05/19/05 18:32
QC294068	4,4'-DDT	GC16	B	05/19/05 18:32
QC294068	alpha-Chlordane	GC16	B	05/19/05 18:32
QC294068	gamma-Chlordane	GC16	B	05/19/05 18:32
QC294068	Methoxychlor	GC16	B	05/19/05 18:32
QC294068	Toxaphene	GC16	B	05/19/05 18:32
QC294068	TCMX	GC16	B	05/19/05 18:32
QC294068	Decachlorobiphenyl	GC16	B	05/19/05 18:32
QC294069	gamma-BHC	GC16	B	05/19/05 19:02
QC294069	Heptachlor	GC16	B	05/19/05 19:02
QC294069	Aldrin	GC16	B	05/19/05 19:02
QC294069	Dieldrin	GC16	B	05/19/05 19:02
QC294069	Endrin	GC16	B	05/19/05 19:02
QC294069	4,4'-DDT	GC16	B	05/19/05 19:02
QC294069	TCMX	GC16	B	05/19/05 19:02
QC294069	Decachlorobiphenyl	GC16	B	05/19/05 19:02
QC294070	gamma-BHC	GC23	B	05/18/05 21:46
QC294070	Heptachlor	GC23	B	05/18/05 21:46
QC294070	Aldrin	GC23	B	05/18/05 21:46
QC294070	Dieldrin	GC23	B	05/18/05 21:46
QC294070	Endrin	GC23	B	05/18/05 21:46
QC294070	4,4'-DDT	GC23	B	05/18/05 21:46
QC294070	TCMX	GC23	B	05/18/05 21:46

REPORTING SUMMARY FOR 179445 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC294070	Decachlorobiphenyl	GC23	B	05/18/05 21:46
QC294071	gamma-BHC	GC23	B	05/18/05 22:14
QC294071	Heptachlor	GC23	B	05/18/05 22:14
QC294071	Aldrin	GC23	B	05/18/05 22:14
QC294071	Dieldrin	GC23	B	05/18/05 22:14
QC294071	Endrin	GC23	B	05/18/05 22:14
QC294071	4,4'-DDT	GC23	B	05/18/05 22:14
QC294071	TCMX	GC23	B	05/18/05 22:14
QC294071	Decachlorobiphenyl	GC23	B	05/18/05 22:14

Polychlorinated Biphenyls Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	102061
Units:	ug/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BB19B110(3.5)	Moisture:	12%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-001	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	3.4
Aroclor-1221	ND	22	4.6
Aroclor-1232	ND	11	1.6
Aroclor-1242	ND	11	3.7
Aroclor-1248	ND	11	2.8
Aroclor-1254	ND	11	3.2
Aroclor-1260	ND	11	1.6

Surrogate	%REC	Limits
TCMX	117	63-141
Decachlorobiphenyl	134	49-146

Field ID:	BBSB108(0.0)	Moisture:	29%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-004	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	4.3
Aroclor-1221	ND	27	5.7
Aroclor-1232	ND	14	2.1
Aroclor-1242	ND	14	4.7
Aroclor-1248	ND	14	3.5
Aroclor-1254	ND	14	4.0
Aroclor-1260	ND	14	2.0

Surrogate	%REC	Limits
TCMX	84	63-141
Decachlorobiphenyl	92	49-146

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	102061
Units:	ug/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BBSB108(2.0)	Moisture:	17%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-005	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	3.6
Aroclor-1221	ND	23	4.9
Aroclor-1232	ND	11	1.7
Aroclor-1242	ND	11	4.0
Aroclor-1248	ND	11	2.9
Aroclor-1254	ND	11	3.4
Aroclor-1260	ND	11	1.7

Surrogate	%REC	Limits
TCMX	96	63-141
Decachlorobiphenyl	99	49-146

Field ID:	BBSB109(0.0)	Moisture:	40%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-006	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	16	5.0
Aroclor-1221	ND	32	6.7
Aroclor-1232	ND	16	2.4
Aroclor-1242	ND	16	5.5
Aroclor-1248	ND	16	4.1
Aroclor-1254	ND	16	4.7
Aroclor-1260	ND	16	2.3

Surrogate	%REC	Limits
TCMX	107	63-141
Decachlorobiphenyl	106	49-146

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	102061
Units:	ug/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	DUP(050512)	Moisture:	33%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-007	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	14	4.5
Aroclor-1221	ND	28	6.0
Aroclor-1232	ND	14	2.2
Aroclor-1242	ND	14	4.9
Aroclor-1248	ND	14	3.6
Aroclor-1254	ND	14	4.2
Aroclor-1260	ND	14	2.1

Surrogate	%REC	Limits
TCMX	105	63-141
Decachlorobiphenyl	111	49-146

Field ID:	BBSB109(2.0)	Moisture:	21%
Type:	SAMPLE	Sampled:	05/12/05
Lab ID:	179445-008	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	3.8
Aroclor-1221	ND	24	5.1
Aroclor-1232	ND	12	1.8
Aroclor-1242	ND	12	4.1
Aroclor-1248	ND	12	3.1
Aroclor-1254	ND	12	3.5
Aroclor-1260	ND	12	1.8

Surrogate	%REC	Limits
TCMX	83	63-141
Decachlorobiphenyl	84	49-146

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	102061
Units:	ug/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BB2ASB112(0.5)	Moisture:	4%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-009	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.8	3.1
Aroclor-1221	ND	20	4.2
Aroclor-1232	ND	9.8	1.5
Aroclor-1242	ND	9.8	3.4
Aroclor-1248	ND	9.8	2.5
Aroclor-1254	ND	9.8	2.9
Aroclor-1260	ND	9.8	1.4

Surrogate	%REC	Limits
TCMX	94	63-141
Decachlorobiphenyl	99	49-146

Field ID:	BB1SB113(0.5)	Moisture:	6%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-010	Analyzed:	05/18/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	10	2.8
Aroclor-1221	ND	20	4.3
Aroclor-1232	ND	10	1.5
Aroclor-1242	ND	10	3.5
Aroclor-1248	ND	10	2.6
Aroclor-1254	ND	10	4.2
Aroclor-1260	ND	10	1.5

Surrogate	%REC	Limits
TCMX	100	63-141
Decachlorobiphenyl	116	49-146

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	102061
Units:	ug/Kg	Received:	05/13/05
Diln Fac:	1.000	Prepared:	05/16/05

Field ID:	BB1SB114(0.5)	Moisture:	10%
Type:	SAMPLE	Sampled:	05/13/05
Lab ID:	179445-011	Analyzed:	05/17/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	2.9
Aroclor-1221	ND	21	4.5
Aroclor-1232	ND	11	1.6
Aroclor-1242	ND	11	3.7
Aroclor-1248	ND	11	2.7
Aroclor-1254	8.3 J	11	3.1
Aroclor-1260	ND	11	1.6

Surrogate	%REC	Limits
TCMX	72	63-141
Decachlorobiphenyl	112	49-146

Type:	BLANK	Analyzed:	05/17/05
Lab ID:	QC293906	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	2.6
Aroclor-1221	ND	19	4.0
Aroclor-1232	ND	9.5	1.5
Aroclor-1242	ND	9.5	3.3
Aroclor-1248	ND	9.5	2.4
Aroclor-1254	ND	9.5	3.9
Aroclor-1260	ND	9.5	1.4

Surrogate	%REC	Limits
TCMX	121	63-141
Decachlorobiphenyl	127	49-146

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)			
Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC293907	Batch#:	102061
Matrix:	Soil	Prepared:	05/16/05
Units:	ug/Kg	Analyzed:	05/17/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	164.8	140.0	85	78-150

Surrogate	%REC	Limits
TCMX	87	63-141
Decachlorobiphenyl	91	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BB1SB114(0.5)	Batch#:	102061
MSS Lab ID:	179445-011	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/16/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC293908
Moisture: 10%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<1.611	185.2	186.5	101	61-167

Surrogate	%REC	Limits
TCMX	101	63-141
Decachlorobiphenyl	113	49-146

Type: MSD
Lab ID: QC293909
Moisture: 10%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	182.9	172.8	94	61-167	6	36

Surrogate	%REC	Limits
TCMX	97	63-141
Decachlorobiphenyl	103	49-146

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104_003	255150953003	pcb10_2	14-APR-2005 19:53	05WS0223
2	104_004	255150953004	pcb25_5	14-APR-2005 20:19	05WS0030
3	104_005	255150953005	pcb100_20	14-APR-2005 20:46	S157
4	104_006	255150953006	pcb250_50	14-APR-2005 21:13	S40
5	104_007	255150953007	pcb500_100	14-APR-2005 21:39	S100
6	104_008	255150953008	pcb750_150	14-APR-2005 22:06	S101
7	104_009	255150953009	pcb1K_200	14-APR-2005 22:33	S156

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	311.44	297.35	273.50	254.34	241.44	229.07	225.17	AVRG	R		0.003820		pg	261.76	13	.99	20	
Aroclor-1016 Peak # 2	A	603.96	577.15	537.33	491.67	466.16	439.80	437.20	AVRG	R		0.001970		pg	507.61	13	.99	20	
Aroclor-1016 Peak # 3	A	773.55	721.22	695.67	645.78	645.19	624.02	597.23	AVRG	R		0.001489		pg	671.81	9	.99	20	
Aroclor-1016 Peak # 4	A	480.47	454.81	435.41	389.02	374.89	358.64	350.10	AVRG	R		0.002462		pg	406.19	12	.99	20	
Aroclor-1016 Peak # 5	A	365.11	369.58	341.88	307.56	295.86	281.48	275.12	AVRG	R		0.003130		pg	319.51	12	.99	20	
Aroclor-1260 Peak # 1	A	1358.9	1344.3	1171.9	1074.2	1035.6	989.70	1003.5	AVRG	R		8.774E-4		pg	1139.7	14	.99	20	
Aroclor-1260 Peak # 2	A	1346.9	1260.9	1086.4	1018.4	923.32	877.93	946.53	AVRG	R		9.383E-4		pg	1065.8	17	.99	20	
Aroclor-1260 Peak # 3	A	926.98	809.08	719.65	621.25	594.43	561.70	576.48	AVRG	R		0.001455		pg	687.08	20	.99	20	
Aroclor-1260 Peak # 4	A	642.42	570.82	608.36	550.05	531.16	498.62	512.26	AVRG	R		0.001789		pg	559.10	9	.99	20	
Aroclor-1260 Peak # 5	A	1699.1	1627.8	1500.5	1403.3	1409.3	1373.6	1481.2	AVRG	R		6.670E-4		pg	1499.3	8	.99	20	
TCMX	A	15744	15150	14219	13524	13267	12725	12857	AVRG	R		7.181E-5		pg	13926	8	.99	20	
Decachlorobiphenyl	A	9633.0	8471.8	8393.8	7724.9	8610.1	8390.1	9192.4	AVRG	R		1.159E-4		pg	8630.9	7	.99	20	
Aroclor-1016 Peak # 1	B	377.75	391.61	371.84	340.90	313.43	311.37	306.48	AVRG	R		0.002901		pg	344.77	10	.99	20	
Aroclor-1016 Peak # 2	B	832.44	805.50	737.73	667.22	611.91	611.72	600.39	AVRG	R		0.001438		pg	695.27	14	.99	20	
Aroclor-1016 Peak # 3	B	1768.4	1730.4	1566.4	1416.5	1316.9	1301.7	1263.3	AVRG	R		6.754E-4		pg	1480.5	14	.99	20	
Aroclor-1016 Peak # 4	B	735.21	675.00	625.42	561.73	518.83	522.53	511.89	AVRG	R		0.001687		pg	592.94	15	.99	20	
Aroclor-1016 Peak # 5	B	513.59	501.84	488.09	416.51	387.49	389.27	381.87	AVRG	R		0.002274		pg	439.81	13	.99	20	
Aroclor-1260 Peak # 1	B	969.42	944.36	875.52	745.20	711.37	698.33	677.23	AVRG	R		0.001245		pg	803.06	15	.99	20	
Aroclor-1260 Peak # 2	B	1398.9	1347.1	1246.3	1084.9	1039.3	1022.3	1004.4	AVRG	R		8.596E-4		pg	1163.3	14	.99	20	

114

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255150953001 Name: Type: (normal) Date: 14-APR-2005 19:53 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	970.39	955.89	857.34	742.61	731.27	720.26	707.50	AVRG	R		0.001231		pg	812.18	14	.99	20	
Aroclor-1260 Peak # 4	B	808.55	813.70	731.17	642.53	622.80	609.49	599.52	AVRG	R		0.001450		pg	689.68	14	.99	20	
Aroclor-1260 Peak # 5	B	457.61	430.44	403.91	354.82	343.78	338.70	335.24	AVRG	R		0.002627		pg	380.64	13	.99	20	
TCMX	B	20555	20240	18611	17309	15585	15486	15237	AVRG	R		5.690E-5		pg	17575	13	.99	20	
Decachlorobiphenyl	B	9988.0	9388.0	8258.3	7593.2	8005.8	8552.6	8411.5	AVRG	R		1.163E-4		pg	8599.6	10	.99	20	

115

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255150953001 Caldate : 14-APR-2005 Caltype :

ICV 255150953011 (104_011) standards: S55

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255150953011	14-APR-2005	250.00	275.76	pg	10	15
Aroclor-1260	A	255150953011	14-APR-2005	250.00	266.52	pg	7	15
Aroclor-1016	B	255150953011	14-APR-2005	250.00	274.23	pg	10	15
Aroclor-1260	B	255150953011	14-APR-2005	250.00	278.29	pg	11	15

INITIAL CALIBRATION REPORT FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255176493003 Name: Type: (normal) Date: 03-MAY-2005 02:28 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	122_021	255176493021	ar1232	03-MAY-2005 02:28	S431

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	318.75	AVRG	R		0.003137		pg	318.75	0	.99	20	
Aroclor-1232 Peak # 2	A	238.72	AVRG	R		0.004189		pg	238.72	0	.99	20	
Aroclor-1232 Peak # 3	A	310.46	AVRG	R		0.003221		pg	310.46	0	.99	20	
Aroclor-1232 Peak # 4	A	199.18	AVRG	R		0.005021		pg	199.18	0	.99	20	
Aroclor-1232 Peak # 5	A	136.98	AVRG	R		0.007300		pg	136.98	0	.99	20	
Aroclor-1232 Peak # 1	B	365.09	AVRG	R		0.002739		pg	365.09	0	.99	20	
Aroclor-1232 Peak # 2	B	292.20	AVRG	R		0.003422		pg	292.20	0	.99	20	
Aroclor-1232 Peak # 3	B	589.60	AVRG	R		0.001696		pg	589.60	0	.99	20	
Aroclor-1232 Peak # 4	B	242.61	AVRG	R		0.004122		pg	242.61	0	.99	20	
Aroclor-1232 Peak # 5	B	167.84	AVRG	R		0.005958		pg	167.84	0	.99	20	

117

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255198143001 Name: Type: (normal) Date: 17-MAY-2005 20:11 Inj Vol (uL): 1

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	137_006	255198143006	ccv	17-MAY-2005 20:11	S159

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	467.70	AVRG	R		0.002138		pg	467.70	0	.99	20	
Aroclor-1254 Peak # 2	A	664.05	AVRG	R		0.001506		pg	664.05	0	.99	20	
Aroclor-1254 Peak # 3	A	511.22	AVRG	R		0.001956		pg	511.22	0	.99	20	
Aroclor-1254 Peak # 4	A	878.37	AVRG	R		0.001138		pg	878.37	0	.99	20	
Aroclor-1254 Peak # 5	A	754.73	AVRG	R		0.001325		pg	754.73	0	.99	20	
Aroclor-1254 Peak # 1	B	290.12	AVRG	R		0.003447		pg	290.12	0	.99	20	
Aroclor-1254 Peak # 2	B	549.38	AVRG	R		0.001820		pg	549.38	0	.99	20	
Aroclor-1254 Peak # 3	B	621.31	AVRG	R		0.001609		pg	621.31	0	.99	20	
Aroclor-1254 Peak # 4	B	484.69	AVRG	R		0.002063		pg	484.69	0	.99	20	
Aroclor-1254 Peak # 5	B	866.24	AVRG	R		0.001154		pg	866.24	0	.99	20	

118

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005			500.00	477.42	pg	-5	15	
GC22	B	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005			500.00	397.80	pg	**-20**	15	c- *** Ch.A used
GC22	A	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005			250.00	277.28	pg	11	15	
GC22	B	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005			250.00	223.89	pg	-10	15	
GC22	A	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005			100.00	112.74	pg	13	15	
GC22	B	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005			100.00	88.282	pg	-12	15	
GC22	A	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005			500.00	506.73	pg	1	15	
GC22	B	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005			500.00	380.39	pg	**-24**	15	c- *** Ch A used

mas 5/25/07

-=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1232

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143003	17-MAY-2005 15:20	255176493003	03-MAY-2005			250.00	262.80	pg	5	15	
GC22	B	255198143003	17-MAY-2005 15:20	255176493003	03-MAY-2005			250.00	245.36	pg	-2	15	
GC22	A	255198143021	18-MAY-2005 02:50	255176493003	03-MAY-2005			250.00	266.49	pg	7	15	
GC22	B	255198143021	18-MAY-2005 02:50	255176493003	03-MAY-2005			250.00	242.45	pg	-3	15	

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1254

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143006	17-MAY-2005 20:11	255198143001	17-MAY-2005			250.00	250.00	pg	0	15	
GC22	B	255198143006	17-MAY-2005 20:11	255198143001	17-MAY-2005			250.00	250.00	pg	0	15	
GC22	A	255198143023	18-MAY-2005 03:44	255198143001	17-MAY-2005			250.00	235.43	pg	-6	15	
GC22	B	255198143023	18-MAY-2005 03:44	255198143001	17-MAY-2005			250.00	262.26	pg	5	15	

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005			500.00	445.91	pg	-11	15	
GC22	B	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005			500.00	416.39	pg	**-17**	15	c- ***
GC22	A	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005			250.00	254.52	pg	2	15	
GC22	B	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005			250.00	214.64	pg	-14	15	
GC22	A	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005			100.00	111.20	pg	11	15	
GC22	B	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005			100.00	90.968	pg	-9	15	
GC22	A	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005			500.00	529.53	pg	6	15	
GC22	B	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005			500.00	388.18	pg	**-22**	15	c- ***

Ch. A used

-=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005	13926	14962	100.00	107.43	pg	7	15	
GC22	B	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005	17575	15403	100.00	87.641	pg	-12	15	
GC22	A	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005	13926	16088	50.000	57.761	pg	**16**	15	c+
GC22	B	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005	17575	16811	50.000	47.828	pg	-4	15	
GC22	A	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005	13926	15825	20.000	22.726	pg	14	15	
GC22	B	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005	17575	17142	20.000	19.508	pg	-2	15	
GC22	A	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005	13926	16370	100.00	117.55	pg	**18**	15	c+
GC22	B	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005	17575	15232	100.00	86.669	pg	-13	15	

Ch. B used

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005	8630.9	8031.1	100.00	93.050	pg	-7	15	
GC22	B	255198143005	17-MAY-2005 17:11	255150953001	14-APR-2005	8599.6	8235.1	100.00	95.761	pg	-4	15	
GC22	A	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005	8630.9	10447	50.000	60.521	pg	**21**	15	c+
GC22	B	255198143020	18-MAY-2005 02:24	255150953001	14-APR-2005	8599.6	9501.9	50.000	55.246	pg	10	15	
GC22	A	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005	8630.9	8550.6	20.000	19.814	pg	-1	15	
GC22	B	255198143036	18-MAY-2005 09:30	255150953001	14-APR-2005	8599.6	8520.7	20.000	19.816	pg	-1	15	
GC22	A	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005	8630.9	10199	100.00	118.17	pg	**18**	15	c+
GC22	B	255198143043	18-MAY-2005 12:55	255150953001	14-APR-2005	8599.6	7954.0	100.00	92.493	pg	-8	15	

Ch. B used

mcs signoff

+=high bias c=CCV

SEQUENCE SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255150953 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 14-APR-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
002	104_002	X	hex			14-APR-2005 19:26	1.0					
003	104_003	ICAL	pcb10_2			14-APR-2005 19:53	1.0				1	
004	104_004	ICAL	pcb25_5			14-APR-2005 20:19	1.0				2	
005	104_005	ICAL	pcb100_20			14-APR-2005 20:46	1.0				3	
006	104_006	ICAL	pcb250_50			14-APR-2005 21:13	1.0				4	
007	104_007	ICAL	pcb500_100			14-APR-2005 21:39	1.0				5	
008	104_008	ICAL	pcb750_150			14-APR-2005 22:06	1.0				6	
009	104_009	ICAL	pcb1K_200			14-APR-2005 22:33	1.0				7	
011	104_011	ICV	accu_1660			14-APR-2005 23:26	1.0	1			8	
012	104_012	X	icv			14-APR-2005 23:52	1.0				8	
013	104_013	CCV/ICAL	ar1254	mcs 5/25/05		15-APR-2005 00:19	1.0	1			9	

Not used mcs 5/25/05

125

Stds used: 1=05WS0223 2=05WS0030 3=S157 4=S40 5=S100 6=S101 7=S156 8=S55 9=S39

SEQUENCE SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255176493 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	122_002	CCV	pcb250_50			02-MAY-2005 13:33	1.0	1.0		1	1	
003	122_003	X	ccv			02-MAY-2005 13:59	1.0				1	
004	122_004	ICAL	ar1248			02-MAY-2005 18:56	1.0	1.0			2	
005	122_005	X	ccv			02-MAY-2005 19:22	1.0				2	
007	122_007	BLANK	QC292341	101648	Soil	02-MAY-2005 20:16	1.0	0.8333	2	1		
008	122_008	X	177841-001	101648	Soil	02-MAY-2005 20:42	1.0	0.8333		1		
009	122_009	MDL	177841-002	101648	Soil	02-MAY-2005 21:09	1.0	0.8333		1		
010	122_010	MDL	177841-003	101648	Soil	02-MAY-2005 21:35	1.0	0.8333		1		
011	122_011	MDL	177841-004	101648	Soil	02-MAY-2005 22:02	1.0	0.8333		1		
012	122_012	MDL	177841-005	101648	Soil	02-MAY-2005 22:28	1.0	0.8333		1		
013	122_013	MDL	177841-006	101648	Soil	02-MAY-2005 22:55	1.0	0.8333		1		
014	122_014	MDL	177841-007	101648	Soil	02-MAY-2005 23:22	1.0	0.8333		1		
015	122_015	MDL	177841-008	101648	Soil	02-MAY-2005 23:48	1.0	0.8333		1		
017	122_017	X	pcb500_100			03-MAY-2005 00:41	1.0				3	
018	122_018	CCV	ccv			03-MAY-2005 01:08	1.0	1.0	2	1	3	126
019	122_019	CCV	ar1248			03-MAY-2005 01:34	1.0	1.0		1	2	
020	122_020	X	ccv			03-MAY-2005 02:01	1.0				2	
021	122_021	CCV/ICAL	ar1232			03-MAY-2005 02:28	1.0	1.0		1	4	
022	122_022	X	ccv			03-MAY-2005 02:54	1.0				4	
024	122_024	BLANK	QC292289	101635	Soil	03-MAY-2005 03:47	1.0	0.8333	2	1		
025	122_025	MDL	177900-001	101635	Soil	03-MAY-2005 04:14	1.0	0.8333		1		
026	122_026	MDL	177900-002	101635	Soil	03-MAY-2005 04:41	1.0	0.8333		1		
027	122_027	MDL	177900-003	101635	Soil	03-MAY-2005 05:07	1.0	0.8333		1		
028	122_028	MDL	177900-004	101635	Soil	03-MAY-2005 05:34	1.0	0.8333		1		
029	122_029	MDL	177900-005	101635	Soil	03-MAY-2005 06:00	1.0	0.8333		1		
030	122_030	MDL	177900-006	101635	Soil	03-MAY-2005 06:27	1.0	0.8333		1		
031	122_031	MDL	177900-007	101635	Soil	03-MAY-2005 06:54	1.0	0.8333		1		
032	122_032	MDL	177900-008	101635	Soil	03-MAY-2005 07:20	1.0	0.8333		1		
034	122_034	X	pcb100_20			03-MAY-2005 08:13	1.0	1.0		1	5	
035	122_035	CCV	ccv			03-MAY-2005 08:40	1.0	1.0		1	5	
036	122_036	CCV	ar1232			03-MAY-2005 09:07	1.0	1.0		1	4	

mcl 5/25/05

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157 6=S8

SEQUENCE SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255176493 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 02-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
037	122_037	X	ccv			03-MAY-2005 09:33	1.0				4	
039	122_039	ICAL	ar1242			03-MAY-2005 11:18	1.0	1.0			6	
041	122_041	BLANK	QC292196	101612	Water	03-MAY-2005 12:11	1.0	0.025	2	1		
042	122_042	BS	QC292197	101612	Water	03-MAY-2005 12:37	1.0	0.025		1		
043	122_043	BSD	QC292198	101612	Water	03-MAY-2005 13:04	1.0	0.025		1		
044	122_044	SAMPLE	179161-001	101612	Water	03-MAY-2005 13:30	1.0	0.03846	2	1		
046	122_046	X	pcb250_50			03-MAY-2005 14:24	1.0	1.0		1	1	
047	122_047	CCV	ccv			03-MAY-2005 14:50	1.0	1.0	2	1	1	
048	122_048	CCV	ar1242			03-MAY-2005 15:17	1.0	1.0		1	6	

127

Stds used: 1=S40 2=S38 3=S100 4=S431 5=S157 6=S8

SEQUENCE SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255198143 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 17-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	137_001	X	pcb500_100			17-MAY-2005 14:23	1.0					1	
002	137_002	X	ccv			17-MAY-2005 14:54	1.0					1	
003	137_003	CCV	ar1232			17-MAY-2005 15:20	1.0	1.0			1	2	
004	137_004	X	ccv			17-MAY-2005 16:44	1.0					1	
005	137_005	CCV	ccv 1260			17-MAY-2005 17:11	1.0	1.0	2		1	1	
006	137_006	CCV/ICAL	ccv mas1260			17-MAY-2005 20:11	1.0	1.0			1	3	
008	137_008	BLANK	QC294083	102113	Soil	17-MAY-2005 21:05	1.0	0.8297	2	1	1		
009	137_009	BLANK	QC293906	102061	Soil	17-MAY-2005 21:31	1.0	0.6631	2	1	1		
010	137_010	LCS	QC294084	102113	Soil	17-MAY-2005 21:58	1.0	0.8325		3	1		
011	137_011	LCS	QC293907	102061	Soil	17-MAY-2005 22:24	1.0	0.6592			1		
012	137_012	MSS	179473-002	102113	Soil	17-MAY-2005 22:51	1.0	0.821	2		1		
013	137_013	MSS	179445-011	102061	Soil	17-MAY-2005 23:18	1.0	0.6623	2		1		
014	137_014	MS	QC294085	102113	Soil	17-MAY-2005 23:44	1.0	0.8207			1		
015	137_015	MSD	QC294086	102113	Soil	18-MAY-2005 00:11	1.0	0.8199			1		
016	137_016	MS	QC293908	102061	Soil	18-MAY-2005 00:37	1.0	0.6667			1		128
017	137_017	MSD	QC293909	102061	Soil	18-MAY-2005 01:04	1.0	0.6583			1		
019	137_019	X	pcb250_50			18-MAY-2005 01:57	1.0					4	
020	137_020	CCV	ccv			18-MAY-2005 02:24	1.0	1.0			1	4	
021	137_021	CCV	ar1232			18-MAY-2005 02:50	1.0	1.0			1	2	
022	137_022	X	ccv			18-MAY-2005 03:17	1.0					2	
023	137_023	CCV	ccv 1254			18-MAY-2005 03:44	1.0	1.0			1	3	
025	137_025	SAMPLE	179473-001	102113	Soil	18-MAY-2005 04:37	1.0						
026	137_026	SAMPLE	179425-013	102014	Soil	18-MAY-2005 05:04	1.0	0.6645	1		1		
027	137_027	SAMPLE	179425-014	102014	Soil	18-MAY-2005 05:30	1.0	0.6676		2	1		
028	137_028	SAMPLE	179445-001	102061	Soil	18-MAY-2005 05:57	1.0	0.6605			1		
029	137_029	SAMPLE	179445-004	102061	Soil	18-MAY-2005 06:23	1.0	0.6658			1		
030	137_030	SAMPLE	179445-005	102061	Soil	18-MAY-2005 06:50	1.0	0.6627			1		
031	137_031	SAMPLE	179445-006	102061	Soil	18-MAY-2005 07:17	1.0	0.6618	1		1		
032	137_032	SAMPLE	179445-007	102061	Soil	18-MAY-2005 07:43	1.0	0.6623			1		
033	137_033	SAMPLE	179445-008	102061	Soil	18-MAY-2005 08:10	1.0	0.6557			1		
034	137_034	SAMPLE	179445-009	102061	Soil	18-MAY-2005 08:36	1.0	0.6566			1		

Stds used: 1=S100 2=S507 3=S159 4=S506 5=S157

SEQUENCE SUMMARY FOR 179445 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255198143 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 17-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
036	137_036	CCV	pcb100_20			18-MAY-2005 09:30	1.0	1.0			1	5	
037	137_037	X	ccv			18-MAY-2005 09:56	1.0					5	
040	137_040	SAMPLE	179473-001	102113	Soil	18-MAY-2005 11:35	1.0	0.8297	2		1		
041	137_041	SAMPLE	179445-010	102061	Soil	18-MAY-2005 12:01	1.0	0.6636	2		1		
043	137_043	CCV	pcb500_100			18-MAY-2005 12:55	1.0	1.0	2		1	1	
044	137_044	X	ccv			18-MAY-2005 13:21	1.0					1	
047	137_047	MSS	179383-001	102014	Soil	18-MAY-2005 16:40	1.0	0.6653	2	1	1		
049	137_049	CCV	pcb250_50			18-MAY-2005 17:33	1.0	1.0			1	4	
050	137_050	X	ccv			18-MAY-2005 18:00	1.0					4	

129

Stds used: 1=S100 2=S507 3=S159 4=S506 5=S157

Curtis & Tompkins Laboratories Sample Preparation Summary 17-MAY-2005 12:16

Batch Number : 102061
Date Extracted: 16-MAY-2005
Extracted by : Amy Silverberg
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S258A
Spike #2 ID : S498A
Spike #3 ID :
SOP Version : PCB-ASE_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179445-001			Mactec, Inc.	Soil	15.14	g	10	0.660502	1		.025	0		PCB	3665A	
179445-004			Mactec, Inc.	Soil	15.02	g	10	0.665779	1		.025	0		PCB	3665A	
179445-005			Mactec, Inc.	Soil	15.09	g	10	0.662691	1		.025	0		PCB	3665A	
179445-006			Mactec, Inc.	Soil	15.11	g	10	0.661813	1		.025	0		PCB	3665A	
179445-007			Mactec, Inc.	Soil	15.1	g	10	0.662252	1		.025	0		PCB	3665A	
179445-008			Mactec, Inc.	Soil	15.25	g	10	0.655738	1		.025	0		PCB	3665A	
179445-009			Mactec, Inc.	Soil	15.23	g	10	0.656599	1		.025	0		PCB	3665A	
179445-010			Mactec, Inc.	Soil	15.07	g	10	0.663570	1		.025	0		PCB	3665A	
179445-011			Mactec, Inc.	Soil	15.1	g	10	0.662252	1		.025	0		PCB	3665A	MSS
QC293906	MB			Soil	15.08	g	10	0.663130	1		.025	0		PCB	3665A	
QC293907	LCS			Soil	15.17	g	10	0.659196	1		.025	.025		PCB	3665A	
QC293908	MS	of 179445-011		Soil	15	g	10	0.666667	1		.025	.025		PCB	3665A	
QC293909	MSD	of 179445-011		Soil	15.19	g	10	0.658328	1		.025	.025		PCB	3665A	

130

Prep Chemist: AtSilverberg Reviewed By: Jennifer Dell Date: 5/17/05

Relinquished By: Jennifer Dell Received By: Date: 5/17/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

LIMS Batch No: 102061
LIMS Analysis: PCB
Extracted by: AMS
Date Extracted: 5/16/05

- ☐ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☒ EPA 3545 PFE (ASE Method# 10)
- ☐ Other _____

Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
179445-001	15.14	10.0	
-004	15.02		
-005	15.09		
-006	15.11		
-007	15.10		
-008	15.25		
-009	15.23		
-010	15.07		
-011	15.10		MSS
MB QC293906	15.08		
LCS 07	15.17		
MS 08	15.00		
MSD 09	15.19		

JRD 5/17/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM44028452	AMS 5/16/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Dionex 040603	
1 AMS 5/16/05 0.025 ~~0.05~~ mL of surrogate solution was added to all samples	S258 A	
0.025 ~~0.05~~ mL of spike solution 1232 was added to all spikes	S498 A	
1:1 CH_2Cl_2 (lot# EM45005):Acetone(lot# EM45033) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman 028	
PFE (ASE) / soxhlets on at:	N/A	JRD 5/17/05
PFE (ASE) / soxhlets off at:	↓	
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4		
Concentrated to volumes noted above after exchange to Hexane Lot#	CN818	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	✓ JTB AA9039	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	
Centrifuged for 1min; 10mL transferred to labelled vial	✓	

A Alvarez 5/16/05
Extraction Chemist / Date

Continued from page ____
Continued on page 131

Jennifer L Dodd 5/17/05
Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179445-001A	30.38	8270-SIM	
-002	30.25		
-003	30.27		
-004S	30.46		
-005G	30.10		
-006	30.26		
-007	30.17		
-008	30.00		
-009	30.21		
-010	30.20		MSS
-011	30.22		179445-010F
-MS	30.49		EM44028452
-MSD	30.05		
-LCS	30.11		
-MB	30.30		
179445-001A	15.14	PCB	
-004S	15.02		
-005G	15.09		
-006	15.11		
-007	15.10		
-008	15.25		
-009	15.23		
-010	15.07		
-011	15.10		MSS
-MS	15.06		179445-011G ~~179445-004S/10 015~~ CL 5/16
-MSD	15.19		EM44028452
-LCS	15.17		
-MB	15.08		

Continued on Page

Signed Date 5/16/05 132 Read and Understood By Signed Date

Hit Report for 179445 PCB Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result
179445-011	BB1SB114(0.5)	Aroclor-1254	8.255 J

J=estimated

REPORTING SUMMARY FOR 179445 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179445-001	Aroclor-1016	GC22	B	05/18/05 05:57
179445-001	Aroclor-1221	GC22	A	05/18/05 05:57
179445-001	Aroclor-1232	GC22	A	05/18/05 05:57
179445-001	Aroclor-1242	GC22	A	05/18/05 05:57
179445-001	Aroclor-1248	GC22	A	05/18/05 05:57
179445-001	Aroclor-1254	GC22	B	05/18/05 05:57
179445-001	Aroclor-1260	GC22	B	05/18/05 05:57
179445-001	TCMX	GC22	B	05/18/05 05:57
179445-001	Decachlorobiphenyl	GC22	B	05/18/05 05:57
179445-004	Aroclor-1016	GC22	B	05/18/05 06:23
179445-004	Aroclor-1221	GC22	A	05/18/05 06:23
179445-004	Aroclor-1232	GC22	A	05/18/05 06:23
179445-004	Aroclor-1242	GC22	A	05/18/05 06:23
179445-004	Aroclor-1248	GC22	A	05/18/05 06:23
179445-004	Aroclor-1254	GC22	B	05/18/05 06:23
179445-004	Aroclor-1260	GC22	B	05/18/05 06:23
179445-004	TCMX	GC22	B	05/18/05 06:23
179445-004	Decachlorobiphenyl	GC22	B	05/18/05 06:23
179445-005	Aroclor-1016	GC22	B	05/18/05 06:50
179445-005	Aroclor-1221	GC22	A	05/18/05 06:50
179445-005	Aroclor-1232	GC22	A	05/18/05 06:50
179445-005	Aroclor-1242	GC22	A	05/18/05 06:50
179445-005	Aroclor-1248	GC22	A	05/18/05 06:50
179445-005	Aroclor-1254	GC22	B	05/18/05 06:50
179445-005	Aroclor-1260	GC22	B	05/18/05 06:50
179445-005	TCMX	GC22	B	05/18/05 06:50
179445-005	Decachlorobiphenyl	GC22	B	05/18/05 06:50
179445-006	Aroclor-1016	GC22	B	05/18/05 07:17
179445-006	Aroclor-1221	GC22	A	05/18/05 07:17
179445-006	Aroclor-1232	GC22	A	05/18/05 07:17
179445-006	Aroclor-1242	GC22	A	05/18/05 07:17
179445-006	Aroclor-1248	GC22	A	05/18/05 07:17
179445-006	Aroclor-1254	GC22	B	05/18/05 07:17
179445-006	Aroclor-1260	GC22	B	05/18/05 07:17
179445-006	TCMX	GC22	B	05/18/05 07:17
179445-006	Decachlorobiphenyl	GC22	B	05/18/05 07:17
179445-007	Aroclor-1016	GC22	B	05/18/05 07:43
179445-007	Aroclor-1221	GC22	A	05/18/05 07:43
179445-007	Aroclor-1232	GC22	A	05/18/05 07:43
179445-007	Aroclor-1242	GC22	A	05/18/05 07:43
179445-007	Aroclor-1248	GC22	A	05/18/05 07:43
179445-007	Aroclor-1254	GC22	B	05/18/05 07:43
179445-007	Aroclor-1260	GC22	B	05/18/05 07:43
179445-007	TCMX	GC22	B	05/18/05 07:43
179445-007	Decachlorobiphenyl	GC22	B	05/18/05 07:43
179445-008	Aroclor-1016	GC22	B	05/18/05 08:10
179445-008	Aroclor-1221	GC22	A	05/18/05 08:10
179445-008	Aroclor-1232	GC22	A	05/18/05 08:10
179445-008	Aroclor-1242	GC22	A	05/18/05 08:10

REPORTING SUMMARY FOR 179445 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179445-008	Aroclor-1248	GC22	A	05/18/05 08:10
179445-008	Aroclor-1254	GC22	B	05/18/05 08:10
179445-008	Aroclor-1260	GC22	B	05/18/05 08:10
179445-008	TCMX	GC22	B	05/18/05 08:10
179445-008	Decachlorobiphenyl	GC22	B	05/18/05 08:10
179445-009	Aroclor-1016	GC22	B	05/18/05 08:36
179445-009	Aroclor-1221	GC22	A	05/18/05 08:36
179445-009	Aroclor-1232	GC22	A	05/18/05 08:36
179445-009	Aroclor-1242	GC22	A	05/18/05 08:36
179445-009	Aroclor-1248	GC22	A	05/18/05 08:36
179445-009	Aroclor-1254	GC22	B	05/18/05 08:36
179445-009	Aroclor-1260	GC22	B	05/18/05 08:36
179445-009	TCMX	GC22	B	05/18/05 08:36
179445-009	Decachlorobiphenyl	GC22	B	05/18/05 08:36
179445-010	Aroclor-1016	GC22	A	05/18/05 12:01
179445-010	Aroclor-1221	GC22	A	05/18/05 12:01
179445-010	Aroclor-1232	GC22	A	05/18/05 12:01
179445-010	Aroclor-1242	GC22	A	05/18/05 12:01
179445-010	Aroclor-1248	GC22	A	05/18/05 12:01
179445-010	Aroclor-1254	GC22	A	05/18/05 12:01
179445-010	Aroclor-1260	GC22	A	05/18/05 12:01
179445-010	TCMX	GC22	B	05/18/05 12:01
179445-010	Decachlorobiphenyl	GC22	B	05/18/05 12:01
179445-011	Aroclor-1016	GC22	A	05/17/05 23:18
179445-011	Aroclor-1221	GC22	A	05/17/05 23:18
179445-011	Aroclor-1232	GC22	A	05/17/05 23:18
179445-011	Aroclor-1242	GC22	A	05/17/05 23:18
179445-011	Aroclor-1248	GC22	A	05/17/05 23:18
179445-011	Aroclor-1254	GC22	B	05/17/05 23:18
179445-011	Aroclor-1260	GC22	A	05/17/05 23:18
179445-011	TCMX	GC22	B	05/17/05 23:18
179445-011	Decachlorobiphenyl	GC22	B	05/17/05 23:18
QC293906	Aroclor-1016	GC22	A	05/17/05 21:31
QC293906	Aroclor-1221	GC22	A	05/17/05 21:31
QC293906	Aroclor-1232	GC22	A	05/17/05 21:31
QC293906	Aroclor-1242	GC22	A	05/17/05 21:31
QC293906	Aroclor-1248	GC22	A	05/17/05 21:31
QC293906	Aroclor-1254	GC22	A	05/17/05 21:31
QC293906	Aroclor-1260	GC22	A	05/17/05 21:31
QC293906	TCMX	GC22	B	05/17/05 21:31
QC293906	Decachlorobiphenyl	GC22	B	05/17/05 21:31
QC293907	Aroclor-1232	GC22	A	05/17/05 22:24
QC293907	TCMX	GC22	B	05/17/05 22:24
QC293907	Decachlorobiphenyl	GC22	B	05/17/05 22:24
QC293908	Aroclor-1232	GC22	A	05/18/05 00:37
QC293908	TCMX	GC22	B	05/18/05 00:37
QC293908	Decachlorobiphenyl	GC22	B	05/18/05 00:37

REPORTING SUMMARY FOR 179445 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC293909	Aroclor-1232	GC22	A	05/18/05 01:04
QC293909	TCMX	GC22	B	05/18/05 01:04
QC293909	Decachlorobiphenyl	GC22	B	05/18/05 01:04

Curtis & Tompkins, Ltd.

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB108(0.0)	Diln Fac:	1.190
Lab ID:	179445-004	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 29%

Analyte	Result	RL	MDL
Freon 12	ND b	17	3.4
Chloromethane	ND b	17	3.3
Vinyl Chloride	ND b	17	2.6
Bromomethane	ND b	17	2.7
Chloroethane	ND b	17	3.1
Trichlorofluoromethane	ND b	8.4	2.7
Acetone	15 J b	34	3.5
Freon 113	ND b	8.4	2.9
1,1-Dichloroethene	ND b	8.4	3.7
Methylene Chloride	11 J b	34	3.6
Carbon Disulfide	ND b	8.4	2.9
MTBE	ND b	8.4	3.4
trans-1,2-Dichloroethene	ND b	8.4	3.4
Vinyl Acetate	ND b	84	3.2
1,1-Dichloroethane	ND b	8.4	3.3
2-Butanone	ND b	17	3.6
cis-1,2-Dichloroethene	ND b	8.4	3.4
2,2-Dichloropropane	ND b	8.4	3.4
Chloroform	ND b	8.4	3.4
Bromochloromethane	ND b	8.4	3.1
1,1,1-Trichloroethane	ND b	8.4	3.4
1,1-Dichloropropene	ND b	8.4	3.4
Carbon Tetrachloride	ND b	8.4	3.0
1,2-Dichloroethane	ND b	8.4	3.3
Benzene	ND b	8.4	3.5
Trichloroethene	ND b	8.4	3.4
1,2-Dichloropropane	ND b	8.4	3.7
Bromodichloromethane	ND b	8.4	3.1
Dibromomethane	ND b	8.4	3.2
4-Methyl-2-Pentanone	ND b	17	2.9
cis-1,3-Dichloropropene	ND b	8.4	2.9
Toluene	ND b	8.4	3.9
trans-1,3-Dichloropropene	ND b	8.4	3.4
1,1,2-Trichloroethane	ND b	8.4	4.2
2-Hexanone	ND b	17	3.3
1,3-Dichloropropane	ND b	8.4	3.2
Tetrachloroethene	ND b	8.4	3.1
Dibromochloromethane	ND b	8.4	2.5
1,2-Dibromoethane	ND b	8.4	3.3
Chlorobenzene	ND b	8.4	3.4
1,1,1,2-Tetrachloroethane	ND b	8.4	2.8
Ethylbenzene	ND b	8.4	3.4
m,p-Xylenes	ND b	8.4	7.3
o-Xylene	ND b	8.4	3.5
Styrene	ND b	8.4	3.0
Bromoform	ND b	8.4	2.7
Isopropylbenzene	ND b	8.4	3.4
1,1,2,2-Tetrachloroethane	ND b	8.4	3.5
1,2,3-Trichloropropane	ND b	8.4	4.2
Propylbenzene	ND b	8.4	3.5

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB108(0.0)	Diln Fac:	1.190
Lab ID:	179445-004	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Bromobenzene	ND b	8.4	3.2
1,3,5-Trimethylbenzene	ND b	8.4	3.5
2-Chlorotoluene	ND b	8.4	3.5
4-Chlorotoluene	ND b	8.4	3.1
tert-Butylbenzene	ND b	8.4	3.5
1,2,4-Trimethylbenzene	ND b	8.4	3.3
sec-Butylbenzene	ND b	8.4	3.5
para-Isopropyl Toluene	ND b	8.4	3.4
1,3-Dichlorobenzene	ND b	8.4	3.2
1,4-Dichlorobenzene	ND b	8.4	3.2
n-Butylbenzene	ND b	8.4	2.9
1,2-Dichlorobenzene	ND b	8.4	3.2
1,2-Dibromo-3-Chloropropane	ND b	8.4	3.8
1,2,4-Trichlorobenzene	ND b	8.4	2.7
Hexachlorobutadiene	ND b	8.4	3.3
Naphthalene	ND b	8.4	2.8
1,2,3-Trichlorobenzene	ND b	8.4	2.9

Surrogate	%REC	Limits
Dibromofluoromethane	101 b	78-120
1,2-Dichloroethane-d4	106 b	80-120
Toluene-d8	96 b	80-120
Bromofluorobenzene	97 b	80-120

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB108(2.0)	Diln Fac:	0.8197
Lab ID:	179445-005	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND b	9.9	2.0
Chloromethane	ND b	9.9	2.0
Vinyl Chloride	ND b	9.9	1.5
Bromomethane	ND b	9.9	1.6
Chloroethane	ND b	9.9	1.8
Trichlorofluoromethane	ND b	4.9	1.6
Acetone	2.3 J b	20	2.1
Freon 113	ND b	4.9	1.7
1,1-Dichloroethene	ND b	4.9	2.2
Methylene Chloride	29 b	20	2.1
Carbon Disulfide	ND b	4.9	1.7
MTBE	ND b	4.9	2.0
trans-1,2-Dichloroethene	ND b	4.9	2.0
Vinyl Acetate	ND b	49	1.9
1,1-Dichloroethane	ND b	4.9	1.9
2-Butanone	ND b	9.9	2.1
cis-1,2-Dichloroethene	ND b	4.9	2.0
2,2-Dichloropropane	ND b	4.9	2.0
Chloroform	ND b	4.9	2.0
Bromochloromethane	ND b	4.9	1.8
1,1,1-Trichloroethane	ND b	4.9	2.0
1,1-Dichloropropene	ND b	4.9	2.0
Carbon Tetrachloride	ND b	4.9	1.8
1,2-Dichloroethane	ND b	4.9	2.0
Benzene	ND b	4.9	2.1
Trichloroethene	ND b	4.9	2.0
1,2-Dichloropropane	ND b	4.9	2.2
Bromodichloromethane	ND b	4.9	1.8
Dibromomethane	ND b	4.9	1.9
4-Methyl-2-Pentanone	ND b	9.9	1.7
cis-1,3-Dichloropropene	ND b	4.9	1.7
Toluene	ND b	4.9	2.3
trans-1,3-Dichloropropene	ND b	4.9	2.0
1,1,2-Trichloroethane	ND b	4.9	2.5
2-Hexanone	ND b	9.9	1.9
1,3-Dichloropropane	ND b	4.9	1.9
Tetrachloroethene	ND b	4.9	1.8
Dibromochloromethane	ND b	4.9	1.5
1,2-Dibromoethane	ND b	4.9	1.9
Chlorobenzene	ND b	4.9	2.0
1,1,1,2-Tetrachloroethane	ND b	4.9	1.7
Ethylbenzene	ND b	4.9	2.0
m,p-Xylenes	ND b	4.9	4.3
o-Xylene	ND b	4.9	2.1
Styrene	ND b	4.9	1.8
Bromoform	ND b	4.9	1.6
Isopropylbenzene	ND b	4.9	2.0
1,1,2,2-Tetrachloroethane	ND b	4.9	2.0
1,2,3-Trichloropropane	ND b	4.9	2.5
Propylbenzene	ND b	4.9	2.0

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB108(2.0)	Diln Fac:	0.8197
Lab ID:	179445-005	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Bromobenzene	ND b	4.9	1.9
1,3,5-Trimethylbenzene	ND b	4.9	2.1
2-Chlorotoluene	ND b	4.9	2.1
4-Chlorotoluene	ND b	4.9	1.8
tert-Butylbenzene	ND b	4.9	2.1
1,2,4-Trimethylbenzene	ND b	4.9	2.0
sec-Butylbenzene	ND b	4.9	2.1
para-Isopropyl Toluene	ND b	4.9	2.0
1,3-Dichlorobenzene	ND b	4.9	1.9
1,4-Dichlorobenzene	ND b	4.9	1.9
n-Butylbenzene	ND b	4.9	1.7
1,2-Dichlorobenzene	ND b	4.9	1.9
1,2-Dibromo-3-Chloropropane	ND b	4.9	2.2
1,2,4-Trichlorobenzene	ND b	4.9	1.6
Hexachlorobutadiene	ND b	4.9	2.0
Naphthalene	ND b	4.9	1.6
1,2,3-Trichlorobenzene	ND b	4.9	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	99 b	78-120
1,2-Dichloroethane-d4	108 b	80-120
Toluene-d8	97 b	80-120
Bromofluorobenzene	96 b	80-120

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB109(0.0)	Diln Fac:	1.000
Lab ID:	179445-006	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 40%

Analyte	Result	RL	MDL
Freon 12	ND b	17	3.3
Chloromethane	ND b	17	3.3
Vinyl Chloride	ND b	17	2.6
Bromomethane	ND b	17	2.7
Chloroethane	ND b	17	3.0
Trichlorofluoromethane	ND b	8.3	2.7
Acetone	ND b	33	3.5
Freon 113	ND b	8.3	2.9
1,1-Dichloroethene	ND b	8.3	3.6
Methylene Chloride	7.4 J b	33	3.6
Carbon Disulfide	ND b	8.3	2.8
MTBE	ND b	8.3	3.4
trans-1,2-Dichloroethene	ND b	8.3	3.4
Vinyl Acetate	ND b	83	3.1
1,1-Dichloroethane	ND b	8.3	3.3
2-Butanone	ND b	17	3.6
cis-1,2-Dichloroethene	ND b	8.3	3.3
2,2-Dichloropropane	ND b	8.3	3.3
Chloroform	ND b	8.3	3.3
Bromochloromethane	ND b	8.3	3.1
1,1,1-Trichloroethane	ND b	8.3	3.4
1,1-Dichloropropene	ND b	8.3	3.4
Carbon Tetrachloride	ND b	8.3	3.0
1,2-Dichloroethane	ND b	8.3	3.3
Benzene	ND b	8.3	3.5
Trichloroethene	ND b	8.3	3.4
1,2-Dichloropropane	ND b	8.3	3.6
Bromodichloromethane	ND b	8.3	3.1
Dibromomethane	ND b	8.3	3.2
4-Methyl-2-Pentanone	ND b	17	2.9
cis-1,3-Dichloropropene	ND b	8.3	2.9
Toluene	ND b	8.3	3.9
trans-1,3-Dichloropropene	ND b	8.3	3.3
1,1,2-Trichloroethane	ND b	8.3	4.2
2-Hexanone	ND b	17	3.3
1,3-Dichloropropane	ND b	8.3	3.2
Tetrachloroethene	ND b	8.3	3.0
Dibromochloromethane	ND b	8.3	2.5
1,2-Dibromoethane	ND b	8.3	3.2
Chlorobenzene	ND b	8.3	3.4
1,1,1,2-Tetrachloroethane	ND b	8.3	2.8
Ethylbenzene	ND b	8.3	3.4
m,p-Xylenes	ND b	8.3	7.3
o-Xylene	ND b	8.3	3.5
Styrene	ND b	8.3	3.0
Bromoform	ND b	8.3	2.7
Isopropylbenzene	ND b	8.3	3.4
1,1,2,2-Tetrachloroethane	ND b	8.3	3.4
1,2,3-Trichloropropane	ND b	8.3	4.2
Propylbenzene	ND b	8.3	3.5

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB109(0.0)	Diln Fac:	1.000
Lab ID:	179445-006	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Bromobenzene	ND b	8.3	3.2
1,3,5-Trimethylbenzene	ND b	8.3	3.5
2-Chlorotoluene	ND b	8.3	3.5
4-Chlorotoluene	ND b	8.3	3.1
tert-Butylbenzene	ND b	8.3	3.5
1,2,4-Trimethylbenzene	ND b	8.3	3.3
sec-Butylbenzene	ND b	8.3	3.5
para-Isopropyl Toluene	ND b	8.3	3.3
1,3-Dichlorobenzene	ND b	8.3	3.2
1,4-Dichlorobenzene	ND b	8.3	3.2
n-Butylbenzene	ND b	8.3	2.9
1,2-Dichlorobenzene	ND b	8.3	3.2
1,2-Dibromo-3-Chloropropane	ND b	8.3	3.7
1,2,4-Trichlorobenzene	ND b	8.3	2.7
Hexachlorobutadiene	ND b	8.3	3.3
Naphthalene	ND b	8.3	2.8
1,2,3-Trichlorobenzene	ND b	8.3	2.9

Surrogate	%REC	Limits
Dibromofluoromethane	102 b	78-120
1,2-Dichloroethane-d4	111 b	80-120
Toluene-d8	96 b	80-120
Bromofluorobenzene	100 b	80-120

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	DUP(050512)	Diln Fac:	0.9804
Lab ID:	179445-007	Batch#:	102041
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 33%

Analyte	Result	RL	MDL
Freon 12	ND b	15	3.2
Chloromethane	ND b	15	3.6
Vinyl Chloride	ND b	15	4.1
Bromomethane	ND b	15	3.5
Chloroethane	ND b	15	4.1
Trichlorofluoromethane	ND b	7.3	3.9
Acetone	25 J b	29	5.0
Freon 113	ND b	7.3	2.2
1,1-Dichloroethene	ND b	7.3	2.4
Methylene Chloride	9.1 J b	29	6.3
Carbon Disulfide	ND b	7.3	6.4
MTBE	ND b	7.3	1.2
trans-1,2-Dichloroethene	ND b	7.3	1.8
Vinyl Acetate	ND b	73	1.0
1,1-Dichloroethane	ND b	7.3	1.8
2-Butanone	2.8 J b	15	2.1
cis-1,2-Dichloroethene	ND b	7.3	1.7
2,2-Dichloropropane	ND b	7.3	1.9
Chloroform	ND b	7.3	1.9
Bromochloromethane	ND b	7.3	1.3
1,1,1-Trichloroethane	ND b	7.3	2.1
1,1-Dichloropropene	ND b	7.3	1.7
Carbon Tetrachloride	ND b	7.3	1.7
1,2-Dichloroethane	ND b	7.3	1.2
Benzene	ND b	7.3	1.7
Trichloroethene	ND b	7.3	1.5
1,2-Dichloropropane	ND b	7.3	1.3
Bromodichloromethane	ND b	7.3	0.89
Dibromomethane	ND b	7.3	0.84
4-Methyl-2-Pentanone	ND b	15	1.4
cis-1,3-Dichloropropene	ND b	7.3	1.0
Toluene	ND b	7.3	1.5
trans-1,3-Dichloropropene	ND b	7.3	0.95
1,1,2-Trichloroethane	ND b	7.3	1.3
2-Hexanone	ND b	15	1.1
1,3-Dichloropropane	ND b	7.3	1.2
Tetrachloroethene	ND b	7.3	1.5
Dibromochloromethane	ND b	7.3	0.93
1,2-Dibromoethane	ND b	7.3	1.3
Chlorobenzene	ND b	7.3	2.4
1,1,1,2-Tetrachloroethane	ND b	7.3	1.3
Ethylbenzene	ND b	7.3	1.7
m,p-Xylenes	ND b	7.3	3.4
o-Xylene	ND b	7.3	1.6
Styrene	ND b	7.3	1.4
Bromoform	ND b	7.3	0.65
Isopropylbenzene	ND b	7.3	1.7
1,1,2,2-Tetrachloroethane	ND b	7.3	0.91
1,2,3-Trichloropropane	ND b	7.3	1.5
Propylbenzene	ND b	7.3	1.7

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	DUP(050512)	Diln Fac:	0.9804
Lab ID:	179445-007	Batch#:	102041
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Bromobenzene	ND b	7.3	1.2
1,3,5-Trimethylbenzene	ND b	7.3	1.8
2-Chlorotoluene	ND b	7.3	1.7
4-Chlorotoluene	ND b	7.3	1.4
tert-Butylbenzene	ND b	7.3	1.6
1,2,4-Trimethylbenzene	ND b	7.3	1.5
sec-Butylbenzene	ND b	7.3	1.6
para-Isopropyl Toluene	27 b	7.3	1.5
1,3-Dichlorobenzene	ND b	7.3	1.3
1,4-Dichlorobenzene	ND b	7.3	0.82
n-Butylbenzene	ND b	7.3	1.2
1,2-Dichlorobenzene	ND b	7.3	1.3
1,2-Dibromo-3-Chloropropane	ND b	7.3	2.1
1,2,4-Trichlorobenzene	ND b	7.3	0.99
Hexachlorobutadiene	ND b	7.3	0.96
Naphthalene	ND b	7.3	1.1
1,2,3-Trichlorobenzene	ND b	7.3	0.62

Surrogate	%REC	Limits
Dibromofluoromethane	106 b	78-120
1,2-Dichloroethane-d4	107 b	80-120
Toluene-d8	98 b	80-120
Bromofluorobenzene	102 b	80-120

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB109(2.0)	Diln Fac:	0.8333
Lab ID:	179445-008	Batch#:	102041
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 21%

Analyte	Result	RL	MDL
Freon 12	ND b	11	2.3
Chloromethane	ND b	11	2.6
Vinyl Chloride	ND b	11	3.0
Bromomethane	ND b	11	2.5
Chloroethane	ND b	11	3.0
Trichlorofluoromethane	ND b	5.3	2.8
Acetone	ND b	21	3.6
Freon 113	ND b	5.3	1.6
1,1-Dichloroethene	ND b	5.3	1.7
Methylene Chloride	52 b	21	4.6
Carbon Disulfide	ND b	5.3	4.6
MTBE	ND b	5.3	0.85
trans-1,2-Dichloroethene	ND b	5.3	1.3
Vinyl Acetate	ND b	53	0.75
1,1-Dichloroethane	ND b	5.3	1.3
2-Butanone	ND b	11	1.5
cis-1,2-Dichloroethene	ND b	5.3	1.2
2,2-Dichloropropane	ND b	5.3	1.4
Chloroform	ND b	5.3	1.4
Bromochloromethane	ND b	5.3	0.92
1,1,1-Trichloroethane	ND b	5.3	1.5
1,1-Dichloropropene	ND b	5.3	1.2
Carbon Tetrachloride	ND b	5.3	1.3
1,2-Dichloroethane	ND b	5.3	0.84
Benzene	ND b	5.3	1.2
Trichloroethene	ND b	5.3	1.1
1,2-Dichloropropane	ND b	5.3	0.92
Bromodichloromethane	ND b	5.3	0.64
Dibromomethane	ND b	5.3	0.60
4-Methyl-2-Pentanone	ND b	11	1.0
cis-1,3-Dichloropropene	ND b	5.3	0.73
Toluene	ND b	5.3	1.1
trans-1,3-Dichloropropene	ND b	5.3	0.69
1,1,2-Trichloroethane	ND b	5.3	0.95
2-Hexanone	ND b	11	0.81
1,3-Dichloropropane	ND b	5.3	0.85
Tetrachloroethene	ND b	5.3	1.1
Dibromochloromethane	ND b	5.3	0.67
1,2-Dibromoethane	ND b	5.3	0.92
Chlorobenzene	ND b	5.3	1.7
1,1,1,2-Tetrachloroethane	ND b	5.3	0.91
Ethylbenzene	ND b	5.3	1.2
m,p-Xylenes	ND b	5.3	2.4
o-Xylene	ND b	5.3	1.2
Styrene	ND b	5.3	1.0
Bromoform	ND b	5.3	0.47
Isopropylbenzene	ND b	5.3	1.2
1,1,2,2-Tetrachloroethane	ND b	5.3	0.66
1,2,3-Trichloropropane	ND b	5.3	1.1
Propylbenzene	ND b	5.3	1.2
Bromobenzene	ND b	5.3	0.84

b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB109(2.0)	Diln Fac:	0.8333
Lab ID:	179445-008	Batch#:	102041
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND b	5.3	1.3
2-Chlorotoluene	ND b	5.3	1.2
4-Chlorotoluene	ND b	5.3	1.0
tert-Butylbenzene	ND b	5.3	1.2
1,2,4-Trimethylbenzene	ND b	5.3	1.1
sec-Butylbenzene	ND b	5.3	1.1
para-Isopropyl Toluene	5.5 b	5.3	1.1
1,3-Dichlorobenzene	ND b	5.3	0.97
1,4-Dichlorobenzene	ND b	5.3	0.59
n-Butylbenzene	ND b	5.3	0.89
1,2-Dichlorobenzene	ND b	5.3	0.90
1,2-Dibromo-3-Chloropropane	ND b	5.3	1.5
1,2,4-Trichlorobenzene	ND b	5.3	0.71
Hexachlorobutadiene	ND b	5.3	0.69
Naphthalene	ND b	5.3	0.78
1,2,3-Trichlorobenzene	ND b	5.3	0.45

Surrogate	%REC	Limits
Dibromofluoromethane	105 b	78-120
1,2-Dichloroethane-d4	108 b	80-120
Toluene-d8	98 b	80-120
Bromofluorobenzene	104 b	80-120

b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB2ASB112(0.5)	Diln Fac:	0.9804
Lab ID:	179445-009	Batch#:	102041
Matrix:	Soil	Sampled:	05/13/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Moisture: 4%

Analyte	Result	RL	MDL
Freon 12	ND b	10	2.2
Chloromethane	ND b	10	2.5
Vinyl Chloride	ND b	10	2.9
Bromomethane	ND b	10	2.4
Chloroethane	ND b	10	2.9
Trichlorofluoromethane	ND b	5.1	2.7
Acetone	3.6 J b	20	3.5
Freon 113	ND b	5.1	1.5
1,1-Dichloroethene	ND b	5.1	1.7
Methylene Chloride	41 b	20	4.4
Carbon Disulfide	ND b	5.1	4.5
MTBE	ND b	5.1	0.83
trans-1,2-Dichloroethene	ND b	5.1	1.3
Vinyl Acetate	ND b	51	0.73
1,1-Dichloroethane	ND b	5.1	1.2
2-Butanone	ND b	10	1.5
cis-1,2-Dichloroethene	ND b	5.1	1.2
2,2-Dichloropropane	ND b	5.1	1.4
Chloroform	ND b	5.1	1.3
Bromochloromethane	ND b	5.1	0.89
1,1,1-Trichloroethane	ND b	5.1	1.5
1,1-Dichloropropene	ND b	5.1	1.2
Carbon Tetrachloride	ND b	5.1	1.2
1,2-Dichloroethane	ND b	5.1	0.81
Benzene	ND b	5.1	1.2
Trichloroethene	ND b	5.1	1.1
1,2-Dichloropropane	ND b	5.1	0.89
Bromodichloromethane	ND b	5.1	0.62
Dibromomethane	ND b	5.1	0.59
4-Methyl-2-Pentanone	ND b	10	0.97
cis-1,3-Dichloropropene	ND b	5.1	0.70
Toluene	ND b	5.1	1.1
trans-1,3-Dichloropropene	ND b	5.1	0.66
1,1,2-Trichloroethane	ND b	5.1	0.92
2-Hexanone	ND b	10	0.79
1,3-Dichloropropane	ND b	5.1	0.83
Tetrachloroethene	ND b	5.1	1.1
Dibromochloromethane	ND b	5.1	0.65
1,2-Dibromoethane	ND b	5.1	0.89
Chlorobenzene	ND b	5.1	1.7
1,1,1,2-Tetrachloroethane	ND b	5.1	0.88
Ethylbenzene	ND b	5.1	1.2
m,p-Xylenes	ND b	5.1	2.4
o-Xylene	ND b	5.1	1.1
Styrene	ND b	5.1	0.99
Bromoform	ND b	5.1	0.45
Isopropylbenzene	ND b	5.1	1.2
1,1,2,2-Tetrachloroethane	ND b	5.1	0.64
1,2,3-Trichloropropane	ND b	5.1	1.0
Propylbenzene	ND b	5.1	1.2

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB2ASB112(0.5)	Diln Fac:	0.9804
Lab ID:	179445-009	Batch#:	102041
Matrix:	Soil	Sampled:	05/13/05
Units:	ug/Kg	Received:	05/13/05
Basis:	dry	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Bromobenzene	ND b	5.1	0.81
1,3,5-Trimethylbenzene	ND b	5.1	1.2
2-Chlorotoluene	ND b	5.1	1.2
4-Chlorotoluene	ND b	5.1	0.99
tert-Butylbenzene	ND b	5.1	1.1
1,2,4-Trimethylbenzene	ND b	5.1	1.0
sec-Butylbenzene	ND b	5.1	1.1
para-Isopropyl Toluene	ND b	5.1	1.1
1,3-Dichlorobenzene	ND b	5.1	0.94
1,4-Dichlorobenzene	ND b	5.1	0.58
n-Butylbenzene	ND b	5.1	0.86
1,2-Dichlorobenzene	ND b	5.1	0.87
1,2-Dibromo-3-Chloropropane	ND b	5.1	1.5
1,2,4-Trichlorobenzene	ND b	5.1	0.69
Hexachlorobutadiene	ND b	5.1	0.67
Naphthalene	ND b	5.1	0.76
1,2,3-Trichlorobenzene	ND b	5.1	0.43

Surrogate	%REC	Limits
Dibromofluoromethane	106 b	78-120
1,2-Dichloroethane-d4	106 b	80-120
Toluene-d8	98 b	80-120
Bromofluorobenzene	105 b	80-120

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1SB113(0.5)	Basis:	dry
Lab ID:	179445-010	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg		

Moisture: 6%

Analyte	Result	RL	MDL	Dil'n Fac	Batch#	Analyzed
Freon 12	ND b	10	2.3	0.9615	102041	05/16/05
Chloromethane	ND b	10	2.5	0.9615	102041	05/16/05
Vinyl Chloride	ND b	10	2.9	0.9615	102041	05/16/05
Bromomethane	ND b	10	2.4	0.9615	102041	05/16/05
Chloroethane	ND b	10	2.9	0.9615	102041	05/16/05
Trichlorofluoromethane	ND b	5.1	2.7	0.9615	102041	05/16/05
Acetone	ND b	20	3.5	0.9615	102041	05/16/05
Freon 113	ND b	5.1	1.5	0.9615	102041	05/16/05
1,1-Dichloroethene	ND b	5.1	1.7	0.9615	102041	05/16/05
Methylene Chloride	150 J	530	110	25.00	102078	05/17/05
Carbon Disulfide	ND b	5.1	4.5	0.9615	102041	05/16/05
MTBE	ND b	5.1	0.83	0.9615	102041	05/16/05
trans-1,2-Dichloroethene	ND b	5.1	1.3	0.9615	102041	05/16/05
Vinyl Acetate	ND b	51	0.73	0.9615	102041	05/16/05
1,1-Dichloroethane	ND b	5.1	1.3	0.9615	102041	05/16/05
2-Butanone	ND b	10	1.5	0.9615	102041	05/16/05
cis-1,2-Dichloroethene	ND b	5.1	1.2	0.9615	102041	05/16/05
2,2-Dichloropropane	ND b	5.1	1.4	0.9615	102041	05/16/05
Chloroform	ND b	5.1	1.3	0.9615	102041	05/16/05
Bromochloromethane	ND b	5.1	0.89	0.9615	102041	05/16/05
1,1,1-Trichloroethane	ND b	5.1	1.5	0.9615	102041	05/16/05
1,1-Dichloropropene	ND b	5.1	1.2	0.9615	102041	05/16/05
Carbon Tetrachloride	ND b	5.1	1.2	0.9615	102041	05/16/05
1,2-Dichloroethane	ND b	5.1	0.81	0.9615	102041	05/16/05
Benzene	ND b	5.1	1.2	0.9615	102041	05/16/05
Trichloroethene	ND b	5.1	1.1	0.9615	102041	05/16/05
1,2-Dichloropropane	ND b	5.1	0.89	0.9615	102041	05/16/05
Bromodichloromethane	ND b	5.1	0.62	0.9615	102041	05/16/05
Dibromomethane	ND b	5.1	0.59	0.9615	102041	05/16/05
4-Methyl-2-Pentanone	ND b	10	0.97	0.9615	102041	05/16/05
cis-1,3-Dichloropropene	ND b	5.1	0.70	0.9615	102041	05/16/05
Toluene	ND b	5.1	1.1	0.9615	102041	05/16/05
trans-1,3-Dichloropropene	ND b	5.1	0.67	0.9615	102041	05/16/05
1,1,2-Trichloroethane	ND b	5.1	0.92	0.9615	102041	05/16/05
2-Hexanone	ND b	10	0.79	0.9615	102041	05/16/05
1,3-Dichloropropane	ND b	5.1	0.83	0.9615	102041	05/16/05
Tetrachloroethene	ND b	5.1	1.1	0.9615	102041	05/16/05
Dibromochloromethane	ND b	5.1	0.65	0.9615	102041	05/16/05
1,2-Dibromoethane	ND b	5.1	0.90	0.9615	102041	05/16/05
Chlorobenzene	ND b	5.1	1.7	0.9615	102041	05/16/05
1,1,1,2-Tetrachloroethane	ND b	5.1	0.88	0.9615	102041	05/16/05
Ethylbenzene	ND b	5.1	1.2	0.9615	102041	05/16/05
m,p-Xylenes	ND b	5.1	2.4	0.9615	102041	05/16/05
o-Xylene	ND b	5.1	1.1	0.9615	102041	05/16/05
Styrene	ND b	5.1	0.99	0.9615	102041	05/16/05
Bromoform	ND b	5.1	0.45	0.9615	102041	05/16/05
Isopropylbenzene	ND b	5.1	1.2	0.9615	102041	05/16/05
1,1,2,2-Tetrachloroethane	ND b	5.1	0.64	0.9615	102041	05/16/05
1,2,3-Trichloropropane	ND b	5.1	1.0	0.9615	102041	05/16/05
Propylbenzene	ND b	5.1	1.2	0.9615	102041	05/16/05
Bromobenzene	ND b	5.1	0.82	0.9615	102041	05/16/05

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1SB113(0.5)	Basis:	dry
Lab ID:	179445-010	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg		

Analyte	Result	RL	MDL	Dil'n Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	ND b	5.1	1.2	0.9615	102041	05/16/05
2-Chlorotoluene	ND b	5.1	1.2	0.9615	102041	05/16/05
4-Chlorotoluene	ND b	5.1	0.99	0.9615	102041	05/16/05
tert-Butylbenzene	ND b	5.1	1.1	0.9615	102041	05/16/05
1,2,4-Trimethylbenzene	ND b	5.1	1.0	0.9615	102041	05/16/05
sec-Butylbenzene	ND b	5.1	1.1	0.9615	102041	05/16/05
para-Isopropyl Toluene	ND b	5.1	1.1	0.9615	102041	05/16/05
1,3-Dichlorobenzene	ND b	5.1	0.94	0.9615	102041	05/16/05
1,4-Dichlorobenzene	ND b	5.1	0.58	0.9615	102041	05/16/05
n-Butylbenzene	ND b	5.1	0.87	0.9615	102041	05/16/05
1,2-Dichlorobenzene	ND b	5.1	0.87	0.9615	102041	05/16/05
1,2-Dibromo-3-Chloropropane	ND b	5.1	1.5	0.9615	102041	05/16/05
1,2,4-Trichlorobenzene	ND b	5.1	0.69	0.9615	102041	05/16/05
Hexachlorobutadiene	ND b	5.1	0.67	0.9615	102041	05/16/05
Naphthalene	ND b	5.1	0.76	0.9615	102041	05/16/05
1,2,3-Trichlorobenzene	ND b	5.1	0.43	0.9615	102041	05/16/05

Surrogate	%REC	Limits	Dil'n Fac	Batch#	Analyzed
Dibromofluoromethane	106 b	78-120	0.9615	102041	05/16/05
1,2-Dichloroethane-d4	106 b	80-120	0.9615	102041	05/16/05
Toluene-d8	98 b	80-120	0.9615	102041	05/16/05
Bromofluorobenzene	112 b	80-120	0.9615	102041	05/16/05
Trifluorotoluene (MeOH)	94	52-135	25.00	102078	05/17/05

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1SB114(0.5)	Basis:	dry
Lab ID:	179445-011	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg		

Moisture: 10%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed
Freon 12	ND b	11	2.5	1.020	102041	05/16/05
Chloromethane	ND b	11	2.8	1.020	102041	05/16/05
Vinyl Chloride	ND b	11	3.2	1.020	102041	05/16/05
Bromomethane	ND b	11	2.7	1.020	102041	05/16/05
Chloroethane	ND b	11	3.2	1.020	102041	05/16/05
Trichlorofluoromethane	ND b	5.7	3.0	1.020	102041	05/16/05
Acetone	ND b	23	3.9	1.020	102041	05/16/05
Freon 113	ND b	5.7	1.7	1.020	102041	05/16/05
1,1-Dichloroethene	ND b	5.7	1.9	1.020	102041	05/16/05
Methylene Chloride	120 J	560	110	25.00	102078	05/17/05
Carbon Disulfide	ND b	5.7	4.9	1.020	102041	05/16/05
MTBE	ND b	5.7	0.92	1.020	102041	05/16/05
trans-1,2-Dichloroethene	ND b	5.7	1.4	1.020	102041	05/16/05
Vinyl Acetate	ND b	57	0.81	1.020	102041	05/16/05
1,1-Dichloroethane	ND b	5.7	1.4	1.020	102041	05/16/05
2-Butanone	ND b	11	1.7	1.020	102041	05/16/05
cis-1,2-Dichloroethene	ND b	5.7	1.3	1.020	102041	05/16/05
2,2-Dichloropropane	ND b	5.7	1.5	1.020	102041	05/16/05
Chloroform	ND b	5.7	1.5	1.020	102041	05/16/05
Bromochloromethane	ND b	5.7	0.99	1.020	102041	05/16/05
1,1,1-Trichloroethane	ND b	5.7	1.6	1.020	102041	05/16/05
1,1-Dichloropropene	ND b	5.7	1.3	1.020	102041	05/16/05
Carbon Tetrachloride	ND b	5.7	1.4	1.020	102041	05/16/05
1,2-Dichloroethane	ND b	5.7	0.90	1.020	102041	05/16/05
Benzene	ND b	5.7	1.3	1.020	102041	05/16/05
Trichloroethene	ND b	5.7	1.2	1.020	102041	05/16/05
1,2-Dichloropropane	ND b	5.7	0.99	1.020	102041	05/16/05
Bromodichloromethane	ND b	5.7	0.69	1.020	102041	05/16/05
Dibromomethane	ND b	5.7	0.65	1.020	102041	05/16/05
4-Methyl-2-Pentanone	ND b	11	1.1	1.020	102041	05/16/05
cis-1,3-Dichloropropene	ND b	5.7	0.78	1.020	102041	05/16/05
Toluene	ND b	5.7	1.2	1.020	102041	05/16/05
trans-1,3-Dichloropropene	ND b	5.7	0.74	1.020	102041	05/16/05
1,1,2-Trichloroethane	ND b	5.7	1.0	1.020	102041	05/16/05
2-Hexanone	ND b	11	0.87	1.020	102041	05/16/05
1,3-Dichloropropane	ND b	5.7	0.92	1.020	102041	05/16/05
Tetrachloroethene	ND b	5.7	1.2	1.020	102041	05/16/05
Dibromochloromethane	ND b	5.7	0.72	1.020	102041	05/16/05
1,2-Dibromoethane	ND b	5.7	0.99	1.020	102041	05/16/05
Chlorobenzene	ND b	5.7	1.9	1.020	102041	05/16/05
1,1,1,2-Tetrachloroethane	ND b	5.7	0.98	1.020	102041	05/16/05
Ethylbenzene	ND b	5.7	1.3	1.020	102041	05/16/05
m,p-Xylenes	ND b	5.7	2.6	1.020	102041	05/16/05
o-Xylene	ND b	5.7	1.2	1.020	102041	05/16/05
Styrene	ND b	5.7	1.1	1.020	102041	05/16/05
Bromoform	ND b	5.7	0.50	1.020	102041	05/16/05
Isopropylbenzene	ND b	5.7	1.3	1.020	102041	05/16/05
1,1,2,2-Tetrachloroethane	ND b	5.7	0.71	1.020	102041	05/16/05
1,2,3-Trichloropropane	ND b	5.7	1.1	1.020	102041	05/16/05
Propylbenzene	ND b	5.7	1.3	1.020	102041	05/16/05
Bromobenzene	ND b	5.7	0.90	1.020	102041	05/16/05

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BB1SB114(0.5)	Basis:	dry
Lab ID:	179445-011	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg		

Analyte	Result	RL	MDL	Dil'n Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	ND b	5.7	1.4	1.020	102041	05/16/05
2-Chlorotoluene	ND b	5.7	1.3	1.020	102041	05/16/05
4-Chlorotoluene	ND b	5.7	1.1	1.020	102041	05/16/05
tert-Butylbenzene	ND b	5.7	1.2	1.020	102041	05/16/05
1,2,4-Trimethylbenzene	ND b	5.7	1.1	1.020	102041	05/16/05
sec-Butylbenzene	ND b	5.7	1.2	1.020	102041	05/16/05
para-Isopropyl Toluene	ND b	5.7	1.2	1.020	102041	05/16/05
1,3-Dichlorobenzene	ND b	5.7	1.0	1.020	102041	05/16/05
1,4-Dichlorobenzene	ND b	5.7	0.64	1.020	102041	05/16/05
n-Butylbenzene	ND b	5.7	0.96	1.020	102041	05/16/05
1,2-Dichlorobenzene	ND b	5.7	0.97	1.020	102041	05/16/05
1,2-Dibromo-3-Chloropropane	ND b	5.7	1.7	1.020	102041	05/16/05
1,2,4-Trichlorobenzene	ND b	5.7	0.77	1.020	102041	05/16/05
Hexachlorobutadiene	ND b	5.7	0.75	1.020	102041	05/16/05
Naphthalene	ND b	5.7	0.84	1.020	102041	05/16/05
1,2,3-Trichlorobenzene	ND b	5.7	0.48	1.020	102041	05/16/05

Surrogate	%REC	Limits	Dil'n Fac	Batch#	Analyzed
Dibromofluoromethane	108 b	78-120	1.020	102041	05/16/05
1,2-Dichloroethane-d4	109 b	80-120	1.020	102041	05/16/05
Toluene-d8	100 b	80-120	1.020	102041	05/16/05
Bromofluorobenzene	111 b	80-120	1.020	102041	05/16/05
Trifluorotoluene (MeOH)	92	52-135	25.00	102078	05/17/05

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293842	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102041
Units:	ug/Kg	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293842	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102041
Units:	ug/Kg	Analyzed:	05/16/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293850	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102044
Units:	ug/Kg	Analyzed:	05/16/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.6
Chloroethane	ND	10	1.8
Trichlorofluoromethane	ND	5.0	1.6
Acetone	ND	20	2.1
Freon 113	ND	5.0	1.7
1,1-Dichloroethene	ND	5.0	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.0	1.7
MTBE	ND	5.0	2.0
trans-1,2-Dichloroethene	ND	5.0	2.1
Vinyl Acetate	ND	50	1.9
1,1-Dichloroethane	ND	5.0	2.0
2-Butanone	ND	10	2.1
cis-1,2-Dichloroethene	ND	5.0	2.0
2,2-Dichloropropane	ND	5.0	2.0
Chloroform	ND	5.0	2.0
Bromochloromethane	ND	5.0	1.8
1,1,1-Trichloroethane	ND	5.0	2.0
1,1-Dichloropropene	ND	5.0	2.0
Carbon Tetrachloride	ND	5.0	1.8
1,2-Dichloroethane	ND	5.0	2.0
Benzene	ND	5.0	2.1
Trichloroethene	ND	5.0	2.0
1,2-Dichloropropane	ND	5.0	2.2
Bromodichloromethane	ND	5.0	1.9
Dibromomethane	ND	5.0	1.9
4-Methyl-2-Pentanone	ND	10	1.7
cis-1,3-Dichloropropene	ND	5.0	1.7
Toluene	ND	5.0	2.3
trans-1,3-Dichloropropene	ND	5.0	2.0
1,1,2-Trichloroethane	ND	5.0	2.5
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.0	1.9
Tetrachloroethene	ND	5.0	1.8
Dibromochloromethane	ND	5.0	1.5
1,2-Dibromoethane	ND	5.0	1.9
Chlorobenzene	ND	5.0	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	1.7
Ethylbenzene	ND	5.0	2.0
m,p-Xylenes	ND	5.0	4.4
o-Xylene	ND	5.0	2.1
Styrene	ND	5.0	1.8
Bromoform	ND	5.0	1.6
Isopropylbenzene	ND	5.0	2.0
1,1,2,2-Tetrachloroethane	ND	5.0	2.1
1,2,3-Trichloropropane	ND	5.0	2.5
Propylbenzene	ND	5.0	2.1
Bromobenzene	ND	5.0	1.9
1,3,5-Trimethylbenzene	ND	5.0	2.1
2-Chlorotoluene	ND	5.0	2.1
4-Chlorotoluene	ND	5.0	1.8

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293850	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102044
Units:	ug/Kg	Analyzed:	05/16/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	2.1
1,2,4-Trimethylbenzene	ND	5.0	2.0
sec-Butylbenzene	ND	5.0	2.1
para-Isopropyl Toluene	ND	5.0	2.0
1,3-Dichlorobenzene	ND	5.0	1.9
1,4-Dichlorobenzene	ND	5.0	1.9
n-Butylbenzene	ND	5.0	1.7
1,2-Dichlorobenzene	ND	5.0	1.9
1,2-Dibromo-3-Chloropropane	ND	5.0	2.2
1,2,4-Trichlorobenzene	ND	5.0	1.6
Hexachlorobutadiene	ND	5.0	2.0
Naphthalene	ND	5.0	1.7
1,2,3-Trichlorobenzene	ND	5.0	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	98	78-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293971	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102078
Units:	ug/Kg	Analyzed:	05/17/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.6
Chloroethane	ND	10	1.8
Trichlorofluoromethane	ND	5.0	1.6
Acetone	ND	20	2.1
Freon 113	ND	5.0	1.7
1,1-Dichloroethene	ND	5.0	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.0	1.7
MTBE	ND	5.0	2.0
trans-1,2-Dichloroethene	ND	5.0	2.1
Vinyl Acetate	ND	50	1.9
1,1-Dichloroethane	ND	5.0	2.0
2-Butanone	ND	10	2.1
cis-1,2-Dichloroethene	ND	5.0	2.0
2,2-Dichloropropane	ND	5.0	2.0
Chloroform	ND	5.0	2.0
Bromochloromethane	ND	5.0	1.8
1,1,1-Trichloroethane	ND	5.0	2.0
1,1-Dichloropropene	ND	5.0	2.0
Carbon Tetrachloride	ND	5.0	1.8
1,2-Dichloroethane	ND	5.0	2.0
Benzene	ND	5.0	2.1
Trichloroethene	ND	5.0	2.0
1,2-Dichloropropane	ND	5.0	2.2
Bromodichloromethane	ND	5.0	1.9
Dibromomethane	ND	5.0	1.9
4-Methyl-2-Pentanone	ND	10	1.7
cis-1,3-Dichloropropene	ND	5.0	1.7
Toluene	ND	5.0	2.3
trans-1,3-Dichloropropene	ND	5.0	2.0
1,1,2-Trichloroethane	ND	5.0	2.5
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.0	1.9
Tetrachloroethene	ND	5.0	1.8
Dibromochloromethane	ND	5.0	1.5
1,2-Dibromoethane	ND	5.0	1.9
Chlorobenzene	ND	5.0	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	1.7
Ethylbenzene	ND	5.0	2.0
m,p-Xylenes	ND	5.0	4.4
o-Xylene	ND	5.0	2.1
Styrene	ND	5.0	1.8
Bromoform	ND	5.0	1.6
Isopropylbenzene	ND	5.0	2.0
1,1,2,2-Tetrachloroethane	ND	5.0	2.1
1,2,3-Trichloropropane	ND	5.0	2.5
Propylbenzene	ND	5.0	2.1
Bromobenzene	ND	5.0	1.9
1,3,5-Trimethylbenzene	ND	5.0	2.1
2-Chlorotoluene	ND	5.0	2.1
4-Chlorotoluene	ND	5.0	1.8

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC293971	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102078
Units:	ug/Kg	Analyzed:	05/17/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	2.1
1,2,4-Trimethylbenzene	ND	5.0	2.0
sec-Butylbenzene	ND	5.0	2.1
para-Isopropyl Toluene	ND	5.0	2.0
1,3-Dichlorobenzene	ND	5.0	1.9
1,4-Dichlorobenzene	ND	5.0	1.9
n-Butylbenzene	ND	5.0	1.7
1,2-Dichlorobenzene	ND	5.0	1.9
1,2-Dibromo-3-Chloropropane	ND	5.0	2.2
1,2,4-Trichlorobenzene	ND	5.0	1.6
Hexachlorobutadiene	ND	5.0	2.0
Naphthalene	ND	5.0	1.7
1,2,3-Trichlorobenzene	ND	5.0	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-120
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Batch#:	102041
Basis:	as received	Analyzed:	05/16/05

Type: BS Lab ID: QC293840

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.43	110	77-124
Benzene	25.00	24.65	99	80-120
Trichloroethene	25.00	25.37	101	80-120
Toluene	25.00	24.63	99	80-120
Chlorobenzene	25.00	25.38	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-120

Type: BSD Lab ID: QC293841

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	26.30	105	77-124	4	20
Benzene	25.00	25.15	101	80-120	2	20
Trichloroethene	25.00	26.25	105	80-120	3	20
Toluene	25.00	25.86	103	80-120	5	20
Chlorobenzene	25.00	26.38	106	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-120
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC293849	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102044
Units:	ug/Kg	Analyzed:	05/16/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	44.09	88	77-124
Benzene	50.00	43.32	87	80-120
Trichloroethene	50.00	48.20	96	80-120
Toluene	50.00	43.83	88	80-120
Chlorobenzene	50.00	41.76	84	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-120
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	94	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC293969	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102078
Units:	ug/Kg	Analyzed:	05/17/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	53.91	108	77-124
Benzene	50.00	47.08	94	80-120
Trichloroethene	50.00	52.67	105	80-120
Toluene	50.00	49.36	99	80-120
Chlorobenzene	50.00	47.72	95	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB108(0.0)	Diln Fac:	0.9804
MSS Lab ID:	179445-004	Batch#:	102044
Matrix:	Soil	Sampled:	05/12/05
Units:	ug/Kg	Received:	05/13/05
Basis:	as received	Analyzed:	05/16/05

Type: MS Lab ID: QC293874

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<2.600	49.02	38.52	79	70-120
Benzene	<2.500	49.02	31.30	64 *	70-120
Trichloroethene	<2.400	49.02	32.52	66	65-126
Toluene	<2.785	49.02	28.07	57 *	64-120
Chlorobenzene	<2.437	49.02	22.99	47 *	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-120

Type: MSD Lab ID: QC293875

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	32.07	65 *	70-120	18	20
Benzene	49.02	25.70	52 *	70-120	20	20
Trichloroethene	49.02	24.66	50 *	65-126	28 *	20
Toluene	49.02	21.38	44 *	64-120	27 *	20
Chlorobenzene	49.02	16.80	34 *	59-120	31 *	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9434
MSS Lab ID:	179467-017	Batch#:	102078
Matrix:	Soil	Sampled:	05/16/05
Units:	ug/Kg	Received:	05/16/05
Basis:	as received	Analyzed:	05/17/05

Type: MS Lab ID: QC294061

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<2.060	47.17	55.39	117	70-120
Benzene	<1.981	47.17	44.43	94	70-120
Trichloroethene	<1.902	47.17	48.08	102	65-126
Toluene	<2.207	47.17	44.11	94	64-120
Chlorobenzene	<1.931	47.17	39.40	84	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-120

Type: MSD Lab ID: QC294062

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.17	57.51	122 *	70-120	4	20
Benzene	47.17	46.06	98	70-120	4	20
Trichloroethene	47.17	48.40	103	65-126	1	20
Toluene	47.17	43.05	91	64-120	2	20
Chlorobenzene	47.17	40.09	85	59-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-120
1,2-Dichloroethane-d4	107	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

MSVOA03 8260X 5.IAL
TUNE

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\050405.b\CE409.D

Date : 04-MAY-2005 14:50

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

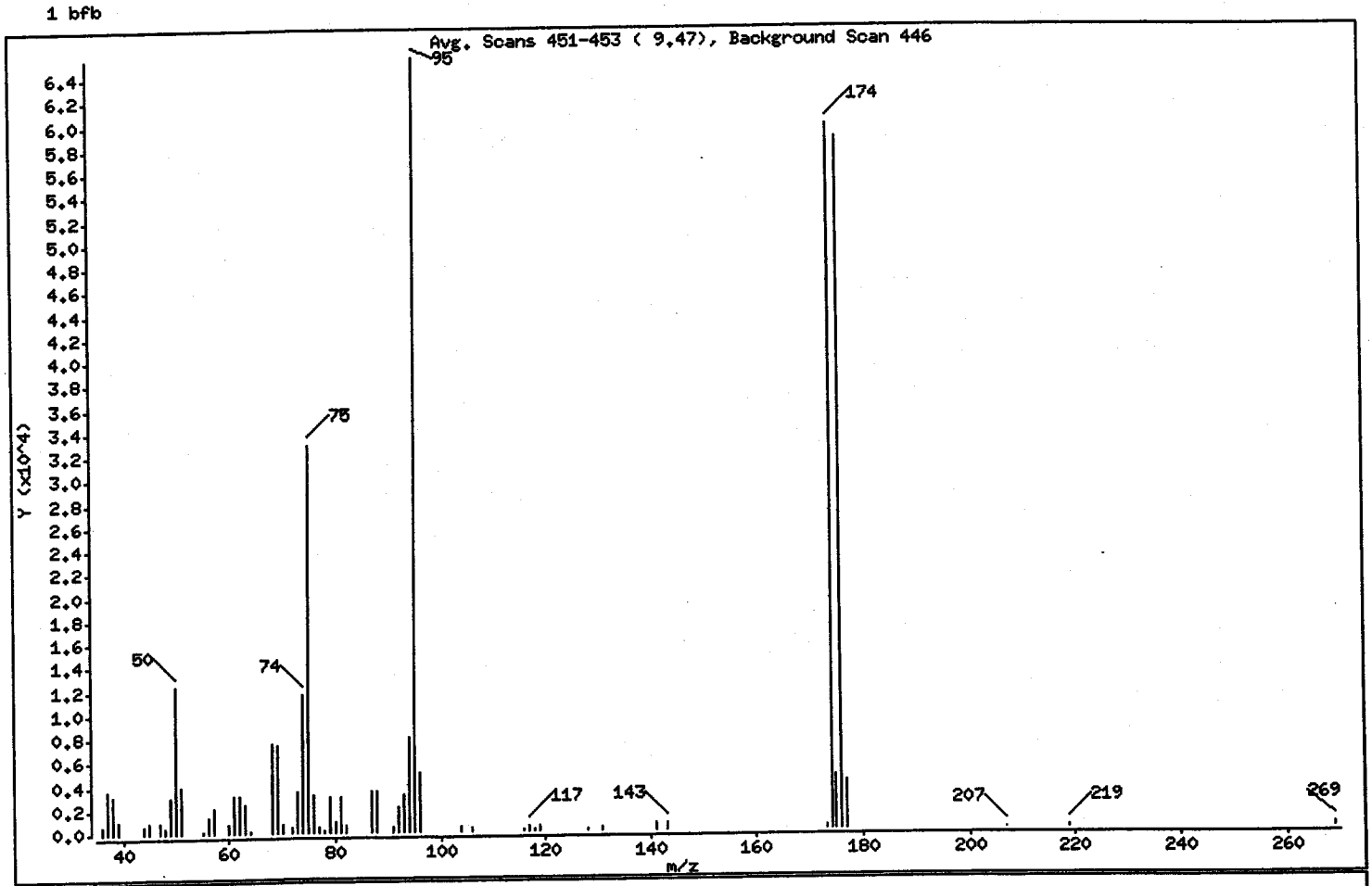
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.79
75	30.00 - 60.00% of mass 95	50.13
96	5.00 - 9.00% of mass 95	7.54
173	Less than 2.00% of mass 174	0.48 (0.53)
174	50.00 - 99.99% of mass 95	90.93
175	5.00 - 9.00% of mass 174	7.00 (7.70)
176	95.01 - 100.99% of mass 174	89.32 (98.22)
177	5.00 - 9.00% of mass 176	6.17 (6.90)

MSVOA03 8260 x 5. ICV TUNE

Data File: \\Comsserver\DD\chem\MSVOA03.i\050505.b\CE503.D

Date : 05-MAY-2005 11:59

Client ID: bfb tune std

Sample Info: BFB,04WS2425

Volume Injected (uL): 1.0

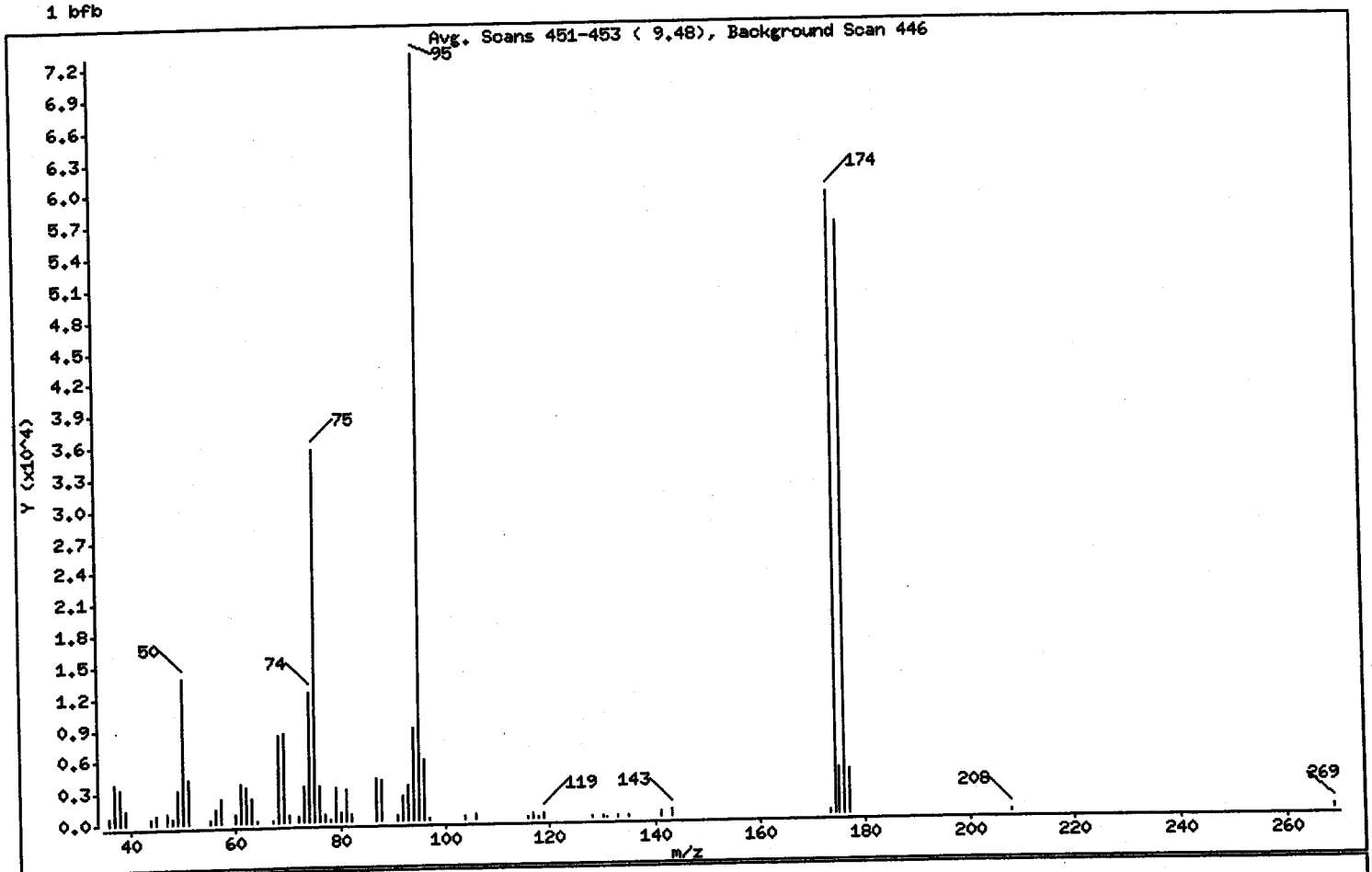
Column phase:

Instrument: MSVOA03.i

Operator: VOC

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.79
75	30.00 - 60.00% of mass 95	48.71
96	5.00 - 9.00% of mass 95	7.73
173	Less than 2.00% of mass 174	0.38 (0.47)
174	50.00 - 99.99% of mass 95	81.28
175	5.00 - 9.00% of mass 174	6.01 (7.40)
176	95.01 - 100.99% of mass 174	77.47 (95.30)
177	5.00 - 9.00% of mass 176	5.86 (7.57)

5/5/05

Data File: \\Gcmsserver\DD\chem\MSVOA03.i\051605.b\CEG06.D

Date : 16-MAY-2005 11:07

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

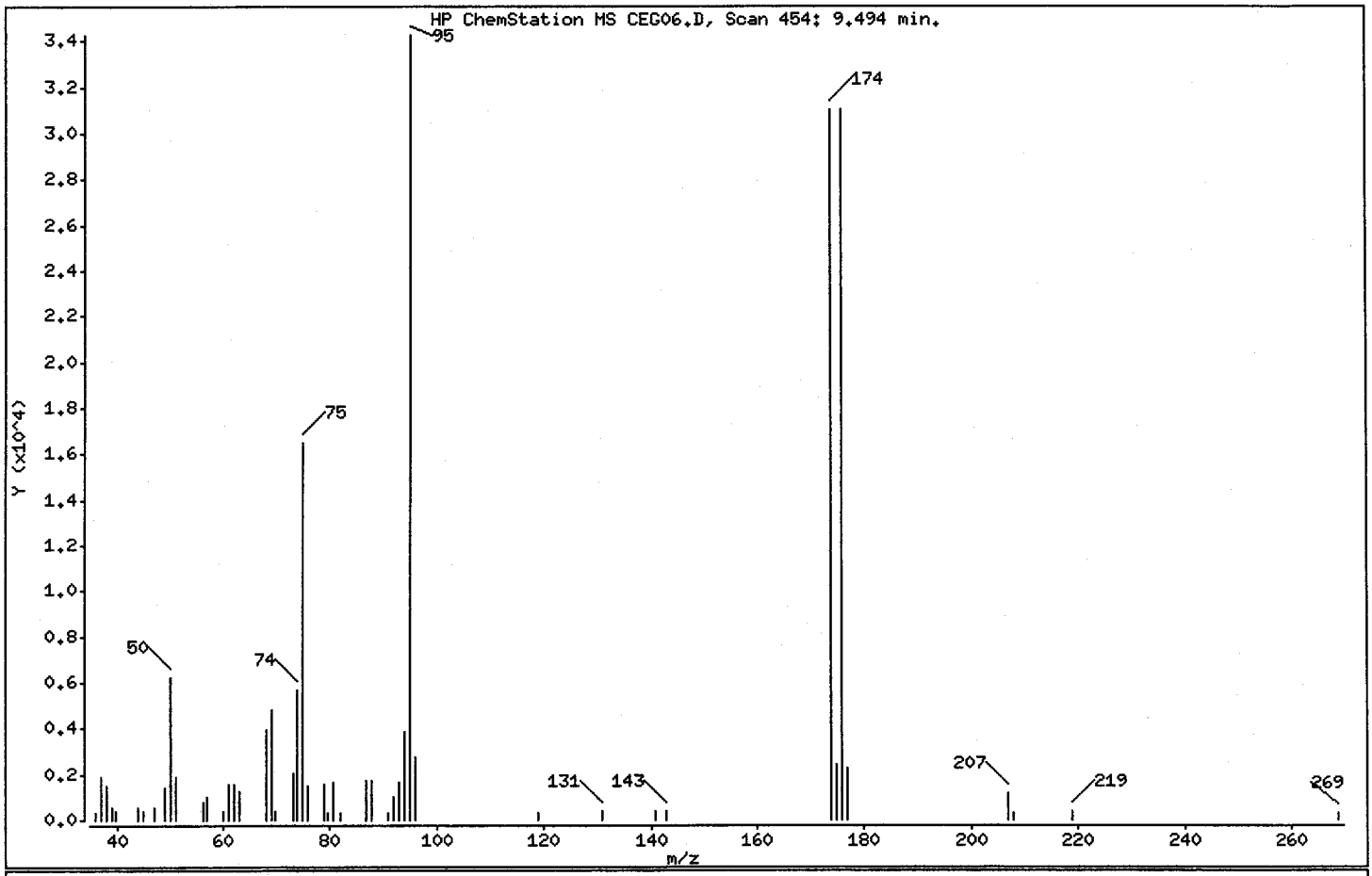
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.21
75	30.00 - 60.00% of mass 95	48.16
96	5.00 - 9.00% of mass 95	8.07
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	90.57
175	5.00 - 9.00% of mass 174	7.03 (7.76)
176	95.01 - 100.99% of mass 174	90.52 (99.95)
177	5.00 - 9.00% of mass 176	6.67 (7.37)

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\051705.b\CEH02.D

Date : 17-MAY-2005 10:13

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

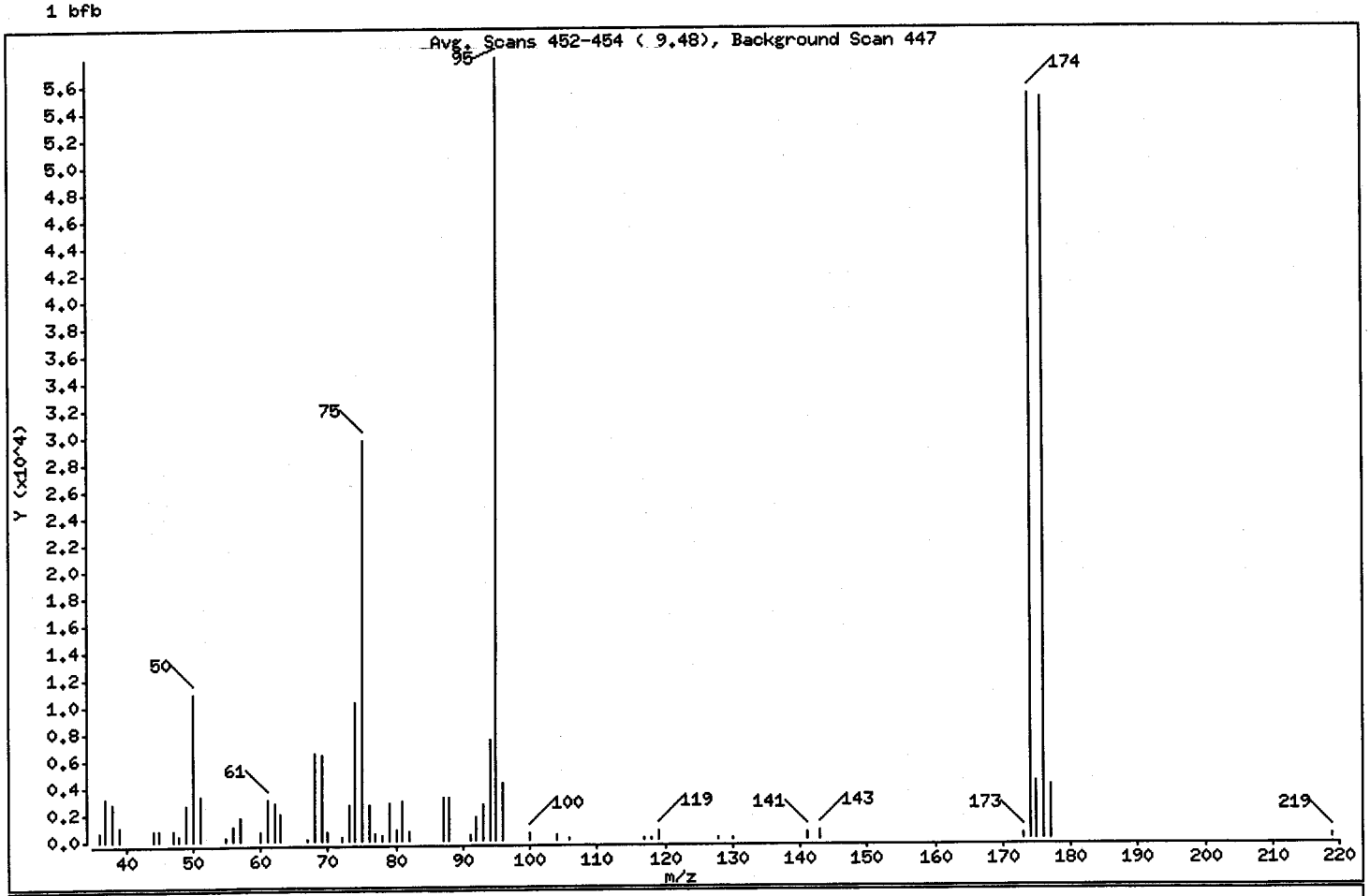
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.78
75	30.00 - 60.00% of mass 95	51.24
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	0.73 (0.77)
174	50.00 - 99.99% of mass 95	95.24
175	5.00 - 9.00% of mass 174	7.26 (7.63)
176	95.01 - 100.99% of mass 174	94.61 (99.34)
177	5.00 - 9.00% of mass 176	6.88 (7.27)

5/17/05

5/17/05

8260/6A50x w ICAL

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\042705.b\FDR10.D

Date : 27-APR-2005 15:40

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

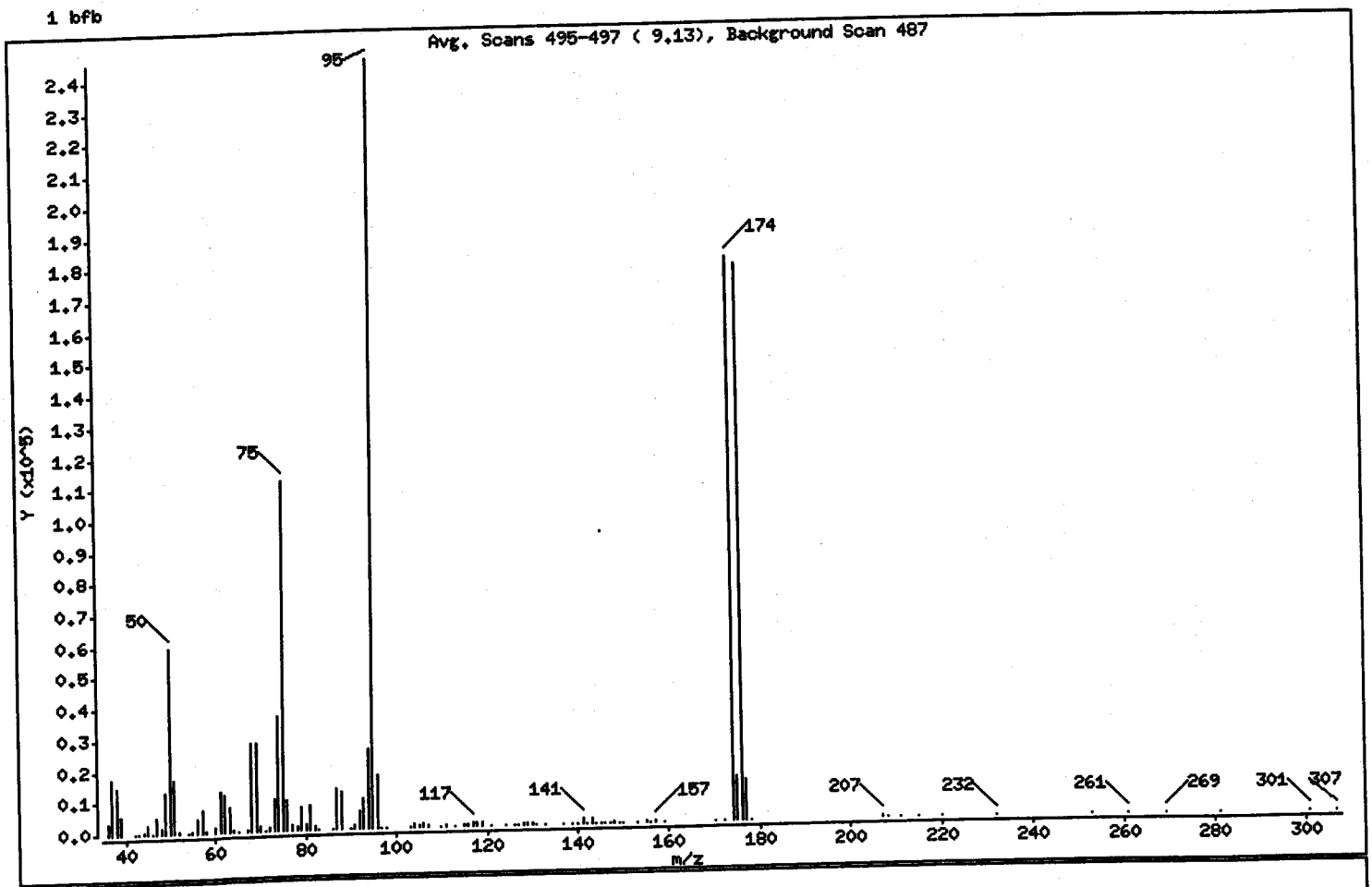
Operator: BO

Volume Injected (uL): 1.0

Column diameter: 2.00

Column phase:

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.11
75	30.00 - 60.00% of mass 95	45.51
96	5.00 - 9.00% of mass 95	6.87
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	73.26
175	5.00 - 9.00% of mass 174	5.76 (7.86)
176	95.01 - 100.99% of mass 174	72.31 (98.71)
177	5.00 - 9.00% of mass 176	5.36 (7.41)

R, 112805

C 04/28/05

8260/624SOP w ICV

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\042805.b\FDS02.D

Date : 28-APR-2005 09:33

Client ID: bfb tune std

Sample Info: BFB,04WS2425

Volume Injected (uL): 1.0

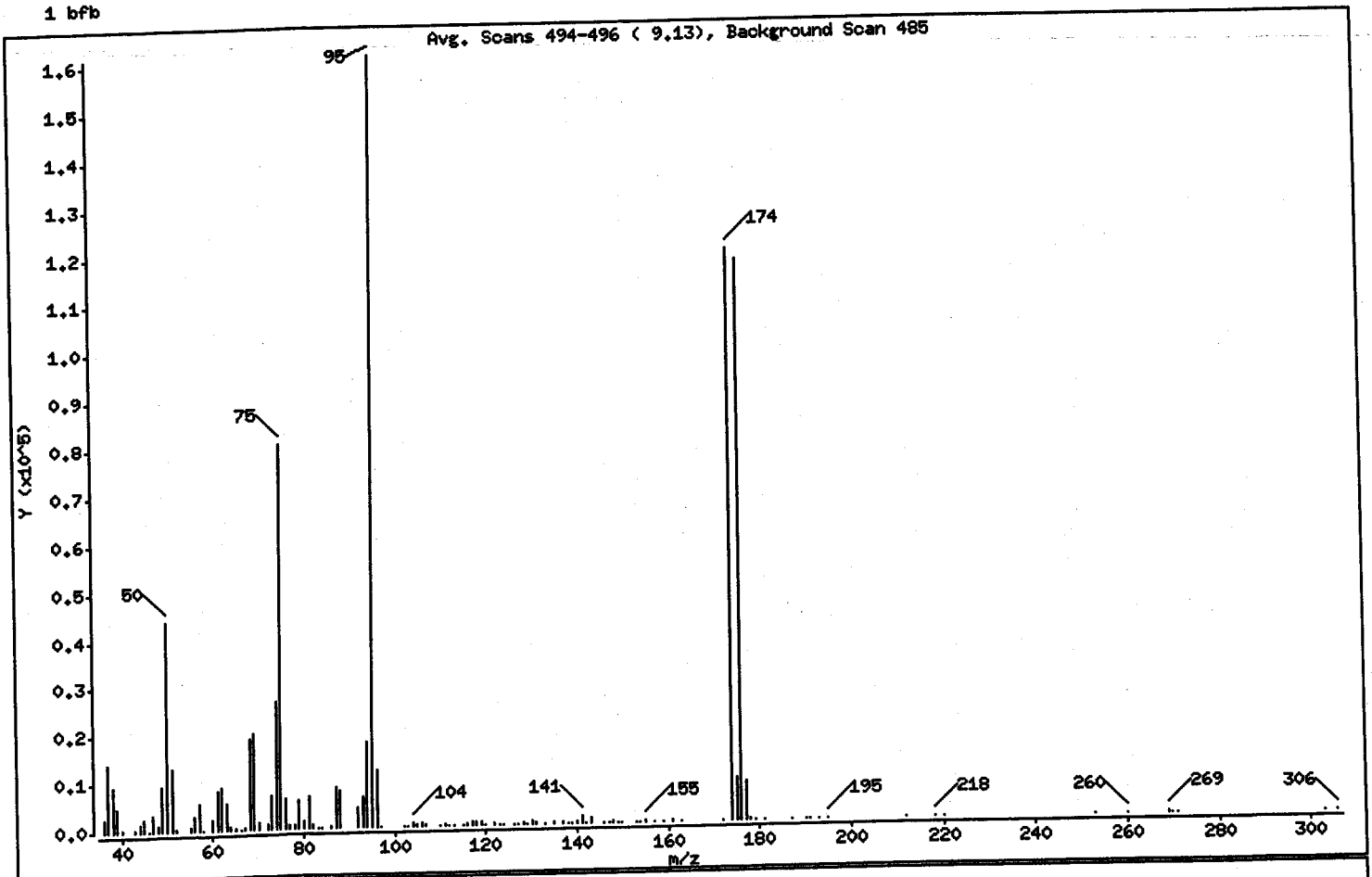
Column phase:

Instrument: MSVOA06.i

Operator: BO

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	27.10
75	30.00 - 60.00% of mass 95	49.92
96	5.00 - 9.00% of mass 95	7.34
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	74.22
175	5.00 - 9.00% of mass 174	5.47 (7.37)
176	95.01 - 100.99% of mass 174	72.88 (98.19)
177	5.00 - 9.00% of mass 176	5.07 (6.95)

MW428C5

DCY 5/24/05

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\051605.b\FEC04.D

Date : 16-MAY-2005 10:05

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,04WS2425

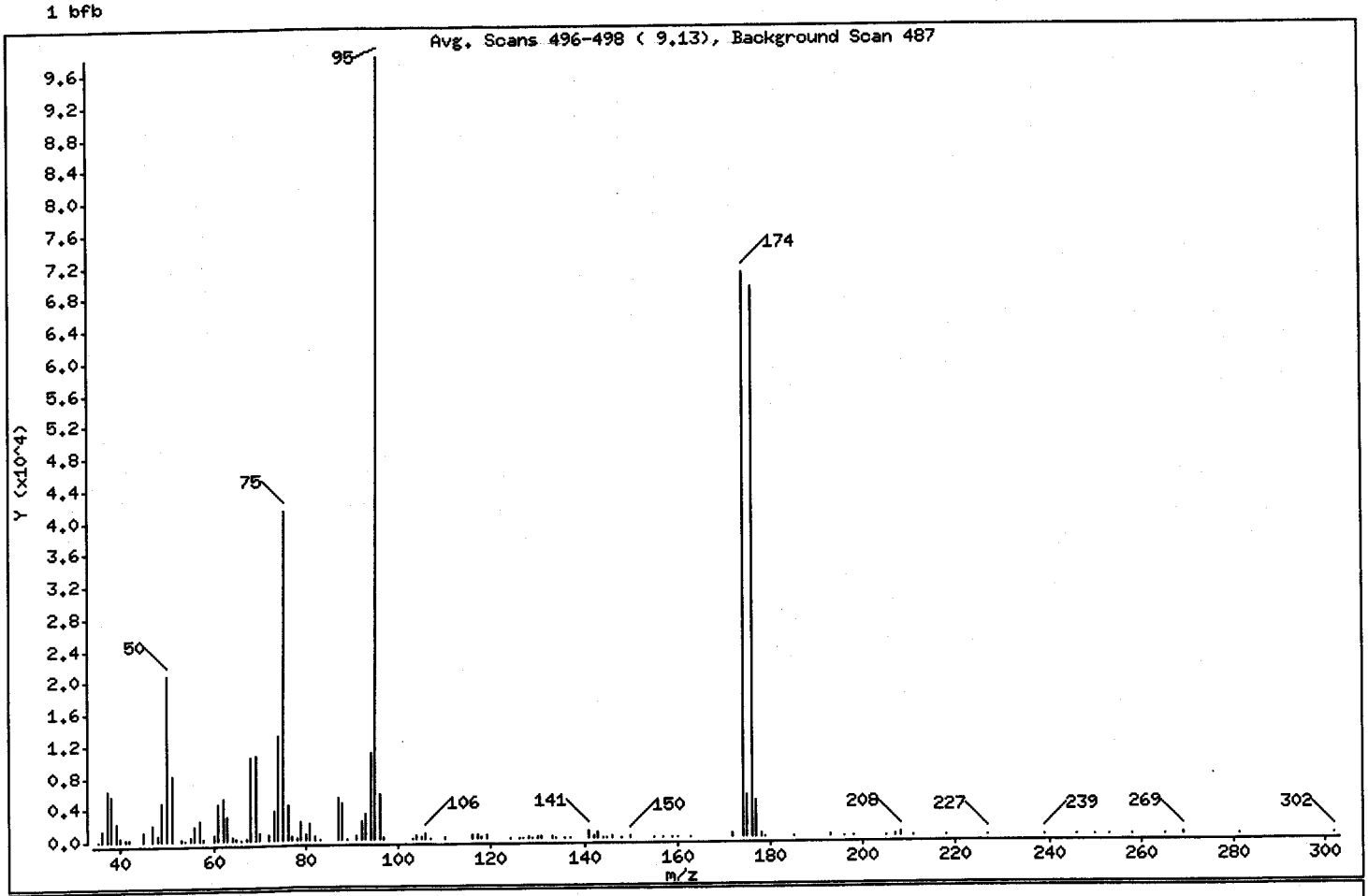
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.21
75	30.00 - 60.00% of mass 95	42.11
96	5.00 - 9.00% of mass 95	5.70
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	72.29
175	5.00 - 9.00% of mass 174	5.27 (7.29)
176	95.01 - 100.99% of mass 174	70.33 (97.29)
177	5.00 - 9.00% of mass 176	4.62 (6.57)

m=5116w5

a 05/17/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425179190001 Name: 826GOX03 Type: SOIL Date: 04-MAY-2005 16:07 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	ce412	425179190012	5PPB	04-MAY-2005 16:07	S367 (100000X), S359 (100000X), S296 (5000X)
2	ce413	425179190013	10PPB	04-MAY-2005 16:37	S367 (50000X), S359 (50000X), S296 (5000X)
3	ce414	425179190014	20PPB	04-MAY-2005 17:08	S367 (25000X), S359 (25000X), S296 (5000X)
4	ce415	425179190015	50PPB	04-MAY-2005 17:39	S367 (10000X), S359 (10000X), S296 (5000X)
5	ce416	425179190016	60PPB	04-MAY-2005 18:10	S367 (8333X), S359 (8333X), S296 (5000X)
6	ce417	425179190017	75PPB	04-MAY-2005 18:40	S367 (6667X), S359 (6667X), S296 (5000X)
7	ce418	425179190018	100PPB	04-MAY-2005 19:10	S367 (5000X), S359 (5000X), S296 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.3365	0.4816m	0.4892m	0.5066	0.5152	0.5082	0.4943	AVRG	R		2.101033		ug/L	0.4760	13	0.0500	0.99	15	
Chloromethane	0.4625m	0.4044m	0.3774m	0.3752m	0.3927m	0.3958m	0.3999m	AVRG	R		2.493096		ug/L	0.4011	7	0.1000	0.99	15	
Vinyl Chloride	0.3408	0.3691	0.3692	0.3636	0.3822	0.3860	0.3856	AVRG	R		2.696003		ug/L	0.3709	4	0.0500	0.99	15	
Bromomethane	0.7551	0.6722	0.6550	0.6391	0.6743	0.6640	0.6722	AVRG	R		1.479291		ug/L	0.6760	5	0.0500	0.99	15	
Chloroethane	0.2904	0.2813	0.2786	0.2669	0.2844	0.2825	0.2940	AVRG	R		3.538784		ug/L	0.2826	3	0.0500	0.99	15	
Trichlorofluoromethane	0.5818	0.7104	0.7083	0.7149	0.7296	0.7140	0.7095	AVRG	R		1.437841		ug/L	0.6955	7	0.0500	0.99	15	
Acetone		0.1564	0.1493	0.1307	0.1378	0.1405	0.1338	AVRG	R		7.072040		ug/L	0.1414	7	0.0500	0.99	15	
Freon 113	0.2885	0.4341	0.2775	0.3960	0.4389	0.4228	0.4660	QUAD	R	1.940652	2.584801	-0.01032	ug/L	0.3891	0.995	0.0500	0.99	15	
1,1-Dichloroethene	0.3350	0.3561	0.2901	0.3326	0.3584	0.3538	0.3686	AVRG	R		2.923377		ug/L	0.3421	8	0.0500	0.99	15	
Methylene Chloride		0.5163	0.4729	0.4738	0.4831	0.4820	0.4996	AVRG	R		2.049401		ug/L	0.4879	3	0.0500	0.99	15	
Carbon Disulfide	1.5200	1.4364	0.9871	0.9733	1.0438	1.0458	1.1178	LINR	R	0.179829	0.928699		ug/L	1.1606	0.992	0.0500	0.99	15	
MTBE	1.3135	1.3687	1.2912	1.3047	1.3217	1.3750	1.3641	AVRG	R		0.749540		ug/L	1.3342	3	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.4660	0.4376	0.3914	0.4240	0.4352	0.4270	0.4581	AVRG	R		2.303116		ug/L	0.4342	6	0.0500	0.99	15	
Vinyl Acetate	0.7480	0.8190	0.8385	0.8685	0.8319	0.8806	0.8891	AVRG	R		1.191353		ug/L	0.8394	6	0.0500	0.99	15	
1,1-Dichloroethane	0.7459	0.7172	0.6395	0.6535	0.6745	0.6833	0.7142	AVRG	R		1.449839		ug/L	0.6897	5	0.1000	0.99	15	
2-Butanone		0.2360	0.2229	0.2165	0.2173	0.2406	0.2123	AVRG	R		4.458660		ug/L	0.2243	5	0.0500	0.99	15	
2,2-Dichloropropane	0.6051	0.6022	0.4981	0.5499	0.5772	0.5760	0.6176	AVRG	R		1.738686		ug/L	0.5751	7	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5553	0.5117	0.4651	0.4855	0.4956	0.4996	0.5160	AVRG	R		1.983694		ug/L	0.5041	6	0.0500	0.99	15	

172

ICAL - 6000, ICV - BrMet, +A.C.B. Rin - ClMet, ACBN ↑

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

5/5/05

5/5/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425179190001 Name: 826GOX03 Type: SOIL Date: 04-MAY-2005 16:07 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	0.8898	0.8455	0.7764	0.7960	0.8170	0.8180	0.8451	AVRG R		1.209412		ug/L	0.8268	5	0.0500	0.99	15	
Bromochloromethane	0.3142	0.3142	0.3048	0.3037	0.3031	0.3093	0.3034	AVRG R		3.251668		ug/L	0.3075	2	0.0500	0.99	15	
1,1,1-Trichloroethane	0.5801	0.6205	0.5076	0.5727	0.5997	0.5999	0.6232	AVRG R		1.705776		ug/L	0.5862	7	0.0500	0.99	15	
1,1-Dichloropropene	0.3127	0.3474	0.2717	0.3063	0.3248	0.3223	0.3367	AVRG R		3.150606		ug/L	0.3174	8	0.0500	0.99	15	
Carbon Tetrachloride	0.3083	0.3631	0.2635	0.3031	0.3245	0.3094	0.3253	AVRG R		3.185774		ug/L	0.3139	10	0.0500	0.99	15	
1,2-Dichloroethane	0.4383	0.4469	0.4051	0.3993	0.4084	0.4086	0.4047	AVRG R		2.404385		ug/L	0.4159	4	0.0500	0.99	15	
Benzene	1.1037	1.0187	0.9200	0.8987	0.9136	0.9255	0.9278	AVRG R		1.043525		ug/L	0.9583	8	0.0500	0.99	15	
Trichloroethene	0.3154	0.3098	0.2593	0.2735	0.2871	0.2814	0.2834	AVRG R		3.482817		ug/L	0.2871	7	0.0500	0.99	15	
1,2-Dichloropropane	0.2922	0.2759	0.2601	0.2644	0.2702	0.2645	0.2714	AVRG R		3.686781		ug/L	0.2712	4	0.0500	0.99	15	
Bromodichloromethane	0.4054	0.3974	0.3841	0.3901	0.3947	0.3958	0.3997	AVRG R		2.529672		ug/L	0.3953	2	0.0500	0.99	15	
Dibromomethane	0.2543	0.2576	0.2419	0.2428	0.2488	0.2511	0.2400	AVRG R		4.031381		ug/L	0.2481	3	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.3185	0.3086	0.2947	0.3010	0.3197	0.2842	AVRG R		3.284495		ug/L	0.3045	5	0.0500	0.99	15	
Tetramethyl THF	0.5671	0.5728	0.5360	0.5185	0.5244	0.5415	0.5068	AVRG R		1.858138		ug/L	0.5382	5	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4587	0.4602	0.4362	0.4393	0.4504	0.4563	0.4533	AVRG R		2.219043		ug/L	0.4506	2	0.0500	0.99	15	
Toluene	0.7112	0.6728	0.5927	0.6072	0.6163	0.6037	0.6016	AVRG R		1.588928		ug/L	0.6294	7	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4173	0.4547	0.4243	0.4259	0.4346	0.4427	0.4367	AVRG R		2.305489		ug/L	0.4337	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1599	0.1653	0.1572	0.1538	0.1603	0.1632	0.1592	AVRG R		6.255330		ug/L	0.1599	2	0.0500	0.99	15	
2-Hexanone		0.2906	0.2830	0.2708	0.2775	0.2985	0.2766	AVRG R		3.535546		ug/L	0.2828	4	0.0500	0.99	15	
1,3-Dichloropropane	0.5924	0.6002	0.5656	0.5692	0.5674	0.5868	0.6012	AVRG R		1.714506		ug/L	0.5833	3	0.0500	0.99	15	
Tetrachloroethene	0.3619	0.4061	0.3244	0.3570	0.3628	0.3538	0.3744	AVRG R		2.755362		ug/L	0.3629	7	0.0500	0.99	15	
Dibromochloromethane	0.4232	0.4386	0.4359	0.4543	0.4280	0.4476	0.4526	AVRG R		2.272575		ug/L	0.4400	3	0.0500	0.99	15	
1,2-Dibromoethane	0.3462	0.3590	0.3431	0.3293	0.3263	0.3363	0.3263	AVRG R		2.957905		ug/L	0.3381	4	0.0500	0.99	15	
Chlorobenzene	1.1033	1.0429	0.9715	0.9494	0.9623	0.9567	0.9982	AVRG R		1.002239		ug/L	0.9978	6	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.4311	0.4111	0.3753	0.3615	0.3641	0.3611	0.3848	AVRG R		2.603282		ug/L	0.3841	7	0.0500	0.99	15	
Ethylbenzene	1.5940	1.5295	1.3566	1.3959	1.4559	1.3654	1.4677	AVRG R		0.688637		ug/L	1.4521	6	0.0500	0.99	15	
m,p-Xylenes	0.6074	0.5623	0.5131	0.5099	0.5198	0.5018	0.5291	AVRG R		1.869908		ug/L	0.5348	7	0.0500	0.99	15	
o-Xylene	0.6094	0.5894	0.5353	0.5381	0.5297	0.5175	0.5599	AVRG R		1.804454		ug/L	0.5542	6	0.0500	0.99	15	
Styrene	1.0441	0.9908	0.9457	0.9475	0.9586	0.9428	1.0004	AVRG R		1.024896		ug/L	0.9757	4	0.0500	0.99	15	
Bromoform	0.3559	0.3749	0.3754	0.3822	0.3879	0.3902	0.3845	AVRG R		2.640501		ug/L	0.3787	3	0.1000	0.99	15	
Isopropylbenzene	2.4691	2.5285	2.0646	2.2414	2.3459	2.2346	2.2673	AVRG R		0.433397		ug/L	2.3074	7	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.9215	0.9815	0.9371	0.9089	0.9397	0.9643	0.8723	AVRG R		1.072767		ug/L	0.9322	4	0.3000	0.99	15	

173

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425179190001 Name: 826GOX03 Type: SOIL Date: 04-MAY-2005 16:07 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.3097	0.3109	0.2924	0.2777	0.2798	0.2888	0.2524	AVRG	R		3.479588		ug/L	0.2874	7	0.0500	0.99	15	
Propylbenzene	2.9710	3.0806	2.6083	2.6937	2.7844	2.6824	2.7181	AVRG	R		0.358268		ug/L	2.7912	6	0.0500	0.99	15	
Bromobenzene	0.8641	0.8658	0.8290	0.7876	0.7780	0.7791	0.7520	AVRG	R		1.237735		ug/L	0.8079	6	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.2652	2.2141	1.9459	1.9256	2.0368	1.9664	1.9811	AVRG	R		0.488313		ug/L	2.0479	7	0.0500	0.99	15	
2-Chlorotoluene	2.2115	2.1422	2.0278	1.9845	1.9865	1.9699	1.9740	AVRG	R		0.489635		ug/L	2.0423	5	0.0500	0.99	15	
4-Chlorotoluene	2.1241	2.0470	1.9472	1.8817	1.9281	1.8916	1.9382	AVRG	R		0.508797		ug/L	1.9654	4	0.0500	0.99	15	
tert-Butylbenzene	1.8005	1.8410	1.5189	1.6339	1.7380	1.6270	1.6813	AVRG	R		0.591189		ug/L	1.6915	7	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.3735	2.2780	2.1579	2.0824	2.1333	2.0411	2.1192	AVRG	R		0.460966		ug/L	2.1694	5	0.0500	0.99	15	
sec-Butylbenzene	2.4406	2.6660	2.0969	2.4090	2.5958	2.4560	2.5801	AVRG	R		0.405929		ug/L	2.4635	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.1444	2.1830	1.8613	2.0224	2.1334	2.0095	2.0793	AVRG	R		0.484991		ug/L	2.0619	5	0.0500	0.99	15	
1,3-Dichlorobenzene	1.5466	1.4832	1.4109	1.3831	1.3719	1.2983	1.3453	AVRG	R		0.711435		ug/L	1.4056	6	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5828	1.5598	1.4399	1.4344	1.4152	1.3606	1.3910	AVRG	R		0.687371		ug/L	1.4548	6	0.0500	0.99	15	
n-Butylbenzene	1.8987	2.0408	1.7306	1.8975	1.9788	1.8223	1.9781	AVRG	R		0.524472		ug/L	1.9067	6	0.0500	0.99	15	
1,2-Dichlorobenzene	1.4773	1.4464	1.4253	1.3982	1.3595	1.3271	1.3484	AVRG	R		0.715589		ug/L	1.3974	4	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.1918	0.2012	0.1789	0.1710	0.1792	0.1883	0.1774	AVRG	R		5.436208		ug/L	0.1840	6	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.9352	0.9314	0.9346	0.9323	0.8932	0.8550	0.8808	AVRG	R		1.100191		ug/L	0.9089	4	0.0500	0.99	15	
Hexachlorobutadiene	0.3201	0.3799	0.3054	0.3283	0.3849	0.3324	0.3946	AVRG	R		2.862182		ug/L	0.3494	10	0.0500	0.99	15	
Naphthalene	2.2120	2.4186	2.3431	2.3524	2.3132	2.3085	2.2255	AVRG	R		0.432812		ug/L	2.3105	3	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.9263	0.9543	0.8990	0.9510	0.9118	0.8641	0.8972	AVRG	R		1.093114		ug/L	0.9148	3	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0613	0.0696	0.0666	0.0621	0.0640	0.0708	0.0613	AVRG	R		15.35782		ug/L	0.0651	6	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.2748	1.2424	1.1440	1.1728	1.1821	1.1973	1.2262	AVRG	R		0.829421		ug/L	1.2057	4	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2126	1.2163	1.1616	1.1945	1.2081	1.2448	1.2865	AVRG	R		0.821173		ug/L	1.2178	3	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8523	0.8527	0.8154	0.8009	0.8079	0.8155	0.8000	AVRG	R		1.218510		ug/L	0.8207	3	0.0500	0.99	15	
Ethanol	0.0050	0.0060	0.0057	0.0054	0.0057	0.0062	0.0054	AVRG	R		177.3814		ug/L	0.0056	7	5.0E-4	0.99	15	
Isopropanol	0.0305	0.0329	0.0329	0.0312	0.0320	0.0348	0.0300	AVRG	R		31.21998		ug/L	0.0320	5	0.0050	0.99	15	
Tetrahydrofuran	0.1165	0.1232	0.1122	0.1057	0.1047	0.1115	0.0997	AVRG	R		9.049087		ug/L	0.1105	7	0.0050	0.99	15	
Dibromofluoromethane	0.5640	0.5569	0.5805	0.5740	0.5759	0.5876	0.5955	AVRG	R		1.735110		ug/L	0.5763	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3554	0.3414	0.3318	0.3313	0.3334	0.3337	0.3235	AVRG	R		2.977888		ug/L	0.3358	3	0.0500	0.99	15	
Trifluorotoluene	0.3992	0.4845	0.3607	0.4131	0.4387	0.4226	0.4328	AVRG	R		2.371598		ug/L	0.4217	9	0.0500	0.99	15	
Toluene-d8	0.9709	0.9644	0.9550	0.9365	0.9650	0.9744	0.9575	AVRG	R		1.041089		ug/L	0.9605	1	0.0500	0.99	15	
Bromofluorobenzene	0.9611	0.9149	0.9277	0.9472	0.9547	0.9820	0.9629	AVRG	R		1.052531		ug/L	0.9501	2	0.0500	0.99	15	

174

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : QC292776
Seqnum : 425180642006 Filename : ce506 Injected : 05-MAY-2005 13:30
Calnum : 425179190001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S491 (5000X), S285 (5000X), S139 (5000X), S296 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	45.68130	ug/L	-9	30	m
Chloromethane	50.00000	38.64320	ug/L	-23	30	!v- m
Vinyl Chloride	50.00000	43.37930	ug/L	-13	20	
Bromomethane	50.00000	33.62960	ug/L	-33	30	v- ***
Chloroethane	50.00000	45.41830	ug/L	-9	30	
Trichlorofluoromethane	50.00000	54.40430	ug/L	9	30	
Acetone	50.00000	42.42430	ug/L	-15	40	
Freon 113	50.00000	53.96470	ug/L	8	30	
1,1-Dichloroethene	50.00000	54.89070	ug/L	10	20	
Methylene Chloride	50.00000	44.82760	ug/L	-10	30	
Carbon Disulfide	50.00000	57.20970	ug/L	14	30	
MTBE	50.00000	43.23460	ug/L	-14	30	
trans-1,2-Dichloroethene	50.00000	47.73500	ug/L	-5	30	
Vinyl Acetate	50.00000	36.64560	ug/L	-27	40	
1,1-Dichloroethane	50.00000	45.55580	ug/L	-9	30	
2-Butanone	50.00000	44.72050	ug/L	-11	40	
2,2-Dichloropropane	50.00000	51.57270	ug/L	3	30	
cis-1,2-Dichloroethene	50.00000	47.16950	ug/L	-6	30	
Chloroform	50.00000	46.38170	ug/L	-7	20	
Bromochloromethane	50.00000	45.84290	ug/L	-8	30	
1,1,1-Trichloroethane	50.00000	52.79120	ug/L	6	30	
1,1-Dichloropropene	50.00000	56.31390	ug/L	13	30	
Carbon Tetrachloride	50.00000	59.22950	ug/L	18	30	
1,2-Dichloroethane	50.00000	45.35150	ug/L	-9	30	
Benzene	50.00000	46.78980	ug/L	-6	30	
Trichloroethene	50.00000	51.03780	ug/L	2	30	
1,2-Dichloropropane	50.00000	43.52420	ug/L	-13	20	
Bromodichloromethane	50.00000	53.69710	ug/L	7	30	
Dibromomethane	50.00000	47.55020	ug/L	-5	30	
4-Methyl-2-Pentanone	50.00000	48.44720	ug/L	-3	40	
Tetramethyl THF	50.00000	47.30280	ug/L	-5	30	
cis-1,3-Dichloropropene	50.00000	48.78120	ug/L	-2	30	
Toluene	50.00000	48.28760	ug/L	-3	20	
trans-1,3-Dichloropropene	50.00000	46.32980	ug/L	-7	30	
1,1,2-Trichloroethane	50.00000	47.77700	ug/L	-4	30	
2-Hexanone	50.00000	48.53770	ug/L	-3	40	
1,3-Dichloropropane	50.00000	46.04350	ug/L	-8	30	
Tetrachloroethene	50.00000	56.85760	ug/L	14	30	
Dibromochloromethane	50.00000	51.93930	ug/L	4	30	
1,2-Dibromoethane	50.00000	46.29450	ug/L	-7	30	
Chlorobenzene	50.00000	48.67160	ug/L	-3	30	
1,1,1,2-Tetrachloroethane	50.00000	48.09420	ug/L	-4	30	
Ethylbenzene	50.00000	50.20160	ug/L	0	20	
m,p-Xylenes	100.0000	98.54520	ug/L	-1	30	
o-Xylene	50.00000	49.10570	ug/L	-2	30	
Styrene	50.00000	49.11950	ug/L	-2	30	
Bromoform	50.00000	49.47490	ug/L	-1	30	

!=warning +=high bias -=low bias m=manual integration v=ICV

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : QC292776 Injected : 05-MAY-2005 13:30
Seqnum : 425180642006 Filename : ce506 Caltype : SOIL
Calnum : 425179190001 Caldate : 04-MAY-2005
Standards: S491 (5000X), S285 (5000X), S139 (5000X), S296 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Isopropylbenzene	50.00000	47.51800	ug/L	-5	30	
1,1,2,2-Tetrachloroethane	50.00000	44.78750	ug/L	-10	30	
1,2,3-Trichloropropane	50.00000	46.44740	ug/L	-7	30	
Propylbenzene	50.00000	52.38460	ug/L	5	30	
Bromobenzene	50.00000	49.25990	ug/L	-1	30	
1,3,5-Trimethylbenzene	50.00000	51.26900	ug/L	3	30	
2-Chlorotoluene	50.00000	49.47390	ug/L	-1	30	
4-Chlorotoluene	50.00000	48.97790	ug/L	-2	30	
tert-Butylbenzene	50.00000	52.52590	ug/L	5	30	
1,2,4-Trimethylbenzene	50.00000	50.44120	ug/L	1	30	
sec-Butylbenzene	50.00000	56.99970	ug/L	14	30	
para-Isopropyl Toluene	50.00000	53.00950	ug/L	6	30	
1,3-Dichlorobenzene	50.00000	50.96420	ug/L	2	30	
1,4-Dichlorobenzene	50.00000	50.89940	ug/L	2	30	
n-Butylbenzene	50.00000	56.93570	ug/L	14	30	
1,2-Dichlorobenzene	50.00000	49.15660	ug/L	-2	30	
1,2-Dibromo-3-Chloropropane	50.00000	46.33650	ug/L	-7	30	
1,2,4-Trichlorobenzene	50.00000	55.85510	ug/L	12	30	
Hexachlorobutadiene	50.00000	63.09590	ug/L	**26**	30	!v+
Naphthalene	50.00000	48.63830	ug/L	-3	30	
1,2,3-Trichlorobenzene	50.00000	54.38960	ug/L	9	30	
tert-Butyl Alcohol (TBA)	250.0000	237.1008	ug/L	-5	30	
Isopropyl Ether (DIPE)	50.00000	44.79670	ug/L	-10	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	48.41010	ug/L	-3	30	
Methyl tert-Amyl Ether (TAME)	50.00000	48.80580	ug/L	-2	30	
Ethanol	5000.000	4450.329	ug/L	-11	30	
Isopropanol	500.0000	477.9122	ug/L	-4	30	
Tetrahydrofuran	500.0000	469.6125	ug/L	-6	30	

ISTD (ICAL=ce415)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	343007	315592	-7.99	10.70	10.71	0.01
1,4-Difluorobenzene	524440	454188	-13.40	11.86	11.85	-0.01
Chlorobenzene-d5	417092	366111	-12.22	15.82	15.83	0.01
1,4-Dichlorobenzene-d4	241552	214825	-11.06	18.53	18.53	0.01

!=warning +=high bias -=low bias m=manual integration v=ICV 5/5/05

8260/6A0X w ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By: AMK
Calnum: 455169004003 Name: 826GOX6W Type: WATER Date: 27-APR-2005 17:43 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	fdr14	455169004014	0.5-1PPB	27-APR-2005 17:43	S359 (1000000X), S283 (500000X), S304 (1000000X), S361 (1000X)
2	fdr15	455169004015	2PPB	27-APR-2005 18:18	S359 (250000X), S283 (250000X), S304 (500000X), S361 (1000X)
3	fdr16	455169004016	10PPB	27-APR-2005 18:52	S359 (50000X), S283 (50000X), S304 (100000X), S361 (1000X)
4	fdr17	455169004017	20PPB	27-APR-2005 19:27	S359 (25000X), S283 (25000X), S304 (50000X), S361 (1000X)
5	fdr18	455169004018	50PPB	27-APR-2005 20:01	S359 (10000X), S283 (10000X), S304 (20000X), S361 (1000X)
6	fdr19	455169004019	75PPB	27-APR-2005 20:36	S359 (6667X), S283 (6667X), S304 (13333X), S361 (1000X)
7	fdr20	455169004020	100PPB	27-APR-2005 21:10	S359 (5000X), S283 (5000X), S304 (10000X), S361 (1000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.9164m	0.7504m	0.9146	0.9326	0.9334	0.8790	0.8264	AVRG	R		1.137685		ug/L	0.8790	8	0.0500	0.99	15	
Chloromethane	2.0335	1.9986	1.7904	1.7070	1.6030	1.4600	1.3591m	AVRG	R		0.585691		ug/L	1.7074	15	0.1000	0.99	15	
Vinyl Chloride	1.3143m	1.1600m	1.2467	1.2416	1.2120	1.1442	1.0406	AVRG	R		0.837392		ug/L	1.1942	7	0.0500	0.99	15	
Bromomethane	0.5227m	0.5944m	0.6254	0.6634	0.7192	0.7036	0.6954	AVRG	R		1.547270		ug/L	0.6463	11	0.0500	0.99	15	
Chloroethane	0.5845m	0.6671	0.6505	0.6329	0.6100	0.5772	0.5315	AVRG	R		1.645665		ug/L	0.6077	8	0.0500	0.99	15	
Trichlorofluoromethane	1.3570	1.0832	1.2142	1.1981	1.1717	1.1217	1.0710	AVRG	R		0.851903		ug/L	1.1738	8	0.0500	0.99	15	
Acetone			0.5376	0.5550	0.5674	0.4624	0.4556	AVRG	R		1.939448		ug/L	0.5156	10	0.0500	0.99	15	
Freon 113	0.7978	0.3929	0.5277	0.6261	0.6050	0.6432	0.6476	QUAD	R	0.433144	1.664189	-0.00204	ug/L	0.6058	1.000	0.0500	0.99	15	
1,1-Dichloroethene	0.6851	0.5731	0.6046	0.6228	0.6301	0.6285	0.6178	AVRG	R		1.604742		ug/L	0.6232	5	0.0500	0.99	15	
Methylene Chloride		1.0688	0.9728	0.9316	0.9041	0.8453	0.8288	AVRG	R		1.080791		ug/L	0.9252	10	0.0500	0.99	15	
Carbon Disulfide	2.6654	2.1042	2.0609	2.1379	2.0578	1.9541	1.8819	AVRG	R		0.470994		ug/L	2.1232	12	0.0500	0.99	15	
MTBE	2.2395	2.2093	2.4266	2.4210	2.3190	2.1055	2.0751	AVRG	R		0.443155		ug/L	2.2565	6	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.7477	0.7496	0.7853	0.7714	0.7644	0.7414	0.7203	AVRG	R		1.325750		ug/L	0.7543	3	0.0500	0.99	15	
Vinyl Acetate		2.8558	3.4057	3.4064	3.1253	2.8127	2.6462	AVRG	R		0.328729		ug/L	3.0420	11	0.0500	0.99	15	
1,1-Dichloroethane	1.9901	1.8054	1.9022	1.8007	1.7482	1.6296	1.5437	AVRG	R		0.563608		ug/L	1.7743	9	0.1000	0.99	15	
2-Butanone		0.8292	0.8243	0.8656	0.8322	0.7230	0.7325	AVRG	R		1.248240		ug/L	0.8011	7	0.0500	0.99	15	
2,2-Dichloropropane	1.1489	0.9601	1.0148	1.0144	0.9893	0.9550	0.9133	AVRG	R		1.000623		ug/L	0.9994	8	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.9997	0.8536	0.9090	0.8677	0.8611	0.8190	0.8117	AVRG	R		1.143438		ug/L	0.8746	7	0.0500	0.99	15	

177

Flags used: m=manual integration for incomplete integration in Target
Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

05/16/05

* ICAL - OK
- DBCP to 75 ppb
- Cyclohexane to 75 ppb
* ICV - Cyclohexane USACE - TMA↑, IPA↑

R=16.65

8260/624 w ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By: AMK
Calnum: 455169004003 Name: 826GOX6W Type: WATER Date: 27-APR-2005 17:43 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	1.4902	1.4883	1.5247	1.4511	1.4141	1.3141	1.2655	AVRG	R		0.703663		ug/L	1.4211	7	0.0500	0.99	15	
Bromochloromethane	0.3978	0.4048	0.4502	0.4532	0.4601	0.4425	0.4455	AVRG	R		2.291913		ug/L	0.4363	6	0.0500	0.99	15	
1,1,1-Trichloroethane	1.0993	0.9338	0.9965	1.0327	0.9840	0.9690	0.9296	AVRG	R		1.007933		ug/L	0.9921	6	0.0500	0.99	15	
1,1-Dichloropropene	0.5325	0.4031	0.4576	0.4766	0.4759	0.4871	0.4873	AVRG	R		2.108268		ug/L	0.4743	8	0.0500	0.99	15	
Carbon Tetrachloride	0.4270	0.3248	0.3736	0.4010	0.4002	0.4212	0.4220	AVRG	R		2.527282		ug/L	0.3957	9	0.0500	0.99	15	
1,2-Dichloroethane	0.6796	0.7058	0.7005	0.6716	0.6554	0.6149	0.6028	AVRG	R		1.511707		ug/L	0.6615	6	0.0500	0.99	15	
Benzene	1.7592	1.6038	1.6089	1.5015	1.4356	1.3479	1.2894	AVRG	R		0.663734		ug/L	1.5066	11	0.0500	0.99	15	
Trichloroethene	0.3746	0.3396	0.3689	0.3633	0.3615	0.3593	0.3587	AVRG	R		2.771239		ug/L	0.3608	3	0.0500	0.99	15	
1,2-Dichloropropane	0.5718	0.5188	0.5670	0.5468	0.5321	0.5075	0.4971	AVRG	R		1.871145		ug/L	0.5344	5	0.0500	0.99	15	
Bromodichloromethane	0.5254	0.5022	0.5584	0.5351	0.5275	0.5079	0.5016	AVRG	R		1.913615		ug/L	0.5226	4	0.0500	0.99	15	
Dibromomethane	0.3346	0.3073	0.3461	0.3307	0.3310	0.3192	0.3203	AVRG	R		3.057896		ug/L	0.3270	4	0.0500	0.99	15	
2-Chloroethylvinylether	0.1312m	0.1529m	0.2284m	0.2532m	0.2666m	0.2613m	0.2661m	LINR	R	0.926129	3.736015		ug/L	0.2228	1.000	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.6582	0.7535	0.7743	0.7400	0.6707	0.6847	AVRG	R		1.401397		ug/L	0.7136	7	0.0500	0.99	15	
Tetramethyl THF	1.4509	1.4918	1.6205	1.5977	1.4785	1.3326	1.2521	AVRG	R		0.684654		ug/L	1.4606	9	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.6695	0.6769	0.7370	0.7118	0.7028	0.6634	0.6350	AVRG	R		1.459391		ug/L	0.6852	5	0.0500	0.99	15	
Toluene	0.8358	0.8227	0.8849	0.8442	0.8238	0.7997	0.7750	AVRG	R		1.209795		ug/L	0.8266	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.5619	0.5964	0.6493	0.6510	0.6369	0.6026	0.5919	AVRG	R		1.631630		ug/L	0.6129	5	0.0500	0.99	15	
1,1,2-Trichloroethane	0.2149	0.2232	0.2333	0.2189	0.2241	0.2151	0.2158	AVRG	R		4.529800		ug/L	0.2208	3	0.0500	0.99	15	
2-Hexanone		0.5518	0.6457	0.6611	0.6503	0.5698	0.6095	AVRG	R		1.626822		ug/L	0.6147	7	0.0500	0.99	15	
1,3-Dichloropropane	0.8070	0.8781	0.8664	0.8612	0.8241	0.7651	0.7637	AVRG	R		1.214099		ug/L	0.8237	6	0.0500	0.99	15	
Tetrachloroethene	0.3652	0.2409	0.2941	0.3078	0.3088	0.3288	0.3379	AVRG	R		3.205873		ug/L	0.3119	13	0.0500	0.99	15	
Dibromochloromethane	0.4886	0.4645	0.5089	0.5062	0.5231	0.5000	0.5100	AVRG	R		1.999292		ug/L	0.5002	4	0.0500	0.99	15	
1,2-Dibromoethane	0.4325	0.4338	0.4649	0.4522	0.4521	0.4300	0.4356	AVRG	R		2.257296		ug/L	0.4430	3	0.0500	0.99	15	
Chlorobenzene	1.2644	1.1404	1.1916	1.1387	1.1054	1.0397	1.0198	AVRG	R		0.886079		ug/L	1.1286	7	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3913	0.3792	0.4024	0.3871	0.3925	0.3872	0.3941	AVRG	R		2.560434		ug/L	0.3906	2	0.0500	0.99	15	
Ethylbenzene	1.8640	1.6510	1.8380	1.8218	1.6609	1.5687	1.4763	AVRG	R		0.589189		ug/L	1.6972	9	0.0500	0.99	15	
m,p-Xylenes	0.6580	0.5801	0.6823	0.6776	0.6545	0.6271	0.5993	AVRG	R		1.562869		ug/L	0.6398	6	0.0500	0.99	15	
o-Xylene	0.5890	0.5556	0.6940	0.6979	0.6892	0.6718	0.6564	AVRG	R		1.537140		ug/L	0.6506	9	0.0500	0.99	15	
Styrene	1.0325	1.0115	1.2494	1.2242	1.1989	1.1300	1.0991	AVRG	R		0.880988		ug/L	1.1351	8	0.0500	0.99	15	
Bromoform	0.3953	0.3393	0.3678	0.3714	0.3823	0.3666	0.3822	AVRG	R		2.687339		ug/L	0.3721	5	0.1000	0.99	15	
Isopropylbenzene	3.5827	3.0052	3.4101	3.3998	3.1262	3.0156	2.9089	AVRG	R		0.311825		ug/L	3.2069	8	0.0500	0.99	15	

178

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/ 6A50X W ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By: AMK
Calnum: 455169004003 Name: 826GOX6W Type: WATER Date: 27-APR-2005 17:43 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,1,2,2-Tetrachloroethane	1.8991	1.6589	1.7310	1.6826	1.5738	1.4428	1.4453	AVRG	R		0.612236		ug/L	1.6334	10	0.3000	0.99	15	
1,2,3-Trichloropropane	1.4776m	1.5803m	1.5180m	1.4889m	1.3836m	1.2779m	1.2858m	AVRG	R		0.699151		ug/L	1.4303	8	0.0500	0.99	15	
Propylbenzene	4.7948	3.6927	4.2271	4.1490	3.7764	3.5489	3.2883	AVRG	R		0.254756		ug/L	3.9253	13	0.0500	0.99	15	
Bromobenzene	1.1064	0.9860	0.9879	0.9864	0.9667	0.9515	0.9637	AVRG	R		1.007397		ug/L	0.9927	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.7249	2.2943	2.7313	2.6797	2.5702	2.4700	2.3692	AVRG	R		0.392385		ug/L	2.5485	7	0.0500	0.99	15	
2-Chlorotoluene	3.2603	2.9609	3.2576	3.0775	2.8430	2.7053	2.5752	AVRG	R		0.338494		ug/L	2.9543	9	0.0500	0.99	15	
4-Chlorotoluene	2.9703	2.7827	2.9583	2.8185	2.6129	2.4695	2.3414	AVRG	R		0.369321		ug/L	2.7077	9	0.0500	0.99	15	
tert-Butylbenzene	1.9671	1.7382	2.0342	2.0432	2.0242	2.0420	1.9895	AVRG	R		0.505843		ug/L	1.9769	6	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1917	2.0931	2.6464	2.5924	2.4882	2.4387	2.3479	AVRG	R		0.416709		ug/L	2.3998	8	0.0500	0.99	15	
sec-Butylbenzene	3.1180	2.3226	2.9425	3.0588	2.9213	2.9004	2.7644	AVRG	R		0.349508		ug/L	2.8612	9	0.0500	0.99	15	
para-Isopropyl Toluene	2.0466	1.5893	2.1617	2.2178	2.1843	2.2251	2.1867	AVRG	R		0.479077		ug/L	2.0873	11	0.0500	0.99	15	
1,3-Dichlorobenzene	1.6198	1.4420	1.6538	1.5825	1.5485	1.5080	1.5121	AVRG	R		0.644172		ug/L	1.5524	5	0.0500	0.99	15	
1,4-Dichlorobenzene	1.6502	1.6024	1.5930	1.6656	1.5881	1.5624	1.5574	AVRG	R		0.623927		ug/L	1.6028	3	0.0500	0.99	15	
n-Butylbenzene	1.5509	1.1525	1.7161	1.8425	1.8298	1.9054	1.8880	QUAD	R	0.518942	0.538593	-7.29E-5	ug/L	1.6979	1.000	0.0500	0.99	15	
1,2-Dichlorobenzene	1.5729	1.4159	1.6678	1.6101	1.5567	1.5056	1.5028	AVRG	R		0.646246		ug/L	1.5474	5	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.4179	0.2702	0.3009	0.3123	0.2952	0.2651		QUAD	R	0.701372	2.640691	0.053480	ug/L	0.3103	0.999	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.2988	0.2939	0.4670	0.5436	0.6057	0.6301	0.6802	QUAD	R	0.932421	1.789351	-0.00488	ug/L	0.5028	1.000	0.0500	0.99	15	
Hexachlorobutadiene	0.2180	0.1417	0.2059	0.2231	0.2414	0.2707	0.2860	QUAD	R	0.735302	4.403676	-0.03327	ug/L	0.2267	1.000	0.0500	0.99	15	
Naphthalene	0.5967	0.7331	1.4023	1.6662	1.8160	1.8105	1.9412	QUAD	R	0.926377	0.590949	-0.00041	ug/L	1.4237	1.000	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.1020	0.2051	0.4326	0.5335	0.5876	0.6182	0.6760	QUAD	R	1.129763	1.846758	-0.00566	ug/L	0.4507	1.000	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0796	0.0889	0.0965	0.0977	0.0983	0.0850	0.0906	AVRG	R		10.99559		ug/L	0.0909	8	0.0050	0.99	15	
Isopropyl Ether (DIPE)	3.7010	4.1482	4.4229	4.3199	3.9661	3.5166	3.2344	AVRG	R		0.256326		ug/L	3.9013	11	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	2.5290	2.6660	2.8807	2.7642	2.6954	2.4428	2.3189	AVRG	R		0.382578		ug/L	2.6138	7	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	1.0454	1.0339	1.1438	1.1244	1.1081	1.0494	1.0402	AVRG	R		0.927733		ug/L	1.0779	4	0.0500	0.99	15	
Cyclohexanone		0.2506	0.2072	0.2115	0.2212	0.1608		AVRG	R		4.756208		ug/L	0.2103	15	0.0050	0.99	15	
Ethanol	0.0180	0.0145m	0.0170	0.0170	0.0171	0.0142	0.0147	AVRG	R		62.19989		ug/L	0.0161	10	5.0E-4	0.99	15	
Isopropanol		0.0759m	0.0793	0.0787	0.0805	0.0673	0.0713	AVRG	R		13.24733		ug/L	0.0755	7	0.0050	0.99	15	
Tetrahydrofuran	0.4346	0.4138	0.4471	0.4323	0.3804	0.3180	0.3024	AVRG	R		2.565455		ug/L	0.3898	15	0.0050	0.99	15	
Dibromofluoromethane	0.8444	0.8544	0.8504	0.8437	0.8493	0.8233	0.7988	AVRG	R		1.193664		ug/L	0.8378	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.5031	0.5082	0.5081	0.5029	0.4993	0.4852	0.4802	AVRG	R		2.007494		ug/L	0.4981	2	0.0500	0.99	15	
Trifluorotoluene	0.3847	0.2810	0.3355	0.3740	0.3752	0.4157	0.4285	AVRG	R		2.697990		ug/L	0.3706	13	0.0500	0.99	15	

179

Flags used: m=manual integration
Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

8260/6200 w/ ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By: AMK
Calnum: 455169004003 Name: 826GOX6W Type: WATER Date: 27-APR-2005 17:43 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Toluene-d8	1.0674	1.0643	1.0680	1.0793	1.0603	1.0711	1.0617	AVRG	R		0.936823		ug/L	1.0674	1	0.0500	0.99	15	
Bromofluorobenzene	1.3473	1.3293	1.2903	1.2561	1.2254	1.2257	1.2120	AVRG	R		0.787750		ug/L	1.2694	4	0.0500	0.99	15	

180

Flags used: m=manual integration
Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

8260/GASOX W ICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name :
Seqnum : 455170462004 Filename : fds04 Injected : 28-APR-2005 10:42
Calnum : 455169004003 Caldate : 27-APR-2005 Caltype : WATER
Standards: S215A (10000X), S139C (10000X), S285B (10000X), S361 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	25.00000	20.78080	ug/L	-17	30	
Chloromethane	25.00000	21.79550	ug/L	-13	30	
Vinyl Chloride	25.00000	23.17890	ug/L	-7	20	
Bromomethane	25.00000	24.78940	ug/L	-1	30	
Chloroethane	25.00000	25.09130	ug/L	0	30	
Trichlorofluoromethane	25.00000	23.13230	ug/L	-7	30	
Acetone	25.00000	24.63390	ug/L	-1	40	
Freon 113	25.00000	25.87160	ug/L	3	30	
1,1-Dichloroethene	25.00000	24.92650	ug/L	0	20	u
Methylene Chloride	25.00000	22.68320	ug/L	-9	30	
Carbon Disulfide	25.00000	28.23790	ug/L	13	30	
MTBE	25.00000	26.60210	ug/L	6	30	
trans-1,2-Dichloroethene	25.00000	24.84730	ug/L	-1	30	
Vinyl Acetate	25.00000	20.05540	ug/L	-20	40	
1,1-Dichloroethane	25.00000	23.26910	ug/L	-7	30	
2-Butanone	25.00000	26.29750	ug/L	5	40	
2,2-Dichloropropane	25.00000	26.11610	ug/L	4	30	
cis-1,2-Dichloroethene	25.00000	23.80590	ug/L	-5	30	
Chloroform	25.00000	24.07820	ug/L	-4	20	
Bromochloromethane	25.00000	24.46820	ug/L	-2	30	
1,1,1-Trichloroethane	25.00000	25.78570	ug/L	3	30	
1,1-Dichloropropene	25.00000	25.88130	ug/L	4	30	
Carbon Tetrachloride	25.00000	27.04500	ug/L	8	30	
1,2-Dichloroethane	25.00000	24.27610	ug/L	-3	30	
Benzene	25.00000	23.67110	ug/L	-5	30	u
Trichloroethene	25.00000	24.85580	ug/L	-1	30	u
1,2-Dichloropropane	25.00000	21.98060	ug/L	-12	20	
Bromodichloromethane	25.00000	25.65920	ug/L	3	30	
Dibromomethane	25.00000	23.54390	ug/L	-6	30	
2-Chloroethylvinylether	25.00000	22.98290	ug/L	-8	40	! m
4-Methyl-2-Pentanone	25.00000	26.53520	ug/L	6	40	
Tetramethyl THF	25.00000	22.57150	ug/L	-10	30	
cis-1,3-Dichloropropene	25.00000	24.03000	ug/L	-4	30	
Toluene	25.00000	24.23700	ug/L	-3	20	u
trans-1,3-Dichloropropene	25.00000	22.90100	ug/L	-8	30	
1,1,2-Trichloroethane	25.00000	23.93270	ug/L	-4	30	
2-Hexanone	25.00000	27.48910	ug/L	10	40	
1,3-Dichloropropane	25.00000	24.21080	ug/L	-3	30	
Tetrachloroethene	25.00000	25.78980	ug/L	3	30	
Dibromochloromethane	25.00000	25.02180	ug/L	0	30	
1,2-Dibromoethane	25.00000	23.11140	ug/L	-8	30	
Chlorobenzene	25.00000	24.29870	ug/L	-3	30	u
1,1,1,2-Tetrachloroethane	25.00000	23.68260	ug/L	-5	30	
Ethylbenzene	25.00000	26.10390	ug/L	4	20	
m,p-Xylenes	50.00000	51.60550	ug/L	3	30	
o-Xylene	25.00000	25.43710	ug/L	2	30	
Styrene	25.00000	25.72490	ug/L	3	30	

!=warning +=high bias -=low bias m=manual integration u=use v=ICV

jm 5/13/05

05/13/05

8260/6000 w ICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name :
Seqnum : 455170462004 Filename : fds04 Injected : 28-APR-2005 10:42
Calnum : 455169004003 Caldate : 27-APR-2005 Caltype : WATER
Standards: S215A (10000X), S139C (10000X), S285B (10000X), S361 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Bromoform	25.00000	24.20940	ug/L	-3	30	
Isopropylbenzene	25.00000	25.88760	ug/L	4	30	
1,1,2,2-Tetrachloroethane	25.00000	24.08030	ug/L	-4	30	
1,2,3-Trichloropropane	25.00000	25.51120	ug/L	2	30	m
Propylbenzene	25.00000	28.18660	ug/L	13	30	
Bromobenzene	25.00000	24.67770	ug/L	-1	30	
1,3,5-Trimethylbenzene	25.00000	27.45970	ug/L	10	30	
2-Chlorotoluene	25.00000	26.01880	ug/L	4	30	
4-Chlorotoluene	25.00000	25.06760	ug/L	0	30	
tert-Butylbenzene	25.00000	28.05700	ug/L	12	30	
1,2,4-Trimethylbenzene	25.00000	26.95820	ug/L	8	30	
sec-Butylbenzene	25.00000	29.29080	ug/L	17	30	
para-Isopropyl Toluene	25.00000	27.89030	ug/L	12	30	
1,3-Dichlorobenzene	25.00000	24.38760	ug/L	-2	30	
1,4-Dichlorobenzene	25.00000	24.86380	ug/L	-1	30	
n-Butylbenzene	25.00000	27.72030	ug/L	11	30	
1,2-Dichlorobenzene	25.00000	24.58070	ug/L	-2	30	
1,2-Dibromo-3-Chloropropane	25.00000	23.63980	ug/L	-5	30	
1,2,4-Trichlorobenzene	25.00000	24.51470	ug/L	-2	30	
Hexachlorobutadiene	25.00000	29.45650	ug/L	18	30	
Naphthalene	25.00000	23.36460	ug/L	-7	30	
1,2,3-Trichlorobenzene	25.00000	24.22650	ug/L	-3	30	
tert-Butyl Alcohol (TBA)	125.0000	159.6824	ug/L	28	30	!v+
Isopropyl Ether (DIPE)	25.00000	27.66840	ug/L	11	30	
Ethyl tert-Butyl Ether (ETBE)	25.00000	29.50960	ug/L	18	30	
Methyl tert-Amyl Ether (TAME)	25.00000	27.85640	ug/L	11	30	
Cyclohexanone	250.0000	8.769300	ug/L	-96	30	! v- ***
Ethanol	2500.000	2914.040	ug/L	17	30	
Isopropanol	250.0000	308.1410	ug/L	23	30	!v+
Tetrahydrofuran	250.0000	300.3269	ug/L	20	30	

ISTD (ICAL=fdr18)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1166112	1068848	-8.34	12.49	12.51	0.02
1,4-Difluorobenzene	2353143	2114434	-10.14	13.81	13.82	0.01
Chlorobenzene-d5	1935449	1692330	-12.56	18.43	18.44	0.01
1,4-Dichlorobenzene-d4	891540	711831	-20.16	21.26	21.27	0.01

!=warning +=high bias -=low bias m=manual integration u=use v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425196343007 Filename : ceg07 Injected : 16-MAY-2005 11:23
Calnum : 425179190001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S296 (5000X), S538 (10000X), S568 (10000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4760	0.5869	50.00000	61.65800	ug/L	**23**	30	0.0500	!c+
Chloromethane	0.4011	0.3998	50.00000	49.83520	ug/L	0	30	0.1000	m
Vinyl Chloride	0.3709	0.3848	50.00000	51.86790	ug/L	4	20	0.0500	
Bromomethane	0.6760	0.6193	50.00000	45.80390	ug/L	-8	30	0.0500	
Chloroethane	0.2826	0.2785	50.00000	49.28590	ug/L	-1	30	0.0500	
Trichlorofluoromethane	0.6955	0.7932	50.00000	57.02220	ug/L	14	30	0.0500	
Acetone	0.1414	0.1706	50.00000	60.32950	ug/L	21	40	0.0500	
Freon 113	0.3891	0.5277	50.00000	62.95400	ug/L	**26**	30	0.0500	!c+
1,1-Dichloroethene	0.3421	0.3705	50.00000	54.15620	ug/L	8	20	0.0500	
Methylene Chloride	0.4879	0.4569	50.00000	46.82290	ug/L	-6	30	0.0500	
Carbon Disulfide	1.1606	1.3003	50.00000	60.56120	ug/L	**21**	30	0.0500	!c+
MTBE	1.3342	1.3635	50.00000	51.09810	ug/L	2	30	0.0500	
trans-1,2-Dichloroethene	0.4342	0.4457	50.00000	51.32460	ug/L	3	30	0.0500	
Vinyl Acetate	0.8394	0.8639	50.00000	51.45920	ug/L	3	40	0.0500	
1,1-Dichloroethane	0.6897	0.6880	50.00000	49.87320	ug/L	0	30	0.1000	
2-Butanone	0.2243	0.2509	50.00000	55.92410	ug/L	12	40	0.0500	
2,2-Dichloropropane	0.5751	0.6656	50.00000	57.86610	ug/L	16	30	0.0500	
cis-1,2-Dichloroethene	0.5041	0.4867	50.00000	48.27260	ug/L	-3	30	0.0500	
Chloroform	0.8268	0.8275	50.00000	50.04060	ug/L	0	20	0.0500	
Bromochloromethane	0.3075	0.2957	50.00000	48.06950	ug/L	-4	30	0.0500	
1,1,1-Trichloroethane	0.5862	0.6996	50.00000	59.66940	ug/L	19	30	0.0500	
1,1-Dichloropropene	0.3174	0.3749	50.00000	59.05430	ug/L	18	30	0.0500	
Carbon Tetrachloride	0.3139	0.4010	50.00000	63.88170	ug/L	**28**	30	0.0500	!c+
1,2-Dichloroethane	0.4159	0.4182	50.00000	50.27210	ug/L	1	30	0.0500	
Benzene	0.9583	0.9668	50.00000	50.44370	ug/L	1	30	0.0500	
Trichloroethene	0.2871	0.3096	50.00000	53.91860	ug/L	8	30	0.0500	
1,2-Dichloropropane	0.2712	0.2703	50.00000	49.82990	ug/L	0	20	0.0500	
Bromodichloromethane	0.3953	0.4107	50.00000	51.94840	ug/L	4	30	0.0500	
Dibromomethane	0.2481	0.2463	50.00000	49.64060	ug/L	-1	30	0.0500	
4-Methyl-2-Pentanone	0.3045	0.3194	50.00000	52.45260	ug/L	5	40	0.0500	
Tetramethyl THF	0.5382	0.5249	50.00000	48.76470	ug/L	-2	30	0.0500	
cis-1,3-Dichloropropene	0.4506	0.4599	50.00000	51.03210	ug/L	2	30	0.0500	
Toluene	0.6294	0.6106	50.00000	48.50800	ug/L	-3	20	0.0500	
trans-1,3-Dichloropropene	0.4337	0.4450	50.00000	51.29640	ug/L	3	30	0.0500	
1,1,2-Trichloroethane	0.1599	0.1569	50.00000	49.08000	ug/L	-2	30	0.0500	
2-Hexanone	0.2828	0.2882	50.00000	50.95490	ug/L	2	40	0.0500	
1,3-Dichloropropane	0.5833	0.5756	50.00000	49.34190	ug/L	-1	30	0.0500	
Tetrachloroethene	0.3629	0.4149	50.00000	57.16150	ug/L	14	30	0.0500	
Dibromochloromethane	0.4400	0.4684	50.00000	53.22800	ug/L	6	30	0.0500	
1,2-Dibromoethane	0.3381	0.3275	50.00000	48.43220	ug/L	-3	30	0.0500	
Chlorobenzene	0.9978	0.9468	50.00000	47.44650	ug/L	-5	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3841	0.3764	50.00000	48.99880	ug/L	-2	30	0.0500	
Ethylbenzene	1.4521	1.4771	50.00000	50.86090	ug/L	2	20	0.0500	
m,p-Xylenes	0.5348	0.5400	100.0000	100.9757	ug/L	1	30	0.0500	
o-Xylene	0.5542	0.5410	50.00000	48.81440	ug/L	-2	30	0.0500	
Styrene	0.9757	0.9659	50.00000	49.49550	ug/L	-1	30	0.0500	

!=warning +=high bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425196343007 Filename : ceg07 Injected : 16-MAY-2005 11:23
Calnum : 425179190001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S296 (5000X), S538 (10000X), S568 (10000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3787	0.3843	50.00000	50.73540	ug/L	1	30	0.1000	
Isopropylbenzene	2.3074	2.2452	50.00000	48.65240	ug/L	-3	30	0.0500	
1,1,2,2-Tetrachloroethane	0.9322	0.8209	50.00000	44.03050	ug/L	-12	30	0.3000	
1,2,3-Trichloropropane	0.2874	0.2509	50.00000	43.64810	ug/L	-13	30	0.0500	
Propylbenzene	2.7912	2.8270	50.00000	50.64100	ug/L	1	30	0.0500	
Bromobenzene	0.8079	0.7478	50.00000	46.28000	ug/L	-7	30	0.0500	
1,3,5-Trimethylbenzene	2.0479	1.9614	50.00000	47.88960	ug/L	-4	30	0.0500	
2-Chlorotoluene	2.0423	1.9539	50.00000	47.83550	ug/L	-4	30	0.0500	
4-Chlorotoluene	1.9654	1.8559	50.00000	47.21510	ug/L	-6	30	0.0500	
tert-Butylbenzene	1.6915	1.6068	50.00000	47.49610	ug/L	-5	30	0.0500	
1,2,4-Trimethylbenzene	2.1694	2.0683	50.00000	47.66970	ug/L	-5	30	0.0500	
sec-Butylbenzene	2.4635	2.5563	50.00000	51.88450	ug/L	4	30	0.0500	
para-Isopropyl Toluene	2.0619	2.0882	50.00000	50.63870	ug/L	1	30	0.0500	
1,3-Dichlorobenzene	1.4056	1.3625	50.00000	48.46820	ug/L	-3	30	0.0500	
1,4-Dichlorobenzene	1.4548	1.4188	50.00000	48.76180	ug/L	-2	30	0.0500	
n-Butylbenzene	1.9067	2.0217	50.00000	53.01630	ug/L	6	30	0.0500	
1,2-Dichlorobenzene	1.3974	1.3282	50.00000	47.52130	ug/L	-5	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1840	0.1666	50.00000	45.28810	ug/L	-9	30	0.0500	
1,2,4-Trichlorobenzene	0.9089	0.8979	50.00000	49.39550	ug/L	-1	30	0.0500	
Hexachlorobutadiene	0.3494	0.3389	50.00000	48.50560	ug/L	-3	30	0.0500	
Naphthalene	2.3105	2.0528	50.00000	44.42390	ug/L	-11	30	0.0500	
1,2,3-Trichlorobenzene	0.9148	0.8735	50.00000	47.74040	ug/L	-5	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0651	0.0585	500.0000	449.4900	ug/L	-10	30	0.0050	
Isopropyl Ether (DIPE)	1.2057	1.2859	50.00000	53.32870	ug/L	7	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.2178	1.2345	50.00000	50.68650	ug/L	1	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8207	0.8316	50.00000	50.66350	ug/L	1	30	0.0500	
Ethanol	0.0056	0.0052	5000.000	4649.751	ug/L	-7	30	5.0E-4	
Isopropanol	0.0320	0.0315	500.0000	491.7252	ug/L	-2	30	0.0050	
Tetrahydrofuran	0.1105	0.1134	500.0000	512.9380	ug/L	3	30	0.0050	
Dibromofluoromethane	0.5763	0.5894	50.00000	51.13140	ug/L	2	30	0.0500	
1,2-Dichloroethane-d4	0.3358	0.3691	50.00000	54.95770	ug/L	10	30	0.0500	
Trifluorotoluene	0.4217	0.4805	50.00000	56.97540	ug/L	14	30	0.0500	
Toluene-d8	0.9605	0.9642	50.00000	50.19110	ug/L	0	30	0.0500	
Bromofluorobenzene	0.9501	0.8976	50.00000	47.23730	ug/L	-6	30	0.0500	

ISTD (ICAL=ce415)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	343007	353294	3.00	10.70	10.71	0.01
1,4-Difluorobenzene	524440	535284	2.07	11.86	11.86	0.00
Chlorobenzene-d5	417092	422927	1.40	15.82	15.83	0.01
1,4-Dichlorobenzene-d4	241552	258900	7.18	18.53	18.53	0.01

!=warning +=high bias c=CCV m=manual integration

5/16/05

CONTINUING CALIBRATION REPORT
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Instid : MSVOA06 Run Name : 40PPB IDF : 1.0
Seqnum : 455196356005 Filename : feg05 Injected : 16-MAY-2005 10:21
Calnum : 455180559001 Caldate : 05-MAY-2005 Caltype : SOIL
Standards: S538 (12500X), S568 (12500X), S361 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.9031	1.3057	40.00000	57.82860	ug/L	45	30	0.0500	c+ ***
Chloromethane	1.6591	1.8525	40.00000	44.66270	ug/L	12	30	0.1000	
Vinyl Chloride	1.1594	1.3426	40.00000	46.31780	ug/L	16	20	0.0500	
Bromomethane	0.6727	0.8167	40.00000	48.56490	ug/L	21	30	0.0500	!c+
Chloroethane	0.5579	0.6512	40.00000	46.69330	ug/L	17	30	0.0500	
Trichlorofluoromethane	1.1183	1.5798	40.00000	56.50730	ug/L	41	30	0.0500	c+ ***
Acetone	0.6701	0.5840	40.00000	34.86090	ug/L	-13	40	0.0500	
Freon 113	0.6794	0.9096	40.00000	53.55570	ug/L	34	30	0.0500	c+ ***
1,1-Dichloroethene	0.6362	0.7231	40.00000	45.46080	ug/L	14	20	0.0500	
Methylene Chloride	0.8969	0.8850	40.00000	39.46950	ug/L	-1	30	0.0500	
Carbon Disulfide	2.3769	2.8998	40.00000	52.88700	ug/L	32	30	0.0500	c+ ***
MTBE	2.1149	2.1251	40.00000	40.19230	ug/L	0	30	0.0500	
trans-1,2-Dichloroethene	0.7644	0.8077	40.00000	42.26470	ug/L	6	30	0.0500	
Vinyl Acetate	2.4550	2.1974	40.00000	35.80300	ug/L	-10	40	0.0500	
1,1-Dichloroethane	1.6645	1.6704	40.00000	40.14230	ug/L	0	30	0.1000	
2-Butanone	0.8953	0.7738	40.00000	34.56860	ug/L	-14	40	0.0500	
2,2-Dichloropropane	0.9359	1.0796	40.00000	46.14160	ug/L	15	30	0.0500	
cis-1,2-Dichloroethene	0.8355	0.8685	40.00000	41.58080	ug/L	4	30	0.0500	
Chloroform	1.3593	1.4098	40.00000	41.48560	ug/L	4	20	0.0500	
Bromochloromethane	0.4037	0.4197	40.00000	41.58980	ug/L	4	30	0.0500	
1,1,1-Trichloroethane	0.9503	1.0578	40.00000	44.52540	ug/L	11	30	0.0500	
1,1-Dichloropropene	0.5474	0.6205	40.00000	45.34050	ug/L	13	30	0.0500	
Carbon Tetrachloride	0.4160	0.5030	40.00000	48.35920	ug/L	21	30	0.0500	!c+
1,2-Dichloroethane	0.6297	0.6282	40.00000	39.90540	ug/L	0	30	0.0500	
Benzene	1.5421	1.5634	40.00000	40.55380	ug/L	1	30	0.0500	
Trichloroethene	0.4124	0.4403	40.00000	42.70900	ug/L	7	30	0.0500	
1,2-Dichloropropane	0.5539	0.5347	40.00000	38.61310	ug/L	-3	20	0.0500	
Bromodichloromethane	0.5282	0.5390	40.00000	40.81810	ug/L	2	30	0.0500	
Dibromomethane	0.3250	0.3275	40.00000	40.30890	ug/L	1	30	0.0500	
4-Methyl-2-Pentanone	0.7837	0.6840	40.00000	34.90900	ug/L	-13	40	0.0500	
Tetramethyl THF	1.2637	1.1714	40.00000	37.07880	ug/L	-7	30	0.0500	
cis-1,3-Dichloropropene	0.6996	0.7002	40.00000	40.03450	ug/L	0	30	0.0500	
Toluene	0.8919	0.9260	40.00000	41.52670	ug/L	4	20	0.0500	
trans-1,3-Dichloropropene	0.5897	0.5988	40.00000	40.62240	ug/L	2	30	0.0500	
1,1,2-Trichloroethane	0.2180	0.2135	40.00000	39.15930	ug/L	-2	30	0.0500	
2-Hexanone	0.7084	0.5939	40.00000	33.53620	ug/L	-16	40	0.0500	
1,3-Dichloropropane	0.8148	0.7672	40.00000	37.66480	ug/L	-6	30	0.0500	
Tetrachloroethene	0.3929	0.4520	40.00000	46.01160	ug/L	15	30	0.0500	
Dibromochloromethane	0.4828	0.4764	40.00000	39.47040	ug/L	-1	30	0.0500	
1,2-Dibromoethane	0.4192	0.4134	40.00000	39.44920	ug/L	-1	30	0.0500	
Chlorobenzene	1.1944	1.2159	40.00000	40.72000	ug/L	2	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3875	0.3976	40.00000	41.03660	ug/L	3	30	0.0500	
Ethylbenzene	1.8939	1.9455	40.00000	41.09070	ug/L	3	20	0.0500	
m,p-Xylenes	0.7311	0.7589	80.00000	83.04310	ug/L	4	30	0.0500	
o-Xylene	0.7424	0.7537	40.00000	40.61150	ug/L	2	30	0.0500	
Styrene	1.2419	1.2758	40.00000	41.09210	ug/L	3	30	0.0500	

!=warning +=high bias -=low bias c=CCV m=manual integration rsd=ICAL %RSD failure

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 40PPB IDF : 1.0
Seqnum : 455196356005 Filename : feg05 Injected : 16-MAY-2005 10:21
Calnum : 455180559001 Caldate : 05-MAY-2005 Caltype : SOIL
Standards: S538 (12500X), S568 (12500X), S361 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3426	0.3346	40.00000	39.06540	ug/L	-2	30	0.1000	
Isopropylbenzene	3.8518	3.9216	40.00000	40.72490	ug/L	2	30	0.0500	
1,1,2,2-Tetrachloroethane	1.5653	1.3858	40.00000	35.41220	ug/L	-11	30	0.3000	
1,2,3-Trichloropropane	1.4269	1.2332	40.00000	34.57160	ug/L	-14	30	0.0500	m
Propylbenzene	4.7800	4.8359	40.00000	40.46080	ug/L	1	30	0.0500	
Bromobenzene	1.0794	1.0597	40.00000	39.26940	ug/L	-2	30	0.0500	
1,3,5-Trimethylbenzene	3.1112	3.1549	40.00000	40.56160	ug/L	1	30	0.0500	
2-Chlorotoluene	3.4126	3.4055	40.00000	39.91630	ug/L	0	30	0.0500	
4-Chlorotoluene	3.1452	3.1291	40.00000	39.79480	ug/L	-1	30	0.0500	
tert-Butylbenzene	2.4930	2.5838	40.00000	41.45700	ug/L	4	30	0.0500	
1,2,4-Trimethylbenzene	2.9118	2.9527	40.00000	40.56120	ug/L	1	30	0.0500	
sec-Butylbenzene	3.9243	4.1021	40.00000	41.81300	ug/L	5	30	0.0500	
para-Isopropyl Toluene	2.8799	3.0191	40.00000	41.93320	ug/L	5	30	0.0500	
1,3-Dichlorobenzene	1.8103	1.8477	40.00000	40.82610	ug/L	2	30	0.0500	
1,4-Dichlorobenzene	1.8480	1.8797	40.00000	40.68570	ug/L	2	30	0.0500	
n-Butylbenzene	2.6934	2.8597	40.00000	42.46900	ug/L	6	30	0.0500	
1,2-Dichlorobenzene	1.6886	1.7423	40.00000	41.27330	ug/L	3	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2812	0.2488	40.00000	35.38830	ug/L	-12	30	0.0500	
1,2,4-Trichlorobenzene	0.8433	0.9678	40.00000	45.90290	ug/L	15	30	0.0500	
Hexachlorobutadiene	0.5122	0.6127	40.00000	47.84690	ug/L	20	30	0.0500	
Naphthalene	1.7570	1.8351	40.00000	41.77710	ug/L	4	30	0.0500	
1,2,3-Trichlorobenzene	0.7895	0.8449	40.00000	42.80740	ug/L	7	30	0.0500	
tert-Butyl Alcohol (TBA)	0.1731	0.1201	400.0000	277.6559	ug/L	-31	30	0.0050	c- ***
Isopropyl Ether (DIPE)	3.8570	3.8334	40.00000	39.75580	ug/L	-1	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	2.4748	2.5055	40.00000	40.49650	ug/L	1	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0726	1.1064	40.00000	41.25970	ug/L	3	30	0.0500	
Cyclohexanone	0.3008	0.3017	400.0000	471.9288	ug/L	18	30	0.0050	! rsd *
Ethanol	0.0282	0.0209	4000.000	2965.954	ug/L	-26	30	5.0E-4	!c-
Isopropanol	0.1337	0.1016	400.0000	304.0314	ug/L	-24	30	0.0050	!c-
Tetrahydrofuran	0.4547	0.3578	400.0000	314.7731	ug/L	-21	30	0.0050	!c-
Dibromofluoromethane	0.7227	0.7244	50.00000	50.12290	ug/L	0	30	0.0500	
1,2-Dichloroethane-d4	0.4458	0.4330	50.00000	48.55970	ug/L	-3	30	0.0500	
Trifluorotoluene	0.4792	0.5553	40.00000	46.34830	ug/L	16	30	0.0500	
Toluene-d8	1.0645	1.0500	50.00000	49.31630	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.2851	1.2593	50.00000	48.99790	ug/L	-2	30	0.0500	

ISTD (ICAL=fe508)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1160619	1309768	12.85	12.49	12.51	0.02
1,4-Difluorobenzene	2103624	2349081	11.67	13.81	13.82	0.01
Chlorobenzene-d5	1730245	1969851	13.85	18.43	18.44	0.01
1,4-Dichlorobenzene-d4	767605	891300	16.11	21.27	21.27	0.00

!=warning +=high bias -=low bias c=CCV m=manual integration rsd=ICAL %RSD failure

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425197849003 Filename : ceh03 Injected : 17-MAY-2005 10:28
Calnum : 425179190001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S538 (10000X), S568 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4760	0.5217	50.00000	54.80250	ug/L	10	30	0.0500	m
Chloromethane	0.4011	0.3316	50.00000	41.33590	ug/L	-17	30	0.1000	m
Vinyl Chloride	0.3709	0.3239	50.00000	43.65550	ug/L	-13	20	0.0500	
Bromomethane	0.6760	0.5394	50.00000	39.89680	ug/L	-20	30	0.0500	
Chloroethane	0.2826	0.2460	50.00000	43.51950	ug/L	-13	30	0.0500	
Trichlorofluoromethane	0.6955	0.7282	50.00000	52.35220	ug/L	5	30	0.0500	
Acetone	0.1414	0.1239	50.00000	43.82740	ug/L	-12	40	0.0500	
Freon 113	0.3891	0.4486	50.00000	54.72760	ug/L	9	30	0.0500	
1,1-Dichloroethene	0.3421	0.3139	50.00000	45.88200	ug/L	-8	20	0.0500	
Methylene Chloride	0.4879	0.3988	50.00000	40.86540	ug/L	-18	30	0.0500	
Carbon Disulfide	1.1606	1.1156	50.00000	51.98300	ug/L	4	30	0.0500	
MTBE	1.3342	1.1667	50.00000	43.72350	ug/L	-13	30	0.0500	
trans-1,2-Dichloroethene	0.4342	0.3868	50.00000	44.54210	ug/L	-11	30	0.0500	
Vinyl Acetate	0.8394	0.7097	50.00000	42.27370	ug/L	-15	40	0.0500	
1,1-Dichloroethane	0.6897	0.5865	50.00000	42.51980	ug/L	-15	30	0.1000	
2-Butanone	0.2243	0.1924	50.00000	42.88810	ug/L	-14	40	0.0500	
2,2-Dichloropropane	0.5751	0.5833	50.00000	50.70670	ug/L	1	30	0.0500	
cis-1,2-Dichloroethene	0.5041	0.4341	50.00000	43.05270	ug/L	-14	30	0.0500	
Chloroform	0.8268	0.7449	50.00000	45.04340	ug/L	-10	20	0.0500	
Bromochloromethane	0.3075	0.2678	50.00000	43.54570	ug/L	-13	30	0.0500	
1,1,1-Trichloroethane	0.5862	0.6090	50.00000	51.94430	ug/L	4	30	0.0500	
1,1-Dichloropropene	0.3174	0.3293	50.00000	51.87080	ug/L	4	30	0.0500	
Carbon Tetrachloride	0.3139	0.3543	50.00000	56.43620	ug/L	13	30	0.0500	
1,2-Dichloroethane	0.4159	0.3782	50.00000	45.46500	ug/L	-9	30	0.0500	
Benzene	0.9583	0.8499	50.00000	44.34610	ug/L	-11	30	0.0500	
Trichloroethene	0.2871	0.2819	50.00000	49.08240	ug/L	-2	30	0.0500	
1,2-Dichloropropane	0.2712	0.2452	50.00000	45.20410	ug/L	-10	20	0.0500	
Bromodichloromethane	0.3953	0.3708	50.00000	46.90500	ug/L	-6	30	0.0500	
Dibromomethane	0.2481	0.2188	50.00000	44.10040	ug/L	-12	30	0.0500	
4-Methyl-2-Pentanone	0.3045	0.2686	50.00000	44.11540	ug/L	-12	40	0.0500	
Tetramethyl THF	0.5382	0.4615	50.00000	42.87390	ug/L	-14	30	0.0500	
cis-1,3-Dichloropropene	0.4506	0.4130	50.00000	45.82380	ug/L	-8	30	0.0500	
Toluene	0.6294	0.5514	50.00000	43.80980	ug/L	-12	20	0.0500	
trans-1,3-Dichloropropene	0.4337	0.4025	50.00000	46.40310	ug/L	-7	30	0.0500	
1,1,2-Trichloroethane	0.1599	0.1404	50.00000	43.92040	ug/L	-12	30	0.0500	
2-Hexanone	0.2828	0.2404	50.00000	42.49240	ug/L	-15	40	0.0500	
1,3-Dichloropropane	0.5833	0.5116	50.00000	43.85960	ug/L	-12	30	0.0500	
Tetrachloroethene	0.3629	0.3858	50.00000	53.14810	ug/L	6	30	0.0500	
Dibromochloromethane	0.4400	0.4247	50.00000	48.25860	ug/L	-3	30	0.0500	
1,2-Dibromoethane	0.3381	0.2990	50.00000	44.22140	ug/L	-12	30	0.0500	
Chlorobenzene	0.9978	0.8666	50.00000	43.42830	ug/L	-13	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3841	0.3446	50.00000	44.85000	ug/L	-10	30	0.0500	
Ethylbenzene	1.4521	1.3037	50.00000	44.88900	ug/L	-10	20	0.0500	
m,p-Xylenes	0.5348	0.4903	100.0000	91.68780	ug/L	-8	30	0.0500	
o-Xylene	0.5542	0.4912	50.00000	44.31950	ug/L	-11	30	0.0500	
Styrene	0.9757	0.8602	50.00000	44.07860	ug/L	-12	30	0.0500	

!=warning -=low bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425197849003 Filename : ceh03 Injected : 17-MAY-2005 10:28
Calnum : 425179190001 Caldate : 04-MAY-2005 Caltype : SOIL
Standards: S538 (10000X), S568 (10000X), S296 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3787	0.3613	50.00000	47.70010	ug/L	-5	30	0.1000	
Isopropylbenzene	2.3074	2.1206	50.00000	45.95340	ug/L	-8	30	0.0500	
1,1,2,2-Tetrachloroethane	0.9322	0.7367	50.00000	39.51790	ug/L	**-21**	30	0.3000	!c-
1,2,3-Trichloropropane	0.2874	0.2283	50.00000	39.72820	ug/L	**-21**	30	0.0500	!c-
Propylbenzene	2.7912	2.6585	50.00000	47.62190	ug/L	-5	30	0.0500	
Bromobenzene	0.8079	0.7224	50.00000	44.70810	ug/L	-11	30	0.0500	
1,3,5-Trimethylbenzene	2.0479	1.8448	50.00000	45.04310	ug/L	-10	30	0.0500	
2-Chlorotoluene	2.0423	1.8098	50.00000	44.30740	ug/L	-11	30	0.0500	
4-Chlorotoluene	1.9654	1.7335	50.00000	44.09910	ug/L	-12	30	0.0500	
tert-Butylbenzene	1.6915	1.6072	50.00000	47.50910	ug/L	-5	30	0.0500	
1,2,4-Trimethylbenzene	2.1694	1.9440	50.00000	44.80590	ug/L	-10	30	0.0500	
sec-Butylbenzene	2.4635	2.4515	50.00000	49.75580	ug/L	0	30	0.0500	
para-Isopropyl Toluene	2.0619	2.0408	50.00000	49.48740	ug/L	-1	30	0.0500	
1,3-Dichlorobenzene	1.4056	1.2763	50.00000	45.39940	ug/L	-9	30	0.0500	
1,4-Dichlorobenzene	1.4548	1.3262	50.00000	45.58130	ug/L	-9	30	0.0500	
n-Butylbenzene	1.9067	1.9523	50.00000	51.19740	ug/L	2	30	0.0500	
1,2-Dichlorobenzene	1.3974	1.2170	50.00000	43.54500	ug/L	-13	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1840	0.1492	50.00000	40.56720	ug/L	-19	30	0.0500	
1,2,4-Trichlorobenzene	0.9089	0.9416	50.00000	51.79730	ug/L	4	30	0.0500	
Hexachlorobutadiene	0.3494	0.3900	50.00000	55.80960	ug/L	12	30	0.0500	
Naphthalene	2.3105	1.9602	50.00000	42.42040	ug/L	-15	30	0.0500	
1,2,3-Trichlorobenzene	0.9148	0.8749	50.00000	47.81770	ug/L	-4	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0651	0.0497	500.0000	381.2831	ug/L	**-24**	30	0.0050	!c-
Isopropyl Ether (DIPE)	1.2057	1.1232	50.00000	46.57820	ug/L	-7	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.2178	1.0842	50.00000	44.51770	ug/L	-11	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8207	0.7408	50.00000	45.13650	ug/L	-10	30	0.0500	
Ethanol	0.0056	0.0042	5000.000	3768.666	ug/L	**-25**	30	5.0E-4	!c-
Isopropanol	0.0320	0.0263	500.0000	410.9413	ug/L	-18	30	0.0050	
Tetrahydrofuran	0.1105	0.0951	500.0000	430.1348	ug/L	-14	30	0.0050	
Dibromofluoromethane	0.5763	0.5961	50.00000	51.71920	ug/L	3	30	0.0500	
1,2-Dichloroethane-d4	0.3358	0.3586	50.00000	53.39790	ug/L	7	30	0.0500	
Trifluorotoluene	0.4217	0.4337	50.00000	51.42750	ug/L	3	30	0.0500	
Toluene-d8	0.9605	0.9492	50.00000	49.41250	ug/L	-1	30	0.0500	
Bromofluorobenzene	0.9501	0.9003	50.00000	47.37830	ug/L	-5	30	0.0500	

ISTD (ICAL=ce415)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	343007	340787	-0.65	10.70	10.71	0.01
1,4-Difluorobenzene	524440	508982	-2.95	11.86	11.85	-0.01
Chlorobenzene-d5	417092	404472	-3.03	15.82	15.83	0.01
1,4-Dichlorobenzene-d4	241552	238174	-1.40	18.53	18.53	0.01

!=warning -=low bias c=CCV m=manual integration

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 16-MAY-2005
Sequence: 425196343 (ceg)
Instrument ID: MSVOA03

ICAL Filename: ce415
Date Analyzed: 04-MAY-2005
Time Analyzed: 17:39

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	343007	10.70	524440	11.86	417092	15.82	241552	18.52
LOWER LIMIT	171504	10.20	262220	11.36	208546	15.32	120776	18.03
UPPER LIMIT	686014	11.20	1048880	12.36	834184	16.32	483104	19.03

TYPE	SAMPLE	#							
CCV	40PPB	003	340559	10.71	564212	11.86	447715	15.83	245122	18.53
CCV	50PPB	005	394757	10.72	645141	11.86	520728	15.83	286205	18.53
CCV	50PPB	007	353294	10.71	535284	11.86	422927	15.83	258900	18.53
LCS	QC293849	008	267576	10.72	391385	11.86	324615	15.84	198431	18.53
PREPBLK	QC293851	009	379344	10.70	542011	11.86	439061	15.83	233911	18.53
BLANK	QC293850	010	394587	10.71	587841	11.86	447479	15.83	268374	18.53
MSS	179445-004	011	388960	10.71	584920	11.86	435599	15.84	245936	18.53
SAMPLE	179445-005	012	396711	10.71	587280	11.86	466361	15.83	270652	18.53
SAMPLE	179445-006	013	390098	10.70	592706	11.86	456907	15.83	245205	18.52
MS	QC293874	014	428965	10.72	646859	11.86	492666	15.83	270999	18.53
MSD	QC293875	015	428502	10.71	652619	11.86	500903	15.83	261847	18.53

5/17/05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 16-MAY-2005
Sequence: 455196356 (feg)
Instrument ID: MSVOA06

ICAL Filename: fe508
Date Analyzed: 05-MAY-2005
Time Analyzed: 13:21

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	1160619	12.49	2103624	13.81	1730245	18.43	767605	21.27
LOWER LIMIT	580310	11.99	1051812	13.31	865123	17.93	383803	20.77
UPPER LIMIT	2321238	12.99	4207248	14.31	3460490	18.93	1535210	21.77

TYPE	SAMPLE	#								
CCV	40PPB	005	1309768	12.51	2349081	13.82	1969851	18.44	891300	21.27
BS	QC293840	006	1494805	12.50	2689999	13.82	2152042	18.43	962427	21.27
BSD	QC293841	007	1398015	12.50	2475529	13.82	2030536	18.44	935192	21.27
BLANK	QC293842	009	1354314	12.50	2471109	13.82	2050144	18.43	871300	21.27
SAMPLE	179445-007	010	1274294	12.50	2402067	13.81	1947620	18.43	895327	21.27
SAMPLE	179445-008	011	1361098	12.49	2504158	13.81	2081046	18.43	900822	21.26
SAMPLE	179445-009	012	1362472	12.50	2548858	13.82	2119236	18.43	906326	21.27
SAMPLE	179445-010	013	1362221	12.51	2549379	13.83	2056641	18.43	809509	21.27
SAMPLE	179445-011	014	1254580	12.50	2360887	13.82	1938531	18.44	745361	21.27
SAMPLE	179457-001	015	1198209	12.50	2284364	13.82	1798763	18.44	606889	21.27
SAMPLE	179403-006	017	1238854	12.50	2273781	13.82	1876114	18.44	779312	21.26
SAMPLE	179403-011	018	1185630	12.49	2227521	13.81	1874169	18.43	796470	21.26
SAMPLE	179403-016	019	1065543	12.49	1985281	13.81	1598248	18.43	658322	21.26
SAMPLE	179403-022	020	1116039	12.50	2100050	13.81	1710108	18.43	712285	21.27

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005
Sequence: 425197849 (ceh)
Instrument ID: MSVOA03

ICAL Filename: ce415
Date Analyzed: 04-MAY-2005
Time Analyzed: 17:39

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	343007	10.70	524440	11.86	417092	15.82	241552	18.52
LOWER LIMIT	171504	10.20	262220	11.36	208546	15.32	120776	18.03
UPPER LIMIT	686014	11.20	1048880	12.36	834184	16.32	483104	19.03

TYPE	SAMPLE	#								
CCV	50PPB	003	340787	10.71	508982	11.85	404472	15.83	238174	18.53
LCS	QC293969	004	331100	10.71	479610	11.86	391981	15.83	232512	18.53
LCS	QC293972	005	394034	10.71	563535	11.86	455393	15.82	262537	18.53
BLANK	QC293973	006	429036	10.71	607862	11.86	502337	15.82	287465	18.53
PREPBLK	QC293970	007	459692	10.70	678386	11.85	543705	15.83	289294	18.53
BLANK	QC293971	008	454180	10.71	668058	11.85	546042	15.83	307852	18.53
SAMPLE	179445-010	009	506488	10.70	758956	11.85	632315	15.83	330111	18.53
SAMPLE	179445-011	010	496451	10.70	756344	11.86	619873	15.83	331144	18.53
SAMPLE	179358-001	011	453126	10.71	700967	11.86	535201	15.83	236023	18.53
SAMPLE	179358-003	012	450164	10.71	698078	11.86	565267	15.83	269658	18.53
MSS	179467-017	013	462214	10.71	739966	11.86	603161	15.82	332734	18.53
SAMPLE	179467-018	014	463723	10.71	737653	11.86	604073	15.83	337725	18.53
SAMPLE	179467-019	015	457103	10.70	722899	11.86	593104	15.83	323177	18.53
SAMPLE	179400-001	016	495407	10.71	767847	11.85	627285	15.83	341496	18.53
MS	QC294061	017	483498	10.71	779199	11.86	652905	15.83	353815	18.53
MSD	QC294062	018	496797	10.71	789757	11.85	638879	15.83	348178	18.53
MS	QC293874	019	491429	10.71	794593	11.86	648253	15.84	325670	18.53
MSD	QC293875	020	494276	10.72	795089	11.86	631900	15.83	334792	18.53
MSS	179399-001	021	507642	10.71	831940	11.86	685304	15.83	373879	18.53
SAMPLE	179437-001	022	483651	10.71	794942	11.86	649740	15.83	352763	18.52
SAMPLE	179438-001	023	503731	10.71	819899	11.86	675702	15.83	360754	18.53
MS	QC294063	024	504622	10.71	856389	11.87	668903	15.83	358127	18.53
MSD	QC294064	025	496991	10.71	826648	11.86	667441	15.84	364584	18.53

8260/6450 x w ICAL

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455169004 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 27-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fdr01	X	IB			27-APR-2005 08:44	1.0						1	
002	fdr02	TUN	BFB			27-APR-2005 09:29	1.0						2	
003	fdr03	CCV	25PPB			27-APR-2005 09:48	1.0	3		5000			3 4 5 1	
004	fdr04	BS	QC291814	101512	Water	27-APR-2005 10:42	1.0	80	12	5000			6 7 8 1 spk	
005	fdr05	BSD	QC291815	101512	Water	27-APR-2005 11:16	1.0	80	7	5000			6 7 8 1 spk	
006	fdr06	BS	QC291814	101512	Water	27-APR-2005 12:18	1.0	76	6	5000			6 7 8 1 spk	
007	fdr07	X	IB			27-APR-2005 13:35	1.0						1	
008	fdr08	X	LOW PT			27-APR-2005 14:10	1.0						1	
009	fdr09	X	LOW PT			27-APR-2005 14:44	1.0						1	
010	fdr10	TUN	BFB			27-APR-2005 15:40	1.0						2	
011	fdr11	X	IB			27-APR-2005 16:00	1.0						1	
012	fdr12	X	IB			27-APR-2005 16:34	1.0						1	
013	fdr13	X	CALIB			27-APR-2005 17:09	1.0						1	
014	fdr14	ICAL	0.5-1PPB			27-APR-2005 17:43	1.0						4 3 9 1	192
015	fdr15	ICAL	2PPB			27-APR-2005 18:18	1.0						4 3 9 1	
016	fdr16	ICAL	10PPB			27-APR-2005 18:52	1.0						4 3 9 1	
017	fdr17	ICAL	20PPB			27-APR-2005 19:27	1.0						4 3 9 1	
018	fdr18	ICAL	50PPB			27-APR-2005 20:01	1.0						4 3 9 1	
019	fdr19	ICAL	75PPB			27-APR-2005 20:36	1.0						4 3 9 1	
020	fdr20	ICAL	100PPB			27-APR-2005 21:10	1.0						4 3 9 1	
021	fdr21	ICV	50PPB			27-APR-2005 21:45	1.0			5000			10 1	
022	fdr22	ICV	50PPB			27-APR-2005 22:19	1.0	1		5000			8 11 1	
023	fdr23	X	IB			27-APR-2005 22:54	1.0						1	
024	fdr24	X	IB			27-APR-2005 23:28	1.0						1	
025	fdr25	X	IB			28-APR-2005 00:03	1.0						1	

+ ICAL - OK
- DBCP to 75 ppb
- Cyclohexane to 750 ppb
+ ICV - Cyclohexane, MeCl - TBA↑, IPA↑

Stds used: 1=S361 2=04WS2425 3=S283 4=S359 5=S304A 6=S215D 7=S139C 8=S285A 9=S304 10=S215A 11=S139
Flags used: spk=5% spike rule

Analyst: [signature] Date: 4/28/05

Page 1 of 1

4/28/05

8260/6450A w ICV

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455170462 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 28-APR-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	fds01	X	IB			28-APR-2005 09:02	1.0					1	
002	fds02	TUN	BFB			28-APR-2005 09:33	1.0					2	
003	fds03	CCV	25PPB			28-APR-2005 09:52	1.0	1	5000			3 4 5 1	
004	fds04	ICV				28-APR-2005 10:42	1.0	1	5000			6 7 8 1	
005	fds05	BSD	QC291952	101546	Water	28-APR-2005 11:17	1.0	1	5000			6 7 8 1	

193

Stds used: 1=S361 2=04WS2425 3=S283 4=S359 5=S304 6=S215A 7=S139C 8=S285B

Analyst: RAO Date: 4/28/05

Page 1 of 1

4/28/05

MS0A03 8260X 5 ICAL

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 425179190 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 04-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	ce401	X	IB			04-MAY-2005 10:30	1.0					1	
002	ce402	TUN	BFB			04-MAY-2005 11:12	1.0					2	
003	ce403	CCV	60PPB			04-MAY-2005 11:28	1.0	7	5000			3 4 1 cc+	
004	ce404	TUN	BFB			04-MAY-2005 12:02	1.0					2	
005	ce405	CCV	60PPB			04-MAY-2005 12:18	1.0	3	5000			5 4 1 cc+	
006	ce406	X	IB			04-MAY-2005 13:03	1.0					1	
007	ce407	X	IB			04-MAY-2005 13:33	1.0					1	
008	ce408	X	IB			04-MAY-2005 14:03	1.0					1	
009	ce409	TUN	BFB			04-MAY-2005 14:50	1.0					2	
010	ce410	X	IB			04-MAY-2005 15:06	1.0					1	
011	ce411	X	CALIB IB			04-MAY-2005 15:36	1.0					1	
012	ce412	ICAL	5PPB			04-MAY-2005 16:07	1.0					5 4 1	
013	ce413	ICAL	10PPB			04-MAY-2005 16:37	1.0					5 4 1	
014	ce414	ICAL	20PPB			04-MAY-2005 17:08	1.0					5 4 1	
015	ce415	ICAL	50PPB			04-MAY-2005 17:39	1.0					5 4 1	
016	ce416	ICAL	60PPB			04-MAY-2005 18:10	1.0					5 4 1	194
017	ce417	ICAL	75PPB			04-MAY-2005 18:40	1.0					5 4 1	
018	ce418	ICAL	100PPB			04-MAY-2005 19:10	1.0					5 4 1	
019	ce419	X				04-MAY-2005 19:40	1.0		5000			3 1	
020	ce420	X	IB			04-MAY-2005 20:10	1.0					1	
021	ce421	X	IB			04-MAY-2005 20:40	1.0					1	
022	ce422	X	IB			04-MAY-2005 21:10	1.0					1	
023	ce423	X	IB			04-MAY-2005 21:40	1.0					1	

ICAL - Good, ICV - BrMeb, +A.C.E. lin - Clmet, HCBD ↑

Stds used: 1=S296 2=04WS2425 3=S491 4=S359 5=S367
Flags used: +=high bias cc=CCV CCC failure

Analyst: Date: 5/5/05

Page 1 of 1

05/05/05

MSVOA03 8260X S. ICV

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 425180642 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 05-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	ce501	X	IB			05-MAY-2005 10:42	1.0						1	
002	ce502	X	IB			05-MAY-2005 11:23	1.0						1	
003	ce503	TUN	BFB			05-MAY-2005 11:59	1.0						2	
004	ce504	CCV	50PPB			05-MAY-2005 12:15	1.0	1		5000			3 4 1	
005	ce505	BS	QC292775	101762	Soil	05-MAY-2005 13:00	1.0	2	1	5000			5 6 7 1	
006	ce506	ICV	QC292776	101762	Soil	05-MAY-2005 13:30	1.0	2		5000			5 6 7 1	
007	ce507	X	IB			05-MAY-2005 14:04	1.0						1	
008	ce508	BLANK	QC292763	101762	Soil	05-MAY-2005 14:34	1.0		1	5000			1	

195

Stds used: 1=S296 2=04WS2425 3=S367 4=S359 5=S491 6=S285 7=S139

Analyst: Date: 5/5/05

05/06/05

7 - 11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455196356 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 16-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	feg01	X	IB			16-MAY-2005 08:36	1.0						1	
002	feg02	X	BFB			16-MAY-2005 09:07	1.0						2	
003	feg03	X	40PPB			16-MAY-2005 09:24	1.0			5000			3 4 1 cc+	
004	feg04	TUN	BFB			16-MAY-2005 10:05	1.0						2	
005	feg05	CCV	40PPB			16-MAY-2005 10:21	1.0	6		5000			3 4 1	
006	feg06	BS	QC293840	102041	Soil	16-MAY-2005 11:08	1.0	6		5000			5 6 7 1	
007	feg07	BSD	QC293841	102041	Soil	16-MAY-2005 11:42	1.0	6	2	5000			5 6 7 1	
008	feg08	X	IB			16-MAY-2005 12:17	1.0						1	
009	feg09	BLANK	QC293842	102041	Soil	16-MAY-2005 12:51	1.0		1	5000			1	
010	feg10	SAMPLE	179445-007	102041	Soil	16-MAY-2005 13:28	0.9804	71		5000	C		1 sh	
011	feg11	SAMPLE	179445-008	102041	Soil	16-MAY-2005 14:02	0.8333	71		5000	B		1 sh	
012	feg12	SAMPLE	179445-009	102041	Soil	16-MAY-2005 14:36	0.9804	71		5000			1 sh	
013	feg13	SAMPLE	179445-010	102041	Soil	16-MAY-2005 15:10	0.9615	71		5000			1 sh pH 2nd 1:MTLNCL=197.581	
014	feg14	SAMPLE	179445-011	102041	Soil	16-MAY-2005 15:44	1.02	71		5000			1 sh 1:MTLNCL=176.778	180
015	feg15	SAMPLE	179457-001	102041	Soil	16-MAY-2005 16:18	0.9615		1	5000	A		1	
016	feg16	X	IB			16-MAY-2005 16:52	1.0						1	
017	feg17	SAMPLE	179403-006	102041	Soil	16-MAY-2005 17:26	0.9804			5000	C		1	
018	feg18	SAMPLE	179403-011	102041	Soil	16-MAY-2005 18:00	0.8929			5000			1	
019	feg19	SAMPLE	179403-016	102041	Soil	16-MAY-2005 18:35	1.02			5000			1	
020	feg20	SAMPLE	179403-022	102041	Soil	16-MAY-2005 19:09	0.9259			5000			1	
021	feg21	X	IB			16-MAY-2005 19:43	1.0						1	
022	feg22	X	IB			16-MAY-2005 20:17	1.0						1	
023	feg23	X	6A			16-MAY-2005 20:52	1.0						1	
024	feg24	X	6B			16-MAY-2005 21:26	1.0						1	

* ICAL - OK
& ICV - Cyclohex ↓, USCALE - TBA ↑, IPA ↑
$ CCV - Fr12 ↑, Brmet (USMCO) ↑, TCFM ↑, Fr113 ↑, CS_2 ↑, TBA ↓, USCALE - CCl_4 ↑, EtOH ↓, IPA ↓, THF ↓

Stds used: 1=S361 2=04WS2425 3=S538 4=S568 5=S491C 6=S139D 7=S285C
Flags used: +=high bias cc=CCV CCC failure sh=out of sample hold

Analyst: TBO Date: 5/17/05
Page 1 of 1

5/17/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

4-6, MS/MSD confirmed by AR

Sequence: 425196343 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 16-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	ceg01	X	IB			16-MAY-2005 08:23	1.0						1	
002	ceg02	TUN	BFB			16-MAY-2005 08:58	1.0						2	
003	ceg03	CCV	40PPB			16-MAY-2005 09:13	1.0	5		5000			3 4 1 cc+	
005	ceg05	CCV	50PPB			16-MAY-2005 10:15	1.0	3		5000			3 4 1 cc+	
006	ceg06	TUN	BFB			16-MAY-2005 11:07	1.0						2	
007	ceg07	CCV	50PPB			16-MAY-2005 11:23	1.0			5000			1 3 4	
008	ceg08	LCS	QC293849	102044	Soil	16-MAY-2005 12:06	1.0	1		5000			5 6 7 1	
009	ceg09	PREPBLK	QC293851 M	102044	Soil	16-MAY-2005 12:36	25.0			5000			8 1 MeOH/PB 5/13/05	
010	ceg10	BLANK	QC293850	102044	Soil	16-MAY-2005 13:06	1.0		1	5000			1	
011	ceg11	MSS	179445-004	102044	Soil	16-MAY-2005 13:35	1.19	80	1	5000	G		1 sh	
012	ceg12	SAMPLE	179445-005	102044	Soil	16-MAY-2005 14:06	0.8197	71		5000	B		1 sh	
013	ceg13	SAMPLE	179445-006	102044	Soil	16-MAY-2005 14:36	1.0	71		5000	B		1 sh	
014	ceg14	MS	QC293874	102044	Soil	16-MAY-2005 15:07	0.9804	2	5	5000	H		5 6 7 1 AR	1:ACE=250.930
015	ceg15	MSD	QC293875	102044	Soil	16-MAY-2005 15:37	0.9804	2	9	5000	I		5 6 7 1 AR	1:ACE=217.241
016	ceg16	X	IB			16-MAY-2005 16:08	1.0						1	

ICAL - Good, ICV - Br, Cl + A.C.E.: Cl ↓, HCBD ↑, CCV - Good, + A.C.E. lin - F12 ↑, F11 ↑, CS2 ↑, Cl4 ↑

V AR 5/17/05

Stds used: 1=S296 2=04WS2425 3=S538 4=S568 5=S491 6=S139 7=S285 8=S344
Flags used: +=high bias cc=CCV CCC failure sh=out of sample hold

Analyst: Date: 5/17/05

9, 10, MeOH PB 5/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425197849 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 17-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	ceh01	X	IB			17-MAY-2005 09:29	1.0						1	
002	ceh02	TUN	BFB			17-MAY-2005 10:13	1.0						2	
003	ceh03	CCV	50PPB			17-MAY-2005 10:28	1.0			5000			3 4 1	
004	ceh04	LCS	QC293969	102078	Soil	17-MAY-2005 11:11	1.0	1	1	5000			5 6 7 1	
005	ceh05	LCS	QC293972	102079	TCLP L	17-MAY-2005 11:41	1.0	1	1	5000			5 6 7 1	
006	ceh06	BLANK	QC293973	102079	TCLP L	17-MAY-2005 12:12	1.0		1	5000			1	
007	ceh07	PREPBLK	QC293970 M	102078	Soil	17-MAY-2005 12:43	25.0			5000			8 1 MeOH PB 5/16/05	
008	ceh08	BLANK	QC293971	102078	Soil	17-MAY-2005 13:13	1.0		1	5000			1	
009	ceh09	SAMPLE	179445-010 M	102078	Soil	17-MAY-2005 13:43	25.0			5000	C		8 1	
010	ceh10	SAMPLE	179445-011 M	102078	Soil	17-MAY-2005 14:13	25.0			5000	C		8 1	
011	ceh11	SAMPLE	179358-001	102078	Soil	17-MAY-2005 14:43	0.8929			5000	E		1	
012	ceh12	SAMPLE	179358-003	102078	Soil	17-MAY-2005 15:13	0.9434			5000	C		1	
013	ceh13	MSS	179467-017	102078	Soil	17-MAY-2005 15:44	0.9434		1	5000	A		1	
014	ceh14	SAMPLE	179467-018	102078	Soil	17-MAY-2005 16:15	0.9615			5000			1	198
015	ceh15	SAMPLE	179467-019	102078	Soil	17-MAY-2005 16:45	0.9804			5000			1	
016	ceh16	SAMPLE	179400-001	102078	Miscel	17-MAY-2005 17:16	3333			5000			8 1	
017	ceh17	MS	QC294061	102078	Soil	17-MAY-2005 17:47	0.9434	1		5000			5 6 7 1	
018	ceh18	MSD	QC294062	102078	Soil	17-MAY-2005 18:17	0.9434	2	1	5000	↓		5 6 7 1 1/10CET-RPDgood	1:ACE=121.578
019	ceh19	MS	QC293874	102044	Soil	17-MAY-2005 18:46	1.282	2	4	5000	J		5 6 7 1 VSt	1:ACE=343.520
020	ceh20	MSD	QC293875	102044	Soil	17-MAY-2005 19:17	1.042	2	5	5000	K		5 6 7 1 RPDfail	1:ACE=349.809
021	ceh21	MSS	179399-001	102079	TCLP L	17-MAY-2005 19:47	0.94		1	5000	A		1	
022	ceh22	SAMPLE	179437-001	102079	TCLP L	17-MAY-2005 20:17	0.98			5000			1	
023	ceh23	SAMPLE	179438-001	102079	TCLP L	17-MAY-2005 20:47	1.0			5000			1	
024	ceh24	MS	QC294063	102079	TCLP L	17-MAY-2005 21:17	0.94	1	4	5000			5 6 7 1 1/10CET	
025	ceh25	MSD	QC294064	102079	TCLP L	17-MAY-2005 21:47	0.94	1	4	5000	↓		5 6 7 1 ↓ RPDgood-ample	
026	ceh26	X	IB			17-MAY-2005 22:17	1.0						1	
027	ceh27	X	IB			17-MAY-2005 22:47	1.0						1	
028	ceh28	X	3A			17-MAY-2005 23:17	1.0						1 < RL	
029	ceh29	X	3B			17-MAY-2005 23:47	1.0						1 ↓	
030	ceh30	X	454-1SCRN			18-MAY-2005 00:17	1.0						1 25X of 10X	
031	ceh31	X	IB			18-MAY-2005 00:47	1.0						1	

ICAL - Good, ICV - B, MeOH + A.C.E. lin - CH2Cl2 + HCBD ↑, CCV - Good + A.C.E. - 1/22 PCA ↓, 1,2,3 TCP ↓ TBA ↓, ROOH ↓

Stds used: 1=S296 2=04WS2425 3=S538 4=S568 5=S491 6=S139 7=S285 8=S344

Analyst: [signature] Date: 5/18/05

Page 1 of 2

5/18/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 5/16/05
Prepped by: ri

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179403-1		A		3	MS333 X ~~MS/MSD~~		
2	MeOHPBLK 5/13/05	0.2			1			
3	179454-1			X	—			
4								
5								
6								
7								
8								
9								
0								
1								
2								
3								
4								
5								
6								
7								
8								
	PREP BLK		—	X	3	5/16/05		
1								
2	179445-11	5.2	C	X	3	MS 25x, MeOH 0.2		
3	179403-6	5.1	C		6	5035 ENCORE		
4	-11	5.6						
5	-16	4.9						
6	-22	5.4	↓		↓	↓ ↓		

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179445-4	4.2	G		3	MSS		
2	5	6.1	B		3			
3	6	5.0	↓		3			
4	7	5.1	C		6			
5	8	6.0	B					
6	9	5.1	↓		↓			
7	10	5.2	↓					
8	11	4.9	↓		↓			
9	4	5.1	H		3	MS		
0	4	4.4	I		1	MSD		
1	179457-1	5.2	A		6			
2	179358-1	5.6	B		3			
	-3	5.3	C					
4	179361-4	5.3	C					
5	-7	6.0	C					
6	-12	5.1	C		↓			
7	179445-10	5.2	C	X	3	MS 25x, MeOH 0.2		

F:/home/terri/templates/Soilprepsheet.xls

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 5/17/05

LOG Prepped by: Li

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	MeOH P. Blank				3	5/16/05 25X		
2	179400-1	0.0015	A		↓	RR 3333X		
3	179467-17	5.3	↓			comp 1-4 MSS/MS/MSD		
4	18	5.2				5-8		
5	19	5.1				9-12		
6	20	5.0	↓			13-16		
7	179399-1		A	TCLP	3	MSS/MS/MSD		
8	179437-1		↓	↓	↓			
9	179438-1		↓	↓	↓			
10	179470-1	5.1	A	5.1	6			
11	-2	5.4	↓	5.4	5/17			
12	-3	5.3	↓	↓	↓	MSS/MS/MSD		
13	-4	5.3	↓	↓	↓			
14	-5	5.1	↓	↓	↓			
15	-6	5.2	↓	↓	↓			
16	-7	5.2	↓	↓	↓			
17	-8	5.1	↓	↓	↓			
18	-23	5.2	A	↓	↓			
	-24	1.3	↓	↓	↓			
21								
22								
23								
24								
25								
26	179454-1 X	1.0	A	X		MSC		

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179445-4	3.9	J		3	RR MS 1X		
2	-4	4.8	K		↓	RR MSD 1X		
3	-10	0.2	C		↓	RR 25X		
4	-11	0.2	↓		↓	RR 25X		
5	179358-1	5.6	E		↓			
6	-3	5.3	C		↓			
7	179361-4	5.3	↓		6			
8	-7	6.0	↓		↓			
9	-12	5.6	↓		↓			
10								
11								
12								
14								
15								
16								
17						200		

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB19B110(3.5)	Batch#:	102111
Lab ID:	179445-001	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05

Moisture: 12%

Analyte	Result	RL	MDL	Diln Fac
Naphthalene	20	5.6	0.86	1.000
Acenaphthylene	64	5.6	1.7	1.000
Acenaphthene	17	5.6	0.86	1.000
Fluorene	42	5.6	1.3	1.000
Phenanthrene	730	28	5.3	5.000
Anthracene	100	5.6	1.4	1.000
Fluoranthene	720	28	7.5	5.000
Pyrene	1,000	28	6.4	5.000
Benzo(a)anthracene	360	5.6	1.2	1.000
Chrysene	420	28	5.4	5.000
Benzo(b)fluoranthene	210	5.6	1.2	1.000
Benzo(k)fluoranthene	200	5.6	0.67	1.000
Benzo(a)pyrene	330	5.6	1.0	1.000
Indeno(1,2,3-cd)pyrene	270	28	5.4	5.000
Dibenz(a,h)anthracene	120	28	5.0	5.000
Benzo(g,h,i)perylene	320	28	4.9	5.000

Surrogate	%REC	Limits	Diln Fac
Nitrobenzene-d5	124	37-140	1.000
2-Fluorobiphenyl	97	38-120	1.000
Terphenyl-d14	102	44-137	1.000

RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB29B102(0.0)	Batch#:	102111
Lab ID:	179445-002	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 22%

Analyte	Result	RL	MDL
Naphthalene	5.1 J	6.4	0.98
Acenaphthylene	14	6.4	1.9
Acenaphthene	4.9 J	6.4	0.97
Fluorene	6.7	6.4	1.4
Phenanthrene	120	6.4	1.2
Anthracene	24	6.4	1.5
Fluoranthene	180	6.4	1.7
Pyrene	220	6.4	1.4
Benzo(a)anthracene	99	6.4	1.3
Chrysene	130	6.4	1.2
Benzo(b)fluoranthene	120	6.4	1.4
Benzo(k)fluoranthene	90	6.4	0.76
Benzo(a)pyrene	140	6.4	1.1
Indeno(1,2,3-cd)pyrene	72	6.4	1.2
Dibenz(a,h)anthracene	35	6.4	1.1
Benzo(g,h,i)perylene	68	6.4	1.1

Surrogate	%REC	Limits
Nitrobenzene-d5	130	37-140
2-Fluorobiphenyl	101	38-120
Terphenyl-d14	115	44-137

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB29B102(2.0)	Batch#:	102111
Lab ID:	179445-003	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 13%

Analyte	Result	RL	MDL
Naphthalene	4.0 J	5.7	0.88
Acenaphthylene	11	5.7	1.7
Acenaphthene	2.1 J	5.7	0.87
Fluorene	3.8 J	5.7	1.3
Phenanthrene	51	5.7	1.1
Anthracene	8.7	5.7	1.4
Fluoranthene	76	5.7	1.5
Pyrene	100	5.7	1.3
Benzo(a)anthracene	52	5.7	1.2
Chrysene	69	5.7	1.1
Benzo(b)fluoranthene	68	5.7	1.2
Benzo(k)fluoranthene	55	5.7	0.68
Benzo(a)pyrene	84	5.7	1.0
Indeno(1,2,3-cd)pyrene	36	5.7	1.1
Dibenz(a,h)anthracene	19	5.7	1.0
Benzo(g,h,i)perylene	38	5.7	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	140	37-140
2-Fluorobiphenyl	104	38-120
Terphenyl-d14	119	44-137

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB108(0.0)	Batch#:	102111
Lab ID:	179445-004	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 29%

Analyte	Result	RL	MDL
Naphthalene	2.1 J	6.9	1.1
Acenaphthylene	6.8 J	6.9	2.0
Acenaphthene	ND	6.9	1.1
Fluorene	2.0 J	6.9	1.6
Phenanthrene	36	6.9	1.3
Anthracene	8.1	6.9	1.7
Fluoranthene	53	6.9	1.9
Pyrene	85	6.9	1.6
Benzo(a)anthracene	38	6.9	1.5
Chrysene	58	6.9	1.3
Benzo(b)fluoranthene	34	6.9	1.5
Benzo(k)fluoranthene	28	6.9	0.83
Benzo(a)pyrene	45	6.9	1.3
Indeno(1,2,3-cd)pyrene	20	6.9	1.3
Dibenz(a,h)anthracene	14	6.9	1.2
Benzo(g,h,i)perylene	21	6.9	1.2

Surrogate	%REC	Limits
Nitrobenzene-d5	134	37-140
2-Fluorobiphenyl	101	38-120
Terphenyl-d14	123	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB108(2.0)	Batch#:	102111
Lab ID:	179445-005	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 17%

Analyte	Result	RL	MDL
Naphthalene	1.5 J	6.0	0.92
Acenaphthylene	3.6 J	6.0	1.8
Acenaphthene	ND	6.0	0.92
Fluorene	ND	6.0	1.4
Phenanthrene	15	6.0	1.1
Anthracene	3.5 J	6.0	1.5
Fluoranthene	26	6.0	1.6
Pyrene	36	6.0	1.4
Benzo(a)anthracene	20	6.0	1.3
Chrysene	25	6.0	1.2
Benzo(b)fluoranthene	14	6.0	1.3
Benzo(k)fluoranthene	11	6.0	0.72
Benzo(a)pyrene	20	6.0	1.1
Indeno(1,2,3-cd)pyrene	11	6.0	1.2
Dibenz(a,h)anthracene	5.7 J	6.0	1.1
Benzo(g,h,i)perylene	13	6.0	1.1

Surrogate	%REC	Limits
Nitrobenzene-d5	133	37-140
2-Fluorobiphenyl	97	38-120
Terphenyl-d14	102	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB109(0.0)	Batch#:	102111
Lab ID:	179445-006	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 40%

Analyte	Result	RL	MDL
Naphthalene	13	8.3	1.3
Acenaphthylene	8.8	8.3	2.4
Acenaphthene	3.5 J	8.3	1.3
Fluorene	4.1 J	8.3	1.9
Phenanthrene	59	8.3	1.6
Anthracene	24	8.3	2.0
Fluoranthene	88	8.3	2.2
Pyrene	110	8.3	1.9
Benzo(a)anthracene	65	8.3	1.7
Chrysene	85	8.3	1.6
Benzo(b)fluoranthene	93	8.3	1.8
Benzo(k)fluoranthene	55	8.3	0.99
Benzo(a)pyrene	82	8.3	1.5
Indeno(1,2,3-cd)pyrene	36	8.3	1.6
Dibenz(a,h)anthracene	19	8.3	1.5
Benzo(g,h,i)perylene	34	8.3	1.4

Surrogate	%REC	Limits
Nitrobenzene-d5	140	37-140
2-Fluorobiphenyl	98	38-120
Terphenyl-d14	111	44-137

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	DUP(050512)	Batch#:	102111
Lab ID:	179445-007	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 33%

Analyte	Result	RL	MDL
Naphthalene	6.8 J	7.4	1.1
Acenaphthylene	7.5	7.4	2.2
Acenaphthene	1.4 J	7.4	1.1
Fluorene	2.2 J	7.4	1.7
Phenanthrene	22	7.4	1.4
Anthracene	11	7.4	1.8
Fluoranthene	31	7.4	2.0
Pyrene	42	7.4	1.7
Benzo(a)anthracene	21	7.4	1.6
Chrysene	30	7.4	1.4
Benzo(b)fluoranthene	28	7.4	1.6
Benzo(k)fluoranthene	21	7.4	0.89
Benzo(a)pyrene	24	7.4	1.3
Indeno(1,2,3-cd)pyrene	19	7.4	1.4
Dibenz(a,h)anthracene	11	7.4	1.3
Benzo(g,h,i)perylene	16	7.4	1.3

Surrogate	%REC	Limits
Nitrobenzene-d5	118	37-140
2-Fluorobiphenyl	93	38-120
Terphenyl-d14	109	44-137

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB109(2.0)	Batch#:	102111
Lab ID:	179445-008	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/18/05
Diln Fac:	1.000		

Moisture: 21%

Analyte	Result	RL	MDL
Naphthalene	ND	6.3	0.97
Acenaphthylene	ND	6.3	1.9
Acenaphthene	ND	6.3	0.97
Fluorene	ND	6.3	1.4
Phenanthrene	ND	6.3	1.2
Anthracene	ND	6.3	1.5
Fluoranthene	ND	6.3	1.7
Pyrene	ND	6.3	1.4
Benzo(a)anthracene	ND	6.3	1.3
Chrysene	ND	6.3	1.2
Benzo(b)fluoranthene	ND	6.3	1.4
Benzo(k)fluoranthene	ND	6.3	0.76
Benzo(a)pyrene	ND	6.3	1.1
Indeno(1,2,3-cd)pyrene	ND	6.3	1.2
Dibenz(a,h)anthracene	ND	6.3	1.1
Benzo(g,h,i)perylene	1.3 J b	6.3	1.1

Surrogate	%REC	Limits
Nitrobenzene-d5	117	37-140
2-Fluorobiphenyl	97	38-120
Terphenyl-d14	109	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB2ASB112(0.5)	Batch#:	102111
Lab ID:	179445-009	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/17/05
Diln Fac:	1.000		

Moisture: 4%

Analyte	Result	RL	MDL
Naphthalene	ND	5.2	0.80
Acenaphthylene	ND	5.2	1.5
Acenaphthene	ND	5.2	0.79
Fluorene	ND	5.2	1.2
Phenanthrene	1.4 J	5.2	0.98
Anthracene	ND	5.2	1.3
Fluoranthene	ND	5.2	1.4
Pyrene	ND	5.2	1.2
Benzo(a)anthracene	ND	5.2	1.1
Chrysene	ND	5.2	1.0
Benzo(b)fluoranthene	ND	5.2	1.1
Benzo(k)fluoranthene	ND	5.2	0.62
Benzo(a)pyrene	ND	5.2	0.93
Indeno(1,2,3-cd)pyrene	ND	5.2	1.0
Dibenz(a,h)anthracene	ND	5.2	0.92
Benzo(g,h,i)perylene	ND	5.2	0.90

Surrogate	%REC	Limits
Nitrobenzene-d5	111	37-140
2-Fluorobiphenyl	100	38-120
Terphenyl-d14	108	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1SB113(0.5)	Batch#:	102111
Lab ID:	179445-010	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/17/05
Diln Fac:	1.000		

Moisture: 6%

Analyte	Result	RL	MDL
Naphthalene	0.91 J	5.3	0.81
Acenaphthylene	ND	5.3	1.6
Acenaphthene	ND	5.3	0.81
Fluorene	2.5 J	5.3	1.2
Phenanthrene	3.8 J	5.3	1.0
Anthracene	ND	5.3	1.3
Fluoranthene	2.2 J	5.3	1.4
Pyrene	3.0 J	5.3	1.2
Benzo(a)anthracene	1.3 J	5.3	1.1
Chrysene	2.0 J	5.3	1.0
Benzo(b)fluoranthene	1.4 J	5.3	1.1
Benzo(k)fluoranthene	0.81 J	5.3	0.63
Benzo(a)pyrene	1.2 J	5.3	0.95
Indeno(1,2,3-cd)pyrene	ND	5.3	1.0
Dibenz(a,h)anthracene	ND	5.3	0.94
Benzo(g,h,i)perylene	1.6 J b	5.3	0.92

Surrogate	%REC	Limits
Nitrobenzene-d5	113	37-140
2-Fluorobiphenyl	105	38-120
Terphenyl-d14	114	44-137

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1SB114(0.5)	Batch#:	102111
Lab ID:	179445-011	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/17/05
Diln Fac:	1.000		

Moisture: 10%

Analyte	Result	RL	MDL
Naphthalene	1.9 J	5.5	0.85
Acenaphthylene	ND	5.5	1.6
Acenaphthene	ND	5.5	0.85
Fluorene	ND	5.5	1.2
Phenanthrene	1.7 J	5.5	1.1
Anthracene	ND	5.5	1.3
Fluoranthene	ND	5.5	1.5
Pyrene	ND	5.5	1.3
Benzo(a)anthracene	ND	5.5	1.2
Chrysene	ND	5.5	1.1
Benzo(b)fluoranthene	ND	5.5	1.2
Benzo(k)fluoranthene	ND	5.5	0.66
Benzo(a)pyrene	ND	5.5	1.0
Indeno(1,2,3-cd)pyrene	ND	5.5	1.1
Dibenz(a,h)anthracene	ND	5.5	0.98
Benzo(g,h,i)perylene	ND	5.5	0.96

Surrogate	%REC	Limits
Nitrobenzene-d5	111	37-140
2-Fluorobiphenyl	100	38-120
Terphenyl-d14	107	44-137

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC294076	Batch#:	102111
Matrix:	Soil	Prepared:	05/17/05
Units:	ug/Kg	Analyzed:	05/17/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.76
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.76
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.94
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.3
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	0.95
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.59
Benzo(a)pyrene	ND	5.0	0.89
Indeno(1,2,3-cd)pyrene	ND	5.0	0.96
Dibenz(a,h)anthracene	ND	5.0	0.88
Benzo(g,h,i)perylene	ND	5.0	0.87

Surrogate	%REC	Limits
Nitrobenzene-d5	103	37-140
2-Fluorobiphenyl	102	38-120
Terphenyl-d14	107	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC294077	Batch#:	102111
Matrix:	Soil	Prepared:	05/17/05
Units:	ug/Kg	Analyzed:	05/17/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.21	38.80	117	49-128
Pyrene	33.21	37.22	112	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	122	37-140
2-Fluorobiphenyl	107	38-120
Terphenyl-d14	111	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BB1SB113(0.5)	Batch#:	102111
MSS Lab ID:	179445-010	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	ug/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/17/05
Diln Fac:	1.000		

Type: MS Moisture: 6%
Lab ID: QC294078

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8098	34.89	36.72	105	39-138
Pyrene	2.963	34.89	35.78	94	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	111	37-140
2-Fluorobiphenyl	95	38-120
Terphenyl-d14	91	44-137

Type: MSD Moisture: 6%
Lab ID: QC294079

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	35.40	40.41	114	39-138	8	39
Pyrene	35.40	46.08	122	28-159	24	45

Surrogate	%REC	Limits
Nitrobenzene-d5	135	37-140
2-Fluorobiphenyl	105	38-120
Terphenyl-d14	115	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

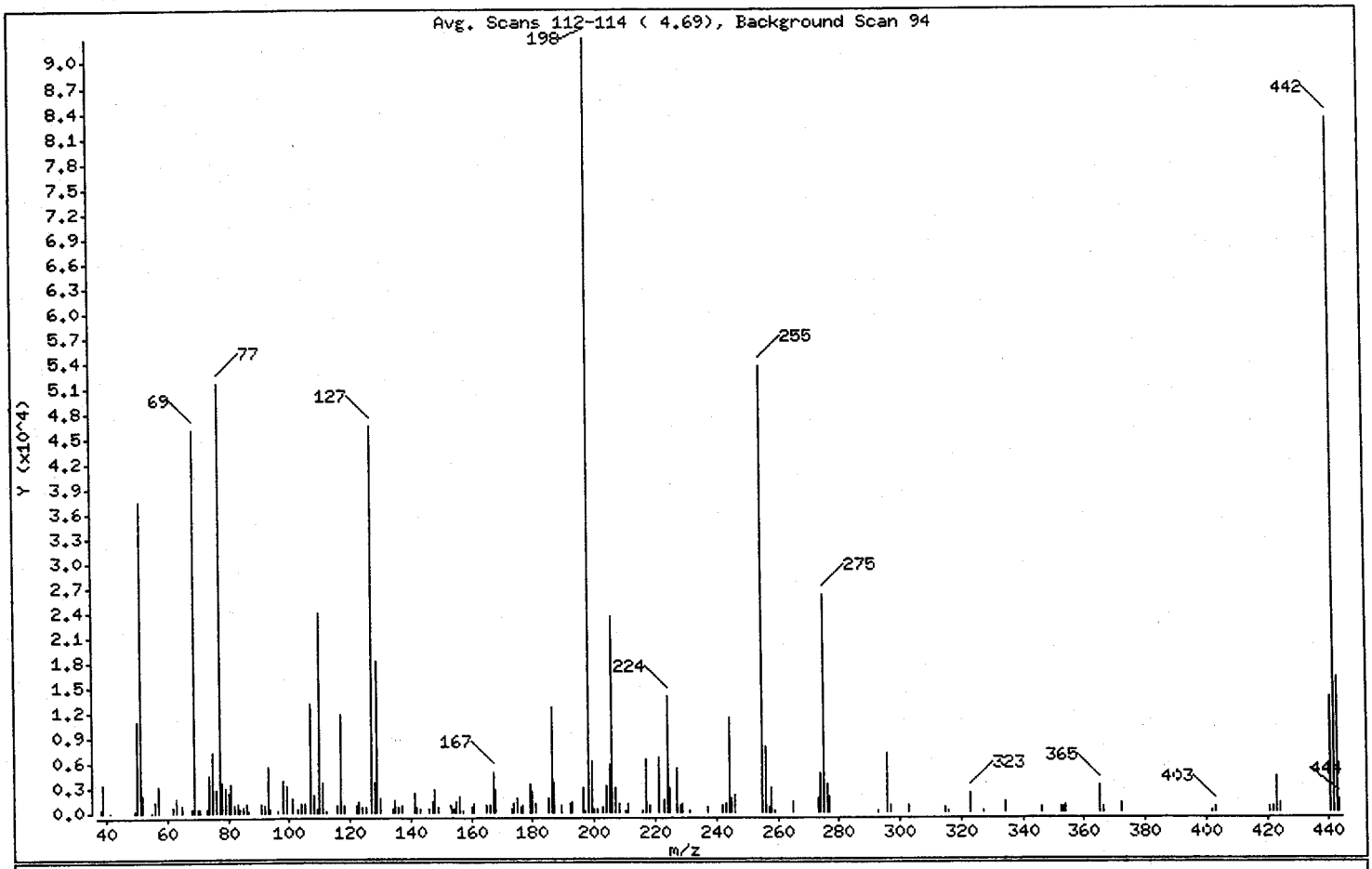
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM FCAL

4/27/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051705.b\VEH01.D

Date : 17-MAY-2005 19:43

Client ID: dftpp tune std

Instrument: MSBNA03.i

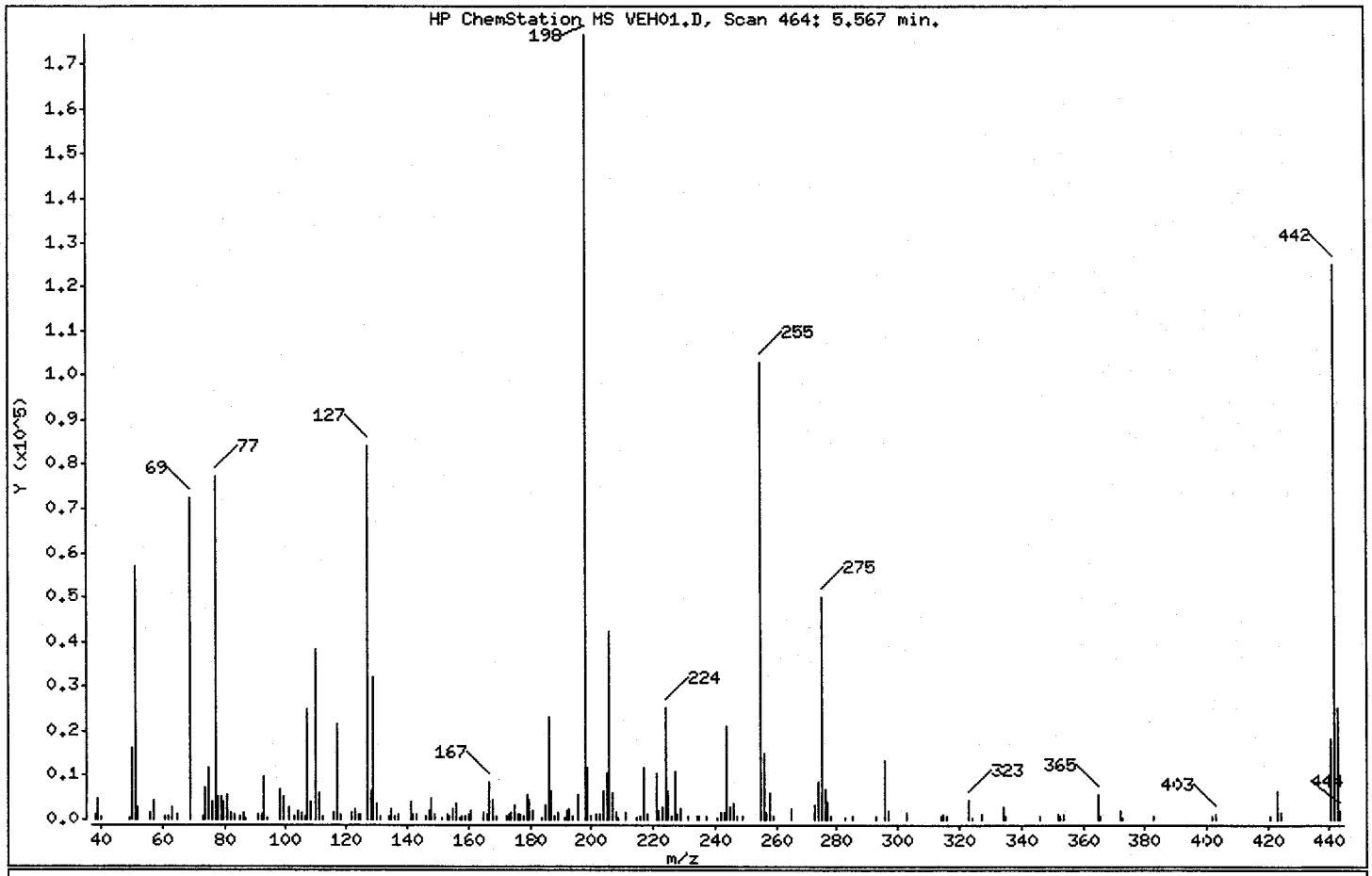
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.26
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	40.91
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	47.68
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	28.33
365	Greater than 1.00% of mass 198	3.13
441	Present, but less than mass 443	10.29
442	40.00 - 99.99% of mass 198	70.84
443	17.00 - 23.00% of mass 442	14.33 (20.22)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\051805.b\VEI01.D

Date : 18-MAY-2005 09:48

Client ID: dftpp tune std

Instrument: MSBNA03.i

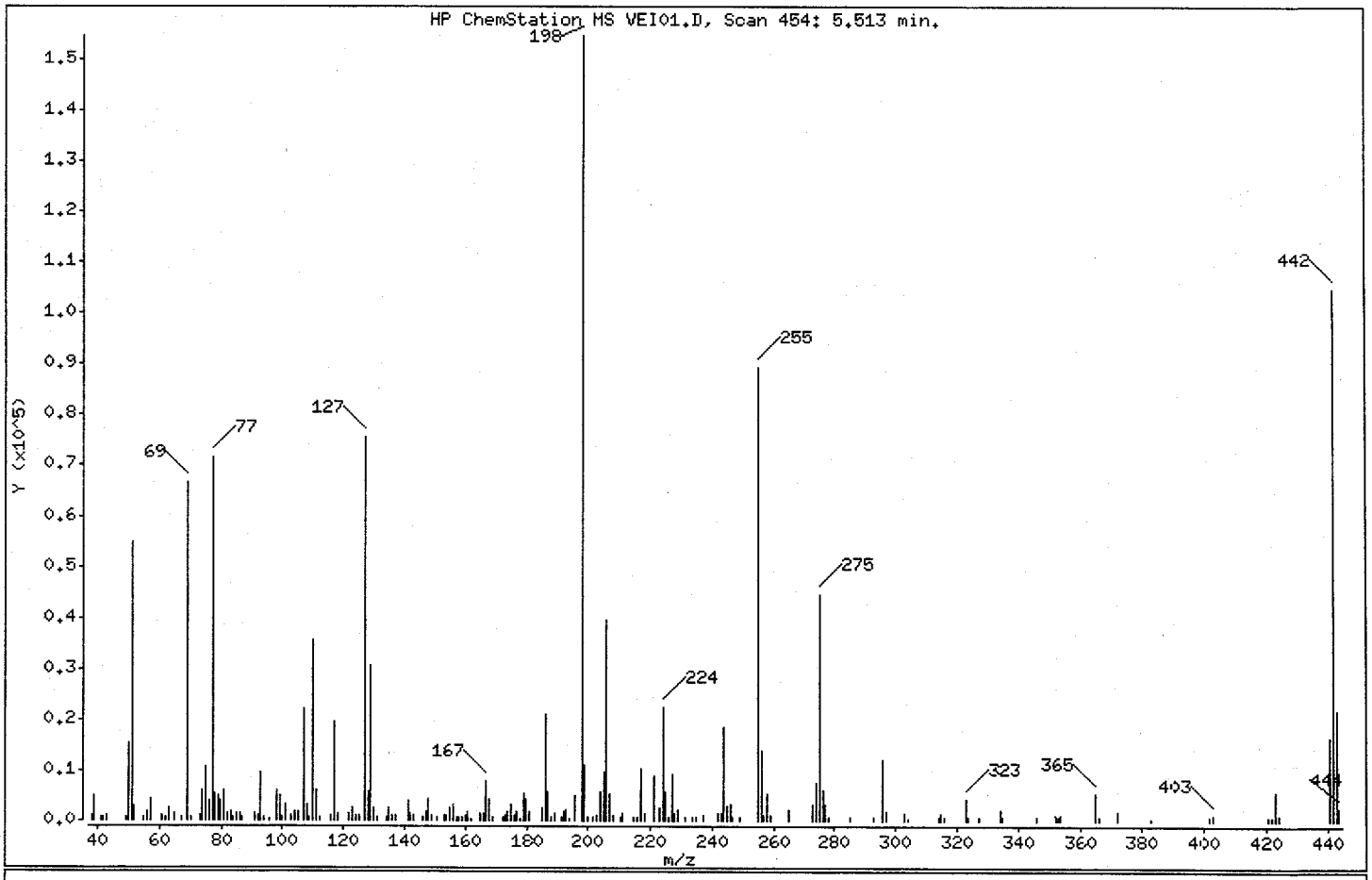
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.46
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	42.99
70	Less than 2.00% of mass 69	0.43 (1.01)
127	40.00 - 60.00% of mass 198	48.91
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.24
275	10.00 - 30.00% of mass 198	28.70
365	Greater than 1.00% of mass 198	3.34
441	Present, but less than mass 443	10.66
442	40.00 - 99.99% of mass 198	67.65
443	17.00 - 23.00% of mass 442	14.00 (20.69)

VSNA03 8/10 -1st Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

219

ICAL: OK
BCV: OK

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

4/25/06

4/25/06

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

220

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525198463002 Filename : veh02 Injected : 17-MAY-2005 20:04
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S489

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	**0.0000**	2.000000	0.000000	ng	**-100**	30	0.0500	c- crf
Naphthalene	0.8875	0.9778	2.000000	2.203400	ng	10	30	0.0500	
2-Methylnaphthalene	0.6056	0.6672	2.000000	2.203300	ng	10	30	0.0500	
Acenaphthylene	1.6578	1.9431	2.000000	2.344200	ng	17	30	0.0500	
Acenaphthene	1.0255	1.2088	2.000000	2.357500	ng	18	20	0.0500	
Fluorene	1.2395	1.4527	2.000000	2.344000	ng	17	30	0.0500	
Phenanthrene	0.9650	1.0852	2.000000	2.248900	ng	12	30	0.0500	
Anthracene	0.8558	0.9578	2.000000	2.238400	ng	12	30	0.0500	
Fluoranthene	1.0752	1.2192	2.000000	2.267900	ng	13	20	0.0500	
Pyrene	1.1306	1.2638	2.000000	2.235800	ng	12	30	0.0500	
Benzo(a)anthracene	1.0288	1.1639	2.000000	2.262600	ng	13	30	0.0500	
Chrysene	1.0217	1.1807	2.000000	2.311300	ng	16	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.5937	2.000000	2.407400	ng	20	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.7735	2.000000	1.976400	ng	-1	30	0.0500	
Benzo(a)pyrene	1.1063	1.2680	2.000000	2.292200	ng	15	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.6469	2.000000	2.726400	ng	**36**	30	0.0500	c+ ***
Dibenz(a,h)anthracene	0.9620	1.3367	2.000000	2.779000	ng	**39**	30	0.0500	c+ ***
Benzo(g,h,i)perylene	1.0276	1.3204	2.000000	2.569900	ng	**28**	30	0.0500	!c+
Nitrobenzene-d5	0.2512	0.3018	2.000000	2.403200	ng	20	30	0.0500	
2-Fluorobiphenyl	1.3678	1.5969	2.000000	2.335000	ng	17	30	0.0500	
Terphenyl-d14	0.9054	1.0529	2.000000	2.325800	ng	16	30	0.0500	

5/18/05

!=warning +=high bias -=low bias c=CCV crf=CCV min RF failure
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525199308002 Filename : vei02 Injected : 18-MAY-2005 10:06
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S490

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	**0.0012**	1.000000	0.003100	ng	**-100**	30	0.0500	c- crf
Naphthalene	0.8875	0.9696	1.000000	1.092400	ng	9	30	0.0500	
2-Methylnaphthalene	0.6056	0.6890	1.000000	1.137600	ng	14	30	0.0500	
Acenaphthylene	1.6578	1.9559	1.000000	1.179900	ng	18	30	0.0500	
Acenaphthene	1.0255	1.1631	1.000000	1.134200	ng	13	20	0.0500	
Fluorene	1.2395	1.4362	1.000000	1.158700	ng	16	30	0.0500	
Phenanthrene	0.9650	1.0622	1.000000	1.100600	ng	10	30	0.0500	
Anthracene	0.8558	0.9729	1.000000	1.136800	ng	14	30	0.0500	
Fluoranthene	1.0752	1.2212	1.000000	1.135800	ng	14	20	0.0500	
Pyrene	1.1306	1.2720	1.000000	1.125100	ng	13	30	0.0500	
Benzo(a)anthracene	1.0288	1.2335	1.000000	1.198900	ng	20	30	0.0500	
Chrysene	1.0217	1.1359	1.000000	1.111800	ng	11	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.4130	1.000000	1.067200	ng	7	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.3248	1.000000	0.738200	ng	**-26**	30	0.0500	!c-
Benzo(a)pyrene	1.1063	1.2080	1.000000	1.091900	ng	9	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.2757	1.000000	1.056000	ng	6	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0248	1.000000	1.065300	ng	7	30	0.0500	
Benzo(g,h,i)perylene	1.0276	0.9924	1.000000	0.965800	ng	-3	30	0.0500	
Nitrobenzene-d5	0.2512	0.2386	1.000000	0.949700	ng	-5	30	0.0500	m
2-Fluorobiphenyl	1.3678	1.5483	1.000000	1.132000	ng	13	30	0.0500	
Terphenyl-d14	0.9054	1.0048	1.000000	1.109800	ng	11	30	0.0500	

!=warning -=low bias c=CCV crf=CCV min RF failure m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005
Sequence: 525198463 (veh)
Instrument ID: MSBNA03

CCV Filename: veh02
Date Analyzed: 17-MAY-2005
Time Analyzed: 20:04

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	37391	6.92	81136	8.36	41099	10.89	80893	13.10	79738	16.96	70087	18.74
LOWER LIMIT	18696	6.42	40568	7.86	20550	10.39	40447	12.60	39869	16.47	35044	18.24
UPPER LIMIT	74782	7.42	162272	8.86	82198	11.39	161786	13.60	159476	17.47	140174	19.24

TYPE	SAMPLE	#										
CCV		002	37391	6.92	81136	8.36	41099	10.89	80893	13.10	79738	16.97	70087	18.74
BLANK	QC294076	003	20240	6.69	83016	8.36	44844	10.89	88581	13.10	86224	16.97	78367	18.74
LCS	QC294077	004	19856	6.69	79837	8.36	43146	10.89	85140	13.10	82902	16.97	73402	18.74
MSS	179445-010	005	19329	6.70	81253	8.36	44188	10.89	85948	13.10	84282	16.97	78267	18.74
MS	QC294078	006	21628	6.69	88573	8.36	48261	10.89	93784	13.10	103459	16.97	88485	18.74
MSD	QC294079	007	20074	6.69	79913	8.36	44399	10.90	89298	13.10	89477	16.97	84860	18.74
SAMPLE	179445-009	008	20844	6.69	85763	8.36	47197	10.90	92211	13.10	88704	16.97	84391	18.74
SAMPLE	179445-011	009	20747	6.70	89301	8.36	47674	10.89	92989	13.10	89722	16.97	84615	18.75
SAMPLE	179445-008	010	20746	6.69	85811	8.36	46719	10.89	89773	13.10	86058	16.97	78701	18.74
SAMPLE	179445-005	011	20827	6.69	83767	8.36	46498	10.89	89974	13.09	88365	16.97	71659	18.74
SAMPLE	179445-001	012	21187	6.69	87183	8.36	48256	10.89	90563	13.10	76357	16.97	65394	18.76
SAMPLE	179445-004	013	18719	6.69	76912	8.36	42320	10.89	81316	13.09	61540	16.97	42007	18.76
SAMPLE	179445-002	014	20698	6.69	87494	8.36	46964	10.89	91932	13.10	73822	16.98	47923	18.76
SAMPLE	179445-007	015	22787	6.69	96561	8.36	50821	10.89	95956	13.10	72191	16.97	39527	18.76
SAMPLE	179445-006	016	22276	6.69	96499	8.36	49391	10.90	94339	13.11	66282	16.98	31321*	18.77
SAMPLE	179445-003	017	20189	6.69	89176	8.36	45766	10.90	90192	13.11	63858	16.97	29986*	18.76
SAMPLE	179473-001	018	19105	6.69	83684	8.36	43462	10.90	84147	13.11	69162	16.97	38858	18.76
SAMPLE	179473-002	019	19943	6.69	86548	8.36	45935	10.90	84894	13.11	73955	16.97	46539	18.76

224

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 CCV Filename: vei02
Sequence: 525199308 (vei) Date Analyzed: 18-MAY-2005
Instrument ID: MSBNA03 Time Analyzed: 10:06

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	21333	6.63	87300	8.29	44831	10.84	90107	13.04	89238	16.91	81177	18.69
LOWER LIMIT	10667	6.13	43650	7.79	22416	10.34	45054	12.54	44619	16.41	40589	18.19
UPPER LIMIT	42666	7.13	174600	8.79	89662	11.34	180214	13.54	178476	17.41	162354	19.19

TYPE	SAMPLE	#										
CCV		002	21333	6.63	87300	8.29	44831	10.84	90107	13.04	89238	16.91	81177	18.69
SAMPLE	179473-001	003	17292	6.64	70631	8.29	38936	10.84	75755	13.04	73788	16.91	63635	18.70
SAMPLE	179445-005	004	18138	6.64	73489	8.29	41657	10.84	83082	13.04	78996	16.91	65703	18.69
SAMPLE	179445-001	005	18187	6.64	74519	8.29	40628	10.84	80512	13.04	76042	16.91	52184	18.69
SAMPLE	179445-002	006	18774	6.64	77017	8.31	43539	10.84	85395	13.04	70766	16.92	45763	18.70
SAMPLE	179445-003	007	18458	6.65	76912	8.29	42744	10.84	85122	13.04	66332	16.92	40332*	18.70
SAMPLE	179445-004	008	19227	6.64	79623	8.31	44433	10.84	87014	13.04	69089	16.92	39309*	18.71
SAMPLE	179445-006	009	18408	6.64	74366	8.31	42104	10.84	81227	13.05	62902	16.92	29876*	18.71
SAMPLE	179445-007	010	15455	6.64	62252	8.31	34944	10.84	67836	13.05	53308	16.92	23983*	18.71

225

* = Outside QC Limits

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

226

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

Page 1 of 1

04/25/05

1,2,3,4,5,6,7 MB, LCS MSB/MS/MSD 8,9,10,11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525198463 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 17-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	veh01	TUN	NP NL			17-MAY-2005 19:43	1.0	1.0				1	
002	veh02	CCV				17-MAY-2005 20:04	1.0	1.0	3		1	2	
003	veh03	BLANK	QC294076	102111	Soil	17-MAY-2005 20:35	1.0	0.033	1		1	3	
004	veh04	LCS	QC294077	102111	Soil	17-MAY-2005 21:07	1.0	0.03321	2		1	3	
005	veh05	MSS	179445-010	102111	Soil	17-MAY-2005 21:38	1.0	0.03311	2		1	3	
006	veh06	MS	QC294078	102111	Soil	17-MAY-2005 22:10	1.0	0.0328	2		1	3	
007	veh07	MSD	QC294079	102111	Soil	17-MAY-2005 22:41	1.0	0.03328	2		1	3	
008	veh08	SAMPLE	179445-009	102111	Soil	17-MAY-2005 23:12	1.0	0.0331			1	3	
009	veh09	SAMPLE	179445-011	102111	Soil	17-MAY-2005 23:44	1.0	0.03309			1	3	
010	veh10	SAMPLE	179445-008	102111	Soil	18-MAY-2005 00:16	1.0	0.03333	1		1	3	
011	veh11	SAMPLE	179445-005	102111	Soil	18-MAY-2005 00:48	1.0	0.03322	3		1	3	
012	veh12	SAMPLE	179445-001	102111	Soil	18-MAY-2005 01:20	1.0	0.03292	7		1	3	4:PYR=25.4422
013	veh13	SAMPLE	179445-004	102111	Soil	18-MAY-2005 01:51	1.0	0.03283	3		1	3	
014	veh14	SAMPLE	179445-002	102111	Soil	18-MAY-2005 02:22	1.0	0.03306	3		1	3	
015	veh15	SAMPLE	179445-007	102111	Soil	18-MAY-2005 02:54	1.0	0.03315	3		1	3	
016	veh16	SAMPLE	179445-006	102111	Soil	18-MAY-2005 03:26	1.0	0.03305	3		1	3	
017	veh17	SAMPLE	179445-003	102111	Soil	18-MAY-2005 03:58	1.0	0.03304	3		1	3	
018	veh18	SAMPLE	179473-001	102111	Soil	18-MAY-2005 04:30	5.0	0.0331		3	1	3	
019	veh19	SAMPLE	179473-002	102111	Soil	18-MAY-2005 05:01	2.0	0.03293			1	3	

227

CCV: Indeno(1,2,3-cd)pyrene ↑; Dibenz(a,h)anthracene ↑ but SD.
- Benzo(g,h,i)perylene ↑ fails marking limits
BCAL: OK
BCV: OK

Stds used: 1=05WS0188 2=S489 3=05WS0254

Analyst: _____ Date: 5/18/05 5/18/05

(1) 2, 3, 4, 5, 6, 7

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525199308 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 18-MAY-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vei01	TUN	NP NL			18-MAY-2005 09:48	1.0	1.0				1	
002	vei02	CCV				18-MAY-2005 10:06	1.0	1.0	1		1	2	
003	vei03	SAMPLE	179473-001	102111	Soil	18-MAY-2005 10:41	5.0	0.0331		1	1	3	
004	vei04	SAMPLE	179445-005	102111	Soil	18-MAY-2005 11:12	1.0	0.03322	1		1	3	
005	vei05	SAMPLE	179445-001	102111	Soil	18-MAY-2005 11:43	5.0	0.03292	1	1	1	3	
006	vei06	SAMPLE	179445-002	102111	Soil	18-MAY-2005 12:15	1.0	0.03306	1		1	3	
007	vei07	SAMPLE	179445-003	102111	Soil	18-MAY-2005 12:46	1.0	0.03304	1		1	3	
008	vei08	SAMPLE	179445-004	102111	Soil	18-MAY-2005 13:17	1.0	0.03283	1		1	3	
009	vei09	SAMPLE	179445-006	102111	Soil	18-MAY-2005 13:48	1.0	0.03305	1		1	3	
010	vei10	SAMPLE	179445-007	102111	Soil	18-MAY-2005 14:20	1.0	0.03315	1	1	1	3	

CCV ICV
- Benzo(k)fluoranthene ✓ hits reporting limits
ICAL ICV
ICAL ICV

228

Stds used: 1=05WS0188 2=S490 3=05WS0254

Analyst: _____ Date: 5/18/05

Page 1 of 1

Curtis & Tompkins Laboratories Sample Preparation Summary 17-MAY-2005 18:07

Batch Number : 102111
Date Extracted: 17-MAY-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S369E
Spike #2 ID : S212B
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179445-001			Mactec, Inc.	Soil	30.38	g	1	0.032916	1		1	0		8270-SIM		
179445-002			Mactec, Inc.	Soil	30.25	g	1	0.033058	1		1	0		8270-SIM		
179445-003			Mactec, Inc.	Soil	30.27	g	1	0.033036	1		1	0		8270-SIM		
179445-004			Mactec, Inc.	Soil	30.46	g	1	0.032830	1		1	0		8270-SIM		
179445-005			Mactec, Inc.	Soil	30.1	g	1	0.033223	1		1	0		8270-SIM		
179445-006			Mactec, Inc.	Soil	30.26	g	1	0.033047	1		1	0		8270-SIM		
179445-007			Mactec, Inc.	Soil	30.17	g	1	0.033146	1		1	0		8270-SIM		
179445-008			Mactec, Inc.	Soil	30	g	1	0.033333	1		1	0		8270-SIM		
179445-009			Mactec, Inc.	Soil	30.21	g	1	0.033102	1		1	0		8270-SIM		
179445-010			Mactec, Inc.	Soil	30.2	g	1	0.033113	1		1	0		8270-SIM		mss
179445-011			Mactec, Inc.	Soil	30.22	g	1	0.033091	1		1	0		8270-SIM		
179473-001			Montezuma Wetlands LLC	Soil	30.21	g	1	0.033102	1		1	0		8270-SIM		
179473-002			Montezuma Wetlands LLC	Soil	30.37	g	1	0.032927	1		1	0		8270-SIM		
QC294076	BLANK			Soil	30.3	g	1	0.033003	1		1	0		8270-SIM		
QC294077	LCS			Soil	30.11	g	1	0.033212	1		1	1		8270-SIM		
QC294078	MS	of 179445-010		Soil	30.49	g	1	0.032798	1		1	1		8270-SIM		
QC294079	MSD	of 179445-010		Soil	30.05	g	1	0.033278	1		1	1		8270-SIM		

229

Prep Chemist: _____ Reviewed By: _____ Date: 5/17/05

Relinquished By: _____ Received By: _____ Date: 5/18/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 31 of 100

LIMS Batch No: 102111 Extraction Method: Cleanup Method (if necessary):

LIMS Analysis 8270-SIM ☑ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: SLK ☐ EPA 3540c Soxhlet ☐ EPA 3630c Silica Gel

Date Extracted: 05/17/05 ☐ Other _____ ☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC294076	30.30	1.0		
	LCS 7	30.11			
	MS 8	30.49			179445-010
	MSD 9	30.05			↓
5	179445-001	30.38			
	-002	30.25			
	-003	30.27			
	-004	30.46			
	-005	30.10			
10	-006	30.26			
	-007	30.17			
	-008	30.00			
	-009	30.21			
	-010	30.20			MSS
15	-011	30.22			
	179473-001	30.21			aliased 179413-002A
	-002	30.37			-002C
20					

SLK 05/17/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44028452	SLK 05/17/05
Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4	EM44303507	
1.0 mL of surrogate solution was added to all samples	S369E	
1.0 mL of matrix spiking solution was added to all spikes	S212B	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM45071	
Acetone	EM45019	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM44303507 / EM44135483	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓ TGRAN	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

05/17/05

Extraction Chemist / Date

Continued from page _____

Continued on page _____

5/17/05

Reviewed by / Date

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179445-001A	30.38	8270-SIM	
-002	30.25		
-003	30.27		
-004S	30.46		
-005G	30.10		
-006	30.26		
-007	30.17		
-008	30.00		
-009	30.21		
-010	30.20		MSS
-011	30.22		179445-010F
-MS	30.49		EM44028452
-MSD	30.05		
-LCS	30.11		
-MB	30.30		
179445-001A	15.14	PCB	
-004S	15.02		
-005G	15.09		
-006	15.11		
-007	15.10		
-008	15.25		
-009	15.23		
-010	15.07		
-011	15.10		MSS
-MS	15.06		179445-011G ~~179445-005G 010F~~ LCS/LCSD
-MSD	15.19		EM44028452
-LCS	15.17		
-MB	15.08		

Continued on Page

Signed | 5/16/05 | Date | 231 | Read and Understood By: Signed | Date

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB19B110(3.5)	Sampled:	05/12/05
Lab ID:	179445-001	Received:	05/13/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05
Basis:	dry		

Moisture: 12%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prep	Analysis
Antimony	0.24 J	0.28	0.067	5.000	102065	EPA 3050B	EPA 6020
Arsenic	6.4	0.28	0.092	5.000	102065	EPA 3050B	EPA 6020
Barium	65	2.8	0.28	50.00	102065	EPA 3050B	EPA 6020
Beryllium	0.24 J	0.28	0.058	5.000	102065	EPA 3050B	EPA 6020
Cadmium	0.19 J	0.28	0.012	5.000	102065	EPA 3050B	EPA 6020
Chromium	70	2.8	0.58	50.00	102065	EPA 3050B	EPA 6020
Cobalt	9.9	0.28	0.0039	5.000	102065	EPA 3050B	EPA 6020
Copper	12	0.28	0.11	5.000	102065	EPA 3050B	EPA 6020
Lead	12	0.28	0.0092	5.000	102065	EPA 3050B	EPA 6020
Mercury	0.097	0.012	0.0024	1.000	102048	METHOD	EPA 7471A
Molybdenum	0.26 J	0.28	0.0058	5.000	102065	EPA 3050B	EPA 6020
Nickel	61	3.3	3.3	50.00	102065	EPA 3050B	EPA 6020
Selenium	0.19 J	0.28	0.11	5.000	102065	EPA 3050B	EPA 6020
Silver	0.042 J	0.28	0.0036	5.000	102065	EPA 3050B	EPA 6020
Thallium	0.064 J	0.28	0.014	5.000	102065	EPA 3050B	EPA 6020
Vanadium	50	0.28	0.16	5.000	102065	EPA 3050B	EPA 6020
Zinc	42	1.1	0.062	5.000	102065	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB29B102(0.0)	Sampled:	05/12/05
Lab ID:	179445-002	Received:	05/13/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05
Basis:	dry		

Moisture: 22%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prep	Analysis
Antimony	0.57	0.25	0.060	5.000	102065	EPA 3050B	EPA 6020
Arsenic	4.0	0.25	0.083	5.000	102065	EPA 3050B	EPA 6020
Barium	110	2.5	0.25	50.00	102065	EPA 3050B	EPA 6020
Beryllium	0.33	0.25	0.053	5.000	102065	EPA 3050B	EPA 6020
Cadmium	0.32	0.25	0.011	5.000	102065	EPA 3050B	EPA 6020
Chromium	57	2.5	0.52	50.00	102065	EPA 3050B	EPA 6020
Cobalt	13	0.25	0.0035	5.000	102065	EPA 3050B	EPA 6020
Copper	36	0.25	0.097	5.000	102065	EPA 3050B	EPA 6020
Lead	80	2.5	0.082	50.00	102065	EPA 3050B	EPA 6020
Mercury	0.13	0.020	0.0038	1.000	102048	METHOD	EPA 7471A
Molybdenum	0.49	0.25	0.0053	5.000	102065	EPA 3050B	EPA 6020
Nickel	51	3.0	3.0	50.00	102065	EPA 3050B	EPA 6020
Selenium	0.24 J	0.25	0.097	5.000	102065	EPA 3050B	EPA 6020
Silver	0.061 J	0.25	0.0032	5.000	102065	EPA 3050B	EPA 6020
Thallium	0.071 J	0.25	0.013	5.000	102065	EPA 3050B	EPA 6020
Vanadium	50	0.25	0.15	5.000	102065	EPA 3050B	EPA 6020
Zinc	110	10	0.56	50.00	102065	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB29B102(2.0)	Basis:	dry
Lab ID:	179445-003	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 13%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.32	0.26	0.062	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	4.4	0.26	0.085	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	120	2.6	0.26	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.47	0.26	0.054	5.000	102065	05/18/05	EPA 3050B	EPA 6020
Cadmium	0.20 J	0.26	0.011	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	49	2.6	0.54	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	11	0.26	0.0036	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	29	0.26	0.099	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	40	0.26	0.0084	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Mercury	0.046	0.022	0.0042	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.44	0.26	0.0054	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	47	0.30	0.30	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	0.37	0.26	0.099	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.034 J	0.26	0.0033	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.084 J	0.26	0.013	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	51	0.26	0.15	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	97	10	0.57	50.00	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB108(0.0)	Basis:	dry
Lab ID:	179445-004	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 29%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.49	0.38	0.092	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	3.1	0.38	0.13	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	110	3.8	0.38	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Beryllium	0.27 J	0.38	0.080	5.000	102065	05/18/05	EPA 3050B	EPA 6020
Cadmium	0.70	0.38	0.017	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	43	0.38	0.080	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	7.5	0.38	0.0054	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	26	0.38	0.15	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	160	3.8	0.13	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Mercury	0.13	0.023	0.0045	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.37 J	0.38	0.0080	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	47	0.45	0.45	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	0.26 J	0.38	0.15	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.12 J	0.38	0.0050	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.058 J	0.38	0.019	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	35	0.38	0.22	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	170	15	0.86	50.00	102065	05/18/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB108(2.0)	Basis:	dry
Lab ID:	179445-005	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 17%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.38	0.19	0.046	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	10	0.19	0.064	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	110	1.9	0.19	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.59	0.19	0.040	5.000	102065	05/18/05	EPA 3050B	EPA 6020
Cadmium	0.095 J	0.19	0.0084	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	25	0.19	0.040	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	5.4	0.19	0.0027	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	35	1.9	0.75	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Lead	14	0.19	0.0064	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Mercury	0.069	0.024	0.0045	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.38	0.19	0.0041	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	37	0.23	0.23	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	0.67	0.19	0.075	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.090 J	0.19	0.0025	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.067 J	0.19	0.0097	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	33	1.9	1.1	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	74	7.7	0.43	50.00	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB109(0.0)	Basis:	dry
Lab ID:	179445-006	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 40%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.92	0.45	0.11	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	2.2	0.45	0.15	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	120	4.5	0.46	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.22 J	0.45	0.095	5.000	102065	05/18/05	EPA 3050B	EPA 6020
Cadmium	1.3	0.45	0.020	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	34	0.45	0.095	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	7.3	0.45	0.0063	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	33	0.45	0.18	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	1,900	18	0.60	200.0	102065	05/19/05	EPA 3050B	EPA 6020
Mercury	0.54	0.038	0.0073	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.50	0.45	0.0095	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	36	0.54	0.54	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	ND	0.45	0.18	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.16 J	0.45	0.0059	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.068 J	0.45	0.023	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	28	0.45	0.27	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	210	18	1.0	50.00	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	DUP(050512)	Basis:	dry
Lab ID:	179445-007	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 33%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.78	0.33	0.080	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	3.2	0.33	0.11	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	150	3.3	0.33	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Beryllium	0.26 J	0.33	0.070	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cadmium	1.1	0.33	0.015	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	60	0.33	0.070	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	9.8	0.33	0.0047	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	40	0.33	0.13	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	180	3.3	0.11	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Mercury	1.1	0.032	0.0062	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	2.1	0.33	0.0070	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	66	0.40	0.40	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	0.24 J	0.33	0.13	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.12 J	0.33	0.0043	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.058 J	0.33	0.017	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	41	0.33	0.20	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	250	13	0.74	50.00	102065	05/18/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB109(2.0)	Basis:	dry
Lab ID:	179445-008	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 21%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.38	0.25	0.059	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	6.8	0.25	0.081	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	49	2.5	0.25	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.97	0.25	0.052	5.000	102065	05/18/05	EPA 3050B	EPA 6020
Cadmium	0.24 J	0.25	0.011	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	140	2.5	0.52	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Cobalt	23	0.25	0.0035	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	50	2.5	0.96	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Lead	35	0.25	0.0081	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Mercury	0.097	0.022	0.0042	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.28	0.25	0.0052	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	190	2.9	2.9	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	0.21 J	0.25	0.096	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.039 J	0.25	0.0032	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.10 J	0.25	0.012	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	63	2.5	1.4	50.00	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	96	9.9	0.55	50.00	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB2ASB112(0.5)	Basis:	dry
Lab ID:	179445-009	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 4%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.057 J	0.17	0.042	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	6.4	0.17	0.058	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	6.5	0.17	0.018	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.12 J	0.17	0.037	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cadmium	0.057 J	0.17	0.0076	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	75	1.7	0.37	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Cobalt	6.9	0.17	0.0024	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	6.5	0.17	0.068	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	3.5	0.17	0.0058	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Mercury	0.017 J	0.026	0.0050	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.12 J	0.17	0.0037	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	42	2.1	2.1	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Selenium	ND	0.17	0.068	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.0029 J	0.17	0.0023	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.013 J	0.17	0.0088	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	28	0.17	0.10	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	20	0.70	0.039	5.000	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1SB113(0.5)	Basis:	dry
Lab ID:	179445-010	Sampled:	05/13/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05

Moisture: 6%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed	Prep	Analysis
Antimony	0.056 J	0.21	0.051	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Arsenic	5.8	0.21	0.070	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Barium	8.4	0.21	0.021	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Beryllium	0.14 J	0.21	0.045	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Cadmium	0.093 J	0.21	0.0093	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Chromium	48	2.1	0.45	50.00	102065	05/18/05	EPA 3050B	EPA 6020
Cobalt	7.0	0.21	0.0030	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Copper	8.0	0.21	0.082	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Lead	4.3	0.21	0.0070	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Mercury	0.020 J	0.025	0.0049	1.000	102048	05/17/05	METHOD	EPA 7471A
Molybdenum	0.14 J	0.21	0.0045	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Nickel	30	0.25	0.25	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Selenium	ND	0.21	0.082	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Silver	0.0089 J	0.21	0.0028	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Thallium	0.015 J	0.21	0.011	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Vanadium	32	0.21	0.12	5.000	102065	05/17/05	EPA 3050B	EPA 6020
Zinc	22	0.85	0.048	5.000	102065	05/17/05	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179445	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1SB114(0.5)	Sampled:	05/13/05
Lab ID:	179445-011	Received:	05/13/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05
Basis:	dry		

Moisture: 10%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prep	Analysis
Antimony	0.088 J	0.22	0.052	5.000	102065	EPA 3050B	EPA 6020
Arsenic	3.8	0.22	0.071	5.000	102065	EPA 3050B	EPA 6020
Barium	13	0.22	0.022	5.000	102065	EPA 3050B	EPA 6020
Beryllium	0.097 J	0.22	0.045	5.000	102065	EPA 3050B	EPA 6020
Cadmium	0.088 J	0.22	0.0094	5.000	102065	EPA 3050B	EPA 6020
Chromium	28	0.22	0.045	5.000	102065	EPA 3050B	EPA 6020
Cobalt	4.5	0.22	0.0030	5.000	102065	EPA 3050B	EPA 6020
Copper	5.4	0.22	0.083	5.000	102065	EPA 3050B	EPA 6020
Lead	5.7	0.22	0.0071	5.000	102065	EPA 3050B	EPA 6020
Mercury	0.017 J	0.021	0.0039	1.000	102048	METHOD	EPA 7471A
Molybdenum	0.13 J	0.22	0.0045	5.000	102065	EPA 3050B	EPA 6020
Nickel	26	0.26	0.26	5.000	102065	EPA 3050B	EPA 6020
Selenium	ND	0.22	0.083	5.000	102065	EPA 3050B	EPA 6020
Silver	0.025 J	0.22	0.0028	5.000	102065	EPA 3050B	EPA 6020
Thallium	0.020 J	0.22	0.011	5.000	102065	EPA 3050B	EPA 6020
Vanadium	19	0.22	0.13	5.000	102065	EPA 3050B	EPA 6020
Zinc	20	0.86	0.048	5.000	102065	EPA 3050B	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC293864	Batch#:	102048
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC293915	Batch#:	102065
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	0.095 J	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	0.0038 J	0.25	0.0035
Copper	ND	0.25	0.097
Lead	0.012 J	0.25	0.0082
Molybdenum	0.028 J	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	0.035 J	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102048
Units:	mg/Kg	Prepared:	05/17/05
Basis:	as received	Analyzed:	05/17/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC293865	0.5000	0.5930	119	80-120		
BSD	QC293866	0.5000	0.5770	115	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	102065
Units:	mg/Kg	Prepared:	05/17/05
Basis:	as received	Analyzed:	05/17/05
Diln Fac:	5.000		

Type: BS Lab ID: QC293916

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	22.78	91	80-120
Arsenic	25.00	23.71	95	80-120
Barium	25.00	22.73	91	80-120
Beryllium	25.00	21.50	86	80-120
Cadmium	25.00	22.51	90	80-120
Chromium	25.00	25.89	104	80-120
Cobalt	25.00	24.82	99	80-120
Copper	25.00	24.67	99	80-120
Lead	25.00	25.01	100	80-120
Molybdenum	25.00	22.31	89	80-120
Nickel	25.00	24.70	99	80-125
Selenium	25.00	22.96	92	80-120
Silver	25.00	22.36	89	80-120
Thallium	25.00	23.58	94	66-120
Vanadium	25.00	25.64	103	80-120
Zinc	25.00	24.88	100	80-120

Type: BSD Lab ID: QC293917

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	23.77	95	80-120	4	20
Arsenic	25.00	24.31	97	80-120	2	20
Barium	25.00	23.48	94	80-120	3	20
Beryllium	25.00	22.03	88	80-120	2	20
Cadmium	25.00	22.99	92	80-120	2	20
Chromium	25.00	26.22	105	80-120	1	20
Cobalt	25.00	26.26	105	80-120	6	20
Copper	25.00	25.40	102	80-120	3	20
Lead	25.00	25.24	101	80-120	1	20
Molybdenum	25.00	23.07	92	80-120	3	20
Nickel	25.00	26.13	105	80-125	6	20
Selenium	25.00	23.76	95	80-120	3	20
Silver	25.00	23.16	93	80-120	4	20
Thallium	25.00	23.28	93	66-120	1	20
Vanadium	25.00	26.31	105	80-120	3	20
Zinc	25.00	25.22	101	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BB19B110(3.5)	Batch#:	102048
MSS Lab ID:	179445-001	Sampled:	05/12/05
Matrix:	Soil	Received:	05/13/05
Units:	mg/Kg	Prepared:	05/17/05
Basis:	dry	Analyzed:	05/17/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC293867	0.09696	0.4509	0.6448	121	64-139	12%		
MSD	QC293868		0.5682	0.7443	114	64-139	12%	5	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	MS	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293918	Received:	05/11/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05

Moisture: 13%

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.4269	27.90	10.40	36	28-120	5.000
Arsenic	4.035	27.90	28.57	88	70-120	5.000
Barium	131.9	27.90	123.4 >LR	-30 NM	46-165	5.000
Beryllium	0.3849	27.90	24.48	86	72-120	5.000
Cadmium	0.06392	27.90	25.18	90	74-120	5.000
Chromium	65.60	27.90	88.55	82	45-160	50.00
Cobalt	25.77	27.90	51.24	91	62-136	50.00
Copper	15.91	27.90	41.66	92	47-164	5.000
Lead	5.753	27.90	32.36	95	60-140	5.000
Molybdenum	0.5438	27.90	24.29	85	74-120	5.000
Nickel	67.66	27.90	89.83	79	51-172	50.00
Selenium	0.2556	27.90	24.18	86	66-120	5.000
Silver	0.01749	27.90	24.70	88	74-120	5.000
Thallium	0.1505	27.90	25.44	91	57-120	5.000
Vanadium	65.55	27.90	85.26	71	19-177	50.00
Zinc	34.95	27.90	172.7	494 *	39-166	50.00

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	MSD	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293928	Received:	05/11/05
Matrix:	Soil	Prepared:	05/17/05
Units:	mg/Kg	Analyzed:	05/17/05

Moisture: 13%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dlln Fac
Antimony	28.45	11.28	38	28-120	6	24	5.000
Arsenic	28.45	29.73	90	70-120	2	20	5.000
Barium	28.45	123.8 >LR	-29 NM	46-165	NC	23	5.000
Beryllium	28.45	25.76	89	72-120	3	20	5.000
Cadmium	28.45	26.25	92	74-120	2	20	5.000
Chromium	28.45	92.64	95	45-160	4	29	50.00
Cobalt	28.45	58.32	114	62-136	12	20	50.00
Copper	28.45	43.36	96	47-164	3	21	5.000
Lead	28.45	34.55	101	60-140	5	24	5.000
Molybdenum	28.45	25.72	88	74-120	4	20	5.000
Nickel	28.45	98.44	108	51-172	9	22	50.00
Selenium	28.45	25.17	88	66-120	2	20	5.000
Silver	28.45	26.04	91	74-120	3	20	5.000
Thallium	28.45	27.63	97	57-120	6	20	5.000
Vanadium	28.45	93.04	97	19-177	8	30	50.00
Zinc	28.45	64.41	104	39-166	92 *	33	50.00

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB2ASB100(4.0)	Basis:	dry
Type:	Serial Dilution	Batch#:	102065
MSS Lab ID:	179384-001	Sampled:	05/09/05
Lab ID:	QC293919	Received:	05/11/05
Matrix:	Soil	Analyzed:	05/17/05
Units:	mg/Kg		

Moisture: 13%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.4269	0.2711	0.7612 J	1.355		10	25.00
Arsenic	4.035	0.2711	4.224	1.355		10	25.00
Barium	131.9	1.084	138.0	5.422	5	10	100.0
Beryllium	0.3849	0.2711	0.4007 J	1.355		10	25.00
Cadmium	0.06392	0.2711	ND	1.355		10	25.00
Chromium	65.60	0.5422	63.22	1.355	4	10	50.00
Cobalt	25.77	0.2711	26.71	1.355	4	10	25.00
Copper	15.91	0.2711	17.24	1.355	8	10	25.00
Lead	5.753	0.2711	5.704	1.355	1	10	25.00
Molybdenum	0.5438	0.2711	0.6609 J	1.355	22 *	10	25.00
Nickel	67.66	0.6433	66.69	5.422	1	10	50.00
Selenium	0.2556	0.2711	0.6278 J	1.355		10	25.00
Silver	0.01749	0.2711	0.02615 J	1.355		10	25.00
Thallium	0.1505	0.2711	0.2194 J	1.355		10	25.00
Vanadium	65.55	0.5422	61.65	2.711	6	10	50.00
Zinc	34.95	1.084	36.78	13.55	5	10	25.00

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	BB19B110(3.5)	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	102048
MSS Lab ID:	179445-001	Sampled:	05/12/05
Lab ID:	QC293869	Received:	05/13/05
Matrix:	Soil	Analyzed:	05/17/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.09696	0.01235	0.08060	0.06176	12%	10

RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55197993024	Seqnum : 55197993040
Filename : e1711024	Filename : e1711040
IDF : 5.0	IDF : 5.0
PDF : 47.17	PDF : 47.17
Run type : MSS	Run type : PDS
Samplenum: 179384-001	Samplenum: QC293920
Matrix : Soil	Matrix : Soil
Batchnum : 102065	Batchnum : 102065
Inj : 17-MAY-2005 14:06	Inj : 17-MAY-2005 15:41
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	1.575	100.0	101.4	100	75-125	u
Arsenic	14.88	100.0	111.7	97	75-125	u
Barium	*** usable MSS data not found ***					
Beryllium	1.420	100.0	91.78	90	75-125	u
Cadmium	0.2358	100.0	93.24	93	75-125	u
Calcium	3532	10000	11360	78	75-125	i+ y
Chromium	*** usable MSS data not found ***					
Cobalt	95.06	100.0	191.0	96	75-125	u
Copper	58.70	100.0	154.5	96	75-125	u
Iron	*** usable MSS data not found ***					
Lead	21.22	100.0	123.6	102	75-125	u
Magnesium	14340	10000	20920 >LR	66	75-125	>LR i+ y b*
Manganese	*** usable MSS data not found ***					
Molybdenum	2.006	100.0	97.78	96	75-125	u
Nickel	*** usable MSS data not found ***					
Potassium	1832	10000	9498	77	75-125	i+
Selenium	0.9430	100.0	96.38	95	75-125	u
Silver	0.06452	100.0	92.94	93	75-125	u
Sodium	945.6	10000	9106	82	75-125	i+
Thallium	0.5552	100.0	98.22	98	75-125	u
Vanadium	*** usable MSS data not found ***					
Zinc	128.9	100.0	222.0 >LR	93	75-125	>LR b*

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	808168	4.35
Scandium	932275	1124308	20.60 *
Germanium	198061	184478	-6.86
Indium	1221416	1028630	-15.78
Bismuth	808221	621939	-23.05

+=high bias >LR=overrange b=noncompliant i=ISTD failure u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179445 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179445-001	MET04	05/17/05 10:03	1.0										+							
179445-001	MET05	05/17/05 20:17	5.0	+	+		+	+		+	+	+		+		+	+	+	+	+
179445-001	MET05	05/17/05 21:44	50.0			+			+						+					
179445-002	MET04	05/17/05 10:10	1.0										+							
179445-002	MET05	05/17/05 20:22	5.0	+	+		+	+		+	+			+		+	+	+	+	
179445-002	MET05	05/17/05 21:50	50.0			+			+			+			+					+
179445-003	MET04	05/17/05 10:13	1.0										+							
179445-003	MET05	05/17/05 20:28	5.0	+	+			+		+	+	+		+	+	+	+	+	+	
179445-003	MET05	05/17/05 21:56	50.0			+			+											+
179445-003	MET05	05/18/05 21:11	5.0				+													
179445-004	MET04	05/17/05 10:15	1.0										+							
179445-004	MET05	05/17/05 20:34	5.0	+	+			+	+	+	+			+	+	+	+	+	+	
179445-004	MET05	05/17/05 22:02	50.0																	
179445-004	MET05	05/18/05 21:17	5.0				+													
179445-004	MET05	05/18/05 21:23	50.0			+						+								+
179445-005	MET04	05/17/05 10:17	1.0										+							
179445-005	MET05	05/17/05 20:40	5.0	+	+			+	+	+		+		+	+	+	+	+		
179445-005	MET05	05/17/05 22:08	50.0			+					+								+	+
179445-005	MET05	05/18/05 21:29	5.0				+													
179445-006	MET04	05/17/05 10:25	1.0										+							
179445-006	MET05	05/17/05 20:46	5.0	+	+			+	+	+	+			+	+	+	+	+	+	
179445-006	MET05	05/17/05 22:13	50.0			+														+
179445-006	MET05	05/18/05 21:34	5.0				+													
179445-006	MET05	05/18/05 22:03	100.0																	
179445-006	MET05	05/19/05 01:10	200.0									+								
179445-007	MET04	05/17/05 10:28	1.0										+							
179445-007	MET05	05/17/05 20:52	5.0	+	+		+	+	+	+	+			+	+	+	+	+	+	
179445-007	MET05	05/17/05 22:19	50.0																	
179445-007	MET05	05/18/05 22:09	50.0			+						+								+
179445-008	MET04	05/17/05 10:30	1.0										+							
179445-008	MET05	05/17/05 20:57	5.0	+	+			+		+		+		+		+	+	+		
179445-008	MET05	05/17/05 22:25	50.0			+			+		+				+				+	+
179445-008	MET05	05/18/05 22:15	5.0				+													
179445-009	MET04	05/17/05 10:32	1.0										+							
179445-009	MET05	05/17/05 21:03	5.0	+	+	+	+	+		+	+	+		+		+	+	+	+	+
179445-009	MET05	05/17/05 22:31	50.0																	
179445-009	MET05	05/18/05 22:21	50.0						+						+					
179445-010	MET04	05/17/05 10:35	1.0										+							
179445-010	MET05	05/17/05 21:09	5.0	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179445 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
179445-010	MET05	05/18/05 00:41	50.0						+												
179445-011	MET04	05/17/05 10:37	1.0										+								
179445-011	MET05	05/17/05 21:38	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
179445-011	MET05	05/18/05 00:47	50.0																		
QC293864	MET04	05/17/05 09:56	1.0										+								
QC293865	MET04	05/17/05 09:58	1.0										+								
QC293866	MET04	05/17/05 10:00	1.0										+								
QC293867	MET04	05/17/05 10:05	1.0										+								
QC293868	MET04	05/17/05 10:08	1.0										+								
QC293869	MET04	05/17/05 10:59	5.0										+								
QC293870	MET04	05/17/05 11:02	1.0										+								
QC293915	MET05	05/17/05 13:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC293916	MET05	05/17/05 13:48	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC293917	MET05	05/17/05 13:54	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC293918	MET05	05/17/05 15:29	5.0	+	+	+	+	+			+	+		+		+	+	+			
QC293918	MET05	05/17/05 15:46	50.0						+	+					+				+	+	
QC293919	MET05	05/17/05 14:12	25.0	+	+		+	+		+	+	+		+		+	+	+		+	
QC293919	MET05	05/17/05 14:59	50.0						+						+				+		
QC293919	MET05	05/17/05 15:17	100.0			+															
QC293920	MET05	05/17/05 15:41	5.0	+	+		+	+		+	+	+		+		+	+	+			
QC293920	MET05	05/17/05 16:33	50.0																		
QC293928	MET05	05/17/05 15:35	5.0	+	+	+	+	+			+	+		+		+	+	+			
QC293928	MET05	05/17/05 16:28	50.0						+	+					+				+	+	

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45197849 Instrument: MET04 HydraAA HG Analyzer Begun: 17-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102048	ICALBLK	Std01Rep1				17-MAY-2005 09:29	1.0	1.0									
002	102048	ICAL	Std02Rep1				17-MAY-2005 09:31	1.0	1.0									
003	102048	ICAL	Std03Rep1				17-MAY-2005 09:34	1.0	1.0									
004	102048	ICAL	Std04Rep1				17-MAY-2005 09:36	1.0	1.0									
005	102048	ICAL	Std05Rep1				17-MAY-2005 09:39	1.0	1.0									
006	102048	ICAL	Std06Rep1				17-MAY-2005 09:42	1.0	1.0									
007	102048	ICV					17-MAY-2005 09:51	1.0	1.0	2	5.000	45197849001	5.090		ug/L	102		
008	102048	ICB					17-MAY-2005 09:53	1.0	1.0			45197849001	ND	0.20	ug/L			
009	102048	BLANK	QC293864		102048	Soil	17-MAY-2005 09:56	1.0	100.0			45197849001	ND	0.020	mg/Kg			u
010	102048	BS	QC293865		102048	Soil	17-MAY-2005 09:58	1.0	100.0		0.5000	45197849001	0.5930	0.020	mg/Kg	119		u
011	102048	BSD	QC293866		102048	Soil	17-MAY-2005 10:00	1.0	100.0		0.5000	45197849001	0.5770	0.020	mg/Kg	115	3	u
012	102048	MSS	179445-001		102048	Soil	17-MAY-2005 10:03	1.0	54.35			45197849001	0.085	0.011	mg/Kg			u
013	102048	MS	QC293867	179445-001	102048	Soil	17-MAY-2005 10:05	1.0	79.37		0.3968	45197849001	0.5675	0.016	mg/Kg	121		u
014	102048	MSD	QC293868	179445-001	102048	Soil	17-MAY-2005 10:08	1.0	100.0		0.5000	45197849001	0.6550	0.020	mg/Kg	114	5	u
015	102048	SAMPLE	179445-002		102048	Soil	17-MAY-2005 10:10	1.0	76.92			45197849001	0.10	0.015	mg/Kg			u
016	102048	SAMPLE	179445-003		102048	Soil	17-MAY-2005 10:13	1.0	96.15			45197849001	0.040	0.019	mg/Kg			u
017	102048	SAMPLE	179445-004		102048	Soil	17-MAY-2005 10:15	1.0	83.33			45197849001	0.092	0.017	mg/Kg			u
018	102048	SAMPLE	179445-005		102048	Soil	17-MAY-2005 10:17	1.0	98.04			45197849001	0.057	0.020	mg/Kg			u
019	102048	CCV					17-MAY-2005 10:20	1.0	1.0	3	2.500	45197849001	2.590		ug/L	104		
020	102048	CCB					17-MAY-2005 10:22	1.0	1.0			45197849001	ND	0.20	ug/L			
021	102048	SAMPLE	179445-006		102048	Soil	17-MAY-2005 10:25	1.0	113.6			45197849001	0.32	0.023	mg/Kg			u
022	102048	SAMPLE	179445-007		102048	Soil	17-MAY-2005 10:28	1.0	108.7			45197849001	0.73	0.022	mg/Kg			u
023	102048	SAMPLE	179445-008		102048	Soil	17-MAY-2005 10:30	1.0	86.21			45197849001	0.077	0.017	mg/Kg			u
024	102048	SAMPLE	179445-009		102048	Soil	17-MAY-2005 10:32	1.0	125.0			45197849001	0.016 J	0.025	mg/Kg			u
025	102048	SAMPLE	179445-010		102048	Soil	17-MAY-2005 10:35	1.0	119.0			45197849001	0.019 J	0.024	mg/Kg			u
026	102048	SAMPLE	179445-011		102048	Soil	17-MAY-2005 10:37	1.0	92.59			45197849001	0.016 J	0.019	mg/Kg			u
027	102048	SAMPLE	179454-001		102048	Miscel	17-MAY-2005 10:40	1.0	37.04			45197849001	0.021	0.0074	mg/Kg			u
028	102048	SAMPLE	179358-001		102048	Soil	17-MAY-2005 10:42	1.0	92.59			45197849001	0.69	0.019	mg/Kg			u
029	102048	SAMPLE	179358-002		102048	Soil	17-MAY-2005 10:45	1.0	86.21			45197849001	0.29	0.017	mg/Kg			u
030	102048	SAMPLE	179358-003		102048	Soil	17-MAY-2005 10:47	1.0	62.50			45197849001	1.7 >LR	0.013	mg/Kg			>LR b*
031	102048	CCV					17-MAY-2005 10:50	1.0	1.0	4	5.000	45197849001	5.230		ug/L	105		
032	102048	CCB					17-MAY-2005 10:52	1.0	1.0			45197849001	ND	0.20	ug/L			
033	102048	SAMPLE	179358-004		102048	Soil	17-MAY-2005 10:54	1.0	58.14			45197849001	0.27	0.012	mg/Kg			u
034	102048	SAMPLE	179358-005		102048	Soil	17-MAY-2005 10:57	1.0	90.91			45197849001	0.61	0.018	mg/Kg			u
035	102048	SER	QC293869	179445-001	102048	Soil	17-MAY-2005 10:59	5.0	54.35			45197849001	0.071	0.054	mg/Kg	--		u
036	102048	PDS	QC293870	179445-001	102048	Soil	17-MAY-2005 11:02	1.0	54.35	1	0.2717	45197849001	0.4533	0.011	mg/Kg	135*		u
037	102048	SAMPLE	179358-003		102048	Soil	17-MAY-2005 11:04	10.0	62.50			45197849001	1.8	0.13	mg/Kg			u
038	102048	CCV					17-MAY-2005 11:06	1.0	1.0	5	7.500	45197849001	7.840		ug/L	105		
039	102048	CCB					17-MAY-2005 11:08	1.0	1.0			45197849001	ND	0.20	ug/L			

Stds used: 1=S614 2=S616 3=S617 4=S618 5=S619
Flags used: >LR=overrange b=noncompliant u=use

Analyst: Andris Marin Date: 5/17/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45197849001 Name: Type: SOIL Date: 17-MAY-2005 09:29 Inj Vol (uL): 2000

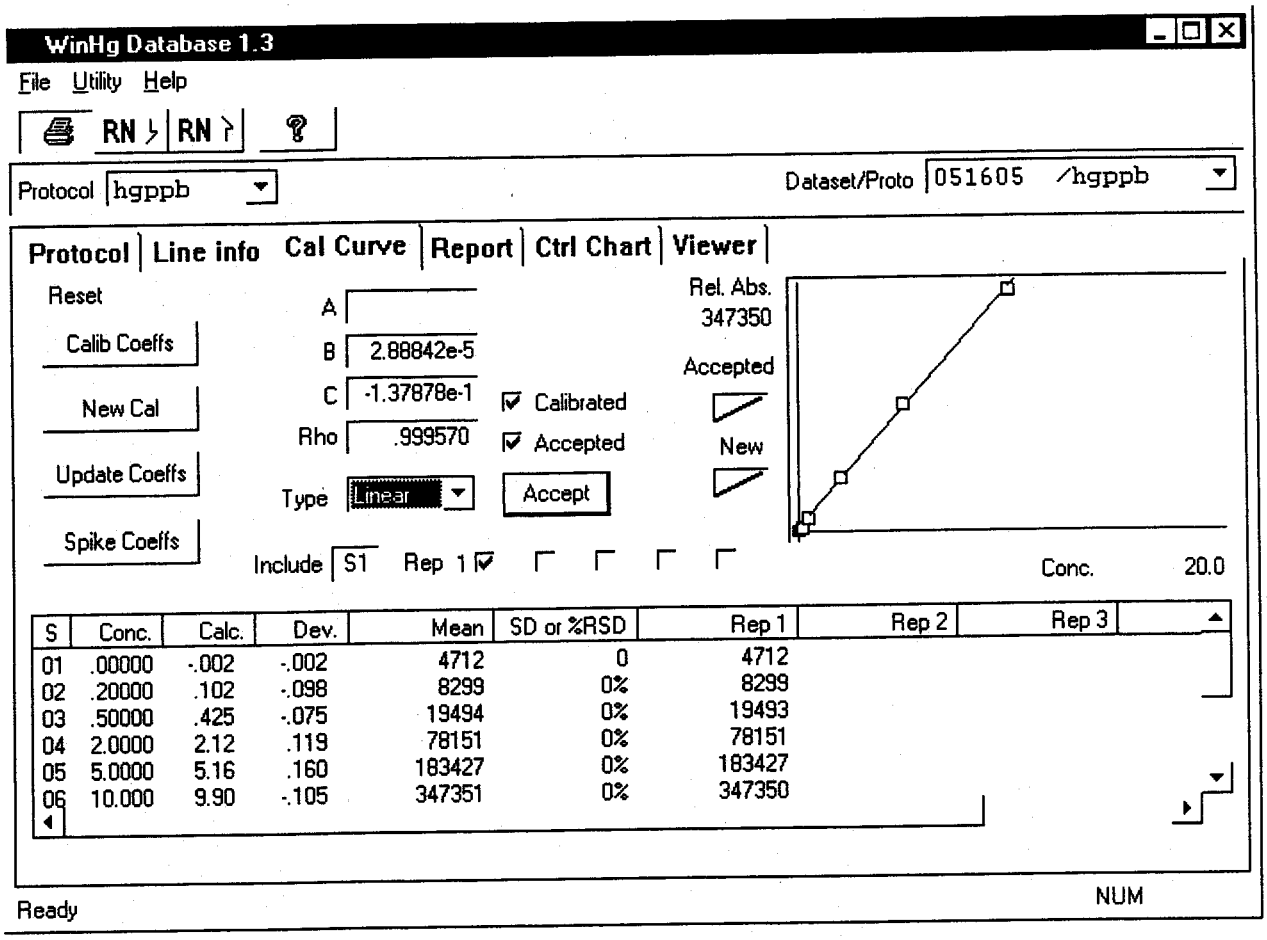
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102048	45197849002	Std02Rep1	17-MAY-2005 09:31	S614 (500X)
2	102048	45197849003	Std03Rep1	17-MAY-2005 09:34	S614 (200X)
3	102048	45197849004	Std04Rep1	17-MAY-2005 09:36	S614 (50X)
4	102048	45197849005	Std05Rep1	17-MAY-2005 09:39	S614 (20X)
5	102048	45197849006	Std06Rep1	17-MAY-2005 09:42	S614 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	41495	38986	39076	36685	34735	LINR	R	-0.13788	2.888E-5		ug/L	38195	0.999	.99	

257

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 051605 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.88842e-5
C -1.37878e-1
Rho .999570
Type Linear
Calibrated
Accepted
Accept
Include S1
Rep 1
Rel. Abs.
347350
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.002 -.002 4712 0 4712
02 .20000 .102 -.098 8299 0% 8299
03 .50000 .425 -.075 19494 0% 19493
04 2.0000 2.12 .119 78151 0% 78151
05 5.0000 5.16 .160 183427 0% 183427
06 10.000 9.90 -.105 347351 0% 347350
Ready
NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		09:29:04 17 May 05			HG
Hg	.000	ppb	4712						
		Bkgd 1	9517938						
*** Standard: 2 Rep: 1				Seq: 2		09:31:39 17 May 05			HG
Hg	.200	ppb	8299						
		Bkgd 1	9514276						
*** Standard: 3 Rep: 1				Seq: 3		09:34:27 17 May 05			HG
Hg	.500	ppb	19493						
		Bkgd 1	9514375						
*** Standard: 4 Rep: 1				Seq: 4		09:36:43 17 May 05			HG
Hg	2.00	ppb	78151						
		Bkgd 1	9514491						
*** Standard: 5 Rep: 1				Seq: 5		09:39:29 17 May 05			HG
Hg	5.00	ppb	183427						
		Bkgd 1	9506439						
*** Standard: 6 Rep: 1				Seq: 6		09:42:10 17 May 05			HG
Hg	10.0	ppb	347350						
		Bkgd 1	9502761						
*** Check Standard: 2			Ck2S616	Seq: 7		09:51:42 17 May 05			HG
Line	Flag		Intensities						
Hg			180919						
		Bkgd 1	9498527						
*** Check Standard: 1			Ck1ICB	Seq: 8		09:53:58 17 May 05			HG
Line	Flag		Intensities						
Hg			-7118						
		Bkgd 1	9488193						
*** Sample ID: qc293864			102048 102048,1	Seq: 9		09:56:14 17 May 05			HG
Hg	.000	ppb	4781						
		Bkgd 1	9496100						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45197849 Instrument: MET04 HydraAA HG Analyzer Begun: 17-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102048	ICALBLK	Std01Rep1				17-MAY-2005 09:29	1.0	1.0									
002	102048	ICAL	Std02Rep1				17-MAY-2005 09:31	1.0	1.0									
003	102048	ICAL	Std03Rep1				17-MAY-2005 09:34	1.0	1.0									
004	102048	ICAL	Std04Rep1				17-MAY-2005 09:36	1.0	1.0									
005	102048	ICAL	Std05Rep1				17-MAY-2005 09:39	1.0	1.0									
006	102048	ICAL	Std06Rep1				17-MAY-2005 09:42	1.0	1.0									
007	102048	ICV					17-MAY-2005 09:51	1.0	1.0	2	5.000	45197849001	5.090		ug/L	102		
008	102048	ICB					17-MAY-2005 09:53	1.0	1.0			45197849001	ND	0.20	ug/L			
009	102048	BLANK	QC293864		102048	Soil	17-MAY-2005 09:56	1.0	100.0			45197849001	ND	0.020	mg/Kg			u
010	102048	BS	QC293865		102048	Soil	17-MAY-2005 09:58	1.0	100.0		0.5000	45197849001	0.5930	0.020	mg/Kg	119		u
011	102048	BSD	QC293866		102048	Soil	17-MAY-2005 10:00	1.0	100.0		0.5000	45197849001	0.5770	0.020	mg/Kg	115	3	u
012	102048	MSS	179445-001		102048	Soil	17-MAY-2005 10:03	1.0	54.35			45197849001	0.085	0.011	mg/Kg			u
013	102048	MS	QC293867	179445-001	102048	Soil	17-MAY-2005 10:05	1.0	79.37		0.3968	45197849001	0.5675	0.016	mg/Kg	121		u
014	102048	MSD	QC293868	179445-001	102048	Soil	17-MAY-2005 10:08	1.0	100.0		0.5000	45197849001	0.6550	0.020	mg/Kg	114	5	u
015	102048	SAMPLE	179445-002		102048	Soil	17-MAY-2005 10:10	1.0	76.92			45197849001	0.10	0.015	mg/Kg			u
016	102048	SAMPLE	179445-003		102048	Soil	17-MAY-2005 10:13	1.0	96.15			45197849001	0.040	0.019	mg/Kg			u
017	102048	SAMPLE	179445-004		102048	Soil	17-MAY-2005 10:15	1.0	83.33			45197849001	0.092	0.017	mg/Kg			u
018	102048	SAMPLE	179445-005		102048	Soil	17-MAY-2005 10:17	1.0	98.04			45197849001	0.057	0.020	mg/Kg			u
019	102048	CCV					17-MAY-2005 10:20	1.0	1.0	3	2.500	45197849001	2.590		ug/L	104		
020	102048	CCB					17-MAY-2005 10:22	1.0	1.0			45197849001	ND	0.20	ug/L			
021	102048	SAMPLE	179445-006		102048	Soil	17-MAY-2005 10:25	1.0	113.6			45197849001	0.32	0.023	mg/Kg			u
022	102048	SAMPLE	179445-007		102048	Soil	17-MAY-2005 10:28	1.0	108.7			45197849001	0.73	0.022	mg/Kg			u
023	102048	SAMPLE	179445-008		102048	Soil	17-MAY-2005 10:30	1.0	86.21			45197849001	0.077	0.017	mg/Kg			u
024	102048	SAMPLE	179445-009		102048	Soil	17-MAY-2005 10:32	1.0	125.0			45197849001	0.016 J	0.025	mg/Kg			u
025	102048	SAMPLE	179445-010		102048	Soil	17-MAY-2005 10:35	1.0	119.0			45197849001	0.019 J	0.024	mg/Kg			u
026	102048	SAMPLE	179445-011		102048	Soil	17-MAY-2005 10:37	1.0	92.59			45197849001	0.016 J	0.019	mg/Kg			u
027	102048	SAMPLE	179454-001		102048	Miscel	17-MAY-2005 10:40	1.0	37.04			45197849001	0.021	0.0074	mg/Kg			u
028	102048	SAMPLE	179358-001		102048	Soil	17-MAY-2005 10:42	1.0	92.59			45197849001	0.69	0.019	mg/Kg			u
029	102048	SAMPLE	179358-002		102048	Soil	17-MAY-2005 10:45	1.0	86.21			45197849001	0.29	0.017	mg/Kg			u
030	102048	SAMPLE	179358-003		102048	Soil	17-MAY-2005 10:47	1.0	62.50			45197849001	1.7 >LR	0.013	mg/Kg			>LR b*
031	102048	CCV					17-MAY-2005 10:50	1.0	1.0	4	5.000	45197849001	5.230		ug/L	105		
032	102048	CCB					17-MAY-2005 10:52	1.0	1.0			45197849001	ND	0.20	ug/L			
033	102048	SAMPLE	179358-004		102048	Soil	17-MAY-2005 10:54	1.0	58.14			45197849001	0.27	0.012	mg/Kg			u
034	102048	SAMPLE	179358-005		102048	Soil	17-MAY-2005 10:57	1.0	90.91			45197849001	0.61	0.018	mg/Kg			u
035	102048	SER	QC293869	179445-001	102048	Soil	17-MAY-2005 10:59	5.0	54.35			45197849001	0.071	0.054	mg/Kg	--		u
036	102048	PDS	QC293870	179445-001	102048	Soil	17-MAY-2005 11:02	1.0	54.35	1	0.2717	45197849001	0.4533	0.011	mg/Kg	135*		u
037	102048	SAMPLE	179358-003		102048	Soil	17-MAY-2005 11:04	10.0	62.50			45197849001	1.8	0.13	mg/Kg			u
038	102048	CCV					17-MAY-2005 11:06	1.0	1.0	5	7.500	45197849001	7.840		ug/L	105		
039	102048	CCB					17-MAY-2005 11:08	1.0	1.0			45197849001	ND	0.20	ug/L			

Stds used: 1=S614 2=S616 3=S617 4=S618 5=S619
Flags used: >LR=overrange b=noncompliant u=use

Analyst: Andrés Marín Date: 5/17/05

280

Curtis & Tompkins Laboratories Sample Preparation Summary 17-MAY-2005 09:21

Batch Number : 102048
Date Extracted: 17-MAY-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S614
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179358-001			Weston Solutions	Soil	.54	g	50	92.592593	1					T26/HG		
179358-002			Weston Solutions	Soil	.58	g	50	86.206897	1					T26/HG		
179358-003			Weston Solutions	Soil	.8	g	50	62.500000	1					T26/HG		
179358-004			Weston Solutions	Soil	.86	g	50	58.139535	1					T26/HG		
179358-005			Weston Solutions	Soil	.55	g	50	90.909091	1					T26/HG		
179445-001			Mactec, Inc.	Soil	.92	g	50	54.347826	1					T26/HG		
179445-002			Mactec, Inc.	Soil	.65	g	50	76.923077	1					T26/HG		
179445-003			Mactec, Inc.	Soil	.52	g	50	96.153846	1					T26/HG		
179445-004			Mactec, Inc.	Soil	.6	g	50	83.333333	1					T26/HG		
179445-005			Mactec, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
179445-006			Mactec, Inc.	Soil	.44	g	50	113.636364	1					T26/HG		
179445-007			Mactec, Inc.	Soil	.46	g	50	108.695652	1					T26/HG		
179445-008			Mactec, Inc.	Soil	.58	g	50	86.206897	1					T26/HG		
179445-009			Mactec, Inc.	Soil	.4	g	50	125.000000	1					T26/HG		
179445-010			Mactec, Inc.	Soil	.42	g	50	119.047619	1					T26/HG		
179445-011			Mactec, Inc.	Soil	.54	g	50	92.592593	1					T26/HG		
179454-001			ConocoPhillips Company	Miscell.	1.35	g	50	37.037037	1					T26/HG		
QC293864	MB			Soil	.5	g	50	100.000000	1					HG		
QC293865	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC293866	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC293867	MS	of 179445-001		Soil	.63	g	50	79.365079	1		2.5			HG		
QC293868	MSD	of 179445-001		Soil	.5	g	50	100.000000	1		2.5			HG		
QC293869	SER	of 179445-001		Soil	.92	g	50	54.347826	1					HG		
QC293870	PDS	of 179445-001		Soil	.92	g	50	54.347826	1					HG		

261

Prep Chemist: Andres Marin Reviewed By: _____ Date: 5/17/05

Relinquished By: _____ Received By: _____ Date: 5/17/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 102048
Date Digested: 5/17/05
Digested by: AM

Digestion Method
☑ EPA 7471A
☐ _____

BK 2086
Page 72

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	179445-001 A NS	.92	50		
	2 A	.65			
	3 A	.52			
	4 S	.60			
5	5 G	.51			
	6 G	.44			
	7 G	.46			
	8 G	.58			
	9 G	.40			
10	10 E	.42			
	11 G	.54			
	179454-001 A	1.35			
	MS	0.5			
	MSD	0.6			
15	DP	0.5			
	MS	.63			
	MSD	.50			
	179358-001 A	.54			
	2 A	.58			
20	3 A	.80			
	4 A	.86			
	5 A	.55			

2.5 mL of spike solution was added to all spikes

	Reagent ID/ LIMS# / Time	Initials / Date
	~~AM 5/16~~ S614	AM 5/16
ICAL Source WS#	S614	
ICV / CCV WS#	816, 17, 18, 19	
Digestion of Samples & Standards: Time ON / Temperature ON	800 AM 95°C	
Time OFF/ Temperature OFF	8:30 AM 95°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 051705	
5% $KMnO_4$	K 051205	
5% $K_2S_2O_8$	—	
NaCl.hydroxylamine hydrochloride	Hy 042805	
Stannous Chloride	$SnCl_2$ 050905	
☐ filtered thru' 0.45 um syringe filter	—	

Continued from page 1

Continued on page 1

Prep Chemist / Date

Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1711001	TUN	tune			17-MAY-2005 11:53	1.0	1.0				1	
003	e1711003	ICALBLK	std-blk			17-MAY-2005 12:03	1.0	1.0				2	
004	e1711004	ICAL	cs1			17-MAY-2005 12:09	1.0	1.0				3	
005	e1711005	ICAL	cs2			17-MAY-2005 12:14	1.0	1.0				4	
006	e1711006	ICAL	cs3			17-MAY-2005 12:19	1.0	1.0				5	
007	e1711007	ICAL	cs4			17-MAY-2005 12:24	1.0	1.0				6	
008	e1711008	ICAL	cs5			17-MAY-2005 12:30	1.0	1.0				7	
009	e1711009	ICAL	cs6			17-MAY-2005 12:35	1.0	1.0				8	
010	e1711010	ICV				17-MAY-2005 12:40	1.0	1.0			1	9	
012	e1711012	ICB				17-MAY-2005 12:51	1.0	1.0	1		1	2	
013	e1711013	ICSA				17-MAY-2005 12:57	1.0	1.0			1	10 2	7:CA=286500
014	e1711014	ICSAB				17-MAY-2005 13:03	1.0	1.0			1	11 2	11:CA=293200
016	e1711016	BS	QC293616	101983	SPLP L	17-MAY-2005 13:15	10.0	1.0	1	1	1	2	1:AL=1858.00
017	e1711017	BSD	QC293617	101983	SPLP L	17-MAY-2005 13:20	10.0	1.0	1		1	2	1:AL=1805.00
018	e1711018	SSPIKE	QC293619	101983	SPLP L	17-MAY-2005 13:27	10.0	1.0			1	2	1:AL=2100.00
019	e1711019	X	RINSE	101904		17-MAY-2005 13:32	1.0					2	
020	e1711020	BLANK	QC293915	102065	Soil	17-MAY-2005 13:42	5.0	50.0			1	2	
021	e1711021	BS	QC293916	102065	Soil	17-MAY-2005 13:48	5.0	50.0			1	2	
022	e1711022	BSD	QC293917	102065	Soil	17-MAY-2005 13:54	5.0	50.0			1	2	
024	e1711024	MSS	179384-001	102065	Soil	17-MAY-2005 14:06	5.0	47.17	7		1	2	7:FE=100660
025	e1711025	SER	QC293919	102065	Soil	17-MAY-2005 14:12	25.0	47.17		3	1	2	3:FE=21212.0
029	e1711029	CCV				17-MAY-2005 14:35	1.0	1.0			1	12	
031	e1711031	CCB				17-MAY-2005 14:47	1.0	1.0	1		1	2	
032	e1711032	MSS	179384-001	102065	Soil	17-MAY-2005 14:53	10.0	47.17	4		1	2	4:FE=50910.0
033	e1711033	SER	QC293919	102065	Soil	17-MAY-2005 14:59	50.0	47.17		2	1	2	2:AL=6928.00
034	e1711034	MSS	179384-001	102065	Soil	17-MAY-2005 15:05	20.0	47.17	3		1	2	3:FE=25585.0
035	e1711035	X				17-MAY-2005 15:11	1.0					2	
036	e1711036	SER	QC293919	102065	Soil	17-MAY-2005 15:17	100.0	47.17		2	1	2	1:AL=3796.00
037	e1711037	MSS	179384-001	102065	Soil	17-MAY-2005 15:23	5.0	47.17	7		1	2	7:FE=96720.0
038	e1711038	MS	QC293918	102065	Soil	17-MAY-2005 15:29	5.0	48.54	5		1	2	9:FE=104380
039	e1711039	MSD	QC293928	102065	Soil	17-MAY-2005 15:35	5.0	49.50	6		1	2	10:FE=104660

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: _____ Date: 5/17/1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	e1711040	PDS	QC293920	102065	Soil	17-MAY-2005 15:41	5.0	47.17	2		1	13 2	9:FE=104060
041	e1711041	MS	QC293918	102065	Soil	17-MAY-2005 15:46	50.0	48.54		1	1	2	2:AL=6622.00
043	e1711043	CCV				17-MAY-2005 15:58	1.0	1.0			1	14 2	
047	e1711047	CCB				17-MAY-2005 16:22	1.0	1.0	1		1	2	
048	e1711048	MSD	QC293928	102065	Soil	17-MAY-2005 16:28	50.0	49.50		1	1	2	2:AL=6510.00
049	e1711049	PDS	QC293920	102065	Soil	17-MAY-2005 16:33	50.0	47.17			1	13 2	2:AL=6732.00
050	e1711050	SAMPLE	179408-002	102065	Soil	17-MAY-2005 16:39	10.0	53.76			1	2	12:FE=28370.0
051	e1711051	SAMPLE	179408-003	102065	Soil	17-MAY-2005 16:45	10.0	37.88			1	2	16:FE=41970.0
053	e1711053	MSS	179290-001	101904	Water	17-MAY-2005 16:57	2.0	1.0			1	2	
054	e1711054	SER	QC293303	101904	Water	17-MAY-2005 17:03	10.0	1.0		3	1	2	
055	e1711055	MS	QC293301	101904	Water	17-MAY-2005 17:09	2.0	1.0		1	1	2	
056	e1711056	MSD	QC293302	101904	Water	17-MAY-2005 17:15	2.0	1.0		2	1	2	
057	e1711057	PDS	QC293304	101904	Water	17-MAY-2005 17:21	2.0	1.0		1	1	13 2	
059	e1711059	SAMPLE	179290-002	101904	Water	17-MAY-2005 17:33	2.0	1.0			1	2	
061	e1711061	CCV				17-MAY-2005 17:44	1.0	1.0			1	14 2	
063	e1711063	CCB				17-MAY-2005 17:56	1.0	1.0	1		1	2	
064	e1711064	SAMPLE	179290-003	101904	Water	17-MAY-2005 18:02	5.0	1.0			1	2	
065	e1711065	SAMPLE	179290-004	101904	Water	17-MAY-2005 18:08	1.0	1.0			1	2	
066	e1711066	SAMPLE	179290-007	101904	Water	17-MAY-2005 18:14	2.0	1.0			1	2	
067	e1711067	SAMPLE	179290-013	101904	Water	17-MAY-2005 18:20	2.0	1.0	1		1	2	1:CA=24585.0
068	e1711068	SAMPLE	179290-013	101904	Water	17-MAY-2005 18:26	5.0	1.0	1		1	2	
069	e1711069	SAMPLE	179290-014	101904	Water	17-MAY-2005 18:31	1.0	1.0	1		1	2	1:NA=20520.0
070	e1711070	SAMPLE	179290-015	101904	Water	17-MAY-2005 18:37	1.0	1.0	2		1	2	2:CA=26120.0
071	e1711071	SAMPLE	179290-016	101904	Water	17-MAY-2005 18:43	1.0	1.0			1	2	
072	e1711072	SAMPLE	179290-017	101904	Water	17-MAY-2005 18:49	1.0	1.0	1		1	2	1:CA=22860.0
073	e1711073	ICSA				17-MAY-2005 18:55	1.0	1.0			1	10 2	7:CA=285700
077	e1711077	CCV				17-MAY-2005 19:18	1.0	1.0			1	12 2	
079	e1711079	CCB				17-MAY-2005 19:30	1.0	1.0	1		1	2	
080	e1711080	ICSAB				17-MAY-2005 19:36	1.0	1.0			1	11 2	10:CA=288900
084	e1711084	CCV				17-MAY-2005 19:59	1.0	1.0			1	12 2	
086	e1711086	CCB				17-MAY-2005 20:11	1.0	1.0	1		1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: _____ Date: 5/17/1

264

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55197993 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
087	e1711087	SAMPLE	179445-001	102065	Soil	17-MAY-2005 20:17	5.0	49.02	3		1	2	6:FE=77620.0
088	e1711088	SAMPLE	179445-002	102065	Soil	17-MAY-2005 20:22	5.0	39.06	5		1	2	8:FE=99480.0
089	e1711089	SAMPLE	179445-003	102065	Soil	17-MAY-2005 20:28	5.0	44.64	4		1	2	6:FE=91100.0
090	e1711090	SAMPLE	179445-004	102065	Soil	17-MAY-2005 20:34	5.0	54.35	3		1	2	6:FE=39560.0
091	e1711091	SAMPLE	179445-005	102065	Soil	17-MAY-2005 20:40	5.0	32.05	4		1	2	8:FE=167040
092	e1711092	SAMPLE	179445-006	102065	Soil	17-MAY-2005 20:46	5.0	54.35	3		1	2	7:CA=34160.0
093	e1711093	SAMPLE	179445-007	102065	Soil	17-MAY-2005 20:52	5.0	44.64	3		1	2	7:FE=59760.0
094	e1711094	SAMPLE	179445-008	102065	Soil	17-MAY-2005 20:57	5.0	39.06	6		1	2	10:FE=155740
095	e1711095	SAMPLE	179445-009	102065	Soil	17-MAY-2005 21:03	5.0	33.56	2		1	2	7:FE=83960.0
096	e1711096	SAMPLE	179445-010	102065	Soil	17-MAY-2005 21:09	5.0	40.0	1		1	2	6:FE=68960.0
098	e1711098	CCV				17-MAY-2005 21:21	1.0	1.0	1		1	12 2	
100	e1711100	CCB				17-MAY-2005 21:32	1.0	1.0	1		1	2	
101	e1711101	SAMPLE	179445-011	102065	Soil	17-MAY-2005 21:38	5.0	38.76			1	2	3:FE=41100.0
102	e1711102	SAMPLE	179445-001	102065	Soil	17-MAY-2005 21:44	50.0	49.02			1	2	1:AL=3574.00
103	e1711103	SAMPLE	179445-002	102065	Soil	17-MAY-2005 21:50	50.0	39.06			1	2	2:AL=3462.00
104	e1711104	SAMPLE	179445-003	102065	Soil	17-MAY-2005 21:56	50.0	44.64			1	2	1:AL=3954.00
105	e1711105	SAMPLE	179445-004	102065	Soil	17-MAY-2005 22:02	50.0	54.35			1	2	1:AL=1610.60
106	e1711106	SAMPLE	179445-005	102065	Soil	17-MAY-2005 22:08	50.0	32.05			1	2	1:AL=7022.00
107	e1711107	SAMPLE	179445-006	102065	Soil	17-MAY-2005 22:13	50.0	54.35	1		1	2	2:AL=1397.60
108	e1711108	SAMPLE	179445-007	102065	Soil	17-MAY-2005 22:19	50.0	44.64			1	2	1:AL=2692.00
109	e1711109	SAMPLE	179445-008	102065	Soil	17-MAY-2005 22:25	50.0	39.06			1	2	2:AL=8518.00
110	e1711110	SAMPLE	179445-009	102065	Soil	17-MAY-2005 22:31	50.0	33.56			1	2	1:AL=2390.00
112	e1711112	CCV				17-MAY-2005 22:43	1.0	1.0			1	12 2	
114	e1711114	CCB				17-MAY-2005 22:54	1.0	1.0	1		1	2	
115	e1711115	ICSA				17-MAY-2005 23:00	1.0	1.0			1	10 2	7:CA=275100
116	e1711116	ICSAB				17-MAY-2005 23:06	1.0	1.0			1	11 2	8:CA=286300

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S403 13=S21 14=S400

Analyst: _____ Date: 8/17/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55197993001 Name: Type: (normal) Date: 17-MAY-2005 12:03 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1711004	55197993004	cs1	17-MAY-2005 12:09	S395
2	e1711005	55197993005	cs2	17-MAY-2005 12:14	S396
3	e1711006	55197993006	cs3	17-MAY-2005 12:19	S397
4	e1711007	55197993007	cs4	17-MAY-2005 12:24	S398
5	e1711008	55197993008	cs5	17-MAY-2005 12:30	S393
6	e1711009	55197993009	cs6	17-MAY-2005 12:35	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		1.7836	0.8643	0.4032	0.3565	0.3547	BLNK	R	-1.64312	2.844153		ug/L	0.7525	1.000	0.995	
Antimony	0.2228	0.2017	0.1772	0.1736	0.1763	0.1755	BLNK	R	-0.07676	5.696527		ug/L	0.1878	1.000	0.995	
Arsenic		0.3937	0.3615	0.3105	0.3035	0.3028	BLNK	R	-0.16698	3.303751		ug/L	0.3344	1.000	0.995	
Barium	0.0876	0.0703	0.0607	0.0579	0.0589	0.0581	BLNK	R	-0.11101	17.16617		ug/L	0.0656	1.000	0.995	
Beryllium	0.1290	0.1189	0.1188	0.1138	0.1146	0.1147	BLNK	R	-0.02503	8.719888		ug/L	0.1183	1.000	0.995	
Cadmium	0.5164	0.3628	0.3331	0.2659	0.2555	0.2488	BLNK	R	-0.26538	4.004209		ug/L	0.3304	1.000	0.995	
Calcium		0.0172	0.0141	0.0116	0.0118	0.0113	BLNK	R	-22.5316	87.69603		ug/L	0.0132	1.000	0.995	
Chromium		4.0456	2.9669	2.0400	1.9309	1.8945	BLNK	R	-0.52019	0.527442		ug/L	2.5756	1.000	0.995	
Cobalt	2.2665	2.1681	2.1786	2.1753	2.1325	2.0806	BLNK	R	-0.01609	0.478247		ug/L	2.1669	1.000	0.995	
Copper		0.9491	0.7438	0.5716	0.5396	0.5248	BLNK	R	-0.33684	1.898513		ug/L	0.6658	1.000	0.995	
Iron		0.0929	0.0718	0.0541	0.0527	0.0504	BLNK	R	-41.0660	19.70676		ug/L	0.0644	1.000	0.995	
Lead	0.8562	0.7288	0.6699	0.6393	0.6434	0.6334	BLNK	R	-0.08175	1.574567		ug/L	0.6952	1.000	0.995	
Magnesium		0.0450	0.0444	0.0477	0.0452	0.0436	BLNK	R	-0.72977	22.75601		ug/L	0.0452	1.000	0.995	
Manganese	3.9301	3.2811	2.8283	2.5714	2.5434	2.4701	BLNK	R	-0.12176	0.402724		ug/L	2.9374	1.000	0.995	
Molybdenum		0.5588	0.5116	0.5133	0.5126	0.5113	BLNK	R	-0.03833	1.955134		ug/L	0.5215	1.000	0.995	
Nickel	0.6737	0.6021	0.4968	0.4872	0.4640	0.4547	BLNK	R	-0.10136	2.191375		ug/L	0.5298	1.000	0.995	
Potassium		2.1357	1.2583	0.4515	0.3735	0.3633	BLNK	R	-246.119	2.777437		ug/L	0.9165	1.000	0.995	
Selenium		0.0872	0.0480	0.0206	0.0173	0.0170	BLNK	R	-1.77558	59.32904		ug/L	0.0380	1.000	0.995	
Silver	1.4860	1.3964	1.3177	1.2852	1.2662	1.2270	BLNK	R	-0.03179	0.809931		ug/L	1.3297	1.000	0.995	
Sodium		1.1253	0.7729	0.4828	0.4547	0.4334	BLNK	R	-64.8941	2.293507		ug/L	0.6538	0.999	0.995	

266

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55197993001 Name: Type: (normal) Date: 17-MAY-2005 12:03 Inj Vol (uL): 1

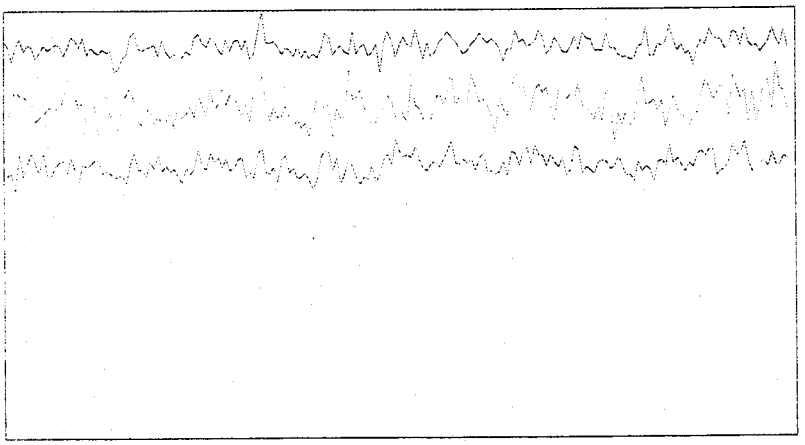
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.4745	0.4463	0.4545	0.4865	0.4963	BLNK	R	-0.05186	2.023925		ug/L	0.4716	1.000	0.995	
Vanadium		3.4466	2.7166	2.2606	2.2712	2.2172	BLNK	R	-0.14231	0.449207		ug/L	2.5825	1.000	0.995	
Zinc		1.4373	0.7293	0.3618	0.3134	0.3014	BLNK	R	-1.39653	3.319091		ug/L	0.6286	1.000	0.995	

267

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : Autotune.u

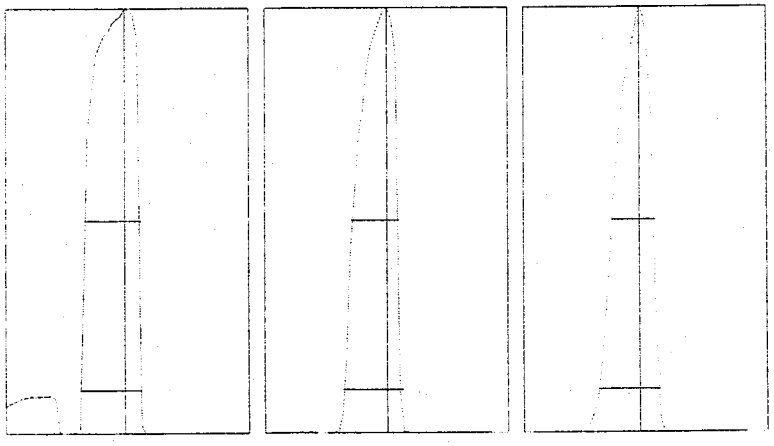


m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	18,127	32,472	38,085
Mean:	18308.4	31957.2	38955.3
RSD%:	2.23	3.61	4.30
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.37%
Doubly Charged: 70/140 1.08%
Background:

m/z:	7	89	205
Cps:	36.7	32.2	55.3



m/z:	7	89	205
Height:	18,356	32,686	40,111
Axis:	7.00	89.05	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1280 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 17, 2005 10:31:30
Printed : May 17, 2005 10:31:35

P/A Factor Tuning Report

Acquired:May 17 2005 11:07 am

Mass[amu]	Element	P/A Factor
6	Li	0.064325
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085306
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096313
45	Sc	0.092627
51	V	0.095859
52	Cr	0.098266
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100393
57	Fe	0.102948
59	Co	0.103533
60	Ni	Sensitivity too low
63	Cu	0.106145
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105501
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112721
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113648
118	(In)	0.111419
121	Sb	0.110743
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117861
166	Er	Sensitivity too low

Temp.p$$

205	Tl	0.124777
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.122988
209	Bi	0.123741
232	Th	0.124484
238	U	0.124619

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

Temp.p$$

P/A Factor Tuning Report

Acquired:May 17 2005 11:13 am

Mass[amu]	Element	P/A Factor
6	Li	0.064080
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085120
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.095560
45	Sc	0.092485
51	V	0.095136
52	Cr	0.097441
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099422
57	Fe	0.102087
59	Co	0.102572
60	Ni	Sensitivity too low
63	Cu	0.104711
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.104950
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110856
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113049
118	(In)	0.108947
121	Sb	0.109081
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117444
166	Er	Sensitivity too low

205	Tl	0.123345
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.121247
209	Bi	0.123047
232	Th	0.123326
238	U	0.122989

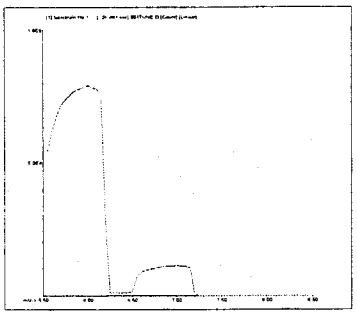
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

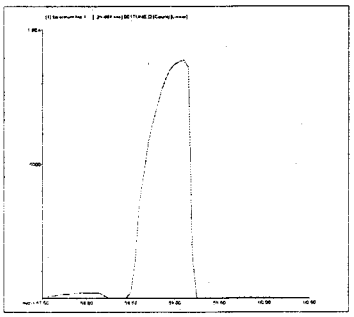
Data File: C:\ICPCHEM\1\DATA\05E1711a.B\001TUNE.D
Date Acquired: May 17 2005 11:53 am
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

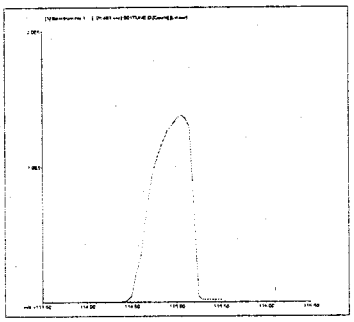
Element	Actual	Required	Flag
7 Li	0.86	5.00	
59 Co	1.44	5.00	
115 In	1.93	5.00	
205 Tl	2.05	5.00	



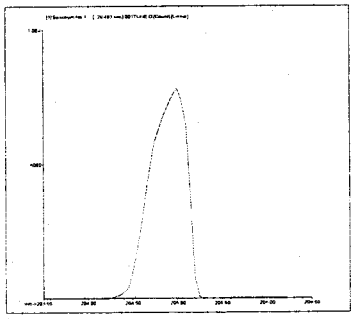
7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.05
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 17 2005 11:57 am
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 17 2005 00:19 am
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.005079	ppb	151.68	-0.005079	1.00	
23 Na	50.6	ppb	1.77	50.6	1.00	
26 Mg	-2.189	ppb	2.91	-2.189	1.00	
27 Al	-0.1839	ppb	8.75	-0.1839	1.00	
39 K	39.22	ppb	7.54	39.22	1.00	
44 Ca	-1.032	ppb	74.24	-1.032	1.00	
51 V	-0.124	ppb	42.21	-0.124	1.00	
52 Cr	-0.01917	ppb	80.28	-0.01917	1.00	
55 Mn	0.01895	ppb	58.89	0.01895	1.00	
57 Fe	-26.21	ppb	2.79	-26.21	1.00	
59 Co	-0.01703	ppb	19.91	-0.01703	1.00	
60 Ni	0.01573	ppb	75.65	0.01573	1.00	
65 Cu	0.1589	ppb	15.32	0.1589	1.00	
66 Zn	0.8511	ppb	3.92	0.8511	1.00	
75 As	0.129	ppb	61.12	0.129	1.00	
82 Se	-0.08294	ppb	678.56	-0.08294	1.00	
95 Mo	-0.06099	ppb	12.17	-0.06099	1.00	
109 Ag	-0.004969	ppb	31.17	-0.004969	1.00	
111 Cd	-0.06014	ppb	26.99	-0.06014	1.00	
121 Sb	-0.1302	ppb	16.77	-0.1302	1.00	
137 Ba	-0.02302	ppb	83.84	-0.02302	1.00	
205 Tl	-0.005507	ppb	224.99	-0.005507	1.00	
208 Pb	-0.0204	ppb	28.89	-0.0204	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	767089.81	0.20	---	#VALUE!	30 - 200	
45 Sc	928955.19	2.22	---	#VALUE!	30 - 200	
72 Ge	197731.56	1.48	---	#VALUE!	30 - 200	

115 In	1218860.00	1.37	---	#VALUE!	30 - 200
209 Bi	793554.38	1.09	---	#VALUE!	30 - 200

ISTD Ref File : ---

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\003CAL
Date Acquired: May 17 2005 12:03 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:19 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	774508.13	A	3891.00	0.50
9	Be	44.44	P	6.94	15.61
23	Na	527485.63	P	4331.00	0.82
26	Mg	597.78	P	26.94	4.51
27	Al	10775.56	P	511.30	4.75
39	K	1652542.00	A	59580.00	3.61
44	Ca	4792.85	P	297.30	6.20
45	Sc	932274.81	A	18590.00	1.99
51	V	1259.18	P	616.50	48.96
52	Cr	3907.78	P	156.90	4.02
55	Mn	1198.89	P	141.10	11.77
57	Fe	8258.89	P	572.90	6.94
59	Co	133.33	P	15.28	11.46
60	Ni	183.33	P	26.03	14.20
65	Cu	703.33	P	64.38	9.15
66	Zn	1666.67	P	49.10	2.95
72	Ge	198061.30	P	2944.00	1.49
75	As	200.21	P	36.64	18.30
82	Se	118.79	P	25.34	21.33
95	Mo	77.78	P	15.03	19.32
109	Ag	155.56	P	15.75	10.13
111	Cd	262.59	P	11.86	4.52
115	In	1221416.00	A	32000.00	2.62
121	Sb	330.00	P	69.28	20.99
137	Ba	157.78	P	18.36	11.64
205	Tl	414.44	P	24.11	5.82
208	Pb	837.78	P	87.71	10.47
209	Bi	808221.13	P	22440.00	2.78
232	Th	2748.89	P	282.30	10.27
238	U	71.11	P	15.03	21.14

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\004CALI.D\004CALI.D#
Date Acquired: May 17 2005 12:09 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:05 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	778491.88	A	12950.00	1.66
9 Be	502.22	P	45.26	9.01
23 Na	804675.38	A	2898.00	0.36
26 Mg	21945.55	P	559.40	2.55
27 Al	13646.67	P	398.90	2.92
39 K	1853843.00	A	53830.00	2.90
44 Ca	10323.29	P	285.70	2.77
45 Sc	949376.63	A	8850.00	0.93
51 V	3791.04	P	131.50	3.47
52 Cr	6186.67	P	133.70	2.16
55 Mn	3962.22	P	138.90	3.51
57 Fe	13626.67	P	356.30	2.61
59 Co	2284.44	P	21.43	0.94
60 Ni	680.00	P	62.45	9.18
65 Cu	1353.24	P	83.73	6.19
66 Zn	2197.89	P	38.92	1.77
72 Ge	201678.20	P	4634.00	2.30
75 As	498.43	P	40.24	8.07
82 Se	132.01	P	22.61	17.13
95 Mo	661.11	P	41.14	6.22
109 Ag	1497.78	P	82.21	5.49
111 Cd	520.68	P	44.13	8.48
115 In	1229925.00	A	30340.00	2.47
121 Sb	1370.00	P	60.83	4.44
137 Ba	538.89	P	36.72	6.81
205 Tl	2114.44	P	115.30	5.45
208 Pb	3456.67	P	141.10	4.08
209 Bi	807367.69	P	23130.00	2.86
232 Th	3867.78	P	225.20	5.82
238 U	2437.78	P	21.17	0.87

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	778491.94	1.66	774508.13	100.5	30 - 200	
45 Sc	949376.63	0.93	932274.88	101.8	30 - 200	
72 Ge	201678.23	2.30	198061.33	101.8	30 - 200	
115 In	1229925.40	2.47	1221416.10	100.7	30 - 200	
209 Bi	807367.75	2.86	808221.06	99.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\005CALI.D\005CALI.D#
Date Acquired: May 17 2005 12:14 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:11 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	771978.00	A	10430.00	1.35
9 Be	917.78	P	42.86	4.67
23 Na	1059269.00	A	27800.00	2.62
26 Mg	42381.11	P	1519.00	3.58
27 Al	16790.00	P	379.50	2.26
39 K	2010721.00	A	72070.00	3.58
44 Ca	16176.86	P	552.00	3.41
45 Sc	941295.69	A	17740.00	1.88
51 V	6909.61	P	186.00	2.69
52 Cr	8108.89	P	113.80	1.40
55 Mn	6577.78	P	228.90	3.48
57 Fe	18623.33	P	423.30	2.27
59 Co	4346.67	P	187.70	4.32
60 Ni	1206.67	P	28.48	2.36
65 Cu	1903.15	P	103.50	5.44
66 Zn	2880.21	P	44.84	1.56
72 Ge	200451.59	P	2878.00	1.44
75 As	789.03	P	131.20	16.63
82 Se	175.15	P	37.27	21.28
95 Mo	1120.00	P	21.86	1.95
109 Ag	2800.00	P	148.90	5.32
111 Cd	727.25	P	36.09	4.96
115 In	1238283.00	A	25930.00	2.09
121 Sb	2497.78	P	96.97	3.88
137 Ba	870.00	P	60.00	6.90
205 Tl	3784.44	P	247.40	6.54
208 Pb	5810.00	P	76.23	1.31
209 Bi	797203.31	P	12190.00	1.53
232 Th	4688.89	P	88.34	1.88
238 U	4770.00	P	106.50	2.23

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	771978.00	1.35	774508.13	99.7	30 - 200	
45 Sc	941295.69	1.88	932274.88	101.0	30 - 200	
72 Ge	200451.56	1.44	198061.33	101.2	30 - 200	
115 In	1238283.30	2.09	1221416.10	101.4	30 - 200	
209 Bi	797203.31	1.53	808221.06	98.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\006CALI.D\006CALI.D#
Date Acquired: May 17 2005 12:19 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:16 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	782552.31	A	14770.00	1.89
9 Be	1860.00	P	99.39	5.34
23 Na	1458930.00	A	20130.00	1.38
26 Mg	83802.22	P	1795.00	2.14
27 Al	16318.89	P	417.60	2.56
39 K	2376060.00	A	79960.00	3.37
44 Ca	26538.75	P	1032.00	3.89
45 Sc	944017.81	A	22650.00	2.40
51 V	10936.41	P	560.40	5.12
52 Cr	11941.11	P	289.90	2.43
55 Mn	11388.89	P	296.70	2.61
57 Fe	28904.44	P	735.00	2.54
59 Co	8772.22	P	175.60	2.00
60 Ni	2000.00	P	27.28	1.36
65 Cu	2994.08	P	76.04	2.54
66 Zn	2937.09	P	117.80	4.01
72 Ge	201324.70	P	3625.00	1.80
75 As	1457.22	P	151.70	10.41
82 Se	193.33	P	10.33	5.34
95 Mo	2061.11	P	130.40	6.33
109 Ag	5305.56	P	114.30	2.15
111 Cd	1342.17	P	86.74	6.46
115 In	1256256.00	A	25320.00	2.02
121 Sb	4453.33	P	165.00	3.71
137 Ba	1523.33	P	52.07	3.42
205 Tl	7242.22	P	344.60	4.76
208 Pb	10864.44	P	247.30	2.28
209 Bi	811102.19	P	21860.00	2.70
232 Th	7185.56	P	409.00	5.69
238 U	9400.00	P	144.30	1.54

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	782552.25	1.89	774508.13	101.0	30 - 200	
45 Sc	944017.75	2.40	932274.88	101.3	30 - 200	
72 Ge	201324.67	1.80	198061.33	101.6	30 - 200	
115 In	1256256.10	2.02	1221416.10	102.9	30 - 200	
209 Bi	811102.19	2.70	808221.06	100.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\007CALI.D\007CALI.D#
Date Acquired: May 17 2005 12:24 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:21 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	780765.88	A	5946.00	0.76
9 Be	17774.44	P	268.00	1.51
23 Na	9194793.00	A	124800.00	1.36
26 Mg	908182.38	A	15840.00	1.74
27 Al	76798.88	P	2020.00	2.63
39 K	8600165.00	A	227700.00	2.65
44 Ca	220548.09	P	6420.00	2.91
45 Sc	952282.50	A	21790.00	2.29
51 V	90737.33	P	2415.00	2.66
52 Cr	81876.66	P	1295.00	1.58
55 Mn	103218.90	P	2814.00	2.73
57 Fe	217175.59	P	5517.00	2.54
59 Co	87314.44	P	2354.00	2.70
60 Ni	19558.89	P	639.50	3.27
65 Cu	22944.98	P	623.60	2.72
66 Zn	14520.10	P	226.30	1.56
72 Ge	200728.41	P	5596.00	2.79
75 As	12464.43	P	231.20	1.85
82 Se	828.26	P	28.69	3.46
95 Mo	20598.89	P	216.90	1.05
109 Ag	51576.66	P	531.40	1.03
111 Cd	10670.92	P	375.00	3.51
115 In	1233715.00	A	14930.00	1.21
121 Sb	42815.55	P	501.20	1.17
137 Ba	14297.78	P	596.20	4.17
205 Tl	73023.33	P	2169.00	2.97
208 Pb	102716.70	P	1646.00	1.60
209 Bi	803276.63	P	9018.00	1.12
232 Th	57501.11	P	1191.00	2.07
238 U	96883.33	P	1153.00	1.19

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	780765.88	0.76	774508.13	100.8	30 - 200	
45 Sc	952282.44	2.29	932274.88	102.1	30 - 200	
72 Ge	200728.44	2.79	198061.33	101.3	30 - 200	
115 In	1233715.00	1.21	1221416.10	101.0	30 - 200	
209 Bi	803276.63	1.12	808221.06	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\008CALI.D\008CALI.D#
Date Acquired: May 17 2005 12:30 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:26 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	748304.38	A	2732.00	0.37
9 Be	171471.09	P	1507.00	0.88
23 Na	82776864.00	A	1482000.00	1.79
26 Mg	8221546.00	A	144300.00	1.76
27 Al	648971.13	P	15060.00	2.32
39 K	68001040.00	A	1789000.00	2.63
44 Ca	2147469.00	A	32980.00	1.54
45 Sc	910174.38	A	14460.00	1.59
51 V	901351.88	A	17320.00	1.92
52 Cr	766203.31	M	6166.00	0.80
55 Mn	1009300.00	A	13370.00	1.32
57 Fe	2091667.00	A	32230.00	1.54
59 Co	846552.50	M	30720.00	3.63
60 Ni	184182.20	P	4563.00	2.48
65 Cu	214158.80	P	3686.00	1.72
66 Zn	124370.00	P	951.30	0.76
72 Ge	198447.30	P	4512.00	2.27
75 As	120477.70	P	2971.00	2.47
82 Se	6857.16	P	155.80	2.27
95 Mo	203447.80	P	4873.00	2.40
109 Ag	502467.69	P	9117.00	1.81
111 Cd	101410.00	P	3737.00	3.69
115 In	1193298.00	A	25300.00	2.12
121 Sb	420605.50	P	3959.00	0.94
137 Ba	140583.30	P	4181.00	2.97
205 Tl	763935.50	P	12110.00	1.59
208 Pb	1010594.00	P	19370.00	1.92
209 Bi	785583.31	P	24260.00	3.09
232 Th	858683.31	P	38300.00	4.46
238 U	1016535.00	A	14040.00	1.38

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	748304.38	0.37	774508.13	96.6	30 - 200	
45 Sc	910174.44	1.59	932274.88	97.6	30 - 200	
72 Ge	198447.33	2.27	198061.33	100.2	30 - 200	
115 In	1193297.50	2.12	1221416.10	97.7	30 - 200	
209 Bi	785583.31	3.09	808221.06	97.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1711a.B\009CALI.D\009CALI.D#
Date Acquired: May 17 2005 12:35 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:31 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	731310.63	A	8339.00	1.14
9 Be	335612.19	P	3250.00	0.97
23 Na	158845100.00	A	3068000.00	1.93
26 Mg	15991220.00	A	247300.00	1.55
27 Al	1300105.00	A	26070.00	2.01
39 K	133163200.00	A	3468000.00	2.60
44 Ca	4150441.00	A	88940.00	2.14
45 Sc	916227.38	A	10090.00	1.10
51 V	1748485.00	A	16440.00	0.94
52 Cr	1494102.00	A	24570.00	1.64
55 Mn	1947897.00	A	20120.00	1.03
57 Fe	3975184.00	A	59710.00	1.50
59 Co	1641063.00	A	37440.00	2.28
60 Ni	358596.69	P	5892.00	1.64
65 Cu	413862.50	P	7060.00	1.71
66 Zn	237681.09	P	4606.00	1.94
72 Ge	197173.80	P	3775.00	1.91
75 As	238833.91	P	3537.00	1.48
82 Se	13383.90	P	165.40	1.24
95 Mo	403298.91	P	8989.00	2.23
109 Ag	967642.19	A	19390.00	2.00
111 Cd	196207.59	P	5202.00	2.65
115 In	1174700.00	A	34430.00	2.93
121 Sb	824442.81	M	20450.00	2.48
137 Ba	273095.50	P	3570.00	1.31
205 Tl	1547387.00	A	38410.00	2.48
208 Pb	1974768.00	A	39370.00	1.99
209 Bi	779494.38	P	19070.00	2.45
232 Th	2037374.00	A	61560.00	3.02
238 U	1986484.00	A	39040.00	1.97

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	731310.63	1.14	774508.13	94.4	30 - 200	
45 Sc	916227.38	1.10	932274.88	98.3	30 - 200	
72 Ge	197173.77	1.91	198061.33	99.6	30 - 200	
115 In	1174699.50	2.93	1221416.10	96.2	30 - 200	
209 Bi	779494.38	2.45	808221.06	96.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1711a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 17, 2005 12:36
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1711a.b\003calb.d\	003calb.d#	May 17 2005 12:03 pm
2	...hem\1\data\05e1711a.b\004cali.d\	004cali.d#	May 17 2005 12:09 pm
3	...hem\1\data\05e1711a.b\005cali.d\	005cali.d#	May 17 2005 12:14 pm
4	...hem\1\data\05e1711a.b\006cali.d\	006cali.d#	May 17 2005 12:19 pm
5	...hem\1\data\05e1711a.b\007cali.d\	007cali.d#	May 17 2005 12:24 pm
6	...hem\1\data\05e1711a.b\008cali.d\	008cali.d#	May 17 2005 12:30 pm
7	...hem\1\data\05e1711a.b\009cali.d\	009cali.d#	May 17 2005 12:35 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.147E-1*X +2.871E-3(blank)	---	ppb
Na	23	45	Y = 4.360E-1*X +2.829E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.394E-2*X +3.207E-2(blank)	---	ppb
Al	27	45	Y = 3.516E-1*X +5.777E-1(blank)	---	ppb
K	39	45	Y = 3.600E-1*X +8.861E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.140E-2*X +2.569E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.226E+0*X +3.168E-1(blank)	---	ppb
Cr	52	72	Y = 1.896E+0*X +9.863E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.483E+0*X +3.023E-1(blank)	---	ppb
Fe	57	72	Y = 5.074E-2*X +2.084E+0(blank)	---	ppb
Co	59	72	Y = 2.091E+0*X +3.363E-2(blank)	---	ppb
Ni	60	72	Y = 4.563E-1*X +4.626E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 5.267E-1*X +1.774E-1(blank)	---	ppb
Zn	66	72	Y = 3.013E-1*X +4.208E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.027E-1*X +5.054E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.686E-2*X +2.993E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 5.115E-1*X +1.960E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.235E+0*X +3.925E-2(blank)	---	ppb
Cd	111	72	Y = 2.497E-1*X +6.627E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.755E-1*X +1.347E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 5.825E-2*X +6.467E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.941E-1*X +2.562E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 6.351E-1*X +5.192E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993010 Filename : e1711010 Injected : 17-MAY-2005 12:40
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	103.6000	ug/L	4	10	
Antimony	100.0000	105.3000	ug/L	5	10	
Arsenic	100.0000	102.2000	ug/L	2	10	
Barium	100.0000	101.8000	ug/L	2	10	
Beryllium	100.0000	101.3000	ug/L	1	10	
Cadmium	100.0000	103.6000	ug/L	4	10	
Calcium	10000.00	10470.00	ug/L	5	10	
Chromium	100.0000	103.6000	ug/L	4	10	
Cobalt	100.0000	104.1000	ug/L	4	10	
Copper	100.0000	103.8000	ug/L	4	10	
Iron	10000.00	10460.00	ug/L	5	10	
Lead	100.0000	103.2000	ug/L	3	10	
Magnesium	10000.00	10460.00	ug/L	5	10	
Manganese	100.0000	103.9000	ug/L	4	10	
Molybdenum	100.0000	102.5000	ug/L	3	10	
Nickel	100.0000	103.1000	ug/L	3	10	
Potassium	10000.00	10250.00	ug/L	3	10	
Selenium	100.0000	102.0000	ug/L	2	10	
Silver	100.0000	104.5000	ug/L	5	10	
Sodium	10000.00	10430.00	ug/L	4	10	
Thallium	100.0000	100.1000	ug/L	0	10	
Vanadium	100.0000	103.1000	ug/L	3	10	
Zinc	100.0000	102.5000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	748826	-3.32
Scandium	932275	913321	-2.03
Germanium	198061	197783	-0.14
Indium	1221416	1186640	-2.85
Bismuth	808221	779636	-3.54

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993012 Filename : e1711012 Injected : 17-MAY-2005 12:51
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.540000	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.1981]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993013 Filename : e1711013 Injected : 17-MAY-2005 12:57
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.550000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.780600	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.964700	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0063]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1050]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.222000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.646000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.370000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.224000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	0.928500	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.338000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.4087]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1452]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.1661]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.1936]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.721000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	90100	ug/L	90
Calcium	55197993001	17-MAY-2005	300000	286500	ug/L	96
Iron	55197993001	17-MAY-2005	250000	241600	ug/L	97
Magnesium	55197993001	17-MAY-2005	100000	96400	ug/L	96
Molybdenum	55197993001	17-MAY-2005	2000	1905	ug/L	95
Potassium	55197993001	17-MAY-2005	100000	92490	ug/L	92
Sodium	55197993001	17-MAY-2005	250000	232000	ug/L	93

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55197993014
Calnum : 55197993001
Standards: S402, 05WS0207

Run Name :
Filename : e1711014
Caldate : 17-MAY-2005

Injected : 17-MAY-2005 13:03
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	96060.00	ug/L	-4		
Arsenic	100.0000	100.4000	ug/L	0	20	
Cadmium	100.0000	85.81000	ug/L	-14	20	
Calcium	300000.0	293200.0	ug/L	-2		
Chromium	200.0000	209.5000	ug/L	5	20	
Cobalt	200.0000	203.9000	ug/L	2	20	
Copper	200.0000	188.9000	ug/L	-6	20	
Iron	250000.0	248300.0	ug/L	-1		
Magnesium	100000.0	101100.0	ug/L	1		
Manganese	200.0000	211.2000	ug/L	6	20	
Molybdenum	2000.000	1853.000	ug/L	-7		
Nickel	200.0000	194.1000	ug/L	-3	20	
Potassium	100000.0	98610.00	ug/L	-1		
Selenium	100.0000	92.67000	ug/L	-7	20	
Silver	50.00000	43.98000	ug/L	-12	20	
Sodium	250000.0	248300.0	ug/L	-1		
Vanadium	200.0000	213.6000	ug/L	7	20	
Zinc	100.0000	98.94000	ug/L	-1	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	690779	-25.90
Germanium	198061	138802	-29.92

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993029 Filename : e1711029 Injected : 17-MAY-2005 14:35
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3585	150.0000	151.3000	ug/L	1	10	
Antimony	0.1878	0.1714	150.0000	146.4000	ug/L	-2	10	
Arsenic	0.3344	0.2873	150.0000	142.2000	ug/L	-5	10	
Barium	0.0656	0.0570	150.0000	146.6000	ug/L	-2	10	
Beryllium	0.1183	0.1028	150.0000	134.4000	ug/L	-10	10	
Cadmium	0.3304	0.2283	150.0000	136.9000	ug/L	-9	10	
Calcium	0.0132	0.0113	15000.00	14900.00	ug/L	-1	10	
Chromium	2.5756	1.9746	150.0000	155.7000	ug/L	4	10	
Cobalt	2.1669	2.1546	150.0000	154.6000	ug/L	3	10	
Copper	0.6658	0.5255	150.0000	149.3000	ug/L	0	10	
Iron	0.0644	0.0530	15000.00	15610.00	ug/L	4	10	
Lead	0.6952	0.6331	150.0000	149.4000	ug/L	0	10	
Magnesium	0.0452	0.0435	15000.00	14840.00	ug/L	-1	10	
Manganese	2.9374	2.5994	150.0000	156.9000	ug/L	5	10	
Molybdenum	0.5215	0.4734	150.0000	138.8000	ug/L	-7	10	
Nickel	0.5298	0.4626	150.0000	152.0000	ug/L	1	10	
Potassium	0.9165	0.3478	15000.00	14250.00	ug/L	-5	10	
Selenium	0.0380	0.0160	150.0000	140.8000	ug/L	-6	10	
Silver	1.3297	1.1398	150.0000	138.4000	ug/L	-8	10	
Sodium	0.6538	0.4406	15000.00	15090.00	ug/L	1	10	
Thallium	0.4716	0.4959	150.0000	150.5000	ug/L	0	10	
Vanadium	2.5825	2.3214	150.0000	156.3000	ug/L	4	10	
Zinc	0.6286	0.3071	150.0000	151.5000	ug/L	1	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	762797	-1.51
Scandium	932275	844639	-9.40
Germanium	198061	169930	-14.20
Indium	1221416	918815	-24.77
Bismuth	808221	573036	-29.10

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Instid : MET05 Run Name :
Seqnum : 55197993031 Filename : e1711031 Injected : 17-MAY-2005 14:47
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[1.2490]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.503800	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[11.430]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993043 Filename : e1711043 Injected : 17-MAY-2005 15:58
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3789	100.0000	106.1000	ug/L	6	10	
Antimony	0.1878	0.1654	100.0000	94.15000	ug/L	-6	10	
Arsenic	0.3344	0.2868	100.0000	94.60000	ug/L	-5	10	
Barium	0.0656	0.0556	100.0000	95.35000	ug/L	-5	10	
Beryllium	0.1183	0.1028	100.0000	89.59000	ug/L	-10	10	
Cadmium	0.3304	0.2284	100.0000	91.19000	ug/L	-9	10	
Calcium	0.0132	0.0114	10000.00	9989.000	ug/L	0	10	
Chromium	2.5756	1.9989	100.0000	104.9000	ug/L	5	10	
Cobalt	2.1669	2.1305	100.0000	101.9000	ug/L	2	10	
Copper	0.6658	0.5323	100.0000	100.7000	ug/L	1	10	
Iron	0.0644	0.0538	10000.00	10560.00	ug/L	6	10	
Lead	0.6952	0.6247	100.0000	98.27000	ug/L	-2	10	
Magnesium	0.0452	0.0440	10000.00	10000.00	ug/L	0	10	
Manganese	2.9374	2.6363	100.0000	106.0000	ug/L	6	10	
Molybdenum	0.5215	0.4751	100.0000	92.84000	ug/L	-7	10	
Nickel	0.5298	0.4550	100.0000	99.61000	ug/L	0	10	
Potassium	0.9165	0.3548	10000.00	9607.000	ug/L	-4	10	
Selenium	0.0380	0.0163	100.0000	94.64000	ug/L	-5	10	
Silver	1.3297	1.1544	100.0000	93.46000	ug/L	-7	10	
Sodium	0.6538	0.4492	10000.00	10240.00	ug/L	2	10	
Thallium	0.4716	0.4650	100.0000	94.07000	ug/L	-6	10	
Vanadium	2.5825	2.2981	100.0000	103.1000	ug/L	3	10	
Zinc	0.6286	0.3058	100.0000	100.1000	ug/L	0	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	805350	3.98
Scandium	932275	920830	-1.23
Germanium	198061	184563	-6.82
Indium	1221416	1059209	-13.28
Bismuth	808221	643191	-20.42

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Instid : MET05 Run Name :
Seqnum : 55197993047 Filename : e1711047 Injected : 17-MAY-2005 16:22
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[2.2410]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.476700	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[12.260]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.0899]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2124]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	[0.1605]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993061 Filename : e1711061 Injected : 17-MAY-2005 17:44
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3906	100.0000	109.4000	ug/L	9	10	
Antimony	0.1878	0.1695	100.0000	96.49000	ug/L	-4	10	
Arsenic	0.3344	0.2964	100.0000	97.76000	ug/L	-2	10	
Barium	0.0656	0.0567	100.0000	97.27000	ug/L	-3	10	
Beryllium	0.1183	0.1054	100.0000	91.85000	ug/L	-8	10	
Cadmium	0.3304	0.2358	100.0000	94.16000	ug/L	-6	10	
Calcium	0.0132	0.0119	10000.00	10450.00	ug/L	5	10	
Chromium	2.5756	2.0471	100.0000	107.5000	ug/L	8	10	
Cobalt	2.1669	2.2121	100.0000	105.8000	ug/L	6	10	
Copper	0.6658	0.5407	100.0000	102.3000	ug/L	2	10	
Iron	0.0644	0.0552	10000.00	10840.00	ug/L	8	10	
Lead	0.6952	0.6320	100.0000	99.44000	ug/L	-1	10	
Magnesium	0.0452	0.0473	10000.00	10760.00	ug/L	8	10	
Manganese	2.9374	2.7057	100.0000	108.8000	ug/L	9	10	
Molybdenum	0.5215	0.4880	100.0000	95.37000	ug/L	-5	10	
Nickel	0.5298	0.4727	100.0000	103.5000	ug/L	4	10	
Potassium	0.9165	0.3763	10000.00	10210.00	ug/L	2	10	
Selenium	0.0380	0.0166	100.0000	96.60000	ug/L	-3	10	
Silver	1.3297	1.1720	100.0000	94.89000	ug/L	-5	10	
Sodium	0.6538	0.4785	10000.00	10910.00	ug/L	9	10	
Thallium	0.4716	0.4702	100.0000	95.10000	ug/L	-5	10	
Vanadium	2.5825	2.3855	100.0000	107.0000	ug/L	7	10	
Zinc	0.6286	0.3127	100.0000	102.4000	ug/L	2	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	816223	5.39
Scandium	932275	895334	-3.96
Germanium	198061	183432	-7.39
Indium	1221416	1041952	-14.69
Bismuth	808221	647621	-19.87

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993063 Filename : e1711063 Injected : 17-MAY-2005 17:56
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[0.8441]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.314400	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	[0.2353]	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[9.9040]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.4435]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
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Instid : MET05 Run Name :
Seqnum : 55197993073 Filename : e1711073 Injected : 17-MAY-2005 18:55
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.080000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.873500	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.947600	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0257]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1307]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.305000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.646000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.331000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.174000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	1.089000	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.416000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1306]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.0920]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.0000]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.610000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	93030	ug/L	93
Calcium	55197993001	17-MAY-2005	300000	285700	ug/L	95
Iron	55197993001	17-MAY-2005	250000	237900	ug/L	95
Magnesium	55197993001	17-MAY-2005	100000	98410	ug/L	98
Molybdenum	55197993001	17-MAY-2005	2000	1811	ug/L	91
Potassium	55197993001	17-MAY-2005	100000	94130	ug/L	94
Sodium	55197993001	17-MAY-2005	250000	239800	ug/L	96

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993077 Filename : e1711077 Injected : 17-MAY-2005 19:18
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3854	150.0000	162.8000	ug/L	9	10	
Antimony	0.1878	0.1712	150.0000	146.2000	ug/L	-3	10	
Arsenic	0.3344	0.2907	150.0000	143.9000	ug/L	-4	10	
Barium	0.0656	0.0549	150.0000	141.3000	ug/L	-6	10	
Beryllium	0.1183	0.1029	150.0000	134.5000	ug/L	-10	10	
Cadmium	0.3304	0.2371	150.0000	142.1000	ug/L	-5	10	
Calcium	0.0132	0.0114	15000.00	14990.00	ug/L	0	10	
Chromium	2.5756	2.0097	150.0000	158.5000	ug/L	6	10	
Cobalt	2.1669	2.1818	150.0000	156.5000	ug/L	4	10	
Copper	0.6658	0.5206	150.0000	147.9000	ug/L	-1	10	
Iron	0.0644	0.0550	15000.00	16220.00	ug/L	8	10	
Lead	0.6952	0.6500	150.0000	153.4000	ug/L	2	10	
Magnesium	0.0452	0.0458	15000.00	15650.00	ug/L	4	10	
Manganese	2.9374	2.6917	150.0000	162.5000	ug/L	8	10	
Molybdenum	0.5215	0.4904	150.0000	143.8000	ug/L	-4	10	
Nickel	0.5298	0.4557	150.0000	149.7000	ug/L	0	10	
Potassium	0.9165	0.3651	15000.00	14960.00	ug/L	0	10	
Selenium	0.0380	0.0164	150.0000	144.1000	ug/L	-4	10	
Silver	1.3297	1.1540	150.0000	140.2000	ug/L	-7	10	
Sodium	0.6538	0.4681	15000.00	16040.00	ug/L	7	10	
Thallium	0.4716	0.5069	150.0000	153.8000	ug/L	3	10	
Vanadium	2.5825	2.3318	150.0000	157.0000	ug/L	5	10	
Zinc	0.6286	0.3129	150.0000	154.4000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	862198	11.32
Scandium	932275	953441	2.27
Germanium	198061	190882	-3.62
Indium	1221416	1079218	-11.64
Bismuth	808221	645656	-20.11

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Instid : MET05 Run Name :
Seqnum : 55197993079 Filename : e1711079 Injected : 17-MAY-2005 19:30
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[2.5140]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.393600	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[12.640]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.0733]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2117]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993080 Filename : e1711080 Injected : 17-MAY-2005 19:36
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	90410.00	ug/L	-10		
Arsenic	100.0000	97.22000	ug/L	-3	20	
Cadmium	100.0000	85.38000	ug/L	-15	20	
Calcium	300000.0	288900.0	ug/L	-4		
Chromium	200.0000	204.6000	ug/L	2	20	
Cobalt	200.0000	195.8000	ug/L	-2	20	
Copper	200.0000	183.9000	ug/L	-8	20	
Iron	250000.0	241100.0	ug/L	-4		
Magnesium	100000.0	95980.00	ug/L	-4		
Manganese	200.0000	206.3000	ug/L	3	20	
Molybdenum	2000.000	1844.000	ug/L	-8		
Nickel	200.0000	187.1000	ug/L	-6	20	
Potassium	100000.0	93280.00	ug/L	-7		
Selenium	100.0000	91.97000	ug/L	-8	20	
Silver	50.00000	42.67000	ug/L	-15	20	
Sodium	250000.0	233200.0	ug/L	-7		
Vanadium	200.0000	207.9000	ug/L	4	20	
Zinc	100.0000	97.21000	ug/L	-3	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	918468	-1.48
Germanium	198061	180697	-8.77

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993084 Filename : e1711084 Injected : 17-MAY-2005 19:59
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3852	150.0000	162.7000	ug/L	8	10	
Antimony	0.1878	0.1729	150.0000	147.7000	ug/L	-2	10	
Arsenic	0.3344	0.2899	150.0000	143.5000	ug/L	-4	10	
Barium	0.0656	0.0582	150.0000	149.8000	ug/L	0	10	
Beryllium	0.1183	0.1063	150.0000	139.1000	ug/L	-7	10	
Cadmium	0.3304	0.2351	150.0000	140.9000	ug/L	-6	10	
Calcium	0.0132	0.0118	15000.00	15510.00	ug/L	3	10	
Chromium	2.5756	1.9959	150.0000	157.4000	ug/L	5	10	
Cobalt	2.1669	2.1502	150.0000	154.2000	ug/L	3	10	
Copper	0.6658	0.5284	150.0000	150.1000	ug/L	0	10	
Iron	0.0644	0.0540	15000.00	15920.00	ug/L	6	10	
Lead	0.6952	0.6608	150.0000	156.0000	ug/L	4	10	
Magnesium	0.0452	0.0461	15000.00	15730.00	ug/L	5	10	
Manganese	2.9374	2.6892	150.0000	162.3000	ug/L	8	10	
Molybdenum	0.5215	0.4859	150.0000	142.5000	ug/L	-5	10	
Nickel	0.5298	0.4615	150.0000	151.6000	ug/L	1	10	
Potassium	0.9165	0.3684	15000.00	15100.00	ug/L	1	10	
Selenium	0.0380	0.0165	150.0000	144.8000	ug/L	-3	10	
Silver	1.3297	1.1688	150.0000	142.0000	ug/L	-5	10	
Sodium	0.6538	0.4736	15000.00	16230.00	ug/L	8	10	
Thallium	0.4716	0.5103	150.0000	154.9000	ug/L	3	10	
Vanadium	2.5825	2.3307	150.0000	156.9000	ug/L	5	10	
Zinc	0.6286	0.3093	150.0000	152.6000	ug/L	2	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	876285	13.14
Scandium	932275	1010653	8.41
Germanium	198061	206897	4.46
Indium	1221416	1155413	-5.40
Bismuth	808221	696058	-13.88

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Instid : MET05 Run Name :
Seqnum : 55197993086 Filename : e1711086 Injected : 17-MAY-2005 20:11
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[5.5840]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.510900	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[20.100]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	[7.1940]	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1478]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	[0.2886]	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993098 Filename : e1711098 Injected : 17-MAY-2005 21:21
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3945	150.0000	166.6000	ug/L	**11**	10	c+ ***
Antimony	0.1878	0.1740	150.0000	148.6000	ug/L	-1	10	
Arsenic	0.3344	0.2962	150.0000	146.6000	ug/L	-2	10	
Barium	0.0656	0.0577	150.0000	148.5000	ug/L	-1	10	
Beryllium	0.1183	0.1086	150.0000	142.0000	ug/L	-5	10	
Cadmium	0.3304	0.2359	150.0000	141.4000	ug/L	-6	10	
Calcium	0.0132	0.0118	15000.00	15530.00	ug/L	4	10	
Chromium	2.5756	1.9965	150.0000	157.4000	ug/L	5	10	
Cobalt	2.1669	2.1602	150.0000	155.0000	ug/L	3	10	
Copper	0.6658	0.5351	150.0000	152.1000	ug/L	1	10	
Iron	0.0644	0.0534	15000.00	15750.00	ug/L	5	10	
Lead	0.6952	0.6617	150.0000	156.2000	ug/L	4	10	
Magnesium	0.0452	0.0459	15000.00	15650.00	ug/L	4	10	
Manganese	2.9374	2.6503	150.0000	160.0000	ug/L	7	10	
Molybdenum	0.5215	0.4920	150.0000	144.3000	ug/L	-4	10	
Nickel	0.5298	0.4595	150.0000	150.9000	ug/L	1	10	
Potassium	0.9165	0.3690	15000.00	15130.00	ug/L	1	10	
Selenium	0.0380	0.0167	150.0000	146.8000	ug/L	-2	10	
Silver	1.3297	1.1655	150.0000	141.6000	ug/L	-6	10	
Sodium	0.6538	0.4734	15000.00	16220.00	ug/L	8	10	
Thallium	0.4716	0.5163	150.0000	156.7000	ug/L	4	10	
Vanadium	2.5825	2.3377	150.0000	157.4000	ug/L	5	10	
Zinc	0.6286	0.3146	150.0000	155.2000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	878469	13.42
Scandium	932275	1043893	11.97
Germanium	198061	216426	9.27
Indium	1221416	1200918	-1.68
Bismuth	808221	729227	-9.77

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Page 1 of 1

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Instid : MET05 Run Name :
Seqnum : 55197993100 Filename : e1711100 Injected : 17-MAY-2005 21:32
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[3.3790]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.350600	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[16.110]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	[0.0502]	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1227]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55197993112 Filename : e1711112 Injected : 17-MAY-2005 22:43
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7525	0.3890	150.0000	164.3000	ug/L	10	10	
Antimony	0.1878	0.1733	150.0000	148.0000	ug/L	-1	10	
Arsenic	0.3344	0.2966	150.0000	146.8000	ug/L	-2	10	
Barium	0.0656	0.0587	150.0000	150.9000	ug/L	1	10	
Beryllium	0.1183	0.1081	150.0000	141.3000	ug/L	-6	10	
Cadmium	0.3304	0.2345	150.0000	140.6000	ug/L	-6	10	
Calcium	0.0132	0.0116	15000.00	15170.00	ug/L	1	10	
Chromium	2.5756	1.9839	150.0000	156.4000	ug/L	4	10	
Cobalt	2.1669	2.1393	150.0000	153.5000	ug/L	2	10	
Copper	0.6658	0.5310	150.0000	150.9000	ug/L	1	10	
Iron	0.0644	0.0533	15000.00	15710.00	ug/L	5	10	
Lead	0.6952	0.6322	150.0000	149.2000	ug/L	-1	10	
Magnesium	0.0452	0.0455	15000.00	15540.00	ug/L	4	10	
Manganese	2.9374	2.6343	150.0000	159.0000	ug/L	6	10	
Molybdenum	0.5215	0.4902	150.0000	143.7000	ug/L	-4	10	
Nickel	0.5298	0.4602	150.0000	151.2000	ug/L	1	10	
Potassium	0.9165	0.3681	15000.00	15090.00	ug/L	1	10	
Selenium	0.0380	0.0166	150.0000	146.3000	ug/L	-2	10	
Silver	1.3297	1.1506	150.0000	139.8000	ug/L	-7	10	
Sodium	0.6538	0.4609	15000.00	15790.00	ug/L	5	10	
Thallium	0.4716	0.5038	150.0000	152.9000	ug/L	2	10	
Vanadium	2.5825	2.3069	150.0000	155.3000	ug/L	4	10	
Zinc	0.6286	0.3123	150.0000	154.1000	ug/L	3	10	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Lithium	774508	889823	14.89
Scandium	932275	1074823	15.29
Germanium	198061	218612	10.38
Indium	1221416	1216992	-0.36
Bismuth	808221	749119	-7.31

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993114 Filename : e1711114 Injected : 17-MAY-2005 22:54
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55197993001	17-MAY-2005	[4.5770]	50.00000	ug/L	
Antimony	55197993001	17-MAY-2005	0.309000	0.250000	ug/L	ib ***
Arsenic	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55197993001	17-MAY-2005	[18.600]	50.00000	ug/L	
Lead	55197993001	17-MAY-2005	[0.0548]	0.250000	ug/L	
Magnesium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55197993001	17-MAY-2005	[0.1610]	0.250000	ug/L	
Molybdenum	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55197993001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55197993001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993115 Filename : e1711115 Injected : 17-MAY-2005 23:00
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55197993001	17-MAY-2005	2.285000	0.250000	ug/L	
Arsenic	55197993001	17-MAY-2005	0.941700	0.500000	ug/L	
Barium	55197993001	17-MAY-2005	0.946500	0.250000	ug/L	
Beryllium	55197993001	17-MAY-2005	[0.0198]	0.250000	ug/L	
Cadmium	55197993001	17-MAY-2005	[0.1562]	0.250000	ug/L	
Chromium	55197993001	17-MAY-2005	1.355000	0.500000	ug/L	
Cobalt	55197993001	17-MAY-2005	2.528000	0.250000	ug/L	
Copper	55197993001	17-MAY-2005	1.377000	0.500000	ug/L	
Lead	55197993001	17-MAY-2005	1.274000	0.250000	ug/L	
Manganese	55197993001	17-MAY-2005	1.145000	0.250000	ug/L	
Nickel	55197993001	17-MAY-2005	1.488000	0.250000	ug/L	
Selenium	55197993001	17-MAY-2005	[0.2804]	0.500000	ug/L	
Silver	55197993001	17-MAY-2005	[0.1298]	0.250000	ug/L	
Thallium	55197993001	17-MAY-2005	[0.0967]	0.500000	ug/L	
Vanadium	55197993001	17-MAY-2005	[0.3092]	1.000000	ug/L	
Zinc	55197993001	17-MAY-2005	3.576000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55197993001	17-MAY-2005	100000	86460	ug/L	86
Calcium	55197993001	17-MAY-2005	300000	275100	ug/L	92
Iron	55197993001	17-MAY-2005	250000	233400	ug/L	93
Magnesium	55197993001	17-MAY-2005	100000	92100	ug/L	92
Molybdenum	55197993001	17-MAY-2005	2000	1791	ug/L	90
Potassium	55197993001	17-MAY-2005	100000	88260	ug/L	88
Sodium	55197993001	17-MAY-2005	250000	226200	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55197993116 Filename : e1711116 Injected : 17-MAY-2005 23:06
Calnum : 55197993001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	90630.00	ug/L	-9		
Arsenic	100.0000	97.68000	ug/L	-2	20	
Cadmium	100.0000	86.99000	ug/L	-13	20	
Calcium	300000.0	286300.0	ug/L	-5		
Chromium	200.0000	196.0000	ug/L	-2	20	
Cobalt	200.0000	193.6000	ug/L	-3	20	
Copper	200.0000	178.7000	ug/L	-11	20	
Iron	250000.0	242300.0	ug/L	-3		
Magnesium	100000.0	96300.00	ug/L	-4		
Manganese	200.0000	203.2000	ug/L	2	20	
Molybdenum	2000.000	1821.000	ug/L	-9		
Nickel	200.0000	185.8000	ug/L	-7	20	
Potassium	100000.0	93040.00	ug/L	-7		
Selenium	100.0000	91.31000	ug/L	-9	20	
Silver	50.00000	42.47000	ug/L	-15	20	
Sodium	250000.0	235900.0	ug/L	-6		
Vanadium	200.0000	198.9000	ug/L	-1	20	
Zinc	100.0000	94.61000	ug/L	-5	20	

ISTD (ICALBLK=e1711003)	ICALBLK Abund	Abund	%Diff
Scandium	932275	1034581	10.97
Germanium	198061	212150	7.11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55198679 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e1723001	TUN	tune			17-MAY-2005 23:19	1.0					1	
003	e1723003	ICALBLK	std-blk			17-MAY-2005 23:30	1.0	1.0				2	
004	e1723004	ICAL	cs1			17-MAY-2005 23:35	1.0	1.0				3	
005	e1723005	ICAL	cs2			17-MAY-2005 23:40	1.0	1.0				4	
006	e1723006	ICAL	cs3			17-MAY-2005 23:46	1.0	1.0				5	
007	e1723007	ICAL	cs4			17-MAY-2005 23:51	1.0	1.0				6	
008	e1723008	ICAL	cs5			17-MAY-2005 23:56	1.0	1.0				7	
009	e1723009	ICAL	cs6			18-MAY-2005 00:01	1.0	1.0				8	
010	e1723010	ICV				18-MAY-2005 00:06	1.0	1.0			1	9 2	
012	e1723012	ICB				18-MAY-2005 00:18	1.0	1.0	1		1	2	
013	e1723013	ICSA				18-MAY-2005 00:24	1.0	1.0			1	10 2	7:CA=303800
014	e1723014	ICSAB				18-MAY-2005 00:30	1.0	1.0			1	11 2	8:CA=302600
016	e1723016	SAMPLE	179445-010	102065	Soil	18-MAY-2005 00:41	50.0	40.0			1	2	1:AL=2656.00
017	e1723017	SAMPLE	179445-011	102065	Soil	18-MAY-2005 00:47	50.0	38.76			1	2	1:AL=1752.60
018	e1723018	X	RINSE	101964		18-MAY-2005 00:53	1.0					2	
019	e1723019	BLANK	QC293535	101964	Water	18-MAY-2005 00:59	1.0	1.0			1	2	
020	e1723020	BS	QC293536	101964	Water	18-MAY-2005 01:05	1.0	1.0			1	2	
021	e1723021	BSD	QC293537	101964	Water	18-MAY-2005 01:10	1.0	1.0			1	2	
023	e1723023	MSS	179355-001	101964	Water	18-MAY-2005 01:22	1.0	1.0			1	2	
024	e1723024	SER	QC293540	101964	Water	18-MAY-2005 01:28	5.0	1.0			1	2	
025	e1723025	MS	QC293538	101964	Water	18-MAY-2005 01:34	1.0	1.0	3	1	1	2	3:CA=30010.0
027	e1723027	CCV				18-MAY-2005 01:46	1.0	1.0			1	12 2	
028	e1723028	X	RINSE			18-MAY-2005 01:51	1.0					2	
029	e1723029	CCB				18-MAY-2005 01:57	1.0	1.0	1		1	2	
030	e1723030	MSD	QC293539	101964	Water	18-MAY-2005 02:03	1.0	1.0	3	1	1	2	3:CA=30240.0
031	e1723031	PDS	QC293541	101964	Water	18-MAY-2005 02:09	1.0	1.0	3		1	13 2	3:CA=30210.0
032	e1723032	X	RINSE	101964		18-MAY-2005 02:15	1.0					2	
033	e1723033	SAMPLE	179355-002	101964	Water	18-MAY-2005 02:20	1.0	1.0	1		1	2	1:CA=20990.0
034	e1723034	SAMPLE	179355-003	101964	Water	18-MAY-2005 02:26	1.0	1.0			1	2	
035	e1723035	SAMPLE	179355-004	101964	Water	18-MAY-2005 02:32	1.0	1.0	1		1	2	1:CA=20040.0
036	e1723036	SAMPLE	179355-005	101964	Water	18-MAY-2005 02:38	1.0	1.0	3		1	2	3:CA=28960.0

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S21 14=S403

Analyst: _____ Date: 5/17/r

314

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55198679 Instrument: MET05 Agilent ICP-MS Begun: 17-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
037	e1723037	SAMPLE	179355-006	101964	Water	18-MAY-2005 02:44	1.0	1.0		1	2	
038	e1723038	SAMPLE	179355-007	101964	Water	18-MAY-2005 02:50	1.0	1.0	1	1	2	1:CA=20870.0
039	e1723039	SAMPLE	179355-008	101964	Water	18-MAY-2005 02:56	1.0	1.0		1	2	
040	e1723040	SAMPLE	179355-009	101964	Water	18-MAY-2005 03:02	1.0	1.0	3	1	2	3:CA=28630.0
042	e1723042	CCV				18-MAY-2005 03:13	1.0	1.0		1	12 2	
043	e1723043	X	RINSE			18-MAY-2005 03:19	1.0				2	
044	e1723044	CCB				18-MAY-2005 03:25	1.0	1.0		1	2	
045	e1723045	SAMPLE	179355-010	101964	Water	18-MAY-2005 03:31	1.0	1.0	1	1	2	1:CA=20670.0
046	e1723046	SAMPLE	179355-011	101964	Water	18-MAY-2005 03:37	1.0	1.0		1	2	
047	e1723047	SAMPLE	179355-012	101964	Water	18-MAY-2005 03:43	1.0	1.0	3	1	2	3:CA=28930.0
048	e1723048	ICSA				18-MAY-2005 03:49	1.0	1.0		1	10 2	7:CA=304600
049	e1723049	ICSAB				18-MAY-2005 03:54	1.0	1.0		1	11 2	7:CA=304400
051	e1723051	CCV				18-MAY-2005 04:06	1.0	1.0		1	12 2	
052	e1723052	X	RINSE	101964		18-MAY-2005 04:12	1.0				2	
053	e1723053	CCB				18-MAY-2005 04:18	1.0	1.0		1	2	
054	e1723054	SAMPLE	179413-003	101964	Filtra	18-MAY-2005 04:23	1.0	1.0		1	2	3:MG=476600
055	e1723055	SAMPLE	179413-004	101964	Filtra	18-MAY-2005 04:29	1.0	1.0		1	2	3:MG=541400
056	e1723056	ICSA				18-MAY-2005 04:35	1.0	1.0		1	10 2	7:CA=304300
057	e1723057	ICSAB				18-MAY-2005 04:41	1.0	1.0		1	11 2	8:CA=305000
059	e1723059	CCV				18-MAY-2005 04:53	1.0	1.0	3	1	14 2	1:AL=205.400
060	e1723060	X	rinse blank			18-MAY-2005 04:58	1.0				2	
061	e1723061	CCB				18-MAY-2005 05:04	1.0	1.0	2	1	2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S21 14=S403

Analyst: _____ Date: 5/17/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55198679001 Name: Type: (normal) Date: 17-MAY-2005 23:30 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1723004	55198679004	cs1	17-MAY-2005 23:35	S395
2	e1723005	55198679005	cs2	17-MAY-2005 23:40	S396
3	e1723006	55198679006	cs3	17-MAY-2005 23:46	S397
4	e1723007	55198679007	cs4	17-MAY-2005 23:51	S398
5	e1723008	55198679008	cs5	17-MAY-2005 23:56	S393
6	e1723009	55198679009	cs6	18-MAY-2005 00:01	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		12.152	3.7926	0.5779	0.3612	0.3451	BLNK	R	-9.98290	3.043915		ug/L	3.4458	0.998	0.995	
Antimony	0.2282	0.1914	0.1835	0.1666	0.1579	0.1636	BLNK	R	-0.11777	6.159259		ug/L	0.1818	1.000	0.995	
Arsenic		0.4691	0.3055	0.2954	0.2792	0.2745	BLNK	R	-0.11100	3.632485		ug/L	0.3247	1.000	0.995	
Barium	0.0978	0.0772	0.0666	0.0561	0.0532	0.0536	BLNK	R	-0.18582	18.69501		ug/L	0.0674	1.000	0.995	
Beryllium	0.1143	0.1192	0.1026	0.1037	0.1002	0.1013	BLNK	R	-0.04338	9.893560		ug/L	0.1069	1.000	0.995	
Cadmium	0.4881	0.3741	0.2996	0.2553	0.2282	0.2224	BLNK	R	-0.31213	4.480275		ug/L	0.3113	1.000	0.995	
Calcium		0.0212	0.0149	0.0117	0.0111	0.0106	BLNK	R	-33.8849	93.40169		ug/L	0.0139	0.999	0.995	
Chromium		4.1105	2.8823	2.0317	1.8782	1.8347	BLNK	R	-0.51880	0.544115		ug/L	2.5475	1.000	0.995	
Cobalt	2.3780	2.3159	2.1227	2.0939	2.0216	1.9777	BLNK	R	-0.05045	0.503501		ug/L	2.1516	1.000	0.995	
Copper		0.8760	0.6581	0.5449	0.5016	0.4872	BLNK	R	-0.31742	2.043896		ug/L	0.6136	1.000	0.995	
Iron		0.1328	0.0827	0.0543	0.0513	0.0490	BLNK	R	-63.4347	20.29651		ug/L	0.0740	0.999	0.995	
Lead	0.9793	0.8279	0.7006	0.6042	0.6014	0.5965	BLNK	R	-0.14389	1.675273		ug/L	0.7183	1.000	0.995	
Magnesium		0.0550	0.0473	0.0473	0.0428	0.0415	BLNK	R	-9.42469	23.93548		ug/L	0.0468	1.000	0.995	
Manganese	6.0926	5.1942	3.3192	2.6312	2.5507	2.4409	BLNK	R	-0.29879	0.406725		ug/L	3.7048	1.000	0.995	
Molybdenum		0.7411	0.5874	0.4846	0.4688	0.4646	BLNK	R	-0.34669	2.152998		ug/L	0.5493	1.000	0.995	
Nickel	0.7273	0.6414	0.5144	0.4728	0.4342	0.4222	BLNK	R	-0.14931	2.356743		ug/L	0.5354	1.000	0.995	
Potassium		1.5845	0.9641	0.4235	0.3454	0.3327	BLNK	R	-175.881	3.013810		ug/L	0.7300	1.000	0.995	
Selenium		0.0757	0.0477	0.0197	0.0160	0.0156	BLNK	R	-1.94701	64.52104		ug/L	0.0349	1.000	0.995	
Silver	1.3269	1.2790	1.2025	1.1963	1.1228	1.0888	BLNK	R	-0.04467	0.912799		ug/L	1.2027	1.000	0.995	
Sodium		0.7450	0.5782	0.4711	0.4326	0.4211	BLNK	R	-20.8484	2.364106		ug/L	0.5296	1.000	0.995	

316

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55198679001 Name: Type: (normal) Date: 17-MAY-2005 23:30 Inj Vol (uL): 1

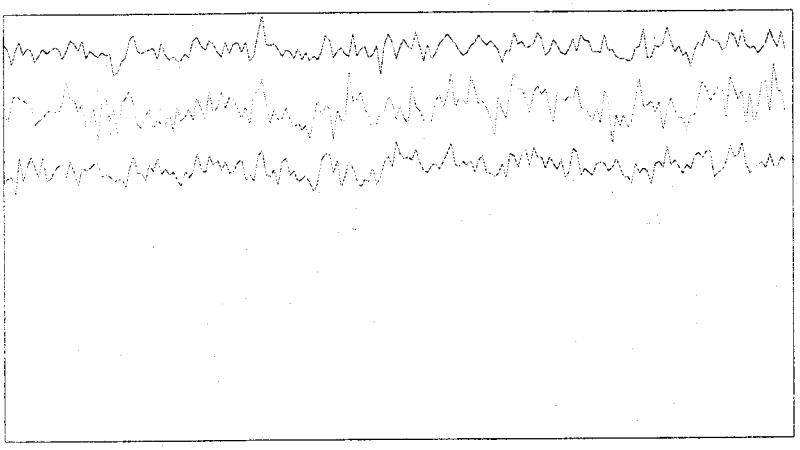
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Thallium		0.4829	0.4530	0.4306	0.4618	0.4692	BLNK	R	-0.06928	2.139152		ug/L	0.4595	1.000	0.995	
Vanadium		3.2846	2.6872	2.2322	2.1982	2.1321	BLNK	R	-0.23685	0.466778		ug/L	2.5069	1.000	0.995	
Zinc		1.4769	0.7586	0.3433	0.2961	0.2847	BLNK	R	-1.38142	3.512445		ug/L	0.6319	1.000	0.995	

317

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : Autotune.u



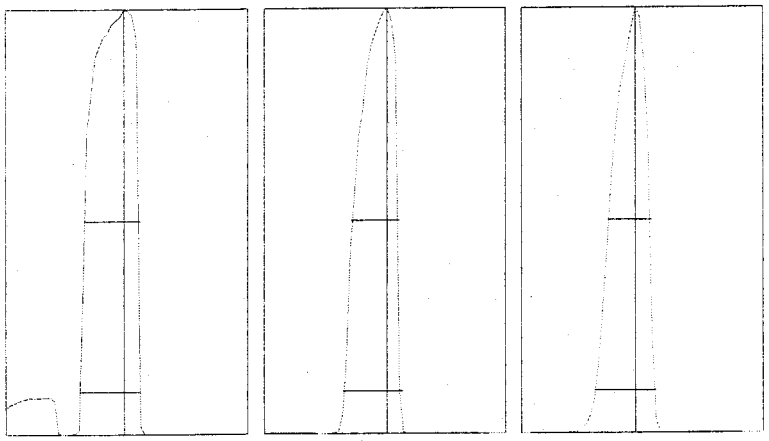
m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	18,127	32,472	38,085
Mean:	18308.4	31957.2	38955.3
RSD%:	2.23	3.61	4.30
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.37%
Doubly Charged:	70/140	1.08%

Background:

m/z:	7	89	205
Cps:	36.7	32.2	55.3



m/z:	7	89	205
Height:	18,356	32,686	40,111
Axis:	7.00	89.05	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1280 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 17, 2005 10:31:30
Printed : May 17, 2005 10:31:35

P/A Factor Tuning Report

Acquired:May 17 2005 11:07 am

Mass[amu]	Element	P/A Factor
6	Li	0.064325
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085306
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096313
45	Sc	0.092627
51	V	0.095859
52	Cr	0.098266
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100393
57	Fe	0.102948
59	Co	0.103533
60	Ni	Sensitivity too low
63	Cu	0.106145
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.105501
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112721
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113648
118	(In)	0.111419
121	Sb	0.110743
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117861
166	Er	Sensitivity too low

205	Tl	0.124777
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.122988
209	Bi	0.123741
232	Th	0.124484
238	U	0.124619

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 17 2005 11:13 am

Mass[amu]	Element	P/A Factor
6	Li	0.064080
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085120
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.095560
45	Sc	0.092485
51	V	0.095136
52	Cr	0.097441
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099422
57	Fe	0.102087
59	Co	0.102572
60	Ni	Sensitivity too low
63	Cu	0.104711
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.104950
95	Mo	Sensitivity too low
98	Mo	0.102297
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110856
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.113049
118	(In)	0.108947
121	Sb	0.109081
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.117444
166	Er	Sensitivity too low

205	Tl	0.123345
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.121247
209	Bi	0.123047
232	Th	0.123326
238	U	0.122989

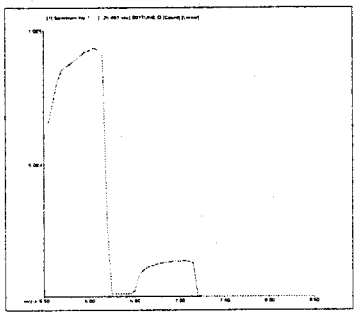
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

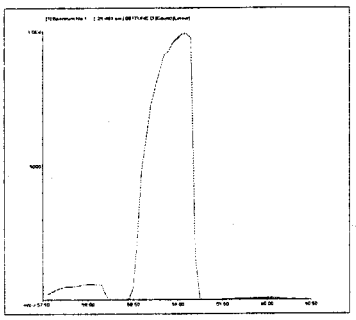
Data File: C:\ICPCHEM\1\DATA\05E1723a.B\001TUNE.D
Date Acquired: May 17 2005 11:19 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

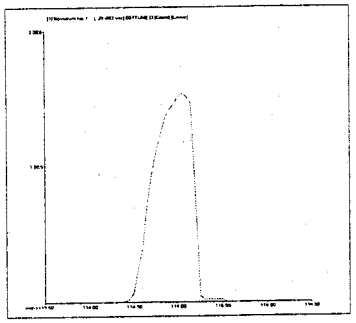
Element	Actual	Required	Flag
7 Li	1.65	5.00	
59 Co	2.05	5.00	
115 In	0.69	5.00	
205 Tl	3.01	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



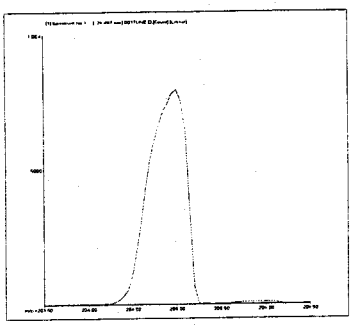
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 17 2005 11:24 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 17 2005 00:36 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.02067	ppb	84.42	0.02067	1.00	
23 Na	-31.62	ppb	7.34	-31.62	1.00	
26 Mg	17.18	ppb	9.91	17.18	1.00	
27 Al	18.04	ppb	9.97	18.04	1.00	
39 K	-82.3	ppb	2.40	-82.3	1.00	
44 Ca	27.4	ppb	12.19	27.4	1.00	
51 V	0.1296	ppb	6.50	0.1296	1.00	
52 Cr	0.02481	ppb	76.34	0.02481	1.00	
55 Mn	0.4308	ppb	9.57	0.4308	1.00	
57 Fe	43.91	ppb	7.58	43.91	1.00	
59 Co	0.06325	ppb	5.86	0.06325	1.00	
60 Ni	0.08502	ppb	12.76	0.08502	1.00	
65 Cu	-0.009882	ppb	214.03	-0.009882	1.00	
66 Zn	0.02786	ppb	14.12	0.02786	1.00	
75 As	-0.09842	ppb	103.74	-0.09842	1.00	
82 Se	-0.1416	ppb	174.93	-0.1416	1.00	
95 Mo	0.4884	ppb	4.12	0.4884	1.00	
109 Ag	0.01276	ppb	23.48	0.01276	1.00	
111 Cd	0.02544	ppb	146.54	0.02544	1.00	
121 Sb	0.04509	ppb	41.76	0.04509	1.00	
137 Ba	0.1102	ppb	30.02	0.1102	1.00	
205 Tl	0.04723	ppb	33.50	0.04723	1.00	
208 Pb	0.1407	ppb	10.84	0.1407	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	956717.13	1.38	---	#VALUE!	30 - 200	
45 Sc	1180974.30	2.96	---	#VALUE!	30 - 200	
72 Ge	241184.44	1.79	---	#VALUE!	30 - 200	

115 In	1442979.80	1.80	---	#VALUE!	30 - 200
209 Bi	902792.25	3.26	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\003CAL
Date Acquired: May 17 2005 11:30 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 00:36 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	949159.13	A	25140.00	2.65
9	Be	83.33	P	26.03	31.24
23	Na	203857.80	P	3248.00	1.59
26	Mg	9101.11	P	110.00	1.21
27	Al	75845.55	P	2757.00	3.64
39	K	1349930.00	A	66310.00	4.91
44	Ca	8393.29	P	468.70	5.58
45	Sc	1156177.00	A	34950.00	3.02
51	V	2408.31	P	293.90	12.20
52	Cr	4530.00	P	77.53	1.71
55	Mn	3490.00	P	37.86	1.08
57	Fe	14850.00	P	185.60	1.25
59	Co	475.56	P	70.66	14.86
60	Ni	301.11	P	37.91	12.59
65	Cu	737.74	P	42.86	5.81
66	Zn	1867.82	P	67.69	3.62
72	Ge	237581.59	P	4019.00	1.69
75	As	144.72	P	40.42	27.93
82	Se	143.36	P	11.04	7.70
95	Mo	765.56	P	50.15	6.55
109	Ag	232.22	P	23.65	10.18
111	Cd	330.68	P	26.01	7.87
115	In	1423518.00	A	43220.00	3.04
121	Sb	544.44	P	39.49	7.25
137	Ba	283.33	P	28.48	10.05
205	Tl	588.89	P	26.94	4.57
208	Pb	1561.11	P	54.81	3.51
209	Bi	908873.63	A	21630.00	2.38
232	Th	505.56	P	39.77	7.87
238	U	325.56	P	21.69	6.66

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\004CALI.D\004CALI.D#
Date Acquired: May 17 2005 11:35 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:32 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	914460.88	A	22790.00	2.49
9 Be	523.33	P	74.24	14.19
23 Na	455251.09	P	30410.00	6.68
26 Mg	33717.78	P	2961.00	8.78
27 Al	95937.78	P	18630.00	19.42
39 K	1526328.00	A	72670.00	4.76
44 Ca	15232.84	P	1033.00	6.78
45 Sc	1133757.00	A	26780.00	2.36
51 V	4685.36	P	546.50	11.66
52 Cr	7112.22	P	308.40	4.34
55 Mn	7102.22	P	740.00	10.42
57 Fe	21567.78	P	1541.00	7.14
59 Co	2768.89	P	187.70	6.78
60 Ni	847.78	P	80.37	9.48
65 Cu	1335.41	P	48.22	3.61
66 Zn	2587.95	P	197.80	7.64
72 Ge	232828.00	P	6700.00	2.88
75 As	505.38	P	84.62	16.74
82 Se	186.38	P	14.36	7.70
95 Mo	1208.89	P	52.10	4.31
109 Ag	1543.33	P	32.15	2.08
111 Cd	566.39	P	78.09	13.79
115 In	1377708.00	A	42040.00	3.05
121 Sb	1572.22	P	87.96	5.59
137 Ba	674.44	P	59.75	8.86
205 Tl	2280.00	P	231.70	10.16
208 Pb	4306.67	P	236.40	5.49
209 Bi	879412.38	A	9526.00	1.08
232 Th	1456.67	P	20.28	1.39
238 U	2697.78	P	143.50	5.32

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	914460.88	2.49	949159.13	96.3	30 - 200	
45 Sc	1133757.40	2.36	1156176.80	98.1	30 - 200	
72 Ge	232828.00	2.88	237581.56	98.0	30 - 200	
115 In	1377707.80	3.05	1423518.10	96.8	30 - 200	
209 Bi	879412.38	1.08	908873.63	96.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\005CALI.D\005CALI.D#
Date Acquired: May 17 2005 11:40 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:37 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	916267.50	A	24980.00	2.73
9 Be	1092.22	P	95.24	8.72
23 Na	836268.13	A	15870.00	1.90
26 Mg	61806.66	P	2145.00	3.47
27 Al	136374.41	P	4201.00	3.08
39 K	1779352.00	A	84470.00	4.75
44 Ca	23769.95	P	503.80	2.12
45 Sc	1122560.00	A	26530.00	2.36
51 V	7556.11	P	570.10	7.54
52 Cr	9456.67	P	252.10	2.67
55 Mn	11946.67	P	144.00	1.21
57 Fe	30546.67	P	525.60	1.72
59 Co	5332.22	P	270.50	5.07
60 Ni	1478.89	P	179.60	12.14
65 Cu	2015.29	P	26.94	1.34
66 Zn	3396.98	P	67.42	1.98
72 Ge	230170.20	P	7194.00	3.13
75 As	1074.37	P	288.70	26.87
82 Se	173.49	P	36.85	21.24
95 Mo	1705.56	P	52.32	3.07
109 Ag	2946.67	P	236.20	8.02
111 Cd	860.62	P	80.87	9.40
115 In	1370904.00	A	10090.00	0.74
121 Sb	2623.33	P	40.41	1.54
137 Ba	1058.89	P	63.80	6.03
205 Tl	4220.00	P	323.50	7.67
208 Pb	7244.44	P	182.90	2.52
209 Bi	875220.13	A	22670.00	2.59
232 Th	2656.67	P	96.67	3.64
238 U	4917.78	P	208.20	4.23

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	916267.44	2.73	949159.13	96.5	30 - 200	
45 Sc	1122560.00	2.36	1156176.80	97.1	30 - 200	
72 Ge	230170.23	3.13	237581.56	96.9	30 - 200	
115 In	1370903.80	0.74	1423518.10	96.3	30 - 200	
209 Bi	875220.06	2.59	908873.63	96.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\006CALI.D\006CALI.D#
Date Acquired: May 17 2005 11:46 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:42 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	914557.19	A	21640.00	2.37
9	Be	1876.67	P	31.80	1.69
23	Na	1276723.00	A	20560.00	1.61
26	Mg	104468.90	P	3207.00	3.07
27	Al	83741.11	P	963.30	1.15
39	K	2129334.00	A	66780.00	3.14
44	Ca	32886.89	P	887.60	2.70
45	Sc	1104114.00	A	18710.00	1.69
51	V	12321.63	P	717.80	5.83
52	Cr	13216.67	P	732.60	5.54
55	Mn	15212.22	P	310.10	2.04
57	Fe	37910.00	P	603.40	1.59
59	Co	9731.11	P	362.20	3.72
60	Ni	2357.78	P	56.80	2.41
65	Cu	3014.00	P	124.10	4.12
66	Zn	3478.30	P	183.80	5.28
72	Ge	229165.59	P	5284.00	2.31
75	As	1405.04	P	331.90	23.62
82	Se	219.24	P	60.56	27.62
95	Mo	2693.33	P	208.40	7.74
109	Ag	5507.78	P	126.70	2.30
111	Cd	1372.13	P	61.94	4.51
115	In	1348629.00	A	6436.00	0.48
121	Sb	4947.78	P	162.70	3.29
137	Ba	1796.67	P	131.70	7.33
205	Tl	7640.00	P	341.70	4.47
208	Pb	11813.33	P	375.30	3.18
209	Bi	842996.13	A	14630.00	1.74
232	Th	4974.44	P	265.90	5.35
238	U	9654.44	P	281.30	2.91

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	914557.13	2.37	949159.13	96.4	30 - 200	
45 Sc	1104114.30	1.69	1156176.80	95.5	30 - 200	
72 Ge	229165.56	2.31	237581.56	96.5	30 - 200	
115 In	1348628.60	0.48	1423518.10	94.7	30 - 200	
209 Bi	842996.13	1.74	908873.63	92.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\007CALI.D\007CALI.D#
Date Acquired: May 17 2005 11:51 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:48 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	921546.00	A	33030.00	3.58
9 Be	19108.89	P	629.70	3.30
23 Na	10455640.00	A	413500.00	3.95
26 Mg	1048894.00	A	38760.00	3.70
27 Al	128234.40	P	4245.00	3.31
39 K	9398360.00	A	361300.00	3.84
44 Ca	259031.59	P	9554.00	3.69
45 Sc	1109582.00	A	34490.00	3.11
51 V	102979.80	P	5402.00	5.25
52 Cr	93701.11	P	3885.00	4.15
55 Mn	121271.10	P	2120.00	1.75
57 Fe	250187.80	P	6005.00	2.40
59 Co	96513.33	P	3029.00	3.14
60 Ni	21791.11	P	564.50	2.59
65 Cu	25118.70	P	614.80	2.45
66 Zn	15837.47	P	769.90	4.86
72 Ge	230586.70	P	9121.00	3.96
75 As	13610.78	P	303.00	2.23
82 Se	909.37	P	21.87	2.41
95 Mo	22345.55	P	757.80	3.39
109 Ag	55141.11	P	1054.00	1.91
111 Cd	11761.76	P	211.60	1.80
115 In	1366309.00	A	46210.00	3.38
121 Sb	45497.77	P	956.80	2.10
137 Ba	15332.22	P	276.80	1.81
205 Tl	74964.44	P	3741.00	4.99
208 Pb	105167.80	P	4223.00	4.02
209 Bi	870280.63	A	20710.00	2.38
232 Th	54076.66	P	1114.00	2.06
238 U	96723.33	P	1077.00	1.11

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	921546.00	3.58	949159.13	97.1	30 - 200	
45 Sc	1109581.80	3.11	1156176.80	96.0	30 - 200	
72 Ge	230586.67	3.96	237581.56	97.1	30 - 200	
115 In	1366308.80	3.38	1423518.10	96.0	30 - 200	
209 Bi	870280.56	2.38	908873.63	95.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\008CALI.D\008CALI.D#
Date Acquired: May 17 2005 11:56 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:53 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	924205.31	A	11400.00	1.23
9 Be	185271.09	P	3674.00	1.98
23 Na	97585264.00	A	1937000.00	1.98
26 Mg	9652415.00	A	330100.00	3.42
27 Al	814923.88	A	27320.00	3.35
39 K	77945960.00	A	3633000.00	4.66
44 Ca	2513331.00	A	92370.00	3.68
45 Sc	1128222.00	A	38870.00	3.45
51 V	1017772.00	A	31200.00	3.07
52 Cr	869364.81	A	14600.00	1.68
55 Mn	1180454.00	A	14300.00	1.21
57 Fe	2375410.00	A	44630.00	1.88
59 Co	936054.13	A	31390.00	3.35
60 Ni	201062.20	P	8108.00	4.03
65 Cu	232202.59	P	5854.00	2.52
66 Zn	137083.80	P	3715.00	2.71
72 Ge	231524.70	P	7304.00	3.15
75 As	129286.10	P	4015.00	3.11
82 Se	7425.23	P	211.50	2.85
95 Mo	217057.80	P	6605.00	3.04
109 Ag	519822.19	P	12500.00	2.40
111 Cd	105681.10	P	3116.00	2.95
115 In	1354263.00	A	38220.00	2.82
121 Sb	427831.09	P	15450.00	3.61
137 Ba	143981.09	P	3187.00	2.21
205 Tl	780685.81	M	34770.00	4.45
208 Pb	1016587.00	P	30850.00	3.03
209 Bi	845144.31	A	18650.00	2.21
232 Th	803658.63	M	59270.00	7.38
238 U	992526.69	A	22750.00	2.29

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	924205.25	1.23	949159.13	97.4	30 - 200	
45 Sc	1128221.80	3.45	1156176.80	97.6	30 - 200	
72 Ge	231524.67	3.15	237581.56	97.5	30 - 200	
115 In	1354262.60	2.82	1423518.10	95.1	30 - 200	
209 Bi	845144.31	2.21	908873.63	93.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1723a.B\009CALI.D\009CALI.D#
Date Acquired: May 18 2005 12:01 am
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 17 2005 11:58 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	901466.00	A	18110.00	2.01
9 Be	365351.09	P	9440.00	2.58
23 Na	190574400.00	A	5246000.00	2.75
26 Mg	18802330.00	A	636200.00	3.38
27 Al	1562127.00	A	56840.00	3.64
39 K	150596000.00	A	5869000.00	3.90
44 Ca	4808408.00	A	142500.00	2.96
45 Sc	1131501.00	A	34300.00	3.03
51 V	1968879.00	A	50380.00	2.56
52 Cr	1694263.00	A	47730.00	2.82
55 Mn	2254375.00	A	82420.00	3.66
57 Fe	4523784.00	A	114200.00	2.52
59 Co	1825898.00	A	14100.00	0.77
60 Ni	389851.09	P	8022.00	2.06
65 Cu	449977.50	P	14650.00	3.26
66 Zn	262964.00	P	7628.00	2.90
72 Ge	230845.09	P	4494.00	1.95
75 As	253469.80	P	6080.00	2.40
82 Se	14394.00	P	344.30	2.39
95 Mo	429071.09	P	14570.00	3.40
109 Ag	1005501.00	A	35490.00	3.53
111 Cd	205396.50	P	6948.00	3.38
115 In	1325347.00	A	9565.00	0.72
121 Sb	867332.63	A	12410.00	1.43
137 Ba	284416.69	P	10700.00	3.76
205 Tl	1532827.00	A	22590.00	1.47
208 Pb	1949067.00	A	35890.00	1.84
209 Bi	817166.13	M	25620.00	3.14
232 Th	2031555.00	A	69690.00	3.43
238 U	1968778.00	A	43840.00	2.23

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	901466.00	2.01	949159.13	95.0	30 - 200	
45 Sc	1131500.60	3.03	1156176.80	97.9	30 - 200	
72 Ge	230845.11	1.95	237581.56	97.2	30 - 200	
115 In	1325346.80	0.72	1423518.10	93.1	30 - 200	
209 Bi	817166.13	3.14	908873.63	89.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1723a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 18, 2005 00:03
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1723a.b\003calb.d\	003calb.d#	May 17 2005 11:30 pm
2	...hem\1\data\05e1723a.b\004cali.d\	004cali.d#	May 17 2005 11:35 pm
3	...hem\1\data\05e1723a.b\005cali.d\	005cali.d#	May 17 2005 11:40 pm
4	...hem\1\data\05e1723a.b\006cali.d\	006cali.d#	May 17 2005 11:46 pm
5	...hem\1\data\05e1723a.b\007cali.d\	007cali.d#	May 17 2005 11:51 pm
6	...hem\1\data\05e1723a.b\008cali.d\	008cali.d#	May 17 2005 11:56 pm
7	...hem\1\data\05e1723a.b\009cali.d\	009cali.d#	May 18 2005 12:01 am
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.011E-1*X +4.384E-3(blank)	---	ppb
Na	23	45	Y = 4.230E-1*X +8.819E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.178E-2*X +3.938E-1(blank)	---	ppb
Al	27	45	Y = 3.285E-1*X +3.280E+0(blank)	---	ppb
K	39	45	Y = 3.318E-1*X +5.836E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.071E-2*X +3.628E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.142E+0*X +5.074E-1(blank)	---	ppb
Cr	52	72	Y = 1.838E+0*X +9.535E-1(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.459E+0*X +7.346E-1(blank)	---	ppb
Fe	57	72	Y = 4.927E-2*X +3.125E+0(blank)	---	ppb
Co	59	72	Y = 1.986E+0*X +1.002E-1(blank)	---	ppb
Ni	60	72	Y = 4.243E-1*X +6.336E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 4.893E-1*X +1.553E-1(blank)	---	ppb
Zn	66	72	Y = 2.847E-1*X +3.933E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 2.753E-1*X +3.056E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.550E-2*X +3.018E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 4.645E-1*X +1.610E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.096E+0*X +4.894E-2(blank)	---	ppb
Cd	111	72	Y = 2.232E-1*X +6.967E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.624E-1*X +1.912E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 5.349E-2*X +9.939E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.675E-1*X +3.239E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 5.969E-1*X +8.589E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679010 Filename : e1723010 Injected : 18-MAY-2005 00:06
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S399, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	105.1000	ug/L	5	10	
Antimony	100.0000	99.80000	ug/L	0	10	
Arsenic	100.0000	100.8000	ug/L	1	10	
Barium	100.0000	102.5000	ug/L	3	10	
Beryllium	100.0000	100.7000	ug/L	1	10	
Cadmium	100.0000	101.4000	ug/L	1	10	
Calcium	10000.00	10340.00	ug/L	3	10	
Chromium	100.0000	97.41000	ug/L	-3	10	
Cobalt	100.0000	99.55000	ug/L	0	10	
Copper	100.0000	99.63000	ug/L	0	10	
Iron	10000.00	10120.00	ug/L	1	10	
Lead	100.0000	100.1000	ug/L	0	10	
Magnesium	10000.00	10400.00	ug/L	4	10	
Manganese	100.0000	98.99000	ug/L	-1	10	
Molybdenum	100.0000	97.98000	ug/L	-2	10	
Nickel	100.0000	100.1000	ug/L	0	10	
Potassium	10000.00	10370.00	ug/L	4	10	
Selenium	100.0000	99.71000	ug/L	0	10	
Silver	100.0000	100.3000	ug/L	0	10	
Sodium	10000.00	10340.00	ug/L	3	10	
Thallium	100.0000	94.47000	ug/L	-6	10	
Vanadium	100.0000	98.15000	ug/L	-2	10	
Zinc	100.0000	99.12000	ug/L	-1	10	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Lithium	949159	913065	-3.80
Scandium	1156177	1122082	-2.95
Germanium	237582	237364	-0.09
Indium	1423518	1347821	-5.32
Bismuth	908874	855511	-5.87

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679012 Filename : e1723012 Injected : 18-MAY-2005 00:18
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55198679001	17-MAY-2005	0.490400	0.250000	ug/L	ib ***
Arsenic	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679013 Filename : e1723013 Injected : 18-MAY-2005 00:24
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55198679001	17-MAY-2005	2.568000	0.250000	ug/L	
Arsenic	55198679001	17-MAY-2005	0.919500	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	0.932500	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	[0.0070]	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	[0.1369]	0.250000	ug/L	
Chromium	55198679001	17-MAY-2005	1.356000	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	2.705000	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	1.459000	0.500000	ug/L	
Lead	55198679001	17-MAY-2005	1.225000	0.250000	ug/L	
Manganese	55198679001	17-MAY-2005	0.820900	0.250000	ug/L	
Nickel	55198679001	17-MAY-2005	1.512000	0.250000	ug/L	
Selenium	55198679001	17-MAY-2005	[0.1420]	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	[0.1399]	0.250000	ug/L	
Thallium	55198679001	17-MAY-2005	[0.0828]	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	[0.1784]	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	3.772000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55198679001	17-MAY-2005	100000	94980	ug/L	95
Calcium	55198679001	17-MAY-2005	300000	303800	ug/L	101
Iron	55198679001	17-MAY-2005	250000	242800	ug/L	97
Magnesium	55198679001	17-MAY-2005	100000	99150	ug/L	99
Molybdenum	55198679001	17-MAY-2005	2000	2024	ug/L	101
Potassium	55198679001	17-MAY-2005	100000	99430	ug/L	99
Sodium	55198679001	17-MAY-2005	250000	237700	ug/L	95

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679014 Filename : e1723014 Injected : 18-MAY-2005 00:30
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	93270.00	ug/L	-7		
Arsenic	100.0000	105.6000	ug/L	6	20	
Cadmium	100.0000	95.92000	ug/L	-4	20	
Calcium	300000.0	302600.0	ug/L	1		
Chromium	200.0000	199.2000	ug/L	0	20	
Cobalt	200.0000	196.8000	ug/L	-2	20	
Copper	200.0000	188.8000	ug/L	-6	20	
Iron	250000.0	238200.0	ug/L	-5		
Magnesium	100000.0	98310.00	ug/L	-2		
Manganese	200.0000	199.6000	ug/L	0	20	
Molybdenum	2000.000	1974.000	ug/L	-1		
Nickel	200.0000	192.6000	ug/L	-4	20	
Potassium	100000.0	97640.00	ug/L	-2		
Selenium	100.0000	98.58000	ug/L	-1	20	
Silver	50.00000	47.79000	ug/L	-4	20	
Sodium	250000.0	238600.0	ug/L	-5		
Vanadium	200.0000	203.9000	ug/L	2	20	
Zinc	100.0000	98.28000	ug/L	-2	20	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Scandium	1156177	1061801	-8.16
Germanium	237582	220049	-7.38

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55198679027 Filename : e1723027 Injected : 18-MAY-2005 01:46
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.4458	0.3583	100.0000	99.07000	ug/L	-1	10	
Antimony	0.1818	0.1638	100.0000	100.8000	ug/L	1	10	
Arsenic	0.3247	0.2820	100.0000	102.3000	ug/L	2	10	
Barium	0.0674	0.0556	100.0000	103.8000	ug/L	4	10	
Beryllium	0.1069	0.1029	100.0000	101.7000	ug/L	2	10	
Cadmium	0.3113	0.2356	100.0000	105.3000	ug/L	5	10	
Calcium	0.0139	0.0113	10000.00	10500.00	ug/L	5	10	
Chromium	2.5475	1.8339	100.0000	99.27000	ug/L	-1	10	
Cobalt	2.1516	1.9994	100.0000	100.6000	ug/L	1	10	
Copper	0.6136	0.4919	100.0000	100.2000	ug/L	0	10	
Iron	0.0740	0.0503	10000.00	10140.00	ug/L	1	10	
Lead	0.7183	0.5925	100.0000	99.12000	ug/L	-1	10	
Magnesium	0.0468	0.0434	10000.00	10380.00	ug/L	4	10	
Manganese	3.7048	2.4463	100.0000	99.20000	ug/L	-1	10	
Molybdenum	0.5493	0.4769	100.0000	102.3000	ug/L	2	10	
Nickel	0.5354	0.4265	100.0000	100.4000	ug/L	0	10	
Potassium	0.7300	0.3526	10000.00	10450.00	ug/L	5	10	
Selenium	0.0349	0.0162	100.0000	102.9000	ug/L	3	10	
Silver	1.2027	1.1451	100.0000	104.5000	ug/L	5	10	
Sodium	0.5296	0.4375	10000.00	10320.00	ug/L	3	10	
Thallium	0.4595	0.4614	100.0000	98.63000	ug/L	-1	10	
Vanadium	2.5069	2.1179	100.0000	98.62000	ug/L	-1	10	
Zinc	0.6319	0.2946	100.0000	102.1000	ug/L	2	10	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Lithium	949159	902669	-4.90
Scandium	1156177	1132328	-2.06
Germanium	237582	242988	2.28
Indium	1423518	1410747	-0.90
Bismuth	908874	946394	4.13

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679029 Filename : e1723029 Injected : 18-MAY-2005 01:57
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55198679001	17-MAY-2005	0.292200	0.250000	ug/L	ib ***
Arsenic	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55198679042 Filename : e1723042 Injected : 18-MAY-2005 03:13
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.4458	0.3421	100.0000	94.14000	ug/L	-6	10	
Antimony	0.1818	0.1563	100.0000	96.13000	ug/L	-4	10	
Arsenic	0.3247	0.2775	100.0000	100.7000	ug/L	1	10	
Barium	0.0674	0.0542	100.0000	101.2000	ug/L	1	10	
Beryllium	0.1069	0.0997	100.0000	98.59000	ug/L	-1	10	
Cadmium	0.3113	0.2322	100.0000	103.7000	ug/L	4	10	
Calcium	0.0139	0.0112	10000.00	10420.00	ug/L	4	10	
Chromium	2.5475	1.8217	100.0000	98.60000	ug/L	-1	10	
Cobalt	2.1516	1.9806	100.0000	99.67000	ug/L	0	10	
Copper	0.6136	0.4853	100.0000	98.87000	ug/L	-1	10	
Iron	0.0740	0.0501	10000.00	10110.00	ug/L	1	10	
Lead	0.7183	0.5893	100.0000	98.58000	ug/L	-1	10	
Magnesium	0.0468	0.0419	10000.00	10010.00	ug/L	0	10	
Manganese	3.7048	2.4537	100.0000	99.50000	ug/L	-1	10	
Molybdenum	0.5493	0.4722	100.0000	101.3000	ug/L	1	10	
Nickel	0.5354	0.4195	100.0000	98.71000	ug/L	-1	10	
Potassium	0.7300	0.3410	10000.00	10100.00	ug/L	1	10	
Selenium	0.0349	0.0159	100.0000	100.4000	ug/L	0	10	
Silver	1.2027	1.1403	100.0000	104.0000	ug/L	4	10	
Sodium	0.5296	0.4307	10000.00	10160.00	ug/L	2	10	
Thallium	0.4595	0.4513	100.0000	96.48000	ug/L	-4	10	
Vanadium	2.5069	2.1337	100.0000	99.36000	ug/L	-1	10	
Zinc	0.6319	0.2903	100.0000	100.6000	ug/L	1	10	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Lithium	949159	938285	-1.15
Scandium	1156177	1150513	-0.49
Germanium	237582	243811	2.62
Indium	1423518	1449145	1.80
Bismuth	908874	964316	6.10

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679044 Filename : e1723044 Injected : 18-MAY-2005 03:25
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55198679001	17-MAY-2005	[0.2361]	0.250000	ug/L	
Arsenic	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55198679001	17-MAY-2005	[0.1593]	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Selenium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679048 Filename : e1723048 Injected : 18-MAY-2005 03:49
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55198679001	17-MAY-2005	2.321000	0.250000	ug/L	
Arsenic	55198679001	17-MAY-2005	0.620000	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	0.995500	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	[0.0000]	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	[0.0617]	0.250000	ug/L	
Chromium	55198679001	17-MAY-2005	1.258000	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	2.656000	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	1.452000	0.500000	ug/L	
Lead	55198679001	17-MAY-2005	1.195000	0.250000	ug/L	
Manganese	55198679001	17-MAY-2005	0.809000	0.250000	ug/L	
Nickel	55198679001	17-MAY-2005	1.406000	0.250000	ug/L	
Selenium	55198679001	17-MAY-2005	[0.1241]	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	[0.1530]	0.250000	ug/L	
Thallium	55198679001	17-MAY-2005	[0.0260]	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	[0.1957]	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	3.671000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55198679001	17-MAY-2005	100000	93330	ug/L	93
Calcium	55198679001	17-MAY-2005	300000	304600	ug/L	102
Iron	55198679001	17-MAY-2005	250000	240800	ug/L	96
Magnesium	55198679001	17-MAY-2005	100000	97490	ug/L	97
Molybdenum	55198679001	17-MAY-2005	2000	2101	ug/L	105
Potassium	55198679001	17-MAY-2005	100000	98480	ug/L	98
Sodium	55198679001	17-MAY-2005	250000	230600	ug/L	92

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679049 Filename : e1723049 Injected : 18-MAY-2005 03:54
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	92890.00	ug/L	-7		
Arsenic	100.0000	108.2000	ug/L	8	20	
Cadmium	100.0000	104.5000	ug/L	5	20	
Calcium	300000.0	304400.0	ug/L	1		
Chromium	200.0000	193.2000	ug/L	-3	20	
Cobalt	200.0000	193.0000	ug/L	-4	20	
Copper	200.0000	187.4000	ug/L	-6	20	
Iron	250000.0	234100.0	ug/L	-6		
Magnesium	100000.0	97090.00	ug/L	-3		
Manganese	200.0000	192.2000	ug/L	-4	20	
Molybdenum	2000.000	2108.000	ug/L	5		
Nickel	200.0000	189.5000	ug/L	-5	20	
Potassium	100000.0	99290.00	ug/L	-1		
Selenium	100.0000	102.9000	ug/L	3	20	
Silver	50.00000	51.81000	ug/L	4	20	
Sodium	250000.0	227600.0	ug/L	-9		
Vanadium	200.0000	198.1000	ug/L	-1	20	
Zinc	100.0000	98.07000	ug/L	-2	20	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Scandium	1156177	1095091	-5.28
Germanium	237582	234163	-1.44

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55198679051 Filename : e1723051 Injected : 18-MAY-2005 04:06
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.4458	0.3890	100.0000	108.4000	ug/L	8	10	
Antimony	0.1818	0.1592	100.0000	97.92000	ug/L	-2	10	
Arsenic	0.3247	0.2792	100.0000	101.3000	ug/L	1	10	
Barium	0.0674	0.0542	100.0000	101.1000	ug/L	1	10	
Beryllium	0.1069	0.1010	100.0000	99.88000	ug/L	0	10	
Cadmium	0.3113	0.2407	100.0000	107.5000	ug/L	8	10	
Calcium	0.0139	0.0112	10000.00	10410.00	ug/L	4	10	
Chromium	2.5475	1.7645	100.0000	95.49000	ug/L	-5	10	
Cobalt	2.1516	1.9368	100.0000	97.46000	ug/L	-3	10	
Copper	0.6136	0.4852	100.0000	98.84000	ug/L	-1	10	
Iron	0.0740	0.0492	10000.00	9922.000	ug/L	-1	10	
Lead	0.7183	0.5874	100.0000	98.26000	ug/L	-2	10	
Magnesium	0.0468	0.0414	10000.00	9888.000	ug/L	-1	10	
Manganese	3.7048	2.3782	100.0000	96.43000	ug/L	-4	10	
Molybdenum	0.5493	0.4863	100.0000	104.4000	ug/L	4	10	
Nickel	0.5354	0.4166	100.0000	98.04000	ug/L	-2	10	
Potassium	0.7300	0.3418	10000.00	10130.00	ug/L	1	10	
Selenium	0.0349	0.0164	100.0000	103.6000	ug/L	4	10	
Silver	1.2027	1.1808	100.0000	107.7000	ug/L	8	10	
Sodium	0.5296	0.4199	10000.00	9905.000	ug/L	-1	10	
Thallium	0.4595	0.4624	100.0000	98.84000	ug/L	-1	10	
Vanadium	2.5069	2.0644	100.0000	96.12000	ug/L	-4	10	
Zinc	0.6319	0.2868	100.0000	99.35000	ug/L	-1	10	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Lithium	949159	911618	-3.96
Scandium	1156177	1183854	2.39
Germanium	237582	255552	7.56
Indium	1423518	1557795	9.43
Bismuth	908874	1057416	16.34

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Instid : MET05 Run Name :
Seqnum : 55198679053 Filename : e1723053 Injected : 18-MAY-2005 04:18
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Antimony	55198679001	17-MAY-2005	[0.2368]	0.250000	ug/L	
Arsenic	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Chromium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Lead	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Manganese	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Nickel	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55198679001	17-MAY-2005	[14.940]	50.00000	ug/L	
Selenium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55198679001	17-MAY-2005	ND	50.00000	ug/L	
Thallium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679056 Filename : e1723056 Injected : 18-MAY-2005 04:35
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55198679001	17-MAY-2005	2.430000	0.250000	ug/L	
Arsenic	55198679001	17-MAY-2005	1.275000	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	0.900100	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	[0.0000]	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	[0.1300]	0.250000	ug/L	
Chromium	55198679001	17-MAY-2005	1.338000	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	2.645000	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	1.672000	0.500000	ug/L	
Lead	55198679001	17-MAY-2005	1.231000	0.250000	ug/L	
Manganese	55198679001	17-MAY-2005	1.015000	0.250000	ug/L	
Nickel	55198679001	17-MAY-2005	2.129000	0.250000	ug/L	
Selenium	55198679001	17-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	[0.1313]	0.250000	ug/L	
Thallium	55198679001	17-MAY-2005	[0.0266]	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	[0.1141]	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	3.832000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55198679001	17-MAY-2005	100000	98380	ug/L	98
Calcium	55198679001	17-MAY-2005	300000	304300	ug/L	101
Iron	55198679001	17-MAY-2005	250000	237100	ug/L	95
Magnesium	55198679001	17-MAY-2005	100000	102500	ug/L	103
Molybdenum	55198679001	17-MAY-2005	2000	2017	ug/L	101
Potassium	55198679001	17-MAY-2005	100000	101600	ug/L	102
Sodium	55198679001	17-MAY-2005	250000	238800	ug/L	96

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679057 Filename : e1723057 Injected : 18-MAY-2005 04:41
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	98500.00	ug/L	-2		
Arsenic	100.0000	107.0000	ug/L	7	20	
Cadmium	100.0000	96.90000	ug/L	-3	20	
Calcium	300000.0	305000.0	ug/L	2		
Chromium	200.0000	198.9000	ug/L	-1	20	
Cobalt	200.0000	197.6000	ug/L	-1	20	
Copper	200.0000	191.0000	ug/L	-5	20	
Iron	250000.0	238400.0	ug/L	-5		
Magnesium	100000.0	103700.0	ug/L	4		
Manganese	200.0000	197.7000	ug/L	-1	20	
Molybdenum	2000.000	2007.000	ug/L	0		
Nickel	200.0000	193.3000	ug/L	-3	20	
Potassium	100000.0	101700.0	ug/L	2		
Selenium	100.0000	99.19000	ug/L	-1	20	
Silver	50.00000	48.72000	ug/L	-3	20	
Sodium	250000.0	243700.0	ug/L	-3		
Vanadium	200.0000	204.6000	ug/L	2	20	
Zinc	100.0000	99.12000	ug/L	-1	20	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Scandium	1156177	1116230	-3.46
Germanium	237582	227473	-4.25

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55198679059 Filename : e1723059 Injected : 18-MAY-2005 04:53
Calnum : 55198679001 Caldate : 17-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	3.4458	0.4717	150.0000	205.4000	ug/L	**37**	10	>LR c+ ***
Antimony	0.1818	0.1687	150.0000	155.8000	ug/L	4	10	
Arsenic	0.3247	0.2934	150.0000	159.8000	ug/L	7	10	
Barium	0.0674	0.0581	150.0000	162.7000	ug/L	8	10	
Beryllium	0.1069	0.1067	150.0000	158.4000	ug/L	6	10	
Cadmium	0.3113	0.2365	150.0000	158.6000	ug/L	6	10	
Calcium	0.0139	0.0117	15000.00	16300.00	ug/L	9	10	
Chromium	2.5475	1.8939	150.0000	154.1000	ug/L	3	10	
Cobalt	2.1516	2.0541	150.0000	155.1000	ug/L	3	10	
Copper	0.6136	0.5165	150.0000	158.0000	ug/L	5	10	
Iron	0.0740	0.0526	15000.00	15940.00	ug/L	6	10	
Lead	0.7183	0.6241	150.0000	156.7000	ug/L	4	10	
Magnesium	0.0468	0.0462	15000.00	16590.00	ug/L	**11**	10	c+ ***
Manganese	3.7048	2.5833	150.0000	157.3000	ug/L	5	10	
Molybdenum	0.5493	0.4976	150.0000	160.4000	ug/L	7	10	
Nickel	0.5354	0.4454	150.0000	157.3000	ug/L	5	10	
Potassium	0.7300	0.3664	15000.00	16390.00	ug/L	9	10	
Selenium	0.0349	0.0165	150.0000	157.7000	ug/L	5	10	
Silver	1.2027	1.1639	150.0000	159.3000	ug/L	6	10	
Sodium	0.5296	0.5026	15000.00	17800.00	ug/L	**19**	10	c+ ***
Thallium	0.4595	0.4881	150.0000	156.5000	ug/L	4	10	
Vanadium	2.5069	2.2319	150.0000	156.0000	ug/L	4	10	
Zinc	0.6319	0.3072	150.0000	160.5000	ug/L	7	10	

ISTD (ICALBLK=e1723003)	ICALBLK Abund	Abund	%Diff
Lithium	949159	955235	0.64
Scandium	1156177	1203999	4.14
Germanium	237582	248186	4.46
Indium	1423518	1416203	-0.51
Bismuth	908874	861428	-5.22

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55198679061 Filename : e1723061 Injected : 18-MAY-2005 05:04
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55198679001	17-MAY-2005	[5.2310]	50.00000	ug/L	
Antimony	55198679001	17-MAY-2005	0.542500	0.250000	ug/L	ib ***
Arsenic	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Barium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Beryllium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Cadmium	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Calcium	55198679001	17-MAY-2005	[36.720]	50.00000	ug/L	
Chromium	55198679001	17-MAY-2005	[0.0664]	0.500000	ug/L	
Cobalt	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Copper	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Iron	55198679001	17-MAY-2005	[19.700]	50.00000	ug/L	
Lead	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Magnesium	55198679001	17-MAY-2005	[36.310]	50.00000	ug/L	
Manganese	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55198679001	17-MAY-2005	[0.3084]	0.500000	ug/L	
Nickel	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Potassium	55198679001	17-MAY-2005	[48.390]	50.00000	ug/L	
Selenium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Silver	55198679001	17-MAY-2005	ND	0.250000	ug/L	
Sodium	55198679001	17-MAY-2005	296.9000	50.00000	ug/L	ib ***
Thallium	55198679001	17-MAY-2005	ND	0.500000	ug/L	
Vanadium	55198679001	17-MAY-2005	ND	1.000000	ug/L	
Zinc	55198679001	17-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55199892 Instrument: MET05 Agilent ICP-MS Begun: 18-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	e1819001	TUN	tune			18-MAY-2005 19:32	1.0	1.0			1	
003	e1819003	ICALBLK	std-blk			18-MAY-2005 19:43	1.0	1.0			2	
004	e1819004	ICAL	cs1			18-MAY-2005 19:48	1.0	1.0			3	
005	e1819005	ICAL	cs2			18-MAY-2005 19:53	1.0	1.0			4	
006	e1819006	ICAL	cs3			18-MAY-2005 19:58	1.0	1.0			5	
007	e1819007	ICAL	cs4			18-MAY-2005 20:03	1.0	1.0			6	
008	e1819008	ICAL	cs5			18-MAY-2005 20:09	1.0	1.0			7	
009	e1819009	ICAL	cs6			18-MAY-2005 20:14	1.0	1.0			8	
010	e1819010	ICV				18-MAY-2005 20:19	1.0	1.0		1	9	
012	e1819012	ICB				18-MAY-2005 20:30	1.0	1.0	1	1	2	
013	e1819013	ICSA				18-MAY-2005 20:36	1.0	1.0		1	10 2	7:CA=289400
014	e1819014	ICSAB				18-MAY-2005 20:42	1.0	1.0		1	11 2	10:CA=294900
016	e1819016	SAMPLE	179355-009	101964	Water	18-MAY-2005 20:54	2.0	1.0		1	2	
017	e1819017	SAMPLE	179355-010	101964	Water	18-MAY-2005 20:59	2.0	1.0		1	2	
018	e1819018	SAMPLE	179355-012	101964	Water	18-MAY-2005 21:05	2.0	1.0		1	2	
019	e1819019	SAMPLE	179445-003	102065	Soil	18-MAY-2005 21:11	5.0	44.64	3	1	2	6:FE=93100.00
020	e1819020	SAMPLE	179445-004	102065	Soil	18-MAY-2005 21:17	5.0	54.35	3	1	2	6:FE=40800.0
021	e1819021	SAMPLE	179445-004	102065	Soil	18-MAY-2005 21:23	50.0	54.35		1	2	1:AL=2066.00
022	e1819022	SAMPLE	179445-005	102065	Soil	18-MAY-2005 21:29	5.0	32.05	4	1	2	8:FE=161580
023	e1819023	SAMPLE	179445-006	102065	Soil	18-MAY-2005 21:34	5.0	54.35	3	1	2	7:CA=34840.0
025	e1819025	CCV				18-MAY-2005 21:46	1.0	1.0		1	12 2	
027	e1819027	CCB				18-MAY-2005 21:57	1.0	1.0	1	1	2	
028	e1819028	SAMPLE	179445-006	102065	Soil	18-MAY-2005 22:03	100.0	54.35	1	1	2	2:AL=691.900
029	e1819029	SAMPLE	179445-007	102065	Soil	18-MAY-2005 22:09	50.0	44.64		1	2	2:AL=2894.00
030	e1819030	SAMPLE	179445-008	102065	Soil	18-MAY-2005 22:15	5.0	39.06	6	1	2	10:FE=161100
031	e1819031	SAMPLE	179445-009	102065	Soil	18-MAY-2005 22:21	50.0	33.56		1	2	1:AL=2872.00
032	e1819032	CCV				18-MAY-2005 22:27	1.0	1.0		1	13 2	
034	e1819034	CCB				18-MAY-2005 22:38	1.0	1.0	1	1	2	
035	e1819035	ICSA				18-MAY-2005 22:44	1.0	1.0		1	13 2	7:CA=288100
036	e1819036	ICSAB				18-MAY-2005 22:50	1.0	1.0		1	11 2	11:CA=289900
038	e1819038	SAMPLE	179492-001	101964	Filtra	18-MAY-2005 23:02	1.0	1.0		1	2	3:MG=602600

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S403 14=S21

Analyst: KCarlyn Date: 5/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55199892 Instrument: MET05 Agilent ICP-MS Begun: 18-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
041	e1819041	CCV				18-MAY-2005 23:19	1.0	1.0	1	1	13 2	
043	e1819043	CCB				18-MAY-2005 23:31	1.0	1.0	2	1	2	
044	e1819044	ICSA				18-MAY-2005 23:37	1.0	1.0		1	13 2	7:CA=288700
045	e1819045	ICSAB				18-MAY-2005 23:42	1.0	1.0		1	11 2	10:CA=289900
047	e1819047	BLANK	QC285377	99894	Water	18-MAY-2005 23:54	1.0	1.0	2	1	2	
048	e1819048	MDL	178062-015	99894	Water	19-MAY-2005 00:00	1.0	1.0	2	1	2	
049	e1819049	MDL	178062-016	99894	Water	19-MAY-2005 00:06	1.0	1.0	2	1	2	
050	e1819050	MDL	178062-017	99894	Water	19-MAY-2005 00:12	1.0	1.0	2	1	2	
051	e1819051	MDL	178062-018	99894	Water	19-MAY-2005 00:18	1.0	1.0	2	1	2	
052	e1819052	MDL	178062-019	99894	Water	19-MAY-2005 00:23	1.0	1.0	2	1	2	
053	e1819053	MDL	178062-020	99894	Water	19-MAY-2005 00:29	1.0	1.0	2	1	2	
054	e1819054	MDL	178062-021	99894	Water	19-MAY-2005 00:35	1.0	1.0	2	1	2	
055	e1819055	X	RINSE			19-MAY-2005 00:41	1.0				2	
056	e1819056	CCV				19-MAY-2005 00:47	1.0	1.0	1	1	13 2	
057	e1819057	X	RINSE			19-MAY-2005 00:53	1.0				2	
058	e1819058	CCB				19-MAY-2005 00:59	1.0	1.0	1	1	2	
059	e1819059	X	RINSE	101964		19-MAY-2005 01:04	1.0				2	
060	e1819060	SAMPLE	179445-006	102065	Soil	19-MAY-2005 01:10	200.0				2	
061	e1819061	X	RINSE	101964		19-MAY-2005 01:16	1.0				2	
062	e1819062	BLANK	QC293528	101963	Water	19-MAY-2005 01:22	1.0				2	
063	e1819063	BS	QC293529	101963	Water	19-MAY-2005 01:28	1.0				2	
064	e1819064	BSD	QC293530	101963	Water	19-MAY-2005 01:34	1.0				2	
065	e1819065	X	RINSE	101964		19-MAY-2005 01:40	1.0				2	
066	e1819066	MSS	179325-001	101963	Water	19-MAY-2005 01:46	1.0	1.0	23	1	2	
067	e1819067	SER	QC293533	101963	Water	19-MAY-2005 01:51	5.0				2	
068	e1819068	MS	QC293531	101963	Water	19-MAY-2005 01:57	1.0				2	
069	e1819069	MSD	QC293532	101963	Water	19-MAY-2005 02:03	1.0				2	
070	e1819070	PDS	QC293534	101963	Water	19-MAY-2005 02:09	1.0				14 2	
071	e1819071	X	RINSE	101964		19-MAY-2005 02:15	1.0				2	
072	e1819072	SAMPLE	179325-002	101963	Water	19-MAY-2005 02:20	1.0				2	
073	e1819073	X	RINSE			19-MAY-2005 02:26	1.0				2	

359

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S403 14=S21

Analyst: KCarlyn Date: 5/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55199892 Instrument: MET05 Agilent ICP-MS Begun: 18-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
074	e1819074	CCV				19-MAY-2005 02:32	1.0			13 2	
075	e1819075	X	RINSE			19-MAY-2005 02:38	1.0			2	
076	e1819076	CCB				19-MAY-2005 02:44	1.0			2	
077	e1819077	SAMPLE	179325-003	101963	Water	19-MAY-2005 02:50	1.0			2	
078	e1819078	SAMPLE	179325-004	101963	Water	19-MAY-2005 02:55	1.0			2	
079	e1819079	SAMPLE	179325-005	101963	Water	19-MAY-2005 03:01	1.0			2	
080	e1819080	SAMPLE	179325-006	101963	Water	19-MAY-2005 03:07	1.0			2	
081	e1819081	SAMPLE	179325-007	101963	Water	19-MAY-2005 03:13	1.0			2	
082	e1819082	SAMPLE	179325-008	101963	Water	19-MAY-2005 03:19	1.0			2	
083	e1819083	SAMPLE	179325-009	101963	Water	19-MAY-2005 03:25	1.0			2	
084	e1819084	SAMPLE	179325-010	101963	Water	19-MAY-2005 03:31	1.0			2	
085	e1819085	SAMPLE	179325-011	101963	Water	19-MAY-2005 03:37	1.0			2	
086	e1819086	SAMPLE	179325-012	101963	Water	19-MAY-2005 03:43	1.0			2	
087	e1819087	X	RINSE			19-MAY-2005 03:48	1.0			2	
088	e1819088	CCV				19-MAY-2005 03:54	1.0			13 2	
089	e1819089	X	RINSE			19-MAY-2005 04:00	1.0			2	360
090	e1819090	CCB				19-MAY-2005 04:06	1.0			2	
091	e1819091	SAMPLE	179325-013	101963	Water	19-MAY-2005 04:12	1.0			2	
092	e1819092	SAMPLE	179325-014	101963	Water	19-MAY-2005 04:18	1.0			2	
093	e1819093	SAMPLE	179325-015	101963	Water	19-MAY-2005 04:23	1.0			2	
094	e1819094	SAMPLE	179325-016	101963	Water	19-MAY-2005 04:29	1.0			2	
095	e1819095	SAMPLE	179325-017	101963	Water	19-MAY-2005 04:35	1.0			2	
096	e1819096	SAMPLE	179325-018	101963	Water	19-MAY-2005 04:41	1.0			2	
097	e1819097	SAMPLE	179325-019	101963	Water	19-MAY-2005 04:47	1.0			2	
098	e1819098	SAMPLE	179325-010	101963	Water	19-MAY-2005 04:53	1.0			2	
099	e1819099	ICSA				19-MAY-2005 04:59	1.0			10 2	
100	e1819100	ICSAB				19-MAY-2005 05:05	1.0			11 2	
101	e1819101	X	RINSE			19-MAY-2005 05:10	1.0			2	
102	e1819102	CCV				19-MAY-2005 05:16	1.0			13 2	
103	e1819103	X	RINSE			19-MAY-2005 05:22	1.0			2	
104	e1819104	CCB				19-MAY-2005 05:28	1.0			2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S403 14=S21

Analyst: KCarlin Date: 5/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55199892 Instrument: MET05 Agilent ICP-MS Begun: 18-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
109	e1819109	BLANK	QC293821	102037	Water	19-MAY-2005 05:57	1.0			2	
110	e1819110	BS	QC293822	102037	Water	19-MAY-2005 06:03	1.0			2	
111	e1819111	BSD	QC293823	102037	Water	19-MAY-2005 06:09	1.0			2	
112	e1819112	X	RINSE	101964		19-MAY-2005 06:15	1.0			2	
113	e1819113	MSS	179430-001	102037	Water	19-MAY-2005 06:20	1.0			2	
114	e1819114	SER	QC293826	102037	Water	19-MAY-2005 06:26	5.0			2	
115	e1819115	MS	QC293824	102037	Water	19-MAY-2005 06:32	1.0			2	
116	e1819116	MSD	QC293825	102037	Water	19-MAY-2005 06:38	1.0			2	
117	e1819117	PDS	QC293827	102037	Water	19-MAY-2005 06:44	1.0			14 2	
118	e1819118	X	RINSE	101964		19-MAY-2005 06:50	1.0			2	
119	e1819119	SAMPLE	179430-002	102037	Water	19-MAY-2005 06:56	1.0			2	
120	e1819120	SAMPLE	179430-003	102037	Water	19-MAY-2005 07:01	1.0			2	
121	e1819121	X	RINSE			19-MAY-2005 07:07	1.0			2	
122	e1819122	CCV				19-MAY-2005 07:13	1.0			13 2	
123	e1819123	X	RINSE			19-MAY-2005 07:19	1.0			2	
124	e1819124	CCB				19-MAY-2005 07:25	1.0			2	361
125	e1819125	TUN	tune			19-MAY-2005 07:30	1.0			1	
126	e1819126	SAMPLE	179430-004	102037	Water	19-MAY-2005 07:35	1.0			2	
127	e1819127	SAMPLE	179430-005	102037	Water	19-MAY-2005 07:41	1.0			2	
128	e1819128	SAMPLE	179430-006	102037	Water	19-MAY-2005 07:47	1.0			2	
129	e1819129	SAMPLE	179430-007	102037	Water	19-MAY-2005 07:53	1.0			2	
130	e1819130	SAMPLE	179430-008	102037	Water	19-MAY-2005 07:59	1.0			2	
131	e1819131	SAMPLE	179430-009	102037	Water	19-MAY-2005 08:05	1.0			2	
132	e1819132	SAMPLE	179430-010	102037	Water	19-MAY-2005 08:11	1.0			2	
133	e1819133	SAMPLE	179444-001	102037	Filtra	19-MAY-2005 08:17	1.0			2	
134	e1819134	SAMPLE	179444-002	102037	Filtra	19-MAY-2005 08:22	1.0			2	
135	e1819135	SAMPLE	179444-003	102037	Filtra	19-MAY-2005 08:28	1.0			2	
136	e1819136	X	RINSE			19-MAY-2005 08:34	1.0			2	
137	e1819137	CCV				19-MAY-2005 08:40	1.0			13 2	
138	e1819138	X	RINSE			19-MAY-2005 08:46	1.0			2	
139	e1819139	CCB				19-MAY-2005 08:52	1.0			2	

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S403 14=S21

Analyst: K Carlson Date: 5/19/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55199892 Instrument: MET05 Agilent ICP-MS Begun: 18-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
149	e1819149	ICSA				19-MAY-2005 09:50	1.0			10 2	
150	e1819150	ICSAB				19-MAY-2005 09:56	1.0			11 2	

362

Stds used: 1=S392 2=05WS0207 3=S395 4=S396 5=S397 6=S398 7=S393 8=S394 9=S399 10=S401 11=S402 12=S400 13=S403 14=S21

Analyst: K Carls Date: 5/19/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55199892001 Name: Type: (normal) Date: 18-MAY-2005 19:43 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e1819004	55199892004	cs1	18-MAY-2005 19:48	S395
2	e1819005	55199892005	cs2	18-MAY-2005 19:53	S396
3	e1819006	55199892006	cs3	18-MAY-2005 19:58	S397
4	e1819007	55199892007	cs4	18-MAY-2005 20:03	S398
5	e1819008	55199892008	cs5	18-MAY-2005 20:09	S393
6	e1819009	55199892009	cs6	18-MAY-2005 20:14	S394

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		2.5894	1.3313	0.4259	0.3325	0.3169	BLNK	R	-4.38140	3.207179		ug/L	0.9992	1.000	0.995	
Antimony	0.2434	0.1948	0.1765	0.1554	0.1591	0.1632	BLNK	R	-0.15550	6.165352		ug/L	0.1821	1.000	0.995	
Arsenic		0.3417	0.3140	0.2904	0.2867	0.2826	BLNK	R	-0.10136	3.530689		ug/L	0.3031	1.000	0.995	
Barium	0.0944	0.0689	0.0639	0.0561	0.0567	0.0579	BLNK	R	-0.12269	17.35530		ug/L	0.0663	1.000	0.995	
Beryllium	0.1261	0.1160	0.1107	0.1071	0.1087	0.1084	BLNK	R	-0.03959	9.222102		ug/L	0.1128	1.000	0.995	
Cadmium	0.5727	0.4453	0.3642	0.2865	0.2726	0.2661	BLNK	R	-0.26756	3.745651		ug/L	0.3679	1.000	0.995	
Calcium		0.0167	0.0144	0.0118	0.0117	0.0114	BLNK	R	-25.6660	87.51122		ug/L	0.0132	1.000	0.995	
Chromium		4.6801	3.4479	2.3408	2.2412	2.1739	BLNK	R	-0.60227	0.458805		ug/L	2.9768	1.000	0.995	
Cobalt	2.5637	2.4634	2.4281	2.3392	2.3183	2.2768	BLNK	R	-0.03237	0.437683		ug/L	2.3983	1.000	0.995	
Copper		0.9145	0.7462	0.5802	0.5590	0.5439	BLNK	R	-0.29621	1.831667		ug/L	0.6688	1.000	0.995	
Iron		0.1171	0.0859	0.0596	0.0567	0.0556	BLNK	R	-56.7538	17.97692		ug/L	0.0750	1.000	0.995	
Lead	0.8124	0.6898	0.6583	0.6200	0.6199	0.6270	BLNK	R	-0.06746	1.599290		ug/L	0.6712	1.000	0.995	
Magnesium		0.0438	0.0422	0.0415	0.0393	0.0379	BLNK	R	-5.59744	26.21911		ug/L	0.0409	1.000	0.995	
Manganese	4.3644	3.4908	3.1925	2.8876	2.8590	2.7644	BLNK	R	-0.11297	0.359506		ug/L	3.2598	1.000	0.995	
Molybdenum		0.6970	0.6240	0.5475	0.5518	0.5476	BLNK	R	-0.20958	1.825741		ug/L	0.5936	1.000	0.995	
Nickel	0.8370	0.6147	0.5830	0.5198	0.5066	0.4952	BLNK	R	-0.11585	2.011256		ug/L	0.5927	1.000	0.995	
Potassium		1.5647	0.9742	0.4396	0.3822	0.3714	BLNK	R	-156.896	2.701799		ug/L	0.7464	1.000	0.995	
Selenium		0.0627	0.0423	0.0200	0.0176	0.0171	BLNK	R	-1.59196	58.69157		ug/L	0.0319	1.000	0.995	
Silver	1.6400	1.4654	1.4154	1.3967	1.3500	1.2938	BLNK	R	-0.03849	0.766316		ug/L	1.4269	1.000	0.995	
Sodium		0.5162	0.4577	0.4018	0.3901	0.3783	BLNK	R	-13.6038	2.628799		ug/L	0.4288	1.000	0.995	

363

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55199892001 Name: Type: (normal) Date: 18-MAY-2005 19:43 Inj Vol (uL): 1

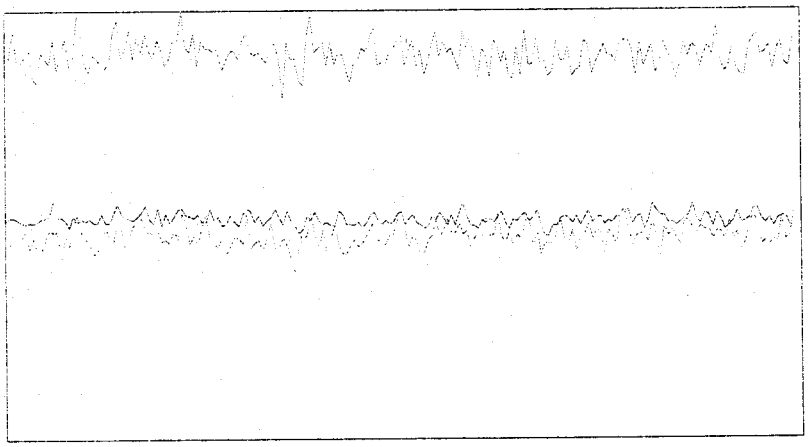
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.4824	0.4723	0.4714	0.4867	0.4837	BLNK	R	-0.05041	2.065606		ug/L	0.4793	1.000	0.995	
Vanadium		3.9954	3.3334	2.5878	2.6055	2.5330	BLNK	R	-0.35517	0.393386		ug/L	3.0110	1.000	0.995	
Zinc		1.1379	0.8793	0.3460	0.2955	0.2875	BLNK	R	-1.44284	3.488779		ug/L	0.5892	1.000	0.995	

364

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U

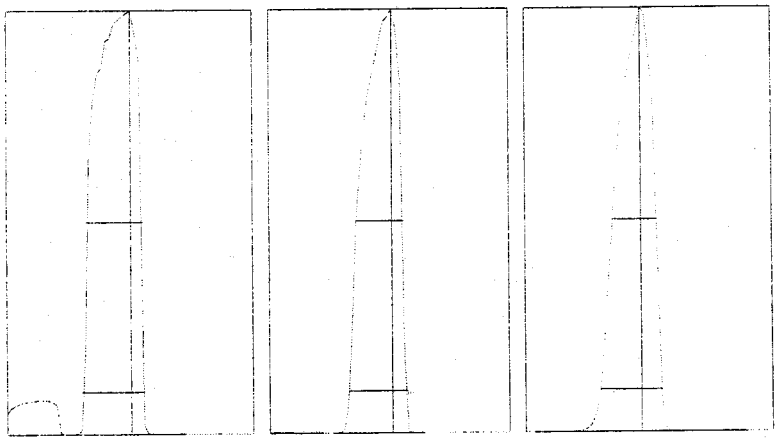


m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	24,376	46,684	53,005
Mean:	25688.0	44954.9	47358.8
RSD%:	2.78	3.72	5.34
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.45%
Doubly Charged: 70/140 1.50%
Background:

m/z:	7	89	205
Cps:	57.8	49.3	86.6



m/z:	7	89	205
Height:	26,059	45,511	47,438
Axis:	7.05	89.05	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1250 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.03 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 18, 2005 11:25:01
Printed : May 18, 2005 11:25:07

P/A Factor Tuning Report

Acquired:May 18 2005 11:40 am

Mass[amu]	Element	P/A Factor
6	Li	0.064181
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085731
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097192
45	Sc	0.093860
51	V	0.096839
52	Cr	0.098983
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100660
57	Fe	0.103672
59	Co	0.104128
60	Ni	Sensitivity too low
63	Cu	0.106636
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106595
95	Mo	Sensitivity too low
98	Mo	0.102771
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112207
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.114357
118	(In)	0.110953
121	Sb	0.110990
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118760
166	Er	Sensitivity too low

205	Tl	0.123907
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.122659
209	Bi	0.124088
232	Th	0.123753
238	U	0.123997

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 18 2005 11:46 am

Mass[amu]	Element	P/A Factor
6	Li	0.064067
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085734
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097811
45	Sc	0.093830
51	V	0.097117
52	Cr	0.099353
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.101377
57	Fe	0.104165
59	Co	0.104626
60	Ni	Sensitivity too low
63	Cu	0.106931
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.106173
95	Mo	Sensitivity too low
98	Mo	0.103311
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.112820
111	Cd	Sensitivity too low
114	Cd	0.109929
115	In	0.113855
118	(In)	0.111912
121	Sb	0.111097
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.118140
166	Er	Sensitivity too low

205	Tl	0.124308
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.123100
209	Bi	0.123304
232	Th	0.124448
238	U	0.124062

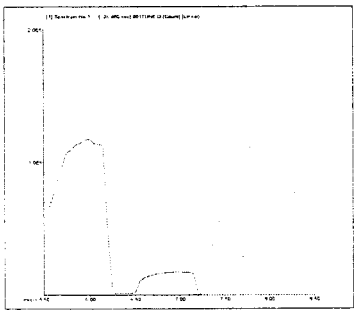
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

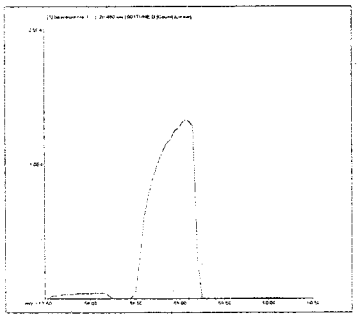
Data File: C:\ICPCHEM\1\DATA\05E1819a.B\001TUNE.D
Date Acquired: May 18 2005 07:32 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tune,s392
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

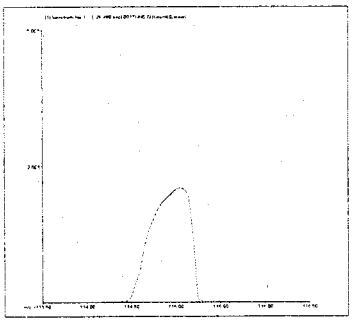
Element	Actual	Required	Flag
7 Li	0.87	5.00	
59 Co	2.36	5.00	
115 In	2.73	5.00	
205 Tl	0.97	5.00	



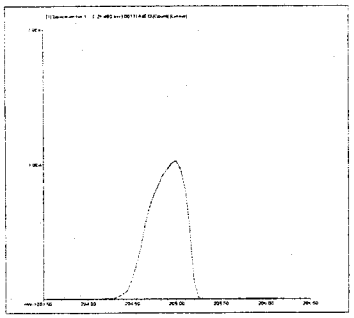
7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.05
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 18 2005 07:37 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 18 2005 02:04 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.0205	ppb	61.42	0.0205	1.00	
23 Na	-10.95	ppb	9.24	-10.95	1.00	
26 Mg	-0.3483	ppb	146.20	-0.3483	1.00	
27 Al	-0.8382	ppb	38.24	-0.8382	1.00	
39 K	-3.56	ppb	104.24	-3.56	1.00	
44 Ca	-7.012	ppb	32.70	-7.012	1.00	
51 V	0.1361	ppb	6.37	0.1361	1.00	
52 Cr	0.06376	ppb	10.47	0.06376	1.00	
55 Mn	-0.008449	ppb	43.63	-0.008449	1.00	
57 Fe	8.682	ppb	19.68	8.682	1.00	
59 Co	0.02219	ppb	3.98	0.02219	1.00	
60 Ni	0.01427	ppb	78.00	0.01427	1.00	
65 Cu	-0.03252	ppb	17.08	-0.03252	1.00	
66 Zn	-0.09469	ppb	75.81	-0.09469	1.00	
75 As	-0.0699	ppb	134.64	-0.0699	1.00	
82 Se	-0.2393	ppb	66.70	-0.2393	1.00	
95 Mo	0.007946	ppb	294.61	0.007946	1.00	
109 Ag	0.02026	ppb	44.74	0.02026	1.00	
111 Cd	0.04589	ppb	41.38	0.04589	1.00	
121 Sb	0.01377	ppb	182.14	0.01377	1.00	
137 Ba	0.01089	ppb	226.17	0.01089	1.00	
205 Tl	0.02808	ppb	12.21	0.02808	1.00	
208 Pb	0.01281	ppb	38.96	0.01281	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1163054.80	0.20	---	#VALUE!	30 - 200	
45 Sc	1527730.80	0.82	---	#VALUE!	30 - 200	
72 Ge	277655.09	0.44	---	#VALUE!	30 - 200	

115 In	1936808.00	1.54	---	#VALUE!	30 - 200
209 Bi	1124194.30	1.93	---	#VALUE!	30 - 200

ISTD Ref File : ---

1 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\003CAL
Date Acquired: May 18 2005 07:43 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 02:04 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1151107.00	A	7889.00	0.69
9	Be	98.89	P	21.43	21.67
23	Na	154510.00	P	3256.00	2.11
26	Mg	6375.56	P	388.10	6.09
27	Al	40792.22	P	1394.00	3.42
39	K	1733759.00	A	25710.00	1.48
44	Ca	8756.71	P	195.40	2.23
45	Sc	1492793.00	A	12420.00	0.83
51	V	4892.48	P	1276.00	26.08
52	Cr	7116.67	P	345.00	4.85
55	Mn	1703.33	P	23.33	1.37
57	Fe	17114.44	P	393.20	2.30
59	Co	401.11	P	83.36	20.78
60	Ni	312.22	P	3.85	1.23
65	Cu	876.64	P	61.10	6.97
66	Zn	2242.25	P	132.10	5.89
72	Ge	271035.59	P	1468.00	0.54
75	As	155.22	P	113.30	72.99
82	Se	147.03	P	26.17	17.80
95	Mo	622.22	P	31.68	5.09
109	Ag	272.22	P	8.39	3.08
111	Cd	387.10	P	31.55	8.15
115	In	1895219.00	A	30490.00	1.61
121	Sb	957.78	P	180.80	18.88
137	Ba	267.78	P	22.19	8.29
205	Tl	538.89	P	28.74	5.33
208	Pb	931.11	P	27.95	3.00
209	Bi	1103783.00	A	26220.00	2.38
232	Th	1136.67	P	32.83	2.89
238	U	308.89	P	13.47	4.36

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\004CALI.D\004CALI.D#
Date Acquired: May 18 2005 07:48 pm
Operator:
Sample Name: cs1,s395
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 07:44 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1144075.00	A	25190.00	2.20
9 Be	721.11	P	28.35	3.93
23 Na	433598.91	P	5704.00	1.32
26 Mg	35875.56	P	771.20	2.15
27 Al	44044.44	P	1147.00	2.60
39 K	2045948.00	A	38030.00	1.86
44 Ca	17881.54	P	420.30	2.35
45 Sc	1495589.00	A	34720.00	2.32
51 V	6810.05	P	1043.00	15.32
52 Cr	9804.44	P	192.90	1.97
55 Mn	5980.00	P	97.13	1.62
57 Fe	24455.55	P	296.90	1.21
59 Co	3513.33	P	47.02	1.34
60 Ni	1146.67	P	59.25	5.17
65 Cu	1896.52	P	106.50	5.62
66 Zn	3660.18	P	67.41	1.84
72 Ge	274117.59	P	5044.00	1.84
75 As	527.80	P	87.51	16.58
82 Se	135.70	P	38.27	28.20
95 Mo	1284.44	P	56.01	4.36
109 Ag	2246.67	P	86.67	3.86
111 Cd	784.24	P	38.96	4.97
115 In	1905509.00	A	46840.00	2.46
121 Sb	2314.44	P	289.90	12.53
137 Ba	900.00	P	108.20	12.02
205 Tl	2901.11	P	36.57	1.26
208 Pb	4453.33	P	141.80	3.18
209 Bi	1096527.00	A	13280.00	1.21
232 Th	1525.56	P	35.01	2.29
238 U	3370.00	P	129.00	3.83

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1144074.50	2.20	1151106.90	99.4	30 - 200	
45 Sc	1495589.40	2.32	1492792.80	100.2	30 - 200	
72 Ge	274117.56	1.84	271035.56	101.1	30 - 200	
115 In	1905509.30	2.46	1895218.60	100.5	30 - 200	
209 Bi	1096526.90	1.21	1103783.30	99.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\005CALI.D\005CALI.D#
Date Acquired: May 18 2005 07:53 pm
Operator:
Sample Name: cs2,s396
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 07:50 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)
6 Li	1159177.00 A	17580.00	1.52
9 Be	1344.44 P	58.53	4.35
23 Na	770018.19 A	4246.00	0.55
26 Mg	65318.88 P	652.50	1.00
27 Al	38633.33 P	1050.00	2.72
39 K	2334356.00 A	30870.00	1.32
44 Ca	24900.22 P	369.80	1.49
45 Sc	1491873.00 A	6593.00	0.44
51 V	10898.75 P	830.30	7.62
52 Cr	12764.44 P	296.80	2.33
55 Mn	9521.11 P	278.50	2.93
57 Fe	31945.56 P	525.00	1.64
59 Co	6718.89 P	90.21	1.34
60 Ni	1676.67 P	58.40	3.48
65 Cu	2494.17 P	60.03	2.41
66 Zn	3103.66 P	58.60	1.89
72 Ge	272754.69 P	998.80	0.37
75 As	931.70 P	217.90	23.39
82 Se	171.02 P	42.58	24.90
95 Mo	1901.11 P	19.25	1.01
109 Ag	3996.67 P	60.64	1.52
111 Cd	1214.40 P	95.85	7.89
115 In	1877146.00 A	38560.00	2.05
121 Sb	3656.67 P	395.10	10.81
137 Ba	1293.33 P	40.55	3.14
205 Tl	5303.33 P	142.60	2.69
208 Pb	7586.67 P	120.30	1.59
209 Bi	1099829.00 A	18700.00	1.70
232 Th	2694.44 P	38.63	1.43
238 U	6197.78 P	16.44	0.27

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1159176.50	1.52	1151106.90	100.7	30 - 200	
45 Sc	1491872.50	0.44	1492792.80	99.9	30 - 200	
72 Ge	272754.66	0.37	271035.56	100.6	30 - 200	
115 In	1877145.50	2.05	1895218.60	99.0	30 - 200	
209 Bi	1099829.30	1.70	1103783.30	99.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\006CALI.D\006CALI.D#
Date Acquired: May 18 2005 07:58 pm
Operator:
Sample Name: cs3,s397
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 07:55 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1164901.00	A	5629.00	0.48
9 Be	2578.89	P	62.75	2.43
23 Na	1370096.00	A	6050.00	0.44
26 Mg	126348.90	P	285.10	0.23
27 Al	39848.89	P	100.50	0.25
39 K	2916037.00	A	39710.00	1.36
44 Ca	43015.60	P	332.80	0.77
45 Sc	1496716.00	A	13330.00	0.89
51 V	18184.36	P	462.10	2.54
52 Cr	18807.78	P	155.00	0.82
55 Mn	17414.44	P	184.70	1.06
57 Fe	46880.00	P	809.90	1.73
59 Co	13245.56	P	286.80	2.17
60 Ni	3180.00	P	123.50	3.88
65 Cu	4070.58	P	171.40	4.21
66 Zn	4796.19	P	5.09	0.11
72 Ge	272743.59	P	916.70	0.34
75 As	1712.77	P	175.20	10.23
82 Se	230.81	P	35.57	15.41
95 Mo	3404.44	P	253.50	7.45
109 Ag	7721.11	P	265.80	3.44
111 Cd	1986.52	P	128.70	6.48
115 In	1874967.00	A	11780.00	0.63
121 Sb	6620.00	P	36.06	0.54
137 Ba	2395.56	P	141.30	5.90
205 Tl	10231.11	P	360.00	3.52
208 Pb	14257.78	P	488.50	3.43
209 Bi	1083029.00	A	33480.00	3.09
232 Th	4930.00	P	174.90	3.55
238 U	12054.44	P	236.70	1.96

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1164901.10	0.48	1151106.90	101.2	30 - 200	
45 Sc	1496716.30	0.89	1492792.80	100.3	30 - 200	
72 Ge	272743.56	0.34	271035.56	100.6	30 - 200	
115 In	1874966.60	0.63	1895218.60	98.9	30 - 200	
209 Bi	1083028.90	3.09	1103783.30	98.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\007CALI.D\007CALI.D#
Date Acquired: May 18 2005 08:03 pm
Operator:
Sample Name: cs4,s398
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 08:00 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1162486.00	A	9692.00	0.83
9 Be	24911.11	P	154.10	0.62
23 Na	12098000.00	A	68470.00	0.57
26 Mg	1249968.00	A	2098.00	0.17
27 Al	128245.60	P	2070.00	1.61
39 K	13238170.00	A	127500.00	0.96
44 Ca	354008.00	P	2550.00	0.72
45 Sc	1505680.00	A	15810.00	1.05
51 V	142076.91	P	377.20	0.27
52 Cr	128517.80	P	558.60	0.43
55 Mn	158536.70	P	2296.00	1.45
57 Fe	327394.41	P	1446.00	0.44
59 Co	128427.80	P	400.10	0.31
60 Ni	28537.78	P	616.90	2.16
65 Cu	31855.78	P	395.30	1.24
66 Zn	18996.25	P	205.20	1.08
72 Ge	274511.31	P	216.90	0.08
75 As	15944.07	P	107.90	0.68
82 Se	1096.08	P	52.48	4.79
95 Mo	30061.11	P	621.60	2.07
109 Ag	76683.33	P	300.20	0.39
111 Cd	15729.28	P	293.90	1.87
115 In	1896078.00	A	20310.00	1.07
121 Sb	58938.88	P	1184.00	2.01
137 Ba	21253.33	P	170.50	0.80
205 Tl	101196.70	P	2201.00	2.18
208 Pb	133072.20	P	2687.00	2.02
209 Bi	1073209.00	A	8306.00	0.77
232 Th	52111.11	P	2007.00	3.85
238 U	120361.10	P	2030.00	1.69

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1162486.30	0.83	1151106.90	101.0	30 - 200	
45 Sc	1505679.60	1.05	1492792.80	100.9	30 - 200	
72 Ge	274511.34	0.08	271035.56	101.3	30 - 200	
115 In	1896078.30	1.07	1895218.60	100.0	30 - 200	
209 Bi	1073209.40	0.77	1103783.30	97.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\008CALI.D\008CALI.D#
Date Acquired: May 18 2005 08:09 pm
Operator:
Sample Name: cs5,s393
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 08:05 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1129284.00	A	21300.00	1.89
9 Be	245490.00	P	3171.00	1.29
23 Na	115208700.00	A	625700.00	0.54
26 Mg	11594820.00	A	66330.00	0.57
27 Al	982019.00	A	11020.00	1.12
39 K	112899200.00	A	1758000.00	1.56
44 Ca	3462355.00	A	40530.00	1.17
45 Sc	1477139.00	A	35490.00	2.40
51 V	1401972.00	A	18000.00	1.28
52 Cr	1205859.00	A	9056.00	0.75
55 Mn	1538037.00	A	11020.00	0.72
57 Fe	3050939.00	A	29730.00	0.97
59 Co	1247645.00	A	22240.00	1.78
60 Ni	272605.50	P	3198.00	1.17
65 Cu	300790.00	P	2598.00	0.86
66 Zn	159002.41	P	1614.00	1.02
72 Ge	269104.91	P	6087.00	2.26
75 As	154260.41	P	1620.00	1.05
82 Se	9458.43	P	118.60	1.25
95 Mo	296888.91	P	2350.00	0.79
109 Ag	726476.63	P	10570.00	1.46
111 Cd	146716.00	P	3581.00	2.44
115 In	1797141.00	A	76480.00	4.26
121 Sb	571276.63	P	8236.00	1.44
137 Ba	203757.80	P	1402.00	0.69
205 Tl	1006104.00	A	27900.00	2.77
208 Pb	1281668.00	P	38080.00	2.97
209 Bi	1033961.00	A	38590.00	3.73
232 Th	974205.00	A	53510.00	5.49
238 U	1245703.00	A	43580.00	3.50

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1129283.80	1.89	1151106.90	98.1	30 - 200	
45 Sc	1477138.80	2.40	1492792.80	99.0	30 - 200	
72 Ge	269104.91	2.26	271035.56	99.3	30 - 200	
115 In	1797141.40	4.26	1895218.60	94.8	30 - 200	
209 Bi	1033961.30	3.73	1103783.30	93.7	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E1819a.B\009CALI.D\009CALI.D#
Date Acquired: May 18 2005 08:14 pm
Operator:
Sample Name: cs6,s394
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 18 2005 08:10 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1126024.00	A	7867.00	0.70
9	Be	488260.00	P	3236.00	0.66
23	Na	223963700.00	A	998400.00	0.45
26	Mg	22416730.00	A	266900.00	1.19
27	Al	1876232.00	A	11480.00	0.61
39	K	219873300.00	A	2474000.00	1.13
44	Ca	6733906.00	A	35610.00	0.53
45	Sc	1479978.00	A	6117.00	0.41
51	V	2732202.00	A	6625.00	0.24
52	Cr	2344974.00	A	27170.00	1.16
55	Mn	2981962.00	A	54190.00	1.82
57	Fe	5996844.00	A	85650.00	1.43
59	Co	2455893.00	A	26060.00	1.06
60	Ni	534203.31	P	5714.00	1.07
65	Cu	586645.31	P	7174.00	1.22
66	Zn	310071.00	P	1931.00	0.62
72	Ge	269664.19	P	1594.00	0.59
75	As	304797.09	P	1771.00	0.58
82	Se	18452.08	P	109.10	0.59
95	Mo	590682.19	P	7675.00	1.30
109	Ag	1395552.00	A	30140.00	2.16
111	Cd	287005.00	P	4677.00	1.63
115	In	1773422.00	A	35420.00	2.00
121	Sb	1157338.00	A	16600.00	1.43
137	Ba	410631.09	P	5049.00	1.23
205	Tl	2018731.00	A	30240.00	1.50
208	Pb	2616593.00	A	29460.00	1.13
209	Bi	1043430.00	A	15750.00	1.51
232	Th	2554857.00	A	63110.00	2.47
238	U	2502130.00	A	26360.00	1.05

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1126023.90	0.70	1151106.90	97.8	30 - 200	
45 Sc	1479978.40	0.41	1492792.80	99.1	30 - 200	
72 Ge	269664.22	0.59	271035.56	99.5	30 - 200	
115 In	1773422.00	2.00	1895218.60	93.6	30 - 200	
209 Bi	1043430.40	1.51	1103783.30	94.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E1819a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 18, 2005 20:15
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e1819a.b\003calb.d\	003calb.d#	May 18 2005 07:43 pm
2	...hem\1\data\05e1819a.b\004cali.d\	004cali.d#	May 18 2005 07:48 pm
3	...hem\1\data\05e1819a.b\005cali.d\	005cali.d#	May 18 2005 07:53 pm
4	...hem\1\data\05e1819a.b\006cali.d\	006cali.d#	May 18 2005 07:58 pm
5	...hem\1\data\05e1819a.b\007cali.d\	007cali.d#	May 18 2005 08:03 pm
6	...hem\1\data\05e1819a.b\008cali.d\	008cali.d#	May 18 2005 08:09 pm
7	...hem\1\data\05e1819a.b\009cali.d\	009cali.d#	May 18 2005 08:14 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.084E-1*X +4.293E-3(blank)	---	ppb
Na	23	45	Y = 3.804E-1*X +5.175E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 3.814E-2*X +2.135E-1(blank)	---	ppb
Al	27	45	Y = 3.118E-1*X +1.366E+0(blank)	---	ppb
K	39	45	Y = 3.701E-1*X +5.807E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.143E-2*X +2.933E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.542E+0*X +9.029E-1(blank)	---	ppb
Cr	52	72	Y = 2.180E+0*X +1.313E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.782E+0*X +3.142E-1(blank)	---	ppb
Fe	57	72	Y = 5.563E-2*X +3.157E+0(blank)	---	ppb
Co	59	72	Y = 2.285E+0*X +7.395E-2(blank)	---	ppb
Ni	60	72	Y = 4.972E-1*X +5.760E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 5.460E-1*X +1.617E-1(blank)	---	ppb
Zn	66	72	Y = 2.866E-1*X +4.136E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 2.832E-1*X +2.871E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 1.704E-2*X +2.712E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 5.477E-1*X +1.148E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.305E+0*X +5.022E-2(blank)	---	ppb
Cd	111	72	Y = 2.670E-1*X +7.143E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.622E-1*X +2.522E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 5.762E-2*X +7.069E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.841E-1*X +2.440E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 6.253E-1*X +4.218E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892010 Filename : e1819010 Injected : 18-MAY-2005 20:19
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S399

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	99.74000	ug/L	0	10	
Antimony	100.0000	102.6000	ug/L	3	10	
Arsenic	100.0000	100.1000	ug/L	0	10	
Barium	100.0000	98.36000	ug/L	-2	10	
Beryllium	100.0000	100.5000	ug/L	1	10	
Cadmium	100.0000	102.1000	ug/L	2	10	
Calcium	10000.00	10150.00	ug/L	2	10	
Chromium	100.0000	102.2000	ug/L	2	10	
Cobalt	100.0000	103.1000	ug/L	3	10	
Copper	100.0000	101.2000	ug/L	1	10	
Iron	10000.00	10430.00	ug/L	4	10	
Lead	100.0000	98.56000	ug/L	-1	10	
Magnesium	10000.00	10020.00	ug/L	0	10	
Manganese	100.0000	104.5000	ug/L	5	10	
Molybdenum	100.0000	100.4000	ug/L	0	10	
Nickel	100.0000	101.3000	ug/L	1	10	
Potassium	10000.00	10020.00	ug/L	0	10	
Selenium	100.0000	101.1000	ug/L	1	10	
Silver	100.0000	104.2000	ug/L	4	10	
Sodium	10000.00	10190.00	ug/L	2	10	
Thallium	100.0000	100.1000	ug/L	0	10	
Vanadium	100.0000	102.1000	ug/L	2	10	
Zinc	100.0000	102.3000	ug/L	2	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	1124376	-2.32
Scandium	1492793	1479951	-0.86
Germanium	271036	268983	-0.76
Indium	1895219	1825682	-3.67
Bismuth	1103783	1069045	-3.15

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892012 Filename : e1819012 Injected : 18-MAY-2005 20:30
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.739300	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892013 Filename : e1819013 Injected : 18-MAY-2005 20:36
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55199892001	18-MAY-2005	2.782000	0.250000	ug/L	
Arsenic	55199892001	18-MAY-2005	0.924300	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	0.956000	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	[0.0090]	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	[0.2377]	0.250000	ug/L	
Chromium	55199892001	18-MAY-2005	1.404000	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	2.736000	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	1.671000	0.500000	ug/L	
Lead	55199892001	18-MAY-2005	1.243000	0.250000	ug/L	
Manganese	55199892001	18-MAY-2005	1.028000	0.250000	ug/L	
Nickel	55199892001	18-MAY-2005	1.756000	0.250000	ug/L	
Selenium	55199892001	18-MAY-2005	[0.3876]	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	[0.1390]	0.250000	ug/L	
Thallium	55199892001	18-MAY-2005	[0.0714]	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	[0.1761]	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	4.747000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55199892001	18-MAY-2005	100000	87300	ug/L	87
Calcium	55199892001	18-MAY-2005	300000	289400	ug/L	96
Iron	55199892001	18-MAY-2005	250000	240000	ug/L	96
Magnesium	55199892001	18-MAY-2005	100000	92780	ug/L	93
Molybdenum	55199892001	18-MAY-2005	2000	1926	ug/L	96
Potassium	55199892001	18-MAY-2005	100000	93420	ug/L	93
Sodium	55199892001	18-MAY-2005	250000	221300	ug/L	89

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892014 Filename : e1819014 Injected : 18-MAY-2005 20:42
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	87590.00	ug/L	-12		
Arsenic	100.0000	104.4000	ug/L	4	20	
Cadmium	100.0000	97.29000	ug/L	-3	20	
Calcium	300000.0	294900.0	ug/L	-2		
Chromium	200.0000	201.0000	ug/L	1	20	
Cobalt	200.0000	196.5000	ug/L	-2	20	
Copper	200.0000	188.7000	ug/L	-6	20	
Iron	250000.0	241600.0	ug/L	-3		
Magnesium	100000.0	92940.00	ug/L	-7		
Manganese	200.0000	201.6000	ug/L	1	20	
Molybdenum	2000.000	1960.000	ug/L	-2		
Nickel	200.0000	189.7000	ug/L	-5	20	
Potassium	100000.0	94930.00	ug/L	-5		
Selenium	100.0000	98.07000	ug/L	-2	20	
Silver	50.00000	49.24000	ug/L	-2	20	
Sodium	250000.0	221300.0	ug/L	-11		
Vanadium	200.0000	203.9000	ug/L	2	20	
Zinc	100.0000	97.70000	ug/L	-2	20	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Scandium	1492793	1371994	-8.09
Germanium	271036	249204	-8.05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892025 Filename : e1819025 Injected : 18-MAY-2005 21:46
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S400, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.3198	100.0000	98.18000	ug/L	-2	10	
Antimony	0.1821	0.1587	100.0000	97.68000	ug/L	-2	10	
Arsenic	0.3031	0.2829	100.0000	99.78000	ug/L	0	10	
Barium	0.0663	0.0574	100.0000	99.57000	ug/L	0	10	
Beryllium	0.1128	0.1098	100.0000	101.2000	ug/L	1	10	
Cadmium	0.3679	0.2712	100.0000	101.3000	ug/L	1	10	
Calcium	0.0132	0.0115	10000.00	10030.00	ug/L	0	10	
Chromium	2.9768	2.2766	100.0000	103.9000	ug/L	4	10	
Cobalt	2.3983	2.3620	100.0000	103.3000	ug/L	3	10	
Copper	0.6688	0.5588	100.0000	102.1000	ug/L	2	10	
Iron	0.0750	0.0582	10000.00	10400.00	ug/L	4	10	
Lead	0.6712	0.6169	100.0000	98.59000	ug/L	-1	10	
Magnesium	0.0409	0.0368	10000.00	9632.000	ug/L	-4	10	
Manganese	3.2598	2.9090	100.0000	104.5000	ug/L	5	10	
Molybdenum	0.5936	0.5452	100.0000	99.32000	ug/L	-1	10	
Nickel	0.5927	0.5074	100.0000	101.9000	ug/L	2	10	
Potassium	0.7464	0.3744	10000.00	9960.000	ug/L	0	10	
Selenium	0.0319	0.0172	100.0000	99.28000	ug/L	-1	10	
Silver	1.4269	1.3539	100.0000	103.7000	ug/L	4	10	
Sodium	0.4288	0.3718	10000.00	9761.000	ug/L	-2	10	
Thallium	0.4793	0.4778	100.0000	98.65000	ug/L	-1	10	
Vanadium	3.0110	2.6432	100.0000	103.6000	ug/L	4	10	
Zinc	0.5892	0.2961	100.0000	101.9000	ug/L	2	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	1056078	-8.26
Scandium	1492793	1445324	-3.18
Germanium	271036	260058	-4.05
Indium	1895219	1766872	-6.77
Bismuth	1103783	1035841	-6.16

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Instid : MET05 Run Name :
Seqnum : 55199892027 Filename : e1819027 Injected : 18-MAY-2005 21:57
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.276100	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	[0.0582]	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	ND	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892032 Filename : e1819032 Injected : 18-MAY-2005 22:27
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.3067	150.0000	143.2000	ug/L	-5	10	
Antimony	0.1821	0.1544	150.0000	142.6000	ug/L	-5	10	
Arsenic	0.3031	0.2759	150.0000	146.0000	ug/L	-3	10	
Barium	0.0663	0.0557	150.0000	144.8000	ug/L	-3	10	
Beryllium	0.1128	0.1071	150.0000	148.1000	ug/L	-1	10	
Cadmium	0.3679	0.2651	150.0000	148.7000	ug/L	-1	10	
Calcium	0.0132	0.0110	15000.00	14440.00	ug/L	-4	10	
Chromium	2.9768	2.2006	150.0000	150.8000	ug/L	1	10	
Cobalt	2.3983	2.2964	150.0000	150.7000	ug/L	0	10	
Copper	0.6688	0.5453	150.0000	149.5000	ug/L	0	10	
Iron	0.0750	0.0565	15000.00	15180.00	ug/L	1	10	
Lead	0.6712	0.6108	150.0000	146.5000	ug/L	-2	10	
Magnesium	0.0409	0.0354	15000.00	13920.00	ug/L	-7	10	
Manganese	3.2598	2.8365	150.0000	152.8000	ug/L	2	10	
Molybdenum	0.5936	0.5296	150.0000	144.8000	ug/L	-3	10	
Nickel	0.5927	0.4945	150.0000	149.1000	ug/L	-1	10	
Potassium	0.7464	0.3599	15000.00	14430.00	ug/L	-4	10	
Selenium	0.0319	0.0168	150.0000	146.0000	ug/L	-3	10	
Silver	1.4269	1.3187	150.0000	151.5000	ug/L	1	10	
Sodium	0.4288	0.3608	15000.00	14210.00	ug/L	-5	10	
Thallium	0.4793	0.4761	150.0000	147.5000	ug/L	-2	10	
Vanadium	3.0110	2.5528	150.0000	150.3000	ug/L	0	10	
Zinc	0.5892	0.2854	150.0000	147.9000	ug/L	-1	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	1044152	-9.29
Scandium	1492793	1436078	-3.80
Germanium	271036	257706	-4.92
Indium	1895219	1774909	-6.35
Bismuth	1103783	1018503	-7.73

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Instid : MET05 Run Name :
Seqnum : 55199892034 Filename : e1819034 Injected : 18-MAY-2005 22:38
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.443400	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.1608]	1.000000	ug/L	

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Page 1 of 1

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Instid : MET05 Run Name :
Seqnum : 55199892035 Filename : e1819035 Injected : 18-MAY-2005 22:44
Standards: S403, 05WS0207

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55199892001	18-MAY-2005	150	83760	ug/L	55840
Antimony	55199892001	18-MAY-2005	150	2.561	ug/L	2
Arsenic	55199892001	18-MAY-2005	150	.8384	ug/L	1
Barium	55199892001	18-MAY-2005	150	.8954	ug/L	1
Beryllium	55199892001	18-MAY-2005	150	.0001983	ug/L	0
Cadmium	55199892001	18-MAY-2005	150	.1517	ug/L	0
Calcium	55199892001	18-MAY-2005	15000	288100	ug/L	1921
Chromium	55199892001	18-MAY-2005	150	1.436	ug/L	1
Cobalt	55199892001	18-MAY-2005	150	2.782	ug/L	2
Copper	55199892001	18-MAY-2005	150	1.736	ug/L	1
Iron	55199892001	18-MAY-2005	15000	244600	ug/L	1631
Lead	55199892001	18-MAY-2005	150	1.265	ug/L	1
Magnesium	55199892001	18-MAY-2005	15000	88130	ug/L	588
Manganese	55199892001	18-MAY-2005	150	1.075	ug/L	1
Molybdenum	55199892001	18-MAY-2005	150	1908	ug/L	1272
Nickel	55199892001	18-MAY-2005	150	1.844	ug/L	1
Potassium	55199892001	18-MAY-2005	15000	92470	ug/L	616
Selenium	55199892001	18-MAY-2005	150	0	ug/L	0
Silver	55199892001	18-MAY-2005	150	.1423	ug/L	0
Sodium	55199892001	18-MAY-2005	15000	214500	ug/L	1430
Thallium	55199892001	18-MAY-2005	150	.03638	ug/L	0
Vanadium	55199892001	18-MAY-2005	150	.1973	ug/L	0
Zinc	55199892001	18-MAY-2005	150	4.809	ug/L	3

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892036 Filename : e1819036 Injected : 18-MAY-2005 22:50
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	83600.00	ug/L	-16		
Arsenic	100.0000	102.8000	ug/L	3	20	
Cadmium	100.0000	97.88000	ug/L	-2	20	
Calcium	300000.0	289900.0	ug/L	-3		
Chromium	200.0000	200.6000	ug/L	0	20	
Cobalt	200.0000	200.6000	ug/L	0	20	
Copper	200.0000	188.6000	ug/L	-6	20	
Iron	250000.0	245300.0	ug/L	-2		
Magnesium	100000.0	88760.00	ug/L	-11		
Manganese	200.0000	204.3000	ug/L	2	20	
Molybdenum	2000.000	1943.000	ug/L	-3		
Nickel	200.0000	192.3000	ug/L	-4	20	
Potassium	100000.0	93020.00	ug/L	-7		
Selenium	100.0000	95.52000	ug/L	-4	20	
Silver	50.00000	49.32000	ug/L	-1	20	
Sodium	250000.0	215400.0	ug/L	-14		
Vanadium	200.0000	203.2000	ug/L	2	20	
Zinc	100.0000	97.98000	ug/L	-2	20	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Scandium	1492793	1312351	-12.09
Germanium	271036	238585	-11.97

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892041 Filename : e1819041 Injected : 18-MAY-2005 23:19
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.3193	150.0000	149.2000	ug/L	-1	10	
Antimony	0.1821	0.1576	150.0000	145.6000	ug/L	-3	10	
Arsenic	0.3031	0.2722	150.0000	144.0000	ug/L	-4	10	
Barium	0.0663	0.0587	150.0000	152.7000	ug/L	2	10	
Beryllium	0.1128	0.1079	150.0000	149.2000	ug/L	-1	10	
Cadmium	0.3679	0.2604	150.0000	146.0000	ug/L	-3	10	
Calcium	0.0132	0.0113	15000.00	14750.00	ug/L	-2	10	
Chromium	2.9768	2.2426	150.0000	153.7000	ug/L	2	10	
Cobalt	2.3983	2.3552	150.0000	154.6000	ug/L	3	10	
Copper	0.6688	0.5530	150.0000	151.6000	ug/L	1	10	
Iron	0.0750	0.0579	15000.00	15550.00	ug/L	4	10	
Lead	0.6712	0.6122	150.0000	146.8000	ug/L	-2	10	
Magnesium	0.0409	0.0342	15000.00	13430.00	ug/L	-10	10	
Manganese	3.2598	2.9164	150.0000	157.2000	ug/L	5	10	
Molybdenum	0.5936	0.5199	150.0000	142.2000	ug/L	-5	10	
Nickel	0.5927	0.5028	150.0000	151.6000	ug/L	1	10	
Potassium	0.7464	0.3623	15000.00	14530.00	ug/L	-3	10	
Selenium	0.0319	0.0162	150.0000	141.1000	ug/L	-6	10	
Silver	1.4269	1.2963	150.0000	149.0000	ug/L	-1	10	
Sodium	0.4288	0.4221	15000.00	16630.00	ug/L	**11**	10	c+ ***
Thallium	0.4793	0.4768	150.0000	147.7000	ug/L	-2	10	
Vanadium	3.0110	2.6266	150.0000	154.6000	ug/L	3	10	
Zinc	0.5892	0.2924	150.0000	151.6000	ug/L	1	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	1028492	-10.65
Scandium	1492793	1451758	-2.75
Germanium	271036	253448	-6.49
Indium	1895219	1692697	-10.69
Bismuth	1103783	1008806	-8.60

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Page 1 of 1

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Instid : MET05 Run Name :
Seqnum : 55199892043 Filename : e1819043 Injected : 18-MAY-2005 23:31
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	[8.8910]	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.636600	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	[26.890]	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	[0.0940]	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	[35.050]	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	[0.1140]	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	[29.390]	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	[0.2125]	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	[15.850]	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	198.9000	50.00000	ug/L	ib ***
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.3351]	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892044 Filename : e1819044 Injected : 18-MAY-2005 23:37
Standards: S403, 05WS0207

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55199892001	18-MAY-2005	150	80360	ug/L	53573
Antimony	55199892001	18-MAY-2005	150	2.62	ug/L	2
Arsenic	55199892001	18-MAY-2005	150	.9733	ug/L	1
Barium	55199892001	18-MAY-2005	150	1.059	ug/L	1
Beryllium	55199892001	18-MAY-2005	150	.01577	ug/L	0
Cadmium	55199892001	18-MAY-2005	150	.1846	ug/L	0
Calcium	55199892001	18-MAY-2005	15000	288700	ug/L	1925
Chromium	55199892001	18-MAY-2005	150	1.437	ug/L	1
Cobalt	55199892001	18-MAY-2005	150	2.778	ug/L	2
Copper	55199892001	18-MAY-2005	150	1.794	ug/L	1
Iron	55199892001	18-MAY-2005	15000	245000	ug/L	1633
Lead	55199892001	18-MAY-2005	150	1.37	ug/L	1
Magnesium	55199892001	18-MAY-2005	15000	85160	ug/L	568
Manganese	55199892001	18-MAY-2005	150	1.258	ug/L	1
Molybdenum	55199892001	18-MAY-2005	150	1860	ug/L	1240
Nickel	55199892001	18-MAY-2005	150	1.944	ug/L	1
Potassium	55199892001	18-MAY-2005	15000	92060	ug/L	614
Selenium	55199892001	18-MAY-2005	150	0	ug/L	0
Silver	55199892001	18-MAY-2005	150	.1801	ug/L	0
Sodium	55199892001	18-MAY-2005	15000	211200	ug/L	1408
Thallium	55199892001	18-MAY-2005	150	.04974	ug/L	0
Vanadium	55199892001	18-MAY-2005	150	.2091	ug/L	0
Zinc	55199892001	18-MAY-2005	150	4.962	ug/L	3

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892045 Filename : e1819045 Injected : 18-MAY-2005 23:42
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	79360.00	ug/L	-21		
Arsenic	100.0000	101.5000	ug/L	2	20	
Cadmium	100.0000	97.04000	ug/L	-3	20	
Calcium	300000.0	289900.0	ug/L	-3		
Chromium	200.0000	200.2000	ug/L	0	20	
Cobalt	200.0000	199.2000	ug/L	0	20	
Copper	200.0000	190.0000	ug/L	-5	20	
Iron	250000.0	245700.0	ug/L	-2		
Magnesium	100000.0	84130.00	ug/L	-16		
Manganese	200.0000	203.4000	ug/L	2	20	
Molybdenum	2000.000	1890.000	ug/L	-6		
Nickel	200.0000	194.0000	ug/L	-3	20	
Potassium	100000.0	92500.00	ug/L	-8		
Selenium	100.0000	93.08000	ug/L	-7	20	
Silver	50.00000	48.80000	ug/L	-2	20	
Sodium	250000.0	209600.0	ug/L	-16		
Vanadium	200.0000	202.5000	ug/L	1	20	
Zinc	100.0000	98.20000	ug/L	-2	20	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Scandium	1492793	1251759	-16.15
Germanium	271036	230689	-14.89

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892056 Filename : e1819056 Injected : 19-MAY-2005 00:47
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2905	150.0000	135.4000	ug/L	-10	10	
Antimony	0.1821	0.1581	150.0000	146.0000	ug/L	-3	10	
Arsenic	0.3031	0.2748	150.0000	145.4000	ug/L	-3	10	
Barium	0.0663	0.0583	150.0000	151.7000	ug/L	1	10	
Beryllium	0.1128	0.1071	150.0000	148.1000	ug/L	-1	10	
Cadmium	0.3679	0.2727	150.0000	152.9000	ug/L	2	10	
Calcium	0.0132	0.0111	15000.00	14540.00	ug/L	-3	10	
Chromium	2.9768	2.1810	150.0000	149.5000	ug/L	0	10	
Cobalt	2.3983	2.3161	150.0000	152.0000	ug/L	1	10	
Copper	0.6688	0.5492	150.0000	150.6000	ug/L	0	10	
Iron	0.0750	0.0568	15000.00	15260.00	ug/L	2	10	
Lead	0.6712	0.6115	150.0000	146.6000	ug/L	-2	10	
Magnesium	0.0409	0.0341	15000.00	13400.00	ug/L	**-11**	10	c- ***
Manganese	3.2598	2.8400	150.0000	153.0000	ug/L	2	10	
Molybdenum	0.5936	0.5407	150.0000	147.9000	ug/L	-1	10	
Nickel	0.5927	0.5008	150.0000	151.0000	ug/L	1	10	
Potassium	0.7464	0.3575	15000.00	14330.00	ug/L	-4	10	
Selenium	0.0319	0.0167	150.0000	145.6000	ug/L	-3	10	
Silver	1.4269	1.3532	150.0000	155.5000	ug/L	4	10	
Sodium	0.4288	0.3511	15000.00	13830.00	ug/L	-8	10	
Thallium	0.4793	0.4816	150.0000	149.2000	ug/L	-1	10	
Vanadium	3.0110	2.5242	150.0000	148.6000	ug/L	-1	10	
Zinc	0.5892	0.2918	150.0000	151.2000	ug/L	1	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	937913	-18.52
Scandium	1492793	1328913	-10.98
Germanium	271036	242965	-10.36
Indium	1895219	1701240	-10.24
Bismuth	1103783	1045171	-5.31

-=low bias c=CCV

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Instid : MET05 Run Name :
Seqnum : 55199892058 Filename : e1819058 Injected : 19-MAY-2005 00:59
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.492300	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	[7.2270]	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	[13.090]	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.2283]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892074 Filename : e1819074 Injected : 19-MAY-2005 02:32
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2721	150.0000	126.5000	ug/L	**-16**	10	c- ***
Antimony	0.1821	0.1553	150.0000	143.4000	ug/L	-4	10	
Arsenic	0.3031	0.2676	150.0000	141.6000	ug/L	-6	10	
Barium	0.0663	0.0579	150.0000	150.5000	ug/L	0	10	
Beryllium	0.1128	0.1061	150.0000	146.7000	ug/L	-2	10	
Cadmium	0.3679	0.2632	150.0000	147.6000	ug/L	-2	10	
Calcium	0.0132	0.0108	15000.00	14180.00	ug/L	-5	10	
Chromium	2.9768	2.1329	150.0000	146.2000	ug/L	-3	10	
Cobalt	2.3983	2.2937	150.0000	150.6000	ug/L	0	10	
Copper	0.6688	0.5353	150.0000	146.8000	ug/L	-2	10	
Iron	0.0750	0.0562	15000.00	15110.00	ug/L	1	10	
Lead	0.6712	0.5980	150.0000	143.4000	ug/L	-4	10	
Magnesium	0.0409	0.0328	15000.00	12880.00	ug/L	**-14**	10	c- ***
Manganese	3.2598	2.7809	150.0000	149.8000	ug/L	0	10	
Molybdenum	0.5936	0.5166	150.0000	141.3000	ug/L	-6	10	
Nickel	0.5927	0.4926	150.0000	148.5000	ug/L	-1	10	
Potassium	0.7464	0.3491	15000.00	13990.00	ug/L	-7	10	
Selenium	0.0319	0.0161	150.0000	139.9000	ug/L	-7	10	
Silver	1.4269	1.3027	150.0000	149.7000	ug/L	0	10	
Sodium	0.4288	0.3445	15000.00	13570.00	ug/L	-10	10	
Thallium	0.4793	0.4707	150.0000	145.8000	ug/L	-3	10	
Vanadium	3.0110	2.4801	150.0000	146.0000	ug/L	-3	10	
Zinc	0.5892	0.2860	150.0000	148.2000	ug/L	-1	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	958796	-16.71
Scandium	1492793	1340966	-10.17
Germanium	271036	246405	-9.09
Indium	1895219	1707117	-9.93
Bismuth	1103783	1107611	0.35

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892076 Filename : e1819076 Injected : 19-MAY-2005 02:44
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.594600	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	[0.1388]	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.2275]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892088 Filename : e1819088 Injected : 19-MAY-2005 03:54
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2722	150.0000	126.5000	ug/L	**-16**	10	c- ***
Antimony	0.1821	0.1544	150.0000	142.6000	ug/L	-5	10	
Arsenic	0.3031	0.2675	150.0000	141.6000	ug/L	-6	10	
Barium	0.0663	0.0579	150.0000	150.6000	ug/L	0	10	
Beryllium	0.1128	0.1076	150.0000	148.8000	ug/L	-1	10	
Cadmium	0.3679	0.2642	150.0000	148.2000	ug/L	-1	10	
Calcium	0.0132	0.0108	15000.00	14180.00	ug/L	-5	10	
Chromium	2.9768	2.1393	150.0000	146.6000	ug/L	-2	10	
Cobalt	2.3983	2.2901	150.0000	150.3000	ug/L	0	10	
Copper	0.6688	0.5377	150.0000	147.4000	ug/L	-2	10	
Iron	0.0750	0.0561	15000.00	15070.00	ug/L	0	10	
Lead	0.6712	0.5989	150.0000	143.6000	ug/L	-4	10	
Magnesium	0.0409	0.0327	15000.00	12870.00	ug/L	**-14**	10	c- ***
Manganese	3.2598	2.8011	150.0000	150.9000	ug/L	1	10	
Molybdenum	0.5936	0.5138	150.0000	140.5000	ug/L	-6	10	
Nickel	0.5927	0.4909	150.0000	148.0000	ug/L	-1	10	
Potassium	0.7464	0.3453	15000.00	13840.00	ug/L	-8	10	
Selenium	0.0319	0.0159	150.0000	138.8000	ug/L	-7	10	
Silver	1.4269	1.3113	150.0000	150.7000	ug/L	0	10	
Sodium	0.4288	0.3461	15000.00	13630.00	ug/L	-9	10	
Thallium	0.4793	0.4678	150.0000	144.9000	ug/L	-3	10	
Vanadium	3.0110	2.4800	150.0000	146.0000	ug/L	-3	10	
Zinc	0.5892	0.2875	150.0000	149.0000	ug/L	-1	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	939086	-18.42
Scandium	1492793	1342572	-10.06
Germanium	271036	247529	-8.67
Indium	1895219	1715496	-9.48
Bismuth	1103783	1119763	1.45

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INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892090 Filename : e1819090 Injected : 19-MAY-2005 04:06
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.489300	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	[0.1883]	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.1954]	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892099 Filename : e1819099 Injected : 19-MAY-2005 04:59
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55199892001	18-MAY-2005	2.143000	0.250000	ug/L	
Arsenic	55199892001	18-MAY-2005	0.630500	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	1.008000	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	[0.0027]	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	[0.1032]	0.250000	ug/L	
Chromium	55199892001	18-MAY-2005	1.397000	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	2.712000	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	1.793000	0.500000	ug/L	
Lead	55199892001	18-MAY-2005	1.226000	0.250000	ug/L	
Manganese	55199892001	18-MAY-2005	1.032000	0.250000	ug/L	
Nickel	55199892001	18-MAY-2005	1.759000	0.250000	ug/L	
Selenium	55199892001	18-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	[0.1270]	0.250000	ug/L	
Thallium	55199892001	18-MAY-2005	[0.0191]	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	[0.2268]	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	4.515000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55199892001	18-MAY-2005	100000	75440	ug/L	75
Calcium	55199892001	18-MAY-2005	300000	278300	ug/L	93
Iron	55199892001	18-MAY-2005	250000	238300	ug/L	95
Magnesium	55199892001	18-MAY-2005	100000	81430	ug/L	81
Molybdenum	55199892001	18-MAY-2005	2000	1716	ug/L	86
Potassium	55199892001	18-MAY-2005	100000	87150	ug/L	87
Sodium	55199892001	18-MAY-2005	250000	208500	ug/L	83

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892100 Filename : e1819100 Injected : 19-MAY-2005 05:05
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	73440.00	ug/L	-27		
Arsenic	100.0000	96.90000	ug/L	-3	20	
Cadmium	100.0000	85.92000	ug/L	-14	20	
Calcium	300000.0	276200.0	ug/L	-8		
Chromium	200.0000	193.3000	ug/L	-3	20	
Cobalt	200.0000	198.7000	ug/L	-1	20	
Copper	200.0000	186.8000	ug/L	-7	20	
Iron	250000.0	238600.0	ug/L	-5		
Magnesium	100000.0	79860.00	ug/L	-20		
Manganese	200.0000	196.9000	ug/L	-2	20	
Molybdenum	2000.000	1672.000	ug/L	-16		
Nickel	200.0000	191.1000	ug/L	-4	20	
Potassium	100000.0	85850.00	ug/L	-14		
Selenium	100.0000	86.17000	ug/L	-14	20	
Silver	50.00000	44.01000	ug/L	-12	20	
Sodium	250000.0	207700.0	ug/L	-17		
Vanadium	200.0000	195.2000	ug/L	-2	20	
Zinc	100.0000	96.63000	ug/L	-3	20	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Scandium	1492793	1143276	-23.41
Germanium	271036	216109	-20.27

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892102 Filename : e1819102 Injected : 19-MAY-2005 05:16
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2734	150.0000	127.2000	ug/L	**-15**	10	c- ***
Antimony	0.1821	0.1561	150.0000	144.2000	ug/L	-4	10	
Arsenic	0.3031	0.2626	150.0000	139.0000	ug/L	-7	10	
Barium	0.0663	0.0603	150.0000	156.9000	ug/L	5	10	
Beryllium	0.1128	0.1089	150.0000	150.6000	ug/L	0	10	
Cadmium	0.3679	0.2458	150.0000	137.9000	ug/L	-8	10	
Calcium	0.0132	0.0109	15000.00	14240.00	ug/L	-5	10	
Chromium	2.9768	2.1222	150.0000	145.5000	ug/L	-3	10	
Cobalt	2.3983	2.3245	150.0000	152.6000	ug/L	2	10	
Copper	0.6688	0.5439	150.0000	149.1000	ug/L	-1	10	
Iron	0.0750	0.0557	15000.00	14970.00	ug/L	0	10	
Lead	0.6712	0.5945	150.0000	142.5000	ug/L	-5	10	
Magnesium	0.0409	0.0315	15000.00	12400.00	ug/L	**-17**	10	c- ***
Manganese	3.2598	2.7609	150.0000	148.8000	ug/L	-1	10	
Molybdenum	0.5936	0.4797	150.0000	131.2000	ug/L	**-13**	10	c- ***
Nickel	0.5927	0.4939	150.0000	148.9000	ug/L	-1	10	
Potassium	0.7464	0.3374	15000.00	13510.00	ug/L	-10	10	
Selenium	0.0319	0.0153	150.0000	133.2000	ug/L	**-11**	10	c- ***
Silver	1.4269	1.2455	150.0000	143.1000	ug/L	-5	10	
Sodium	0.4288	0.3418	15000.00	13460.00	ug/L	-10	10	
Thallium	0.4793	0.4656	150.0000	144.2000	ug/L	-4	10	
Vanadium	3.0110	2.4441	150.0000	143.9000	ug/L	-4	10	
Zinc	0.5892	0.2903	150.0000	150.5000	ug/L	0	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	810427	-29.60
Scandium	1492793	1203441	-19.38
Germanium	271036	228534	-15.68
Indium	1895219	1512325	-20.20
Bismuth	1103783	1080754	-2.09

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Page 1 of 1

INSTRUMENT BLANK REPORT
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Instid : MET05 Run Name :
Seqnum : 55199892104 Filename : e1819104 Injected : 19-MAY-2005 05:28
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.449700	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	[10.300]	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	[18.890]	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.2261]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892122 Filename : e1819122 Injected : 19-MAY-2005 07:13
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2657	150.0000	123.4000	ug/L	**-18**	10	c- ***
Antimony	0.1821	0.1563	150.0000	144.4000	ug/L	-4	10	
Arsenic	0.3031	0.2642	150.0000	139.8000	ug/L	-7	10	
Barium	0.0663	0.0600	150.0000	156.1000	ug/L	4	10	
Beryllium	0.1128	0.1090	150.0000	150.7000	ug/L	0	10	
Cadmium	0.3679	0.2536	150.0000	142.2000	ug/L	-5	10	
Calcium	0.0132	0.0109	15000.00	14290.00	ug/L	-5	10	
Chromium	2.9768	2.1193	150.0000	145.3000	ug/L	-3	10	
Cobalt	2.3983	2.3043	150.0000	151.2000	ug/L	1	10	
Copper	0.6688	0.5451	150.0000	149.5000	ug/L	0	10	
Iron	0.0750	0.0559	15000.00	15010.00	ug/L	0	10	
Lead	0.6712	0.5967	150.0000	143.1000	ug/L	-5	10	
Magnesium	0.0409	0.0318	15000.00	12500.00	ug/L	**-17**	10	c- ***
Manganese	3.2598	2.7776	150.0000	149.7000	ug/L	0	10	
Molybdenum	0.5936	0.4903	150.0000	134.1000	ug/L	**-11**	10	c- ***
Nickel	0.5927	0.4952	150.0000	149.3000	ug/L	0	10	
Potassium	0.7464	0.3414	15000.00	13680.00	ug/L	-9	10	
Selenium	0.0319	0.0154	150.0000	134.0000	ug/L	**-11**	10	c- ***
Silver	1.4269	1.2712	150.0000	146.1000	ug/L	-3	10	
Sodium	0.4288	0.3441	15000.00	13560.00	ug/L	-10	10	
Thallium	0.4793	0.4731	150.0000	146.5000	ug/L	-2	10	
Vanadium	3.0110	2.4444	150.0000	143.9000	ug/L	-4	10	
Zinc	0.5892	0.2895	150.0000	150.0000	ug/L	0	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	838093	-27.19
Scandium	1492793	1208605	-19.04
Germanium	271036	228455	-15.71
Indium	1895219	1535142	-19.00
Bismuth	1103783	1073152	-2.78

-=low bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892124 Filename : e1819124 Injected : 19-MAY-2005 07:25
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.577300	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	[0.1554]	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	[14.710]	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.2340]	1.000000	ug/L	

ib=instrument blank

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55199892137 Filename : e1819137 Injected : 19-MAY-2005 08:40
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S403, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.9992	0.2648	150.0000	123.0000	ug/L	**-18**	10	c- ***
Antimony	0.1821	0.1558	150.0000	143.9000	ug/L	-4	10	
Arsenic	0.3031	0.2624	150.0000	138.8000	ug/L	-7	10	
Barium	0.0663	0.0604	150.0000	157.0000	ug/L	5	10	
Beryllium	0.1128	0.1081	150.0000	149.5000	ug/L	0	10	
Cadmium	0.3679	0.2465	150.0000	138.2000	ug/L	-8	10	
Calcium	0.0132	0.0108	15000.00	14160.00	ug/L	-6	10	
Chromium	2.9768	2.1162	150.0000	145.0000	ug/L	-3	10	
Cobalt	2.3983	2.3224	150.0000	152.4000	ug/L	2	10	
Copper	0.6688	0.5414	150.0000	148.5000	ug/L	-1	10	
Iron	0.0750	0.0555	15000.00	14900.00	ug/L	-1	10	
Lead	0.6712	0.5920	150.0000	141.9000	ug/L	-5	10	
Magnesium	0.0409	0.0317	15000.00	12460.00	ug/L	**-17**	10	c- ***
Manganese	3.2598	2.7564	150.0000	148.5000	ug/L	-1	10	
Molybdenum	0.5936	0.4792	150.0000	131.0000	ug/L	**-13**	10	c- ***
Nickel	0.5927	0.4943	150.0000	149.0000	ug/L	-1	10	
Potassium	0.7464	0.3362	15000.00	13470.00	ug/L	-10	10	
Selenium	0.0319	0.0154	150.0000	133.7000	ug/L	**-11**	10	c- ***
Silver	1.4269	1.2406	150.0000	142.6000	ug/L	-5	10	
Sodium	0.4288	0.3415	15000.00	13450.00	ug/L	-10	10	
Thallium	0.4793	0.4726	150.0000	146.4000	ug/L	-2	10	
Vanadium	3.0110	2.4488	150.0000	144.1000	ug/L	-4	10	
Zinc	0.5892	0.2882	150.0000	149.4000	ug/L	0	10	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Lithium	1151107	830988	-27.81
Scandium	1492793	1214777	-18.62
Germanium	271036	229527	-15.31
Indium	1895219	1515995	-20.01
Bismuth	1103783	1070036	-3.06

-=low bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892139 Filename : e1819139 Injected : 19-MAY-2005 08:52
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Antimony	55199892001	18-MAY-2005	0.377500	0.250000	ug/L	ib ***
Arsenic	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Calcium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Chromium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Iron	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Lead	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Magnesium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Manganese	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Nickel	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Potassium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Selenium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	ND	0.250000	ug/L	
Sodium	55199892001	18-MAY-2005	ND	50.00000	ug/L	
Thallium	55199892001	18-MAY-2005	ND	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	ND	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	[0.2038]	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892149 Filename : e1819149 Injected : 19-MAY-2005 09:50
Standards: S401, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55199892001	18-MAY-2005	2.357000	0.250000	ug/L	
Arsenic	55199892001	18-MAY-2005	0.627800	0.500000	ug/L	
Barium	55199892001	18-MAY-2005	1.102000	0.250000	ug/L	
Beryllium	55199892001	18-MAY-2005	[0.0147]	0.250000	ug/L	
Cadmium	55199892001	18-MAY-2005	[0.1358]	0.250000	ug/L	
Chromium	55199892001	18-MAY-2005	1.284000	0.500000	ug/L	
Cobalt	55199892001	18-MAY-2005	2.723000	0.250000	ug/L	
Copper	55199892001	18-MAY-2005	1.749000	0.500000	ug/L	
Lead	55199892001	18-MAY-2005	1.187000	0.250000	ug/L	
Manganese	55199892001	18-MAY-2005	1.148000	0.250000	ug/L	
Nickel	55199892001	18-MAY-2005	1.821000	0.250000	ug/L	
Selenium	55199892001	18-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55199892001	18-MAY-2005	[0.1198]	0.250000	ug/L	
Thallium	55199892001	18-MAY-2005	[0.2270]	0.500000	ug/L	
Vanadium	55199892001	18-MAY-2005	[0.1786]	1.000000	ug/L	
Zinc	55199892001	18-MAY-2005	4.765000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55199892001	18-MAY-2005	100000	74390	ug/L	74
Calcium	55199892001	18-MAY-2005	300000	279900	ug/L	93
Iron	55199892001	18-MAY-2005	250000	234400	ug/L	94
Magnesium	55199892001	18-MAY-2005	100000	79890	ug/L	80
Molybdenum	55199892001	18-MAY-2005	2000	1654	ug/L	83
Potassium	55199892001	18-MAY-2005	100000	86450	ug/L	86
Sodium	55199892001	18-MAY-2005	250000	208500	ug/L	83

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55199892150 Filename : e1819150 Injected : 19-MAY-2005 09:56
Calnum : 55199892001 Caldate : 18-MAY-2005 Caltype :
Standards: S402, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	75520.00	ug/L	-24		
Arsenic	100.0000	96.89000	ug/L	-3	20	
Cadmium	100.0000	83.94000	ug/L	-16	20	
Calcium	300000.0	280700.0	ug/L	-6		
Chromium	200.0000	188.3000	ug/L	-6	20	
Cobalt	200.0000	196.2000	ug/L	-2	20	
Copper	200.0000	186.9000	ug/L	-7	20	
Iron	250000.0	233000.0	ug/L	-7		
Magnesium	100000.0	81280.00	ug/L	-19		
Manganese	200.0000	191.3000	ug/L	-4	20	
Molybdenum	2000.000	1651.000	ug/L	-17		
Nickel	200.0000	187.2000	ug/L	-6	20	
Potassium	100000.0	86300.00	ug/L	-14		
Selenium	100.0000	85.30000	ug/L	-15	20	
Silver	50.00000	43.08000	ug/L	-14	20	
Sodium	250000.0	210900.0	ug/L	-16		
Vanadium	200.0000	190.0000	ug/L	-5	20	
Zinc	100.0000	96.51000	ug/L	-3	20	

ISTD (ICALBLK=e1819003)	ICALBLK Abund	Abund	%Diff
Scandium	1492793	1052387	-29.50
Germanium	271036	207755	-23.35

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	774508	932275	198061	1221416	808221	1456677
LOWER LIMIT	232352	279682	59418	366425	242466	437003
UPPER LIMIT	929410	1118730	237674	1465699	969865	1748012

TYPE	SAMPLE	#						
ICB		012	780455	964093	202559	1262445	820183	1501865
ICSA		013	738333	904793	187948	1043395	648420	1267944
BS	QC293616	016	720978	717170	143293	806294	493438	909328
BSD	QC293617	017	758029	767082	149739	850111	532224	979078
SSPIKE	QC293619	018	768932	783736	158141	893432	550066	1020657
BLANK	QC293915	020	801765	843554	169312	961162	582310	1068903
BS	QC293916	021	756305	776997	157746	872846	535520	1005272
BSD	QC293917	022	756516	806902	161146	891174	559472	1033744
MSS	179384-001	024	797599	1017166	164644	896472	548017	1027967
SER	QC293919	025	782964	867851	163255	912472	562694	1013369
CCV		029	762797	844639	169930	918815	573036	1076242
CCB		031	771057	833195	168203	925991	578617	1066133
MSS	179384-001	032	819232	981780	173839	951154	586896	1097519
SER	QC293919	033	794306	871662	170684	929499	589812	1079134
MSS	179384-001	034	854956	946595	183686	1014508	615418	1131896
SER	QC293919	036	792421	838285	169520	924036	576148	1063698
MSS	179384-001	037	792197	1053248	170744	897047	551754	1029312
MS	QC293918	038	789729	1039993	172195	953494	582243	1123797
MSD	QC293928	039	804912	1104132	181296	1001358	603302	1182195
PDS	QC293920	040	808168	1124308*	184478	1028630	621939	1208348
MS	QC293918	041	840704	969017	191686	1096041	649874	1259461
CCV		043	805350	920830	184563	1059209	643191	1227766
CCB		047	792265	858930	177867	995214	612911	1155809
MSD	QC293928	048	818159	945358	179317	1041393	604660	1161250
SAMPLE	179408-002	050	850077	960034	189934	1077423	679822	1255209
SAMPLE	179408-003	051	840771	987278	194682	1093797	681219	1277829

419

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

TYPE	SAMPLE	#							
MSS	179290-001	053	777947	887944	175558	1023463	597827	1148160	
SER	QC293303	054	811856	922014	181067	1041008	624681	1166347	
MS	QC293301	055	789278	886872	177350	980513	601591	1143336	
MSD	QC293302	056	784209	860844	176476	954132	590067	1126478	
PDS	QC293304	057	783945	856642	175316	943694	595169	1111063	
SAMPLE	179290-002	059	787221	873650	171663	967011	572466	1103692	
CCV		061	816223	895334	183432	1041952	647621	1189594	
CCB		063	830984	926897	185307	1057478	639950	1199501	
SAMPLE	179290-003	064	811143	889530	181544	1039545	628309	1181887	
SAMPLE	179290-004	065	800773	884272	172841	985020	595042	1129092	
SAMPLE	179290-007	066	787204	824883	167931	929463	565981	1080239	
SAMPLE	179290-013	067	771402	803721	160897	886468	524712	1000199	
SAMPLE	179290-013	068	795894	833999	167945	909824	553744	1050396	
SAMPLE	179290-014	069	768802	823177	161060	860571	533896	992748	420
SAMPLE	179290-015	070	761997	810890	161778	865367	546526	1008827	
SAMPLE	179290-016	071	812813	839548	166149	905246	556752	1032718	
SAMPLE	179290-017	072	789722	829138	163410	903660	541331	1034173	
ICSA		073	785799	919891	186942	1007270	601770	1211314	
CCV		077	862198	953441	190882	1079218	645656	1241541	
CCB		079	878265	973799	191637	1122342	669087	1293887	
CCV		084	876285	1010653	206897	1155413	696058	1338775	
CCB		086	904432	1030072	204901	1185017	725012	1350599	
SAMPLE	179445-001	087	894127	1234908*	198894	1116862	664721	1272821	
SAMPLE	179445-002	088	925597	1262355*	211398	1192014	704526	1372646	
SAMPLE	179445-003	089	939856*	1280501*	215746	1208667	720056	1380650	
SAMPLE	179445-004	090	935629*	1167268*	216797	1237272	735184	1398743	
SAMPLE	179445-005	091	972494*	1279162*	212421	1165783	701773	1371319	
SAMPLE	179445-006	092	942691*	1179742*	225609	1276781	830027	1465047	
SAMPLE	179445-007	093	916561	1207322*	222520	1234156	781236	1449936	
SAMPLE	179445-008	094	992305*	1453342*	218498	1196005	715677	1434341	
SAMPLE	179445-009	095	892090	1210483*	219381	1212589	764093	1459690	
SAMPLE	179445-010	096	893721	1188478*	219424	1226636	743554	1468490	

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 17-MAY-2005 ICALBLK Filename: e1711003
Sequence: 55197993 (e1711) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:03

TYPE	SAMPLE	#							
CCV		098	878469	1043893	216426	1200918	729227	1375456	
CCB		100	916808	1050203	213729	1216560	770919	1404166	
SAMPLE	179445-011	101	886555	1106379	210775	1192006	729271	1374970	
SAMPLE	179445-001	102	990603*	1188887*	233704	1343687	843504	1504884	
SAMPLE	179445-002	103	1009532*	1198300*	237409	1374184	869931	1543145	
SAMPLE	179445-003	104	993525*	1178134*	235859	1354803	827698	1501551	
SAMPLE	179445-004	105	997008*	1174852*	237830*	1373197	845197	1514502	
SAMPLE	179445-005	106	985080*	1198525*	236087	1360359	846049	1509947	
SAMPLE	179445-006	107	977459*	1134230*	232039	1319054	828069	1530313	
SAMPLE	179445-007	108	978569*	1179379*	240186*	1339589	863776	1531012	
SAMPLE	179445-008	109	962974*	1164714*	235835	1325453	824558	1476215	
SAMPLE	179445-009	110	973943*	1195333*	240089*	1377626	859914	1563120	
CCV		112	889823	1074823	218612	1216992	749119	1445373	
CCB		114	906021	1084244	217719	1255193	758488	1420971	
ICSA		115	852825	1065207	213743	1188786	692002	1469390	

421

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 ICALBLK Filename: e1723003
Sequence: 55198679 (e1723) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 23:30

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	949159	1156177	237582	1423518	908874	1640549
LOWER LIMIT	284748	346853	71274	427055	272662	492165
UPPER LIMIT	1138991	1387412	285098	1708222	1090648	1968659

TYPE	SAMPLE	#						
ICB		012	943546	1141647	236453	1406931	902845	1620726
ICSA		013	829307	1044718	213724	1176799	706593	1455383
SAMPLE	179445-010	016	1031677	1301722	261622	1596935	1030084	1844965
SAMPLE	179445-011	017	1016386	1246271	256221	1490905	987329	1720344
BLANK	QC293535	019	939179	1185176	237478	1421612	908583	1643592
BS	QC293536	020	868759	1051462	220802	1300370	791817	1511159
BSD	QC293537	021	875326	1085442	224128	1276241	841065	1529283
MSS	179355-001	023	897053	1130044	226848	1316211	829365	1554758
SER	QC293540	024	945835	1181371	242312	1406166	894935	1632305
MS	QC293538	025	879420	1120545	229863	1320003	848730	1577493
CCV		027	902669	1132328	242988	1410747	946394	1657513
CCB		029	919201	1129417	239380	1431683	939079	1673227
MSD	QC293539	030	847648	1094822	232652	1343810	899288	1638807
PDS	QC293541	031	875761	1111959	236707	1351861	911432	1678028
SAMPLE	179355-002	033	903829	1125700	235699	1369288	892859	1620751
SAMPLE	179355-003	034	901856	1129201	230407	1320624	872956	1574984
SAMPLE	179355-004	035	900753	1097175	227438	1305739	827608	1525665
SAMPLE	179355-005	036	891951	1100224	228530	1298400	845157	1535454
SAMPLE	179355-006	037	913175	1117476	230233	1326459	854588	1558099
SAMPLE	179355-007	038	920169	1117728	232846	1387121	873486	1600007
SAMPLE	179355-008	039	912114	1121561	233788	1372237	878014	1620513
SAMPLE	179355-009	040	904618	1109826	233025	1336170	879007	1557088
CCV		042	938285	1150513	243811	1449145	964316	1720059
CCB		044	944498	1133411	237280	1449356	957712	1681050
SAMPLE	179355-010	045	886144	1116298	234761	1377802	920070	1632891
SAMPLE	179355-011	046	910123	1123743	235354	1376798	932659	1655331
SAMPLE	179355-012	047	905104	1120302	235738	1366446	895751	1650762
ICSA		048	794042	1065459	225246	1302367	882204	1689818

422

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 ICALBLK Filename: e1723003
Sequence: 55198679 (e1723) Date Analyzed: 17-MAY-2005
Instrument ID: MET05 Time Analyzed: 23:30

TYPE	SAMPLE	#						
CCV		051	911618	1183854	255552	1557795	1057416	1887520
CCB		053	923190	1179700	252930	1569036	1062671	1840192
SAMPLE	179413-003	054	821997	1057082	206385	1139007	664910	1387060
SAMPLE	179413-004	055	752841	982594	184724	979284	522374	1170137
ICSA		056	839100	1113156	223116	1253672	726370	1495853
CCV		059	955235	1203999	248186	1416203	861428	1628234
CCB		061	933597	1186720	245238	1466982	936177	1660002

423

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 ICALBLK Filename: e1819003
Sequence: 55199892 (e1819) Date Analyzed: 18-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:43

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	1151107	1492793	271036	1895219	1103783	2071154
LOWER LIMIT	345332	447838	81311	568566	331135	621346
UPPER LIMIT	1381328	1791352	325243	2274263	1324540	2485385

TYPE	SAMPLE	#						
ICB		012	1174024	1489166	267291	1857157	1079038	2034780
ICSA		013	1002579	1388386	248464	1616194	907820	1925764
SAMPLE	179355-009	016	1055456	1439944	265137	1847651	1113803	2088543
SAMPLE	179355-010	017	1086604	1464552	268689	1888147	1110841	2095172
SAMPLE	179355-012	018	1081280	1428188	264332	1840455	1081776	2059162
SAMPLE	179445-003	019	1095398	1712359	259845	1792785	1052823	2064990
SAMPLE	179445-004	020	1078934	1544036	259130	1795111	1063154	2011148
SAMPLE	179445-004	021	1110673	1462562	260699	1855592	1078571	2018520
SAMPLE	179445-005	022	1140171	1735815	257552	1753888	1017813	2072384
SAMPLE	179445-006	023	1075229	1511571	258814	1792574	1087546	2016090
CCV		025	1056078	1445324	260058	1766872	1035841	1995496
CCB		027	1080932	1440954	256131	1796722	1046531	1972050
SAMPLE	179445-006	028	1130254	1479956	261855	1813226	1078225	1996501
SAMPLE	179445-007	029	1097712	1453495	257832	1806153	1045870	1966051
SAMPLE	179445-008	030	1099849	1856360*	249936	1671472	959083	1977045
SAMPLE	179445-009	031	1069668	1433647	254187	1768226	1054563	2004549
CCV		032	1044152	1436078	257706	1774909	1018503	1987977
CCB		034	1085189	1429079	254425	1801110	1047888	1986207
ICSA		035	915257	1310851	234345	1551615	886406	1890806
SAMPLE	179492-001	038	944683	1250760	198560	1226333	560471	1369332
CCV		041	1028492	1451758	253448	1692697	1008806	2001766
CCB		043	1038039	1430439	252928	1806802	1105683	2077869
ICSA		044	870357	1292545	236231	1569142	946424	2002387
BLANK	QC285377	047	939195	1324961	244930	1810649	1159631	2115719
MDL	178062-015	048	940948	1332009	244413	1793365	1155145	2120567
MDL	178062-016	049	943404	1332590	245242	1803535	1132587	2071924

424

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 ICALBLK Filename: e1819003
Sequence: 55199892 (e1819) Date Analyzed: 18-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:43

TYPE	SAMPLE	#						
MDL	178062-017	050	943844	1342328	245437	1749987	1117297	2032160
MDL	178062-018	051	943117	1336917	244535	1787326	1128161	2073743
MDL	178062-019	052	942213	1330635	243558	1779090	1098797	2024351
MDL	178062-020	053	960230	1337734	244246	1785742	1103833	2043087
MDL	178062-021	054	953557	1345199	244842	1772757	1103244	2046701
CCV		056	937913	1328913	242965	1701240	1045171	2034459
CCB		058	966588	1342655	244136	1737373	1079566	2030977
SAMPLE	179445-006	060	995015	1359906	249306	1785145	1142175	2037713
BLANK	QC293528	062	979393	1342327	241958	1744823	1090335	2029344
BS	QC293529	063	927324	1319344	240399	1705775	1062484	2037316
BSD	QC293530	064	917609	1295608	238358	1665305	1018889	1977386
MSS	179325-001	066	946527	1370787	245741	1707083	1051600	2028410
SER	QC293533	067	997770	1373238	252880	1791039	1133003	2121819
MS	QC293531	068	921103	1343315	242896	1621525	1052752	2041182
MSD	QC293532	069	925282	1351938	244280	1641829	1068417	2058000
PDS	QC293534	070	922922	1367411	243694	1637504	1085959	2073924
SAMPLE	179325-002	072	954836	1367735	248493	1732527	1130587	2111841
CCV		074	958796	1340966	246405	1707117	1107611	2103855
CCB		076	991950	1368699	248663	1793365	1156218	2122053
SAMPLE	179325-003	077	940051	1364176	245181	1705244	1101686	2090476
SAMPLE	179325-004	078	954632	1358773	245318	1727739	1119510	2103473
SAMPLE	179325-005	079	943318	1339482	242547	1735333	1101492	2067224
SAMPLE	179325-006	080	954712	1347295	245861	1760060	1102774	2094178
SAMPLE	179325-007	081	971842	1376039	250370	1762510	1143514	2147030
SAMPLE	179325-008	082	965974	1388734	251160	1762262	1139717	2157010
SAMPLE	179325-009	083	950990	1382248	248400	1728119	1135543	2142408
SAMPLE	179325-010	084	967883	1376078	250563	1756645	1140372	2132975
SAMPLE	179325-011	085	966258	1374696	249231	1750780	1136223	2147544
SAMPLE	179325-012	086	952480	1377318	249422	1758904	1149163	2144381
CCV		088	939086	1342572	247529	1715496	1119763	2114565
CCB		090	969717	1360039	246971	1767315	1153972	2114857
SAMPLE	179325-013	091	926051	1317522	242146	1692566	1114412	2085235

425

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005
Sequence: 55199892 (e1819)
Instrument ID: MET05

ICALBLK Filename: e1819003
Date Analyzed: 18-MAY-2005
Time Analyzed: 19:43

TYPE	SAMPLE	#						
SAMPLE	179325-014	092	924663	1345438	244157	1702717	1115783	2089682
SAMPLE	179325-015	093	928772	1344856	245536	1710655	1115540	2094283
SAMPLE	179325-016	094	947985	1358327	246476	1727756	1122852	2087465
SAMPLE	179325-017	095	923807	1332268	245659	1710705	1130310	2080333
SAMPLE	179325-018	096	936796	1340815	247167	1715115	1106076	2084633
SAMPLE	179325-019	097	913374	1313549	242013	1642180	1073192	2076213
SAMPLE	179325-020	098	914339	1307477	242294	1670463	1111141	2077084
ICSA		099	772373	1179339	220685	1397630	929936	1916185
CCV		102	810427	1203441	228534	1512325	1080754	1987692
CCB		104	851028	1234773	229675	1587671	1122124	2018970
BLANK	QC293821	109	865945	1228677	227777	1586951	1124137	2013011
BS	QC293822	110	790846	1157808	218257	1468814	1023488	1919636
BSD	QC293823	111	807789	1185098	220918	1476197	1029319	1944554
MSS	179430-001	113	813129	1213502	224416	1493723	1049943	1964257
SER	QC293826	114	873002	1242924	231984	1621781	1139217	2047752
MS	QC293824	115	793798	1199716	222934	1450424	1015010	1927257
MSD	QC293825	116	800366	1207265	223220	1477014	1022913	1949712
PDS	QC293827	117	804068	1217582	224712	1481701	1046430	1960339
SAMPLE	179430-002	119	824594	1221580	225761	1542289	1090617	1996545
SAMPLE	179430-003	120	838014	1223964	226372	1567806	1086173	1996476
CCV		122	838093	1208605	228455	1535142	1073152	2003027
CCB		124	868076	1230065	229658	1617223	1123704	2021213
SAMPLE	179430-004	126	819770	1179448	225171	1556950	1101555	1975195
SAMPLE	179430-005	127	835336	1188790	226380	1574155	1111357	1997684
SAMPLE	179430-006	128	813496	1210696	223960	1537600	1059811	1979092
SAMPLE	179430-007	129	821144	1215246	224878	1550451	1076618	1988980
SAMPLE	179430-008	130	844418	1219722	228017	1580213	1102692	2018452
SAMPLE	179430-009	131	834446	1212383	228004	1558766	1083750	2013952
SAMPLE	179430-010	132	828743	1222611	226575	1542868	1087236	1988752
SAMPLE	179444-001	133	825847	1203254	227699	1556819	1104719	2004170
SAMPLE	179444-002	134	838110	1191617	229652	1592786	1094711	2009132
SAMPLE	179444-003	135	780103	1173553	220355	1451969	1005963	1935311

426

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 18-MAY-2005 ICALBLK Filename: e1819003
Sequence: 55199892 (e1819) Date Analyzed: 18-MAY-2005
Instrument ID: MET05 Time Analyzed: 19:43

TYPE	SAMPLE	#						
CCV		137	830988	1214777	229527	1515995	1070036	2001902
CCB		139	893711	1285839	234797	1671647	1132886	2048051
ICSA		149	698187	1082708	210853	1306548	915039	1846173

427

* = Outside QC Limits

Curtis & Tompkins Laboratories Sample Preparation Summary 17-MAY-2005 04:23

Batch Number : 102065
Date Extracted: 17-MAY-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179384-001			Mactec, Inc.	Soil	1.06	g	50	47.169811	1				T26/ICP		mss
179408-002			QC PE Samples	Soil	.93	g	50	53.763441	1				AG		
179408-003			QC-PE Samples	Soil	1.32	g	50	37.878788	1				AG		
179445-001			Mactec, Inc.	Soil	1.02	g	50	49.019608	1				T26/ICP		
179445-002			Mactec, Inc.	Soil	1.28	g	50	39.062500	1				T26/ICP		
179445-003			Mactec, Inc.	Soil	1.12	g	50	44.642857	1				T26/ICP		
179445-004			Mactec, Inc.	Soil	.92	g	50	54.347826	1				T26/ICP		
179445-005			Mactec, Inc.	Soil	1.56	g	50	32.051282	1				T26/ICP		
179445-006			Mactec, Inc.	Soil	.92	g	50	54.347826	1				T26/ICP		
179445-007			Mactec, Inc.	Soil	1.12	g	50	44.642857	1				T26/ICP		
179445-008			Mactec, Inc.	Soil	1.28	g	50	39.062500	1				T26/ICP		
179445-009			Mactec, Inc.	Soil	1.49	g	50	33.557047	1				T26/ICP		
179445-010			Mactec, Inc.	Soil	1.25	g	50	40.000000	1				T26/ICP		
179445-011			Mactec, Inc.	Soil	1.29	g	50	38.759690	1				T26/ICP		
QC293915	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC293916	BS			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC293917	BSD			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC293918	MS	of 179384-001		Soil	1.03	g	50	48.543689	1	.25	.25		ICAP		
QC293919	SER	of 179384-001		Soil	1.06	g	50	47.169811	1				ICAP		
QC293920	PDS	of 179384-001		Soil	1.06	g	50	47.169811	1				ICAP		
QC293928	MSD	of 179384-001		Soil	1.01	g	50	49.504950	1	.25	.25		ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: 5/17/05

Relinquished By: _____ Received By: _____ Date: 5/17/05

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 102065
Date Digested: 5/16/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2133
Page 15

Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
BLK QC 293915		Ø	50.0	Y	
BS 293916					
BSD 293917					
179384-001 MS	A	1.03			
-001 MSD		1.01			
-001		1.06			MKS
179408-002	A	0.93			
003		1.32			
179445-001	A	1.07			
-002		1.28			
-003		1.12			
-004	S	0.92			
-005	G	1.56			
-006		0.92			
-007		1.12			
-008		1.28			
-009		1.49			
-010	F	1.25			
-011	G	1.29			

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95°C	VV 5/16/05
0.25 mL of spike solution was added to all spikes	04-5227* 04-5174* VV 5/16/05	
	04-5227* 04-5172*	
1:1 HNO3	AH8046 04 21 05	
concentrated HNO3	B04081 - JT Baker	
3mL 30% hydrogen peroxide	A32974114 - VWR	
concentrated HCl	A48034 - JT Baker	
☒ filtered thru' Whatman # 541	F1671893	

5/16/05
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

5/17/05
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	102223
Matrix:	Soil	Received:	05/13/05
Units:	%	Analyzed:	05/20/05
Diln Fac:	1.000		

Field ID	Lab ID	Result	RL	Sampled
BB19B110(3.5)	179445-001	12	1	05/12/05
BB29B102(0.0)	179445-002	22	1	05/12/05
BB29B102(2.0)	179445-003	13	1	05/12/05
BBSB108(0.0)	179445-004	29	1	05/12/05
BBSB108(2.0)	179445-005	17	1	05/12/05
BBSB109(0.0)	179445-006	40	1	05/12/05
DUP(050512)	179445-007	33	1	05/12/05
BBSB109(2.0)	179445-008	21	1	05/12/05
BB2ASB112(0.5)	179445-009	4	1	05/13/05
BB1SB113(0.5)	179445-010	6	1	05/13/05
BB1SB114(0.5)	179445-011	10	1	05/13/05

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	179445	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	BB1SB114(0.5)	Diln Fac:	1.000
Type:	SDUP	Batch#:	102223
MSS Lab ID:	179445-011	Sampled:	05/13/05
Lab ID:	QC294533	Received:	05/13/05
Matrix:	Soil	Analyzed:	05/20/05

MSS Result	Result	RL	RPD	Lim
9.863	9.063	1.000	8	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 102223
Date: 05/20/05
Method: CLP SOW 390
Analyst: ARM

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179445-001	15.4657	22.1818	21.3841	88	12
179445-002	15.6908	22.4851	21.0132	78	22
179445-003	15.2104	21.4624	20.6765	87	13
179445-004	14.5940	22.5666	20.2174	71	29
179445-005	15.3414	22.0114	20.8485	83	17
179445-006	15.1490	21.8205	19.1429	60	40
179445-007	15.6256	22.2611	20.0594	67	33
179445-008	15.2747	22.2178	20.7633	79	21
179445-009	15.5510	22.4594	22.1734	96	4
179445-010	15.3198	22.3075	21.8712	94	6
179445-011	15.0141	23.0827	22.2869	90	10
179489-002	15.5377	22.0136	21.2302	88	12
179489-005	15.1765	22.8413	21.4896	82	18
179489-015	15.2894	22.2304	21.3517	87	13
179489-016	15.3194	22.8757	21.5045	82	18
179503-003	15.7057	22.2982	21.6430	90	10
179503-010	15.2480	21.8706	21.0873	88	12
179503-014	15.3475	21.5282	20.7636	88	12
179503-018	15.5511	22.8075	21.2351	78	22
179503-022	15.5310	21.9835	20.9573	84	16
QC294533	15.3448	22.8939	22.2097	91	9
of 179445-011			RPD:	0.9%	8.4%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 102223
Date Started: 20-MAY-2005
Batched by : Aaron Maroni

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179445-001		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-002		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-003		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-004		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-005		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-006		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-007		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-008		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-009		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-010		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179445-011		Mactec, Inc.	Soil	MOISTURE	25-MAY-2005
179489-002		Erler & Kalinowski	Soil	MOISTURE	23-MAY-2005
179489-005		Erler & Kalinowski	Soil	MOISTURE	23-MAY-2005
179489-015		Erler & Kalinowski	Soil	MOISTURE	23-MAY-2005
179489-016		Erler & Kalinowski	Soil	MOISTURE	23-MAY-2005
179503-003		Erler & Kalinowski	Soil	MOISTURE	24-MAY-2005
179503-010		Erler & Kalinowski	Soil	MOISTURE	24-MAY-2005
179503-014		Erler & Kalinowski	Soil	MOISTURE	24-MAY-2005
179503-018		Erler & Kalinowski	Soil	MOISTURE	24-MAY-2005
179503-022		Erler & Kalinowski	Soil	MOISTURE	24-MAY-2005
QC294533	SDUP of 179445-011		Soil	MOISTURE	

5/19/05 # 102223

Sample	Rep	Dish #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank	/	39	15.5658	—	15.5654	
179503-3	A	1976	15.7057	22.2982	21.6430	
-10		134	15.2480	21.8706	21.0873	
-14		26	15.3475	21.5282	20.7636	
-18		38	15.5511	22.8075	21.2351	
-22		177	15.5310	21.9835	20.9573	
179489-2	A	18	15.5377	22.0136	21.2302	
-5		M-2	15.1765	22.8413	21.4896	
-15		24	15.2894	22.2304	21.3517	
-16		9	15.3194	22.8757	21.5045	
179445-1	A	21	15.4057	22.1818	21.3841	
-2	A	11	15.6908	22.4851	21.0132	
-3	A	44	15.2104	21.4624	20.6765	
-4	S	T	14.5940	22.5666	20.2174	
-5	G	HIDEL	15.3414	22.0114	20.8485	
-6	G	125	15.1490	21.8205	19.1429	
-7	G	41	15.6256	22.2611	30.0594	
-8	G	000	15.2747	22.2178	20.7633	
-9	G	32	15.5510	22.4594	22.1734	
-10	F	46	15.3198	22.3075	21.8712	
-11	G	141	15.0141	23.0827	22.2869	
DUP-11	G	3B	15.3448	22.8934	22.2097	

OVEN TEMP: 103°C
TIME IN: 1:20 PM 5/19/05
TIME OUT: 8:45 ON 5/20/05

Continued on Page /

Read and Understood By

Signed 5/19/05 Date 435 Signed R. Mc... Date 5-20-05

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 5/13/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	5-3-05	RSM				
103°C	5-4-05	RSM				
104°C	5-5-05	RSM				
104°C	5-6-05	RSM				
103°C	5-9-05	RSM				
103°C	5-10-05	RSM				
104°C	5-11-05	RSM				
103°C	5-12-05	RSM				
103°C	5-13-05	RSM				
103°C	5-16-05	RSM				
103°C	5-17-05	RSM				
103°C	5-18-05	RSM				
103°C	5-19-05	RSM				
103°C	5-20-05	RSM				

000072

62
PROJECT METTLER AE-200 BALANCE Notebook No. 0752
Continued From Page ϕ

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-28-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-2-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-3-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-4-05	0.2001	1.0000	10.0000	50.0001	RSM	35298
5-5-05	0.2000	1.0001	10.0000	50.0003	RSM	35298
5-6-05	0.2001	1.0001	10.0001	50.0002	RSM	35298
5-9-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-10-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
5-11-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
5-12-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-13-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
5-16-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-17-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-18-05	0.2001	1.0000	10.0000	50.0002	RSM	35298
5-19-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
5-20-05	0.2001	1.0000	10.0001	50.0003	RSM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date

Signed Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179564

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBSB101(0.5)	179564-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Operations Manager Date: 6/21/05

Signature: _____ Project Manager Date: 6/20/05

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179564**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/20/05**
Samples Received:	**05/20/05**

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 05/20/05. The sample was received intact.

Volatile Organics by GC/MS (EPA 8260B):
Low response was observed for bromomethane in the ICV analyzed 05/18/05 19:12; this analyte was not detected at or above the RL in the associated samples. High responses were observed for trichlorofluoromethane and Freon 12 in the CCV analyzed 05/20/05 09:16; these analytes were not detected at or above the RL in the associated samples. High recoveries were observed for 1,1-dichloroethene in the MS/MSD for batch 102224; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated sample. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
Low responses were observed for benzo(a)anthracene, benzo(k)fluoranthene, and pyrene in the CCV analyzed 06/02/05 00:56; these analytes met minimum response criteria, and affected data was qualified with "b". High responses were observed for dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene; these analytes were not detected at or above the RL in the associated sample. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High responses were observed for a number of analytes in the CCV analyzed 06/02/05 11:39; average CCV drift met method requirements. High responses were observed for 4,4'-DDD and methoxychlor in the CCV analyzed 06/02/05 22:29 and the CCV analyzed 06/04/05 00:29; average CCV drift met method requirements, and these analytes were not detected at or above the RL in the associated samples. Low responses were observed for gamma-BHC and 4,4'-DDT in the CCV analyzed 06/04/05 07:53 and the CCV analyzed 06/06/05 16:43; average CCV drift met method requirements. High surrogate recovery was observed for decachlorobiphenyl in BBSB101(0.5) (lab # 179564-001); the corresponding TCMX surrogate recovery was within limits, and no target analytes were detected in the sample. BBSB101(0.5) (lab # 179564-001) was diluted due to the dark, viscous nature of the sample extract. No other analytical problems were encountered.

PCBs (EPA 8082):
High responses were observed for Aroclor-1016 and Aroclor-1260 in the CCV analyzed 06/04/05 05:11; these analytes were not detected at or above the RL

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179564**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/20/05**
Samples Received:	**05/20/05**

PCBs (EPA 8082):
in the associated sample. No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
High responses were observed for barium and beryllium in the CCV analyzed 05/24/05 18:31; these analytes were not detected at or above the RL in the associated sample. High recoveries were observed for chromium in the MS/MSD of BBSB101(0.5) (lab # 179564-001); the BS/BSD were within limits, and the associated RPD was within limits. High % difference was observed for vanadium in the serial dilution of BBSB101(0.5) (lab # 179564-001). A number of analytes were detected between the MDL and the RL in the method blank for batch 102304; these analytes were detected in the sample at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM 179564

Seq. No.: № 1442

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255

Name/Location: PRESIDIO SF - BRDA

Project Manager: M A JACOBVITZ

Recorder: (Signature Required)

| MATRIX | | | | # CONTAINERS & PRESERV. | | | | | | SAMPLE NUMBER | | DATE | | | | STATION DESCRIPTION | | ANALYSIS REQUESTED | | | | | |

PESTICIDE DATA

(SOIL)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB101(0.5)	Batch#:	102569
Lab ID:	179564-001	Sampled:	05/20/05
Matrix:	Soil	Received:	05/20/05
Units:	ug/Kg	Prepared:	06/02/05
Basis:	dry	Analyzed:	06/04/05
Diln Fac:	5.000		

Moisture: 15%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	10	3.0
beta-BHC	ND	10	4.2
gamma-BHC	ND	10	3.1
delta-BHC	ND	10	3.6
Heptachlor	ND	10	4.0
Aldrin	ND	10	3.3
Heptachlor epoxide	ND	10	3.2
Endosulfan I	ND	10	4.6
Dieldrin	ND	19	7.5
4,4'-DDE	ND	19	9.1
Endrin	ND	19	9.8
Endosulfan II	ND	19	7.5
Endosulfan sulfate	ND	19	7.6
4,4'-DDD	ND	19	8.6
Endrin aldehyde	ND	19	9.1
4,4'-DDT	ND #	19	10
alpha-Chlordane	ND	10	3.8
gamma-Chlordane	ND	10	3.3
Methoxychlor	ND	100	46
Toxaphene	ND	350	63

Surrogate	%REC	Limits
TCMX	90	43-130
Decachlorobiphenyl	157 *	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295933	Batch#:	102569
Matrix:	Soil	Prepared:	06/02/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.58
beta-BHC	ND	1.7	0.52
gamma-BHC	ND	1.7	0.58
delta-BHC	ND	1.7	0.61
Heptachlor	ND	1.7	0.52
Aldrin	ND	1.7	0.57
Heptachlor epoxide	ND	1.7	0.63
Endosulfan I	ND	1.7	0.74
Dieldrin	ND	3.2	1.5
4,4'-DDE	ND	3.2	1.5
Endrin	ND	3.2	1.6
Endosulfan II	ND	3.2	1.6
Endosulfan sulfate	ND	3.2	1.7
4,4'-DDD	ND	3.2	1.4
Endrin aldehyde	ND	3.2	1.8
4,4'-DDT	ND	3.2	1.7
alpha-Chlordane	ND	1.7	0.71
gamma-Chlordane	ND	1.7	0.71
Methoxychlor	ND	17	9.6
Toxaphene	ND	59	12

Surrogate	%REC	Limits
TCMX	94	43-130
Decachlorobiphenyl	88	43-143

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides			
Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295934	Batch#:	102569
Matrix:	Soil	Prepared:	06/02/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.31	12.32	93	42-120
Heptachlor	13.31	15.23 #	114	49-126
Aldrin	13.31	12.78	96	52-120
Dieldrin	26.61	29.96	113	40-125
Endrin	26.61	29.01	109	38-135
4,4'-DDT	26.61	32.84	123	43-135

Surrogate	%REC	Limits
TCMX	92	43-130
Decachlorobiphenyl	87	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB106(0.5)	Batch#:	102569
MSS Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	ug/Kg	Prepared:	06/02/05
Basis:	dry	Analyzed:	06/06/05
Diln Fac:	2.000		

Type: MS
Lab ID: QC295935

Moisture: 15%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<1.389	15.63	11.90 #	76	41-120
Heptachlor	<1.253	15.63	13.13	84	48-130
Aldrin	<1.368	15.63	12.74	81	42-126
Dieldrin	<3.603	31.27	24.74	79	43-128
Endrin	<3.769	31.27	30.36	97	45-137
4,4'-DDT	<4.067	31.27	29.47	94	31-151

Surrogate	%REC	Limits
TCMX	75	43-130
Decachlorobiphenyl	98	43-143

Type: MSD
Lab ID: QC295936

Moisture: 15%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	15.60	11.01 #	71	41-120	8	37
Heptachlor	15.60	12.75	82	48-130	3	43
Aldrin	15.60	11.91	76	42-126	6	36
Dieldrin	31.21	23.43	75	43-128	5	38
Endrin	31.21	28.03	90	45-137	8	39
4,4'-DDT	31.21	28.87	93	31-151	2	47

Surrogate	%REC	Limits
TCMX	66	43-130
Decachlorobiphenyl	107	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	147_005	805212954005	pest_1	27-MAY-2005 21:14	S9
2	147_006	805212954006	pest_2	27-MAY-2005 21:42	S419
3	147_007	805212954007	pest_3	27-MAY-2005 22:09	S420
4	147_008	805212954008	pest_4	27-MAY-2005 22:37	S643
5	147_009	805212954009	pest_5	27-MAY-2005 23:05	S613
6	147_010	805212954010	pest_6	27-MAY-2005 23:33	S13
7	147_011	805212954011	pest_7	28-MAY-2005 00:00	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	12447	11627	11921	10432	11285	10670	11710	AVRG	R		8.740E-5		pg	11442	6	0.995	20	
gamma-BHC	A	11134	10727	11052	9675.1	10346	9722.9	10629	AVRG	R		9.552E-5		pg	10469	6	0.995	20	
beta-BHC	A	5016.0	4666.8	4758.6	4073.8	4358.3	3970.1	3993.7	AVRG	R		2.270E-4		pg	4405.3	9	0.995	20	
delta-BHC	A	12202	11262	11533	9983.7	10711	10094	11002	AVRG	R		9.116E-5		pg	10970	7	0.995	20	
Heptachlor	A	9684.5	9249.6	9630.8	8339.4	8995.6	8294.7	8885.3	AVRG	R		1.110E-4		pg	9011.4	6	0.995	20	
Aldrin	A	10074	9699.8	9989.5	8600.6	9124.3	8423.6	9019.8	AVRG	R		1.078E-4		pg	9275.9	7	0.995	20	
Heptachlor epoxide	A	9360.7	8988.1	9245.9	7693.3	8324.6	7603.1	7853.7	AVRG	R		1.185E-4		pg	8438.5	9	0.995	20	
gamma-Chlordane	A	9454.6	9141.3	9349.7	7821.8	8471.9	7760.6	8311.3	AVRG	R		1.161E-4		pg	8615.9	8	0.995	20	
alpha-Chlordane	A	8800.2	8888.9	9120.3	7722.6	8198.7	7514.2	7983.0	AVRG	R		1.202E-4		pg	8318.3	7	0.995	20	
4,4'-DDE	A	9039.1	8618.7	8870.7	7513.9	8171.1	7849.0	7855.1	AVRG	R		1.209E-4		pg	8273.9	7	0.995	20	
Endosulfan I	A	8801.5	8405.5	8624.6	7225.2	7754.1	7016.6	7171.3	AVRG	R		1.273E-4		pg	7857.0	10	0.995	20	
Dieldrin	A	9466.3	8911.7	9148.1	7717.3	8350.3	7921.6	7889.1	AVRG	R		1.178E-4		pg	8486.3	8	0.995	20	
Endrin	A	7291.3	6933.8	7211.2	5787.3	6716.3	5989.9	6188.2	AVRG	R		1.518E-4		pg	6588.3	9	0.995	20	
4,4'-DDD	A	7599.5	7350.2	7513.9	6286.4	6828.4	6338.2	6626.0	AVRG	R		1.442E-4		pg	6934.7	8	0.995	20	
Endosulfan II	A	8048.8	7796.8	7892.0	6514.7	7058.0	6477.2	6729.0	AVRG	R		1.386E-4		pg	7216.6	9	0.995	20	
4,4'-DDT	A	6278.2	6165.8	6727.9	5588.5	6271.5	5673.7	6341.2	AVRG	R		1.626E-4		pg	6149.5	6	0.995	20	
Endrin aldehyde	A	6549.4	5921.3	6247.9	5296.5	5204.6	4731.7	5262.5	AVRG	R		1.785E-4		pg	5602.0	12	0.995	20	
Methoxychlor	A	2705.4	2550.9	2735.1	2252.6	2586.5	2266.3	2033.8	AVRG	R		4.086E-4		pg	2447.2	11	0.995	20	
Endosulfan sulfate	A	7046.5	6791.0	6911.8	5656.8	6169.5	5554.2	5898.6	AVRG	R		1.590E-4		pg	6289.8	10	0.995	20	

11

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
TCMX	A	7927.3	7568.2	7514.1	6688.6	7033.5	6610.5	7153.2	AVRG	R		1.386E-4		pg	7213.6	7	0.995	20	
Decachlorobiphenyl	A	4715.1	4579.2	4979.0	3544.6	4440.9	3629.1	4186.5	AVRG	R		2.328E-4		pg	4296.4	13	0.995	20	
alpha-BHC	B	20221	19824	20772	17985	20532	25099	27513	AVRG	R		4.607E-5		pg	21707	15	0.995	20	
gamma-BHC	B	18555	18647	19125	16687	18576	23002	25861	AVRG	R		4.984E-5		pg	20065	16	0.995	20	
beta-BHC	B	8509.8	8175.0	8072.0	6744.5	7304.9	7743.0	9485.2	AVRG	R		1.249E-4		pg	8004.9	11	0.995	20	
delta-BHC	B	20173	19512	19750	17285	19225	24469	25984	AVRG	R		4.782E-5		pg	20914	15	0.995	20	
Heptachlor	B	13288	13423	13747	12344	13662	17631		AVRG	R		7.135E-5		pg	14016	13	0.995	20	
Aldrin	B	16989	17120	16916	14959	16168	20439	23895	AVRG	R		5.534E-5		pg	18069	17	0.995	20	
Heptachlor epoxide	B	15065	15976	15404	13295	14250	18066	21715	AVRG	R		6.153E-5		pg	16253	17	0.995	20	
gamma-Chlordane	B	15739	16088	15497	13564	14590	18983	22699	AVRG	R		5.975E-5		pg	16737	19	0.995	20	
alpha-Chlordane	B	15548	15976	15258	13395	14232	18468	21924	AVRG	R		6.097E-5		pg	16400	18	0.995	20	
4,4'-DDE	B	14784	15701	15259	14497	16269	21062	15344	AVRG	R		6.199E-5		pg	16131	14	0.995	20	
Endosulfan I	B	14600	15002	14385	12496	13303	16909	20287	AVRG	R		6.543E-5		pg	15283	17	0.995	20	
Dieldrin	B	15391	16135	15800	14772	16751	21521	15983	AVRG	R		6.016E-5		pg	16622	14	0.995	20	
Endrin	B	12261	12919	12199	10582	12369	16853	14890	AVRG	R		7.603E-5		pg	13153	16	0.995	20	
4,4'-DDD	B	11929	12854	12313	11006	12261	16835	14222	AVRG	R		7.657E-5		pg	13060	15	0.995	20	
Endosulfan II	B	13548	14223	13585	11955	13450	17936	15163	AVRG	R		7.010E-5		pg	14266	13	0.995	20	
4,4'-DDT	B	10331	11181	10584	9853.3	11034			AVRG	R		9.437E-5		pg	10597	5	0.995	20	
Endrin aldehyde	B	11000	10978	10192	9047.8	9547.5	12822	13375	AVRG	R		9.095E-5		pg	10995	15	0.995	20	
Methoxychlor	B	4549.3	4938.2	4754.6	4811.7	5260.9	5554.0		AVRG	R		2.009E-4		pg	4978.1	7	0.995	20	
Endosulfan sulfate	B	12162	12210	11396	9950.3	10775	14804	14153	AVRG	R		8.192E-5		pg	12207	14	0.995	20	
TCMX	B	13256	12642	13505	11396	12540	15029	15639	AVRG	R		7.446E-5		pg	13429	11	0.995	20	
Decachlorobiphenyl	B	9350.8	9986.9	9183.9	7226.3	8793.9	13134	10458	AVRG	R		1.027E-4		pg	9733.3	19	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	8	20	
EPA 8081A	B	22	14	20	

12

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :

ICV 805212954013 (147_013) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
alpha-BHC	A	805212954013	28-MAY-2005	25.000	23.435	pg	-6	15
gamma-BHC	A	805212954013	28-MAY-2005	25.000	23.097	pg	-8	15
beta-BHC	A	805212954013	28-MAY-2005	25.000	23.253	pg	-7	15
delta-BHC	A	805212954013	28-MAY-2005	25.000	23.444	pg	-6	15
Heptachlor	A	805212954013	28-MAY-2005	25.000	23.343	pg	-7	15
Aldrin	A	805212954013	28-MAY-2005	25.000	23.313	pg	-7	15
Heptachlor epoxide	A	805212954013	28-MAY-2005	25.000	23.633	pg	-5	15
gamma-Chlordane	A	805212954013	28-MAY-2005	25.000	22.895	pg	-8	15
alpha-Chlordane	A	805212954013	28-MAY-2005	25.000	23.167	pg	-7	15
4,4'-DDE	A	805212954013	28-MAY-2005	25.000	23.535	pg	-6	15
Endosulfan I	A	805212954013	28-MAY-2005	25.000	23.331	pg	-7	15
Dieldrin	A	805212954013	28-MAY-2005	25.000	23.009	pg	-8	15
Endrin	A	805212954013	28-MAY-2005	25.000	25.588	pg	2	15
4,4'-DDD	A	805212954013	28-MAY-2005	25.000	24.526	pg	-2	15
Endosulfan II	A	805212954013	28-MAY-2005	25.000	24.348	pg	-3	15
4,4'-DDT	A	805212954013	28-MAY-2005	25.000	23.382	pg	-6	15
Endrin aldehyde	A	805212954013	28-MAY-2005	25.000	21.855	pg	-13	15
Methoxychlor	A	805212954013	28-MAY-2005	25.000	28.199	pg	13	15
Endosulfan sulfate	A	805212954013	28-MAY-2005	25.000	24.424	pg	-2	15
alpha-BHC	B	805212954013	28-MAY-2005	25.000	22.049	pg	-12	15
gamma-BHC	B	805212954013	28-MAY-2005	25.000	21.574	pg	-14	15
beta-BHC	B	805212954013	28-MAY-2005	25.000	21.621	pg	-14	15
delta-BHC	B	805212954013	28-MAY-2005	25.000	22.322	pg	-11	15
Heptachlor	B	805212954013	28-MAY-2005	25.000	23.776	pg	-5	15
Aldrin	B	805212954013	28-MAY-2005	25.000	21.938	pg	-12	15
Heptachlor epoxide	B	805212954013	28-MAY-2005	25.000	22.480	pg	-10	15
gamma-Chlordane	B	805212954013	28-MAY-2005	25.000	21.740	pg	-13	15
alpha-Chlordane	B	805212954013	28-MAY-2005	25.000	21.818	pg	-13	15
4,4'-DDE	B	805212954013	28-MAY-2005	25.000	22.806	pg	-9	15
Endosulfan I	B	805212954013	28-MAY-2005	25.000	22.511	pg	-10	15
Dieldrin	B	805212954013	28-MAY-2005	25.000	22.311	pg	-11	15
Endrin	B	805212954013	28-MAY-2005	25.000	23.739	pg	-5	15
4,4'-DDD	B	805212954013	28-MAY-2005	25.000	23.207	pg	-7	15
Endosulfan II	B	805212954013	28-MAY-2005	25.000	23.175	pg	-7	15
4,4'-DDT	B	805212954013	28-MAY-2005	25.000	25.521	pg	2	15
Endrin aldehyde	B	805212954013	28-MAY-2005	25.000	23.050	pg	-8	15
Methoxychlor	B	805212954013	28-MAY-2005	25.000	25.503	pg	2	15
Endosulfan sulfate	B	805212954013	28-MAY-2005	25.000	23.306	pg	-7	15

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	6	15	
EPA 8081A	B	20	9	15	

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609042 Run Name: Injected: 02-JUN-2005 10:43
Filename: 152_042 Standard(s): S663

Analyte	Ch	Area
Endrin	A	326698.38
Endrin aldehyde	A	5714.7
Endrin ketone	A	25284.2

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	557407.83
4,4'-DDE	A	2232.17
4,4'-DDD	A	63207.32

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	750172.54
Endrin aldehyde	B	11525.96
Endrin ketone	B	63610.28

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1454322.35
4,4'-DDE	B	4304.7
4,4'-DDD	B	118464.06

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609058 Run Name: Injected: 02-JUN-2005 22:02
Filename: 152_058 Standard(s): S663

Analyte	Ch	Area
Endrin	A	293704.12
Endrin aldehyde	A	12326.63
Endrin ketone	A	30960.74

Endrin Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	505129.92
4,4'-DDE	A	2346.77
4,4'-DDD	A	72713.7

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	637035.62
Endrin aldehyde	B	18208.66
Endrin ketone	B	71282.98

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1313459.73
4,4'-DDE	B	4125.26
4,4'-DDD	B	116434.51

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805222534021 Run Name: Injected: 04-JUN-2005 00:02
Filename: 154_021 Standard(s): S663

Analyte	Ch	Area
Endrin	A	331901.1
Endrin aldehyde	A	6114.31
Endrin ketone	A	27448.37

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	559026
4,4'-DDE	A	2079.79
4,4'-DDD	A	78121.39

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	636561.12
Endrin aldehyde	B	20951.04
Endrin ketone	B	81884.16

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1135397.22
4,4'-DDE	B	6515.69
4,4'-DDD	B	149323.42

4,4'-DDT Breakdown %: 12
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805222534037 Run Name: Injected: 04-JUN-2005 07:25
Filename: 154_037 Standard(s): S663

Analyte	Ch	Area
Endrin	A	352452.84
Endrin aldehyde	A	7328.4
Endrin ketone	A	36159.7

Endrin Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	561498
4,4'-DDE	A	2419.12
4,4'-DDD	A	108258.22

4,4'-DDT Breakdown %: **16 P ***** Reported these analytes from chan B CW 6/20/05
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	658151.23
Endrin aldehyde	B	26812.4
Endrin ketone	B	85775

Endrin Breakdown %: 15
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1167166.44
4,4'-DDE	B	5713.73
4,4'-DDD	B	173042.04

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

P=PEM failure
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805226950010 Run Name: Injected: 06-JUN-2005 18:03
Filename: 157_010 Standard(s): S663

Analyte	Ch	Area
Endrin	A	343826.34
Endrin aldehyde	A	5675.16
Endrin ketone	A	9825

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	662732.18
4,4'-DDE	A	3740
4,4'-DDD	A	5651.11

4,4'-DDT Breakdown %: 1
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	814842
Endrin aldehyde	B	5660.18
Endrin ketone	B	14832

Endrin Breakdown %: 2
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1723194.5
4,4'-DDE	B	4816.11
4,4'-DDD	B	7652.1

4,4'-DDT Breakdown %: 1
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805226950021 Run Name: Injected: 06-JUN-2005 23:10
Filename: 157_021 Standard(s): S663

Analyte	Ch	Area
Endrin	A	356402.39
Endrin aldehyde	A	3048.37
Endrin ketone	A	21631.92

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	625949.64
4,4'-DDE	A	2231.71
4,4'-DDD	A	44309.42

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	930329.33
Endrin aldehyde	B	3446.11
Endrin ketone	B	32863

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1897046.9
4,4'-DDE	B	4811.75
4,4'-DDD	B	29922.66

4,4'-DDT Breakdown %: 2
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_2 IDF : 1.0
Seqnum : 805219609044 Filename : 152_044 Injected : 02-JUN-2005 11:39
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S419

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	12112	5.000000	5.293022	pg	6	15	
gamma-BHC	A	10469	11212	5.000000	5.354753	pg	7	15	
beta-BHC	A	4405.3	4899.9	5.000000	5.561376	pg	11	15	
delta-BHC	A	10970	11747	5.000000	5.354375	pg	7	15	
Heptachlor	A	9011.4	9355.3	5.000000	5.190799	pg	4	15	
Aldrin	A	9275.9	10102	5.000000	5.445300	pg	9	15	
Heptachlor epoxide	A	8438.5	9381.4	5.000000	5.558702	pg	11	15	
gamma-Chlordane	A	8615.9	9520.8	5.000000	5.525150	pg	11	15	
alpha-Chlordane	A	8318.3	9225.6	5.000000	5.545383	pg	11	15	
4,4'-DDE	A	8273.9	8950.4	10.00000	10.81760	pg	8	15	
Endosulfan I	A	7857.0	8749.4	5.000000	5.567928	pg	11	15	
Dieldrin	A	8486.3	9218.7	10.00000	10.86301	pg	9	15	
Endrin	A	6588.3	7207.6	10.00000	10.94008	pg	9	15	
4,4'-DDD	A	6934.7	7993.0	10.00000	11.52608	pg	15	15	
Endosulfan II	A	7216.6	7959.6	10.00000	11.02946	pg	10	15	
4,4'-DDT	A	6149.5	5794.0	10.00000	9.421839	pg	-6	15	
Endrin aldehyde	A	5602.0	5401.3	10.00000	9.641802	pg	-4	15	
Methoxychlor	A	2447.2	2594.4	50.00000	53.00585	pg	6	15	
Endosulfan sulfate	A	6289.8	6972.8	10.00000	11.08582	pg	11	15	
TCMX	A	7213.6	7784.2	10.00000	10.79096	pg	8	15	
Decachlorobiphenyl	A	4296.4	4273.1	10.00000	9.945923	pg	-1	15	
alpha-BHC	B	21707	21821	5.000000	5.026303	pg	1	15	
gamma-BHC	B	20065	20511	5.000000	5.111291	pg	2	15	
beta-BHC	B	8004.9	8948.2	5.000000	5.589208	pg	12	15	
delta-BHC	B	20914	21566	5.000000	5.155991	pg	3	15	
Heptachlor	B	14016	16989	5.000000	6.060727	pg	**21**	15	c+ ***
Aldrin	B	18069	19449	5.000000	5.381815	pg	8	15	
Heptachlor epoxide	B	16253	17722	5.000000	5.451928	pg	9	15	
gamma-Chlordane	B	16737	18062	5.000000	5.395754	pg	8	15	
alpha-Chlordane	B	16400	17998	5.000000	5.487146	pg	10	15	
4,4'-DDE	B	16131	17963	10.00000	11.13562	pg	11	15	
Endosulfan I	B	15283	16870	5.000000	5.519232	pg	10	15	
Dieldrin	B	16622	18478	10.00000	11.11667	pg	11	15	
Endrin	B	13153	14895	10.00000	11.32394	pg	13	15	
4,4'-DDD	B	13060	16165	10.00000	12.37725	pg	**24**	15	c+ ***
Endosulfan II	B	14266	16187	10.00000	11.34685	pg	13	15	
4,4'-DDT	B	10597	11257	10.00000	10.62313	pg	6	15	
Endrin aldehyde	B	10995	12701	10.00000	11.55212	pg	**16**	15	c+ ***
Methoxychlor	B	4978.1	5653.7	50.00000	56.78542	pg	14	15	
Endosulfan sulfate	B	12207	14301	10.00000	11.71485	pg	**17**	15	c+ ***
TCMX	B	13429	13420	10.00000	9.992865	pg	0	15	
Decachlorobiphenyl	B	9733.3	12646	10.00000	12.99299	pg	**30**	15	c+
Average EPA 8081A	A		(count=22)				8	15	
Average EPA 8081A	B		(count=22)				12	15	

+=high bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805219609059 Filename : 152_059 Injected : 02-JUN-2005 22:29
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	9831.7	20.00000	17.18540	pg	-14	15	
gamma-BHC	A	10469	9088.8	20.00000	17.36274	pg	-13	15	
beta-BHC	A	4405.3	3866.3	20.00000	17.55277	pg	-12	15	
delta-BHC	A	10970	9450.1	20.00000	17.22967	pg	-14	15	
Heptachlor	A	9011.4	7563.2	20.00000	16.78581	pg	**-16**	15	c- ***
Aldrin	A	9275.9	8249.6	20.00000	17.78724	pg	-11	15	
Heptachlor epoxide	A	8438.5	7479.8	20.00000	17.72776	pg	-11	15	
gamma-Chlordane	A	8615.9	7560.8	20.00000	17.55076	pg	-12	15	
alpha-Chlordane	A	8318.3	7434.6	20.00000	17.87537	pg	-11	15	
4,4'-DDE	A	8273.9	7272.3	40.00000	35.15756	pg	-12	15	
Endosulfan I	A	7857.0	7005.4	20.00000	17.83221	pg	-11	15	
Dieldrin	A	8486.3	7429.3	40.00000	35.01791	pg	-12	15	
Endrin	A	6588.3	5521.9	40.00000	33.52551	pg	**-16**	15	c- ***
4,4'-DDD	A	6934.7	6502.8	40.00000	37.50892	pg	-6	15	
Endosulfan II	A	7216.6	6206.5	40.00000	34.40100	pg	-14	15	
4,4'-DDT	A	6149.5	4850.9	40.00000	31.55264	pg	**-21**	15	c- ***
Endrin aldehyde	A	5602.0	4989.6	40.00000	35.62751	pg	-11	15	
Methoxychlor	A	2447.2	1978.2	200.0000	161.6699	pg	**-19**	15	c- ***
Endosulfan sulfate	A	6289.8	5359.8	40.00000	34.08564	pg	-15	15	
TCMX	A	7213.6	6351.8	40.00000	35.22107	pg	-12	15	
Decachlorobiphenyl	A	4296.4	3164.0	40.00000	29.45746	pg	**-26**	15	c-
alpha-BHC	B	21707	19625	20.00000	18.08203	pg	-10	15	
gamma-BHC	B	20065	18246	20.00000	18.18756	pg	-9	15	
beta-BHC	B	8004.9	7399.3	20.00000	18.48705	pg	-8	15	
delta-BHC	B	20914	19440	20.00000	18.59024	pg	-7	15	
Heptachlor	B	14016	15471	20.00000	22.07732	pg	10	15	
Aldrin	B	18069	17003	20.00000	18.81985	pg	-6	15	
Heptachlor epoxide	B	16253	15280	20.00000	18.80264	pg	-6	15	
gamma-Chlordane	B	16737	15900	20.00000	18.99946	pg	-5	15	
alpha-Chlordane	B	16400	15790	20.00000	19.25590	pg	-4	15	
4,4'-DDE	B	16131	18473	40.00000	45.80820	pg	15	15	
Endosulfan I	B	15283	14852	20.00000	19.43613	pg	-3	15	
Dieldrin	B	16622	18501	40.00000	44.52309	pg	11	15	
Endrin	B	13153	12746	40.00000	38.76032	pg	-3	15	
4,4'-DDD	B	13060	15538	40.00000	47.59071	pg	**19**	15	c+ ***
Endosulfan II	B	14266	14984	40.00000	42.01319	pg	5	15	
4,4'-DDT	B	10597	11081	40.00000	41.82826	pg	5	15	
Endrin aldehyde	B	10995	11319	40.00000	41.17946	pg	3	15	
Methoxychlor	B	4978.1	6007.1	200.0000	241.3400	pg	**21**	15	c+ ***
Endosulfan sulfate	B	12207	12413	40.00000	40.67460	pg	2	15	
TCMX	B	13429	12900	40.00000	38.42427	pg	-4	15	
Decachlorobiphenyl	B	9733.3	10018	40.00000	41.17021	pg	3	15	
Average EPA 8081A	A		(count=22)				14	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805222534022 Filename : 154_022 Injected : 04-JUN-2005 00:29
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10559	20.00000	18.45660	pg	-8	15	
gamma-BHC	A	10469	9855.3	20.00000	18.82694	pg	-6	15	
beta-BHC	A	4405.3	4197.6	20.00000	19.05700	pg	-5	15	
delta-BHC	A	10970	10385	20.00000	18.93395	pg	-5	15	
Heptachlor	A	9011.4	8506.0	20.00000	18.87832	pg	-6	15	
Aldrin	A	9275.9	9021.6	20.00000	19.45172	pg	-3	15	
Heptachlor epoxide	A	8438.5	8239.0	20.00000	19.52732	pg	-2	15	
gamma-Chlordane	A	8615.9	8404.2	20.00000	19.50873	pg	-2	15	
alpha-Chlordane	A	8318.3	8263.0	20.00000	19.86706	pg	-1	15	
4,4'-DDE	A	8273.9	8149.9	40.00000	39.40059	pg	-1	15	
Endosulfan I	A	7857.0	7775.8	20.00000	19.79340	pg	-1	15	
Dieldrin	A	8486.3	8348.9	40.00000	39.35203	pg	-2	15	
Endrin	A	6588.3	6799.6	40.00000	41.28320	pg	3	15	
4,4'-DDD	A	6934.7	7239.6	40.00000	41.75895	pg	4	15	
Endosulfan II	A	7216.6	7030.3	40.00000	38.96702	pg	-3	15	
4,4'-DDT	A	6149.5	5740.3	40.00000	37.33835	pg	-7	15	
Endrin aldehyde	A	5602.0	5600.4	40.00000	39.98853	pg	0	15	
Methoxychlor	A	2447.2	2515.3	200.0000	205.5608	pg	3	15	
Endosulfan sulfate	A	6289.8	6145.5	40.00000	39.08215	pg	-2	15	
TCMX	A	7213.6	6736.5	40.00000	37.35407	pg	-7	15	
Decachlorobiphenyl	A	4296.4	4203.4	40.00000	39.13453	pg	-2	15	
alpha-BHC	B	21707	24250	20.00000	22.34388	pg	12	15	
gamma-BHC	B	20065	21804	20.00000	21.73337	pg	9	15	
beta-BHC	B	8004.9	8567.4	20.00000	21.40530	pg	7	15	
delta-BHC	B	20914	22287	20.00000	21.31340	pg	7	15	
Heptachlor	B	14016	15534	20.00000	22.16652	pg	11	15	
Aldrin	B	18069	18644	20.00000	20.63602	pg	3	15	
Heptachlor epoxide	B	16253	16086	20.00000	19.79401	pg	-1	15	
gamma-Chlordane	B	16737	16362	20.00000	19.55216	pg	-2	15	
alpha-Chlordane	B	16400	16145	20.00000	19.68874	pg	-2	15	
4,4'-DDE	B	16131	18154	40.00000	45.01650	pg	13	15	
Endosulfan I	B	15283	15058	20.00000	19.70522	pg	-1	15	
Dieldrin	B	16622	18739	40.00000	45.09541	pg	13	15	
Endrin	B	13153	11877	40.00000	36.11745	pg	-10	15	
4,4'-DDD	B	13060	15297	40.00000	46.84994	pg	**17**	15	c+ ***
Endosulfan II	B	14266	14819	40.00000	41.55089	pg	4	15	
4,4'-DDT	B	10597	9257.3	40.00000	34.94359	pg	-13	15	
Endrin aldehyde	B	10995	11122	40.00000	40.46215	pg	1	15	
Methoxychlor	B	4978.1	4978.4	200.0000	200.0117	pg	0	15	
Endosulfan sulfate	B	12207	11961	40.00000	39.19252	pg	-2	15	
TCMX	B	13429	16236	40.00000	48.35907	pg	**21**	15	c+
Decachlorobiphenyl	B	9733.3	7400.0	40.00000	30.41089	pg	**-24**	15	c-
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805222534038 Filename : 154_038 Injected : 04-JUN-2005 07:53
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10831	20.00000	18.93296	pg	-5	15	
gamma-BHC	A	10469	10144	20.00000	19.37848	pg	-3	15	
beta-BHC	A	4405.3	4342.5	20.00000	19.71501	pg	-1	15	
delta-BHC	A	10970	10697	20.00000	19.50391	pg	-2	15	
Heptachlor	A	9011.4	8645.6	20.00000	19.18811	pg	-4	15	
Aldrin	A	9275.9	9290.4	20.00000	20.03137	pg	0	15	
Heptachlor epoxide	A	8438.5	8457.1	20.00000	20.04418	pg	0	15	
gamma-Chlordane	A	8615.9	8639.7	20.00000	20.05533	pg	0	15	
alpha-Chlordane	A	8318.3	8529.6	20.00000	20.50802	pg	3	15	
4,4'-DDE	A	8273.9	8416.5	40.00000	40.68928	pg	2	15	
Endosulfan I	A	7857.0	8023.4	20.00000	20.42361	pg	2	15	
Dieldrin	A	8486.3	8643.9	40.00000	40.74259	pg	2	15	
Endrin	A	6588.3	6861.2	40.00000	41.65721	pg	4	15	
4,4'-DDD	A	6934.7	7750.1	40.00000	44.70357	pg	12	15	
Endosulfan II	A	7216.6	7311.6	40.00000	40.52654	pg	1	15	
4,4'-DDT	A	6149.5	5670.9	40.00000	36.88667	pg	-8	15	
Endrin aldehyde	A	5602.0	5756.1	40.00000	41.10039	pg	3	15	
Methoxychlor	A	2447.2	2482.8	200.0000	202.9060	pg	1	15	
Endosulfan sulfate	A	6289.8	6388.4	40.00000	40.62738	pg	2	15	
TCMX	A	7213.6	6925.4	40.00000	38.40190	pg	-4	15	
Decachlorobiphenyl	A	4296.4	4320.8	40.00000	40.22768	pg	1	15	
alpha-BHC	B	21707	23961	20.00000	22.07719	pg	10	15	
gamma-BHC	B	20065	21383	20.00000	21.31393	pg	7	15	
beta-BHC	B	8004.9	8339.7	20.00000	20.83661	pg	4	15	
delta-BHC	B	20914	21842	20.00000	20.88765	pg	4	15	
Heptachlor	B	14016	15617	20.00000	22.28548	pg	11	15	
Aldrin	B	18069	18248	20.00000	20.19824	pg	1	15	
Heptachlor epoxide	B	16253	15909	20.00000	19.57656	pg	-2	15	
gamma-Chlordane	B	16737	16063	20.00000	19.19422	pg	-4	15	
alpha-Chlordane	B	16400	15730	20.00000	19.18264	pg	-4	15	
4,4'-DDE	B	16131	17483	40.00000	43.35390	pg	8	15	
Endosulfan I	B	15283	14710	20.00000	19.24985	pg	-4	15	
Dieldrin	B	16622	18121	40.00000	43.60783	pg	9	15	
Endrin	B	13153	11132	40.00000	33.85412	pg	-15	15	
4,4'-DDD	B	13060	15052	40.00000	46.10150	pg	15	15	
Endosulfan II	B	14266	14556	40.00000	40.81290	pg	2	15	
4,4'-DDT	B	10597	8755.5	40.00000	33.04964	pg	**-17**	15	c- ***
Endrin aldehyde	B	10995	10781	40.00000	39.22119	pg	-2	15	
Methoxychlor	B	4978.1	4517.7	200.0000	181.5014	pg	-9	15	
Endosulfan sulfate	B	12207	11413	40.00000	37.39883	pg	-7	15	
TCMX	B	13429	15790	40.00000	47.03202	pg	**18**	15	c+
Decachlorobiphenyl	B	9733.3	6643.4	40.00000	27.30174	pg	**-32**	15	c-
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				9	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_3 IDF : 1.0
Seqnum : 805226950009 Filename : 157_009 Injected : 06-JUN-2005 16:43
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S738

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	9289.0	10.00000	8.118369	pg	**-19**	15	c- ***
gamma-BHC	A	10469	8832.7	10.00000	8.436791	pg	**-16**	15	c- ***
beta-BHC	A	4405.3	3870.2	10.00000	8.785405	pg	-12	15	
delta-BHC	A	10970	9627.7	10.00000	8.776725	pg	-12	15	
Heptachlor	A	9011.4	8207.6	10.00000	9.107993	pg	-9	15	
Aldrin	A	9275.9	7984.7	10.00000	8.608059	pg	-14	15	
Heptachlor epoxide	A	8438.5	7343.9	10.00000	8.702871	pg	-13	15	
gamma-Chlordane	A	8615.9	7492.7	10.00000	8.696434	pg	-13	15	
alpha-Chlordane	A	8318.3	7377.5	10.00000	8.869028	pg	-11	15	
4,4'-DDE	A	8273.9	7243.6	20.00000	17.50947	pg	-12	15	
Endosulfan I	A	7857.0	6972.4	10.00000	8.874168	pg	-11	15	
Dieldrin	A	8486.3	7455.6	20.00000	17.57089	pg	-12	15	
Endrin	A	6588.3	6459.8	20.00000	19.61009	pg	-2	15	
4,4'-DDD	A	6934.7	5826.7	20.00000	16.80455	pg	**-16**	15	c- ***
Endosulfan II	A	7216.6	6437.8	20.00000	17.84155	pg	-11	15	
4,4'-DDT	A	6149.5	6184.8	20.00000	20.11466	pg	1	15	
Endrin aldehyde	A	5602.0	5282.7	20.00000	18.86004	pg	-6	15	
Methoxychlor	A	2447.2	2651.3	100.0000	108.3375	pg	8	15	
Endosulfan sulfate	A	6289.8	5723.2	20.00000	18.19840	pg	-9	15	
TCMX	A	7213.6	5971.0	20.00000	16.55478	pg	**-17**	15	c-
Decachlorobiphenyl	A	4296.4	4081.7	20.00000	19.00099	pg	-5	15	
alpha-BHC	B	21707	20164	10.00000	9.289128	pg	-7	15	
gamma-BHC	B	20065	18875	10.00000	9.407231	pg	-6	15	
beta-BHC	B	8004.9	8096.3	10.00000	10.11419	pg	1	15	
delta-BHC	B	20914	20599	10.00000	9.849666	pg	-2	15	
Heptachlor	B	14016	16450	10.00000	11.73664	pg	**17**	15	c+ ***
Aldrin	B	18069	17262	10.00000	9.553365	pg	-4	15	
Heptachlor epoxide	B	16253	15499	10.00000	9.535922	pg	-5	15	
gamma-Chlordane	B	16737	15868	10.00000	9.480629	pg	-5	15	
alpha-Chlordane	B	16400	15812	10.00000	9.641610	pg	-4	15	
4,4'-DDE	B	16131	16339	20.00000	20.25830	pg	1	15	
Endosulfan I	B	15283	14926	10.00000	9.766313	pg	-2	15	
Dieldrin	B	16622	16407	20.00000	19.74131	pg	-1	15	
Endrin	B	13153	13936	20.00000	21.19052	pg	6	15	
4,4'-DDD	B	13060	12633	20.00000	19.34614	pg	-3	15	
Endosulfan II	B	14266	13854	20.00000	19.42298	pg	-3	15	
4,4'-DDT	B	10597	12988	20.00000	24.51344	pg	**23**	15	c+ ***
Endrin aldehyde	B	10995	10823	20.00000	19.68841	pg	-2	15	
Methoxychlor	B	4978.1	6231.5	100.0000	125.1781	pg	**25**	15	c+ ***
Endosulfan sulfate	B	12207	12098	20.00000	19.82087	pg	-1	15	
TCMX	B	13429	13271	20.00000	19.76368	pg	-1	15	
Decachlorobiphenyl	B	9733.3	8755.4	20.00000	17.99052	pg	-10	15	
Average EPA 8081A	A		(count=22)				11	15	
Average EPA 8081A	B		(count=22)				6	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805226950022 Filename : 157_022 Injected : 06-JUN-2005 23:38
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10577	20.00000	18.48770	pg	-8	15	
gamma-BHC	A	10469	9932.3	20.00000	18.97407	pg	-5	15	
beta-BHC	A	4405.3	4218.2	20.00000	19.15033	pg	-4	15	
delta-BHC	A	10970	10401	20.00000	18.96279	pg	-5	15	
Heptachlor	A	9011.4	8964.4	20.00000	19.89574	pg	-1	15	
Aldrin	A	9275.9	9065.6	20.00000	19.54648	pg	-2	15	
Heptachlor epoxide	A	8438.5	8256.8	20.00000	19.56951	pg	-2	15	
gamma-Chlordane	A	8615.9	8440.5	20.00000	19.59298	pg	-2	15	
alpha-Chlordane	A	8318.3	8237.7	20.00000	19.80632	pg	-1	15	
4,4'-DDE	A	8273.9	8172.6	40.00000	39.51003	pg	-1	15	
Endosulfan I	A	7857.0	7805.1	20.00000	19.86798	pg	-1	15	
Dieldrin	A	8486.3	8327.5	40.00000	39.25137	pg	-2	15	
Endrin	A	6588.3	7081.9	40.00000	42.99670	pg	7	15	
4,4'-DDD	A	6934.7	6869.6	40.00000	39.62438	pg	-1	15	
Endosulfan II	A	7216.6	7120.9	40.00000	39.46930	pg	-1	15	
4,4'-DDT	A	6149.5	6308.6	40.00000	41.03434	pg	3	15	
Endrin aldehyde	A	5602.0	5624.1	40.00000	40.15790	pg	0	15	
Methoxychlor	A	2447.2	2710.8	200.0000	221.5395	pg	11	15	
Endosulfan sulfate	A	6289.8	6242.8	40.00000	39.70085	pg	-1	15	
TCMX	A	7213.6	6762.6	40.00000	37.49902	pg	-6	15	
Decachlorobiphenyl	A	4296.4	4437.5	40.00000	41.31426	pg	3	15	
alpha-BHC	B	21707	23801	20.00000	21.92962	pg	10	15	
gamma-BHC	B	20065	21890	20.00000	21.81898	pg	9	15	
beta-BHC	B	8004.9	8584.2	20.00000	21.44725	pg	7	15	
delta-BHC	B	20914	22441	20.00000	21.45996	pg	7	15	
Heptachlor	B	14016	18208	20.00000	25.98234	pg	**30**	15	c+ ***
Aldrin	B	18069	19068	20.00000	21.10525	pg	6	15	
Heptachlor epoxide	B	16253	16739	20.00000	20.59833	pg	3	15	
gamma-Chlordane	B	16737	17067	20.00000	20.39470	pg	2	15	
alpha-Chlordane	B	16400	16743	20.00000	20.41845	pg	2	15	
4,4'-DDE	B	16131	19122	40.00000	47.41654	pg	**19**	15	c+ ***
Endosulfan I	B	15283	15618	20.00000	20.43864	pg	2	15	
Dieldrin	B	16622	19423	40.00000	46.74161	pg	**17**	15	c+ ***
Endrin	B	13153	15402	40.00000	46.83775	pg	**17**	15	c+ ***
4,4'-DDD	B	13060	14191	40.00000	43.46355	pg	9	15	
Endosulfan II	B	14266	15170	40.00000	42.53536	pg	6	15	
4,4'-DDT	B	10597	13186	40.00000	49.77253	pg	**24**	15	c+ ***
Endrin aldehyde	B	10995	11238	40.00000	40.88334	pg	2	15	
Methoxychlor	B	4978.1	6676.9	200.0000	268.2515	pg	**34**	15	c+ ***
Endosulfan sulfate	B	12207	12249	40.00000	40.13712	pg	0	15	
TCMX	B	13429	15346	40.00000	45.70854	pg	14	15	
Decachlorobiphenyl	B	9733.3	8284.4	40.00000	34.04551	pg	-15	15	
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				11	15	

+=high bias c=CCV
Page 1 of 1

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805212954 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 27-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
003	147_003	PEM				27-MAY-2005 20:19	1.0		1			1	
004	147_004	X	hex			27-MAY-2005 20:46	1.0						
005	147_005	ICAL	pest_1			27-MAY-2005 21:14	1.0					2	
006	147_006	ICAL	pest_2			27-MAY-2005 21:42	1.0					3	
007	147_007	ICAL	pest_3			27-MAY-2005 22:09	1.0					4	
008	147_008	ICAL	pest_4			27-MAY-2005 22:37	1.0					5	
009	147_009	ICAL	pest_5			27-MAY-2005 23:05	1.0					6	
010	147_010	ICAL	pest_6			27-MAY-2005 23:33	1.0					7	
011	147_011	ICAL	pest_7			28-MAY-2005 00:00	1.0					8	
013	147_013	ICV				28-MAY-2005 00:56	1.0		1			9	
014	147_014	X	icv			28-MAY-2005 01:24	1.0		1			9	

26

Stds used: 1=S663 2=S9 3=S419 4=S420 5=S643 6=S613 7=S13 8=S14 9=S441

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	152_002	X	pem			01-JUN-2005 12:09	1.0	1.0			1	1	1:DDT44=149.052
003	152_003	X	ccv			01-JUN-2005 12:37	1.0	1.0			1	2	
004	152_004	X	ccv			01-JUN-2005 13:05	1.0	1.0			1	2	
005	152_005	X	pem			01-JUN-2005 13:58	1.0	1.0			1	1	1:DDT44=121.667
008	152_008	X	pem			01-JUN-2005 17:54	1.0	1.0			1	1	1:DDT44=131.216
009	152_009	X	ccv			01-JUN-2005 18:22	1.0	1.0			1	2 ac	
010	152_010	X	ccv			01-JUN-2005 19:54	1.0					2	
011	152_011	CCV	pest_4			01-JUN-2005 20:22	1.0	1.0	6		1	2	
012	152_012	X	ccv			01-JUN-2005 20:49	1.0				1	2	
013	152_013	PEM				01-JUN-2005 21:17	1.0	1.0			1	1	1:DDT44=156.947
015	152_015	BLANK	QC295453	102456	Water	01-JUN-2005 22:13	1.0	0.01		1	1		
016	152_016	LCS	QC295454	102456	Water	01-JUN-2005 22:41	1.0	0.01	6	3	1		1:DDT44=53.6046
017	152_017	SAMPLE	179613-019	102456	Water	01-JUN-2005 23:09	1.0	0.009524			1		
018	152_018	SAMPLE	179645-004	102456	Water	01-JUN-2005 23:36	1.0	0.009524		2	1		
019	152_019	SAMPLE	179645-005	102456	Water	02-JUN-2005 00:04	1.0	0.009615		1	1		
020	152_020	SAMPLE	179679-001	102456	Water	02-JUN-2005 00:32	1.0	0.009709			1		
021	152_021	SAMPLE	179679-002	102456	Water	02-JUN-2005 01:00	1.0	0.009524		2	1		
022	152_022	MSS	179727-002	102456	Water	02-JUN-2005 01:28	1.0	0.009709			1		
023	152_023	MS	QC295455	102456	Water	02-JUN-2005 01:55	1.0	0.009709	6	1	1		
024	152_024	MSD	QC295456	102456	Water	02-JUN-2005 02:23	1.0	0.009524	6	8	1		1:DDT44=53.2110
026	152_026	PEM				02-JUN-2005 03:19	1.0	1.0			1	1	1:DDT44=155.990
027	152_027	CCV	pest_3			02-JUN-2005 03:47	1.0	1.0	1		1	3	
028	152_028	X	ccv			02-JUN-2005 04:14	1.0				1	3	
031	152_031	SAMPLE	179679-003	102456	Water	02-JUN-2005 05:38	1.0	0.009615		2	1		
032	152_032	SAMPLE	179679-004	102456	Water	02-JUN-2005 06:05	1.0	0.009434		2	1		
033	152_033	SAMPLE	179679-005	102456	Water	02-JUN-2005 06:33	1.0	0.009434		2	1		
034	152_034	SAMPLE	179679-006	102456	Water	02-JUN-2005 07:01	1.0	0.01			1		
035	152_035	SAMPLE	179679-007	102456	Water	02-JUN-2005 07:28	1.0	0.009524	5	2	1		6:BHCBET=352.319
036	152_036	SAMPLE	179714-001	102456	Water	02-JUN-2005 07:56	1.0	0.009434		2	1		
037	152_037	SAMPLE	179727-001	102456	Water	02-JUN-2005 08:24	1.0	0.009709			1		

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
038	152_038	SAMPLE	179727-003	102456	Water	02-JUN-2005 08:52	1.0	0.009524		1	1		
039	152_039	SAMPLE	179727-004	102456	Water	02-JUN-2005 09:19	1.0	0.009524		2	1		
040	152_040	SAMPLE	179727-007	102456	Water	02-JUN-2005 09:47	1.0	0.009804		1	1		
042	152_042	PEM				02-JUN-2005 10:43	1.0	1.0			1	1 1:DDT44=137.242	
043	152_043	X	ccv			02-JUN-2005 11:11	1.0	1.0			1	4 ac	
044	152_044	CCV	pest_2			02-JUN-2005 11:39	1.0	1.0	5		1	4	
047	152_047	SAMPLE	179727-008	102456	Water	02-JUN-2005 13:13	1.0	0.009709	4	1	1		
048	152_048	SAMPLE	179727-014	102456	Water	02-JUN-2005 13:41	1.0	0.009804	4	2	1		
049	152_049	SAMPLE	179727-015	102456	Water	02-JUN-2005 14:09	1.0	0.009434	4	1	1		
050	152_050	SAMPLE	179727-017	102456	Water	02-JUN-2005 14:37	1.0	0.009901	4	1	1		
051	152_051	BLANK	QC295933	102569	Soil	02-JUN-2005 18:46	1.0	0.6658	4		1		
052	152_052	LCS	QC295934	102569	Soil	02-JUN-2005 19:14	1.0	0.6653	10		1		
053	152_053	SAMPLE	179626-001	102569	Soil	02-JUN-2005 19:42	1.0	0.6618	4		1		
054	152_054	SAMPLE	179626-002	102569	Soil	02-JUN-2005 20:10	1.0	0.664	4		1		
055	152_055	SAMPLE	179626-003	102569	Soil	02-JUN-2005 20:38	2.0	0.6588	4		1		28
056	152_056	SAMPLE	179583-014	102543	Water	02-JUN-2005 21:06	10.0	0.01389	38		1	sh	
058	152_058	PEM				02-JUN-2005 22:02	1.0	1.0			1	1 1:DDT44=123.949	
059	152_059	CCV	pest_4			02-JUN-2005 22:29	1.0	1.0	6		1	2	
060	152_060	X	ccv			02-JUN-2005 22:57	1.0					2	
063	152_063	BLANK	QC295812	102543	Water	03-JUN-2005 00:20	1.0	0.01	4		1		
064	152_064	BS	QC295813	102543	Water	03-JUN-2005 00:48	1.0	0.01	7	1	1		
065	152_065	BSD	QC295814	102543	Water	03-JUN-2005 01:16	1.0	0.01	7	11	1		
066	152_066	SAMPLE	179688-001	102543	Water	03-JUN-2005 01:44	1.0	0.009901	5		1		
067	152_067	SAMPLE	179688-002	102543	Water	03-JUN-2005 02:12	1.0	0.01	6	1	1	2:DDT44=341.956	
068	152_068	SAMPLE	179688-003	102543	Water	03-JUN-2005 02:40	1.0	0.01	4	1	1		
069	152_069	SAMPLE	179688-004	102543	Water	03-JUN-2005 03:08	1.0	0.01	4	1	1		
070	152_070	SAMPLE	179688-005	102543	Water	03-JUN-2005 03:36	1.0	0.01	4		1		
071	152_071	MS	QC295455	102456	Water	03-JUN-2005 04:04	1.0	0.009709	7	1	1		
072	152_072	MSD	QC295456	102456	Water	03-JUN-2005 04:32	1.0	0.009524	7	2	1		
074	152_074	PEM				03-JUN-2005 05:27	1.0	1.0			1	1 1:DDT44=144.421	

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
075	152_075	CCV	pest_3			03-JUN-2005 05:55	1.0	1.0	4		1	3	
076	152_076	X	ccv			03-JUN-2005 06:23	1.0					3	
077	152_077	X	pem			03-JUN-2005 06:50	1.0	1.0			1	1	1:DDT44=138.667

29

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805222534 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 03-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
005	154_005	X	pem			03-JUN-2005 12:54	1.0	1.0			1	1	1:DDT44=118.488
006	154_006	X	ccv			03-JUN-2005 13:22	1.0	1.0			1	2	
007	154_007	CCV	pest_2			03-JUN-2005 13:50	1.0	1.0	1		1	2	
008	154_008	PEM				03-JUN-2005 15:01	1.0	1.0			1	1	1:DDT44=121.414
010	154_010	BS	QC295813	102543	Water	03-JUN-2005 18:56	1.0	0.01	2	1	1		
011	154_011	BSD	QC295814	102543	Water	03-JUN-2005 19:24	1.0	0.01	2	3	1		
012	154_012	SAMPLE	179688-002	102543	Water	03-JUN-2005 19:52	10.0	0.01			1		
013	154_013	SAMPLE	179597-001	102485	Soil	03-JUN-2005 20:20	1.0	0.672			1		
014	154_014	SAMPLE	179597-002	102485	Soil	03-JUN-2005 20:47	1.0	0.6689			1		
015	154_015	SAMPLE	179597-003	102485	Soil	03-JUN-2005 21:15	1.0	0.6566			1		
016	154_016	SAMPLE	179597-004	102485	Soil	03-JUN-2005 21:43	1.0	0.6752			1		
017	154_017	SAMPLE	179597-005	102485	Soil	03-JUN-2005 22:11	5.0	0.6748			1		
018	154_018	SAMPLE	179597-006	102485	Soil	03-JUN-2005 22:38	10.0	0.6607			1		
019	154_019	SAMPLE	179614-027	102485	Soil	03-JUN-2005 23:06	5.0	0.6773			1		
021	154_021	PEM				04-JUN-2005 00:02	1.0	1.0			1	1	1:DDT44=107.185
022	154_022	CCV	pest_4			04-JUN-2005 00:29	1.0	1.0	1		1	3	
026	154_026	SAMPLE	179782-001	102543	Water	04-JUN-2005 02:20	1.0	0.009615	1	1	1		
027	154_027	SAMPLE	179782-002	102543	Water	04-JUN-2005 02:48	1.0	0.009709	1	2	1		
028	154_028	SAMPLE	179564-001	102569	Soil	04-JUN-2005 03:16	5.0	0.6667	1	1	1		
029	154_029	MSS	179603-001	102569	Soil	04-JUN-2005 03:43	2.0	0.6689	1		1		
030	154_030	SAMPLE	179622-001	102569	Soil	04-JUN-2005 04:11	1.0	0.6557	1		1		
031	154_031	SAMPLE	179622-002	102569	Soil	04-JUN-2005 04:39	1.0	0.664	1		1		
032	154_032	SAMPLE	179622-003	102569	Soil	04-JUN-2005 05:06	5.0	0.6645	1		1		
033	154_033	SAMPLE	179622-004	102569	Soil	04-JUN-2005 05:34	5.0	0.6609	1		1		
034	154_034	SAMPLE	179622-005	102569	Soil	04-JUN-2005 06:02	10.0	0.6667	1		1		
035	154_035	SAMPLE	179622-006	102569	Soil	04-JUN-2005 06:30	10.0	0.6566	1		1		
037	154_037	PEM				04-JUN-2005 07:25	1.0	1.0			1	1	1:DDT44=110.143
038	154_038	CCV	pest_4			04-JUN-2005 07:53	1.0	1.0	1		1	3	
040	154_040	X	pem			04-JUN-2005 08:48	1.0					1	
051	154_051	X	pem			04-JUN-2005 13:55	1.0	1.0			1	1	1:DDT44=78.2311
052	154_052	X	ccv			04-JUN-2005 14:23	1.0					2	

Stds used: 1=S663 2=S419 3=S643

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805222534 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 03-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
053	154_053	X	ccv			04-JUN-2005 14:51	1.0			2	
054	154_054	X	pem			04-JUN-2005 15:19	1.0	1.0	1	1	1:DDT44=93.5881

31

Stds used: 1=S663 2=S419 3=S643

SEQUENCE SUMMARY FOR 179564 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805226950 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
005	157_005	X	pem			06-JUN-2005 14:30	1.0	1.0			1	1	1:DDT44=141.669
006	157_006	X	ccv			06-JUN-2005 14:58	1.0	1.0			1	2	
007	157_007	X	ccv			06-JUN-2005 15:26	1.0	1.0			1	2 ac	
008	157_008	X	ccv			06-JUN-2005 16:15	1.0	1.0			1	3	
009	157_009	CCV	pest_3			06-JUN-2005 16:43	1.0	1.0	6		1	3	
010	157_010	PEM				06-JUN-2005 18:03	1.0	1.0			1	1	1:DDT44=162.615
012	157_012	MS	QC295935	102569	Soil	06-JUN-2005 18:59	2.0	0.6645	9	2	1		
013	157_013	MSD	QC295936	102569	Soil	06-JUN-2005 19:27	2.0	0.6631	9	3	1		
014	157_014	SAMPLE	179653-001	102569	Soil	06-JUN-2005 19:55	1.0	0.6609	3		1		
015	157_015	SAMPLE	179653-002	102569	Soil	06-JUN-2005 20:22	10.0	0.6562	3		1		
016	157_016	SAMPLE	179653-003	102569	Soil	06-JUN-2005 20:50	5.0	0.6592	3		1		
017	157_017	SAMPLE	179653-004	102569	Soil	06-JUN-2005 21:18	10.0	0.664	3		1		
018	157_018	SAMPLE	179653-005	102569	Soil	06-JUN-2005 21:46	10.0	0.6636	3		1		
019	157_019	SAMPLE	179679-007	102456	Water	06-JUN-2005 22:14	10.0	0.009524	4		1		1:BHCBET=119.263
021	157_021	PEM				06-JUN-2005 23:10	1.0	1.0			1	1	1:DDT44=179.091
022	157_022	CCV	pest_4			06-JUN-2005 23:38	1.0	1.0	6		1	4	
023	157_023	X	ccv			07-JUN-2005 00:06	1.0					4	

Stds used: 1=S663 2=S419 3=S738 4=S643
Flags used: ac=average CCV drift out

Curtis & Tompkins Laboratories Sample Preparation Summary 03-JUN-2005 11:00

Batch Number : 102569
Date Extracted: 02-JUN-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S719A
Spike #2 ID : S358A
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH	Clean D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179564-001			Mactec, Inc.	Soil	15	g	10	0.666667	1		.02	0		8081	3620B	
179603-001			Mactec, Inc.	Soil	14.95	g	10	0.668896	1		.02	0		8081	3620B	mss
179622-001			Fugro West, Inc.	Soil	15.25	g	10	0.655738	1		.02	0		8081	3620B	
179622-002			Fugro West, Inc.	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179622-003			Fugro West, Inc.	Soil	15.05	g	10	0.664452	1		.02	0		8081	3620B	
179622-004			Fugro West, Inc.	Soil	15.13	g	10	0.660939	1		.02	0		8081	3620B	
179622-005			Fugro West, Inc.	Soil	15	g	10	0.666667	1		.02	0		8081	3620B	
179622-006			Fugro West, Inc.	Soil	15.23	g	10	0.656599	1		.02	0		8081	3620B	
179626-001			Treadwell & Rollo	Soil	15.11	g	10	0.661813	1		.02	0		8081	3620B	
179626-002			Treadwell & Rollo	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179626-003			Treadwell & Rollo	Soil	15.18	g	10	0.658762	1		.02	0		8081	3620B	
179653-001			Fugro West, Inc.	Soil	15.13	g	10	0.660939	1		.02	0		8081	3620B	
179653-002			Fugro West, Inc.	Soil	15.24	g	10	0.656168	1		.02	0		8081	3620B	
179653-003			Fugro West, Inc.	Soil	15.17	g	10	0.659196	1		.02	0		8081	3620B	
179653-004			Fugro West, Inc.	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179653-005			Fugro West, Inc.	Soil	15.07	g	10	0.663570	1		.02	0		8081	3620B	
QC295933	BLANK			Soil	15.02	g	10	0.665779	1		.02	0		8081	3620B	
QC295934	LCS			Soil	15.03	g	10	0.665336	1		.02	.025		8081	3620B	
QC295935	MS	of 179603-001		Soil	15.05	g	10	0.664452	1		.02	.025		8081	3620B	
QC295936	MSD	of 179603-001		Soil	15.08	g	10	0.663130	1		.02	.025		8081	3620B	

Prep Chemist: _____ Reviewed By: _____ Date: 3 June 05

Relinquished By: _____ Received By: _____ Date: 06/06/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

LIMS Batch No: 102569 **Extraction Method:** **Cleanup Method:** Page 83

LIMS Analysis: 8081 ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: SLC ☑ EPA 3545 PFE (Mth# 10) ☑ EPA 3620b Florisil

Date Extracted: 06/02/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

	Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
	MB QC295933	15.02	10.0	X	
	LCS 4	15.03	↓		
	MS 5	15.05	10.0		179603-001
	MSD ↓ 6	15.08			↓
5	179564-001	15.00			
	179603-001	14.95			MSS
	179622-001	15.25			
	-002	15.06			
	-003	15.05			
10	-004	15.13			
	-005	15.00			
	-006	15.23	↓		
	179626-001	15.11	10.0		
	-002	15.06	↓		
15	-003	15.18	↓		
	179653-001	15.13	10.0		
	-002	15.24	↓		
	-003	15.17			
	-004	15.06			
20	-005	15.07	↓	↓	

JOM 3 June 05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM4402 8452	SLC 06/02/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	Dionex 040603	
0.02 mL of surrogate solution was added to all samples	S719A	
0.025 mL of spike solution was added to all spikes	S358A	
1:1 CH_2Cl_2 (lot# EM4504) : Acetone (lot# EM4507) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
Soxhlets on at:	N/A	
Soxhlets off at:	↓	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	↓	
Exchanged 2x with Hexane	CN801	↓
Concentrated: ☐ to volumes as noted above ☑ to clean-up volume	✓	JOM 3 June 05
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	✓	↓

06/02/05
Extraction Chemist / Date

Continued from page _____

Continued on page _____

3 June 05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: SLK
Cleanup Date: 06/02/05

Benchbook # **BK 2068**
Page 87

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
MB QC 295933	102509	1.0	1.0	
LCS ↓	↓	↓	↓	
196276-001	↓	↓	↓	
-002	↓	↓	↓	
-003	↓	↓	↓	

SLK 06/02/05

	Mfg & Lot # / Time / Program	Initials / Date
☑ Extracts were cleaned up using Florisil cartridges	Resprep 402290-BE	SLK 06/02/05
Florisil cartridges/ columns rinsed 3x with Hexane	CJ801	
Extracts were eluted with 90 mL 9:1 Hexane/Acetone — Hexane	↓	
Acetone	EM44233	
Concentrated to volumes as noted above	✓	↓

06/02/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

6/2/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JOM
Cleanup Date: 3 June 05

Benchbook # **BK 2068**
Page 88

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179564-001	102569	1.0	1.0	
179603-001				MSS
179622-001				
2				
3				
4				
5				
6				
179653-001				
2				
3				
4				
5				
MS QC295935				
MSD 6				

JOM 3 June 05

	Mfg & Lot # / Time / Program	Initials / Date
☒ Extracts were cleaned up using Florisil cartridges	Resprep 402290-BE	JOM 3 June 05
Florisil cartridges/ columns rinsed 3x with Hexane	CN800	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone — Hexane	CN801	
Acetone	EM44233	
Concentrated to volumes as noted above	✓	

3 June 05
Extraction Chemist / Date

Continued from page
Continued on page

6/3/05
Reviewed by / Date

Project SOIL ALIQUOT PK2135

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179606-001A	50.24	TEHN	
-002	50.29		
-003	50.28		
-005	50.07		
-006	50.30		
-007	50.30		
-008	50.36		MS
-MS	50.33		179606-008A
-MSD	50.11		
-009A	50.36		
-010	50.49		
-LCS	50.42		EM49028452
-MB	50.17		
179626-001A	15.11	8081	
-002	15.06		
-003	15.18		
179626-001A	50.11	TEHN	
-002	50.49		
-003	50.14		
179646-001A	15.17	PCB	
-005	15.24		
-006	15.04		
-007	15.08		MS
-MS	15.02		179646-007A
-MSD	15.13		
-LCS	15.01		EM49028452
-MB	15.13		

Continued on Page

Read and Understood By

Signed	Date		Signed	Date
[signature]	5/31/05			

Project SGL ALIQUOT BK2135

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179636-001A	30.01	8310	MISC.
179622-001A	15.25	8081	
-002	15.06		MSS
-MS	15.25		179622-002A
-MSD	15.10		↓
-LCS	15.05		EMA4028457
-MB	15.24		↓
-003A	15.05		
-004	15.13		
-005	15.90		
-006	15.23		
179597-001	30.08	8310 ALIASED	179528-002C
-002	30.00		-009
-003	30.21		-013
-004	30.35		179549-005A
-005	30.12		-009
-006	30.05		-017
179453-001A	15.13	8081	
-002	15.24		
-003	15.17		
-004	15.06		
-005	15.07		
179656-001A	15.20	POB	
~~LCS 131~~ -003	15.00		
-005	~~15.00~~ 15.13		
-006	~~15.15~~ 15.19		
-008	~~15.14~~ 15.24		
-010	15.07		
-012	15.11		
-014	15.17		
-016	15.16		
-018	15.02		

Continued on Page

S 5/31/05 38

Signed Date Read and Understood By Signed Date

Project SOIL ALIQUOT BK2435

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179504-001A	15.09	PCB 8081 PCB	
179504-001A	15.00		
179567-005B	15.15		
-006 ↓	15.06		MSS 179567-006B ↓ EM14028452 ↓
-MS	15.17		
-MSD	15.15		
-LCS	15.19		
-MB	15.10		

Continued on Page

Signed | 6/1/05 Date | Read and Understood By

Signed | Date

Sample ID	Weight(g)	Analysis & Sample Date	Comments
MB	15.02	8081	EM4402845Z
LCS	15.03	↓	↓
MS	15.05		179603-001
MSD	15.08	↓	↓
179603-001A	14.95		MS

Continued on Page

Signed Date 10/02/05

Read and Understood By

Signed Date

REPORTING SUMMARY FOR 179564 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179564-001	alpha-BHC	GC23	A	06/04/05 03:16
179564-001	beta-BHC	GC23	A	06/04/05 03:16
179564-001	gamma-BHC	GC23	A	06/04/05 03:16
179564-001	delta-BHC	GC23	A	06/04/05 03:16
179564-001	Heptachlor	GC23	A	06/04/05 03:16
179564-001	Aldrin	GC23	A	06/04/05 03:16
179564-001	Heptachlor epoxide	GC23	A	06/04/05 03:16
179564-001	Endosulfan I	GC23	A	06/04/05 03:16
179564-001	Dieldrin	GC23	A	06/04/05 03:16
179564-001	4,4'-DDE	GC23	B	06/04/05 03:16
179564-001	Endrin	GC23	A	06/04/05 03:16
179564-001	Endosulfan II	GC23	A	06/04/05 03:16
179564-001	Endosulfan sulfate	GC23	A	06/04/05 03:16
179564-001	4,4'-DDD	GC23	B	06/04/05 03:16
179564-001	Endrin aldehyde	GC23	A	06/04/05 03:16
179564-001	4,4'-DDT	GC23	B	06/04/05 03:16
179564-001	alpha-Chlordane	GC23	A	06/04/05 03:16
179564-001	gamma-Chlordane	GC23	A	06/04/05 03:16
179564-001	Methoxychlor	GC23	A	06/04/05 03:16
179564-001	Toxaphene	GC23	A	06/04/05 03:16
179564-001	TCMX	GC23	A	06/04/05 03:16
179564-001	Decachlorobiphenyl	GC23	A	06/04/05 03:16
QC295933	alpha-BHC	GC23	B	06/02/05 18:46
QC295933	beta-BHC	GC23	B	06/02/05 18:46
QC295933	gamma-BHC	GC23	B	06/02/05 18:46
QC295933	delta-BHC	GC23	B	06/02/05 18:46
QC295933	Heptachlor	GC23	B	06/02/05 18:46
QC295933	Aldrin	GC23	B	06/02/05 18:46
QC295933	Heptachlor epoxide	GC23	B	06/02/05 18:46
QC295933	Endosulfan I	GC23	B	06/02/05 18:46
QC295933	Dieldrin	GC23	B	06/02/05 18:46
QC295933	4,4'-DDE	GC23	B	06/02/05 18:46
QC295933	Endrin	GC23	B	06/02/05 18:46
QC295933	Endosulfan II	GC23	B	06/02/05 18:46
QC295933	Endosulfan sulfate	GC23	B	06/02/05 18:46
QC295933	4,4'-DDD	GC23	B	06/02/05 18:46
QC295933	Endrin aldehyde	GC23	B	06/02/05 18:46
QC295933	4,4'-DDT	GC23	B	06/02/05 18:46
QC295933	alpha-Chlordane	GC23	B	06/02/05 18:46
QC295933	gamma-Chlordane	GC23	B	06/02/05 18:46
QC295933	Methoxychlor	GC23	B	06/02/05 18:46
QC295933	Toxaphene	GC23	B	06/02/05 18:46
QC295933	TCMX	GC23	B	06/02/05 18:46
QC295933	Decachlorobiphenyl	GC23	B	06/02/05 18:46
QC295934	gamma-BHC	GC23	B	06/02/05 19:14
QC295934	Heptachlor	GC23	B	06/02/05 19:14
QC295934	Aldrin	GC23	B	06/02/05 19:14
QC295934	Dieldrin	GC23	B	06/02/05 19:14
QC295934	Endrin	GC23	B	06/02/05 19:14
QC295934	4,4'-DDT	GC23	B	06/02/05 19:14
QC295934	TCMX	GC23	B	06/02/05 19:14
QC295934	Decachlorobiphenyl	GC23	B	06/02/05 19:14

REPORTING SUMMARY FOR 179564 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC295935	gamma-BHC	GC23	A	06/06/05 18:59
QC295935	Heptachlor	GC23	A	06/06/05 18:59
QC295935	Aldrin	GC23	A	06/06/05 18:59
QC295935	Dieldrin	GC23	A	06/06/05 18:59
QC295935	Endrin	GC23	A	06/06/05 18:59
QC295935	4,4'-DDT	GC23	A	06/06/05 18:59
QC295935	TCMX	GC23	A	06/06/05 18:59
QC295935	Decachlorobiphenyl	GC23	A	06/06/05 18:59
QC295936	gamma-BHC	GC23	A	06/06/05 19:27
QC295936	Heptachlor	GC23	A	06/06/05 19:27
QC295936	Aldrin	GC23	A	06/06/05 19:27
QC295936	Dieldrin	GC23	A	06/06/05 19:27
QC295936	Endrin	GC23	A	06/06/05 19:27
QC295936	4,4'-DDT	GC23	A	06/06/05 19:27
QC295936	TCMX	GC23	A	06/06/05 19:27
QC295936	Decachlorobiphenyl	GC23	A	06/06/05 19:27

Polychlorinated Biphenyls Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBSB101(0.5)	Batch#:	102584
Matrix:	Soil	Sampled:	05/20/05
Units:	ug/Kg	Received:	05/20/05
Diln Fac:	1.000	Prepared:	06/02/05

Type:	SAMPLE	Moisture:	15%
Lab ID:	179564-001	Analyzed:	06/04/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	3.0
Aroclor-1221	ND	22	4.7
Aroclor-1232	ND	11	1.7
Aroclor-1242	ND	11	3.9
Aroclor-1248	ND	11	2.9
Aroclor-1254	ND	11	4.6
Aroclor-1260	ND	11	1.7

Surrogate	%REC	Limits
TCMX	93	63-141
Decachlorobiphenyl	94	49-146

Type:	BLANK	Analyzed:	06/03/05
Lab ID:	QC295987	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.5	2.6
Aroclor-1221	ND	19	4.0
Aroclor-1232	ND	9.5	1.5
Aroclor-1242	ND	9.5	3.3
Aroclor-1248	ND	9.5	2.4
Aroclor-1254	ND	9.5	3.9
Aroclor-1260	ND	9.5	1.4

Surrogate	%REC	Limits
TCMX	83	63-141
Decachlorobiphenyl	88	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295988	Batch#:	102584
Matrix:	Soil	Prepared:	06/02/05
Units:	ug/Kg	Analyzed:	06/03/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	164.6	169.1	103	78-150

Surrogate	%REC	Limits
TCMX	75	63-141
Decachlorobiphenyl	95	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	102584
MSS Lab ID:	179567-006	Sampled:	05/19/05
Matrix:	Soil	Received:	05/20/05
Units:	ug/Kg	Prepared:	06/02/05
Basis:	dry	Analyzed:	06/04/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC295989
Moisture: 29%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<2.048	232.1	251.4	108	61-167

Surrogate	%REC	Limits
TCMX	85	63-141
Decachlorobiphenyl	90	49-146

Type: MSD
Lab ID: QC295990
Moisture: 29%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	232.4	238.2	102	61-167	6	36

Surrogate	%REC	Limits
TCMX	82	63-141
Decachlorobiphenyl	80	49-146

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255208084001 Name: Type: (normal) Date: 24-MAY-2005 12:04 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	144_002	255208084002	pcb10_2	24-MAY-2005 12:04	S698
2	144_003	255208084003	pcb25_5	24-MAY-2005 12:31	S699
3	144_004	255208084004	pcb100_20	24-MAY-2005 12:57	S700
4	144_005	255208084005	pcb250_50	24-MAY-2005 13:24	S701
5	144_006	255208084006	pcb500_100	24-MAY-2005 13:50	S702
6	144_007	255208084007	pcb750_150	24-MAY-2005 14:17	S703
7	144_008	255208084008	pcb1k_200	24-MAY-2005 14:44	S704

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	271.36	291.35	279.45	259.39	245.03	263.09	235.25	AVRG	R		0.003794		pg	263.56	7	.99	20	
Aroclor-1016 Peak # 2	A	523.89	533.03	515.42	467.65	431.44	469.99	418.63	AVRG	R		0.002083		pg	480.01	9	.99	20	
Aroclor-1016 Peak # 3	A	435.81	717.90	657.71	586.17	555.97	597.60	563.35	AVRG	R		0.001701		pg	587.79	15	.99	20	
Aroclor-1016 Peak # 4	A	355.55	402.03	372.11	343.66	311.03	356.08	299.90	AVRG	R		0.002868		pg	348.62	10	.99	20	
Aroclor-1016 Peak # 5	A	326.19	338.54	319.23	292.28	258.40	287.26	252.50	AVRG	R		0.003374		pg	296.34	11	.99	20	
Aroclor-1260 Peak # 1	A	589.78	645.27	590.93	531.99	456.65	544.10	457.23	AVRG	R		0.001834		pg	545.14	13	.99	20	
Aroclor-1260 Peak # 2	A	1131.8	1216.5	1085.2	981.33	858.09	1037.2	867.33	AVRG	R		9.753E-4		pg	1025.3	13	.99	20	
Aroclor-1260 Peak # 3	A	592.55	660.92	599.41	540.43	464.27	554.15	464.83	AVRG	R		0.001806		pg	553.79	13	.99	20	
Aroclor-1260 Peak # 4	A	513.15	586.40	535.34	479.99	411.72	495.25	409.07	AVRG	R		0.002040		pg	490.13	13	.99	20	
Aroclor-1260 Peak # 5	A	1402.6	1559.0	1373.6	1250.1	1133.5	1415.0	1193.3	AVRG	R		7.505E-4		pg	1332.4	11	.99	20	
TCMX	A	13890	14910	14571	13973	13956	15274	13870	AVRG	R		6.969E-5		pg	14349	4	.99	20	
Decachlorobiphenyl	A	8157.6	9386.7	8452.1	7569.3	7403.9	9975.4	8475.4	AVRG	R		1.178E-4		pg	8488.7	11	.99	20	
Aroclor-1016 Peak # 1	B	206.87	238.70	203.86	219.65	203.79	188.91	177.83	AVRG	R		0.004862		pg	205.66	10	.99	20	
Aroclor-1016 Peak # 2	B	443.17	496.66	422.53	442.21	405.27	376.08	351.33	AVRG	R		0.002383		pg	419.61	11	.99	20	
Aroclor-1016 Peak # 3	B	974.41	1109.9	929.87	964.47	881.69	825.89	773.05	AVRG	R		0.001084		pg	922.76	12	.99	20	
Aroclor-1016 Peak # 4	B	369.60	430.88	364.05	379.52	344.55	323.23	302.73	AVRG	R		0.002784		pg	359.22	12	.99	20	
Aroclor-1016 Peak # 5	B	289.59	334.64	273.60	285.40	258.74	243.06	226.85	AVRG	R		0.003661		pg	273.13	13	.99	20	
Aroclor-1260 Peak # 1	B	575.13	641.10	537.00	562.82	508.64	479.95	446.98	AVRG	R		0.001866		pg	535.95	12	.99	20	
Aroclor-1260 Peak # 2	B	853.13	931.15	780.62	821.23	751.82	702.90	666.59	AVRG	R		0.001271		pg	786.78	12	.99	20	

47

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255208084001 Name: Type: (normal) Date: 24-MAY-2005 12:04 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	601.18	655.90	559.16	597.28	547.49	511.52	485.00	AVRG	R		0.001769		pg	565.36	10	.99	20	
Aroclor-1260 Peak # 4	B	537.76	584.63	491.30	525.56	482.21	443.66	421.44	AVRG	R		0.002008		pg	498.08	11	.99	20	
Aroclor-1260 Peak # 5	B	1393.3	1551.0	1285.7	1434.5	1347.8	1277.3	1244.3	AVRG	R		7.342E-4		pg	1362.0	8	.99	20	
TCMX	B	11482	13408	11183	11973	11208	10415	9810.3	AVRG	R		8.807E-5		pg	11354	10	.99	20	
Decachlorobiphenyl	B	8650.8	9597.2	7636.9	8815.8	9317.9	8470.1	8464.5	AVRG	R		1.148E-4		pg	8707.6	7	.99	20	

48

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255208084001 Caldate : 24-MAY-2005 Caltype :

ICV 255208084010 (144_010) standards: S631

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255208084010	24-MAY-2005	250.00	267.84	pg	7	15
Aroclor-1260	A	255208084010	24-MAY-2005	250.00	263.02	pg	5	15
Aroclor-1016	B	255208084010	24-MAY-2005	250.00	274.03	pg	10	15
Aroclor-1260	B	255208084010	24-MAY-2005	250.00	267.76	pg	7	15

INITIAL CALIBRATION REPORT FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255218322002 Name: Type: (normal) Date: 31-MAY-2005 20:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	151_003	255218322003	ar1232	31-MAY-2005 20:12	S507

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	316.76	AVRG	R		0.003157		pg	316.76	0	.99	20	
Aroclor-1232 Peak # 2	A	230.98	AVRG	R		0.004329		pg	230.98	0	.99	20	
Aroclor-1232 Peak # 3	A	294.32	AVRG	R		0.003398		pg	294.32	0	.99	20	
Aroclor-1232 Peak # 4	A	179.24	AVRG	R		0.005579		pg	179.24	0	.99	20	
Aroclor-1232 Peak # 5	A	142.63	AVRG	R		0.007011		pg	142.63	0	.99	20	
Aroclor-1232 Peak # 1	B	250.19	AVRG	R		0.003997		pg	250.19	0	.99	20	
Aroclor-1232 Peak # 2	B	205.45	AVRG	R		0.004867		pg	205.45	0	.99	20	
Aroclor-1232 Peak # 3	B	421.53	AVRG	R		0.002372		pg	421.53	0	.99	20	
Aroclor-1232 Peak # 4	B	167.61	AVRG	R		0.005966		pg	167.61	0	.99	20	
Aroclor-1232 Peak # 5	B	121.65	AVRG	R		0.008220		pg	121.65	0	.99	20	

50

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005			250.00	257.39	pg	3	15	
GC22	B	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005			250.00	233.03	pg	-7	15	
GC22	A	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005			500.00	502.21	pg	0	15	
GC22	B	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005			500.00	515.12	pg	3	15	
GC22	A	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005			100.00	124.13	pg	24	15	c+ ***
GC22	B	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005			100.00	114.59	pg	15	15	
GC22	A	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005			250.00	284.12	pg	14	15	
GC22	B	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005			250.00	268.03	pg	7	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1232

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255222435003	03-JUN-2005 12:19	255218322002	31-MAY-2005			250.00	259.57	pg	4	15	
GC22	B	255222435003	03-JUN-2005 12:19	255218322002	31-MAY-2005			250.00	245.88	pg	-2	15	
GC22	A	255222435019	03-JUN-2005 22:31	255218322002	31-MAY-2005			250.00	257.70	pg	3	15	
GC22	B	255222435019	03-JUN-2005 22:31	255218322002	31-MAY-2005			250.00	257.43	pg	3	15	
GC22	A	255222435036	04-JUN-2005 06:04	255218322002	31-MAY-2005			250.00	262.87	pg	5	15	
GC22	B	255222435036	04-JUN-2005 06:04	255218322002	31-MAY-2005			250.00	267.88	pg	7	15	
GC22	A	255226875013	06-JUN-2005 21:02	255218322002	31-MAY-2005			250.00	231.90	pg	-7	15	
GC22	B	255226875013	06-JUN-2005 21:02	255218322002	31-MAY-2005			250.00	306.20	pg	**22**	15	c+ ***
GC22	A	255226875032	07-JUN-2005 05:28	255218322002	31-MAY-2005			250.00	241.22	pg	-4	15	
GC22	B	255226875032	07-JUN-2005 05:28	255218322002	31-MAY-2005			250.00	295.57	pg	**18**	15	c+ ***

Ch. B used

mca 6/16/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005			250.00	270.51	pg	8	15	
GC22	B	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005			250.00	240.43	pg	-4	15	
GC22	A	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005			500.00	530.19	pg	6	15	
GC22	B	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005			500.00	522.30	pg	4	15	
GC22	A	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005			100.00	122.31	pg	22	15	c+ ***
GC22	B	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005			100.00	120.65	pg	**21**	15	c+ ***
GC22	A	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005			250.00	287.02	pg	15	15	
GC22	B	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005			250.00	281.44	pg	13	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005	14349	13008	50.000	45.328	pg	-9	15	
GC22	B	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005	11354	10616	50.000	46.748	pg	-7	15	
GC22	A	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005	14349	13177	100.00	91.830	pg	-8	15	
GC22	B	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005	11354	12362	100.00	108.87	pg	9	15	
GC22	A	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005	14349	15062	20.000	20.994	pg	5	15	
GC22	B	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005	11354	12896	20.000	22.716	pg	14	15	
GC22	A	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005	14349	13884	50.000	48.378	pg	-3	15	
GC22	B	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005	11354	12231	50.000	53.863	pg	8	15	
GC22	A	255226875010	06-JUN-2005 18:13	255208084001	24-MAY-2005	14349	12434	20.000	17.330	pg	-13	15	
GC22	B	255226875010	06-JUN-2005 18:13	255208084001	24-MAY-2005	11354	13005	20.000	22.909	pg	15	15	
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	14349	13048	100.00	90.931	pg	-9	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	11354	14413	100.00	126.94	pg	**27**	15	c+

Ch. A used

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005	8488.7	9335.9	50.000	54.991	pg	10	15	
GC22	B	255222435002	03-JUN-2005 11:42	255208084001	24-MAY-2005	8707.6	8955.3	50.000	51.422	pg	3	15	
GC22	A	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005	8488.7	9311.6	100.00	109.69	pg	10	15	
GC22	B	255222435017	03-JUN-2005 21:38	255208084001	24-MAY-2005	8707.6	11928	100.00	136.98	pg	**37**	15	c+
GC22	A	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005	8488.7	9101.9	20.000	21.445	pg	7	15	
GC22	B	255222435034	04-JUN-2005 05:11	255208084001	24-MAY-2005	8707.6	9150.6	20.000	21.017	pg	5	15	
GC22	A	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005	8488.7	9528.3	50.000	56.124	pg	12	15	
GC22	B	255222435052	04-JUN-2005 13:10	255208084001	24-MAY-2005	8707.6	9944.2	50.000	57.101	pg	14	15	
GC22	A	255226875010	06-JUN-2005 18:13	255208084001	24-MAY-2005	8488.7	6128.8	20.000	14.440	pg	**-28**	15	c-
GC22	B	255226875010	06-JUN-2005 18:13	255208084001	24-MAY-2005	8707.6	8663.5	20.000	19.899	pg	-1	15	
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	8488.7	7519.6	100.00	88.584	pg	-11	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	8707.6	10788	100.00	123.89	pg	**24**	15	c+

+=high bias -=low bias c=CCV

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255208084 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 24-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	144_001	X	hex			24-MAY-2005 11:37	1.0					
002	144_002	ICAL	pcb10_2			24-MAY-2005 12:04	1.0				1	
003	144_003	ICAL	pcb25_5			24-MAY-2005 12:31	1.0				2	
004	144_004	ICAL	pcb100_20			24-MAY-2005 12:57	1.0				3	
005	144_005	ICAL	pcb250_50			24-MAY-2005 13:24	1.0				4	
006	144_006	ICAL	pcb500_100			24-MAY-2005 13:50	1.0				5	
007	144_007	ICAL	pcb750_150			24-MAY-2005 14:17	1.0				6	
008	144_008	ICAL	pcb1k_200			24-MAY-2005 14:44	1.0				7	
010	144_010	ICV	accu_1660			24-MAY-2005 15:37	1.0	1			8	
011	144_011	X	icv			24-MAY-2005 16:04	1.0				8	
012	144_012	ICAL	ar1254			24-MAY-2005 16:30	1.0				9	

56

Stds used: 1=S698 2=S699 3=S700 4=S701 5=S702 6=S703 7=S704 8=S631 9=S159

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255218322 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 31-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	151_001	CCV	pcb250_50			31-MAY-2005 18:29	1.0	1.0			1	1	
002	151_002	X	pcb250_50			31-MAY-2005 14:42	1.0					1	
003	151_003	CCV/ICAL	ar1232			31-MAY-2005 20:12	1.0	1.0			1	2	
004	151_004	X	ccv			31-MAY-2005 20:38	1.0					2	
005	151_005	CCV	ar1242			31-MAY-2005 21:05	1.0	1.0			1	3	
006	151_006	X	ccv			31-MAY-2005 21:32	1.0					3	
007	151_007	CCV	ar1254			31-MAY-2005 21:58	1.0	1.0			1	4	
008	151_008	ICAL	pcb750_150			31-MAY-2005 22:25	1.0					5	
009	151_009	BLANK	QC295575	102485	Soil	31-MAY-2005 22:51	1.0	0.6627			1		
010	151_010	LCS	QC295576	102485	Soil	31-MAY-2005 23:18	1.0	0.6664	1		1		
011	151_011	LCS	QC294811	102300	Water	31-MAY-2005 23:45	1.0	0.001667			1		
012	151_012	MS	QC294812	102300	Water	01-JUN-2005 00:11	1.0	0.001572		1	1		
013	151_013	MSD	QC294813	102300	Water	01-JUN-2005 00:38	1.0	0.001572		1	1		
014	151_014	MSS	179610-020	102485	Soil	01-JUN-2005 01:04	1.0	0.6696			1		
015	151_015	MS	QC295577	102485	Soil	01-JUN-2005 01:31	1.0	0.672	1		1		
016	151_016	MSD	QC295578	102485	Soil	01-JUN-2005 01:58	1.0	0.657	1		1		
017	151_017	MS	QC295421	102449	Soil	01-JUN-2005 02:24	1.0	0.6689	1	1	1		
018	151_018	MSD	QC295422	102449	Soil	01-JUN-2005 02:51	1.0	0.6585	1	1	1		
020	151_020	X	pcb100_20			01-JUN-2005 03:44	1.0					6	
021	151_021	CCV	ccv			01-JUN-2005 04:11	1.0	1.0			1	6	
022	151_022	CCV	ar1232			01-JUN-2005 04:37	1.0	1.0	1		1	2	
023	151_023	X	ccv			01-JUN-2005 05:04	1.0					2	
024	151_024	CCV	ar1242			01-JUN-2005 05:30	1.0	1.0			1	3	
025	151_025	X	ccv			01-JUN-2005 05:57	1.0					3	
026	151_026	CCV	ar1254			01-JUN-2005 06:24	1.0	1.0			1	4	
028	151_028	SAMPLE	179597-001	102485	Soil	01-JUN-2005 07:17	1.0	0.672			1		
029	151_029	SAMPLE	179597-002	102485	Soil	01-JUN-2005 07:43	1.0	0.6689			1		
030	151_030	SAMPLE	179597-003	102485	Soil	01-JUN-2005 08:10	1.0	0.6566			1		
031	151_031	SAMPLE	179597-004	102485	Soil	01-JUN-2005 08:37	1.0	0.6752			1		
032	151_032	SAMPLE	179597-005	102485	Soil	01-JUN-2005 09:03	1.0	0.6748	1		1		2:PCB101=11535.7
033	151_033	SAMPLE	179597-006	102485	Soil	01-JUN-2005 09:30	1.0	0.6607	1	2	1		2:PCB101=1063.90

Stds used: 1=S701 2=S507 3=S160 4=S159 5=S703 6=S700 7=S702

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255218322 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 31-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
034	151_034	MSS	179610-019	102485	Soil	01-JUN-2005 09:56	1.0	0.6696	1		
035	151_035	SAMPLE	179610-021	102485	Soil	01-JUN-2005 10:23	1.0	0.6698	1		
036	151_036	SAMPLE	179610-022	102485	Soil	01-JUN-2005 10:50	1.0	0.6671	1		
037	151_037	SAMPLE	179614-027	102485	Soil	01-JUN-2005 11:16	1.0	0.6773	1		
039	151_039	CCV	pcb500_100			01-JUN-2005 12:09	1.0	1.0	1	7	

58

Stds used: 1=S701 2=S507 3=S160 4=S159 5=S703 6=S700 7=S702

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255222435 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 03-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	154_001	X	pcb250_50			03-JUN-2005 11:15	1.0	1.0			1	1	
002	154_002	CCV	ccv			03-JUN-2005 11:42	1.0	1.0			1	1	
003	154_003	CCV	ar1232			03-JUN-2005 12:19	1.0	1.0			1	2	
006	154_006	SAMPLE	179613-005	102483	Soil	03-JUN-2005 13:56	1.0	0.6723			1		
007	154_007	SAMPLE	179613-008	102483	Soil	03-JUN-2005 14:23	1.0	0.6581			1		
008	154_008	SAMPLE	179613-016	102483	Soil	03-JUN-2005 14:50	1.0	0.6705			1		
009	154_009	SAMPLE	179725-002	102457	Water	03-JUN-2005 16:13	1.0						
010	154_010	SAMPLE	179725-002	102457	Water	03-JUN-2005 16:45	1.0	0.025		1	1		
011	154_011	BLANK	QC295987	102584	Soil	03-JUN-2005 18:58	1.0	0.6623			1		
012	154_012	LCS	QC295988	102584	Soil	03-JUN-2005 19:25	1.0	0.6583			1		
013	154_013	MSS	179704-010	102457	Water	03-JUN-2005 19:51	1.0	0.02381			1		
014	154_014	MS	QC295459	102457	Water	03-JUN-2005 20:18	1.0	0.02381		1	1		
015	154_015	MSD	QC295460	102457	Water	03-JUN-2005 20:45	1.0	0.02381			1		
017	154_017	CCV	pcb500_100			03-JUN-2005 21:38	1.0	1.0			1	3	
018	154_018	X	ccv			03-JUN-2005 22:05	1.0					3	59
019	154_019	CCV	ar1232			03-JUN-2005 22:31	1.0	1.0			1	2	
020	154_020	X	ccv			03-JUN-2005 22:58	1.0					2	
023	154_023	SAMPLE	179656-001	102584	Soil	04-JUN-2005 00:18	1.0	0.6579			1		
024	154_024	SAMPLE	179656-003	102584	Soil	04-JUN-2005 00:44	1.0	0.6667			1		
025	154_025	SAMPLE	179656-005	102584	Soil	04-JUN-2005 01:11	1.0	0.6609			1		
026	154_026	SAMPLE	179656-006	102584	Soil	04-JUN-2005 01:38	1.0	0.6583			1		
027	154_027	SAMPLE	179656-008	102584	Soil	04-JUN-2005 02:04	1.0	0.6562			1		
028	154_028	SAMPLE	179656-010	102584	Soil	04-JUN-2005 02:31	1.0	0.6636			1		
029	154_029	SAMPLE	179656-012	102584	Soil	04-JUN-2005 02:57	1.0	0.6618		1	1		
030	154_030	X	179567-006	102584	Soil	04-JUN-2005 03:24	1.0	0.664			1		
031	154_031	MS	QC295989	102584	Soil	04-JUN-2005 03:51	1.0	0.6592			1		
032	154_032	MSD	QC295990	102584	Soil	04-JUN-2005 04:17	1.0	0.6601			1		
034	154_034	CCV	pcb100_20			04-JUN-2005 05:11	1.0	1.0	3		1	4	
035	154_035	X	ccv			04-JUN-2005 05:37	1.0					4	
036	154_036	CCV	ar1232			04-JUN-2005 06:04	1.0	1.0			1	2	
037	154_037	X	ccv			04-JUN-2005 06:30	1.0					2	

Stds used: 1=S701 2=S507 3=S702 4=S700

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255222435 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 03-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
040	154_040	SAMPLE	179646-019	102457	Water	04-JUN-2005 07:50	1.0	0.025		2	1		
041	154_041	SAMPLE	179656-014	102584	Soil	04-JUN-2005 08:17	1.0	0.6592			1		
042	154_042	SAMPLE	179656-016	102584	Soil	04-JUN-2005 08:44	1.0	0.6596			1		
043	154_043	SAMPLE	179656-018	102584	Soil	04-JUN-2005 09:10	1.0	0.6658			1		
044	154_044	SAMPLE	179564-001	102584	Soil	04-JUN-2005 09:37	1.0	0.6627			1		
045	154_045	SAMPLE	179566-004	102584	Soil	04-JUN-2005 10:04	1.0	0.6667			1		
046	154_046	SAMPLE	179566-009	102584	Soil	04-JUN-2005 10:30	1.0	0.6711	2		1		
047	154_047	SAMPLE	179566-015	102584	Soil	04-JUN-2005 10:57	1.0	0.6766	1		1		
048	154_048	SAMPLE	179566-020	102584	Soil	04-JUN-2005 11:23	1.0	0.6729	4		1		
049	154_049	SAMPLE	179566-026	102584	Soil	04-JUN-2005 11:50	1.0	0.6743			1		
051	154_051	X	pcb250_50			04-JUN-2005 12:43	1.0					1	
052	154_052	CCV	ccv			04-JUN-2005 13:10	1.0	1.0			1	1	
055	154_055	SAMPLE	179679-001	102457	Water	04-JUN-2005 14:30	1.0	0.02404			1		
056	154_056	SAMPLE	179704-008	102457	Water	04-JUN-2005 14:56	1.0	0.02475		1	1		
057	154_057	SAMPLE	179704-009	102457	Water	04-JUN-2005 15:23	1.0	0.02475		2	1		60
058	154_058	SAMPLE	179704-014	102457	Water	04-JUN-2005 15:49	1.0	0.02475		4	1		
059	154_059	SAMPLE	179566-031	102584	Soil	04-JUN-2005 16:16	1.0	0.6609			1		
060	154_060	SAMPLE	179566-037	102584	Soil	04-JUN-2005 16:42	1.0	0.6596			1		
061	154_061	SAMPLE	179567-005	102584	Soil	04-JUN-2005 17:09	1.0	0.6601			1		
063	154_063	CCV	pcb500_100			04-JUN-2005 18:02	1.0	1.0			1	3	
064	154_064	X	ccv			04-JUN-2005 18:29	1.0					3	

Stds used: 1=S701 2=S507 3=S702 4=S700

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255226875 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	157_002	X	pcb250_50			06-JUN-2005 13:15	1.0					1	
003	157_003	X	ccv			06-JUN-2005 13:42	1.0	1.0			1	1	
005	157_005	SAMPLE	179613-018	102483	Soil	06-JUN-2005 14:55	1.0	0.6673	1	1	1		
006	157_006	X	pcb500_100			06-JUN-2005 15:21	1.0	1.0			1	2	
007	157_007	X	ccv			06-JUN-2005 15:48	1.0					2	
010	157_010	CCV	pcb100_20			06-JUN-2005 18:13	1.0	1.0	1		1	3	
011	157_011	X	ccv			06-JUN-2005 18:39	1.0					3	
012	157_012	X	ar1232			06-JUN-2005 20:35	1.0					4	
013	157_013	CCV	ar1232			06-JUN-2005 21:02	1.0	1.0	1		1	4	
019	157_019	SAMPLE	179566-009	102584	Soil	06-JUN-2005 23:42	1.0	0.6711	1		1		
020	157_020	SAMPLE	179566-015	102584	Soil	07-JUN-2005 00:08	1.0	0.6766			1		
021	157_021	SAMPLE	179566-020	102584	Soil	07-JUN-2005 00:35	1.0	0.6729	3		1		
022	157_022	MSS	179567-006	102584	Soil	07-JUN-2005 01:02	1.0	0.664	1		1		
023	157_023	SAMPLE	179613-018	102483	Soil	07-JUN-2005 01:28	1.0	0.6673	1		1		
024	157_024	BLANK	QC296368	102675	Oil	07-JUN-2005 01:55	1.0	50.0			1		61
025	157_025	BS	QC296369	102675	Oil	07-JUN-2005 02:22	1.0	50.0	1		1		
026	157_026	BSD	QC296370	102675	Oil	07-JUN-2005 02:48	1.0	50.0	1		1		
027	157_027	SAMPLE	179850-001	102675	Oil	07-JUN-2005 03:15	1.0	49.99			1		
028	157_028	SAMPLE	179850-002	102675	Oil	07-JUN-2005 03:42	1.0	50.01			1		
030	157_030	CCV	pcb500_100			07-JUN-2005 04:35	1.0	1.0	2		1	2	
031	157_031	X	ccv			07-JUN-2005 05:01	1.0					2	
032	157_032	CCV	ar1232			07-JUN-2005 05:28	1.0	1.0	1		1	4	
033	157_033	X	ccv			07-JUN-2005 05:55	1.0					4	
034	157_034	CCV	ar1254			07-JUN-2005 06:21	1.0	1.0			1	5	
039	157_039	BLANK	QC296002	102588	Water	07-JUN-2005 08:34	1.0	0.025	1		1		
040	157_040	LCS	QC296003	102588	Water	07-JUN-2005 09:01	1.0	0.025	1	1	1		
041	157_041	SAMPLE	179688-001	102588	Water	07-JUN-2005 09:28	1.0	0.025	1		1		
042	157_042	SAMPLE	179688-002	102588	Water	07-JUN-2005 09:54	1.0	0.025	1	1	1		
043	157_043	SAMPLE	179688-003	102588	Water	07-JUN-2005 10:21	1.0	0.02632	1		1		
044	157_044	SAMPLE	179688-004	102588	Water	07-JUN-2005 10:48	1.0	0.025	1		1		
045	157_045	SAMPLE	179688-005	102588	Water	07-JUN-2005 11:14	1.0	0.02475	1		1		

Stds used: 1=S701 2=S702 3=S700 4=S507 5=S159

SEQUENCE SUMMARY FOR 179564 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255226875 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
046	157_046	MSS	179727-002	102588	Water	07-JUN-2005 11:41	1.0	0.02427	1	1	1		
047	157_047	MS	QC296004	102588	Water	07-JUN-2005 12:07	1.0	0.02451	1		1		
048	157_048	MSD	QC296005	102588	Water	07-JUN-2005 12:34	1.0	0.02451	1		1		
051	157_051	CCV	pcb250_50			07-JUN-2005 16:43	1.0	1.0	1		1	1	
052	157_052	CCV	ar1232			07-JUN-2005 17:10	1.0	1.0			1	4	
053	157_053	X	ccv			07-JUN-2005 17:36	1.0					4	
054	157_054	CCV	ar1254			07-JUN-2005 18:03	1.0	1.0	1		1	5	

62

Stds used: 1=S701 2=S702 3=S700 4=S507 5=S159

Curtis & Tompkins Laboratories Sample Preparation Summary 03-JUN-2005 14:10

Batch Number : 102584
Date Extracted: 02-JUN-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S719A
Spike #2 ID : S498A
Spike #3 ID :
SOP Version : PCB_3545_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179564-001			Mactec, Inc.	Soil	15.09	g	10	0.662691	1		.025	0		PCB	3665A	
179566-004			Weston Solutions	Soil	15	g	10	0.666667	1		.025	0		PCB	3665A	
179566-009			Weston Solutions	Soil	14.9	g	10	0.671141	1		.025	0		PCB	3665A	
179566-015			Weston Solutions	Soil	14.78	g	10	0.676590	1		.025	0		PCB	3665A	
179566-020			Weston Solutions	Soil	14.86	g	10	0.672948	1		.025	0		PCB	3665A	
179566-026			Weston Solutions	Soil	14.83	g	10	0.674309	1		.025	0		PCB	3665A	
179566-031			Weston Solutions	Soil	15.13	g	10	0.660939	1		.025	0		PCB	3665A	
179566-037			Weston Solutions	Soil	15.16	g	10	0.659631	1		.025	0		PCB	3665A	
179567-005			Weston Solutions	Soil	15.15	g	10	0.660066	1		.025	0		PCB	3665A	
179567-006			Weston Solutions	Soil	15.06	g	10	0.664011	1		.025	0		PCB	3665A	mss
179656-001			URS Corporation	Soil	15.2	g	10	0.657895	1		.025	0		PCB	3665A	
179656-003			URS Corporation	Soil	15	g	10	0.666667	1		.025	0		PCB	3665A	
179656-005			URS Corporation	Soil	15.13	g	10	0.660939	1		.025	0		PCB	3665A	
179656-006			URS Corporation	Soil	15.19	g	10	0.658328	1		.025	0		PCB	3665A	
179656-008			URS Corporation	Soil	15.24	g	10	0.656168	1		.025	0		PCB	3665A	
179656-010			URS Corporation	Soil	15.07	g	10	0.663570	1		.025	0		PCB	3665A	
179656-012			URS Corporation	Soil	15.11	g	10	0.661813	1		.025	0		PCB	3665A	
179656-014			URS Corporation	Soil	15.17	g	10	0.659196	1		.025	0		PCB	3665A	
179656-016			URS Corporation	Soil	15.16	g	10	0.659631	1		.025	0		PCB	3665A	
179656-018			URS Corporation	Soil	15.02	g	10	0.665779	1		.025	0		PCB	3665A	
QC295987	BLANK			Soil	15.1	g	10	0.662252	1		.025	0		PCB	3665A	
QC295988	LCS			Soil	15.19	g	10	0.658328	1		.025	.025		PCB	3665A	
QC295989	MS	of 179567-006		Soil	15.17	g	10	0.659196	1		.025	.025		PCB	3665A	
QC295990	MSD	of 179567-006		Soil	15.15	g	10	0.660066	1		.025	.025		PCB	3665A	

63

Prep Chemist: _____ Reviewed By: _____ Date: 3 June 05

Relinquished By: _____ Received By: _____ Date: 6/3/05

Curtis & Tompkins, Ltd. **PCB SOIL PREP LOG** BK 2098

LIMS Batch No: 102564 ☐ EPA 3550b Sonication

LIMS Analysis PCB ☐ EPA 3540c Soxhlet

Extracted by: SUE ☑ EPA 3545 PFE (ASE Method# 10)

Date Extracted: 06/02/05 ☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	MB QC 295987	15.10	10.0	
	LCS 88	15.19		
	MS 89	15.17		179567-006
	MSD 90	15.15		↓
5	179526-001	15.20		
	-003	15.00		
	-005	15.13		
	-006	15.19		
	-008	15.24		
10	-010	15.07		
	-012	15.11		
	-014	15.17		
	-016	15.16		
	-018	15.02		
15	179564-001	15.09		
	179566-004	15.00		
	-009	14.90		
	-015	14.78		
	-020	14.86		
20	-026	14.83		
	-031	15.13		
	-037	15.16		
	179567-005	15.15		
	-006	15.06	↓	MSS
				JDM 3 June 05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM 44028452	SUE 6/02/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	Dionex 040603	
0.025 mL of surrogate solution was added to all samples	S719A	
0.025 mL of spike solution 1232Spike was added to all spikes	S498A	
1:1 CH_2Cl_2 (lot# EM4508) : Acetone (lot# EM4504) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
PFE (ASE) / soxhlets on at:	N/A	
PFE (ASE) / soxhlets off at:		
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	↓	↓
Concentrated to volumes noted above after exchange to Hexane Lot#	CN801	JDM 3 June 05
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	JTBA 49034	↓
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	

06/02/05

Extraction Chemist / Date

Continued from page _____

Continued on page 64

Jessie Mee

Reviewed by / Date

Project 591 ALIQUOT BF2135

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179636-001A	30.01	8310	MISC.
179622-001A	15.25	8081	
-002	15.06		MSS
-MS	15.25		179622-002A
-MSD	15.10		↓
-LCS	15.05		EM4402E452
-MB	15.24		↓
-003A	15.05		
-004	15.13		
-005	15.90		
-006	15.23		
179597-001	30.08	8310 ALIASED	179528-002C
-002	30.00		-009
-003	30.21		-013
-004	30.35		179549-005A
-005	30.12		-009
-006	30.05		-017
179453-001A	15.13	8081	
-002	15.24		
-003	15.17		
-004	15.06		
-005	15.07		
179656-001A	15.20	PCB	
~~LCS 131~~ -003	15.00		
-005	~~15.00~~ 15.13		
-006	~~15.0~~ 15.19		
-008	~~15.11~~ 15.24		
-010	15.07		
-012	15.11		
-014	15.17		
-016	15.14		
-018	15.02		

Continued on Page

Read and Understood By

Signed	Date		Signed	Date
[signature]	5/31/05			

Project Soil ALiQuot BK2135

Continued from Page

SAMPLE ID	Weight (g)	Analysis	Comments
179649-001A	49.73	TEH	
-002	50.32	TEH	
-003	49.88	TEH	
-004	50.06	TEH	
-005	50.02	TEH	
-006	49.98	TEH	
-007	49.98	TEH	
-008	50.45	TEH	
179649-001A	15.09	8081	
002	15.09		
003	15.07		
004	15.10		
005	15.08		
006	15.25		
007	15.19		
008	15.19		
179566-004A	30.16	8270	MS
-MS	30.15		179566-004A
-MSD	30.04		EM440284SD
-LCS	30.28		
-MB	30.45		
-009A	30.33		
179479-001A	29.90	8270-SIM	
179566-015A	30.12	8270	
-020	30.12		
-026	30.33		
-027 (all to 031)	30.34		
179566-009A	14.90	PCB	
015	14.78		
020	14.86		
026	14.83		
031	15.13		
031	15.16		

Continued on Page

Signed Date

Read and Understood By

Signed Date

SAMPLE ID	Weight (g)	Analysis	Comments
179566-037A	30.05	8270	
179566-004A	15.00	POB	MSS
-MS	14.94	↓	179566-004A
-MSD	14.81	↓	↓
-LCS	15.02	↓	EMH40284452
-MB	15.15	↓	↓
↓	↓	↓	↓
179692-001A	50.36	TEHM	
-002	50.49	↓	
-003	50.43	↓	
-004	50.47	↓	
-005	50.36	↓	
-006	50.13	↓	
↓		↓	

Continued on Page

Project SOIL ALIQUOT BK2135

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179504-001A	15.09	PCB 8081 PCB	
~~179564-001A~~	15.00 Not used JDM 6/3/05		
179567-005B	15.15		
-DUP ↓	15.06		MSS 179567-005B ↓ EM44028452 ↓
-MS	15.17		
-MSD	15.15		
-LCS	15.19		
-MB	15.10		

Continued on Page

Signed 6/1/05 Date

Read and Understood By

Signed Date

REPORTING SUMMARY FOR 179564 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179564-001	Aroclor-1016	GC22	A	06/04/05 09:37
179564-001	Aroclor-1221	GC22	A	06/04/05 09:37
179564-001	Aroclor-1232	GC22	A	06/04/05 09:37
179564-001	Aroclor-1242	GC22	A	06/04/05 09:37
179564-001	Aroclor-1248	GC22	A	06/04/05 09:37
179564-001	Aroclor-1254	GC22	A	06/04/05 09:37
179564-001	Aroclor-1260	GC22	A	06/04/05 09:37
179564-001	TCMX	GC22	A	06/04/05 09:37
179564-001	Decachlorobiphenyl	GC22	A	06/04/05 09:37
QC295987	Aroclor-1016	GC22	A	06/03/05 18:58
QC295987	Aroclor-1221	GC22	A	06/03/05 18:58
QC295987	Aroclor-1232	GC22	A	06/03/05 18:58
QC295987	Aroclor-1242	GC22	A	06/03/05 18:58
QC295987	Aroclor-1248	GC22	A	06/03/05 18:58
QC295987	Aroclor-1254	GC22	A	06/03/05 18:58
QC295987	Aroclor-1260	GC22	A	06/03/05 18:58
QC295987	TCMX	GC22	A	06/03/05 18:58
QC295987	Decachlorobiphenyl	GC22	A	06/03/05 18:58
QC295988	Aroclor-1232	GC22	A	06/03/05 19:25
QC295988	TCMX	GC22	A	06/03/05 19:25
QC295988	Decachlorobiphenyl	GC22	A	06/03/05 19:25
QC295989	Aroclor-1232	GC22	A	06/04/05 03:51
QC295989	TCMX	GC22	A	06/04/05 03:51
QC295989	Decachlorobiphenyl	GC22	A	06/04/05 03:51
QC295990	Aroclor-1232	GC22	A	06/04/05 04:17
QC295990	TCMX	GC22	A	06/04/05 04:17
QC295990	Decachlorobiphenyl	GC22	A	06/04/05 04:17

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB101(0.5)	Diln Fac:	1.163
Lab ID:	179564-001	Batch#:	102224
Matrix:	Soil	Sampled:	05/20/05
Units:	ug/Kg	Received:	05/20/05
Basis:	dry	Analyzed:	05/20/05

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	14	2.7
Chloromethane	ND	14	2.7
Vinyl Chloride	ND	14	2.1
Bromomethane	ND	14	2.2
Chloroethane	ND	14	2.5
Trichlorofluoromethane	ND	6.8	2.2
Acetone	ND	27	2.9
Freon 113	ND	6.8	2.4
1,1-Dichloroethene	ND	6.8	3.0
Methylene Chloride	ND	27	2.9
Carbon Disulfide	ND	6.8	2.3
MTBE	ND	6.8	2.8
trans-1,2-Dichloroethene	ND	6.8	2.8
Vinyl Acetate	ND	68	2.6
1,1-Dichloroethane	ND	6.8	2.7
2-Butanone	ND	14	2.9
cis-1,2-Dichloroethene	ND	6.8	2.7
2,2-Dichloropropane	ND	6.8	2.7
Chloroform	ND	6.8	2.7
Bromochloromethane	ND	6.8	2.5
1,1,1-Trichloroethane	ND	6.8	2.8
1,1-Dichloropropene	ND	6.8	2.8
Carbon Tetrachloride	ND	6.8	2.4
1,2-Dichloroethane	ND	6.8	2.7
Benzene	ND	6.8	2.9
Trichloroethene	ND	6.8	2.8
1,2-Dichloropropane	ND	6.8	3.0
Bromodichloromethane	ND	6.8	2.5
Dibromomethane	ND	6.8	2.6
4-Methyl-2-Pentanone	ND	14	2.4
cis-1,3-Dichloropropene	ND	6.8	2.4
Toluene	ND	6.8	3.2
trans-1,3-Dichloropropene	ND	6.8	2.7
1,1,2-Trichloroethane	ND	6.8	3.5
2-Hexanone	ND	14	2.7
1,3-Dichloropropane	ND	6.8	2.6
Tetrachloroethene	ND	6.8	2.5
Dibromochloromethane	ND	6.8	2.0
1,2-Dibromoethane	ND	6.8	2.7
Chlorobenzene	ND	6.8	2.8
1,1,1,2-Tetrachloroethane	ND	6.8	2.3
Ethylbenzene	ND	6.8	2.8
m,p-Xylenes	ND	6.8	6.0
o-Xylene	ND	6.8	2.8
Styrene	ND	6.8	2.5
Bromoform	ND	6.8	2.2
Isopropylbenzene	ND	6.8	2.8
1,1,2,2-Tetrachloroethane	ND	6.8	2.8
1,2,3-Trichloropropane	ND	6.8	3.4
Propylbenzene	ND	6.8	2.8
Bromobenzene	ND	6.8	2.6

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB101(0.5)	Diln Fac:	1.163
Lab ID:	179564-001	Batch#:	102224
Matrix:	Soil	Sampled:	05/20/05
Units:	ug/Kg	Received:	05/20/05
Basis:	dry	Analyzed:	05/20/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	6.8	2.9
2-Chlorotoluene	ND	6.8	2.9
4-Chlorotoluene	ND	6.8	2.5
tert-Butylbenzene	ND	6.8	2.9
1,2,4-Trimethylbenzene	ND	6.8	2.7
sec-Butylbenzene	ND	6.8	2.9
para-Isopropyl Toluene	2.9 J	6.8	2.7
1,3-Dichlorobenzene	ND	6.8	2.6
1,4-Dichlorobenzene	ND	6.8	2.6
n-Butylbenzene	ND	6.8	2.4
1,2-Dichlorobenzene	ND	6.8	2.6
1,2-Dibromo-3-Chloropropane	ND	6.8	3.1
1,2,4-Trichlorobenzene	ND	6.8	2.2
Hexachlorobutadiene	ND	6.8	2.7
Naphthalene	ND	6.8	2.3
1,2,3-Trichlorobenzene	ND	6.8	2.4

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-120
1,2-Dichloroethane-d4	112	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	110	80-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC294535	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102224
Units:	ug/Kg	Analyzed:	05/20/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.6
Chloroethane	ND	10	1.8
Trichlorofluoromethane	ND	5.0	1.6
Acetone	ND	20	2.1
Freon 113	ND	5.0	1.7
1,1-Dichloroethene	ND	5.0	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.0	1.7
MTBE	ND	5.0	2.0
trans-1,2-Dichloroethene	ND	5.0	2.1
Vinyl Acetate	ND	50	1.9
1,1-Dichloroethane	ND	5.0	2.0
2-Butanone	ND	10	2.1
cis-1,2-Dichloroethene	ND	5.0	2.0
2,2-Dichloropropane	ND	5.0	2.0
Chloroform	ND	5.0	2.0
Bromochloromethane	ND	5.0	1.8
1,1,1-Trichloroethane	ND	5.0	2.0
1,1-Dichloropropene	ND	5.0	2.0
Carbon Tetrachloride	ND	5.0	1.8
1,2-Dichloroethane	ND	5.0	2.0
Benzene	ND	5.0	2.1
Trichloroethene	ND	5.0	2.0
1,2-Dichloropropane	ND	5.0	2.2
Bromodichloromethane	ND	5.0	1.9
Dibromomethane	ND	5.0	1.9
4-Methyl-2-Pentanone	ND	10	1.7
cis-1,3-Dichloropropene	ND	5.0	1.7
Toluene	ND	5.0	2.3
trans-1,3-Dichloropropene	ND	5.0	2.0
1,1,2-Trichloroethane	ND	5.0	2.5
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.0	1.9
Tetrachloroethene	ND	5.0	1.8
Dibromochloromethane	ND	5.0	1.5
1,2-Dibromoethane	ND	5.0	1.9
Chlorobenzene	ND	5.0	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	1.7
Ethylbenzene	ND	5.0	2.0
m,p-Xylenes	ND	5.0	4.4
o-Xylene	ND	5.0	2.1
Styrene	ND	5.0	1.8
Bromoform	ND	5.0	1.6
Isopropylbenzene	ND	5.0	2.0
1,1,2,2-Tetrachloroethane	ND	5.0	2.1
1,2,3-Trichloropropane	ND	5.0	2.5
Propylbenzene	ND	5.0	2.1
Bromobenzene	ND	5.0	1.9
1,3,5-Trimethylbenzene	ND	5.0	2.1
2-Chlorotoluene	ND	5.0	2.1
4-Chlorotoluene	ND	5.0	1.8

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC294535	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102224
Units:	ug/Kg	Analyzed:	05/20/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	2.1
1,2,4-Trimethylbenzene	ND	5.0	2.0
sec-Butylbenzene	ND	5.0	2.1
para-Isopropyl Toluene	ND	5.0	2.0
1,3-Dichlorobenzene	ND	5.0	1.9
1,4-Dichlorobenzene	ND	5.0	1.9
n-Butylbenzene	ND	5.0	1.7
1,2-Dichlorobenzene	ND	5.0	1.9
1,2-Dibromo-3-Chloropropane	ND	5.0	2.2
1,2,4-Trichlorobenzene	ND	5.0	1.6
Hexachlorobutadiene	ND	5.0	2.0
Naphthalene	ND	5.0	1.7
1,2,3-Trichlorobenzene	ND	5.0	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC294534	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102224
Units:	ug/Kg	Analyzed:	05/20/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	55.36	111	77-124
Benzene	50.00	49.50	99	80-120
Trichloroethene	50.00	51.17	102	80-120
Toluene	50.00	50.32	101	80-120
Chlorobenzene	50.00	49.50	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-120
1,2-Dichloroethane-d4	108	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	33.33
MSS Lab ID:	179501-011	Batch#:	102224
Matrix:	Soil	Sampled:	05/17/05
Units:	ug/Kg	Received:	05/17/05
Basis:	as received	Analyzed:	05/23/05

Type: MS Lab ID: QC294547

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<25.72	1,667	2,113	127 *	70-120
Benzene	<19.14	1,667	1,718	103	70-120
Trichloroethene	<23.37	1,667	1,750	105	65-126
Toluene	<15.09	1,667	1,801	108	64-120
Chlorobenzene	<16.72	1,667	1,744	105	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-120
1,2-Dichloroethane-d4	97	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	114	80-120
Trifluorotoluene (MeOH)	99	52-135

Type: MSD Lab ID: QC294548

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	1,667	2,036	122 *	70-120	4	20
Benzene	1,667	1,721	103	70-120	0	20
Trichloroethene	1,667	1,721	103	65-126	2	20
Toluene	1,667	1,740	104	64-120	3	20
Chlorobenzene	1,667	1,624	97	59-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	106	80-120
Bromofluorobenzene	110	80-120
Trifluorotoluene (MeOH)	101	52-135

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

MSVOA03 8260X IDAL TUNE

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\051805.b\CEI13.D

Date : 18-MAY-2005 13:54

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

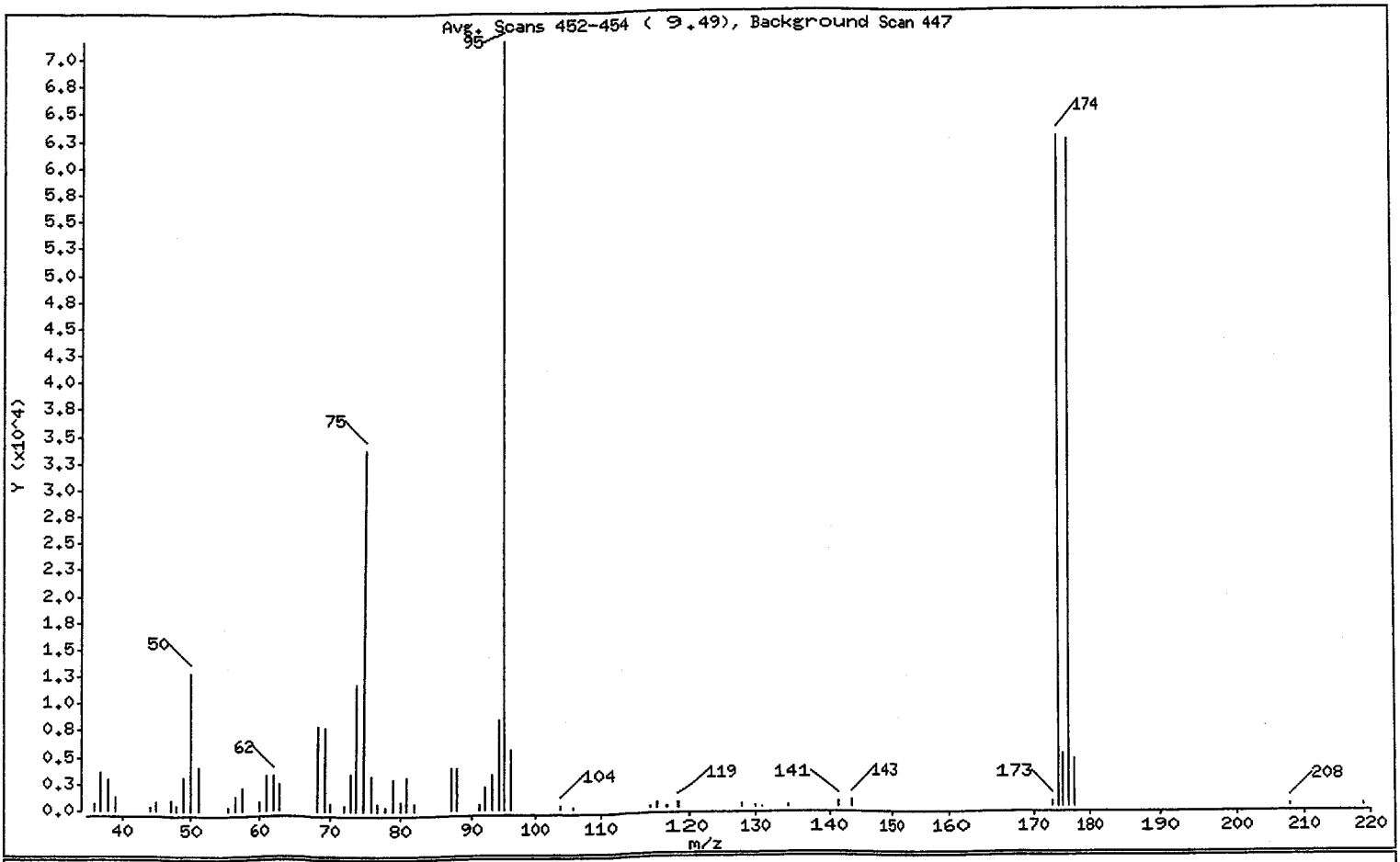
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.02
75	30.00 - 60.00% of mass 95	47.17
96	5.00 - 9.00% of mass 95	7.87
173	Less than 2.00% of mass 174	0.60 (0.69)
174	50.00 - 99.99% of mass 95	87.37
175	5.00 - 9.00% of mass 174	6.96 (7.97)
176	95.01 - 100.99% of mass 174	86.89 (99.45)
177	5.00 - 9.00% of mass 176	6.21 (7.15)

5/19/05 5/18/05

MSVOA03 8260X ICV TUNE

Data File: \\Gcmsserver\DD\chem\MSVOA03.i\051905.b\CEJ02.D

Date : 19-MAY-2005 07:52

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

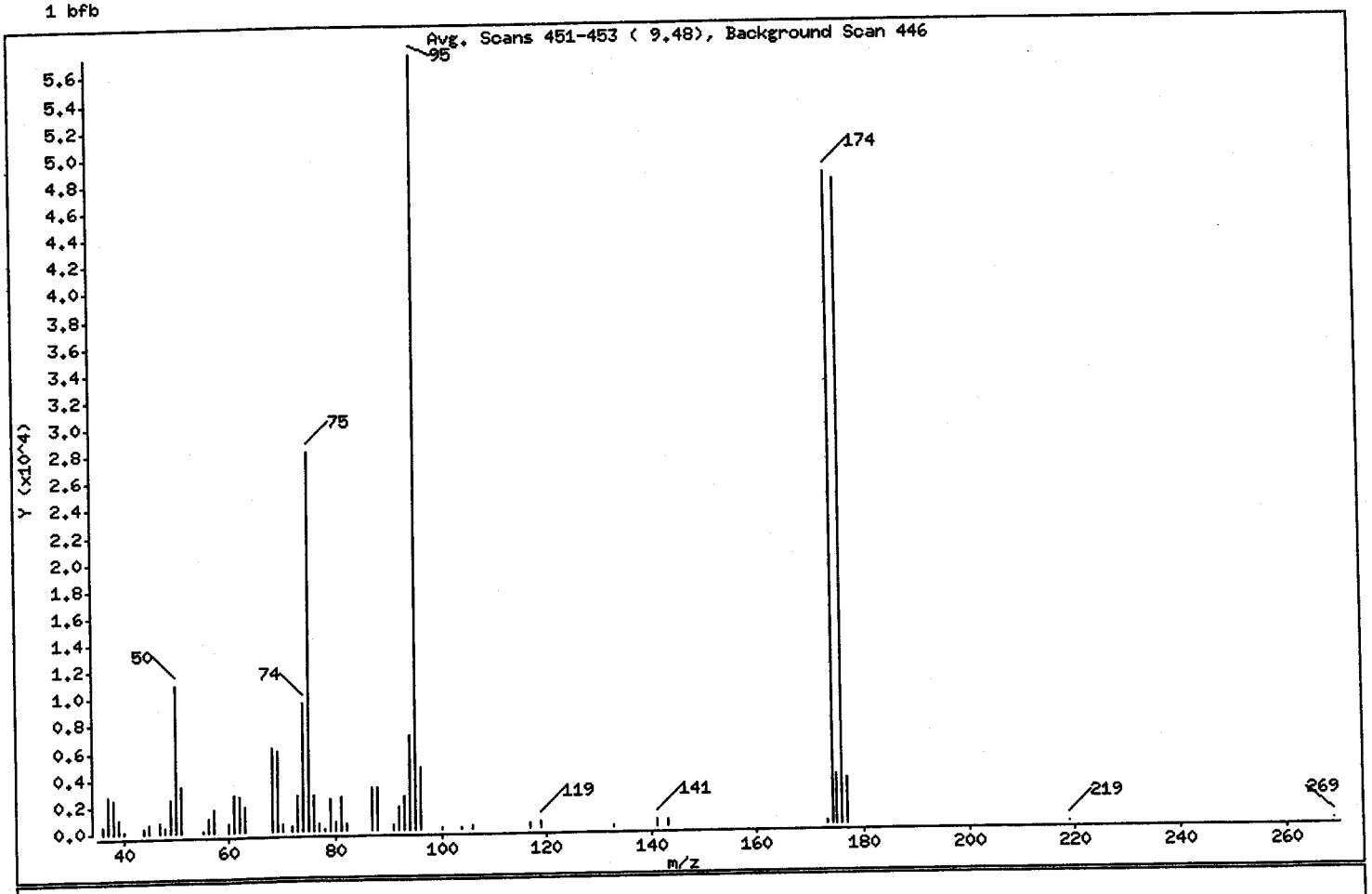
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.11
75	30.00 - 60.00% of mass 95	49.16
96	5.00 - 9.00% of mass 95	7.97
173	Less than 2.00% of mass 174	0.46 (0.55)
174	50.00 - 99.99% of mass 95	84.30
175	5.00 - 9.00% of mass 174	6.44 (7.64)
176	95.01 - 100.99% of mass 174	83.38 (98.91)
177	5.00 - 9.00% of mass 176	5.95 (7.14)

5/19/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\052005.b\CEK02.D

Date : 20-MAY-2005 09:00

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

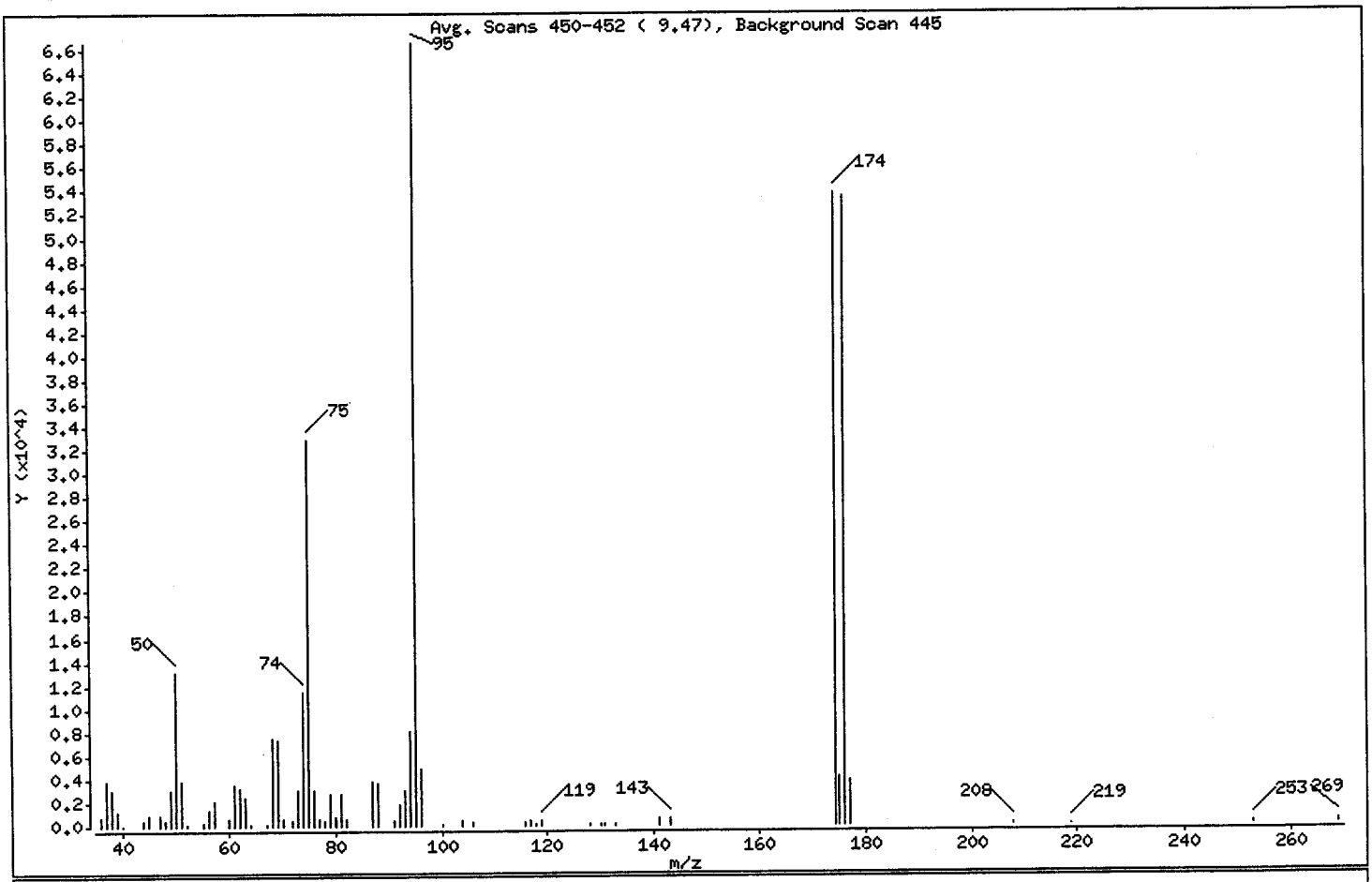
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.85
75	30.00 - 60.00% of mass 95	49.32
96	5.00 - 9.00% of mass 95	7.39
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	80.74
175	5.00 - 9.00% of mass 174	6.24 (7.73)
176	95.01 - 100.99% of mass 174	80.14 (99.26)
177	5.00 - 9.00% of mass 176	5.76 (7.18)

5/23/05

5/20/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\052305.b\CEN04.D

Date : 23-MAY-2005 10:13

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

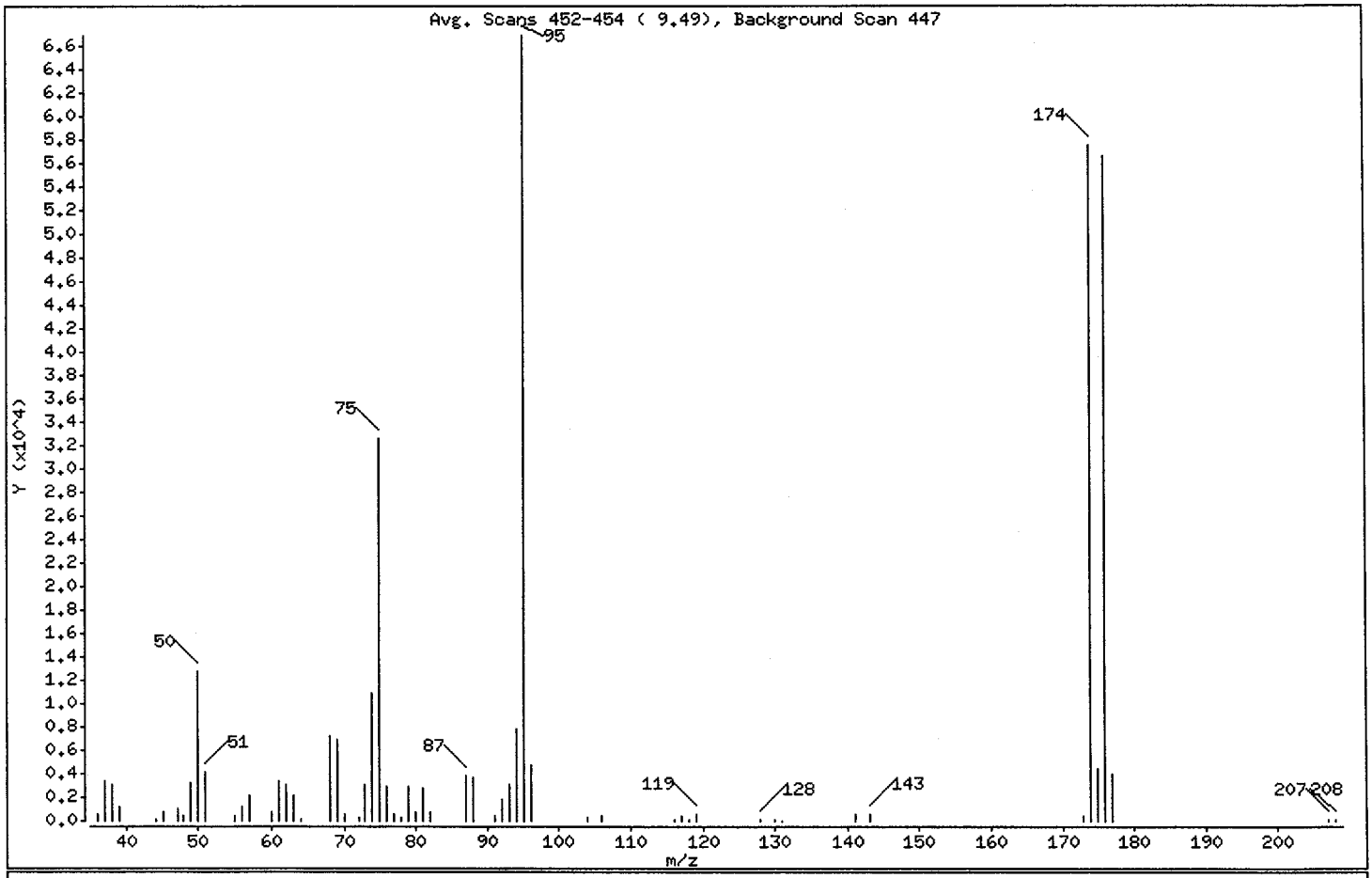
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.00
75	30.00 - 60.00% of mass 95	48.83
96	5.00 - 9.00% of mass 95	7.05
173	Less than 2.00% of mass 174	0.61 (0.71)
174	50.00 - 99.99% of mass 95	86.01
175	5.00 - 9.00% of mass 174	6.58 (7.65)
176	95.01 - 100.99% of mass 174	84.54 (98.29)
177	5.00 - 9.00% of mass 176	5.94 (7.02)

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	cei17	425199173017	5PPB	18-MAY-2005 15:40	S538 (100000X), S568 (100000X), S638 (5000X)
2	cei18	425199173018	10PPB	18-MAY-2005 16:11	S538 (50000X), S568 (50000X), S638 (5000X)
3	cei19	425199173019	20PPB	18-MAY-2005 16:41	S538 (25000X), S568 (25000X), S638 (5000X)
4	cei20	425199173020	50PPB	18-MAY-2005 17:12	S538 (10000X), S568 (10000X), S638 (5000X)
5	cei21	425199173021	60PPB	18-MAY-2005 17:41	S538 (8333X), S568 (8333X), S638 (5000X)
6	cei22	425199173022	75PPB	18-MAY-2005 18:11	S538 (6667X), S568 (6667X), S638 (5000X)
7	cei23	425199173023	100PPB	18-MAY-2005 18:42	S538 (5000X), S568 (5000X), S638 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4109m	0.4759m	0.4344m	0.4955	0.4973	0.4793	0.4770	AVRG	R		2.140479		ug/L	0.4672	7	0.0500	0.99	15	
Chloromethane	0.4435m	0.4089m	0.3966m	0.4286m	0.4398m	0.4140m	0.4162m	AVRG	R		2.374839		ug/L	0.4211	4	0.1000	0.99	15	
Vinyl Chloride	0.4095	0.4023	0.3637	0.4004	0.4056	0.3939	0.3994	AVRG	R		2.522882		ug/L	0.3964	4	0.0500	0.99	15	
Bromomethane	0.6573	0.6539	0.6241	0.6598	0.6695	0.6545	0.6596	AVRG	R		1.528805		ug/L	0.6541	2	0.0500	0.99	15	
Chloroethane	0.3039	0.2935	0.2710	0.2948	0.2997	0.3015	0.3018	AVRG	R		3.387996		ug/L	0.2952	4	0.0500	0.99	15	
Trichlorofluoromethane	0.6455	0.6799	0.6003	0.6971	0.6979	0.6892	0.6782	AVRG	R		1.493145		ug/L	0.6697	5	0.0500	0.99	15	
Acetone		0.1458	0.1333	0.1460	0.1305	0.1518	0.1422	AVRG	R		7.060850		ug/L	0.1416	6	0.0500	0.99	15	
Freon 113	0.3492	0.3440	0.3481	0.5148	0.5223	0.4964	0.5016	LINR	R	3.236695	1.898538		ug/L	0.4395	0.996	0.0500	0.99	15	
1,1-Dichloroethene	0.3605	0.3426	0.3225	0.3867	0.3821	0.3875	0.3812	AVRG	R		2.730965		ug/L	0.3662	7	0.0500	0.99	15	
Methylene Chloride		0.5177	0.4779	0.5024	0.4981	0.5094	0.5008	AVRG	R		1.995725		ug/L	0.5011	3	0.0500	0.99	15	
Carbon Disulfide	1.3330	1.2047	1.1619	1.4009	1.4126	1.4094	1.3770	AVRG	R		0.752728		ug/L	1.3285	8	0.0500	0.99	15	
MTBE	1.4398	1.3504	1.3029	1.4727	1.4400	1.4662	1.4446	AVRG	R		0.705885		ug/L	1.4167	5	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.4693	0.4295	0.4164	0.4691	0.4735	0.4710	0.4683	AVRG	R		2.189589		ug/L	0.4567	5	0.0500	0.99	15	
Vinyl Acetate	0.8238	0.7564	0.7452	0.9066	0.8546	0.9118	0.9085	AVRG	R		1.185073		ug/L	0.8438	8	0.0500	0.99	15	
1,1-Dichloroethane	0.7259	0.7143	0.6608	0.7255	0.7374	0.7448	0.7285	AVRG	R		1.389661		ug/L	0.7196	4	0.1000	0.99	15	
2-Butanone		0.2071	0.2185	0.2415	0.2261	0.2488	0.2427	AVRG	R		4.333155		ug/L	0.2308	7	0.0500	0.99	15	
2,2-Dichloropropane	0.6171	0.5584	0.5205	0.6200	0.6235	0.6231	0.6075	AVRG	R		1.678602		ug/L	0.5957	7	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5288	0.5050	0.4797	0.5195	0.5298	0.5346	0.5222	AVRG	R		1.933877		ug/L	0.5171	4	0.0500	0.99	15	

81

IAL-Good, ICV-Good + A.C.E. Qin - B/MeJ

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

6/5/1905

R 9/19/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	0.8847	0.8123	0.7678	0.8259	0.8587	0.8524	0.8270	AVRG	R		1.200943		ug/L	0.8327	5	0.0500	0.99	15	
Bromochloromethane	0.2935	0.2910	0.2885	0.3010	0.3023	0.3081	0.2944	AVRG	R		3.367134		ug/L	0.2970	2	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6073	0.5532	0.5310	0.6438	0.6490	0.6353	0.6238	AVRG	R		1.649633		ug/L	0.6062	8	0.0500	0.99	15	
1,1-Dichloropropene	0.3420	0.3183	0.2915	0.3669	0.3619	0.3543	0.3546	AVRG	R		2.929404		ug/L	0.3414	8	0.0500	0.99	15	
Carbon Tetrachloride	0.3043	0.2851	0.2631	0.3438	0.3321	0.3236	0.3248	AVRG	R		3.215698		ug/L	0.3110	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4058	0.4094	0.3708	0.4115	0.3976	0.4009	0.3951	AVRG	R		2.507986		ug/L	0.3987	3	0.0500	0.99	15	
Benzene	1.0607	1.0091	0.9099	0.9945	0.9769	0.9601	0.9288	AVRG	R		1.023396		ug/L	0.9771	5	0.0500	0.99	15	
Trichloroethene	0.3119	0.2863	0.2635	0.3091	0.3046	0.2984	0.2928	AVRG	R		3.387151		ug/L	0.2952	6	0.0500	0.99	15	
1,2-Dichloropropane	0.2773	0.2707	0.2544	0.2841	0.2815	0.2842	0.2799	AVRG	R		3.623116		ug/L	0.2760	4	0.0500	0.99	15	
Bromodichloromethane	0.3753	0.3745	0.3554	0.3974	0.3932	0.3929	0.3942	AVRG	R		2.609184		ug/L	0.3833	4	0.0500	0.99	15	
Dibromomethane	0.2441	0.2396	0.2277	0.2484	0.2385	0.2378	0.2371	AVRG	R		4.183697		ug/L	0.2390	3	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.2919	0.2792	0.3104	0.2767	0.3001	0.2982	AVRG	R		3.416002		ug/L	0.2927	4	0.0500	0.99	15	
Tetramethyl THF	0.4804	0.5077	0.4762	0.5063	0.4847	0.4970	0.4918	AVRG	R		2.032511		ug/L	0.4920	3	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4376	0.4480	0.4182	0.4709	0.4623	0.4612	0.4617	AVRG	R		2.215272		ug/L	0.4514	4	0.0500	0.99	15	
Toluene	0.6471	0.6366	0.5791	0.6313	0.6177	0.6032	0.6022	AVRG	R		1.621419		ug/L	0.6167	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4179	0.4213	0.4029	0.4384	0.4256	0.4364	0.4339	AVRG	R		2.351757		ug/L	0.4252	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1649	0.1624	0.1534	0.1632	0.1559	0.1596	0.1594	AVRG	R		6.257263		ug/L	0.1598	3	0.0500	0.99	15	
2-Hexanone		0.2520	0.2391	0.2958	0.2538	0.2763	0.2754	AVRG	R		3.768006		ug/L	0.2654	8	0.0500	0.99	15	
1,3-Dichloropropane	0.6113	0.5942	0.5480	0.6228	0.5800	0.5928	0.5846	AVRG	R		1.693381		ug/L	0.5905	4	0.0500	0.99	15	
Tetrachloroethene	0.3615	0.3592	0.3218	0.3984	0.3837	0.3728	0.3630	AVRG	R		2.734000		ug/L	0.3658	7	0.0500	0.99	15	
Dibromochloromethane	0.4082	0.4027	0.3834	0.4516	0.4253	0.4302	0.4305	AVRG	R		2.387550		ug/L	0.4188	5	0.0500	0.99	15	
1,2-Dibromoethane	0.3259	0.3368	0.3085	0.3222	0.3078	0.3202	0.3197	AVRG	R		3.123707		ug/L	0.3201	3	0.0500	0.99	15	
Chlorobenzene	1.0193	0.9940	0.8754	0.9811	0.9578	0.9436	0.9024	AVRG	R		1.048905		ug/L	0.9534	5	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3865	0.3597	0.3393	0.3650	0.3471	0.3533	0.3516	AVRG	R		2.797105		ug/L	0.3575	4	0.0500	0.99	15	
Ethylbenzene	1.4937	1.4911	1.2813	1.4879	1.4914	1.4259	1.3820	AVRG	R		0.696287		ug/L	1.4362	6	0.0500	0.99	15	
m,p-Xylenes	0.5607	0.5488	0.4693	0.5471	0.5582	0.5189	0.5086	AVRG	R		1.885953		ug/L	0.5302	6	0.0500	0.99	15	
o-Xylene	0.5576	0.5562	0.4953	0.5785	0.5609	0.5327	0.5187	AVRG	R		1.842162		ug/L	0.5428	5	0.0500	0.99	15	
Styrene	0.9362	0.9012	0.8545	0.9931	0.9934	0.9497	0.9203	AVRG	R		1.068958		ug/L	0.9355	5	0.0500	0.99	15	
Bromoform	0.3108	0.3347	0.3137	0.3597	0.3311	0.3523	0.3444	AVRG	R		2.982979		ug/L	0.3352	6	0.1000	0.99	15	
Isopropylbenzene	2.3442	2.3265	2.0882	2.3970	2.3511	2.3449	2.3053	AVRG	R		0.433246		ug/L	2.3082	4	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.9041	0.9054	0.9000	0.9185	0.8667	0.8949	0.9076	AVRG	R		1.111602		ug/L	0.8996	2	0.3000	0.99	15	

82

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.8012	0.7932	0.7602	0.7771	0.7131	0.7547	0.7467	AVRG	R		1.309345		ug/L	0.7637	4	0.0500	0.99	15	
Propylbenzene	2.9555	2.9622	2.6618	2.9963	3.0287	2.8663	2.8361	AVRG	R		0.344709		ug/L	2.9010	4	0.0500	0.99	15	
Bromobenzene	0.8254	0.7953	0.7322	0.7488	0.7457	0.7407	0.7301	AVRG	R		1.316181		ug/L	0.7598	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.0857	2.1738	1.8507	2.1149	2.0909	2.0017	2.0251	AVRG	R		0.488050		ug/L	2.0490	5	0.0500	0.99	15	
2-Chlorotoluene	2.1601	2.1900	1.9415	2.0694	2.0982	2.0219	2.0237	AVRG	R		0.482598		ug/L	2.0721	4	0.0500	0.99	15	
4-Chlorotoluene	2.0680	2.0739	1.8101	2.0204	2.0237	1.9348	1.9415	AVRG	R		0.504603		ug/L	1.9818	5	0.0500	0.99	15	
tert-Butylbenzene	1.6354	1.7135	1.4448	1.7457	1.7535	1.6570	1.6713	AVRG	R		0.602350		ug/L	1.6602	6	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1779	2.2528	1.9664	2.1895	2.2026	2.1557	2.1488	AVRG	R		0.463766		ug/L	2.1563	4	0.0500	0.99	15	
sec-Butylbenzene	2.4034	2.5132	2.1778	2.7488	2.7859	2.6417	2.6157	AVRG	R		0.391355		ug/L	2.5552	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.0785	2.1286	1.8557	2.2950	2.2323	2.1803	2.2057	AVRG	R		0.467411		ug/L	2.1394	7	0.0500	0.99	15	
1,3-Dichlorobenzene	1.4713	1.4734	1.3575	1.4233	1.4124	1.3974	1.3516	AVRG	R		0.707998		ug/L	1.4124	3	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5127	1.5129	1.3832	1.4406	1.4417	1.4236	1.3928	AVRG	R		0.692556		ug/L	1.4439	4	0.0500	0.99	15	
n-Butylbenzene	1.9979	2.1042	1.7905	2.2513	2.2544	2.1879	2.1994	AVRG	R		0.473436		ug/L	2.1122	8	0.0500	0.99	15	
1,2-Dichlorobenzene	1.3768	1.4305	1.3096	1.3739	1.3584	1.3360	1.3161	AVRG	R		0.736732		ug/L	1.3573	3	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.1778	0.1674	0.1627	0.1837	0.1615	0.1748	0.1761	AVRG	R		5.814037		ug/L	0.1720	5	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.8935	0.9381	0.8821	0.8858	0.9030	0.9075	0.8813	AVRG	R		1.112649		ug/L	0.8988	2	0.0500	0.99	15	
Hexachlorobutadiene	0.3598	0.3595	0.3167	0.4000	0.3966	0.3715	0.3820	AVRG	R		2.706920		ug/L	0.3694	8	0.0500	0.99	15	
Naphthalene	2.0068	2.1777	2.0653	2.2426	2.0768	2.1641	2.1574	AVRG	R		0.470096		ug/L	2.1272	4	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.8713	0.9428	0.8231	0.9008	0.8845	0.8781	0.8636	AVRG	R		1.135624		ug/L	0.8806	4	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0598	0.0619	0.0612	0.0692	0.0590	0.0672	0.0675	AVRG	R		15.70423		ug/L	0.0637	7	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.3159	1.2642	1.2236	1.3141	1.3097	1.3611	1.3387	AVRG	R		0.766937		ug/L	1.3039	4	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2887	1.2317	1.2019	1.2911	1.3106	1.3669	1.3177	AVRG	R		0.777040		ug/L	1.2869	4	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8514	0.8490	0.7881	0.8582	0.8187	0.8347	0.8275	AVRG	R		1.201184		ug/L	0.8325	3	0.0500	0.99	15	
Ethanol	0.0055	0.0053	0.0053	0.0061	0.0054	0.0060	0.0061	AVRG	R		176.6855		ug/L	0.0057	7	5.0E-4	0.99	15	
Isopropanol	0.0323	0.0314	0.0330	0.0354	0.0322	0.0354	0.0354	AVRG	R		29.75633		ug/L	0.0336	5	0.0050	0.99	15	
Tetrahydrofuran	0.1213	0.1162	0.1117	0.1192	0.1072	0.1154	0.1121	AVRG	R		8.714671		ug/L	0.1147	4	0.0050	0.99	15	
Dibromofluoromethane	0.5772	0.5646	0.5676	0.5773	0.5944	0.6006	0.5785	AVRG	R		1.724064		ug/L	0.5800	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3548	0.3395	0.3316	0.3460	0.3339	0.3400	0.3412	AVRG	R		2.932596		ug/L	0.3410	2	0.0500	0.99	15	
Trifluorotoluene	0.3676	0.3837	0.3395	0.4398	0.4307	0.4167	0.4112	AVRG	R		2.509660		ug/L	0.3985	9	0.0500	0.99	15	
Toluene-d8	0.9536	0.9754	0.9524	0.9634	0.9592	0.9655	0.9643	AVRG	R		1.039532		ug/L	0.9620	1	0.0500	0.99	15	
Bromofluorobenzene	0.9564	0.9468	0.9742	0.9507	0.9637	0.9332	0.9744	AVRG	R		1.044874		ug/L	0.9571	2	0.0500	0.99	15	

83

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name :
Seqnum : 425199173024 Filename : cei24 Injected : 18-MAY-2005 19:12
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S491 (5000X), S638 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	47.54740	ug/L	-5	30	
Chloromethane	50.00000	47.05970	ug/L	-6	30	m
Vinyl Chloride	50.00000	50.61020	ug/L	1	20	
Bromomethane	50.00000	36.43950	ug/L	-27	30	!v-
Chloroethane	50.00000	54.93000	ug/L	10	30	
Trichlorofluoromethane	50.00000	54.35580	ug/L	9	30	

STD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	473959	1.94	10.71	10.71	0.00
1,4-Difluorobenzene	707116	782713	10.69	11.86	11.86	0.00
1,4-Dichlorobenzene-d4	316250	330524	4.51	18.54	18.53	-0.01

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05/19/05

Warning -=low bias m=manual integration v=ICV
Page 1 of 1

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name :
Seqnum : 425200600004 Filename : cej04 Injected : 19-MAY-2005 08:38
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S629 (5000X), S285 (5000X), S638 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Acetone	50.00000	48.51120	ug/L	-3	40	
Freon 113	50.00000	51.80100	ug/L	4	30	
1,1-Dichloroethene	50.00000	57.62500	ug/L	15	20	
Methylene Chloride	50.00000	52.19810	ug/L	4	30	
Carbon Disulfide	50.00000	55.04150	ug/L	10	30	
MTBE	50.00000	47.16690	ug/L	-6	30	
Trans-1,2-Dichloroethene	50.00000	54.34440	ug/L	9	30	
Vinyl Acetate	50.00000	43.36510	ug/L	-13	40	
1,1-Dichloroethane	50.00000	51.62390	ug/L	3	30	
2-Butanone	50.00000	51.87610	ug/L	4	40	
1,2-Dichloropropane	50.00000	57.47570	ug/L	15	30	
Cis-1,2-Dichloroethene	50.00000	52.57890	ug/L	5	30	
Chloroform	50.00000	51.23170	ug/L	2	20	
Bromochloromethane	50.00000	51.12300	ug/L	2	30	
1,1,1-Trichloroethane	50.00000	57.27350	ug/L	15	30	
1,1-Dichloropropene	50.00000	56.76190	ug/L	14	30	
Carbon Tetrachloride	50.00000	60.07510	ug/L	20	30	
1,2-Dichloroethane	50.00000	50.28060	ug/L	1	30	
Benzene	50.00000	49.76010	ug/L	0	30	
Trichloroethene	50.00000	52.92570	ug/L	6	30	
1,2-Dichloropropane	50.00000	47.46350	ug/L	-5	20	
Bromodichloromethane	50.00000	56.73210	ug/L	13	30	
Dibromomethane	50.00000	49.20340	ug/L	-2	30	
4-Methyl-2-Pentanone	50.00000	51.10840	ug/L	2	40	
Tetramethyl THF	50.00000	52.25320	ug/L	5	30	
Cis-1,3-Dichloropropene	50.00000	51.72140	ug/L	3	30	
Toluene	50.00000	50.66030	ug/L	1	20	
Trans-1,3-Dichloropropene	50.00000	48.07720	ug/L	-4	30	
1,1,2-Trichloroethane	50.00000	49.94160	ug/L	0	30	
2-Hexanone	50.00000	53.18540	ug/L	6	40	
1,3-Dichloropropane	50.00000	49.42240	ug/L	-1	30	
Tetrachloroethene	50.00000	54.73780	ug/L	9	30	
Dibromochloromethane	50.00000	53.62530	ug/L	7	30	
1,2-Dibromoethane	50.00000	48.43920	ug/L	-3	30	
Chlorobenzene	50.00000	50.51690	ug/L	1	30	
1,1,1,2-Tetrachloroethane	50.00000	50.64670	ug/L	1	30	
Ethylbenzene	50.00000	52.16560	ug/L	4	20	
M,p-Xylenes	100.0000	104.3471	ug/L	4	30	
O-Xylene	50.00000	50.87730	ug/L	2	30	
Styrene	50.00000	50.16820	ug/L	0	30	
Bromoform	50.00000	52.39940	ug/L	5	30	
Isopropylbenzene	50.00000	49.41280	ug/L	-1	30	
1,1,2,2-Tetrachloroethane	50.00000	47.39560	ug/L	-5	30	
1,2,3-Trichloropropane	50.00000	47.44220	ug/L	-5	30	
Propylbenzene	50.00000	51.56150	ug/L	3	30	
Bromobenzene	50.00000	48.62890	ug/L	-3	30	
1,3,5-Trimethylbenzene	50.00000	52.54820	ug/L	5	30	

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SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

ıstid : MSVOA03 Run Name :
:qnum : 425200600004 Filename : cej04 Injected : 19-MAY-2005 08:38
ılnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
:andards: S629 (5000X), S285 (5000X), S638 (5000X)

nalyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
2-Chlorotoluene	50.00000	50.60900	ug/L	1	30	
4-Chlorotoluene	50.00000	49.66290	ug/L	-1	30	
Tert-Butylbenzene	50.00000	53.47750	ug/L	7	30	
1,2,4-Trimethylbenzene	50.00000	52.10320	ug/L	4	30	
Sec-Butylbenzene	50.00000	54.82450	ug/L	10	30	
Para-Isopropyl Toluene	50.00000	52.89330	ug/L	6	30	
1,3-Dichlorobenzene	50.00000	49.98380	ug/L	0	30	
1,4-Dichlorobenzene	50.00000	49.85880	ug/L	0	30	
N-Butylbenzene	50.00000	56.15970	ug/L	12	30	
1,2-Dichlorobenzene	50.00000	49.79400	ug/L	0	30	
1,2-Dibromo-3-Chloropropane	50.00000	49.34560	ug/L	-1	30	
1,2,4-Trichlorobenzene	50.00000	52.32380	ug/L	5	30	
Hexachlorobutadiene	50.00000	56.54070	ug/L	13	30	
Naphthalene	50.00000	50.37560	ug/L	1	30	
1,2,3-Trichlorobenzene	50.00000	49.98540	ug/L	0	30	
Tert-Butyl Alcohol (TBA)	250.0000	263.4209	ug/L	5	30	
Isopropyl Ether (DIPE)	50.00000	48.15780	ug/L	-4	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	52.86590	ug/L	6	30	
Methyl tert-Amyl Ether (TAME)	50.00000	49.42200	ug/L	-1	30	
Ethanol	5000.000	4696.748	ug/L	-6	30	
Isopropanol	500.0000	494.7153	ug/L	-1	30	
Tetrahydrofuran	500.0000	518.2057	ug/L	4	30	

STD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	396846	-14.65	10.71	10.69	-0.02
1,4-Difluorobenzene	707116	630310	-10.86	11.86	11.85	-0.01
Chlorobenzene-d5	541429	495141	-8.55	15.83	15.82	-0.01
1,4-Dichlorobenzene-d4	316250	286309	-9.47	18.54	18.52	-0.02

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 60PPB IDF : 1.0
Seqnum : 425202098003 Filename : cek03 Injected : 20-MAY-2005 09:16
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (8333X), S568 (8333X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4672	0.6319	60.00000	81.14830	ug/L	**35**	30	0.0500	c+ ***
Chloromethane	0.4211	0.4699	60.00000	66.96230	ug/L	12	30	0.1000	m
Vinyl Chloride	0.3964	0.4620	60.00000	69.92760	ug/L	17	20	0.0500	
Bromomethane	0.6541	0.6909	60.00000	63.37590	ug/L	6	30	0.0500	
Chloroethane	0.2952	0.3305	60.00000	67.18340	ug/L	12	30	0.0500	
Trichlorofluoromethane	0.6697	0.8524	60.00000	76.36930	ug/L	**27**	30	0.0500	!c+
Acetone	0.1416	0.1653	60.00000	70.03270	ug/L	17	40	0.0500	
Freon 113	0.4395	0.5427	60.00000	65.05980	ug/L	8	30	0.0500	
1,1-Dichloroethene	0.3662	0.3968	60.00000	65.02340	ug/L	8	20	0.0500	
Methylene Chloride	0.5011	0.4904	60.00000	58.71650	ug/L	-2	30	0.0500	
Carbon Disulfide	1.3285	1.4380	60.00000	64.94700	ug/L	8	30	0.0500	
MTBE	1.4167	1.4728	60.00000	62.37860	ug/L	4	30	0.0500	
trans-1,2-Dichloroethene	0.4567	0.4848	60.00000	63.68870	ug/L	6	30	0.0500	
Vinyl Acetate	0.8438	0.9154	60.00000	65.09180	ug/L	8	40	0.0500	
1,1-Dichloroethane	0.7196	0.7543	60.00000	62.89640	ug/L	5	30	0.1000	
2-Butanone	0.2308	0.2560	60.00000	66.55690	ug/L	11	40	0.0500	
2,2-Dichloropropane	0.5957	0.6995	60.00000	70.44790	ug/L	17	30	0.0500	
cis-1,2-Dichloroethene	0.5171	0.5312	60.00000	61.63870	ug/L	3	30	0.0500	
Chloroform	0.8327	0.8635	60.00000	62.22080	ug/L	4	20	0.0500	
Bromochloromethane	0.2970	0.3056	60.00000	61.74830	ug/L	3	30	0.0500	
1,1,1-Trichloroethane	0.6062	0.6971	60.00000	68.99360	ug/L	15	30	0.0500	
1,1-Dichloropropene	0.3414	0.3804	60.00000	66.85340	ug/L	11	30	0.0500	
Carbon Tetrachloride	0.3110	0.3616	60.00000	69.77550	ug/L	16	30	0.0500	
1,2-Dichloroethane	0.3987	0.4113	60.00000	61.89700	ug/L	3	30	0.0500	
Benzene	0.9771	0.9702	60.00000	59.57220	ug/L	-1	30	0.0500	
Trichloroethene	0.2952	0.3077	60.00000	62.54200	ug/L	4	30	0.0500	
1,2-Dichloropropane	0.2760	0.2859	60.00000	62.14650	ug/L	4	20	0.0500	
Bromodichloromethane	0.3833	0.3979	60.00000	62.28380	ug/L	4	30	0.0500	
Dibromomethane	0.2390	0.2436	60.00000	61.14770	ug/L	2	30	0.0500	
4-Methyl-2-Pentanone	0.2927	0.3058	60.00000	62.68390	ug/L	4	40	0.0500	
Tetramethyl THF	0.4920	0.5343	60.00000	65.15820	ug/L	9	30	0.0500	
cis-1,3-Dichloropropene	0.4514	0.4749	60.00000	63.12820	ug/L	5	30	0.0500	
Toluene	0.6167	0.6267	60.00000	60.96400	ug/L	2	20	0.0500	
trans-1,3-Dichloropropene	0.4252	0.4492	60.00000	63.39060	ug/L	6	30	0.0500	
1,1,2-Trichloroethane	0.1598	0.1573	60.00000	59.04690	ug/L	-2	30	0.0500	
2-Hexanone	0.2654	0.2718	60.00000	61.44380	ug/L	2	40	0.0500	
1,3-Dichloropropane	0.5905	0.5756	60.00000	58.48470	ug/L	-3	30	0.0500	
Tetrachloroethene	0.3658	0.3793	60.00000	62.21310	ug/L	4	30	0.0500	
Dibromochloromethane	0.4188	0.4185	60.00000	59.95810	ug/L	0	30	0.0500	
1,2-Dibromoethane	0.3201	0.3133	60.00000	58.72190	ug/L	-2	30	0.0500	
Chlorobenzene	0.9534	0.9227	60.00000	58.07080	ug/L	-3	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3575	0.3593	60.00000	60.30810	ug/L	1	30	0.0500	
Ethylbenzene	1.4362	1.4270	60.00000	59.61560	ug/L	-1	20	0.0500	
m,p-Xylenes	0.5302	0.5147	120.0000	116.4728	ug/L	-3	30	0.0500	
o-Xylene	0.5428	0.5230	60.00000	57.80340	ug/L	-4	30	0.0500	
Styrene	0.9355	0.9173	60.00000	58.83070	ug/L	-2	30	0.0500	

!=warning +=high bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 60PPB IDF : 1.0
Seqnum : 425202098003 Filename : cek03 Injected : 20-MAY-2005 09:16
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (8333X), S568 (8333X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF Flags
Bromoform	0.3352	0.3439	60.00000	61.54290	ug/L	3	30	0.1000
Isopropylbenzene	2.3082	2.3743	60.00000	61.71960	ug/L	3	30	0.0500
1,1,2,2-Tetrachloroethane	0.8996	0.8743	60.00000	58.31510	ug/L	-3	30	0.3000
1,2,3-Trichloropropane	0.7637	0.7409	60.00000	58.20210	ug/L	-3	30	0.0500
Propylbenzene	2.9010	2.9371	60.00000	60.74720	ug/L	1	30	0.0500
Bromobenzene	0.7598	0.6909	60.00000	54.55740	ug/L	-9	30	0.0500
1,3,5-Trimethylbenzene	2.0490	2.0614	60.00000	60.36390	ug/L	1	30	0.0500
2-Chlorotoluene	2.0721	2.0364	60.00000	58.96460	ug/L	-2	30	0.0500
4-Chlorotoluene	1.9818	1.9472	60.00000	58.95310	ug/L	-2	30	0.0500
tert-Butylbenzene	1.6602	1.6844	60.00000	60.87430	ug/L	1	30	0.0500
1,2,4-Trimethylbenzene	2.1563	2.1492	60.00000	59.80370	ug/L	0	30	0.0500
sec-Butylbenzene	2.5552	2.6459	60.00000	62.12920	ug/L	4	30	0.0500
para-Isopropyl Toluene	2.1394	2.1927	60.00000	61.49480	ug/L	2	30	0.0500
1,3-Dichlorobenzene	1.4124	1.3784	60.00000	58.55370	ug/L	-2	30	0.0500
1,4-Dichlorobenzene	1.4439	1.3948	60.00000	57.96070	ug/L	-3	30	0.0500
n-Butylbenzene	2.1122	2.2199	60.00000	63.05910	ug/L	5	30	0.0500
1,2-Dichlorobenzene	1.3573	1.3085	60.00000	57.83980	ug/L	-4	30	0.0500
1,2-Dibromo-3-Chloropropane	0.1720	0.1774	60.00000	61.86850	ug/L	3	30	0.0500
1,2,4-Trichlorobenzene	0.8988	0.9155	60.00000	61.11890	ug/L	2	30	0.0500
Hexachlorobutadiene	0.3694	0.3860	60.00000	62.68440	ug/L	4	30	0.0500
Naphthalene	2.1272	2.0313	60.00000	57.29490	ug/L	-5	30	0.0500
1,2,3-Trichlorobenzene	0.8806	0.8786	60.00000	59.86280	ug/L	0	30	0.0500
tert-Butyl Alcohol (TBA)	0.0637	0.0649	600.0000	611.3320	ug/L	2	30	0.0050
Isopropyl Ether (DIPE)	1.3039	1.4033	60.00000	64.57550	ug/L	8	30	0.0500
Ethyl tert-Butyl Ether (ETBE)	1.2869	1.3496	60.00000	62.92020	ug/L	5	30	0.0500
Methyl tert-Amyl Ether (TAME)	0.8325	0.8433	60.00000	60.77890	ug/L	1	30	0.0500
Ethanol	0.0057	0.0058	6000.000	6179.299	ug/L	3	30	5.0E-4
Isopropanol	0.0336	0.0353	600.0000	630.3295	ug/L	5	30	0.0050
Tetrahydrofuran	0.1147	0.1191	600.0000	622.9773	ug/L	4	30	0.0050
Dibromofluoromethane	0.5800	0.6087	50.00000	52.47590	ug/L	5	30	0.0500
1,2-Dichloroethane-d4	0.3410	0.3680	50.00000	53.95630	ug/L	8	30	0.0500
Trifluorotoluene	0.3985	0.4447	60.00000	66.96520	ug/L	12	30	0.0500
Toluene-d8	0.9620	0.9710	50.00000	50.46910	ug/L	1	30	0.0500
Bromofluorobenzene	0.9571	0.9605	50.00000	50.17770	ug/L	0	30	0.0500

ISTD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	354123	-23.84	10.71	10.69	-0.02
1,4-Difluorobenzene	707116	568074	-19.66	11.86	11.84	-0.02
Chlorobenzene-d5	541429	462650	-14.55	15.83	15.81	-0.02
1,4-Dichlorobenzene-d4	316250	263010	-16.83	18.54	18.52	-0.02

!=warning +=high bias c=CCV m=manual integration
Page 2 of 2

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425206442005 Filename : cen05 Injected : 23-MAY-2005 10:28
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (10000X), S568 (10000X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4672	0.5290	50.00000	56.61110	ug/L	13	30	0.0500	
Chloromethane	0.4211	0.4360	50.00000	51.76860	ug/L	4	30	0.1000	m
Vinyl Chloride	0.3964	0.4159	50.00000	52.46120	ug/L	5	20	0.0500	
Bromomethane	0.6541	0.6348	50.00000	48.52410	ug/L	-3	30	0.0500	
Chloroethane	0.2952	0.3042	50.00000	51.53660	ug/L	3	30	0.0500	
Trichlorofluoromethane	0.6697	0.7415	50.00000	55.35770	ug/L	11	30	0.0500	
Acetone	0.1416	0.1575	50.00000	55.60140	ug/L	11	40	0.0500	
Freon 113	0.4395	0.4966	50.00000	50.37920	ug/L	1	30	0.0500	
1,1-Dichloroethene	0.3662	0.3659	50.00000	49.96290	ug/L	0	20	0.0500	
Methylene Chloride	0.5011	0.4751	50.00000	47.40780	ug/L	-5	30	0.0500	
Carbon Disulfide	1.3285	1.3583	50.00000	51.12060	ug/L	2	30	0.0500	
MTBE	1.4167	1.3634	50.00000	48.11850	ug/L	-4	30	0.0500	
trans-1,2-Dichloroethene	0.4567	0.4520	50.00000	49.48690	ug/L	-1	30	0.0500	
Vinyl Acetate	0.8438	0.8979	50.00000	53.20290	ug/L	6	40	0.0500	
1,1-Dichloroethane	0.7196	0.7172	50.00000	49.83450	ug/L	0	30	0.1000	
2-Butanone	0.2308	0.2385	50.00000	51.66690	ug/L	3	40	0.0500	
2,2-Dichloropropane	0.5957	0.6512	50.00000	54.65430	ug/L	9	30	0.0500	
cis-1,2-Dichloroethene	0.5171	0.4948	50.00000	47.84560	ug/L	-4	30	0.0500	
Chloroform	0.8327	0.8211	50.00000	49.30670	ug/L	-1	20	0.0500	
Bromochloromethane	0.2970	0.2814	50.00000	47.37320	ug/L	-5	30	0.0500	
1,1,1-Trichloroethane	0.6062	0.6362	50.00000	52.47860	ug/L	5	30	0.0500	
1,1-Dichloropropene	0.3414	0.3508	50.00000	51.37630	ug/L	3	30	0.0500	
Carbon Tetrachloride	0.3110	0.3363	50.00000	54.06700	ug/L	8	30	0.0500	
1,2-Dichloroethane	0.3987	0.3830	50.00000	48.03260	ug/L	-4	30	0.0500	
Benzene	0.9771	0.9061	50.00000	46.36620	ug/L	-7	30	0.0500	
Trichloroethene	0.2952	0.2870	50.00000	48.60980	ug/L	-3	30	0.0500	
1,2-Dichloropropane	0.2760	0.2726	50.00000	49.37840	ug/L	-1	20	0.0500	
Bromodichloromethane	0.3833	0.3812	50.00000	49.72790	ug/L	-1	30	0.0500	
Dibromomethane	0.2390	0.2294	50.00000	47.99610	ug/L	-4	30	0.0500	
4-Methyl-2-Pentanone	0.2927	0.2876	50.00000	49.12350	ug/L	-2	40	0.0500	
Tetramethyl THF	0.4920	0.4943	50.00000	50.23410	ug/L	0	30	0.0500	
cis-1,3-Dichloropropene	0.4514	0.4567	50.00000	50.58220	ug/L	1	30	0.0500	
Toluene	0.6167	0.5747	50.00000	46.58760	ug/L	-7	20	0.0500	
trans-1,3-Dichloropropene	0.4252	0.4188	50.00000	49.24940	ug/L	-2	30	0.0500	
1,1,2-Trichloroethane	0.1598	0.1453	50.00000	45.47420	ug/L	-9	30	0.0500	
2-Hexanone	0.2654	0.2641	50.00000	49.75070	ug/L	0	40	0.0500	
1,3-Dichloropropane	0.5905	0.5541	50.00000	46.91290	ug/L	-6	30	0.0500	
Tetrachloroethene	0.3658	0.3566	50.00000	48.74230	ug/L	-3	30	0.0500	
Dibromochloromethane	0.4188	0.4051	50.00000	48.36130	ug/L	-3	30	0.0500	
1,2-Dibromoethane	0.3201	0.3076	50.00000	48.04340	ug/L	-4	30	0.0500	
Chlorobenzene	0.9534	0.8751	50.00000	45.89540	ug/L	-8	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3575	0.3311	50.00000	46.30510	ug/L	-7	30	0.0500	
Ethylbenzene	1.4362	1.3695	50.00000	47.67810	ug/L	-5	20	0.0500	
m,p-Xylenes	0.5302	0.4994	100.0000	94.19260	ug/L	-6	30	0.0500	
o-Xylene	0.5428	0.5042	50.00000	46.43690	ug/L	-7	30	0.0500	
Styrene	0.9355	0.8928	50.00000	47.71690	ug/L	-5	30	0.0500	

m=manual integration

89

5/23/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 50PPB IDF : 1.0
Seqnum : 425206442005 Filename : cen05 Injected : 23-MAY-2005 10:28
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (10000X), S568 (10000X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF	Flags
Bromoform	0.3352	0.3175	50.00000	47.35580	ug/L	-5	30	0.1000	
Isopropylbenzene	2.3082	2.2635	50.00000	49.03200	ug/L	-2	30	0.0500	
1,1,2,2-Tetrachloroethane	0.8996	0.8286	50.00000	46.05280	ug/L	-8	30	0.3000	
1,2,3-Trichloropropane	0.7637	0.6989	50.00000	45.75820	ug/L	-8	30	0.0500	
Propylbenzene	2.9010	2.8174	50.00000	48.55870	ug/L	-3	30	0.0500	
Bromobenzene	0.7598	0.6868	50.00000	45.19610	ug/L	-10	30	0.0500	
1,3,5-Trimethylbenzene	2.0490	1.9679	50.00000	48.02070	ug/L	-4	30	0.0500	
2-Chlorotoluene	2.0721	1.9517	50.00000	47.09440	ug/L	-6	30	0.0500	
4-Chlorotoluene	1.9818	1.8932	50.00000	47.76610	ug/L	-4	30	0.0500	
tert-Butylbenzene	1.6602	1.5936	50.00000	47.99500	ug/L	-4	30	0.0500	
1,2,4-Trimethylbenzene	2.1563	2.0107	50.00000	46.62370	ug/L	-7	30	0.0500	
sec-Butylbenzene	2.5552	2.5180	50.00000	49.27090	ug/L	-1	30	0.0500	
para-Isopropyl Toluene	2.1394	2.0157	50.00000	47.10690	ug/L	-6	30	0.0500	
1,3-Dichlorobenzene	1.4124	1.2892	50.00000	45.63590	ug/L	-9	30	0.0500	
1,4-Dichlorobenzene	1.4439	1.3419	50.00000	46.46620	ug/L	-7	30	0.0500	
n-Butylbenzene	2.1122	2.0779	50.00000	49.18780	ug/L	-2	30	0.0500	
1,2-Dichlorobenzene	1.3573	1.2396	50.00000	45.66260	ug/L	-9	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1720	0.1595	50.00000	46.36320	ug/L	-7	30	0.0500	
1,2,4-Trichlorobenzene	0.8988	0.8268	50.00000	45.99430	ug/L	-8	30	0.0500	
Hexachlorobutadiene	0.3694	0.3384	50.00000	45.80150	ug/L	-8	30	0.0500	
Naphthalene	2.1272	1.9172	50.00000	45.06270	ug/L	-10	30	0.0500	
1,2,3-Trichlorobenzene	0.8806	0.8197	50.00000	46.54400	ug/L	-7	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0637	0.0594	500.0000	466.8047	ug/L	-7	30	0.0050	
Isopropyl Ether (DIPE)	1.3039	1.3219	50.00000	50.69060	ug/L	1	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.2869	1.2565	50.00000	48.81840	ug/L	-2	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.8325	0.7664	50.00000	46.02890	ug/L	-8	30	0.0500	
Ethanol	0.0057	0.0054	5000.000	4738.751	ug/L	-5	30	5.0E-4	
Isopropanol	0.0336	0.0319	500.0000	474.8095	ug/L	-5	30	0.0050	
Tetrahydrofuran	0.1147	0.1123	500.0000	489.2171	ug/L	-2	30	0.0050	
Dibromofluoromethane	0.5800	0.6249	50.00000	53.86580	ug/L	8	30	0.0500	
1,2-Dichloroethane-d4	0.3410	0.3733	50.00000	54.74380	ug/L	9	30	0.0500	
Trifluorotoluene	0.3985	0.3962	50.00000	49.71420	ug/L	-1	30	0.0500	
Toluene-d8	0.9620	1.0001	50.00000	51.98110	ug/L	4	30	0.0500	
Bromofluorobenzene	0.9571	0.9795	50.00000	51.17040	ug/L	2	30	0.0500	

ISTD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	392045	-15.68	10.71	10.71	0.00
1,4-Difluorobenzene	707116	629109	-11.03	11.86	11.85	-0.01
Chlorobenzene-d5	541429	495423	-8.50	15.83	15.83	0.00
1,4-Dichlorobenzene-d4	316250	281333	-11.04	18.54	18.53	-0.01

m=manual integration
Page 2 of 2

5/23/05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 20-MAY-2005
Sequence: 425202098 (cek)
Instrument ID: MSVOA03

ICAL Filename: cei20
Date Analyzed: 18-MAY-2005
Time Analyzed: 17:12

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	464956	10.71	707116	11.86	541429	15.83	316250	18.54
LOWER LIMIT	232478	10.21	353558	11.36	270715	15.33	158125	18.04
UPPER LIMIT	929912	11.21	1414232	12.36	1082858	16.33	632500	19.04

TYPE	SAMPLE	#							
CCV	60PPB	003	354123	10.69	568074	11.84	462650	15.81	263010	18.52
LCS	QC294534	004	363557	10.69	566310	11.84	455820	15.82	269150	18.51
BLANK	QC294535	005	385779	10.69	593603	11.84	477310	15.81	279087	18.52
PREPBLK	QC294546	006	467849	10.68	731266	11.83	567115	15.81	294036	18.51
SAMPLE	179500-004	007	454026	10.69	712736	11.83	576144	15.81	314305	18.51
MSS	179501-011	008	486011	10.68	769802	11.84	623653	15.81	343004	18.52
SAMPLE	179528-014	009	457272	10.69	751372	11.83	576457	15.82	309706	18.51
SAMPLE	179488-001	010	464591	10.68	733298	11.83	579317	15.81	316163	18.51
SAMPLE	179487-001	011	456956	10.69	745916	11.83	592113	15.81	309048	18.51
SAMPLE	179470-021	012	473626	10.68	744734	11.84	614693	15.81	341658	18.51
SAMPLE	179500-012	013	487415	10.69	803689	11.83	652539	15.81	322641	18.52
SAMPLE	179564-001	014	340401	10.69	564122	11.84	436368	15.81	216246	18.52
SAMPLE	179500-016	015	453666	10.68	745413	11.83	601544	15.81	315064	18.52
SAMPLE	179503-015	016	446060	10.69	758110	11.83	618163	15.81	319805	18.52
SAMPLE	179549-002	017	463493	10.69	763228	11.84	600699	15.81	311316	18.52
SAMPLE	179549-004	018	430015	10.69	737660	11.84	592157	15.81	325867	18.52
SAMPLE	179549-006	019	456759	10.70	762322	11.84	591491	15.81	312646	18.52
SAMPLE	179549-008	020	390732	10.69	665769	11.84	526254	15.81	280047	18.52
SAMPLE	179549-010	021	419757	10.69	716448	11.84	584263	15.82	305929	18.51
MS	QC294405	022	430910	10.70	725831	11.84	583634	15.81	312014	18.52
MSD	QC294406	023	415578	10.70	726830	11.84	586612	15.81	310329	18.52
MS	QC294547	024	445732	10.69	760601	11.84	617788	15.82	319166	18.52
MSD	QC294548	025	452924	10.69	791911	11.84	604851	15.82	293389	18.52

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 23-MAY-2005 ICAL Filename: cei20
Sequence: 425206442 (cen) Date Analyzed: 18-MAY-2005
Instrument ID: MSVOA03 Time Analyzed: 17:12

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	464956	10.71	707116	11.86	541429	15.83	316250	18.54
LOWER LIMIT	232478	10.21	353558	11.36	270715	15.33	158125	18.04
UPPER LIMIT	929912	11.21	1414232	12.36	1082858	16.33	632500	19.04

TYPE	SAMPLE	#								
CCV	50PPB	003	400068	10.70	673864	11.85	537301	15.82	305490	18.53
CCV	50PPB	005	392045	10.71	629109	11.85	495423	15.83	281333	18.53
LCS	QC294733	006	365229	10.70	586502	11.85	471430	15.82	273182	18.53
BLANK	QC294734	007	444506	10.70	697582	11.85	555910	15.83	307171	18.52
MS	QC294547	008	478154	10.70	750400	11.85	602202	15.83	332767	18.53
MSD	QC294548	009	509851	10.70	789850	11.85	668425	15.82	368296	18.53
SAMPLE	179500-012	010	508879	10.70	814716	11.85	666557	15.82	358658	18.53
SAMPLE	179500-016	011	514666	10.71	858896	11.85	688706	15.82	371649	18.53
SAMPLE	179503-015	012	496170	10.70	801414	11.85	652259	15.82	350910	18.53
SAMPLE	179549-012	013	487491	10.71	812232	11.85	629180	15.83	332896	18.52
SAMPLE	179549-014	014	488719	10.71	819765	11.86	648500	15.82	343069	18.53
SAMPLE	179549-015	015	118699*	10.71	195128*	11.86	159707*	15.83	87950*	18.53
SAMPLE	179549-016	016	441705	10.72	741594	11.86	603684	15.83	312560	18.53
SAMPLE	179573-001	017	441323	10.71	730541	11.86	592088	15.83	310289	18.53
MSS	179573-002	018	418316	10.71	704840	11.86	572461	15.84	306749	18.53
SAMPLE	179573-003	019	444545	10.72	750055	11.86	626421	15.84	329298	18.53
SAMPLE	179573-004	020	437196	10.71	733598	11.87	606537	15.83	311260	18.54
SAMPLE	179530-002	021	359513	10.72	649589	11.86	526104	15.84	278666	18.53
SAMPLE	179530-006	022	258503	10.71	437780	11.86	366637	15.83	190032	18.53
SAMPLE	179530-008	023	122020*	10.72	201497*	11.86	167207*	15.83	84329*	18.53
SAMPLE	179530-011	024	387657	10.71	669923	11.87	538916	15.83	276810	18.53
SAMPLE	179530-014	025	392218	10.71	730969	11.86	536226	15.83	248580	18.53
MS	QC294777	026	389294	10.71	671463	11.86	549259	15.83	296557	18.53
MSD	QC294778	027	402409	10.71	689700	11.86	565352	15.83	298787	18.53

5/27/05

* = Outside QC Limits

(M)VOA-3 0460 [illegible]

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425199173 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 18-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	cei01	X	IB			18-MAY-2005 07:33	1.0						1	
002	cei02	TUN	BFB			18-MAY-2005 08:10	1.0						2	
003	cei03	CCV	60PPB			18-MAY-2005 08:26	1.0			5000			3 4 1	
004	cei04	X	QC294112	102120	Soil	18-MAY-2005 09:08	1.0			5000			5 6 7 1	
005	cei05	PREPBLK	QC294113 M	102120	Soil	18-MAY-2005 09:38	25.0			5000			8 1	
006	cei06	X	QC294112	102120	Soil	18-MAY-2005 10:08	1.0			5000			1 5 7 6	
007	cei07	BLANK	QC294114	102120	Soil	18-MAY-2005 10:38	1.0		1	5000			1	
008	cei08	LCS	QC294112	102120	Soil	18-MAY-2005 11:09	1.0	1	4	5000			5 9 7 1 spk	
009	cei09	BLANK	QC294114	102120	Soil	18-MAY-2005 11:39	1.0		1	5000			1	
010	cei10	CCV	50PPB			18-MAY-2005 12:09	1.0	4		5000			3 4 1 cc+	
011	cei11	X	IB			18-MAY-2005 12:48	1.0						1	
012	cei12	X	IB			18-MAY-2005 13:18	1.0						1	
013	cei13	TUN	BFB			18-MAY-2005 13:54	1.0						2	
014	cei14	X	IB			18-MAY-2005 14:10	1.0						10	
015	cei15	X	IB			18-MAY-2005 14:40	1.0						10	83
016	cei16	X	CALIB IB			18-MAY-2005 15:10	1.0						10	
017	cei17	ICAL	5PPB			18-MAY-2005 15:40	1.0						3 4 10	
018	cei18	ICAL	10PPB			18-MAY-2005 16:11	1.0						3 4 10	
019	cei19	ICAL	20PPB			18-MAY-2005 16:41	1.0						3 4 10	
020	cei20	ICAL	50PPB			18-MAY-2005 17:12	1.0						3 4 10	
021	cei21	ICAL	60PPB			18-MAY-2005 17:41	1.0						3 4 10	
022	cei22	ICAL	75PPB			18-MAY-2005 18:11	1.0						3 4 10	
023	cei23	ICAL	100PPB			18-MAY-2005 18:42	1.0						3 4 10	
024	cei24	ICV				18-MAY-2005 19:12	1.0			5000			5 10	
025	cei25	X				18-MAY-2005 19:42	1.0			5000			9 7 10	
026	cei26	X	IB			18-MAY-2005 20:12	1.0						10	
027	cei27	X	IB			18-MAY-2005 20:42	1.0						10	
028	cei28	X	IB			18-MAY-2005 21:12	1.0						10	

ICAL - GOOD. ICV - GOOD + A.C.E. Qmn - BrMet

Stds used: 1=S296 2=04WS2425 3=S538 4=S568 5=S491 6=S139 7=S285 8=S344 9=S629 10=S638
Flags used: +=high bias cc=CCV CCC failure spk=5% spike rule

Analyst: [signature] Date: 5/19/05

Page 1 of 1

Q 05/19/05

MSVOA03 0-0 (

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425200600 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 19-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	cej01	X	IB			19-MAY-2005 07:20	1.0					1	
002	cej02	TUN	BFB			19-MAY-2005 07:52	1.0					2	
003	cej03	CCV	50PPB			19-MAY-2005 08:08	1.0	2	5000			3 4 1	
004	cej04	ICV				19-MAY-2005 08:38	1.0		5000			5 6 1	

94

Stds used: 1=S638 2=04WS2425 3=S538 4=S568 5=S629 6=S285

Analyst: Date: 5/19/05

Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425202098 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 20-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	cek01	X	IB			20-MAY-2005 08:18	1.0						1	
002	cek02	TUN	BFB			20-MAY-2005 09:00	1.0						2	
003	cek03	CCV	60PPB			20-MAY-2005 09:16	1.0	1		5000			3 4 1	
004	cek04	LCS	QC294534	102224	Soil	20-MAY-2005 09:59	1.0	1		5000			5 6 7 1	
005	cek05	BLANK	QC294535	102224	Soil	20-MAY-2005 10:29	1.0		1	5000			1	
006	cek06	PREPBLK	QC294546 M	102224	Soil	20-MAY-2005 11:23	25.0			5000			8 1 MeOH PB 5/24/05	
007	cek07	SAMPLE	179500-004	102224	Soil	20-MAY-2005 11:53	2.0			5000	A		1	
008	cek08	MSS	179501-011 M	102224	Soil	20-MAY-2005 12:23	33.33			5000	H		8 1	
009	cek09	SAMPLE	179528-014	102224	Soil	20-MAY-2005 12:53	0.8772			5000	C		1	
010	cek10	SAMPLE	179488-001 M	102224	Miscel	20-MAY-2005 13:24	500.0			5000	A		8 1	
011	cek11	SAMPLE	179487-001 M	102224	Miscel	20-MAY-2005 13:54	2500			5000			8 1	
012	cek12	SAMPLE	179470-021 M	102224	Soil	20-MAY-2005 14:25	83.33			5000			8 1	
013	cek13	SAMPLE	179500-012 M	102224	Soil	20-MAY-2005 14:55	25.0	1		5000			8 1 PR50X 8R 1:MTBE=119.556	
014	cek14	SAMPLE	179564-001	102224	Soil	20-MAY-2005 15:25	1.163			5000	B		1	
015	cek15	SAMPLE	179500-016 M	102224	Soil	20-MAY-2005 15:56	25.0	1		5000	A		8 1 PR83.3X 1:TMB124=201.488	65
016	cek16	SAMPLE	179503-015 M	102224	Soil	20-MAY-2005 16:26	25.0	1		5000	B		8 1 PR100X 8R 2:PCE=284.335	
017	cek17	SAMPLE	179549-002	102224	Soil	20-MAY-2005 16:57	0.9259			5000	C		1	
018	cek18	SAMPLE	179549-004	102224	Soil	20-MAY-2005 17:26	0.8475			5000			1	
019	cek19	SAMPLE	179549-006	102224	Soil	20-MAY-2005 17:56	0.9434			5000			1	
020	cek20	SAMPLE	179549-008	102224	Soil	20-MAY-2005 18:27	0.9615			5000			1	
021	cek21	SAMPLE	179549-010	102224	Soil	20-MAY-2005 18:57	0.7576			5000			1	
022	cek22	MS	QC294405	102177	Soil	20-MAY-2005 19:27	0.9091	2	2	5000	A		6 5 7 1	1:MTLNCL=150.373
023	cek23	MSD	QC294406	102177	Soil	20-MAY-2005 19:57	0.9091	2	4	5000			6 5 7 1	1:MTLNCL=154.814
024	cek24	MS	QC294547 M	102224	Soil	20-MAY-2005 20:27	33.33	1	6	5000	H		8 5 6 7 1 PR MS/MSD	
025	cek25	MSD	QC294548 M	102224	Soil	20-MAY-2005 20:57	33.33	66	1	5000			8 5 6 7 1	65:ETHANO=12918.7
026	cek26	X	IB			20-MAY-2005 21:26	1.0						1	
027	cek27	X	IB			20-MAY-2005 21:56	1.0						1	
028	cek28	X	3A			20-MAY-2005 22:27	1.0						1 8R	
029	cek29	X	3B			20-MAY-2005 22:57	1.0						1	

ICAL - Good, ICV - Good + A.C.E. low - Brmet, CCV - FIT + A.C.E low - TCFM

Stds used: 1=S638 2=04WS2425 3=S538 4=S568 5=S491 6=S629 7=S285 8=S344

Analyst: Date: 5/23/05

Page 1 of 1

5/24/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

MS/MSD PR 102224

Sequence: 425206442 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 23-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	cen01	X	IB			23-MAY-2005 08:42	1.0					1	
002	cen02	TUN	BFB			23-MAY-2005 09:20	1.0					2	
003	cen03	CCV	50PPB			23-MAY-2005 09:36	1.0	2	5000			3 4 1 cc+	adjust time
004	cen04	TUN	BFB			23-MAY-2005 10:13	1.0					2	
005	cen05	CCV	50PPB			23-MAY-2005 10:28	1.0		5000			3 4 1	
006	cen06	LCS	QC294733	102278	Soil	23-MAY-2005 11:11	1.0		5000			5 6 7 1	
007	cen07	BLANK	QC294734	102278	Soil	23-MAY-2005 11:41	1.0	1	5000			1	
008	cen08	MS	QC294547 M	102224	Soil	23-MAY-2005 12:12	33.33	1	5000	H		8 5 6 7 1	
009	cen09	MSD	QC294548 M	102224	Soil	23-MAY-2005 12:42	33.33	1	5000	H		8 5 6 7 1	
010	cen10	SAMPLE	179500-012 M	102278	Soil	23-MAY-2005 13:12	50.0		5000	A		8 1	
011	cen11	SAMPLE	179500-016 M	102278	Soil	23-MAY-2005 13:42	83.33		5000	↓		8 1	
012	cen12	SAMPLE	179503-015 M	102278	Soil	23-MAY-2005 14:12	100.0		5000	B		8 1	
013	cen13	SAMPLE	179549-012	102278	Soil	23-MAY-2005 14:42	0.8772		5000	C		1	
014	cen14	SAMPLE	179549-014	102278	Soil	23-MAY-2005 15:12	0.8475		5000	↓		1	
015	cen15	SAMPLE	179549-015	102278	Soil	23-MAY-2005 15:42	0.9259		5000	D		1 PR1X IS1	
016	cen16	SAMPLE	179549-016	102278	Soil	23-MAY-2005 16:12	0.9434	1	5000	+		1 PR25X OR	1:MEK=222.552
017	cen17	SAMPLE	179573-001	102278	Soil	23-MAY-2005 16:42	0.9804		5000	A		1	
018	cen18	MSS	179573-002	102278	Soil	23-MAY-2005 17:13	0.9804	1	5000			1	
019	cen19	SAMPLE	179573-003	102278	Soil	23-MAY-2005 17:43	0.9259		5000			1	
020	cen20	SAMPLE	179573-004	102278	Soil	23-MAY-2005 18:13	0.8621		5000	↓		1	
021	cen21	SAMPLE	179530-002	102278	Soil	23-MAY-2005 18:43	0.7813		5000	B		1	
022	cen22	SAMPLE	179530-006	102278	Soil	23-MAY-2005 19:13	0.9259	1	5000			1 PR25X OR	1:TCE=111.902
023	cen23	SAMPLE	179530-008	102278	Soil	23-MAY-2005 19:43	1.136	1	5000			1 PR1X IS1	1:TCE=195.747
024	cen24	SAMPLE	179530-011	102278	Soil	23-MAY-2005 20:13	0.9804	1	5000			1 PR25X OR	1:TCE=267.161
025	cen25	SAMPLE	179530-014	102278	Soil	23-MAY-2005 20:43	0.8621		5000	A		1	
026	cen26	MS	QC294777	102278	Soil	23-MAY-2005 21:13	0.9804	4	5000			5 7 6 1	
027	cen27	MSD	QC294778	102278	Soil	23-MAY-2005 21:43	0.9804	4	5000	↓		5 7 6 1	
028	cen28	X	IB			23-MAY-2005 22:13	1.0					1	
029	cen29	X	IB			23-MAY-2005 22:43	1.0					1	
030	cen30	X	3A, 31-3B			23-MAY-2005 23:13	1.0					1 <PR	

ICAL - Good, ICV Good + A.C.C. Run - Bracket, CCV - Good

Stds used: 1=S638 2=04WS2425 3=S538 4=S568 5=S491 6=S629 7=S285 8=S344

Flags used: +=high bias cc=CCV CCC failure

Analyst: _____ Date: 5/24/05

Page 1 of 2

MV 5/24/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date:

Prepped by:

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179500-12	0.1	A			RR50X		
2	16	0.6	A			RR87.3X		
3	179573-1	5.1	A					
4	2	5.1				MSS/MS/MSD		
5	3	5.4g						
6	4	5.8g						
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179501-11	0.15	H			RR33X MS/MSD only		
2	179503-15	0.5	B			RR100X OP		
3	179530-2	6.4	B					
4	6	5.4						
5	8	4.4						
6	11	5.1						
7	14	5.8	A					
8	179549-12	5.7	C					
9	14	5.9						
10	~~15~~	~~6.1~~	~~D~~					
11	16	5.3	D					
12	~~179573-1~~							
13	2							
14	3							
15	4							
16	179549-15	5.4	D					
17								

F:/home/terri/templates/Soilprepsheet.xls

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 5/20/05
Prepped by: Ca

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179470-21	0.06	A			PR 83.3X OD		
2	179487-1	0.002	|			PR 2500X OD		
3	179488-1	0.01	|			PR 500X OD		
4	179500-4	2.5	|			PR 2x, Ace O.R.		
5	179500-12	10.0	|	X		PR 25x, MTBE, Bzn, mp-Xy, o-Xy O.R		
6	↓ -16	10.0	↓	X		PR 25x, 124 TMB, NAPH O.R		
7	MeOH PB 5/20/05					25X		
8	~~179530-2~~							
9	179500-15	5.5	A			PR MS/MSD 1X		
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179503-15	4.5	B	X		PR 25X		
2	179549-2	5.4	C					
3	4	5.9	|					
4	6	5.3	|					
5	8	5.2	|					
6	10	6.8	|					
7	12	5.7	|			☆ PUT OFF - IN FRIDGE ☆		
8	14	5.9	|			↓ ↓		
9	15	6.1						
10	179501-11	0.150	H			PR ~~500~~ 333X MS/MSD		
11	~~179530-2~~	—	—					
12	179528-14	5.7	C			PR 1X		
13	179564-1	4.3	B					
14	↓ -1	4.0	D	X				
15								
16								
17								

F:/home/terri/templates/Soilprepsheet.xls

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB101(0.5)	Diln Fac:	2.000
Lab ID:	179564-001	Batch#:	102526
Matrix:	Soil	Sampled:	05/20/05
Units:	ug/Kg	Received:	05/20/05
Basis:	dry	Prepared:	06/01/05

Moisture: 15%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	8.4 J	12	1.8	06/09/05
Acenaphthylene	29	12	3.4	06/09/05
Acenaphthene	2.5 J	12	1.8	06/09/05
Fluorene	9.4 J	12	2.6	06/09/05
Phenanthrene	230	12	1.8	06/08/05
Anthracene	38	12	1.3	06/08/05
Fluoranthene	270	12	3.1	06/09/05
Pyrene	310	12	2.6	06/09/05
Benzo(a)anthracene	130	12	2.4	06/09/05
Chrysene	170	12	2.2	06/09/05
Benzo(b)fluoranthene	160	12	2.5	06/09/05
Benzo(k)fluoranthene	120	12	1.4	06/09/05
Benzo(a)pyrene	230	12	2.1	06/09/05
Indeno(1,2,3-cd)pyrene	170	12	2.3	06/09/05
Dibenz(a,h)anthracene	82	12	2.1	06/09/05
Benzo(g,h,i)perylene	200	12	2.0	06/09/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	61	37-140	06/09/05
2-Fluorobiphenyl	67	38-120	06/09/05
Terphenyl-d14	57	44-137	06/09/05

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295759	Batch#:	102526
Matrix:	Soil	Prepared:	06/01/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	4.9	0.76
Acenaphthylene	ND	4.9	1.5
Acenaphthene	ND	4.9	0.76
Fluorene	ND	4.9	1.1
Phenanthrene	ND	4.9	0.94
Anthracene	ND	4.9	1.2
Fluoranthene	ND	4.9	1.3
Pyrene	ND	4.9	1.1
Benzo(a)anthracene	ND	4.9	1.0
Chrysene	ND	4.9	0.95
Benzo(b)fluoranthene	ND	4.9	1.1
Benzo(k)fluoranthene	ND	4.9	0.59
Benzo(a)pyrene	ND	4.9	0.89
Indeno(1,2,3-cd)pyrene	ND	4.9	0.95
Dibenz(a,h)anthracene	ND	4.9	0.87
Benzo(g,h,i)perylene	ND	4.9	0.86

Surrogate	%REC	Limits
Nitrobenzene-d5	79	37-140
2-Fluorobiphenyl	77	38-120
Terphenyl-d14	82	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295760	Batch#:	102526
Matrix:	Soil	Prepared:	06/01/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.37	28.93	87	49-128
Pyrene	33.37	27.50 b	82	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	108	37-140
2-Fluorobiphenyl	84	38-120
Terphenyl-d14	84	44-137

b= See narrative

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	102526
MSS Lab ID:	179606-008	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	ug/Kg	Prepared:	06/01/05
Basis:	dry	Analyzed:	06/07/05
Diln Fac:	1.000		

Type: MS Moisture: 11%
Lab ID: QC295761

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	1.359	37.23	27.46	70	39-138
Pyrene	46.87	37.23	71.17	65	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	63	37-140
2-Fluorobiphenyl	64	38-120
Terphenyl-d14	59	44-137

Type: MSD Moisture: 11%
Lab ID: QC295762

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	37.34	28.41	72	39-138	3	39
Pyrene	37.34	83.32	98	28-159	16	45

Surrogate	%REC	Limits
Nitrobenzene-d5	84	37-140
2-Fluorobiphenyl	76	38-120
Terphenyl-d14	61	44-137

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA02.i\060705.b\UF704.D

Date : 07-JUN-2005 16:04

Client ID: dftpp tune std

Instrument: MSBNA02.i

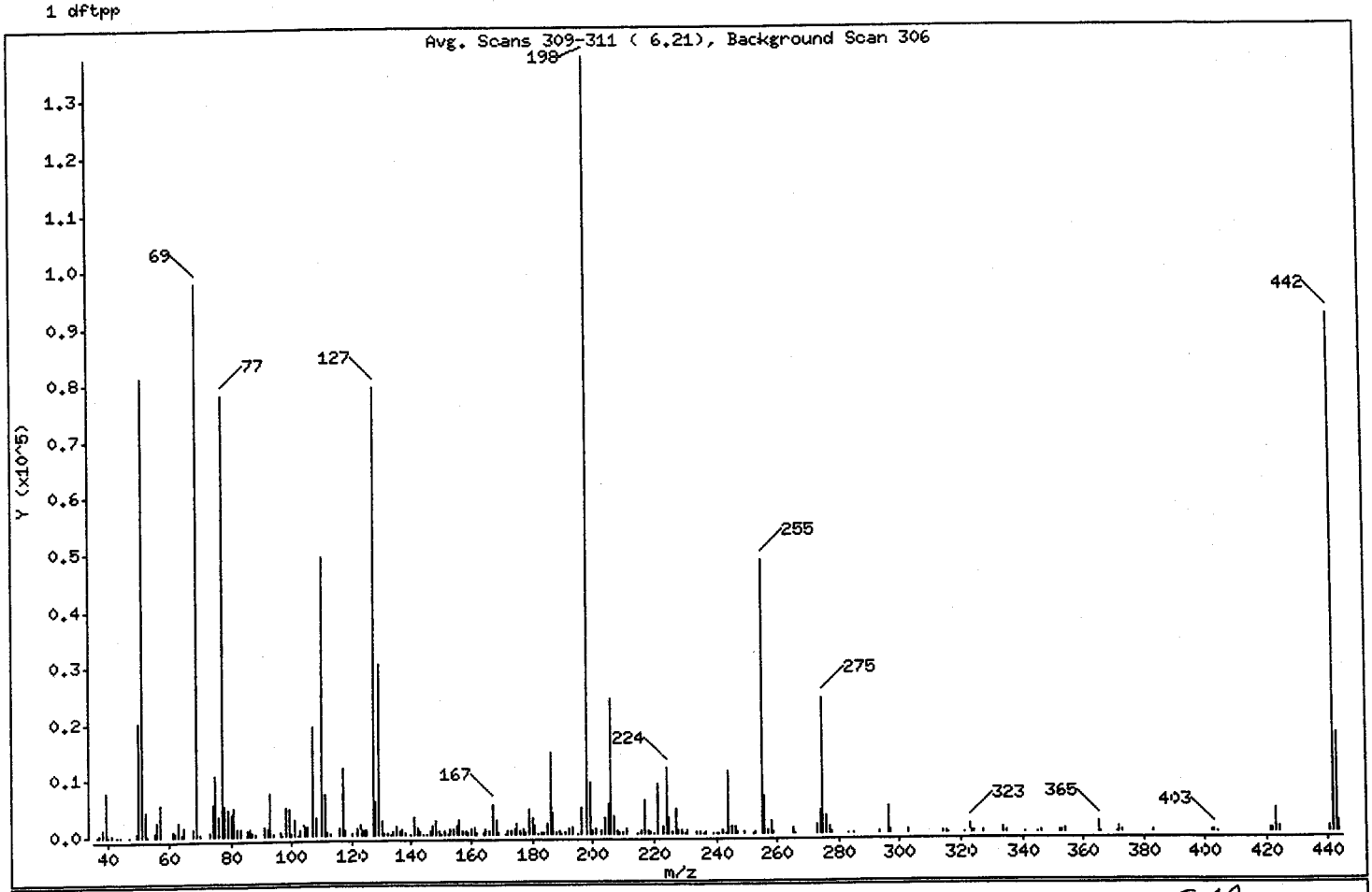
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.31
68	Less than 1.99% of mass 69	0.99 (1.39)
69	Mass 69 relative abundance	71.18
70	Less than 2.00% of mass 69	0.30 (0.43)
127	40.00 - 60.00% of mass 198	57.87
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	17.43
365	Greater than 1.00% of mass 198	1.42
441	Present, but less than mass 443	0.77
442	40.00 - 99.99% of mass 198	66.59
443	17.00 - 23.00% of mass 442	12.68 (19.05)

SIM

ICAL

tune

now

6/8/05

06/09/05

Data File: \\GCMSSERVER\DD\chem\MSBNA02.i\060805.b\UF804.D

Date : 08-JUN-2005 12:36

Client ID: dftpp tune std

Instrument: MSBNA02.i

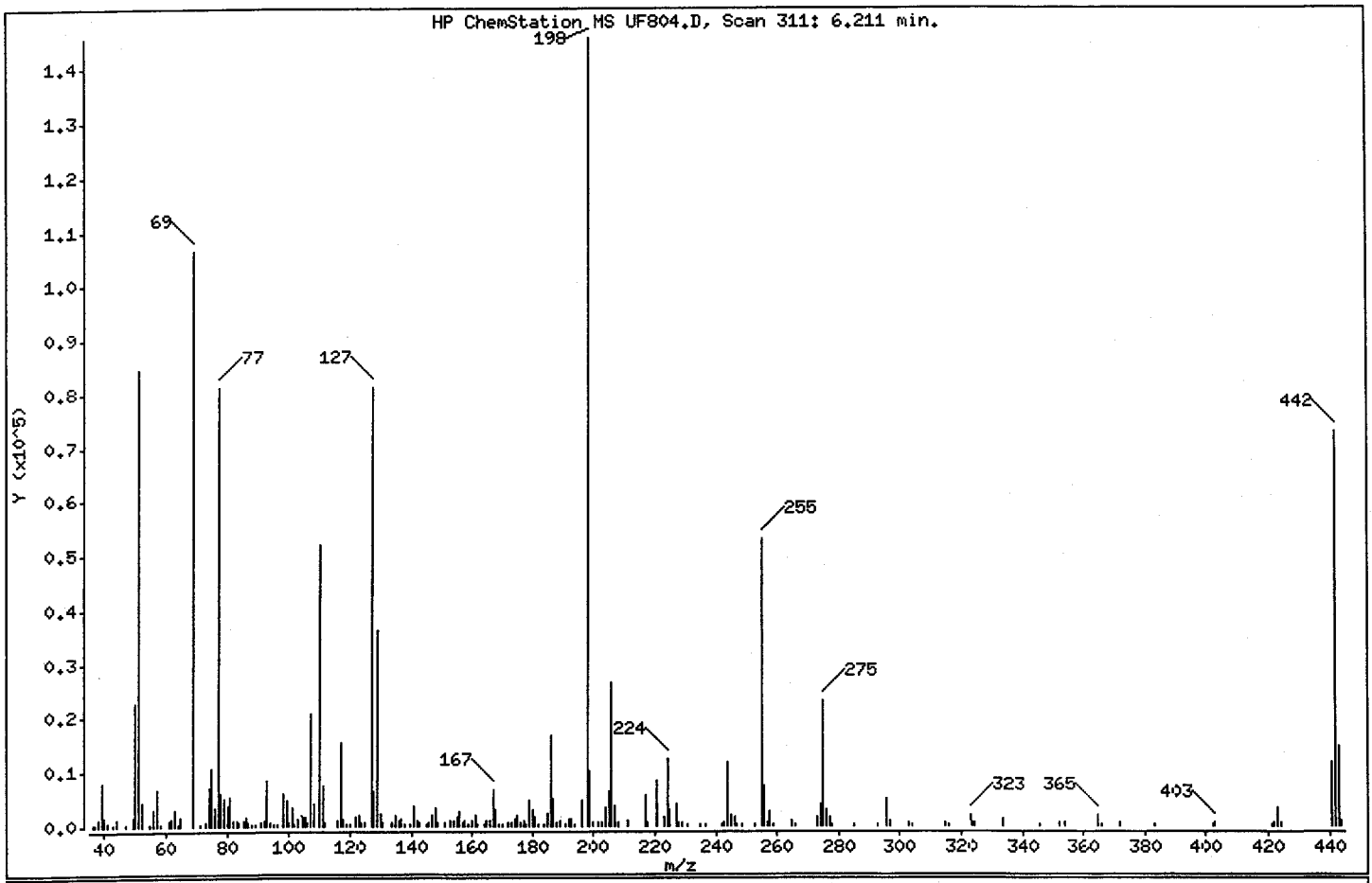
Sample Info: TUN,S513

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.09
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	72.99
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	55.66
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	15.90
365	Greater than 1.00% of mass 198	1.42
441	Present, but less than mass 443	8.08
442	40.00 - 99.99% of mass 198	49.90
443	17.00 - 23.00% of mass 442	10.20 (20.44)

Data File: \\GCMSSERVER\DI\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

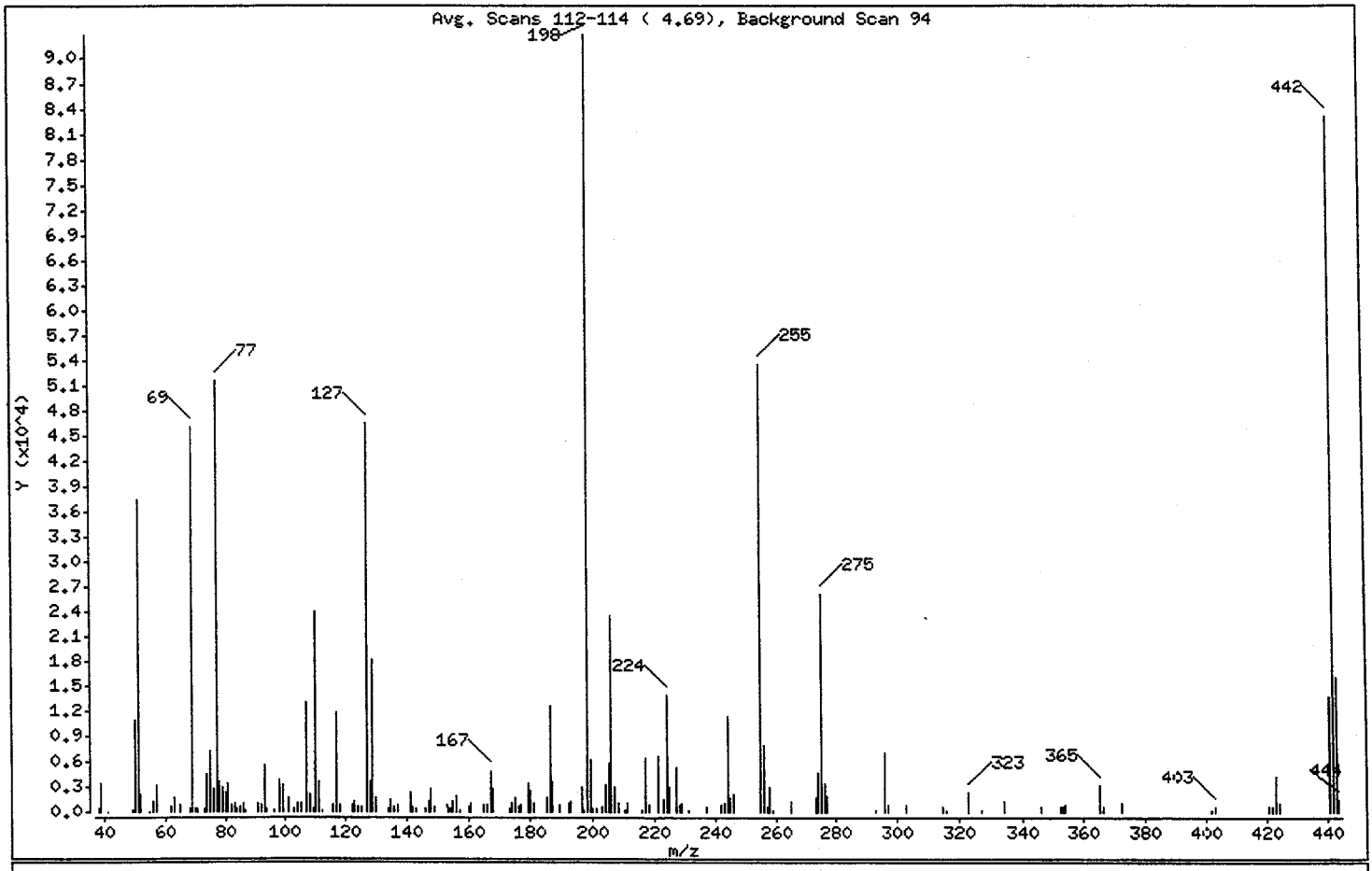
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	89.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM
FCAL

4/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060105.B\VF104.D

Date : 01-JUN-2005 23:08

Client ID: dftpp tune std

Instrument: MSBNA03.i

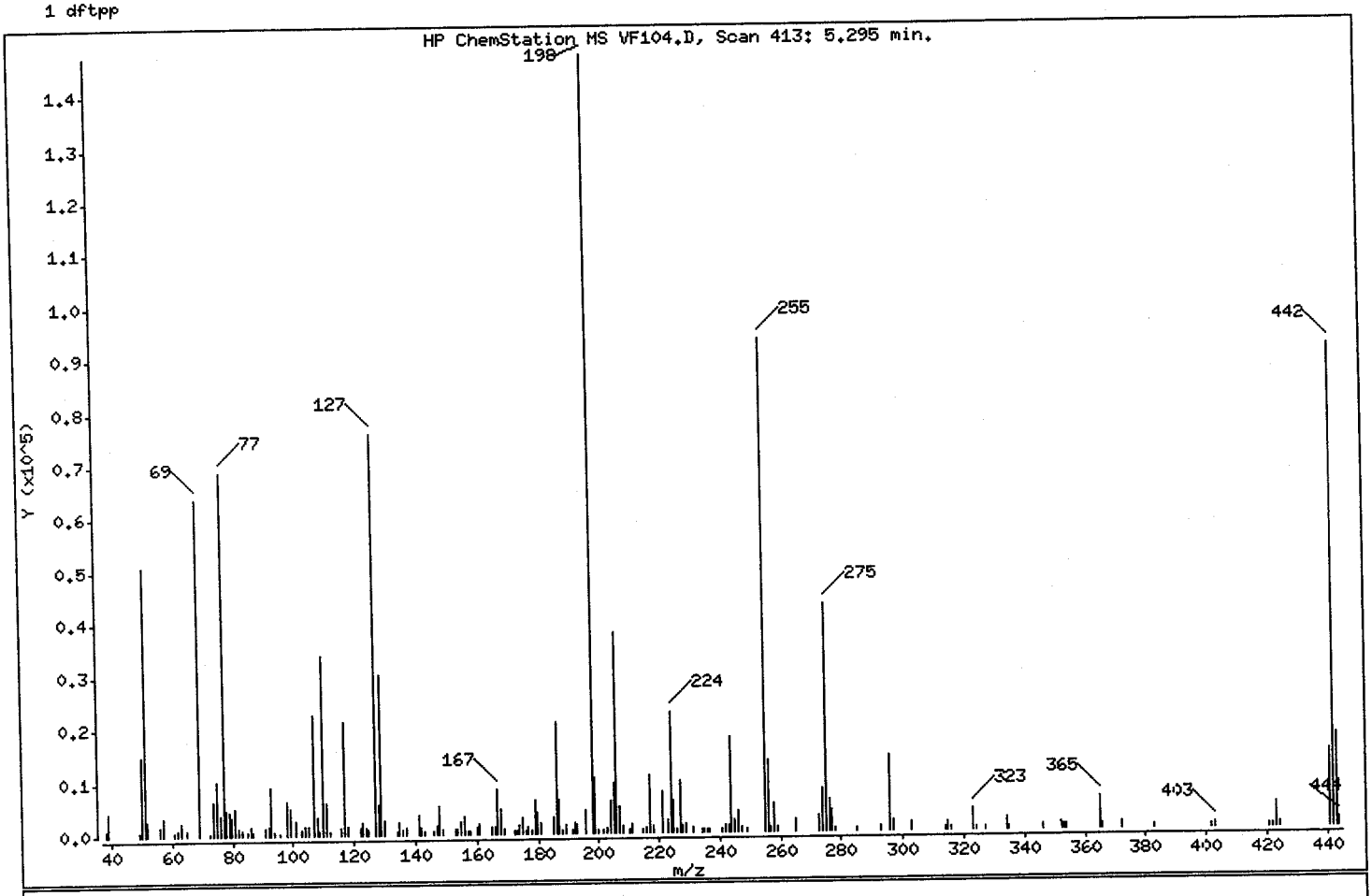
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.60
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	43.24
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	51.67
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.22
275	10.00 - 30.00% of mass 198	29.38
365	Greater than 1.00% of mass 198	4.17
441	Present, but less than mass 443	9.81
442	40.00 - 99.99% of mass 198	62.04
443	17.00 - 23.00% of mass 442	12.02 (19.38)

6/2/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060705.b\VF701.D

Date : 07-JUN-2005 09:42

Client ID: dftpp tune std

Instrument: MSBNA03.i

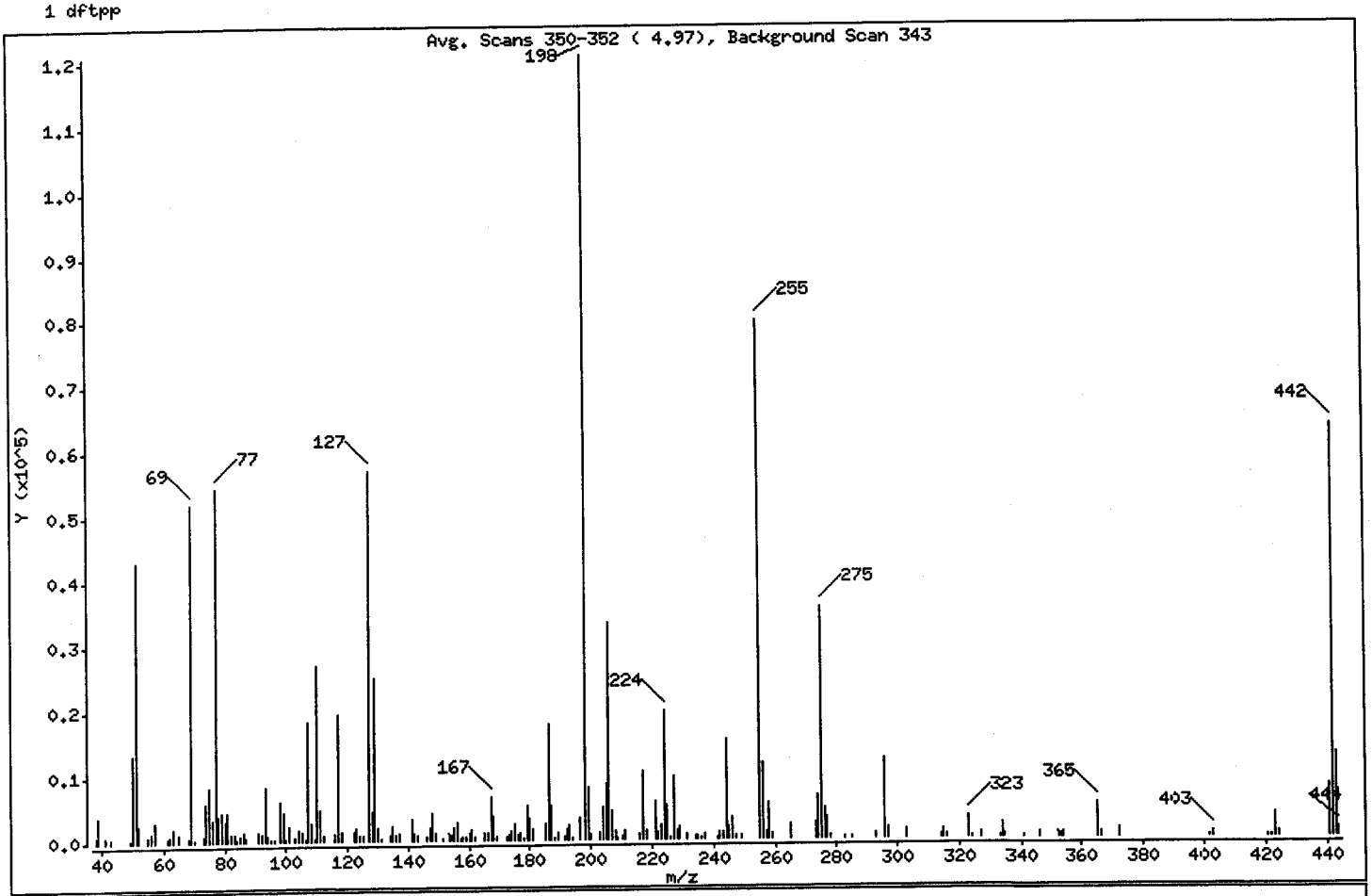
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.77
68	Less than 1.99% of mass 69	0.44 (1.01)
69	Mass 69 relative abundance	43.01
70	Less than 2.00% of mass 69	0.15 (0.35)
127	40.00 - 60.00% of mass 198	47.16
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 30.00% of mass 198	29.55
365	Greater than 1.00% of mass 198	4.46
441	Present, but less than mass 443	6.58
442	40.00 - 99.99% of mass 198	52.53
443	17.00 - 23.00% of mass 442	10.51 (20.01)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060905.b\VF901.D

Date : 09-JUN-2005 12:16

Client ID: dftpp tune std

Instrument: MSBNA03.i

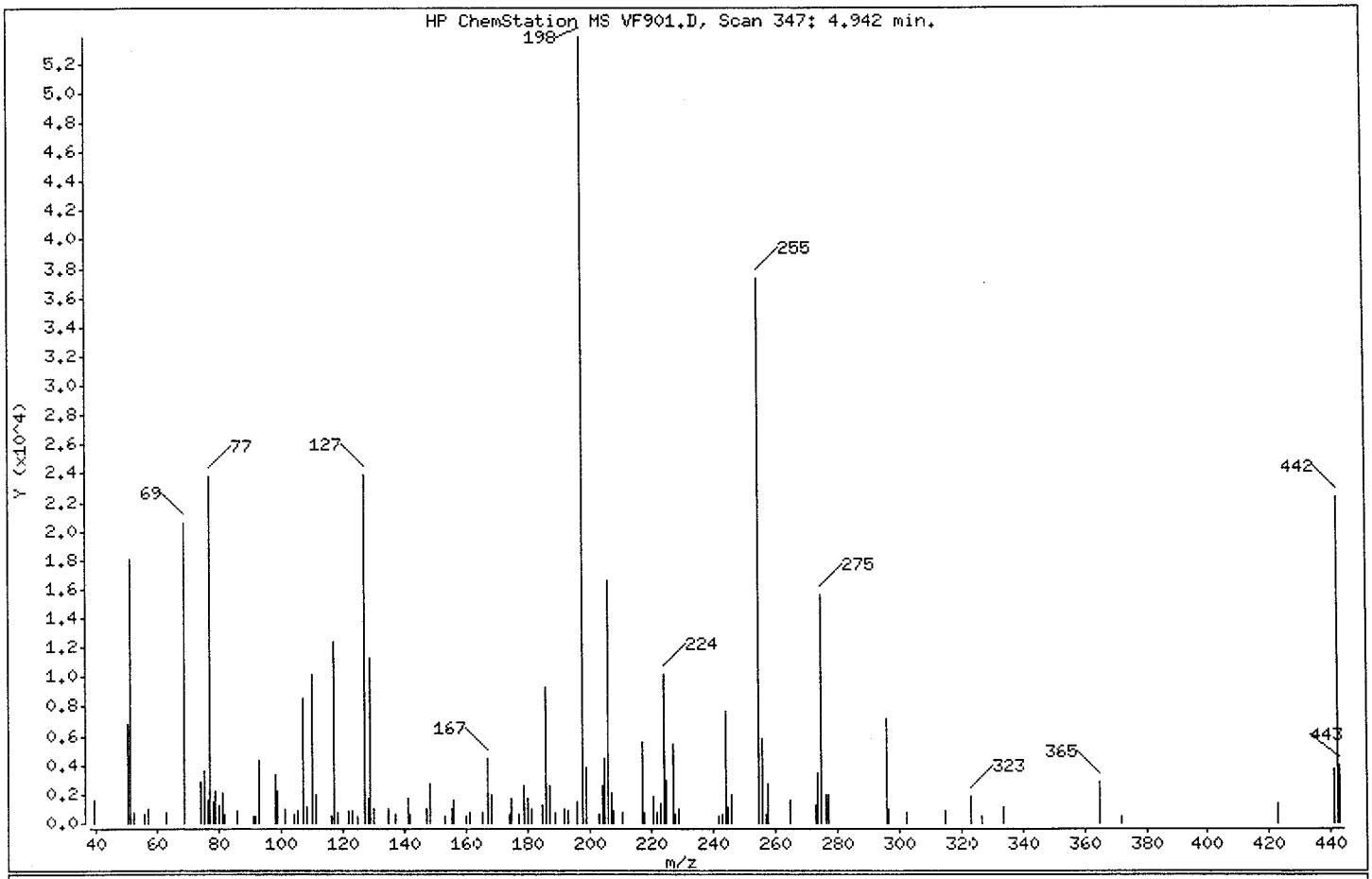
Sample Info: TUN,S800

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.57
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	38.27
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	44.54
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.10
275	10.00 - 30.00% of mass 198	28.97
365	Greater than 1.00% of mass 198	5.40
441	Present, but less than mass 443	6.95
442	40.00 - 99.99% of mass 198	41.39
443	17.00 - 23.00% of mass 442	7.43 (17.95)

6/15/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA02 HP GCMS BNA 02 Reviewed By:
Calnum: 515228393001 Name: 2PAHSIM Type: (normal) Date: 07-JUN-2005 16:25 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	uf705	515228393005	0.1ug/ml PAHDIOX	07-JUN-2005 16:25	S755
2	uf706	515228393006	0.2ug/ml PAHDIOX	07-JUN-2005 17:03	S756
3	uf707	515228393007	0.5ug/ml PAHDIOX	07-JUN-2005 17:40	S757
4	uf708	515228393008	1.0ug/ml PAHDIOX	07-JUN-2005 18:18	S754
5	uf709	515228393009	2.0ug/ml PAHDIOX	07-JUN-2005 18:56	S758
6	uf710	515228393010	5.0ug/ml PAHDIOX	07-JUN-2005 19:34	S759
7	uf711	515228393011	10ug/ml PAHDIOX	07-JUN-2005 20:12	S760

ICAL - OK

ICV - OK

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	Units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.3262m	0.5019m	0.3797m	0.3511m	0.5410m	0.5655	QUAD	R	0.227497	1.918197	-0.03457	ng	0.4442	0.996	0.0500	.99	15	
Naphthalene	0.8400	0.8020	0.8328	0.8030	0.7994	0.7511	0.7610	AVRG	R		1.252370		ng	0.7985	4	0.0500	.99	15	
2-Methylnaphthalene	0.5664	0.4998	0.5572	0.5464	0.5867	0.5564	0.5376	AVRG	R		1.818000		ng	0.5501	5	0.0500	.99	15	
Acenaphthylene	1.4218	1.4159	1.3953	1.2215	1.3297	1.3154	1.1891	AVRG	R		0.753600		ng	1.3270	7	0.0500	.99	15	
Acenaphthene	0.8831	0.4671m	0.4530m	0.8190	0.8376	0.8789	0.7250	QUAD	R	0.207256	0.816415	0.072560	ng	0.7234	0.998	0.0500	.99	15	
Fluorene	0.8769	1.0647	0.9200	0.7738	0.9061	0.9099	0.8780	AVRG	R		1.105963		ng	0.9042	10	0.0500	.99	15	
Phenanthrene	0.8741	0.8649	0.7978	0.7384	0.8207	0.8225	0.7776	AVRG	R		1.228936		ng	0.8137	6	0.0500	.99	15	
Anthracene	0.9680	0.9997	0.9275	0.8459	0.8803	0.8984	0.8123	AVRG	R		1.105501		ng	0.9046	7	0.0500	.99	15	
Fluoranthene	0.8543	0.8783	0.8491	0.7552	0.8011	0.8055	0.7586	AVRG	R		1.227595		ng	0.8146	6	0.0500	.99	15	
Pyrene	1.9753	1.9969	1.4646	1.2489	1.2899	1.1886	1.0916	QUAD	R	-0.06104	0.770943	0.013791	ng	1.4651	1.000	0.0500	.99	15	
Benzo(a)anthracene	1.0267	0.9491	0.7527	0.7294	0.7928	0.8454	0.7939	AVRG	R		1.188466		ng	0.8414	13	0.0500	.99	15	
Chrysene	1.5135	1.2559m	1.0986	0.9441	1.0404	0.9687	0.8983	QUAD	R	-0.01411	0.945732	0.018777	ng	1.1028	1.000	0.0500	.99	15	
Benzo(b)fluoranthene	0.9288m	0.9994	1.0876	0.9994	1.2730	1.0813	0.9398	AVRG	R		0.957688		ng	1.0442	11	0.0500	.99	15	
Benzo(k)fluoranthene	1.7742	1.8107	1.6618	1.3104	1.3204	1.2979	1.2176	QUAD	R	-0.04327	0.736095	0.007234	ng	1.4847	1.000	0.0500	.99	15	
Benzo(a)pyrene	0.9054m	0.9189	0.8903	0.7848	0.9114	0.9286	0.8868	AVRG	R		1.124294		ng	0.8894	5	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	0.5966	0.5318	0.6070	0.5493	0.7239	0.8017	0.8240	QUAD	R	0.128355	1.266766	-0.00854	ng	0.6621	0.999	0.0500	.99	15	
Dibenz(a,h)anthracene	0.3400	0.3560	0.3429	0.3302	0.4550	0.5396	0.5824	QUAD	R	0.163615	1.946108	-0.04463	ng	0.4209	0.999	0.0500	.99	15	
Benzo(g,h,i)perylene	0.8480m	0.7706	0.7455	0.6310	0.7943	0.7933	0.7899	AVRG	R		1.302884		ng	0.7675	9	0.0500	.99	15	

110

Flags used: m=manual integration
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

6/18/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA02 HP GCMS BNA 02 Reviewed By:
Calnum: 515228393001 Name: 2PAHSIM Type: (normal) Date: 07-JUN-2005 16:25 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.0978m	0.0824m	0.1282m	0.1364m	0.2976	0.3084	0.3303	QUAD	R	0.245967	3.176819	-0.06763	ng	0.1973	0.998	0.0500	.99	15	
2-Fluorobiphenyl	1.9904m	1.8491m	1.0781	0.9063	1.0246	1.0231	0.9374	QUAD	R	-0.01507	0.915482	0.016069	ng	1.2584	0.999	0.0500	.99	15	
Terphenyl-d14	1.5168	1.3887	1.2264	0.9836	0.9769	0.8942	0.8143	QUAD	R	-0.07461	1.011574	0.027704	ng	1.1144	1.000	0.0500	.99	15	

111

Flags used: m=manual integration
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

MB 6/8/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA02 Run Name : 1.0ug/ml SIMICV
Seqnum : 515229660005 Filename : uf805 Injected : 08-JUN-2005 12:58
Calnum : 515228393001 Caldate : 07-JUN-2005 Caltype :
Standards: S797

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.096000	ng	10	30	m
Naphthalene	1.000000	1.172900	ng	17	30	
2-Methylnaphthalene	1.000000	1.108300	ng	11	30	
Acenaphthylene	1.000000	1.099700	ng	10	30	
Acenaphthene	1.000000	0.855100	ng	-14	20	m
Fluorene	1.000000	1.084900	ng	8	30	
Phenanthrene	1.000000	1.116000	ng	12	30	
Anthracene	1.000000	1.179700	ng	18	30	
Fluoranthene	1.000000	1.133900	ng	13	20	
Pyrene	1.000000	1.073700	ng	7	30	m
Benzo(a)anthracene	1.000000	1.110700	ng	11	30	
Chrysene	1.000000	1.046600	ng	5	30	
Benzo(b)fluoranthene	1.000000	1.196300	ng	20	30	
Benzo(k)fluoranthene	1.000000	1.170000	ng	17	30	
Benzo(a)pyrene	1.000000	1.159400	ng	16	20	
Indeno(1,2,3-cd)pyrene	1.000000	1.037900	ng	4	30	
Dibenz(a,h)anthracene	1.000000	0.834600	ng	-17	30	
Benzo(g,h,i)perylene	1.000000	1.111400	ng	11	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV
Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

m=manual integration

112 6/8/05

MSNA03 8/10 -1PT Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

113

ICAL: OK
BCV: OK

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

4/25/06

4/25/06

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

114

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525220090006 Filename : vf106 Injected : 02-JUN-2005 00:56
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S754

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4459	1.000000	1.121100	ng	12	30	0.0500	
Naphthalene	0.8875	0.8255	1.000000	0.930100	ng	-7	30	0.0500	
2-Methylnaphthalene	0.6056	0.6370	1.000000	1.051900	ng	5	30	0.0500	
Acenaphthylene	1.6578	1.3785	1.000000	0.831600	ng	-17	30	0.0500	
Acenaphthene	1.0255	0.9020	1.000000	0.879500	ng	-12	20	0.0500	
Fluorene	1.2395	1.0765	1.000000	0.868500	ng	-13	30	0.0500	
Phenanthrene	0.9650	0.8361	1.000000	0.866400	ng	-13	30	0.0500	
Anthracene	0.8558	0.7103	1.000000	0.830100	ng	-17	30	0.0500	
Fluoranthene	1.0752	0.8704	1.000000	0.809500	ng	-19	20	0.0500	
Pyrene	1.1306	0.8617	1.000000	0.762200	ng	**-24**	30	0.0500	!c- m
Benzo(a)anthracene	1.0288	0.7337	1.000000	0.713100	ng	**-29**	30	0.0500	!c-
Chrysene	1.0217	0.8197	1.000000	0.802300	ng	-20	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3925	1.000000	1.051700	ng	5	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.4091	1.000000	0.785100	ng	**-21**	30	0.0500	!c-
Benzo(a)pyrene	1.1063	1.0903	1.000000	0.985500	ng	-1	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.5022	1.000000	1.243400	ng	**24**	30	0.0500	!c+
Dibenz(a,h)anthracene	0.9620	1.1980	1.000000	1.245300	ng	**25**	30	0.0500	!c+
Benzo(g,h,i)perylene	1.0276	1.2105	1.000000	1.178000	ng	18	30	0.0500	
Nitrobenzene-d5	0.2512	0.2619	1.000000	1.042800	ng	4	30	0.0500	
2-Fluorobiphenyl	1.3678	1.3005	1.000000	0.950800	ng	-5	30	0.0500	
Terphenyl-d14	0.9054	0.7411	1.000000	0.818500	ng	-18	30	0.0500	

!=warning +=high bias -=low bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03
Seqnum : 525228102002
Calnum : 525161929001
Standards: S754

Run Name :
Filename : vf702
Caldate : 22-APR-2005

IDF : 1.0
Injected : 07-JUN-2005 10:01
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	**0.0027**	1.000000	0.006700	ng	-99	30	0.0500	c- crf
Naphthalene	0.8875	0.7636	1.000000	0.860400	ng	-14	30	0.0500	
2-Methylnaphthalene	0.6056	0.5858	1.000000	0.967200	ng	-3	30	0.0500	
Acenaphthylene	1.6578	1.5316	1.000000	0.923900	ng	-8	30	0.0500	
Acenaphthene	1.0255	0.9124	1.000000	0.889700	ng	-11	20	0.0500	
Fluorene	1.2395	1.1371	1.000000	0.917400	ng	-8	30	0.0500	
Phenanthrene	0.9650	0.7641	1.000000	0.791700	ng	-21	30	0.0500	!c-
Anthracene	0.8558	0.7165	1.000000	0.837200	ng	-16	30	0.0500	
Fluoranthene	1.0752	0.8601	1.000000	0.800000	ng	-20	20	0.0500	
Pyrene	1.1306	0.9709	1.000000	0.858800	ng	-14	30	0.0500	
Benzo(a)anthracene	1.0288	0.8996	1.000000	0.874400	ng	-13	30	0.0500	
Chrysene	1.0217	0.8378	1.000000	0.820000	ng	-18	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.2398	1.000000	0.936400	ng	-6	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.3441	1.000000	0.748900	ng	-25	30	0.0500	!c-
Benzo(a)pyrene	1.1063	1.1439	1.000000	1.034000	ng	3	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3043	1.000000	1.079700	ng	8	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0342	1.000000	1.075100	ng	8	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.0634	1.000000	1.034900	ng	3	30	0.0500	
Nitrobenzene-d5	0.2512	0.2162	1.000000	0.860700	ng	-14	30	0.0500	m
2-Fluorobiphenyl	1.3678	1.3036	1.000000	0.953100	ng	-5	30	0.0500	
Terphenyl-d14	0.9054	0.8339	1.000000	0.921000	ng	-8	30	0.0500	

!=warning -=low bias c=CCV crf=CCV min RF failure m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA02 Run Name : PAHDIOX IDF : 1.0
Seqnum : 515229660006 Filename : uf806 Injected : 08-JUN-2005 14:28
Calnum : 515228393001 Caldate : 07-JUN-2005 Caltype :
Standards: S758

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4442	0.4845	2.000000	2.053700	ng	3	30	0.0500	m
Naphthalene	0.7985	0.8021	2.000000	2.009100	ng	0	30	0.0500	
2-Methylnaphthalene	0.5501	0.5671	2.000000	2.061900	ng	3	30	0.0500	
Acenaphthylene	1.3270	1.3768	2.000000	2.075200	ng	4	30	0.0500	
Acenaphthene	0.7234	0.8712	2.000000	1.850100	ng	-7	20	0.0500	
Fluorene	0.9042	0.9011	2.000000	1.993100	ng	0	30	0.0500	
Phenanthrene	0.8137	0.8284	2.000000	2.036100	ng	2	30	0.0500	
Anthracene	0.9046	0.9053	2.000000	2.001700	ng	0	30	0.0500	
Fluoranthene	0.8146	0.8454	2.000000	2.075700	ng	4	20	0.0500	
Pyrene	1.4651	1.3108	2.000000	2.054800	ng	3	30	0.0500	
Benzo(a)anthracene	0.8414	0.8445	2.000000	2.007300	ng	0	30	0.0500	
Chrysene	1.1028	1.0428	2.000000	2.040000	ng	2	30	0.0500	
Benzo(b)fluoranthene	1.0442	1.0052	2.000000	1.925400	ng	-4	30	0.0500	
Benzo(k)fluoranthene	1.4847	1.3693	2.000000	2.026900	ng	1	30	0.0500	
Benzo(a)pyrene	0.8894	0.8663	2.000000	1.947900	ng	-3	20	0.0500	
Indeno(1,2,3-cd)pyrene	0.6621	0.7674	2.000000	2.052300	ng	3	30	0.0500	
Dibenz(a,h)anthracene	0.4209	0.4750	2.000000	1.972300	ng	-1	30	0.0500	
Benzo(g,h,i)perylene	0.7675	0.8396	2.000000	2.187800	ng	9	30	0.0500	
Nitrobenzene-d5	0.1973	0.2967	2.000000	2.107400	ng	5	30	0.0500	
2-Fluorobiphenyl	1.2584	1.0319	2.000000	1.942700	ng	-3	30	0.0500	
Terphenyl-d14	1.1144	0.9397	2.000000	1.924400	ng	-4	30	0.0500	

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525231136002 Filename : vf902 Injected : 09-JUN-2005 12:36
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S754

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3462	1.000000	0.870300	ng	-13	30	0.0500	
Naphthalene	0.8875	0.8346	1.000000	0.940300	ng	-6	30	0.0500	
2-Methylnaphthalene	0.6056	0.6276	1.000000	1.036300	ng	4	30	0.0500	
Acenaphthylene	1.6578	1.4504	1.000000	0.874900	ng	-13	30	0.0500	
Acenaphthene	1.0255	0.9004	1.000000	0.878000	ng	-12	20	0.0500	
Fluorene	1.2395	1.1226	1.000000	0.905700	ng	-9	30	0.0500	
Phenanthrene	0.9650	0.7539	1.000000	0.781300	ng	-22	30	0.0500	!c-
Anthracene	0.8558	0.6764	1.000000	0.790400	ng	-21	30	0.0500	!c-
Fluoranthene	1.0752	0.8709	1.000000	0.810000	ng	-19	20	0.0500	
Pyrene	1.1306	0.9385	1.000000	0.830100	ng	-17	30	0.0500	
Benzo(a)anthracene	1.0288	0.8657	1.000000	0.841500	ng	-16	30	0.0500	
Chrysene	1.0217	0.8211	1.000000	0.803700	ng	-20	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3520	1.000000	1.021100	ng	2	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.4576	1.000000	0.812200	ng	-19	30	0.0500	
Benzo(a)pyrene	1.1063	1.1690	1.000000	1.056700	ng	6	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4088	1.000000	1.166100	ng	17	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0951	1.000000	1.138400	ng	14	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.1653	1.000000	1.134100	ng	13	30	0.0500	
Nitrobenzene-d5	0.2512	0.1843	1.000000	0.733700	ng	-27	30	0.0500	!c- m
2-Fluorobiphenyl	1.3678	1.3531	1.000000	0.989300	ng	-1	30	0.0500	
Terphenyl-d14	0.9054	0.8316	1.000000	0.918500	ng	-8	30	0.0500	

6/10/05

!=warning -=low bias c=CCV m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 02-JUN-2005
Sequence: 525220090 (vf1)
Instrument ID: MSBNA03

CCV Filename: vf106
Date Analyzed: 02-JUN-2005
Time Analyzed: 00:56

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	13834	6.43	55839	8.07	30455	10.60	59119	12.78	62376	16.66	39211	18.43
LOWER LIMIT	6917	5.94	27920	7.57	15228	10.10	29560	12.28	31188	16.16	19606	17.94
UPPER LIMIT	27668	6.94	111678	8.57	60910	11.10	118238	13.28	124752	17.16	78422	18.94

TYPE	SAMPLE	#										
CCV		006	13834	6.44	55839	8.07	30455	10.60	59119	12.78	62376	16.66	39211	18.44
BLANK	QC295759	007	13130	6.43	53043	8.07	31332	10.59	64864	12.78	60594	16.66	52162	18.44
LCS	QC295760	008	12285	6.44	49686	8.08	29670	10.60	61282	12.78	58978	16.66	49997	18.44
SAMPLE	179606-006	009	13718	6.43	55044	8.08	32081	10.60	66727	12.78	60964	16.66	55471	18.44
SAMPLE	179614-033	010	13605	6.44	56011	8.07	31408	10.59	64979	12.78	62615	16.66	56648	18.44
SAMPLE	179606-009	011	13719	6.43	54827	8.08	31946	10.60	66796	12.78	60802	16.66	55959	18.44
SAMPLE	179606-005	012	14244	6.44	57781	8.07	32978	10.59	68124	12.78	61339	16.66	57368	18.44
SAMPLE	179614-030	013	14262	6.43	55920	8.07	32535	10.60	67593	12.78	64459	16.66	59612	18.44
SAMPLE	179606-010	014	14985	6.43	60119	8.08	34760	10.59	70764	12.78	62173	16.66	59085	18.44
SAMPLE	179614-004	015	15138	6.43	60287	8.07	33512	10.59	50697	12.78	49483	16.70	18786*	18.52
SAMPLE	179614-032	016	15323	6.43	62468	8.07	36601	10.59	76710	12.78	72914	16.66	65037	18.44
SAMPLE	179606-002	017	15016	6.43	62486	8.07	36461	10.60	76165	12.78	70078	16.66	65424	18.44
SAMPLE	179606-003	018	15493	6.43	64033	8.08	36635	10.60	76776	12.78	70230	16.66	64742	18.44
SAMPLE	179614-028	019	14738	6.44	60225	8.07	34690	10.59	70596	12.78	75639	16.66	54812	18.44
SAMPLE	179614-029	020	16673	6.44	68090	8.07	39006	10.59	81091	12.78	75392	16.67	40151	18.45
SAMPLE	179749-001	021	15867	6.43	64719	8.07	31335	10.59	66947	12.78	64617	16.67	30496	18.45
MSS	179606-008	022	15930	6.43	66608	8.07	30599	10.59	61176	12.78	48766	16.71	10754*	18.52
MS	QC295761	023	14381	6.44	65434	8.07	35255	10.60	60314	12.78	43769	16.70	9573*	18.49
MSD	QC295762	024	14824	6.44	71033	8.07	37403	10.60	63689	12.80	43993	16.70	9879*	18.51
SAMPLE	179564-001	025	15341	6.44	70692	8.07	36668	10.60	73843	12.80	50449	16.68	11856*	18.46

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 07-JUN-2005
Sequence: 525228102 (vf7)
Instrument ID: MSBNA03

CCV Filename: vf702
Date Analyzed: 07-JUN-2005
Time Analyzed: 10:01

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	9753	6.12	41908	7.72	22752	10.22	49586	12.39	45574	16.27	32043	18.05
LOWER LIMIT	4877	5.62	20954	7.23	11376	9.72	24793	11.89	22787	15.77	16022	17.56
UPPER LIMIT	19506	6.62	83816	8.23	45504	10.72	99172	12.89	91148	16.77	64086	18.56

TYPE	SAMPLE	#										
CCV		002	9753	6.12	41908	7.73	22752	10.22	49586	12.39	45574	16.27	32043	18.06
LCS	QC295635	003	10098	6.12	44133	7.73	25167	10.22	55506	12.39	49681	16.28	44731	18.06
SAMPLE	179682-001	004	9811	6.13	43387	7.73	24543	10.22	53586	12.39	46563	16.27	39359	18.04
SAMPLE	179564-001	005	9557	6.13	44542	7.73	24492	10.22	52812	12.38	47695	16.27	30784	18.06
SAMPLE	179603-001	006	9195	6.12	42583	7.73	24504	10.22	49546	12.38	44195	16.27	29161	18.06
SAMPLE	179682-005	007	9989	6.13	45975	7.73	24819	10.22	55213	12.39	48811	16.27	43215	18.04
MSS	179606-008	008	9838	6.13	45657	7.73	21922	10.22	47305	12.39	38890	16.32	15689*	18.15
MS	QC295761	009	9251	6.13	42813	7.73	25222	10.22	47413	12.39	36757	16.31	12885*	18.13
MSD	QC295762	010	8640	6.13	38168	7.73	20924	10.23	44265	12.39	34810	16.32	15802*	18.13
SAMPLE	179682-008	011	8967	6.13	38644	7.73	21412	10.23	46695	12.39	35269	16.29	18246	18.06
MSS	179646-029	012	10087	6.13	45252	7.73	24505	10.23	50432	12.39	38983	16.30	20792	18.09
SAMPLE	179714-001	013	9773	6.13	41746	7.73	23820	10.22	51498	12.39	40851	16.28	20411	18.06
SAMPLE	179646-026	014	8630	6.13	38215	7.73	21861	10.22	74785	12.39	33799	16.29	20587	18.07
SAMPLE	179646-030	015	8859	6.13	38485	7.73	21802	10.22	45412	12.39	33019	16.29	17420	18.07
SAMPLE	179646-031	016	9448	6.13	40391	7.73	21237	10.23	46453	12.39	37152	16.30	20576	18.10

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 08-JUN-2005 CCV Filename: uf806
Sequence: 515229660 (uf8) Date Analyzed: 08-JUN-2005
Instrument ID: MSBNA02 Time Analyzed: 14:28

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	14156	8.96	58857	10.54	29084	12.85	41471	14.82	27176	18.47	23817	20.67
LOWER LIMIT	7078	8.46	29429	10.04	14542	12.35	20736	14.32	13588	17.97	11909	20.17
UPPER LIMIT	28312	9.46	117714	11.04	58168	13.35	82942	15.32	54352	18.97	47634	21.17

TYPE	SAMPLE	#											
CCV	PAHDIOX	006	14156	8.96	58857	10.54	29084	12.85	41471	14.82	27176	18.47	23817	20.67
SAMPLE	179828-011	007	11818	8.96	59436	10.55	31639	12.85	45324	14.82	20806	18.47	15044	20.67
SAMPLE	179741-015	008	15913	8.95	54126	10.54	26955	12.85	47308	14.82	33419	18.48	25985	20.68
SAMPLE	179741-016	009	16263	8.95	64741	10.55	30624	12.85	51451	14.82	38533	18.48	24452	20.69
SAMPLE	179682-021	010	14027	8.95	61236	10.55	29247	12.85	50726	14.82	39243	18.47	36388	20.68
SAMPLE	179564-001	011	13940	8.95	60027	10.54	31402	12.85	47093	14.82	34053	18.47	28615	20.68
SAMPLE	179603-001	012	14716	8.95	61582	10.55	30494	12.85	48449	14.82	34891	18.47	30841	20.68
SAMPLE	179646-002	013	14168	8.95	64020	10.54	32648	12.85	52016	14.82	34428	18.47	29855	20.68
SAMPLE	179646-009	014	13383	8.95	56271	10.54	29747	12.85	43720	14.82	28949	18.47	22951	20.70
SAMPLE	179646-032	015	16292	8.96	57296	10.56	30396	12.85	43434	14.82	28121	18.47	18445	20.70
SAMPLE	179682-015	016	13324	8.95	58235	10.54	30984	12.85	45867	14.82	32000	18.47	22793	20.68
SAMPLE	179606-020	017	12745	8.95	58457	10.55	31693	12.85	49735	14.82	31732	18.47	21665	20.69
SAMPLE	179606-017	018	10841	8.95	52378	10.55	27669	12.85	42048	14.82	28887	18.48	18033	20.70
SAMPLE	179606-012	019	13573	8.95	62187	10.55	33181	12.85	50907	14.82	32275	18.47	20060	20.70
SAMPLE	179606-007	020	13925	8.96	52819	10.56	29401	12.85	41873	14.82	24400	18.47	13689	20.68
SAMPLE	179682-014	021	11233	8.95	49884	10.55	26389	12.85	38114	14.82	21261	18.47	9902*	20.70
SAMPLE	179682-004	022	12603	8.95	56210	10.56	28465	12.85	40821	14.82	20771	18.48	8498*	20.71

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-JUN-2005
Sequence: 525231136 (vf9)
Instrument ID: MSBNA03

CCV Filename: vf902
Date Analyzed: 09-JUN-2005
Time Analyzed: 12:36

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	4827	6.12	18812	7.71	11406	10.20	26152	12.37	25142	16.26	14075	18.03
LOWER LIMIT	2414	5.62	9406	7.21	5703	9.70	13076	11.87	12571	15.76	7038	17.53
UPPER LIMIT	9654	6.62	37624	8.21	22812	10.70	52304	12.87	50284	16.76	28150	18.53

TYPE	SAMPLE	#											
CCV		002	4827	6.12	18812	7.71	11406	10.20	26152	12.37	25142	16.26	14075	18.03
BLANK	QC296575	003	4159	6.12	17356	7.71	11214	10.21	26501	12.37	24351	16.26	18332	18.03
LCS	QC296576	004	4173	6.11	18802	7.71	11563	10.20	27586	12.37	25675	16.26	19451	18.03
SAMPLE	179603-001	005	4276	6.11	18003	7.71	11094	10.20	24001	12.37	21080	16.26	14862	18.03
SAMPLE	179564-001	006	4198	6.12	18487	7.71	11096	10.20	25327	12.37	22146	16.26	16895	18.04
SAMPLE	179646-025	007	4701	6.12	19470	7.71	10939	10.21	23427	12.38	39545	16.30	23669	18.11
SAMPLE	179683-014	008	3827	6.12	16420	7.71	10127	10.21	21994	12.38	40589	16.30	16459	18.13
SAMPLE	179682-015	009	4224	6.12	17318	7.73	11033	10.21	22644	12.38	20999	16.27	19414	18.05
SAMPLE	179682-014	010	4289	6.12	17131	7.71	10681	10.21	22412	12.38	22879	16.28	23446	18.07
SAMPLE	179682-004	011	4662	6.12	18959	7.71	11326	10.21	25784	12.38	39010	16.30	20603	18.09

133

MSNA03 8270 SIM CALIBRATION

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	124
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/28/05

04/25/05

MTBLCS MSS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525220090 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 01-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf101	TUN	NP NL			01-JUN-2005 20:10	1.0	1.0				1 not used	
002	vf102	CCV				01-JUN-2005 20:31	1.0	1.0	21		1	2 cc+	
003	vf103	CCV				01-JUN-2005 21:07	1.0	1.0	21		1	3	
004	vf104	TUN	NP NL			01-JUN-2005 23:08	1.0	1.0				1	
005	vf105	CCV				02-JUN-2005 00:07	1.0	1.0	5		1	4 not used	
006	vf106	CCV				02-JUN-2005 00:56	1.0	1.0			1	4	
007	vf107	BLANK	QC295759	102526	Soil	02-JUN-2005 01:27	1.0	0.03284			1	5	
008	vf108	LCS	QC295760	102526	Soil	02-JUN-2005 01:59	1.0	0.03337			1	5	
009	vf109	SAMPLE	179606-006	102526	Soil	02-JUN-2005 02:32	1.0	0.03347			1	5	
010	vf110	SAMPLE	179614-033	102526	Soil	02-JUN-2005 03:05	1.0	0.03295			1	5	
011	vf111	SAMPLE	179606-009	102526	Soil	02-JUN-2005 03:37	1.0	0.03309			1	5	
012	vf112	SAMPLE	179606-005	102526	Soil	02-JUN-2005 04:09	1.0	0.03289			1	5	
013	vf113	SAMPLE	179614-030	102526	Soil	02-JUN-2005 04:42	1.0	0.03297			1	5	
014	vf114	SAMPLE	179606-010	102526	Soil	02-JUN-2005 05:16	1.0	0.03346			1	5	125
015	vf115	SAMPLE	179614-004	102526	Soil	02-JUN-2005 05:48	1.0	0.03378			1	5	
016	vf116	SAMPLE	179614-032	102526	Soil	02-JUN-2005 06:20	1.0	0.03306			1	5	
017	vf117	SAMPLE	179606-002	102526	Soil	02-JUN-2005 06:53	1.0	0.03337			1	5	
018	vf118	SAMPLE	179606-003	102526	Soil	02-JUN-2005 07:26	1.0	0.03296			1	5	
019	vf119	SAMPLE	179614-028	102526	Soil	02-JUN-2005 07:59	1.0	0.03311			1	5	
020	vf120	SAMPLE	179614-029	102526	Soil	02-JUN-2005 08:31	1.0	0.03328			1	5	
021	vf121	SAMPLE	179749-001	102526	Soil	02-JUN-2005 09:02	1.0	0.03344	19		1	5 sh	
022	vf122	MSS	179606-008	102526	Soil	02-JUN-2005 09:34	1.0	0.0336			1	5	
023	vf123	MS	QC295761	102526	Soil	02-JUN-2005 10:06	1.0	0.03313		4	1	5	
024	vf124	MSD	QC295762	102526	Soil	02-JUN-2005 10:38	1.0	0.03323		7	1	5	
025	vf125	SAMPLE	179564-001	102526	Soil	02-JUN-2005 11:09	1.0	0.03301	19		1	5 <<t	1:PYR=11.5896

CCV: OK
- Pyrene ↓; Benzo(a)anthracene ↓; Benzo(k)fluoranthene ↓; Indeno(1,2,3-cd)pyrene ↑; Dibenz(a,h)anthracene ↑
Bias towards high results

ICAL: OK ICV: OK

Stds used: 1=05WS0188 2=05WS0261 3=S490 4=S754 5=05WS0254
Flags used: +=high bias <<t=out of clock cc=CCV CCC failure sh=out of sample hold

Analyst: _____ Date: 6/2/05

J: MH 6/2/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 515228393 Instrument: MSBNA02 HP GCMS BNA 02 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK	uL	VL	pH	Stds Used	>LR
001	uf701	CCV	PAHDIOX			07-JUN-2005 14:33	1.0	21		1			1 ?t cc-	11:NO2BZD=34.9283
002	uf702	CCV	PAHDIOX			07-JUN-2005 15:11	1.0	21		1			1 ?t cc-	6:NO2BZD=31.1098
003	uf703	TUN	DFTPP 50NG			07-JUN-2005 15:49	1.0	1					2 t	
004	uf704	TUN	DFTPP 50NG			07-JUN-2005 16:04	1.0						2	
005	uf705	ICAL	0.1ug/ml PAH			07-JUN-2005 16:25	1.0						3	
006	uf706	ICAL	0.2ug/ml PAH			07-JUN-2005 17:03	1.0						4	
007	uf707	ICAL	0.5ug/ml PAH			07-JUN-2005 17:40	1.0						5	
008	uf708	ICAL	1.0ug/ml PAH			07-JUN-2005 18:18	1.0						6	
009	uf709	ICAL	2.0ug/ml PAH			07-JUN-2005 18:56	1.0						7	
010	uf710	ICAL	5.0ug/ml PAH			07-JUN-2005 19:34	1.0						8	
011	uf711	ICAL	10ug/ml PAHD			07-JUN-2005 20:12	1.0						1	
012	uf712	ICV	1.0ug/ml SIM	NOT USED		07-JUN-2005 20:50	1.0						9	
013	uf713	ICV	1.0ug/ml SIM			07-JUN-2005 21:57	1.0						10	
014	uf714	ICV	1.0ug/ml SIM			07-JUN-2005 22:38	1.0						10	
015	uf715	TUN	NP NL			07-JUN-2005 23:22	1.0	1					2 t	126

ICAL - OK

ICV - OK

Stds used: 1=S760 2=05WS0188 3=S755 4=S756 5=S757 6=S754 7=S758 8=S759 9=S345 10=05WS0244
Flags used: -=low bias ?t=missing tune cc=CCV CCC failure t=tune failure

Analyst: MPW Date: 6/8/05

6/9/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf701	TUN	NP NL			07-JUN-2005 09:42	1.0	1.0				1	
002	vf702	CCV				07-JUN-2005 10:01	1.0	1.0	1		1	2	
003	vf703	LCS	QC295635	102499	Water	07-JUN-2005 10:33	1.0	0.001			1	3	
004	vf704	SAMPLE	179682-001	102619	Soil	07-JUN-2005 11:04	1.0	0.03295			1	3	
005	vf705	SAMPLE	179564-001	102526	Soil	07-JUN-2005 11:36	2.0	0.03301	2		1	3	RR ↓ Phen/Benzo(k)
006	vf706	SAMPLE	179603-001	102619	Soil	07-JUN-2005 12:08	5.0	0.03326	2		1	3	
007	vf707	SAMPLE	179682-005	102619	Soil	07-JUN-2005 12:39	1.0	0.03295			1	3	
008	vf708	MSS	179606-008	102526	Soil	07-JUN-2005 13:11	1.0	0.0336	1		1	3	NOT USED
009	vf709	MS	QC295761	102526	Soil	07-JUN-2005 13:42	1.0	0.03313		2	1	3	
010	vf710	MSD	QC295762	102526	Soil	07-JUN-2005 14:14	1.0	0.03323		4	1	3	
011	vf711	SAMPLE	179682-008	102499	Water	07-JUN-2005 14:46	~~1.0~~ 5	0.00101		2	1	3	
012	vf712	MSS	179646-029	102619	Soil	07-JUN-2005 15:17	1.0	0.03297	1		1	3	
013	vf713	SAMPLE	179714-001	102631	Water	07-JUN-2005 15:48	1.0	0.0009434	1	1	1	3	
014	vf714	SAMPLE	179646-026	102619	Soil	07-JUN-2005 16:20	10.0	0.03388			1	3	
015	vf715	SAMPLE	179646-030	102619	Soil	07-JUN-2005 16:52	5.0	0.0337			1	3	
016	vf716	SAMPLE	179646-031	102619	Soil	07-JUN-2005 17:25	1.0	0.03332			1	3	
017	vf717	TUN	NP NL			07-JUN-2005 19:24	1.0	1.0	1			1	t
018	vf718	TUN	NP NL			07-JUN-2005 19:36	1.0	1.0				1	
019	vf719	CCV				07-JUN-2005 19:57	1.0	1.0	1		1	4	
020	vf720	SAMPLE	179797-005	102631	Water	07-JUN-2005 20:34	1.0	0.001			1	3	
021	vf721	SAMPLE	179828-004	102631	Water	07-JUN-2005 21:05	1.0	0.001			1	3	
022	vf722	SAMPLE	179828-011	102631	Water	07-JUN-2005 21:38	1.0	0.001		1	1	3	RR #25% #38%
023	vf723	SAMPLE	179741-015	102631	Water	07-JUN-2005 22:11	1.0	0.001		1	1	3	
024	vf724	SAMPLE	179741-016	102631	Water	07-JUN-2005 22:43	1.0	0.001		1	1	3	
025	vf725	SAMPLE	179774-029	102631	Water	07-JUN-2005 23:16	1.0	0.001		1	1	3	
026	vf726	SAMPLE	179774-010	102631	Water	07-JUN-2005 23:48	5.0	0.0009709		3	1	3	
027	vf727	SAMPLE	179682-021	102619	Soil	08-JUN-2005 00:21	1.0	0.03326			1	3	RR 2x ↓ Benzo(b)+(k)
028	vf728	SAMPLE	179728-001	102589	Water	08-JUN-2005 00:55	10.0	0.0009709	1	1	1	3	spk 1:NO2BZD=15.3497
029	vf729	SAMPLE	179728-005	102589	Water	08-JUN-2005 01:28	1.0	0.001111			1	3	spk

127

CCV vf702: Ok
- Phenanthrene ↓; Benzo(b)fluoranthene ↓ but morning limit
vf719: Nitrobenzene-d5 ↑ Cals ↓

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/8/05

J: 6/8/05

vf
ICAL: Ok
CCV: Ok

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
030	vf730	SAMPLE	179728-012	102589	Water	08-JUN-2005 02:01	1.0	0.001111			1	3 spk	
031	vf731	SAMPLE	179728-014	102589	Water	08-JUN-2005 02:33	1.0	0.001333			1	3 spk	
032	vf732	SAMPLE	179800-003	102589	Water	08-JUN-2005 03:07	1.0	0.001	19	1	1	3 sh spk	
033	vf733	SAMPLE	179800-004	102589	Water	08-JUN-2005 03:40	1.0	0.0009804	19	1	1	3 sh spk	
034	vf734	SAMPLE	179646-002	102574	Soil	08-JUN-2005 04:13	1.0	0.03334			1	3 RR 2X / Benzo(b)+(k)	
035	vf735	SAMPLE	179682-015	102619	Soil	08-JUN-2005 04:44	15.0	0.03313			1	3 20X	
036	vf736	SAMPLE	179682-014	102619	Soil	08-JUN-2005 05:18	2.0	0.03289		1	1	3 5X	
037	vf737	SAMPLE	179682-004	102619	Soil	08-JUN-2005 05:51	1.0	0.03323		1	1	3 #355	
038	vf738	X	ENDBLANK			08-JUN-2005 06:16	1.0						
039	vf739	X	ENDBLANK			08-JUN-2005 06:27	1.0						
040	vf740	X	ENDBLANK			08-JUN-2005 06:38	1.0						

128

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/8/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 515229660 Instrument: MSBNA02 HP GCMS BNA 02 Begun: 08-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
001	uf801	TUN	DFTPP 50NG			08-JUN-2005 11:40	1.0	1.0	1			1 t	
002	uf802	TUN	DFTPP 50NG			08-JUN-2005 11:57	1.0	1.0	1			1 t	
003	uf803	TUN	DFTPP/PEM 50			08-JUN-2005 12:18	1.0	1.0	1			2 t	
004	uf804	TUN	DFTPP/PEM 50			08-JUN-2005 12:36	1.0	1.0				2	
005	uf805	ICV	1.0ug/ml SIM			08-JUN-2005 12:58	1.0	1.0			1	3	
006	uf806	CCV	PAHDIOX			08-JUN-2005 14:28	1.0	1.0			1	4	
007	uf807	SAMPLE	179828-011	102631	Water	08-JUN-2005 15:06	1.0	0.001		1	1	5	
008	uf808	SAMPLE	179741-015	102631	Water	08-JUN-2005 15:44	1.0	0.001		1	1	5	
009	uf809	SAMPLE	179741-016	102631	Water	08-JUN-2005 16:22	1.0	0.001		1	1	5	
010	uf810	SAMPLE	179682-021	102619	Soil	08-JUN-2005 17:00	2.0	0.03326		1	1	5	
011	uf811	SAMPLE	179564-001	102526	Soil	08-JUN-2005 17:38	2.0	0.03301			1	5	
012	uf812	SAMPLE	179603-001	102619	Soil	08-JUN-2005 18:16	5.0	0.03326		1	1	5	
013	uf813	SAMPLE	179646-002	102574	Soil	08-JUN-2005 18:54	2.0	0.03334			1	5	129
014	uf814	SAMPLE	179646-009	102574	Soil	08-JUN-2005 19:34	5.0	0.03342		2	1	5	
015	uf815	SAMPLE	179646-032	102619	Soil	08-JUN-2005 20:13	2.500	0.03287		1	1	5	
016	uf816	SAMPLE	179682-015	102619	Soil	08-JUN-2005 20:52	20.0	0.03313			1	5	
017	uf817	SAMPLE	179606-020	102574	Soil	08-JUN-2005 21:31	1.0	0.03358			1	5	
018	uf818	SAMPLE	179606-017	102574	Soil	08-JUN-2005 22:10	12.50	0.1677			1	5	
019	uf819	SAMPLE	179606-012	102526	Soil	08-JUN-2005 22:51	1.0	0.03313			1	5	
020	uf820	SAMPLE	179606-007	102526	Soil	08-JUN-2005 23:32	10.0	0.03375		2	1	5	
021	uf821	SAMPLE	179682-014	102619	Soil	09-JUN-2005 00:10	5.0	0.03289		1	1	5	
022	uf822	SAMPLE	179682-004	102619	Soil	09-JUN-2005 00:50	1.0	0.03323	19		1	5 <<t	
023	uf823	X	END BLANK			09-JUN-2005 01:29	1.0						
024	uf824	X	END BLANK			09-JUN-2005 02:10	1.0						

CCV: Ok
SCV: Ok
RV: Ok

Stds used: 1=05WS0188 2=S513 3=S797 4=S758 5=S465
Flags used: <<t=out of clock t=tune failure

Analyst: _____ Date: 6/9/05 J. Ultrelahs

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525231136 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 09-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf901	TUN	DFTPP/PEM 50			09-JUN-2005 12:16	1.0	1.0				1	
002	vf902	CCV				09-JUN-2005 12:36	1.0	1.0			1	2	
003	vf903	BLANK	QC296575	102725	Soil	09-JUN-2005 13:10	1.0	0.03326		1	1	3	
004	vf904	LCS	QC296576	102725	Soil	09-JUN-2005 13:43	1.0	0.03347		1	1	3	
005	vf905	SAMPLE	179603-001	102619	Soil	09-JUN-2005 14:16	5.0	0.03326	2	1	1	3	
006	vf906	SAMPLE	179564-001	102526	Soil	09-JUN-2005 14:47	2.0	0.03301	2		1	3	
007	vf907	SAMPLE	179646-025	102619	Soil	09-JUN-2005 15:19	1.0	0.03323		2	1	3	
008	vf908	SAMPLE	179683-014	102725	Soil	09-JUN-2005 15:51	1.0	0.03306			1	3	
009	vf909	SAMPLE	179682-015	102619	Soil	09-JUN-2005 16:22	20.0	0.03313			1	3	
010	vf910	SAMPLE	179682-014	102619	Soil	09-JUN-2005 16:53	5.0	0.03289		1	1	3	
011	vf911	SAMPLE	179682-004	102619	Soil	09-JUN-2005 17:24	1.0	0.03323		1	1	3	
012	vf912	TUN	NP NL			09-JUN-2005 19:10	1.0	1.0				1	
013	vf913	CCV				09-JUN-2005 19:30	1.0	1.0	3		1	2	cc-
014	vf914	CCV				09-JUN-2005 20:09	1.0	1.0	1		1	2	130
015	vf915	TUN	NP NL			09-JUN-2005 21:08	1.0	1.0	1			1	t
016	vf916	TUN	NP NL			09-JUN-2005 21:22	1.0	1.0	1			1	t
017	vf917	TUN	NP NL			09-JUN-2005 21:37	1.0	1.0				4	
018	vf918	CCV				09-JUN-2005 21:59	1.0	1.0	2		1	2	
019	vf919	BLANK	QC296891	102807	Soil	09-JUN-2005 22:39	1.0	0.0331		1	1	3	
020	vf920	LCS	QC296892	102807	Soil	09-JUN-2005 23:11	1.0	0.0333	1	2	1	3	
021	vf921	MSS	179720-020	102807	Soil	09-JUN-2005 23:43	1.0	0.03341		1	1	3	
022	vf922	MS	QC296893	102807	Soil	10-JUN-2005 00:15	1.0	0.03347	1	1	1	3	

CCV: vf902: OK
– Phenanthrene ↓; Anthracene ↓; Nitrobenzene-d5 ↓ but within limits
vf914: OK Benzo(k)fluoranthene ↓ but within SD
– Phenanthrene ↓; Nitrobenzene ↑ but within limits
BCV: OK
BCV: OK

Stds used: 1=S800 2=S754 3=05WS0254 4=05WS0188

Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: _____ Date: 6/10/05 J:Ltr6/10/05

Curtis & Tompkins Laboratories Sample Preparation Summary 01-JUN-2005 19:21

Batch Number : 102526
Date Extracted: 01-JUN-2005
Extracted by : Kristine Harrison
Prep Method : 3550B

Analysis : N/A
Bgroup : SIM
Units : g
Clean-up :

Spike #1 ID : S369D
Spike #2 ID : S212A
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179564-001			Mactec, Inc.	Soil	30.29	g	1	0.033014	1		1	0		8270-SIM		
179606-001			Blasland, Bouck & Lee	Soil	30.12	g	1	0.033201	1		1	0		8270-SIM		
179606-002			Blasland, Bouck & Lee	Soil	29.97	g	1	0.033367	1		1	0		8270-SIM		
179606-003			Blasland, Bouck & Lee	Soil	30.34	g	1	0.032960	1		1	0		8270-SIM		
179606-005			Blasland, Bouck & Lee	Soil	30.4	g	1	0.032895	1		1	0		8270-SIM		
179606-006			Blasland, Bouck & Lee	Soil	29.88	g	1	0.033467	1		1	0		8270-SIM		
179606-007			Blasland, Bouck & Lee	Soil	29.63	g	1	0.033750	1		1	0		8270-SIM		
179606-008			Blasland, Bouck & Lee	Soil	29.76	g	1	0.033602	1		1	0		8270-SIM		mss
179606-009			Blasland, Bouck & Lee	Soil	30.22	g	1	0.033091	1		1	0		8270-SIM		
179606-010			Blasland, Bouck & Lee	Soil	29.89	g	1	0.033456	1		1	0		8270-SIM		
179606-012			Blasland, Bouck & Lee	Soil	30.18	g	1	0.033135	1		1	0		8270-SIM		
179606-013			Blasland, Bouck & Lee	Soil	29.94	g	1	0.033400	1		1	0		8270-SIM		
179614-004			Baseline Environmental	Soil	29.6	g	1	0.033784	1		1	0		8270-SIM		
179614-028			Baseline Environmental	Soil	30.2	g	1	0.033113	1		1	0		8270-SIM		
179614-029			Baseline Environmental	Soil	30.05	g	1	0.033278	1		1	0		8270-SIM		
179614-030			Baseline Environmental	Soil	30.33	g	1	0.032971	1		1	0		8270-SIM		
179614-031			Baseline Environmental	Soil	30.26	g	1	0.033047	1		1	0		8270-SIM		
179614-032			Baseline Environmental	Soil	30.25	g	1	0.033058	1		1	0		8270-SIM		
179614-033			Baseline Environmental	Soil	30.35	g	1	0.032949	1		1	0		8270-SIM		
179749-001			Ninyo & Moore	Soil	29.9	g	1	0.033445	1		1	0		8270-SIM		
QC295759	BLANK			Soil	30.45	g	1	0.032841	1		1	0		SIM		
QC295760	LCS			Soil	29.97	g	1	0.033367	1		1	1		SIM		
QC295761	MS	of 179606-008		Soil	30.18	g	1	0.033135	1		1	1		SIM		
QC295762	MSD	of 179606-008		Soil	30.09	g	1	0.033234	1		1	1		SIM		

Prep Chemist: _____ Reviewed By: _____ Date: 6/2/05

Relinquished By: _____ Received By: _____ Date: 6/2/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2120 page 42 of 100

LIMS Batch No: 102526
LIMS Analysis 8270 SIM
Extracted by: KMH
Date Extracted: 6/1/05

Extraction Method:
☑ EPA 3550b Sonication
☐ EPA 3540c Soxhlet
☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC295759	30.45	1.0		
	LCS 60	29.97			
	MS 61	30.18			
	MSD 62	30.09			
5	179564-001	30.29			
	179606-001	30.12			
	2	29.97			
	3	30.34			
	5	30.40 KMH 6/1/05			
10	6	29.~~38~~88			
	7	29.63			
	8	29.76			MSS
	9	30.22			
	10	29.89			
15	12	30.18			
	13	29.94			
	179614-004	29.60			
	28	30.20			Comp 1+2
	29	30.05			" 7+8
20	30	30.33			" 10+11
	31	30.26			" 13+14
	32	30.25			" 16+17
	33	30.35			" 19+20
	179749-001	29.90			alias of 179~~560~~-014
					KMH 6/1/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand weighed out for QC samples	EM44028452	KMH 6/1/05
Samples were dried with baked, CH_2Cl_2-rinsed ~~granular~~ powdered Na_2SO_4	EM45042	
1.0 mL of surrogate solution was added to all samples	S~~495~~ KMH 6/1/05 S3C9D	
1.0 mL of matrix spiking solution was added to all spikes	S2121	
≥100mL 1:1 CH_2Cl_2:Acetone was added to all: CH_2Cl_2	EM~~44233~~ 45071	
Acetone	EM44233	
Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:	✓	
soxhlets off at:	N/A	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	EM45042	
Concentrated: ☐ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel	N/A	
Concentrated to final volumes as noted above	✓	

Extraction Chemist / Date

Continued from page _____
Continued on page _____

Reviewed by / Date 6/2/05

Project Soil Aliquot BK2135

Continued from Page

Sample ID	Weight(g)	Analysis	Comments
179COC-008A	29.76	8270 SIM	
6	29.88		
9	30.22		
10	29.89		
12	30.18		
13	29.94		
14	29.96		
15	30.07		
MB	30.45		
LCS	29.97		
MS	30.18		179COC-008
MSD	30.09		179COC-008
179606-017A	29.81		
179514-001A	30.29		
179614-004A	29.60		
28	30.20		comp of 001A+2A
29	30.05		comp of 007A+008A
30	30.33		comp of 010A+011A
31	30.26		comp of 013A+014A
32	30.25		comp of 016A+017A
33	30.35		comp of 019A+020A
179606-018A	30.12		
19A	30.38		
20A	29.78		

marks

marks

Continued on Page

Read and Understood By

Signed — Date — Signed — Date

5/26/05

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179564	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB101(0.5)	Basis:	dry
Lab ID:	179564-001	Sampled:	05/20/05
Matrix:	Soil	Received:	05/20/05
Units:	mg/Kg		

Moisture: 15%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.52	0.26	0.063	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Arsenic	2.5	0.26	0.086	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Barium	44	0.26	0.026	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Beryllium	0.20 J	0.26	0.055	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Cadmium	0.18 J	0.26	0.011	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Chromium	50	0.26	0.054	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Cobalt	5.3	0.26	0.0036	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Copper	9.5	0.26	0.10	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Lead	36	0.26	0.0086	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Mercury	0.060	0.023	0.0044	1.000	102328	05/24/05	05/25/05	METHOD	EPA 7471A
Molybdenum	0.40	0.26	0.0055	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Nickel	34	0.31	0.31	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Selenium	0.17 J	0.26	0.10	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Silver	0.050 J	0.26	0.0034	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Thallium	0.27	0.26	0.013	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Vanadium	37	0.26	0.15	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020
Zinc	50	1.0	0.058	5.000	102304	05/23/05	05/24/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC294826	Batch#:	102304
Matrix:	Soil	Prepared:	05/23/05
Units:	mg/Kg	Analyzed:	05/24/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	0.24 J	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	0.013 J	0.25	0.0082
Molybdenum	0.012 J	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	0.017 J	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	ND	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC294913	Batch#:	102328
Matrix:	Soil	Prepared:	05/24/05
Units:	mg/Kg	Analyzed:	05/25/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	102304
Units:	mg/Kg	Prepared:	05/23/05
Basis:	as received	Analyzed:	05/24/05
Diln Fac:	5.000		

Type: BS Lab ID: QC294827

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	21.57	86	80-120
Arsenic	25.00	22.40	90	80-120
Barium	25.00	22.01	88	80-120
Beryllium	25.00	23.25	93	80-120
Cadmium	25.00	22.69	91	80-120
Chromium	25.00	21.97	88	80-120
Cobalt	25.00	22.07	88	80-120
Copper	25.00	22.65	91	80-120
Lead	25.00	22.25	89	80-120
Molybdenum	25.00	21.35	85	80-120
Nickel	25.00	23.04	92	80-125
Selenium	25.00	21.61	86	80-120
Silver	25.00	24.01	96	80-120
Thallium	25.00	21.76	87	66-120
Vanadium	25.00	22.70	91	80-120
Zinc	25.00	22.04	88	80-120

Type: BSD Lab ID: QC294828

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	21.88	88	80-120	1	20
Arsenic	25.00	22.11	88	80-120	1	20
Barium	25.00	21.93	88	80-120	0	20
Beryllium	25.00	23.12	92	80-120	1	20
Cadmium	25.00	22.42	90	80-120	1	20
Chromium	25.00	21.76	87	80-120	1	20
Cobalt	25.00	21.94	88	80-120	1	20
Copper	25.00	22.40	90	80-120	1	20
Lead	25.00	22.08	88	80-120	1	20
Molybdenum	25.00	21.12	84	80-120	1	20
Nickel	25.00	22.75	91	80-125	1	20
Selenium	25.00	21.51	86	80-120	0	20
Silver	25.00	23.73	95	80-120	1	20
Thallium	25.00	21.64	87	66-120	1	20
Vanadium	25.00	22.37	89	80-120	1	20
Zinc	25.00	21.80	87	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102328
Units:	mg/Kg	Prepared:	05/24/05
Basis:	as received	Analyzed:	05/25/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC294914	0.5000	0.5390	108	80-120		
BSD	QC294915	0.5000	0.5420	108	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBSB101(0.5)	Batch#:	102304
MSS Lab ID:	179564-001	Sampled:	05/20/05
Matrix:	Soil	Received:	05/20/05
Units:	mg/Kg	Prepared:	05/23/05
Basis:	dry		

Type: MS Moisture: 15%
Lab ID: QC294829

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac	Analyzed
Antimony	0.5196	26.98	12.73	45	28-120	5.000	05/24/05
Arsenic	2.485	26.98	24.58	82	70-120	5.000	05/24/05
Barium	43.70	26.98	70.21	98	46-165	50.00	05/25/05
Beryllium	0.2013	26.98	23.82	88	72-120	5.000	05/24/05
Cadmium	0.1831	26.98	21.72	80	74-120	5.000	05/24/05
Chromium	50.41	26.98	95.09	166 *	45-160	50.00	05/24/05
Cobalt	5.320	26.98	29.64	90	62-136	5.000	05/24/05
Copper	9.495	26.98	33.91	90	47-164	5.000	05/24/05
Lead	35.55	26.98	66.00	113	60-140	50.00	05/24/05
Molybdenum	0.4014	26.98	20.57	75	74-120	5.000	05/24/05
Nickel	33.72	26.98	67.94	127	51-172	50.00	05/24/05
Selenium	0.1688	26.98	21.10	78	66-120	5.000	05/24/05
Silver	0.04977	26.98	22.81	84	74-120	5.000	05/24/05
Thallium	0.2667	26.98	21.19	78	57-120	5.000	05/24/05
Vanadium	37.20	26.98	68.21	115	19-177	50.00	05/24/05
Zinc	49.91	26.98	86.78	137	39-166	50.00	05/24/05

Type: MSD Moisture: 15%
Lab ID: QC294830

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
Antimony	25.14	12.36	47	28-120	4	24	5.000	05/24/05
Arsenic	25.14	24.47	87	70-120	6	20	5.000	05/24/05
Barium	25.14	60.38	66	46-165	12	23	50.00	05/25/05
Beryllium	25.14	23.04	91	72-120	4	20	5.000	05/24/05
Cadmium	25.14	19.96	79	74-120	1	20	5.000	05/24/05
Chromium	25.14	97.18	186 *	45-160	5	29	50.00	05/24/05
Cobalt	25.14	29.79	97	62-136	6	20	5.000	05/24/05
Copper	25.14	31.88	89	47-164	1	21	5.000	05/24/05
Lead	25.14	62.64	108	60-140	2	24	50.00	05/24/05
Molybdenum	25.14	19.35	75	74-120	1	20	5.000	05/24/05
Nickel	25.14	64.35	122	51-172	2	22	50.00	05/24/05
Selenium	25.14	20.19	80	66-120	3	20	5.000	05/24/05
Silver	25.14	20.99	83	74-120	1	20	5.000	05/24/05
Thallium	25.14	20.22	79	57-120	2	20	5.000	05/24/05
Vanadium	25.14	72.80	142	19-177	9	30	50.00	05/24/05
Zinc	25.14	83.21	132	39-166	2	33	50.00	05/24/05

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	102328
MSS Lab ID:	179518-004	Sampled:	05/17/05
Matrix:	Soil	Received:	05/18/05
Units:	mg/Kg	Prepared:	05/24/05
Basis:	dry	Analyzed:	05/25/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC294916	0.006272	0.4280	0.4160	96	64-139	1%		
MSD	QC294917		0.4354	0.3666	83	64-139	1%	14	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBSB101(0.5)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	25.00
MSS Lab ID:	179564-001	Batch#:	102304
Lab ID:	QC294831	Sampled:	05/20/05
Matrix:	Soil	Received:	05/20/05
Units:	mg/Kg	Analyzed:	05/24/05

Moisture: 15%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim
Antimony	0.5196	0.2603		0.4864 J	1.301		10
Arsenic	2.485	0.2603		2.236	1.301		10
Barium	43.70	0.2603		39.76	1.301	9	10
Beryllium	0.2013	0.2603	ND		1.301		10
Cadmium	0.1831	0.2603		0.3609 J	1.301		10
Chromium	50.41	0.2603		45.36	0.6507	10	10
Cobalt	5.320	0.2603		4.942	1.301	7	10
Copper	9.495	0.2603		9.381	1.301	1	10
Lead	35.55	0.2603		32.93	1.301	7	10
Molybdenum	0.4014	0.2603		0.3922 J	1.301	2	10
Nickel	33.72	0.3088		32.18	2.603	5	10
Selenium	0.1688	0.2603	ND		1.301		10
Silver	0.04977	0.2603	ND		1.301		10
Thallium	0.2667	0.2603		0.3665 J	1.301		10
Vanadium	37.20	0.2603		32.52	1.301	13 *	10
Zinc	49.91	1.041		49.33	13.01	1	10

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	102328
MSS Lab ID:	179518-004	Sampled:	05/17/05
Lab ID:	QC294918	Received:	05/18/05
Matrix:	Soil	Analyzed:	05/25/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
ND	0.01629	ND	0.08146	1%	10

ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid	: MET05	Instid	: MET05
Seqnum	: 55208090033	Seqnum	: 55208090055
Filename	: e2412033	Filename	: e2412055
IDF	: 5.0	IDF	: 5.0
PDF	: 44.25	PDF	: 44.25
Run type	: MSS	Run type	: PDS
Samplenum	: 179564-001	Samplenum	: QC294832
Matrix	: Soil	Matrix	: Soil
Batchnum	: 102304	Batchnum	: 102304
Inj	: 24-MAY-2005 15:14	Inj	: 24-MAY-2005 17:27
Units	: ug/L		

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	1.996	100.0	93.40	91	75-125	u
Arsenic	9.546	100.0	100.9	91	75-125	u
Barium	167.9	100.0	261.6 >LR	94	75-125	>LR >c+ **b***
Beryllium	0.7734	100.0	97.78	97	75-125	>c+ **b***
Cadmium	0.7036	100.0	83.46	83	75-125	u
Calcium	13940	10000	21620 >LR	77	75-125	>LR **y b***
Chromium	193.7	100.0	276.2 >LR	83	75-125	>LR **y b***
Cobalt	20.44	100.0	113.4	93	75-125	u
Copper	36.48	100.0	127.6	91	75-125	u
Iron	*** usable MSS data not found ***					
Lead	136.6	100.0	229.0 >LR	92	75-125	>LR **b***
Magnesium	8498	10000	16720	82	75-125	**y**
Manganese	*** usable MSS data not found ***					
Molybdenum	1.542	100.0	84.12	83	75-125	u
Nickel	129.6	100.0	217.8 >LR	88	75-125	>LR **b***
Potassium	1818	10000	9964	81	75-125	
Selenium	0.6484	100.0	88.76	88	75-125	u
Silver	0.1912	100.0	88.44	88	75-125	u
Sodium	750.4	10000	9160	84	75-125	>c+ **b***
Thallium	1.025	100.0	89.72	89	75-125	u
Vanadium	142.9	100.0	227.8 >LR	85	75-125	>LR **b***
Zinc	191.7	100.0	271.0 >LR	79	75-125	>LR **b***

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	488043	-13.97
Scandium	747195	761289	1.89
Germanium	154509	146549	-5.15
Indium	1237293	1018499	-17.68
Bismuth	942708	790747	-16.12

+=high bias >=closing >LR=overrange b=noncompliant c=CCV u=use y=RL raised

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55209576016	Seqnum : 55209576034
Filename : e2512016	Filename : e2512034
IDF : 50.0	IDF : 50.0
PDF : 44.25	PDF : 44.25
Run type : MSS	Run type : PDS
Samplenum: 179564-001	Samplenum: QC294832
Matrix : Soil	Matrix : Soil
Batchnum : 102304	Batchnum : 102304
Inj : 25-MAY-2005 14:18	Inj : 25-MAY-2005 16:03
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	ND	10.00	4.992	**50***	75-125	
Arsenic	0.9302	10.00	9.702	88	75-125	
Barium	15.77	10.00	25.68	99	75-125	u
Beryllium	ND	10.00	9.054	91	75-125	u
Cadmium	0.1178	10.00	9.172	91	75-125	
Calcium	1521	1000	2848	**133***	75-125	y
Chromium	18.61	10.00	32.80	**142***	75-125	u y
Cobalt	2.078	10.00	11.78	97	75-125	
Copper	3.634	10.00	13.88	102	75-125	
Iron	5168	1000	6694	153	75-125	: y
Lead	13.06	10.00	22.46	94	75-125	u
Magnesium	982.2	1000	1774	79	75-125	y
Manganese	81.34	10.00	102.6	213	75-125	:
Molybdenum	0.7208	10.00	8.142	**74***	75-125	
Nickel	12.79	10.00	23.16	104	75-125	u
Potassium	204.0	1000	1066	86	75-125	
Selenium	ND	10.00	8.822	88	75-125	
Silver	0.03160	10.00	8.884	89	75-125	
Sodium	108.1	1000	955.6	85	75-125	
Thallium	ND	10.00	7.886	79	75-125	
Vanadium	13.33	10.00	23.88	105	75-125	u
Zinc	20.46	10.00	30.00	95	75-125	u

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	689132	-7.89
Scandium	1005212	985206	-1.99
Germanium	182504	177076	-2.97
Indium	1240243	1185403	-4.42
Bismuth	753037	769130	2.14

:=recovery not meaningful u=use y=RL raised

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179564 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179564-001	MET05	05/24/05 15:14	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
179564-001	MET04	05/25/05 09:43	1.0										+							
179564-001	MET05	05/25/05 14:18	50.0																	
QC294826	MET05	05/24/05 14:56	5.0																	
QC294826	MET05	05/24/05 17:21	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294827	MET05	05/24/05 15:02	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294828	MET05	05/24/05 15:08	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294829	MET05	05/24/05 15:26	5.0	+	+		+	+		+	+			+		+	+	+		
QC294829	MET05	05/24/05 19:41	50.0						+			+			+				+	+
QC294829	MET05	05/25/05 14:24	50.0			+														
QC294830	MET05	05/24/05 15:38	5.0	+	+		+	+		+	+			+		+	+	+		
QC294830	MET05	05/24/05 19:47	50.0						+			+			+				+	+
QC294830	MET05	05/25/05 14:30	50.0			+														
QC294831	MET05	05/24/05 15:20	25.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294832	MET05	05/24/05 17:27	5.0	+	+			+		+	+			+		+	+	+		
QC294832	MET05	05/24/05 19:53	50.0																	
QC294832	MET05	05/25/05 16:03	50.0			+	+		+			+			+				+	+
QC294913	MET04	05/25/05 08:57	1.0										+							
QC294914	MET04	05/25/05 09:00	1.0										+							
QC294915	MET04	05/25/05 09:02	1.0										+							
QC294916	MET04	05/25/05 09:05	1.0										+							
QC294917	MET04	05/25/05 09:06	1.0										+							
QC294918	MET04	05/25/05 10:00	5.0										+							
QC294919	MET04	05/25/05 10:02	1.0										+							

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55208090 Instrument: MET05 Agilent ICP-MS Begun: 24-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e2412001	TUN	TUNE			24-MAY-2005 12:10	1.0	1.0				1	
003	e2412003	ICALBLK	std-blk			24-MAY-2005 12:21	1.0	1.0				2	
004	e2412004	ICAL	CS1			24-MAY-2005 12:26	1.0	1.0				3	
005	e2412005	ICAL	CS2			24-MAY-2005 12:32	1.0	1.0				4	
006	e2412006	ICAL	CS3			24-MAY-2005 12:37	1.0	1.0				5	
007	e2412007	ICAL	CS4			24-MAY-2005 12:42	1.0	1.0				6	
008	e2412008	ICAL	CS5			24-MAY-2005 12:47	1.0	1.0				7	
009	e2412009	ICAL	CS6			24-MAY-2005 12:53	1.0	1.0				8	
010	e2412010	ICV				24-MAY-2005 12:58	1.0	1.0			1	9 1	
012	e2412012	ICB				24-MAY-2005 13:09	1.0	1.0	1		1	1	
013	e2412013	ICSA				24-MAY-2005 13:15	1.0	1.0			1	10 1	7:CA=289000
014	e2412014	ICSAB				24-MAY-2005 13:21	1.0	1.0			1	11 1	7:CA=292400
016	e2412016	SAMPLE	179476-008	102127	Water	24-MAY-2005 13:33	1.0	1.0	2		1	1	2:NA=26860.0
017	e2412017	SAMPLE	179532-012	102220	Water	24-MAY-2005 13:38	1.0	1.0			1	1	
018	e2412018	SAMPLE	179444-006	102037	Filtra	24-MAY-2005 13:44	1.0	1.0			1	1	3:NA=45730
019	e2412019	SAMPLE	179444-007	102037	Filtra	24-MAY-2005 13:50	1.0	1.0			1	1	3:NA=34250.0
020	e2412020	SAMPLE	179444-008	102037	Filtra	24-MAY-2005 13:56	1.0	1.0	1		1	1	6:CA=87740.0
021	e2412021	SAMPLE	179394-003	102036	Water	24-MAY-2005 14:02	2.0	1.0			1	1	
022	e2412022	SAMPLE	179394-009	102036	Water	24-MAY-2005 14:08	2.0	1.0			1	1	
023	e2412023	SAMPLE	179476-008	102127	Water	24-MAY-2005 14:14	2.0	1.0			1	1	
025	e2412025	CCV				24-MAY-2005 14:26	1.0	1.0			1	12 1	
027	e2412027	CCB				24-MAY-2005 14:38	1.0	1.0	1		1	1	
028	e2412028	ICSA				24-MAY-2005 14:44	1.0	1.0			1	10 1	7:CA=286100
029	e2412029	ICSAB				24-MAY-2005 14:50	1.0	1.0			1	11 1	7:CA=287900
030	e2412030	BLANK	QC294826	102304	Soil	24-MAY-2005 14:56	5.0	50.0	4		1	1	
031	e2412031	BS	QC294827	102304	Soil	24-MAY-2005 15:02	5.0	50.0			1	1	
032	e2412032	BSD	QC294828	102304	Soil	24-MAY-2005 15:08	5.0	50.0			1	1	
033	e2412033	MSS	179564-001	102304	Soil	24-MAY-2005 15:14	5.0	44.25	3		1	1	3:FE=50020.0
034	e2412034	SER	QC294831	102304	Soil	24-MAY-2005 15:20	25.0	44.25		1	1	1	1:AL=3557.20
035	e2412035	MS	QC294829	102304	Soil	24-MAY-2005 15:26	5.0	45.87	7		1	1	10:FE=58340.0
036	e2412036	MSS	179444-009	102221	Filtra	24-MAY-2005 15:32	10.0	1.0			1	1	

Stds used: 1=05WS0207 2=04WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S687 13=04SS227 14=04SS228

Analyst: [signature] Date: 5/24/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55208090 Instrument: MET05 Agilent ICP-MS Begun: 24-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
037	e2412037	MSD	QC294830	102304	Soil	24-MAY-2005 15:38	5.0	42.74	7		1	1	10:FE=75660.0
039	e2412039	CCV				24-MAY-2005 15:49	1.0	1.0			1	12 1	
044	e2412044	CCB		102220		24-MAY-2005 16:19	1.0	1.0	1		1	1	
045	e2412045	X	RINSE	102220		24-MAY-2005 16:25	1.0					1	
046	e2412046	MS	QC294523	102221	Filtra	24-MAY-2005 16:31	10.0	1.0		3	1	1	
047	e2412047	MSD	QC294524	102221	Filtra	24-MAY-2005 16:37	10.0	1.0	1	3	1	1	
051	e2412051	CCV				24-MAY-2005 17:01	1.0	1.0			1	12 1	
053	e2412053	CCB				24-MAY-2005 17:15	1.0	1.0	2		1	1	
054	e2412054	BLANK	QC294826	102304	Soil	24-MAY-2005 17:21	5.0	50.0			1	1	
055	e2412055	PDS	QC294832	102304	Soil	24-MAY-2005 17:27	5.0	44.25	9		1	13 14 1	10:FE=57040.0
056	e2412056	SAMPLE	179529-013	102304	Soil	24-MAY-2005 17:33	5.0	38.46	4		1	1	7:FE=80240.0
057	e2412057	ICSAB				24-MAY-2005 17:38	1.0	1.0			1	11 1	8:CA=279400
059	e2412059	SAMPLE	179529-016	102304	Soil	24-MAY-2005 17:50	5.0	50.0	3		1	1	5:CA=55300.0
060	e2412060	SAMPLE	179529-018	102304	Soil	24-MAY-2005 17:56	5.0	54.35	1		1	1	3:FE=23000.0
061	e2412061	SAMPLE	179551-002	102304	Soil	24-MAY-2005 18:02	5.0	39.68	6		1	1	9:FE=178148
062	e2412062	SAMPLE	179551-008	102304	Soil	24-MAY-2005 18:07	5.0	52.08	1		1	1	2:AL=8288.00
063	e2412063	SAMPLE	179551-011	102304	Soil	24-MAY-2005 18:13	5.0	46.73	1		1	1	3:FE=20560.0
064	e2412064	SAMPLE	179551-015	102304	Soil	24-MAY-2005 18:19	5.0	37.04	3		1	1	5:FE=131600
066	e2412066	CCV				24-MAY-2005 18:31	1.0	1.0	4		1	12 1	1:AL=218.900
069	e2412069	CCB				24-MAY-2005 18:49	1.0	1.0	1		1	1	
070	e2412070	X	179529-016	102304	Soil	24-MAY-2005 18:54	5.0	50.0			1	1	5:CA=26400.0
071	e2412071	ICSA				24-MAY-2005 19:00	1.0	1.0			1	10 1	7:CA=276800
072	e2412072	ICSAB				24-MAY-2005 19:06	1.0	1.0	1		1	11 1	7:CA=277000
074	e2412074	CCV				24-MAY-2005 19:18	1.0	1.0	4		1	12 1	1:AL=226.400
076	e2412076	CCB				24-MAY-2005 19:30	1.0	1.0	2		1	1	
077	e2412077	X	RINSE	102220		24-MAY-2005 19:35	1.0					1	
078	e2412078	MS	QC294829	102304	Soil	24-MAY-2005 19:41	50.0	45.87	4	1	1	1	1:AL=2438.00
079	e2412079	MSD	QC294830	102304	Soil	24-MAY-2005 19:47	50.0	42.74	4	1	1	1	1:AL=2704.00
080	e2412080	PDS	QC294832	102304	Soil	24-MAY-2005 19:53	50.0	44.25			1	13 14 1	1:AL=1924.00
081	e2412081	X	179529-013	102304	Soil	24-MAY-2005 19:59	50.0	38.46			1	1	1:AL=3212.00
082	e2412082	SAMPLE	179529-016	102304	Soil	24-MAY-2005 20:05	50.0	50.0	2		1	1	1:AL=1243.80

Stds used: 1=05WS0207 2=04WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S687 13=04SS227 14=04SS228

Analyst: _____ Date: 5/24/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55208090 Instrument: MET05 Agilent ICP-MS Begun: 24-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
083	e2412083	SAMPLE	179551-002	102304	Soil	24-MAY-2005 20:11	50.0	39.68	2		1	1	2:AL=5512.00
084	e2412084	SAMPLE	179551-015	102304	Soil	24-MAY-2005 20:17	50.0	37.04	2		1	1	1:AL=4998.00
085	e2412085	ICSA				24-MAY-2005 20:23	1.0	1.0			1	10 1	7:CA=274100
086	e2412086	ICSAB				24-MAY-2005 20:29	1.0	1.0	1		1	11 1	7:CA=277300
088	e2412088	CCV				24-MAY-2005 20:40	1.0	1.0	4		1	12 1	1:AL=229.600
089	e2412089	X	rinse blank			24-MAY-2005 20:46	1.0					1	
090	e2412090	CCB				24-MAY-2005 20:52	1.0	1.0	2		1	1	

149

Stds used: 1=05WS0207 2=04WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S687 13=04SS227 14=04SS228

Analyst: _____ Date: 5/24/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55208090001 Name: Type: (normal) Date: 24-MAY-2005 12:21 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e2412004	55208090004	CS1	24-MAY-2005 12:26	S679
2	e2412005	55208090005	CS2	24-MAY-2005 12:32	S680
3	e2412006	55208090006	CS3	24-MAY-2005 12:37	S681
4	e2412007	55208090007	CS4	24-MAY-2005 12:42	S682
5	e2412008	55208090008	CS5	24-MAY-2005 12:47	S677
6	e2412009	55208090009	CS6	24-MAY-2005 12:53	S678

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		1.4196	1.0395	0.4536	0.4058	0.3936	BLNK	R	-1.03443	2.540372		ug/L	0.7424	1.000	0.995	
Antimony	0.2884	0.2486	0.2274	0.2115	0.2232	0.2214	BLNK	R	-0.08521	4.511867		ug/L	0.2367	1.000	0.995	
Arsenic		0.3727	0.3707	0.3566	0.3557	0.3500	BLNK	R	-0.07608	2.849019		ug/L	0.3611	1.000	0.995	
Barium	0.1264	0.0968	0.0899	0.0801	0.0838	0.0823	BLNK	R	-0.07721	12.11787		ug/L	0.0932	1.000	0.995	
Beryllium	0.1642	0.1695	0.1575	0.1479	0.1508	0.1483	BLNK	R	-0.00791	6.721011		ug/L	0.1564	1.000	0.995	
Cadmium	0.8134	0.5939	0.5195	0.4240	0.4113	0.4004	BLNK	R	-0.24022	2.487560		ug/L	0.5271	1.000	0.995	
Calcium		0.0189	0.0172	0.0155	0.0160	0.0152	BLNK	R	-9.78664	65.09411		ug/L	0.0166	0.999	0.995	
Chromium		5.3330	4.1912	2.9744	2.9469	2.8311	BLNK	R	-0.42572	0.351245		ug/L	3.6553	1.000	0.995	
Cobalt	3.6394	3.4090	3.3774	3.2471	3.3082	3.1965	BLNK	R	-0.01151	0.310690		ug/L	3.3629	1.000	0.995	
Copper		1.2757	0.7227	0.8064	0.7823	0.7571	BLNK	R	-0.06560	1.312486		ug/L	0.8688	1.000	0.995	
Iron		0.1363	0.1060	0.0801	0.0797	0.0756	BLNK	R	-35.3724	13.10645		ug/L	0.0956	0.999	0.995	
Lead	1.1008	0.9303	0.9058	0.8568	0.8778	0.8825	BLNK	R	-0.02427	1.134572		ug/L	0.9257	1.000	0.995	
Magnesium		0.0536	0.0519	0.0524	0.0500	0.0484	BLNK	R	-0.70317	20.51242		ug/L	0.0513	1.000	0.995	
Manganese	6.0207	4.8494	4.2707	3.8571	3.8855	3.7342	BLNK	R	-0.09873	0.265789		ug/L	4.4363	1.000	0.995	
Molybdenum		0.7114	0.7559	0.7185	0.7260	0.7212	BLNK	R	-0.02490	1.384946		ug/L	0.7266	1.000	0.995	
Nickel	1.1542	1.1517	0.8183	0.7188	0.6960	0.6692	BLNK	R	-0.05970	1.482713		ug/L	0.8680	1.000	0.995	
Potassium		2.0061	1.2317	0.5566	0.4856	0.4676	BLNK	R	-164.781	2.143143		ug/L	0.9495	1.000	0.995	
Selenium		0.0763	0.0554	0.0259	0.0227	0.0221	BLNK	R	-1.30588	45.27524		ug/L	0.0405	1.000	0.995	
Silver	2.5868	2.2475	2.1473	2.0109	2.0545	1.8275	BLNK	R	-0.12222	0.534255		ug/L	2.1457	0.997	0.995	
Sodium		0.6197	0.6084	0.5270	0.5132	0.4942	BLNK	R	-3.61920	2.008279		ug/L	0.5525	1.000	0.995	

150

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55208090001 Name: Type: (normal) Date: 24-MAY-2005 12:21 Inj Vol (uL): 1

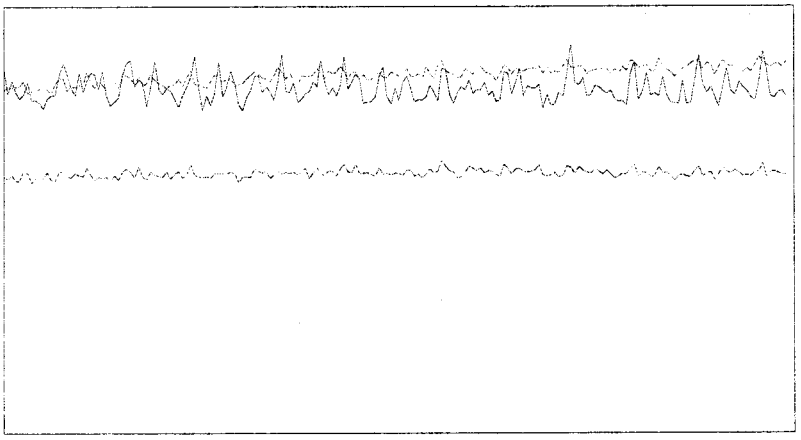
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.7101	0.6638	0.5396	0.6643	0.6792	BLNK	R	-0.03314	1.479786		ug/L	0.6514	1.000	0.995	
Vanadium		4.3610	4.0115	3.2645	3.3696	3.2257	BLNK	R	-0.18800	0.307626		ug/L	3.6464	1.000	0.995	
Zinc		1.2467	1.0634	0.4686	0.4199	0.4037	BLNK	R	-1.29582	2.476403		ug/L	0.7204	1.000	0.995	

151

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



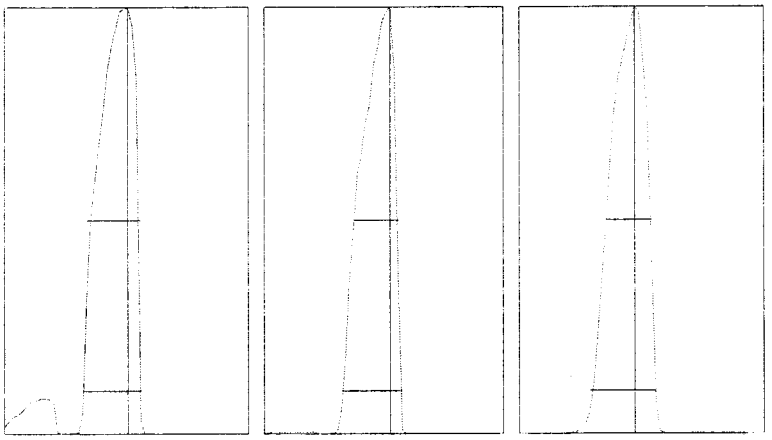
m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	15,753	30,416	43,503
Mean:	16148.1	30550.9	41936.4
RSD%:	3.74	1.51	2.20
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.41%
Doubly Charged:	70/140	0.84%

Background:

m/z:	7	89	205
Cps:	8.0	9.3	16.6



m/z:	7	89	205
Height:	16,317	31,566	44,224
Axis:	7.05	89.10	204.95
W-50%:	0.65	0.55	0.55
W-10%:	0.700	0.7500	0.800

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===	
RF Power:	1250	W	Extract 1:	-137.1	V	AMU Gain:	128
RF Matching:	1.7	V	Extract 2:	-111	V	AMU Offset:	127
Smpl Depth:	8	mm	Einzel 1,3:	-100	V	Axis Gain:	1.0003
Torch-H:	-0.2	mm	Einzel 2:	-1	V	Axis Offset:	-0.03
Torch-V:	-0.1	mm	Omega Bias:	-38	V	QP Bias:	0 V
Carrier Gas:	1.05	L/min	Omega (+):	-2	V		
Makeup Gas:	0	L/min	Omega (-):	3	V	===Detector Parameters===	
Optional Gas:	---	%	QP Focus:	1	V	Discriminator:	9 mV
PeriPump1:	0.1	rps	Plate Bias:	-5	V	Analog HV:	2060 V
PeriPump2:	---	rps				Pulse HV:	1820 V
S/C Temp:	2	degC					

Generated : May 24, 2005 11:00:51
Printed : May 24, 2005 11:00:57

P/A Factor Tuning Report

Acquired:May 24 2005 11:41 am

Mass[amu]	Element	P/A Factor
6	Li	0.061138
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.084916
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.095224
45	Sc	0.091725
51	V	0.094990
52	Cr	0.096876
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.098809
57	Fe	0.101297
59	Co	0.101828
60	Ni	Sensitivity too low
63	Cu	0.103516
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103132
95	Mo	Sensitivity too low
98	Mo	Sensitivity too low
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109424
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.111216
118	(In)	0.108496
121	Sb	0.108262
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.115492
166	Er	Sensitivity too low

205	Tl	0.121043
206	(Pb)	0.116936
207	(Pb)	Sensitivity too low
208	Pb	0.120218
209	Bi	0.120653
232	Th	0.121600
238	U	0.122231

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 24 2005 11:49 am

Mass[amu]	Element	P/A Factor
6	Li	0.060904
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.084705
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.095563
45	Sc	0.091315
51	V	0.095041
52	Cr	0.097179
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099030
57	Fe	0.101610
59	Co	0.102033
60	Ni	Sensitivity too low
63	Cu	0.104069
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.102817
95	Mo	Sensitivity too low
98	Mo	0.100747
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109831
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.110582
118	(In)	0.109216
121	Sb	0.108793
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114977
166	Er	Sensitivity too low

205	Tl	0.121471
206	(Pb)	0.117704
207	(Pb)	0.116731
208	Pb	0.120794
209	Bi	0.120269
232	Th	0.122499
238	U	0.122720

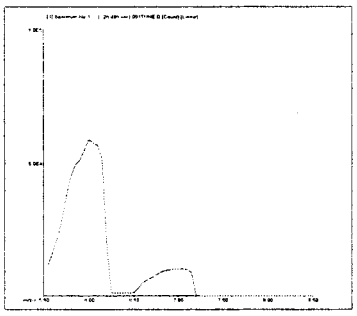
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

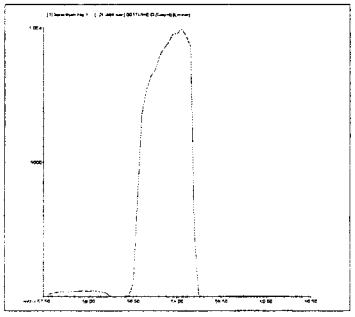
Data File: C:\ICPCHEM\1\DATA\05E2412a.B\001TUNE.D
Date Acquired: May 24 2005 12:10 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUNE,689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

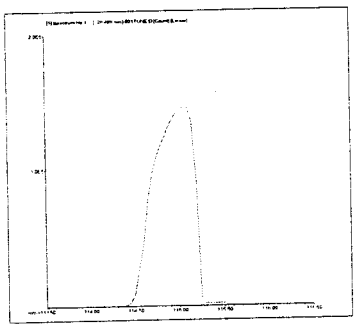
Element	Actual	Required	Flag
7 Li	1.02	5.00	
59 Co	1.28	5.00	
115 In	0.75	5.00	
205 Tl	0.39	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



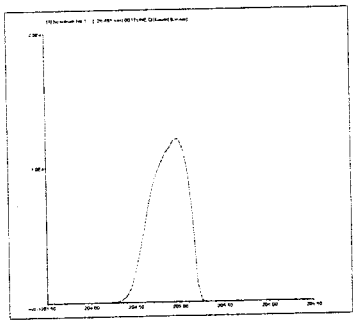
115 In

Mass Calib.

Actual:	115.10	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.65
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\002BLNK.D\002BLNK.D#
Date Acquired: May 24 2005 12:15 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: May 23 2005 11:57 am
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.009027	ppb	39.33	-0.009027	1.00	
23 Na	-2.518	ppb	2.26	-2.518	1.00	
26 Mg	-0.5728	ppb	7.50	-0.5728	1.00	
27 Al	-0.7147	ppb	2.42	-0.7147	1.00	
39 K	-27.69	ppb	8.72	-27.69	1.00	
44 Ca	-3.83	ppb	5.08	-3.83	1.00	
51 V	0.05304	ppb	56.69	0.05304	1.00	
52 Cr	-0.07444	ppb	22.11	-0.07444	1.00	
55 Mn	-0.04031	ppb	9.64	-0.04031	1.00	
57 Fe	-2.989	ppb	10.62	-2.989	1.00	
59 Co	-0.006049	ppb	50.57	-0.006049	1.00	
60 Ni	-0.0462	ppb	8.58	-0.0462	1.00	
65 Cu	-0.1576	ppb	4.71	-0.1576	1.00	
66 Zn	-0.7897	ppb	26.45	-0.7897	1.00	
75 As	0.1285	ppb	32.86	0.1285	1.00	
82 Se	0.4125	ppb	60.39	0.4125	1.00	
95 Mo	-0.01156	ppb	85.77	-0.01156	1.00	
109 Ag	0.08618	ppb	28.07	0.08618	1.00	
111 Cd	-0.02287	ppb	119.24	-0.02287	1.00	
121 Sb	-0.01978	ppb	85.24	-0.01978	1.00	
137 Ba	0.01751	ppb	76.24	0.01751	1.00	
205 Tl	-0.02197	ppb	20.47	-0.02197	1.00	
208 Pb	-0.03514	ppb	2.32	-0.03514	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	576038.31	0.53	---	#VALUE!	30 - 200	
45 Sc	756340.88	1.14	---	#VALUE!	30 - 200	
72 Ge	154237.33	0.57	---	#VALUE!	30 - 200	

115 In	1259914.60	0.56	---	#VALUE!	30 - 200
209 Bi	945859.94	0.97	---	#VALUE!	30 - 200

ISTD Ref File : ---

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Pass
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\003CAL
Date Acquired: May 24 2005 12:21 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 23 2005 11:57 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	567313.31	A	5424.00	0.96
9	Be	13.33	P	3.33	25.00
23	Na	26930.00	P	270.20	1.00
26	Mg	512.22	P	57.48	11.22
27	Al	6085.56	P	192.50	3.16
39	K	1148883.00	A	10670.00	0.93
44	Ca	2246.81	P	99.89	4.45
45	Sc	747194.81	M	9553.00	1.28
51	V	1889.57	P	545.90	28.89
52	Cr	3745.55	P	110.80	2.96
55	Mn	1147.78	P	39.77	3.47
57	Fe	8340.00	P	318.30	3.82
59	Co	114.44	P	17.11	14.95
60	Ni	124.44	P	11.71	9.41
65	Cu	154.44	P	9.62	6.23
66	Zn	1616.67	P	307.50	19.02
72	Ge	154508.70	P	494.50	0.32
75	As	82.31	P	117.70	142.99
82	Se	89.16	P	17.13	19.21
95	Mo	55.56	P	3.85	6.93
109	Ag	706.67	P	168.00	23.77
111	Cd	298.48	P	62.12	20.81
115	In	1237293.00	A	8167.00	0.66
121	Sb	467.78	P	103.80	22.19
137	Ba	157.78	P	25.89	16.41
205	Tl	422.22	P	37.47	8.87
208	Pb	403.33	P	20.28	5.03
209	Bi	942707.81	P	2620.00	0.28
232	Th	7396.67	P	393.40	5.32
238	U	77.78	P	3.85	4.95

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\004CALI.D\004CALI.D#
Date Acquired: May 24 2005 12:26 pm
Operator:
Sample Name: CS1,S379
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:23 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	571368.50	A	3720.00	0.65
9 Be	468.89	P	38.63	8.24
23 Na	272707.81	P	1633.00	0.60
26 Mg	21660.00	P	82.93	0.38
27 Al	18457.78	P	281.30	1.52
39 K	1334457.00	A	15130.00	1.13
44 Ca	9334.44	P	342.60	3.67
45 Sc	756709.00	M	11540.00	1.53
51 V	4569.24	P	88.81	1.94
52 Cr	6354.44	P	85.27	1.34
55 Mn	4683.33	P	10.00	0.21
57 Fe	15283.33	P	125.00	0.82
59 Co	2831.11	P	70.03	2.47
60 Ni	897.78	P	45.01	5.01
65 Cu	974.35	P	128.50	13.19
66 Zn	2499.00	P	196.50	7.86
72 Ge	155575.30	P	376.80	0.24
75 As	318.32	P	67.99	21.36
82 Se	90.82	P	15.39	16.95
95 Mo	635.56	P	33.55	5.28
109 Ag	2012.22	P	130.00	6.46
111 Cd	632.81	P	69.05	10.91
115 In	1239584.00	A	16890.00	1.36
121 Sb	1787.78	P	96.74	5.41
137 Ba	783.33	P	10.00	1.28
205 Tl	3636.67	P	96.15	2.64
208 Pb	5211.11	P	143.40	2.75
209 Bi	946732.13	P	7892.00	0.83
232 Th	6416.67	P	249.70	3.89
238 U	4067.78	P	58.91	1.45

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	571368.44	0.65	567313.25	100.7	30 - 200	
45 Sc	756709.00	1.53	747194.81	101.3	30 - 200	
72 Ge	155575.33	0.24	154508.67	100.7	30 - 200	
115 In	1239583.80	1.36	1237292.50	100.2	30 - 200	
209 Bi	946732.13	0.83	942707.75	100.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\005CALI.D\005CALI.D#
Date Acquired: May 24 2005 12:32 pm
Operator:
Sample Name: CS2,S680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:28 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	563609.00	A	1616.00	0.29
9 Be	955.56	P	29.12	3.05
23 Na	467506.59	P	1216.00	0.26
26 Mg	40415.56	P	499.60	1.24
27 Al	10706.67	P	358.80	3.35
39 K	1513500.00	A	11270.00	0.74
44 Ca	14260.76	P	299.10	2.10
45 Sc	754468.63	M	9172.00	1.22
51 V	6775.88	P	492.80	7.27
52 Cr	8287.78	P	130.90	1.58
55 Mn	7536.67	P	133.70	1.77
57 Fe	21177.78	P	431.70	2.04
59 Co	5297.78	P	73.43	1.39
60 Ni	1790.00	P	50.33	2.81
65 Cu	1983.16	P	175.30	8.84
66 Zn	1936.87	P	232.50	12.00
72 Ge	155418.20	P	872.20	0.56
75 As	579.30	P	70.42	12.16
82 Se	118.65	P	9.73	8.20
95 Mo	1105.56	P	51.68	4.67
109 Ag	3492.22	P	176.60	5.06
111 Cd	922.93	P	17.43	1.89
115 In	1219198.00	A	3469.00	0.28
121 Sb	3031.11	P	41.68	1.38
137 Ba	1180.00	P	32.15	2.72
205 Tl	6714.44	P	275.70	4.11
208 Pb	8796.67	P	159.80	1.82
209 Bi	945510.00	P	4001.00	0.42
232 Th	7760.00	P	227.60	2.93
238 U	8088.89	P	330.30	4.08

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	563609.06	0.29	567313.25	99.3	30 - 200	
45 Sc	754468.63	1.22	747194.81	101.0	30 - 200	
72 Ge	155418.22	0.56	154508.67	100.6	30 - 200	
115 In	1219198.00	0.28	1237292.50	98.5	30 - 200	
209 Bi	945509.94	0.42	942707.75	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\006CALI.D\006CALI.D#
Date Acquired: May 24 2005 12:37 pm
Operator:
Sample Name: CS3,S681
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:34 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	569830.88	A	12120.00	2.13
9 Be	1795.56	P	96.74	5.39
23 Na	929477.50	A	8764.00	0.94
26 Mg	79296.66	P	559.00	0.70
27 Al	15878.89	P	415.50	2.62
39 K	1881834.00	A	12320.00	0.65
44 Ca	26299.31	P	296.80	1.13
45 Sc	763969.63	M	10340.00	1.35
51 V	12436.26	P	689.30	5.54
52 Cr	12993.33	P	198.40	1.53
55 Mn	13240.00	P	127.80	0.97
57 Fe	32865.56	P	539.10	1.64
59 Co	10470.00	P	172.10	1.64
60 Ni	2536.67	P	64.89	2.56
65 Cu	2240.77	P	156.90	7.00
66 Zn	3295.95	P	289.80	8.79
72 Ge	155006.70	P	595.90	0.38
75 As	1149.03	P	75.92	6.61
82 Se	171.91	P	10.65	6.20
95 Mo	2343.33	P	56.86	2.43
109 Ag	6656.67	P	106.50	1.60
111 Cd	1610.56	P	64.66	4.01
115 In	1229848.00	A	4635.00	0.38
121 Sb	5592.22	P	315.50	5.64
137 Ba	2211.11	P	66.19	2.99
205 Tl	12678.89	P	353.50	2.79
208 Pb	17301.11	P	136.70	0.79
209 Bi	954986.63	P	3017.00	0.32
232 Th	11577.78	P	624.10	5.39
238 U	16364.44	P	168.50	1.03

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	569830.88	2.13	567313.25	100.4	30 - 200	
45 Sc	763969.56	1.35	747194.81	102.2	30 - 200	
72 Ge	155006.67	0.38	154508.67	100.3	30 - 200	
115 In	1229847.90	0.38	1237292.50	99.4	30 - 200	
209 Bi	954986.63	0.32	942707.75	101.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\007CALI.D\007CALI.D#
Date Acquired: May 24 2005 12:42 pm
Operator:
Sample Name: CS4,SA682
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:39 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	570075.38	A	6570.00	1.15
9 Be	16866.67	P	268.50	1.59
23 Na	8016748.00	A	41610.00	0.52
26 Mg	797341.63	A	5500.00	0.69
27 Al	68986.66	P	737.50	1.07
39 K	8466076.00	A	51070.00	0.60
44 Ca	235454.20	P	605.20	0.26
45 Sc	760575.81	M	8154.00	1.07
51 V	101836.70	P	643.20	0.63
52 Cr	92788.88	P	924.20	1.00
55 Mn	120324.40	P	1623.00	1.35
57 Fe	249923.30	P	1262.00	0.50
59 Co	101294.40	P	1297.00	1.28
60 Ni	22424.44	P	90.33	0.40
65 Cu	25156.54	P	391.60	1.56
66 Zn	14618.43	P	345.80	2.37
72 Ge	155980.20	P	363.20	0.23
75 As	11125.00	P	105.40	0.95
82 Se	807.00	P	11.81	1.46
95 Mo	22414.44	P	404.60	1.81
109 Ag	62731.11	P	656.00	1.05
111 Cd	13225.35	P	457.00	3.46
115 In	1238515.00	A	12130.00	0.98
121 Sb	52391.11	P	500.00	0.95
137 Ba	19836.67	P	181.50	0.91
205 Tl	104570.00	P	951.40	0.91
208 Pb	166015.59	P	664.10	0.40
209 Bi	969068.69	M	19590.00	2.02
232 Th	82593.33	P	3333.00	4.04
238 U	162438.91	P	1396.00	0.86

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	570075.44	1.15	567313.25	100.5	30 - 200	
45 Sc	760575.75	1.07	747194.81	101.8	30 - 200	
72 Ge	155980.22	0.23	154508.67	101.0	30 - 200	
115 In	1238515.10	0.98	1237292.50	100.1	30 - 200	
209 Bi	969068.69	2.02	942707.75	102.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\008CALI.D\008CALI.D#
Date Acquired: May 24 2005 12:47 pm
Operator:
Sample Name: CS5,S677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:44 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	555304.00	A	14320.00	2.58
9 Be	167370.00	P	1182.00	0.71
23 Na	77080144.00	A	460800.00	0.60
26 Mg	7504287.00	A	25060.00	0.33
27 Al	609580.00	P	3267.00	0.54
39 K	72949472.00	A	540800.00	0.74
44 Ca	2401102.00	A	11710.00	0.49
45 Sc	751454.88	M	22470.00	2.99
51 V	1049962.00	A	5949.00	0.57
52 Cr	918285.38	A	8877.00	0.97
55 Mn	1210738.00	A	9738.00	0.80
57 Fe	2483204.00	A	3396.00	0.14
59 Co	1030895.00	A	10640.00	1.03
60 Ni	216872.20	P	1042.00	0.48
65 Cu	243762.00	P	1006.00	0.41
66 Zn	130859.70	P	1487.00	1.14
72 Ge	155884.00	P	4814.00	3.09
75 As	110842.10	P	643.00	0.58
82 Se	7076.99	P	27.09	0.38
95 Mo	226273.30	P	4173.00	1.84
109 Ag	640256.63	P	7792.00	1.22
111 Cd	128155.10	P	841.10	0.66
115 In	1194259.00	A	58810.00	4.92
121 Sb	532291.13	P	4708.00	0.88
137 Ba	199826.70	P	2685.00	1.34
205 Tl	1231461.00	A	9731.00	0.79
208 Pb	1627807.00	P	20150.00	1.24
209 Bi	928006.63	P	37740.00	4.07
232 Th	1493557.00	A	44400.00	2.97
238 U	1772568.00	A	20990.00	1.18

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	555304.00	2.58	567313.25	97.9	30 - 200	
45 Sc	751454.88	2.99	747194.81	100.6	30 - 200	
72 Ge	155884.00	3.09	154508.67	100.9	30 - 200	
115 In	1194258.80	4.92	1237292.50	96.5	30 - 200	
209 Bi	928006.63	4.07	942707.75	98.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2412a.B\009CALI.D\009CALI.D#
Date Acquired: May 24 2005 12:53 pm
Operator:
Sample Name: CS6,S678
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 24 2005 00:49 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	567137.13	A	14280.00	2.52
9 Be	336303.31	P	478.80	0.14
23 Na	154664400.00	A	936300.00	0.61
26 Mg	15161390.00	A	88390.00	0.58
27 Al	1231811.00	A	4625.00	0.38
39 K	146339500.00	A	349400.00	0.24
44 Ca	4762685.00	A	6592.00	0.14
45 Sc	782513.50	M	10660.00	1.36
51 V	2092205.00	A	4112.00	0.20
52 Cr	1836331.00	A	11090.00	0.60
55 Mn	2422112.00	A	11120.00	0.46
57 Fe	4906598.00	A	19710.00	0.40
59 Co	2073288.00	A	15450.00	0.75
60 Ni	434083.31	P	5381.00	1.24
65 Cu	491055.91	P	1912.00	0.39
66 Zn	261828.00	P	936.00	0.36
72 Ge	162155.59	P	807.00	0.50
75 As	227017.50	P	735.50	0.32
82 Se	14363.25	P	48.20	0.34
95 Mo	467794.41	P	1797.00	0.38
109 Ag	1185323.00	A	4407.00	0.37
111 Cd	259690.80	P	1557.00	0.60
115 In	1244768.00	A	5171.00	0.42
121 Sb	1102508.00	A	14020.00	1.27
137 Ba	409620.00	P	3237.00	0.79
205 Tl	2575964.00	A	15660.00	0.61
208 Pb	3347475.00	A	24790.00	0.74
209 Bi	948280.00	P	8680.00	0.92
232 Th	3534216.00	A	61380.00	1.74
238 U	3514433.00	A	24630.00	0.70

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	567137.06	2.52	567313.25	100.0	30 - 200	
45 Sc	782513.44	1.36	747194.81	104.7	30 - 200	
72 Ge	162155.55	0.50	154508.67	104.9	30 - 200	
115 In	1244767.90	0.42	1237292.50	100.6	30 - 200	
209 Bi	948279.94	0.92	942707.75	100.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2412a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 24, 2005 12:54
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e2412a.b\003calb.d\	003calb.d#	May 24 2005 12:21 pm
2	...hem\1\data\05e2412a.b\004cali.d\	004cali.d#	May 24 2005 12:26 pm
3	...hem\1\data\05e2412a.b\005cali.d\	005cali.d#	May 24 2005 12:32 pm
4	...hem\1\data\05e2412a.b\006cali.d\	006cali.d#	May 24 2005 12:37 pm
5	...hem\1\data\05e2412a.b\007cali.d\	007cali.d#	May 24 2005 12:42 pm
6	...hem\1\data\05e2412a.b\008cali.d\	008cali.d#	May 24 2005 12:47 pm
7	...hem\1\data\05e2412a.b\009cali.d\	009cali.d#	May 24 2005 12:53 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.488E-1*X +1.176E-3(blank)	---	ppb
Na	23	45	Y = 4.979E-1*X +1.802E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.875E-2*X +3.428E-2(blank)	---	ppb
Al	27	45	Y = 3.936E-1*X +4.072E-1(blank)	---	ppb
K	39	45	Y = 4.666E-1*X +7.689E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.536E-2*X +1.503E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 3.251E+0*X +6.111E-1(blank)	---	ppb
Cr	52	72	Y = 2.847E+0*X +1.212E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 3.762E+0*X +3.715E-1(blank)	---	ppb
Fe	57	72	Y = 7.630E-2*X +2.699E+0(blank)	---	ppb
Co	59	72	Y = 3.219E+0*X +3.703E-2(blank)	---	ppb
Ni	60	72	Y = 6.744E-1*X +4.027E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 7.619E-1*X +4.998E-2(blank)	---	ppb
Zn	66	72	Y = 4.038E-1*X +5.233E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.510E-1*X +2.670E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.209E-2*X +2.884E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 7.221E-1*X +1.798E-2(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.872E+0*X +2.288E-1(blank)	---	ppb
Cd	111	72	Y = 4.020E-1*X +9.657E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.216E-1*X +1.889E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.252E-2*X +6.372E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 6.758E-1*X +2.240E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 8.814E-1*X +2.139E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090010 Filename : e2412010 Injected : 24-MAY-2005 12:58
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S685, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	97.27000	ug/L	-3	10	
Antimony	100.0000	98.50000	ug/L	-2	10	
Arsenic	100.0000	98.37000	ug/L	-2	10	
Barium	100.0000	96.20000	ug/L	-4	10	
Beryllium	100.0000	97.82000	ug/L	-2	10	
Cadmium	100.0000	100.7000	ug/L	1	10	
Calcium	10000.00	9931.000	ug/L	-1	10	
Chromium	100.0000	99.54000	ug/L	0	10	
Cobalt	100.0000	98.54000	ug/L	-1	10	
Copper	100.0000	99.18000	ug/L	-1	10	
Iron	10000.00	10040.00	ug/L	0	10	
Lead	100.0000	95.30000	ug/L	-5	10	
Magnesium	10000.00	9832.000	ug/L	-2	10	
Manganese	100.0000	100.5000	ug/L	1	10	
Molybdenum	100.0000	100.3000	ug/L	0	10	
Nickel	100.0000	99.04000	ug/L	-1	10	
Potassium	10000.00	9872.000	ug/L	-1	10	
Selenium	100.0000	100.4000	ug/L	0	10	
Silver	100.0000	107.1000	ug/L	7	10	
Sodium	10000.00	9771.000	ug/L	-2	10	
Thallium	100.0000	98.72000	ug/L	-1	10	
Vanadium	100.0000	99.03000	ug/L	-1	10	
Zinc	100.0000	99.12000	ug/L	-1	10	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	573478	1.09
Scandium	747195	793861	6.25
Germanium	154509	163765	5.99
Indium	1237293	1292808	4.49
Bismuth	942708	987817	4.79

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090012 Filename : e2412012 Injected : 24-MAY-2005 13:09
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Antimony	55208090001	24-MAY-2005	0.519900	0.250000	ug/L	ib ***
Arsenic	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Barium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Calcium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Chromium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Iron	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Lead	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Magnesium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Manganese	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Nickel	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Potassium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Selenium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Sodium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Thallium	55208090001	24-MAY-2005	[0.2402]	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	ND	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090013 Filename : e2412013 Injected : 24-MAY-2005 13:15
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55208090001	24-MAY-2005	2.429000	0.250000	ug/L	
Arsenic	55208090001	24-MAY-2005	0.682200	0.500000	ug/L	
Barium	55208090001	24-MAY-2005	0.841200	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	[0.0107]	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	[0.1437]	0.250000	ug/L	
Chromium	55208090001	24-MAY-2005	1.112000	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	2.527000	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	1.667000	0.500000	ug/L	
Lead	55208090001	24-MAY-2005	1.229000	0.250000	ug/L	
Manganese	55208090001	24-MAY-2005	0.865100	0.250000	ug/L	
Nickel	55208090001	24-MAY-2005	1.499000	0.250000	ug/L	
Selenium	55208090001	24-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	[0.2404]	0.250000	ug/L	
Thallium	55208090001	24-MAY-2005	1.403000	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	[0.1327]	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	3.803000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55208090001	24-MAY-2005	100000	89630	ug/L	90
Calcium	55208090001	24-MAY-2005	300000	289000	ug/L	96
Iron	55208090001	24-MAY-2005	250000	223400	ug/L	89
Magnesium	55208090001	24-MAY-2005	100000	94930	ug/L	95
Molybdenum	55208090001	24-MAY-2005	2000	1913	ug/L	96
Potassium	55208090001	24-MAY-2005	100000	95620	ug/L	96
Sodium	55208090001	24-MAY-2005	250000	225600	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090014 Filename : e2412014 Injected : 24-MAY-2005 13:21
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	89820.00	ug/L	-10		
Arsenic	100.0000	99.08000	ug/L	-1	20	
Cadmium	100.0000	93.89000	ug/L	-6	20	
Calcium	300000.0	292400.0	ug/L	-3		
Chromium	200.0000	184.8000	ug/L	-8	20	
Cobalt	200.0000	180.1000	ug/L	-10	20	
Copper	200.0000	174.6000	ug/L	-13	20	
Iron	250000.0	223500.0	ug/L	-11		
Magnesium	100000.0	94710.00	ug/L	-5		
Manganese	200.0000	185.0000	ug/L	-8	20	
Molybdenum	2000.000	1947.000	ug/L	-3		
Nickel	200.0000	176.9000	ug/L	-12	20	
Potassium	100000.0	96360.00	ug/L	-4		
Selenium	100.0000	92.57000	ug/L	-7	20	
Silver	50.00000	49.15000	ug/L	-2	20	
Sodium	250000.0	225200.0	ug/L	-10		
Vanadium	200.0000	188.9000	ug/L	-6	20	
Zinc	100.0000	87.82000	ug/L	-12	20	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Scandium	747195	696334	-6.81
Germanium	154509	152475	-1.32

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55208090025 Filename : e2412025 Injected : 24-MAY-2005 14:26
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7424	0.3821	150.0000	144.6000	ug/L	-4	10	
Antimony	0.2367	0.2103	150.0000	142.2000	ug/L	-5	10	
Arsenic	0.3611	0.3338	150.0000	142.6000	ug/L	-5	10	
Barium	0.0932	0.0805	150.0000	146.3000	ug/L	-2	10	
Beryllium	0.1564	0.1484	150.0000	149.6000	ug/L	0	10	
Cadmium	0.5271	0.3878	150.0000	144.5000	ug/L	-4	10	
Calcium	0.0166	0.0148	15000.00	14490.00	ug/L	-3	10	
Chromium	3.6553	2.7448	150.0000	144.2000	ug/L	-4	10	
Cobalt	3.3629	3.0819	150.0000	143.6000	ug/L	-4	10	
Copper	0.8688	0.7285	150.0000	143.4000	ug/L	-4	10	
Iron	0.0956	0.0743	15000.00	14570.00	ug/L	-3	10	
Lead	0.9257	0.8490	150.0000	144.5000	ug/L	-4	10	
Magnesium	0.0513	0.0453	15000.00	13940.00	ug/L	-7	10	
Manganese	4.4363	3.6359	150.0000	144.9000	ug/L	-3	10	
Molybdenum	0.7266	0.6741	150.0000	140.0000	ug/L	-7	10	
Nickel	0.8680	0.6457	150.0000	143.5000	ug/L	-4	10	
Potassium	0.9495	0.4485	15000.00	14250.00	ug/L	-5	10	
Selenium	0.0405	0.0210	150.0000	141.5000	ug/L	-6	10	
Silver	2.1457	1.9139	150.0000	153.3000	ug/L	2	10	
Sodium	0.5525	0.4748	15000.00	14300.00	ug/L	-5	10	
Thallium	0.6514	0.6559	150.0000	145.6000	ug/L	-3	10	
Vanadium	3.6464	3.1377	150.0000	144.6000	ug/L	-4	10	
Zinc	0.7204	0.3862	150.0000	142.1000	ug/L	-5	10	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	487196	-14.12
Scandium	747195	690709	-7.56
Germanium	154509	146180	-5.39
Indium	1237293	1133099	-8.42
Bismuth	942708	893434	-5.23

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Instid : MET05 Run Name :
Seqnum : 55208090027 Filename : e2412027 Injected : 24-MAY-2005 14:38
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Antimony	55208090001	24-MAY-2005	0.361900	0.250000	ug/L	ib ***
Arsenic	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Barium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Calcium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Chromium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Iron	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Lead	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Magnesium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Manganese	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Nickel	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Potassium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Selenium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Sodium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Thallium	55208090001	24-MAY-2005	[0.1708]	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	ND	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090028 Filename : e2412028 Injected : 24-MAY-2005 14:44
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55208090001	24-MAY-2005	2.365000	0.250000	ug/L	
Arsenic	55208090001	24-MAY-2005	0.790700	0.500000	ug/L	
Barium	55208090001	24-MAY-2005	0.912600	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	[0.0137]	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	[0.1227]	0.250000	ug/L	
Chromium	55208090001	24-MAY-2005	1.145000	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	2.499000	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	1.641000	0.500000	ug/L	
Lead	55208090001	24-MAY-2005	1.234000	0.250000	ug/L	
Manganese	55208090001	24-MAY-2005	0.939000	0.250000	ug/L	
Nickel	55208090001	24-MAY-2005	1.545000	0.250000	ug/L	
Selenium	55208090001	24-MAY-2005	[0.0000]	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	[0.1488]	0.250000	ug/L	
Thallium	55208090001	24-MAY-2005	1.005000	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	[0.1611]	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	3.779000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55208090001	24-MAY-2005	100000	86810	ug/L	87
Calcium	55208090001	24-MAY-2005	300000	286100	ug/L	95
Iron	55208090001	24-MAY-2005	250000	218900	ug/L	88
Magnesium	55208090001	24-MAY-2005	100000	91260	ug/L	91
Molybdenum	55208090001	24-MAY-2005	2000	1758	ug/L	88
Potassium	55208090001	24-MAY-2005	100000	92650	ug/L	93
Sodium	55208090001	24-MAY-2005	250000	225200	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090029 Filename : e2412029 Injected : 24-MAY-2005 14:50
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	86870.00	ug/L	-13		
Arsenic	100.0000	96.91000	ug/L	-3	20	
Cadmium	100.0000	83.92000	ug/L	-16	20	
Calcium	300000.0	287900.0	ug/L	-4		
Chromium	200.0000	182.5000	ug/L	-9	20	
Cobalt	200.0000	180.6000	ug/L	-10	20	
Copper	200.0000	172.7000	ug/L	-14	20	
Iron	250000.0	221100.0	ug/L	-12		
Magnesium	100000.0	92080.00	ug/L	-8		
Manganese	200.0000	182.7000	ug/L	-9	20	
Molybdenum	2000.000	1741.000	ug/L	-13		
Nickel	200.0000	175.5000	ug/L	-12	20	
Potassium	100000.0	92240.00	ug/L	-8		
Selenium	100.0000	87.47000	ug/L	-13	20	
Silver	50.00000	44.68000	ug/L	-11	20	
Sodium	250000.0	227000.0	ug/L	-9		
Vanadium	200.0000	186.7000	ug/L	-7	20	
Zinc	100.0000	85.24000	ug/L	-15	20	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Scandium	747195	611282	-18.19
Germanium	154509	136992	-11.34

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55208090039 Filename : e2412039 Injected : 24-MAY-2005 15:49
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7424	0.3871	150.0000	146.5000	ug/L	-2	10	
Antimony	0.2367	0.2088	150.0000	141.2000	ug/L	-6	10	
Arsenic	0.3611	0.3329	150.0000	142.2000	ug/L	-5	10	
Barium	0.0932	0.0799	150.0000	145.2000	ug/L	-3	10	
Beryllium	0.1564	0.1458	150.0000	147.0000	ug/L	-2	10	
Cadmium	0.5271	0.3642	150.0000	135.7000	ug/L	-10	10	
Calcium	0.0166	0.0149	15000.00	14510.00	ug/L	-3	10	
Chromium	3.6553	2.7196	150.0000	142.9000	ug/L	-5	10	
Cobalt	3.3629	3.0766	150.0000	143.4000	ug/L	-4	10	
Copper	0.8688	0.7248	150.0000	142.6000	ug/L	-5	10	
Iron	0.0956	0.0732	15000.00	14350.00	ug/L	-4	10	
Lead	0.9257	0.8470	150.0000	144.1000	ug/L	-4	10	
Magnesium	0.0513	0.0451	15000.00	13880.00	ug/L	-7	10	
Manganese	4.4363	3.5907	150.0000	143.1000	ug/L	-5	10	
Molybdenum	0.7266	0.6483	150.0000	134.7000	ug/L	-10	10	
Nickel	0.8680	0.6454	150.0000	143.5000	ug/L	-4	10	
Potassium	0.9495	0.4464	15000.00	14180.00	ug/L	-5	10	
Selenium	0.0405	0.0207	150.0000	139.0000	ug/L	-7	10	
Silver	2.1457	1.8056	150.0000	144.6000	ug/L	-4	10	
Sodium	0.5525	0.4693	15000.00	14130.00	ug/L	-6	10	
Thallium	0.6514	0.6583	150.0000	146.1000	ug/L	-3	10	
Vanadium	3.6464	3.1250	150.0000	144.0000	ug/L	-4	10	
Zinc	0.7204	0.3833	150.0000	141.1000	ug/L	-6	10	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	480808	-15.25
Scandium	747195	699046	-6.44
Germanium	154509	148575	-3.84
Indium	1237293	1094825	-11.51
Bismuth	942708	834844	-11.44

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Instid : MET05 Run Name :
Seqnum : 55208090044 Filename : e2412044 Injected : 24-MAY-2005 16:19
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Antimony	55208090001	24-MAY-2005	[0.1779]	0.250000	ug/L	
Arsenic	55208090001	24-MAY-2005	0.785700	0.500000	ug/L	ib ***
Barium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Calcium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Chromium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Iron	55208090001	24-MAY-2005	[7.1330]	50.00000	ug/L	
Lead	55208090001	24-MAY-2005	[0.0503]	0.250000	ug/L	
Magnesium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Manganese	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Nickel	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Potassium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Selenium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Sodium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Thallium	55208090001	24-MAY-2005	[0.1828]	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	ND	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55208090051 Filename : e2412051 Injected : 24-MAY-2005 17:01
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7424	0.3838	150.0000	145.2000	ug/L	-3	10	
Antimony	0.2367	0.2102	150.0000	142.2000	ug/L	-5	10	
Arsenic	0.3611	0.3445	150.0000	147.2000	ug/L	-2	10	
Barium	0.0932	0.0831	150.0000	150.9000	ug/L	1	10	
Beryllium	0.1564	0.1507	150.0000	151.9000	ug/L	1	10	
Cadmium	0.5271	0.3688	150.0000	137.4000	ug/L	-8	10	
Calcium	0.0166	0.0153	15000.00	14880.00	ug/L	-1	10	
Chromium	3.6553	2.8001	150.0000	147.1000	ug/L	-2	10	
Cobalt	3.3629	3.1716	150.0000	147.8000	ug/L	-1	10	
Copper	0.8688	0.7485	150.0000	147.3000	ug/L	-2	10	
Iron	0.0956	0.0749	15000.00	14690.00	ug/L	-2	10	
Lead	0.9257	0.8688	150.0000	147.8000	ug/L	-1	10	
Magnesium	0.0513	0.0470	15000.00	14450.00	ug/L	-4	10	
Manganese	4.4363	3.7073	150.0000	147.7000	ug/L	-2	10	
Molybdenum	0.7266	0.6591	150.0000	136.9000	ug/L	-9	10	
Nickel	0.8680	0.6630	150.0000	147.4000	ug/L	-2	10	
Potassium	0.9495	0.4580	15000.00	14560.00	ug/L	-3	10	
Selenium	0.0405	0.0215	150.0000	145.0000	ug/L	-3	10	
Silver	2.1457	1.8238	150.0000	146.0000	ug/L	-3	10	
Sodium	0.5525	0.4894	15000.00	14740.00	ug/L	-2	10	
Thallium	0.6514	0.6775	150.0000	150.3000	ug/L	0	10	
Vanadium	3.6464	3.2179	150.0000	148.3000	ug/L	-1	10	
Zinc	0.7204	0.3941	150.0000	145.1000	ug/L	-3	10	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	508233	-10.41
Scandium	747195	724504	-3.04
Germanium	154509	154335	-0.11
Indium	1237293	1113608	-10.00
Bismuth	942708	868420	-7.88

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Instid : MET05 Run Name :
Seqnum : 55208090053 Filename : e2412053 Injected : 24-MAY-2005 17:15
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55208090001	24-MAY-2005	[0.7162]	50.00000	ug/L	
Antimony	55208090001	24-MAY-2005	0.440000	0.250000	ug/L	ib ***
Arsenic	55208090001	24-MAY-2005	0.745800	0.500000	ug/L	ib ***
Barium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Calcium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Chromium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Iron	55208090001	24-MAY-2005	[8.5550]	50.00000	ug/L	
Lead	55208090001	24-MAY-2005	[0.0609]	0.250000	ug/L	
Magnesium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Manganese	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Nickel	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Potassium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Selenium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Sodium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Thallium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	ND	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090057 Filename : e2412057 Injected : 24-MAY-2005 17:38
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	87730.00	ug/L	-12		
Arsenic	100.0000	104.8000	ug/L	5	20	
Cadmium	100.0000	83.15000	ug/L	-17	20	
Calcium	300000.0	279400.0	ug/L	-7		
Chromium	200.0000	195.5000	ug/L	-2	20	
Cobalt	200.0000	194.7000	ug/L	-3	20	
Copper	200.0000	185.9000	ug/L	-7	20	
Iron	250000.0	213600.0	ug/L	-15		
Magnesium	100000.0	92540.00	ug/L	-7		
Manganese	200.0000	196.3000	ug/L	-2	20	
Molybdenum	2000.000	1622.000	ug/L	-19		
Nickel	200.0000	190.2000	ug/L	-5	20	
Potassium	100000.0	90310.00	ug/L	-10		
Selenium	100.0000	93.11000	ug/L	-7	20	
Silver	50.00000	44.16000	ug/L	-12	20	
Sodium	250000.0	227900.0	ug/L	-9		
Vanadium	200.0000	200.4000	ug/L	0	20	
Zinc	100.0000	91.67000	ug/L	-8	20	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Scandium	747195	636458	-14.82
Germanium	154509	143770	-6.95

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55208090066 Filename : e2412066 Injected : 24-MAY-2005 18:31
Calnum : 55208090001 Caldate : 24-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	0.7424	0.5771	150.0000	218.9000	ug/L	**46**	10	>LR c+ ***
Antimony	0.2367	0.2336	150.0000	158.0000	ug/L	5	10	
Arsenic	0.3611	0.3748	150.0000	160.1000	ug/L	7	10	
Barium	0.0932	0.0933	150.0000	169.6000	ug/L	**13**	10	c+ ***
Beryllium	0.1564	0.1762	150.0000	177.7000	ug/L	**18**	10	c+ ***
Cadmium	0.5271	0.3856	150.0000	143.6000	ug/L	-4	10	
Calcium	0.0166	0.0168	15000.00	16420.00	ug/L	9	10	
Chromium	3.6553	3.0438	150.0000	159.9000	ug/L	7	10	
Cobalt	3.3629	3.4518	150.0000	160.9000	ug/L	7	10	
Copper	0.8688	0.8089	150.0000	159.2000	ug/L	6	10	
Iron	0.0956	0.0826	15000.00	16210.00	ug/L	8	10	
Lead	0.9257	0.9557	150.0000	162.6000	ug/L	8	10	
Magnesium	0.0513	0.0522	15000.00	16060.00	ug/L	7	10	
Manganese	4.4363	4.0271	150.0000	160.5000	ug/L	7	10	
Molybdenum	0.7266	0.6945	150.0000	144.3000	ug/L	-4	10	
Nickel	0.8680	0.7251	150.0000	161.2000	ug/L	7	10	
Potassium	0.9495	0.4906	15000.00	15610.00	ug/L	4	10	
Selenium	0.0405	0.0228	150.0000	153.5000	ug/L	2	10	
Silver	2.1457	1.9217	150.0000	153.9000	ug/L	3	10	
Sodium	0.5525	0.5607	15000.00	16890.00	ug/L	**13**	10	c+ ***
Thallium	0.6514	0.7399	150.0000	164.2000	ug/L	9	10	
Vanadium	3.6464	3.4928	150.0000	161.0000	ug/L	7	10	
Zinc	0.7204	0.4283	150.0000	157.8000	ug/L	5	10	

ISTD (ICALBLK=e2412003)	ICALBLK Abund	Abund	%Diff
Lithium	567313	442496	-22.00
Scandium	747195	637629	-14.66
Germanium	154509	139827	-9.50
Indium	1237293	963040	-22.17
Bismuth	942708	792942	-15.89

+=high bias >LR=overrange c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090069 Filename : e2412069 Injected : 24-MAY-2005 18:49
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55208090001	24-MAY-2005	[1.0560]	50.00000	ug/L	
Antimony	55208090001	24-MAY-2005	[0.2233]	0.250000	ug/L	
Arsenic	55208090001	24-MAY-2005	0.674900	0.500000	ug/L	ib ***
Barium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Calcium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Chromium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Iron	55208090001	24-MAY-2005	[12.750]	50.00000	ug/L	
Lead	55208090001	24-MAY-2005	[0.0624]	0.250000	ug/L	
Magnesium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Manganese	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Nickel	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Potassium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Selenium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	ND	0.250000	ug/L	
Sodium	55208090001	24-MAY-2005	ND	50.00000	ug/L	
Thallium	55208090001	24-MAY-2005	ND	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	ND	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank
Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55208090071 Filename : e2412071 Injected : 24-MAY-2005 19:00
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55208090001	24-MAY-2005	2.317000	0.250000	ug/L	
Arsenic	55208090001	24-MAY-2005	0.855100	0.500000	ug/L	
Barium	55208090001	24-MAY-2005	1.038000	0.250000	ug/L	
Beryllium	55208090001	24-MAY-2005	[0.0151]	0.250000	ug/L	
Cadmium	55208090001	24-MAY-2005	[0.0407]	0.250000	ug/L	
Chromium	55208090001	24-MAY-2005	1.146000	0.500000	ug/L	
Cobalt	55208090001	24-MAY-2005	2.433000	0.250000	ug/L	
Copper	55208090001	24-MAY-2005	1.637000	0.500000	ug/L	
Lead	55208090001	24-MAY-2005	1.207000	0.250000	ug/L	
Manganese	55208090001	24-MAY-2005	1.016000	0.250000	ug/L	
Nickel	55208090001	24-MAY-2005	1.686000	0.250000	ug/L	
Selenium	55208090001	24-MAY-2005	[0.0179]	0.500000	ug/L	
Silver	55208090001	24-MAY-2005	[0.0414]	0.250000	ug/L	
Thallium	55208090001	24-MAY-2005	[0.1647]	0.500000	ug/L	
Vanadium	55208090001	24-MAY-2005	[0.2302]	1.000000	ug/L	
Zinc	55208090001	24-MAY-2005	3.568000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55208090001	24-MAY-2005	100000	87790	ug/L	88
Calcium	55208090001	24-MAY-2005	300000	276800	ug/L	92
Iron	55208090001	24-MAY-2005	250000	213600	ug/L	85
Magnesium	55208090001	24-MAY-2005	100000	93120	ug/L	93
Molybdenum	55208090001	24-MAY-2005	2000	1585	ug/L	79
Potassium	55208090001	24-MAY-2005	100000	88320	ug/L	88
Sodium	55208090001	24-MAY-2005	250000	235600	ug/L	94

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55209576 Instrument: MET05 Agilent ICP-MS Begun: 25-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e2512001	TUN	TUNE			25-MAY-2005 12:56	689.0	1.0					
003	e2512003	ICALBLK	std-blk			25-MAY-2005 13:07	1.0	1.0				1	
004	e2512004	ICAL	CS1			25-MAY-2005 13:12	1.0	1.0				2	
005	e2512005	ICAL	CS2			25-MAY-2005 13:17	1.0	1.0				3	
006	e2512006	ICAL	CS3			25-MAY-2005 13:23	1.0	1.0				4	
007	e2512007	ICAL	CS4			25-MAY-2005 13:28	1.0	1.0				5	
008	e2512008	ICAL	CS5			25-MAY-2005 13:33	1.0	1.0				6	
009	e2512009	ICAL	CS6			25-MAY-2005 13:38	1.0	1.0				7	
010	e2512010	ICV				25-MAY-2005 13:43	1.0	1.0			1	8 1	
012	e2512012	ICB				25-MAY-2005 13:55	1.0	1.0	1		1	1	
013	e2512013	ICSA				25-MAY-2005 14:01	1.0	1.0			1	9 1	7:CA=295600
014	e2512014	ICSAB				25-MAY-2005 14:07	1.0	1.0			1	10 1	7:CA=293300
016	e2512016	MSS	179564-001	102304	Soil	25-MAY-2005 14:18	50.0	44.25	1		1	1	1:AL=1887.40
017	e2512017	MS	QC294829	102304	Soil	25-MAY-2005 14:24	50.0	45.87		1	1	1	1:AL=2400.00
018	e2512018	MSD	QC294830	102304	Soil	25-MAY-2005 14:30	50.0	42.74			1	1	1:AL=2198.80
019	e2512019	SAMPLE	179529-013	102304	Soil	25-MAY-2005 14:36	5.0	38.46	4		1	1	7:FE=97580.0
020	e2512020	SAMPLE	179529-013	102304	Soil	25-MAY-2005 14:42	50.0	38.46			1	1	1:AL=3498.00
021	e2512021	SAMPLE	179529-016	102304	Soil	25-MAY-2005 14:47	5.0	50.0	2		1	1	6:CA=57180.0
022	e2512022	SAMPLE	179529-016	102304	Soil	25-MAY-2005 14:53	50.0	50.0			1	1	1:AL=1189.80
023	e2512023	SAMPLE	179529-018	102304	Soil	25-MAY-2005 14:59	5.0	54.35			1	1	3:FE=26020.0
025	e2512025	CCV				25-MAY-2005 15:11	1.0	1.0			1	11 1	
028	e2512028	CCB				25-MAY-2005 15:28	1.0	1.0			1	1	
029	e2512029	BLANK	QC290255	101119	Filtra	25-MAY-2005 15:34	1.0	1.0			1	1	
030	e2512030	BS	QC290256	101119	Filtra	25-MAY-2005 15:40	1.0	1.0			1	1	
031	e2512031	BSD	QC290257	101119	Filtra	25-MAY-2005 15:46	1.0	1.0			1	1	
033	e2512033	MSS	178712-002	101119	Filtra	25-MAY-2005 15:57	1.0	1.0	3		1	1	3:NA=56470.0
034	e2512034	PDS	QC294832	102304	Soil	25-MAY-2005 16:03	50.0	44.25		4	1	12 13 1	1:AL=2124.00
035	e2512035	SAMPLE	179551-002	102304	Soil	25-MAY-2005 16:09	5.0	39.68	6		1	1	10:FE=196020
036	e2512036	SAMPLE	179551-002	102304	Soil	25-MAY-2005 16:15	50.0	39.68			1	1	3:FE=20380.0
037	e2512037	SAMPLE	179551-008	102304	Soil	25-MAY-2005 16:21	5.0	52.08			1	1	2:AL=7860.00
038	e2512038	SAMPLE	179551-011	102304	Soil	25-MAY-2005 16:27	5.0	46.73			1	1	3:FE=20360.0

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S687 12=04SS227 13=04SS228

Analyst: _____ Date: 5/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55209576 Instrument: MET05 Agilent ICP-MS Begun: 25-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
039	e2512039	SAMPLE	179551-015	102304	Soil	25-MAY-2005 16:32	5.0	37.04	2	1	1	5:FE=143280
041	e2512041	CCV				25-MAY-2005 16:44	1.0	1.0		1	11 1	
043	e2512043	CCB				25-MAY-2005 16:56	1.0	1.0	1	1	1	
044	e2512044	ICSA				25-MAY-2005 17:02	1.0	1.0		1	9 1	7:CA=296400
045	e2512045	ICSAB				25-MAY-2005 17:07	1.0	1.0		1	10 1	7:CA=292500

193

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S687 12=04SS227 13=04SS228

Analyst: Miller Date: 8/25/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55209576001 Name: Type: (normal) Date: 25-MAY-2005 13:07 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e2512004	55209576004	CS1	25-MAY-2005 13:12	S679
2	e2512005	55209576005	CS2	25-MAY-2005 13:17	S680
3	e2512006	55209576006	CS3	25-MAY-2005 13:23	S681
4	e2512007	55209576007	CS4	25-MAY-2005 13:28	S682
5	e2512008	55209576008	CS5	25-MAY-2005 13:33	S677
6	e2512009	55209576009	CS6	25-MAY-2005 13:38	S678

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Aluminum		3.4032	1.7354	0.6103	0.5088	0.4890	BLNK	R	-4.30290	2.081712		ug/L	1.3493	1.000	0.995	
Antimony	0.4045	0.3171	0.2778	0.2448	0.2501	0.2520	BLNK	R	-0.19790	3.979854		ug/L	0.2910	1.000	0.995	
Arsenic		0.4912	0.4580	0.4376	0.4320	0.4251	BLNK	R	-0.11564	2.346209		ug/L	0.4488	1.000	0.995	
Barium	0.1229	0.1072	0.1043	0.0936	0.0938	0.0940	BLNK	R	-0.08685	10.64893		ug/L	0.1026	1.000	0.995	
Beryllium	0.1812	0.1926	0.1767	0.1759	0.1767	0.1765	BLNK	R	-0.02398	5.666388		ug/L	0.1799	1.000	0.995	
Cadmium	0.7139	0.6091	0.5214	0.4391	0.4206	0.4062	BLNK	R	-0.21237	2.447612		ug/L	0.5184	1.000	0.995	
Calcium		0.0288	0.0233	0.0185	0.0182	0.0178	BLNK	R	-33.4991	56.06338		ug/L	0.0213	1.000	0.995	
Chromium		7.0871	5.2962	3.7812	3.6164	3.4890	BLNK	R	-0.49269	0.285361		ug/L	4.6540	1.000	0.995	
Cobalt	4.2501	4.0913	3.9814	4.0082	3.9340	3.8015	BLNK	R	-0.01684	0.261235		ug/L	4.0111	1.000	0.995	
Copper		1.1168	1.1142	0.9729	0.9266	0.8987	BLNK	R	-0.11010	1.106427		ug/L	1.0058	1.000	0.995	
Iron		0.1714	0.1330	0.0987	0.0956	0.0915	BLNK	R	-44.7009	10.86057		ug/L	0.1180	1.000	0.995	
Lead	1.1800	1.1585	1.0668	1.0230	1.0236	1.0219	BLNK	R	-0.03576	0.978467		ug/L	1.0790	1.000	0.995	
Magnesium		0.0664	0.0649	0.0649	0.0615	0.0598	BLNK	R	-4.25461	16.62527		ug/L	0.0635	1.000	0.995	
Manganese	6.5494	5.6325	5.2514	4.7937	4.7335	4.5107	BLNK	R	-0.09742	0.219635		ug/L	5.2452	0.999	0.995	
Molybdenum		1.1559	0.9545	0.8405	0.8369	0.8256	BLNK	R	-0.35892	1.210552		ug/L	0.9227	1.000	0.995	
Nickel	1.2072	1.0535	0.9381	0.8707	0.8403	0.8168	BLNK	R	-0.08006	1.217735		ug/L	0.9544	1.000	0.995	
Potassium		2.0486	1.3293	0.6586	0.5820	0.5676	BLNK	R	-129.498	1.766316		ug/L	1.0372	1.000	0.995	
Selenium		0.0880	0.0601	0.0319	0.0277	0.0268	BLNK	R	-1.26670	37.34944		ug/L	0.0469	1.000	0.995	
Silver	2.2849	2.2113	2.2396	2.1650	2.1036	2.1061	BLNK	R	-0.01823	0.474955		ug/L	2.1851	1.000	0.995	
Sodium		0.7945	0.7178	0.6405	0.6305	0.6135	BLNK	R	-12.8185	1.622056		ug/L	0.6794	1.000	0.995	

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55209576001 Name: Type: (normal) Date: 25-MAY-2005 13:07 Inj Vol (uL): 1

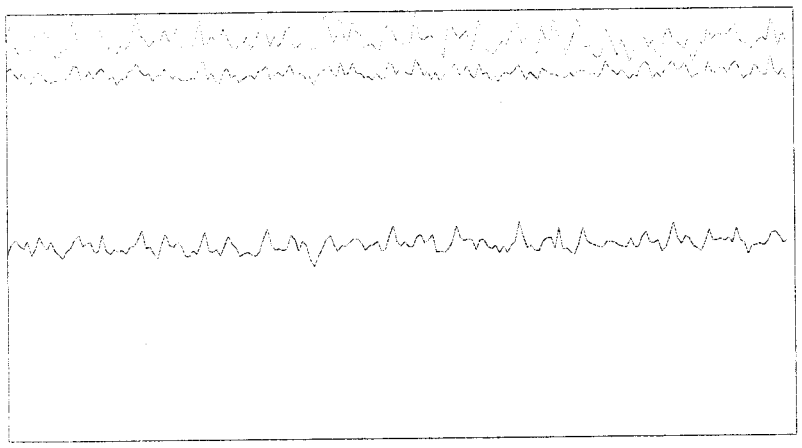
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.8186	0.7989	0.7634	0.8113	0.7900	BLNK	R	-0.05976	1.259568		ug/L	0.7965	1.000	0.995	
Vanadium		5.9533	4.8185	4.1573	4.1406	4.0408	BLNK	R	-0.18042	0.246524		ug/L	4.6221	1.000	0.995	
Zinc		1.8637	1.4400	0.5748	0.4853	0.4684	BLNK	R	-1.40817	2.137143		ug/L	0.9664	1.000	0.995	

195

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



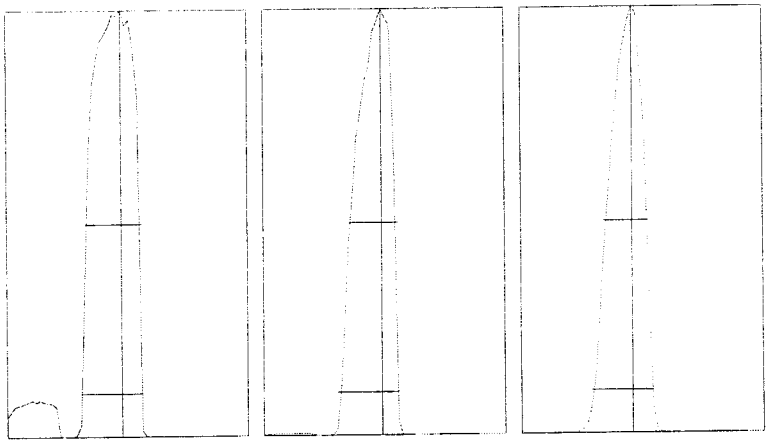
m/z:	7	89	205
Range:	50,000	50,000	50,000
Count:	22,781	41,538	46,043
Mean:	22729.2	42727.7	46623.9
RSD%:	3.65	1.50	2.57
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.65%
Doubly Charged:	70/140	1.41%

Background:

m/z:	7	89	205
Cps:	28.7	28.8	39.6



m/z:	7	89	205
Height:	23,003	42,660	55,865
Axis:	6.95	89.00	204.90
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1250 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.05 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 25, 2005 11:13:53
Printed : May 25, 2005 11:14:02

P/A Factor Tuning Report

Acquired:May 25 2005 11:26 am

Mass[amu]	Element	P/A Factor
6	Li	0.060433
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.084642
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096821
45	Sc	0.091909
51	V	0.095976
52	Cr	0.097958
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099691
57	Fe	0.102291
59	Co	0.102540
60	Ni	Sensitivity too low
63	Cu	0.104629
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103141
95	Mo	Sensitivity too low
98	Mo	0.101465
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110161
111	Cd	Sensitivity too low
114	Cd	0.107854
115	In	0.110230
118	(In)	0.109381
121	Sb	0.108633
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114542
166	Er	Sensitivity too low

205	Tl	0.120996
206	(Pb)	0.116295
207	(Pb)	Sensitivity too low
208	Pb	0.119544
209	Bi	0.118363
232	Th	0.121120
238	U	0.121170

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 25 2005 11:32 am

Mass[amu]	Element	P/A Factor
6	Li	0.060656
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085000
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096431
45	Sc	0.092211
51	V	0.095643
52	Cr	0.097604
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099351
57	Fe	0.102024
59	Co	0.102314
60	Ni	Sensitivity too low
63	Cu	0.104084
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103385
95	Mo	Sensitivity too low
98	Mo	0.100814
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109560
111	Cd	Sensitivity too low
114	Cd	0.107854
115	In	0.110336
118	(In)	0.108262
121	Sb	0.108137
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114668
166	Er	Sensitivity too low

205	Tl	0.120574
206	(Pb)	0.116295
207	(Pb)	Sensitivity too low
208	Pb	0.119387
209	Bi	0.118880
232	Th	0.120709
238	U	0.120758

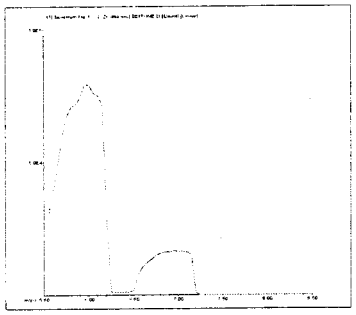
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

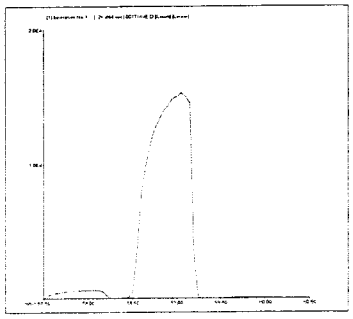
Data File: C:\ICPCHEM\1\DATA\05E2512a.B\001TUNE.D
Date Acquired: May 25 2005 12:56 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUNE,689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

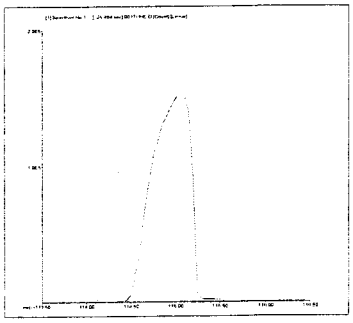
Element	Actual	Required	Flag
7 Li	0.85	5.00	
59 Co	0.60	5.00	
115 In	0.69	5.00	
205 Tl	1.83	5.00	



7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



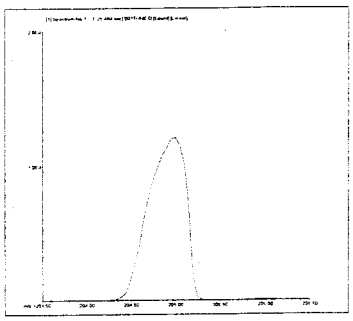
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 25 2005 01:01 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 25 2005 00:25 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.004068	ppb	218.24	0.004068	1.00	
23 Na	19.56	ppb	7.92	19.56	1.00	
26 Mg	7.224	ppb	7.68	7.224	1.00	
27 Al	6.751	ppb	7.72	6.751	1.00	
39 K	-41.92	ppb	3.92	-41.92	1.00	
44 Ca	8.872	ppb	19.84	8.872	1.00	
51 V	0.08438	ppb	44.31	0.08438	1.00	
52 Cr	-0.02046	ppb	43.57	-0.02046	1.00	
55 Mn	0.005601	ppb	34.53	0.005601	1.00	
57 Fe	14.34	ppb	4.56	14.34	1.00	
59 Co	0.01031	ppb	17.97	0.01031	1.00	
60 Ni	-0.007304	ppb	145.13	-0.007304	1.00	
65 Cu	-0.01475	ppb	81.90	-0.01475	1.00	
66 Zn	-0.007407	ppb	210.21	-0.007407	1.00	
75 As	-0.0282	ppb	124.65	-0.0282	1.00	
82 Se	-0.09086	ppb	186.11	-0.09086	1.00	
95 Mo	0.6421	ppb	4.90	0.6421	1.00	
109 Ag	-0.00099	ppb	192.02	-0.00099	1.00	
111 Cd	-0.07907	ppb	35.55	-0.07907	1.00	
121 Sb	-0.01564	ppb	232.99	-0.01564	1.00	
137 Ba	0.005511	ppb	169.15	0.005511	1.00	
205 Tl	-0.05527	ppb	3.13	-0.05527	1.00	
208 Pb	-0.001602	ppb	205.12	-0.001602	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	757840.00	0.68	---	#VALUE!	30 - 200	
45 Sc	1017734.10	1.05	---	#VALUE!	30 - 200	
72 Ge	186903.11	0.59	---	#VALUE!	30 - 200	

115 In	1266525.00	0.74	---	#VALUE!	30 - 200
209 Bi	772527.75	1.12	---	#VALUE!	30 - 200

ISTD Ref File : ---

5 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\003CAL
Date Acquired:	May 25 2005 01:07 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 00:25 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	748156.00	A	10440.00	1.40
9	Be	63.33	P	20.82	32.87
23	Na	158890.00	P	4648.00	2.93
26	Mg	5146.67	P	302.40	5.88
27	Al	41563.33	P	1692.00	4.07
39	K	1473842.00	A	3249.00	0.22
44	Ca	12014.45	P	384.70	3.20
45	Sc	1005212.00	A	10610.00	1.06
51	V	2673.77	P	605.90	22.66
52	Cr	6300.00	P	245.40	3.90
55	Mn	1618.89	P	18.36	1.13
57	Fe	15025.55	P	461.40	3.07
59	Co	235.56	P	34.69	14.73
60	Ni	240.00	P	8.82	3.67
65	Cu	363.31	P	35.28	9.71
66	Zn	2404.47	P	93.47	3.89
72	Ge	182503.59	P	2342.00	1.28
75	As	180.03	P	59.51	33.06
82	Se	123.79	P	2.93	2.36
95	Mo	1082.22	P	18.95	1.75
109	Ag	140.00	P	17.64	12.60
111	Cd	316.76	P	48.34	15.26
115	In	1240243.00	A	19230.00	1.55
121	Sb	1234.44	P	125.50	10.17
137	Ba	202.22	P	16.78	8.30
205	Tl	715.56	P	88.59	12.38
208	Pb	550.00	P	73.11	13.29
209	Bi	753036.63	P	15900.00	2.11
232	Th	804.44	P	73.51	9.14
238	U	137.78	P	12.62	9.16

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\004CALI.D\004CALI.D#
Date Acquired: May 25 2005 01:12 pm
Operator:
Sample Name: CS1,S679
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:09 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	751567.81	A	6741.00	0.90
9 Be	681.11	P	53.37	7.84
23 Na	439004.41	P	1639.00	0.37
26 Mg	36696.67	P	160.90	0.44
27 Al	35570.00	P	506.40	1.42
39 K	1753923.00	A	8188.00	0.47
44 Ca	20663.15	P	118.10	0.57
45 Sc	1017896.00	A	17140.00	1.68
51 V	6828.61	P	278.50	4.08
52 Cr	9640.00	P	185.00	1.92
55 Mn	6010.00	P	208.40	3.47
57 Fe	23095.55	P	336.70	1.46
59 Co	3900.00	P	47.02	1.21
60 Ni	1107.78	P	34.69	3.13
65 Cu	1266.51	P	5.77	0.46
66 Zn	3286.85	P	56.96	1.73
72 Ge	183524.41	P	669.60	0.36
75 As	628.58	P	288.50	45.90
82 Se	173.39	P	23.73	13.69
95 Mo	1357.78	P	136.80	10.08
109 Ag	2096.67	P	3.33	0.16
111 Cd	655.02	P	16.69	2.55
115 In	1254257.00	A	19620.00	1.56
121 Sb	2536.67	P	59.25	2.34
137 Ba	771.11	P	79.54	10.32
205 Tl	3428.89	P	86.69	2.53
208 Pb	4518.89	P	244.90	5.42
209 Bi	765626.63	P	12820.00	1.67
232 Th	1978.89	P	188.60	9.53
238 U	3700.00	P	63.60	1.72

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	751567.81	0.90	748156.00	100.5	30 - 200	
45 Sc	1017895.60	1.68	1005212.10	101.3	30 - 200	
72 Ge	183524.44	0.36	182503.56	100.6	30 - 200	
115 In	1254257.10	1.56	1240243.10	101.1	30 - 200	
209 Bi	765626.63	1.67	753036.63	101.7	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\005CALI.D\005CALI.D#
Date Acquired: May 25 2005 01:17 pm
Operator:
Sample Name: CS2,S680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	740625.88	A	4466.00	0.60
9 Be	1426.67	P	31.80	2.23
23 Na	798253.63	A	4808.00	0.60
26 Mg	66753.33	P	509.90	0.76
27 Al	34192.22	P	728.90	2.13
39 K	2058332.00	A	12390.00	0.60
44 Ca	28901.32	P	312.30	1.08
45 Sc	1004760.00	A	3815.00	0.38
51 V	10802.41	P	459.90	4.26
52 Cr	12858.89	P	437.90	3.41
55 Mn	10218.89	P	112.80	1.10
57 Fe	31087.78	P	494.80	1.59
59 Co	7422.22	P	180.80	2.44
60 Ni	1911.11	P	96.74	5.06
65 Cu	2026.38	P	68.39	3.38
66 Zn	3381.45	P	138.40	4.09
72 Ge	181426.91	P	1002.00	0.55
75 As	890.86	P	230.00	25.82
82 Se	159.60	P	13.53	8.48
95 Mo	2096.67	P	106.90	5.10
109 Ag	4012.22	P	91.67	2.28
111 Cd	1105.50	P	125.30	11.33
115 In	1243307.00	A	9841.00	0.79
121 Sb	3943.33	P	224.10	5.68
137 Ba	1333.33	P	37.86	2.84
205 Tl	6135.56	P	358.70	5.85
208 Pb	8668.89	P	474.50	5.47
209 Bi	749108.88	P	16530.00	2.21
232 Th	3341.11	P	93.95	2.81
238 U	6983.33	P	150.70	2.16

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	740625.94	0.60	748156.00	99.0	30 - 200	
45 Sc	1004760.10	0.38	1005212.10	100.0	30 - 200	
72 Ge	181426.89	0.55	182503.56	99.4	30 - 200	
115 In	1243306.80	0.79	1240243.10	100.2	30 - 200	
209 Bi	749108.88	2.21	753036.63	99.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\006CALI.D\006CALI.D#
Date Acquired: May 25 2005 01:23 pm
Operator:
Sample Name: CS3,S681
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	738793.13	A	15960.00	2.16
9 Be	2610.00	P	135.30	5.18
23 Na	1429482.00	A	13640.00	0.95
26 Mg	129310.00	P	1286.00	0.99
27 Al	34555.56	P	150.30	0.43
39 K	2646857.00	A	12020.00	0.45
44 Ca	46314.32	P	248.40	0.54
45 Sc	995703.13	A	10310.00	1.04
51 V	17440.20	P	323.90	1.86
52 Cr	19167.78	P	240.90	1.26
55 Mn	19006.67	P	205.50	1.08
57 Fe	48126.66	P	533.20	1.11
59 Co	14410.00	P	165.20	1.15
60 Ni	3395.55	P	128.90	3.80
65 Cu	4032.78	P	87.62	2.17
66 Zn	5211.76	P	7.69	0.15
72 Ge	180963.30	P	969.10	0.54
75 As	1657.49	P	28.46	1.72
82 Se	217.53	P	26.25	12.07
95 Mo	3454.44	P	37.17	1.08
109 Ag	8106.67	P	357.90	4.41
111 Cd	1886.99	P	50.03	2.65
115 In	1228251.00	A	24640.00	2.01
121 Sb	6823.33	P	110.20	1.62
137 Ba	2560.00	P	44.10	1.72
205 Tl	12070.00	P	346.20	2.87
208 Pb	16114.44	P	391.40	2.43
209 Bi	755426.63	P	22370.00	2.96
232 Th	6680.00	P	145.70	2.18
238 U	14273.33	P	403.60	2.83

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	738793.13	2.16	748156.00	98.7	30 - 200	
45 Sc	995703.06	1.04	1005212.10	99.1	30 - 200	
72 Ge	180963.33	0.54	182503.56	99.2	30 - 200	
115 In	1228251.30	2.01	1240243.10	99.0	30 - 200	
209 Bi	755426.63	2.96	753036.63	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\007CALI.D\007CALI.D#
Date Acquired:	May 25 2005 01:28 pm
Operator:	
Sample Name:	CS4,S682
Misc Info:	
Vial Number:	1105
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 01:25 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	740608.81	A	6553.00	0.88
9 Be	26052.22	P	354.90	1.36
23 Na	12913330.00	A	161000.00	1.25
26 Mg	1309198.00	A	6906.00	0.53
27 Al	123040.00	P	1081.00	0.88
39 K	13277870.00	A	26000.00	0.20
44 Ca	373536.50	P	2763.00	0.74
45 Sc	1008174.00	A	14060.00	1.39
51 V	151026.41	P	864.20	0.57
52 Cr	137364.41	P	740.10	0.54
55 Mn	174146.70	P	1616.00	0.93
57 Fe	358664.41	P	3192.00	0.89
59 Co	145611.09	P	1037.00	0.71
60 Ni	31633.33	P	338.80	1.07
65 Cu	35341.02	P	467.60	1.32
66 Zn	20880.99	P	307.80	1.47
72 Ge	181642.41	P	1104.00	0.61
75 As	15896.61	P	135.50	0.85
82 Se	1158.50	P	25.63	2.21
95 Mo	30532.22	P	117.60	0.39
109 Ag	78654.44	P	1609.00	2.05
111 Cd	15951.50	P	21.31	0.13
115 In	1233473.00	A	11010.00	0.89
121 Sb	60385.55	P	1058.00	1.75
137 Ba	23091.11	P	372.80	1.61
205 Tl	116472.20	P	2900.00	2.49
208 Pb	156063.30	P	2562.00	1.64
209 Bi	762734.38	P	9251.00	1.21
232 Th	72025.55	P	1783.00	2.48
238 U	144617.80	P	3298.00	2.28

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	740608.75	0.88	748156.00	99.0	30 - 200	
45 Sc	1008173.60	1.39	1005212.10	100.3	30 - 200	
72 Ge	181642.44	0.61	182503.56	99.5	30 - 200	
115 In	1233472.50	0.89	1240243.10	99.5	30 - 200	
209 Bi	762734.38	1.21	753036.63	101.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\008CALI.D\008CALI.D#
Date Acquired: May 25 2005 01:33 pm
Operator:
Sample Name: CS5,S677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:31 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	734378.19	A	4779.00	0.65
9 Be	259560.00	P	1915.00	0.74
23 Na	126036700.00	A	1493000.00	1.18
26 Mg	12294120.00	A	96910.00	0.79
27 Al	1017091.00	A	6110.00	0.60
39 K	116345500.00	A	459100.00	0.39
44 Ca	3639700.00	A	31200.00	0.86
45 Sc	999532.38	A	8682.00	0.87
51 V	1509991.00	A	6402.00	0.42
52 Cr	1318825.00	A	7185.00	0.54
55 Mn	1726211.00	A	16640.00	0.96
57 Fe	3484543.00	A	26050.00	0.75
59 Co	1434664.00	A	18330.00	1.28
60 Ni	306435.50	P	3583.00	1.17
65 Cu	337911.41	P	2850.00	0.84
66 Zn	176982.59	P	1979.00	1.12
72 Ge	182338.00	P	722.00	0.40
75 As	157526.59	P	905.70	0.57
82 Se	10098.70	P	56.19	0.56
95 Mo	305190.00	P	4671.00	1.53
109 Ag	767167.69	P	12880.00	1.68
111 Cd	153376.91	P	3273.00	2.13
115 In	1191345.00	A	16610.00	1.39
121 Sb	595848.88	P	10950.00	1.84
137 Ba	223521.09	P	5003.00	2.24
205 Tl	1195564.00	A	16140.00	1.35
208 Pb	1508667.00	P	26910.00	1.78
209 Bi	737016.63	P	16910.00	2.29
232 Th	1263054.00	A	53280.00	4.22
238 U	1511738.00	A	24550.00	1.62

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	734378.19	0.65	748156.00	98.2	30 - 200	
45 Sc	999532.38	0.87	1005212.10	99.4	30 - 200	
72 Ge	182338.00	0.40	182503.56	99.9	30 - 200	
115 In	1191344.90	1.39	1240243.10	96.1	30 - 200	
209 Bi	737016.63	2.29	753036.63	97.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\009CALI.D\009CALI.D#
Date Acquired: May 25 2005 01:38 pm
Operator:
Sample Name: CS6,S678
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	723236.38	A	8194.00	1.13
9 Be	510422.19	P	1257.00	0.25
23 Na	242190590.00	A	320400.00	0.13
26 Mg	23612650.00	A	75840.00	0.32
27 Al	1930208.00	A	9316.00	0.48
39 K	224056300.00	A	2225000.00	0.99
44 Ca	7022103.00	A	78420.00	1.12
45 Sc	986902.63	A	8251.00	0.84
51 V	2928098.00	A	18160.00	0.62
52 Cr	2528229.00	A	12200.00	0.48
55 Mn	3268633.00	A	22980.00	0.70
57 Fe	6631228.00	A	37000.00	0.56
59 Co	2754735.00	A	14550.00	0.53
60 Ni	591887.69	P	863.80	0.15
65 Cu	651245.88	P	8016.00	1.23
66 Zn	339422.50	P	2680.00	0.79
72 Ge	181161.09	P	816.00	0.45
75 As	308073.09	P	1460.00	0.47
82 Se	19416.62	P	160.30	0.83
95 Mo	598301.13	P	7358.00	1.23
109 Ag	1526109.00	A	17990.00	1.18
111 Cd	294324.19	P	3739.00	1.27
115 In	1162714.00	A	15450.00	1.33
121 Sb	1171910.00	A	21990.00	1.88
137 Ba	437156.59	P	6555.00	1.50
205 Tl	2310206.00	A	45630.00	1.98
208 Pb	2988340.00	A	66520.00	2.23
209 Bi	731048.88	P	13850.00	1.89
232 Th	2991696.00	A	68200.00	2.28
238 U	2940020.00	A	59320.00	2.02

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	723236.38	1.13	748156.00	96.7	30 - 200	
45 Sc	986902.56	0.84	1005212.10	98.2	30 - 200	
72 Ge	181161.11	0.45	182503.56	99.3	30 - 200	
115 In	1162714.10	1.33	1240243.10	93.7	30 - 200	
209 Bi	731048.88	1.89	753036.63	97.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 25, 2005 13:40
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e2512a.b\003calb.d\	003calb.d#	May 25 2005 01:07 pm
2	...hem\1\data\05e2512a.b\004cali.d\	004cali.d#	May 25 2005 01:12 pm
3	...hem\1\data\05e2512a.b\005cali.d\	005cali.d#	May 25 2005 01:17 pm
4	...hem\1\data\05e2512a.b\006cali.d\	006cali.d#	May 25 2005 01:23 pm
5	...hem\1\data\05e2512a.b\007cali.d\	007cali.d#	May 25 2005 01:28 pm
6	...hem\1\data\05e2512a.b\008cali.d\	008cali.d#	May 25 2005 01:33 pm
7	...hem\1\data\05e2512a.b\009cali.d\	009cali.d#	May 25 2005 01:38 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.765E-1*X +4.233E-3(blank)	---	ppb
Na	23	45	Y = 6.165E-1*X +7.903E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 6.015E-2*X +2.559E-1(blank)	---	ppb
Al	27	45	Y = 4.804E-1*X +2.067E+0(blank)	---	ppb
K	39	45	Y = 5.662E-1*X +7.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.784E-2*X +5.975E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 4.056E+0*X +7.318E-1(blank)	---	ppb
Cr	52	72	Y = 3.504E+0*X +1.727E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 4.553E+0*X +4.436E-1(blank)	---	ppb
Fe	57	72	Y = 9.208E-2*X +4.116E+0(blank)	---	ppb
Co	59	72	Y = 3.828E+0*X +6.447E-2(blank)	---	ppb
Ni	60	72	Y = 8.212E-1*X +6.574E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 9.038E-1*X +9.951E-2(blank)	---	ppb
Zn	66	72	Y = 4.679E-1*X +6.589E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 4.262E-1*X +4.929E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.677E-2*X +3.391E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.261E-1*X +2.965E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.105E+0*X +3.838E-2(blank)	---	ppb
Cd	111	72	Y = 4.086E-1*X +8.677E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.513E-1*X +4.973E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 9.391E-2*X +8.155E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 7.939E-1*X +4.744E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 1.022E+0*X +3.655E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576010 Filename : e2512010 Injected : 25-MAY-2005 13:43
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S685, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	99.34000	ug/L	-1	10	
Antimony	100.0000	103.4000	ug/L	3	10	
Arsenic	100.0000	99.88000	ug/L	0	10	
Barium	100.0000	99.98000	ug/L	0	10	
Beryllium	100.0000	100.5000	ug/L	1	10	
Cadmium	100.0000	101.2000	ug/L	1	10	
Calcium	10000.00	10130.00	ug/L	1	10	
Chromium	100.0000	101.8000	ug/L	2	10	
Cobalt	100.0000	101.6000	ug/L	2	10	
Copper	100.0000	101.4000	ug/L	1	10	
Iron	10000.00	10200.00	ug/L	2	10	
Lead	100.0000	99.55000	ug/L	0	10	
Magnesium	10000.00	10050.00	ug/L	1	10	
Manganese	100.0000	102.3000	ug/L	2	10	
Molybdenum	100.0000	99.92000	ug/L	0	10	
Nickel	100.0000	101.3000	ug/L	1	10	
Potassium	10000.00	9965.000	ug/L	0	10	
Selenium	100.0000	101.6000	ug/L	2	10	
Silver	100.0000	98.81000	ug/L	-1	10	
Sodium	10000.00	10040.00	ug/L	0	10	
Thallium	100.0000	101.8000	ug/L	2	10	
Vanadium	100.0000	101.9000	ug/L	2	10	
Zinc	100.0000	101.6000	ug/L	2	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	725412	-3.04
Scandium	1005212	988897	-1.62
Germanium	182504	180343	-1.18
Indium	1240243	1170561	-5.62
Bismuth	753037	739378	-1.81

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576012 Filename : e2512012 Injected : 25-MAY-2005 13:55
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.695400	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576013 Filename : e2512013 Injected : 25-MAY-2005 14:01
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.723000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.818900	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	0.993600	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.0333]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.0756]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.392000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.757000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.832000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	1.335000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.056000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.722000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.3889]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.1924]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.1432]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.2676]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	5.088000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	91750	ug/L	92
Calcium	55209576001	25-MAY-2005	300000	295600	ug/L	99
Iron	55209576001	25-MAY-2005	250000	237300	ug/L	95
Magnesium	55209576001	25-MAY-2005	100000	96560	ug/L	97
Molybdenum	55209576001	25-MAY-2005	2000	1925	ug/L	96
Potassium	55209576001	25-MAY-2005	100000	95710	ug/L	96
Sodium	55209576001	25-MAY-2005	250000	224600	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576014 Filename : e2512014 Injected : 25-MAY-2005 14:07
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	89630.00	ug/L	-10		
Arsenic	100.0000	104.3000	ug/L	4	20	
Cadmium	100.0000	97.61000	ug/L	-2	20	
Calcium	300000.0	293300.0	ug/L	-2		
Chromium	200.0000	196.3000	ug/L	-2	20	
Cobalt	200.0000	192.1000	ug/L	-4	20	
Copper	200.0000	184.7000	ug/L	-8	20	
Iron	250000.0	233100.0	ug/L	-7		
Magnesium	100000.0	94280.00	ug/L	-6		
Manganese	200.0000	196.0000	ug/L	-2	20	
Molybdenum	2000.000	1935.000	ug/L	-3		
Nickel	200.0000	188.7000	ug/L	-6	20	
Potassium	100000.0	94040.00	ug/L	-6		
Selenium	100.0000	97.19000	ug/L	-3	20	
Silver	50.00000	46.97000	ug/L	-6	20	
Sodium	250000.0	220300.0	ug/L	-12		
Vanadium	200.0000	199.1000	ug/L	0	20	
Zinc	100.0000	94.43000	ug/L	-6	20	

(ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
ndium	1005212	961590	-4.34
Germanium	182504	178156	-2.38

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576025 Filename : e2512025 Injected : 25-MAY-2005 15:11
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4786	150.0000	145.1000	ug/L	-3	10	
Antimony	0.2910	0.2464	150.0000	146.9000	ug/L	-2	10	
Arsenic	0.4488	0.4174	150.0000	146.8000	ug/L	-2	10	
Barium	0.1026	0.0933	150.0000	149.0000	ug/L	-1	10	
Beryllium	0.1799	0.1774	150.0000	150.8000	ug/L	1	10	
Cadmium	0.5184	0.4064	150.0000	149.0000	ug/L	-1	10	
Calcium	0.0213	0.0176	15000.00	14800.00	ug/L	-1	10	
Chromium	4.6540	3.4772	150.0000	148.3000	ug/L	-1	10	
Cobalt	4.0111	3.7804	150.0000	148.1000	ug/L	-1	10	
Copper	1.0058	0.9008	150.0000	149.4000	ug/L	0	10	
Iron	0.1180	0.0912	15000.00	14810.00	ug/L	-1	10	
Lead	1.0790	1.0056	150.0000	147.6000	ug/L	-2	10	
Magnesium	0.0635	0.0570	15000.00	14220.00	ug/L	-5	10	
Manganese	5.2452	4.5286	150.0000	149.1000	ug/L	-1	10	
Molybdenum	0.9227	0.8076	150.0000	146.3000	ug/L	-2	10	
Nickel	0.9544	0.8166	150.0000	149.1000	ug/L	-1	10	
Potassium	1.0372	0.5572	15000.00	14630.00	ug/L	-2	10	
Selenium	0.0469	0.0266	150.0000	147.5000	ug/L	-2	10	
Silver	2.1851	2.0224	150.0000	144.1000	ug/L	-4	10	
Sodium	0.6794	0.5933	15000.00	14420.00	ug/L	-4	10	
Thallium	0.7965	0.7834	150.0000	147.9000	ug/L	-1	10	
Vanadium	4.6221	4.0026	150.0000	147.8000	ug/L	-1	10	
Zinc	0.9664	0.4683	150.0000	148.7000	ug/L	-1	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	662586	-11.44
Scandium	1005212	954716	-5.02
Germanium	182504	175467	-3.86
Indium	1240243	1148018	-7.44
Bismuth	753037	725348	-3.68

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576028 Filename : e2512028 Injected : 25-MAY-2005 15:28
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	[0.1329]	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55209576041
Calnum : 55209576001
Standards: S687, 05WS0207

Run Name :
Filename : e2512041
Caldate : 25-MAY-2005

IDF : 1.0
Injected : 25-MAY-2005 16:44
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4769	150.0000	144.6000	ug/L	-4	10	
Antimony	0.2910	0.2479	150.0000	147.8000	ug/L	-1	10	
Arsenic	0.4488	0.4134	150.0000	145.4000	ug/L	-3	10	
Barium	0.1026	0.0953	150.0000	152.1000	ug/L	1	10	
Beryllium	0.1799	0.1779	150.0000	151.2000	ug/L	1	10	
Cadmium	0.5184	0.4013	150.0000	147.1000	ug/L	-2	10	
Calcium	0.0213	0.0178	15000.00	14970.00	ug/L	0	10	
Chromium	4.6540	3.4521	150.0000	147.3000	ug/L	-2	10	
Cobalt	4.0111	3.7867	150.0000	148.4000	ug/L	-1	10	
Copper	1.0058	0.8964	150.0000	148.7000	ug/L	-1	10	
Iron	0.1180	0.0907	15000.00	14730.00	ug/L	-2	10	
Lead	1.0790	1.0174	150.0000	149.3000	ug/L	0	10	
Magnesium	0.0635	0.0568	15000.00	14170.00	ug/L	-6	10	
Manganese	5.2452	4.4880	150.0000	147.8000	ug/L	-1	10	
Molybdenum	0.9227	0.7912	150.0000	143.3000	ug/L	-4	10	
Nickel	0.9544	0.8110	150.0000	148.1000	ug/L	-1	10	
Potassium	1.0372	0.5545	15000.00	14560.00	ug/L	-3	10	
Selenium	0.0469	0.0261	150.0000	145.1000	ug/L	-3	10	
Silver	2.1851	2.0100	150.0000	143.2000	ug/L	-5	10	
Sodium	0.6794	0.5953	15000.00	14470.00	ug/L	-4	10	
Thallium	0.7965	0.7873	150.0000	148.7000	ug/L	-1	10	
Vanadium	4.6221	3.9803	150.0000	147.0000	ug/L	-2	10	
Zinc	0.9664	0.4691	150.0000	149.0000	ug/L	-1	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	616035	-17.66
Scandium	1005212	863552	-14.09
Germanium	182504	162985	-10.69
Indium	1240243	1057626	-14.72
Bismuth	753037	711390	-5.53

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576043 Filename : e2512043 Injected : 25-MAY-2005 16:56
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.390800	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.1956]	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576044 Filename : e2512044 Injected : 25-MAY-2005 17:02
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.520000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.764700	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	1.051000	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.0289]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.1200]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.297000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.739000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.867000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	1.345000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.048000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.924000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.1453]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.1799]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.1227]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.2774]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	5.273000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	87230	ug/L	87
Calcium	55209576001	25-MAY-2005	300000	296400	ug/L	99
Iron	55209576001	25-MAY-2005	250000	232900	ug/L	93
Magnesium	55209576001	25-MAY-2005	100000	92720	ug/L	93
Molybdenum	55209576001	25-MAY-2005	2000	1836	ug/L	92
Potassium	55209576001	25-MAY-2005	100000	94200	ug/L	94
Sodium	55209576001	25-MAY-2005	250000	223400	ug/L	89

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576045 Filename : e2512045 Injected : 25-MAY-2005 17:07
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	84500.00	ug/L	-16		
Arsenic	100.0000	100.4000	ug/L	0	20	
Cadmium	100.0000	94.76000	ug/L	-5	20	
Calcium	300000.0	292500.0	ug/L	-3		
Chromium	200.0000	191.6000	ug/L	-4	20	
Cobalt	200.0000	190.0000	ug/L	-5	20	
Copper	200.0000	183.4000	ug/L	-8	20	
Iron	250000.0	229400.0	ug/L	-8		
Magnesium	100000.0	89790.00	ug/L	-10		
Manganese	200.0000	192.8000	ug/L	-4	20	
Molybdenum	2000.000	1843.000	ug/L	-8		
Nickel	200.0000	186.6000	ug/L	-7	20	
Potassium	100000.0	91940.00	ug/L	-8		
Selenium	100.0000	92.37000	ug/L	-8	20	
Silver	50.00000	45.71000	ug/L	-9	20	
Sodium	250000.0	217200.0	ug/L	-13		
Vanadium	200.0000	195.0000	ug/L	-3	20	
Zinc	100.0000	93.57000	ug/L	-6	20	

TD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
anadium	1005212	813517	-19.07
Germanium	182504	157593	-13.65

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 24-MAY-2005 ICALBLK Filename: e2412003
Sequence: 55208090 (e2412) Date Analyzed: 24-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:21

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	567313	747195	154509	1237293	942708	1623448
LOWER LIMIT	170194	224158	46353	371188	282812	487034
UPPER LIMIT	680776	896634	185410	1484752	1131249	1948138

TYPE	SAMPLE	#						
ICB		012	581860	782130	159770	1267749	962104	1669776
ICSA		013	500580	715514	155050	1167624	860281	1630329
SAMPLE	179476-008	016	482993	680777	142044	1144933	894294	1582829
SAMPLE	179532-012	017	488605	690730	142897	1167692	925496	1581255
SAMPLE	179444-006	018	473331	663171	141281	1138524	870046	1568212
SAMPLE	179444-007	019	471069	664114	139269	1108163	880026	1550120
SAMPLE	179444-008	020	469769	673630	138892	1123217	868321	1557052
SAMPLE	179394-003	021	514743	736398	154121	1191300	946168	1609726
SAMPLE	179394-009	022	513841	740024	153879	1221540	960931	1643531
SAMPLE	179476-008	023	493575	680624	144159	1163995	911824	1578922
CCV		025	487196	690709	146180	1133099	893434	1558134
CCB		027	517052	693441	146335	1169729	913100	1559447
ICSA		028	432688	640042	142533	1003307	777441	1471930
BLANK	QC294826	030	456259	644104	138741	1117873	900576	1521071
BS	QC294827	031	448186	639830	135715	1081480	844067	1477486
BSD	QC294828	032	460109	657174	139140	1092865	858106	1498549
MSS	179564-001	033	480766	752021	141715	1089235	851590	1485259
SER	QC294831	034	516086	744648	154874	1208859	936474	1605389
MS	QC294829	035	471824	748022	143300	1050145	827795	1455630
MSS	179444-009	036	485144	691760	154345	1134908	870886	1506772
MSD	QC294830	037	472025	763814	144828	1016375	810269	1426573
CCV		039	480808	699046	148575	1094825	834844	1487757
CCB		044	510715	714723	150905	1143594	883939	1502392
MS	QC294523	046	519820	736111	157685	1181006	890869	1547298
MSD	QC294524	047	514608	735892	158737	1151369	892200	1542024
CCV		051	508233	724504	154335	1113608	868420	1538570
CCB		053	528982	725669	153343	1142883	897266	1536801
BLANK	QC294826	054	524867	727244	153090	1157597	903992	1535039

230

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 24-MAY-2005 ICALBLK Filename: e2412003
Sequence: 55208090 (e2412) Date Analyzed: 24-MAY-2005
Instrument ID: MET05 Time Analyzed: 12:21

TYPE	SAMPLE	#						
PDS	QC294832	055	488043	761289	146549	1018499	790747	1416669
SAMPLE	179529-013	056	515060	870493	153781	1042103	807646	1468136
SAMPLE	179529-016	059	462330	721963	140936	1019053	807578	1442701
SAMPLE	179529-018	060	482971	727829	147785	1062414	834911	1471466
SAMPLE	179551-002	061	494794	887395	151069	991144	777411	1411650
SAMPLE	179551-008	062	461192	688933	143014	1000794	799426	1380874
SAMPLE	179551-011	063	474783	709293	144744	1011945	807256	1419015
CCV		066	442496	637629	139827	963040	792942	1375305
CCB		069	466265	639046	138169	1019518	821748	1388235

231

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-MAY-2005 ICALBLK Filename: e2512003
Sequence: 55209576 (e2512) Date Analyzed: 25-MAY-2005
Instrument ID: MET05 Time Analyzed: 13:07

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	748156	1005212	182504	1240243	753037	1456015
LOWER LIMIT	224447	301564	54751	372073	225911	436805
UPPER LIMIT	897787	1206254	219004	1488292	903644	1747218

TYPE	SAMPLE	#					
ICB		012	736154	967689	174267	1178616	739904	1415716
ICSA		013	670168	968419	176816	1097787	651898	1400320
MSS	179564-001	016	699900	985562	180518	1267973	816106	1519748
MS	QC294829	017	697274	977035	179520	1236490	792009	1494212
MSD	QC294830	018	698262	972316	177820	1234325	794336	1500540
SAMPLE	179529-013	019	683610	1199393	174141	1117904	733232	1424737
SAMPLE	179529-013	020	697455	969085	173966	1170078	755703	1428807
SAMPLE	179529-016	021	684385	1061347	174172	1152340	738398	1467350
SAMPLE	179529-016	022	692328	980160	177042	1211677	775751	1470053
SAMPLE	179529-018	023	676818	1007558	172285	1134008	728620	1410398
CCV		025	662586	954716	175467	1148018	725348	1436714
CCB		028	681809	933509	170447	1163145	729033	1397344
BLANK	QC290255	029	678912	936458	170307	1151206	730060	1400147
BS	QC290256	030	638157	912592	166709	1079258	705889	1368425
BSD	QC290257	031	653376	913004	168462	1092155	708376	1393445
MSS	178712-002	033	702966	1049832	188231	1161499	593087	1513207
PDS	QC294832	034	689132	985206	177076	1185403	769130	1457809
SAMPLE	179551-002	035	702628	1283884*	174389	1076086	707450	1413270
SAMPLE	179551-002	036	660963	953287	168826	1120814	738504	1396971
SAMPLE	179551-008	037	654903	956599	166275	1091304	734434	1391948
SAMPLE	179551-011	038	655929	968516	167134	1108271	725026	1397926
CCV		041	616035	863552	162985	1057626	711390	1367425
CCB		043	627337	869529	160353	1082935	734614	1374778

232

* = Outside QC Limits

Curtis & Tompkins Laboratories Sample Preparation Summary 23-MAY-2005 23:09

Batch Number : 102304
Date Extracted: 23-MAY-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179529-013			Erler & Kalinowski, Inc.	Soil	1.3	g	50	38.461538	1				T26/ICP		
179529-016			Erler & Kalinowski, Inc.	Soil	1	g	50	50.000000	1				T26/ICP		
179529-018			Erler & Kalinowski, Inc.	Soil	.92	g	50	54.347826	1				T26/ICP		
179551-002			Erler & Kalinowski, Inc.	Soil	1.26	g	50	39.682540	1				T26/ICP		
179551-008			Erler & Kalinowski, Inc.	Soil	.96	g	50	52.083333	1				T26/ICP		
179551-011			Erler & Kalinowski, Inc.	Soil	1.07	g	50	46.728972	1				T26/ICP		
179551-015			Erler & Kalinowski, Inc.	Soil	1.35	g	50	37.037037	1				T26/ICP		
179564-001			Mactec, Inc.	Soil	1.13	g	50	44.247788	1				T26/ICP		mss
QC294826	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC294827	BS			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC294828	BSD			Soil	1	g	50	50.000000	1	.25	.25		ICAP		
QC294829	MS	of 179564-001		Soil	1.09	g	50	45.871560	1	.25	.25		ICAP		
QC294830	MSD	of 179564-001		Soil	1.17	g	50	42.735043	1	.25	.25		ICAP		
QC294831	SER	of 179564-001		Soil	1.13	g	50	44.247788	1				ICAP		
QC294832	PDS	of 179564-001		Soil	1.13	g	50	44.247788	1				ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: _____

Relinquished By: _____ Received By: _____ Date: _____

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 102304
Date Digested: 5/23/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2133
Page 30

Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
BLKQC 294826		9	50.0	Y	
BS 294827		↓			
BSD 294828					
179564-001 MS	A	1.09			
-001 MSD		1.17			
179529-013	A	1.30			
-016		1.00			
-018		0.92			
179551-002	A	1.26			
-008		0.96			
-011		1.07			
-015		1.35			
179564-001	A	1.13			MSS

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95°C	VV 5/23/05
0.25 mL of spike solution was added to all spikes	0455227 *	
	0455228 *	
1:1 HNO3	804081-051805	
concentrated HNO3	804081- JTBaker	
3mL 30% hydrogen peroxide	1328714- VWR	
concentrated HCl	A144034- JTBaker	
☒ filtered thru' Whatman # 541	D1479357	

5/23/05
Extraction Chemist / Date

Continued from page 28
Continued on page 31

Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45209323 Instrument: MET04 HydraAA HG Analyzer Begun: 25-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102328	ICALBLK	Std01Rep1				25-MAY-2005 08:43	1.0	1.0									
002	102328	ICAL	Std02Rep1				25-MAY-2005 08:45	1.0	1.0									
003	102328	ICAL	Std03Rep1				25-MAY-2005 08:46	1.0	1.0									
004	102328	ICAL	Std04Rep1				25-MAY-2005 08:48	1.0	1.0									
005	102328	ICAL	Std05Rep1				25-MAY-2005 08:50	1.0	1.0									
006	102328	ICAL	Std06Rep1				25-MAY-2005 08:51	1.0	1.0									
007	102328	ICV					25-MAY-2005 08:53	1.0	1.0	2	5.000	45209323001	5.130		ug/L	103		
008	102328	ICB					25-MAY-2005 08:55	1.0	1.0			45209323001	ND	0.20	ug/L			
009	102328	BLANK	QC294913		102328	Soil	25-MAY-2005 08:57	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
010	102328	BS	QC294914		102328	Soil	25-MAY-2005 09:00	1.0	100.0		0.5000	45209323001	0.5390	0.020	mg/Kg	108		u
011	102328	BSD	QC294915		102328	Soil	25-MAY-2005 09:02	1.0	100.0		0.5000	45209323001	0.5420	0.020	mg/Kg	108	1	u
012	102328	MSS	179518-004		102328	Soil	25-MAY-2005 09:03	1.0	80.65			45209323001	ND	0.016	mg/Kg			u
013	102328	MS	QC294916	179518-004	102328	Soil	25-MAY-2005 09:05	1.0	84.75		0.4237	45209323001	0.4119	0.017	mg/Kg	96		u
014	102328	MSD	QC294917	179518-004	102328	Soil	25-MAY-2005 09:06	1.0	86.21		0.4310	45209323001	0.3629	0.017	mg/Kg	83	14	u
015	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 09:09	1.0	111.1			45209323001	2.1 >LR	0.022	mg/Kg			>LR cal
016	102328	SAMPLE	179467-018		102328	Soil	25-MAY-2005 09:10	1.0	74.63			45209323001	ND	0.015	mg/Kg			u
017	102328	SAMPLE	179467-019		102328	Soil	25-MAY-2005 09:12	1.0	84.75			45209323001	0.026	0.017	mg/Kg			u
018	102328	SAMPLE	179467-020		102328	Soil	25-MAY-2005 09:14	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
019	102328	CCV					25-MAY-2005 09:19	1.0	1.0	3	2.500	45209323001	2.070		ug/L	83		
020	102328	CCB					25-MAY-2005 09:21	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
021	102328	CCB					25-MAY-2005 09:29	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
022	102328	SAMPLE	179518-001		102328	Soil	25-MAY-2005 09:34	1.0	108.7			45209323001	0.030	0.022	mg/Kg			u
023	102328	SAMPLE	179518-002		102328	Soil	25-MAY-2005 09:35	1.0	92.59			45209323001	0.029	0.019	mg/Kg			u
024	102328	SAMPLE	179518-003		102328	Soil	25-MAY-2005 09:37	1.0	102.0			45209323001	0.028	0.020	mg/Kg			u
025	102328	SAMPLE	179522-001		102328	Miscel	25-MAY-2005 09:39	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
026	102328	SAMPLE	179522-002		102328	Miscel	25-MAY-2005 09:41	1.0	83.33			45209323001	ND	0.017	mg/Kg			u
027	102328	SAMPLE	179564-001		102328	Soil	25-MAY-2005 09:43	1.0	98.04			45209323001	0.051	0.020	mg/Kg			u
028	102328	SAMPLE	179597-001		102328	Soil	25-MAY-2005 09:45	1.0	90.91			45209323001	0.074	0.018	mg/Kg			u
029	102328	SAMPLE	179597-002		102328	Soil	25-MAY-2005 09:46	1.0	94.34			45209323001	0.050	0.019	mg/Kg			u
030	102328	SAMPLE	179597-003		102328	Soil	25-MAY-2005 09:48	1.0	79.37			45209323001	0.049	0.016	mg/Kg			u
031	102328	SAMPLE	179597-004		102328	Soil	25-MAY-2005 09:50	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
032	102328	CCV					25-MAY-2005 09:52	1.0	1.0	4	5.000	45209323001	4.320		ug/L	86		
033	102328	CCB					25-MAY-2005 09:54	1.0	1.0			45209323001	ND	0.20	ug/L			
034	102328	SAMPLE	179597-005		102328	Soil	25-MAY-2005 09:55	1.0	90.91			45209323001	0.33	0.018	mg/Kg			u
035	102328	SAMPLE	179597-006		102328	Soil	25-MAY-2005 09:57	1.0	113.6			45209323001	0.32	0.023	mg/Kg			u
036	102328	SAMPLE	179603-001		102328	Soil	25-MAY-2005 09:59	1.0	111.1			45209323001	0.069	0.022	mg/Kg			u
037	102328	SER	QC294918	179518-004	102328	Soil	25-MAY-2005 10:00	5.0	80.65			45209323001	ND	0.081	mg/Kg		--	u
038	102328	PDS	QC294919	179518-004	102328	Soil	25-MAY-2005 10:02	1.0	80.65	5	0.4032	45209323001	0.4863	0.016	mg/Kg	119		u
039	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 10:04	10.0	111.1			45209323001	1.3	0.22	mg/Kg			u
040	102328	CCV					25-MAY-2005 10:18	1.0	1.0	4	5.000	45209323001	4.390		ug/L	88		
041	102328	CCB					25-MAY-2005 10:20	1.0	1.0			45209323001	ND	0.20	ug/L			

Stds used: 1=S712 2=S714 3=S715 4=S716 5=S671
Flags used: >LR=overrange b=noncompliant calc=check quantitation u=use

Analyst: Andrés Marín Date: 5/25/05

235

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45209323001 Name: Type: SOIL Date: 25-MAY-2005 08:43 Inj Vol (uL): 2000

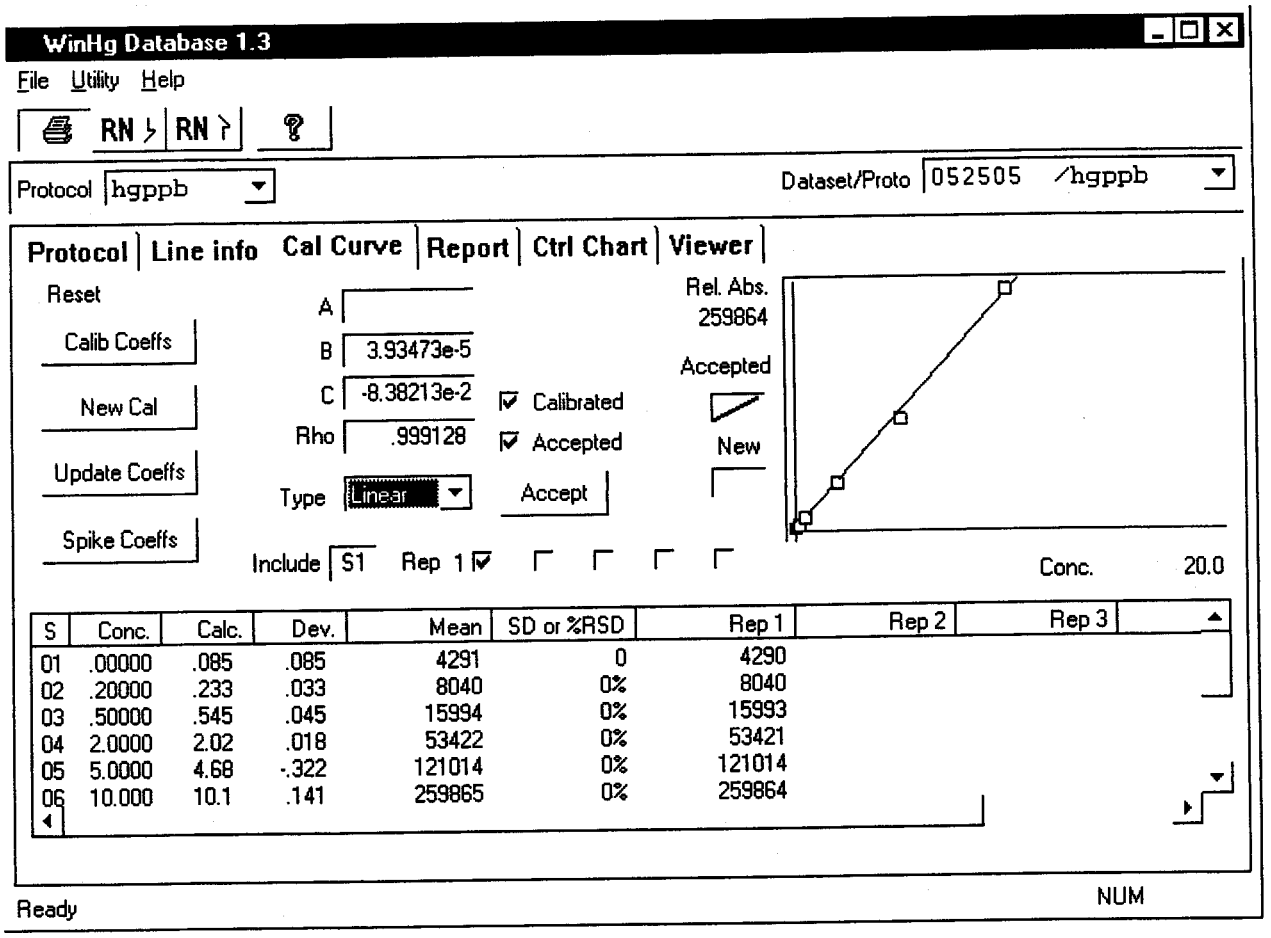
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102328	45209323002	Std02Rep1	25-MAY-2005 08:45	S712 (500X)
2	102328	45209323003	Std03Rep1	25-MAY-2005 08:46	S712 (200X)
3	102328	45209323004	Std04Rep1	25-MAY-2005 08:48	S712 (50X)
4	102328	45209323005	Std05Rep1	25-MAY-2005 08:50	S712 (20X)
5	102328	45209323006	Std06Rep1	25-MAY-2005 08:51	S712 (10X)

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Mercury	40200	31986	26711	24203	25986	LINR R	-0.08382	3.935E-5		ug/L	29817	0.998	.99	

236

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 052505 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 3.93473e-5
C -8.38213e-2
Rho .999128
Type Linear
Calibrated
Accepted
Accept
Include S1
Rep 1
Rel. Abs.
259864
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .085 .085 4291 0 4290
02 .20000 .233 .033 8040 0% 8040
03 .50000 .545 .045 15994 0% 15993
04 2.0000 2.02 .018 53422 0% 53421
05 5.0000 4.68 -.322 121014 0% 121014
06 10.000 10.1 .141 259865 0% 259864
Ready
NUM

Folder: 052505
Protocol: hgppb
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 5		08:43:16 25 May 05			HG
Hg	.000	ppb	4290						
		Bkgd 1	7855276						
*** Standard: 2 Rep: 1				Seq: 6		08:45:06 25 May 05			HG
Hg	.200	ppb	8040						
		Bkgd 1	7855760						
*** Standard: 3 Rep: 1				Seq: 7		08:46:45 25 May 05			HG
Hg	.500	ppb	15993						
		Bkgd 1	7854343						
*** Standard: 4 Rep: 1				Seq: 8		08:48:25 25 May 05			HG
Hg	2.00	ppb	53421						
		Bkgd 1	7853936						
*** Standard: 5 Rep: 1				Seq: 9		08:50:04 25 May 05			HG
Hg	5.00	ppb	121014						
		Bkgd 1	7850183						
*** Standard: 6 Rep: 1				Seq: 10		08:51:56 25 May 05			HG
Hg	10.0	ppb	259864						
		Bkgd 1	7853203						
*** Check Standard: 2			Ck2S714	Seq: 11		08:53:45 25 May 05			HG
Line	Flag		Intensities						
Hg			132575						
		Bkgd 1	7848814						
*** Check Standard: 1			Ck1ICB	Seq: 12		08:55:37 25 May 05			HG
Line	Flag		Intensities						
Hg			2009						
		Bkgd 1	7849119						
*** Sample ID: qc294913				Seq: 13		08:57:57 25 May 05			HG
			102328,1						
Hg	.009	ppb	2357						
		Bkgd 1	7854169						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45209323 Instrument: MET04 HydraAA HG Analyzer Begun: 25-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102328	ICALBLK	Std01Rep1				25-MAY-2005 08:43	1.0	1.0									
002	102328	ICAL	Std02Rep1				25-MAY-2005 08:45	1.0	1.0									
003	102328	ICAL	Std03Rep1				25-MAY-2005 08:46	1.0	1.0									
004	102328	ICAL	Std04Rep1				25-MAY-2005 08:48	1.0	1.0									
005	102328	ICAL	Std05Rep1				25-MAY-2005 08:50	1.0	1.0									
006	102328	ICAL	Std06Rep1				25-MAY-2005 08:51	1.0	1.0									
007	102328	ICV					25-MAY-2005 08:53	1.0	1.0	2	5.000	45209323001	5.130		ug/L	103		
008	102328	ICB					25-MAY-2005 08:55	1.0	1.0			45209323001	ND	0.20	ug/L			
009	102328	BLANK	QC294913		102328	Soil	25-MAY-2005 08:57	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
010	102328	BS	QC294914		102328	Soil	25-MAY-2005 09:00	1.0	100.0		0.5000	45209323001	0.5390	0.020	mg/Kg	108		u
011	102328	BSD	QC294915		102328	Soil	25-MAY-2005 09:02	1.0	100.0		0.5000	45209323001	0.5420	0.020	mg/Kg	108	1	u
012	102328	MSS	179518-004		102328	Soil	25-MAY-2005 09:03	1.0	80.65			45209323001	ND	0.016	mg/Kg			u
013	102328	MS	QC294916	179518-004	102328	Soil	25-MAY-2005 09:05	1.0	84.75		0.4237	45209323001	0.4119	0.017	mg/Kg	96		u
014	102328	MSD	QC294917	179518-004	102328	Soil	25-MAY-2005 09:06	1.0	86.21		0.4310	45209323001	0.3629	0.017	mg/Kg	83	14	u
015	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 09:09	1.0	111.1			45209323001	2.1 >LR	0.022	mg/Kg			>LR cal
016	102328	SAMPLE	179467-018		102328	Soil	25-MAY-2005 09:10	1.0	74.63			45209323001	ND	0.015	mg/Kg			u
017	102328	SAMPLE	179467-019		102328	Soil	25-MAY-2005 09:12	1.0	84.75			45209323001	0.026	0.017	mg/Kg			u
018	102328	SAMPLE	179467-020		102328	Soil	25-MAY-2005 09:14	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
019	102328	CCV					25-MAY-2005 09:19	1.0	1.0	3	2.500	45209323001	2.070		ug/L	83		
020	102328	CCB					25-MAY-2005 09:21	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
021	102328	CCB					25-MAY-2005 09:29	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
022	102328	SAMPLE	179518-001		102328	Soil	25-MAY-2005 09:34	1.0	108.7			45209323001	0.030	0.022	mg/Kg			u
023	102328	SAMPLE	179518-002		102328	Soil	25-MAY-2005 09:35	1.0	92.59			45209323001	0.029	0.019	mg/Kg			u
024	102328	SAMPLE	179518-003		102328	Soil	25-MAY-2005 09:37	1.0	102.0			45209323001	0.028	0.020	mg/Kg			u
025	102328	SAMPLE	179522-001		102328	Miscel	25-MAY-2005 09:39	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
026	102328	SAMPLE	179522-002		102328	Miscel	25-MAY-2005 09:41	1.0	83.33			45209323001	ND	0.017	mg/Kg			u
027	102328	SAMPLE	179564-001		102328	Soil	25-MAY-2005 09:43	1.0	98.04			45209323001	0.051	0.020	mg/Kg			u
028	102328	SAMPLE	179597-001		102328	Soil	25-MAY-2005 09:45	1.0	90.91			45209323001	0.074	0.018	mg/Kg			u
029	102328	SAMPLE	179597-002		102328	Soil	25-MAY-2005 09:46	1.0	94.34			45209323001	0.050	0.019	mg/Kg			u
030	102328	SAMPLE	179597-003		102328	Soil	25-MAY-2005 09:48	1.0	79.37			45209323001	0.049	0.016	mg/Kg			u
031	102328	SAMPLE	179597-004		102328	Soil	25-MAY-2005 09:50	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
032	102328	CCV					25-MAY-2005 09:52	1.0	1.0	4	5.000	45209323001	4.320		ug/L	86		
033	102328	CCB					25-MAY-2005 09:54	1.0	1.0			45209323001	ND	0.20	ug/L			
034	102328	SAMPLE	179597-005		102328	Soil	25-MAY-2005 09:55	1.0	90.91			45209323001	0.33	0.018	mg/Kg			u
035	102328	SAMPLE	179597-006		102328	Soil	25-MAY-2005 09:57	1.0	113.6			45209323001	0.32	0.023	mg/Kg			u
036	102328	SAMPLE	179603-001		102328	Soil	25-MAY-2005 09:59	1.0	111.1			45209323001	0.069	0.022	mg/Kg			u
037	102328	SER	QC294918	179518-004	102328	Soil	25-MAY-2005 10:00	5.0	80.65			45209323001	ND	0.081	mg/Kg		--	u
038	102328	PDS	QC294919	179518-004	102328	Soil	25-MAY-2005 10:02	1.0	80.65	5	0.4032	45209323001	0.4863	0.016	mg/Kg	119		u
039	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 10:04	10.0	111.1			45209323001	1.3	0.22	mg/Kg			u
040	102328	CCV					25-MAY-2005 10:18	1.0	1.0	4	5.000	45209323001	4.390		ug/L	88		
041	102328	CCB					25-MAY-2005 10:20	1.0	1.0			45209323001	ND	0.20	ug/L			

Stds used: 1=S712 2=S714 3=S715 4=S716 5=S671
Flags used: >LR=overrange b=noncompliant calc=check quantitation u=use

Analyst: Andrés Marín Date: 5/25/05

Curtis & Tompkins Laboratories Sample Preparation Summary 24-MAY-2005 15:40

Batch Number : 102328
Date Extracted: 24-MAY-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S671
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179467-017			Treadwell & Rollo	Soil	.45	g	50	111.111111	1					RCRA/HG		
179467-018			Treadwell & Rollo	Soil	.67	g	50	74.626866	1					RCRA/HG		
179467-019			Treadwell & Rollo	Soil	.59	g	50	84.745763	1					RCRA/HG		
179467-020			Treadwell & Rollo	Soil	.45	g	50	111.111111	1					RCRA/HG		
179518-001			Tetra Tech EMI	Soil	.46	g	50	108.695652	1					TAL/HG		
179518-002			Tetra Tech EMI	Soil	.54	g	50	92.592593	1					TAL/HG		
179518-003			Tetra Tech EMI	Soil	.49	g	50	102.040816	1					TAL/HG		
179518-004			Tetra Tech EMI	Soil	.62	g	50	80.645161	1					TAL/HG		
179522-001			Rolls Royce Engine Services	Miscell.	.5	g	50	100.000000	1					T26/HG		
179522-002			Rolls Royce Engine Services	Miscell.	.6	g	50	83.333333	1					T26/HG		
179564-001			Mactec, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
179597-001			SAIC	Soil	.55	g	50	90.909091	1					T26/HG		
179597-002			SAIC	Soil	.53	g	50	94.339623	1					T26/HG		
179597-003			SAIC	Soil	.63	g	50	79.365079	1					T26/HG		
179597-004			SAIC	Soil	.45	g	50	111.111111	1					T26/HG		
179597-005			SAIC	Soil	.55	g	50	90.909091	1					T26/HG		
179597-006			SAIC	Soil	.44	g	50	113.636364	1					T26/HG		
179603-001			Mactec, Inc.	Soil	.45	g	50	111.111111	1					T26/HG		
QC294913	BLANK			Soil	.5	g	50	100.000000	1					HG		
QC294914	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC294915	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC294916	MS	of 179518-004		Soil	.59	g	50	84.745763	1		2.5			HG		
QC294917	MSD	of 179518-004		Soil	.58	g	50	86.206897	1		2.5			HG		
QC294918	SER	of 179518-004		Soil	.62	g	50	80.645161	1					HG		
QC294919	PDS	of 179518-004		Soil	.62	g	50	80.645161	1					HG		

240

Prep Chemist: Andrés Marin Reviewed By: [signature] Date: 5/25/05

Relinquished By: [signature] Received By: [signature] Date: 5/25/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 162328
Date Digested: 5/24/05
Digested by: AM

Digestion Method
☑ EPA 7471A
☐ _____

BK 2086
Page 82

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	179467-017 Comp	.45	50	Y	
	18	.67			
	19	.59			
	20	.45			
5	AM 179467-179518-001 A	.46			
	2	.54			
	3	.49			
	4 MSS	.62			
	179522-001 A	.50			
10	2	.60			
	179564-001	.51			
	179597-001	.57			
	2	.53			
	3	.63			
15	4	.45			
	5	.55			
	6	.44			
	MB	.5			
	BS	.5			
20	BSD	.5			
	MS	.59			
	MSD	.58			
	AM 5/24 179663-001 A	.45			

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	SG71	AM 5/24
ICAL Source WS#	SG71 AM	
ICV / CCV WS#	SG71, 73, 74, 75, 76	
Digestion of Samples & Standards: Time ON / Temperature ON	12:30 95°C	
Time OFF/ Temperature OFF	13:00 55°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AK 052405	
5% $KMnO_4$	IC 051905	
5% $K_2S_2O_8$	—	
NaCl.hydroxylamine hydrochloride	AM 042805	
Stannous Chloride	Sn Cl2 051485	
☑ filtered thru' 0.45 um syringe filter	Millipore R4NN 07443	

André Marin 5/24/05
Prep Chemist / Date

Continued from page 1

Continued on page 1

5/28/05
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	BBSB101(0.5)	Batch#:	102287
Lab ID:	179564-001	Sampled:	05/20/05
Matrix:	Soil	Received:	05/20/05
Units:	%	Analyzed:	05/23/05

Result	RL
15	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179564	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	102287
MSS Lab ID:	179567-006	Sampled:	05/19/05
Lab ID:	QC294759	Received:	05/20/05
Matrix:	Soil	Analyzed:	05/23/05

MSS Result	Result	RL	RPD	Lim
29.00	29.94	1.000	3	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 102287
Date: 05/23/05
Method: CLP SOW 390
Analyst: RSM

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179549-002	11.7134	19.2557	17.5667	78	22
179549-004	11.1345	18.4000	17.5037	88	12
179549-006	11.0405	18.0013	16.6672	81	19
179549-008	11.1899	18.6529	16.9043	77	23
179549-010	11.1461	19.0834	18.0748	87	13
179549-012	11.0835	18.4449	16.9071	79	21
179549-014	15.0267	22.2465	21.1949	85	15
179549-015	15.8014	22.4009	21.3543	84	16
179549-016	10.9702	18.5004	17.7780	90	10
179551-018	11.1672	18.2821	18.0822	97	3
179552-002	15.3858	22.4715	21.5235	87	13
179552-004	11.2177	18.0329	17.0534	86	14
179552-005	11.1270	18.0238	17.8687	98	2
179552-006	11.0856	18.1955	18.0461	98	2
179552-009	11.1115	18.4312	17.5267	88	12
179552-012	11.1364	18.8446	18.0372	90	10
179564-001	11.0862	18.3290	17.2362	85	15
179567-004	15.3221	22.2145	20.6034	77	23
179567-005	15.2912	22.0684	20.1249	71	29
179567-006	15.7377	22.1790	20.3113	71	29
QC294759	11.0684	18.6971	16.4134	70	30
of 179567-006			RPD:	1.3%	3.2%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 102287
Date Started: 23-MAY-2005
Batched by : Rodellio S. Manuel

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179549-002		SAIC	Soil	MOISTURE	25-MAY-2005
179549-004		SAIC	Soil	MOISTURE	25-MAY-2005
179549-006		SAIC	Soil	MOISTURE	25-MAY-2005
179549-008		SAIC	Soil	MOISTURE	25-MAY-2005
179549-010		SAIC	Soil	MOISTURE	25-MAY-2005
179549-012		SAIC	Soil	MOISTURE	25-MAY-2005
179549-014		SAIC	Soil	MOISTURE	25-MAY-2005
179549-015		SAIC	Soil	MOISTURE	25-MAY-2005
179549-016		SAIC	Soil	MOISTURE	25-MAY-2005
179551-018		Erler & Kalinowski	Soil	MOISTURE	26-MAY-2005
179552-002		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179552-004		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179552-005		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179552-006		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179552-009		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179552-012		Innovative Technic	Soil	MOISTURE	01-JUN-2005
179564-001		Mactec, Inc.	Soil	MOISTURE	02-JUN-2005
179567-004		Weston Solutions	Soil	MOISTURE	27-MAY-2005
179567-005		Weston Solutions	Soil	MOISTURE	24-MAY-2005
179567-006		Weston Solutions	Soil	MOISTURE	24-MAY-2005
QC294759	SDUP of 179567-006		Soil	MOISTURE	

5/23/05

102267

Sample	B.L.	Digest #	Tare wt.	Init. wt.	Fin. wt.	Comments
Blank	/	PPP	15.7131	—	15.7131	
179567-	4	A 20A	15.3221	22.2145	20.6034	
	5	6C	15.2912	22.0664	20.1249	
	6	6X	15.7377	22.1790	20.3413	
DMP	6	5L	11.0684	18.6971	16.4134	
179549-	2	AA	11.7134	19.2557	17.5667	
	4	CC	11.1345	18.4000	17.5037	
	6	B104	11.0405	18.0013	16.6472	
	8	B102	11.1899	18.6529	16.9043	
	10	AAA	11.1401	19.0634	18.8748	
	12	B101	11.0635	18.4449	16.9071	
	14	DDD	15.0267	22.2465	21.1949	
	15	6CC	15.8014	22.4009	21.3543	
	16	52	10.9702	18.5004	17.7780	
179551-	18	B112	11.1672	18.2821	18.0822	
179552-	2 D	5A	15.3858	RM 22.4715	21.5235	
	4	HH	11.2177	JH3 ~~18.251~~ 18.0329	17.0534	
	5	B107	11.1270	18.0238	17.8687	
	6	B113	11.0856	18.1955	18.0461	
	9	FFF	11.1115	18.4312	17.5267	
	12	JJ	11.1364	18.6446	18.0372	
179564-	1	V11	11.0462	18.3290	17.2362	

OVEN TEMP: 103°C
TIME IN: 2:30 P.M.
TIME OUT: 9:40 A.M. ON: 5-24-05

Continued on Page

Read and Understood By

R. M... 5-23-05 5/24/05
Signed Date Signed Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 5/13/05 to

°C	DATE	INITIAL		°C	DATE	INITIAL
103°C	5-3-05	RSM				
103°C	5-4-05	RSM				
104°C	5-5-05	RSM				
104°C	5-6-05	RSM				
103°C	5-9-05	RSM				
103°C	5-10-05	RSM				
104°C	5-11-05	RSM				
103°C	5-12-05	RSM				
103°C	5-13-05	RSM				
103°C	5-16-05	RSM				
103°C	5-17-05	RSM				
103°C	5-18-05	RSM				
103°C	5-19-05	RSM				
103°C	5-20-05	RSM				
103°C	5-23-05	RSM				
104°C	5-24-05	RSM				

PROJECT METTLER AE-200 BALANCE NOTEBOOK NO. 0752

Continued From Page ϕ

DATE	0.2000	1.0000	10.0000	50.0000	INITIAL	SET #
4-21-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
4-22-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
4-25-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-26-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
4-27-05	0.2001	1.0000	10.0001	50.0001	RSM	35298
4-28-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
4-29-05	0.2001	1.0000	10.0001	50.0002	RSM	35298
5-2-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-3-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-4-05	0.2001	1.0000	10.0000	50.0001	RSM	35298
5-5-05	0.2000	1.0001	10.0000	50.0003	RSM	35298
5-6-05	0.2001	1.0001	10.0001	50.0002	RSM	35298
5-9-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-10-05	0.2000	1.0001	10.0000	50.0001	RSM	35298
5-11-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
5-12-05	0.2000	1.0001	10.0001	50.0002	RSM	35298
5-13-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
5-16-05	0.2001	1.0000	10.0000	50.0003	RSM	35298
5-17-05	0.2000	1.0000	10.0001	50.0002	RSM	35298
5-18-05	0.2001	1.0000	10.0000	50.0002	RSM	35298
5-19-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
5-20-05	0.2001	1.0000	10.0001	50.0003	RSM	35298
5-23-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
5-24-05	0.2000	1.0001	10.0001	50.0002	RSM	35298

Continued on Page

Read and Understood By

R. M 4-21-05

Signed Date Signed Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179603

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBSB106(0.5)	179603-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 6/22/05
Operations Manager

Signature: _____ Date: 6/21/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179603**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/24/05**
Samples Received:	**05/24/05**

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 05/24/05. The sample was received intact.

Volatile Organics by GC/MS (EPA 8260B):
Matrix spikes were not reported for batch 102317 because the parent sample required reanalysis in another batch. The spike recoveries in the LCS were within criteria. Low response was observed for bromomethane in the ICV analyzed 05/18/05 19:12; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
Low response was observed for benzo(k)fluoranthene in the CCV analyzed 06/03/05 21:14; this analyte met minimum response criteria. High recovery was observed for pyrene in the MSD for batch 102619; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High responses were observed for a number of analytes in the CCV analyzed 06/02/05 11:39; average CCV drift met method requirements. High responses were observed for 4,4'-DDD and methoxychlor in the CCV analyzed 06/02/05 22:29 and the CCV analyzed 06/04/05 00:29; average CCV drift met method requirements, and these analytes were not detected at or above the RL in the associated samples. Low responses were observed for gamma-BHC and 4,4'-DDT in the CCV analyzed 06/04/05 07:53 and the CCV analyzed 06/06/05 16:43; average CCV drift met method requirements. BBSB106(0.5) (lab # 179603-001) was diluted due to the dark, viscous nature of the sample extract. No other analytical problems were encountered.

PCBs (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
Low recoveries were observed for chromium and nickel in the MS of BBSB106(0.5) (lab # 179603-001); the BS/BSD were within limits, and the associated RPDs were within limits. These analytes were low outside criteria in the post digestion spike. Responses exceeding the instrument's linear range were observed for barium and zinc in the MS/MSD of BBSB106(0.5) (lab # 179603-001). High % difference was observed for molybdenum in the serial dilution of BBSB106(0.5) (lab # 179603-001). Zinc was detected between the

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179603**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/24/05**
Samples Received:	**05/24/05**

Metals (EPA 6020 and EPA 7471A):

MDL and the RL in the method blank for batch 102337; this analyte was detected in the sample at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):

No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

179603

Seq. No.: № 1449

Samplers: A H HENKE, W H GOEWEY

Lab: CURTIS TOMPKINS

Job Number: 57255.005

Name/Location: PRESIDIO - SF - BBDA

Project Manager: M A JACOBVITZ

Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED					
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH	VOCs (8260B)	PAH's (8270 SIM)	TTLC METALS	PESTICIDES (8081A)	PCBs (8082)	PERCENT MOISTURE
	✓		4				✓	BBSB106	(0.5)	05	05	23	1025	BBSB106	0.5-1'	✓	✓	✓	✓	✓	

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		STANDARD TAT
		RESULTS TO G A UEBERMAN
		707 793 2858

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	A H HENKE (Print Name)	MACTEC (Company)	5/23/05 1020 (Date/Time)
Received By (Signature)	Tony Rojas (Print Name)	CT (Company)	5/23/05 1620 (Date/Time)
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: CT COURIER

F1008-B (5/04)

Laboratory Copy *White*

Project Office Copy *Yellow*

Field or Office Copy *Pink*

Pesticides Results & QC Summary

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB106(0.5)	Batch#:	102569
Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	ug/Kg	Prepared:	06/02/05
Basis:	dry	Analyzed:	06/04/05
Diln Fac:	2.000		

Moisture: 15%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	4.0	1.4
beta-BHC	ND	4.0	1.2
gamma-BHC	ND	4.0	1.4
delta-BHC	ND	4.0	1.5
Heptachlor	ND	4.0	1.3
Aldrin	ND	4.0	1.4
Heptachlor epoxide	ND	4.0	1.5
Endosulfan I	ND	4.0	1.8
Dieldrin	ND	7.8	3.6
4,4'-DDE	ND	7.8	3.7
Endrin	ND	7.8	3.8
Endosulfan II	ND	7.8	3.9
Endosulfan sulfate	ND	7.8	4.1
4,4'-DDD	ND	7.8	3.4
Endrin aldehyde	ND	7.8	4.3
4,4'-DDT	ND #	7.8	4.1
alpha-Chlordane	ND	4.0	1.5
gamma-Chlordane	3.1 J	4.0	1.3
Methoxychlor	ND	40	23
Toxaphene	ND	140	29

Surrogate	%REC	Limits
TCMX	84	43-130
Decachlorobiphenyl	106	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295933	Batch#:	102569
Matrix:	Soil	Prepared:	06/02/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.58
beta-BHC	ND	1.7	0.52
gamma-BHC	ND	1.7	0.59
delta-BHC	ND	1.7	0.62
Heptachlor	ND	1.7	0.53
Aldrin	ND	1.7	0.58
Heptachlor epoxide	ND	1.7	0.64
Endosulfan I	ND	1.7	0.75
Dieldrin	ND	3.3	1.5
4,4'-DDE	ND	3.3	1.6
Endrin	ND	3.3	1.6
Endosulfan II	ND	3.3	1.6
Endosulfan sulfate	ND	3.3	1.7
4,4'-DDD	ND	3.3	1.5
Endrin aldehyde	ND	3.3	1.8
4,4'-DDT	ND	3.3	1.7
alpha-Chlordane	ND	1.7	0.72
gamma-Chlordane	ND	1.7	0.72
Methoxychlor	ND	17	9.8
Toxaphene	ND	60	12

Surrogate	%REC	Limits
TCMX	94	43-130
Decachlorobiphenyl	88	43-143

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295934	Batch#:	102569
Matrix:	Soil	Prepared:	06/02/05
Units:	ug/Kg	Analyzed:	06/02/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.31	12.32	93	42-120
Heptachlor	13.31	15.23 #	114	49-126
Aldrin	13.31	12.78	96	52-120
Dieldrin	26.61	29.96	113	40-125
Endrin	26.61	29.01	109	38-135
4,4'-DDT	26.61	32.84	123	43-135

Surrogate	%REC	Limits
TCMX	92	43-130
Decachlorobiphenyl	87	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB106(0.5)	Batch#:	102569
MSS Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	ug/Kg	Prepared:	06/02/05
Basis:	dry	Analyzed:	06/06/05
Diln Fac:	2.000		

Type:	MS	Moisture:	15%
Lab ID:	QC295935	Cleanup Method:	EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<1.389	15.63	11.90 #	76	41-120
Heptachlor	<1.253	15.63	13.13	84	48-130
Aldrin	<1.368	15.63	12.74	81	42-126
Dieldrin	<3.603	31.27	24.74	79	43-128
Endrin	<3.769	31.27	30.36	97	45-137
4,4'-DDT	<4.067	31.27	29.47	94	31-151

Surrogate	%REC	Limits
TCMX	75	43-130
Decachlorobiphenyl	98	43-143

Type:	MSD	Moisture:	15%
Lab ID:	QC295936	Cleanup Method:	EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	15.60	11.01 #	71	41-120	8	37
Heptachlor	15.60	12.75	82	48-130	3	43
Aldrin	15.60	11.91	76	42-126	6	36
Dieldrin	31.21	23.43	75	43-128	5	38
Endrin	31.21	28.03	90	45-137	8	39
4,4'-DDT	31.21	28.87	93	31-151	2	47

Surrogate	%REC	Limits
TCMX	66	43-130
Decachlorobiphenyl	107	43-143

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	147_005	805212954005	pest_1	27-MAY-2005 21:14	S9
2	147_006	805212954006	pest_2	27-MAY-2005 21:42	S419
3	147_007	805212954007	pest_3	27-MAY-2005 22:09	S420
4	147_008	805212954008	pest_4	27-MAY-2005 22:37	S643
5	147_009	805212954009	pest_5	27-MAY-2005 23:05	S613
6	147_010	805212954010	pest_6	27-MAY-2005 23:33	S13
7	147_011	805212954011	pest_7	28-MAY-2005 00:00	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	r^2 MxRSD	Flags
alpha-BHC	A	12447	11627	11921	10432	11285	10670	11710	AVRG	R		8.740E-5		pg	11442	6	0.995	20	
gamma-BHC	A	11134	10727	11052	9675.1	10346	9722.9	10629	AVRG	R		9.552E-5		pg	10469	6	0.995	20	
beta-BHC	A	5016.0	4666.8	4758.6	4073.8	4358.3	3970.1	3993.7	AVRG	R		2.270E-4		pg	4405.3	9	0.995	20	
delta-BHC	A	12202	11262	11533	9983.7	10711	10094	11002	AVRG	R		9.116E-5		pg	10970	7	0.995	20	
Heptachlor	A	9684.5	9249.6	9630.8	8339.4	8995.6	8294.7	8885.3	AVRG	R		1.110E-4		pg	9011.4	6	0.995	20	
Aldrin	A	10074	9699.8	9989.5	8600.6	9124.3	8423.6	9019.8	AVRG	R		1.078E-4		pg	9275.9	7	0.995	20	
Heptachlor epoxide	A	9360.7	8988.1	9245.9	7693.3	8324.6	7603.1	7853.7	AVRG	R		1.185E-4		pg	8438.5	9	0.995	20	
gamma-Chlordane	A	9454.6	9141.3	9349.7	7821.8	8471.9	7760.6	8311.3	AVRG	R		1.161E-4		pg	8615.9	8	0.995	20	
alpha-Chlordane	A	8800.2	8888.9	9120.3	7722.6	8198.7	7514.2	7983.0	AVRG	R		1.202E-4		pg	8318.3	7	0.995	20	
4,4'-DDE	A	9039.1	8618.7	8870.7	7513.9	8171.1	7849.0	7855.1	AVRG	R		1.209E-4		pg	8273.9	7	0.995	20	
Endosulfan I	A	8801.5	8405.5	8624.6	7225.2	7754.1	7016.6	7171.3	AVRG	R		1.273E-4		pg	7857.0	10	0.995	20	
Dieldrin	A	9466.3	8911.7	9148.1	7717.3	8350.3	7921.6	7889.1	AVRG	R		1.178E-4		pg	8486.3	8	0.995	20	
Endrin	A	7291.3	6933.8	7211.2	5787.3	6716.3	5989.9	6188.2	AVRG	R		1.518E-4		pg	6588.3	9	0.995	20	
4,4'-DDD	A	7599.5	7350.2	7513.9	6286.4	6828.4	6338.2	6626.0	AVRG	R		1.442E-4		pg	6934.7	8	0.995	20	
Endosulfan II	A	8048.8	7796.8	7892.0	6514.7	7058.0	6477.2	6729.0	AVRG	R		1.386E-4		pg	7216.6	9	0.995	20	
4,4'-DDT	A	6278.2	6165.8	6727.9	5588.5	6271.5	5673.7	6341.2	AVRG	R		1.626E-4		pg	6149.5	6	0.995	20	
Endrin aldehyde	A	6549.4	5921.3	6247.9	5296.5	5204.6	4731.7	5262.5	AVRG	R		1.785E-4		pg	5602.0	12	0.995	20	
Methoxychlor	A	2705.4	2550.9	2735.1	2252.6	2586.5	2266.3	2033.8	AVRG	R		4.086E-4		pg	2447.2	11	0.995	20	
Endosulfan sulfate	A	7046.5	6791.0	6911.8	5656.8	6169.5	5554.2	5898.6	AVRG	R		1.590E-4		pg	6289.8	10	0.995	20	

11

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endrin ketone	A	8676.5	8136.8	8338.0	6922.1	7516.1	6923.1	6870.2	AVRG	R		1.311E-4		pg	7626.1	10	0.995	20	
TCMX	A	7927.3	7568.2	7514.1	6688.6	7033.5	6610.5	7153.2	AVRG	R		1.386E-4		pg	7213.6	7	0.995	20	
Decachlorobiphenyl	A	4715.1	4579.2	4979.0	3544.6	4440.9	3629.1	4186.5	AVRG	R		2.328E-4		pg	4296.4	13	0.995	20	
alpha-BHC	B	20221	19824	20772	17985	20532	25099	27513	AVRG	R		4.607E-5		pg	21707	15	0.995	20	
gamma-BHC	B	18555	18647	19125	16687	18576	23002	25861	AVRG	R		4.984E-5		pg	20065	16	0.995	20	
beta-BHC	B	8509.8	8175.0	8072.0	6744.5	7304.9	7743.0	9485.2	AVRG	R		1.249E-4		pg	8004.9	11	0.995	20	
delta-BHC	B	20173	19512	19750	17285	19225	24469	25984	AVRG	R		4.782E-5		pg	20914	15	0.995	20	
Heptachlor	B	13288	13423	13747	12344	13662	17631		AVRG	R		7.135E-5		pg	14016	13	0.995	20	
Aldrin	B	16989	17120	16916	14959	16168	20439	23895	AVRG	R		5.534E-5		pg	18069	17	0.995	20	
Heptachlor epoxide	B	15065	15976	15404	13295	14250	18066	21715	AVRG	R		6.153E-5		pg	16253	17	0.995	20	
gamma-Chlordane	B	15739	16088	15497	13564	14590	18983	22699	AVRG	R		5.975E-5		pg	16737	19	0.995	20	
alpha-Chlordane	B	15548	15976	15258	13395	14232	18468	21924	AVRG	R		6.097E-5		pg	16400	18	0.995	20	
4,4'-DDE	B	14784	15701	15259	14497	16269	21062	15344	AVRG	R		6.199E-5		pg	16131	14	0.995	20	
Endosulfan I	B	14600	15002	14385	12496	13303	16909	20287	AVRG	R		6.543E-5		pg	15283	17	0.995	20	
Dieldrin	B	15391	16135	15800	14772	16751	21521	15983	AVRG	R		6.016E-5		pg	16622	14	0.995	20	
Endrin	B	12261	12919	12199	10582	12369	16853	14890	AVRG	R		7.603E-5		pg	13153	16	0.995	20	
4,4'-DDD	B	11929	12854	12313	11006	12261	16835	14222	AVRG	R		7.657E-5		pg	13060	15	0.995	20	
Endosulfan II	B	13548	14223	13585	11955	13450	17936	15163	AVRG	R		7.010E-5		pg	14266	13	0.995	20	
4,4'-DDT	B	10331	11181	10584	9853.3	11034			AVRG	R		9.437E-5		pg	10597	5	0.995	20	
Endrin aldehyde	B	11000	10978	10192	9047.8	9547.5	12822	13375	AVRG	R		9.095E-5		pg	10995	15	0.995	20	
Methoxychlor	B	4549.3	4938.2	4754.6	4811.7	5260.9	5554.0		AVRG	R		2.009E-4		pg	4978.1	7	0.995	20	
Endosulfan sulfate	B	12162	12210	11396	9950.3	10775	14804	14153	AVRG	R		8.192E-5		pg	12207	14	0.995	20	
Endrin ketone	B	15029	15357	14220	12842	14170	19200	15788	AVRG	R		6.566E-5		pg	15229	13	0.995	20	
TCMX	B	13256	12642	13505	11396	12540	15029	15639	AVRG	R		7.446E-5		pg	13429	11	0.995	20	
Decachlorobiphenyl	B	9350.8	9986.9	9183.9	7226.3	8793.9	13134	10458	AVRG	R		1.027E-4		pg	9733.3	19	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	8	20	
EPA 8081A	B	22	14	20	

12

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :

ICV 805212954013 (147_013) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
alpha-BHC	A	805212954013	28-MAY-2005	25.000	23.435	pg	-6	15
gamma-BHC	A	805212954013	28-MAY-2005	25.000	23.097	pg	-8	15
beta-BHC	A	805212954013	28-MAY-2005	25.000	23.253	pg	-7	15
delta-BHC	A	805212954013	28-MAY-2005	25.000	23.444	pg	-6	15
Heptachlor	A	805212954013	28-MAY-2005	25.000	23.343	pg	-7	15
Aldrin	A	805212954013	28-MAY-2005	25.000	23.313	pg	-7	15
Heptachlor epoxide	A	805212954013	28-MAY-2005	25.000	23.633	pg	-5	15
gamma-Chlordane	A	805212954013	28-MAY-2005	25.000	22.895	pg	-8	15
alpha-Chlordane	A	805212954013	28-MAY-2005	25.000	23.167	pg	-7	15
4,4'-DDE	A	805212954013	28-MAY-2005	25.000	23.535	pg	-6	15
Endosulfan I	A	805212954013	28-MAY-2005	25.000	23.331	pg	-7	15
Dieldrin	A	805212954013	28-MAY-2005	25.000	23.009	pg	-8	15
Endrin	A	805212954013	28-MAY-2005	25.000	25.588	pg	2	15
4,4'-DDD	A	805212954013	28-MAY-2005	25.000	24.526	pg	-2	15
Endosulfan II	A	805212954013	28-MAY-2005	25.000	24.348	pg	-3	15
4,4'-DDT	A	805212954013	28-MAY-2005	25.000	23.382	pg	-6	15
Endrin aldehyde	A	805212954013	28-MAY-2005	25.000	21.855	pg	-13	15
Methoxychlor	A	805212954013	28-MAY-2005	25.000	28.199	pg	13	15
Endosulfan sulfate	A	805212954013	28-MAY-2005	25.000	24.424	pg	-2	15
alpha-BHC	B	805212954013	28-MAY-2005	25.000	22.049	pg	-12	15
gamma-BHC	B	805212954013	28-MAY-2005	25.000	21.574	pg	-14	15
beta-BHC	B	805212954013	28-MAY-2005	25.000	21.621	pg	-14	15
delta-BHC	B	805212954013	28-MAY-2005	25.000	22.322	pg	-11	15
Heptachlor	B	805212954013	28-MAY-2005	25.000	23.776	pg	-5	15
Aldrin	B	805212954013	28-MAY-2005	25.000	21.938	pg	-12	15
Heptachlor epoxide	B	805212954013	28-MAY-2005	25.000	22.480	pg	-10	15
gamma-Chlordane	B	805212954013	28-MAY-2005	25.000	21.740	pg	-13	15
alpha-Chlordane	B	805212954013	28-MAY-2005	25.000	21.818	pg	-13	15
4,4'-DDE	B	805212954013	28-MAY-2005	25.000	22.806	pg	-9	15
Endosulfan I	B	805212954013	28-MAY-2005	25.000	22.511	pg	-10	15
Dieldrin	B	805212954013	28-MAY-2005	25.000	22.311	pg	-11	15
Endrin	B	805212954013	28-MAY-2005	25.000	23.739	pg	-5	15
4,4'-DDD	B	805212954013	28-MAY-2005	25.000	23.207	pg	-7	15
Endosulfan II	B	805212954013	28-MAY-2005	25.000	23.175	pg	-7	15
4,4'-DDT	B	805212954013	28-MAY-2005	25.000	25.521	pg	2	15
Endrin aldehyde	B	805212954013	28-MAY-2005	25.000	23.050	pg	-8	15
Methoxychlor	B	805212954013	28-MAY-2005	25.000	25.503	pg	2	15
Endosulfan sulfate	B	805212954013	28-MAY-2005	25.000	23.306	pg	-7	15

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	6	15	
EPA 8081A	B	20	9	15	

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609042 Run Name: Injected: 02-JUN-2005 10:43
Filename: 152_042 Standard(s): S663

Analyte	Ch	Area
Endrin	A	326698.38
Endrin aldehyde	A	5714.7
Endrin ketone	A	25284.2

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	557407.83
4,4'-DDE	A	2232.17
4,4'-DDD	A	63207.32

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	750172.54
Endrin aldehyde	B	11525.96
Endrin ketone	B	63610.28

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1454322.35
4,4'-DDE	B	4304.7
4,4'-DDD	B	118464.06

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609058 Run Name: Injected: 02-JUN-2005 22:02
Filename: 152_058 Standard(s): S663

Analyte	Ch	Area
Endrin	A	293704.12
Endrin aldehyde	A	12326.63
Endrin ketone	A	30960.74

Endrin Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	505129.92
4,4'-DDE	A	2346.77
4,4'-DDD	A	72713.7

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	637035.62
Endrin aldehyde	B	18208.66
Endrin ketone	B	71282.98

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1313459.73
4,4'-DDE	B	4125.26
4,4'-DDD	B	116434.51

4,4'-DDT Breakdown %: 8
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805222534021 Run Name: Injected: 04-JUN-2005 00:02
Filename: 154_021 Standard(s): S663

Analyte	Ch	Area
Endrin	A	331901.1
Endrin aldehyde	A	6114.31
Endrin ketone	A	27448.37

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	559026
4,4'-DDE	A	2079.79
4,4'-DDD	A	78121.39

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	636561.12
Endrin aldehyde	B	20951.04
Endrin ketone	B	81884.16

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1135397.22
4,4'-DDE	B	6515.69
4,4'-DDD	B	149323.42

4,4'-DDT Breakdown %: 12
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805222534037 Run Name: Injected: 04-JUN-2005 07:25
Filename: 154_037 Standard(s): S663

Analyte	Ch	Area
Endrin	A	352452.84
Endrin aldehyde	A	7328.4
Endrin ketone	A	36159.7

Endrin Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	561498
4,4'-DDE	A	2419.12
4,4'-DDD	A	108258.22

4,4'-DDT Breakdown %: **16 P ***** Channel B reported as 6/15%.
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	658151.23
Endrin aldehyde	B	26812.4
Endrin ketone	B	85775

Endrin Breakdown %: 15
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1167166.44
4,4'-DDE	B	5713.73
4,4'-DDD	B	173042.04

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

P=PEM failure
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805226950010 Run Name: Injected: 06-JUN-2005 18:03
Filename: 157_010 Standard(s): S663

Analyte	Ch	Area
Endrin	A	343826.34
Endrin aldehyde	A	5675.16
Endrin ketone	A	9825

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	662732.18
4,4'-DDE	A	3740
4,4'-DDD	A	5651.11

4,4'-DDT Breakdown %: 1
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	814842
Endrin aldehyde	B	5660.18
Endrin ketone	B	14832

Endrin Breakdown %: 2
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1723194.5
4,4'-DDE	B	4816.11
4,4'-DDD	B	7652.1

4,4'-DDT Breakdown %: 1
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805226950021 Run Name: Injected: 06-JUN-2005 23:10
Filename: 157_021 Standard(s): S663

Analyte	Ch	Area
Endrin	A	356402.39
Endrin aldehyde	A	3048.37
Endrin ketone	A	21631.92

Endrin Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	625949.64
4,4'-DDE	A	2231.71
4,4'-DDD	A	44309.42

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	930329.33
Endrin aldehyde	B	3446.11
Endrin ketone	B	32863

Endrin Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1897046.9
4,4'-DDE	B	4811.75
4,4'-DDD	B	29922.66

4,4'-DDT Breakdown %: 2
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_2 IDF : 1.0
Seqnum : 805219609044 Filename : 152_044 Injected : 02-JUN-2005 11:39
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S419

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	12112	5.000000	5.293022	pg	6	15	
gamma-BHC	A	10469	11212	5.000000	5.354753	pg	7	15	
beta-BHC	A	4405.3	4899.9	5.000000	5.561376	pg	11	15	
delta-BHC	A	10970	11747	5.000000	5.354375	pg	7	15	
Heptachlor	A	9011.4	9355.3	5.000000	5.190799	pg	4	15	
Aldrin	A	9275.9	10102	5.000000	5.445300	pg	9	15	
Heptachlor epoxide	A	8438.5	9381.4	5.000000	5.558702	pg	11	15	
gamma-Chlordane	A	8615.9	9520.8	5.000000	5.525150	pg	11	15	
alpha-Chlordane	A	8318.3	9225.6	5.000000	5.545383	pg	11	15	
4,4'-DDE	A	8273.9	8950.4	10.00000	10.81760	pg	8	15	
Endosulfan I	A	7857.0	8749.4	5.000000	5.567928	pg	11	15	
Dieldrin	A	8486.3	9218.7	10.00000	10.86301	pg	9	15	
Endrin	A	6588.3	7207.6	10.00000	10.94008	pg	9	15	
4,4'-DDD	A	6934.7	7993.0	10.00000	11.52608	pg	15	15	
Endosulfan II	A	7216.6	7959.6	10.00000	11.02946	pg	10	15	
4,4'-DDT	A	6149.5	5794.0	10.00000	9.421839	pg	-6	15	
Endrin aldehyde	A	5602.0	5401.3	10.00000	9.641802	pg	-4	15	
Methoxychlor	A	2447.2	2594.4	50.00000	53.00585	pg	6	15	
Endosulfan sulfate	A	6289.8	6972.8	10.00000	11.08582	pg	11	15	
TCMX	A	7213.6	7784.2	10.00000	10.79096	pg	8	15	
Decachlorobiphenyl	A	4296.4	4273.1	10.00000	9.945923	pg	-1	15	
alpha-BHC	B	21707	21821	5.000000	5.026303	pg	1	15	
gamma-BHC	B	20065	20511	5.000000	5.111291	pg	2	15	
beta-BHC	B	8004.9	8948.2	5.000000	5.589208	pg	12	15	
delta-BHC	B	20914	21566	5.000000	5.155991	pg	3	15	
Heptachlor	B	14016	16989	5.000000	6.060727	pg	**21**	15	c+ ***
Aldrin	B	18069	19449	5.000000	5.381815	pg	8	15	
Heptachlor epoxide	B	16253	17722	5.000000	5.451928	pg	9	15	
gamma-Chlordane	B	16737	18062	5.000000	5.395754	pg	8	15	
alpha-Chlordane	B	16400	17998	5.000000	5.487146	pg	10	15	
4,4'-DDE	B	16131	17963	10.00000	11.13562	pg	11	15	
Endosulfan I	B	15283	16870	5.000000	5.519232	pg	10	15	
Dieldrin	B	16622	18478	10.00000	11.11667	pg	11	15	
Endrin	B	13153	14895	10.00000	11.32394	pg	13	15	
4,4'-DDD	B	13060	16165	10.00000	12.37725	pg	**24**	15	c+ ***
Endosulfan II	B	14266	16187	10.00000	11.34685	pg	13	15	
4,4'-DDT	B	10597	11257	10.00000	10.62313	pg	6	15	
Endrin aldehyde	B	10995	12701	10.00000	11.55212	pg	**16**	15	c+ ***
Methoxychlor	B	4978.1	5653.7	50.00000	56.78542	pg	14	15	
Endosulfan sulfate	B	12207	14301	10.00000	11.71485	pg	**17**	15	c+ ***
TCMX	B	13429	13420	10.00000	9.992865	pg	0	15	
Decachlorobiphenyl	B	9733.3	12646	10.00000	12.99299	pg	**30**	15	c+
Average EPA 8081A	A		(count=22)				8	15	
Average EPA 8081A	B		(count=22)				12	15	

+=high bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805219609059 Filename : 152_059 Injected : 02-JUN-2005 22:29
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	9831.7	20.00000	17.18540	pg	-14	15	
gamma-BHC	A	10469	9088.8	20.00000	17.36274	pg	-13	15	
beta-BHC	A	4405.3	3866.3	20.00000	17.55277	pg	-12	15	
delta-BHC	A	10970	9450.1	20.00000	17.22967	pg	-14	15	
Heptachlor	A	9011.4	7563.2	20.00000	16.78581	pg	**-16**	15	c- ***
Aldrin	A	9275.9	8249.6	20.00000	17.78724	pg	-11	15	
Heptachlor epoxide	A	8438.5	7479.8	20.00000	17.72776	pg	-11	15	
gamma-Chlordane	A	8615.9	7560.8	20.00000	17.55076	pg	-12	15	
alpha-Chlordane	A	8318.3	7434.6	20.00000	17.87537	pg	-11	15	
4,4'-DDE	A	8273.9	7272.3	40.00000	35.15756	pg	-12	15	
Endosulfan I	A	7857.0	7005.4	20.00000	17.83221	pg	-11	15	
Dieldrin	A	8486.3	7429.3	40.00000	35.01791	pg	-12	15	
Endrin	A	6588.3	5521.9	40.00000	33.52551	pg	**-16**	15	c- ***
4,4'-DDD	A	6934.7	6502.8	40.00000	37.50892	pg	-6	15	
Endosulfan II	A	7216.6	6206.5	40.00000	34.40100	pg	-14	15	
4,4'-DDT	A	6149.5	4850.9	40.00000	31.55264	pg	**-21**	15	c- ***
Endrin aldehyde	A	5602.0	4989.6	40.00000	35.62751	pg	-11	15	
Methoxychlor	A	2447.2	1978.2	200.0000	161.6699	pg	**-19**	15	c- ***
Endosulfan sulfate	A	6289.8	5359.8	40.00000	34.08564	pg	-15	15	
TCMX	A	7213.6	6351.8	40.00000	35.22107	pg	-12	15	
Decachlorobiphenyl	A	4296.4	3164.0	40.00000	29.45746	pg	**-26**	15	c-
alpha-BHC	B	21707	19625	20.00000	18.08203	pg	-10	15	
gamma-BHC	B	20065	18246	20.00000	18.18756	pg	-9	15	
beta-BHC	B	8004.9	7399.3	20.00000	18.48705	pg	-8	15	
delta-BHC	B	20914	19440	20.00000	18.59024	pg	-7	15	
Heptachlor	B	14016	15471	20.00000	22.07732	pg	10	15	
Aldrin	B	18069	17003	20.00000	18.81985	pg	-6	15	
Heptachlor epoxide	B	16253	15280	20.00000	18.80264	pg	-6	15	
gamma-Chlordane	B	16737	15900	20.00000	18.99946	pg	-5	15	
alpha-Chlordane	B	16400	15790	20.00000	19.25590	pg	-4	15	
4,4'-DDE	B	16131	18473	40.00000	45.80820	pg	15	15	
Endosulfan I	B	15283	14852	20.00000	19.43613	pg	-3	15	
Dieldrin	B	16622	18501	40.00000	44.52309	pg	11	15	
Endrin	B	13153	12746	40.00000	38.76032	pg	-3	15	
4,4'-DDD	B	13060	15538	40.00000	47.59071	pg	**19**	15	c+ ***
Endosulfan II	B	14266	14984	40.00000	42.01319	pg	5	15	
4,4'-DDT	B	10597	11081	40.00000	41.82826	pg	5	15	
Endrin aldehyde	B	10995	11319	40.00000	41.17946	pg	3	15	
Methoxychlor	B	4978.1	6007.1	200.0000	241.3400	pg	**21**	15	c+ ***
Endosulfan sulfate	B	12207	12413	40.00000	40.67460	pg	2	15	
TCMX	B	13429	12900	40.00000	38.42427	pg	-4	15	
Decachlorobiphenyl	B	9733.3	10018	40.00000	41.17021	pg	3	15	
Average EPA 8081A	A		(count=22)				14	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805222534022 Filename : 154_022 Injected : 04-JUN-2005 00:29
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10559	20.00000	18.45660	pg	-8	15	
gamma-BHC	A	10469	9855.3	20.00000	18.82694	pg	-6	15	
beta-BHC	A	4405.3	4197.6	20.00000	19.05700	pg	-5	15	
delta-BHC	A	10970	10385	20.00000	18.93395	pg	-5	15	
Heptachlor	A	9011.4	8506.0	20.00000	18.87832	pg	-6	15	
Aldrin	A	9275.9	9021.6	20.00000	19.45172	pg	-3	15	
Heptachlor epoxide	A	8438.5	8239.0	20.00000	19.52732	pg	-2	15	
gamma-Chlordane	A	8615.9	8404.2	20.00000	19.50873	pg	-2	15	
alpha-Chlordane	A	8318.3	8263.0	20.00000	19.86706	pg	-1	15	
4,4'-DDE	A	8273.9	8149.9	40.00000	39.40059	pg	-1	15	
Endosulfan I	A	7857.0	7775.8	20.00000	19.79340	pg	-1	15	
Dieldrin	A	8486.3	8348.9	40.00000	39.35203	pg	-2	15	
Endrin	A	6588.3	6799.6	40.00000	41.28320	pg	3	15	
4,4'-DDD	A	6934.7	7239.6	40.00000	41.75895	pg	4	15	
Endosulfan II	A	7216.6	7030.3	40.00000	38.96702	pg	-3	15	
4,4'-DDT	A	6149.5	5740.3	40.00000	37.33835	pg	-7	15	
Endrin aldehyde	A	5602.0	5600.4	40.00000	39.98853	pg	0	15	
Methoxychlor	A	2447.2	2515.3	200.0000	205.5608	pg	3	15	
Endosulfan sulfate	A	6289.8	6145.5	40.00000	39.08215	pg	-2	15	
TCMX	A	7213.6	6736.5	40.00000	37.35407	pg	-7	15	
Decachlorobiphenyl	A	4296.4	4203.4	40.00000	39.13453	pg	-2	15	
alpha-BHC	B	21707	24250	20.00000	22.34388	pg	12	15	
gamma-BHC	B	20065	21804	20.00000	21.73337	pg	9	15	
beta-BHC	B	8004.9	8567.4	20.00000	21.40530	pg	7	15	
delta-BHC	B	20914	22287	20.00000	21.31340	pg	7	15	
Heptachlor	B	14016	15534	20.00000	22.16652	pg	11	15	
Aldrin	B	18069	18644	20.00000	20.63602	pg	3	15	
Heptachlor epoxide	B	16253	16086	20.00000	19.79401	pg	-1	15	
gamma-Chlordane	B	16737	16362	20.00000	19.55216	pg	-2	15	
alpha-Chlordane	B	16400	16145	20.00000	19.68874	pg	-2	15	
4,4'-DDE	B	16131	18154	40.00000	45.01650	pg	13	15	
Endosulfan I	B	15283	15058	20.00000	19.70522	pg	-1	15	
Dieldrin	B	16622	18739	40.00000	45.09541	pg	13	15	
Endrin	B	13153	11877	40.00000	36.11745	pg	-10	15	
4,4'-DDD	B	13060	15297	40.00000	46.84994	pg	**17**	15	c+ ***
Endosulfan II	B	14266	14819	40.00000	41.55089	pg	4	15	
4,4'-DDT	B	10597	9257.3	40.00000	34.94359	pg	-13	15	
Endrin aldehyde	B	10995	11122	40.00000	40.46215	pg	1	15	
Methoxychlor	B	4978.1	4978.4	200.0000	200.0117	pg	0	15	
Endosulfan sulfate	B	12207	11961	40.00000	39.19252	pg	-2	15	
TCMX	B	13429	16236	40.00000	48.35907	pg	**21**	15	c+
Decachlorobiphenyl	B	9733.3	7400.0	40.00000	30.41089	pg	**-24**	15	c-
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23
Seqnum : 805222534038
Calnum : 805212954001
Standards: S643

Run Name : pest_4
Filename : 154_038
Caldate : 27-MAY-2005

IDF : 1.0
Injected : 04-JUN-2005 07:53
Caltype :

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10831	20.00000	18.93296	pg	-5	15	
gamma-BHC	A	10469	10144	20.00000	19.37848	pg	-3	15	
beta-BHC	A	4405.3	4342.5	20.00000	19.71501	pg	-1	15	
delta-BHC	A	10970	10697	20.00000	19.50391	pg	-2	15	
Heptachlor	A	9011.4	8645.6	20.00000	19.18811	pg	-4	15	
Aldrin	A	9275.9	9290.4	20.00000	20.03137	pg	0	15	
Heptachlor epoxide	A	8438.5	8457.1	20.00000	20.04418	pg	0	15	
gamma-Chlordane	A	8615.9	8639.7	20.00000	20.05533	pg	0	15	
alpha-Chlordane	A	8318.3	8529.6	20.00000	20.50802	pg	3	15	
4,4'-DDE	A	8273.9	8416.5	40.00000	40.68928	pg	2	15	
Endosulfan I	A	7857.0	8023.4	20.00000	20.42361	pg	2	15	
Dieldrin	A	8486.3	8643.9	40.00000	40.74259	pg	2	15	
Endrin	A	6588.3	6861.2	40.00000	41.65721	pg	4	15	
4,4'-DDD	A	6934.7	7750.1	40.00000	44.70357	pg	12	15	
Endosulfan II	A	7216.6	7311.6	40.00000	40.52654	pg	1	15	
4,4'-DDT	A	6149.5	5670.9	40.00000	36.88667	pg	-8	15	
Endrin aldehyde	A	5602.0	5756.1	40.00000	41.10039	pg	3	15	
Methoxychlor	A	2447.2	2482.8	200.0000	202.9060	pg	1	15	
Endosulfan sulfate	A	6289.8	6388.4	40.00000	40.62738	pg	2	15	
TCMX	A	7213.6	6925.4	40.00000	38.40190	pg	-4	15	
Decachlorobiphenyl	A	4296.4	4320.8	40.00000	40.22768	pg	1	15	
alpha-BHC	B	21707	23961	20.00000	22.07719	pg	10	15	
gamma-BHC	B	20065	21383	20.00000	21.31393	pg	7	15	
beta-BHC	B	8004.9	8339.7	20.00000	20.83661	pg	4	15	
delta-BHC	B	20914	21842	20.00000	20.88765	pg	4	15	
Heptachlor	B	14016	15617	20.00000	22.28548	pg	11	15	
Aldrin	B	18069	18248	20.00000	20.19824	pg	1	15	
Heptachlor epoxide	B	16253	15909	20.00000	19.57656	pg	-2	15	
gamma-Chlordane	B	16737	16063	20.00000	19.19422	pg	-4	15	
alpha-Chlordane	B	16400	15730	20.00000	19.18264	pg	-4	15	
4,4'-DDE	B	16131	17483	40.00000	43.35390	pg	8	15	
Endosulfan I	B	15283	14710	20.00000	19.24985	pg	-4	15	
Dieldrin	B	16622	18121	40.00000	43.60783	pg	9	15	
Endrin	B	13153	11132	40.00000	33.85412	pg	-15	15	
4,4'-DDD	B	13060	15052	40.00000	46.10150	pg	15	15	
Endosulfan II	B	14266	14556	40.00000	40.81290	pg	2	15	
4,4'-DDT	B	10597	8755.5	40.00000	33.04964	pg	**-17**	15	c- ***
Endrin aldehyde	B	10995	10781	40.00000	39.22119	pg	-2	15	
Methoxychlor	B	4978.1	4517.7	200.0000	181.5014	pg	-9	15	
Endosulfan sulfate	B	12207	11413	40.00000	37.39883	pg	-7	15	
TCMX	B	13429	15790	40.00000	47.03202	pg	**18**	15	c+
Decachlorobiphenyl	B	9733.3	6643.4	40.00000	27.30174	pg	**-32**	15	c-
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				9	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23
Seqnum : 805226950009
Calnum : 805212954001
Standards: S738

Run Name : pest_3
Filename : 157_009
Caldate : 27-MAY-2005

IDF : 1.0
Injected : 06-JUN-2005 16:43
Caltype :

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	9289.0	10.00000	8.118369	pg	**-19**	15	c- ***
gamma-BHC	A	10469	8832.7	10.00000	8.436791	pg	**-16**	15	c- ***
beta-BHC	A	4405.3	3870.2	10.00000	8.785405	pg	-12	15	
delta-BHC	A	10970	9627.7	10.00000	8.776725	pg	-12	15	
Heptachlor	A	9011.4	8207.6	10.00000	9.107993	pg	-9	15	
Aldrin	A	9275.9	7984.7	10.00000	8.608059	pg	-14	15	
Heptachlor epoxide	A	8438.5	7343.9	10.00000	8.702871	pg	-13	15	
gamma-Chlordane	A	8615.9	7492.7	10.00000	8.696434	pg	-13	15	
alpha-Chlordane	A	8318.3	7377.5	10.00000	8.869028	pg	-11	15	
4,4'-DDE	A	8273.9	7243.6	20.00000	17.50947	pg	-12	15	
Endosulfan I	A	7857.0	6972.4	10.00000	8.874168	pg	-11	15	
Dieldrin	A	8486.3	7455.6	20.00000	17.57089	pg	-12	15	
Endrin	A	6588.3	6459.8	20.00000	19.61009	pg	-2	15	
4,4'-DDD	A	6934.7	5826.7	20.00000	16.80455	pg	**-16**	15	c- ***
Endosulfan II	A	7216.6	6437.8	20.00000	17.84155	pg	-11	15	
4,4'-DDT	A	6149.5	6184.8	20.00000	20.11466	pg	1	15	
Endrin aldehyde	A	5602.0	5282.7	20.00000	18.86004	pg	-6	15	
Methoxychlor	A	2447.2	2651.3	100.0000	108.3375	pg	8	15	
Endosulfan sulfate	A	6289.8	5723.2	20.00000	18.19840	pg	-9	15	
TCMX	A	7213.6	5971.0	20.00000	16.55478	pg	**-17**	15	c-
Decachlorobiphenyl	A	4296.4	4081.7	20.00000	19.00099	pg	-5	15	
alpha-BHC	B	21707	20164	10.00000	9.289128	pg	-7	15	
gamma-BHC	B	20065	18875	10.00000	9.407231	pg	-6	15	
beta-BHC	B	8004.9	8096.3	10.00000	10.11419	pg	1	15	
delta-BHC	B	20914	20599	10.00000	9.849666	pg	-2	15	
Heptachlor	B	14016	16450	10.00000	11.73664	pg	**17**	15	c+ ***
Aldrin	B	18069	17262	10.00000	9.553365	pg	-4	15	
Heptachlor epoxide	B	16253	15499	10.00000	9.535922	pg	-5	15	
gamma-Chlordane	B	16737	15868	10.00000	9.480629	pg	-5	15	
alpha-Chlordane	B	16400	15812	10.00000	9.641610	pg	-4	15	
4,4'-DDE	B	16131	16339	20.00000	20.25830	pg	1	15	
Endosulfan I	B	15283	14926	10.00000	9.766313	pg	-2	15	
Dieldrin	B	16622	16407	20.00000	19.74131	pg	-1	15	
Endrin	B	13153	13936	20.00000	21.19052	pg	6	15	
4,4'-DDD	B	13060	12633	20.00000	19.34614	pg	-3	15	
Endosulfan II	B	14266	13854	20.00000	19.42298	pg	-3	15	
4,4'-DDT	B	10597	12988	20.00000	24.51344	pg	**23**	15	c+ ***
Endrin aldehyde	B	10995	10823	20.00000	19.68841	pg	-2	15	
Methoxychlor	B	4978.1	6231.5	100.0000	125.1781	pg	**25**	15	c+ ***
Endosulfan sulfate	B	12207	12098	20.00000	19.82087	pg	-1	15	
TCMX	B	13429	13271	20.00000	19.76368	pg	-1	15	
Decachlorobiphenyl	B	9733.3	8755.4	20.00000	17.99052	pg	-10	15	
Average EPA 8081A	A		(count=22)				11	15	
Average EPA 8081A	B		(count=22)				6	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805226950022 Filename : 157_022 Injected : 06-JUN-2005 23:38
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10577	20.00000	18.48770	pg	-8	15	
gamma-BHC	A	10469	9932.3	20.00000	18.97407	pg	-5	15	
beta-BHC	A	4405.3	4218.2	20.00000	19.15033	pg	-4	15	
delta-BHC	A	10970	10401	20.00000	18.96279	pg	-5	15	
Heptachlor	A	9011.4	8964.4	20.00000	19.89574	pg	-1	15	
Aldrin	A	9275.9	9065.6	20.00000	19.54648	pg	-2	15	
Heptachlor epoxide	A	8438.5	8256.8	20.00000	19.56951	pg	-2	15	
gamma-Chlordane	A	8615.9	8440.5	20.00000	19.59298	pg	-2	15	
alpha-Chlordane	A	8318.3	8237.7	20.00000	19.80632	pg	-1	15	
4,4'-DDE	A	8273.9	8172.6	40.00000	39.51003	pg	-1	15	
Endosulfan I	A	7857.0	7805.1	20.00000	19.86798	pg	-1	15	
Dieldrin	A	8486.3	8327.5	40.00000	39.25137	pg	-2	15	
Endrin	A	6588.3	7081.9	40.00000	42.99670	pg	7	15	
4,4'-DDD	A	6934.7	6869.6	40.00000	39.62438	pg	-1	15	
Endosulfan II	A	7216.6	7120.9	40.00000	39.46930	pg	-1	15	
4,4'-DDT	A	6149.5	6308.6	40.00000	41.03434	pg	3	15	
Endrin aldehyde	A	5602.0	5624.1	40.00000	40.15790	pg	0	15	
Methoxychlor	A	2447.2	2710.8	200.0000	221.5395	pg	11	15	
Endosulfan sulfate	A	6289.8	6242.8	40.00000	39.70085	pg	-1	15	
TCMX	A	7213.6	6762.6	40.00000	37.49902	pg	-6	15	
Decachlorobiphenyl	A	4296.4	4437.5	40.00000	41.31426	pg	3	15	
alpha-BHC	B	21707	23801	20.00000	21.92962	pg	10	15	
gamma-BHC	B	20065	21890	20.00000	21.81898	pg	9	15	
beta-BHC	B	8004.9	8584.2	20.00000	21.44725	pg	7	15	
delta-BHC	B	20914	22441	20.00000	21.45996	pg	7	15	
Heptachlor	B	14016	18208	20.00000	25.98234	pg	**30**	15	c+ ***
Aldrin	B	18069	19068	20.00000	21.10525	pg	6	15	
Heptachlor epoxide	B	16253	16739	20.00000	20.59833	pg	3	15	
gamma-Chlordane	B	16737	17067	20.00000	20.39470	pg	2	15	
alpha-Chlordane	B	16400	16743	20.00000	20.41845	pg	2	15	
4,4'-DDE	B	16131	19122	40.00000	47.41654	pg	**19**	15	c+ ***
Endosulfan I	B	15283	15618	20.00000	20.43864	pg	2	15	
Dieldrin	B	16622	19423	40.00000	46.74161	pg	**17**	15	c+ ***
Endrin	B	13153	15402	40.00000	46.83775	pg	**17**	15	c+ ***
4,4'-DDD	B	13060	14191	40.00000	43.46355	pg	9	15	
Endosulfan II	B	14266	15170	40.00000	42.53536	pg	6	15	
4,4'-DDT	B	10597	13186	40.00000	49.77253	pg	**24**	15	c+ ***
Endrin aldehyde	B	10995	11238	40.00000	40.88334	pg	2	15	
Methoxychlor	B	4978.1	6676.9	200.0000	268.2515	pg	**34**	15	c+ ***
Endosulfan sulfate	B	12207	12249	40.00000	40.13712	pg	0	15	
TCMX	B	13429	15346	40.00000	45.70854	pg	14	15	
Decachlorobiphenyl	B	9733.3	8284.4	40.00000	34.04551	pg	-15	15	
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				11	15	

+=high bias c=CCV
Page 1 of 1

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805212954 Instrument: GC23 Gas Chromatograph #23 ECD
Analytical Method: EPA 8081A SOP Version: 8081_rv7 Begun: 27-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
003	147_003	PEM				27-MAY-2005 20:19	1.0	1			1	
004	147_004	X	hex			27-MAY-2005 20:46	1.0					
005	147_005	ICAL	pest_1			27-MAY-2005 21:14	1.0				2	
006	147_006	ICAL	pest_2			27-MAY-2005 21:42	1.0				3	
007	147_007	ICAL	pest_3			27-MAY-2005 22:09	1.0				4	
008	147_008	ICAL	pest_4			27-MAY-2005 22:37	1.0				5	
009	147_009	ICAL	pest_5			27-MAY-2005 23:05	1.0				6	
010	147_010	ICAL	pest_6			27-MAY-2005 23:33	1.0				7	
011	147_011	ICAL	pest_7			28-MAY-2005 00:00	1.0				8	
013	147_013	ICV				28-MAY-2005 00:56	1.0	1			9	
014	147_014	X	icv			28-MAY-2005 01:24	1.0	1			9	

26

Stds used: 1=S663 2=S9 3=S419 4=S420 5=S643 6=S613 7=S13 8=S14 9=S441

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	152_002	X	pem			01-JUN-2005 12:09	1.0	1.0			1	1	1:DDT44=149.052
003	152_003	X	ccv			01-JUN-2005 12:37	1.0	1.0			1	2	
004	152_004	X	ccv			01-JUN-2005 13:05	1.0	1.0			1	2	
005	152_005	X	pem			01-JUN-2005 13:58	1.0	1.0			1	1	1:DDT44=121.667
008	152_008	X	pem			01-JUN-2005 17:54	1.0	1.0			1	1	1:DDT44=131.216
009	152_009	X	ccv			01-JUN-2005 18:22	1.0	1.0			1	2 ac	
010	152_010	X	ccv			01-JUN-2005 19:54	1.0					2	
011	152_011	CCV	pest_4			01-JUN-2005 20:22	1.0	1.0	6		1	2	
012	152_012	X	ccv			01-JUN-2005 20:49	1.0				1	2	
013	152_013	PEM				01-JUN-2005 21:17	1.0	1.0			1	1	1:DDT44=156.947
015	152_015	BLANK	QC295453	102456	Water	01-JUN-2005 22:13	1.0	0.01		1	1		
016	152_016	LCS	QC295454	102456	Water	01-JUN-2005 22:41	1.0	0.01	6	3	1		1:DDT44=53.6046
017	152_017	SAMPLE	179613-019	102456	Water	01-JUN-2005 23:09	1.0	0.009524			1		
018	152_018	SAMPLE	179645-004	102456	Water	01-JUN-2005 23:36	1.0	0.009524		2	1		
019	152_019	SAMPLE	179645-005	102456	Water	02-JUN-2005 00:04	1.0	0.009615		1	1		
020	152_020	SAMPLE	179679-001	102456	Water	02-JUN-2005 00:32	1.0	0.009709			1		
021	152_021	SAMPLE	179679-002	102456	Water	02-JUN-2005 01:00	1.0	0.009524		2	1		
022	152_022	MSS	179727-002	102456	Water	02-JUN-2005 01:28	1.0	0.009709			1		
023	152_023	MS	QC295455	102456	Water	02-JUN-2005 01:55	1.0	0.009709	6	1	1		
024	152_024	MSD	QC295456	102456	Water	02-JUN-2005 02:23	1.0	0.009524	6	8	1		1:DDT44=53.2110
026	152_026	PEM				02-JUN-2005 03:19	1.0	1.0			1	1	1:DDT44=155.990
027	152_027	CCV	pest_3			02-JUN-2005 03:47	1.0	1.0	1		1	3	
028	152_028	X	ccv			02-JUN-2005 04:14	1.0				1	3	
031	152_031	SAMPLE	179679-003	102456	Water	02-JUN-2005 05:38	1.0	0.009615		2	1		
032	152_032	SAMPLE	179679-004	102456	Water	02-JUN-2005 06:05	1.0	0.009434		2	1		
033	152_033	SAMPLE	179679-005	102456	Water	02-JUN-2005 06:33	1.0	0.009434		2	1		
034	152_034	SAMPLE	179679-006	102456	Water	02-JUN-2005 07:01	1.0	0.01			1		
035	152_035	SAMPLE	179679-007	102456	Water	02-JUN-2005 07:28	1.0	0.009524	5	2	1		6:BHCBET=352.319
036	152_036	SAMPLE	179714-001	102456	Water	02-JUN-2005 07:56	1.0	0.009434		2	1		
037	152_037	SAMPLE	179727-001	102456	Water	02-JUN-2005 08:24	1.0	0.009709			1		

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
038	152_038	SAMPLE	179727-003	102456	Water	02-JUN-2005 08:52	1.0	0.009524		1	1		
039	152_039	SAMPLE	179727-004	102456	Water	02-JUN-2005 09:19	1.0	0.009524		2	1		
040	152_040	SAMPLE	179727-007	102456	Water	02-JUN-2005 09:47	1.0	0.009804		1	1		
042	152_042	PEM				02-JUN-2005 10:43	1.0	1.0			1	1	1:DDT44=137.242
043	152_043	X	ccv			02-JUN-2005 11:11	1.0	1.0			1	4 ac	
044	152_044	CCV	pest_2			02-JUN-2005 11:39	1.0	1.0	5		1	4	
047	152_047	SAMPLE	179727-008	102456	Water	02-JUN-2005 13:13	1.0	0.009709	4	1	1		
048	152_048	SAMPLE	179727-014	102456	Water	02-JUN-2005 13:41	1.0	0.009804	4	2	1		
049	152_049	SAMPLE	179727-015	102456	Water	02-JUN-2005 14:09	1.0	0.009434	4	1	1		
050	152_050	SAMPLE	179727-017	102456	Water	02-JUN-2005 14:37	1.0	0.009901	4	1	1		
051	152_051	BLANK	QC295933	102569	Soil	02-JUN-2005 18:46	1.0	0.6658	4		1		
052	152_052	LCS	QC295934	102569	Soil	02-JUN-2005 19:14	1.0	0.6653	10		1		
053	152_053	SAMPLE	179626-001	102569	Soil	02-JUN-2005 19:42	1.0	0.6618	4		1		
054	152_054	SAMPLE	179626-002	102569	Soil	02-JUN-2005 20:10	1.0	0.664	4		1		
055	152_055	SAMPLE	179626-003	102569	Soil	02-JUN-2005 20:38	2.0	0.6588	4		1		
056	152_056	SAMPLE	179583-014	102543	Water	02-JUN-2005 21:06	10.0	0.01389	38		1	sh	28
058	152_058	PEM				02-JUN-2005 22:02	1.0	1.0			1	1	1:DDT44=123.949
059	152_059	CCV	pest_4			02-JUN-2005 22:29	1.0	1.0	6		1	2	
060	152_060	X	ccv			02-JUN-2005 22:57	1.0					2	
063	152_063	BLANK	QC295812	102543	Water	03-JUN-2005 00:20	1.0	0.01	4		1		
064	152_064	BS	QC295813	102543	Water	03-JUN-2005 00:48	1.0	0.01	7	1	1		
065	152_065	BSD	QC295814	102543	Water	03-JUN-2005 01:16	1.0	0.01	7	11	1		
066	152_066	SAMPLE	179688-001	102543	Water	03-JUN-2005 01:44	1.0	0.009901	5		1		
067	152_067	SAMPLE	179688-002	102543	Water	03-JUN-2005 02:12	1.0	0.01	6	1	1	2:DDT44=341.956	
068	152_068	SAMPLE	179688-003	102543	Water	03-JUN-2005 02:40	1.0	0.01	4	1	1		
069	152_069	SAMPLE	179688-004	102543	Water	03-JUN-2005 03:08	1.0	0.01	4	1	1		
070	152_070	SAMPLE	179688-005	102543	Water	03-JUN-2005 03:36	1.0	0.01	4		1		
071	152_071	MS	QC295455	102456	Water	03-JUN-2005 04:04	1.0	0.009709	7	1	1		
072	152_072	MSD	QC295456	102456	Water	03-JUN-2005 04:32	1.0	0.009524	7	2	1		
074	152_074	PEM				03-JUN-2005 05:27	1.0	1.0			1	1	1:DDT44=144.421

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD
Analytical Method: EPA 8081A SOP Version: 8081_rv7 Begun: 01-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
075	152_075	CCV	pest_3			03-JUN-2005 05:55	1.0	1.0	4	1	3	
076	152_076	X	ccv			03-JUN-2005 06:23	1.0				3	
077	152_077	X	pem			03-JUN-2005 06:50	1.0	1.0		1	1	1:DDT44=138.667

299

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805222534 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 03-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
005	154_005	X	pem			03-JUN-2005 12:54	1.0	1.0			1	1	1:DDT44=118.488
006	154_006	X	ccv			03-JUN-2005 13:22	1.0	1.0			1	2	
007	154_007	CCV	pest_2			03-JUN-2005 13:50	1.0	1.0	1		1	2	
008	154_008	PEM				03-JUN-2005 15:01	1.0	1.0			1	1	1:DDT44=121.414
010	154_010	BS	QC295813	102543	Water	03-JUN-2005 18:56	1.0	0.01	2	1	1		
011	154_011	BSD	QC295814	102543	Water	03-JUN-2005 19:24	1.0	0.01	2	3	1		
012	154_012	SAMPLE	179688-002	102543	Water	03-JUN-2005 19:52	10.0	0.01			1		
013	154_013	SAMPLE	179597-001	102485	Soil	03-JUN-2005 20:20	1.0	0.672			1		
014	154_014	SAMPLE	179597-002	102485	Soil	03-JUN-2005 20:47	1.0	0.6689			1		
015	154_015	SAMPLE	179597-003	102485	Soil	03-JUN-2005 21:15	1.0	0.6566			1		
016	154_016	SAMPLE	179597-004	102485	Soil	03-JUN-2005 21:43	1.0	0.6752			1		
017	154_017	SAMPLE	179597-005	102485	Soil	03-JUN-2005 22:11	5.0	0.6748			1		
018	154_018	SAMPLE	179597-006	102485	Soil	03-JUN-2005 22:38	10.0	0.6607			1		
019	154_019	SAMPLE	179614-027	102485	Soil	03-JUN-2005 23:06	5.0	0.6773			1		
021	154_021	PEM				04-JUN-2005 00:02	1.0	1.0			1	1	1:DDT44=107.1
022	154_022	CCV	pest_4			04-JUN-2005 00:29	1.0	1.0	1		1	3	
026	154_026	SAMPLE	179782-001	102543	Water	04-JUN-2005 02:20	1.0	0.009615	1	1	1		
027	154_027	SAMPLE	179782-002	102543	Water	04-JUN-2005 02:48	1.0	0.009709	1	2	1		
028	154_028	SAMPLE	179564-001	102569	Soil	04-JUN-2005 03:16	5.0	0.6667	1	1	1		
029	154_029	MSS	179603-001	102569	Soil	04-JUN-2005 03:43	2.0	0.6689	1		1		
030	154_030	SAMPLE	179622-001	102569	Soil	04-JUN-2005 04:11	1.0	0.6557	1		1		
031	154_031	SAMPLE	179622-002	102569	Soil	04-JUN-2005 04:39	1.0	0.664	1		1		
032	154_032	SAMPLE	179622-003	102569	Soil	04-JUN-2005 05:06	5.0	0.6645	1		1		
033	154_033	SAMPLE	179622-004	102569	Soil	04-JUN-2005 05:34	5.0	0.6609	1		1		
034	154_034	SAMPLE	179622-005	102569	Soil	04-JUN-2005 06:02	10.0	0.6667	1		1		
035	154_035	SAMPLE	179622-006	102569	Soil	04-JUN-2005 06:30	10.0	0.6566	1		1		
037	154_037	PEM				04-JUN-2005 07:25	1.0	1.0			1	1	1:DDT44=110.143
038	154_038	CCV	pest_4			04-JUN-2005 07:53	1.0	1.0	1		1	3	
040	154_040	X	pem			04-JUN-2005 08:48	1.0					1	
051	154_051	X	pem			04-JUN-2005 13:55	1.0	1.0			1	1	1:DDT44=78.2311
052	154_052	X	ccv			04-JUN-2005 14:23	1.0					2	

Stds used: 1=S663 2=S419 3=S643

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805222534 Instrument: GC23 Gas Chromatograph #23 ECD
Analytical Method: EPA 8081A SOP Version: 8081_rv7 Begun: 03-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
053	154_053	X	ccv			04-JUN-2005 14:51	1.0			2	
054	154_054	X	pem			04-JUN-2005 15:19	1.0	1.0	1	1	1:DDT44=93.5881

Stds used: 1=S663 2=S419 3=S643

SEQUENCE SUMMARY FOR 179603 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805226950 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
005	157_005	X	pem			06-JUN-2005 14:30	1.0	1.0			1	1	1:DDT44=141.669
006	157_006	X	ccv			06-JUN-2005 14:58	1.0	1.0			1	2	
007	157_007	X	ccv			06-JUN-2005 15:26	1.0	1.0			1	2	ac
008	157_008	X	ccv			06-JUN-2005 16:15	1.0	1.0			1	3	
009	157_009	CCV	pest_3			06-JUN-2005 16:43	1.0	1.0	6		1	3	
010	157_010	PEM				06-JUN-2005 18:03	1.0	1.0			1	1	1:DDT44=162.615
012	157_012	MS	QC295935	102569	Soil	06-JUN-2005 18:59	2.0	0.6645	9	2	1		
013	157_013	MSD	QC295936	102569	Soil	06-JUN-2005 19:27	2.0	0.6631	9	3	1		
014	157_014	SAMPLE	179653-001	102569	Soil	06-JUN-2005 19:55	1.0	0.6609	3		1		
015	157_015	SAMPLE	179653-002	102569	Soil	06-JUN-2005 20:22	10.0	0.6562	3		1		
016	157_016	SAMPLE	179653-003	102569	Soil	06-JUN-2005 20:50	5.0	0.6592	3		1		
017	157_017	SAMPLE	179653-004	102569	Soil	06-JUN-2005 21:18	10.0	0.664	3		1		
018	157_018	SAMPLE	179653-005	102569	Soil	06-JUN-2005 21:46	10.0	0.6636	3		1		
019	157_019	SAMPLE	179679-007	102456	Water	06-JUN-2005 22:14	10.0	0.009524	4		1		
021	157_021	PEM				06-JUN-2005 23:10	1.0	1.0			1	1:BHCBET=119.263	
022	157_022	CCV	pest_4			06-JUN-2005 23:38	1.0	1.0	6		1	1	1:DDT44=179.02
023	157_023	X	ccv			07-JUN-2005 00:06	1.0					4	
												4	

Stds used: 1=S663 2=S419 3=S738 4=S643
Flags used: ac=average CCV drift out

Curtis & Tompkins Laboratories Sample Preparation Summary 03-JUN-2005 11:00

Batch Number : 102569
Date Extracted: 02-JUN-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S719A
Spike #2 ID : S358A
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH	Clean D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179564-001			Mactec, Inc.	Soil	15	g	10	0.666667	1		.02	0		8081	3620B	
179603-001			Mactec, Inc.	Soil	14.95	g	10	0.668896	1		.02	0		8081	3620B	mss
179622-001			Fugro West, Inc.	Soil	15.25	g	10	0.655738	1		.02	0		8081	3620B	
179622-002			Fugro West, Inc.	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179622-003			Fugro West, Inc.	Soil	15.05	g	10	0.664452	1		.02	0		8081	3620B	
179622-004			Fugro West, Inc.	Soil	15.13	g	10	0.660939	1		.02	0		8081	3620B	
179622-005			Fugro West, Inc.	Soil	15	g	10	0.666667	1		.02	0		8081	3620B	
179622-006			Fugro West, Inc.	Soil	15.23	g	10	0.656599	1		.02	0		8081	3620B	
179626-001			Treadwell & Rollo	Soil	15.11	g	10	0.661813	1		.02	0		8081	3620B	
179626-002			Treadwell & Rollo	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179626-003			Treadwell & Rollo	Soil	15.18	g	10	0.658762	1		.02	0		8081	3620B	
179653-001			Fugro West, Inc.	Soil	15.13	g	10	0.660939	1		.02	0		8081	3620B	
179653-002			Fugro West, Inc.	Soil	15.24	g	10	0.656168	1		.02	0		8081	3620B	
179653-003			Fugro West, Inc.	Soil	15.17	g	10	0.659196	1		.02	0		8081	3620B	
179653-004			Fugro West, Inc.	Soil	15.06	g	10	0.664011	1		.02	0		8081	3620B	
179653-005			Fugro West, Inc.	Soil	15.07	g	10	0.663570	1		.02	0		8081	3620B	
QC295933	BLANK			Soil	15.02	g	10	0.665779	1		.02	0		8081	3620B	
QC295934	LCS			Soil	15.03	g	10	0.665336	1		.02	.025		8081	3620B	
QC295935	MS	of 179603-001		Soil	15.05	g	10	0.664452	1		.02	.025		8081	3620B	
QC295936	MSD	of 179603-001		Soil	15.08	g	10	0.663130	1		.02	.025		8081	3620B	

383

Prep Chemist: _____ Reviewed By: _____ Date: 3 June 05

Relinquished By: _____ Received By: _____ Date: 06/06/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2065

LIMS Batch No: 102569 **Extraction Method:** **Cleanup Method:** Page 83

LIMS Analysis: 8081 ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: SUC ☑ EPA 3545 PFE (Mth# 10) ☑ EPA 3620b Florisil

Date Extracted: 06/02/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
MB QC29593	15.02	10.0	X	
LCS 4	15.03	↓		
MS 5	15.05	10.0		179603-001
MSD ↓ 6	15.08			↓
179564-001	15.00			
179603-001	14.95			MS5
179622-001	15.25			
-002	15.06			
-003	15.05			
-004	15.13			
-005	15.00			
↓ -006	15.23	↓		
179626-001	15.11	10.0		
-002	15.06			
↓ -003	15.18	↓		
179653-001	15.13	10.0		
-002	15.24			
-003	15.17			
-004	15.06			
↓ -005	15.07	↓	↓	

JDM 3 June 05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM4402 8452	SUC 06/02/05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☑ diatomaceous earth	Dionex 040603	↓
0.02 mL of surrogate solution was added to all samples	5719A	
0.005 mL of spike solution was added to all spikes	5358A	
1:1 CH_2Cl_2 (lot# EM45089):Acetone(lot# EM45047) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☑ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D28	
Soxhlets on at:	N/A	
Soxhlets off at:	↓	
Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4	↓	
Exchanged 2x with Hexane	CN801	↓
Concentrated: ☐ to volumes as noted above ☑ to clean-up volume	✓	JDM 3 June 05
Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil	✓	↓

06/02/05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

3 June 05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: SLK
Cleanup Date: 06/02/05

Benchbook # **BK 2068**
Page 87

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
MB QC 295933	102569	1.0	1.0	
LCS ↓ 4	↓	↓	↓	
196026-001	↓	↓	↓	
-002	↓	↓	↓	
↓ -003	↓	↓	↓	

SLK 06/02/05

☑ Extracts were cleaned up using Florisil cartridges
Florisil cartridges/ columns rinsed 3x with Hexane
Extracts were eluted with 90 mL 9:1 Hexane/Acetone
Concentrated to volumes as noted above

	Mfg & Lot # / Time / Program	Initials / Date
	Resprep 402-290-BE	SLK 06/02/05
Florisil cartridges/ columns rinsed 3x with Hexane	CNJ801	↓
Hexane	↓	↓
Acetone	EM44233	↓
Concentrated to volumes as noted above	↓	↓

06/02/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

6/2/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JOM
Cleanup Date: 3 June 05

Benchbook # **BK 2068**
Page 88

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
179564-001	102569	1.0	1.0	
179603-001				MSS
179622-001				
2				
3				
4				
5				
6				
179653-001				
2				
3				
4				
5				
MS QC295935				
MSD 6				

JOM 3 June 05

	Mfg & Lot # / Time / Program	Initials / Date
☒ Extracts were cleaned up using Florisil cartridges	Resprep 402290-BE	JOM 3 June 05
Florisil cartridges/ columns rinsed 3x with Hexane	CN8001	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone — Hexane	CN801	
Acetone	EM44233	
Concentrated to volumes as noted above	✓	

JOM 3 June 05
Extraction Chemist / Date

Continued from page —
Continued on page —

6/3/05
Reviewed by / Date

Project SOIL ALIQUOT PK2135

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179606-001A	50.24	TEHN	
-002	50.29		
-003	50.28		
-005	50.07		
-006	50.30		
-007	50.30		
-008	50.36		MS
-MS	50.33		179606-008A
-MSD	50.11		
-009A	50.36		
-010	50.49		EM4402845Z
-LCS	50.42		
-MB	50.17		
179626-001A	15.11	8081	
-002	15.06		
-003	15.18		
179626-001A	50.11	TEHN	
-002	50.49		
-003	50.16		
179646-001A	15.17	PCB	
-005	15.24		
-006	15.04		
-007	15.08		MS
-MS	15.02		179646-007A
-MSD	15.13		
-LCS	15.01		EM4402845Z
-MB	15.12		

Continued on Page

Signed — Date 5/31/05

Read and Understood By

Signed — Date

Project SGL ALIQUOT BK2135

Continued from Page

SAMPLE ID	WEIGHT (g)	ANALYSIS	COMMENTS
179636-001 A	30.01	8310	MISC.
179622-001 A	15.25	8081	
-002	15.06		MSS 179622-002A → EMA402E457
-MS	15.25		
-MSD	15.10		
-LCC	15.05		
-MB	15.24		
-003 A	15.05		
-004	15.13		
-005	15.90		
-006	15.23		
179597-09	30.08	8310 ALIASED	179528-002 G
-002	30.00		-009
-003	30.21		-013
-004	30.35		179549-005 A
-005	30.12		-009
-006	30.05		-017
179453-001 A	15.13	8081	
-002	15.24		
-003	15.17		
-004	15.04		
-005	15.07		
179656-001 A	15.20	PCB	
~~LCS/31~~ -003	15.00		
-005	~~15.00~~ 15.13		
-006	~~15.15~~ 15.19		
-008	~~15.14~~ 15.24		
-010	15.07		
-012	15.11		
-014	15.17		
-016	15.16		
-018	15.02		

Continued on Page

Signed — Date 5/31/05

Read and Understood By

Signed — Date

Project SOIL ALIQUOT BK2435

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179504-001A	15.09	PCB 8081 PCB	
179564-001A	15.60		
179567-005B	15.15		
-006 ↓	15.06		MS 179567-006B ↓ EM44028452 ↓
-MS	15.17		
-MSD	15.15		
-LCS	15.19		
-MB	15.10		

Continued on Page

Signed

6/1/05

Date

Read and Understood By

Signed

Date

Sample ID	Weight (g)	Analysis Requested	Comments
MB	15.02	8081	EM440284152
LCS	15.03		↓
MS	15.05		179603-001
MSD	15.08		↓
179603-001A	14.95		MSS

Continued on Page

Signed 06/02/05 Date 400

Read and Understood By

Signed Date

Confirmation Report for 179603 8081 Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
179603-001	BBSB106(0.5)	gamma-Chlordane	3.072 J	2.431	23	-21

J=estimated

REPORTING SUMMARY FOR 179603 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179603-001	alpha-BHC	GC23	B	06/04/05 03:43
179603-001	beta-BHC	GC23	B	06/04/05 03:43
179603-001	gamma-BHC	GC23	B	06/04/05 03:43
179603-001	delta-BHC	GC23	B	06/04/05 03:43
179603-001	Heptachlor	GC23	B	06/04/05 03:43
179603-001	Aldrin	GC23	B	06/04/05 03:43
179603-001	Heptachlor epoxide	GC23	B	06/04/05 03:43
179603-001	Endosulfan I	GC23	B	06/04/05 03:43
179603-001	Dieldrin	GC23	B	06/04/05 03:43
179603-001	4,4'-DDE	GC23	B	06/04/05 03:43
179603-001	Endrin	GC23	B	06/04/05 03:43
179603-001	Endosulfan II	GC23	B	06/04/05 03:43
179603-001	Endosulfan sulfate	GC23	B	06/04/05 03:43
179603-001	4,4'-DDD	GC23	B	06/04/05 03:43
179603-001	Endrin aldehyde	GC23	B	06/04/05 03:43
179603-001	4,4'-DDT	GC23	B	06/04/05 03:43
179603-001	alpha-Chlordane	GC23	B	06/04/05 03:43
179603-001	gamma-Chlordane	GC23	A	06/04/05 03:43
179603-001	Methoxychlor	GC23	A	06/04/05 03:43
179603-001	Toxaphene	GC23	B	06/04/05 03:43
179603-001	TCMX	GC23	B	06/04/05 03:43
179603-001	Decachlorobiphenyl	GC23	A	06/04/05 03:43
		GC23	A	06/04/05 03:43
QC295933	alpha-BHC	GC23	B	06/02/05 18:46
QC295933	beta-BHC	GC23	B	06/02/05 18:46
QC295933	gamma-BHC	GC23	B	06/02/05 18:46
QC295933	delta-BHC	GC23	B	06/02/05 18:46
QC295933	Heptachlor	GC23	B	06/02/05 18:46
QC295933	Aldrin	GC23	B	06/02/05 18:46
QC295933	Heptachlor epoxide	GC23	B	06/02/05 18:46
QC295933	Endosulfan I	GC23	B	06/02/05 18:46
QC295933	Dieldrin	GC23	B	06/02/05 18:46
QC295933	4,4'-DDE	GC23	B	06/02/05 18:46
QC295933	Endrin	GC23	B	06/02/05 18:46
QC295933	Endosulfan II	GC23	B	06/02/05 18:46
QC295933	Endosulfan sulfate	GC23	B	06/02/05 18:46
QC295933	4,4'-DDD	GC23	B	06/02/05 18:46
QC295933	Endrin aldehyde	GC23	B	06/02/05 18:46
QC295933	4,4'-DDT	GC23	B	06/02/05 18:46
QC295933	alpha-Chlordane	GC23	B	06/02/05 18:46
QC295933	gamma-Chlordane	GC23	B	06/02/05 18:46
QC295933	Methoxychlor	GC23	B	06/02/05 18:46
QC295933	Toxaphene	GC23	B	06/02/05 18:46
QC295933	TCMX	GC23	B	06/02/05 18:46
QC295933	Decachlorobiphenyl	GC23	B	06/02/05 18:46
		GC23	B	06/02/05 18:46
QC295934	gamma-BHC	GC23	B	06/02/05 19:14
QC295934	Heptachlor	GC23	B	06/02/05 19:14
QC295934	Aldrin	GC23	B	06/02/05 19:14
QC295934	Dieldrin	GC23	B	06/02/05 19:14
QC295934	Endrin	GC23	B	06/02/05 19:14
QC295934	4,4'-DDT	GC23	B	06/02/05 19:14
QC295934	TCMX	GC23	B	06/02/05 19:14
QC295934	Decachlorobiphenyl	GC23	B	06/02/05 19:14

REPORTING SUMMARY FOR 179603 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC295935	gamma-BHC	GC23	A	06/06/05 18:59
QC295935	Heptachlor	GC23	A	06/06/05 18:59
QC295935	Aldrin	GC23	A	06/06/05 18:59
QC295935	Dieldrin	GC23	A	06/06/05 18:59
QC295935	Endrin	GC23	A	06/06/05 18:59
QC295935	4,4'-DDT	GC23	A	06/06/05 18:59
QC295935	TCMX	GC23	A	06/06/05 18:59
QC295935	Decachlorobiphenyl	GC23	A	06/06/05 18:59
QC295936	gamma-BHC	GC23	A	06/06/05 19:27
QC295936	Heptachlor	GC23	A	06/06/05 19:27
QC295936	Aldrin	GC23	A	06/06/05 19:27
QC295936	Dieldrin	GC23	A	06/06/05 19:27
QC295936	Endrin	GC23	A	06/06/05 19:27
QC295936	4,4'-DDT	GC23	A	06/06/05 19:27
QC295936	TCMX	GC23	A	06/06/05 19:27
QC295936	Decachlorobiphenyl	GC23	A	06/06/05 19:27

Polychlorinated Biphenyls
Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBSB106(0.5)	Batch#:	102674
Matrix:	Soil	Sampled:	05/23/05
Units:	ug/Kg	Received:	05/24/05
Diln Fac:	1.000	Prepared:	06/06/05

Type:	SAMPLE	Moisture:	15%
Lab ID:	179603-001	Analyzed:	06/08/05
Basis:	dry	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	5.2
Aroclor-1221	ND	23	6.5
Aroclor-1232	ND	11	7.0
Aroclor-1242	ND	11	3.8
Aroclor-1248	ND	11	7.2
Aroclor-1254	ND	11	5.1
Aroclor-1260	ND	11	4.6

Surrogate	%REC	Limits
TCMX	105	63-141
Decachlorobiphenyl	83	49-146

Type:	BLANK	Analyzed:	06/07/05
Lab ID:	QC296364	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.6	4.4
Aroclor-1221	ND	19	5.5
Aroclor-1232	ND	9.6	5.9
Aroclor-1242	ND	9.6	3.3
Aroclor-1248	ND	9.6	6.1
Aroclor-1254	ND	9.6	4.4
Aroclor-1260	ND	9.6	3.9

Surrogate	%REC	Limits
TCMX	89	63-141
Decachlorobiphenyl	77	49-146

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296365	Batch#:	102674
Matrix:	Soil	Prepared:	06/06/05
Units:	ug/Kg	Analyzed:	06/07/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	164.8	176.2	107	78-150

Surrogate	%REC	Limits
TCMX	95	63-141
Decachlorobiphenyl	78	49-146

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	102674
MSS Lab ID:	179646-007	Sampled:	05/24/05
Matrix:	Soil	Received:	05/25/05
Units:	ug/Kg	Prepared:	06/06/05
Basis:	dry	Analyzed:	06/08/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC296366

Moisture: 10%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<6.554	184.9	215.6	117	61-167

Surrogate	%REC	Limits
TCMX	100	63-141
Decachlorobiphenyl	78	49-146

Type: MSD
Lab ID: QC296367

Moisture: 10%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	183.6	213.3	116	61-167	0	36

Surrogate	%REC	Limits
TCMX	104	63-141
Decachlorobiphenyl	94	49-146

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: MCH
Calnum: 205228255001 Name: Type: (normal) Date: 07-JUN-2005 12:15 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	158_002	205228255002	pcb10_2	07-JUN-2005 12:15	S698
2	158_003	205228255003	pcb25_5	07-JUN-2005 12:48	S699
3	158_004	205228255004	pcb100_20	07-JUN-2005 14:24	S700
4	158_005	205228255005	pcb250_50	07-JUN-2005 14:57	S701
5	158_006	205228255006	pcb500_100	07-JUN-2005 15:31	S702
6	158_007	205228255007	pcb750_150	07-JUN-2005 16:04	S703
7	158_008	205228255008	pcb1k_200	07-JUN-2005 16:37	S704

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	234.57	254.65	204.99	202.50	212.81	209.82	189.85	AVRG	R		0.004638		pg	215.60	10	.99	20	
Aroclor-1016 Peak # 2	A	485.56	524.53	395.49	371.54	375.79	355.49	323.67	AVRG	R		0.002472		pg	404.58	18	.99	20	
Aroclor-1016 Peak # 3	A	462.66	495.84	408.63	403.54	439.10	429.00	397.18	AVRG	R		0.002306		pg	433.71	8	.99	20	
Aroclor-1016 Peak # 4	A	344.74	385.33	305.09	297.00	323.23	312.54	289.42	AVRG	R		0.003101		pg	322.48	10	.99	20	
Aroclor-1016 Peak # 5	A	247.74	256.31	215.60	194.88	215.46	203.63	188.74	AVRG	R		0.004598		pg	217.48	12	.99	20	
Aroclor-1260 Peak # 1	A	689.51	737.43	580.32	544.72	560.69	541.84	499.13	AVRG	R		0.001685		pg	593.38	15	.99	20	
Aroclor-1260 Peak # 2	A	315.65	344.71	282.97	273.53	283.08	277.99	257.35	AVRG	R		0.003439		pg	290.76	10	.99	20	
Aroclor-1260 Peak # 3	A	371.86	385.42	304.32	292.99	310.97	309.10	290.02	AVRG	R		0.003091		pg	323.53	12	.99	20	
Aroclor-1260 Peak # 4	A	646.16	698.12	594.27	583.63	627.78	632.58	592.32	AVRG	R		0.001600		pg	624.98	6	.99	20	
Aroclor-1260 Peak # 5	A	313.59	344.78	299.53	300.45	335.10	343.94	325.70	AVRG	R		0.003093		pg	323.30	6	.99	20	
TCMX	A	7442.4	8355.3	7080.8	7621.2	8638.0	8545.8	7868.7	AVRG	R		1.260E-4		pg	7936.0	7	.99	20	
Decachlorobiphenyl	A	7189.8	7821.4	6519.6	6231.2	6542.7	6446.9	5875.9	AVRG	R		1.501E-4		pg	6661.1	10	.99	20	
Aroclor-1016 Peak # 1	B	143.33	156.37	123.74	122.12	127.31	122.66	113.00	AVRG	R		0.007705		pg	129.79	11	.99	20	
Aroclor-1016 Peak # 2	B	187.92	205.17	161.79	155.30	161.53	155.82	143.15	AVRG	R		0.005979		pg	167.24	13	.99	20	
Aroclor-1016 Peak # 3	B	452.74	488.65	392.98	391.72	430.24	425.24	396.48	AVRG	R		0.002351		pg	425.44	8	.99	20	
Aroclor-1016 Peak # 4	B	222.18	239.25	189.60	183.47	194.73	189.61	175.49	AVRG	R		0.005020		pg	199.19	11	.99	20	
Aroclor-1016 Peak # 5	B	147.13	161.25	133.47	127.02	134.22	130.06	120.24	AVRG	R		0.007342		pg	136.20	10	.99	20	
Aroclor-1260 Peak # 1	B	438.68	464.14	370.07	362.13	386.66	368.06	344.94	AVRG	R		0.002560		pg	390.67	11	.99	20	
Aroclor-1260 Peak # 2	B	226.22	241.75	189.81	179.63	183.16	177.70	164.31	AVRG	R		0.005137		pg	194.65	15	.99	20	

48 48

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: MCH
Calnum: 205228255001 Name: Type: (normal) Date: 07-JUN-2005 12:15 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	220.87	237.75	191.93	184.50	193.02	190.85	178.02	AVRG	R		0.005011		pg	199.56	11	.99	20	
Aroclor-1260 Peak # 4	B	470.96	500.07	407.83	395.98	402.25	405.58	388.82	AVRG	R		0.002356		pg	424.50	10	.99	20	
Aroclor-1260 Peak # 5	B	238.94	257.08	216.72	214.82	234.46	237.18	224.55	AVRG	R		0.004311		pg	231.96	6	.99	20	
TCMX	B	5061.5	5540.7	4673.6	5055.7	5747.9	5710.1	5340.1	AVRG	R		1.885E-4		pg	5304.2	7	.99	20	
Decachlorobiphenyl	B	5172.5	5359.8	4309.9	3953.1	4042.8	3947.8	3652.2	AVRG	R		2.300E-4		pg	4348.3	15	.99	20	

49

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC06 Calname :
Calnum : 205228255001 Caldate : 07-JUN-2005 Caltype :

ICV 205228255010 (158_010) standards: S769

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	205228255010	07-JUN-2005	250.00	255.65	pg	2	15
Aroclor-1260	A	205228255010	07-JUN-2005	250.00	279.09	pg	12	15
Aroclor-1016	B	205228255010	07-JUN-2005	250.00	254.35	pg	2	15
Aroclor-1260	B	205228255010	07-JUN-2005	250.00	273.83	pg	10	15

INITIAL CALIBRATION REPORT FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC06 Gas Chromatograph #6 ECD Reviewed By: MCH
Calnum: 205228255003 Name: Type: (normal) Date: 07-JUN-2005 21:30 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	158_014	205228255014	ar1232	07-JUN-2005 21:30	S507

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	220.72	AVRG	R		0.004531		pg	220.72	0	.99	20	
Aroclor-1232 Peak # 2	A	170.73	AVRG	R		0.005857		pg	170.73	0	.99	20	
Aroclor-1232 Peak # 3	A	173.19	AVRG	R		0.005774		pg	173.19	0	.99	20	
Aroclor-1232 Peak # 4	A	129.02	AVRG	R		0.007751		pg	129.02	0	.99	20	
Aroclor-1232 Peak # 5	A	90.230	AVRG	R		0.011083		pg	90.230	0	.99	20	
Aroclor-1232 Peak # 1	B	133.96	AVRG	R		0.007465		pg	133.96	0	.99	20	
Aroclor-1232 Peak # 2	B	70.541	AVRG	R		0.014176		pg	70.541	0	.99	20	
Aroclor-1232 Peak # 3	B	168.34	AVRG	R		0.005940		pg	168.34	0	.99	20	
Aroclor-1232 Peak # 4	B	81.590	AVRG	R		0.012256		pg	81.590	0	.99	20	
Aroclor-1232 Peak # 5	B	54.072	AVRG	R		0.018494		pg	54.072	0	.99	20	

551

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION REPORT FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC06 Run Name : pcb500_100 IDF : 1.0
Seqnum : 205228255027 Filename : 158_027 Injected : 08-JUN-2005 04:42
Calnum : 205228255001 Caldate : 07-JUN-2005 Caltype :
Standards: S702

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1016	A			500.0000	480.9353	pg	-4	15	
Aroclor-1260	A			500.0000	494.8564	pg	-1	15	
TCMX	A	7936.0	8497.1	100.0000	107.0699	pg	7	15	
Decachlorobiphenyl	A	6661.1	6643.2	100.0000	99.73153	pg	0	15	
Aroclor-1016	B			500.0000	488.8205	pg	-2	15	
Aroclor-1260	B			500.0000	494.1598	pg	-1	15	
TCMX	B	5304.2	5704.6	100.0000	107.5480	pg	8	15	
Decachlorobiphenyl	B	4348.3	4146.2	100.0000	95.35172	pg	-5	15	

CONTINUING CALIBRATION REPORT FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC06
Seqnum : 205228255029
Calnum : 205228255003
Standards: S507

Run Name : ar1232
Filename : 158_029
Caldate : 07-JUN-2005

IDF : 1.0
Injected : 08-JUN-2005 05:49
Caltype :

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aroclor-1232	A			250.0000	227.8871	pg	-9	15	
Aroclor-1232	B			250.0000	234.6563	pg	-6	15	

SEQUENCE SUMMARY FOR 179603 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 205228255 Instrument: GC06 Gas Chromatograph #6 ECD
Analytical Method: EPA 8082 SOP Version: PCB_rv3 Begun: 07-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	158_001	X	hex			07-JUN-2005 11:42	1.0						
002	158_002	ICAL	pcb10_2			07-JUN-2005 12:15	1.0	1.0				1	
003	158_003	ICAL	pcb25_5			07-JUN-2005 12:48	1.0	1.0				2	
004	158_004	ICAL	pcb100_20			07-JUN-2005 14:24	1.0	1.0				3	
005	158_005	ICAL	pcb250_50			07-JUN-2005 14:57	1.0	1.0				4	
006	158_006	ICAL	pcb500_100			07-JUN-2005 15:31	1.0	1.0				5	
007	158_007	ICAL	pcb750_150			07-JUN-2005 16:04	1.0	1.0				6	
008	158_008	ICAL	pcb1k_200			07-JUN-2005 16:37	1.0	1.0				7	
010	158_010	ICV	ultra_1660			07-JUN-2005 17:47	1.0	1.0			1	8	
011	158_011	ICAL	ar1254			07-JUN-2005 18:39	1.0	1.0				9	
013	158_013	X	ar1232			07-JUN-2005 20:57	1.0	1.0				10	
014	158_014	ICAL	ar1232			07-JUN-2005 21:30	1.0	1.0				10	
016	158_016	BLANK	QC296364	102674	Soil	07-JUN-2005 22:36	1.0	0.664			1		
017	158_017	LCS	QC296365	102674	Soil	07-JUN-2005 23:10	1.0	0.6592			1		
018	158_018	SAMPLE	179704-005	102588	Water	07-JUN-2005 23:43	1.0	0.02475			1		
019	158_019	SAMPLE	179646-001	102674	Soil	08-JUN-2005 00:16	1.0	0.6592	18	2	1		
020	158_020	SAMPLE	179646-005	102674	Soil	08-JUN-2005 00:49	1.0	0.6562			1	20:PCB126=2553.74	
021	158_021	SAMPLE	179646-006	102674	Soil	08-JUN-2005 01:23	1.0	0.6649			1		
022	158_022	MSS	179646-007	102674	Soil	08-JUN-2005 01:56	1.0	0.6631			1		
023	158_023	~~MSS~~ SAMPLE	179603-001	102674	Soil	08-JUN-2005 02:29	1.0	0.6645			1		
024	158_024	MS	QC296366	102674	Soil	08-JUN-2005 03:02	1.0	0.6658			1		
025	158_025	MSD	QC296367	102674	Soil	08-JUN-2005 03:36	1.0	0.6609			1		
027	158_027	CCV	pcb500_100			08-JUN-2005 04:42	1.0	1.0			1	5	
028	158_028	X	ccv			08-JUN-2005 05:16	1.0					5	
029	158_029	CCV	ar1232			08-JUN-2005 05:49	1.0	1.0			1	10	
030	158_030	X	ccv			08-JUN-2005 06:22	1.0					10	

Stds used: 1=S698 2=S699 3=S700 4=S701 5=S702 6=S703 7=S704 8=S769 9=S752 10=S507

Curtis & Tompkins Laboratories Sample Preparation Summary 06-JUN-2005 12:50

Batch Number : 102674
Date Extracted: 06-JUN-2005
Extracted by : Jessie O'Brien Mee
Prep Method : 3545

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S719A
Spike #2 ID : S498A
Spike #3 ID :
SOP Version : PCB_3545_rv1

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179603-001			Mactec, Inc.	Soil	15.05	g	10	0.664452	1		.025	0		PCB	3665A	MSS
179646-001			Blasland, Bouck & Lee	Soil	15.17	g	10	0.659196	1		.025	0		PCB	3665A	
179646-005			Blasland, Bouck & Lee	Soil	15.24	g	10	0.656168	1		.025	0		PCB	3665A	
179646-006			Blasland, Bouck & Lee	Soil	15.04	g	10	0.664894	1		.025	0		PCB	3665A	
179646-007			Blasland, Bouck & Lee	Soil	15.08	g	10	0.663130	1		.025	0		PCB	3665A	
179720-021			Blasland, Bouck & Lee	Soil	14.99	g	10	0.667111	1		.025	0		PCB	3665A	
179809-001			CH2M Hill Constructors Inc.	Soil	15.13	g	10	0.660939	1		.025	0		PCB	3665A	
179809-002			CH2M Hill Constructors Inc.	Soil	15.17	g	10	0.659196	1		.025	0		PCB	3665A	
179809-003			CH2M Hill Constructors Inc.	Soil	15.15	g	10	0.660066	1		.025	0		PCB	3665A	
179809-004			CH2M Hill Constructors Inc.	Soil	15.08	g	10	0.663130	1		.025	0		PCB	3665A	
179809-005			CH2M Hill Constructors Inc.	Soil	14.94	g	10	0.669344	1		.025	0		PCB	3665A	
179809-006			CH2M Hill Constructors Inc.	Soil	15.16	g	10	0.659631	1		.025	0		PCB	3665A	
179809-007			CH2M Hill Constructors Inc.	Soil	15	g	10	0.666667	1		.025	0		PCB	3665A	
179809-008			CH2M Hill Constructors Inc.	Soil	14.92	g	10	0.670241	1		.025	0		PCB	3665A	
179809-009			CH2M Hill Constructors Inc.	Soil	15.14	g	10	0.660502	1		.025	0		PCB	3665A	
179809-010			CH2M Hill Constructors Inc.	Soil	15.01	g	10	0.666223	1		.025	0		PCB	3665A	
179810-001			CH2M Hill Constructors Inc.	Soil	14.89	g	10	0.671592	1		.025	0		PCB	3665A	
179810-002			CH2M Hill Constructors Inc.	Soil	15.09	g	10	0.662691	1		.025	0		PCB	3665A	
179810-003			CH2M Hill Constructors Inc.	Soil	15.17	g	10	0.659196	1		.025	0		PCB	3665A	
QC296364	BLANK			Soil	15.06	g	10	0.664011	1		.025	0		PCB	3665A	
QC296365	LCS			Soil	15.17	g	10	0.659196	1		.025	.025		PCB	3665A	
QC296366	MS	of 179646-007		Soil	15.02	g	10	0.665779	1		.025	.025		PCB	3665A	
QC296367	MSD	of 179646-007		Soil	15.13	g	10	0.660939	1		.025	.025		PCB	3665A	

Prep Chemist: Jessie Mee Reviewed By: [signature] Date: 06/07/05

Relinquished By: Jessie Mee Received By: [signature] Date: 6/8/05

Curtis & Tompkins, Ltd. **PCB SOIL PREP LOG** BK 2098

LIMS Batch No: 102674 ☐ EPA 3550b Sonication Page 71

LIMS Analysis PCB ☐ EPA 3540c Soxhlet

Extracted by: JOM ☒ EPA 3545 PFE (ASE Method# 10)

Date Extracted: 6 June 05 ☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	179603-001	15.05	10.0	
	179646-001	15.17		
	-005	15.24		
	-006	15.04		
5	-007	15.08		MSS
	179720-021	14.99		
	179809-001	15.13		
	02	15.17		
	03	15.15		
10	04	15.08		
	05	14.94		
	06	15.16		
	07	15.00		
	08	14.92		
15	09	15.14		
	10	15.01		
	179810-001	14.89		
	2	15.09		
	3	15.17		
20	MB QC296364	15.06		
	LCS 5	15.17		
	MS 6	15.02		
	MSD 7	15.13		

JOM 7 June 05

	Mfg & Lot # / LIMS # / Time	Initials / Date
Sand weighed out for QC samples	EM440280452	JOM 6 June 05
dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth	Dionex 040603	
0.025 mL of surrogate solution was added to all samples	S719A	
0.025 mL of spike solution AR1232 was added to all spikes	S498A	
1:1 CH_2Cl_2 (lot# EM45089):Acetone(lot# EM45047) was added to all	✓	
☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	Whatman D2B	↓
PFE (ASE) / soxhlets on at:	N/A	JOM 7 June 05
PFE (ASE) / soxhlets off at:		
Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4	↓	
Concentrated to volumes noted above after exchange to Hexane Lot#	CN801	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	JTBA 49034	
Centrifuged for 1 min; 10mL transferred to labelled vial	✓	↓

Jessica Mee 6 June 05 Continued from page ___ 06/07/05

Extraction Chemist / Date Continued on page ___ **Reviewed by / Date**

Project Soil Aliquot BK2135

Continued from Page

SAMPLE ID	Weight (g)	Analysis	Comments
179804-009	50.15	TEH	comp 001A 002A 003A 004A
-010	50.27	TEH	comp 005A 006A 007A 008
179699-001 D	49.98	TEH	
002 A	50.20		
003 G	50.20		MSS 179699-003G → EM44028452
MS ~~MSD~~ TP 6/3	49.59		
MSD	50.03		
LCS	50.24		
MB	50.21		
004 G	49.94		MSS 179699-004G → EM44028452
MS	50.26		
MSD	50.46		
LCS	50.26		
MB	50.18		
179699-001 D	30.33	8270-SIM	
002 A	30.01		
003 H	30.17		MSS 179699-003H → EM44028452
MS	29.87		
MSD	29.87		
LCS	29.64		
MB	30.18		
004 H	30.01		MSS 179699-004H → EM44028452
MS	29.81		
MSD	29.99		
LCS	29.62		
MB	30.23		
179700-002 D	TP 6/3 ~~49.79~~ 50.19	TEH	
003 ↓	49.79		
179700-002 D	30.39	8270-SIM	
003 ↓	30.38		
179603-001 A	15.05	PCB	
~~179~~ T.D 6/3		~~PCB~~ T.D 6/3	

Continued on Page

Signed 6/3/05 Date

557

Read and Understood By

Signed Date

Project SOIL ALIQUOT PK2135

Continued from Page

SAMPLE ID	WEIGHT (G)	ANALYSIS	COMMENTS
179606-001A	50.24	TEHN	
-002	50.29		
-003	50.28		
-005	50.07		
-006	50.30		
-007	50.30		
-008	50.36		
-MS	50.33		MS 179606-008A
-MSD	50.11		
-009A	50.36		
-010	50.49		EM4902842
-LCS	50.42		
-MB	50.17		
179626-001A	15.11	8081	
-002	15.06		
-003	15.18		
179626-001A	50.11	TEHN	
-002	50.49		
-003	50.16		
179646-001A	15.17	PCB	
-005	15.24		
-006	15.04		
-007	15.08		MS 179646-007A
-MS	15.02		
-MSD	15.13		EM4902842
-LCS	15.01		
-MB	15.13		

Continued on Page

Signed

5/31/05

Date

Read and Understood By

Signed

Date

SAMPLE ID	Weight (g)	Analysis	Comments
179720-021A	14.99	PCB	MS
MS	15.02		179720-021A
MSD	15.02		↓
LCS	15.17		EM44028452
MB	15.06		↓
↓			

Continued on Page

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Signed Date Signed Date

SAMPLE ID	Weight (g)	Analysis	Comments
179720-021 A	14.99	PCB	MSS
MS	15.02		179720-021A
MSD	15.02		↓
LCS	15.17		EM44028452
MB	15.06		↓
↓			
179809			
~~179720~~-001 D	50.23	TEHM	
002	50.12		
003	50.29		
004	49.84		
005	50.28		
006	50.09		
007	50.21		
008	50.22		
009	50.39		
010	49.84		Rocky
I.D. 6/3			
~~179720~~			
179809-001 D	15.13	PCB	
002	15.17		
003	15.15		
004	15.08		
005	14.94		
006	15.16		
007	15.00		
008	14.92		
009	15.14		
010	15.01		
179810-001 D	14.89	PCB	
002	15.09		
003	15.17		
179810-001 D	50.14	TEHM	
002	50.01		
003	50.29		

Continued on Page

Jessica Durham 6/3/05 60
Signed Date

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Signed Date

SAMPLE ID	Weight(g)	Analysis	Comments
179720-021 A	14.99	PCB	MSS
MS	15.02		179720-021A
MSD	15.02		↓
LCS	15.17		EM44028452
MB ↓	15.06	↓	↓
179809			
~~179720~~-001 D	50.23	TEHM	
002	50.12		
003	50.29		
004	49.84		
005	50.28		
006	50.09		
007	50.21		
008	50.22		
009	50.39		
010 ↓	49.84	↓	Rocky
T.D. 6/3			
~~179720~~			
179809-001 D	15.13	PCB	
002	15.17		
003	15.15		
004	15.08		
005	14.94		
006	15.16		
007	15.00		
008	14.92		
009	15.14		
010 ↓	15.01	↓	
179810-001 D	14.89	PCB	
002	15.09		
003 ↓	15.17	↓	
179810-001 D	50.14	TEHM	
002	50.01		
003 ↓	50.29	↓	

Continued on Page

Jennifer Durham 6/3/05 61
Signed Date

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Signed Date

REPORTING SUMMARY FOR 179603 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
179603-001	Aroclor-1016	GC06	A	06/08/05 02:29
179603-001	Aroclor-1221	GC06	A	06/08/05 02:29
179603-001	Aroclor-1232	GC06	A	06/08/05 02:29
179603-001	Aroclor-1242	GC06	A	06/08/05 02:29
179603-001	Aroclor-1248	GC06	A	06/08/05 02:29
179603-001	Aroclor-1254	GC06	A	06/08/05 02:29
179603-001	Aroclor-1260	GC06	A	06/08/05 02:29
179603-001	TCMX	GC06	A	06/08/05 02:29
179603-001	Decachlorobiphenyl	GC06	A	06/08/05 02:29
QC296364	Aroclor-1016	GC06	A	06/07/05 22:36
QC296364	Aroclor-1221	GC06	A	06/07/05 22:36
QC296364	Aroclor-1232	GC06	A	06/07/05 22:36
QC296364	Aroclor-1242	GC06	A	06/07/05 22:36
QC296364	Aroclor-1248	GC06	A	06/07/05 22:36
QC296364	Aroclor-1254	GC06	A	06/07/05 22:36
QC296364	Aroclor-1260	GC06	A	06/07/05 22:36
QC296364	TCMX	GC06	A	06/07/05 22:36
QC296364	Decachlorobiphenyl	GC06	A	06/07/05 22:36
QC296365	Aroclor-1232	GC06	A	06/07/05 23:10
QC296365	TCMX	GC06	A	06/07/05 23:10
QC296365	Decachlorobiphenyl	GC06	A	06/07/05 23:10
QC296366	Aroclor-1232	GC06	A	06/08/05 03:02
QC296366	TCMX	GC06	A	06/08/05 03:02
QC296366	Decachlorobiphenyl	GC06	A	06/08/05 03:02
QC296367	Aroclor-1232	GC06	A	06/08/05 03:36
QC296367	TCMX	GC06	A	06/08/05 03:36
QC296367	Decachlorobiphenyl	GC06	A	06/08/05 03:36

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB106(0.5)	Diln Fac:	1.020
Lab ID:	179603-001	Batch#:	102317
Matrix:	Soil	Sampled:	05/23/05
Units:	ug/Kg	Received:	05/24/05
Basis:	dry	Analyzed:	05/24/05

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	12	2.4
Chloromethane	ND	12	2.4
Vinyl Chloride	ND	12	1.9
Bromomethane	ND	12	2.0
Chloroethane	ND	12	2.2
Trichlorofluoromethane	ND	6.0	1.9
Acetone	ND	24	2.5
Freon 113	ND	6.0	2.1
1,1-Dichloroethene	ND	6.0	2.6
Methylene Chloride	ND	24	2.6
Carbon Disulfide	ND	6.0	2.1
MTBE	ND	6.0	2.4
trans-1,2-Dichloroethene	ND	6.0	2.5
Vinyl Acetate	ND	60	2.3
1,1-Dichloroethane	ND	6.0	2.4
2-Butanone	ND	12	2.6
cis-1,2-Dichloroethene	ND	6.0	2.4
2,2-Dichloropropane	ND	6.0	2.4
Chloroform	ND	6.0	2.4
Bromochloromethane	ND	6.0	2.2
1,1,1-Trichloroethane	ND	6.0	2.4
1,1-Dichloropropene	ND	6.0	2.4
Carbon Tetrachloride	ND	6.0	2.1
1,2-Dichloroethane	ND	6.0	2.4
Benzene	ND	6.0	2.5
Trichloroethene	ND	6.0	2.4
1,2-Dichloropropane	ND	6.0	2.6
Bromodichloromethane	ND	6.0	2.2
Dibromomethane	ND	6.0	2.3
4-Methyl-2-Pentanone	ND	12	2.1
cis-1,3-Dichloropropene	ND	6.0	2.1
Toluene	ND	6.0	2.8
trans-1,3-Dichloropropene	ND	6.0	2.4
1,1,2-Trichloroethane	ND	6.0	3.0
2-Hexanone	ND	12	2.3
1,3-Dichloropropane	ND	6.0	2.3
Tetrachloroethene	ND	6.0	2.2
Dibromochloromethane	ND	6.0	1.8
1,2-Dibromoethane	ND	6.0	2.3
Chlorobenzene	ND	6.0	2.5
1,1,1,2-Tetrachloroethane	ND	6.0	2.0
Ethylbenzene	ND	6.0	2.4
m,p-Xylenes	ND	6.0	5.3
o-Xylene	ND	6.0	2.5
Styrene	ND	6.0	2.2
Bromoform	ND	6.0	1.9
Isopropylbenzene	ND	6.0	2.4
1,1,2,2-Tetrachloroethane	ND	6.0	2.5
1,2,3-Trichloropropane	ND	6.0	3.0
Propylbenzene	ND	6.0	2.5
Bromobenzene	ND	6.0	2.3
1,3,5-Trimethylbenzene	ND	6.0	2.5

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB106(0.5)	Diln Fac:	1.020
Lab ID:	179603-001	Batch#:	102317
Matrix:	Soil	Sampled:	05/23/05
Units:	ug/Kg	Received:	05/24/05
Basis:	dry	Analyzed:	05/24/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	6.0	2.5
4-Chlorotoluene	ND	6.0	2.2
tert-Butylbenzene	ND	6.0	2.5
1,2,4-Trimethylbenzene	ND	6.0	2.4
sec-Butylbenzene	ND	6.0	2.5
para-Isopropyl Toluene	ND	6.0	2.4
1,3-Dichlorobenzene	ND	6.0	2.3
1,4-Dichlorobenzene	ND	6.0	2.3
n-Butylbenzene	ND	6.0	2.1
1,2-Dichlorobenzene	ND	6.0	2.3
1,2-Dibromo-3-Chloropropane	ND	6.0	2.7
1,2,4-Trichlorobenzene	ND	6.0	1.9
Hexachlorobutadiene	ND	6.0	2.4
Naphthalene	ND	6.0	2.0
1,2,3-Trichlorobenzene	ND	6.0	2.1

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC294883	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102317
Units:	ug/Kg	Analyzed:	05/24/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.0
Chloromethane	ND	10	2.0
Vinyl Chloride	ND	10	1.6
Bromomethane	ND	10	1.6
Chloroethane	ND	10	1.8
Trichlorofluoromethane	ND	5.0	1.6
Acetone	ND	20	2.1
Freon 113	ND	5.0	1.7
1,1-Dichloroethene	ND	5.0	2.2
Methylene Chloride	ND	20	2.2
Carbon Disulfide	ND	5.0	1.7
MTBE	ND	5.0	2.0
trans-1,2-Dichloroethene	ND	5.0	2.1
Vinyl Acetate	ND	50	1.9
1,1-Dichloroethane	ND	5.0	2.0
2-Butanone	ND	10	2.1
cis-1,2-Dichloroethene	ND	5.0	2.0
2,2-Dichloropropane	ND	5.0	2.0
Chloroform	ND	5.0	2.0
Bromochloromethane	ND	5.0	1.8
1,1,1-Trichloroethane	ND	5.0	2.0
1,1-Dichloropropene	ND	5.0	2.0
Carbon Tetrachloride	ND	5.0	1.8
1,2-Dichloroethane	ND	5.0	2.0
Benzene	ND	5.0	2.1
Trichloroethene	ND	5.0	2.0
1,2-Dichloropropane	ND	5.0	2.2
Bromodichloromethane	ND	5.0	1.9
Dibromomethane	ND	5.0	1.9
4-Methyl-2-Pentanone	ND	10	1.7
cis-1,3-Dichloropropene	ND	5.0	1.7
Toluene	ND	5.0	2.3
trans-1,3-Dichloropropene	ND	5.0	2.0
1,1,2-Trichloroethane	ND	5.0	2.5
2-Hexanone	ND	10	2.0
1,3-Dichloropropane	ND	5.0	1.9
Tetrachloroethene	ND	5.0	1.8
Dibromochloromethane	ND	5.0	1.5
1,2-Dibromoethane	ND	5.0	1.9
Chlorobenzene	ND	5.0	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	1.7
Ethylbenzene	ND	5.0	2.0
m,p-Xylenes	ND	5.0	4.4
o-Xylene	ND	5.0	2.1
Styrene	ND	5.0	1.8
Bromoform	ND	5.0	1.6
Isopropylbenzene	ND	5.0	2.0
1,1,2,2-Tetrachloroethane	ND	5.0	2.1
1,2,3-Trichloropropane	ND	5.0	2.5
Propylbenzene	ND	5.0	2.1
Bromobenzene	ND	5.0	1.9
1,3,5-Trimethylbenzene	ND	5.0	2.1
2-Chlorotoluene	ND	5.0	2.1
4-Chlorotoluene	ND	5.0	1.8

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC294883	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102317
Units:	ug/Kg	Analyzed:	05/24/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	2.1
1,2,4-Trimethylbenzene	ND	5.0	2.0
sec-Butylbenzene	ND	5.0	2.1
para-Isopropyl Toluene	ND	5.0	2.0
1,3-Dichlorobenzene	ND	5.0	1.9
1,4-Dichlorobenzene	ND	5.0	1.9
n-Butylbenzene	ND	5.0	1.7
1,2-Dichlorobenzene	ND	5.0	1.9
1,2-Dibromo-3-Chloropropane	ND	5.0	2.2
1,2,4-Trichlorobenzene	ND	5.0	1.6
Hexachlorobutadiene	ND	5.0	2.0
Naphthalene	ND	5.0	1.7
1,2,3-Trichlorobenzene	ND	5.0	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	94	78-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	103	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC294882	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102317
Units:	ug/Kg	Analyzed:	05/24/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	50.83	102	77-124
Benzene	50.00	47.10	94	80-120
Trichloroethene	50.00	51.43	103	80-120
Toluene	50.00	49.58	99	80-120
Chlorobenzene	50.00	47.38	95	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-120
1,2-Dichloroethane-d4	110	80-120
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-120

MSVOA03 8260x IDAL TUNE

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\051805.b\CEI13.D

Date : 18-MAY-2005 13:54

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

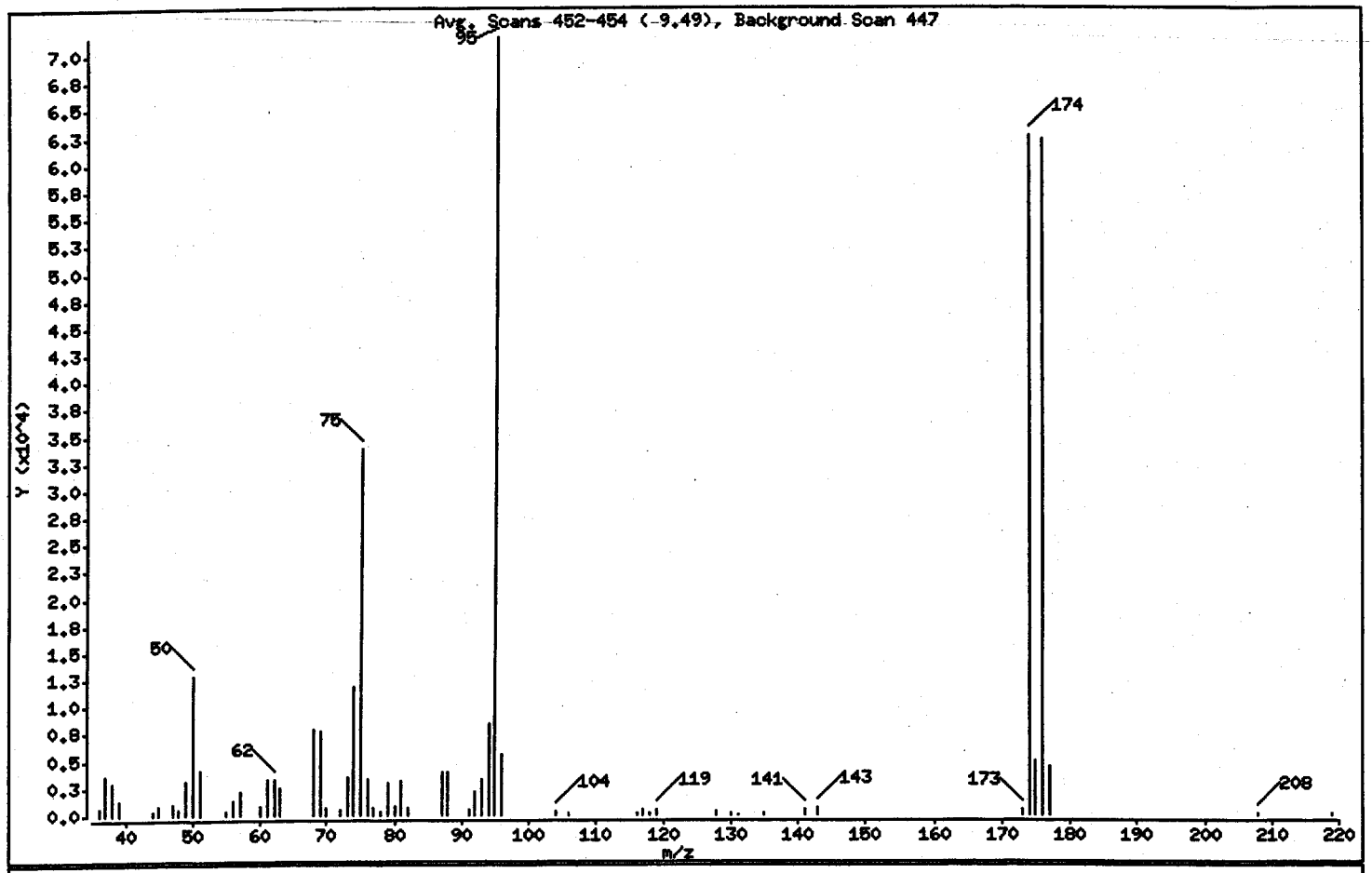
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.02
75	30.00 - 60.00% of mass 95	47.17
96	5.00 - 9.00% of mass 95	7.87
173	Less than 2.00% of mass 174	0.60 (0.69)
174	50.00 - 99.99% of mass 95	87.37
175	5.00 - 9.00% of mass 174	6.96 (7.97)
176	95.01 - 100.99% of mass 174	86.89 (99.45)
177	5.00 - 9.00% of mass 176	6.21 (7.15)

5/19/05 5/18/05

MSVOA03 8260X ICV TUNE

Data File: \\Gcmsserver\DD\chem\MSVOA03.i\051905.b\CEJ02.D

Page 2

Date : 19-MAY-2005 07:52

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

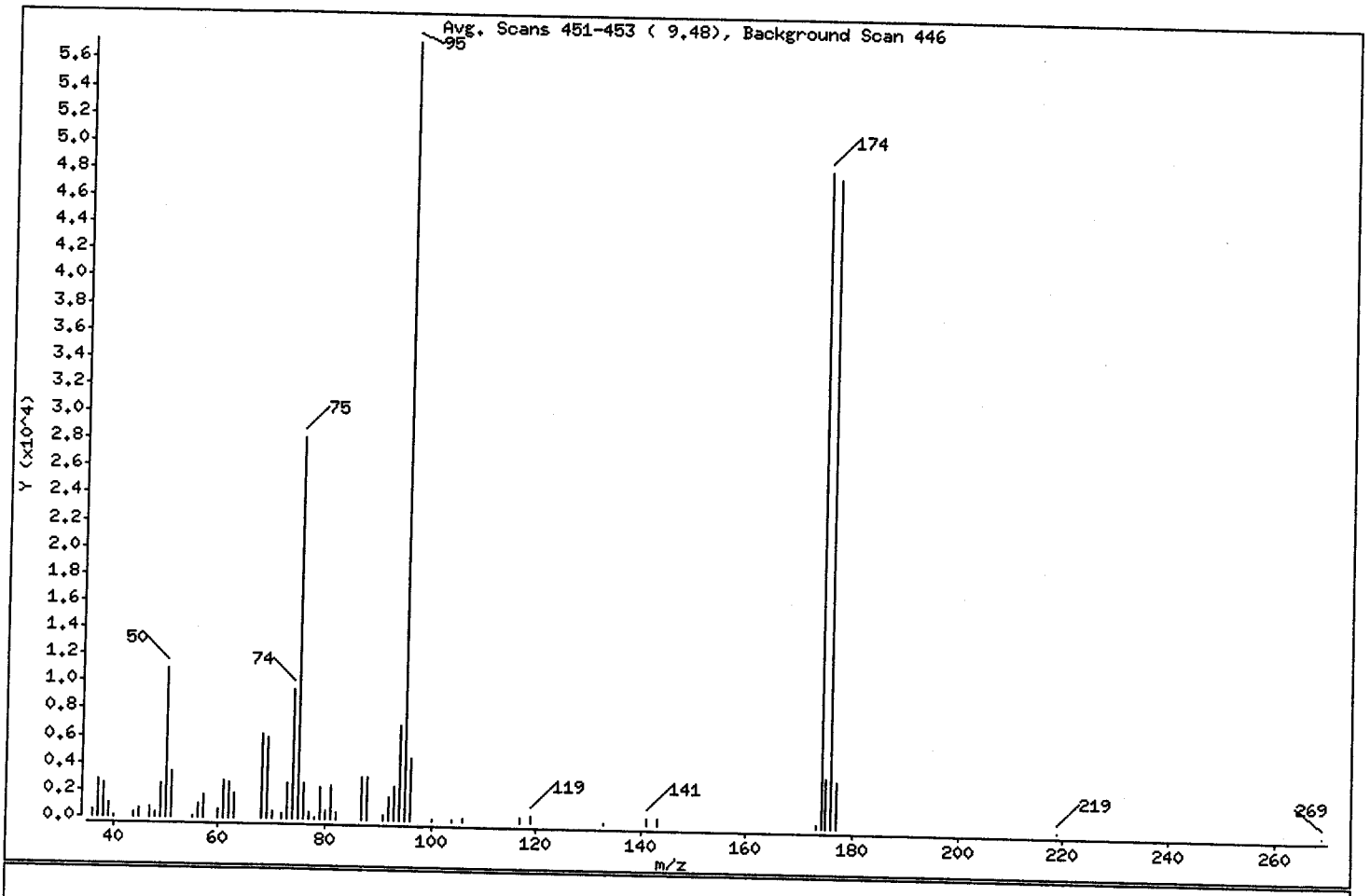
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.11
75	30.00 - 60.00% of mass 95	49.16
96	5.00 - 9.00% of mass 95	7.97
173	Less than 2.00% of mass 174	0.46 (0.55)
174	50.00 - 99.99% of mass 95	84.30
175	5.00 - 9.00% of mass 174	6.44 (7.64)
176	95.01 - 100.99% of mass 174	83.38 (98.91)
177	5.00 - 9.00% of mass 176	5.95 (7.14)

5/19/05

Data File: \\GCMSSERVER\DD\chem\MSVOA03.i\052405.b\CE002.D

Date : 24-MAY-2005 09:34

Client ID: bfb tune std

Instrument: MSVOA03.i

Sample Info: BFB,04WS2425

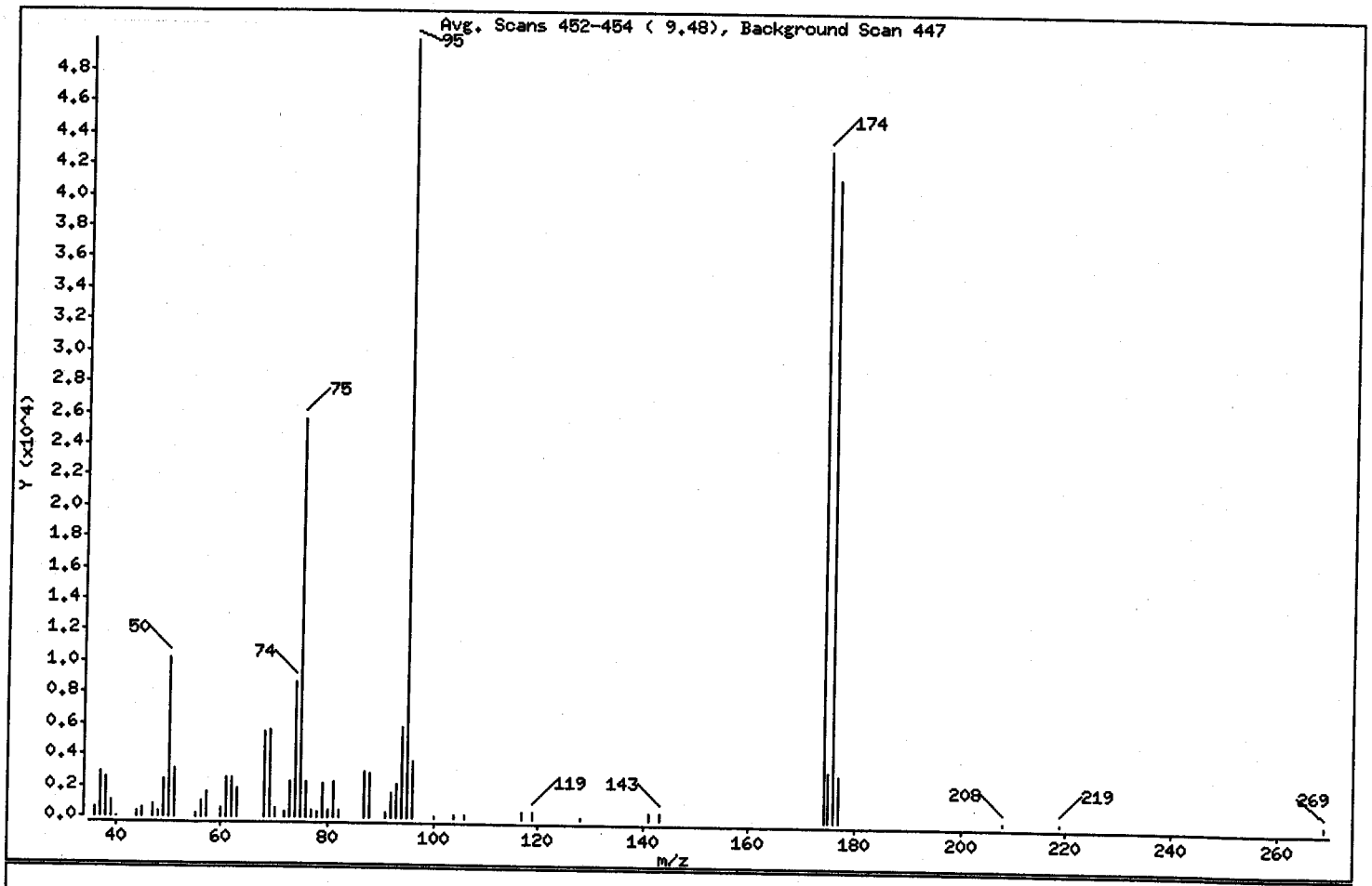
Volume Injected (uL): 1.0

Operator: VOC

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.40
75	30.00 - 60.00% of mass 95	51.34
96	5.00 - 9.00% of mass 95	7.28
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	86.13
175	5.00 - 9.00% of mass 174	6.52 (7.57)
176	95.01 - 100.99% of mass 174	82.48 (95.76)
177	5.00 - 9.00% of mass 176	5.99 (7.27)

a 05/25/05

b 5/24/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	cei17	425199173017	5PPB	18-MAY-2005 15:40	S538 (100000X), S568 (100000X), S638 (5000X)
2	cei18	425199173018	10PPB	18-MAY-2005 16:11	S538 (50000X), S568 (50000X), S638 (5000X)
3	cei19	425199173019	20PPB	18-MAY-2005 16:41	S538 (25000X), S568 (25000X), S638 (5000X)
4	cei20	425199173020	50PPB	18-MAY-2005 17:12	S538 (10000X), S568 (10000X), S638 (5000X)
5	cei21	425199173021	60PPB	18-MAY-2005 17:41	S538 (8333X), S568 (8333X), S638 (5000X)
6	cei22	425199173022	75PPB	18-MAY-2005 18:11	S538 (6667X), S568 (6667X), S638 (5000X)
7	cei23	425199173023	100PPB	18-MAY-2005 18:42	S538 (5000X), S568 (5000X), S638 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.4109m	0.4759m	0.4344m	0.4955	0.4973	0.4793	0.4770	AVRG	R		2.140479		ug/L	0.4672	7	0.0500	0.99	15	
Chloromethane	0.4435m	0.4089m	0.3966m	0.4286m	0.4398m	0.4140m	0.4162m	AVRG	R		2.374839		ug/L	0.4211	4	0.1000	0.99	15	
Vinyl Chloride	0.4095	0.4023	0.3637	0.4004	0.4056	0.3939	0.3994	AVRG	R		2.522882		ug/L	0.3964	4	0.0500	0.99	15	
Bromomethane	0.6573	0.6539	0.6241	0.6598	0.6695	0.6545	0.6596	AVRG	R		1.528805		ug/L	0.6541	2	0.0500	0.99	15	
Chloroethane	0.3039	0.2935	0.2710	0.2948	0.2997	0.3015	0.3018	AVRG	R		3.387996		ug/L	0.2952	4	0.0500	0.99	15	
Trichlorofluoromethane	0.6455	0.6799	0.6003	0.6971	0.6979	0.6892	0.6782	AVRG	R		1.493145		ug/L	0.6697	5	0.0500	0.99	15	
Acetone		0.1458	0.1333	0.1460	0.1305	0.1518	0.1422	AVRG	R		7.060850		ug/L	0.1416	6	0.0500	0.99	15	
Freon 113	0.3492	0.3440	0.3481	0.5148	0.5223	0.4964	0.5016	LINR	R	3.236695	1.898538		ug/L	0.4395	0.996	0.0500	0.99	15	
1,1-Dichloroethene	0.3605	0.3426	0.3225	0.3867	0.3821	0.3875	0.3812	AVRG	R		2.730965		ug/L	0.3662	7	0.0500	0.99	15	
Methylene Chloride		0.5177	0.4779	0.5024	0.4981	0.5094	0.5008	AVRG	R		1.995725		ug/L	0.5011	3	0.0500	0.99	15	
Carbon Disulfide	1.3330	1.2047	1.1619	1.4009	1.4126	1.4094	1.3770	AVRG	R		0.752728		ug/L	1.3285	8	0.0500	0.99	15	
MTBE	1.4398	1.3504	1.3029	1.4727	1.4400	1.4662	1.4446	AVRG	R		0.705885		ug/L	1.4167	5	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.4693	0.4295	0.4164	0.4691	0.4735	0.4710	0.4683	AVRG	R		2.189589		ug/L	0.4567	5	0.0500	0.99	15	
Vinyl Acetate	0.8238	0.7564	0.7452	0.9066	0.8546	0.9118	0.9085	AVRG	R		1.185073		ug/L	0.8438	8	0.0500	0.99	15	
1,1-Dichloroethane	0.7259	0.7143	0.6608	0.7255	0.7374	0.7448	0.7285	AVRG	R		1.389661		ug/L	0.7196	4	0.1000	0.99	15	
2-Butanone		0.2071	0.2185	0.2415	0.2261	0.2488	0.2427	AVRG	R		4.333155		ug/L	0.2308	7	0.0500	0.99	15	
2,2-Dichloropropane	0.6171	0.5584	0.5205	0.6200	0.6235	0.6231	0.6075	AVRG	R		1.678602		ug/L	0.5957	7	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5288	0.5050	0.4797	0.5195	0.5298	0.5346	0.5222	AVRG	R		1.933877		ug/L	0.5171	4	0.0500	0.99	15	

72

IAL-Good, ICV-Good + A.C.E. Qin-BMH

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

5/19/05

5/19/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Reviewed By:
Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	0.8847	0.8123	0.7678	0.8259	0.8587	0.8524	0.8270	AVRG R		1.200943		ug/L	0.8327	5	0.0500	0.99	15	
Bromochloromethane	0.2935	0.2910	0.2885	0.3010	0.3023	0.3081	0.2944	AVRG R		3.367134		ug/L	0.2970	2	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6073	0.5532	0.5310	0.6438	0.6490	0.6353	0.6238	AVRG R		1.649633		ug/L	0.6062	8	0.0500	0.99	15	
1,1-Dichloropropene	0.3420	0.3183	0.2915	0.3669	0.3619	0.3543	0.3546	AVRG R		2.929404		ug/L	0.3414	8	0.0500	0.99	15	
Carbon Tetrachloride	0.3043	0.2851	0.2631	0.3438	0.3321	0.3236	0.3248	AVRG R		3.215698		ug/L	0.3110	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4058	0.4094	0.3708	0.4115	0.3976	0.4009	0.3951	AVRG R		2.507986		ug/L	0.3987	3	0.0500	0.99	15	
Benzene	1.0607	1.0091	0.9099	0.9945	0.9769	0.9601	0.9288	AVRG R		1.023396		ug/L	0.9771	5	0.0500	0.99	15	
Trichloroethene	0.3119	0.2863	0.2635	0.3091	0.3046	0.2984	0.2928	AVRG R		3.387151		ug/L	0.2952	6	0.0500	0.99	15	
1,2-Dichloropropane	0.2773	0.2707	0.2544	0.2841	0.2815	0.2842	0.2799	AVRG R		3.623116		ug/L	0.2760	4	0.0500	0.99	15	
Bromodichloromethane	0.3753	0.3745	0.3554	0.3974	0.3932	0.3929	0.3942	AVRG R		2.609184		ug/L	0.3833	4	0.0500	0.99	15	
Dibromomethane	0.2441	0.2396	0.2277	0.2484	0.2385	0.2378	0.2371	AVRG R		4.183697		ug/L	0.2390	3	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.2919	0.2792	0.3104	0.2767	0.3001	0.2982	AVRG R		3.416002		ug/L	0.2927	4	0.0500	0.99	15	
Tetramethyl THF	0.4804	0.5077	0.4762	0.5063	0.4847	0.4970	0.4918	AVRG R		2.032511		ug/L	0.4920	3	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4376	0.4480	0.4182	0.4709	0.4623	0.4612	0.4617	AVRG R		2.215272		ug/L	0.4514	4	0.0500	0.99	15	
Toluene	0.6471	0.6366	0.5791	0.6313	0.6177	0.6032	0.6022	AVRG R		1.621419		ug/L	0.6167	4	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4179	0.4213	0.4029	0.4384	0.4256	0.4364	0.4339	AVRG R		2.351757		ug/L	0.4252	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1649	0.1624	0.1534	0.1632	0.1559	0.1596	0.1594	AVRG R		6.257263		ug/L	0.1598	3	0.0500	0.99	15	
2-Hexanone		0.2520	0.2391	0.2958	0.2538	0.2763	0.2754	AVRG R		3.768006		ug/L	0.2654	8	0.0500	0.99	15	
1,3-Dichloropropane	0.6113	0.5942	0.5480	0.6228	0.5800	0.5928	0.5846	AVRG R		1.693381		ug/L	0.5905	4	0.0500	0.99	15	
Tetrachloroethene	0.3615	0.3592	0.3218	0.3984	0.3837	0.3728	0.3630	AVRG R		2.734000		ug/L	0.3658	7	0.0500	0.99	15	
Dibromochloromethane	0.4082	0.4027	0.3834	0.4516	0.4253	0.4302	0.4305	AVRG R		2.387550		ug/L	0.4188	5	0.0500	0.99	15	
1,2-Dibromoethane	0.3259	0.3368	0.3085	0.3222	0.3078	0.3202	0.3197	AVRG R		3.123707		ug/L	0.3201	3	0.0500	0.99	15	
Chlorobenzene	1.0193	0.9940	0.8754	0.9811	0.9578	0.9436	0.9024	AVRG R		1.048905		ug/L	0.9534	5	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3865	0.3597	0.3393	0.3650	0.3471	0.3533	0.3516	AVRG R		2.797105		ug/L	0.3575	4	0.0500	0.99	15	
Ethylbenzene	1.4937	1.4911	1.2813	1.4879	1.4914	1.4259	1.3820	AVRG R		0.696287		ug/L	1.4362	6	0.0500	0.99	15	
m,p-Xylenes	0.5607	0.5488	0.4693	0.5471	0.5582	0.5189	0.5086	AVRG R		1.885953		ug/L	0.5302	6	0.0500	0.99	15	
o-Xylene	0.5576	0.5562	0.4953	0.5785	0.5609	0.5327	0.5187	AVRG R		1.842162		ug/L	0.5428	5	0.0500	0.99	15	
Styrene	0.9362	0.9012	0.8545	0.9931	0.9934	0.9497	0.9203	AVRG R		1.068958		ug/L	0.9355	5	0.0500	0.99	15	
Bromoform	0.3108	0.3347	0.3137	0.3597	0.3311	0.3523	0.3444	AVRG R		2.982979		ug/L	0.3352	6	0.1000	0.99	15	
Isopropylbenzene	2.3442	2.3265	2.0882	2.3970	2.3511	2.3449	2.3053	AVRG R		0.433246		ug/L	2.3082	4	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	0.9041	0.9054	0.9000	0.9185	0.8667	0.8949	0.9076	AVRG R		1.111602		ug/L	0.8996	2	0.3000	0.99	15	

783

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA03 HP GCMS VOA 03 Reviewed By:
Calnum: 425199173001 Name: 826GOX03 Type: SOIL Date: 18-MAY-2005 15:40 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	0.8012	0.7932	0.7602	0.7771	0.7131	0.7547	0.7467	AVRG	R		1.309345		ug/L	0.7637	4	0.0500	0.99	15	
Propylbenzene	2.9555	2.9622	2.6618	2.9963	3.0287	2.8663	2.8361	AVRG	R		0.344709		ug/L	2.9010	4	0.0500	0.99	15	
Bromobenzene	0.8254	0.7953	0.7322	0.7488	0.7457	0.7407	0.7301	AVRG	R		1.316181		ug/L	0.7598	5	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.0857	2.1738	1.8507	2.1149	2.0909	2.0017	2.0251	AVRG	R		0.488050		ug/L	2.0490	5	0.0500	0.99	15	
2-Chlorotoluene	2.1601	2.1900	1.9415	2.0694	2.0982	2.0219	2.0237	AVRG	R		0.482598		ug/L	2.0721	4	0.0500	0.99	15	
4-Chlorotoluene	2.0680	2.0739	1.8101	2.0204	2.0237	1.9348	1.9415	AVRG	R		0.504603		ug/L	1.9818	5	0.0500	0.99	15	
tert-Butylbenzene	1.6354	1.7135	1.4448	1.7457	1.7535	1.6570	1.6713	AVRG	R		0.602350		ug/L	1.6602	6	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.1779	2.2528	1.9664	2.1895	2.2026	2.1557	2.1488	AVRG	R		0.463766		ug/L	2.1563	4	0.0500	0.99	15	
sec-Butylbenzene	2.4034	2.5132	2.1778	2.7488	2.7859	2.6417	2.6157	AVRG	R		0.391355		ug/L	2.5552	8	0.0500	0.99	15	
para-Isopropyl Toluene	2.0785	2.1286	1.8557	2.2950	2.2323	2.1803	2.2057	AVRG	R		0.467411		ug/L	2.1394	7	0.0500	0.99	15	
1,3-Dichlorobenzene	1.4713	1.4734	1.3575	1.4233	1.4124	1.3974	1.3516	AVRG	R		0.707998		ug/L	1.4124	3	0.0500	0.99	15	
1,4-Dichlorobenzene	1.5127	1.5129	1.3832	1.4406	1.4417	1.4236	1.3928	AVRG	R		0.692556		ug/L	1.4439	4	0.0500	0.99	15	
n-Butylbenzene	1.9979	2.1042	1.7905	2.2513	2.2544	2.1879	2.1994	AVRG	R		0.473436		ug/L	2.1122	8	0.0500	0.99	15	
1,2-Dichlorobenzene	1.3768	1.4305	1.3096	1.3739	1.3584	1.3360	1.3161	AVRG	R		0.736732		ug/L	1.3573	3	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.1778	0.1674	0.1627	0.1837	0.1615	0.1748	0.1761	AVRG	R		5.814037		ug/L	0.1720	5	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.8935	0.9381	0.8821	0.8858	0.9030	0.9075	0.8813	AVRG	R		1.112649		ug/L	0.8988	2	0.0500	0.99	15	
Hexachlorobutadiene	0.3598	0.3595	0.3167	0.4000	0.3966	0.3715	0.3820	AVRG	R		2.706920		ug/L	0.3694	8	0.0500	0.99	15	
Naphthalene	2.0068	2.1777	2.0653	2.2426	2.0768	2.1641	2.1574	AVRG	R		0.470096		ug/L	2.1272	4	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.8713	0.9428	0.8231	0.9008	0.8845	0.8781	0.8636	AVRG	R		1.135624		ug/L	0.8806	4	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0598	0.0619	0.0612	0.0692	0.0590	0.0672	0.0675	AVRG	R		15.70423		ug/L	0.0637	7	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.3159	1.2642	1.2236	1.3141	1.3097	1.3611	1.3387	AVRG	R		0.766937		ug/L	1.3039	4	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.2887	1.2317	1.2019	1.2911	1.3106	1.3669	1.3177	AVRG	R		0.777040		ug/L	1.2869	4	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.8514	0.8490	0.7881	0.8582	0.8187	0.8347	0.8275	AVRG	R		1.201184		ug/L	0.8325	3	0.0500	0.99	15	
Ethanol	0.0055	0.0053	0.0053	0.0061	0.0054	0.0060	0.0061	AVRG	R		176.6855		ug/L	0.0057	7	5.0E-4	0.99	15	
Isopropanol	0.0323	0.0314	0.0330	0.0354	0.0322	0.0354	0.0354	AVRG	R		29.75633		ug/L	0.0336	5	0.0050	0.99	15	
Tetrahydrofuran	0.1213	0.1162	0.1117	0.1192	0.1072	0.1154	0.1121	AVRG	R		8.714671		ug/L	0.1147	4	0.0050	0.99	15	
Dibromofluoromethane	0.5772	0.5646	0.5676	0.5773	0.5944	0.6006	0.5785	AVRG	R		1.724064		ug/L	0.5800	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3548	0.3395	0.3316	0.3460	0.3339	0.3400	0.3412	AVRG	R		2.932596		ug/L	0.3410	2	0.0500	0.99	15	
Trifluorotoluene	0.3676	0.3837	0.3395	0.4398	0.4307	0.4167	0.4112	AVRG	R		2.509660		ug/L	0.3985	9	0.0500	0.99	15	
Toluene-d8	0.9536	0.9754	0.9524	0.9634	0.9592	0.9655	0.9643	AVRG	R		1.039532		ug/L	0.9620	1	0.0500	0.99	15	
Bromofluorobenzene	0.9564	0.9468	0.9742	0.9507	0.9637	0.9332	0.9744	AVRG	R		1.044874		ug/L	0.9571	2	0.0500	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name :
Seqnum : 425199173024 Filename : cei24 Injected : 18-MAY-2005 19:12
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S491 (5000X), S638 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	50.00000	47.54740	ug/L	-5	30	
Chloromethane	50.00000	47.05970	ug/L	-6	30	m
Vinyl Chloride	50.00000	50.61020	ug/L	1	20	
Bromomethane	50.00000	36.43950	ug/L	-27	30	!v-
Chloroethane	50.00000	54.93000	ug/L	10	30	
Trichlorofluoromethane	50.00000	54.35580	ug/L	9	30	

ISTD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	473959	1.94	10.71	10.71	0.00
1,4-Difluorobenzene	707116	782713	10.69	11.86	11.86	0.00
1,4-Dichlorobenzene-d4	316250	330524	4.51	18.54	18.53	-0.01

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5/19/05

!=warning -=low bias m=manual integration v=ICV
Page 1 of 1

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name :
Seqnum : 425200600004 Filename : cej04 Injected : 19-MAY-2005 08:38
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S629 (5000X), S285 (5000X), S638 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Acetone	50.00000	48.51120	ug/L	-3	40	
Freon 113	50.00000	51.80100	ug/L	4	30	
1,1-Dichloroethene	50.00000	57.62500	ug/L	15	20	
Methylene Chloride	50.00000	52.19810	ug/L	4	30	
Carbon Disulfide	50.00000	55.04150	ug/L	10	30	
MTBE	50.00000	47.16690	ug/L	-6	30	
trans-1,2-Dichloroethene	50.00000	54.34440	ug/L	9	30	
Vinyl Acetate	50.00000	43.36510	ug/L	-13	40	
1,1-Dichloroethane	50.00000	51.62390	ug/L	3	30	
2-Butanone	50.00000	51.87610	ug/L	4	40	
2,2-Dichloropropane	50.00000	57.47570	ug/L	15	30	
cis-1,2-Dichloroethene	50.00000	52.57890	ug/L	5	30	
Chloroform	50.00000	51.23170	ug/L	2	20	
Bromochloromethane	50.00000	51.12300	ug/L	2	30	
1,1,1-Trichloroethane	50.00000	57.27350	ug/L	15	30	
1,1-Dichloropropene	50.00000	56.76190	ug/L	14	30	
Carbon Tetrachloride	50.00000	60.07510	ug/L	20	30	
1,2-Dichloroethane	50.00000	50.28060	ug/L	1	30	
Benzene	50.00000	49.76010	ug/L	0	30	
Trichloroethene	50.00000	52.92570	ug/L	6	30	
1,2-Dichloropropane	50.00000	47.46350	ug/L	-5	20	
Bromodichloromethane	50.00000	56.73210	ug/L	13	30	
Dibromomethane	50.00000	49.20340	ug/L	-2	30	
4-Methyl-2-Pentanone	50.00000	51.10840	ug/L	2	40	
Tetramethyl THF	50.00000	52.25320	ug/L	5	30	
cis-1,3-Dichloropropene	50.00000	51.72140	ug/L	3	30	
Toluene	50.00000	50.66030	ug/L	1	20	
trans-1,3-Dichloropropene	50.00000	48.07720	ug/L	-4	30	
1,1,2-Trichloroethane	50.00000	49.94160	ug/L	0	30	
2-Hexanone	50.00000	53.18540	ug/L	6	40	
1,3-Dichloropropane	50.00000	49.42240	ug/L	-1	30	
Tetrachloroethene	50.00000	54.73780	ug/L	9	30	
Dibromochloromethane	50.00000	53.62530	ug/L	7	30	
1,2-Dibromoethane	50.00000	48.43920	ug/L	-3	30	
Chlorobenzene	50.00000	50.51690	ug/L	1	30	
1,1,1,2-Tetrachloroethane	50.00000	50.64670	ug/L	1	30	
Ethylbenzene	50.00000	52.16560	ug/L	4	20	
m,p-Xylenes	100.0000	104.3471	ug/L	4	30	
o-Xylene	50.00000	50.87730	ug/L	2	30	
Styrene	50.00000	50.16820	ug/L	0	30	
Bromoform	50.00000	52.39940	ug/L	5	30	
Isopropylbenzene	50.00000	49.41280	ug/L	-1	30	
1,1,2,2-Tetrachloroethane	50.00000	47.39560	ug/L	-5	30	
1,2,3-Trichloropropane	50.00000	47.44220	ug/L	-5	30	
Propylbenzene	50.00000	51.56150	ug/L	3	30	
Bromobenzene	50.00000	48.62890	ug/L	-3	30	
1,3,5-Trimethylbenzene	50.00000	52.54820	ug/L	5	30	

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SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name :
Seqnum : 425200600004 Filename : cej04 Injected : 19-MAY-2005 08:38
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S629 (5000X), S285 (5000X), S638 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
2-Chlorotoluene	50.00000	50.60900	ug/L	1	30	
4-Chlorotoluene	50.00000	49.66290	ug/L	-1	30	
tert-Butylbenzene	50.00000	53.47750	ug/L	7	30	
1,2,4-Trimethylbenzene	50.00000	52.10320	ug/L	4	30	
sec-Butylbenzene	50.00000	54.82450	ug/L	10	30	
para-Isopropyl Toluene	50.00000	52.89330	ug/L	6	30	
1,3-Dichlorobenzene	50.00000	49.98380	ug/L	0	30	
1,4-Dichlorobenzene	50.00000	49.85880	ug/L	0	30	
n-Butylbenzene	50.00000	56.15970	ug/L	12	30	
1,2-Dichlorobenzene	50.00000	49.79400	ug/L	0	30	
1,2-Dibromo-3-Chloropropane	50.00000	49.34560	ug/L	-1	30	
1,2,4-Trichlorobenzene	50.00000	52.32380	ug/L	5	30	
Hexachlorobutadiene	50.00000	56.54070	ug/L	13	30	
Naphthalene	50.00000	50.37560	ug/L	1	30	
1,2,3-Trichlorobenzene	50.00000	49.98540	ug/L	0	30	
tert-Butyl Alcohol (TBA)	250.0000	263.4209	ug/L	5	30	
Isopropyl Ether (DIPE)	50.00000	48.15780	ug/L	-4	30	
Ethyl tert-Butyl Ether (ETBE)	50.00000	52.86590	ug/L	6	30	
Methyl tert-Amyl Ether (TAME)	50.00000	49.42200	ug/L	-1	30	
Ethanol	5000.000	4696.748	ug/L	-6	30	
Isopropanol	500.0000	494.7153	ug/L	-1	30	
Tetrahydrofuran	500.0000	518.2057	ug/L	4	30	

ISTD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	396846	-14.65	10.71	10.69	-0.02
1,4-Difluorobenzene	707116	630310	-10.86	11.86	11.85	-0.01
Chlorobenzene-d5	541429	495141	-8.55	15.83	15.82	-0.01
1,4-Dichlorobenzene-d4	316250	286309	-9.47	18.54	18.52	-0.02

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 40PPB IDF : 1.0
Seqnum : 425207891003 Filename : ceo03 Injected : 24-MAY-2005 09:50
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (12500X), S568 (12500X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.4672	0.5567	40.00000	47.66100	ug/L	19	30	0.0500	
Chloromethane	0.4211	0.4339	40.00000	41.22050	ug/L	3	30	0.1000	m
Vinyl Chloride	0.3964	0.4126	40.00000	41.64210	ug/L	4	20	0.0500	
Bromomethane	0.6541	0.6025	40.00000	36.84310	ug/L	-8	30	0.0500	
Chloroethane	0.2952	0.3146	40.00000	42.62800	ug/L	7	30	0.0500	
Trichlorofluoromethane	0.6697	0.7829	40.00000	46.75870	ug/L	17	30	0.0500	
Acetone	0.1416	0.1700	40.00000	48.01120	ug/L	20	40	0.0500	
Freon 113	0.4395	0.5049	40.00000	41.58330	ug/L	4	30	0.0500	
1,1-Dichloroethene	0.3662	0.3586	40.00000	39.17540	ug/L	-2	20	0.0500	
Methylene Chloride	0.5011	0.4784	40.00000	38.19260	ug/L	-5	30	0.0500	
Carbon Disulfide	1.3285	1.3548	40.00000	40.79240	ug/L	2	30	0.0500	
MTBE	1.4167	1.3747	40.00000	38.81440	ug/L	-3	30	0.0500	
trans-1,2-Dichloroethene	0.4567	0.4449	40.00000	38.96650	ug/L	-3	30	0.0500	
Vinyl Acetate	0.8438	0.8314	40.00000	39.41240	ug/L	-1	40	0.0500	
1,1-Dichloroethane	0.7196	0.6982	40.00000	38.80880	ug/L	-3	30	0.1000	
2-Butanone	0.2308	0.2396	40.00000	41.52790	ug/L	4	40	0.0500	
2,2-Dichloropropane	0.5957	0.6425	40.00000	43.14160	ug/L	8	30	0.0500	
cis-1,2-Dichloroethene	0.5171	0.4860	40.00000	37.59200	ug/L	-6	30	0.0500	
Chloroform	0.8327	0.8243	40.00000	39.59610	ug/L	-1	20	0.0500	
Bromochloromethane	0.2970	0.2829	40.00000	38.10770	ug/L	-5	30	0.0500	
1,1,1-Trichloroethane	0.6062	0.6753	40.00000	44.56190	ug/L	11	30	0.0500	
1,1-Dichloropropene	0.3414	0.3526	40.00000	41.31740	ug/L	3	30	0.0500	
Carbon Tetrachloride	0.3110	0.3371	40.00000	43.35620	ug/L	8	30	0.0500	
1,2-Dichloroethane	0.3987	0.3863	40.00000	38.75240	ug/L	-3	30	0.0500	
Benzene	0.9771	0.8947	40.00000	36.62630	ug/L	-8	30	0.0500	
Trichloroethene	0.2952	0.2829	40.00000	38.32700	ug/L	-4	30	0.0500	
1,2-Dichloropropane	0.2760	0.2644	40.00000	38.31620	ug/L	-4	20	0.0500	
Bromodichloromethane	0.3833	0.3675	40.00000	38.35280	ug/L	-4	30	0.0500	
Dibromomethane	0.2390	0.2246	40.00000	37.58480	ug/L	-6	30	0.0500	
4-Methyl-2-Pentanone	0.2927	0.2822	40.00000	38.55890	ug/L	-4	40	0.0500	
Tetramethyl THF	0.4920	0.4844	40.00000	39.38410	ug/L	-2	30	0.0500	
cis-1,3-Dichloropropene	0.4514	0.4355	40.00000	38.59280	ug/L	-4	30	0.0500	
Toluene	0.6167	0.5483	40.00000	35.55980	ug/L	-11	20	0.0500	
trans-1,3-Dichloropropene	0.4252	0.4123	40.00000	38.78210	ug/L	-3	30	0.0500	
1,1,2-Trichloroethane	0.1598	0.1469	40.00000	36.75710	ug/L	-8	30	0.0500	
2-Hexanone	0.2654	0.2693	40.00000	40.58670	ug/L	1	40	0.0500	
1,3-Dichloropropane	0.5905	0.5572	40.00000	37.74490	ug/L	-6	30	0.0500	
Tetrachloroethene	0.3658	0.3738	40.00000	40.87890	ug/L	2	30	0.0500	
Dibromochloromethane	0.4188	0.4189	40.00000	40.00860	ug/L	0	30	0.0500	
1,2-Dibromoethane	0.3201	0.2935	40.00000	36.66870	ug/L	-8	30	0.0500	
Chlorobenzene	0.9534	0.8850	40.00000	37.13290	ug/L	-7	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3575	0.3365	40.00000	37.64690	ug/L	-6	30	0.0500	
Ethylbenzene	1.4362	1.3696	40.00000	38.14400	ug/L	-5	20	0.0500	
m,p-Xylenes	0.5302	0.5048	80.00000	76.15850	ug/L	-5	30	0.0500	
o-Xylene	0.5428	0.5073	40.00000	37.38150	ug/L	-7	30	0.0500	
Styrene	0.9355	0.8790	40.00000	37.58350	ug/L	-6	30	0.0500	

m=manual integration

5/25 788

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA03 Run Name : 40PPB IDF : 1.0
Seqnum : 425207891003 Filename : ceo03 Injected : 24-MAY-2005 09:50
Calnum : 425199173001 Caldate : 18-MAY-2005 Caltype : SOIL
Standards: S538 (12500X), S568 (12500X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF Flags
Bromoform	0.3352	0.3312	40.00000	39.51300	ug/L	-1	30	0.1000
Isopropylbenzene	2.3082	2.2644	40.00000	39.24160	ug/L	-2	30	0.0500
1,1,2,2-Tetrachloroethane	0.8996	0.8361	40.00000	37.17540	ug/L	-7	30	0.3000
1,2,3-Trichloropropane	0.7637	0.6984	40.00000	36.57950	ug/L	-9	30	0.0500
Propylbenzene	2.9010	2.8366	40.00000	39.11190	ug/L	-2	30	0.0500
Bromobenzene	0.7598	0.6864	40.00000	36.13810	ug/L	-10	30	0.0500
1,3,5-Trimethylbenzene	2.0490	1.8954	40.00000	37.00180	ug/L	-7	30	0.0500
2-Chlorotoluene	2.0721	1.9268	40.00000	37.19530	ug/L	-7	30	0.0500
4-Chlorotoluene	1.9818	1.8408	40.00000	37.15550	ug/L	-7	30	0.0500
tert-Butylbenzene	1.6602	1.6372	40.00000	39.44720	ug/L	-1	30	0.0500
1,2,4-Trimethylbenzene	2.1563	2.0144	40.00000	37.36880	ug/L	-7	30	0.0500
sec-Butylbenzene	2.5552	2.5606	40.00000	40.08390	ug/L	0	30	0.0500
para-Isopropyl Toluene	2.1394	2.1233	40.00000	39.69860	ug/L	-1	30	0.0500
1,3-Dichlorobenzene	1.4124	1.3064	40.00000	36.99780	ug/L	-8	30	0.0500
1,4-Dichlorobenzene	1.4439	1.3462	40.00000	37.29410	ug/L	-7	30	0.0500
n-Butylbenzene	2.1122	2.1191	40.00000	40.13100	ug/L	0	30	0.0500
1,2-Dichlorobenzene	1.3573	1.2412	40.00000	36.57810	ug/L	-9	30	0.0500
1,2-Dibromo-3-Chloropropane	0.1720	0.1643	40.00000	38.21160	ug/L	-4	30	0.0500
1,2,4-Trichlorobenzene	0.8988	0.8709	40.00000	38.75800	ug/L	-3	30	0.0500
Hexachlorobutadiene	0.3694	0.3670	40.00000	39.74110	ug/L	-1	30	0.0500
Naphthalene	2.1272	1.9517	40.00000	36.69970	ug/L	-8	30	0.0500
1,2,3-Trichlorobenzene	0.8806	0.8324	40.00000	37.81190	ug/L	-5	30	0.0500
tert-Butyl Alcohol (TBA)	0.0637	0.0601	400.0000	377.6411	ug/L	-6	30	0.0050
Isopropyl Ether (DIPE)	1.3039	1.3181	40.00000	40.43530	ug/L	1	30	0.0500
Ethyl tert-Butyl Ether (ETBE)	1.2869	1.2287	40.00000	38.18940	ug/L	-5	30	0.0500
Methyl tert-Amyl Ether (TAME)	0.8325	0.7820	40.00000	37.57230	ug/L	-6	30	0.0500
Ethanol	0.0057	0.0053	4000.000	3741.636	ug/L	-6	30	5.0E-4
Isopropanol	0.0336	0.0320	400.0000	380.7233	ug/L	-5	30	0.0050
Tetrahydrofuran	0.1147	0.1163	400.0000	405.3772	ug/L	1	30	0.0050
Dibromofluoromethane	0.5800	0.6095	50.00000	52.54290	ug/L	5	30	0.0500
1,2-Dichloroethane-d4	0.3410	0.3757	50.00000	55.09520	ug/L	10	30	0.0500
Trifluorotoluene	0.3985	0.3990	40.00000	40.05690	ug/L	0	30	0.0500
Toluene-d8	0.9620	0.9491	50.00000	49.32840	ug/L	-1	30	0.0500
Bromofluorobenzene	0.9571	0.9358	50.00000	48.89190	ug/L	-2	30	0.0500

ISTD (ICAL=cei20)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	464956	354600	-23.73	10.71	10.71	0.00
1,4-Difluorobenzene	707116	572135	-19.09	11.86	11.86	0.00
Chlorobenzene-d5	541429	437636	-19.17	15.83	15.83	0.00
1,4-Dichlorobenzene-d4	316250	251807	-20.38	18.54	18.52	-0.02

m=manual integration

5/27

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 24-MAY-2005
Sequence: 425207891 (ceo)
Instrument ID: MSVOA03

ICAL Filename: cei20
Date Analyzed: 18-MAY-2005
Time Analyzed: 17:12

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	464956	10.71	707116	11.86	541429	15.83	316250	18.54
LOWER LIMIT	232478	10.21	353558	11.36	270715	15.33	158125	18.04
UPPER LIMIT	929912	11.21	1414232	12.36	1082858	16.33	632500	19.04

TYPE	SAMPLE	#							
CCV	40PPB	003	354600	10.71	572135	11.86	437636	15.83	251807	18.52
LCS	QC294882	004	284165	10.70	427300	11.86	361082	15.83	206595	18.52
BLANK	QC294883	005	375754	10.70	534331	11.85	446806	15.83	254532	18.52
SAMPLE	179549-015	006	381165	10.71	559413	11.85	462004	15.82	247410	18.53
SAMPLE	179573-008	007	411675	10.70	619314	11.86	509209	15.83	282471	18.52
SAMPLE	179530-008	008	441605	10.71	675739	11.85	545235	15.82	292484	18.53
SAMPLE	179603-001	009	422809	10.70	623632	11.86	455912	15.82	203604	18.53
SAMPLE	179597-001	010	428190	10.70	649886	11.86	542598	15.82	291519	18.53
SAMPLE	179597-002	011	433063	10.71	663016	11.85	546411	15.83	299381	18.53
SAMPLE	179597-003	012	441131	10.71	681284	11.86	554611	15.83	298463	18.53
SAMPLE	179597-004	013	445494	10.71	686242	11.85	569564	15.83	314929	18.53
SAMPLE	179597-005	014	454785	10.71	704594	11.86	573429	15.83	288663	18.53
SAMPLE	179597-006	015	420845	10.71	645986	11.86	509839	15.83	234105	18.53
MSS	179582-002	016	464488	10.71	714034	11.86	599205	15.83	319306	18.53
SAMPLE	179582-004	017	432984	10.71	689561	11.86	554365	15.83	278407	18.53
SAMPLE	179582-005	018	472906	10.71	759182	11.86	603743	15.84	284007	18.53
SAMPLE	179582-007	019	447005	10.71	705560	11.86	598848	15.83	327739	18.54
PREPBLK	QC294920	020	477283	10.71	763400	11.86	596624	15.84	310728	18.53
SAMPLE	179549-016	021	432301	10.70	711000	11.86	584615	15.83	332345	18.54
SAMPLE	179530-006	022	511585	10.71	837275	11.86	679125	15.83	335703	18.53
SAMPLE	179530-011	023	466989	10.71	766420	11.86	624008	15.83	310546	18.53
MS	QC294921	024	455076	10.71	757013	11.85	626004	15.83	337396	18.53
MSD	QC294922	025	470815	10.71	768140	11.86	662085	15.84	345793	18.53

5/25/05

MSVOA03 8260 X S ICAL

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 425199173 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 18-MAY-2005

Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	cei01	X	IB			18-MAY-2005 07:33	1.0						1	
002	cei02	TUN	BFB			18-MAY-2005 08:10	1.0						2	
003	cei03	CCV	60PPB			18-MAY-2005 08:26	1.0			5000			3 4 1	
004	cei04	X	QC294112	102120	Soil	18-MAY-2005 09:08	1.0			5000			5 6 7 1	
005	cei05	PREPBLK	QC294113 M	102120	Soil	18-MAY-2005 09:38	25.0			5000			8 1	
006	cei06	X	QC294112	102120	Soil	18-MAY-2005 10:08	1.0			5000			1 5 7 6	
007	cei07	BLANK	QC294114	102120	Soil	18-MAY-2005 10:38	1.0		1	5000			1	
008	cei08	LCS	QC294112	102120	Soil	18-MAY-2005 11:09	1.0	1	4	5000			5 9 7 1 spk	
009	cei09	BLANK	QC294114	102120	Soil	18-MAY-2005 11:39	1.0		1	5000			1	
010	cei10	CCV	50PPB			18-MAY-2005 12:09	1.0	4		5000			3 4 1 cc+	
011	cei11	X	IB			18-MAY-2005 12:48	1.0						1	
012	cei12	X	IB			18-MAY-2005 13:18	1.0						1	
013	cei13	TUN	BFB			18-MAY-2005 13:54	1.0						2	
014	cei14	X	IB			18-MAY-2005 14:10	1.0						10	
015	cei15	X	IB			18-MAY-2005 14:40	1.0						10	881
016	cei16	X	CALIB IB			18-MAY-2005 15:10	1.0						10	
017	cei17	ICAL	5PPB			18-MAY-2005 15:40	1.0						3 4 10	
018	cei18	ICAL	10PPB			18-MAY-2005 16:11	1.0						3 4 10	
019	cei19	ICAL	20PPB			18-MAY-2005 16:41	1.0						3 4 10	
020	cei20	ICAL	50PPB			18-MAY-2005 17:12	1.0						3 4 10	
021	cei21	ICAL	60PPB			18-MAY-2005 17:41	1.0						3 4 10	
022	cei22	ICAL	75PPB			18-MAY-2005 18:11	1.0						3 4 10	
023	cei23	ICAL	100PPB			18-MAY-2005 18:42	1.0						3 4 10	
024	cei24	ICV				18-MAY-2005 19:12	1.0			5000			5 10	
025	cei25	X				18-MAY-2005 19:42	1.0			5000			9 7 10	
026	cei26	X	IB			18-MAY-2005 20:12	1.0						10	
027	cei27	X	IB			18-MAY-2005 20:42	1.0						10	
028	cei28	X	IB			18-MAY-2005 21:12	1.0						10	

ICAL - Good. ICV - Good + A.C.E. Qua - BrMet

Stds used: 1=S296 2=04WS2425 3=S538 4=S568 5=S491 6=S139 7=S285 8=S344 9=S629 10=S638

Flags used: +=high bias cc=CCV CCC failure spk=5% spike rule

Analyst: Date: 5/19/05

Page 1 of 1

5/19/05

dMSVA03 8260X S. ICV.

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425200600 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 19-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	cej01	X	IB			19-MAY-2005 07:20	1.0					1	
002	cej02	TUN	BFB			19-MAY-2005 07:52	1.0					2	
003	cej03	CCV	50PPB			19-MAY-2005 08:08	1.0	2	5000			3 4 1	
004	cej04	ICV				19-MAY-2005 08:38	1.0		5000			5 6 1	

882

Stds used: 1=S638 2=04WS2425 3=S538 4=S568 5=S629 6=S285

Analyst: Date: 5/19/05

Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 425207891 Instrument: MSVOA03 HP GCMS VOA 03 Begun: 24-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	ceo01	X	IB			24-MAY-2005 08:51	1.0					1	
002	ceo02	TUN	BFB			24-MAY-2005 09:34	1.0					2	
003	ceo03	CCV	40PPB			24-MAY-2005 09:50	1.0		5000			3 4 1	
004	ceo04	LCS	QC294882	102317	Soil	24-MAY-2005 10:33	1.0		5000			5 6 7 1	
005	ceo05	BLANK	QC294883	102317	Soil	24-MAY-2005 11:03	1.0	1	5000			1	
006	ceo06	SAMPLE	179549-015	102317	Soil	24-MAY-2005 11:34	0.8772		5000	E		1	
007	ceo07	SAMPLE	179573-008	102317	Soil	24-MAY-2005 12:04	1.0		5000	A		1	
008	ceo08	SAMPLE	179530-008	102317	Soil	24-MAY-2005 12:34	0.9259		5000	C		1	
009	ceo09	SAMPLE	179603-001	102317	Soil	24-MAY-2005 13:05	1.02		5000	B		1	
010	ceo10	SAMPLE	179597-001	102317	Soil	24-MAY-2005 13:34	0.9091		5000	C		1	
011	ceo11	SAMPLE	179597-002	102317	Soil	24-MAY-2005 14:05	0.8621		5000			1	
012	ceo12	SAMPLE	179597-003	102317	Soil	24-MAY-2005 14:36	0.8621		5000			1	
013	ceo13	SAMPLE	179597-004	102317	Soil	24-MAY-2005 15:06	1.064		5000			1	
014	ceo14	SAMPLE	179597-005	102317	Soil	24-MAY-2005 15:36	0.8475		5000			1	
015	ceo15	SAMPLE	179597-006	102317	Soil	24-MAY-2005 16:07	0.8929	1	5000			1 RR 25X OK	1:ACE=306.856
016	ceo16	MSS	179582-002	102317	Soil	24-MAY-2005 16:37	0.9804	1	5000	B		1 RR 1X CO	
017	ceo17	SAMPLE	179582-004	102317	Soil	24-MAY-2005 17:08	1.163	1	5000			1 RR 25X OK	1:TCE=202.543
018	ceo18	SAMPLE	179582-005	102317	Soil	24-MAY-2005 17:38	0.9434	1	5000			1 RR 25X OK	1:TCE=329.948
019	ceo19	SAMPLE	179582-007	102317	Soil	24-MAY-2005 18:09	1.064		5000			1 RR 1X CO	
020	ceo20	PREPBLK	QC294920 M	102317	Soil	24-MAY-2005 18:40	25.0		5000			8 1 MeOH PB 5/24/05	
021	ceo21	SAMPLE	179549-016 M	102317	Soil	24-MAY-2005 19:11	25.0		5000	E		8 1	
022	ceo22	SAMPLE	179530-006 M	102317	Soil	24-MAY-2005 19:41	25.0		5000	C		8 1	
023	ceo23	SAMPLE	179530-011 M	102317	Soil	24-MAY-2005 20:12	25.0		5000			8 1	
024	ceo24	MS	QC294921	102317	Soil	24-MAY-2005 20:42	0.8475	1	5000	C		5 6 7 1 RR RPDfail	1:TCE=124.190
025	ceo25	MSD	QC294922	102317	Soil	24-MAY-2005 21:13	0.8772	1	5000	D		5 6 7 1	1:TCE=132.545
026	ceo26	X	IB			24-MAY-2005 21:43	1.0					1	
027	ceo27	X	IB			24-MAY-2005 22:13	1.0					1	
028	ceo28	X	3A			24-MAY-2005 22:43	1.0					1	
029	ceo29	X	3B			24-MAY-2005 23:13	1.0					1	

ICAL - Good, ICV - Good + A.C.E. lin - Broke 1, CCV - Good

LCS only (MSS/MS/MSD RR)

Stds used: 1=S638 2=04WS2425 3=S538 4=S568 5=S491 6=S629 7=S285 8=S344

Analyst: _____ Date: 5/25/05

Page 1 of 1

5/25/06

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 5/24/00

Prepped by:

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179573-8	5.0	A		3	PR1X IS↓		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26	179603-1	4.9	B		3	Encore		

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	179549-15	5.7	E		3	PR1X IS↓		
2	16	5.5	F	X		PR 25X 2BUTOR		
3	179530-6	6.5	G	X		PR 25X TCEOR		
4	8	5.4	C		3	PR1X IS↓		
5	11	4.6	C	X		PR 25X TCEOR		
6	179597-1	5.5	C		3	alias '528-2		
7	2	5.8				9		
8	3	5.8				13		
9	4	4.7	C			alias '549-5		
10	5	5.9	C			9		
11	6	5.6	C			17		
12	179582-2	5.1	B			MSS		
13	4	4.7	B					
14	5	5.3	B					
15	7	4.7	B					
16	2	5.9	C			MS		
17	2	5.7	D			MSD		

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB106(0.5)	Batch#:	102619
Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	ug/Kg	Prepared:	06/03/05
Basis:	dry		

Moisture: 15%

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Naphthalene	58	5.9	0.90	1.000	06/05/05
Acenaphthylene	100	5.9	1.7	1.000	06/05/05
Acenaphthene	5.8 J	5.9	0.90	1.000	06/05/05
Fluorene	28	5.9	1.3	1.000	06/05/05
Phenanthrene	770	29	4.5	5.000	06/08/05
Anthracene	67	5.9	1.4	1.000	06/05/05
Fluoranthene	640	29	7.9	5.000	06/09/05
Pyrene	650	29	6.7	5.000	06/09/05
Benzo(a)anthracene	270	5.9	1.2	1.000	06/05/05
Chrysene	370	29	5.7	5.000	06/09/05
Benzo(b)fluoranthene	280	29	6.3	5.000	06/09/05
Benzo(k)fluoranthene	250	29	3.5	5.000	06/09/05
Benzo(a)pyrene	340	29	5.3	5.000	06/09/05
Indeno(1,2,3-cd)pyrene	270	5.9	1.1	1.000	06/05/05
Dibenz(a,h)anthracene	130	5.9	1.0	1.000	06/05/05
Benzo(g,h,i)perylene	230	5.9	1.0	1.000	06/05/05

Surrogate	%REC	Limits	Diln Fac	Analyzed
Nitrobenzene-d5	86	37-140	1.000	06/05/05
2-Fluorobiphenyl	48	38-120	1.000	06/05/05
Terphenyl-d14	55	44-137	1.000	06/05/05

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC296147	Batch#:	102619
Matrix:	Soil	Prepared:	06/03/05
Units:	ug/Kg	Analyzed:	06/03/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.78
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.77
Fluorene	ND	5.0	1.1
Phenanthrene	ND	5.0	0.96
Anthracene	ND	5.0	1.2
Fluoranthene	ND	5.0	1.4
Pyrene	ND	5.0	1.1
Benzo(a)anthracene	ND	5.0	1.1
Chrysene	ND	5.0	0.97
Benzo(b)fluoranthene	ND	5.0	1.1
Benzo(k)fluoranthene	ND	5.0	0.60
Benzo(a)pyrene	ND	5.0	0.91
Indeno(1,2,3-cd)pyrene	ND	5.0	0.97
Dibenz(a,h)anthracene	ND	5.0	0.90
Benzo(g,h,i)perylene	ND	5.0	0.88

Surrogate	%REC	Limits
Nitrobenzene-d5	79	37-140
2-Fluorobiphenyl	66	38-120
Terphenyl-d14	53	44-137

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296148	Batch#:	102619
Matrix:	Soil	Prepared:	06/03/05
Units:	ug/Kg	Analyzed:	06/04/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	32.84	27.50	84	49-128
Pyrene	32.84	30.11	92	49-128

Surrogate	%REC	Limits
Nitrobenzene-d5	66	37-140
2-Fluorobiphenyl	56	38-120
Terphenyl-d14	50	44-137

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	102619
MSS Lab ID:	179646-029	Sampled:	05/25/05
Matrix:	Soil	Received:	05/25/05
Units:	ug/Kg	Prepared:	06/03/05
Basis:	dry	Analyzed:	06/04/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC296149

Moisture: 3%

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.7814	34.51	30.59	89	39-138
Pyrene	30.62	34.51	63.67	96	28-159

Surrogate	%REC	Limits
Nitrobenzene-d5	78	37-140
2-Fluorobiphenyl	57	38-120
Terphenyl-d14	46	44-137

Type: MSD
Lab ID: QC296150

Moisture: 3%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	33.90	35.25	104	39-138	16	39
Pyrene	33.90	92.77	183 *	28-159	38	45

Surrogate	%REC	Limits
Nitrobenzene-d5	87	37-140
2-Fluorobiphenyl	65	38-120
Terphenyl-d14	54	44-137

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

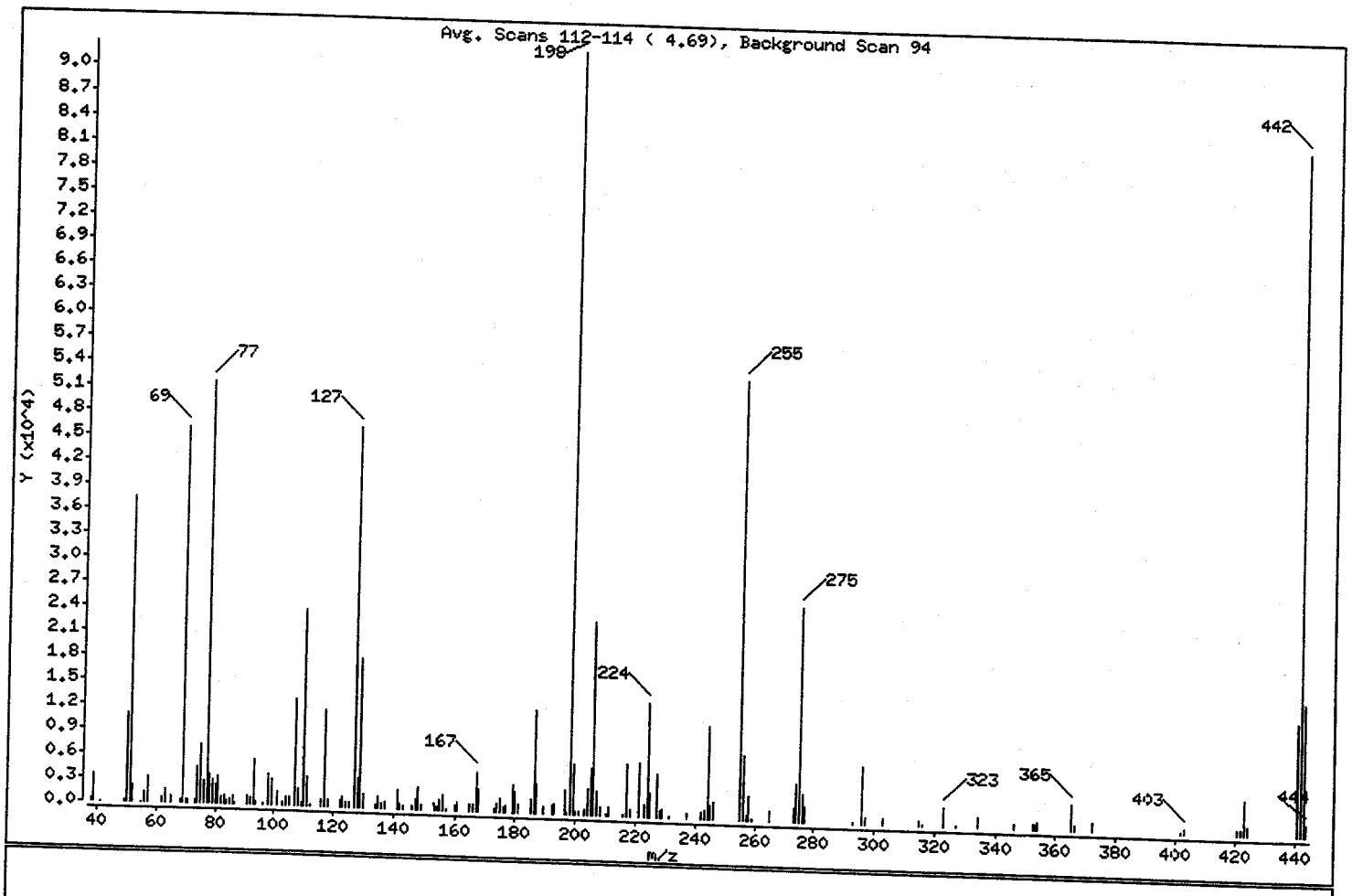
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	69.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM
5 CAL

4/25/05

04/25/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060305.b\VF321.D

Date : 03-JUN-2005 20:52

Client ID: dftpp tune std

Sample Info: TUN,05WS0188

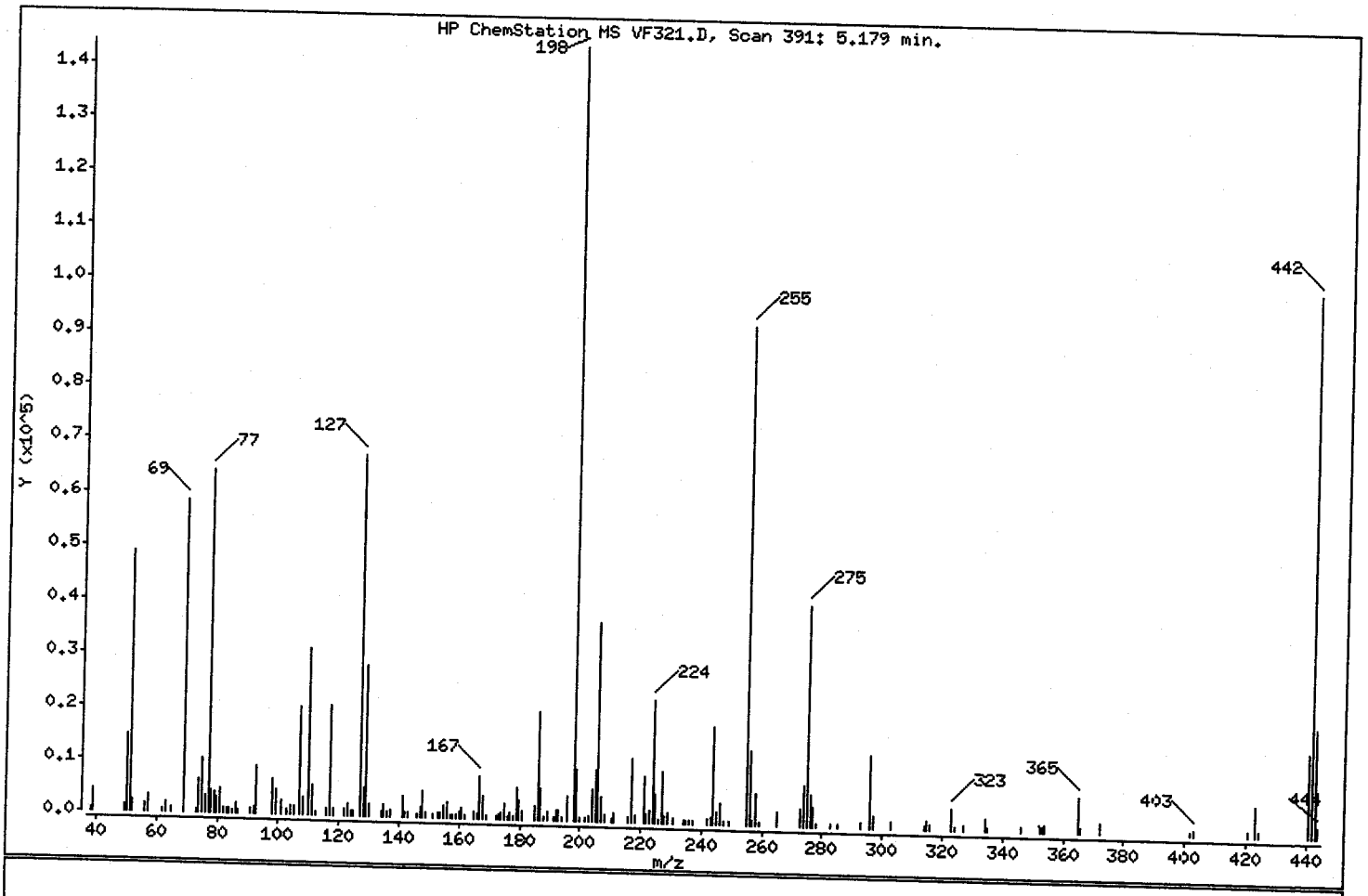
Instrument: MSBNA03.i

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.92
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	40.60
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	46.69
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 30.00% of mass 198	28.52
365	Greater than 1.00% of mass 198	4.54
441	Present, but less than mass 443	10.81
442	40.00 - 99.99% of mass 198	70.03
443	17.00 - 23.00% of mass 442	13.97 (19.95)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060505.b\VF501.D

Date : 05-JUN-2005 12:38

Client ID: dftpp tune std

Sample Info: TUN,05WS0188

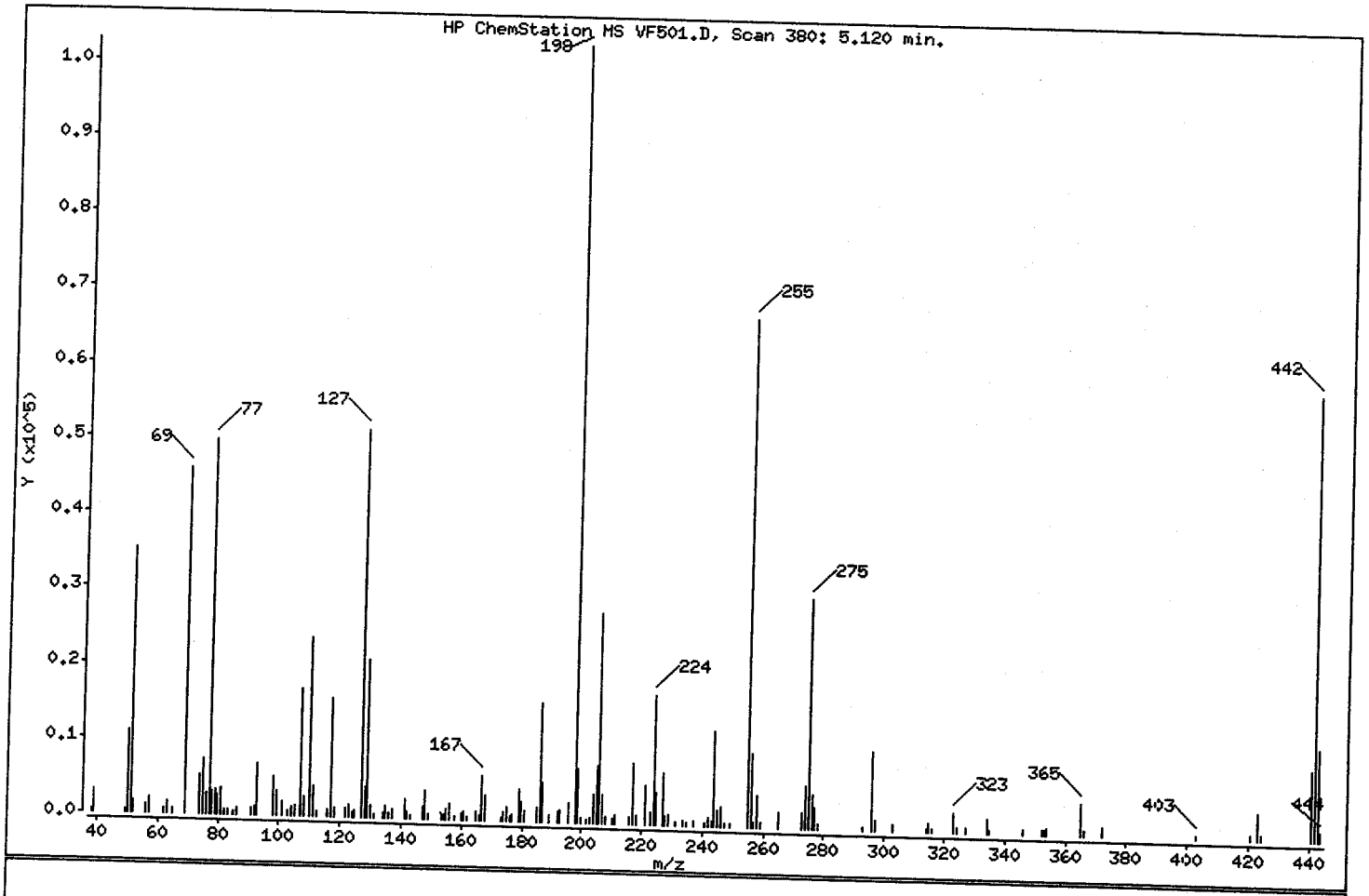
Instrument: MSBNA03.i

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.44
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	44.61
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.02
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.02
275	10.00 - 30.00% of mass 198	29.53
365	Greater than 1.00% of mass 198	4.18
441	Present, but less than mass 443	8.95
442	40.00 - 99.99% of mass 198	57.07
443	17.00 - 23.00% of mass 442	11.75 (20.58)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060705.b\VF701.D

Date : 07-JUN-2005 09:42

Client ID: dftpp tune std

Instrument: MSBNA03.i

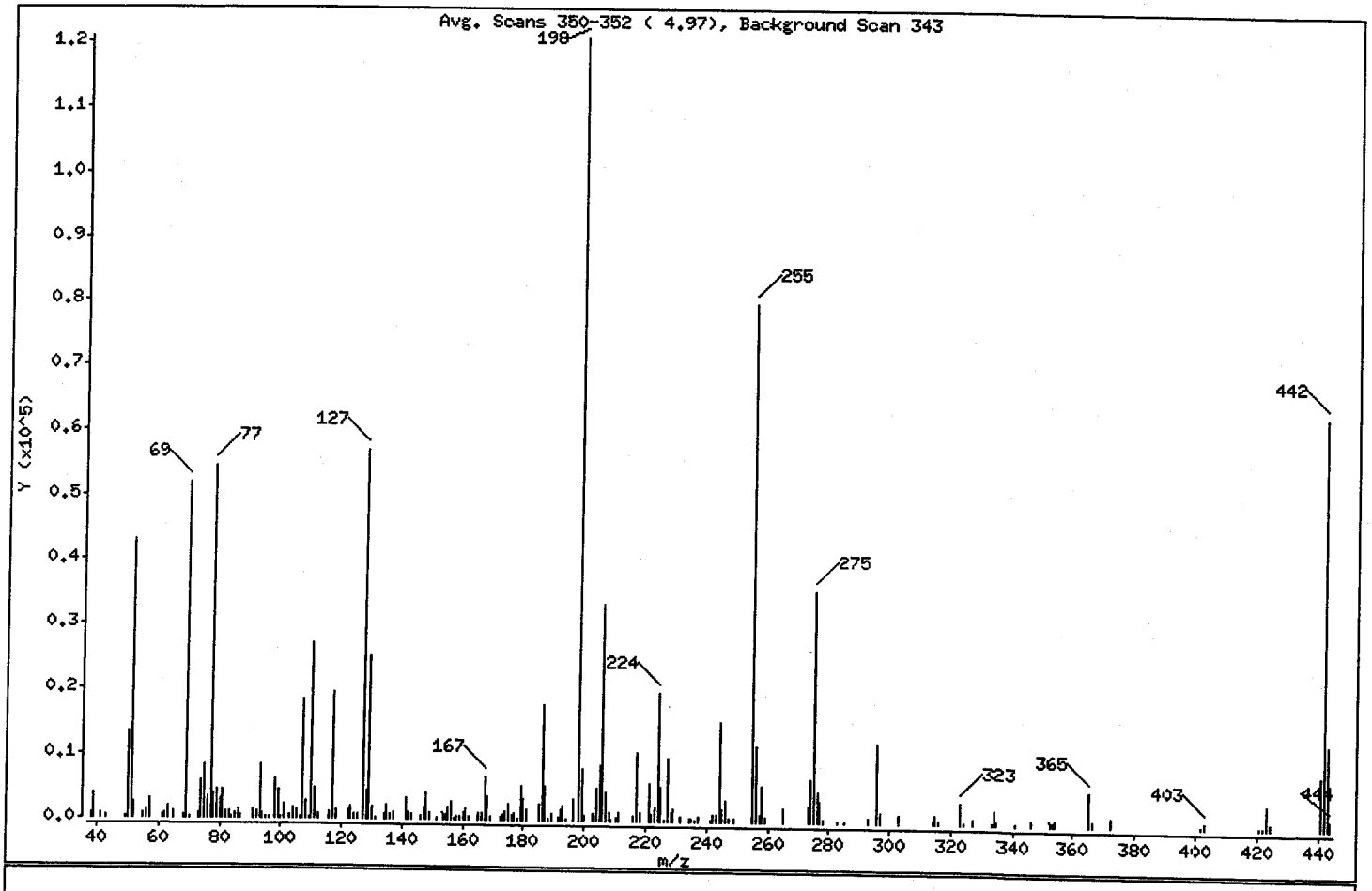
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.77
68	Less than 1.99% of mass 69	0.44 (1.01)
69	Mass 69 relative abundance	43.01
70	Less than 2.00% of mass 69	0.15 (0.35)
127	40.00 - 60.00% of mass 198	47.16
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 30.00% of mass 198	29.55
365	Greater than 1.00% of mass 198	4.46
441	Present, but less than mass 443	6.58
442	40.00 - 99.99% of mass 198	52.53
443	17.00 - 23.00% of mass 442	10.51 (20.01)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060905.b\VF901.D

Date : 09-JUN-2005 12:16

Client ID: dftpp tune std

Sample Info: TUN,S800

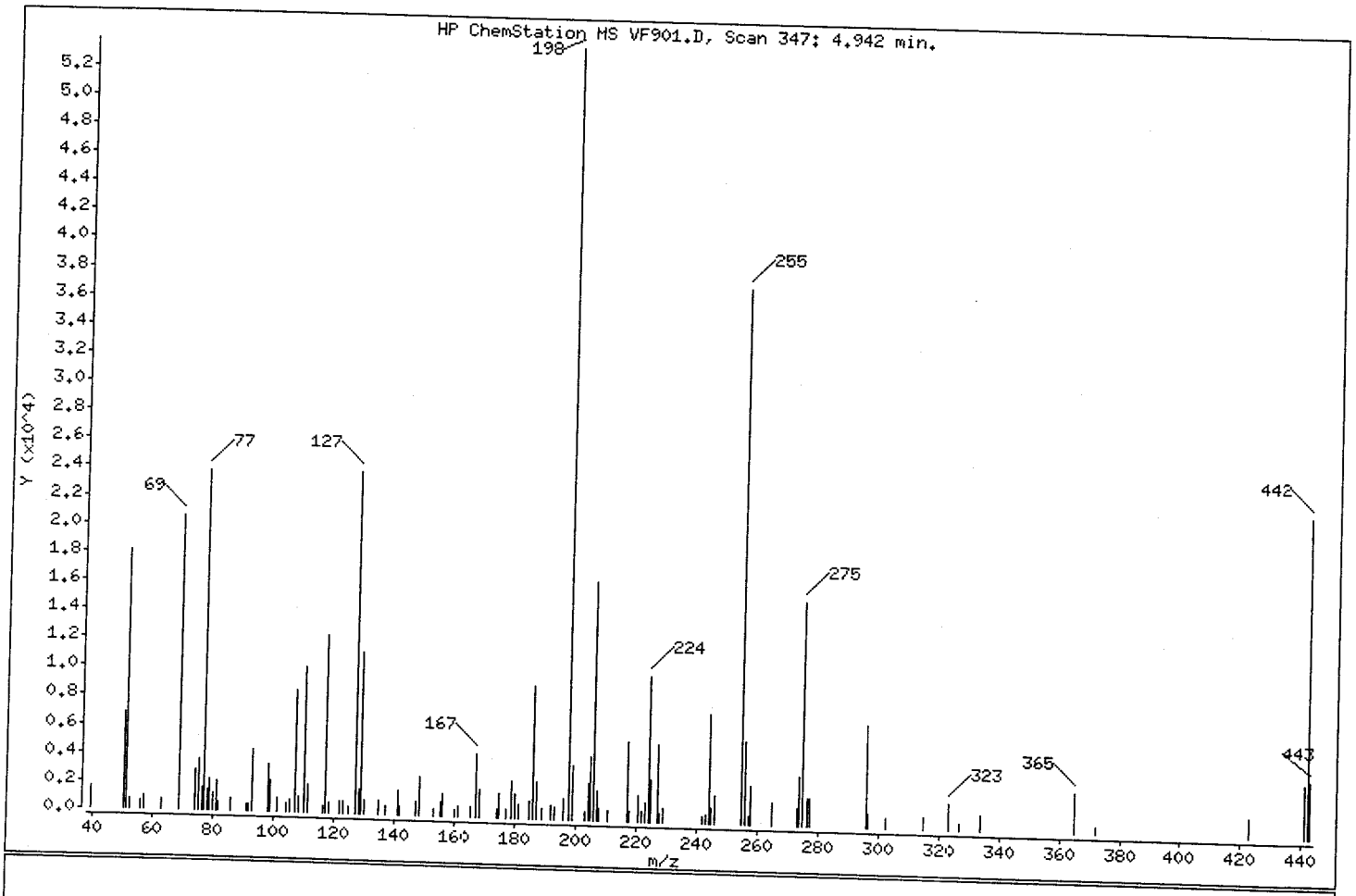
Instrument: MSBNA03.i

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.57
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	38.27
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	44.54
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.10
275	10.00 - 30.00% of mass 198	28.97
365	Greater than 1.00% of mass 198	5.40
441	Present, but less than mass 443	6.95
442	40.00 - 99.99% of mass 198	41.39
443	17.00 - 23.00% of mass 442	7.43 (17.95)

6/15/05

Data File: \\GCMSSERVER\DD\chem\MSBNA02.i\060705.b\UF704.D

Date : 07-JUN-2005 16:04

Client ID: dftpp tune std

Instrument: MSBNA02.i

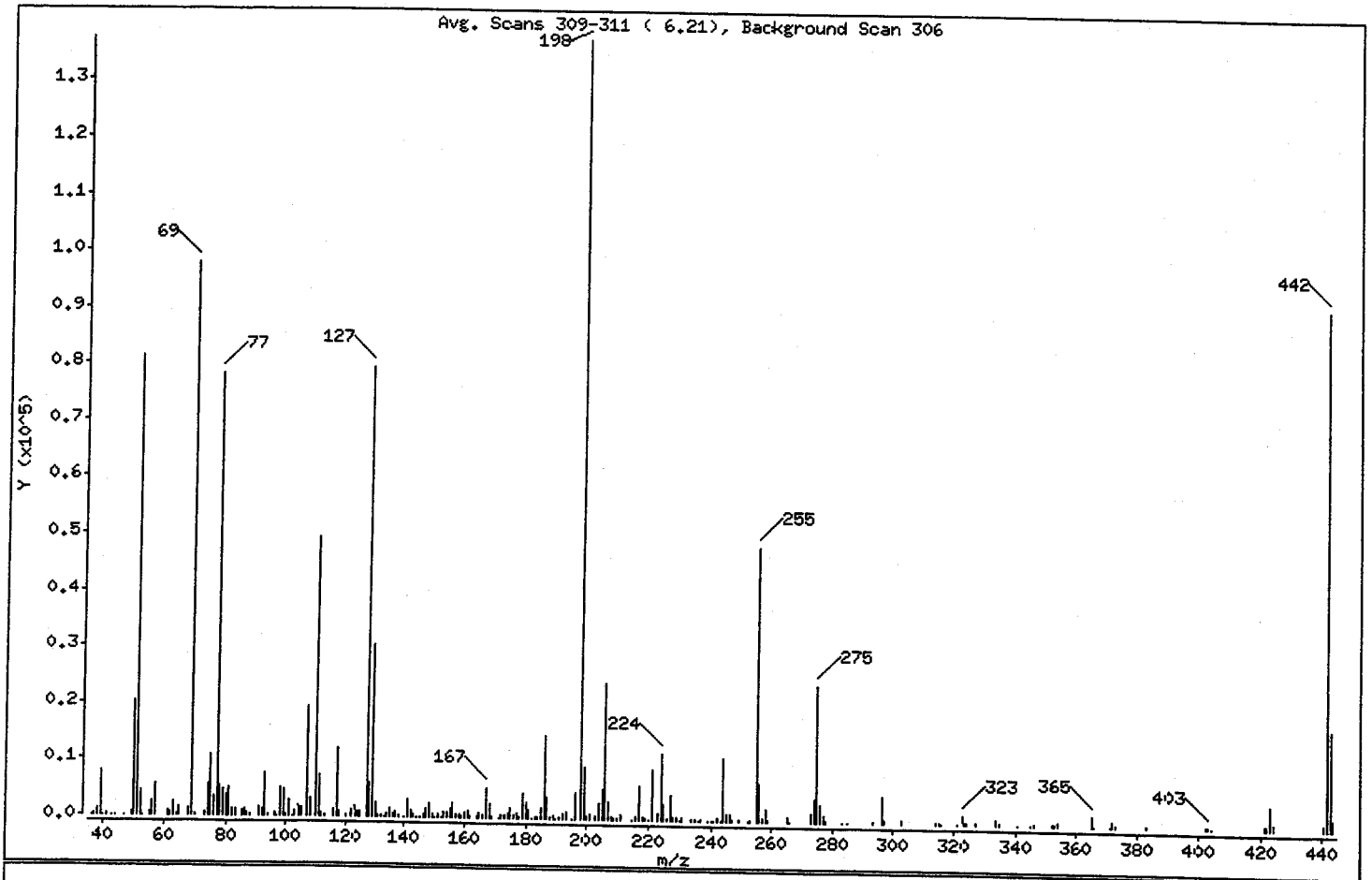
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.31
68	Less than 1.99% of mass 69	0.99 (1.39)
69	Mass 69 relative abundance	71.18
70	Less than 2.00% of mass 69	0.30 (0.43)
127	40.00 - 60.00% of mass 198	57.87
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	17.43
365	Greater than 1.00% of mass 198	1.42
441	Present, but less than mass 443	0.77
442	40.00 - 99.99% of mass 198	66.59
443	17.00 - 23.00% of mass 442	12.68 (19.05)

SIM

FCAL

tune

now

6/8/05

06/09/05

Data File: \\GCMSSERVER\DD\chem\MSBNA02.i\060805.b\UF804.D

Date : 08-JUN-2005 12:36

Client ID: dftpp tune std

Sample Info: TUN,S513

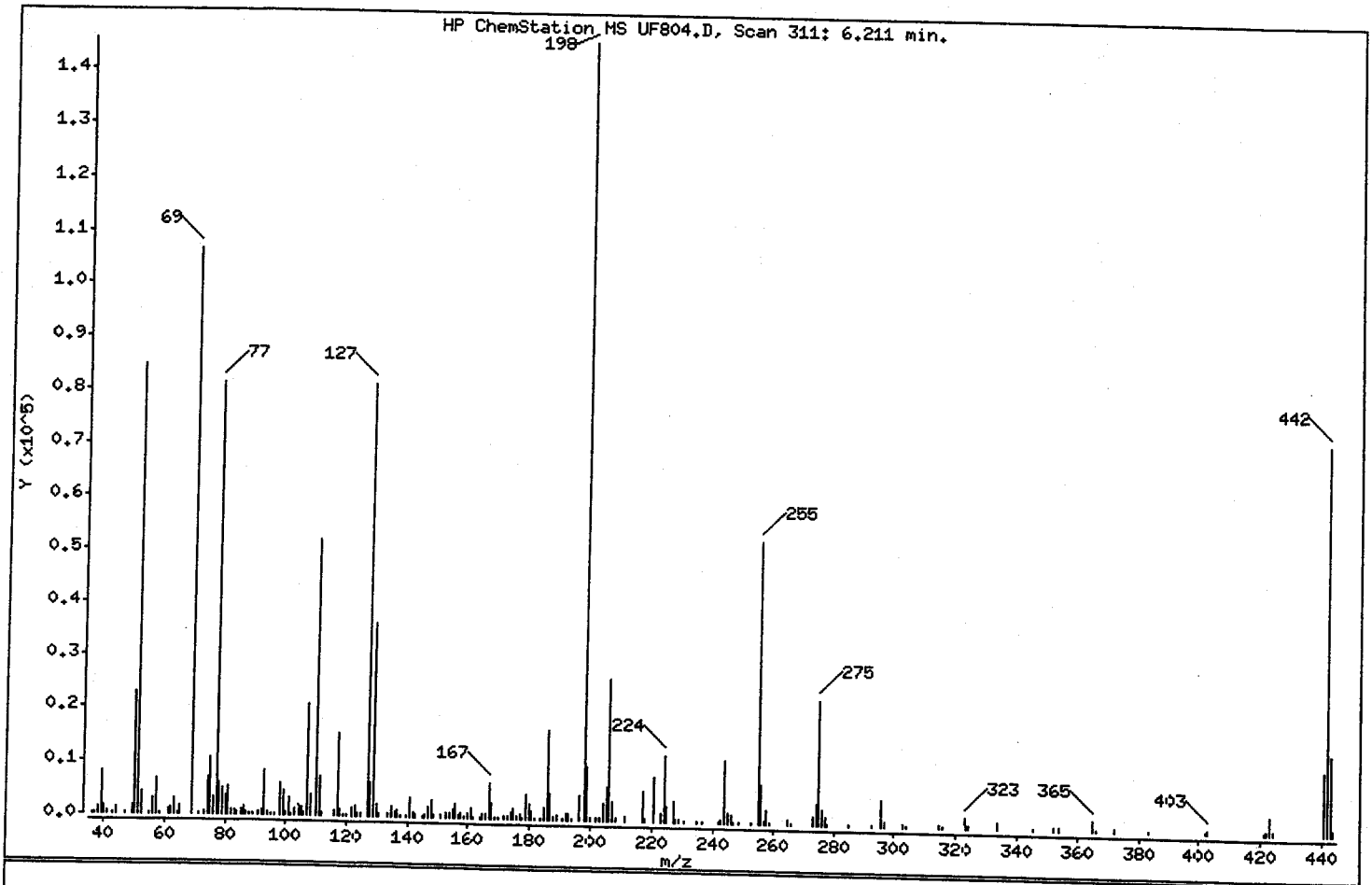
Instrument: MSBNA02.i

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.09
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	72.99
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	55.66
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	15.90
365	Greater than 1.00% of mass 198	1.42
441	Present, but less than mass 443	8.08
442	40.00 - 99.99% of mass 198	49.90
443	17.00 - 23.00% of mass 442	10.20 (20.44)

ICV

Tune

MOW

6/8/05

6/8/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA02 HP GCMS BNA 02 Reviewed By:
Calnum: 515228393001 Name: 2PAHSIM Type: (normal) Date: 07-JUN-2005 16:25 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	uf705	515228393005	0.1ug/ml PAHDIOX	07-JUN-2005 16:25	S755
2	uf706	515228393006	0.2ug/ml PAHDIOX	07-JUN-2005 17:03	S756
3	uf707	515228393007	0.5ug/ml PAHDIOX	07-JUN-2005 17:40	S757
4	uf708	515228393008	1.0ug/ml PAHDIOX	07-JUN-2005 18:18	S754
5	uf709	515228393009	2.0ug/ml PAHDIOX	07-JUN-2005 18:56	S758
6	uf710	515228393010	5.0ug/ml PAHDIOX	07-JUN-2005 19:34	S759
7	uf711	515228393011	10ug/ml PAHDIOX	07-JUN-2005 20:12	S760

ICAL - OK

ICV - OK

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.3262m	0.5019m	0.3797m	0.3511m	0.5410m	0.5655	QUAD	R	0.227497	1.918197	-0.03457	ng	0.4442	0.996	0.0500	.99	15	
Naphthalene	0.8400	0.8020	0.8328	0.8030	0.7994	0.7511	0.7610	AVRG	R		1.252370		ng	0.7985	4	0.0500	.99	15	
2-Methylnaphthalene	0.5664	0.4998	0.5572	0.5464	0.5867	0.5564	0.5376	AVRG	R		1.818000		ng	0.5501	5	0.0500	.99	15	
Acenaphthylene	1.4218	1.4159	1.3953	1.2215	1.3297	1.3154	1.1891	AVRG	R		0.753600		ng	1.3270	7	0.0500	.99	15	
Acenaphthene	0.8831	0.4671m	0.4530m	0.8190	0.8376	0.8789	0.7250	QUAD	R	0.207256	0.816415	0.072560	ng	0.7234	0.998	0.0500	.99	15	
Fluorene	0.8769	1.0647	0.9200	0.7738	0.9061	0.9099	0.8780	AVRG	R		1.105963		ng	0.9042	10	0.0500	.99	15	
Phenanthrene	0.8741	0.8649	0.7978	0.7384	0.8207	0.8225	0.7776	AVRG	R		1.228936		ng	0.8137	6	0.0500	.99	15	
Anthracene	0.9680	0.9997	0.9275	0.8459	0.8803	0.8984	0.8123	AVRG	R		1.105501		ng	0.9046	7	0.0500	.99	15	
Fluoranthene	0.8543	0.8783	0.8491	0.7552	0.8011	0.8055	0.7586	AVRG	R		1.227595		ng	0.8146	6	0.0500	.99	15	
Pyrene	1.9753	1.9969	1.4646	1.2489	1.2899	1.1886	1.0916	QUAD	R	-0.06104	0.770943	0.013791	ng	1.4651	1.000	0.0500	.99	15	
Benzo(a)anthracene	1.0267	0.9491	0.7527	0.7294	0.7928	0.8454	0.7939	AVRG	R		1.188466		ng	0.8414	13	0.0500	.99	15	
Chrysene	1.5135	1.2559m	1.0986	0.9441	1.0404	0.9687	0.8983	QUAD	R	-0.01411	0.945732	0.018777	ng	1.1028	1.000	0.0500	.99	15	
Benzo(b)fluoranthene	0.9288m	0.9994	1.0876	0.9994	1.2730	1.0813	0.9398	AVRG	R		0.957688		ng	1.0442	11	0.0500	.99	15	
Benzo(k)fluoranthene	1.7742	1.8107	1.6618	1.3104	1.3204	1.2979	1.2176	QUAD	R	-0.04327	0.736095	0.007234	ng	1.4847	1.000	0.0500	.99	15	
Benzo(a)pyrene	0.9054m	0.9189	0.8903	0.7848	0.9114	0.9286	0.8868	AVRG	R		1.124294		ng	0.8894	5	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	0.5966	0.5318	0.6070	0.5493	0.7239	0.8017	0.8240	QUAD	R	0.128355	1.266766	-0.00854	ng	0.6621	0.999	0.0500	.99	15	
Dibenz(a,h)anthracene	0.3400	0.3560	0.3429	0.3302	0.4550	0.5396	0.5824	QUAD	R	0.163615	1.946108	-0.04463	ng	0.4209	0.999	0.0500	.99	15	
Benzo(g,h,i)perylene	0.8480m	0.7706	0.7455	0.6310	0.7943	0.7933	0.7899	AVRG	R		1.302884		ng	0.7675	9	0.0500	.99	15	

997

Flags used: m=manual integration
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

6/18/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA02 HP GCMS BNA 02 Reviewed By:
Calnum: 515228393001 Name: 2PAHSIM Type: (normal) Date: 07-JUN-2005 16:25 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.0978m	0.0824m	0.1282m	0.1364m	0.2976	0.3084	0.3303	QUAD	R	0.245967	3.176819	-0.06763	ng	0.1973	0.998	0.0500	.99	15	
2-Fluorobiphenyl	1.9904m	1.8491m	1.0781	0.9063	1.0246	1.0231	0.9374	QUAD	R	-0.01507	0.915482	0.016069	ng	1.2584	0.999	0.0500	.99	15	
Terphenyl-d14	1.5168	1.3887	1.2264	0.9836	0.9769	0.8942	0.8143	QUAD	R	-0.07461	1.011574	0.027704	ng	1.1144	1.000	0.0500	.99	15	

998

Flags used: m=manual integration
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

MPV 6/8/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA02
Seqnum : 515229660005
Calnum : 515228393001
Standards: S797

Run Name : 1.0ug/ml SIMICV
Filename : uf805
Caldate : 07-JUN-2005

Injected : 08-JUN-2005 12:58
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.096000	ng	10	30	m
Naphthalene	1.000000	1.172900	ng	17	30	
2-Methylnaphthalene	1.000000	1.108300	ng	11	30	
Acenaphthylene	1.000000	1.099700	ng	10	30	
Acenaphthene	1.000000	0.855100	ng	-14	20	m
Fluorene	1.000000	1.084900	ng	8	30	
Phenanthrene	1.000000	1.116000	ng	12	30	
Anthracene	1.000000	1.179700	ng	18	30	
Fluoranthene	1.000000	1.133900	ng	13	20	
Pyrene	1.000000	1.073700	ng	7	30	m
Benzo(a)anthracene	1.000000	1.110700	ng	11	30	
Chrysene	1.000000	1.046600	ng	5	30	
Benzo(b)fluoranthene	1.000000	1.196300	ng	20	30	
Benzo(k)fluoranthene	1.000000	1.170000	ng	17	30	
Benzo(a)pyrene	1.000000	1.159400	ng	16	20	
Indeno(1,2,3-cd)pyrene	1.000000	1.037900	ng	4	30	
Dibenz(a,h)anthracene	1.000000	0.834600	ng	-17	30	
Benzo(g,h,i)perylene	1.000000	1.111400	ng	11	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV
Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

m=manual integration

6/8/05

VSNA03 8/16 — Initial Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

100

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: OK
BCV: OK

4/25/05

4/25/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

1001

Flags used: m=manual integration

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525222330022 Filename : vf322 Injected : 03-JUN-2005 21:14
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S758

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3721	2.000000	1.870700	ng	-6	30	0.0500	m
Naphthalene	0.8875	0.8642	2.000000	1.947500	ng	-3	30	0.0500	
2-Methylnaphthalene	0.6056	0.6317	2.000000	2.086100	ng	4	30	0.0500	
Acenaphthylene	1.6578	1.6307	2.000000	1.967300	ng	-2	30	0.0500	
Acenaphthene	1.0255	0.9750	2.000000	1.901400	ng	-5	20	0.0500	
Fluorene	1.2395	1.1875	2.000000	1.916000	ng	-4	30	0.0500	
Phenanthrene	0.9650	0.8598	2.000000	1.781800	ng	-11	30	0.0500	
Anthracene	0.8558	0.7932	2.000000	1.853800	ng	-7	30	0.0500	
Fluoranthene	1.0752	0.9528	2.000000	1.772300	ng	-11	20	0.0500	
Pyrene	1.1306	1.0409	2.000000	1.841300	ng	-8	30	0.0500	
Benzo(a)anthracene	1.0288	0.9863	2.000000	1.917400	ng	-4	30	0.0500	
Chrysene	1.0217	0.9423	2.000000	1.844500	ng	-8	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.1197	2.000000	1.691300	ng	-15	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.1359	2.000000	1.265900	ng	-37	30	0.0500	c- ***
Benzo(a)pyrene	1.1063	0.9991	2.000000	1.806100	ng	-10	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.2370	2.000000	2.047800	ng	2	30	0.0500	
Dibenz(a,h)anthracene	0.9620	0.9837	2.000000	2.045000	ng	2	30	0.0500	
Benzo(g,h,i)perylene	1.0276	0.9432	2.000000	1.835700	ng	-8	30	0.0500	
Nitrobenzene-d5	0.2512	0.3368	2.000000	2.681400	ng	34	30	0.0500	c+
2-Fluorobiphenyl	1.3678	1.3371	2.000000	1.955100	ng	-2	30	0.0500	
Terphenyl-d14	0.9054	0.8969	2.000000	1.981300	ng	-1	30	0.0500	

+=high bias -=low bias c=CCV m=manual integration

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03
Seqnum : 525225398002
Calnum : 525161929001
Standards: S758

Run Name :
Filename : vf502
Caldate : 22-APR-2005

IDF : 1.0
Injected : 05-JUN-2005 13:02
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.4064	2.000000	2.043400	ng	2	30	0.0500	m
Naphthalene	0.8875	0.8461	2.000000	1.906700	ng	-5	30	0.0500	
2-Methylnaphthalene	0.6056	0.6848	2.000000	2.261500	ng	13	30	0.0500	
Acenaphthylene	1.6578	1.5779	2.000000	1.903700	ng	-5	30	0.0500	
Acenaphthene	1.0255	0.9676	2.000000	1.886900	ng	-6	20	0.0500	
Fluorene	1.2395	1.1896	2.000000	1.919500	ng	-4	30	0.0500	
Phenanthrene	0.9650	0.8495	2.000000	1.760600	ng	-12	30	0.0500	
Anthracene	0.8558	0.7474	2.000000	1.746600	ng	-13	30	0.0500	
Fluoranthene	1.0752	0.9585	2.000000	1.783000	ng	-11	20	0.0500	
Pyrene	1.1306	0.9932	2.000000	1.757100	ng	-12	30	0.0500	
Benzo(a)anthracene	1.0288	0.9323	2.000000	1.812400	ng	-9	30	0.0500	
Chrysene	1.0217	0.9206	2.000000	1.802200	ng	-10	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.1054	2.000000	1.669800	ng	-17	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.2819	2.000000	1.428500	ng	**-29**	30	0.0500	~~c~~
Benzo(a)pyrene	1.1063	1.0131	2.000000	1.831500	ng	-8	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3000	2.000000	2.152200	ng	8	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0476	2.000000	2.178000	ng	9	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.0397	2.000000	2.023500	ng	1	30	0.0500	
Nitrobenzene-d5	0.2512	0.2804	2.000000	2.232300	ng	12	30	0.0500	
2-Fluorobiphenyl	1.3678	1.3633	2.000000	1.993400	ng	0	30	0.0500	
Terphenyl-d14	0.9054	0.8604	2.000000	1.900600	ng	-5	30	0.0500	

!=warning -=low bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525228102002 Filename : vf702 Injected : 07-JUN-2005 10:01
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S754

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	**0.0027**	1.000000	0.006700	ng	-99	30	0.0500	c- crf
Naphthalene	0.8875	0.7636	1.000000	0.860400	ng	-14	30	0.0500	
2-Methylnaphthalene	0.6056	0.5858	1.000000	0.967200	ng	-3	30	0.0500	
Acenaphthylene	1.6578	1.5316	1.000000	0.923900	ng	-8	30	0.0500	
Acenaphthene	1.0255	0.9124	1.000000	0.889700	ng	-11	20	0.0500	
Fluorene	1.2395	1.1371	1.000000	0.917400	ng	-8	30	0.0500	
Phenanthrene	0.9650	0.7641	1.000000	0.791700	ng	-21	30	0.0500	!c-
Anthracene	0.8558	0.7165	1.000000	0.837200	ng	-16	30	0.0500	
Fluoranthene	1.0752	0.8601	1.000000	0.800000	ng	-20	20	0.0500	
Pyrene	1.1306	0.9709	1.000000	0.858800	ng	-14	30	0.0500	
Benzo(a)anthracene	1.0288	0.8996	1.000000	0.874400	ng	-13	30	0.0500	
Chrysene	1.0217	0.8378	1.000000	0.820000	ng	-18	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.2398	1.000000	0.936400	ng	-6	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.3441	1.000000	0.748900	ng	-25	30	0.0500	!c-
Benzo(a)pyrene	1.1063	1.1439	1.000000	1.034000	ng	3	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3043	1.000000	1.079700	ng	8	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0342	1.000000	1.075100	ng	8	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.0634	1.000000	1.034900	ng	3	30	0.0500	
Nitrobenzene-d5	0.2512	0.2162	1.000000	0.860700	ng	-14	30	0.0500	m
2-Fluorobiphenyl	1.3678	1.3036	1.000000	0.953100	ng	-5	30	0.0500	
Terphenyl-d14	0.9054	0.8339	1.000000	0.921000	ng	-8	30	0.0500	

!=warning -=low bias c=CCV crf=CCV min RF failure m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA02
Seqnum : 515229660006
Calnum : 515228393001
Standards: S758

Run Name : PAHDIOX
Filename : uf806
Caldate : 07-JUN-2005

IDF : 1.0
Injected : 08-JUN-2005 14:28
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4442	0.4845	2.000000	2.053700	ng	3	30	0.0500	m
Naphthalene	0.7985	0.8021	2.000000	2.009100	ng	0	30	0.0500	
2-Methylnaphthalene	0.5501	0.5671	2.000000	2.061900	ng	3	30	0.0500	
Acenaphthylene	1.3270	1.3768	2.000000	2.075200	ng	4	30	0.0500	
Acenaphthene	0.7234	0.8712	2.000000	1.850100	ng	-7	20	0.0500	
Fluorene	0.9042	0.9011	2.000000	1.993100	ng	0	30	0.0500	
Phenanthrene	0.8137	0.8284	2.000000	2.036100	ng	2	30	0.0500	
Anthracene	0.9046	0.9053	2.000000	2.001700	ng	0	30	0.0500	
Fluoranthene	0.8146	0.8454	2.000000	2.075700	ng	4	20	0.0500	
Pyrene	1.4651	1.3108	2.000000	2.054800	ng	3	30	0.0500	
Benzo(a)anthracene	0.8414	0.8445	2.000000	2.007300	ng	0	30	0.0500	
Chrysene	1.1028	1.0428	2.000000	2.040000	ng	2	30	0.0500	
Benzo(b)fluoranthene	1.0442	1.0052	2.000000	1.925400	ng	-4	30	0.0500	
Benzo(k)fluoranthene	1.4847	1.3693	2.000000	2.026900	ng	1	30	0.0500	
Benzo(a)pyrene	0.8894	0.8663	2.000000	1.947900	ng	-3	20	0.0500	
Indeno(1,2,3-cd)pyrene	0.6621	0.7674	2.000000	2.052300	ng	3	30	0.0500	
Dibenz(a,h)anthracene	0.4209	0.4750	2.000000	1.972300	ng	-1	30	0.0500	
Benzo(g,h,i)perylene	0.7675	0.8396	2.000000	2.187800	ng	9	30	0.0500	
Nitrobenzene-d5	0.1973	0.2967	2.000000	2.107400	ng	5	30	0.0500	
2-Fluorobiphenyl	1.2584	1.0319	2.000000	1.942700	ng	-3	30	0.0500	
Terphenyl-d14	1.1144	0.9397	2.000000	1.924400	ng	-4	30	0.0500	

6/9/05

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03
Seqnum : 525231136002
Calnum : 525161929001
Standards: S754

Run Name :
Filename : vf902
Caldate : 22-APR-2005

IDF : 1.0
Injected : 09-JUN-2005 12:36
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	0.3462	1.000000	0.870300	ng	-13	30	0.0500	
Naphthalene	0.8875	0.8346	1.000000	0.940300	ng	-6	30	0.0500	
2-Methylnaphthalene	0.6056	0.6276	1.000000	1.036300	ng	4	30	0.0500	
Acenaphthylene	1.6578	1.4504	1.000000	0.874900	ng	-13	30	0.0500	
Acenaphthene	1.0255	0.9004	1.000000	0.878000	ng	-12	20	0.0500	
Fluorene	1.2395	1.1226	1.000000	0.905700	ng	-9	30	0.0500	
Phenanthrene	0.9650	0.7539	1.000000	0.781300	ng	-22	30	0.0500	!c-
Anthracene	0.8558	0.6764	1.000000	0.790400	ng	-21	30	0.0500	!c-
Fluoranthene	1.0752	0.8709	1.000000	0.810000	ng	-19	20	0.0500	
Pyrene	1.1306	0.9385	1.000000	0.830100	ng	-17	30	0.0500	
Benzo(a)anthracene	1.0288	0.8657	1.000000	0.841500	ng	-16	30	0.0500	
Chrysene	1.0217	0.8211	1.000000	0.803700	ng	-20	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.3520	1.000000	1.021100	ng	2	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.4576	1.000000	0.812200	ng	-19	30	0.0500	
Benzo(a)pyrene	1.1063	1.1690	1.000000	1.056700	ng	6	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.4088	1.000000	1.166100	ng	17	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0951	1.000000	1.138400	ng	14	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.1653	1.000000	1.134100	ng	13	30	0.0500	
Nitrobenzene-d5	0.2512	0.1843	1.000000	0.733700	ng	-27	30	0.0500	!c- m
2-Fluorobiphenyl	1.3678	1.3531	1.000000	0.989300	ng	-1	30	0.0500	
Terphenyl-d14	0.9054	0.8316	1.000000	0.918500	ng	-8	30	0.0500	

6/24

!=warning -=low bias c=CCV m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 03-JUN-2005
Sequence: 525222330 (vf3)
Instrument ID: MSBNA03

CCV Filename: vf322
Date Analyzed: 03-JUN-2005
Time Analyzed: 21:14

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACENDD10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	14573	6.32	56561	7.95	30703	10.46	63106	12.63	58778	16.52	54730	18.29
LOWER LIMIT	7287	5.82	28281	7.45	15352	9.96	31553	12.13	29389	16.02	27365	17.79
UPPER LIMIT	29146	6.82	113122	8.45	61406	10.96	126212	13.13	117556	17.02	109460	18.79

TYPE	SAMPLE	#											
CCV		022	14573	6.32	56561	7.95	30703	10.46	63106	12.63	58778	16.52	54730	18.29
BLANK	QC296006	023	14548	6.32	60241	7.95	33520	10.46	70302	12.63	65124	16.52	60314	18.29
BS	QC296007	024	14021	6.32	59228	7.95	32169	10.46	67582	12.63	65406	16.52	58342	18.29
BSD	QC296008	025	13534	6.32	56083	7.95	30978	10.46	65880	12.64	62066	16.52	56844	18.29
BLANK	QC296147	026	13599	6.32	54976	7.95	31849	10.46	66864	12.63	60236	16.52	55211	18.29
LCS	QC296148	027	13516	6.32	54891	7.95	31288	10.46	64840	12.63	60107	16.52	54449	18.30
BLANK	QC295634	028	14090	6.32	57876	7.95	32073	10.46	67150	12.63	60601	16.52	56258	18.29
LCS	QC295635	029	14213	6.32	60363	7.95	32452	10.46	71403	12.63	68204	16.52	62882	18.29
MSS	179686-001	030	14880	6.32	60835	7.95	34216	10.46	71359	12.63	65970	16.52	58884	18.30
MS	QC295636	031	14067	6.32	56630	7.95	31447	10.46	66120	12.63	61145	16.52	54672	18.30
MSD	QC295637	032	14738	6.32	62994	7.95	33808	10.46	71100	12.64	65458	16.52	61171	18.29
SAMPLE	179646-023	033	13878	6.33	56251	7.95	32330	10.46	66441	12.63	50843	16.52	38121	18.31
SAMPLE	179646-004	034	13272	6.32	55812	7.95	31211	10.46	64497	12.63	47528	16.52	34651	18.31
SAMPLE	179646-002	035	10270	6.32	42633	7.95	23924	10.46	49547	12.63	37962	16.52	31553	18.29
MSS	179646-029	036	14427	6.32	59991	7.95	33606	10.46	64943	12.65	45214	16.54	28544	18.34
MS	QC296149	037	14015	6.33	60121	7.95	32826	10.46	65225	12.65	43976	16.54	26140*	18.33
MSD	QC296150	038	14438	6.33	63744	7.95	33748	10.46	66266	12.65	45033	16.55	21837*	18.34
SAMPLE	179606-015	039	15252	6.33	68172	7.95	34964	10.46	64468	12.65	44343	16.55	20705*	18.35
SAMPLE	179614-031	040	12876	6.33	58449	7.95	30104	10.47	59742	12.65	40276	16.53	17284*	18.32
SAMPLE	179606-013	041	13036	6.33	58799	7.95	29649	10.47	57479	12.64	36582	16.55	16808*	18.33
SAMPLE	179606-001	042	12703	6.33	55895	7.95	29241	10.47	60265	12.64	40955	16.53	15346*	18.31
SAMPLE	179606-007	043	13693	6.33	62350	7.95	31447	10.46	62011	12.65	35606	16.55	12916*	18.33
SAMPLE	179606-017	044	13941	6.33	62826	7.95	27179	10.47	52599	12.67	41979	16.64	7966*	18.40

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 05-JUN-2005
Sequence: 525225398 (vf5)
Instrument ID: MSBNA03

CCV Filename: vf502
Date Analyzed: 05-JUN-2005
Time Analyzed: 13:02

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	12826	6.27	49545	7.89	26429	10.40	55578	12.58	55426	16.46	48663	18.24
LOWER LIMIT	6413	5.77	24773	7.39	13215	9.90	27789	12.08	27713	15.96	24332	17.74
UPPER LIMIT	25652	6.77	99090	8.39	52858	10.90	111156	13.08	110852	16.96	97326	18.74

TYPE	SAMPLE	#											
CCV		002	12826	6.27	49545	7.89	26429	10.40	55578	12.58	55426	16.46	48663	18.24
SAMPLE	179683-007	003	12215	6.27	51069	7.89	27455	10.40	58320	12.58	55643	16.46	50015	18.24
SAMPLE	179683-017	004	11980	6.27	51771	7.89	27101	10.40	57626	12.58	54549	16.46	50475	18.23
SAMPLE	179686-002	005	12643	6.27	53099	7.89	28478	10.40	61453	12.58	58528	16.46	51394	18.24
SAMPLE	179686-003	006	12979	6.27	55900	7.89	29357	10.39	62654	12.58	58136	16.46	51410	18.24
SAMPLE	179686-005	007	13164	6.27	57144	7.89	30100	10.39	64054	12.58	60601	16.46	56071	18.24
SAMPLE	179686-006	008	12976	6.27	55642	7.89	29360	10.40	63067	12.58	60983	16.45	55308	18.24
SAMPLE	179700-001	009	13279	6.27	57504	7.89	30687	10.40	65287	12.58	61143	16.46	55186	18.24
SAMPLE	179701-001	010	13283	6.27	56106	7.89	30575	10.40	63985	12.58	56726	16.46	48162	18.24
SAMPLE	179646-033	011	12899	6.27	56728	7.89	29932	10.40	62948	12.58	59052	16.46	52200	18.24
SAMPLE	179646-034	012	13038	6.27	57550	7.89	30053	10.40	63133	12.58	55818	16.46	49598	18.24
SAMPLE	179646-011	013	8448	6.26	38042	7.89	16964	10.39	35990	12.58	33213	16.47	18842*	18.26
SAMPLE	179646-009	014	70*	6.28	169*	7.89	41*	10.02	139*	12.32	343*	16.25	2084*	18.78*
SAMPLE	179603-001	015	12633	6.27	55703	7.89	43000	10.40	59903	12.58	46120	16.47	27801	18.26
SAMPLE	179646-031	016	13688	6.27	59948	7.89	27068	10.40	62211	12.58	54831	16.49	22074*	18.29
SAMPLE	179646-032	017	13233	6.27	55194	7.89	26299	10.40	60446	12.59	50881	16.49	17052*	18.30
SAMPLE	179646-022	018	12344	6.27	49973	7.90	25231	10.40	56091	12.59	46132	16.49	17451*	18.28
SAMPLE	179646-025	019	2987*	6.27	12971*	7.89	6054*	10.40	14233*	12.59	11521*	16.47	4759*	18.26
SAMPLE	179646-026	020	15798	6.28	57734	7.90	25626	10.40	308670*	12.60	45031	16.52	10293*	18.33
SAMPLE	179646-030	021	12670	6.27	50297	7.89	29388	10.41	57595	12.59	41642	16.50	10023*	18.31
SAMPLE	179606-018	022	16957	6.27	52526	7.90	25231	10.40	55830	12.59	40865	16.49	11671*	18.27

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 07-JUN-2005
Sequence: 525228102 (vf7)
Instrument ID: MSBNA03

CCV Filename: vf702
Date Analyzed: 07-JUN-2005
Time Analyzed: 10:01

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	9753	6.12	41908	7.72	22752	10.22	49586	12.39	45574	16.27	32043	18.05
LOWER LIMIT	4877	5.62	20954	7.23	11376	9.72	24793	11.89	22787	15.77	16022	17.56
UPPER LIMIT	19506	6.62	83816	8.23	45504	10.72	99172	12.89	91148	16.77	64086	18.56

TYPE	SAMPLE	#											
CCV		002	9753	6.12	41908	7.73	22752	10.22	49586	12.39	45574	16.27	32043	18.06
LCS	QC295635	003	10098	6.12	44133	7.73	25167	10.22	55506	12.39	49681	16.28	44731	18.06
SAMPLE	179682-001	004	9811	6.13	43387	7.73	24543	10.22	53586	12.39	46563	16.27	39359	18.04
SAMPLE	179564-001	005	9557	6.13	44542	7.73	24492	10.22	52812	12.38	47695	16.27	30784	18.06
SAMPLE	179603-001	006	9195	6.12	42583	7.73	24504	10.22	49546	12.38	44195	16.27	29161	18.06
SAMPLE	179682-005	007	9989	6.13	45975	7.73	24819	10.22	55213	12.39	48811	16.27	43215	18.04
MSS	179606-008	008	9838	6.13	45657	7.73	21922	10.22	47305	12.39	38890	16.32	15689*	18.15
MS	QC295761	009	9251	6.13	42813	7.73	25222	10.22	47413	12.39	36757	16.31	12885*	18.13
MSD	QC295762	010	8640	6.13	38168	7.73	20924	10.23	44265	12.39	34810	16.32	15802*	18.13
SAMPLE	179682-008	011	8967	6.13	38644	7.73	21412	10.23	46695	12.39	35269	16.29	18246	18.06
MSS	179646-029	012	10087	6.13	45252	7.73	24505	10.23	50432	12.39	38983	16.30	20792	18.09
SAMPLE	179714-001	013	9773	6.13	41746	7.73	23820	10.22	51498	12.39	40851	16.28	20411	18.06
SAMPLE	179646-026	014	8630	6.13	38215	7.73	21861	10.22	74785	12.39	33799	16.29	20587	18.07
SAMPLE	179646-030	015	8859	6.13	38485	7.73	21802	10.22	45412	12.39	33019	16.29	17420	18.07
SAMPLE	179646-031	016	9448	6.13	40391	7.73	21237	10.23	46453	12.39	37152	16.30	20576	18.10

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 08-JUN-2005
Sequence: 515229660 (uf8)
Instrument ID: MSBNA02

CCV Filename: uf806
Date Analyzed: 08-JUN-2005
Time Analyzed: 14:28

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	14156	8.96	58857	10.54	29084	12.85	41471	14.82	27176	18.47	23817	20.67
LOWER LIMIT	7078	8.46	29429	10.04	14542	12.35	20736	14.32	13588	17.97	11909	20.17
UPPER LIMIT	28312	9.46	117714	11.04	58168	13.35	82942	15.32	54352	18.97	47634	21.17

TYPE	SAMPLE	#											
CCV	PAHDIOX	006	14156	8.96	58857	10.54	29084	12.85	41471	14.82	27176	18.47	23817	20.67
SAMPLE	179828-011	007	11818	8.96	59436	10.55	31639	12.85	45324	14.82	20806	18.47	15044	20.67
SAMPLE	179741-015	008	15913	8.95	54126	10.54	26955	12.85	47308	14.82	33419	18.48	25985	20.68
SAMPLE	179741-016	009	16263	8.95	64741	10.55	30624	12.85	51451	14.82	38533	18.48	24452	20.69
SAMPLE	179682-021	010	14027	8.95	61236	10.55	29247	12.85	50726	14.82	39243	18.47	36388	20.68
SAMPLE	179564-001	011	13940	8.95	60027	10.54	31402	12.85	47093	14.82	34053	18.47	28615	20.68
SAMPLE	179603-001	012	14716	8.95	61582	10.55	30494	12.85	48449	14.82	34891	18.47	30841	20.68
SAMPLE	179646-002	013	14168	8.95	64020	10.54	32648	12.85	52016	14.82	34428	18.47	29855	20.68
SAMPLE	179646-009	014	13383	8.95	56271	10.54	29747	12.85	43720	14.82	28949	18.47	22951	20.70
SAMPLE	179646-032	015	16292	8.96	57296	10.56	30396	12.85	43434	14.82	28121	18.47	18445	20.70
SAMPLE	179682-015	016	13324	8.95	58235	10.54	30984	12.85	45867	14.82	32000	18.47	22793	20.68
SAMPLE	179606-020	017	12745	8.95	58457	10.55	31693	12.85	49735	14.82	31732	18.47	21665	20.69
SAMPLE	179606-017	018	10841	8.95	52378	10.55	27669	12.85	42048	14.82	28887	18.48	18033	20.70
SAMPLE	179606-012	019	13573	8.95	62187	10.55	33181	12.85	50907	14.82	32275	18.47	20060	20.70
SAMPLE	179606-007	020	13925	8.96	52819	10.56	29401	12.85	41873	14.82	24400	18.47	13689	20.68
SAMPLE	179682-014	021	11233	8.95	49884	10.55	26389	12.85	38114	14.82	21261	18.47	9902*	20.70
SAMPLE	179682-004	022	12603	8.95	56210	10.56	28465	12.85	40821	14.82	20771	18.48	8498*	20.71

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 09-JUN-2005
Sequence: 525231136 (vf9)
Instrument ID: MSBNA03

CCV Filename: vf902
Date Analyzed: 09-JUN-2005
Time Analyzed: 12:36

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	4827	6.12	18812	7.71	11406	10.20	26152	12.37	25142	16.26	14075	18.03
LOWER LIMIT	2414	5.62	9406	7.21	5703	9.70	13076	11.87	12571	15.76	7038	17.53
UPPER LIMIT	9654	6.62	37624	8.21	22812	10.70	52304	12.87	50284	16.76	28150	18.53

TYPE	SAMPLE	#										
CCV		002	4827	6.12	18812	7.71	11406	10.20	26152	12.37	25142	16.26	14075	18.03
BLANK	QC296575	003	4159	6.12	17356	7.71	11214	10.21	26501	12.37	24351	16.26	18332	18.03
LCS	QC296576	004	4173	6.11	18802	7.71	11563	10.20	27586	12.37	25675	16.26	19451	18.03
SAMPLE	179603-001	005	4276	6.11	18003	7.71	11094	10.20	24001	12.37	21080	16.26	14862	18.03
SAMPLE	179564-001	006	4198	6.12	18487	7.71	11096	10.20	25327	12.37	22146	16.26	16895	18.04
SAMPLE	179646-025	007	4701	6.12	19470	7.71	10939	10.21	23427	12.38	39545	16.30	23669	18.11
SAMPLE	179683-014	008	3827	6.12	16420	7.71	10127	10.21	21994	12.38	40589	16.30	16459	18.13
SAMPLE	179682-015	009	4224	6.12	17318	7.73	11033	10.21	22644	12.38	20999	16.27	19414	18.05
SAMPLE	179682-014	010	4289	6.12	17131	7.71	10681	10.21	22412	12.38	22879	16.28	23446	18.07
SAMPLE	179682-004	011	4662	6.12	18959	7.71	11326	10.21	25784	12.38	39010	16.30	20603	18.09

1082

MB/LCS/MS/MSD

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525222330 Instrument: MSBNA03 HP GCMS BNA 03
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

Begun: 03-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf301	TUN	NP NL			03-JUN-2005 09:30	1.0	1.0				1	
002	vf302	CCV				03-JUN-2005 10:00	1.0	1.0	1		1	2 cc-	
003	vf303	CCV				03-JUN-2005 10:32	1.0	1.0			1	2	
004	vf304	BLANK	QC295954	102574	Soil	03-JUN-2005 11:14	1.0	0.03327			1	3	
005	vf305	LCS	QC295955	102574	Soil	03-JUN-2005 11:45	1.0	0.03296			1	3	
006	vf306	SAMPLE	179606-014	102574	Soil	03-JUN-2005 12:16	1.0	0.03338			1	3	
007	vf307	SAMPLE	179646-015	102574	Soil	03-JUN-2005 12:47	1.0	0.03284			1	3	
008	vf308	SAMPLE	179646-014	102574	Soil	03-JUN-2005 13:18	1.0	0.03386			1	3	
009	vf309	SAMPLE	179646-012	102574	Soil	03-JUN-2005 13:49	1.0	0.03281			1	3	
010	vf310	SAMPLE	179646-018	102574	Soil	03-JUN-2005 14:19	1.0	0.03359			1	3	
011	vf311	SAMPLE	179646-008	102574	Soil	03-JUN-2005 14:50	1.0	0.03322			1	3	
012	vf312	SAMPLE	179646-016	102574	Soil	03-JUN-2005 15:21	1.0	0.03375			1	3	
013	vf313	SAMPLE	179646-017	102574	Soil	03-JUN-2005 15:52	1.0	0.03284			1	3	
014	vf314	MSS	179646-003	102574	Soil	03-JUN-2005 16:22	1.0	0.03322			1	3	
015	vf315	MS	QC295956	102574	Soil	03-JUN-2005 16:53	1.0	0.03281			1	3	113
016	vf316	MSD	QC295957	102574	Soil	03-JUN-2005 17:24	1.0	0.0328			1	3	113
017	vf317	SAMPLE	179606-019	102574	Soil	03-JUN-2005 17:55	1.0	0.03292			1	3	
018	vf318	SAMPLE	179606-020	102574	Soil	03-JUN-2005 18:26	1.0	0.03358	10	1	1	3	
019	vf319	SAMPLE	179606-012	102526	Soil	03-JUN-2005 18:56	1.0	0.03313	10	1	1	3	
020	vf320	TUN	NP NL			03-JUN-2005 20:35	1.0	1.0	1			1 t	
021	vf321	TUN	NP NL			03-JUN-2005 20:52	1.0	1.0				1	
022	vf322	CCV				03-JUN-2005 21:14	1.0	1.0	1		1	4	
023	vf323	BLANK	QC296006	102589	Water	03-JUN-2005 21:50	1.0	0.001		1	1	3	
024	vf324	BS	QC296007	102589	Water	03-JUN-2005 22:22	1.0	0.001	1	1	1	3	
025	vf325	BSD	QC296008	102589	Water	03-JUN-2005 22:55	1.0	0.001	1	1	1	3	
026	vf326	BLANK	QC296147	102619	Soil	03-JUN-2005 23:28	1.0	0.03362			1	3	
027	vf327	LCS	QC296148	102619	Soil	04-JUN-2005 00:00	1.0	0.03284	1		1	3	
028	vf328	BLANK	QC295634	102499	Water	04-JUN-2005 00:31	1.0	0.001		1	1	3	
029	vf329	LCS	QC295635	102499	Water	04-JUN-2005 01:04	1.0	0.001	1		1	3	

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: -=low bias <<t=out of clock cc=CCV CCC failure t=tune failure

CCV vf303: OK
- Pyrene ↓; Benzo(a)anthracene & Chrysene ↓ within limits
vf322: Benzo(b)fluoranthene ↓; Nitrobenzene-d5 ↑ (SURR)
& BD

Analyst: [signature] Date: 6/4/05
Jill Hebeler

SCAL OK
CCV: OK

Page 1 of 2

(282)

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525222330 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 03-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
030	vf330	MSS	179686-001	102499	Water	04-JUN-2005 01:36	1.0	0.001		1	1	3	
031	vf331	MS	QC295636	102499	Water	04-JUN-2005 02:09	1.0	0.0009901	1	10	1	3	
032	vf332	MSD	QC295637	102499	Water	04-JUN-2005 02:43	1.0	0.0009901	1	11	1	3	
033	vf333	SAMPLE	179646-023	102574	Soil	04-JUN-2005 03:17	1.0	0.03319			1	3	
034	vf334	SAMPLE	179646-004	102574	Soil	04-JUN-2005 03:52	1.0	0.03341		1	1	3	
035	vf335	SAMPLE	179646-002	102574	Soil	04-JUN-2005 04:25	1.0	0.03334	1		1	3	
036	vf336	MSS	179646-029	102619	Soil	04-JUN-2005 04:57	1.0	0.03297	1		1	3	
037	vf337	MS	QC296149	102619	Soil	04-JUN-2005 05:32	1.0	0.03348	1		1	3	
038	vf338	MSD	QC296150	102619	Soil	04-JUN-2005 06:04	1.0	0.03288	1	3	1	3	
039	vf339	SAMPLE	179606-015	102574	Soil	04-JUN-2005 06:38	1.0	0.03326	1		1	3	
040	vf340	SAMPLE	179614-031	102526	Soil	04-JUN-2005 07:13	5.0	0.03305			1	3	
041	vf341	SAMPLE	179606-013	102526	Soil	04-JUN-2005 07:45	5.0	0.0334	1		1	3	
042	vf342	SAMPLE	179606-001	102526	Soil	04-JUN-2005 08:19	5.0	0.0332	1		1	3	
043	vf343	SAMPLE	179606-007	102526	Soil	04-JUN-2005 08:54	1.0	0.03375	19		1	3 <<t	
044	vf344	SAMPLE	179606-017	102574	Soil	04-JUN-2005 09:28	2.0	0.1677	19	3	1	3 <<t	
045	vf345	X	ENDBLANK			04-JUN-2005 09:53	1.0						
046	vf346	X	ENDBLANK			04-JUN-2005 10:04	1.0						
047	vf347	X	ENDBLANK			04-JUN-2005 10:15	1.0						

RR hit mt in CCV
hit mt in CCV
2 RPD's out
hit mt in CCV
RR hit mt in CCV
outside clock
4:PYR=26.5555

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: -=low bias <<t=out of clock cc=CCV CCC failure t=tune failure

Analyst: _____ Date: 6/4/05

(1)

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525225398 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 05-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf501	TUN	NP NL			05-JUN-2005 12:38	1.0	1.0				1	
002	vf502	CCV				05-JUN-2005 13:02	1.0	1.0			1	2	
003	vf503	SAMPLE	179683-007	102499	Water	05-JUN-2005 13:33	1.0	0.0009804			1	3 spk	
004	vf504	SAMPLE	179683-017	102499	Water	05-JUN-2005 14:04	1.0	0.001			1	3 spk	
005	vf505	SAMPLE	179686-002	102499	Water	05-JUN-2005 14:36	1.0	0.001			1	3 spk	
006	vf506	SAMPLE	179686-003	102499	Water	05-JUN-2005 15:09	1.0	0.0009615			1	3 spk	
007	vf507	SAMPLE	179686-005	102499	Water	05-JUN-2005 15:41	1.0	0.0009709			1	3 spk	
008	vf508	SAMPLE	179686-006	102499	Water	05-JUN-2005 16:13	1.0	0.0009901			1	3 spk	
009	vf509	SAMPLE	179700-001	102499	Water	05-JUN-2005 16:44	1.0	0.001			1	3 spk	
010	vf510	SAMPLE	179701-001	102499	Water	05-JUN-2005 17:15	1.0	0.0009524			1	3 spk	
011	vf511	SAMPLE	179646-033	102619	Soil	05-JUN-2005 17:46	1.0	0.03316			1	3	
012	vf512	SAMPLE	179646-034	102619	Soil	05-JUN-2005 18:17	1.0	0.03342			1	3	
013	vf513	SAMPLE	179646-011	102574	Soil	05-JUN-2005 18:48	1.0	0.03303			1	3	
014	vf514	SAMPLE	179646-009	102574	Soil	05-JUN-2005 19:19	1.0	0.03342	6	3	1	3 RR all B↓	5
015	vf515	SAMPLE	179603-001	102619	Soil	05-JUN-2005 19:50	1.0	0.03326	7		1	3 2X 6:PYR=23.0648	
016	vf516	SAMPLE	179646-031	102619	Soil	05-JUN-2005 20:22	1.0	0.03332		1	1	3 #5 B↓ / #38↓	
017	vf517	SAMPLE	179646-032	102619	Soil	05-JUN-2005 20:55	1.0	0.03287			1	3	
018	vf518	SAMPLE	179646-022	102574	Soil	05-JUN-2005 21:28	1.0	0.03389			1	3	
019	vf519	SAMPLE	179646-025	102619	Soil	05-JUN-2005 22:01	1.0	0.03323		1	1	3 RR all B↓	
020	vf520	SAMPLE	179646-026	102619	Soil	05-JUN-2005 22:34	1.0	0.03388	6		1	3 10X 6:BZBF=50.5819	
021	vf521	SAMPLE	179646-030	102619	Soil	05-JUN-2005 23:07	1.0	0.0337	1		1	3 2X 1:BZBF=13.3588	
022	vf522	SAMPLE	179606-018	102574	Soil	05-JUN-2005 23:40	1.0	0.0332			1	3	

* ICAL / ICV = ok
* CCV = Benzo(k)fluoranthene ↓ warning limit.

Stds used: 1=05WS0188 2=S758 3=05WS0254
Flags used: spk=5% spike rule

Analyst: _____ Date: 6/6/05

Page 1 of 1

MSS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf701	TUN	NP NL			07-JUN-2005 09:42	1.0	1.0				1	
002	vf702	CCV				07-JUN-2005 10:01	1.0	1.0	1		1	2	
003	vf703	LCS	QC295635	102499	Water	07-JUN-2005 10:33	1.0	0.001			1	3	
004	vf704	SAMPLE	179682-001	102619	Soil	07-JUN-2005 11:04	1.0	0.03295			1	3	
005	vf705	SAMPLE	179564-001	102526	Soil	07-JUN-2005 11:36	2.0	0.03301	2		1	3	RR ↓ Phen/Benzo(k)
006	vf706	SAMPLE	179603-001	102619	Soil	07-JUN-2005 12:08	5.0	0.03326	2		1	3	
007	vf707	SAMPLE	179682-005	102619	Soil	07-JUN-2005 12:39	1.0	0.03295			1	3	
008	vf708	MSS	179606-008	102526	Soil	07-JUN-2005 13:11	1.0	0.0336	1		1	3	
009	vf709	MS	QC295761	102526	Soil	07-JUN-2005 13:42	1.0	0.03313		2	1	3	NOT USED
010	vf710	MSD	QC295762	102526	Soil	07-JUN-2005 14:14	1.0	0.03323		4	1	3	
011	vf711	SAMPLE	179682-008	102499	Water	07-JUN-2005 14:46	~~1.0~~ 5	0.00101		2	1	3	
012	vf712	MSS	179646-029	102619	Soil	07-JUN-2005 15:17	1.0	0.03297	1		1	3	
013	vf713	SAMPLE	179714-001	102631	Water	07-JUN-2005 15:48	1.0	0.0009434	1	1	1	3	
014	vf714	SAMPLE	179646-026	102619	Soil	07-JUN-2005 16:20	10.0	0.03388			1	3	
015	vf715	SAMPLE	179646-030	102619	Soil	07-JUN-2005 16:52	5.0	0.0337			1	3	1486
016	vf716	SAMPLE	179646-031	102619	Soil	07-JUN-2005 17:25	1.0	0.03332			1	3	
017	vf717	TUN	NP NL			07-JUN-2005 19:24	1.0	1.0	1			1	t
018	vf718	TUN	NP NL			07-JUN-2005 19:36	1.0	1.0				1	
019	vf719	CCV				07-JUN-2005 19:57	1.0	1.0	1		1	4	
020	vf720	SAMPLE	179797-005	102631	Water	07-JUN-2005 20:34	1.0	0.001			1	3	
021	vf721	SAMPLE	179828-004	102631	Water	07-JUN-2005 21:05	1.0	0.001			1	3	
022	vf722	SAMPLE	179828-011	102631	Water	07-JUN-2005 21:38	1.0	0.001		1	1	3	RR #25%
023	vf723	SAMPLE	179741-015	102631	Water	07-JUN-2005 22:11	1.0	0.001		1	1	3	#35%
024	vf724	SAMPLE	179741-016	102631	Water	07-JUN-2005 22:43	1.0	0.001		1	1	3	
025	vf725	SAMPLE	179774-029	102631	Water	07-JUN-2005 23:16	1.0	0.001		1	1	3	
026	vf726	SAMPLE	179774-010	102631	Water	07-JUN-2005 23:48	5.0	0.0009709		3	1	3	
027	vf727	SAMPLE	179682-021	102619	Soil	08-JUN-2005 00:21	1.0	0.03326			1	3	RR 2x ↓ Benzo(b)+(k)
028	vf728	SAMPLE	179728-001	102589	Water	08-JUN-2005 00:55	10.0	0.0009709	1	1	1	3	spk 1:NO2BZD=15.3497
029	vf729	SAMPLE	179728-005	102589	Water	08-JUN-2005 01:28	1.0	0.001111			1	3	spk

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

CCV vf702: Ch
- Phenanthrene ↓; Benzo(b)fluoranthene ↓ but morning limit.
vf719: Nitrobenzene-d5 ↑ Curls ID

Analyst: _____ Date: 6/8/05

Page 1 of 2

ICAL: Ch
RCV: Ch

J: UH 6/8/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
030	vf730	SAMPLE	179728-012	102589	Water	08-JUN-2005 02:01	1.0	0.001111			1	3 spk	
031	vf731	SAMPLE	179728-014	102589	Water	08-JUN-2005 02:33	1.0	0.001333			1	3 spk	
032	vf732	SAMPLE	179800-003	102589	Water	08-JUN-2005 03:07	1.0	0.001	19	1	1	3 sh spk	
033	vf733	SAMPLE	179800-004	102589	Water	08-JUN-2005 03:40	1.0	0.0009804	19	1	1	3 sh spk	
034	vf734	SAMPLE	179646-002	102574	Soil	08-JUN-2005 04:13	1.0	0.03334			1	3 RR 2X / Benzo(b)+(k)	
035	vf735	SAMPLE	179682-015	102619	Soil	08-JUN-2005 04:44	15.0	0.03313			1	3 20X	
036	vf736	SAMPLE	179682-014	102619	Soil	08-JUN-2005 05:18	2.0	0.03289		1	1	3 5X	
037	vf737	SAMPLE	179682-004	102619	Soil	08-JUN-2005 05:51	1.0	0.03323		1	1	3 # 355 J	
038	vf738	X	ENDBLANK			08-JUN-2005 06:16	1.0						
039	vf739	X	ENDBLANK			08-JUN-2005 06:27	1.0						
040	vf740	X	ENDBLANK			08-JUN-2005 06:38	1.0						

11417

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/8/05

(1)

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 515229660 Instrument: MSBNA02 HP GCMS BNA 02
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

Begun: 08-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
001	uf801	TUN	DFTPP 50NG			08-JUN-2005 11:40	1.0	1.0	1			1 t	
002	uf802	TUN	DFTPP 50NG			08-JUN-2005 11:57	1.0	1.0	1			1 t	
003	uf803	TUN	DFTPP/PEM 50			08-JUN-2005 12:18	1.0	1.0	1			2 t	
004	uf804	TUN	DFTPP/PEM 50			08-JUN-2005 12:36	1.0	1.0				2	
005	uf805	ICV	1.0ug/ml SIM			08-JUN-2005 12:58	1.0	1.0			1	3	
006	uf806	CCV	PAHDIOX			08-JUN-2005 14:28	1.0	1.0			1	4	
007	uf807	SAMPLE	179828-011	102631	Water	08-JUN-2005 15:06	1.0	0.001		1	1	5	
008	uf808	SAMPLE	179741-015	102631	Water	08-JUN-2005 15:44	1.0	0.001		1	1	5	
009	uf809	SAMPLE	179741-016	102631	Water	08-JUN-2005 16:22	1.0	0.001		1	1	5	
010	uf810	SAMPLE	179682-021	102619	Soil	08-JUN-2005 17:00	2.0	0.03326		1	1	5	
011	uf811	SAMPLE	179564-001	102526	Soil	08-JUN-2005 17:38	2.0	0.03301			1	5	
012	uf812	SAMPLE	179603-001	102619	Soil	08-JUN-2005 18:16	5.0	0.03326		1	1	5	
013	uf813	SAMPLE	179646-002	102574	Soil	08-JUN-2005 18:54	2.0	0.03334			1	5	
014	uf814	SAMPLE	179646-009	102574	Soil	08-JUN-2005 19:34	5.0	0.03342		2	1	5	
015	uf815	SAMPLE	179646-032	102619	Soil	08-JUN-2005 20:13	2.500	0.03287		1	1	5	
016	uf816	SAMPLE	179682-015	102619	Soil	08-JUN-2005 20:52	20.0	0.03313			1	5	
017	uf817	SAMPLE	179606-020	102574	Soil	08-JUN-2005 21:31	1.0	0.03358			1	5	
018	uf818	SAMPLE	179606-017	102574	Soil	08-JUN-2005 22:10	12.50	0.1677			1	5	
019	uf819	SAMPLE	179606-012	102526	Soil	08-JUN-2005 22:51	1.0	0.03313			1	5	
020	uf820	SAMPLE	179606-007	102526	Soil	08-JUN-2005 23:32	10.0	0.03375		2	1	5	
021	uf821	SAMPLE	179682-014	102619	Soil	09-JUN-2005 00:10	5.0	0.03289		1	1	5	
022	uf822	SAMPLE	179682-004	102619	Soil	09-JUN-2005 00:50	1.0	0.03323	19		1	5 <<t	
023	uf823	X	END BLANK			09-JUN-2005 01:29	1.0						
024	uf824	X	END BLANK			09-JUN-2005 02:10	1.0						

1188

CCV: Ok
SCAL: Ok
RV: Ok

Stds used: 1=05WS0188 2=S513 3=S797 4=S758 5=S465
Flags used: <<t=out of clock t=tune failure

Analyst: _____ Date: 6/9/05 J. Utterback

(1)

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525231136 Instrument: MSBNA03 HP GCMS BNA 03
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

Begun: 09-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vf901	TUN	DFTPP/PEM 50			09-JUN-2005 12:16	1.0	1.0				1	
002	vf902	CCV				09-JUN-2005 12:36	1.0	1.0			1	2	
003	vf903	BLANK	QC296575	102725	Soil	09-JUN-2005 13:10	1.0	0.03326		1	1	3	
004	vf904	LCS	QC296576	102725	Soil	09-JUN-2005 13:43	1.0	0.03347		1	1	3	
005	vf905	SAMPLE	179603-001	102619	Soil	09-JUN-2005 14:16	5.0	0.03326	2	1	1	3	
006	vf906	SAMPLE	179564-001	102526	Soil	09-JUN-2005 14:47	2.0	0.03301	2		1	3	
007	vf907	SAMPLE	179646-025	102619	Soil	09-JUN-2005 15:19	1.0	0.03323		2	1	3	
008	vf908	SAMPLE	179683-014	102725	Soil	09-JUN-2005 15:51	1.0	0.03306			1	3	
009	vf909	SAMPLE	179682-015	102619	Soil	09-JUN-2005 16:22	20.0	0.03313			1	3	
010	vf910	SAMPLE	179682-014	102619	Soil	09-JUN-2005 16:53	5.0	0.03289		1	1	3	
011	vf911	SAMPLE	179682-004	102619	Soil	09-JUN-2005 17:24	1.0	0.03323		1	1	3	
012	vf912	TUN	NP NL			09-JUN-2005 19:10	1.0	1.0				1	
013	vf913	CCV				09-JUN-2005 19:30	1.0	1.0	3		1	2	cc-
014	vf914	CCV				09-JUN-2005 20:09	1.0	1.0	1		1	2	
015	vf915	TUN	NP NL			09-JUN-2005 21:08	1.0	1.0	1			1	t
016	vf916	TUN	NP NL			09-JUN-2005 21:22	1.0	1.0	1			1	t
017	vf917	TUN	NP NL			09-JUN-2005 21:37	1.0	1.0				4	
018	vf918	CCV				09-JUN-2005 21:59	1.0	1.0	2		1	2	
019	vf919	BLANK	QC296891	102807	Soil	09-JUN-2005 22:39	1.0	0.0331		1	1	3	
020	vf920	LCS	QC296892	102807	Soil	09-JUN-2005 23:11	1.0	0.0333	1	2	1	3	
021	vf921	MSS	179720-020	102807	Soil	09-JUN-2005 23:43	1.0	0.03341		1	1	3	
022	vf922	MS	QC296893	102807	Soil	10-JUN-2005 00:15	1.0	0.03347	1	1	1	3	

1119

CCV: vf902: OK
- Phenanthrene ↓; Anthracene ↓; Nitrobenzene-d5 ↓ but warning limits
vf914: OK Benzo(k)fluoranthene ↓ but SD
- Phenanthrene ↓; Nitrobenzene ↑ but warning limits
BCA: OK
BCV: OK

Stds used: 1=S800 2=S754 3=05WS0254 4=05WS0188

Flags used: -=low bias cc=CCV CCC failure t=tune failure

Analyst: _____ Date: 6/10/05

J: Utte 6/10/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

Begun: 22-APR-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	120

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/25/05

4/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 515228393 Instrument: MSBNA02 HP GCMS BNA 02 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	uf701	CCV	PAHDIOX			07-JUN-2005 14:33	1.0	21		1			1 ?t cc-	11:NO2BZD=34.9283
002	uf702	CCV	PAHDIOX			07-JUN-2005 15:11	1.0	21		1			1 ?t cc-	6:NO2BZD=31.1098
003	uf703	TUN	DFTPP 50NG			07-JUN-2005 15:49	1.0	1					2 t	
004	uf704	TUN	DFTPP 50NG			07-JUN-2005 16:04	1.0						2	
005	uf705	ICAL	0.1ug/ml PAH			07-JUN-2005 16:25	1.0						3	
006	uf706	ICAL	0.2ug/ml PAH			07-JUN-2005 17:03	1.0						4	
007	uf707	ICAL	0.5ug/ml PAH			07-JUN-2005 17:40	1.0						5	
008	uf708	ICAL	1.0ug/ml PAH			07-JUN-2005 18:18	1.0						6	
009	uf709	ICAL	2.0ug/ml PAH			07-JUN-2005 18:56	1.0						7	
010	uf710	ICAL	5.0ug/ml PAH			07-JUN-2005 19:34	1.0						8	
011	uf711	ICAL	10ug/ml PAHD			07-JUN-2005 20:12	1.0						1	
012	uf712	ICV	1.0ug/ml SIM	NOT USED		07-JUN-2005 20:50	1.0						9	
013	uf713	ICV	1.0ug/ml SIM			07-JUN-2005 21:57	1.0						10	
014	uf714	ICV	1.0ug/ml SIM			07-JUN-2005 22:38	1.0						10	
015	uf715	TUN	NP NL			07-JUN-2005 23:22	1.0	1					2 t	

121

ICAL - OK

ICV - OK

Stds used: 1=S760 2=05WS0188 3=S755 4=S756 5=S757 6=S754 7=S758 8=S759 9=S345 10=05WS0244
Flags used: -=low bias ?t=missing tune cc=CCV CCC failure t=tune failure

Analyst: MPW Date: 6/8/05

Curtis & Tompkins Laboratories **Sample Preparation Summary** **03-JUN-2005 14:07**

Batch Number : 102619
Date Extracted: 03-JUN-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3550B

Analysis : 8270-SIM
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S771A
Spike #2 ID : S212B
Spike #3 ID :
SOP Version : 8270_SIM_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179603-001			Mactec, Inc.	Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
179646-025			Blasland, Bouck & Lee	Soil	30.09	g	1	0.033234	1		1	0		8270-SIM		
179646-026			Blasland, Bouck & Lee	Soil	29.52	g	1	0.033875	1		1	0		8270-SIM		
179646-029			Blasland, Bouck & Lee	Soil	30.33	g	1	0.032971	1		1	0		8270-SIM		
179646-030			Blasland, Bouck & Lee	Soil	29.67	g	1	0.033704	1		1	0		8270-SIM		mss
179646-031			Blasland, Bouck & Lee	Soil	30.01	g	1	0.033322	1		1	0		8270-SIM		
179646-032			Blasland, Bouck & Lee	Soil	30.42	g	1	0.032873	1		1	0		8270-SIM		
179646-033			Blasland, Bouck & Lee	Soil	30.16	g	1	0.033156	1		1	0		8270-SIM		
179646-034			Blasland, Bouck & Lee	Soil	29.92	g	1	0.033422	1		1	0		8270-SIM		
179682-001			Blasland, Bouck & Lee	Soil	30.35	g	1	0.032949	1		1	0		8270-SIM		
179682-002			Blasland, Bouck & Lee	Soil	30.12	g	1	0.033201	1		1	0		8270-SIM		
179682-004			Blasland, Bouck & Lee	Soil	30.09	g	1	0.033234	1		1	0		8270-SIM		
179682-005			Blasland, Bouck & Lee	Soil	30.35	g	1	0.032949	1		1	0		8270-SIM		
179682-006			Blasland, Bouck & Lee	Soil	30.45	g	1	0.032841	1		1	0		8270-SIM		
179682-012			Blasland, Bouck & Lee	Soil	30.22	g	1	0.033091	1		1	0		8270-SIM		
179682-014			Blasland, Bouck & Lee	Soil	30.4	g	1	0.032895	1		1	0		8270-SIM		
179682-015			Blasland, Bouck & Lee	Soil	30.18	g	1	0.033135	1		1	0		8270-SIM		
179682-016			Blasland, Bouck & Lee	Soil	30.11	g	1	0.033212	1		1	0		8270-SIM		
179682-019			Blasland, Bouck & Lee	Soil	30.36	g	1	0.032938	1		1	0		8270-SIM		
179682-021			Blasland, Bouck & Lee	Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
QC296147	MB			Soil	29.74	g	1	0.033625	1		1	0		8270-SIM		
QC296148	LCS			Soil	30.45	g	1	0.032841	1		1	1		8270-SIM		
QC296149	MS	of 179646-029		Soil	29.87	g	1	0.033478	1		1	1		8270-SIM		
QC296150	MSD	of 179646-029		Soil	30.41	g	1	0.032884	1		1	1		8270-SIM		

122

Prep Chemist: _____ Reviewed By: _____ Date: 6/7/05

Relinquished By: _____ Received By: _____ Date: 6/6/05

Curtis & Tompkins, Ltd.

8270 SOIL PREP LOG

LIMS Batch No: 102619
LIMS Analysis 8270-SIM
Extracted by: SLL
Date Extracted: 06/03/05

Extraction Method:
- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ Other _____

Cleanup Method (if necessary):
- ☐ EPA 3640a GPC
- ☐ EPA 3630c Silica Gel
- ☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC 296147	29.74	1.0		
	LCS 48	30.45			
	MS 49	29.87			
	MSD 50	30.41			179646-029; sediment
5	179608-001	30.07			
	179646-025	30.09			viscous
	-026	29.52			
	-029	30.33			MSS, sediment
	-030	29.67			
10	-031	30.01			
	-032	30.42			
	-033	30.16			
	-034	29.92			
	179682-001	30.35			
15	-002	30.12			
	-004	30.09			
	-005	30.35			
	-006	30.45			
	-012	30.22			
20	-014	30.40			
	-015	30.18			
	-016	30.11			
	-019	30.36			
	-021	30.07			

Sand weighed out for QC samples

Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4 RW

1.0 mL of surrogate solution was added to all samples

1.0 mL of matrix spiking solution was added to all spikes

≥100mL 1:1 CH_2Cl_2:Acetone was added to all:

Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at: soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4 TERRA

Concentrated: ☑ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel

Concentrated to final volumes as noted above

	Mfg & Lot # / LIMS # / Time	Date/Initials
	EM 44028452	SLL 06/05/05
	EM45042	
	5771A	
	5218B	
CH_2Cl_2	EM 45071	
Acetone	EM 45047	
	✓	
	N/A	
	EM45042/EM 44273	
	✓	
	N/A	
	✓	

06/05/05

Continued from page:
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06/05/05

Sample ID	Weight(g)	Analysis 8270 SIM	Comments
MB	29.82		
LCS	29.97		
MS	29.79		179646-029A
MSD	29.93		↓
179603-001A	30.07		
179646-002A	29.99		
3	30.33		
4	29.93		
8	30.10		
9	29.92		
11	30.28		
12	30.48		
14	29.53		
15	30.45		
16	29.63		
17	30.45		
18	29.77		
22	29.51		
23	30.13		
25	30.09		
26	29.52		rocks
29	30.33		rocks
30	29.67		MSS
31	30.01		
MB	29.74		
LCS	30.45		
MS	29.87		
MSD	30.41		179646-029A
179646-032A	30.42		179646-029A
33	30.16		
34	29.92		
179666-001A	30.12		
2	29.97		
3	30.34		
5	30.40		
7	29.63		

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Signed

5/26/05
Date

Read and Understood By

Signed

Date

Sample ID	Weight(g)	Analysis	Comments
MB	29.82	8270 SIM	
LCS	29.97		
MS	29.79		179646-029A
MSD	29.93		↓
179603-001A	30.07		
179646-002A	29.99		
3	30.33		
4	29.93		
8	30.10		
9	29.92		
11	30.28		
12	30.48		
14	29.53		
15	30.45		
16	29.63		
17	30.45		
18	29.77		
22	29.51		
23	30.13		
25	30.09		reckes
26	29.52		racks
29	30.38		MSS
30	29.67		
31	30.01		
MB	29.74		
LCS	30.45		
MS	29.87		179646-029A
MSD	30.41		179646-029A
179646-032A	30.42		
33	30.16		
34	29.92		
179606-001A	30.12		
2	29.97		
3	30.34		
5	30.40		
7	29.63		

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Signed — Date: 5/26/05 — 125 125

Read and Understood By

Signed — Date

Project SOIL ALIQUOT BK2135

Continued from Page

SAMPLE ID	WEIGHT(G)	ANALYSIS	COMMENTS
179682-001A	30.35	8270-SIM	
-002	30.12		
-004	30.09		
-005	30.35		
-006	30.49		
-012	30.22		
-014	30.40		
-015	30.18		
-016	30.11		
-019	30.36		
-021	30.07		
-022	30.48		
-023	30.17		
-024	30.10		
-025	30.48		
-026	31.04		MSS 179682-026A → EM44028452
-MS	30.25		
-MSD	30.25		
-LCS	30.07		
-MB	30.31		

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5/31/05

Date

Read and Understood By

Signed

Date

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179603	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB106(0.5)	Basis:	dry
Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	mg/Kg	Analyzed:	05/25/05

Moisture: 15%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prepared	Prep	Analysis
Antimony	0.46	0.31	0.074	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Arsenic	4.4	0.31	0.10	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Barium	130	3.1	0.31	50.00	102337	05/25/05	EPA 3050B	EPA 6020
Beryllium	0.43	0.31	0.064	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Cadmium	0.28 J	0.31	0.013	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Chromium	74	3.1	0.64	50.00	102337	05/25/05	EPA 3050B	EPA 6020
Cobalt	14	0.31	0.0043	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Copper	20	0.31	0.12	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Lead	31	0.31	0.010	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Mercury	0.081	0.026	0.0050	1.000	102328	05/24/05	METHOD	EPA 7471A
Molybdenum	0.45	0.31	0.0064	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Nickel	57	0.36	0.36	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Selenium	0.35	0.31	0.12	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Silver	0.15 J	0.31	0.0040	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Thallium	0.14 J	0.31	0.015	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Vanadium	49	0.31	0.18	5.000	102337	05/25/05	EPA 3050B	EPA 6020
Zinc	190	12	0.68	50.00	102337	05/25/05	EPA 3050B	EPA 6020

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC294913	Batch#:	102328
Matrix:	Soil	Prepared:	05/24/05
Units:	mg/Kg	Analyzed:	05/25/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	5.000
Lab ID:	QC294960	Batch#:	102337
Matrix:	Soil	Prepared:	05/25/05
Units:	mg/Kg	Analyzed:	05/25/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	0.25	0.060
Arsenic	ND	0.25	0.082
Barium	ND	0.25	0.025
Beryllium	ND	0.25	0.052
Cadmium	ND	0.25	0.011
Chromium	ND	0.25	0.052
Cobalt	ND	0.25	0.0035
Copper	ND	0.25	0.097
Lead	ND	0.25	0.0082
Molybdenum	ND	0.25	0.0052
Nickel	ND	0.30	0.30
Selenium	ND	0.25	0.097
Silver	ND	0.25	0.0032
Thallium	ND	0.25	0.013
Vanadium	ND	0.25	0.15
Zinc	0.078 J	1.0	0.056

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102328
Units:	mg/Kg	Prepared:	05/24/05
Basis:	as received	Analyzed:	05/25/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC294914	0.5000	0.5390	108	80-120		
BSD	QC294915	0.5000	0.5420	108	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	102337
Units:	mg/Kg	Prepared:	05/25/05
Basis:	as received	Analyzed:	05/25/05
Diln Fac:	5.000		

Type: BS Lab ID: QC294961

Analyte	Spiked	Result	%REC	Limits
Antimony	25.00	23.05	92	80-120
Arsenic	25.00	22.79	91	80-120
Barium	25.00	23.28	93	80-120
Beryllium	25.00	23.65	95	80-120
Cadmium	25.00	23.99	96	80-120
Chromium	25.00	23.22	93	80-120
Cobalt	25.00	23.83	95	80-120
Copper	25.00	24.06	96	80-120
Lead	25.00	23.61	94	80-120
Molybdenum	25.00	22.29	89	80-120
Nickel	25.00	23.94	96	80-125
Selenium	25.00	22.25	89	80-120
Silver	25.00	23.23	93	80-120
Thallium	25.00	22.47	90	66-120
Vanadium	25.00	23.17	93	80-120
Zinc	25.00	24.19	97	80-120

Type: BSD Lab ID: QC294962

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	25.00	24.15	97	80-120	5	20
Arsenic	25.00	23.31	93	80-120	2	20
Barium	25.00	23.87	95	80-120	3	20
Beryllium	25.00	24.19	97	80-120	2	20
Cadmium	25.00	24.22	97	80-120	1	20
Chromium	25.00	23.55	94	80-120	1	20
Cobalt	25.00	24.21	97	80-120	2	20
Copper	25.00	24.28	97	80-120	1	20
Lead	25.00	24.01	96	80-120	2	20
Molybdenum	25.00	22.83	91	80-120	2	20
Nickel	25.00	24.29	97	80-125	1	20
Selenium	25.00	22.56	90	80-120	1	20
Silver	25.00	23.56	94	80-120	1	20
Thallium	25.00	23.04	92	66-120	3	20
Vanadium	25.00	23.49	94	80-120	1	20
Zinc	25.00	24.92	100	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	102328
MSS Lab ID:	179518-004	Sampled:	05/17/05
Matrix:	Soil	Received:	05/18/05
Units:	mg/Kg	Prepared:	05/24/05
Basis:	dry	Analyzed:	05/25/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC294916	0.006272	0.4280	0.4160	96	64-139	1%		
MSD	QC294917		0.4354	0.3666	83	64-139	1%	14	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBSB106(0.5)	Batch#:	102337
MSS Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	mg/Kg	Prepared:	05/25/05
Basis:	dry	Analyzed:	05/26/05

Type: MS
Lab ID: QC294963

Moisture: 15%

Analyte	MSS Result	Spiked	Result	%REC	Limits	Dil'n Fac
Antimony	0.4619	25.35	25.44	98	28-120	5.000
Arsenic	4.447	25.35	28.05	93	70-120	5.000
Barium	132.5	25.35	126.1 >LR	-25 NM	46-165	5.000
Beryllium	0.4317	25.35	24.97	97	72-120	5.000
Cadmium	0.2791	25.35	24.43	95	74-120	5.000
Chromium	74.20	25.35	79.36	20 *	45-160	50.00
Cobalt	13.74	25.35	35.34	85	62-136	5.000
Copper	20.33	25.35	40.16	78	47-164	5.000
Lead	30.61	25.35	47.16	65	60-140	50.00
Molybdenum	0.4533	25.35	23.98	93	74-120	5.000
Nickel	57.10	25.35	68.61	45 *	51-172	50.00
Selenium	0.3466	25.35	23.54	91	66-120	5.000
Silver	0.1452	25.35	23.28	91	74-120	5.000
Thallium	0.1378	25.35	23.31	91	57-120	5.000
Vanadium	48.71	25.35	57.61	35	19-177	50.00
Zinc	190.1	25.35	78.25 >LR	-441 NM	39-166	5.000

Type: MSD
Lab ID: QC294964

Moisture: 15%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dil'n Fac
Antimony	29.41	30.60	102	28-120	4	24	5.000
Arsenic	29.41	33.00	97	70-120	3	20	5.000
Barium	29.41	148.9 >LR	56 NM	46-165	NC	23	5.000
Beryllium	29.41	28.93	97	72-120	0	20	5.000
Cadmium	29.41	29.21	98	74-120	3	20	5.000
Chromium	29.41	98.18	82	45-160	17	29	50.00
Cobalt	29.41	41.84	96	62-136	7	20	5.000
Copper	29.41	47.09	91	47-164	7	21	5.000
Lead	29.41	58.88	96	60-140	15	24	50.00
Molybdenum	29.41	28.61	96	74-120	3	20	5.000
Nickel	29.41	84.18	92	51-172	16	22	50.00
Selenium	29.41	27.65	93	66-120	1	20	5.000
Silver	29.41	27.70	94	74-120	3	20	5.000
Thallium	29.41	27.62	93	57-120	2	20	5.000
Vanadium	29.41	71.18	76	19-177	16	30	50.00
Zinc	29.41	91.88 >LR	-334 NM	39-166	NC	33	5.000

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	102328
MSS Lab ID:	179518-004	Sampled:	05/17/05
Lab ID:	QC294918	Received:	05/18/05
Matrix:	Soil	Analyzed:	05/25/05
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture	% Diff Lim
ND	0.01629	ND	0.08146	1%	10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BBSB106(0.5)	Basis:	dry
Type:	Serial Dilution	Batch#:	102337
MSS Lab ID:	179603-001	Sampled:	05/23/05
Lab ID:	QC294965	Received:	05/24/05
Matrix:	Soil	Analyzed:	05/25/05
Units:	mg/Kg		

Moisture: 15%

Analyte	MSS Result	MSS RL		Result	RL	% Diff	Lim	Dil'n Fac
Antimony	0.4619	0.3064		0.3971 J	1.532		10	25.00
Arsenic	4.447	0.3064		4.127	1.532		10	25.00
Barium	132.5	3.064		130.9	15.32	1	10	250.0
Beryllium	0.4317	0.3064		0.3972 J	1.532		10	25.00
Cadmium	0.2791	0.3064		0.3879 J	1.532		10	25.00
Chromium	74.20	3.064		72.24	7.659	3	10	250.0
Cobalt	13.74	0.3064		13.42	1.532	2	10	25.00
Copper	20.33	0.3064		20.19	1.532	1	10	25.00
Lead	30.61	0.3064		31.13	1.532	2	10	25.00
Molybdenum	0.4533	0.3064	ND		1.532	96 *	10	25.00
Nickel	57.10	0.3635		57.13	3.064	0	10	25.00
Selenium	0.3466	0.3064	ND		1.532		10	25.00
Silver	0.1452	0.3064		0.1262 J	1.532		10	25.00
Thallium	0.1378	0.3064		0.1788 J	1.532		10	25.00
Vanadium	48.71	0.3064		46.24	1.532	5	10	25.00
Zinc	190.1	12.25		198.2	153.2	4	10	250.0

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05
Seqnum : 55209576081
Filename : e2512081
IDF : 50.0
PDF : 52.08
Run type : MSS
Samplenum: 179603-001
Matrix : Soil
Batchnum : 102337
Inj : 25-MAY-2005 20:37
Units : ug/L

Instid : MET05
Seqnum : 55209576085
Filename : e2512085
IDF : 50.0
PDF : 52.08
Run type : PDS
Samplenum: QC294966
Matrix : Soil
Batchnum : 102337
Inj : 25-MAY-2005 21:00

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.2614	10.00	8.328	81	75-125	u
Arsenic	1.564	10.00	9.556	80	75-125	u
Barium	43.24	10.00	41.96	-13	75-125	: u
Beryllium	ND	10.00	8.732	87	75-125	u
Cadmium	0.2240	10.00	8.908	87	75-125	u
Calcium	1215	1000	1827	**61***	75-125	y
Chromium	24.22	10.00	30.42	**62***	75-125	u y
Cobalt	4.592	10.00	12.82	82	75-125	u
Copper	13.29	10.00	15.39	**21***	75-125	u
Iron	7824	1000	7404	-42	75-125	: y
Lead	63.88	10.00	20.14	-437	75-125	: u
Magnesium	1235	1000	1939	**70***	75-125	y
Manganese	178.3	10.00	164.8	-135	75-125	: u
Molybdenum	ND	10.00	7.000	**70***	75-125	u
Nickel	19.98	10.00	26.88	**69***	75-125	u
Potassium	484.4	1000	1262	78	75-125	
Selenium	ND	10.00	8.448	84	75-125	u
Silver	0.03052	10.00	8.124	81	75-125	u
Sodium	43.12	1000	881.8	84	75-125	
Thallium	ND	10.00	8.356	84	75-125	u
Vanadium	15.37	10.00	22.36	**70***	75-125	u
Zinc	62.06	10.00	34.22	-278	75-125	: u

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	622789	-16.76
Scandium	1005212	889819	-11.48
Germanium	182504	164451	-9.89
Indium	1240243	1070673	-13.67
Bismuth	753037	756107	0.41

:=recovery not meaningful u=use y=RL raised

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55209576081	Seqnum : 55209576061
Filename : e2512081	Filename : e2512061
IDF : 50.0	IDF : 50.0
PDF : 52.08	PDF : 52.08
Run type : MSS	Run type : PDS
Samplenum: 179603-001	Samplenum: QC294966
Matrix : Soil	Matrix : Soil
Batchnum : 102337	Batchnum : 102337
Inj : 25-MAY-2005 20:37	Inj : 25-MAY-2005 18:41
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.2614	100.0	95.98	96	75-125	
Arsenic	1.564	100.0	102.8	101	75-125	
Barium	43.24	100.0	469.6	>LR	426 75-125	>LR b*
Beryllium	ND	100.0	94.62	95	75-125	
Cadmium	0.2240	100.0	88.14	88	75-125	
Calcium	1215	10000	16220	**150***	75-125	y
Chromium	24.22	100.0	319.8	>LR	296 75-125	>LR y b*
Cobalt	4.592	100.0	136.3	**132***	75-125	
Copper	13.29	100.0	155.0	**142***	75-125	
Iron	7824	10000	74400	>LR	666 75-125	>LR y b*
Lead	63.88	100.0	192.6	**129***	75-125	
Magnesium	1235	10000	16560	**153***	75-125	y
Manganese	178.3	100.0	1665	>LR	1487 75-125	>LR b*
Molybdenum	ND	100.0	85.72	86	75-125	
Nickel	19.98	100.0	271.0	>LR	251 75-125	>LR b*
Potassium	484.4	10000	11140	107	75-125	
Selenium	ND	100.0	85.90	86	75-125	
Silver	0.03052	100.0	85.82	86	75-125	
Sodium	43.12	10000	7632	76	75-125	
Thallium	ND	100.0	89.06	89	75-125	
Vanadium	15.37	100.0	239.0	>LR	224 75-125	>LR b*
Zinc	62.06	100.0	298.4	>LR	236 75-125	>LR b*

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	585476	-21.74
Scandium	1005212	1003996	-0.12
Germanium	182504	155806	-14.63
Indium	1240243	970306	-21.76
Bismuth	753037	683500	-9.23

>LR=overrange b=noncompliant y=RL raised
Page 1 of 1

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 179603 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179603-001	MET04	05/25/05 09:59	1.0										+							
179603-001	MET05	05/25/05 17:54	5.0	+	+		+	+		+	+	+		+	+	+	+	+	+	
179603-001	MET05	05/25/05 20:37	50.0			+			+											+
179603-001	MET05	05/26/05 16:03	5.0																	
QC294913	MET04	05/25/05 08:57	1.0										+							
QC294914	MET04	05/25/05 09:00	1.0										+							
QC294915	MET04	05/25/05 09:02	1.0										+							
QC294916	MET04	05/25/05 09:05	1.0										+							
QC294917	MET04	05/25/05 09:06	1.0										+							
QC294918	MET04	05/25/05 10:00	5.0										+							
QC294919	MET04	05/25/05 10:02	1.0										+							
QC294960	MET05	05/25/05 17:31	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294961	MET05	05/25/05 17:37	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294962	MET05	05/25/05 17:42	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC294963	MET05	05/26/05 16:09	5.0	+	+	+	+	+		+	+			+		+	+	+		+
QC294963	MET05	05/26/05 16:21	50.0						+			+			+				+	
QC294964	MET05	05/26/05 16:15	5.0	+	+	+	+	+		+	+			+		+	+	+		+
QC294964	MET05	05/26/05 16:27	50.0						+			+			+				+	
QC294965	MET05	05/25/05 18:00	25.0	+	+		+	+		+	+	+		+	+	+	+	+	+	
QC294965	MET05	05/25/05 20:42	250.0			+			+											+
QC294966	MET05	05/25/05 18:41	50.0																	
QC294966	MET05	05/25/05 21:00	50.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55209576 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1
Begun: 25-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e2512001	TUN	TUNE			25-MAY-2005 12:56	689.0	1.0					
003	e2512003	ICALBLK	std-blk			25-MAY-2005 13:07	1.0	1.0				1	
004	e2512004	ICAL	CS1			25-MAY-2005 13:12	1.0	1.0				2	
005	e2512005	ICAL	CS2			25-MAY-2005 13:17	1.0	1.0				3	
006	e2512006	ICAL	CS3			25-MAY-2005 13:23	1.0	1.0				4	
007	e2512007	ICAL	CS4			25-MAY-2005 13:28	1.0	1.0				5	
008	e2512008	ICAL	CS5			25-MAY-2005 13:33	1.0	1.0				6	
009	e2512009	ICAL	CS6			25-MAY-2005 13:38	1.0	1.0				7	
010	e2512010	ICV				25-MAY-2005 13:43	1.0	1.0			1	8 1	
012	e2512012	ICB				25-MAY-2005 13:55	1.0	1.0	1		1	1	
013	e2512013	ICSA				25-MAY-2005 14:01	1.0	1.0			1	9 1	7:CA=295600
014	e2512014	ICSAB				25-MAY-2005 14:07	1.0	1.0			1	10 1	7:CA=293300
016	e2512016	MSS	179564-001	102304	Soil	25-MAY-2005 14:18	50.0	44.25	1		1	1	1:AL=1887.40
017	e2512017	MS	QC294829	102304	Soil	25-MAY-2005 14:24	50.0	45.87		1	1	1	1:AL=2400.00
018	e2512018	MSD	QC294830	102304	Soil	25-MAY-2005 14:30	50.0	42.74			1	1	1:AL=2198.0
019	e2512019	SAMPLE	179529-013	102304	Soil	25-MAY-2005 14:36	5.0	38.46	4		1	1	7:FE=97580.0
020	e2512020	SAMPLE	179529-013	102304	Soil	25-MAY-2005 14:42	50.0	38.46			1	1	1:AL=3498.00
021	e2512021	SAMPLE	179529-016	102304	Soil	25-MAY-2005 14:47	5.0	50.0	2		1	1	6:CA=57180.0
022	e2512022	SAMPLE	179529-016	102304	Soil	25-MAY-2005 14:53	50.0	50.0			1	1	1:AL=1189.80
023	e2512023	SAMPLE	179529-018	102304	Soil	25-MAY-2005 14:59	5.0	54.35			1	1	3:FE=26020.0
025	e2512025	CCV				25-MAY-2005 15:11	1.0	1.0			1	11 1	
028	e2512028	CCB				25-MAY-2005 15:28	1.0	1.0			1	1	
029	e2512029	BLANK	QC290255	101119	Filtra	25-MAY-2005 15:34	1.0	1.0			1	1	
030	e2512030	BS	QC290256	101119	Filtra	25-MAY-2005 15:40	1.0	1.0			1	1	
031	e2512031	BSD	QC290257	101119	Filtra	25-MAY-2005 15:46	1.0	1.0			1	1	
033	e2512033	MSS	178712-002	101119	Filtra	25-MAY-2005 15:57	1.0	1.0	3		1	1	3:NA=56470.0
034	e2512034	PDS	QC294832	102304	Soil	25-MAY-2005 16:03	50.0	44.25		4	1	12 13 1	1:AL=2124.0
035	e2512035	SAMPLE	179551-002	102304	Soil	25-MAY-2005 16:09	5.0	39.68	6		1	1	10:FE=196020
036	e2512036	SAMPLE	179551-002	102304	Soil	25-MAY-2005 16:15	50.0	39.68			1	1	3:FE=20380.0
037	e2512037	SAMPLE	179551-008	102304	Soil	25-MAY-2005 16:21	5.0	52.08			1	1	2:AL=7860.00
038	e2512038	SAMPLE	179551-011	102304	Soil	25-MAY-2005 16:27	5.0	46.73			1	1	3:FE=20360.0

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S687 12=04SS227 13=04SS228 14=S689

Analyst: [signature] Date: 5/25/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55209576 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1
Begun: 25-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
039	e2512039	SAMPLE	179551-015	102304	Soil	25-MAY-2005 16:32	5.0	37.04	2		1	1	5:FE=143280
041	e2512041	CCV				25-MAY-2005 16:44	1.0	1.0			1	11 1	
043	e2512043	CCB				25-MAY-2005 16:56	1.0	1.0	1		1	1	
044	e2512044	ICSA				25-MAY-2005 17:02	1.0	1.0			1	9 1	7:CA=296400
045	e2512045	ICSAB				25-MAY-2005 17:07	1.0	1.0			1	10 1	7:CA=292500
047	e2512047	SAMPLE	179551-015	102304	Soil	25-MAY-2005 17:19	50.0	37.04			1	1	1:AL=5014.00
049	e2512049	BLANK	QC294960	102337	Soil	25-MAY-2005 17:31	5.0	50.0			1	1	
050	e2512050	BS	QC294961	102337	Soil	25-MAY-2005 17:37	5.0	50.0		1	1	1	
051	e2512051	BSD	QC294962	102337	Soil	25-MAY-2005 17:42	5.0	50.0			1	1	
053	e2512053	MSS	179603-001	102337	Soil	25-MAY-2005 17:54	5.0	52.08	7		1	1	6:FE=68320.0
054	e2512054	SER	QC294965	102337	Soil	25-MAY-2005 18:00	25.0	52.08		4	1	1	2:AL=6992.00
055	e2512055	MS	QC294963	102337	Soil	25-MAY-2005 18:06	5.0	43.10		16	1	1	1:AL=3978.00
056	e2512056	MSD	QC294964	102337	Soil	25-MAY-2005 18:12	5.0	50.0		16	1	1	1:AL=3944.00
058	e2512058	CCV				25-MAY-2005 18:23	1.0	1.0			1	11 1	
060	e2512060	CCB				25-MAY-2005 18:35	1.0	1.0	1		1	1	
061	e2512061	PDS	QC294966	102337	Soil	25-MAY-2005 18:41	50.0	52.08			1	12 13 1	8:FE=74400.0
063	e2512063	SAMPLE	179551-018	102337	Soil	25-MAY-2005 18:53	5.0	43.48			1	1	3:FE=26980.0
064	e2512064	SAMPLE	179621-001	102337	Soil	25-MAY-2005 18:58	5.0	45.45	1		1	1	11:FE=251800
065	e2512065	SAMPLE	179621-002	102337	Soil	25-MAY-2005 19:04	5.0	48.54	1		1	1	6:FE=97840.0
066	e2512066	SAMPLE	179621-003	102337	Soil	25-MAY-2005 19:10	5.0	45.87	1		1	1	4:FE=35200.0
067	e2512067	SAMPLE	179621-004	102337	Soil	25-MAY-2005 19:15	5.0	32.05	1		1	1	9:FE=201200
068	e2512068	SAMPLE	179621-005	102337	Soil	25-MAY-2005 19:21	5.0	50.0	1		1	1	6:FE=32920.0
069	e2512069	SAMPLE	179621-006	102337	Soil	25-MAY-2005 19:27	5.0	48.54			1	1	7:CA=512800
070	e2512070	SAMPLE	179622-001	102337	Soil	25-MAY-2005 19:33	5.0	47.62	3		1	1	5:FE=121640
071	e2512071	SAMPLE	179622-002	102337	Soil	25-MAY-2005 19:39	5.0	54.95	2		1	1	4:FE=25140.0
073	e2512073	CCV				25-MAY-2005 19:50	1.0	1.0			1	11 1	
075	e2512075	CCB				25-MAY-2005 20:02	1.0	1.0	2		1	1	
076	e2512076	SAMPLE	179622-003	102337	Soil	25-MAY-2005 20:08	5.0	53.19	1		1	1	3:FE=29600.0
077	e2512077	SAMPLE	179622-004	102337	Soil	25-MAY-2005 20:14	5.0	28.25	5		1	1	8:CA=912400
078	e2512078	SAMPLE	179622-005	102337	Soil	25-MAY-2005 20:19	5.0	54.35	6		1	1	10:FE=217800
079	e2512079	SAMPLE	179622-006	102337	Soil	25-MAY-2005 20:25	5.0	55.56	7		1	1	11:FE=408400

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S687 12=04SS227 13=04SS228 14=S689

Analyst: _____ Date: 5/25/11

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55209576 Instrument: MET05 Agilent ICP-MS
Analytical Method: EPA 6020 SOP Version: 6020_rv1
Begun: 25-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
081	e2512081	MSS	179603-001	102337	Soil	25-MAY-2005 20:37	50.0	52.08	1		1	1	1:AL=3722.00
082	e2512082	SER	QC294965	102337	Soil	25-MAY-2005 20:42	250.0	52.08			1	1	1:AL=741.200
083	e2512083	MS	QC294963	102337	Soil	25-MAY-2005 20:48	50.0	43.10	4	14	1	1	9:FE=79380.0
084	e2512084	MSD	QC294964	102337	Soil	25-MAY-2005 20:54	50.0	50.0	3	15	1	1	8:FE=76220.0
085	e2512085	PDS	QC294966	102337	Soil	25-MAY-2005 21:00	50.0	52.08		22	1	12 13 1	1:AL=3374.0(
086	e2512086	SAMPLE	179551-018	102337	Soil	25-MAY-2005 21:06	50.0	43.48			1	1	1:AL=1090.40
088	e2512088	CCV				25-MAY-2005 21:18	1.0	1.0			1	11 1	
090	e2512090	CCB				25-MAY-2005 21:29	1.0	1.0	2		1	1	
091	e2512091	SAMPLE	179621-001	102337	Soil	25-MAY-2005 21:35	50.0	45.45	1		1	1	6:FE=22260.0
092	e2512092	SAMPLE	179621-002	102337	Soil	25-MAY-2005 21:41	50.0	48.54			1	1	2:AL=1374.40
093	e2512093	SAMPLE	179621-003	102337	Soil	25-MAY-2005 21:47	50.0	45.87			1	1	1:AL=303.200
094	e2512094	SAMPLE	179621-004	102337	Soil	25-MAY-2005 21:53	50.0	32.05	1		1	1	6:FE=20900.0
095	e2512095	SAMPLE	179621-005	102337	Soil	25-MAY-2005 21:59	50.0	50.0			1	1	1:AL=1327.80
096	e2512096	SAMPLE	179621-006	102337	Soil	25-MAY-2005 22:05	50.0	48.54			1	1	2:CA=55300.0
098	e2512098	ICSA				25-MAY-2005 22:16	1.0	1.0			1	9 1	7:CA=297000
099	e2512099	ICSAB				25-MAY-2005 22:22	1.0	1.0			1	10 1	7:CA=294300
101	e2512101	CCV				25-MAY-2005 22:34	1.0	1.0			1	11 1	
104	e2512104	TUN	TUNE			25-MAY-2005 22:51	1.0	1.0				14	
105	e2512105	CCB				25-MAY-2005 22:58	1.0	1.0	1		1	1	
106	e2512106	X	RINSE			25-MAY-2005 23:04	1.0					1	
107	e2512107	SAMPLE	179622-001	102337	Soil	25-MAY-2005 23:10	50.0	47.62	1		1	1	1:AL=1077.80
108	e2512108	SAMPLE	179622-002	102337	Soil	25-MAY-2005 23:16	50.0	54.95	1		1	1	1:AL=232.000
109	e2512109	SAMPLE	179622-003	102337	Soil	25-MAY-2005 23:22	50.0	53.19	1		1	1	1:AL=1194.80
110	e2512110	SAMPLE	179622-004	102337	Soil	25-MAY-2005 23:28	50.0	28.25	2		1	1	3:CA=105460
111	e2512111	SAMPLE	179622-005	102337	Soil	25-MAY-2005 23:34	50.0	54.35	5		1	1	6:FE=21800.0
112	e2512112	SAMPLE	179622-006	102337	Soil	25-MAY-2005 23:40	50.0	55.56	6		1	1	7:FE=42180.0
113	e2512113	X	RINSE			25-MAY-2005 23:45	1.0					1	
114	e2512114	ICSA				25-MAY-2005 23:51	1.0	1.0			1	9 1	7:CA=291000
115	e2512115	ICSAB				25-MAY-2005 23:57	1.0	1.0			1	10 1	7:CA=289900
120	e2512120	CCV				26-MAY-2005 00:26	1.0	1.0	1		1	11 1	
122	e2512122	CCB				26-MAY-2005 00:38	1.0	1.0	2		1	1	

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S687 12=04SS227 13=04SS228 14=S689

Analyst: _____ Date: 5/26/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS
Calnum: 55209576001 Name: Type: (normal) Reviewed By: ---
Date: 25-MAY-2005 13:07 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e2512004	55209576004	CS1	25-MAY-2005 13:12	S679
2	e2512005	55209576005	CS2	25-MAY-2005 13:17	S680
3	e2512006	55209576006	CS3	25-MAY-2005 13:23	S681
4	e2512007	55209576007	CS4	25-MAY-2005 13:28	S682
5	e2512008	55209576008	CS5	25-MAY-2005 13:33	S677
6	e2512009	55209576009	CS6	25-MAY-2005 13:38	S678

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		3.4032	1.7354	0.6103	0.5088	0.4890	BLNK	R	-4.30290	2.081712		ug/L	1.3493	1.000	0.995	
Antimony	0.4045	0.3171	0.2778	0.2448	0.2501	0.2520	BLNK	R	-0.19790	3.979854		ug/L	0.2910	1.000	0.995	
Arsenic		0.4912	0.4580	0.4376	0.4320	0.4251	BLNK	R	-0.11564	2.346209		ug/L	0.4488	1.000	0.995	
Barium	0.1229	0.1072	0.1043	0.0936	0.0938	0.0940	BLNK	R	-0.08685	10.64893		ug/L	0.1026	1.000	0.995	
Beryllium	0.1812	0.1926	0.1767	0.1759	0.1767	0.1765	BLNK	R	-0.02398	5.666388		ug/L	0.1799	1.000	0.995	
Cadmium	0.7139	0.6091	0.5214	0.4391	0.4206	0.4062	BLNK	R	-0.21237	2.447612		ug/L	0.5184	1.000	0.995	
Calcium		0.0288	0.0233	0.0185	0.0182	0.0178	BLNK	R	-33.4991	56.06338		ug/L	0.0213	1.000	0.995	
Chromium		7.0871	5.2962	3.7812	3.6164	3.4890	BLNK	R	-0.49269	0.285361		ug/L	4.6540	1.000	0.995	
Cobalt	4.2501	4.0913	3.9814	4.0082	3.9340	3.8015	BLNK	R	-0.01684	0.261235		ug/L	4.0111	1.000	0.995	
Copper		1.1168	1.1142	0.9729	0.9266	0.8987	BLNK	R	-0.11010	1.106427		ug/L	1.0058	1.000	0.995	
Iron		0.1714	0.1330	0.0987	0.0956	0.0915	BLNK	R	-44.7009	10.86057		ug/L	0.1180	1.000	0.995	
Lead	1.1800	1.1585	1.0668	1.0230	1.0236	1.0219	BLNK	R	-0.03576	0.978467		ug/L	1.0790	1.000	0.995	
Magnesium		0.0664	0.0649	0.0649	0.0615	0.0598	BLNK	R	-4.25461	16.62527		ug/L	0.0635	1.000	0.995	
Manganese	6.5494	5.6325	5.2514	4.7937	4.7335	4.5107	BLNK	R	-0.09742	0.219635		ug/L	5.2452	0.999	0.995	
Molybdenum		1.1559	0.9545	0.8405	0.8369	0.8256	BLNK	R	-0.35892	1.210552		ug/L	0.9227	1.000	0.995	
Nickel	1.2072	1.0535	0.9381	0.8707	0.8403	0.8168	BLNK	R	-0.08006	1.217735		ug/L	0.9544	1.000	0.995	
Potassium		2.0486	1.3293	0.6586	0.5820	0.5676	BLNK	R	-129.498	1.766316		ug/L	1.0372	1.000	0.995	
Selenium		0.0880	0.0601	0.0319	0.0277	0.0268	BLNK	R	-1.26670	37.34944		ug/L	0.0469	1.000	0.995	
Silver	2.2849	2.2113	2.2396	2.1650	2.1036	2.1061	BLNK	R	-0.01823	0.474955		ug/L	2.1851	1.000	0.995	
Sodium		0.7945	0.7178	0.6405	0.6305	0.6135	BLNK	R	-12.8185	1.622056		ug/L	0.6794	1.000	0.995	

1443

Curves: BLNK: Y=aX+ [blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS
Calnum: 55209576001 Name: Type: (normal) Reviewed By: ---
Date: 25-MAY-2005 13:07 Inj Vol (uL): 1

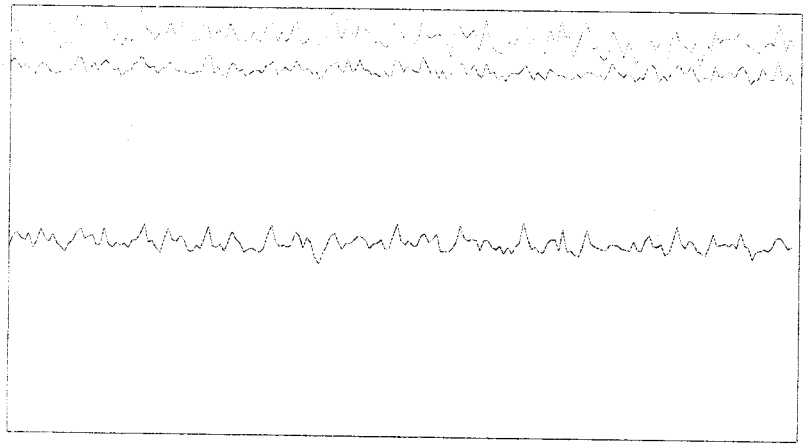
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Thallium		0.8186	0.7989	0.7634	0.8113	0.7900	BLNK	R	-0.05976	1.259568		ug/L	0.7965	1.000	0.995	
Vanadium		5.9533	4.8185	4.1573	4.1406	4.0408	BLNK	R	-0.18042	0.246524		ug/L	4.6221	1.000	0.995	
Zinc		1.8637	1.4400	0.5748	0.4853	0.4684	BLNK	R	-1.40817	2.137143		ug/L	0.9664	1.000	0.995	

1444

Curves: BLNK: Y=aX+{blank}
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



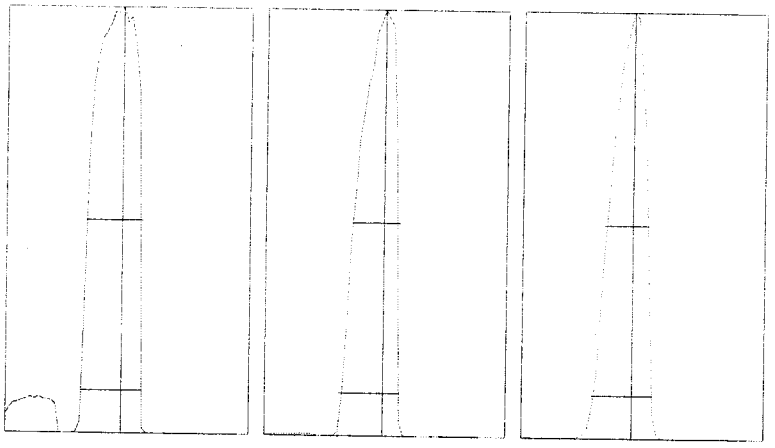
m/z:	7	89	205
Range:	50,000	50,000	50,000
Count:	22,781	41,538	46,043
Mean:	22729.2	42727.7	46623.9
RSD%:	3.65	1.50	2.57
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.65%
Doubly Charged:	70/140	1.41%

Background:

m/z:	7	89	205
Cps:	28.7	28.8	39.6



m/z:	7	89	205
Height:	23,003	42,660	55,865
Axis:	6.95	89.00	204.90
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1250 W	Extract 1:	-137.1 V	AMU Gain:	128
RF Matching:	1.7 V	Extract 2:	-111 V	AMU Offset:	127
Smpl Depth:	8 mm	Einzel 1,3:	-100 V	Axis Gain:	1.0003
Torch-H:	-0.2 mm	Einzel 2:	-1 V	Axis Offset:	-0.03
Torch-V:	-0.1 mm	Omega Bias:	-38 V	QP Bias:	0 V
Carrier Gas:	1.05 L/min	Omega (+):	-2 V		
Makeup Gas:	0 L/min	Omega (-):	3 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	1 V	Discriminator:	9 mV
PeriPump1:	0.1 rps	Plate Bias:	-5 V	Analog HV:	2060 V
PeriPump2:	--- rps			Pulse HV:	1820 V
S/C Temp:	2 degC				

Generated : May 25, 2005 11:13:53
Printed : May 25, 2005 11:14:02

P/A Factor Tuning Report

Acquired:May 25 2005 11:26 am

Mass[amu]	Element	P/A Factor
6	Li	0.060433
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.084642
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096821
45	Sc	0.091909
51	V	0.095976
52	Cr	0.097958
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099691
57	Fe	0.102291
59	Co	0.102540
60	Ni	Sensitivity too low
63	Cu	0.104629
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103141
95	Mo	Sensitivity too low
98	Mo	0.101465
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110161
111	Cd	Sensitivity too low
114	Cd	0.107854
115	In	0.110230
118	(In)	0.109381
121	Sb	0.108633
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114542
166	Er	Sensitivity too low

146

205	Tl	0.120996
206	(Pb)	0.116295
207	(Pb)	Sensitivity too low
208	Pb	0.119544
209	Bi	0.118363
232	Th	0.121120
238	U	0.121170

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 25 2005 11:32 am

Mass[amu]	Element	P/A Factor
6	Li	0.060656
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.085000
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096431
45	Sc	0.092211
51	V	0.095643
52	Cr	0.097604
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099351
57	Fe	0.102024
59	Co	0.102314
60	Ni	Sensitivity too low
63	Cu	0.104084
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103385
95	Mo	Sensitivity too low
98	Mo	0.100814
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109560
111	Cd	Sensitivity too low
114	Cd	0.107854
115	In	0.110336
118	(In)	0.108262
121	Sb	0.108137
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114668
166	Er	Sensitivity too low

205	Tl	0.120574
206	(Pb)	0.116295
207	(Pb)	Sensitivity too low
208	Pb	0.119387
209	Bi	0.118880
232	Th	0.120709
238	U	0.120758

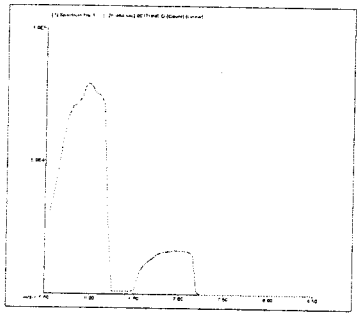
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

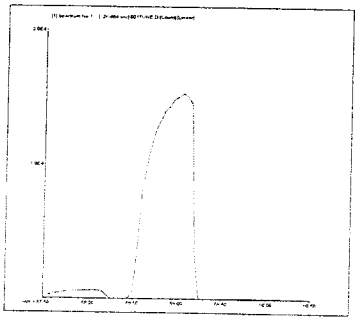
6020 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\001TUNE.D
Date Acquired: May 25 2005 12:56 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUNE,689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

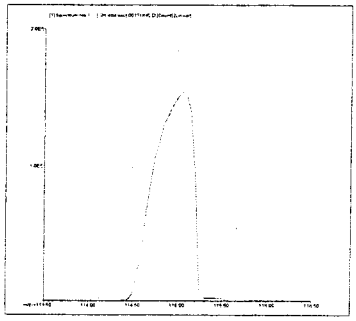
Element	Actual	Required	Flag
7 Li	0.85	5.00	
59 Co	0.60	5.00	
115 In	0.69	5.00	
205 Tl	1.83	5.00	





7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



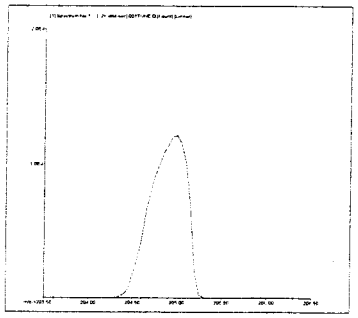
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 25 2005 01:01 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 25 2005 00:25 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.	RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.004068 ppb	218.24	0.004068	1.00	
23 Na	19.56 ppb	7.92	19.56	1.00	
26 Mg	7.224 ppb	7.68	7.224	1.00	
27 Al	6.751 ppb	7.72	6.751	1.00	
39 K	-41.92 ppb	3.92	-41.92	1.00	
44 Ca	8.872 ppb	19.84	8.872	1.00	
51 V	0.08438 ppb	44.31	0.08438	1.00	
52 Cr	-0.02046 ppb	43.57	-0.02046	1.00	
55 Mn	0.005601 ppb	34.53	0.005601	1.00	
57 Fe	14.34 ppb	4.56	14.34	1.00	
59 Co	0.01031 ppb	17.97	0.01031	1.00	
60 Ni	-0.007304 ppb	145.13	-0.007304	1.00	
65 Cu	-0.01475 ppb	81.90	-0.01475	1.00	
66 Zn	-0.007407 ppb	210.21	-0.007407	1.00	
75 As	-0.0282 ppb	124.65	-0.0282	1.00	
82 Se	-0.09086 ppb	186.11	-0.09086	1.00	
95 Mo	0.6421 ppb	4.90	0.6421	1.00	
109 Ag	-0.00099 ppb	192.02	-0.00099	1.00	
111 Cd	-0.07907 ppb	35.55	-0.07907	1.00	
121 Sb	-0.01564 ppb	232.99	-0.01564	1.00	
137 Ba	0.005511 ppb	169.15	0.005511	1.00	
205 Tl	-0.05527 ppb	3.13	-0.05527	1.00	
208 Pb	-0.001602 ppb	205.12	-0.001602	1.00	
232 Th	---- ppb	--------	----	1.00	
238 U	---- ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	757840.00	0.68	---	#VALUE!	30 - 200	
45 Sc	1017734.10	1.05	---	#VALUE!	30 - 200	
72 Ge	186903.11	0.59	---	#VALUE!	30 - 200	

115 In	1266525.00	0.74	---	#VALUE!	30 - 200
209 Bi	772527.75	1.12	---	#VALUE!	30 - 200

ISTD Ref File : ---

5 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\003CAL
Date Acquired:	May 25 2005 01:07 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 00:25 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean	SD	RSD(%)
6	Li	748156.00 A	10440.00	1.40
9	Be	63.33 P	20.82	32.87
23	Na	158890.00 P	4648.00	2.93
26	Mg	5146.67 P	302.40	5.88
27	Al	41563.33 P	1692.00	4.07
39	K	1473842.00 A	3249.00	0.22
44	Ca	12014.45 P	384.70	3.20
45	Sc	1005212.00 A	10610.00	1.06
51	V	2673.77 P	605.90	22.66
52	Cr	6300.00 P	245.40	3.90
55	Mn	1618.89 P	18.36	1.13
57	Fe	15025.55 P	461.40	3.07
59	Co	235.56 P	34.69	14.73
60	Ni	240.00 P	8.82	3.67
65	Cu	363.31 P	35.28	9.71
66	Zn	2404.47 P	93.47	3.89
72	Ge	182503.59 P	2342.00	1.28
75	As	180.03 P	59.51	33.06
82	Se	123.79 P	2.93	2.36
95	Mo	1082.22 P	18.95	1.75
109	Ag	140.00 P	17.64	12.60
111	Cd	316.76 P	48.34	15.26
115	In	1240243.00 A	19230.00	1.55
121	Sb	1234.44 P	125.50	10.17
137	Ba	202.22 P	16.78	8.30
205	Tl	715.56 P	88.59	12.38
208	Pb	550.00 P	73.11	13.29
209	Bi	753036.63 P	15900.00	2.11
232	Th	804.44 P	73.51	9.14
238	U	137.78 P	12.62	9.16

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\004CALI.D\004CALI.D#
Date Acquired:	May 25 2005 01:12 pm
Operator:	
Sample Name:	CS1,S679
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 01:09 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	751567.81	A	6741.00	0.90
9 Be	681.11	P	53.37	7.84
23 Na	439004.41	P	1639.00	0.37
26 Mg	36696.67	P	160.90	0.44
27 Al	35570.00	P	506.40	1.42
39 K	1753923.00	A	8188.00	0.47
44 Ca	20663.15	P	118.10	0.57
45 Sc	1017896.00	A	17140.00	1.68
51 V	6828.61	P	278.50	4.08
52 Cr	9640.00	P	185.00	1.92
55 Mn	6010.00	P	208.40	3.47
57 Fe	23095.55	P	336.70	1.46
59 Co	3900.00	P	47.02	1.21
60 Ni	1107.78	P	34.69	3.13
65 Cu	1266.51	P	5.77	0.46
66 Zn	3286.85	P	56.96	1.73
72 Ge	183524.41	P	669.60	0.36
75 As	628.58	P	288.50	45.90
82 Se	173.39	P	23.73	13.69
95 Mo	1357.78	P	136.80	10.08
109 Ag	2096.67	P	3.33	0.16
111 Cd	655.02	P	16.69	2.55
115 In	1254257.00	A	19620.00	1.56
121 Sb	2536.67	P	59.25	2.34
137 Ba	771.11	P	79.54	10.32
205 Tl	3428.89	P	86.69	2.53
208 Pb	4518.89	P	244.90	5.42
209 Bi	765626.63	P	12820.00	1.67
232 Th	1978.89	P	188.60	9.53
238 U	3700.00	P	63.60	1.72

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	751567.81	0.90	748156.00	100.5	30 - 200	
45 Sc	1017895.60	1.68	1005212.10	101.3	30 - 200	
72 Ge	183524.44	0.36	182503.56	100.6	30 - 200	
115 In	1254257.10	1.56	1240243.10	101.1	30 - 200	
209 Bi	765626.63	1.67	753036.63	101.7	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\005CALI.D\005CALI.D#
Date Acquired: May 25 2005 01:17 pm
Operator:
Sample Name: CS2,S680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	740625.88	A	4466.00	0.60
9 Be	1426.67	P	31.80	2.23
23 Na	798253.63	A	4808.00	0.60
26 Mg	66753.33	P	509.90	0.76
27 Al	34192.22	P	728.90	2.13
39 K	2058332.00	A	12390.00	0.60
44 Ca	28901.32	P	312.30	1.08
45 Sc	1004760.00	A	3815.00	0.38
51 V	10802.41	P	459.90	4.26
52 Cr	12858.89	P	437.90	3.41
55 Mn	10218.89	P	112.80	1.10
57 Fe	31087.78	P	494.80	1.59
59 Co	7422.22	P	180.80	2.44
60 Ni	1911.11	P	96.74	5.06
65 Cu	2026.38	P	68.39	3.38
66 Zn	3381.45	P	138.40	4.09
72 Ge	181426.91	P	1002.00	0.55
75 As	890.86	P	230.00	25.82
82 Se	159.60	P	13.53	8.48
95 Mo	2096.67	P	106.90	5.10
109 Ag	4012.22	P	91.67	2.28
111 Cd	1105.50	P	125.30	11.33
115 In	1243307.00	A	9841.00	0.79
121 Sb	3943.33	P	224.10	5.68
137 Ba	1333.33	P	37.86	2.84
205 Tl	6135.56	P	358.70	5.85
208 Pb	8668.89	P	474.50	5.47
209 Bi	749108.88	P	16530.00	2.21
232 Th	3341.11	P	93.95	2.81
238 U	6983.33	P	150.70	2.16

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	740625.94	0.60	748156.00	99.0	30 - 200	
45 Sc	1004760.10	0.38	1005212.10	100.0	30 - 200	
72 Ge	181426.89	0.55	182503.56	99.4	30 - 200	
115 In	1243306.80	0.79	1240243.10	100.2	30 - 200	
209 Bi	749108.88	2.21	753036.63	99.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\006CALI.D\006CALI.D#
Date Acquired:	May 25 2005 01:23 pm
Operator:	
Sample Name:	CS3,S681
Misc Info:	
Vial Number:	1104
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 01:19 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	738793.13	A	15960.00	2.16
9 Be	2610.00	P	135.30	5.18
23 Na	1429482.00	A	13640.00	0.95
26 Mg	129310.00	P	1286.00	0.99
27 Al	34555.56	P	150.30	0.43
39 K	2646857.00	A	12020.00	0.45
44 Ca	46314.32	P	248.40	0.54
45 Sc	995703.13	A	10310.00	1.04
51 V	17440.20	P	323.90	1.86
52 Cr	19167.78	P	240.90	1.26
55 Mn	19006.67	P	205.50	1.08
57 Fe	48126.66	P	533.20	1.11
59 Co	14410.00	P	165.20	1.15
60 Ni	3395.55	P	128.90	3.80
65 Cu	4032.78	P	87.62	2.17
66 Zn	5211.76	P	7.69	0.15
72 Ge	180963.30	P	969.10	0.54
75 As	1657.49	P	28.46	1.72
82 Se	217.53	P	26.25	12.07
95 Mo	3454.44	P	37.17	1.08
109 Ag	8106.67	P	357.90	4.41
111 Cd	1886.99	P	50.03	2.65
115 In	1228251.00	A	24640.00	2.01
121 Sb	6823.33	P	110.20	1.62
137 Ba	2560.00	P	44.10	1.72
205 Tl	12070.00	P	346.20	2.87
208 Pb	16114.44	P	391.40	2.43
209 Bi	755426.63	P	22370.00	2.96
232 Th	6680.00	P	145.70	2.18
238 U	14273.33	P	403.60	2.83

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	738793.13	2.16	748156.00	98.7	30 - 200	
45 Sc	995703.06	1.04	1005212.10	99.1	30 - 200	
72 Ge	180963.33	0.54	182503.56	99.2	30 - 200	
115 In	1228251.30	2.01	1240243.10	99.0	30 - 200	
209 Bi	755426.63	2.96	753036.63	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\007CALI.D\007CALI.D#
Date Acquired: May 25 2005 01:28 pm
Operator:
Sample Name: CS4,S682
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	740608.81	A	6553.00	0.88
9 Be	26052.22	P	354.90	1.36
23 Na	12913330.00	A	161000.00	1.25
26 Mg	1309198.00	A	6906.00	0.53
27 Al	123040.00	P	1081.00	0.88
39 K	13277870.00	A	26000.00	0.20
44 Ca	373536.50	P	2763.00	0.74
45 Sc	1008174.00	A	14060.00	1.39
51 V	151026.41	P	864.20	0.57
52 Cr	137364.41	P	740.10	0.54
55 Mn	174146.70	P	1616.00	0.93
57 Fe	358664.41	P	3192.00	0.89
59 Co	145611.09	P	1037.00	0.71
60 Ni	31633.33	P	338.80	1.07
65 Cu	35341.02	P	467.60	1.32
66 Zn	20880.99	P	307.80	1.47
72 Ge	181642.41	P	1104.00	0.61
75 As	15896.61	P	135.50	0.85
82 Se	1158.50	P	25.63	2.21
95 Mo	30532.22	P	117.60	0.39
109 Ag	78654.44	P	1609.00	2.05
111 Cd	15951.50	P	21.31	0.13
115 In	1233473.00	A	11010.00	0.89
121 Sb	60385.55	P	1058.00	1.75
137 Ba	23091.11	P	372.80	1.61
205 Tl	116472.20	P	2900.00	2.49
208 Pb	156063.30	P	2562.00	1.64
209 Bi	762734.38	P	9251.00	1.21
232 Th	72025.55	P	1783.00	2.48
238 U	144617.80	P	3298.00	2.28

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	740608.75	0.88	748156.00	99.0	30 - 200	
45 Sc	1008173.60	1.39	1005212.10	100.3	30 - 200	
72 Ge	181642.44	0.61	182503.56	99.5	30 - 200	
115 In	1233472.50	0.89	1240243.10	99.5	30 - 200	
209 Bi	762734.38	1.21	753036.63	101.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2512a.B\008CALI.D\008CALI.D#
Date Acquired: May 25 2005 01:33 pm
Operator:
Sample Name: CS5,S677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 25 2005 01:31 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	734378.19	A	4779.00	0.65
9	Be	259560.00	P	1915.00	0.74
23	Na	126036700.00	A	1493000.00	1.18
26	Mg	12294120.00	A	96910.00	0.79
27	Al	1017091.00	A	6110.00	0.60
39	K	116345500.00	A	459100.00	0.39
44	Ca	3639700.00	A	31200.00	0.86
45	Sc	999532.38	A	8682.00	0.87
51	V	1509991.00	A	6402.00	0.42
52	Cr	1318825.00	A	7185.00	0.54
55	Mn	1726211.00	A	16640.00	0.96
57	Fe	3484543.00	A	26050.00	0.75
59	Co	1434664.00	A	18330.00	1.28
60	Ni	306435.50	P	3583.00	1.17
65	Cu	337911.41	P	2850.00	0.84
66	Zn	176982.59	P	1979.00	1.12
72	Ge	182338.00	P	722.00	0.40
75	As	157526.59	P	905.70	0.57
82	Se	10098.70	P	56.19	0.56
95	Mo	305190.00	P	4671.00	1.53
109	Ag	767167.69	P	12880.00	1.68
111	Cd	153376.91	P	3273.00	2.13
115	In	1191345.00	A	16610.00	1.39
121	Sb	595848.88	P	10950.00	1.84
137	Ba	223521.09	P	5003.00	2.24
205	Tl	1195564.00	A	16140.00	1.35
208	Pb	1508667.00	P	26910.00	1.78
209	Bi	737016.63	P	16910.00	2.29
232	Th	1263054.00	A	53280.00	4.22
238	U	1511738.00	A	24550.00	1.62

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	734378.19	0.65	748156.00	98.2	30 - 200	
45 Sc	999532.38	0.87	1005212.10	99.4	30 - 200	
72 Ge	182338.00	0.40	182503.56	99.9	30 - 200	
115 In	1191344.90	1.39	1240243.10	96.1	30 - 200	
209 Bi	737016.63	2.29	753036.63	97.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2512a.B\009CALI.D\009CALI.D#
Date Acquired:	May 25 2005 01:38 pm
Operator:	
Sample Name:	CS6,S678
Misc Info:	
Vial Number:	1107
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	May 25 2005 01:35 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)
6 Li	723236.38 A	8194.00	1.13
9 Be	510422.19 P	1257.00	0.25
23 Na	242190590.00 A	320400.00	0.13
26 Mg	23612650.00 A	75840.00	0.32
27 Al	1930208.00 A	9316.00	0.48
39 K	224056300.00 A	2225000.00	0.99
44 Ca	7022103.00 A	78420.00	1.12
45 Sc	986902.63 A	8251.00	0.84
51 V	2928098.00 A	18160.00	0.62
52 Cr	2528229.00 A	12200.00	0.48
55 Mn	3268633.00 A	22980.00	0.70
57 Fe	6631228.00 A	37000.00	0.56
59 Co	2754735.00 A	14550.00	0.53
60 Ni	591887.69 P	863.80	0.15
65 Cu	651245.88 P	8016.00	1.23
66 Zn	339422.50 P	2680.00	0.79
72 Ge	181161.09 P	816.00	0.45
75 As	308073.09 P	1460.00	0.47
82 Se	19416.62 P	160.30	0.83
95 Mo	598301.13 P	7358.00	1.23
109 Ag	1526109.00 A	17990.00	1.18
111 Cd	294324.19 P	3739.00	1.27
115 In	1162714.00 A	15450.00	1.33
121 Sb	1171910.00 A	21990.00	1.88
137 Ba	437156.59 P	6555.00	1.50
205 Tl	2310206.00 A	45630.00	1.98
208 Pb	2988340.00 A	66520.00	2.23
209 Bi	731048.88 P	13850.00	1.89
232 Th	2991696.00 A	68200.00	2.28
238 U	2940020.00 A	59320.00	2.02

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	723236.38	1.13	748156.00	96.7	30 - 200	
45 Sc	986902.56	0.84	1005212.10	98.2	30 - 200	
72 Ge	181161.11	0.45	182503.56	99.3	30 - 200	
115 In	1162714.10	1.33	1240243.10	93.7	30 - 200	
209 Bi	731048.88	1.89	753036.63	97.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2512a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 25, 2005 13:40
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e2512a.b\003calb.d\	003calb.d#	May 25 2005 01:07 pm
2	...hem\1\data\05e2512a.b\004cali.d\	004cali.d#	May 25 2005 01:12 pm
3	...hem\1\data\05e2512a.b\005cali.d\	005cali.d#	May 25 2005 01:17 pm
4	...hem\1\data\05e2512a.b\006cali.d\	006cali.d#	May 25 2005 01:23 pm
5	...hem\1\data\05e2512a.b\007cali.d\	007cali.d#	May 25 2005 01:28 pm
6	...hem\1\data\05e2512a.b\008cali.d\	008cali.d#	May 25 2005 01:33 pm
7	...hem\1\data\05e2512a.b\009cali.d\	009cali.d#	May 25 2005 01:38 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.765E-1*X +4.233E-3(blank)	---	ppb
Na	23	45	Y = 6.165E-1*X +7.903E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 6.015E-2*X +2.559E-1(blank)	---	ppb
Al	27	45	Y = 4.804E-1*X +2.067E+0(blank)	---	ppb
K	39	45	Y = 5.662E-1*X +7.332E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.784E-2*X +5.975E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 4.056E+0*X +7.318E-1(blank)	---	ppb
Cr	52	72	Y = 3.504E+0*X +1.727E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 4.553E+0*X +4.436E-1(blank)	---	ppb
Fe	57	72	Y = 9.208E-2*X +4.116E+0(blank)	---	ppb
Co	59	72	Y = 3.828E+0*X +6.447E-2(blank)	---	ppb
Ni	60	72	Y = 8.212E-1*X +6.574E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 9.038E-1*X +9.951E-2(blank)	---	ppb
Zn	66	72	Y = 4.679E-1*X +6.589E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 4.262E-1*X +4.929E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.677E-2*X +3.391E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.261E-1*X +2.965E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.105E+0*X +3.838E-2(blank)	---	ppb
Cd	111	72	Y = 4.086E-1*X +8.677E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.513E-1*X +4.973E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 9.391E-2*X +8.155E-3(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 7.939E-1*X +4.744E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 1.022E+0*X +3.655E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576010 Filename : e2512010 Injected : 25-MAY-2005 13:43
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S685, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	99.34000	ug/L	-1	10	
Antimony	100.0000	103.4000	ug/L	3	10	
Arsenic	100.0000	99.88000	ug/L	0	10	
Barium	100.0000	99.98000	ug/L	0	10	
Beryllium	100.0000	100.5000	ug/L	1	10	
Cadmium	100.0000	101.2000	ug/L	1	10	
Calcium	10000.00	10130.00	ug/L	1	10	
Chromium	100.0000	101.8000	ug/L	2	10	
Cobalt	100.0000	101.6000	ug/L	2	10	
Copper	100.0000	101.4000	ug/L	1	10	
Iron	10000.00	10200.00	ug/L	2	10	
Lead	100.0000	99.55000	ug/L	0	10	
Magnesium	10000.00	10050.00	ug/L	1	10	
Manganese	100.0000	102.3000	ug/L	2	10	
Molybdenum	100.0000	99.92000	ug/L	0	10	
Nickel	100.0000	101.3000	ug/L	1	10	
Potassium	10000.00	9965.000	ug/L	0	10	
Selenium	100.0000	101.6000	ug/L	2	10	
Silver	100.0000	98.81000	ug/L	-1	10	
Sodium	10000.00	10040.00	ug/L	0	10	
Thallium	100.0000	101.8000	ug/L	2	10	
Vanadium	100.0000	101.9000	ug/L	2	10	
Zinc	100.0000	101.6000	ug/L	2	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	725412	-3.04
Scandium	1005212	988897	-1.62
Germanium	182504	180343	-1.18
Indium	1240243	1170561	-5.62
Bismuth	753037	739378	-1.81

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576012 Filename : e2512012 Injected : 25-MAY-2005 13:55
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.695400	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576013 Filename : e2512013 Injected : 25-MAY-2005 14:01
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.723000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.818900	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	0.993600	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.0333]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.0756]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.392000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.757000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.832000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	1.335000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.056000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.722000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.3889]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.1924]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.1432]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.2676]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	5.088000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	91750	ug/L	92
Calcium	55209576001	25-MAY-2005	300000	295600	ug/L	99
Iron	55209576001	25-MAY-2005	250000	237300	ug/L	95
Magnesium	55209576001	25-MAY-2005	100000	96560	ug/L	97
Molybdenum	55209576001	25-MAY-2005	2000	1925	ug/L	96
Potassium	55209576001	25-MAY-2005	100000	95710	ug/L	96
Sodium	55209576001	25-MAY-2005	250000	224600	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576014 Filename : e2512014 Injected : 25-MAY-2005 14:07
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	89630.00	ug/L	-10		
Arsenic	100.0000	104.3000	ug/L	4	20	
Cadmium	100.0000	97.61000	ug/L	-2	20	
Calcium	300000.0	293300.0	ug/L	-2		
Chromium	200.0000	196.3000	ug/L	-2	20	
Cobalt	200.0000	192.1000	ug/L	-4	20	
Copper	200.0000	184.7000	ug/L	-8	20	
Iron	250000.0	233100.0	ug/L	-7		
Magnesium	100000.0	94280.00	ug/L	-6		
Manganese	200.0000	196.0000	ug/L	-2	20	
Molybdenum	2000.000	1935.000	ug/L	-3		
Nickel	200.0000	188.7000	ug/L	-6	20	
Potassium	100000.0	94040.00	ug/L	-6		
Selenium	100.0000	97.19000	ug/L	-3	20	
Silver	50.00000	46.97000	ug/L	-6	20	
Sodium	250000.0	220300.0	ug/L	-12		
Vanadium	200.0000	199.1000	ug/L	0	20	
Zinc	100.0000	94.43000	ug/L	-6	20	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Scandium	1005212	961590	-4.34
Germanium	182504	178156	-2.38

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576025 Filename : e2512025 Injected : 25-MAY-2005 15:11
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4786	150.0000	145.1000	ug/L	-3	10	
Antimony	0.2910	0.2464	150.0000	146.9000	ug/L	-2	10	
Arsenic	0.4488	0.4174	150.0000	146.8000	ug/L	-2	10	
Barium	0.1026	0.0933	150.0000	149.0000	ug/L	-1	10	
Beryllium	0.1799	0.1774	150.0000	150.8000	ug/L	1	10	
Cadmium	0.5184	0.4064	150.0000	149.0000	ug/L	-1	10	
Calcium	0.0213	0.0176	15000.00	14800.00	ug/L	-1	10	
Chromium	4.6540	3.4772	150.0000	148.3000	ug/L	-1	10	
Cobalt	4.0111	3.7804	150.0000	148.1000	ug/L	-1	10	
Copper	1.0058	0.9008	150.0000	149.4000	ug/L	0	10	
Iron	0.1180	0.0912	15000.00	14810.00	ug/L	-1	10	
Lead	1.0790	1.0056	150.0000	147.6000	ug/L	-2	10	
Magnesium	0.0635	0.0570	15000.00	14220.00	ug/L	-5	10	
Manganese	5.2452	4.5286	150.0000	149.1000	ug/L	-1	10	
Molybdenum	0.9227	0.8076	150.0000	146.3000	ug/L	-2	10	
Nickel	0.9544	0.8166	150.0000	149.1000	ug/L	-1	10	
Potassium	1.0372	0.5572	15000.00	14630.00	ug/L	-2	10	
Selenium	0.0469	0.0266	150.0000	147.5000	ug/L	-2	10	
Silver	2.1851	2.0224	150.0000	144.1000	ug/L	-4	10	
Sodium	0.6794	0.5933	15000.00	14420.00	ug/L	-4	10	
Thallium	0.7965	0.7834	150.0000	147.9000	ug/L	-1	10	
Vanadium	4.6221	4.0026	150.0000	147.8000	ug/L	-1	10	
Zinc	0.9664	0.4683	150.0000	148.7000	ug/L	-1	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	662586	-11.44
Scandium	1005212	954716	-5.02
Germanium	182504	175467	-3.86
Indium	1240243	1148018	-7.44
Bismuth	753037	725348	-3.68

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Instid : MET05 Run Name :
Seqnum : 55209576028 Filename : e2512028 Injected : 25-MAY-2005 15:28
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	[0.1329]	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
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Instid : MET05
Seqnum : 55209576041
Calnum : 55209576001
Standards: S687, 05WS0207

Run Name :
Filename : e2512041
Caldate : 25-MAY-2005

IDF : 1.0
Injected : 25-MAY-2005 16:44
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4769	150.0000	144.6000	ug/L	-4	10	
Antimony	0.2910	0.2479	150.0000	147.8000	ug/L	-1	10	
Arsenic	0.4488	0.4134	150.0000	145.4000	ug/L	-3	10	
Barium	0.1026	0.0953	150.0000	152.1000	ug/L	1	10	
Beryllium	0.1799	0.1779	150.0000	151.2000	ug/L	1	10	
Cadmium	0.5184	0.4013	150.0000	147.1000	ug/L	-2	10	
Calcium	0.0213	0.0178	15000.00	14970.00	ug/L	0	10	
Chromium	4.6540	3.4521	150.0000	147.3000	ug/L	-2	10	
Cobalt	4.0111	3.7867	150.0000	148.4000	ug/L	-1	10	
Copper	1.0058	0.8964	150.0000	148.7000	ug/L	-1	10	
Iron	0.1180	0.0907	15000.00	14730.00	ug/L	-2	10	
Lead	1.0790	1.0174	150.0000	149.3000	ug/L	0	10	
Magnesium	0.0635	0.0568	15000.00	14170.00	ug/L	-6	10	
Manganese	5.2452	4.4880	150.0000	147.8000	ug/L	-1	10	
Molybdenum	0.9227	0.7912	150.0000	143.3000	ug/L	-4	10	
Nickel	0.9544	0.8110	150.0000	148.1000	ug/L	-1	10	
Potassium	1.0372	0.5545	15000.00	14560.00	ug/L	-3	10	
Selenium	0.0469	0.0261	150.0000	145.1000	ug/L	-3	10	
Silver	2.1851	2.0100	150.0000	143.2000	ug/L	-5	10	
Sodium	0.6794	0.5953	15000.00	14470.00	ug/L	-4	10	
Thallium	0.7965	0.7873	150.0000	148.7000	ug/L	-1	10	
Vanadium	4.6221	3.9803	150.0000	147.0000	ug/L	-2	10	
Zinc	0.9664	0.4691	150.0000	149.0000	ug/L	-1	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	616035	-17.66
Scandium	1005212	863552	-14.09
Germanium	182504	162985	-10.69
Indium	1240243	1057626	-14.72
Bismuth	753037	711390	-5.53

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Instid : MET05 Run Name :
Seqnum : 55209576043 Filename : e2512043 Injected : 25-MAY-2005 16:56
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.390800	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.1956]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576044 Filename : e2512044 Injected : 25-MAY-2005 17:02
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.520000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.764700	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	1.051000	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.0289]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.1200]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.297000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.739000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.867000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	1.345000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.048000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.924000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.1453]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.1799]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.1227]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.2774]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	5.273000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	87230	ug/L	87
Calcium	55209576001	25-MAY-2005	300000	296400	ug/L	99
Iron	55209576001	25-MAY-2005	250000	232900	ug/L	93
Magnesium	55209576001	25-MAY-2005	100000	92720	ug/L	93
Molybdenum	55209576001	25-MAY-2005	2000	1836	ug/L	92
Potassium	55209576001	25-MAY-2005	100000	94200	ug/L	94
Sodium	55209576001	25-MAY-2005	250000	223400	ug/L	89

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55209576045
Calnum : 55209576001
Standards: S684, 05WS0207

Run Name :
Filename : e2512045
Caldate : 25-MAY-2005

Injected : 25-MAY-2005 17:07
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	84500.00	ug/L	-16		
Arsenic	100.0000	100.4000	ug/L	0	20	
Cadmium	100.0000	94.76000	ug/L	-5	20	
Calcium	300000.0	292500.0	ug/L	-3		
Chromium	200.0000	191.6000	ug/L	-4	20	
Cobalt	200.0000	190.0000	ug/L	-5	20	
Copper	200.0000	183.4000	ug/L	-8	20	
Iron	250000.0	229400.0	ug/L	-8		
Magnesium	100000.0	89790.00	ug/L	-10		
Manganese	200.0000	192.8000	ug/L	-4	20	
Molybdenum	2000.000	1843.000	ug/L	-8		
Nickel	200.0000	186.6000	ug/L	-7	20	
Potassium	100000.0	91940.00	ug/L	-8		
Selenium	100.0000	92.37000	ug/L	-8	20	
Silver	50.00000	45.71000	ug/L	-9	20	
Sodium	250000.0	217200.0	ug/L	-13		
Vanadium	200.0000	195.0000	ug/L	-3	20	
Zinc	100.0000	93.57000	ug/L	-6	20	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Scandium	1005212	813517	-19.07
Germanium	182504	157593	-13.65

CONTINUING CALIBRATION REPORT
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Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576058 Filename : e2512058 Injected : 25-MAY-2005 18:23
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4577	150.0000	138.6000	ug/L	-8	10	
Antimony	0.2910	0.2463	150.0000	146.8000	ug/L	-2	10	
Arsenic	0.4488	0.4065	150.0000	142.9000	ug/L	-5	10	
Barium	0.1026	0.0962	150.0000	153.5000	ug/L	2	10	
Beryllium	0.1799	0.1741	150.0000	147.9000	ug/L	-1	10	
Cadmium	0.5184	0.3942	150.0000	144.5000	ug/L	-4	10	
Calcium	0.0213	0.0176	15000.00	14760.00	ug/L	-2	10	
Chromium	4.6540	3.4403	150.0000	146.8000	ug/L	-2	10	
Cobalt	4.0111	3.7779	150.0000	148.0000	ug/L	-1	10	
Copper	1.0058	0.8949	150.0000	148.4000	ug/L	-1	10	
Iron	0.1180	0.0903	15000.00	14660.00	ug/L	-2	10	
Lead	1.0790	1.0095	150.0000	148.1000	ug/L	-1	10	
Magnesium	0.0635	0.0547	15000.00	13640.00	ug/L	-9	10	
Manganese	5.2452	4.4508	150.0000	146.5000	ug/L	-2	10	
Molybdenum	0.9227	0.7794	150.0000	141.2000	ug/L	-6	10	
Nickel	0.9544	0.8093	150.0000	147.7000	ug/L	-2	10	
Potassium	1.0372	0.5420	15000.00	14230.00	ug/L	-5	10	
Selenium	0.0469	0.0255	150.0000	141.7000	ug/L	-6	10	
Silver	2.1851	1.9756	150.0000	140.7000	ug/L	-6	10	
Sodium	0.6794	0.5791	15000.00	14080.00	ug/L	-6	10	
Thallium	0.7965	0.7788	150.0000	147.1000	ug/L	-2	10	
Vanadium	4.6221	3.9447	150.0000	145.7000	ug/L	-3	10	
Zinc	0.9664	0.4626	150.0000	146.9000	ug/L	-2	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	587074	-21.53
Scandium	1005212	834853	-16.95
Germanium	182504	157793	-13.54
Indium	1240243	1022568	-17.55
Bismuth	753037	704943	-6.39

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Instid : MET05 Run Name :
Seqnum : 55209576060 Filename : e2512060 Injected : 25-MAY-2005 18:35
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.445000	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	[0.0466]	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	[11.230]	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	[0.0651]	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.2697]	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576073 Filename : e2512073 Injected : 25-MAY-2005 19:50
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4532	150.0000	137.2000	ug/L	-9	10	
Antimony	0.2910	0.2447	150.0000	145.9000	ug/L	-3	10	
Arsenic	0.4488	0.4035	150.0000	141.9000	ug/L	-5	10	
Barium	0.1026	0.0948	150.0000	151.4000	ug/L	1	10	
Beryllium	0.1799	0.1761	150.0000	149.6000	ug/L	0	10	
Cadmium	0.5184	0.3959	150.0000	145.1000	ug/L	-3	10	
Calcium	0.0213	0.0172	15000.00	14400.00	ug/L	-4	10	
Chromium	4.6540	3.3952	150.0000	144.8000	ug/L	-3	10	
Cobalt	4.0111	3.7345	150.0000	146.3000	ug/L	-2	10	
Copper	1.0058	0.8830	150.0000	146.4000	ug/L	-2	10	
Iron	0.1180	0.0893	15000.00	14510.00	ug/L	-3	10	
Lead	1.0790	1.0005	150.0000	146.8000	ug/L	-2	10	
Magnesium	0.0635	0.0542	15000.00	13520.00	ug/L	-10	10	
Manganese	5.2452	4.4409	150.0000	146.2000	ug/L	-3	10	
Molybdenum	0.9227	0.7747	150.0000	140.3000	ug/L	-6	10	
Nickel	0.9544	0.8011	150.0000	146.2000	ug/L	-3	10	
Potassium	1.0372	0.5313	15000.00	13950.00	ug/L	-7	10	
Selenium	0.0469	0.0253	150.0000	140.3000	ug/L	-6	10	
Silver	2.1851	1.9967	150.0000	142.2000	ug/L	-5	10	
Sodium	0.6794	0.5765	15000.00	14010.00	ug/L	-7	10	
Thallium	0.7965	0.7870	150.0000	148.6000	ug/L	-1	10	
Vanadium	4.6221	3.9006	150.0000	144.1000	ug/L	-4	10	
Zinc	0.9664	0.4621	150.0000	146.7000	ug/L	-2	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	567639	-24.13
Scandium	1005212	820677	-18.36
Germanium	182504	154703	-15.23
Indium	1240243	1017147	-17.99
Bismuth	753037	697633	-7.36

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576075 Filename : e2512075 Injected : 25-MAY-2005 20:02
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.344700	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	[13.210]	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	0.486400	0.250000	ug/L	ib ***
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	[0.1066]	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.6595]	1.000000	ug/L	

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576088 Filename : e2512088 Injected : 25-MAY-2005 21:18
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4751	150.0000	144.1000	ug/L	-4	10	
Antimony	0.2910	0.2511	150.0000	149.7000	ug/L	0	10	
Arsenic	0.4488	0.4081	150.0000	143.5000	ug/L	-4	10	
Barium	0.1026	0.0996	150.0000	158.9000	ug/L	6	10	
Beryllium	0.1799	0.1800	150.0000	153.0000	ug/L	2	10	
Cadmium	0.5184	0.3796	150.0000	139.2000	ug/L	-7	10	
Calcium	0.0213	0.0178	15000.00	14920.00	ug/L	-1	10	
Chromium	4.6540	3.4084	150.0000	145.4000	ug/L	-3	10	
Cobalt	4.0111	3.7967	150.0000	148.8000	ug/L	-1	10	
Copper	1.0058	0.9019	150.0000	149.6000	ug/L	0	10	
Iron	0.1180	0.0904	15000.00	14680.00	ug/L	-2	10	
Lead	1.0790	1.0185	150.0000	149.4000	ug/L	0	10	
Magnesium	0.0635	0.0563	15000.00	14030.00	ug/L	-6	10	
Manganese	5.2452	4.4826	150.0000	147.6000	ug/L	-2	10	
Molybdenum	0.9227	0.7471	150.0000	135.3000	ug/L	-10	10	
Nickel	0.9544	0.8161	150.0000	149.0000	ug/L	-1	10	
Potassium	1.0372	0.5442	15000.00	14290.00	ug/L	-5	10	
Selenium	0.0469	0.0252	150.0000	139.9000	ug/L	-7	10	
Silver	2.1851	1.9235	150.0000	137.0000	ug/L	-9	10	
Sodium	0.6794	0.6023	15000.00	14640.00	ug/L	-2	10	
Thallium	0.7965	0.7977	150.0000	150.7000	ug/L	0	10	
Vanadium	4.6221	3.9495	150.0000	145.9000	ug/L	-3	10	
Zinc	0.9664	0.4659	150.0000	147.9000	ug/L	-1	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	530158	-29.14
Scandium	1005212	764412	-23.96
Germanium	182504	148311	-18.74
Indium	1240243	921958	-25.66
Bismuth	753037	657887	-12.64

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576090 Filename : e2512090 Injected : 25-MAY-2005 21:29
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.357100	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	[0.0628]	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	[17.740]	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	0.898100	0.250000	ug/L	ib ***
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	[0.1616]	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.8908]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576098 Filename : e2512098 Injected : 25-MAY-2005 22:16
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.313000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.838900	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	1.269000	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.0278]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.0578]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.359000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.662000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.925000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	2.305000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.188000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.918000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.0411]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.1755]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.0920]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.3129]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	5.603000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	85150	ug/L	85
Calcium	55209576001	25-MAY-2005	300000	297000	ug/L	99
Iron	55209576001	25-MAY-2005	250000	224100	ug/L	90
Magnesium	55209576001	25-MAY-2005	100000	90330	ug/L	90
Molybdenum	55209576001	25-MAY-2005	2000	1697	ug/L	85
Potassium	55209576001	25-MAY-2005	100000	92800	ug/L	93
Sodium	55209576001	25-MAY-2005	250000	225600	ug/L	90

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576099 Filename : e2512099 Injected : 25-MAY-2005 22:22
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	82650.00	ug/L	-17		
Arsenic	100.0000	98.14000	ug/L	-2	20	
Cadmium	100.0000	87.98000	ug/L	-12	20	
Calcium	300000.0	294300.0	ug/L	-2		
Chromium	200.0000	185.7000	ug/L	-7	20	
Cobalt	200.0000	186.2000	ug/L	-7	20	
Copper	200.0000	180.8000	ug/L	-10	20	
Iron	250000.0	221400.0	ug/L	-11		
Magnesium	100000.0	87520.00	ug/L	-12		
Manganese	200.0000	185.9000	ug/L	-7	20	
Molybdenum	2000.000	1717.000	ug/L	-14		
Nickel	200.0000	182.5000	ug/L	-9	20	
Potassium	100000.0	91660.00	ug/L	-8		
Selenium	100.0000	87.92000	ug/L	-12	20	
Silver	50.00000	43.07000	ug/L	-14	20	
Sodium	250000.0	217100.0	ug/L	-13		
Vanadium	200.0000	188.8000	ug/L	-6	20	
Zinc	100.0000	92.61000	ug/L	-7	20	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Scandium	1005212	695097	-30.85
Germanium	182504	141321	-22.57

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576101 Filename : e2512101 Injected : 25-MAY-2005 22:34
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4891	150.0000	148.4000	ug/L	-1	10	
Antimony	0.2910	0.2476	150.0000	147.6000	ug/L	-2	10	
Arsenic	0.4488	0.4009	150.0000	141.0000	ug/L	-6	10	
Barium	0.1026	0.0984	150.0000	157.1000	ug/L	5	10	
Beryllium	0.1799	0.1791	150.0000	152.2000	ug/L	1	10	
Cadmium	0.5184	0.3852	150.0000	141.2000	ug/L	-6	10	
Calcium	0.0213	0.0175	15000.00	14670.00	ug/L	-2	10	
Chromium	4.6540	3.3042	150.0000	140.9000	ug/L	-6	10	
Cobalt	4.0111	3.6593	150.0000	143.4000	ug/L	-4	10	
Copper	1.0058	0.8781	150.0000	145.6000	ug/L	-3	10	
Iron	0.1180	0.0878	15000.00	14260.00	ug/L	-5	10	
Lead	1.0790	1.0035	150.0000	147.2000	ug/L	-2	10	
Magnesium	0.0635	0.0544	15000.00	13550.00	ug/L	-10	10	
Manganese	5.2452	4.3097	150.0000	141.9000	ug/L	-5	10	
Molybdenum	0.9227	0.7484	150.0000	135.5000	ug/L	-10	10	
Nickel	0.9544	0.7867	150.0000	143.6000	ug/L	-4	10	
Potassium	1.0372	0.5308	15000.00	13930.00	ug/L	-7	10	
Selenium	0.0469	0.0246	150.0000	136.4000	ug/L	-9	10	
Silver	2.1851	1.9399	150.0000	138.2000	ug/L	-8	10	
Sodium	0.6794	0.5780	15000.00	14050.00	ug/L	-6	10	
Thallium	0.7965	0.7790	150.0000	147.1000	ug/L	-2	10	
Vanadium	4.6221	3.7981	150.0000	140.3000	ug/L	-6	10	
Zinc	0.9664	0.4596	150.0000	145.9000	ug/L	-3	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	490104	-34.49
Scandium	1005212	722142	-28.16
Germanium	182504	144133	-21.02
Indium	1240243	924373	-25.47
Bismuth	753037	671676	-10.80

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Instid : MET05
Seqnum : 55209576105
Standards: 05WS0207

Run Name :
Filename : e2512105

Injected : 25-MAY-2005 22:58

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	[4.0050]	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	[0.2161]	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	[0.0458]	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	[19.100]	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	0.823900	0.250000	ug/L	ib ***
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	[0.1419]	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	[10.870]	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.7253]	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576114 Filename : e2512114 Injected : 25-MAY-2005 23:51
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55209576001	25-MAY-2005	2.294000	0.250000	ug/L	
Arsenic	55209576001	25-MAY-2005	0.936700	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	1.278000	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	[0.1122]	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	[0.2046]	0.250000	ug/L	
Chromium	55209576001	25-MAY-2005	1.345000	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	2.628000	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	1.920000	0.500000	ug/L	
Lead	55209576001	25-MAY-2005	2.366000	0.250000	ug/L	
Manganese	55209576001	25-MAY-2005	1.159000	0.250000	ug/L	
Nickel	55209576001	25-MAY-2005	1.892000	0.250000	ug/L	
Selenium	55209576001	25-MAY-2005	[0.3354]	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	[0.2230]	0.250000	ug/L	
Thallium	55209576001	25-MAY-2005	[0.1259]	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	[0.3789]	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	4.791000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55209576001	25-MAY-2005	100000	82790	ug/L	83
Calcium	55209576001	25-MAY-2005	300000	291000	ug/L	97
Iron	55209576001	25-MAY-2005	250000	219300	ug/L	88
Magnesium	55209576001	25-MAY-2005	100000	87600	ug/L	88
Molybdenum	55209576001	25-MAY-2005	2000	1653	ug/L	83
Potassium	55209576001	25-MAY-2005	100000	89790	ug/L	90
Sodium	55209576001	25-MAY-2005	250000	220100	ug/L	88

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576115 Filename : e2512115 Injected : 25-MAY-2005 23:57
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	82800.00	ug/L	-17		
Arsenic	100.0000	96.66000	ug/L	-3	20	
Cadmium	100.0000	84.46000	ug/L	-16	20	
Calcium	300000.0	289900.0	ug/L	-3		
Chromium	200.0000	181.0000	ug/L	-10	20	
Cobalt	200.0000	182.9000	ug/L	-9	20	
Copper	200.0000	177.2000	ug/L	-11	20	
Iron	250000.0	215600.0	ug/L	-14		
Magnesium	100000.0	88190.00	ug/L	-12		
Manganese	200.0000	183.1000	ug/L	-8	20	
Molybdenum	2000.000	1654.000	ug/L	-17		
Nickel	200.0000	178.2000	ug/L	-11	20	
Potassium	100000.0	89190.00	ug/L	-11		
Selenium	100.0000	85.47000	ug/L	-15	20	
Silver	50.00000	41.40000	ug/L	-17	20	
Sodium	250000.0	219800.0	ug/L	-12		
Vanadium	200.0000	185.3000	ug/L	-7	20	
Zinc	100.0000	90.76000	ug/L	-9	20	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Scandium	1005212	641321	-36.20
Germanium	182504	135350	-25.84

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55209576120 Filename : e2512120 Injected : 26-MAY-2005 00:26
Calnum : 55209576001 Caldate : 25-MAY-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.3493	0.4543	150.0000	137.6000	ug/L	-8	10	
Antimony	0.2910	0.2489	150.0000	148.4000	ug/L	-1	10	
Arsenic	0.4488	0.3986	150.0000	140.2000	ug/L	-7	10	
Barium	0.1026	0.0996	150.0000	159.0000	ug/L	6	10	
Beryllium	0.1799	0.1785	150.0000	151.7000	ug/L	1	10	
Cadmium	0.5184	0.3713	150.0000	136.1000	ug/L	-9	10	
Calcium	0.0213	0.0173	15000.00	14520.00	ug/L	-3	10	
Chromium	4.6540	3.2771	150.0000	139.8000	ug/L	-7	10	
Cobalt	4.0111	3.6545	150.0000	143.2000	ug/L	-5	10	
Copper	1.0058	0.8722	150.0000	144.6000	ug/L	-4	10	
Iron	0.1180	0.0869	15000.00	14110.00	ug/L	-6	10	
Lead	1.0790	0.9886	150.0000	145.1000	ug/L	-3	10	
Magnesium	0.0635	0.0545	15000.00	13590.00	ug/L	-9	10	
Manganese	5.2452	4.2722	150.0000	140.6000	ug/L	-6	10	
Molybdenum	0.9227	0.7214	150.0000	130.6000	ug/L	-13	10	c- ***
Nickel	0.9544	0.7835	150.0000	143.0000	ug/L	-5	10	
Potassium	1.0372	0.5227	15000.00	13720.00	ug/L	-9	10	
Selenium	0.0469	0.0242	150.0000	134.4000	ug/L	-10	10	
Silver	2.1851	1.8864	150.0000	134.4000	ug/L	-10	10	
Sodium	0.6794	0.5847	15000.00	14210.00	ug/L	-5	10	
Thallium	0.7965	0.7765	150.0000	146.6000	ug/L	-2	10	
Vanadium	4.6221	3.7649	150.0000	139.0000	ug/L	-7	10	
Zinc	0.9664	0.4542	150.0000	144.2000	ug/L	-4	10	

ISTD (ICALBLK=e2512003)	ICALBLK Abund	Abund	%Diff
Lithium	748156	470639	-37.09
Scandium	1005212	679616	-32.39
Germanium	182504	137927	-24.43
Indium	1240243	859694	-30.68
Bismuth	753037	660384	-12.30

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55209576122 Filename : e2512122 Injected : 26-MAY-2005 00:38
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55209576001	25-MAY-2005	[1.3240]	50.00000	ug/L	
Antimony	55209576001	25-MAY-2005	0.345100	0.250000	ug/L	ib ***
Arsenic	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Barium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Beryllium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Cadmium	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Calcium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Chromium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Cobalt	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Copper	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Iron	55209576001	25-MAY-2005	[12.350]	50.00000	ug/L	
Lead	55209576001	25-MAY-2005	0.315900	0.250000	ug/L	ib ***
Magnesium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Manganese	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Nickel	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Potassium	55209576001	25-MAY-2005	[11.430]	50.00000	ug/L	
Selenium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Silver	55209576001	25-MAY-2005	ND	0.250000	ug/L	
Sodium	55209576001	25-MAY-2005	ND	50.00000	ug/L	
Thallium	55209576001	25-MAY-2005	ND	0.500000	ug/L	
Vanadium	55209576001	25-MAY-2005	ND	1.000000	ug/L	
Zinc	55209576001	25-MAY-2005	[0.3364]	1.000000	ug/L	

ib=instrument blank

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55211012 Instrument: MET05 Agilent ICP-MS Begun: 26-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	e2612001	TUN	TUNE			26-MAY-2005 12:52	689.0	1.0					
003	e2612003	ICALBLK	std-blk			26-MAY-2005 13:02	1.0	1.0				1	
004	e2612004	ICAL	CS1			26-MAY-2005 13:08	1.0	1.0				2	
005	e2612005	ICAL	CS2			26-MAY-2005 13:13	1.0	1.0				3	
006	e2612006	ICAL	CS3			26-MAY-2005 13:18	1.0	1.0				4	
007	e2612007	ICAL	CS4			26-MAY-2005 13:23	1.0	1.0				5	
008	e2612008	ICAL	CS5			26-MAY-2005 13:29	1.0	1.0				6	
009	e2612009	ICAL	CS6			26-MAY-2005 13:34	1.0	1.0				7	
010	e2612010	ICV				26-MAY-2005 13:39	1.0	1.0			1	8	
012	e2612012	ICB				26-MAY-2005 13:50	1.0	1.0	1		1	1	
013	e2612013	ICSA				26-MAY-2005 13:56	1.0	1.0			1	9 1	7:CA=299600
014	e2612014	ICSAB				26-MAY-2005 14:02	1.0	1.0			1	10 1	7:CA=298800
016	e2612016	MSS	179304-001	102036	Filtra	26-MAY-2005 14:14	10.0	1.0	3		1	1	3:NA=200300
017	e2612017	SER	QC293819	102036	Filtra	26-MAY-2005 14:20	50.0	1.0		1	1	1	1:NA=40820.0
018	e2612018	MS	QC293817	102036	Filtra	26-MAY-2005 14:26	10.0	1.0		2	1	1	3:NA=201900
019	e2612019	MSD	QC293818	102036	Filtra	26-MAY-2005 14:32	10.0	1.0		2	1	1	3:NA=200100
020	e2612020	PDS	QC293820	102036	Filtra	26-MAY-2005 14:40	10.0	1.0	1	1	1	11	3:NA=209300
021	e2612021	MSS	179304-001	102036	Filtra	26-MAY-2005 14:46	200.0	1.0			1	1	
022	e2612022	SER	QC293819	102036	Filtra	26-MAY-2005 14:52	1000	1.0			1	1	
023	e2612023	MS	QC293817	102036	Filtra	26-MAY-2005 14:58	1.0	1.0	1	1	1	1	2:CA=626600
025	e2612025	CCV				26-MAY-2005 15:10	1.0	1.0			1	12 1	
030	e2612030	CCB				26-MAY-2005 15:40	1.0	1.0			1	1	
032	e2612032	MSD	QC293818	102036	Filtra	26-MAY-2005 15:52	1.0	1.0	1	1	1	1	2:CA=614500
033	e2612033	PDS	QC293820	102036	Filtra	26-MAY-2005 15:57	200.0	1.0	1	9	1	11 1	
034	e2612034	MSS	179603-001	102337	Soil	26-MAY-2005 16:03	5.0	52.08	7		1	1	6:FE=69880.0
035	e2612035	MS	QC294963	102337	Soil	26-MAY-2005 16:09	5.0	43.10	4		1	1	9:FE=77340.0
036	e2612036	MSD	QC294964	102337	Soil	26-MAY-2005 16:15	5.0	50.0	4		1	1	9:FE=77860.0
037	e2612037	MS	QC294963	102337	Soil	26-MAY-2005 16:21	50.0	43.10		2	1	1	1:AL=4026.00
038	e2612038	MSD	QC294964	102337	Soil	26-MAY-2005 16:27	50.0	50.0			1	1	1:AL=4292.00
039	e2612039	CCV				26-MAY-2005 16:33	1.0	1.0			1	12 1	
041	e2612041	CCB				26-MAY-2005 16:45	1.0	1.0			1	1	

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S21 12=S686

Analyst: Marwan Date: 8/26/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55211012 Instrument: MET05 Agilent ICP-MS Begun: 26-MAY-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
042	e2612042	ICSA				26-MAY-2005 16:51	1.0	1.0	1	9 1	7:CA=297500
043	e2612043	ICSAB				26-MAY-2005 16:56	1.0	1.0	1	10 1	7:CA=293900
044	e2612044	SAMPLE	179621-001	102337	Soil	26-MAY-2005 17:02	2000			1	

194
194

Stds used: 1=05WS0207 2=S679 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S21 12=S686

Analyst: _____ Date: 5/26/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55211012001 Name: Type: (normal) Date: 26-MAY-2005 13:02 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	e2612004	55211012004	CS1	26-MAY-2005 13:08	S679
2	e2612005	55211012005	CS2	26-MAY-2005 13:13	S680
3	e2612006	55211012006	CS3	26-MAY-2005 13:18	S681
4	e2612007	55211012007	CS4	26-MAY-2005 13:23	S682
5	e2612008	55211012008	CS5	26-MAY-2005 13:29	S677
6	e2612009	55211012009	CS6	26-MAY-2005 13:34	S678

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		3.2723	1.6194	0.5895	0.4967	0.4770	BLNK	R	-5.79615	2.153104		ug/L	1.2910	0.999	0.995	
Antimony	0.4898	0.3411	0.3007	0.2725	0.2768	0.2751	BLNK	R	-0.27840	3.636941		ug/L	0.3260	1.000	0.995	
Arsenic		0.5899	0.5172	0.4586	0.4455	0.4395	BLNK	R	-0.08781	2.270313		ug/L	0.4902	1.000	0.995	
Barium	0.1488	0.1249	0.1150	0.1056	0.1063	0.1050	BLNK	R	-0.20224	9.510418		ug/L	0.1176	1.000	0.995	
Beryllium	0.2088	0.1920	0.1960	0.1929	0.1919	0.1898	BLNK	R	-0.02383	5.258409		ug/L	0.1952	1.000	0.995	
Cadmium	0.8600	0.6381	0.5765	0.4570	0.4467	0.4303	BLNK	R	-0.22817	2.309500		ug/L	0.5681	1.000	0.995	
Calcium		0.0271	0.0236	0.0199	0.0198	0.0191	BLNK	R	-28.3699	51.98521		ug/L	0.0219	1.000	0.995	
Chromium		7.5083	5.6778	3.9185	3.7498	3.6150	BLNK	R	-0.51730	0.275414		ug/L	4.8939	1.000	0.995	
Cobalt	4.4998	4.4031	4.2758	4.1710	4.1570	4.0028	BLNK	R	-0.02688	0.247939		ug/L	4.2516	1.000	0.995	
Copper		1.7159	1.4018	1.0453	0.9800	0.9437	BLNK	R	-0.35825	1.053689		ug/L	1.2174	1.000	0.995	
Iron		0.1860	0.1416	0.1030	0.1005	0.0957	BLNK	R	-45.0480	10.37271		ug/L	0.1254	0.999	0.995	
Lead	1.4736	1.2732	1.1620	1.0946	1.0845	1.0945	BLNK	R	-0.10797	0.915921		ug/L	1.1971	1.000	0.995	
Magnesium		0.0645	0.0639	0.0650	0.0607	0.0594	BLNK	R	-2.95161	16.76632		ug/L	0.0627	1.000	0.995	
Manganese	7.1561	6.0613	5.5499	4.9183	4.9218	4.7485	BLNK	R	-0.11614	0.209206		ug/L	5.5593	1.000	0.995	
Molybdenum		0.9677	0.8915	0.8335	0.8324	0.8246	BLNK	R	-0.15804	1.211584		ug/L	0.8699	1.000	0.995	
Nickel	1.4152	1.1746	1.0177	0.9268	0.8765	0.8479	BLNK	R	-0.13036	1.172267		ug/L	1.0431	1.000	0.995	
Potassium		2.3962	1.4874	0.7012	0.6021	0.5826	BLNK	R	-155.471	1.720746		ug/L	1.1539	1.000	0.995	
Selenium		0.0973	0.0626	0.0321	0.0282	0.0270	BLNK	R	-1.57252	37.09261		ug/L	0.0494	1.000	0.995	
Silver	2.4778	2.4554	2.3874	2.2875	2.2114	2.2827	BLNK	R	-0.02513	0.440889		ug/L	2.3504	1.000	0.995	
Sodium		0.7100	0.7478	0.6807	0.6502	0.6357	BLNK	R	-7.43089	1.566418		ug/L	0.6849	1.000	0.995	

195
195

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS
Calnum: 55211012001 Name: Type: (normal) Reviewed By: ---
Date: 26-MAY-2005 13:02 Inj Vol (uL): 1

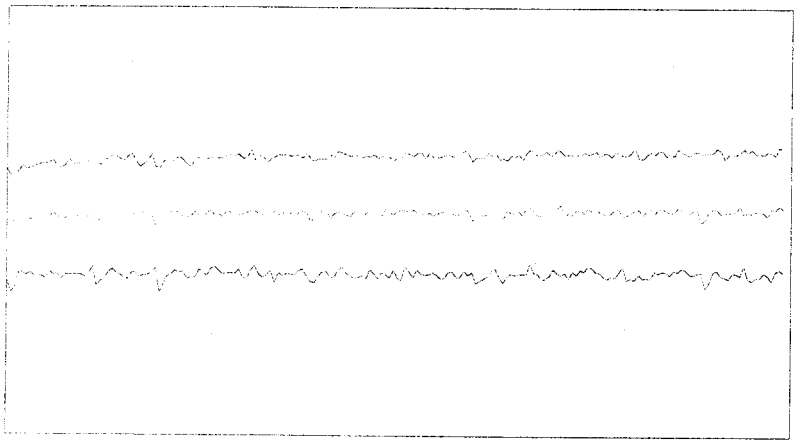
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.9040	0.8236	0.7913	0.8669	0.8541	BLNK	R	-0.11673	1.168389		ug/L	0.8480	1.000	0.995	
Vanadium		6.3474	4.9415	4.2963	4.3320	4.1998	BLNK	R	-0.14897	0.236827		ug/L	4.8234	1.000	0.995	
Zinc		3.1207	2.0324	0.6642	0.5202	0.4960	BLNK	R	-2.51758	2.026446		ug/L	1.3667	1.000	0.995	

1960

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



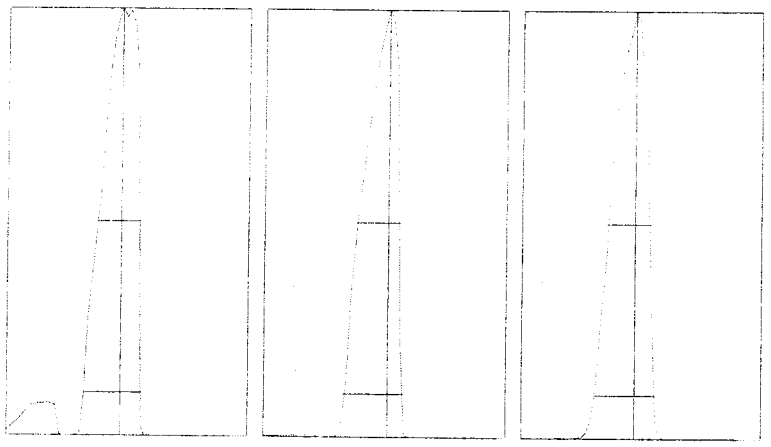
m/z:	7	89	205
Range:	50,000	50,000	100,000
Count:	19,230	33,740	53,309
Mean:	18831.3	32654.1	51954.7
RSD%:	2.89	2.03	1.93
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.42%
Doubly Charged:	70/140	0.86%

Background:

m/z:	7	89	205
Cps:	16.9	17.8	28.7



m/z:	7	89	205
Height:	19,199	34,241	54,121
Axis:	6.95	89.05	204.95
W-50%:	0.55	0.55	0.55
W-10%:	0.700	0.7500	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===	
RF Power:	1250	W	Extract 1:	-137.1	V	AMU Gain:	128
RF Matching:	1.7	V	Extract 2:	-111	V	AMU Offset:	127
Smpl Depth:	8	mm	Einzel 1,3:	-100	V	Axis Gain:	1.0003
Torch-H:	-0.2	mm	Einzel 2:	-1	V	Axis Offset:	-0.03
Torch-V:	-0.1	mm	Omega Bias:	-38	V	QP Bias:	0 V
Carrier Gas:	1.05	L/min	Omega (+):	-2	V		
Makeup Gas:	0	L/min	Omega (-):	3	V	===Detector Parameters===	
Optional Gas:	---	%	QP Focus:	1	V	Discriminator:	9 mV
PeriPump1:	0.1	rps	Plate Bias:	-5	V	Analog HV:	2060 V
PeriPump2:	---	rps				Pulse HV:	1820 V
S/C Temp:	2	degC					

Generated : May 26, 2005 11:03:11
Printed : May 26, 2005 11:03:19

P/A Factor Tuning Report

Acquired:May 26 2005 11:33 am

Mass[amu]	Element	P/A Factor
6	Li	0.061703
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086259
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.097533
45	Sc	0.092810
51	V	0.096808
52	Cr	0.098949
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.100490
57	Fe	0.103083
59	Co	0.103264
60	Ni	Sensitivity too low
63	Cu	0.105111
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103407
95	Mo	Sensitivity too low
98	Mo	0.101856
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.110428
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.110393
118	(In)	0.109717
121	Sb	0.109454
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114565
166	Er	Sensitivity too low

205	Tl	0.121520
206	(Pb)	0.117187
207	(Pb)	0.116428
208	Pb	0.120228
209	Bi	0.118983
232	Th	0.122063
238	U	0.122206

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

P/A Factor Tuning Report

Acquired:May 26 2005 00:46 pm

Mass[amu]	Element	P/A Factor
6	Li	0.062105
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086417
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.096798
45	Sc	0.092610
51	V	0.096299
52	Cr	0.098311
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.099914
57	Fe	0.102620
59	Co	0.102619
60	Ni	Sensitivity too low
63	Cu	0.104593
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.103526
95	Mo	Sensitivity too low
98	Mo	0.101394
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.109757
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.110543
118	(In)	0.108670
121	Sb	0.108377
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.114584
166	Er	Sensitivity too low

205	Tl	0.120501
206	(Pb)	0.116109
207	(Pb)	Sensitivity too low
208	Pb	0.119300
209	Bi	0.118911
232	Th	0.120885
238	U	0.121258

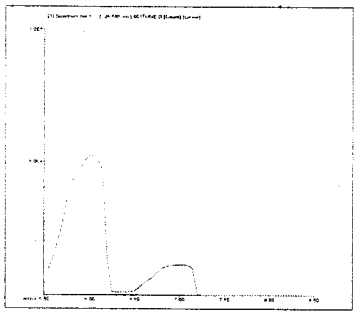
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2060 V
Pulse HV: 1820 V

6020 QC Tune Report

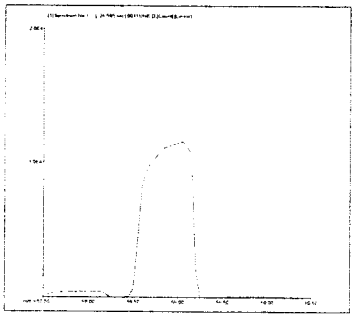
Data File: C:\ICPCHEM\1\DATA\05E2612a.B\001TUNE.D
Date Acquired: May 26 2005 12:52 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUNE,689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

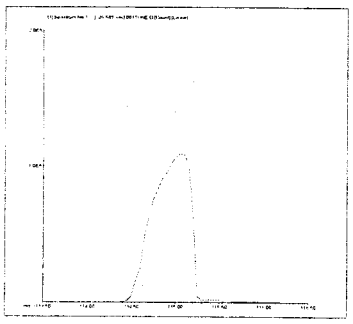
Element	Actual	Required	Flag
7 Li	0.97	5.00	
59 Co	1.19	5.00	
115 In	1.59	5.00	
205 Tl	1.55	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



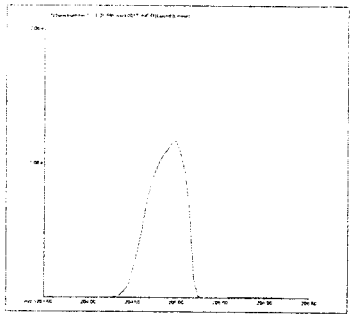
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05E2612a.B\002BLNK.D\002BLNK.D#
Date Acquired:	May 26 2005 12:56 pm
Acq. Method:	60200111.M
Operator:	
Sample Name:	rinse
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update:	May 26 2005 00:27 pm
Sample Type:	6-Blank
Dilution Factor:	1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.005033	ppb	86.73	-0.005033	1.00	
23 Na	2.336	ppb	7.78	2.336	1.00	
26 Mg	0.9597	ppb	6.46	0.9597	1.00	
27 Al	0.5335	ppb	19.81	0.5335	1.00	
39 K	-33.33	ppb	2.50	-33.33	1.00	
44 Ca	2.485	ppb	2.20	2.485	1.00	
51 V	-0.05255	ppb	148.56	-0.05255	1.00	
52 Cr	-0.03016	ppb	22.72	-0.03016	1.00	
55 Mn	-0.009592	ppb	35.25	-0.009592	1.00	
57 Fe	0.8614	ppb	131.88	0.8614	1.00	
59 Co	0.01042	ppb	34.65	0.01042	1.00	
60 Ni	0.01465	ppb	67.77	0.01465	1.00	
65 Cu	0.002458	ppb	510.58	0.002458	1.00	
66 Zn	0.1353	ppb	63.76	0.1353	1.00	
75 As	-0.02414	ppb	465.62	-0.02414	1.00	
82 Se	-0.2413	ppb	14.29	-0.2413	1.00	
95 Mo	0.2262	ppb	20.36	0.2262	1.00	
109 Ag	0.001529	ppb	239.24	0.001529	1.00	
111 Cd	-0.0178	ppb	270.34	-0.0178	1.00	
121 Sb	0.2547	ppb	29.48	0.2547	1.00	
137 Ba	-0.00864	ppb	85.81	-0.00864	1.00	
205 Tl	0.1477	ppb	4.13	0.1477	1.00	
208 Pb	-0.01204	ppb	46.60	-0.01204	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	525200.81	0.35	---	#VALUE!	30 - 200	
45 Sc	701097.75	0.38	---	#VALUE!	30 - 200	
72 Ge	138496.45	0.32	---	#VALUE!	30 - 200	

115 In	970978.00	0.52	---	#VALUE!	30 - 200
209 Bi	694472.19	0.60	---	#VALUE!	30 - 200

ISTD Ref File : ---

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\003CAL
Date Acquired: May 26 2005 01:02 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 00:27 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	539272.13	A	6774.00	1.26
9	Be	48.89	P	1.93	3.94
23	Na	66404.44	P	229.50	0.35
26	Mg	2464.44	P	84.94	3.45
27	Al	37683.33	P	465.20	1.23
39	K	1264760.00	A	7304.00	0.58
44	Ca	7638.97	P	261.00	3.42
45	Sc	699912.19	P	2965.00	0.42
51	V	1741.15	P	326.30	18.74
52	Cr	5198.89	P	103.10	1.98
55	Mn	1536.67	P	40.41	2.63
57	Fe	12021.11	P	153.10	1.27
59	Co	300.00	P	34.64	11.55
60	Ni	307.78	P	15.75	5.12
65	Cu	941.10	P	29.88	3.18
66	Zn	3438.90	P	166.90	4.85
72	Ge	138397.59	P	239.80	0.17
75	As	107.21	P	140.90	131.42
82	Se	117.36	P	15.62	13.31
95	Mo	361.11	P	45.01	12.46
109	Ag	157.78	P	10.18	6.45
111	Cd	273.48	P	24.98	9.13
115	In	971653.13	A	4095.00	0.42
121	Sb	1487.78	P	281.30	18.91
137	Ba	413.33	P	32.15	7.78
205	Tl	1374.44	P	82.62	6.01
208	Pb	1621.11	P	65.18	4.02
209	Bi	687737.69	P	3508.00	0.51
232	Th	10828.89	P	744.50	6.88
238	U	247.78	P	42.47	17.14

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\004CALI.D\004CALI.D#
Date Acquired: May 26 2005 01:08 pm
Operator:
Sample Name: CS1,S679
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:04 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	527680.31	A	3409.00	0.65
9 Be	551.11	P	68.50	12.43
23 Na	289643.31	P	2215.00	0.76
26 Mg	23621.11	P	314.00	1.33
27 Al	18211.11	P	193.70	1.06
39 K	1497012.00	A	7043.00	0.47
44 Ca	12900.27	P	39.81	0.31
45 Sc	699417.69	P	2044.00	0.29
51 V	6015.09	P	921.80	15.33
52 Cr	8225.55	P	214.90	2.61
55 Mn	4938.89	P	93.11	1.89
57 Fe	18835.55	P	303.00	1.61
59 Co	3105.55	P	38.63	1.24
60 Ni	976.67	P	109.90	11.25
65 Cu	1708.79	P	46.83	2.74
66 Zn	5210.12	P	76.89	1.48
72 Ge	138031.09	P	179.50	0.13
75 As	403.52	P	118.40	29.34
82 Se	96.90	P	5.28	5.45
95 Mo	853.33	P	55.08	6.45
109 Ag	1710.00	P	66.58	3.89
111 Cd	593.49	P	23.80	4.01
115 In	979771.88	A	8788.00	0.90
121 Sb	2401.11	P	302.60	12.60
137 Ba	728.89	P	53.16	7.29
205 Tl	3826.67	P	108.40	2.83
208 Pb	5082.22	P	93.83	1.85
209 Bi	689803.31	P	3450.00	0.50
232 Th	11082.22	P	566.50	5.11
238 U	3637.78	P	161.40	4.44

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	527680.31	0.65	539272.06	97.9	30 - 200	
45 Sc	699417.75	0.29	699912.19	99.9	30 - 200	
72 Ge	138031.11	0.13	138397.55	99.7	30 - 200	
115 In	979771.94	0.90	971653.06	100.8	30 - 200	
209 Bi	689803.31	0.50	687737.75	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\005CALI.D\005CALI.D#
Date Acquired: May 26 2005 01:13 pm
Operator:
Sample Name: CS2,S680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:10 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	529595.88	A	3333.00	0.63
9 Be	1016.67	P	16.67	1.64
23 Na	501290.00	P	941.80	0.19
26 Mg	45514.44	P	325.90	0.72
27 Al	23126.35	M	10190.00	44.06
39 K	1691856.00	A	9857.00	0.58
44 Ca	19156.71	P	301.30	1.57
45 Sc	706080.00	P	2565.00	0.36
51 V	8802.94	P	313.80	3.56
52 Cr	10413.33	P	173.50	1.67
55 Mn	8406.67	P	159.00	1.89
57 Fe	25800.00	P	771.50	2.99
59 Co	6106.67	P	92.91	1.52
60 Ni	1628.89	P	92.64	5.69
65 Cu	2379.80	P	104.00	4.37
66 Zn	4328.01	P	20.37	0.47
72 Ge	138690.41	P	381.90	0.28
75 As	817.98	P	104.50	12.78
82 Se	134.99	P	14.44	10.70
95 Mo	1342.22	P	71.67	5.34
109 Ag	3405.55	P	69.31	2.04
111 Cd	885.04	P	57.23	6.47
115 In	995417.50	A	22540.00	2.26
121 Sb	3396.67	P	156.80	4.62
137 Ba	1243.33	P	37.86	3.05
205 Tl	6332.22	P	201.90	3.19
208 Pb	8918.89	P	299.70	3.36
209 Bi	700398.88	P	7696.00	1.10
232 Th	12056.67	P	509.90	4.23
238 U	7180.00	P	115.90	1.61

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	529595.88	0.63	539272.06	98.2	30 - 200	
45 Sc	706080.00	0.36	699912.19	100.9	30 - 200	
72 Ge	138690.45	0.28	138397.55	100.2	30 - 200	
115 In	995417.44	2.26	971653.06	102.4	30 - 200	
209 Bi	700398.88	1.10	687737.75	101.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\006CALI.D\006CALI.D#
Date Acquired: May 26 2005 01:18 pm
Operator:
Sample Name: CS3,S681
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:15 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	535605.88	A	9860.00	1.84
9 Be	2098.89	P	33.72	1.61
23 Na	1058581.00	A	5448.00	0.51
26 Mg	90400.00	P	227.50	0.25
27 Al	22924.44	P	20.09	0.09
39 K	2105583.00	A	24870.00	1.18
44 Ca	33375.08	P	161.10	0.48
45 Sc	707817.69	P	1955.00	0.28
51 V	13748.59	P	319.10	2.32
52 Cr	15795.55	P	213.50	1.35
55 Mn	15440.00	P	125.00	0.81
57 Fe	39390.00	P	614.90	1.56
59 Co	11895.56	P	137.00	1.15
60 Ni	2831.11	P	172.40	6.09
65 Cu	3899.61	P	84.13	2.16
66 Zn	5654.90	P	276.00	4.88
72 Ge	139105.30	P	651.10	0.47
75 As	1439.19	P	65.76	4.57
82 Se	174.26	P	6.46	3.71
95 Mo	2480.00	P	66.58	2.68
109 Ag	6642.22	P	101.20	1.52
111 Cd	1603.75	P	22.42	1.40
115 In	989244.88	A	9531.00	0.96
121 Sb	5948.89	P	188.50	3.17
137 Ba	2274.44	P	148.20	6.52
205 Tl	11446.67	P	479.80	4.19
208 Pb	16145.55	P	207.60	1.29
209 Bi	694793.31	P	8294.00	1.19
232 Th	14372.22	P	723.90	5.04
238 U	14118.89	P	153.90	1.09

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	535605.94	1.84	539272.06	99.3	30 - 200	
45 Sc	707817.75	0.28	699912.19	101.1	30 - 200	
72 Ge	139105.33	0.47	138397.55	100.5	30 - 200	
115 In	989244.88	0.96	971653.06	101.8	30 - 200	
209 Bi	694793.31	1.19	687737.75	101.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\007CALI.D\007CALI.D#
Date Acquired: May 26 2005 01:23 pm
Operator:
Sample Name: CS4,S682
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:20 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	533014.63	A	8427.00	1.58
9 Be	20556.67	P	166.00	0.81
23 Na	9685190.00	A	91620.00	0.95
26 Mg	924790.19	A	10390.00	1.12
27 Al	83867.78	P	661.80	0.79
39 K	9976563.00	A	117100.00	1.17
44 Ca	283486.31	P	208.20	0.07
45 Sc	711357.69	P	2348.00	0.33
51 V	120590.80	P	546.50	0.45
52 Cr	109985.60	P	535.00	0.49
55 Mn	138052.20	P	1060.00	0.77
57 Fe	289114.41	P	937.60	0.32
59 Co	117074.40	P	556.70	0.48
60 Ni	26013.33	P	329.20	1.27
65 Cu	29341.48	P	443.00	1.51
66 Zn	18643.51	P	281.20	1.51
72 Ge	140345.09	P	547.70	0.39
75 As	12873.75	P	126.00	0.98
82 Se	901.76	P	29.47	3.27
95 Mo	23395.55	P	533.10	2.28
109 Ag	64207.78	P	265.80	0.41
111 Cd	12828.04	P	190.20	1.48
115 In	972257.63	A	8326.00	0.86
121 Sb	52982.22	P	803.70	1.52
137 Ba	20536.67	P	166.20	0.81
205 Tl	110772.20	P	2607.00	2.35
208 Pb	153220.00	P	853.40	0.56
209 Bi	699897.69	P	5024.00	0.72
232 Th	84348.88	P	2056.00	2.44
238 U	141965.59	P	2002.00	1.41

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	533014.63	1.58	539272.06	98.8	30 - 200	
45 Sc	711357.75	0.33	699912.19	101.6	30 - 200	
72 Ge	140345.11	0.39	138397.55	101.4	30 - 200	
115 In	972257.56	0.86	971653.06	100.1	30 - 200	
209 Bi	699897.75	0.72	687737.75	101.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\008CALI.D\008CALI.D#
Date Acquired: May 26 2005 01:29 pm
Operator:
Sample Name: CS5,S677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:25 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	526860.63	A	2436.00	0.46
9 Be	202183.30	P	545.70	0.27
23 Na	93896064.00	A	95390.00	0.10
26 Mg	8761981.00	A	85590.00	0.98
27 Al	717376.19	A	2556.00	0.36
39 K	86954512.00	A	765700.00	0.88
44 Ca	2864140.00	A	5719.00	0.20
45 Sc	722110.00	P	4576.00	0.63
51 V	1239052.00	A	16400.00	1.32
52 Cr	1072584.00	A	5906.00	0.55
55 Mn	1407789.00	A	12470.00	0.89
57 Fe	2875594.00	A	32930.00	1.15
59 Co	1189098.00	A	6639.00	0.56
60 Ni	250707.80	P	1609.00	0.64
65 Cu	280330.41	P	1740.00	0.62
66 Zn	148806.00	P	2126.00	1.43
72 Ge	143022.91	P	892.00	0.62
75 As	127439.40	P	165.30	0.13
82 Se	8057.37	P	29.95	0.37
95 Mo	238097.80	P	3282.00	1.38
109 Ag	632568.88	P	4372.00	0.69
111 Cd	127763.90	P	374.90	0.29
115 In	952924.63	M	15780.00	1.66
121 Sb	527606.63	P	6872.00	1.30
137 Ba	202652.20	P	2546.00	1.26
205 Tl	1199093.00	A	6250.00	0.52
208 Pb	1500191.00	P	21100.00	1.41
209 Bi	691634.38	P	9121.00	1.32
232 Th	1361715.00	A	39170.00	2.88
238 U	1549934.00	A	33340.00	2.15

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	526860.63	0.46	539272.06	97.7	30 - 200	
45 Sc	722110.00	0.63	699912.19	103.2	30 - 200	
72 Ge	143022.89	0.62	138397.55	103.3	30 - 200	
115 In	952924.63	1.66	971653.06	98.1	30 - 200	
209 Bi	691634.38	1.32	687737.75	100.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05E2612a.B\009CALI.D\009CALI.D#
Date Acquired: May 26 2005 01:34 pm
Operator:
Sample Name: CS6,S678
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: May 26 2005 01:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	521860.09	M	3957.00	0.76
9 Be	396121.09	P	972.00	0.25
23 Na	183037200.00	A	653100.00	0.36
26 Mg	17098850.00	A	30520.00	0.18
27 Al	1373327.00	A	2457.00	0.18
39 K	167745410.00	A	428100.00	0.26
44 Ca	5507311.00	A	6172.00	0.11
45 Sc	719806.63	P	1963.00	0.27
51 V	2404616.00	A	3722.00	0.15
52 Cr	2069761.00	A	7384.00	0.36
55 Mn	2718716.00	A	10080.00	0.37
57 Fe	5479119.00	A	16920.00	0.31
59 Co	2291810.00	A	9770.00	0.43
60 Ni	485457.69	P	2765.00	0.57
65 Cu	540324.00	P	3329.00	0.62
66 Zn	283982.19	P	1712.00	0.60
72 Ge	143140.70	P	694.40	0.49
75 As	251613.41	P	763.40	0.30
82 Se	15443.61	P	40.58	0.26
95 Mo	472142.19	P	3328.00	0.70
109 Ag	1307007.00	A	10170.00	0.78
111 Cd	246363.41	P	2853.00	1.16
115 In	948400.50	A	10570.00	1.11
121 Sb	1043498.00	A	10770.00	1.03
137 Ba	398380.00	P	6120.00	1.54
205 Tl	2327556.00	A	14650.00	0.63
208 Pb	2983002.00	A	29770.00	1.00
209 Bi	681344.38	P	4166.00	0.61
232 Th	3048898.00	A	31040.00	1.02
238 U	3004975.00	A	23020.00	0.77

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	521860.13	0.76	539272.06	96.8	30 - 200	
45 Sc	719806.63	0.27	699912.19	102.8	30 - 200	
72 Ge	143140.67	0.49	138397.55	103.4	30 - 200	
115 In	948400.50	1.11	971653.06	97.6	30 - 200	
209 Bi	681344.38	0.61	687737.75	99.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05E2612a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: May 26, 2005 13:35
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05e2612a.b\003calb.d\	003calb.d#	May 26 2005 01:02 pm
2	...hem\1\data\05e2612a.b\004cali.d\	004cali.d#	May 26 2005 01:08 pm
3	...hem\1\data\05e2612a.b\005cali.d\	005cali.d#	May 26 2005 01:13 pm
4	...hem\1\data\05e2612a.b\006cali.d\	006cali.d#	May 26 2005 01:18 pm
5	...hem\1\data\05e2612a.b\007cali.d\	007cali.d#	May 26 2005 01:23 pm
6	...hem\1\data\05e2612a.b\008cali.d\	008cali.d#	May 26 2005 01:29 pm
7	...hem\1\data\05e2612a.b\009cali.d\	009cali.d#	May 26 2005 01:34 pm
8	---		
9	---		
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Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
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Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.902E-1*X +4.533E-3(blank)	---	ppb
Na	23	45	Y = 6.384E-1*X +4.744E+0(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 5.964E-2*X +1.760E-1(blank)	---	ppb
Al	27	45	Y = 4.644E-1*X +2.692E+0(blank)	---	ppb
K	39	45	Y = 5.811E-1*X +9.035E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.924E-2*X +5.457E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 4.222E+0*X +6.290E-1(blank)	---	ppb
Cr	52	72	Y = 3.631E+0*X +1.878E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 4.780E+0*X +5.551E-1(blank)	---	ppb
Fe	57	72	Y = 9.641E-2*X +4.343E+0(blank)	---	ppb
Co	59	72	Y = 4.033E+0*X +1.084E-1(blank)	---	ppb
Ni	60	72	Y = 8.530E-1*X +1.112E-1(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 9.490E-1*X +3.400E-1(blank)	---	ppb
Zn	66	72	Y = 4.935E-1*X +1.242E+0(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 4.405E-1*X +3.868E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.696E-2*X +4.239E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 8.254E-1*X +1.304E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.268E+0*X +5.700E-2(blank)	---	ppb
Cd	111	72	Y = 4.330E-1*X +9.880E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.750E-1*X +7.655E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 1.051E-1*X +2.127E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 8.559E-1*X +9.991E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 1.092E+0*X +1.179E-1(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012010 Filename : e2612010 Injected : 26-MAY-2005 13:39
Calnum : 55211012001 Caldate : 26-MAY-2005 Caltype :
Standards: S685

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	101.2000	ug/L	1	10	
Antimony	100.0000	99.74000	ug/L	0	10	
Arsenic	100.0000	100.2000	ug/L	0	10	
Barium	100.0000	98.62000	ug/L	-1	10	
Beryllium	100.0000	99.38000	ug/L	-1	10	
Cadmium	100.0000	100.4000	ug/L	0	10	
Calcium	10000.00	10210.00	ug/L	2	10	
Chromium	100.0000	101.7000	ug/L	2	10	
Cobalt	100.0000	101.8000	ug/L	2	10	
Copper	100.0000	101.8000	ug/L	2	10	
Iron	10000.00	10250.00	ug/L	3	10	
Lead	100.0000	98.01000	ug/L	-2	10	
Magnesium	10000.00	10160.00	ug/L	2	10	
Manganese	100.0000	101.9000	ug/L	2	10	
Molybdenum	100.0000	99.62000	ug/L	0	10	
Nickel	100.0000	101.4000	ug/L	1	10	
Potassium	10000.00	10160.00	ug/L	2	10	
Selenium	100.0000	101.2000	ug/L	1	10	
Silver	100.0000	95.99000	ug/L	-4	10	
Sodium	10000.00	10150.00	ug/L	2	10	
Thallium	100.0000	101.6000	ug/L	2	10	
Vanadium	100.0000	101.6000	ug/L	2	10	
Zinc	100.0000	102.7000	ug/L	3	10	

ISTD (ICALBLK=e2612003)	ICALBLK Abund	Abund	%Diff
Lithium	539272	529931	-1.73
Scandium	699912	720991	3.01
Germanium	138398	143802	3.91
Indium	971653	966344	-0.55
Bismuth	687738	695198	1.08

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012012 Filename : e2612012 Injected : 26-MAY-2005 13:50
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Antimony	55211012001	26-MAY-2005	0.401600	0.250000	ug/L	ib ***
Arsenic	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Barium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Beryllium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Cadmium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Calcium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Chromium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Cobalt	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Copper	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Iron	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Lead	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Magnesium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Manganese	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Nickel	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Potassium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Selenium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Silver	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Sodium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Thallium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Vanadium	55211012001	26-MAY-2005	ND	1.000000	ug/L	
Zinc	55211012001	26-MAY-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012013 Filename : e2612013 Injected : 26-MAY-2005 13:56
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55211012001	26-MAY-2005	2.646000	0.250000	ug/L	
Arsenic	55211012001	26-MAY-2005	0.861200	0.500000	ug/L	
Barium	55211012001	26-MAY-2005	0.970000	0.250000	ug/L	
Beryllium	55211012001	26-MAY-2005	[0.1197]	0.250000	ug/L	
Cadmium	55211012001	26-MAY-2005	[0.2317]	0.250000	ug/L	
Chromium	55211012001	26-MAY-2005	1.355000	0.500000	ug/L	
Cobalt	55211012001	26-MAY-2005	2.701000	0.250000	ug/L	
Copper	55211012001	26-MAY-2005	1.877000	0.500000	ug/L	
Lead	55211012001	26-MAY-2005	1.340000	0.250000	ug/L	
Manganese	55211012001	26-MAY-2005	1.073000	0.250000	ug/L	
Nickel	55211012001	26-MAY-2005	1.751000	0.250000	ug/L	
Selenium	55211012001	26-MAY-2005	[0.2098]	0.500000	ug/L	
Silver	55211012001	26-MAY-2005	[0.2252]	0.250000	ug/L	
Thallium	55211012001	26-MAY-2005	[0.1716]	0.500000	ug/L	
Vanadium	55211012001	26-MAY-2005	[0.3897]	1.000000	ug/L	
Zinc	55211012001	26-MAY-2005	3.955000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55211012001	26-MAY-2005	100000	94480	ug/L	94
Calcium	55211012001	26-MAY-2005	300000	299600	ug/L	100
Iron	55211012001	26-MAY-2005	250000	229300	ug/L	92
Magnesium	55211012001	26-MAY-2005	100000	97440	ug/L	97
Molybdenum	55211012001	26-MAY-2005	2000	1902	ug/L	95
Potassium	55211012001	26-MAY-2005	100000	96790	ug/L	97
Sodium	55211012001	26-MAY-2005	250000	232100	ug/L	93

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012014 Filename : e2612014 Injected : 26-MAY-2005 14:02
Calnum : 55211012001 Caldate : 26-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	93530.00	ug/L	-6		
Arsenic	100.0000	102.9000	ug/L	3	20	
Cadmium	100.0000	92.84000	ug/L	-7	20	
Calcium	300000.0	298800.0	ug/L	0		
Chromium	200.0000	191.7000	ug/L	-4	20	
Cobalt	200.0000	189.1000	ug/L	-5	20	
Copper	200.0000	181.9000	ug/L	-9	20	
Iron	250000.0	226900.0	ug/L	-9		
Magnesium	100000.0	96230.00	ug/L	-4		
Manganese	200.0000	189.5000	ug/L	-5	20	
Molybdenum	2000.000	1881.000	ug/L	-6		
Nickel	200.0000	184.2000	ug/L	-8	20	
Potassium	100000.0	97360.00	ug/L	-3		
Selenium	100.0000	94.01000	ug/L	-6	20	
Silver	50.00000	44.21000	ug/L	-12	20	
Sodium	250000.0	229000.0	ug/L	-8		
Vanadium	200.0000	194.1000	ug/L	-3	20	
Zinc	100.0000	92.90000	ug/L	-7	20	

ISTD (ICALBLK=e2612003)	ICALBLK Abund	Abund	%Diff
Scandium	699912	628456	-10.21
Germanium	138398	133710	-3.39

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55211012025 Filename : e2612025 Injected : 26-MAY-2005 15:10
Calnum : 55211012001 Caldate : 26-MAY-2005 Caltype :
Standards: S686, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.2910	0.5398	100.0000	110.4000	ug/L	10	10	
Antimony	0.3260	0.2770	100.0000	100.5000	ug/L	1	10	
Arsenic	0.4902	0.4382	100.0000	99.39000	ug/L	-1	10	
Barium	0.1176	0.1109	100.0000	105.2000	ug/L	5	10	
Beryllium	0.1952	0.1955	100.0000	102.8000	ug/L	3	10	
Cadmium	0.5681	0.4154	100.0000	95.71000	ug/L	-4	10	
Calcium	0.0219	0.0204	10000.00	10590.00	ug/L	6	10	
Chromium	4.8939	3.6040	100.0000	98.74000	ug/L	-1	10	
Cobalt	4.2516	4.0452	100.0000	100.3000	ug/L	0	10	
Copper	1.2174	0.9539	100.0000	100.2000	ug/L	0	10	
Iron	0.1254	0.0980	10000.00	10120.00	ug/L	1	10	
Lead	1.1971	1.0838	100.0000	99.16000	ug/L	-1	10	
Magnesium	0.0627	0.0617	10000.00	10340.00	ug/L	3	10	
Manganese	5.5593	4.7852	100.0000	99.99000	ug/L	0	10	
Molybdenum	0.8699	0.7858	100.0000	95.04000	ug/L	-5	10	
Nickel	1.0431	0.8518	100.0000	99.72000	ug/L	0	10	
Potassium	1.1539	0.5886	10000.00	9974.000	ug/L	0	10	
Selenium	0.0494	0.0270	100.0000	98.57000	ug/L	-1	10	
Silver	2.3504	2.0899	100.0000	92.12000	ug/L	-8	10	
Sodium	0.6849	0.7010	10000.00	10970.00	ug/L	10	10	
Thallium	0.8480	0.8605	100.0000	100.4000	ug/L	0	10	
Vanadium	4.8234	4.1732	100.0000	98.68000	ug/L	-1	10	
Zinc	1.3667	0.5082	100.0000	100.5000	ug/L	1	10	

ISTD (ICALBLK=e2612003)	ICALBLK Abund	Abund	%Diff
Lithium	539272	427954	-20.64
Scandium	699912	621324	-11.23
Germanium	138398	129941	-6.11
Indium	971653	820450	-15.56
Bismuth	687738	628889	-8.56

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55211012039 Filename : e2612039 Injected : 26-MAY-2005 16:33
Calnum : 55211012001 Caldate : 26-MAY-2005 Caltype :
Standards: S686, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.2910	0.4934	100.0000	100.4000	ug/L	0	10	
Antimony	0.3260	0.2722	100.0000	98.73000	ug/L	-1	10	
Arsenic	0.4902	0.4318	100.0000	97.94000	ug/L	-2	10	
Barium	0.1176	0.1080	100.0000	102.5000	ug/L	3	10	
Beryllium	0.1952	0.1847	100.0000	97.07000	ug/L	-3	10	
Cadmium	0.5681	0.4471	100.0000	103.0000	ug/L	3	10	
Calcium	0.0219	0.0200	10000.00	10360.00	ug/L	4	10	
Chromium	4.8939	3.4070	100.0000	93.32000	ug/L	-7	10	
Cobalt	4.2516	3.8632	100.0000	95.76000	ug/L	-4	10	
Copper	1.2174	0.9380	100.0000	98.48000	ug/L	-2	10	
Iron	0.1254	0.0963	10000.00	9948.000	ug/L	-1	10	
Lead	1.1971	1.0705	100.0000	97.94000	ug/L	-2	10	
Magnesium	0.0627	0.0593	10000.00	9940.000	ug/L	-1	10	
Manganese	5.5593	4.6998	100.0000	98.21000	ug/L	-2	10	
Molybdenum	0.8699	0.8170	100.0000	98.82000	ug/L	-1	10	
Nickel	1.0431	0.8354	100.0000	97.80000	ug/L	-2	10	
Potassium	1.1539	0.5980	10000.00	10140.00	ug/L	1	10	
Selenium	0.0494	0.0268	100.0000	97.69000	ug/L	-2	10	
Silver	2.3504	2.2370	100.0000	98.60000	ug/L	-1	10	
Sodium	0.6849	0.6396	10000.00	10010.00	ug/L	0	10	
Thallium	0.8480	0.8171	100.0000	95.35000	ug/L	-5	10	
Vanadium	4.8234	4.0448	100.0000	95.64000	ug/L	-4	10	
Zinc	1.3667	0.4976	100.0000	98.32000	ug/L	-2	10	

ISTD (ICALBLK=e2612003)	ICALBLK Abund	Abund	%Diff
Lithium	539272	368267	-31.71
Scandium	699912	523283	-25.24
Germanium	138398	111114	-19.71
Indium	971653	774161	-20.33
Bismuth	687738	578509	-15.88

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012041 Filename : e2612041 Injected : 26-MAY-2005 16:45
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Antimony	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Arsenic	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Barium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Beryllium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Cadmium	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Calcium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Chromium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Cobalt	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Copper	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Iron	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Lead	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Magnesium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Manganese	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Molybdenum	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Nickel	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Potassium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Selenium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Silver	55211012001	26-MAY-2005	ND	0.250000	ug/L	
Sodium	55211012001	26-MAY-2005	ND	50.00000	ug/L	
Thallium	55211012001	26-MAY-2005	ND	0.500000	ug/L	
Vanadium	55211012001	26-MAY-2005	ND	1.000000	ug/L	
Zinc	55211012001	26-MAY-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012042 Filename : e2612042 Injected : 26-MAY-2005 16:51
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55211012001	26-MAY-2005	2.793000	0.250000	ug/L	
Arsenic	55211012001	26-MAY-2005	0.798800	0.500000	ug/L	
Barium	55211012001	26-MAY-2005	0.998200	0.250000	ug/L	
Beryllium	55211012001	26-MAY-2005	[0.0935]	0.250000	ug/L	
Cadmium	55211012001	26-MAY-2005	[0.0968]	0.250000	ug/L	
Chromium	55211012001	26-MAY-2005	1.304000	0.500000	ug/L	
Cobalt	55211012001	26-MAY-2005	2.636000	0.250000	ug/L	
Copper	55211012001	26-MAY-2005	1.788000	0.500000	ug/L	
Lead	55211012001	26-MAY-2005	1.332000	0.250000	ug/L	
Manganese	55211012001	26-MAY-2005	1.069000	0.250000	ug/L	
Nickel	55211012001	26-MAY-2005	1.805000	0.250000	ug/L	
Selenium	55211012001	26-MAY-2005	[0.0419]	0.500000	ug/L	
Silver	55211012001	26-MAY-2005	[0.2237]	0.250000	ug/L	
Thallium	55211012001	26-MAY-2005	[0.1761]	0.500000	ug/L	
Vanadium	55211012001	26-MAY-2005	[0.3164]	1.000000	ug/L	
Zinc	55211012001	26-MAY-2005	3.805000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55211012001	26-MAY-2005	100000	94540	ug/L	95
Calcium	55211012001	26-MAY-2005	300000	297500	ug/L	99
Iron	55211012001	26-MAY-2005	250000	222400	ug/L	89
Magnesium	55211012001	26-MAY-2005	100000	96580	ug/L	97
Molybdenum	55211012001	26-MAY-2005	2000	1832	ug/L	92
Potassium	55211012001	26-MAY-2005	100000	96330	ug/L	96
Sodium	55211012001	26-MAY-2005	250000	234300	ug/L	94

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55211012043 Filename : e2612043 Injected : 26-MAY-2005 16:56
Calnum : 55211012001 Caldate : 26-MAY-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	92730.00	ug/L	-7		
Arsenic	100.0000	98.31000	ug/L	-2	20	
Cadmium	100.0000	91.45000	ug/L	-9	20	
Calcium	300000.0	293900.0	ug/L	-2		
Chromium	200.0000	184.7000	ug/L	-8	20	
Cobalt	200.0000	184.2000	ug/L	-8	20	
Copper	200.0000	176.8000	ug/L	-12	20	
Iron	250000.0	218900.0	ug/L	-12		
Magnesium	100000.0	94580.00	ug/L	-5		
Manganese	200.0000	185.8000	ug/L	-7	20	
Molybdenum	2000.000	1875.000	ug/L	-6		
Nickel	200.0000	177.8000	ug/L	-11	20	
Potassium	100000.0	95480.00	ug/L	-5		
Selenium	100.0000	88.93000	ug/L	-11	20	
Silver	50.00000	43.87000	ug/L	-12	20	
Sodium	250000.0	228600.0	ug/L	-9		
Vanadium	200.0000	188.0000	ug/L	-6	20	
Zinc	100.0000	87.82000	ug/L	-12	20	

ISTD (ICALBLK=e2612003)	ICALBLK Abund	Abund	%Diff
Scandium	699912	459707	-34.32
Germanium	138398	101263	-26.83

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-MAY-2005
Sequence: 55209576 (e2512)
Instrument ID: MET05

ICALBLK Filename: e2512003
Date Analyzed: 25-MAY-2005
Time Analyzed: 13:07

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	748156	1005212	182504	1240243	753037	1456015
LOWER LIMIT	224447	301564	54751	372073	225911	436805
UPPER LIMIT	897787	1206254	219004	1488292	903644	1747218

TYPE	SAMPLE	#						
ICB		012	736154	967689	174267	1178616	739904	1415716
ICSA		013	670168	968419	176816	1097787	651898	1400320
MSS	179564-001	016	699900	985562	180518	1267973	816106	1519748
MS	QC294829	017	697274	977035	179520	1236490	792009	1494212
MSD	QC294830	018	698262	972316	177820	1234325	794336	1500540
SAMPLE	179529-013	019	683610	1199393	174141	1117904	733232	1424737
SAMPLE	179529-013	020	697455	969085	173966	1170078	755703	1428807
SAMPLE	179529-016	021	684385	1061347	174172	1152340	738398	1467350
SAMPLE	179529-016	022	692328	980160	177042	1211677	775751	1470053
SAMPLE	179529-018	023	676818	1007558	172285	1134008	728620	1410398
CCV		025	662586	954716	175467	1148018	725348	1436714
CCB		028	681809	933509	170447	1163145	729033	1397344
BLANK	QC290255	029	678912	936458	170307	1151206	730060	1400147
BS	QC290256	030	638157	912592	166709	1079258	705889	1368425
BSD	QC290257	031	653376	913004	168462	1092155	708376	1393445
MSS	178712-002	033	702966	1049832	188231	1161499	593087	1513207
PDS	QC294832	034	689132	985206	177076	1185403	769130	1457809
SAMPLE	179551-002	035	702628	1283884*	174389	1076086	707450	1413270
SAMPLE	179551-002	036	660963	953287	168826	1120814	738504	1396971
SAMPLE	179551-008	037	654903	956599	166275	1091304	734434	1391948
SAMPLE	179551-011	038	655929	968516	167134	1108271	725026	1397926
SAMPLE	179551-015	039	645522	1342545*	168322	1041549	699870	1388813
CCV		041	616035	863552	162985	1057626	711390	1367425
CCB		043	627337	869529	160353	1082935	734614	1374778
ICSA		044	553376	822175	158088	954738	639424	1316846
SAMPLE	179551-015	047	593474	878272	159478	1103950	766780	1415036

230

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-MAY-2005
Sequence: 55209576 (e2512)
Instrument ID: MET05

ICALBLK Filename: e2512003
Date Analyzed: 25-MAY-2005
Time Analyzed: 13:07

TYPE	SAMPLE	#						
BLANK	QC294960	049	589012	830923	155969	1084200	748434	1383573
BS	QC294961	050	570944	822938	156071	1051674	726864	1365466
BSD	QC294962	051	574816	820173	156528	1038622	721470	1351020
MSS	179603-001	053	603641	1036790	157040	1022815	716662	1358176
SER	QC294965	054	634526	930101	167375	1105377	776688	1412930
MS	QC294963	055	645179	926545	170035	1137625	787292	1463038
MSD	QC294964	056	638023	928673	169407	1118101	781133	1442427
CCV		058	587074	834853	157793	1022568	704943	1346308
CCB		060	593832	839734	155599	1044084	709379	1332416
SAMPLE	179551-018	063	585800	886414	153474	993203	695321	1305023
SAMPLE	179621-001	064	613074	974494	164577	927857	955747*	1301610
SAMPLE	179621-002	065	590742	1095990	159586	988680	699024	1341732
SAMPLE	179621-003	066	570735	829390	153314	999708	705147	1309697
SAMPLE	179621-004	067	605393	1198750	157952	948049	735349	1320623
SAMPLE	179621-005	068	592193	894521	153390	969650	691082	1289392
SAMPLE	179621-006	069	581764	954604	149329	961933	655753	1331328
SAMPLE	179622-001	070	581357	1179260	158791	1018656	711866	1366536
SAMPLE	179622-002	071	575277	812248	153170	1015206	716760	1316427
CCV		073	567639	820677	154703	1017147	697633	1325437
CCB		075	600972	815686	153318	1049254	719814	1335616
SAMPLE	179622-003	076	588339	873231	152696	1002013	702199	1309077
SAMPLE	179622-004	077	564879	983943	143839	913508	625942	1311637
SAMPLE	179622-005	078	588416	932019	159247	916168	880430	1270545
SAMPLE	179622-006	079	583150	856410	175959	874043	884409	1234461
MSS	179603-001	081	640473	903342	165617	1085978	764552	1395099
SER	QC294965	082	590165	829038	155342	1035438	727347	1340538
MS	QC294963	083	565890	1000275	152139	925597	663093	1272158
MSD	QC294964	084	562336	983200	151884	918739	666802	1284009
PDS	QC294966	085	622789	889819	164451	1070673	756107	1391861
SAMPLE	179551-018	086	612798	864252	161677	1045168	746794	1362384
CCV		088	530158	764412	148311	921958	657887	1240042
CCB		090	567674	801549	150701	992162	697636	1285849

2231

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 25-MAY-2005
Sequence: 55209576 (e2512)
Instrument ID: MET05

ICALBLK Filename: e2512003
Date Analyzed: 25-MAY-2005
Time Analyzed: 13:07

TYPE	SAMPLE	#						
SAMPLE	179621-001	091	622738	868123	163149	1028326	764099	1352944
SAMPLE	179621-002	092	625152	877076	161351	1014562	743166	1359352
SAMPLE	179621-003	093	624842	855599	160641	1019610	739174	1341589
SAMPLE	179621-004	094	617723	900247	162245	1019803	740038	1352218
SAMPLE	179621-005	095	612019	877381	162896	1040039	745434	1362676
SAMPLE	179621-006	096	604204	872043	161398	1033274	734683	1351192
ICSA		098	468137	708822	143563	823511	582812	1181792
CCV		101	490104	722142	144133	924373	671676	1250468
CCB		105	509024	719709	142407	948996	686601	1253155
SAMPLE	179622-001	107	575145	831279	154960	1008913	756407	1342676
SAMPLE	179622-002	108	557124	780494	152719	990002	729076	1300131
SAMPLE	179622-003	109	579718	809736	155213	988943	743791	1330360
SAMPLE	179622-004	110	558631	825017	155008	984005	722247	1348895
SAMPLE	179622-005	111	573795	819699	155678	979247	750402	1320787
SAMPLE	179622-006	112	570805	804312	156466	962728	744983	1302518
ICSA		114	436792	672201	138262	794073	584248	1171163
CCV		120	470639	679616	137927	859694	660384	1204513
CCB		122	480439	685537	136813	887656	680127	1213139

2322

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 26-MAY-2005
Sequence: 55211012 (e2612)
Instrument ID: MET05

ICALBLK Filename: e2612003
Date Analyzed: 26-MAY-2005
Time Analyzed: 13:02

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	539272	699912	138398	971653	687738	1276858
LOWER LIMIT	161782	209974	41519	291496	206321	383057
UPPER LIMIT	647127	839895	166077	1165984	825285	1532230

TYPE	SAMPLE	#						
ICB		012	539277	706641	140919	954607	696822	1275153
ICSA		013	439809	654311	137058	823010	600636	1227060
MSS	179304-001	016	450634	665384	135197	888599	626997	1256962
SER	QC293819	017	464306	668676	138462	887584	656447	1236821
MS	QC293817	018	448811	665821	135859	840490	616642	1218373
MSD	QC293818	019	450336	672341	137207	845326	622843	1225825
PDS	QC293820	020	451069	673658	138253	836544	622883	1225184
MSS	179304-001	021	482244	684832	141773	922632	689153	1271482
SER	QC293819	022	486018	683326	142310	941471	702147	1271730
MS	QC293817	023	437009	659749	125092	688679	520449	1081403
CCV		025	427954	621324	129941	820450	628889	1171510
CCB		030	446865	626414	134713	838765	588946	1192381
MSD	QC293818	032	397321	604622	115190	644396	484227	974767
PDS	QC293820	033	436150	627853	129604	798176	611050	1118279
MSS	179603-001	034	393771	703972	115544	756415	573112	1070522
MS	QC294963	035	368359	665768	111387	730384	552389	1047304
MSD	QC294964	036	362208	645423	108382	715731	546136	1029480
MS	QC294963	037	373932	538228	111665	781381	593283	1078592
MSD	QC294964	038	377312	542028	112589	779368	591838	1081162
CCV		039	368267	523283	111114	774161	578509	1060005
CCB		041	428699	603781	127645	840581	539447	1169300
ICSA		042	316149	476472	105343	637333	480107	909771

2333

Curtis & Tompkins Laboratories Sample Preparation Summary 25-MAY-2005 03:18

Batch Number : 102337
Date Extracted: 25-MAY-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : 04SS227
Spike #2 ID : 04SS228
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179551-018			Erler & Kalinowski, Inc.	Soil	1.15	g	50	43.478261	1					T26/ICP		
179603-001			Mactec, Inc.	Soil	.96	g	50	52.083333	1					T26/ICP		MSS
179621-001			Fugro West, Inc.	Soil	1.1	g	50	45.454545	1					PB		
179621-002			Fugro West, Inc.	Soil	1.03	g	50	48.543689	1					PB		
179621-003			Fugro West, Inc.	Soil	1.09	g	50	45.871560	1					PB		
179621-004			Fugro West, Inc.	Soil	1.56	g	50	32.051282	1					PB		
179621-005			Fugro West, Inc.	Soil	1	g	50	50.000000	1					PB		
179621-006			Fugro West, Inc.	Soil	1.03	g	50	48.543689	1					PB		
179622-001			Fugro West, Inc.	Soil	1.05	g	50	47.619048	1					MN, T26/ICP		
179622-002			Fugro West, Inc.	Soil	.91	g	50	54.945055	1					MN, T26/ICP		
179622-003			Fugro West, Inc.	Soil	.94	g	50	53.191489	1					MN, T26/ICP		
179622-004			Fugro West, Inc.	Soil	1.77	g	50	28.248588	1					MN, T26/ICP		
179622-005			Fugro West, Inc.	Soil	.92	g	50	54.347826	1					MN, T26/ICP		
179622-006			Fugro West, Inc.	Soil	.9	g	50	55.555556	1					MN, T26/ICP		
QC294960	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC294961	BS			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC294962	BSD			Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC294963	MS	of 179603-001		Soil	1.16	g	50	43.103448	1		.25	.25		ICAP		
QC294964	MSD	of 179603-001		Soil	1	g	50	50.000000	1		.25	.25		ICAP		
QC294965	SER	of 179603-001		Soil	.96	g	50	52.083333	1					ICAP		
QC294966	PDS	of 179603-001		Soil	.96	g	50	52.083333	1					ICAP		

Prep Chemist: VVergara Reviewed By: MW Date: 5/26/5

Relinquished By: VVergara Received By: MW Date: 5/25/5

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 102337
Date Digested: 5/24/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2133
Page 33

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLKQC 294960		∅	50.0	Y	
*	LCS 294961					
*	LCSD 294962					
*	179603-001 MS	A	1.16			
*	-001 MSD	A	1.00			
	179551-018	A	1.15			
	179603-001	A	0.96			
	179621-001	A	1.10			
	-002	A	1.03			
	-003	A	1.09			
	-004	A	1.56			
	-005	A	1.00			
	-006	A	1.03			
	179622-001	A	1.05			
	-002	A	0.91			
	-003	A	0.94			
	-004	A	1.77			
	-005	A	0.92			
	-006	A	2.90			

VV 5/24/05

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95C	VV 5/24/05
0.25 mL of spike solution was added to all spikes	045522A *	
	045527A *	
1:1 HNO3	804031-051805	
concentrated HNO3	804031- JTBaker	
3mL 30% hydrogen peroxide	4928741412 VWR	
concentrated HCl	A144034- JTBaker	
☒ filtered thru' Whatman # 541	D1479357	

Extraction Chemist / Date

Continued from page 81
Continued on page 235

Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45209323 Instrument: MET04 HydraAA HG Analyzer Begun: 25-MAY-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102328	ICALBLK	Std01Rep1				25-MAY-2005 08:43	1.0	1.0									
002	102328	ICAL	Std02Rep1				25-MAY-2005 08:45	1.0	1.0									
003	102328	ICAL	Std03Rep1				25-MAY-2005 08:46	1.0	1.0									
004	102328	ICAL	Std04Rep1				25-MAY-2005 08:48	1.0	1.0									
005	102328	ICAL	Std05Rep1				25-MAY-2005 08:50	1.0	1.0									
006	102328	ICAL	Std06Rep1				25-MAY-2005 08:51	1.0	1.0									
007	102328	ICV					25-MAY-2005 08:53	1.0	1.0	2	5.000	45209323001	5.130		ug/L	103		
008	102328	ICB					25-MAY-2005 08:55	1.0	1.0			45209323001	ND	0.20	ug/L			
009	102328	BLANK	QC294913		102328	Soil	25-MAY-2005 08:57	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
010	102328	BS	QC294914		102328	Soil	25-MAY-2005 09:00	1.0	100.0		0.5000	45209323001	0.5390	0.020	mg/Kg	108		u
011	102328	BSD	QC294915		102328	Soil	25-MAY-2005 09:02	1.0	100.0		0.5000	45209323001	0.5420	0.020	mg/Kg	108	1	u
012	102328	MSS	179518-004		102328	Soil	25-MAY-2005 09:03	1.0	80.65			45209323001	ND	0.016	mg/Kg			u
013	102328	MS	QC294916	179518-004	102328	Soil	25-MAY-2005 09:05	1.0	84.75		0.4237	45209323001	0.4119	0.017	mg/Kg	96		u
014	102328	MSD	QC294917	179518-004	102328	Soil	25-MAY-2005 09:06	1.0	86.21		0.4310	45209323001	0.3629	0.017	mg/Kg	83	14	u
015	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 09:09	1.0	111.1			45209323001	2.1 >LR	0.022	mg/Kg			>LR cal
016	102328	SAMPLE	179467-018		102328	Soil	25-MAY-2005 09:10	1.0	74.63			45209323001	ND	0.015	mg/Kg			u
017	102328	SAMPLE	179467-019		102328	Soil	25-MAY-2005 09:12	1.0	84.75			45209323001	0.026	0.017	mg/Kg			u
018	102328	SAMPLE	179467-020		102328	Soil	25-MAY-2005 09:14	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
019	102328	CCV					25-MAY-2005 09:19	1.0	1.0	3	2.500	45209323001	2.070		ug/L	83		
020	102328	CCB					25-MAY-2005 09:21	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
021	102328	CCB					25-MAY-2005 09:29	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
022	102328	SAMPLE	179518-001		102328	Soil	25-MAY-2005 09:34	1.0	108.7			45209323001	0.030	0.022	mg/Kg			u
023	102328	SAMPLE	179518-002		102328	Soil	25-MAY-2005 09:35	1.0	92.59			45209323001	0.029	0.019	mg/Kg			u
024	102328	SAMPLE	179518-003		102328	Soil	25-MAY-2005 09:37	1.0	102.0			45209323001	0.028	0.020	mg/Kg			u
025	102328	SAMPLE	179522-001		102328	Miscel	25-MAY-2005 09:39	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
026	102328	SAMPLE	179522-002		102328	Miscel	25-MAY-2005 09:41	1.0	83.33			45209323001	ND	0.017	mg/Kg			u
027	102328	SAMPLE	179564-001		102328	Soil	25-MAY-2005 09:43	1.0	98.04			45209323001	0.051	0.020	mg/Kg			u
028	102328	SAMPLE	179597-001		102328	Soil	25-MAY-2005 09:45	1.0	90.91			45209323001	0.074	0.018	mg/Kg			u
029	102328	SAMPLE	179597-002		102328	Soil	25-MAY-2005 09:46	1.0	94.34			45209323001	0.050	0.019	mg/Kg			u
030	102328	SAMPLE	179597-003		102328	Soil	25-MAY-2005 09:48	1.0	79.37			45209323001	0.049	0.016	mg/Kg			u
031	102328	SAMPLE	179597-004		102328	Soil	25-MAY-2005 09:50	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
032	102328	CCV					25-MAY-2005 09:52	1.0	1.0	4	5.000	45209323001	4.320		ug/L	86		
033	102328	CCB					25-MAY-2005 09:54	1.0	1.0			45209323001	ND	0.20	ug/L			
034	102328	SAMPLE	179597-005		102328	Soil	25-MAY-2005 09:55	1.0	90.91			45209323001	0.33	0.018	mg/Kg			u
035	102328	SAMPLE	179597-006		102328	Soil	25-MAY-2005 09:57	1.0	113.6			45209323001	0.32	0.023	mg/Kg			u
036	102328	SAMPLE	179603-001		102328	Soil	25-MAY-2005 09:59	1.0	111.1			45209323001	0.069	0.022	mg/Kg			u
037	102328	SER	QC294918	179518-004	102328	Soil	25-MAY-2005 10:00	5.0	80.65			45209323001	ND	0.081	mg/Kg		--	u
038	102328	PDS	QC294919	179518-004	102328	Soil	25-MAY-2005 10:02	1.0	80.65	5	0.4032	45209323001	0.4863	0.016	mg/Kg	119		u
039	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 10:04	10.0	111.1			45209323001	1.3	0.22	mg/Kg			u
040	102328	CCV					25-MAY-2005 10:18	1.0	1.0	4	5.000	45209323001	4.390		ug/L	88		
041	102328	CCB					25-MAY-2005 10:20	1.0	1.0			45209323001	ND	0.20	ug/L			

Stds used: 1=S712 2=S714 3=S715 4=S716 5=S671
Flags used: >LR=overrange b=noncompliant calc=check quantitation u=use

Analyst: Andrés Marín Date: 5/25/05

230

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45209323001 Name: Type: SOIL Date: 25-MAY-2005 08:43 Inj Vol (uL): 2000

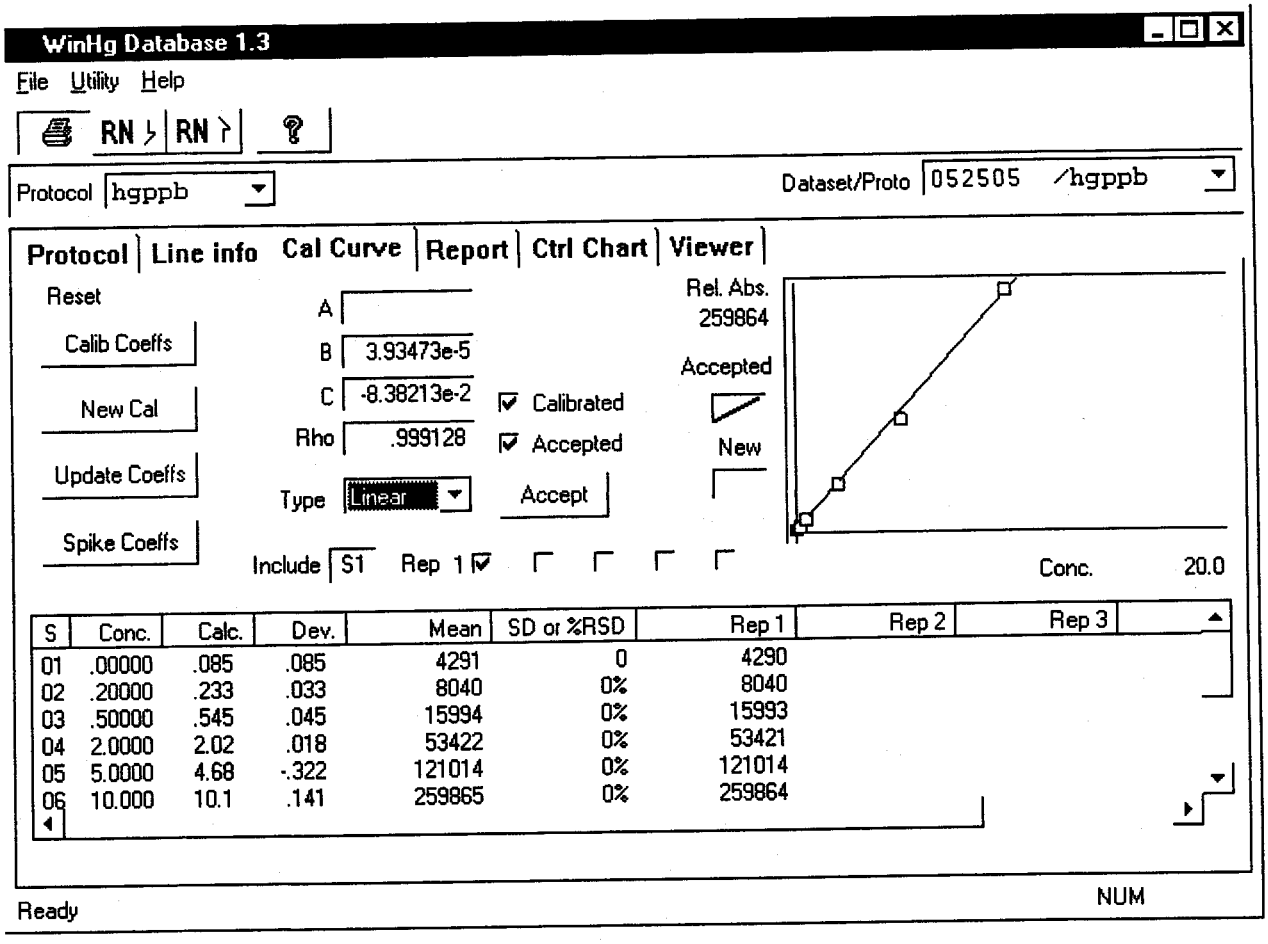
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102328	45209323002	Std02Rep1	25-MAY-2005 08:45	S712 (500X)
2	102328	45209323003	Std03Rep1	25-MAY-2005 08:46	S712 (200X)
3	102328	45209323004	Std04Rep1	25-MAY-2005 08:48	S712 (50X)
4	102328	45209323005	Std05Rep1	25-MAY-2005 08:50	S712 (20X)
5	102328	45209323006	Std06Rep1	25-MAY-2005 08:51	S712 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	40200	31986	26711	24203	25986	LINR	R	-0.08382	3.935E-5		ug/L	29817	0.998	.99	

28817

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 052505 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 3.93473e-5
C -8.38213e-2
Rho .999128
Type Linear
Calibrated
Accepted
Accept
Rel. Abs.
259864
Accepted
New
Include S1 Rep 1
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .085 .085 4291 0 4290
02 .20000 .233 .033 8040 0% 8040
03 .50000 .545 .045 15994 0% 15993
04 2.0000 2.02 .018 53422 0% 53421
05 5.0000 4.68 -.322 121014 0% 121014
06 10.000 10.1 .141 259865 0% 259864
Ready
NUM

Folder: 052505
Protocol: hgppb
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 5		08:43:16 25 May 05			HG
Hg	.000	ppb	4290						
		Bkgd 1	7855276						
*** Standard: 2 Rep: 1				Seq: 6		08:45:06 25 May 05			HG
Hg	.200	ppb	8040						
		Bkgd 1	7855760						
*** Standard: 3 Rep: 1				Seq: 7		08:46:45 25 May 05			HG
Hg	.500	ppb	15993						
		Bkgd 1	7854343						
*** Standard: 4 Rep: 1				Seq: 8		08:48:25 25 May 05			HG
Hg	2.00	ppb	53421						
		Bkgd 1	7853936						
*** Standard: 5 Rep: 1				Seq: 9		08:50:04 25 May 05			HG
Hg	5.00	ppb	121014						
		Bkgd 1	7850183						
*** Standard: 6 Rep: 1				Seq: 10		08:51:56 25 May 05			HG
Hg	10.0	ppb	259864						
		Bkgd 1	7853203						
*** Check Standard: 2			Ck2S714	Seq: 11		08:53:45 25 May 05			HG
Line	Flag		Intensities						
Hg			132575						
		Bkgd 1	7848814						
*** Check Standard: 1			Ck1ICB	Seq: 12		08:55:37 25 May 05			HG
Line	Flag		Intensities						
Hg			2009						
		Bkgd 1	7849119						
*** Sample ID: qc294913				Seq: 13		08:57:57 25 May 05			HG
			102328,1						
Hg	.009	ppb	2357						
		Bkgd 1	7854169						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Begun: 25-MAY-2005

Sequence: 45209323 Instrument: MET04 HydraAA HG Analyzer
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102328	ICALBLK	Std01Rep1				25-MAY-2005 08:43	1.0	1.0									
002	102328	ICAL	Std02Rep1				25-MAY-2005 08:45	1.0	1.0									
003	102328	ICAL	Std03Rep1				25-MAY-2005 08:46	1.0	1.0									
004	102328	ICAL	Std04Rep1				25-MAY-2005 08:48	1.0	1.0									
005	102328	ICAL	Std05Rep1				25-MAY-2005 08:50	1.0	1.0									
006	102328	ICAL	Std06Rep1				25-MAY-2005 08:51	1.0	1.0									
007	102328	ICV					25-MAY-2005 08:53	1.0	1.0	2	5.000	45209323001	5.130		ug/L	103		
008	102328	ICB					25-MAY-2005 08:55	1.0	1.0			45209323001	ND	0.20	ug/L			
009	102328	BLANK	QC294913		102328	Soil	25-MAY-2005 08:57	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
010	102328	BS	QC294914		102328	Soil	25-MAY-2005 09:00	1.0	100.0		0.5000	45209323001	0.5390	0.020	mg/Kg	108		u
011	102328	BSD	QC294915		102328	Soil	25-MAY-2005 09:02	1.0	100.0		0.5000	45209323001	0.5420	0.020	mg/Kg	108	1	u
012	102328	MSS	179518-004		102328	Soil	25-MAY-2005 09:03	1.0	80.65			45209323001	ND	0.016	mg/Kg			u
013	102328	MS	QC294916	179518-004	102328	Soil	25-MAY-2005 09:05	1.0	84.75		0.4237	45209323001	0.4119	0.017	mg/Kg	96		u
014	102328	MSD	QC294917	179518-004	102328	Soil	25-MAY-2005 09:06	1.0	86.21		0.4310	45209323001	0.3629	0.017	mg/Kg	83	14	u
015	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 09:09	1.0	111.1			45209323001	2.1 >LR	0.022	mg/Kg			>LR cal
016	102328	SAMPLE	179467-018		102328	Soil	25-MAY-2005 09:10	1.0	74.63			45209323001	ND	0.015	mg/Kg			u
017	102328	SAMPLE	179467-019		102328	Soil	25-MAY-2005 09:12	1.0	84.75			45209323001	0.026	0.017	mg/Kg			u
018	102328	SAMPLE	179467-020		102328	Soil	25-MAY-2005 09:14	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
019	102328	CCV					25-MAY-2005 09:19	1.0	1.0	3	2.500	45209323001	2.070		ug/L	83		
020	102328	CCB					25-MAY-2005 09:21	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
021	102328	CCB					25-MAY-2005 09:29	1.0	1.0			45209323001	[0.1450]	0.20	ug/L			
022	102328	SAMPLE	179518-001		102328	Soil	25-MAY-2005 09:34	1.0	108.7			45209323001	0.030	0.022	mg/Kg			u
023	102328	SAMPLE	179518-002		102328	Soil	25-MAY-2005 09:35	1.0	92.59			45209323001	0.029	0.019	mg/Kg			u
024	102328	SAMPLE	179518-003		102328	Soil	25-MAY-2005 09:37	1.0	102.0			45209323001	0.028	0.020	mg/Kg			u
025	102328	SAMPLE	179522-001		102328	Miscel	25-MAY-2005 09:39	1.0	100.0			45209323001	ND	0.020	mg/Kg			u
026	102328	SAMPLE	179522-002		102328	Miscel	25-MAY-2005 09:41	1.0	83.33			45209323001	ND	0.017	mg/Kg			u
027	102328	SAMPLE	179564-001		102328	Soil	25-MAY-2005 09:43	1.0	98.04			45209323001	0.051	0.020	mg/Kg			u
028	102328	SAMPLE	179597-001		102328	Soil	25-MAY-2005 09:45	1.0	90.91			45209323001	0.074	0.018	mg/Kg			u
029	102328	SAMPLE	179597-002		102328	Soil	25-MAY-2005 09:46	1.0	94.34			45209323001	0.050	0.019	mg/Kg			u
030	102328	SAMPLE	179597-003		102328	Soil	25-MAY-2005 09:48	1.0	79.37			45209323001	0.049	0.016	mg/Kg			u
031	102328	SAMPLE	179597-004		102328	Soil	25-MAY-2005 09:50	1.0	111.1			45209323001	ND	0.022	mg/Kg			u
032	102328	CCV					25-MAY-2005 09:52	1.0	1.0	4	5.000	45209323001	4.320		ug/L	86		
033	102328	CCB					25-MAY-2005 09:54	1.0	1.0			45209323001	ND	0.20	ug/L			
034	102328	SAMPLE	179597-005		102328	Soil	25-MAY-2005 09:55	1.0	90.91			45209323001	0.33	0.018	mg/Kg			u
035	102328	SAMPLE	179597-006		102328	Soil	25-MAY-2005 09:57	1.0	113.6			45209323001	0.32	0.023	mg/Kg			u
036	102328	SAMPLE	179603-001		102328	Soil	25-MAY-2005 09:59	1.0	111.1			45209323001	0.069	0.022	mg/Kg			u
037	102328	SER	QC294918	179518-004	102328	Soil	25-MAY-2005 10:00	5.0	80.65			45209323001	ND	0.081	mg/Kg		--	u
038	102328	PDS	QC294919	179518-004	102328	Soil	25-MAY-2005 10:02	1.0	80.65	5	0.4032	45209323001	0.4863	0.016	mg/Kg	119		u
039	102328	SAMPLE	179467-017		102328	Soil	25-MAY-2005 10:04	10.0	111.1			45209323001	1.3	0.22	mg/Kg			u
040	102328	CCV					25-MAY-2005 10:18	1.0	1.0	4	5.000	45209323001	4.390		ug/L	88		
041	102328	CCB					25-MAY-2005 10:20	1.0	1.0			45209323001	ND	0.20	ug/L			

Stds used: 1=S712 2=S714 3=S715 4=S716 5=S671
Flags used: >LR=overrange b=noncompliant calc=check quantitation u=use

Analyst: Andrés Marín Date: 5/25/05

Curtis & Tompkins Laboratories Sample Preparation Summary 24-MAY-2005 15:40

Batch Number : 102328
Date Extracted: 24-MAY-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S671
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179467-017			Treadwell & Rollo	Soil	.45	g	50	111.111111	1					RCRA/HG		
179467-018			Treadwell & Rollo	Soil	.67	g	50	74.626866	1					RCRA/HG		
179467-019			Treadwell & Rollo	Soil	.59	g	50	84.745763	1					RCRA/HG		
179467-020			Treadwell & Rollo	Soil	.45	g	50	111.111111	1					RCRA/HG		
179518-001			Tetra Tech EMI	Soil	.46	g	50	108.695652	1					TAL/HG		
179518-002			Tetra Tech EMI	Soil	.54	g	50	92.592593	1					TAL/HG		
179518-003			Tetra Tech EMI	Soil	.49	g	50	102.040816	1					TAL/HG		
179518-004			Tetra Tech EMI	Soil	.62	g	50	80.645161	1					TAL/HG		
179522-001			Rolls Royce Engine Services	Miscell.	.5	g	50	100.000000	1					T26/HG		
179522-002			Rolls Royce Engine Services	Miscell.	.6	g	50	83.333333	1					T26/HG		
179564-001			Mactec, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
179597-001			SAIC	Soil	.55	g	50	90.909091	1					T26/HG		
179597-002			SAIC	Soil	.53	g	50	94.339623	1					T26/HG		
179597-003			SAIC	Soil	.63	g	50	79.365079	1					T26/HG		
179597-004			SAIC	Soil	.45	g	50	111.111111	1					T26/HG		
179597-005			SAIC	Soil	.55	g	50	90.909091	1					T26/HG		
179597-006			SAIC	Soil	.44	g	50	113.636364	1					T26/HG		
179603-001			Mactec, Inc.	Soil	.45	g	50	111.111111	1					T26/HG		
QC294913	BLANK			Soil	.5	g	50	100.000000	1					HG		
QC294914	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC294915	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC294916	MS	of 179518-004		Soil	.59	g	50	84.745763	1		2.5			HG		
QC294917	MSD	of 179518-004		Soil	.58	g	50	86.206897	1		2.5			HG		
QC294918	SER	of 179518-004		Soil	.62	g	50	80.645161	1					HG		
QC294919	PDS	of 179518-004		Soil	.62	g	50	80.645161	1					HG		

2241

Prep Chemist: Andrés Marin Reviewed By: [signature] Date: 5/25/05

Relinquished By: [signature] Received By: [signature] Date: 5/25/05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 162328
Date Digested: 5/24/05
Digested by: AM

Digestion Method
☑ EPA 7471A
☐ _____

BK 2086
Page 82

	Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	179467-017 Comp	.45	50	Y	
	18	.67			
	19	.59			
	20	.45			
5	AM ~~179467~~ -179518-001 A	.46			
	2	.54			
	3	.49			
	4 MSS	.62			
	179522-001 A	.50			
10	2	.60			
	179564-001	.51			
	179597-001	.57			
	2	.53			
	3	.63			
15	4	.45			
	5	.55			
	6	.44			
	MB	.5			
	BS	.5			
20	BSD	.5			
	MS	.59			
	MSD	.58			
	AM 5/24 ~~179603~~ -001 A	.45			

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	SC71	AM 5/24
ICAL Source WS#	SC71 AM	
ICV / CCV WS#	SC71, 73, 74, 75, 76	
Digestion of Samples & Standards: Time ON / Temperature ON	12:30 95°C	
Time OFF/ Temperature OFF	13:00 55°C	
concentrated H_2SO_4	—	
Aqua Regia Acids (HNO3+ HCl)	AR 052405	
5% $KMnO_4$	IC 051905	
5% $K_2S_2O_8$	—	
NaCl.hydroxylamine hydrochloride	Hy 042805	
Stannous Chloride	SnCl2 051905	
☑ filtered thru' 0.45 um syringe filter	Millipore R4NN 07443	

Andrés Marin 5/24/05
Prep Chemist / Date

Continued from page 242 /
Continued on page /

5/25/05
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	BBSB106(0.5)	Batch#:	102441
Lab ID:	179603-001	Sampled:	05/23/05
Matrix:	Soil	Received:	05/24/05
Units:	%	Analyzed:	05/27/05

Result	RL
15	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	179603	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	102441
MSS Lab ID:	179596-002	Sampled:	05/23/05
Lab ID:	QC295391	Received:	05/23/05
Matrix:	Soil	Analyzed:	05/27/05

MSS Result	Result	RL	RPD	Lim
13.93	13.30	1.000	5	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 102441
Date: 05/27/05
Method: CLP SOW 390
Analyst: KDG

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
179530-002	15.3617	20.8742	20.1254	86	14
179530-006	15.1385	21.8284	20.9686	87	13
179530-008	15.3387	21.5089	20.6975	87	13
179530-011	15.0056	21.8957	20.9551	86	14
179530-014	15.4098	20.7833	19.9035	84	16
179582-002	15.5668	20.8799	20.3842	91	9
179582-004	15.3003	20.7058	20.0804	88	12
179582-005	15.2523	21.0468	20.2949	87	13
179582-007	15.0950	20.5555	19.9380	89	11
179596-002	15.4155	20.8913	20.1286	86	14
179596-004	15.3455	20.6495	19.8653	85	15
179596-006	15.6402	21.1873	20.2319	83	17
179596-008	15.4344	21.0877	20.3322	87	13
179596-010	15.5699	21.2730	20.5158	87	13
179596-011	15.3798	21.2396	20.4295	86	14
179603-001	15.1009	20.6148	19.7792	85	15
179642-001	14.7819	20.7833	20.3907	93	7
179642-002	15.3284	20.4187	20.0882	94	6
179662-001	15.7817	20.9417	20.8275	98	2
QC295391	15.2682	20.7057	19.9823	87	13
of 179596-002			RPD:	0.7%	4.6%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 102441
Date Started: 26-MAY-2005
Batched by : Kevin Gaines

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type	Client	Matrix	Analyses	Due Date
179530-002		Innovative Technic	Soil	MOISTURE	31-MAY-2005
179530-006		Innovative Technic	Soil	MOISTURE	31-MAY-2005
179530-008		Innovative Technic	Soil	MOISTURE	31-MAY-2005
179530-011		Innovative Technic	Soil	MOISTURE	31-MAY-2005
179530-014		Innovative Technic	Soil	MOISTURE	31-MAY-2005
179582-002		Innovative Technic	Soil	MOISTURE	06-JUN-2005
179582-004		Innovative Technic	Soil	MOISTURE	06-JUN-2005
179582-005		Innovative Technic	Soil	MOISTURE	06-JUN-2005
179582-007		Innovative Technic	Soil	MOISTURE	06-JUN-2005
179596-002		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179596-004		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179596-006		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179596-008		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179596-010		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179596-011		Innovative Technic	Soil	MOISTURE	27-MAY-2005
179603-001		Mactec, Inc.	Soil	MOISTURE	06-JUN-2005
179642-001		Blasland, Bouck &	Soil	MOISTURE	03-JUN-2005
179642-002		Blasland, Bouck &	Soil	MOISTURE	03-JUN-2005
179662-001		EM Assist CESPK-PM	Soil	MOISTURE	31-MAY-2005
QC295391	SDUP of 179596-002		Soil	MOISTURE	

MOISTURE 102441

2107

5/24/05

SAMPLE	B.L	DISH #	TARE WT	WET WT	FINAL WT	COMM
BLK		M2	15.1677	—	15.1723	
179596 02	A	00	15.4155	20.8913	20.1786	
Dup 02		000	15.3682	20.7057	19.9823	
-04		26	15.3455	20.6495	19.8653	
-06		39	15.6402	21.1873	20.2319	
-08		47	15.4344	21.0877	20.3322	
-10		35	15.5699	21.2735	20.5158	
-11		37	15.3798	21.2396	20.4295	
553-02		39	15.5665	20.8799	20.3547	
04		146	15.3003	20.7058	20.0804	
05		31	15.2533	21.0465	20.2949	
07		7	15.0950	20.5555	19.9350	
530-02		473	15.3617	20.8747	20.1254	
-06		A	15.1385	21.8284	20.9686	
-09		33	15.3357	21.3089	20.6975	
-11		16	15.0058	21.8957	20.9557	
-14	D	713	15.4098	20.7420	19.9035	
642-01	A	7r	14.7819	20.7833	20.3907	
02		9	15.3284	20.4187	20.0833	
603-01		30	15.1009	20.6148	19.7792	
662-01		4	15.7817	20.9417	20.8275	

OVEN TEMP 103°C
TIME IN 11:30 AM
TIME OUT 11:25 ON 5/27/05
OVEN TEMP 1.05°C

Kenneth 5-24-05 Marilyn 5/27/05

PROJECT Balance Calibration Notebook No. 248 Continued From Page 4

DATE	INIT	1.0 g	10.00 g	50.01 g	100.00 g	SET #
4-20-05	RSM	1.00	10.00	50.01	100.00	35298
4-21-05	RSM	1.00	10.00	50.00	100.01	35298
4-22-05	RSM	1.00	10.00	50.00	100.01	35298
4-23-05	RSM	1.00	10.00	50.00	100.00	35298
4-26-05	RSM	1.00	10.00	50.00	100.01	35298
4-27-05	RSM	1.00	10.00	50.00	100.00	35298
4-28-05	RSM	1.00	10.00	50.00	100.01	35298
4-29-05	RSM	1.00	10.00	50.00	100.01	35298
5-2-05	RSM	1.00	10.00	50.00	100.00	35298
5-3-05	RSM	1.00	10.00	50.00	100.01	35298
5-4-05	RSM	1.00	10.00	50.00	100.00	35298
5-5-05	RSM	1.00	10.00	50.01	100.01	35298
5-6-05	RSM	1.00	10.00	50.00	100.00	35298
5-9-05	RSM	1.00	10.00	50.00	100.01	35298
5-10-05	RSM	1.00	10.00	50.00	100.01	35298
5-11-05	RSM	1.00	10.00	50.01	100.01	35298
5-12-05	RSM	1.00	10.00	50.00	100.00	35298
5-13-05	RSM	1.00	10.00	50.00	100.01	35298
5-16-05	RSM	1.00	10.00	50.00	100.00	35298
5-17-05	RSM	1.00	10.00	50.00	100.01	35298
5-18-05	RSM	1.00	10.00	50.01	100.00	35298
5-19-05	RSM	1.00	10.00	50.00	100.01	35298
5-20-05	RSM	1.00	10.00	50.00	100.00	35298
5-23-05	RSM	1.00	10.00	50.00	100.01	35298
5-24-05	RSM	1.00	10.00	50.01	100.00	35298
5-25-05	RSM	1.00	10.00	50.00	100.01	35298
5-26-05	KMB	1.00	10.00	50.00	100.01	35298
5-27-05	KMB	1.00	10.00	50.00	100.02	35298

Continued on Page

Read and Understood By

R. Mercer 4-20-05

Signed Date Signed Date

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 179714

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBIPZ101	179714-001
TB-1	179714-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 7/7/05
Operations Manager

Signature: _____ Date: 7/6/05
Project Manager

NELAP # 01107CA

Page 1 of ___

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179714**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/27/05**
Samples Received:	**05/27/05**

This hardcopy data package contains sample and QC results for two water samples, requested for the above referenced project on 05/27/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 102440; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Matrix spikes were not performed for this analysis due to insufficient sample volume. Low responses were observed for bromomethane, Freon 113, and Freon 12 in the ICV analyzed 05/20/05 12:39; these analytes were not detected at or above the RL in the associated samples. High response was observed for 2,2-dichloropropane; this analyte was not detected at or above the RL in the associated samples. Low response was observed for 2,2-dichloropropane in the CCV analyzed 06/01/05 09:42; this analyte met minimum response criteria. Naphthalene was detected above the RL in the method blank for batch 102513; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High responses were observed for a number of analytes in the ICV analyzed 06/05/05 12:04; affected data was qualified with "b". High response was observed for benzo(k)fluoranthene in the CCV analyzed 06/06/05 20:16; this analyte was not detected at or above the RL in the associated samples. Low recovery was observed for pyrene in the MS for batch 102631; the parent sample was not a project sample, and the LCS was within limits. High RPD was also observed for pyrene in the MS/MSD for batch 102631; this analyte was not detected at or above the RL in the associated sample. Low recoveries were observed for pyrene in the MS/MSD for batch 102631, due to matrix interference; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. A number of analytes were detected between the MDL and the RL in the method blank for batch 102631; these analytes were not detected in the sample at or above the RL. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179714**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**05/27/05**
Samples Received:	**05/27/05**

Pesticides (EPA 8081A):
High response was observed for methoxychlor in the ICV analyzed 06/07/05 05:04; average ICV drift met method requirements, and this analyte was not detected at or above the RL in the associated sample. High surrogate recovery was observed for TCMX in the MSD for batch 102456; the corresponding decachlorobiphenyl surrogate recovery was within limits, and the parent sample was not a project sample. Delta-BHC was detected between the MDL and the RL in the method blank for batch 102456; this analyte was not detected in the sample at or above the RL. No other analytical problems were encountered.

PCBs (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6020 and EPA 7470A):
Molybdenum was detected between the MDL and the RL in the method blank for batch 102706; this analyte was not detected in the sample at or above the RL. No other analytical problems were encountered.

Dioxins and Furans (EPA 8290):
Eno River Labs, LLC in Durham, NC performed the analysis. Please see the Eno River Labs, LLC case narrative.

Chain of Custody

179714

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1445

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255 005103

Name/Location: PRESIDIO SF - BBDA 1

Project Manager: M A JACOBSITE Recorder: (Signature Required)

| MATRIX | | | | # CONTAINERS & PRESERV. | | | | | | SAMPLE NUMBER | | DATE | | | | STATION DESCRIPTION | | ANALYSIS REQUESTED | | | | | |

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 179714 Date Received: 5-27-05 Number of Coolers: 1
Client: Machec Project: Baker Beach

A. Preliminary Examination Phase
Date Opened: 5-27-05 By (print): Troy Windsor (sign) Troy Windsor

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO N/A
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... (YES) NO
   Type of ice: Wet Temperature: 4.3

B. Login Phase
Date Logged In: 5-27-05 By (print): Troy Windsor (sign) Troy Windsor

1. Describe type of packing in cooler: Bubblewrap
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... (YES) NO
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

REVISED

Reason for change: ✓ Client Request: By: Mactec Date/Time: 6/2/05 Initials: BP

_____ Login Review _____ Data Review

Client/Acct: _____

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel CHANGE	Analysis	Holddate	Duedate
179714-001		BB1PZ101	Water	Add	Silicagel to TEH M		6/9

TPH-PURGEABLE HYDROCARBONS IN WATER

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	05/27/05
Units:	ug/L	Received:	05/27/05
Diln Fac:	1.000	Analyzed:	05/27/05
Batch#:	102440		

Field ID: BBIPZ101 Lab ID: 179714-001
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	14 J	50	4.3

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	63-141
Bromofluorobenzene (FID)	107	79-139

Field ID: TB-1 Lab ID: 179714-002
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	11 J	50	4.3

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	63-141
Bromofluorobenzene (FID)	100	79-139

Type: BLANK Lab ID: QC295383

Analyte	Result	RL	MDL
Gasoline C7-C12	11 J	50	4.3

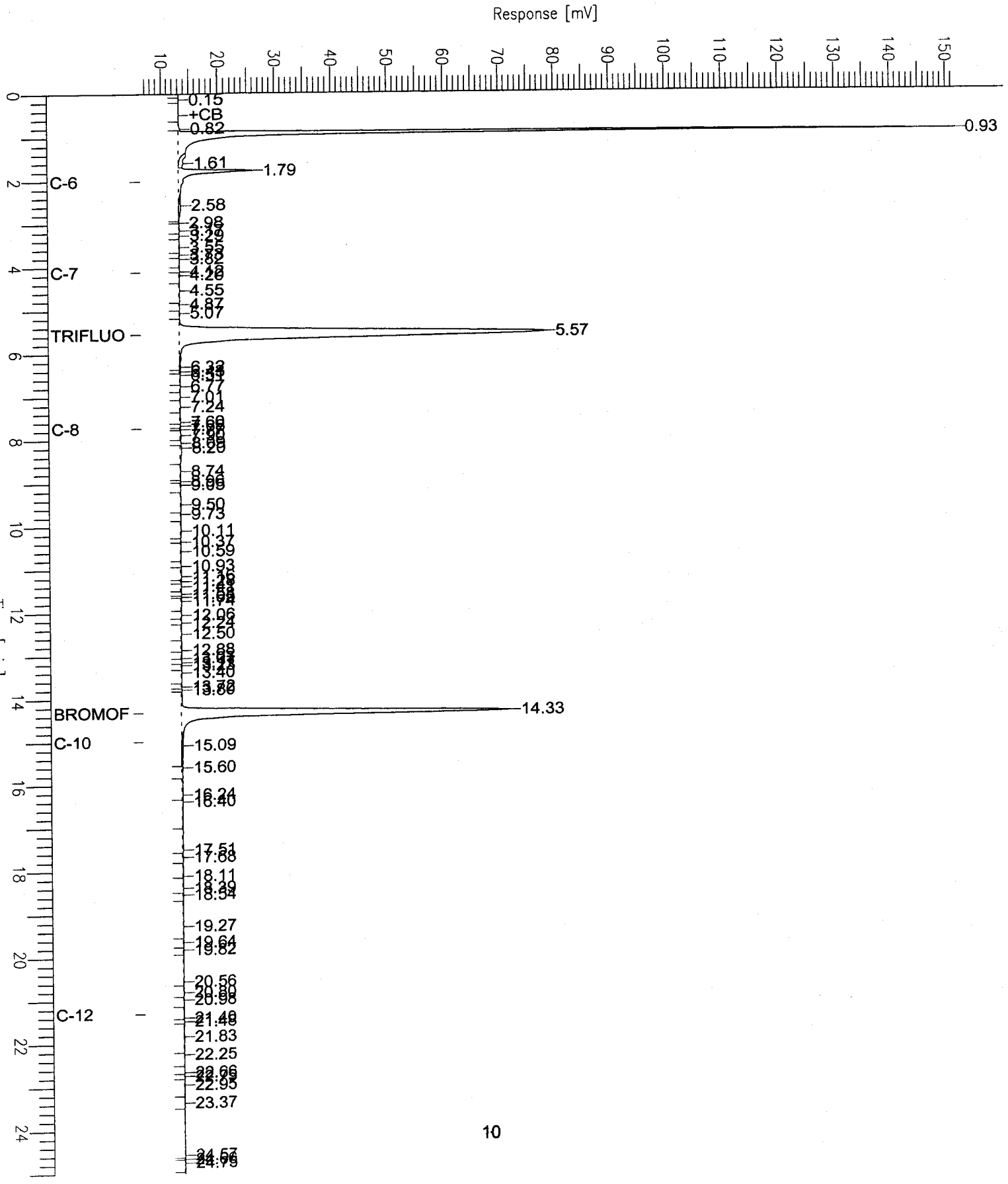
Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	63-141
Bromofluorobenzene (FID)	102	79-139

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : mss,179714-001,102440,tvh
FileName : G:\GC05\DATA\147G004.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 6 mV

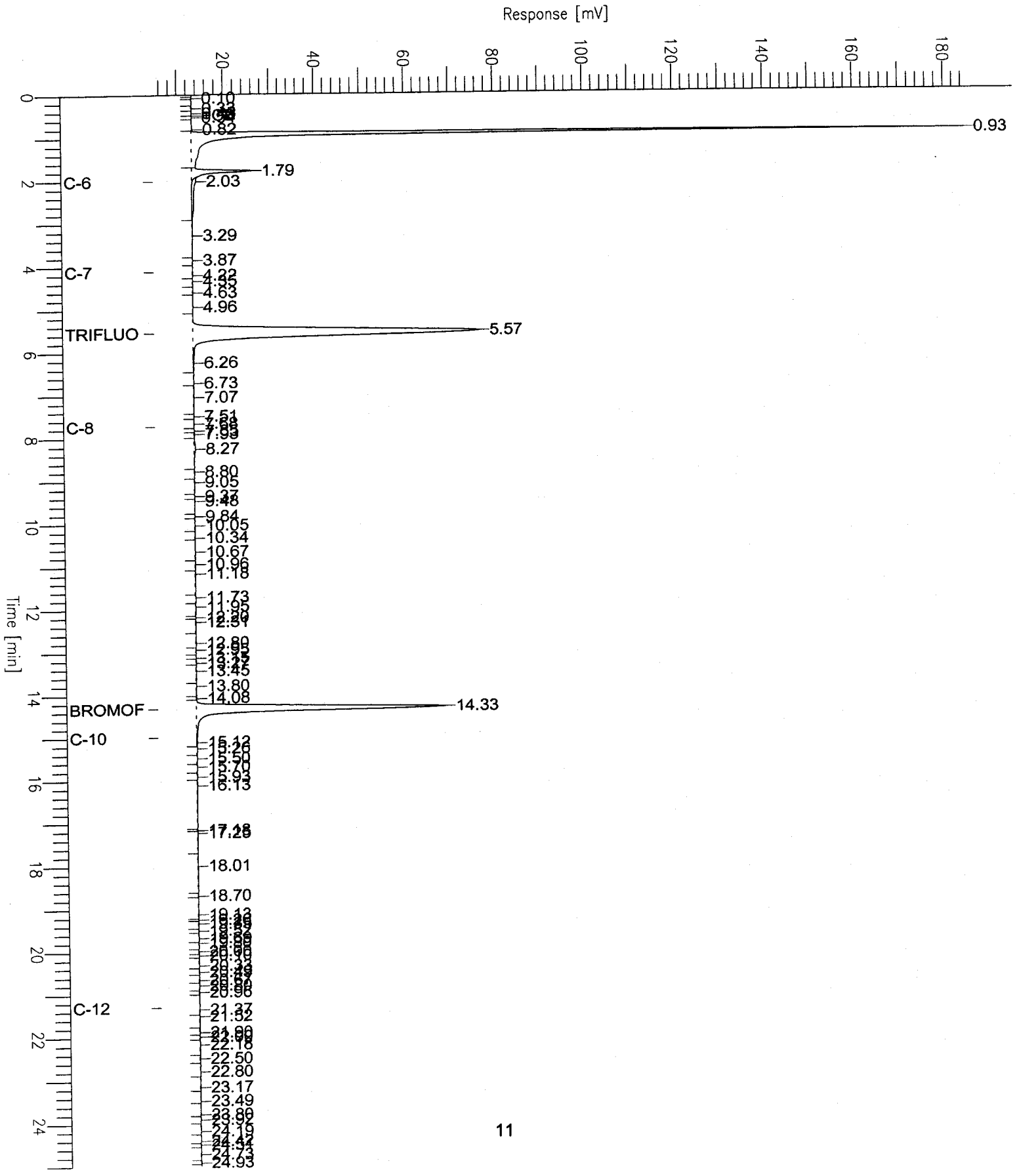
Sample #: a1.0 Page 1 of 1
Date : 5/27/05 04:01 PM
Time of Injection: 5/27/05 03:36 PM
Low Point : 6.17 mV High Point : 151.81 mV
Plot Scale: 145.6 mV



Chromatogram

Sample Name : 179714-002,102440,tvh trip
FileName : G:\GC05\DATA\147G003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 5 mV

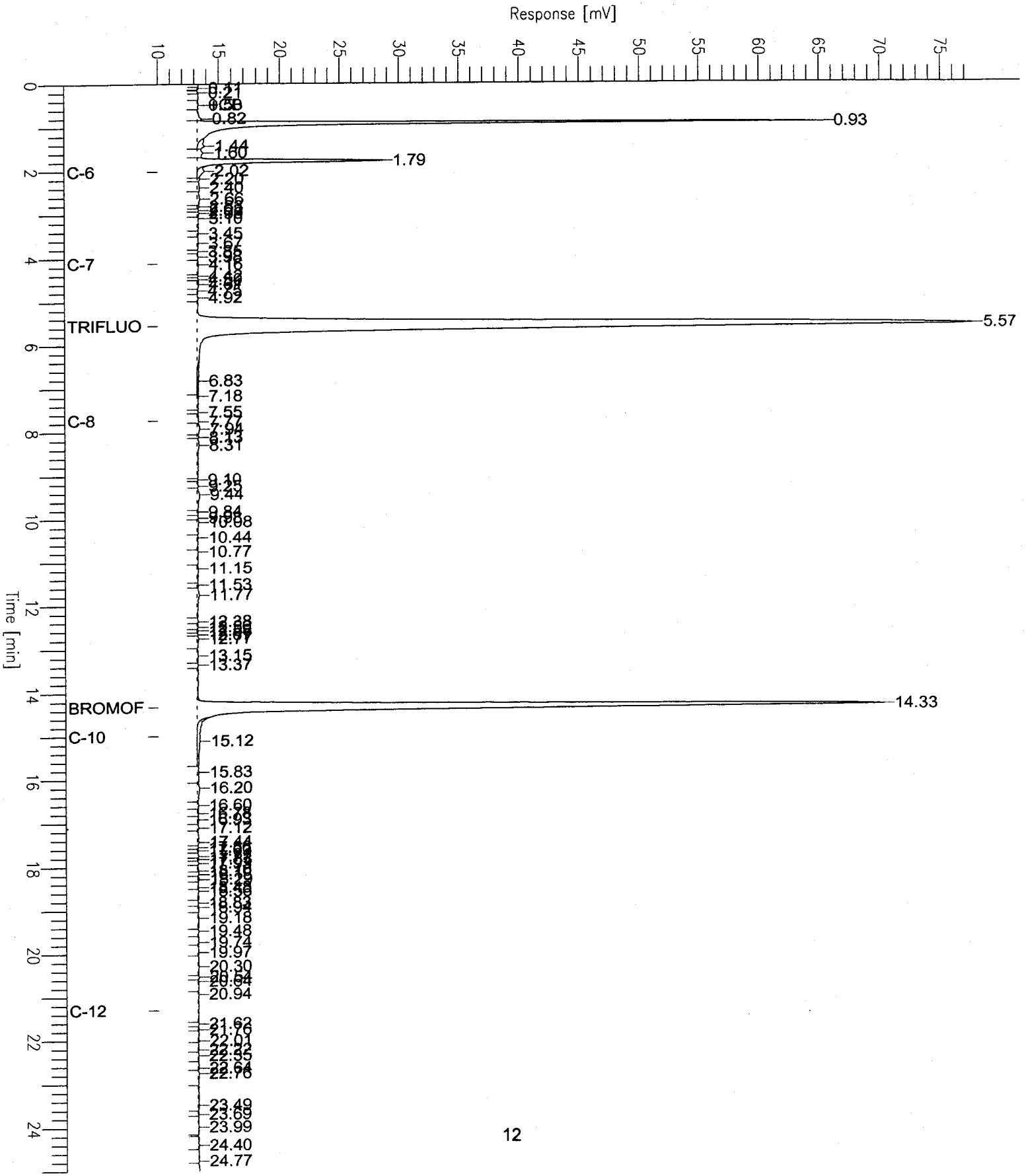
Sample #: a1.0 Page 1 of 1
Date : 5/27/05 03:29 PM
Time of Injection: 5/27/05 03:04 PM
Low Point : 4.58 mV High Point : 184.69 mV
Plot Scale: 180.1 mV



Chromatogram

Sample Name : mb,qc295383,102440
FileName : G:\GC05\DATA\147G002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 10 mV

Sample #: Page 1 of 1
Date : 5/27/05 02:58 PM
Time of Injection: 5/27/05 02:33 PM
Low Point : 9.97 mV High Point : 77.61 mV
Plot Scale: 67.6 mV

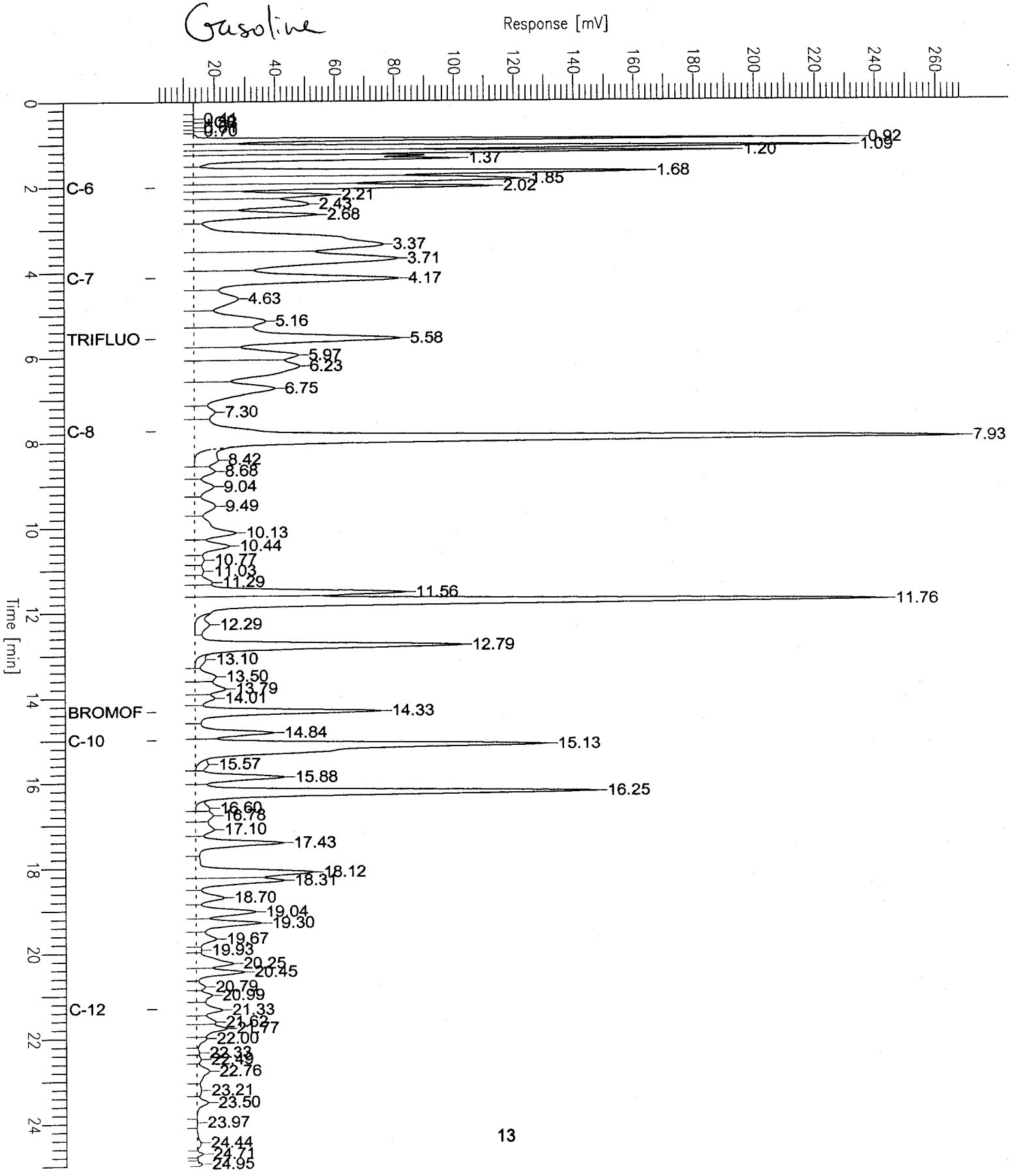


Chromatogram

Sample Name : ccv/lcs,qc295384,102440,S601,5/5000
FileName : G:\GC05\DATA\147G001.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
Date : 5/27/05 02:26 PM
Time of Injection: 5/27/05 02:01 PM
Low Point : 0.49 mV High Point : 268.58 mV
Plot Scale: 268.1 mV

Gasoline



Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295384	Batch#:	102440
Matrix:	Water	Analyzed:	05/27/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,917	96	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	132	63-141
Bromofluorobenzene (FID)	115	79-139

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBIPZ101	Batch#:	102440
MSS Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Analyzed:	05/27/05
Diln Fac:	1.000		

Type: MS Lab ID: QC295385

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	14.27	2,000	1,861	92	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	63-141
Bromofluorobenzene (FID)	129	79-139

Type: MSD Lab ID: QC295386

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,938	96	80-120	4	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	63-141
Bromofluorobenzene (FID)	131	79-139

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179714 GCVOA Water
Curtis & Tompkins Laboratories

Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Reviewed By: MCH
Calnum: 314466280001 Name: tvh Type: (normal) Date: 18-NOV-2004 20:23 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_003	314466280003	tvh1	18-NOV-2004 20:23	04WS1982 (1000X), 04WS1966 (5000X)
2	323_004	314466280004	tvh2	18-NOV-2004 20:55	04WS1983 (1000X), 04WS1966 (5000X)
3	323_005	314466280005	tvh3	18-NOV-2004 21:26	04WS1984 (1000X), 04WS1966 (5000X)
4	323_006	314466280006	tvh4	18-NOV-2004 21:58	04WS1985 (2000X), 04WS1966 (5000X)
5	323_007	314466280007	tvh5	18-NOV-2004 22:30	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	G	1766.4	1506.6	1526.6	1948.9	1844.3	AVRG	R		5.819E-4		ng	1718.5	11	0.995	20	

16

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179714 GCVOA Water
Curtis & Tompkins Laboratories

Instid : GC05 Calname : tvh
Calnum : 314466280001 Caldate : 18-NOV-2004 Caltype :

ICV 314466280009 (323_009) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	G	314466280009	18-NOV-2004	10000.0 11239	ng	12

INITIAL CALIBRATION REPORT FOR 179714 GCVOA Water
Curtis & Tompkins Laboratories

Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Reviewed By: MCH
Calnum: 315181882001 Name: tft/bfb Type: (normal) Date: 06-MAY-2005 07:53 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	126_002	315181882002	tft/bfb 1	06-MAY-2005 07:53	S67 (5000X)
2	126_003	315181882003	tft/bfb 2	06-MAY-2005 08:29	S68 (5000X)
3	126_004	315181882004	tft/bfb 3	06-MAY-2005 09:03	S69 (5000X)
4	126_005	315181882005	tft/bfb 4	06-MAY-2005 10:04	S70 (5000X)
5	126_006	315181882006	tft/bfb 5	06-MAY-2005 10:48	S71 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	G	1800.3	1780.2	1681.7	1651.5	1687.7	AVRG	R		5.813E-4		ng	1720.3	4	0.995	20	
Bromofluorobenzene (FID)	G	923.78	929.42	961.72	969.25	999.15	AVRG	R		0.001045		ng	956.66	3	0.995	20	

18

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION REPORT FOR 179714 GCVOA Water
Curtis & Tompkins Laboratories

Instid : GC05 Run Name : QC295384 IDF : 1.0
Seqnum : 315212521001 Filename : 147_001 Injected : 27-MAY-2005 14:01
Caltype :

Standards: S601 (1000X), S645 (5000X)

Analyte	Ch	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Gasoline C7-C12	G	314466280001	18-NOV-2004	1718.5	1647.5	10000.00	9586.682	ng	-4	15	u
Trifluorotoluene (FID)	G	315181882001	06-MAY-2005	1720.3	2262.9	450.0000	591.9259	ng	**32**	15	c+ u
Bromofluorobenzene (FID)	G	315181882001	06-MAY-2005	956.66	1097.2	450.0000	516.0895	ng	15	15	u

Laboratory Limits:
TFT: 63-141%
CW 7/1/05

+=high bias c=CCV u=use
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179714 GCVOA Water
Curtis & Tompkins Laboratories

Instid : GC05 Run Name : tvh IDF : 1.0
Seqnum : 315212521011 Filename : 147_011 Injected : 27-MAY-2005 19:19
Caltype :

Standards: S601 (666.7X), S645 (5000X)

Analyte	Ch	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Gasoline C7-C12	G	314466280001	18-NOV-2004	1718.5	1685.3	15000.00	14709.54	ng	-2	15	
Trifluorotoluene (FID)	G	315181882001	06-MAY-2005	1720.3	2700.6	450.0000	706.4315	ng	57	15	c+
Bromofluorobenzene (FID)	G	315181882001	06-MAY-2005	956.66	1209.9	450.0000	569.1245	ng	26	15	c+

fails due to hydrocarbon co-elution. DS 5/27

Laboratory Limits:
TFT: 63-141 %
BFB: 79-139 %
cw 7/1/05

+=high bias c=CCV
Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315212521 Instrument: GC05
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #5 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 27-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	147_001	CCV/LCS	QC295384	102440	Water	27-MAY-2005 14:01	1.0		1	5000			1 2 MSS	
002	147_002	BLANK	QC295383	102440	Water	27-MAY-2005 14:33	1.0	17	1	5000			2	
003	147_003	SAMPLE	179714-002	102440	Water	27-MAY-2005 15:04	1.0			5000			2	
004	147_004	MSS	179714-001	102440	Water	27-MAY-2005 15:36	1.0	8		5000			2	
005	147_005	SAMPLE	179694-003	102440	Water	27-MAY-2005 16:08	1.0			5000			2	
006	147_006	SAMPLE	179702-003	102440	Water	27-MAY-2005 16:40	1.0			5000			2	
007	147_007	SAMPLE	179702-004	102440	Water	27-MAY-2005 17:12	1.0			5000			2	
008	147_008	SAMPLE	179702-005	102440	Water	27-MAY-2005 17:43	1.0			5000			2	
009	147_009	MS	QC295385	102440	Water	27-MAY-2005 18:15	1.0			5000			1 2 pass	
010	147_010	MSD	QC295386	102440	Water	27-MAY-2005 18:47	1.0			5000			1 2	
011	147_011	CCV	tvh	102440		27-MAY-2005 19:19	1.0			5000			1 2	
012	147_012	CCV	tvh	102440		27-MAY-2005 19:51	1.0			5000			1 2	
013	147_013	SAMPLE	179719-002	102440	Water	27-MAY-2005 20:22	1.0			5000			2	
014	147_014	SAMPLE	179719-003	102440	Water	27-MAY-2005 20:54	1.0			5000			2	
015	147_015	SAMPLE	179719-004	102440	Water	27-MAY-2005 21:26	1.0			5000			2	
016	147_016	SAMPLE	179719-005	102440	Water	27-MAY-2005 21:57	1.0			5000			2	
017	147_017	CCV	tvh	102440		27-MAY-2005 22:29	1.0			5000			1 2 pass	
018	147_018	CCV	tvh	102440		27-MAY-2005 23:00	1.0			5000			1 2	
019	147_019	X	ib			27-MAY-2005 23:32	1.0						2	
020	147_020	X	ib			28-MAY-2005 00:04	1.0						2	
021	147_021	X	btxe1			28-MAY-2005 00:35	1.0						3 2 Not used	
022	147_022	ICAL	btxe1			28-MAY-2005 01:07	1.0						3 2 pass use	
023	147_023	ICAL	mtbe1			28-MAY-2005 01:39	1.0						4 2	
024	147_024	ICAL	mbtxe2			28-MAY-2005 02:11	1.0						4 2	
025	147_025	ICAL	mbtxe3			28-MAY-2005 02:42	1.0						4 2	
026	147_026	ICAL	mbtxe4			28-MAY-2005 03:14	1.0						5 2	
027	147_027	ICAL	mbtxe5			28-MAY-2005 03:45	1.0						5 2	
028	147_028	ICAL	mbtxe6			28-MAY-2005 04:17	1.0						5 2	
029	147_029	ICAL	mtbe7			28-MAY-2005 04:49	1.0						6 2	
030	147_030	X	ib			28-MAY-2005 05:21	1.0						2	

Stds used: 1=S601 2=S645 3=05WS0347 4=05WS0348 5=05WS0349 6=05WS0350 7=05WS0304

Analyst: _____ Date: 5/31/05
Page 1 of 2

5/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315212521 Instrument: GC05
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #5 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 27-MAY-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
031	147_031	ICV	mbtxe			28-MAY-2005 05:53	1.0			5000			7 2 pass use	
032	147_032	X	mbtxe			28-MAY-2005 06:25	1.0						7 2 not use	

5/31/05

Stds used: 1=S601 2=S645 3=05WS0347 4=05WS0348 5=05WS0349 6=05WS0350 7=05WS0304

Analyst: _____ Date: 5/31/05
Page 2 of 2

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
	5/31/05	21	05/31/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315181882 Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Begun: 06-MAY-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK	uL	VL	pH	Stds Used	>LR
001	126_001	X	ib			06-MAY-2005 07:22	1.0						1	
002	126_002	ICAL	tft/bfb 1			06-MAY-2005 07:53	1.0						2 pass	
003	126_003	ICAL	tft/bfb 2			06-MAY-2005 08:29	1.0						3	
004	126_004	ICAL	tft/bfb 3			06-MAY-2005 09:03	1.0						4	
005	126_005	ICAL	tft/bfb 4			06-MAY-2005 10:04	1.0						5	
006	126_006	ICAL	tft/bfb 5			06-MAY-2005 10:48	1.0						6	
007	126_007	X	ib			06-MAY-2005 13:53	1.0						1	
008	126_008	CCV/LCS	QC292886	101795	Water	06-MAY-2005 14:25	1.0			5000			7 1 pass	
009	126_009	CCV/LCS	QC292887	101795	Water	06-MAY-2005 14:57	1.0		3	5000			8 1	
010	126_010	CCV	avgas	101795		06-MAY-2005 15:29	1.0	1		5000			9 1	
011	126_011	BLANK	QC292885	101795	Water	06-MAY-2005 16:01	1.0	3		5000			1 2 1/2 vol	
012	126_012	SAMPLE	179280-001	101795	Water	06-MAY-2005 16:32	1.0		2	5000	A	1.0	1	
013	126_013	SAMPLE	179280-002	101795	Water	06-MAY-2005 17:05	1.0			5000			1	
014	126_014	SAMPLE	179280-003	101795	Water	06-MAY-2005 17:37	1.0			5000			1	
015	126_015	SAMPLE	179280-005	101795	Water	06-MAY-2005 18:08	1.0			5000			1	
016	126_016	SAMPLE	179280-006	101795	Water	06-MAY-2005 18:40	1.0			5000			1	
017	126_017	SAMPLE	179295-002	101795	Water	06-MAY-2005 19:12	1.0			5000			1	
018	126_018	SAMPLE	179295-003	101795	Water	06-MAY-2005 19:44	1.0			5000			1	
019	126_019	CCV	mbtxe	101795		06-MAY-2005 20:15	1.0			5000			7 1 pass	
020	126_020	CCV	mbtxe	101795		06-MAY-2005 20:47	1.0			5000			7 1	
021	126_021	CCV	tvh	101795		06-MAY-2005 21:19	1.0			5000			8 1	
022	126_022	CCV	tvh	101795		06-MAY-2005 21:51	1.0			5000			8 1	
023	126_023	CCV	avgas	101795		06-MAY-2005 22:22	1.0	1		5000			9 1	
024	126_024	CCV	avgas	101795		06-MAY-2005 22:54	1.0	1		5000			9 1	
025	126_025	SAMPLE	179295-004	101795	Water	06-MAY-2005 23:26	1.0			5000	A	1.0	1	
026	126_026	SAMPLE	179288-008	101795	Water	06-MAY-2005 23:57	1.0			5000			1	
027	126_027	MSS	179288-009	101795	Water	07-MAY-2005 00:29	1.0	1		5000	B	7	1	
028	126_028	MS	QC292909	101795	Water	07-MAY-2005 01:00	1.0			5000			8 1 pass	
029	126_029	MSD	QC292910	101795	Water	07-MAY-2005 01:32	1.0		1	5000			8 1	
030	126_030	CCV	mbtxe	101795		07-MAY-2005 02:04	1.0			5000			7 1	

Stds used: 1=S224 2=S67 3=S68 4=S69 5=S70 6=S71 7=S292 8=S247 9=S131

Analyst: _____ Date: 5/9/05
Page 1 of 2

5/9/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315181882 Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Begun: 06-MAY-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK	uL	VL	pH	Stds Used	>LR
031	126_031	CCV	mbtxe	101795		07-MAY-2005 02:35	1.0			5000			7 1 pass	
032	126_032	CCV	tvh	101795		07-MAY-2005 03:07	1.0			5000			8 1	
033	126_033	CCV	tvh	101795		07-MAY-2005 03:39	1.0			5000			8 1	

5/9/05

Stds used: 1=S224 2=S67 3=S68 4=S69 5=S70 6=S71 7=S292 8=S247 9=S131

Analyst: _____ Date: 5/9/05
Page 2 of 2

Continued on Page

Read and Understood By

PROJECT Gloss Semigloss Lot Book

Notebook No. BK-1160

Continued From Page ____

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 314466280 Instrument: GC05
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #5 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 18-NOV-2004

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	323_001	X	ib			18-NOV-2004 19:20	1.0					1	
002	323_002	X	ib			18-NOV-2004 19:52	1.0					1	
003	323_003	ICAL	tvh1			18-NOV-2004 20:23	1.0					2 1 pass/use	
004	323_004	ICAL	tvh2			18-NOV-2004 20:55	1.0					3 1	
005	323_005	ICAL	tvh3			18-NOV-2004 21:26	1.0					4 1	
006	323_006	ICAL	tvh4			18-NOV-2004 21:58	1.0					5 1	
007	323_007	ICAL	tvh5			18-NOV-2004 22:30	1.0					5 1 *	
008	323_008	X	ib			18-NOV-2004 23:02	1.0					1	
009	323_009	ICV	tvh			18-NOV-2004 23:33	1.0	1	5000			6 1 pass 1:F3BZME=992.437	
010	323_010	X	crbmrk			19-NOV-2004 00:05	1.0					7 8 1 use	
011	323_011	X	ib			19-NOV-2004 00:37	1.0					1	
012	323_012	X	ib			19-NOV-2004 07:00	1.0					1	
013	323_013	ICAL	tft/bfb 1			19-NOV-2004 07:32	1.0					9 pass/use	
014	323_014	ICAL	tft/bfb 2			19-NOV-2004 08:11	1.0					10	
015	323_015	ICAL	tft/bfb 3			19-NOV-2004 08:54	1.0					11	
016	323_016	ICAL	tft/bfb 4			19-NOV-2004 09:35	1.0					12	
017	323_017	ICAL	tft/bfb 5			19-NOV-2004 10:22	1.0					13	

Stds used: 1=04WS1966 2=04WS1982 3=04WS1983 4=04WS1984 5=04WS1985 6=04WS2154 7=02SS420 8=02SS421 9=04WS1886 10=04WS1887 11=04WS1888 12=04WS1889 13=04WS1890

Analyst: _____ Date: 11/19/04

Page 1 of 1

11/19/04

Signed _____ Date 11/19/04

Read and Understood By

Signed _____ Date 11/19/04

Continued on Page

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 102440
Date Started: 27-MAY-2005
Batched by : Jason Poulton

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
179694-003			Kleinfelder	Water	TVH	03-JUN-2005
179702-003			Weston Solutions	Water	TVH	08-JUN-2005
179702-004			Weston Solutions	Water	TVH	08-JUN-2005
179702-005			Weston Solutions	Water	TVH	08-JUN-2005
179714-001			Mactec, Inc.	Water	TVH	09-JUN-2005
179714-002			Mactec, Inc.	Water	TVH	09-JUN-2005
179719-002			Weston Solutions	Water	TVH	09-JUN-2005
179719-003			Weston Solutions	Water	TVH	09-JUN-2005
179719-004			Weston Solutions	Water	TVH	09-JUN-2005
179719-005			Weston Solutions	Water	TVH	09-JUN-2005
QC295383	MB			Water		
QC295384	LCS			Water		
QC295385	MS	of 179714-001		Water		
QC295386	MSD	of 179714-001		Water		

TPH-EXTRACTABLE HYDROCARBONS IN WATER

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBIPZ101	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/07/05
Diln Fac:	1.000	Analyzed:	06/08/05
Batch#:	102734		

Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 179714-001

Analyte	Result	RL	MDL
Diesel C10-C24	31 J Y	50	21
Motor Oil C24-C36	58 J Y	300	42

Surrogate	%REC	Limits
Hexacosane	108	55-143

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC296607

Analyte	Result	RL	MDL
Diesel C10-C24	ND	50	21
Motor Oil C24-C36	ND	300	42

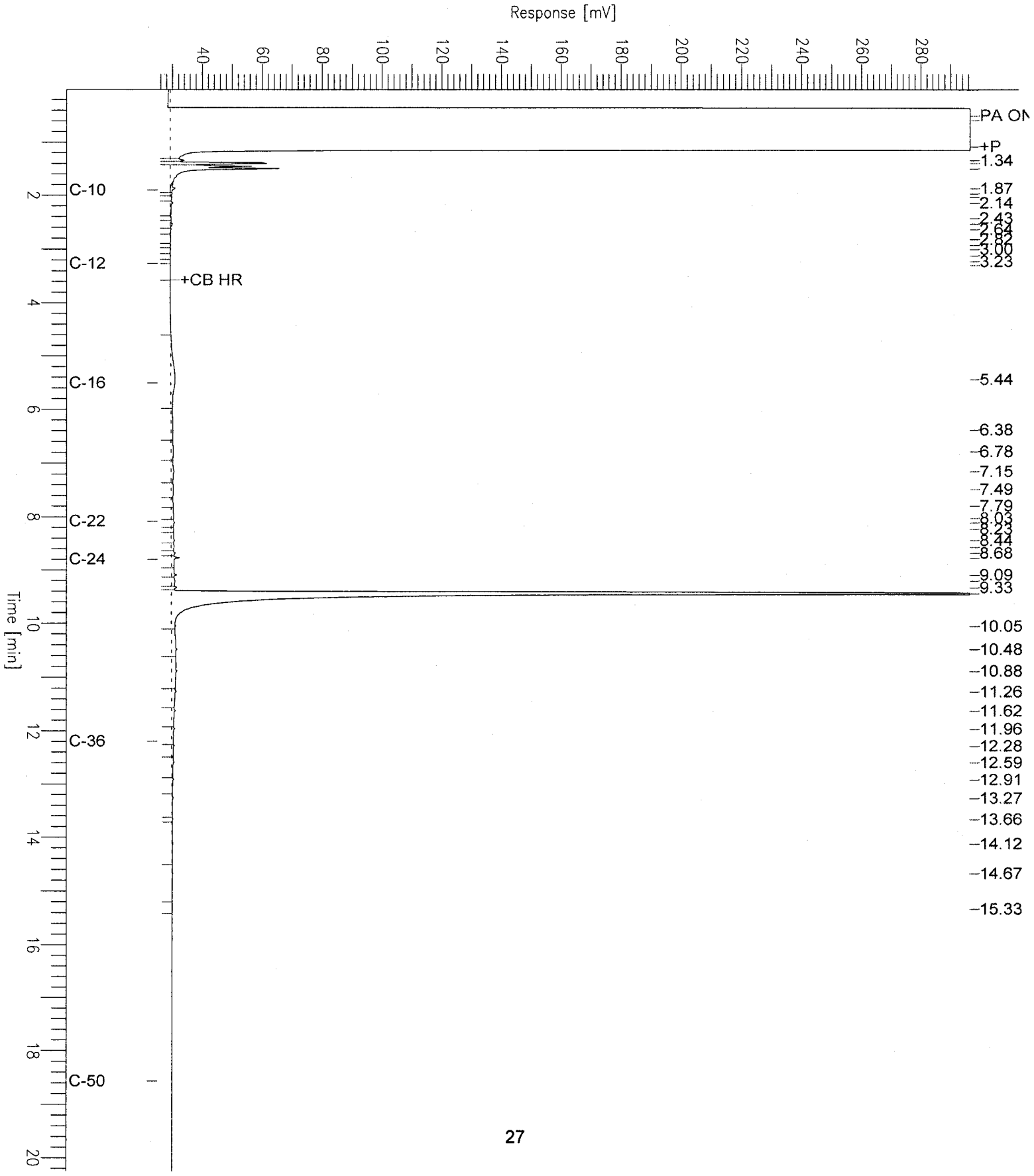
Surrogate	%REC	Limits
Hexacosane	108	55-143

J= Estimated value
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 179714-001sg,102734
FileName : G:\GC11\CHA\158A049.RAW
Method : ATEH156S.MTH
Start Time : 0.01 min End Time : 20.25 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #: 102734 Page 1 of 1
Date : 6/8/05 07:48 PM
Time of Injection: 6/8/05 06:55 PM
Low Point : 24.97 mV High Point : 296.48 mV
Plot Scale: 271.5 mV



Chromatogram

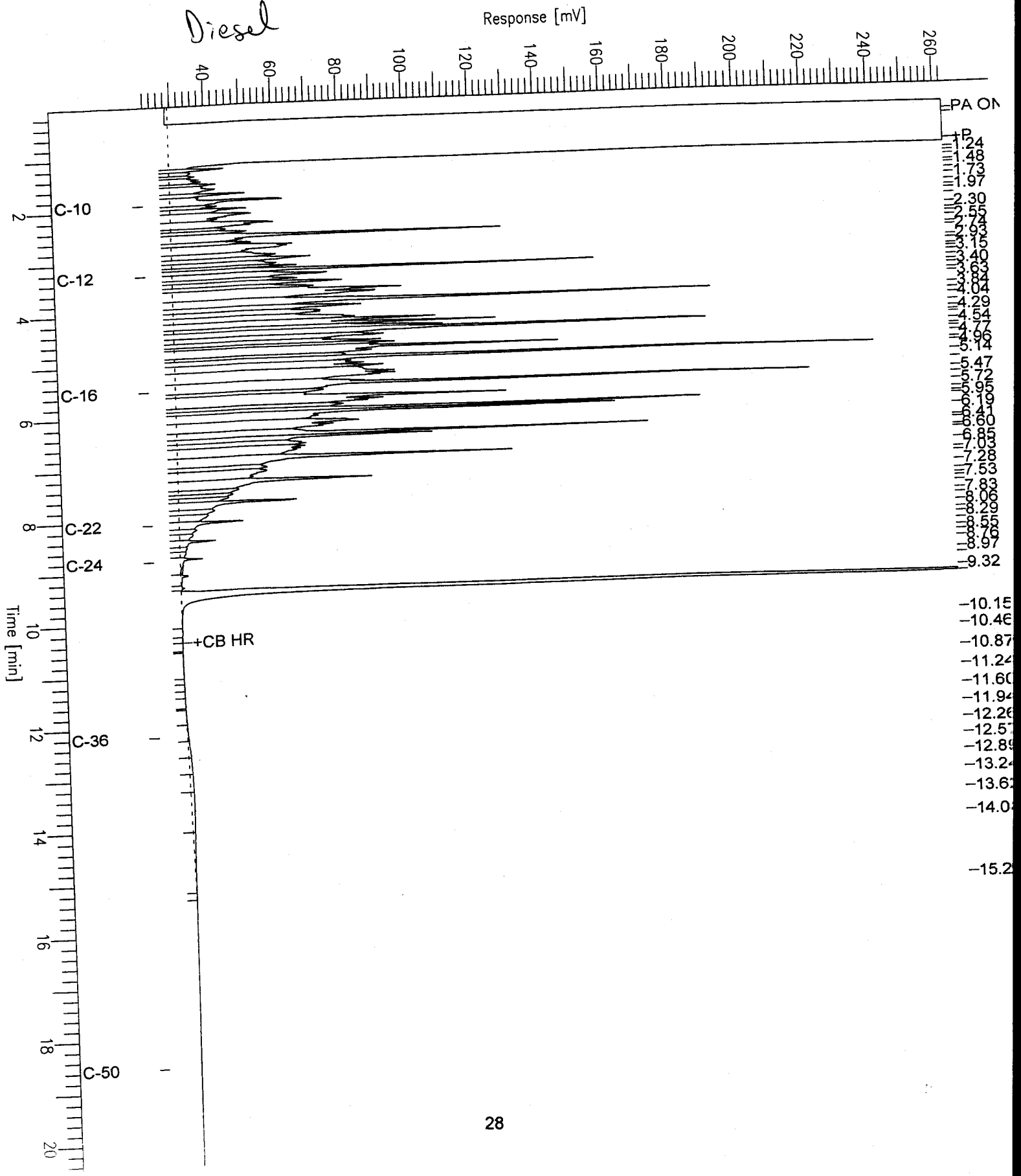
Sample Name : ccv,S778,dsl
FileName : G:\GC11\CHA\158A003.RAW
Method : ATEH156S.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 20.45 min
Plot Offset: 21 mV

Sample #: 500mg/L
Date : 6/7/05 10:48 AM
Time of Injection: 6/7/05 10:06 AM
Low Point : 21.30 mV
Plot Scale: 241.3 mV

High Point : 262.59 mV

Diesel



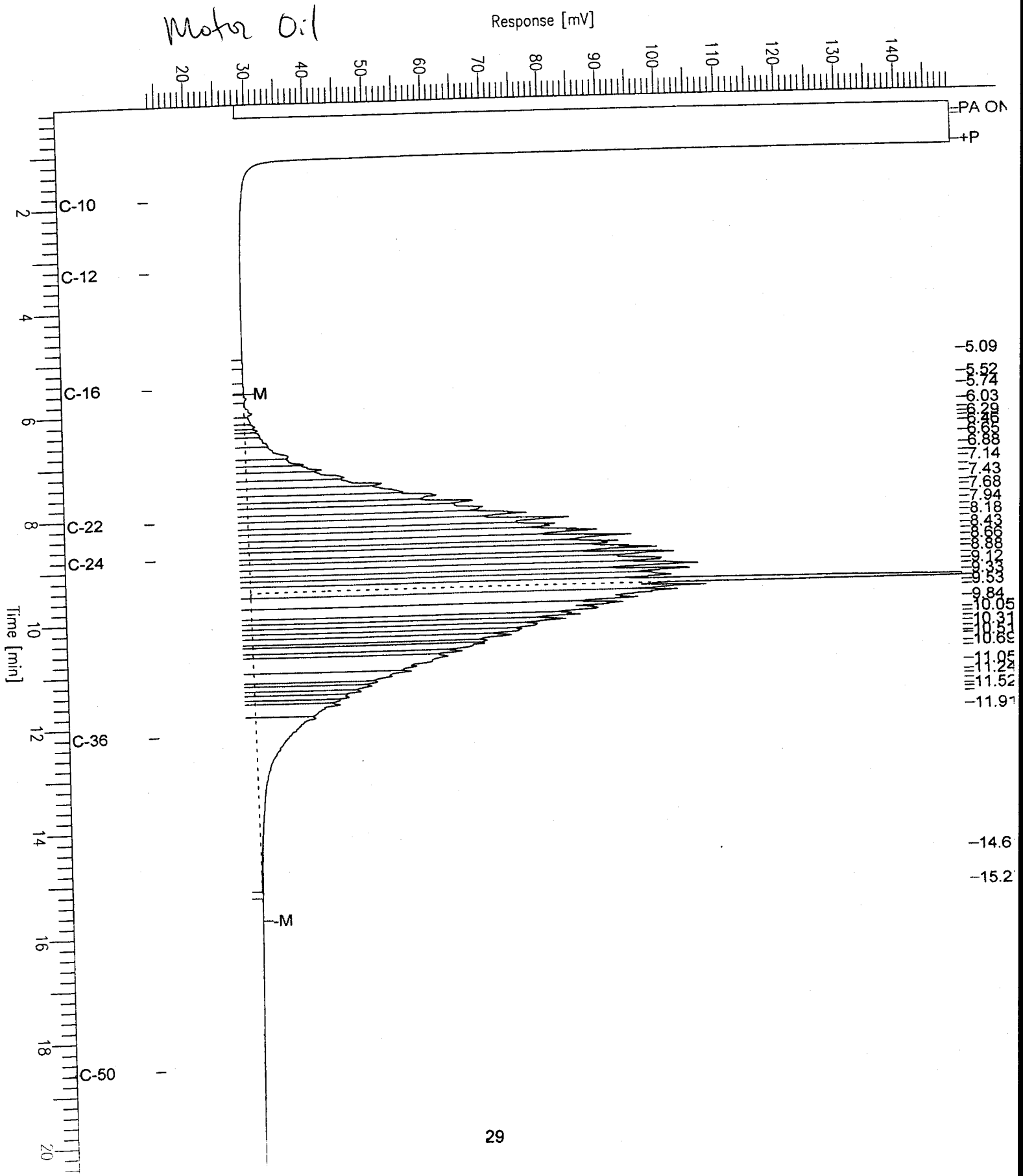
Chromatogram

Sample Name : ccv,S653,mo
FileName : G:\GC11\CHA\158A004.RAW
Method : ATEH156S.MTH
Start Time : 0.09 min
Scale Factor: 0.0

End Time : 20.45 min
Plot Offset: 14 mV

Sample #: 500mg/L
Date : 6/7/05 11:21 AM
Time of Injection: 6/7/05 10:36 AM
Low Point : 13.70 mV
High Point : 149.35 mV
Plot Scale: 135.7 mV

Motor Oil



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296608	Batch#:	102734
Matrix:	Water	Prepared:	06/07/05
Units:	ug/L	Analyzed:	06/08/05

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,686	107	50-133

Surrogate	%REC	Limits
Hexacosane	115	55-143

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	102734
MSS Lab ID:	179727-002	Sampled:	05/26/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/07/05
Diln Fac:	1.000	Analyzed:	06/08/05

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC296609

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<20.61	2,500	2,788	112	42-127

Surrogate	%REC	Limits
Hexacosane	122	55-143

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC296610

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,464	99	42-127	12	45

Surrogate	%REC	Limits
Hexacosane	112	55-143

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409001 Name: dsl Type: (normal) Date: 08-APR-2005 22:28 Inj Vol (uL): 3

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	098a003	115142409003	dsl10	08-APR-2005 22:28	05WS0167
2	098a004	115142409004	dsl100	08-APR-2005 22:58	05WS0169
3	098a005	115142409005	dsl250	08-APR-2005 23:27	05WS0170
4	098a006	115142409006	dsl500	08-APR-2005 23:57	05WS0171
5	098a007	115142409007	dsl1000	09-APR-2005 00:26	05WS0172
6	098a008	115142409008	dsl2500	09-APR-2005 00:56	05WS0173
7	098a009	115142409009	dsl5000	09-APR-2005 01:26	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C10-C24	36708	33508	31510	32059	31644	31825	31182	AVRG R		3.064E-5		mg/L	32634	6	0.995	20	

32

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Instid : GC11A Calname : dsl
Calnum : 115142409001 Caldate : 08-APR-2005 Caltype :

ICV 115142409011 (098a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C10-C24	A	115142409011	09-APR-2005	500.00	467.77	mg/L	-6

INITIAL CALIBRATION REPORT FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115156062001 Name: Motor Oil Type: (normal) Date: 19-APR-2005 02:03 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	108a020	115156062020	mo50	19-APR-2005 02:03	04WS2172
2	108a021	115156062021	mo250	19-APR-2005 02:33	04WS2173
3	108a022	115156062022	mo500	19-APR-2005 03:03	04WS2174
4	108a023	115156062023	mo1000	19-APR-2005 03:33	04WS2175
5	108a024	115156062024	mo2500	19-APR-2005 04:02	04WS2176
6	108a025	115156062025	mo5000	19-APR-2005 04:32	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	17587	18506	17605	19906	18788	16157	AVRG R		5.527E-5		mg/L	18091	7	0.995	20	

34

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Reviewed By: MCH
Calnum: 115142409003 Name: hxcs Type: (normal) Date: 09-APR-2005 06:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	098a020	115142409020	hex5	09-APR-2005 06:52	s112
2	098a021	115142409021	hex10	09-APR-2005 07:22	s113
3	098a022	115142409022	hex25	09-APR-2005 07:51	s114
4	098a023	115142409023	hex50	09-APR-2005 08:21	s115
5	098a024	115142409024	hex75	09-APR-2005 08:50	s116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 XRSD	MnR^2 MxRSD	Flags
Hexacosane	31483	30572	30285	30096	33263	AVRG R		3.211E-5		mg/L	31140	4	0.995 20	

35

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Analyte: Diesel C10-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115228066043	08-JUN-2005 11:06	115142409001	08-APR-2005	32634	31271	1000.0	958.24	mg/L	-4	15	
GC11A	A	115228066055	08-JUN-2005 21:53	115142409001	08-APR-2005	32634	30873	250.00	236.51	mg/L	-5	15	

CONTINUING CALIBRATION SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115228066044	08-JUN-2005 11:35	115156062001	19-APR-2005	18091	16011	500.00	442.50	mg/L	-12	15	
GC11A	A	115228066056	08-JUN-2005 22:23	115156062001	19-APR-2005	18091	15475	500.00	427.69	mg/L	-14	15	

CONTINUING CALIBRATION SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC11A	A	115228066043	08-JUN-2005 11:06	115142409003	09-APR-2005	31140	28637	50.000	45.980	mg/L	-8	15	
GC11A	A	115228066055	08-JUN-2005 21:53	115142409003	09-APR-2005	31140	27033	50.000	43.406	mg/L	-13	15	

SEQUENCE SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Sequence: 115142409 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 08-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	098a001	X	primer			08-APR-2005 21:29	1.0					
002	098a002	X	ib			08-APR-2005 21:58	1.0					
003	098a003	ICAL	dsl10			08-APR-2005 22:28	1.0				1	
004	098a004	ICAL	dsl100			08-APR-2005 22:58	1.0				2	
005	098a005	ICAL	dsl250			08-APR-2005 23:27	1.0				3	
006	098a006	ICAL	dsl500			08-APR-2005 23:57	1.0				4	
007	098a007	ICAL	dsl1000			09-APR-2005 00:26	1.0				5	
008	098a008	ICAL	dsl2500			09-APR-2005 00:56	1.0				6	
009	098a009	ICAL	dsl5000			09-APR-2005 01:26	1.0				7	
010	098a010	X	ib			09-APR-2005 01:56	1.0					
011	098a011	ICV	dsl			09-APR-2005 02:25	1.0	3			8	
012	098a012	X	ib			09-APR-2005 02:55	1.0					
013	098a013	ICAL	mo50			09-APR-2005 03:25	1.0				9	
014	098a014	ICAL	mo250			09-APR-2005 03:54	1.0				10	
015	098a015	ICAL	mo500			09-APR-2005 04:24	1.0				11	39
016	098a016	ICAL	mo1000			09-APR-2005 04:54	1.0				12	
017	098a017	ICAL	mo2500			09-APR-2005 05:23	1.0				13	
018	098a018	ICAL	mo5000			09-APR-2005 05:53	1.0				14	
019	098a019	X	ib			09-APR-2005 06:22	1.0					
020	098a020	ICAL	hex5			09-APR-2005 06:52	1.0				15	
021	098a021	ICAL	hex10			09-APR-2005 07:22	1.0				16	
022	098a022	ICAL	hex25			09-APR-2005 07:51	1.0				17	
023	098a023	ICAL	hex50			09-APR-2005 08:21	1.0				18	
024	098a024	ICAL	hex75			09-APR-2005 08:50	1.0				19	
025	098a025	X	ib			09-APR-2005 09:20	1.0					
026	098a026	X	c12-60			09-APR-2005 09:49	1.0					
027	098a027	X	c10-16			09-APR-2005 10:19	1.0					

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Sequence: 115156062 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 18-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	108a001	X	primer			18-APR-2005 09:02	1.0					
002	108a002	X	ib			18-APR-2005 09:32	1.0					
003	108a003	X	CCV			18-APR-2005 10:31	1.0	1.0		3	1	
004	108a004	X	CCV			18-APR-2005 11:01	1.0	1.0		3	2	
005	108a005	X	primer			18-APR-2005 15:13	1.0					
006	108a006	X	ib			18-APR-2005 15:42	1.0					
007	108a007	CCV	mo			18-APR-2005 16:11	1.0	1.0	1	3	2	
008	108a008	CCV	dsl			18-APR-2005 16:42	1.0	1.0		3	3	
009	108a009	BLANK	QC290563 S	101192	Water	18-APR-2005 20:34	1.0	0.005	8	3		
010	108a010	SAMPLE	178716-010	101236	Soil	18-APR-2005 21:04	100.0	0.3992		3		
011	108a011	SAMPLE	178716-012	101236	Soil	18-APR-2005 21:34	200.0	0.1987		3		
012	108a012	SAMPLE	178716-006	101236	Soil	18-APR-2005 22:04	10.0	0.09998		3		
013	108a013	SAMPLE	178716-007	101236	Soil	18-APR-2005 22:34	25.0	0.09982		3		
014	108a014	SAMPLE	178716-011	101236	Soil	18-APR-2005 23:04	50.0	0.09986		3		
015	108a015	SAMPLE	178716-008	101236	Soil	18-APR-2005 23:34	25.0	0.09944		3		40
016	108a016	CCV	dsl			19-APR-2005 00:04	1.0	1.0		3	4	
017	108a017	CCV	mo			19-APR-2005 00:34	1.0	1.0	1	3	2	
018	108a018	X	ccv			19-APR-2005 01:04	1.0				4	
019	108a019	X	ib			19-APR-2005 01:33	1.0					
020	108a020	ICAL	mo50			19-APR-2005 02:03	1.0	1.0			5	
021	108a021	ICAL	mo250			19-APR-2005 02:33	1.0	1.0			6	
022	108a022	ICAL	mo500			19-APR-2005 03:03	1.0	1.0			7	
023	108a023	ICAL	mo1000			19-APR-2005 03:33	1.0	1.0			8	
024	108a024	ICAL	mo2500			19-APR-2005 04:02	1.0	1.0			9	
025	108a025	ICAL	mo5000			19-APR-2005 04:32	1.0	1.0			10	
026	108a026	X	ib			19-APR-2005 05:02	1.0					
027	108a027	CCV	mo			19-APR-2005 05:31	1.0	1.0		3	2	

Stds used: 1=S72 2=S294 3=S167 4=S295 5=04WS2172 6=04WS2173 7=04WS2174 8=04WS2175 9=04WS2176 10=04WS2169

SEQUENCE SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Sequence: 115228066 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 07-JUN-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	158a001	X	primer			07-JUN-2005 09:06	1.0						
002	158a002	X	ib			07-JUN-2005 09:36	1.0						
003	158a003	CCV	dsl			07-JUN-2005 10:06	1.0	1.0			3	1	
004	158a004	CCV	mo			07-JUN-2005 10:36	1.0	1.0			3	2	
005	158a005	CCV	bunk			07-JUN-2005 11:06	1.0	1.0			3	3	
006	158a006	SAMPLE	179606-007 S	102567	Soil	07-JUN-2005 11:40	4.0	0.0994		1	3		
007	158a007	SAMPLE	179606-007 S	102567	Soil	07-JUN-2005 12:15	4.0	0.0994			3		
008	158a008	CCV	dsl			07-JUN-2005 13:58	1.0	1.0			3	4	
009	158a009	CCV	mo			07-JUN-2005 14:27	1.0	1.0	1		3	2	
010	158a010	CCV	bunk			07-JUN-2005 15:03	1.0	1.0			3	3	
011	158a011	LCS	QC296402 S	102683	Water	07-JUN-2005 19:20	1.0	0.005	1	1	3		1:HXCS=90.5708
012	158a012	BLANK	QC296401 S	102683	Water	07-JUN-2005 19:49	1.0	0.005	8		3		1:HXCS=81.9536
013	158a013	MS	QC296403 S	102683	Water	07-JUN-2005 20:18	1.0	0.005	1	1	3		1:HXCS=77.5826
014	158a014	MSD	QC296404 S	102683	Water	07-JUN-2005 20:48	1.0	0.005		1	3		
015	158a015	SAMPLE	179704-010 S	102683	Water	07-JUN-2005 21:17	1.0	0.005			3		41
016	158a016	SAMPLE	179704-011 S	102683	Water	07-JUN-2005 21:46	1.0	0.005			3		
017	158a017	MSS	179704-012 S	102683	Water	07-JUN-2005 22:16	1.0	0.005	7		3		
018	158a018	SAMPLE	179704-013 S	102683	Water	07-JUN-2005 22:45	1.0	0.005			3		
019	158a019	SAMPLE	179704-014 S	102683	Water	07-JUN-2005 23:15	1.0	0.005			3		
020	158a020	SAMPLE	179704-015 S	102683	Water	07-JUN-2005 23:44	1.0	0.005			3		
021	158a021	CCV	dsl			08-JUN-2005 00:14	1.0	1.0			3	5	
022	158a022	X	ccv			08-JUN-2005 00:43	1.0					5	
023	158a023	SAMPLE	179704-016 S	102683	Water	08-JUN-2005 01:13	1.0	0.005			3		
024	158a024	SAMPLE	179814-001	102683	Water	08-JUN-2005 01:43	1.0	0.005			3		
025	158a025	SAMPLE	179814-002 S	102683	Water	08-JUN-2005 02:12	1.0	0.005			3		
026	158a026	SAMPLE	179815-001 S	102683	Water	08-JUN-2005 02:42	1.0	0.005			3		
027	158a027	SAMPLE	179815-002 S	102683	Water	08-JUN-2005 03:12	1.0	0.005			3		
028	158a028	SAMPLE	179830-001 S	102683	Water	08-JUN-2005 03:42	1.0	0.005			3		
029	158a029	SAMPLE	179704-006 S	102683	Water	08-JUN-2005 04:11	1.0	0.005			3		
030	158a030	SAMPLE	179704-007 S	102683	Water	08-JUN-2005 04:41	1.0	0.005			3		
031	158a031	SAMPLE	179704-009 S	102683	Water	08-JUN-2005 05:11	1.0	0.005			3		

Stds used: 1=S778 2=S653 3=S437 4=S665 5=S652

SEQUENCE SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Sequence: 115228066 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 07-JUN-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
032	158a032	SAMPLE	179704-008 S	102683	Water	08-JUN-2005 05:40	1.0	0.005			3		
033	158a033	CCV	dsl			08-JUN-2005 06:10	1.0	1.0			3	1	
034	158a034	X	ccv			08-JUN-2005 06:39	1.0					1	
035	158a035	SAMPLE	179704-002 S	102683	Water	08-JUN-2005 07:09	1.0	0.005		1	3		
036	158a036	SAMPLE	179704-003 S	102683	Water	08-JUN-2005 07:39	1.0	0.005	1		3		1:HXCS=84.0689
037	158a037	SAMPLE	179704-004 S	102683	Water	08-JUN-2005 08:08	1.0	0.005			3		
038	158a038	SAMPLE	179704-005 S	102683	Water	08-JUN-2005 08:38	1.0	0.005	1		3		1:HXCS=78.7918
039	158a039	LCS	QC296402 S	102683	Water	08-JUN-2005 09:08	1.0	0.005			3		
040	158a040	BLANK	QC296401 S	102683	Water	08-JUN-2005 09:37	1.0	0.005	12		3		
041	158a041	MS	QC296403 S	102683	Water	08-JUN-2005 10:07	1.0	0.005			3		
042	158a042	MSD	QC296404 S	102683	Water	08-JUN-2005 10:36	1.0	0.005			3		
043	158a043	CCV	dsl			08-JUN-2005 11:06	1.0	1.0			3	4	
044	158a044	CCV	mo			08-JUN-2005 11:35	1.0	1.0			3	2	
045	158a045	LCS	QC296608 S	102734	Water	08-JUN-2005 16:58	1.0	0.005			3		
046	158a046	BLANK	QC296607 S	102734	Water	08-JUN-2005 17:27	1.0	0.005	7		3		
047	158a047	MS	QC296609 S	102734	Water	08-JUN-2005 17:56	1.0	0.005			3		
048	158a048	MSD	QC296610 S	102734	Water	08-JUN-2005 18:26	1.0	0.005			3		
049	158a049	SAMPLE	179714-001 S	102734	Water	08-JUN-2005 18:55	1.0	0.005			3		
050	158a050	SAMPLE	179719-003 S	102734	Water	08-JUN-2005 19:25	1.0	0.005			3		
051	158a051	SAMPLE	179719-004 S	102734	Water	08-JUN-2005 19:54	1.0	0.005			3		
052	158a052	SAMPLE	179719-005 S	102734	Water	08-JUN-2005 20:24	1.0	0.005			3		
053	158a053	SAMPLE	179727-001 S	102734	Water	08-JUN-2005 20:54	1.0	0.005			3		
054	158a054	MSS	179727-002 S	102734	Water	08-JUN-2005 21:23	1.0	0.005	7		3		
055	158a055	CCV	dsl			08-JUN-2005 21:53	1.0	1.0			3	5	
056	158a056	CCV	mo			08-JUN-2005 22:23	1.0	1.0			3	2	
057	158a057	X	ccv			08-JUN-2005 22:52	1.0					5	
058	158a058	SAMPLE	179727-003 S	102734	Water	08-JUN-2005 23:22	1.0	0.005			3		
059	158a059	SAMPLE	179727-004 S	102734	Water	08-JUN-2005 23:52	1.0	0.005			3		
060	158a060	SAMPLE	179727-005 S	102734	Water	09-JUN-2005 00:21	1.0	0.005			3		
061	158a061	SAMPLE	179727-007 S	102734	Water	09-JUN-2005 00:51	1.0	0.005			3		
062	158a062	SAMPLE	179727-008 S	102734	Water	09-JUN-2005 01:21	1.0	0.005			3		

Stds used: 1=S778 2=S653 3=S437 4=S665 5=S652

SEQUENCE SUMMARY FOR 179714 TEHM Water
Curtis & Tompkins Laboratories

Sequence: 115228066 Instrument: GC11A Gas Chromatograph #11 (Channel A) TEH Begun: 07-JUN-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
063	158a063	SAMPLE	179727-014 S	102734	Water	09-JUN-2005 01:51	1.0	0.005		3		
064	158a064	SAMPLE	179727-015 S	102734	Water	09-JUN-2005 02:21	1.0	0.005		3		
065	158a065	SAMPLE	179727-016 S	102734	Water	09-JUN-2005 02:50	1.0	0.005		3		
066	158a066	SAMPLE	179727-017 S	102734	Water	09-JUN-2005 03:20	1.0	0.005		3		
067	158a067	SAMPLE	179727-018 S	102734	Water	09-JUN-2005 03:50	1.0	0.005		3		
068	158a068	CCV	dsl			09-JUN-2005 04:20	1.0	1.0		3	4	
069	158a069	CCV	mo			09-JUN-2005 04:49	1.0	1.0		3	2	
070	158a070	X	ccv			09-JUN-2005 05:19	1.0				4	
071	158a071	SAMPLE	179834-001	102734	Water	09-JUN-2005 05:49	1.0	0.005		3		
072	158a072	SAMPLE	179843-001	102734	Water	09-JUN-2005 06:19	1.0	0.005		3		
073	158a073	CCV	dsl			09-JUN-2005 06:49	1.0	1.0		3	1	
074	158a074	CCV	mo			09-JUN-2005 07:19	1.0	1.0	1	3	2	

43

Stds used: 1=S778 2=S653 3=S437 4=S665 5=S652

Curtis & Tompkins Laboratories Sample Preparation Summary 08-JUN-2005 16:41

Batch Number : 102734
Date Extracted: 07-JUN-2005
Extracted by : Sharon L. Karagozlu
Prep Method : 3520C

Analysis : N/A
Bgroup : TEH
Units : mL
Clean-up :

Spike #1 ID : S449E
Spike #2 ID : S795B
Spike #3 ID :
SOP Version : TEH50LL_rv10

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179714-001			Mactec, Inc.	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179719-003			Weston Solutions	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179719-004			Weston Solutions	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179719-005			Weston Solutions	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-001			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg,mss
179727-002			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-003			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-004			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-005			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-007			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-008			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-014			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-015			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-016			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-017			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM	3630C	sg
179727-018			Treadwell & Rollo	Water	500	mL	2.5	0.005000	1	7	.5	0		TEHM		
179834-001			Pacific Analytical Laboratory	Water	500	mL	2.5	0.005000	1	7	.5	0		TEH		
179843-001			Ninyo & Moore	Water	500	mL	2.5	0.005000	1		.5	0		TEH	3630C	sg
QC296607	BLANK			Water	500	mL	2.5	0.005000	1		.5	.5		TEH	3630C	sg
QC296608	LCS			Water	500	mL	2.5	0.005000	1	7	.5	.5		TEH	3630C	sg
QC296609	MS	of 179727-002		Water	500	mL	2.5	0.005000	1	7	.5	.5		TEH	3630C	sg
QC296610	MSD	of 179727-002		Water	500	mL	2.5	0.005000	1	7	.5	.5		TEH	3630C	sg

Prep Chemist: _____ Reviewed By: _____ Date: 6/8/05

Relinquished By: _____ Received By: _____ Date: 6/8/05

Curtis & Tompkins, Ltd

TEH WATER PREP LOG

BK2095

Page 95

LIMS Batch No: 102734
LIMS Analysis: TEH/M
Extracted by: SLK
Date Extracted: 06/07/05

Extraction Method:
- ☐ mod. EPA 3510 sep. funnel
- ☑ mod. EPA 3520 cont. L/L
- ☐ _____

Cleanup Method (if needed):
- ☒ EPA 3630 Silica Gel
- ☐ Other _____

	Sample # & letter	Volume of Sample (mL)	Sample pH	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB QC 2916d07	500	N/A	2.5	X	
	LCS 08	↓	↓	↓	↓	
	MS 09		7			179727-002 AS
	MSD 10					↓ AS
5	179714-001 J					
	179719-003 G					
	-004 F					
	↓ -005 G					
	179727-001 N					
10	-002 H					MSS
	-003 N					
	-004 G					
	-005 Q					
	-007 N					
15	-008 N					
	-014 G					
	-015 F					
	-016 Q					
	-017 H					
20	↓ -018 Q				↓ SLK 6/10/05	
	179834-001 A					
	179843-001 G	↓	↓	↓		
			~~6/8/05~~			

	Mfg & Lot# / LIMS # / Time	Date/ Initials
0.5 mL of TEH_SURR was added to all samples	S449E	SLK 6/07/05
0.5 mL of TEH_SP was added to all spikes	S795B	↓
pH of all samples adjusted to pH ≤ 2 with H_2SO_4	JTB A49 U34	
☒ Samples were continually extracted about 450 mL of CH_2Cl_2	EM 44244	
Extraction Start Time:	1730	↓
Extraction End Time:	1145	SLK 6/8/05
☐ Samples were extracted 3 times with 60 mL of CH_2Cl_2	N/A	
Extracts filtered through baked, CH2Cl2-rinsed granular Na2SO4	EM 44278	↓
Concentrated to volumes as noted above	✓	

SLK 06/07/05
Extraction Chemist **Date**

Contined from Page 45
Continued on Page ____

PD 6/8/05
Reviewed by **Date**

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: SHD
Cleanup Date: 6/8/05

Benchbook # **BK2130**
Page 40

	Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
	179714-001	102734	1.0	1.0	
	179719-003				
	-004				
	-005				
5	179727-001				
	-002				MSS
	-003				
	-004				
	-005				
10	-007				
	-008				
	-014				
	-015				
	-016				
15	-017				
	-018				
	MB QC296607				
	LCS 08				
	MS 09				
20	MSD 10				
25					
30					

SHD 6/8/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	SHD 6/8/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP 6095 Supelco	↓
Extracts were eluted with 2.0 mL CH_2Cl_2	EM 45047	
Concentrated to volumes as noted above	✓	

6/8/05
Extraction Chemist / Date

Continued from page F
Continued on page 46

6/8/05
Reviewed by / Date

PESTICIDE DATA

(WATER)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBIPZ101	Batch#:	102456
Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	05/29/05
Diln Fac:	1.000	Analyzed:	06/09/05

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.009
beta-BHC	ND	0.05	0.02
gamma-BHC	ND	0.05	0.009
delta-BHC	ND	0.05	0.009
Heptachlor	ND	0.05	0.003
Aldrin	ND	0.05	0.003
Heptachlor epoxide	ND	0.05	0.009
Endosulfan I	ND	0.05	0.009
Dieldrin	ND	0.09	0.02
4,4'-DDE	ND	0.09	0.01
Endrin	ND	0.09	0.02
Endosulfan II	ND	0.09	0.01
Endosulfan sulfate	ND	0.09	0.01
4,4'-DDD	ND	0.09	0.01
Endrin aldehyde	ND	0.09	0.01
4,4'-DDT	ND	0.09	0.009
alpha-Chlordane	ND	0.05	0.007
gamma-Chlordane	ND	0.05	0.007
Methoxychlor	ND	0.5	0.07
Toxaphene	ND	0.9	0.5

Surrogate	%REC	Limits
TCMX	105	44-120
Decachlorobiphenyl	55	50-128

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295453	Batch#:	102456
Matrix:	Water	Prepared:	05/29/05
Units:	ug/L	Analyzed:	06/01/05

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.002
beta-BHC	ND	0.05	0.002
gamma-BHC	ND	0.05	0.002
delta-BHC	0.005 J	0.05	0.002
Heptachlor	ND	0.05	0.004
Aldrin	ND	0.05	0.005
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.006
4,4'-DDE	ND	0.1	0.004
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.006
Endosulfan sulfate	ND	0.1	0.005
4,4'-DDD	ND	0.1	0.006
Endrin aldehyde	ND	0.1	0.005
4,4'-DDT	ND	0.1	0.004
alpha-Chlordane	ND	0.05	0.002
gamma-Chlordane	ND	0.05	0.002
Methoxychlor	ND	0.5	0.02
Toxaphene	ND	1.0	0.5

Surrogate	%REC	Limits
TCMX	117	44-120
Decachlorobiphenyl	73	50-128

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC295454	Batch#:	102456
Matrix:	Water	Prepared:	05/29/05
Units:	ug/L	Analyzed:	06/01/05

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	0.2000	0.1894	95	61-140
Heptachlor	0.2000	0.1815	91	53-143
Aldrin	0.2000	0.1802	90	60-120
Dieldrin	0.4000	0.3781	95	57-127
Endrin	0.4000	0.3779	94	59-136
4,4'-DDT	0.4000	0.3777	94	55-149

Surrogate	%REC	Limits
TCMX	120	44-120
Decachlorobiphenyl	99	50-128

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	102456
MSS Lab ID:	179727-002	Sampled:	05/26/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	05/29/05
Diln Fac:	1.000	Analyzed:	06/02/05

Type: MS Lab ID: QC295455

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.002296	0.1942	0.1675	86	52-144
Heptachlor	<0.003572	0.1942	0.1551	80	53-138
Aldrin	<0.004441	0.1942	0.1547	80	45-120
Dieldrin	<0.005763	0.3883	0.3263	84	55-133
Endrin	<0.007437	0.3883	0.3327	86	60-130
4,4'-DDT	<0.003534	0.3883	0.3038	78	42-144

Surrogate	%REC	Limits
TCMX	115	44-120
Decachlorobiphenyl	76	50-128

Type: MSD Lab ID: QC295456

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	0.1905	0.1782	94	52-144	8	37
Heptachlor	0.1905	0.1718	90	53-138	12	38
Aldrin	0.1905	0.1755	92	45-120	15	35
Dieldrin	0.3810	0.3555	93	55-133	10	35
Endrin	0.3810	0.3613	95	60-130	10	35
4,4'-DDT	0.3810	0.3461	91	42-144	15	41

Surrogate	%REC	Limits
TCMX	124 *	44-120
Decachlorobiphenyl	82	50-128

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235226759001 Name: Type: (normal) Date: 07-JUN-2005 00:31 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	157_024	235226759024	pest_1	07-JUN-2005 00:31	S737
2	157_025	235226759025	pest_2	07-JUN-2005 01:01	S419
3	157_026	235226759026	pest_3	07-JUN-2005 01:31	S738
4	157_027	235226759027	pest_4	07-JUN-2005 02:02	S643
5	157_028	235226759028	pest_5	07-JUN-2005 02:32	S613
6	157_029	235226759029	pest_6	07-JUN-2005 03:03	S13
7	157_030	235226759030	pest_7	07-JUN-2005 03:33	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	2313.0	2541.0	2514.9	2658.3	2905.1	4154.0		AVRG	R		3.512E-4		pg	2847.7	**23**	0.995	20	rsd ***
gamma-BHC	A	2417.2	2597.6	2620.1	2727.4	2972.1	4088.1		AVRG	R		3.444E-4		pg	2903.7	**21**	0.995	20	rsd ***
beta-BHC	A	1639.0	1766.9	1674.8	1621.6	1713.4	2127.2	2325.4	AVRG	R		5.440E-4		pg	1838.3	15	0.995	20	
delta-BHC	A	2092.4	2277.6	2257.5	2360.7	2565.5	3794.7		AVRG	R		3.909E-4		pg	2558.1	**24**	0.995	20	rsd ***
Heptachlor	A	2797.3	3015.4	2934.3	2834.0	2999.0	3899.6	4241.2	AVRG	R		3.081E-4		pg	3245.8	18	0.995	20	
Aldrin	A	2705.6	2818.0	2748.2	2699.0	2840.6	3665.8	4090.9	AVRG	R		3.246E-4		pg	3081.2	18	0.995	20	
Heptachlor epoxide	A	3039.8	3211.7	3028.7	2886.1	3022.9	3724.9	3873.5	AVRG	R		3.072E-4		pg	3255.4	12	0.995	20	
gamma-Chlordane	A	3061.4	3177.9	2985.7	2861.6	3015.2	3780.2	4014.2	AVRG	R		3.057E-4		pg	3270.9	14	0.995	20	
alpha-Chlordane	A	3245.9	3270.8	3124.8	2986.8	3135.3	3859.8	4028.4	AVRG	R		2.960E-4		pg	3378.8	12	0.995	20	
4,4'-DDE	A	2646.5	2873.7	2717.8	2628.0	2690.7	3460.0	3552.2	AVRG	R		3.403E-4		pg	2938.4	14	0.995	20	
Endosulfan I	A	3243.7	3308.3	3190.9	3010.9	3112.0	3908.8	4077.8	AVRG	R		2.935E-4		pg	3407.5	12	0.995	20	
Dieldrin	A	2566.3	2838.4	2723.9	2690.5	2780.6	3563.1	3645.1	AVRG	R		3.364E-4		pg	2972.6	15	0.995	20	
Endrin	A	2234.4	2498.3	2271.9	2228.1	2320.3	3040.8	3061.9	AVRG	R		3.965E-4		pg	2522.3	15	0.995	20	
4,4'-DDD	A	1594.9	1795.2	1664.6	1702.0	1754.6	2538.6		AVRG	R		5.430E-4		pg	1841.6	19	0.995	20	
Endosulfan II	A	2540.1	2780.6	2644.7	2554.5	2616.6	3311.0	3296.6	AVRG	R		3.545E-4		pg	2820.6	12	0.995	20	
4,4'-DDT	A	1334.7	1442.6	1452.8	1497.3	1625.8			AVRG	R		6.800E-4		pg	1470.6	7	0.995	20	
Endrin aldehyde	A	2697.7	2650.1	2404.0	2218.2	2217.9	2694.2	2671.1	AVRG	R		3.988E-4		pg	2507.6	9	0.995	20	
Methoxychlor	A	849.92	983.72	898.06	855.86	829.54	1073.0	1017.2	AVRG	R		0.001076		pg	929.61	10	0.995	20	

52

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235226759001 Name: Type: (normal) Date: 07-JUN-2005 00:31 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Endosulfan sulfate	A	2461.1	2650.7	2422.6	2308.1	2312.9	2957.4	2910.6	AVRG	R		3.884E-4		pg	2574.8	11	0.995	20	
TCMX	A	2985.3	3149.6	3048.9	2943.5	3000.8	3486.2	3694.9	AVRG	R		3.138E-4		pg	3187.0	9	0.995	20	
Decachlorobiphenyl	A	3819.4	4084.8	3225.2	2921.2	2850.4	3618.2	3399.2	AVRG	R		2.927E-4		pg	3416.9	13	0.995	20	
alpha-BHC	B	7660.9	7954.2	7659.2	7534.8	7952.2	9602.9	10514	AVRG	R		1.189E-4		pg	8411.2	14	0.995	20	
gamma-BHC	B	7307.5	7552.1	7158.7	6871.9	7170.0	8585.8	9250.1	AVRG	R		1.299E-4		pg	7699.5	11	0.995	20	
beta-BHC	B	4683.4	4656.3	4103.8	3666.6	3738.4	4185.5	4283.5	AVRG	R		2.388E-4		pg	4188.2	10	0.995	20	
delta-BHC	B	6955.1	7187.7	6891.2	6662.2	6919.6	8558.3	9159.5	AVRG	R		1.338E-4		pg	7476.2	13	0.995	20	
Heptachlor	B	5966.4	5842.0	5353.5	4787.9	4941.5	5872.4	6070.0	AVRG	R		1.803E-4		pg	5547.6	9	0.995	20	
Aldrin	B	7459.8	7427.9	6994.4	6534.7	6725.5	7856.3	8109.2	AVRG	R		1.370E-4		pg	7301.1	8	0.995	20	
Heptachlor epoxide	B	7474.1	7456.9	6569.1	5885.1	6005.8	6728.6	6572.7	AVRG	R		1.499E-4		pg	6670.3	9	0.995	20	
gamma-Chlordane	B	7933.4	7908.8	7094.3	6392.9	6530.5	7636.7	7825.3	AVRG	R		1.364E-4		pg	7331.7	9	0.995	20	
alpha-Chlordane	B	8366.5	8087.8	7252.5	6506.5	6586.5	7612.4	7715.2	AVRG	R		1.343E-4		pg	7446.8	10	0.995	20	
4,4'-DDE	B	6101.9	5895.9	5595.4	5261.8	5221.4	6556.8	6615.9	AVRG	R		1.697E-4		pg	5892.7	10	0.995	20	
Endosulfan I	B	8099.6	7317.2	6486.1	5820.5	5891.7	6630.9	6466.7	AVRG	R		1.499E-4		pg	6673.2	12	0.995	20	
Dieldrin	B	6960.8	6658.6	6078.1	5564.2	5640.0	6440.9	6207.9	AVRG	R		1.607E-4		pg	6221.5	8	0.995	20	
Endrin	B	5165.6	5446.9	4626.4	4248.1	4187.0	5132.7	4938.8	AVRG	R		2.074E-4		pg	4820.8	10	0.995	20	
4,4'-DDD	B	4296.3	4244.8	3822.5	3543.2	3487.5	4457.6	4492.4	AVRG	R		2.470E-4		pg	4049.2	11	0.995	20	
Endosulfan II	B	6829.8	6365.0	5643.2	4867.9	4902.3	5502.8	5167.5	AVRG	R		1.782E-4		pg	5611.2	13	0.995	20	
4,4'-DDT	B	2957.1	2635.3	2754.9	2554.9	2512.0	3643.4	3791.4	AVRG	R		3.357E-4		pg	2978.4	18	0.995	20	
Endrin aldehyde	B	5478.2	5261.2	4538.0	3979.1	3819.8	4360.8	4089.6	AVRG	R		2.220E-4		pg	4503.8	14	0.995	20	
Methoxychlor	B	1459.7	1335.9	1123.2	994.26	943.57	1213.1	1208.2	AVRG	R		8.456E-4		pg	1182.6	15	0.995	20	
Endosulfan sulfate	B	6264.7	5856.3	4972.8	4375.8	4250.1	4975.1	4665.6	AVRG	R		1.980E-4		pg	5051.5	15	0.995	20	
TCMX	B	7474.7	7278.1	6716.4	6136.2	6152.8	6754.7	7000.6	AVRG	R		1.473E-4		pg	6787.7	8	0.995	20	
Decachlorobiphenyl	B	5517.7	5545.6	4143.2	3595.1	3577.8	4517.0	4429.9	AVRG	R		2.235E-4		pg	4475.2	18	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	14	20	
EPA 8081A	B	22	12	20	

Flags used: rsd=ICAL %RSD failure

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235226759001 Caldate : 07-JUN-2005 Caltype :

ICV 235226759033 (157_033) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235226759033	07-JUN-2005	25.000	27.510	pg	10	15	
gamma-BHC	A	235226759033	07-JUN-2005	25.000	26.713	pg	7	15	
beta-BHC	A	235226759033	07-JUN-2005	25.000	24.273	pg	-3	15	
delta-BHC	A	235226759033	07-JUN-2005	25.000	27.401	pg	10	15	
Heptachlor	A	235226759033	07-JUN-2005	25.000	24.793	pg	-1	15	
Aldrin	A	235226759033	07-JUN-2005	25.000	24.143	pg	-3	15	
Heptachlor epoxide	A	235226759033	07-JUN-2005	25.000	24.663	pg	-1	15	
gamma-Chlordane	A	235226759033	07-JUN-2005	25.000	23.852	pg	-5	15	
alpha-Chlordane	A	235226759033	07-JUN-2005	25.000	23.914	pg	-4	15	
4,4'-DDE	A	235226759033	07-JUN-2005	25.000	23.222	pg	-7	15	
Endosulfan I	A	235226759033	07-JUN-2005	25.000	23.956	pg	-4	15	
Dieldrin	A	235226759033	07-JUN-2005	25.000	23.143	pg	-7	15	
Endrin	A	235226759033	07-JUN-2005	25.000	24.839	pg	-1	15	
4,4'-DDD	A	235226759033	07-JUN-2005	25.000	24.382	pg	-2	15	
Endosulfan II	A	235226759033	07-JUN-2005	25.000	24.432	pg	-2	15	
4,4'-DDT	A	235226759033	07-JUN-2005	25.000	26.534	pg	6	15	
Endrin aldehyde	A	235226759033	07-JUN-2005	25.000	24.936	pg	0	15	
Methoxychlor	A	235226759033	07-JUN-2005	25.000	24.569	pg	-2	15	
Endosulfan sulfate	A	235226759033	07-JUN-2005	25.000	25.061	pg	0	15	
alpha-BHC	B	235226759033	07-JUN-2005	25.000	25.354	pg	1	15	
gamma-BHC	B	235226759033	07-JUN-2005	25.000	24.595	pg	-2	15	
beta-BHC	B	235226759033	07-JUN-2005	25.000	23.479	pg	-6	15	
delta-BHC	B	235226759033	07-JUN-2005	25.000	25.216	pg	1	15	
Heptachlor	B	235226759033	07-JUN-2005	25.000	24.425	pg	-2	15	
Aldrin	B	235226759033	07-JUN-2005	25.000	24.324	pg	-3	15	
Heptachlor epoxide	B	235226759033	07-JUN-2005	25.000	24.147	pg	-3	15	
gamma-Chlordane	B	235226759033	07-JUN-2005	25.000	23.475	pg	-6	15	
alpha-Chlordane	B	235226759033	07-JUN-2005	25.000	23.371	pg	-7	15	
4,4'-DDE	B	235226759033	07-JUN-2005	25.000	24.204	pg	-3	15	
Endosulfan I	B	235226759033	07-JUN-2005	25.000	23.697	pg	-5	15	
Dieldrin	B	235226759033	07-JUN-2005	25.000	24.463	pg	-2	15	
Endrin	B	235226759033	07-JUN-2005	25.000	26.475	pg	6	15	
4,4'-DDD	B	235226759033	07-JUN-2005	25.000	24.302	pg	-3	15	
Endosulfan II	B	235226759033	07-JUN-2005	25.000	25.233	pg	1	15	
4,4'-DDT	B	235226759033	07-JUN-2005	25.000	23.734	pg	-5	15	
Endrin aldehyde	B	235226759033	07-JUN-2005	25.000	25.689	pg	3	15	
Methoxychlor	B	235226759033	07-JUN-2005	25.000	31.213	pg	**25**	15	v+ ***
Endosulfan sulfate	B	235226759033	07-JUN-2005	25.000	25.615	pg	2	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	4	15	
EPA 8081A	B	20	5	15	

+=high bias v=ICV
Page 1 of 1

INITIAL CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	147_005	805212954005	pest_1	27-MAY-2005 21:14	S9
2	147_006	805212954006	pest_2	27-MAY-2005 21:42	S419
3	147_007	805212954007	pest_3	27-MAY-2005 22:09	S420
4	147_008	805212954008	pest_4	27-MAY-2005 22:37	S643
5	147_009	805212954009	pest_5	27-MAY-2005 23:05	S613
6	147_010	805212954010	pest_6	27-MAY-2005 23:33	S13
7	147_011	805212954011	pest_7	28-MAY-2005 00:00	S14

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	12447	11627	11921	10432	11285	10670	11710	AVRG	R		8.740E-5		pg	11442	6	0.995	20	
gamma-BHC	A	11134	10727	11052	9675.1	10346	9722.9	10629	AVRG	R		9.552E-5		pg	10469	6	0.995	20	
beta-BHC	A	5016.0	4666.8	4758.6	4073.8	4358.3	3970.1	3993.7	AVRG	R		2.270E-4		pg	4405.3	9	0.995	20	
delta-BHC	A	12202	11262	11533	9983.7	10711	10094	11002	AVRG	R		9.116E-5		pg	10970	7	0.995	20	
Heptachlor	A	9684.5	9249.6	9630.8	8339.4	8995.6	8294.7	8885.3	AVRG	R		1.110E-4		pg	9011.4	6	0.995	20	
Aldrin	A	10074	9699.8	9989.5	8600.6	9124.3	8423.6	9019.8	AVRG	R		1.078E-4		pg	9275.9	7	0.995	20	
Heptachlor epoxide	A	9360.7	8988.1	9245.9	7693.3	8324.6	7603.1	7853.7	AVRG	R		1.185E-4		pg	8438.5	9	0.995	20	
gamma-Chlordane	A	9454.6	9141.3	9349.7	7821.8	8471.9	7760.6	8311.3	AVRG	R		1.161E-4		pg	8615.9	8	0.995	20	
alpha-Chlordane	A	8800.2	8888.9	9120.3	7722.6	8198.7	7514.2	7983.0	AVRG	R		1.202E-4		pg	8318.3	7	0.995	20	
4,4'-DDE	A	9039.1	8618.7	8870.7	7513.9	8171.1	7849.0	7855.1	AVRG	R		1.209E-4		pg	8273.9	7	0.995	20	
Endosulfan I	A	8801.5	8405.5	8624.6	7225.2	7754.1	7016.6	7171.3	AVRG	R		1.273E-4		pg	7857.0	10	0.995	20	
Dieldrin	A	9466.3	8911.7	9148.1	7717.3	8350.3	7921.6	7889.1	AVRG	R		1.178E-4		pg	8486.3	8	0.995	20	
Endrin	A	7291.3	6933.8	7211.2	5787.3	6716.3	5989.9	6188.2	AVRG	R		1.518E-4		pg	6588.3	9	0.995	20	
4,4'-DDD	A	7599.5	7350.2	7513.9	6286.4	6828.4	6338.2	6626.0	AVRG	R		1.442E-4		pg	6934.7	8	0.995	20	
Endosulfan II	A	8048.8	7796.8	7892.0	6514.7	7058.0	6477.2	6729.0	AVRG	R		1.386E-4		pg	7216.6	9	0.995	20	
4,4'-DDT	A	6278.2	6165.8	6727.9	5588.5	6271.5	5673.7	6341.2	AVRG	R		1.626E-4		pg	6149.5	6	0.995	20	
Endrin aldehyde	A	6549.4	5921.3	6247.9	5296.5	5204.6	4731.7	5262.5	AVRG	R		1.785E-4		pg	5602.0	12	0.995	20	
Methoxychlor	A	2705.4	2550.9	2735.1	2252.6	2586.5	2266.3	2033.8	AVRG	R		4.086E-4		pg	2447.2	11	0.995	20	
Endosulfan sulfate	A	7046.5	6791.0	6911.8	5656.8	6169.5	5554.2	5898.6	AVRG	R		1.590E-4		pg	6289.8	10	0.995	20	

55

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805212954001 Name: Type: (normal) Date: 27-MAY-2005 21:14 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
TCMX	A	7927.3	7568.2	7514.1	6688.6	7033.5	6610.5	7153.2	AVRG	R		1.386E-4		pg	7213.6	7	0.995	20	
Decachlorobiphenyl	A	4715.1	4579.2	4979.0	3544.6	4440.9	3629.1	4186.5	AVRG	R		2.328E-4		pg	4296.4	13	0.995	20	
alpha-BHC	B	20221	19824	20772	17985	20532	25099	27513	AVRG	R		4.607E-5		pg	21707	15	0.995	20	
gamma-BHC	B	18555	18647	19125	16687	18576	23002	25861	AVRG	R		4.984E-5		pg	20065	16	0.995	20	
beta-BHC	B	8509.8	8175.0	8072.0	6744.5	7304.9	7743.0	9485.2	AVRG	R		1.249E-4		pg	8004.9	11	0.995	20	
delta-BHC	B	20173	19512	19750	17285	19225	24469	25984	AVRG	R		4.782E-5		pg	20914	15	0.995	20	
Heptachlor	B	13288	13423	13747	12344	13662	17631		AVRG	R		7.135E-5		pg	14016	13	0.995	20	
Aldrin	B	16989	17120	16916	14959	16168	20439	23895	AVRG	R		5.534E-5		pg	18069	17	0.995	20	
Heptachlor epoxide	B	15065	15976	15404	13295	14250	18066	21715	AVRG	R		6.153E-5		pg	16253	17	0.995	20	
gamma-Chlordane	B	15739	16088	15497	13564	14590	18983	22699	AVRG	R		5.975E-5		pg	16737	19	0.995	20	
alpha-Chlordane	B	15548	15976	15258	13395	14232	18468	21924	AVRG	R		6.097E-5		pg	16400	18	0.995	20	
4,4'-DDE	B	14784	15701	15259	14497	16269	21062	15344	AVRG	R		6.199E-5		pg	16131	14	0.995	20	
Endosulfan I	B	14600	15002	14385	12496	13303	16909	20287	AVRG	R		6.543E-5		pg	15283	17	0.995	20	
Dieldrin	B	15391	16135	15800	14772	16751	21521	15983	AVRG	R		6.016E-5		pg	16622	14	0.995	20	
Endrin	B	12261	12919	12199	10582	12369	16853	14890	AVRG	R		7.603E-5		pg	13153	16	0.995	20	
4,4'-DDD	B	11929	12854	12313	11006	12261	16835	14222	AVRG	R		7.657E-5		pg	13060	15	0.995	20	
Endosulfan II	B	13548	14223	13585	11955	13450	17936	15163	AVRG	R		7.010E-5		pg	14266	13	0.995	20	
4,4'-DDT	B	10331	11181	10584	9853.3	11034			AVRG	R		9.437E-5		pg	10597	5	0.995	20	
Endrin aldehyde	B	11000	10978	10192	9047.8	9547.5	12822	13375	AVRG	R		9.095E-5		pg	10995	15	0.995	20	
Methoxychlor	B	4549.3	4938.2	4754.6	4811.7	5260.9	5554.0		AVRG	R		2.009E-4		pg	4978.1	7	0.995	20	
Endosulfan sulfate	B	12162	12210	11396	9950.3	10775	14804	14153	AVRG	R		8.192E-5		pg	12207	14	0.995	20	
TCMX	B	13256	12642	13505	11396	12540	15029	15639	AVRG	R		7.446E-5		pg	13429	11	0.995	20	
Decachlorobiphenyl	B	9350.8	9986.9	9183.9	7226.3	8793.9	13134	10458	AVRG	R		1.027E-4		pg	9733.3	19	0.995	20	

Method	Ch	Count	Avg	%RSD	Limit	Flags
EPA 8081A	A	22	8		20	
EPA 8081A	B	22	14		20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :

ICV 805212954013 (147_013) standards: S441

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
alpha-BHC	A	805212954013	28-MAY-2005	25.000	23.435	pg	-6	15
gamma-BHC	A	805212954013	28-MAY-2005	25.000	23.097	pg	-8	15
beta-BHC	A	805212954013	28-MAY-2005	25.000	23.253	pg	-7	15
delta-BHC	A	805212954013	28-MAY-2005	25.000	23.444	pg	-6	15
Heptachlor	A	805212954013	28-MAY-2005	25.000	23.343	pg	-7	15
Aldrin	A	805212954013	28-MAY-2005	25.000	23.313	pg	-7	15
Heptachlor epoxide	A	805212954013	28-MAY-2005	25.000	23.633	pg	-5	15
gamma-Chlordane	A	805212954013	28-MAY-2005	25.000	22.895	pg	-8	15
alpha-Chlordane	A	805212954013	28-MAY-2005	25.000	23.167	pg	-7	15
4,4'-DDE	A	805212954013	28-MAY-2005	25.000	23.535	pg	-6	15
Endosulfan I	A	805212954013	28-MAY-2005	25.000	23.331	pg	-7	15
Dieldrin	A	805212954013	28-MAY-2005	25.000	23.009	pg	-8	15
Endrin	A	805212954013	28-MAY-2005	25.000	25.588	pg	2	15
4,4'-DDD	A	805212954013	28-MAY-2005	25.000	24.526	pg	-2	15
Endosulfan II	A	805212954013	28-MAY-2005	25.000	24.348	pg	-3	15
4,4'-DDT	A	805212954013	28-MAY-2005	25.000	23.382	pg	-6	15
Endrin aldehyde	A	805212954013	28-MAY-2005	25.000	21.855	pg	-13	15
Methoxychlor	A	805212954013	28-MAY-2005	25.000	28.199	pg	13	15
Endosulfan sulfate	A	805212954013	28-MAY-2005	25.000	24.424	pg	-2	15
alpha-BHC	B	805212954013	28-MAY-2005	25.000	22.049	pg	-12	15
gamma-BHC	B	805212954013	28-MAY-2005	25.000	21.574	pg	-14	15
beta-BHC	B	805212954013	28-MAY-2005	25.000	21.621	pg	-14	15
delta-BHC	B	805212954013	28-MAY-2005	25.000	22.322	pg	-11	15
Heptachlor	B	805212954013	28-MAY-2005	25.000	23.776	pg	-5	15
Aldrin	B	805212954013	28-MAY-2005	25.000	21.938	pg	-12	15
Heptachlor epoxide	B	805212954013	28-MAY-2005	25.000	22.480	pg	-10	15
gamma-Chlordane	B	805212954013	28-MAY-2005	25.000	21.740	pg	-13	15
alpha-Chlordane	B	805212954013	28-MAY-2005	25.000	21.818	pg	-13	15
4,4'-DDE	B	805212954013	28-MAY-2005	25.000	22.806	pg	-9	15
Endosulfan I	B	805212954013	28-MAY-2005	25.000	22.511	pg	-10	15
Dieldrin	B	805212954013	28-MAY-2005	25.000	22.311	pg	-11	15
Endrin	B	805212954013	28-MAY-2005	25.000	23.739	pg	-5	15
4,4'-DDD	B	805212954013	28-MAY-2005	25.000	23.207	pg	-7	15
Endosulfan II	B	805212954013	28-MAY-2005	25.000	23.175	pg	-7	15
4,4'-DDT	B	805212954013	28-MAY-2005	25.000	25.521	pg	2	15
Endrin aldehyde	B	805212954013	28-MAY-2005	25.000	23.050	pg	-8	15
Methoxychlor	B	805212954013	28-MAY-2005	25.000	25.503	pg	2	15
Endosulfan sulfate	B	805212954013	28-MAY-2005	25.000	23.306	pg	-7	15

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	6	15	
EPA 8081A	B	20	9	15	

PERFORMANCE EVALUATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609013 Run Name: Injected: 01-JUN-2005 21:17
Filename: 152_013 Standard(s): S663

Analyte	Ch	Area
Endrin	A	280612.99
Endrin aldehyde	A	16415.58
Endrin ketone	A	34354.85

Endrin Breakdown %: 15
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	502906.31
4,4'-DDE	A	4817.88
4,4'-DDD	A	54144.51

4,4'-DDT Breakdown %: 10
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	682296.84
Endrin aldehyde	B	32688.86
Endrin ketone	B	79252.06

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1663139.67
4,4'-DDE	B	5431.17
4,4'-DDD	B	97399.1

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805219609026 Run Name: Injected: 02-JUN-2005 03:19
Filename: 152_026 Standard(s): S663

Analyte	Ch	Area
Endrin	A	283192.13
Endrin aldehyde	A	12637.97
Endrin ketone	A	32733.98

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	482203.15
4,4'-DDE	A	2122.44
4,4'-DDD	A	67448.23

4,4'-DDT Breakdown %: 13
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	760647.46
Endrin aldehyde	B	19514.56
Endrin ketone	B	80677.38

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	1652994.45
4,4'-DDE	B	5205.84
4,4'-DDD	B	98985.17

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235231478006 Run Name: Injected: 09-JUN-2005 18:29
Filename: 160_006 Standard(s): S663

Analyte	Ch	Area
Endrin	A	120857.6
Endrin aldehyde	A	3832.89
Endrin ketone	A	8698.74

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	184400.87
4,4'-DDE	A	684.83
4,4'-DDD	A	10945.44

4,4'-DDT Breakdown %: 6
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	219407.85
Endrin aldehyde	B	9141.78
Endrin ketone	B	19936.61

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	306512.65
4,4'-DDE	B	2095.54
4,4'-DDD	B	27557.63

4,4'-DDT Breakdown %: 9
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235231478010 Run Name: Injected: 09-JUN-2005 20:31
Filename: 160_010 Standard(s): S663

Analyte	Ch	Area
Endrin	A	113192.43
Endrin aldehyde	A	3020.44
Endrin ketone	A	8700.53

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	173368.43
4,4'-DDE	A	771.07
4,4'-DDD	A	11302.6

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	204106.24
Endrin aldehyde	B	6948.98
Endrin ketone	B	19978.73

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	284058.66
4,4'-DDE	B	2499.19
4,4'-DDD	B	28490.64

4,4'-DDT Breakdown %: 10
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805219609011 Filename : 152_011 Injected : 01-JUN-2005 20:22
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10572	20.00000	18.48024	pg	-8	15	
gamma-BHC	A	10469	9726.0	20.00000	18.58006	pg	-7	15	
beta-BHC	A	4405.3	4187.9	20.00000	19.01296	pg	-5	15	
delta-BHC	A	10970	10421	20.00000	18.99898	pg	-5	15	
Heptachlor	A	9011.4	8417.0	20.00000	18.68074	pg	-7	15	
Aldrin	A	9275.9	8592.3	20.00000	18.52614	pg	-7	15	
Heptachlor epoxide	A	8438.5	7684.1	20.00000	18.21193	pg	-9	15	
gamma-Chlordane	A	8615.9	7777.6	20.00000	18.05405	pg	-10	15	
alpha-Chlordane	A	8318.3	7642.0	20.00000	18.37394	pg	-8	15	
4,4'-DDE	A	8273.9	7426.3	40.00000	35.90219	pg	-10	15	
Endosulfan I	A	7857.0	7197.4	20.00000	18.32095	pg	-8	15	
Dieldrin	A	8486.3	7636.4	40.00000	35.99380	pg	-10	15	
Endrin	A	6588.3	5916.3	40.00000	35.91988	pg	-10	15	
4,4'-DDD	A	6934.7	6244.4	40.00000	36.01851	pg	-10	15	
Endosulfan II	A	7216.6	6399.4	40.00000	35.47016	pg	-11	15	
4,4'-DDT	A	6149.5	5436.8	40.00000	35.36390	pg	-12	15	
Endrin aldehyde	A	5602.0	5216.7	40.00000	37.24916	pg	-7	15	
Methoxychlor	A	2447.2	2233.2	200.0000	182.5053	pg	-9	15	
Endosulfan sulfate	A	6289.8	5580.5	40.00000	35.48918	pg	-11	15	
TCMX	A	7213.6	6761.4	40.00000	37.49251	pg	-6	15	
Decachlorobiphenyl	A	4296.4	3267.9	40.00000	30.42517	pg	-24	15	c-
alpha-BHC	B	21707	20798	20.00000	19.16293	pg	-4	15	
gamma-BHC	B	20065	19403	20.00000	19.34048	pg	-3	15	
beta-BHC	B	8004.9	8029.8	20.00000	20.06226	pg	0	15	
delta-BHC	B	20914	21319	20.00000	20.38760	pg	2	15	
Heptachlor	B	14016	15602	20.00000	22.26410	pg	11	15	
Aldrin	B	18069	18027	20.00000	19.95333	pg	0	15	
Heptachlor epoxide	B	16253	16214	20.00000	19.95173	pg	0	15	
gamma-Chlordane	B	16737	16932	20.00000	20.23240	pg	1	15	
alpha-Chlordane	B	16400	16646	20.00000	20.29989	pg	1	15	
4,4'-DDE	B	16131	19416	40.00000	48.14606	pg	**20**	15	c+ ***
Endosulfan I	B	15283	15516	20.00000	20.30432	pg	2	15	
Dieldrin	B	16622	19465	40.00000	46.84190	pg	**17**	15	c+ ***
Endrin	B	13153	12877	40.00000	39.15892	pg	-2	15	
4,4'-DDD	B	13060	15574	40.00000	47.69870	pg	**19**	15	c+ ***
Endosulfan II	B	14266	16026	40.00000	44.93619	pg	12	15	
4,4'-DDT	B	10597	12487	40.00000	47.13487	pg	**18**	15	c+ ***
Endrin aldehyde	B	10995	12002	40.00000	43.66574	pg	9	15	
Methoxychlor	B	4978.1	6440.9	200.0000	258.7709	pg	**29**	15	c+ ***
Endosulfan sulfate	B	12207	13199	40.00000	43.25081	pg	8	15	
TCMX	B	13429	12958	40.00000	38.59474	pg	-4	15	
Decachlorobiphenyl	B	9733.3	11033	40.00000	45.34251	pg	13	15	
Average EPA 8081A	A		(count=22)				9	15	
Average EPA 8081A	B		(count=22)				9	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_3 IDF : 1.0
Seqnum : 805219609027 Filename : 152_027 Injected : 02-JUN-2005 03:47
Calnum : 805212954001 Caldate : 27-MAY-2005 Caltype :
Standards: S738

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	11442	10881	10.00000	9.509711	pg	-5	15	
gamma-BHC	A	10469	10105	10.00000	9.652192	pg	-3	15	
beta-BHC	A	4405.3	4383.2	10.00000	9.949741	pg	-1	15	
delta-BHC	A	10970	10608	10.00000	9.669978	pg	-3	15	
Heptachlor	A	9011.4	8564.7	10.00000	9.504268	pg	-5	15	
Aldrin	A	9275.9	9237.4	10.00000	9.958507	pg	0	15	
Heptachlor epoxide	A	8438.5	8350.2	10.00000	9.895368	pg	-1	15	
gamma-Chlordane	A	8615.9	8397.8	10.00000	9.746945	pg	-3	15	
alpha-Chlordane	A	8318.3	8318.8	10.00000	10.00063	pg	0	15	
4,4'-DDE	A	8273.9	8068.2	20.00000	19.50266	pg	-2	15	
Endosulfan I	A	7857.0	7876.5	10.00000	10.02487	pg	0	15	
Dieldrin	A	8486.3	8339.3	20.00000	19.65359	pg	-2	15	
Endrin	A	6588.3	6310.6	20.00000	19.15710	pg	-4	15	
4,4'-DDD	A	6934.7	6913.6	20.00000	19.93909	pg	0	15	
Endosulfan II	A	7216.6	7027.4	20.00000	19.47544	pg	-3	15	
4,4'-DDT	A	6149.5	5925.1	20.00000	19.26992	pg	-4	15	
Endrin aldehyde	A	5602.0	5627.3	20.00000	20.09030	pg	0	15	
Methoxychlor	A	2447.2	2384.9	100.0000	97.45452	pg	-3	15	
Endosulfan sulfate	A	6289.8	6094.7	20.00000	19.37963	pg	-3	15	
TCMX	A	7213.6	7060.1	20.00000	19.57434	pg	-2	15	
Decachlorobiphenyl	A	4296.4	3541.2	20.00000	16.48466	pg	**-18**	15	c-
alpha-BHC	B	21707	20534	10.00000	9.459857	pg	-5	15	
gamma-BHC	B	20065	19247	10.00000	9.592330	pg	-4	15	
beta-BHC	B	8004.9	8239.3	10.00000	10.29283	pg	3	15	
delta-BHC	B	20914	20385	10.00000	9.747163	pg	-3	15	
Heptachlor	B	14016	15864	10.00000	11.31860	pg	13	15	
Aldrin	B	18069	18216	10.00000	10.08096	pg	1	15	
Heptachlor epoxide	B	16253	16591	10.00000	10.20805	pg	2	15	
gamma-Chlordane	B	16737	16957	10.00000	10.13128	pg	1	15	
alpha-Chlordane	B	16400	16957	10.00000	10.33922	pg	3	15	
4,4'-DDE	B	16131	17534	20.00000	21.74046	pg	9	15	
Endosulfan I	B	15283	15940	10.00000	10.42946	pg	4	15	
Dieldrin	B	16622	17810	20.00000	21.42928	pg	7	15	
Endrin	B	13153	12756	20.00000	19.39581	pg	-3	15	
4,4'-DDD	B	13060	14946	20.00000	22.88797	pg	14	15	
Endosulfan II	B	14266	15136	20.00000	21.22025	pg	6	15	
4,4'-DDT	B	10597	11688	20.00000	22.05935	pg	10	15	
Endrin aldehyde	B	10995	12038	20.00000	21.89705	pg	9	15	
Methoxychlor	B	4978.1	5849.1	100.0000	117.4965	pg	**17**	15	c+ ***
Endosulfan sulfate	B	12207	13200	20.00000	21.62618	pg	8	15	
TCMX	B	13429	12923	20.00000	19.24604	pg	-4	15	
Decachlorobiphenyl	B	9733.3	10612	20.00000	21.80588	pg	9	15	
Average EPA 8081A	A		(count=22)				3	15	
Average EPA 8081A	B		(count=22)				7	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235231478005 Filename : 160_005 Injected : 09-JUN-2005 17:58
Calnum : 235226759001 Caldate : 07-JUN-2005 Caltype :
Standards: S738

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2847.7	2411.4	10.00000	8.467875	pg	-15	15	rsd ***
gamma-BHC	A	2903.7	2504.3	10.00000	8.624366	pg	-14	15	rsd ***
beta-BHC	A	1838.3	1584.0	10.00000	8.616814	pg	-14	15	
delta-BHC	A	2558.1	2144.9	10.00000	8.384769	pg	**-16**	15	c- rsd ***
Heptachlor	A	3245.8	2697.6	10.00000	8.310849	pg	**-17**	15	c- ***
Aldrin	A	3081.2	2644.3	10.00000	8.582036	pg	-14	15	
Heptachlor epoxide	A	3255.4	2904.0	10.00000	8.920592	pg	-11	15	
gamma-Chlordane	A	3270.9	2853.8	10.00000	8.724874	pg	-13	15	
alpha-Chlordane	A	3378.8	3042.3	10.00000	9.004112	pg	-10	15	
4,4'-DDE	A	2938.4	2644.6	20.00000	18.00020	pg	-10	15	
Endosulfan I	A	3407.5	3148.2	10.00000	9.239003	pg	-8	15	
Dieldrin	A	2972.6	2660.1	20.00000	17.89772	pg	-11	15	
Endrin	A	2522.3	2217.8	20.00000	17.58602	pg	-12	15	
4,4'-DDD	A	1841.6	1706.7	20.00000	18.53426	pg	-7	15	
Endosulfan II	A	2820.6	2608.1	20.00000	18.49310	pg	-8	15	
4,4'-DDT	A	1470.6	1396.9	20.00000	18.99675	pg	-5	15	
Endrin aldehyde	A	2507.6	2343.8	20.00000	18.69396	pg	-7	15	
Methoxychlor	A	929.61	832.07	100.0000	89.50685	pg	-10	15	
Endosulfan sulfate	A	2574.8	2406.2	20.00000	18.69031	pg	-7	15	
TCMX	A	3187.0	2885.4	20.00000	18.10736	pg	-9	15	
Decachlorobiphenyl	A	3416.9	3331.4	20.00000	19.49959	pg	-3	15	
alpha-BHC	B	8411.2	7561.3	10.00000	8.989505	pg	-10	15	
gamma-BHC	B	7699.5	7161.6	10.00000	9.301409	pg	-7	15	
beta-BHC	B	4188.2	4093.8	10.00000	9.774653	pg	-2	15	
delta-BHC	B	7476.2	6888.8	10.00000	9.214299	pg	-8	15	
Heptachlor	B	5547.6	5465.3	10.00000	9.851551	pg	-1	15	
Aldrin	B	7301.1	6878.4	10.00000	9.420998	pg	-6	15	
Heptachlor epoxide	B	6670.3	6540.6	10.00000	9.805477	pg	-2	15	
gamma-Chlordane	B	7331.7	7006.2	10.00000	9.556085	pg	-4	15	
alpha-Chlordane	B	7446.8	7155.2	10.00000	9.608412	pg	-4	15	
4,4'-DDE	B	5892.7	5670.3	20.00000	19.24527	pg	-4	15	
Endosulfan I	B	6673.2	6434.9	10.00000	9.642897	pg	-4	15	
Dieldrin	B	6221.5	6054.1	20.00000	19.46193	pg	-3	15	
Endrin	B	4820.8	4544.1	20.00000	18.85208	pg	-6	15	
4,4'-DDD	B	4049.2	4130.8	20.00000	20.40329	pg	2	15	
Endosulfan II	B	5611.2	5700.6	20.00000	20.31863	pg	2	15	
4,4'-DDT	B	2978.4	2888.0	20.00000	19.39251	pg	-3	15	
Endrin aldehyde	B	4503.8	4581.6	20.00000	20.34553	pg	2	15	
Methoxychlor	B	1182.6	1192.8	100.0000	100.8684	pg	1	15	
Endosulfan sulfate	B	5051.5	5122.2	20.00000	20.27990	pg	1	15	
TCMX	B	6787.7	6494.4	20.00000	19.13593	pg	-4	15	
Decachlorobiphenyl	B	4475.2	4392.2	20.00000	19.62899	pg	-2	15	
Average EPA 8081A	A		(count=22)				10	15	
Average EPA 8081A	B		(count=22)				4	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235231478012 Filename : 160_012 Injected : 09-JUN-2005 21:32
Calnum : 235226759001 Caldate : 07-JUN-2005 Caltype :
Standards: S643

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2847.7	2575.3	20.00000	18.08658	pg	-10	15	rsd ***
gamma-BHC	A	2903.7	2614.9	20.00000	18.01087	pg	-10	15	rsd ***
beta-BHC	A	1838.3	1540.6	20.00000	16.76077	pg	**-16**	15	c- ***
delta-BHC	A	2558.1	2237.8	20.00000	17.49618	pg	-13	15	rsd ***
Heptachlor	A	3245.8	2596.8	20.00000	16.00080	pg	**-20**	15	c- ***
Aldrin	A	3081.2	2600.9	20.00000	16.88242	pg	**-16**	15	c- ***
Heptachlor epoxide	A	3255.4	2763.8	20.00000	16.97980	pg	-15	15	
gamma-Chlordane	A	3270.9	2715.8	20.00000	16.60606	pg	**-17**	15	c- ***
alpha-Chlordane	A	3378.8	2847.8	20.00000	16.85705	pg	**-16**	15	c- ***
4,4'-DDE	A	2938.4	2495.4	40.00000	33.96963	pg	-15	15	
Endosulfan I	A	3407.5	2915.8	20.00000	17.11387	pg	-14	15	
Dieldrin	A	2972.6	2574.9	40.00000	34.64938	pg	-13	15	
Endrin	A	2522.3	2078.2	40.00000	32.95760	pg	**-18**	15	c- ***
4,4'-DDD	A	1841.6	1692.6	40.00000	36.76232	pg	-8	15	
Endosulfan II	A	2820.6	2449.2	40.00000	34.73310	pg	-13	15	
4,4'-DDT	A	1470.6	1295.7	40.00000	35.24303	pg	-12	15	
Endrin aldehyde	A	2507.6	2136.1	40.00000	34.07483	pg	-15	15	
Methoxychlor	A	929.61	764.35	200.0000	164.4439	pg	**-18**	15	c- ***
Endosulfan sulfate	A	2574.8	2232.4	40.00000	34.68197	pg	-13	15	
TCMX	A	3187.0	2879.2	40.00000	36.13697	pg	-10	15	
Decachlorobiphenyl	A	3416.9	2851.0	40.00000	33.37538	pg	**-17**	15	c-
alpha-BHC	B	8411.2	7577.7	20.00000	18.01798	pg	-10	15	
gamma-BHC	B	7699.5	6928.1	20.00000	17.99642	pg	-10	15	
beta-BHC	B	4188.2	3677.9	20.00000	17.56310	pg	-12	15	
delta-BHC	B	7476.2	6690.6	20.00000	17.89834	pg	-11	15	
Heptachlor	B	5547.6	4928.0	20.00000	17.76604	pg	-11	15	
Aldrin	B	7301.1	6446.3	20.00000	17.65832	pg	-12	15	
Heptachlor epoxide	B	6670.3	5824.0	20.00000	17.46252	pg	-13	15	
gamma-Chlordane	B	7331.7	6273.5	20.00000	17.11343	pg	-14	15	
alpha-Chlordane	B	7446.8	6388.0	20.00000	17.15657	pg	-14	15	
4,4'-DDE	B	5892.7	5228.8	40.00000	35.49336	pg	-11	15	
Endosulfan I	B	6673.2	5763.5	20.00000	17.27356	pg	-14	15	
Dieldrin	B	6221.5	5481.9	40.00000	35.24527	pg	-12	15	
Endrin	B	4820.8	4186.4	40.00000	34.73602	pg	-13	15	
4,4'-DDD	B	4049.2	3798.4	40.00000	37.52268	pg	-6	15	
Endosulfan II	B	5611.2	4827.1	40.00000	34.41026	pg	-14	15	
4,4'-DDT	B	2978.4	2546.1	40.00000	34.19331	pg	-15	15	
Endrin aldehyde	B	4503.8	3949.1	40.00000	35.07342	pg	-12	15	
Methoxychlor	B	1182.6	1022.1	200.0000	172.8712	pg	-14	15	
Endosulfan sulfate	B	5051.5	4399.3	40.00000	34.83594	pg	-13	15	
TCMX	B	6787.7	6135.8	40.00000	36.15871	pg	-10	15	
Decachlorobiphenyl	B	4475.2	3591.3	40.00000	32.09993	pg	**-20**	15	c-
Average EPA 8081A	A		(count=22)				14	15	
Average EPA 8081A	B		(count=22)				12	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 805212954 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 27-MAY-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
003	147_003	PEM				27-MAY-2005 20:19	1.0		1			1	
004	147_004	X	hex			27-MAY-2005 20:46	1.0						
005	147_005	ICAL	pest_1			27-MAY-2005 21:14	1.0					2	
006	147_006	ICAL	pest_2			27-MAY-2005 21:42	1.0					3	
007	147_007	ICAL	pest_3			27-MAY-2005 22:09	1.0					4	
008	147_008	ICAL	pest_4			27-MAY-2005 22:37	1.0					5	
009	147_009	ICAL	pest_5			27-MAY-2005 23:05	1.0					6	
010	147_010	ICAL	pest_6			27-MAY-2005 23:33	1.0					7	
011	147_011	ICAL	pest_7			28-MAY-2005 00:00	1.0					8	
013	147_013	ICV				28-MAY-2005 00:56	1.0		1			9	
014	147_014	X	icv			28-MAY-2005 01:24	1.0		1			9	

66

Stds used: 1=S663 2=S9 3=S419 4=S420 5=S643 6=S613 7=S13 8=S14 9=S441

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	152_002	X	pem			01-JUN-2005 12:09	1.0	1.0			1	1	1:DDT44=149.052
003	152_003	X	ccv			01-JUN-2005 12:37	1.0	1.0			1	2	
004	152_004	X	ccv			01-JUN-2005 13:05	1.0	1.0			1	2	
005	152_005	X	pem			01-JUN-2005 13:58	1.0	1.0			1	1	1:DDT44=121.667
008	152_008	X	pem			01-JUN-2005 17:54	1.0	1.0			1	1	1:DDT44=131.216
009	152_009	X	ccv			01-JUN-2005 18:22	1.0	1.0			1	2 ac	
010	152_010	X	ccv			01-JUN-2005 19:54	1.0					2	
011	152_011	CCV	pest_4			01-JUN-2005 20:22	1.0	1.0	6		1	2	
012	152_012	X	ccv			01-JUN-2005 20:49	1.0				1	2	
013	152_013	PEM				01-JUN-2005 21:17	1.0	1.0			1	1	1:DDT44=156.947
015	152_015	BLANK	QC295453	102456	Water	01-JUN-2005 22:13	1.0	0.01		1	1		
016	152_016	LCS	QC295454	102456	Water	01-JUN-2005 22:41	1.0	0.01	6	3	1		1:DDT44=53.6046
017	152_017	SAMPLE	179613-019	102456	Water	01-JUN-2005 23:09	1.0	0.009524			1		
018	152_018	SAMPLE	179645-004	102456	Water	01-JUN-2005 23:36	1.0	0.009524		2	1		
019	152_019	SAMPLE	179645-005	102456	Water	02-JUN-2005 00:04	1.0	0.009615		1	1		
020	152_020	SAMPLE	179679-001	102456	Water	02-JUN-2005 00:32	1.0	0.009709			1		
021	152_021	SAMPLE	179679-002	102456	Water	02-JUN-2005 01:00	1.0	0.009524		2	1		
022	152_022	MSS	179727-002	102456	Water	02-JUN-2005 01:28	1.0	0.009709			1		
023	152_023	MS	QC295455	102456	Water	02-JUN-2005 01:55	1.0	0.009709	6	1	1		
024	152_024	MSD	QC295456	102456	Water	02-JUN-2005 02:23	1.0	0.009524	6	8	1		1:DDT44=53.2110
026	152_026	PEM				02-JUN-2005 03:19	1.0	1.0			1	1	1:DDT44=155.990
027	152_027	CCV	pest_3			02-JUN-2005 03:47	1.0	1.0	1		1	3	
028	152_028	X	ccv			02-JUN-2005 04:14	1.0				1	3	
031	152_031	SAMPLE	179679-003	102456	Water	02-JUN-2005 05:38	1.0	0.009615		2	1		
032	152_032	SAMPLE	179679-004	102456	Water	02-JUN-2005 06:05	1.0	0.009434		2	1		
033	152_033	SAMPLE	179679-005	102456	Water	02-JUN-2005 06:33	1.0	0.009434		2	1		
034	152_034	SAMPLE	179679-006	102456	Water	02-JUN-2005 07:01	1.0	0.01			1		
035	152_035	SAMPLE	179679-007	102456	Water	02-JUN-2005 07:28	1.0	0.009524	5	2	1		6:BHCBET=352.319
036	152_036	SAMPLE	179714-001	102456	Water	02-JUN-2005 07:56	1.0	0.009434		2	1		
037	152_037	SAMPLE	179727-001	102456	Water	02-JUN-2005 08:24	1.0	0.009709			1		

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
038	152_038	SAMPLE	179727-003	102456	Water	02-JUN-2005 08:52	1.0	0.009524		1	1		
039	152_039	SAMPLE	179727-004	102456	Water	02-JUN-2005 09:19	1.0	0.009524		2	1		
040	152_040	SAMPLE	179727-007	102456	Water	02-JUN-2005 09:47	1.0	0.009804		1	1		
042	152_042	PEM				02-JUN-2005 10:43	1.0	1.0			1	1	1:DDT44=137.242
043	152_043	X	ccv			02-JUN-2005 11:11	1.0	1.0			1	4 ac	
044	152_044	CCV	pest_2			02-JUN-2005 11:39	1.0	1.0	5		1	4	
047	152_047	SAMPLE	179727-008	102456	Water	02-JUN-2005 13:13	1.0	0.009709	4	1	1		
048	152_048	SAMPLE	179727-014	102456	Water	02-JUN-2005 13:41	1.0	0.009804	4	2	1		
049	152_049	SAMPLE	179727-015	102456	Water	02-JUN-2005 14:09	1.0	0.009434	4	1	1		
050	152_050	SAMPLE	179727-017	102456	Water	02-JUN-2005 14:37	1.0	0.009901	4	1	1		
051	152_051	BLANK	QC295933	102569	Soil	02-JUN-2005 18:46	1.0	0.6658	4		1		
052	152_052	LCS	QC295934	102569	Soil	02-JUN-2005 19:14	1.0	0.6653	10		1		
053	152_053	SAMPLE	179626-001	102569	Soil	02-JUN-2005 19:42	1.0	0.6618	4		1		
054	152_054	SAMPLE	179626-002	102569	Soil	02-JUN-2005 20:10	1.0	0.664	4		1		
055	152_055	SAMPLE	179626-003	102569	Soil	02-JUN-2005 20:38	2.0	0.6588	4		1		68
056	152_056	SAMPLE	179583-014	102543	Water	02-JUN-2005 21:06	10.0	0.01389	38		1	sh	
058	152_058	PEM				02-JUN-2005 22:02	1.0	1.0			1	1	1:DDT44=123.949
059	152_059	CCV	pest_4			02-JUN-2005 22:29	1.0	1.0	6		1	2	
060	152_060	X	ccv			02-JUN-2005 22:57	1.0					2	
063	152_063	BLANK	QC295812	102543	Water	03-JUN-2005 00:20	1.0	0.01	4		1		
064	152_064	BS	QC295813	102543	Water	03-JUN-2005 00:48	1.0	0.01	7	1	1		
065	152_065	BSD	QC295814	102543	Water	03-JUN-2005 01:16	1.0	0.01	7	11	1		
066	152_066	SAMPLE	179688-001	102543	Water	03-JUN-2005 01:44	1.0	0.009901	5		1		
067	152_067	SAMPLE	179688-002	102543	Water	03-JUN-2005 02:12	1.0	0.01	6	1	1		2:DDT44=341.956
068	152_068	SAMPLE	179688-003	102543	Water	03-JUN-2005 02:40	1.0	0.01	4	1	1		
069	152_069	SAMPLE	179688-004	102543	Water	03-JUN-2005 03:08	1.0	0.01	4	1	1		
070	152_070	SAMPLE	179688-005	102543	Water	03-JUN-2005 03:36	1.0	0.01	4		1		
071	152_071	MS	QC295455	102456	Water	03-JUN-2005 04:04	1.0	0.009709	7	1	1		
072	152_072	MSD	QC295456	102456	Water	03-JUN-2005 04:32	1.0	0.009524	7	2	1		
074	152_074	PEM				03-JUN-2005 05:27	1.0	1.0			1	1	1:DDT44=144.421

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 805219609 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 01-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
075	152_075	CCV	pest_3			03-JUN-2005 05:55	1.0	1.0	4	1	3	
076	152_076	X	ccv			03-JUN-2005 06:23	1.0				3	
077	152_077	X	pem			03-JUN-2005 06:50	1.0	1.0		1	1	1:DDT44=138.667

69

Stds used: 1=S663 2=S643 3=S738 4=S419
Flags used: ac=average CCV drift out sh=out of sample hold

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 235226759 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
004	157_004	X	hex			06-JUN-2005 11:19	1.0						
005	157_005	X	pem			06-JUN-2005 11:50	1.0		1			1	
006	157_006	X	ccv			06-JUN-2005 12:20	1.0		1			2 ac	
007	157_007	X	ccv			06-JUN-2005 12:51	1.0		1			2 ac	
008	157_008	X	ccv			06-JUN-2005 13:49	1.0		1			2 ac	
009	157_009	X	ccv			06-JUN-2005 14:20	1.0		1			2 ac	
010	157_010	X	ccv			06-JUN-2005 15:55	1.0					3	
022	157_022	PEM				06-JUN-2005 23:30	1.0		1			1	
023	157_023	X	hex			07-JUN-2005 00:00	1.0						
024	157_024	ICAL	pest_1			07-JUN-2005 00:31	1.0					4	
025	157_025	ICAL	pest_2			07-JUN-2005 01:01	1.0					5	
026	157_026	ICAL	pest_3			07-JUN-2005 01:31	1.0					2	
027	157_027	ICAL	pest_4			07-JUN-2005 02:02	1.0					3	
028	157_028	ICAL	pest_5			07-JUN-2005 02:32	1.0					6	
029	157_029	ICAL	pest_6			07-JUN-2005 03:03	1.0					7	70
030	157_030	ICAL	pest_7			07-JUN-2005 03:33	1.0					8	
032	157_032	X	icv			07-JUN-2005 04:34	1.0					9	
033	157_033	ICV				07-JUN-2005 05:04	1.0	1	1			9	

Stds used: 1=S663 2=S738 3=S643 4=S737 5=S419 6=S613 7=S13 8=S14 9=S441
Flags used: ac=average CCV drift out

SEQUENCE SUMMARY FOR 179714 8081 Water
Curtis & Tompkins Laboratories

Sequence: 235231478 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 09-JUN-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
005	160_005	CCV	pest_3			09-JUN-2005 17:58	1.0	1.0	4	1	1	
006	160_006	PEM				09-JUN-2005 18:29	1.0	1.0		1	2	1:DDT44=125.389
008	160_008B	SAMPLE	179714-001	102456	Water	09-JUN-2005 19:30	1.0	0.009434	8	1		
010	160_010	PEM				09-JUN-2005 20:31	1.0	1.0		1	2	1:DDT44=117.887
011	160_011	X	pest_4			09-JUN-2005 21:01	1.0				3	
012	160_012	CCV	pest_4			09-JUN-2005 21:32	1.0	1.0	10	1	3	

71

Stds used: 1=S738 2=S663 3=S643

Curtis & Tompkins Laboratories Sample Preparation Summary 01-JUN-2005 12:58

Batch Number : 102456
Date Extracted: 29-MAY-2005
Extracted by : Stefan J. D'Angona
Prep Method : 3520C

Analysis : 8081
Bgroup : N/A
Units : ml
Clean-up :

Spike #1 ID : S258B
Spike #2 ID : S203F
Spike #3 ID :
SOP Version : 8081w_rv14

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179613-019			Environmental Quality Manageme	Water	1050	ml	10	0.009524	1	6	.02	0		8081		
179645-004			Treadwell & Rollo	Water	1050	ml	10	0.009524	1	7	.02	0		8081		
179645-005			Treadwell & Rollo	Water	1040	ml	10	0.009615	1	7	.02	0		8081		
179679-001			Treadwell & Rollo	Water	1030	ml	10	0.009709	1	7	.02	0		8081		
179679-002			Treadwell & Rollo	Water	1050	ml	10	0.009524	1	7	.02	0		8081		
179679-003			Treadwell & Rollo	Water	1040	ml	10	0.009615	1	7	.02	0		8081		
179679-004			Treadwell & Rollo	Water	1060	ml	10	0.009434	1	7	.02	0		8081		
179679-005			Treadwell & Rollo	Water	1060	ml	10	0.009434	1	7	.02	0		8081		
179679-006			Treadwell & Rollo	Water	1000	ml	10	0.010000	1	7	.02	0		8081		
179679-007			Treadwell & Rollo	Water	1050	ml	10	0.009524	1	7	.02	0		8081		
179714-001			Mactec, Inc.	Water	1060	ml	10	0.009434	1	7	.02	0		8081		
179727-001			Treadwell & Rollo	Water	1030	ml	10	0.009709	1	7	.02	0		8081		
179727-002			Treadwell & Rollo	Water	1030	ml	10	0.009709	1	7	.02	0		8081		mss
179727-003			Treadwell & Rollo	Water	1050	ml	10	0.009524	1	7	.02	0		8081		
179727-004			Treadwell & Rollo	Water	1050	ml	10	0.009524	1	8	.02	0		8081		
179727-007			Treadwell & Rollo	Water	1020	ml	10	0.009804	1	7	.02	0		8081		
179727-008			Treadwell & Rollo	Water	1030	ml	10	0.009709	1	7	.02	0		8081		
179727-014			Treadwell & Rollo	Water	1020	ml	10	0.009804	1	7	.02	0		8081		
179727-015			Treadwell & Rollo	Water	1060	ml	10	0.009434	1	7	.02	0		8081		
179727-017			Treadwell & Rollo	Water	1010	ml	10	0.009901	1	7	.02	0		8081		
QC295453	MB			Water	1000	ml	10	0.010000	1		.02	0		8081		
QC295454	LCS			Water	1000	ml	10	0.010000	1		.02	.025		8081		
QC295455	MS	of 179727-002		Water	1030	ml	10	0.009709	1	7	.02	.025		8081		
QC295456	MSD	of 179727-002		Water	1050	ml	10	0.009524	1	7	.02	.025		8081		

72

Prep Chemist: SJD Reviewed By: Date: 6/1/05

Relinquished By: Received By: Date: 06/01/05

Curtis & Tompkins, Ltd

8081 WATER PREP LOG

BK1996

LIMS Batch No: 102456
LIMS Analysis: 8081
Extracted by: SS
Date Extracted: 5/29/05

Extraction Method:
- ☐ EPA 3510c sep. funnel
- ☑ EPA 3520c cont. L/L
- ☐ _____

Cleanup Method (if needed):
- ☐ EPA 3640a GPC
- ☐ EPA 3620b Florisil
- ☐ _____

	Sample # & letter	Volume of Sample (mL)	Sample pH	Final Volume (mL)	Cleanup (x if needed)	Comments
	179613-019 E	1050	6	10.0		
	179645-004 F	1050	7			
	↓ -005 F	1040	↓			
	179679-001 G	1030				
5	-002 J	1050				
	-003 F	1040				
	-004 F	1060				
	-005 E	1060				
	-006 F	1000				
10	-007 J	1050				
	179714-001 M	1060				
	178727-001 L	1030				
	-003 ~~BKL~~ L	1050	↓			
	-004 F	1050	8			
15	-007 K	1020	7			
	-008 M	1030				
	-014 F	1020				
	-015 G	1060				
	-017 G	1010				
20	-002AM	1030	↓			MSS
	MB 82295-453	1000	N/A			
	LCS 4	1000	↓			
	MS 5	1030	7			of 179727-002 AR
	MSD ↓ 6	1050	↓	↓		↓ AE

	Mfg & Lot# / LIMS # / Time	Date/ Initials
0.02 mL of surrogate solution was added to all samples	5258B	SS 5/29/05
0.025 mL of matrix spiking solution was added to all spikes	5203F	↓
☑ Samples continuously extracted with about 450 mL of CH_2Cl_2	ENO 44344	
Extraction Start Time:	18:50	↓
Extraction End Time:	13:15	SS 5/30/05
☐ Samples were extracted 3 times with 60 mL of CH_2Cl_2	N/A	RMD 6/1/05
Extracts filtered through baked, CH_2Cl_2 rinsed ~~powdered~~ granular Na_2SO_4	EM44273	
Exchanged 2x with Hexane	CN801	
Concentrated: ☑ to volumes as noted above ☐ to clean-up volume	✓	
Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Florisil	N/A	↓

SS 5/29/05
Extraction Chemist Date

Contined from Page
Continued on Page

6/1/05
Reviewed by Date

REPORTING SUMMARY FOR 179714 8081 Water

Sample ID	Analyte	Inst ID	Ch	Date & Time
179714-001	alpha-BHC	GC16	B	06/09/05 19:30
179714-001	beta-BHC	GC16	B	06/09/05 19:30
179714-001	gamma-BHC	GC16	B	06/09/05 19:30
179714-001	delta-BHC	GC16	B	06/09/05 19:30
179714-001	Heptachlor	GC16	B	06/09/05 19:30
179714-001	Aldrin	GC16	B	06/09/05 19:30
179714-001	Heptachlor epoxide	GC16	B	06/09/05 19:30
179714-001	Endosulfan I	GC16	B	06/09/05 19:30
179714-001	Dieldrin	GC16	B	06/09/05 19:30
179714-001	4,4'-DDE	GC16	B	06/09/05 19:30
179714-001	Endrin	GC16	B	06/09/05 19:30
179714-001	Endosulfan II	GC16	B	06/09/05 19:30
179714-001	Endosulfan sulfate	GC16	B	06/09/05 19:30
179714-001	4,4'-DDD	GC16	B	06/09/05 19:30
179714-001	Endrin aldehyde	GC16	B	06/09/05 19:30
179714-001	4,4'-DDT	GC16	B	06/09/05 19:30
179714-001	alpha-Chlordane	GC16	B	06/09/05 19:30
179714-001	gamma-Chlordane	GC16	B	06/09/05 19:30
179714-001	Methoxychlor	GC16	B	06/09/05 19:30
179714-001	Toxaphene	GC16	B	06/09/05 19:30
179714-001	TCMX	GC16	B	06/09/05 19:30
179714-001	Decachlorobiphenyl	GC16	B	06/09/05 19:30
QC295453	alpha-BHC	GC23	A	06/01/05 22:13
QC295453	beta-BHC	GC23	A	06/01/05 22:13
QC295453	gamma-BHC	GC23	A	06/01/05 22:13
QC295453	delta-BHC	GC23	A	06/01/05 22:13
QC295453	Heptachlor	GC23	A	06/01/05 22:13
QC295453	Aldrin	GC23	A	06/01/05 22:13
QC295453	Heptachlor epoxide	GC23	A	06/01/05 22:13
QC295453	Endosulfan I	GC23	A	06/01/05 22:13
QC295453	Dieldrin	GC23	A	06/01/05 22:13
QC295453	4,4'-DDE	GC23	A	06/01/05 22:13
QC295453	Endrin	GC23	A	06/01/05 22:13
QC295453	Endosulfan II	GC23	A	06/01/05 22:13
QC295453	Endosulfan sulfate	GC23	A	06/01/05 22:13
QC295453	4,4'-DDD	GC23	A	06/01/05 22:13
QC295453	Endrin aldehyde	GC23	A	06/01/05 22:13
QC295453	4,4'-DDT	GC23	A	06/01/05 22:13
QC295453	alpha-Chlordane	GC23	A	06/01/05 22:13
QC295453	gamma-Chlordane	GC23	A	06/01/05 22:13
QC295453	Methoxychlor	GC23	A	06/01/05 22:13
QC295453	Toxaphene	GC23	A	06/01/05 22:13
QC295453	TCMX	GC23	A	06/01/05 22:13
QC295453	Decachlorobiphenyl	GC23	A	06/01/05 22:13
QC295454	gamma-BHC	GC23	A	06/01/05 22:41
QC295454	Heptachlor	GC23	A	06/01/05 22:41
QC295454	Aldrin	GC23	A	06/01/05 22:41
QC295454	Dieldrin	GC23	A	06/01/05 22:41
QC295454	Endrin	GC23	A	06/01/05 22:41
QC295454	4,4'-DDT	GC23	A	06/01/05 22:41
QC295454	TCMX	GC23	A	06/01/05 22:41
QC295454	Decachlorobiphenyl	GC23	A	06/01/05 22:41

REPORTING SUMMARY FOR 179714 8081 Water

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC295455	gamma-BHC	GC23	A	06/02/05 01:55
QC295455	Heptachlor	GC23	A	06/02/05 01:55
QC295455	Aldrin	GC23	A	06/02/05 01:55
QC295455	Dieldrin	GC23	A	06/02/05 01:55
QC295455	Endrin	GC23	A	06/02/05 01:55
QC295455	4,4'-DDT	GC23	A	06/02/05 01:55
QC295455	TCMX	GC23	A	06/02/05 01:55
QC295455	Decachlorobiphenyl	GC23	A	06/02/05 01:55
QC295456	gamma-BHC	GC23	A	06/02/05 02:23
QC295456	Heptachlor	GC23	A	06/02/05 02:23
QC295456	Aldrin	GC23	A	06/02/05 02:23
QC295456	Dieldrin	GC23	A	06/02/05 02:23
QC295456	Endrin	GC23	A	06/02/05 02:23
QC295456	4,4'-DDT	GC23	A	06/02/05 02:23
QC295456	TCMX	GC23	A	06/02/05 02:23
QC295456	Decachlorobiphenyl	GC23	A	06/02/05 02:23

Polychlorinated Biphenyls
Water

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBIPZ101	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/02/05
Diln Fac:	1.000	Analyzed:	06/07/05
Batch#:	102588		

Type: SAMPLE
Lab ID: 179714-001

Cleanup Method: EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.47	0.059
Aroclor-1221	ND	0.94	0.39
Aroclor-1232	ND	0.47	0.18
Aroclor-1242	ND	0.47	0.18
Aroclor-1248	ND	0.47	0.091
Aroclor-1254	ND	0.47	0.18
Aroclor-1260	ND	0.47	0.057

Surrogate	%REC	Limits
TCMX	110	52-124
Decachlorobiphenyl	44	18-120

Type: BLANK
Lab ID: QC296002

Cleanup Method: EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.50	0.063
Aroclor-1221	ND	1.0	0.41
Aroclor-1232	ND	0.50	0.19
Aroclor-1242	ND	0.50	0.19
Aroclor-1248	ND	0.50	0.097
Aroclor-1254	ND	0.50	0.19
Aroclor-1260	ND	0.50	0.061

Surrogate	%REC	Limits
TCMX	77	52-124
Decachlorobiphenyl	53	18-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)			
Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296003	Batch#:	102588
Matrix:	Water	Prepared:	06/02/05
Units:	ug/L	Analyzed:	06/07/05

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1232	5.000	4.878	98	76-129

Surrogate	%REC	Limits
TCMX	81	52-124
Decachlorobiphenyl	32	18-120

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	102588
MSS Lab ID:	179727-002	Sampled:	05/26/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/02/05
Diln Fac:	1.000	Analyzed:	06/07/05

Type: MS Cleanup Method: EPA 3665A
Lab ID: QC296004

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1232	<0.1877	4.902	4.791	98	65-153

Surrogate	%REC	Limits
TCMX	79	52-124
Decachlorobiphenyl	44	18-120

Type: MSD Cleanup Method: EPA 3665A
Lab ID: QC296005

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1232	4.902	5.060	103	65-153	5	32

Surrogate	%REC	Limits
TCMX	83	52-124
Decachlorobiphenyl	53	18-120

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255208084001 Name: Type: (normal) Date: 24-MAY-2005 12:04 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	144_002	255208084002	pcb10_2	24-MAY-2005 12:04	S698
2	144_003	255208084003	pcb25_5	24-MAY-2005 12:31	S699
3	144_004	255208084004	pcb100_20	24-MAY-2005 12:57	S700
4	144_005	255208084005	pcb250_50	24-MAY-2005 13:24	S701
5	144_006	255208084006	pcb500_100	24-MAY-2005 13:50	S702
6	144_007	255208084007	pcb750_150	24-MAY-2005 14:17	S703
7	144_008	255208084008	pcb1k_200	24-MAY-2005 14:44	S704

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	271.36	291.35	279.45	259.39	245.03	263.09	235.25	AVRG	R		0.003794		pg	263.56	7	.99	20	
Aroclor-1016 Peak # 2	A	523.89	533.03	515.42	467.65	431.44	469.99	418.63	AVRG	R		0.002083		pg	480.01	9	.99	20	
Aroclor-1016 Peak # 3	A	435.81	717.90	657.71	586.17	555.97	597.60	563.35	AVRG	R		0.001701		pg	587.79	15	.99	20	
Aroclor-1016 Peak # 4	A	355.55	402.03	372.11	343.66	311.03	356.08	299.90	AVRG	R		0.002868		pg	348.62	10	.99	20	
Aroclor-1016 Peak # 5	A	326.19	338.54	319.23	292.28	258.40	287.26	252.50	AVRG	R		0.003374		pg	296.34	11	.99	20	
Aroclor-1260 Peak # 1	A	589.78	645.27	590.93	531.99	456.65	544.10	457.23	AVRG	R		0.001834		pg	545.14	13	.99	20	
Aroclor-1260 Peak # 2	A	1131.8	1216.5	1085.2	981.33	858.09	1037.2	867.33	AVRG	R		9.753E-4		pg	1025.3	13	.99	20	
Aroclor-1260 Peak # 3	A	592.55	660.92	599.41	540.43	464.27	554.15	464.83	AVRG	R		0.001806		pg	553.79	13	.99	20	
Aroclor-1260 Peak # 4	A	513.15	586.40	535.34	479.99	411.72	495.25	409.07	AVRG	R		0.002040		pg	490.13	13	.99	20	
Aroclor-1260 Peak # 5	A	1402.6	1559.0	1373.6	1250.1	1133.5	1415.0	1193.3	AVRG	R		7.505E-4		pg	1332.4	11	.99	20	
TCMX	A	13890	14910	14571	13973	13956	15274	13870	AVRG	R		6.969E-5		pg	14349	4	.99	20	
Decachlorobiphenyl	A	8157.6	9386.7	8452.1	7569.3	7403.9	9975.4	8475.4	AVRG	R		1.178E-4		pg	8488.7	11	.99	20	
Aroclor-1016 Peak # 1	B	206.87	238.70	203.86	219.65	203.79	188.91	177.83	AVRG	R		0.004862		pg	205.66	10	.99	20	
Aroclor-1016 Peak # 2	B	443.17	496.66	422.53	442.21	405.27	376.08	351.33	AVRG	R		0.002383		pg	419.61	11	.99	20	
Aroclor-1016 Peak # 3	B	974.41	1109.9	929.87	964.47	881.69	825.89	773.05	AVRG	R		0.001084		pg	922.76	12	.99	20	
Aroclor-1016 Peak # 4	B	369.60	430.88	364.05	379.52	344.55	323.23	302.73	AVRG	R		0.002784		pg	359.22	12	.99	20	
Aroclor-1016 Peak # 5	B	289.59	334.64	273.60	285.40	258.74	243.06	226.85	AVRG	R		0.003661		pg	273.13	13	.99	20	
Aroclor-1260 Peak # 1	B	575.13	641.10	537.00	562.82	508.64	479.95	446.98	AVRG	R		0.001866		pg	535.95	12	.99	20	
Aroclor-1260 Peak # 2	B	853.13	931.15	780.62	821.23	751.82	702.90	666.59	AVRG	R		0.001271		pg	786.78	12	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255208084001 Name: Type: (normal) Date: 24-MAY-2005 12:04 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	601.18	655.90	559.16	597.28	547.49	511.52	485.00	AVRG	R		0.001769		pg	565.36	10	.99	20	
Aroclor-1260 Peak # 4	B	537.76	584.63	491.30	525.56	482.21	443.66	421.44	AVRG	R		0.002008		pg	498.08	11	.99	20	
Aroclor-1260 Peak # 5	B	1393.3	1551.0	1285.7	1434.5	1347.8	1277.3	1244.3	AVRG	R		7.342E-4		pg	1362.0	8	.99	20	
TCMX	B	11482	13408	11183	11973	11208	10415	9810.3	AVRG	R		8.807E-5		pg	11354	10	.99	20	
Decachlorobiphenyl	B	8650.8	9597.2	7636.9	8815.8	9317.9	8470.1	8464.5	AVRG	R		1.148E-4		pg	8707.6	7	.99	20	

81

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255208084001 Caldate : 24-MAY-2005 Caltype :

ICV 255208084010 (144_010) standards: S631

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255208084010	24-MAY-2005	250.00	267.84	pg	7	15
Aroclor-1260	A	255208084010	24-MAY-2005	250.00	263.02	pg	5	15
Aroclor-1016	B	255208084010	24-MAY-2005	250.00	274.03	pg	10	15
Aroclor-1260	B	255208084010	24-MAY-2005	250.00	267.76	pg	7	15

INITIAL CALIBRATION REPORT FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255218322002 Name: Type: (normal) Date: 31-MAY-2005 20:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	151_003	255218322003	ar1232	31-MAY-2005 20:12	S507

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1232 Peak # 1	A	316.76	AVRG	R		0.003157		pg	316.76	0	.99	20	
Aroclor-1232 Peak # 2	A	230.98	AVRG	R		0.004329		pg	230.98	0	.99	20	
Aroclor-1232 Peak # 3	A	294.32	AVRG	R		0.003398		pg	294.32	0	.99	20	
Aroclor-1232 Peak # 4	A	179.24	AVRG	R		0.005579		pg	179.24	0	.99	20	
Aroclor-1232 Peak # 5	A	142.63	AVRG	R		0.007011		pg	142.63	0	.99	20	
Aroclor-1232 Peak # 1	B	250.19	AVRG	R		0.003997		pg	250.19	0	.99	20	
Aroclor-1232 Peak # 2	B	205.45	AVRG	R		0.004867		pg	205.45	0	.99	20	
Aroclor-1232 Peak # 3	B	421.53	AVRG	R		0.002372		pg	421.53	0	.99	20	
Aroclor-1232 Peak # 4	B	167.61	AVRG	R		0.005966		pg	167.61	0	.99	20	
Aroclor-1232 Peak # 5	B	121.65	AVRG	R		0.008220		pg	121.65	0	.99	20	

83

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Analyte: Aroclor-1232

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255226875032	07-JUN-2005 05:28	255218322002	31-MAY-2005			250.00	241.22	pg	-4	15	
GC22	B	255226875032	07-JUN-2005 05:28	255218322002	31-MAY-2005			250.00	295.57	pg	**18**	15	c+ *** CHA-Reported ok 04/22/05
GC22	A	255226875052	07-JUN-2005 17:10	255218322002	31-MAY-2005			250.00	231.98	pg	-7	15	
GC22	B	255226875052	07-JUN-2005 17:10	255218322002	31-MAY-2005			250.00	282.50	pg	13	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005			500.00	511.00	pg	2	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005			500.00	609.98	pg	**22**	15	c+ ***
GC22	A	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005			250.00	253.04	pg	1	15	
GC22	B	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005			250.00	296.81	pg	**19**	15	c+ ***
GC22	A	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005			250.00	237.56	pg	-5	15	
GC22	B	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005			250.00	274.91	pg	10	15	
GC22	A	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005			500.00	479.91	pg	-4	15	
GC22	B	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005			500.00	494.99	pg	-1	15	

CHA REPORTED
ai
06/09/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005			500.00	491.00	pg	-2	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005			500.00	611.63	pg	**22**	15	c+ *** CHA REPORTED
GC22	A	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005			250.00	250.64	pg	0	15	
GC22	B	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005			250.00	288.48	pg	15	15	
GC22	A	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005			250.00	231.67	pg	-7	15	
GC22	B	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005			250.00	265.99	pg	6	15	
GC22	A	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005			500.00	467.82	pg	-6	15	
GC22	B	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005			500.00	507.24	pg	1	15	

QAC 06/29/05

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	14349	13048	100.00	90.931	pg	-9	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	11354	14413	100.00	126.94	pg	**27**	15	c+ CHA REPORTED
GC22	A	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005	14349	12373	50.000	43.113	pg	-14	15	
GC22	B	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005	11354	13197	50.000	58.117	pg	**16**	15	c+ CHA REPORTED
GC22	A	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005	14349	12050	50.000	41.987	pg	**-16**	15	c- CHB REPORTED
GC22	B	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005	11354	12599	50.000	55.481	pg	11	15	
GC22	A	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005	14349	12369	100.00	86.197	pg	-14	15	
GC22	B	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005	11354	11581	100.00	102.00	pg	2	15	

DOL 01/06

+=high bias -=low bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	8488.7	7519.6	100.00	88.584	pg	-11	15	
GC22	B	255226875030	07-JUN-2005 04:35	255208084001	24-MAY-2005	8707.6	10788	100.00	123.89	pg	**24**	15	c+ CHA REPORTED
GC22	A	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005	8488.7	7703.0	50.000	45.373	pg	-9	15	
GC22	B	255226875051	07-JUN-2005 16:43	255208084001	24-MAY-2005	8707.6	9735.1	50.000	55.900	pg	12	15	
GC22	A	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005	8488.7	6412.8	50.000	37.773	pg	**-24**	15	c- CHB REPORTED
GC22	B	255228697002	07-JUN-2005 19:37	255208084001	24-MAY-2005	8707.6	8981.6	50.000	51.573	pg	3	15	
GC22	A	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005	8488.7	7446.5	100.00	87.723	pg	-12	15	
GC22	B	255228697016	08-JUN-2005 02:13	255208084001	24-MAY-2005	8707.6	9795.1	100.00	112.49	pg	12	15	

+=high bias -=low bias c=CCV

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255208084 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 24-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	144_001	X	hex			24-MAY-2005 11:37	1.0					
002	144_002	ICAL	pcb10_2			24-MAY-2005 12:04	1.0				1	
003	144_003	ICAL	pcb25_5			24-MAY-2005 12:31	1.0				2	
004	144_004	ICAL	pcb100_20			24-MAY-2005 12:57	1.0				3	
005	144_005	ICAL	pcb250_50			24-MAY-2005 13:24	1.0				4	
006	144_006	ICAL	pcb500_100			24-MAY-2005 13:50	1.0				5	
007	144_007	ICAL	pcb750_150			24-MAY-2005 14:17	1.0				6	
008	144_008	ICAL	pcb1k_200			24-MAY-2005 14:44	1.0				7	
010	144_010	ICV	accu_1660			24-MAY-2005 15:37	1.0	1			8	
011	144_011	X	icv			24-MAY-2005 16:04	1.0				8	
012	144_012	ICAL	ar1254			24-MAY-2005 16:30	1.0				9	

89

Stds used: 1=S698 2=S699 3=S700 4=S701 5=S702 6=S703 7=S704 8=S631 9=S159

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255218322 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 31-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	151_001	CCV	pcb250_50			31-MAY-2005 18:29	1.0	1.0			1	1	
002	151_002	X	pcb250_50			31-MAY-2005 14:42	1.0					1	
003	151_003	CCV	ar1232 single point ICAL			31-MAY-2005 20:12	1.0	1.0			1	2	
004	151_004	X	ccv			31-MAY-2005 20:38	1.0					2	
005	151_005	CCV	ar1242			31-MAY-2005 21:05	1.0	1.0			1	3	
006	151_006	X	ccv			31-MAY-2005 21:32	1.0					3	
007	151_007	CCV	ar1254			31-MAY-2005 21:58	1.0	1.0			1	4	
008	151_008	ICAL	pcb750_150			31-MAY-2005 22:25	1.0					5	
009	151_009	BLANK	QC295575	102485	Soil	31-MAY-2005 22:51	1.0	0.6627			1		
010	151_010	LCS	QC295576	102485	Soil	31-MAY-2005 23:18	1.0	0.6664	1		1		
011	151_011	LCS	QC294811	102300	Water	31-MAY-2005 23:45	1.0	0.001667			1		
012	151_012	MS	QC294812	102300	Water	01-JUN-2005 00:11	1.0	0.001572		1	1		
013	151_013	MSD	QC294813	102300	Water	01-JUN-2005 00:38	1.0	0.001572		1	1		
014	151_014	MSS	179610-020	102485	Soil	01-JUN-2005 01:04	1.0	0.6696			1		
015	151_015	MS	QC295577	102485	Soil	01-JUN-2005 01:31	1.0	0.672	1		1		90
016	151_016	MSD	QC295578	102485	Soil	01-JUN-2005 01:58	1.0	0.657	1		1		
017	151_017	MS	QC295421	102449	Soil	01-JUN-2005 02:24	1.0	0.6689	1	1	1		
018	151_018	MSD	QC295422	102449	Soil	01-JUN-2005 02:51	1.0	0.6585	1	1	1		
020	151_020	X	pcb100_20			01-JUN-2005 03:44	1.0					6	
021	151_021	CCV	ccv			01-JUN-2005 04:11	1.0	1.0			1	6	
022	151_022	CCV	ar1232			01-JUN-2005 04:37	1.0	1.0	1		1	2	
023	151_023	X	ccv			01-JUN-2005 05:04	1.0					2	
024	151_024	CCV	ar1242			01-JUN-2005 05:30	1.0	1.0			1	3	
025	151_025	X	ccv			01-JUN-2005 05:57	1.0					3	
026	151_026	CCV	ar1254			01-JUN-2005 06:24	1.0	1.0			1	4	
028	151_028	SAMPLE	179597-001	102485	Soil	01-JUN-2005 07:17	1.0	0.672			1		
029	151_029	SAMPLE	179597-002	102485	Soil	01-JUN-2005 07:43	1.0	0.6689			1		
030	151_030	SAMPLE	179597-003	102485	Soil	01-JUN-2005 08:10	1.0	0.6566			1		
031	151_031	SAMPLE	179597-004	102485	Soil	01-JUN-2005 08:37	1.0	0.6752			1		
032	151_032	SAMPLE	179597-005	102485	Soil	01-JUN-2005 09:03	1.0	0.6748	1		1		2:PCB101=11535.7
033	151_033	SAMPLE	179597-006	102485	Soil	01-JUN-2005 09:30	1.0	0.6607	1	2	1		2:PCB101=1063.90

Stds used: 1=S701 2=S507 3=S160 4=S159 5=S703 6=S700 7=S702

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255218322 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 31-MAY-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
034	151_034	MSS	179610-019	102485	Soil	01-JUN-2005 09:56	1.0	0.6696	1		
035	151_035	SAMPLE	179610-021	102485	Soil	01-JUN-2005 10:23	1.0	0.6698	1		
036	151_036	SAMPLE	179610-022	102485	Soil	01-JUN-2005 10:50	1.0	0.6671	1		
037	151_037	SAMPLE	179614-027	102485	Soil	01-JUN-2005 11:16	1.0	0.6773	1		
039	151_039	CCV	pcb500_100			01-JUN-2005 12:09	1.0	1.0	1	7	

91

Stds used: 1=S701 2=S507 3=S160 4=S159 5=S703 6=S700 7=S702

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255226875 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	157_002	X	pcb250_50			06-JUN-2005 13:15	1.0					1	
003	157_003	X	ccv			06-JUN-2005 13:42	1.0	1.0			1	1	
005	157_005	SAMPLE	179613-018	102483	Soil	06-JUN-2005 14:55	1.0	0.6673	1	1	1		
006	157_006	X	pcb500_100			06-JUN-2005 15:21	1.0	1.0			1	2	
007	157_007	X	ccv			06-JUN-2005 15:48	1.0					2	
010	157_010	CCV	pcb100_20			06-JUN-2005 18:13	1.0	1.0	1		1	3	
011	157_011	X	ccv			06-JUN-2005 18:39	1.0					3	
012	157_012	X	ar1232			06-JUN-2005 20:35	1.0					4	
013	157_013	CCV	ar1232			06-JUN-2005 21:02	1.0	1.0	1		1	4	
019	157_019	SAMPLE	179566-009	102584	Soil	06-JUN-2005 23:42	1.0	0.6711	1		1		
020	157_020	SAMPLE	179566-015	102584	Soil	07-JUN-2005 00:08	1.0	0.6766			1		
021	157_021	SAMPLE	179566-020	102584	Soil	07-JUN-2005 00:35	1.0	0.6729	3		1		
022	157_022	MSS	179567-006	102584	Soil	07-JUN-2005 01:02	1.0	0.664	1		1		
023	157_023	SAMPLE	179613-018	102483	Soil	07-JUN-2005 01:28	1.0	0.6673	1		1		
024	157_024	BLANK	QC296368	102675	Oil	07-JUN-2005 01:55	1.0	50.0			1		
025	157_025	BS	QC296369	102675	Oil	07-JUN-2005 02:22	1.0	50.0	1		1		
026	157_026	BSD	QC296370	102675	Oil	07-JUN-2005 02:48	1.0	50.0	1		1		
027	157_027	SAMPLE	179850-001	102675	Oil	07-JUN-2005 03:15	1.0	49.99			1		
028	157_028	SAMPLE	179850-002	102675	Oil	07-JUN-2005 03:42	1.0	50.01			1		
030	157_030	CCV	pcb500_100			07-JUN-2005 04:35	1.0	1.0	2		1	2	
031	157_031	X	ccv			07-JUN-2005 05:01	1.0					2	
032	157_032	CCV	ar1232			07-JUN-2005 05:28	1.0	1.0	1		1	4	
033	157_033	X	ccv			07-JUN-2005 05:55	1.0					4	
034	157_034	CCV	ar1254			07-JUN-2005 06:21	1.0	1.0			1	5	
039	157_039	BLANK	QC296002	102588	Water	07-JUN-2005 08:34	1.0	0.025	1		1		
040	157_040	LCS	QC296003	102588	Water	07-JUN-2005 09:01	1.0	0.025	1	1	1		
041	157_041	SAMPLE	179688-001	102588	Water	07-JUN-2005 09:28	1.0	0.025	1		1		
042	157_042	SAMPLE	179688-002	102588	Water	07-JUN-2005 09:54	1.0	0.025	1	1	1		
043	157_043	SAMPLE	179688-003	102588	Water	07-JUN-2005 10:21	1.0	0.02632	1		1		
044	157_044	SAMPLE	179688-004	102588	Water	07-JUN-2005 10:48	1.0	0.025	1		1		
045	157_045	SAMPLE	179688-005	102588	Water	07-JUN-2005 11:14	1.0	0.02475	1		1		

1016↑(B); 1260↑(B) TCMX↑(B); DCB↑(B) ↑(B)

Stds used: 1=S701 2=S702 3=S700 4=S507 5=S159

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255226875 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 06-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
046	157_046	MSS	179727-002	102588	Water	07-JUN-2005 11:41	1.0	0.02427	1	1	1		
047	157_047	MS	QC296004	102588	Water	07-JUN-2005 12:07	1.0	0.02451	1		1		
048	157_048	MSD	QC296005	102588	Water	07-JUN-2005 12:34	1.0	0.02451	1		1		
051	157_051	CCV	pcb250_50			07-JUN-2005 16:43	1.0	1.0	1		1	1	
052	157_052	CCV	ar1232			07-JUN-2005 17:10	1.0	1.0			1	4	
053	157_053	X	ccv			07-JUN-2005 17:36	1.0					4	
054	157_054	CCV	ar1254			07-JUN-2005 18:03	1.0	1.0	1		1	5	

93

Stds used: 1=S701 2=S702 3=S700 4=S507 5=S159

SEQUENCE SUMMARY FOR 179714 PCB Water
Curtis & Tompkins Laboratories

Sequence: 255228697 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 07-JUN-2005
Analytical Method: EPA 8082 SOP Version: PCB_rv3

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	158_002	CCV	pcb250_50	TCMX1 (A); DCB1(A)		07-JUN-2005 19:37	1.0	1.0			1	1	
003	158_003	X	ccv			07-JUN-2005 20:27	1.0					1	
004	158_004	X	ccv			07-JUN-2005 20:53	1.0					1	
005	158_005	CCV	ar1254			07-JUN-2005 21:20	1.0	1.0			1	2	
007	158_007	SAMPLE	179714-001	102588	Water	07-JUN-2005 22:13	1.0	0.02358			1		
008	158_008	SAMPLE	179727-001	102588	Water	07-JUN-2005 22:40	1.0	0.02427			1		
009	158_009	SAMPLE	179727-003	102588	Water	07-JUN-2005 23:06	1.0	0.02404		3	1		
010	158_010	SAMPLE	179727-007	102588	Water	07-JUN-2005 23:33	1.0	0.02404		2	1		
011	158_011	SAMPLE	179727-008	102588	Water	08-JUN-2005 00:00	1.0	0.02358		2	1		
012	158_012	SAMPLE	179733-014	102588	Water	08-JUN-2005 00:26	1.0	0.02404			1		
013	158_013	SAMPLE	179733-021	102588	Water	08-JUN-2005 00:53	1.0	0.02381			1		
014	158_014	SAMPLE	179720-021	102674	Soil	08-JUN-2005 01:19	1.0						
016	158_016	CCV	pcb500_100	good		08-JUN-2005 02:13	1.0	1.0			1	3	
017	158_017	X	ccv			08-JUN-2005 02:39	1.0					3	
018	158_018	CCV	ar1254			08-JUN-2005 03:06	1.0	1.0			1	2	84

Stds used: 1=S701 2=S752 3=S702

Curtis & Tompkins Laboratories Sample Preparation Summary 04-JUN-2005 18:00

Batch Number : 102588
Date Extracted: 02-JUN-2005
Extracted by : Stephen Koster
Prep Method : 3520C

Analysis : N/A
Bgroup : PCB
Units : mL
Clean-up :

Spike #1 ID : S719A
Spike #2 ID : S498A
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.f.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179688-001			CH2M Hill Constructors Inc.	Water	1000	mL	25	0.025000	1	7	.05	0		PCB	3665A	
179688-002			CH2M Hill Constructors Inc.	Water	1000	mL	25	0.025000	1	7	.05	0		PCB	3665A	
179688-003			CH2M Hill Constructors Inc.	Water	950	mL	25	0.026316	1	7	.05	0		PCB	3665A	
179688-004			CH2M Hill Constructors Inc.	Water	1000	mL	25	0.025000	1	7	.05	0		PCB	3665A	
179688-005			CH2M Hill Constructors Inc.	Water	1010	mL	25	0.024752	1	7	.05	0		PCB	3665A	
179704-005			MWH	Water	1010	mL	25	0.024752	1	7	.05	0		PCB	3665A	
179714-001			Mactec, Inc.	Water	1060	mL	25	0.023585	1	7	.05	0		PCB	3665A	
179727-001			Treadwell & Rollo	Water	1030	mL	25	0.024272	1	7	.05	0		PCB	3665A	
179727-002			Treadwell & Rollo	Water	1030	mL	25	0.024272	1	7	.05	0		PCB	3665A	mss
179727-003			Treadwell & Rollo	Water	1040	mL	25	0.024038	1	7	.05	0		PCB	3665A	
179727-007			Treadwell & Rollo	Water	1040	mL	25	0.024038	1	7	.05	0		PCB	3665A	
179727-008			Treadwell & Rollo	Water	1060	mL	25	0.023585	1	7	.05	0		PCB	3665A	
179733-014			MWH	Water	1040	mL	25	0.024038	1	7	.05	0		PCB	3665A	
179733-021			MWH	Water	1050	mL	25	0.023810	1	7	.05	0		PCB	3665A	
QC296002	BLANK			Water	1000	mL	25	0.025000	1		.05	0		PCB	3665A	
QC296003	LCS			Water	1000	mL	25	0.025000	1		.05	.05		PCB	3665A	
QC296004	MS	of 179727-002		Water	1020	mL	25	0.024510	1	7	.05	.05		PCB	3665A	
QC296005	MSD	of 179727-002		Water	1020	mL	25	0.024510	1	7	.05	.05		PCB	3665A	

95

Prep Chemist: _____ Reviewed By: _____ Date: 6/4/05

Relinquished By: _____ Received By: _____ Date: 6/7/05

Curtis & Tompkins, Ltd

PCB WATER PREP LOG

LIMS Batch No: 102588
LIMS Analysis: PCB
Extracted by: SAK
Date Extracted: 6.2.05.

Extraction Method:
☐ EPA 3510c Sep. Funnel
☑ EPA 3520c Continuous L/L
☐ Other _____

Sample # & letter	Volume of Sample (mL)	Sample pH	Final Volume (mL)	Comments
179688-001 E	1000	7	25.0	
-002 E	↓			
-003 F	950			
-004 E	1000			
-005 F	1010			
179704-005 F	↓			
179714-001 I	1060			
179727-001 M	1030			
-002 AH BMS/MSD	↓			MSS
-003 M	1040			
-004 M	↓			
179733-014 F	↓			
-021 F	1050	↓		
MB QC 296002	1000	N/A		
LCS 296003	↓	↓		
MS 296004	1020	7		of 179727-002 AH
MSD 296005	↓	↓		↓ AG
179727-008	1060	7		
↓ -007	1040	7	↓	

	Mfg & Lot# / LIMS # / Time	Date/ Initials
0.05 mL of surrogate solution was added to all samples	5719A	SAK 06/02/05
0.05 mL of spike solution AK1237 was added to all spikes	5798A	↓
☒ Samples were continuously extracted with about 450 mL CH_2Cl_2	EM45871	
Extraction Start Time:	1615	↓
Extraction End Time:	1200	SAK 06/03/05
☐ Samples were extracted 3 times with 60 mL of CH_2Cl_2	N/A	BHD 6/4/05
Extracts filtered through baked, CH2Cl2-rinsed ~~granular~~ powder Na2SO4	EM45042	
Concentrated to volumes noted above after 2x exchange w/ Hexane lot#	CN801	
EPA 3665A Clean-up: Vortexed w/ 10mL H_2SO_4 lot #	JTB A49034	
Centrifuged for 1min; 10mL transferred to labelled vial	✓	↓

SAK 06/02/05
Extraction Chemist Date

Contined from Page 96
Continued on Page ____

BHD 6/4/05
Reviewed by Date

REPORTING SUMMARY FOR 179714 PCB Water

Sample ID	Analyte	Inst ID	Ch	Date & Time
179714-001	Aroclor-1016	GC22	A	06/07/05 22:13
179714-001	Aroclor-1221	GC22	A	06/07/05 22:13
179714-001	Aroclor-1232	GC22	A	06/07/05 22:13
179714-001	Aroclor-1242	GC22	A	06/07/05 22:13
179714-001	Aroclor-1248	GC22	A	06/07/05 22:13
179714-001	Aroclor-1254	GC22	A	06/07/05 22:13
179714-001	Aroclor-1260	GC22	A	06/07/05 22:13
179714-001	TCMX	GC22	B	06/07/05 22:13
179714-001	Decachlorobiphenyl	GC22	B	06/07/05 22:13
QC296002	Aroclor-1016	GC22	A	06/07/05 08:34
QC296002	Aroclor-1221	GC22	A	06/07/05 08:34
QC296002	Aroclor-1232	GC22	A	06/07/05 08:34
QC296002	Aroclor-1242	GC22	A	06/07/05 08:34
QC296002	Aroclor-1248	GC22	A	06/07/05 08:34
QC296002	Aroclor-1254	GC22	A	06/07/05 08:34
QC296002	Aroclor-1260	GC22	A	06/07/05 08:34
QC296002	TCMX	GC22	A	06/07/05 08:34
QC296002	Decachlorobiphenyl	GC22	A	06/07/05 08:34
QC296003	Aroclor-1232	GC22	A	06/07/05 09:01
QC296003	TCMX	GC22	A	06/07/05 09:01
QC296003	Decachlorobiphenyl	GC22	A	06/07/05 09:01
QC296004	Aroclor-1232	GC22	A	06/07/05 12:07
QC296004	TCMX	GC22	A	06/07/05 12:07
QC296004	Decachlorobiphenyl	GC22	A	06/07/05 12:07
QC296005	Aroclor-1232	GC22	A	06/07/05 12:34
QC296005	TCMX	GC22	A	06/07/05 12:34
QC296005	Decachlorobiphenyl	GC22	A	06/07/05 12:34

Volatile Organics
Water

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBIPZ101	Batch#:	102513
Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Analyzed:	06/01/05
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.2
Chloromethane	ND	1.0	0.1
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.2
Acetone	0.9 J	10	0.4
Freon 113	ND	5.0	0.06
1,1-Dichloroethene	ND	0.5	0.3
Methylene Chloride	ND	10	0.2
Carbon Disulfide	ND	0.5	0.04
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.4
Vinyl Acetate	ND	10	0.08
1,1-Dichloroethane	ND	0.5	0.09
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.3
2,2-Dichloropropane	ND	0.5	0.09
Chloroform	ND	0.5	0.08
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.08
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.09
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.1
Trichloroethene	ND	0.5	0.2
1,2-Dichloropropane	ND	0.5	0.09
Bromodichloromethane	ND	0.5	0.09
Dibromomethane	ND	0.5	0.2
4-Methyl-2-Pentanone	ND	10	0.04
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.04
1,3-Dichloropropane	ND	0.5	0.06
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.1
1,2-Dibromoethane	ND	0.5	0.2
Chlorobenzene	ND	0.5	0.1
1,1,1,2-Tetrachloroethane	ND	0.5	0.1
Ethylbenzene	ND	0.5	0.06
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.1
Styrene	ND	0.5	0.1
Bromoform	ND	1.0	0.1
Isopropylbenzene	ND	0.5	0.1
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.08
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.06
2-Chlorotoluene	ND	0.5	0.1

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBIPZ101	Batch#:	102513
Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Analyzed:	06/01/05
Diln Fac:	1.000		

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	0.5	0.08
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.06
1,3-Dichlorobenzene	ND	0.5	0.08
1,4-Dichlorobenzene	ND	0.5	0.07
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.07
1,2-Dibromo-3-Chloropropane	ND	2.0	0.4
1,2,4-Trichlorobenzene	ND	0.5	0.1
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.06

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	100	80-122
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-124

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	TB-1	Batch#:	102513
Lab ID:	179714-002	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Analyzed:	06/01/05
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.2
Chloromethane	ND	1.0	0.1
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.2
Acetone	ND	10	0.4
Freon 113	ND	5.0	0.06
1,1-Dichloroethene	ND	0.5	0.3
Methylene Chloride	ND	10	0.2
Carbon Disulfide	ND	0.5	0.04
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.4
Vinyl Acetate	ND	10	0.08
1,1-Dichloroethane	ND	0.5	0.09
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.3
2,2-Dichloropropane	ND	0.5	0.09
Chloroform	ND	0.5	0.08
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.08
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.09
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.1
Trichloroethene	ND	0.5	0.2
1,2-Dichloropropane	ND	0.5	0.09
Bromodichloromethane	ND	0.5	0.09
Dibromomethane	ND	0.5	0.2
4-Methyl-2-Pentanone	ND	10	0.04
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.04
1,3-Dichloropropane	ND	0.5	0.06
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.1
1,2-Dibromoethane	ND	0.5	0.2
Chlorobenzene	ND	0.5	0.1
1,1,1,2-Tetrachloroethane	ND	0.5	0.1
Ethylbenzene	ND	0.5	0.06
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.1
Styrene	ND	0.5	0.1
Bromoform	ND	1.0	0.1
Isopropylbenzene	ND	0.5	0.1
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.08
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.06
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.08

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	TB-1	Batch#:	102513
Lab ID:	179714-002	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Analyzed:	06/01/05
Diln Fac:	1.000		

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.06
1,3-Dichlorobenzene	ND	0.5	0.08
1,4-Dichlorobenzene	ND	0.5	0.07
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.07
1,2-Dibromo-3-Chloropropane	ND	2.0	0.4
1,2,4-Trichlorobenzene	ND	0.5	0.1
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.06

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	103	80-122
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295690	Batch#:	102513
Matrix:	Water	Analyzed:	06/01/05
Units:	ug/L		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.2
Chloromethane	ND	1.0	0.1
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.2
Acetone	ND	10	0.4
Freon 113	ND	5.0	0.06
1,1-Dichloroethene	ND	0.5	0.3
Methylene Chloride	ND	10	0.2
Carbon Disulfide	ND	0.5	0.04
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.4
Vinyl Acetate	ND	10	0.08
1,1-Dichloroethane	ND	0.5	0.09
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.3
2,2-Dichloropropane	ND	0.5	0.09
Chloroform	ND	0.5	0.08
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.08
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.09
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.1
Trichloroethene	ND	0.5	0.2
1,2-Dichloropropane	ND	0.5	0.09
Bromodichloromethane	ND	0.5	0.09
Dibromomethane	ND	0.5	0.2
4-Methyl-2-Pentanone	ND	10	0.04
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.04
1,3-Dichloropropane	ND	0.5	0.06
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.1
1,2-Dibromoethane	ND	0.5	0.2
Chlorobenzene	ND	0.5	0.1
1,1,1,2-Tetrachloroethane	ND	0.5	0.1
Ethylbenzene	ND	0.5	0.06
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.1
Styrene	ND	0.5	0.1
Bromoform	ND	1.0	0.1
Isopropylbenzene	ND	0.5	0.1
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.08
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.06
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.08

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC295690	Batch#:	102513
Matrix:	Water	Analyzed:	06/01/05
Units:	ug/L		

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.06
1,3-Dichlorobenzene	ND	0.5	0.08
1,4-Dichlorobenzene	ND	0.5	0.07
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.07
1,2-Dibromo-3-Chloropropane	ND	2.0	0.4
1,2,4-Trichlorobenzene	ND	0.5	0.1
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	2.1	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.06

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	94	80-122
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255 001 22	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	102513
Units:	ug/L	Analyzed:	06/01/05
Diln Fac:	1.000		

Type: BS Lab ID: QC295691

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.92	100	75-121
Benzene	25.00	25.12	100	80-120
Trichloroethene	25.00	25.46	102	78-120
Toluene	25.00	25.05	100	80-120
Chlorobenzene	25.00	24.98	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-120
1,2-Dichloroethane-d4	93	80-122
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-124

Type: BSD Lab ID: QC295692

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	26.09	104	75-121	5	20
Benzene	25.00	25.86	103	80-120	3	20
Trichloroethene	25.00	26.65	107	78-120	5	20
Toluene	25.00	25.78	103	80-120	3	20
Chlorobenzene	25.00	26.34	105	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-120
1,2-Dichloroethane-d4	93	80-122
Toluene-d8	96	80-120
Bromofluorobenzene	92	80-124

RPD= Relative Percent Difference

MS VOA 4 8260/600X W ICAL TUNE

Data File: \\Gcmsserver\DD\chem\MSVOA04.i\051905.b\DEJ12.D

Date : 19-MAY-2005 15:27

Client ID: bfb tune std

Instrument: MSVOA04.i

Sample Info: BFB,04WS2425

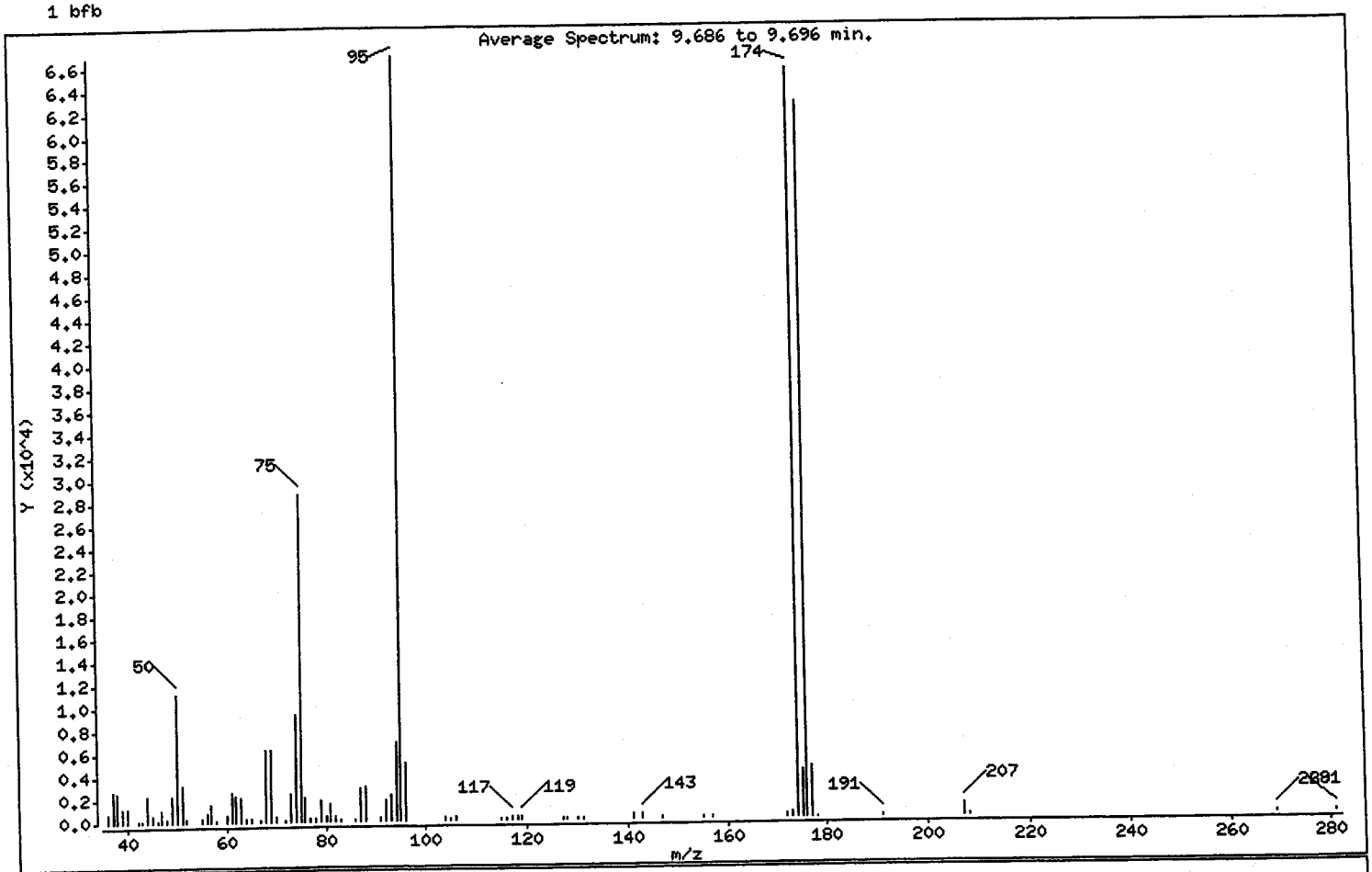
Volume Injected (uL): 1.0

Operator: AJA

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.82
75	30.00 - 60.00% of mass 95	42.99
96	5.00 - 9.00% of mass 95	7.51
173	Less than 2.00% of mass 174	0.58 (0.59)
174	50.00 - 99.99% of mass 95	97.82
175	5.00 - 9.00% of mass 174	6.29 (6.43)
176	95.01 - 100.99% of mass 174	93.52 (95.60)
177	5.00 - 9.00% of mass 176	6.67 (7.13)

5/20/05

5/20/05

Data File: \\GCMSSERVER\DD\chem\MSVOA04.i\052005.b\DEK02.D

Date : 20-MAY-2005 11:11

Client ID: bfb tune std

Instrument: MSVOA04.i

Sample Info: BFB,04WS2425

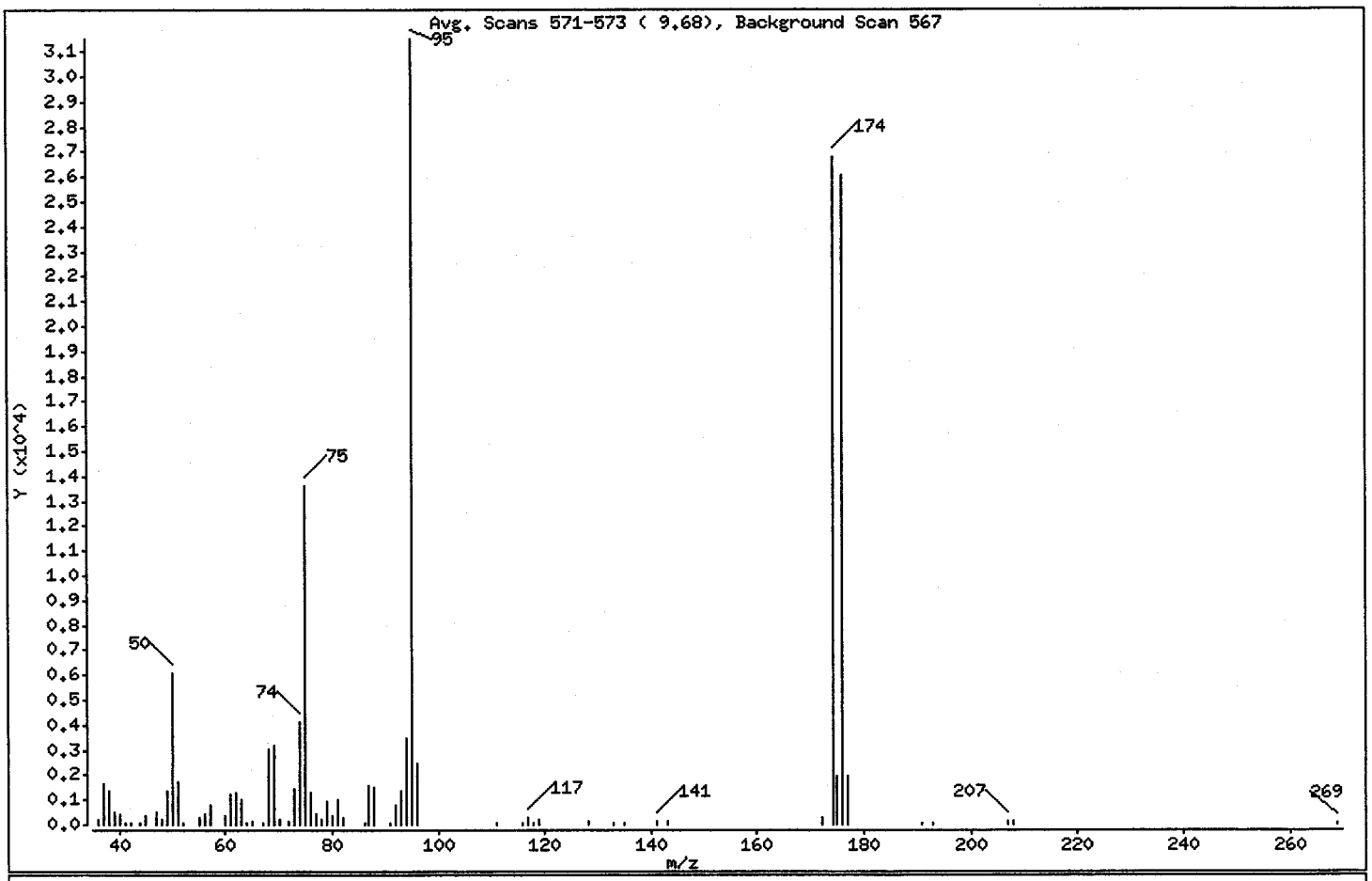
Volume Injected (uL): 1.0

Operator: AJA

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.38
75	30.00 - 60.00% of mass 95	43.13
96	5.00 - 9.00% of mass 95	7.75
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	85.07
175	5.00 - 9.00% of mass 174	6.18 (7.26)
176	95.01 - 100.99% of mass 174	82.88 (97.42)
177	5.00 - 9.00% of mass 176	6.14 (7.41)

5/20/05

05/23/05

Data File: \\GCMSSERVER\DD\chem\MSVOA04.i\060105.b\DF102.D

Date : 01-JUN-2005 09:25

Client ID: bfb tune std

Instrument: MSVOA04.i

Sample Info: BFB,04WS2425

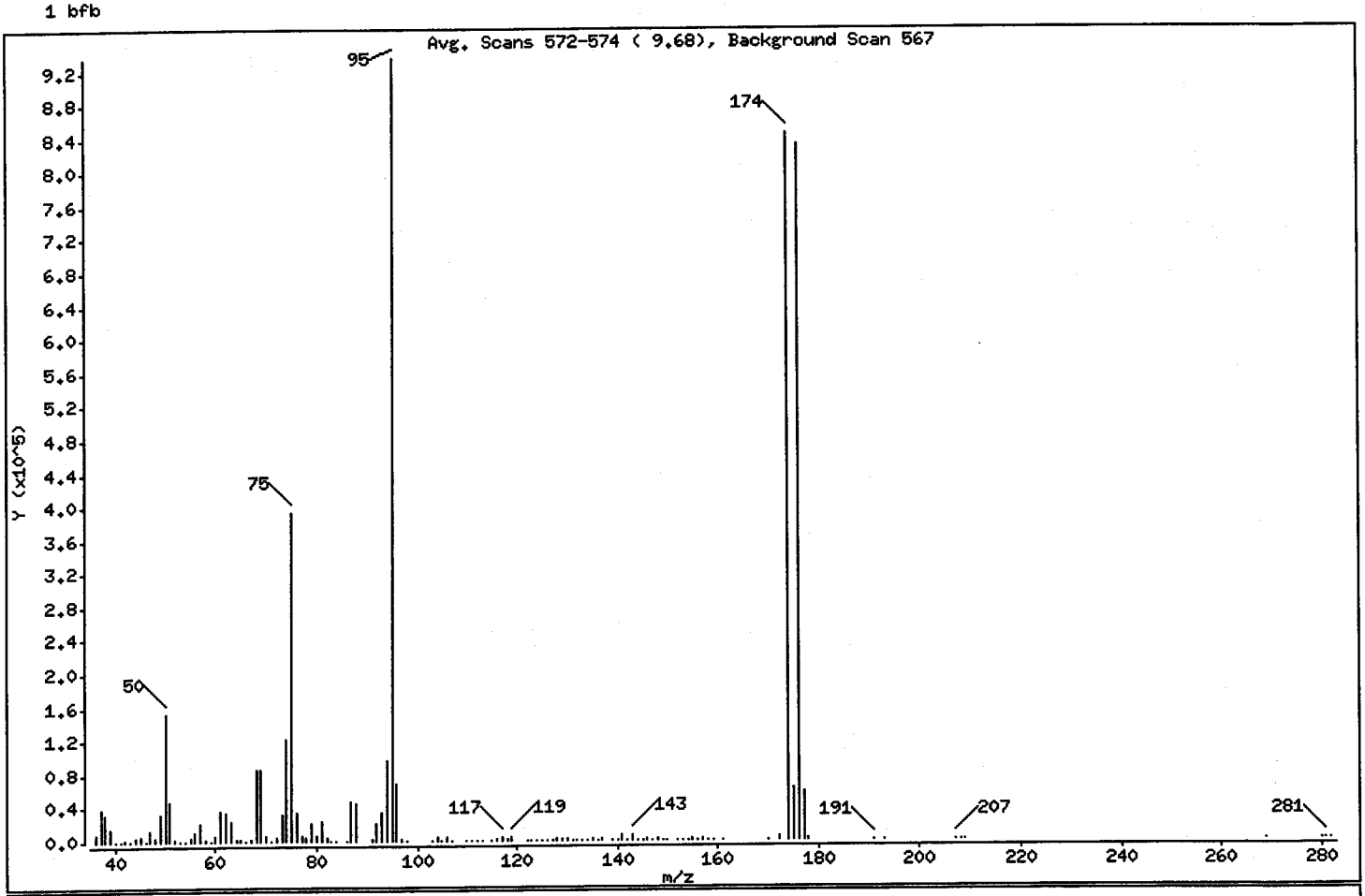
Volume Injected (uL): 1.0

Operator: AJA

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.41
75	30.00 - 60.00% of mass 95	42.10
96	5.00 - 9.00% of mass 95	7.35
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	90.39
175	5.00 - 9.00% of mass 174	6.65 (7.36)
176	95.01 - 100.99% of mass 174	89.07 (98.54)
177	5.00 - 9.00% of mass 176	6.31 (7.09)

06-01-05

06-02-05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

nstrument: MSVOA04 HP GCMS VOA 04 Reviewed By:
alnum: 435200741001 Name: 826GOX04 Type: WATER Date: 19-MAY-2005 19:01 Inj Vol (uL): 5000

alibration levels:

Filename	Segnum	Samplenum	Analyzed	Standards
dej19	435200741019	0.5-1PPB	19-MAY-2005 19:01	S568 (1000000X), S538 (500000X), S570 (1000000X), S296 (5000X)
dej20	435200741020	2PPB	19-MAY-2005 19:34	S568 (250000X), S538 (250000X), S570 (500000X), S296 (5000X)
dej21	435200741021	10PPB	19-MAY-2005 20:06	S568 (50000X), S538 (50000X), S570 (100000X), S296 (5000X)
dej22	435200741022	20PPB	19-MAY-2005 20:39	S568 (25000X), S538 (25000X), S570 (50000X), S296 (5000X)
dej23	435200741023	50PPB	19-MAY-2005 21:12	S568 (10000X), S538 (10000X), S570 (20000X), S296 (5000X)
dej24	435200741024	75PPB	19-MAY-2005 21:44	S568 (6667X), S538 (6667X), S570 (13333X), S296 (5000X)
dej25	435200741025	100PPB	19-MAY-2005 22:17	S568 (5000X), S538 (5000X), S570 (10000X), S296 (5000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.5455	0.4182	0.6727	0.7059	0.6737	0.6637		LINR R	-0.01554	1.495820		ug/L	0.6133	0.999	0.0500	0.99	15	
Chloromethane	1.1152	0.9133	0.9958	0.9339	0.9054	0.8827	0.8532	AVRG R		1.060666		ug/L	0.9428	9	0.1000	0.99	15	
Vinyl Chloride	0.7663	0.6570	0.8774	0.8669	0.8344	0.8044	0.7782	AVRG R		1.253446		ug/L	0.7978	9	0.0500	0.99	15	
Bromomethane	0.6983	0.7796	0.8445	0.8401	0.8178	0.7899	0.7865	AVRG R		1.259737		ug/L	0.7938	6	0.0500	0.99	15	
Chloroethane	0.4313	0.4143	0.4982	0.4866	0.4522	0.4350	0.4191	AVRG R		2.231693		ug/L	0.4481	7	0.0500	0.99	15	
Trichlorofluoromethane	0.6783	0.5584	0.8970	0.8981	0.8435	0.8383	0.7933	QUAD R	0.568024	1.040220	0.002602	ug/L	0.7867	1.000	0.0500	0.99	15	
Acetone		0.4355	0.2905	0.3555	0.2973	0.2912	0.2813	QUAD R	-0.40125	3.025790	0.019566	ug/L	0.3252	0.999	0.0500	0.99	15	
Freon 113	0.4466	0.3652	0.6157	0.6351	0.6436	0.6519	0.6225	LINR R	0.135911	1.572697		ug/L	0.5686	0.999	0.0500	0.99	15	
1,1-Dichloroethene	0.6270	0.4521	0.5142	0.5394	0.5312	0.5222	0.5300	AVRG R		1.883660		ug/L	0.5309	10	0.0500	0.99	15	
Methylene Chloride	0.9371	0.6791	0.6897	0.6738	0.6595	0.6604	0.6543	AVRG R		1.413038		ug/L	0.7077	14	0.0500	0.99	15	
Carbon Disulfide	1.9140	1.6556	2.0595	2.0707	2.0903	2.0856	2.0305	AVRG R		0.503375		ug/L	1.9866	8	0.0500	0.99	15	
MTBE	1.4375	1.4772	1.6835	1.7506	1.8059	1.8821	1.8148	AVRG R		0.590638		ug/L	1.6931	10	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.5050	0.4938	0.5863	0.6028	0.6213	0.6184	0.6113	AVRG R		1.733194		ug/L	0.5770	9	0.0500	0.99	15	
Vinyl Acetate	1.2883m	1.3919	1.6080	1.3836	1.6861	1.8224	1.6982	AVRG R		0.643477		ug/L	1.5541	13	0.0500	0.99	15	
1,1-Dichloroethane	1.1253	1.0056	1.1671	1.1815	1.1490	1.1683	1.1164	AVRG R		0.884599		ug/L	1.1305	5	0.1000	0.99	15	
2-Butanone		0.4560	0.4646	0.4981	0.4610	0.4649	0.4452	AVRG R		2.150601		ug/L	0.4650	4	0.0500	0.99	15	
2,2-Dichloropropane	0.5586	0.4838	0.6532	0.6356	0.6506	0.6712	0.6417	AVRG R		1.629901		ug/L	0.6135	11	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.5603	0.5692	0.6191	0.6477	0.6542	0.6786	0.6546	AVRG R		1.596818		ug/L	0.6262	7	0.0500	0.99	15	

109

ICAL - No 2Clave (missing in 3 low pts.); No Cyclohex (>30% RSD); F12 ↓ to 75 PPB.

Flags used: irf=ICAL minimum RF failure m=manual integration rsd=ICAL %RSD failure

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2 ICV - 2Clave ↑, Cyclohex ↓ (WL: F12↓; BrMe↓; F113↓, 22DCP↑; EtOH↓; IsoprOH↓)

5/23/05 5/27/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA04 HP GCMS VOA 04 Reviewed By:
Calnum: 435200741001 Name: 826GOX04 Type: WATER Date: 19-MAY-2005 19:01 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MinRF	r^2 MnR^2	r^2 MxRSD	Flags
Chloroform	0.9374	0.9752	1.0621	1.0529	1.0275	1.0068	0.9905	AVRG	R		0.992572		ug/L	1.0075	4	0.0500	0.99	15	
Bromochloromethane	0.2871	0.3080	0.3690	0.3675	0.3713	0.3693	0.3757	AVRG	R		2.859582		ug/L	0.3497	10	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6419	0.5982	0.7891	0.7712	0.8026	0.7702	0.7581	AVRG	R		1.364174		ug/L	0.7330	11	0.0500	0.99	15	
1,1-Dichloropropene	0.4334	0.3322	0.4489	0.4677	0.4933	0.4959	0.4907	AVRG	R		2.213658		ug/L	0.4517	13	0.0500	0.99	15	
Carbon Tetrachloride	0.2341	0.2077	0.3446	0.3554	0.3812	0.3919	0.3887	QUAD	R	0.882664	2.595680	-0.00147	ug/L	0.3291	1.000	0.0500	0.99	15	
1,2-Dichloroethane	0.4611	0.5011	0.5394	0.5063	0.5081	0.5007	0.4879	AVRG	R		1.997368		ug/L	0.5007	5	0.0500	0.99	15	
Benzene	1.4279	1.4134	1.5134	1.4374	1.4660	1.5010	1.4448	AVRG	R		0.686012		ug/L	1.4577	3	0.0500	0.99	15	
Trichloroethene	0.2914	0.3167	0.3531	0.3575	0.3774	0.3793	0.3751	AVRG	R		2.856693		ug/L	0.3501	10	0.0500	0.99	15	
1,2-Dichloropropane	0.3928	0.3812	0.4509	0.4461	0.4440	0.4555	0.4508	AVRG	R		2.316796		ug/L	0.4316	7	0.0500	0.99	15	
Bromodichloromethane	0.3885	0.4296	0.4715	0.4470	0.4687	0.4658	0.4616	AVRG	R		2.234401		ug/L	0.4475	7	0.0500	0.99	15	
Dibromomethane	0.2867	0.2866	0.3088	0.3038	0.3067	0.3093	0.3012	AVRG	R		3.328391		ug/L	0.3004	3	0.0500	0.99	15	
2-Chloroethylvinylether				0.0034	0.0027	0.0038	0.0037	AVRG	R		294.1121		ug/L	**0.0034**	15	0.0500	0.99	15	irf ***
4-Methyl-2-Pentanone		0.4560	0.5306	0.5654	0.5670	0.5866	0.5728	AVRG	R		1.830187		ug/L	0.5464	9	0.0500	0.99	15	
Tetramethyl THF	0.6592	0.7108	0.8428	0.8821	0.8837	0.8949	0.8504	AVRG	R		1.222933		ug/L	0.8177	11	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.4621	0.5113	0.6033	0.5828	0.6062	0.6236	0.6079	AVRG	R		1.751212		ug/L	0.5710	11	0.0500	0.99	15	
Toluene	0.8046	0.7516	0.8659	0.8352	0.8737	0.8915	0.8685	AVRG	R		1.188241		ug/L	0.8416	6	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.4185	0.4260	0.4981	0.4858	0.5345	0.5399	0.5388	AVRG	R		2.033911		ug/L	0.4917	11	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1677	0.1992	0.2118	0.2009	0.2103	0.2151	0.2116	AVRG	R		4.941586		ug/L	0.2024	8	0.0500	0.99	15	
2-Hexanone		0.3354	0.4354	0.4789	0.4692	0.4722	0.4655	AVRG	R		2.258528		ug/L	0.4428	12	0.0500	0.99	15	
1,3-Dichloropropane	0.5603	0.6816	0.7394	0.7588	0.7589	0.7624	0.7378	AVRG	R		1.400193		ug/L	0.7142	10	0.0500	0.99	15	
Tetrachloroethene	0.3337	0.3040	0.4005	0.4202	0.4327	0.4467	0.4388	AVRG	R		2.521043		ug/L	0.3967	14	0.0500	0.99	15	
Dibromochloromethane	0.3840	0.4473	0.4887	0.4879	0.5112	0.5204	0.5127	AVRG	R		2.088247		ug/L	0.4789	10	0.0500	0.99	15	
1,2-Dibromoethane	0.3892	0.3940	0.4335	0.4301	0.4426	0.4495	0.4565	AVRG	R		2.336904		ug/L	0.4279	6	0.0500	0.99	15	
Chlorobenzene	1.0785	1.0963	1.1325	1.1461	1.1604	1.1706	1.1648	AVRG	R		0.880592		ug/L	1.1356	3	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3565	0.3583	0.3870	0.3917	0.4112	0.4194	0.4184	AVRG	R		2.552387		ug/L	0.3918	7	0.0500	0.99	15	
Ethylbenzene	1.3787	1.4924	1.7485	1.7778	1.8637	1.8353	1.7642	AVRG	R		0.590187		ug/L	1.6944	11	0.0500	0.99	15	
m,p-Xylenes	0.4759	0.5734	0.6790	0.7146	0.7396	0.7443	0.7152	AVRG	R		1.507985		ug/L	0.6631	15	0.0500	0.99	15	
o-Xylene	0.4123	0.5350	0.6345	0.6695	0.7272	0.7195	0.7235	LINR	R	0.805325	1.371167		ug/L	0.6317	1.000	0.0500	0.99	15	
Styrene	0.7455	0.9401	1.1409	1.1871	1.2717	1.2735	1.2772	QUAD	R	0.675786	0.787844	-8.83E-5	ug/L	1.1194	1.000	0.0500	0.99	15	
Bromoform	0.4252	0.3516	0.3952	0.3918	0.4238	0.4362	0.4340	AVRG	R		2.449428		ug/L	0.4083	7	0.1000	0.99	15	
Isopropylbenzene	1.9647	2.3575	3.0636	3.1936	3.2830	3.2105	3.0497	LINR	R	-0.25732	0.320079		ug/L	2.8747	0.998	0.0500	0.99	15	

110

Flags used: irf=ICAL minimum RF failure m=manual integration rsd=ICAL %RSD failure

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA04 HP GCMS VOA 04 Reviewed By:
Calnum: 435200741001 Name: 826GOX04 Type: WATER Date: 19-MAY-2005 19:01 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,1,2,2-Tetrachloroethane	1.2902	1.3716	1.3098	1.3088	1.2855	1.2661	1.2596	AVRG	R		0.769946		ug/L	1.2988	3	0.3000	0.99	15	
1,2,3-Trichloropropane	0.3229	0.3429	0.3684	0.3638	0.3695	0.3635	0.3600	AVRG	R		2.810141		ug/L	0.3559	5	0.0500	0.99	15	
Propylbenzene	3.0582	3.2205	3.9033	4.0990	4.0881	3.9088	3.7435	AVRG	R		0.269010		ug/L	3.7173	11	0.0500	0.99	15	
Bromobenzene	0.9092	0.8627	0.9696	0.9895	0.9969	0.9915	1.0049	AVRG	R		1.040992		ug/L	0.9606	6	0.0500	0.99	15	
1,3,5-Trimethylbenzene	1.8103	2.1247	2.6592	2.8041	2.7918	2.6931	2.6377	AVRG	R		0.399523		ug/L	2.5030	15	0.0500	0.99	15	
2-Chlorotoluene	2.0619	2.3798	2.6386	2.7562	2.6936	2.5824	2.5001	AVRG	R		0.397442		ug/L	2.5161	9	0.0500	0.99	15	
4-Chlorotoluene	1.8511	2.2419	2.4367	2.5139	2.4885	2.4762	2.3553	AVRG	R		0.427782		ug/L	2.3376	10	0.0500	0.99	15	
tert-Butylbenzene	1.4266	1.5578	2.0326	2.2055	2.2814	2.1964	2.1456	LINR	R	-0.01000	0.458611		ug/L	1.9780	0.999	0.0500	0.99	15	
1,2,4-Trimethylbenzene	1.8025	2.2083	2.6981	2.7915	2.7988	2.7839	2.6657	AVRG	R		0.394394		ug/L	2.5355	15	0.0500	0.99	15	
sec-Butylbenzene	2.1452	2.3509	3.2796	3.4490	3.5713	3.5128	3.3439	LINR	R	-0.06801	0.291838		ug/L	3.0932	0.998	0.0500	0.99	15	
para-Isopropyl Toluene	1.4210	1.8032	2.5184	2.6206	2.8388	2.8151	2.7283	LINR	R	0.481789	0.359034		ug/L	2.3922	0.999	0.0500	0.99	15	
1,3-Dichlorobenzene	1.3301	1.4861	1.6044	1.6231	1.6523	1.6368	1.6084	AVRG	R		0.639781		ug/L	1.5630	7	0.0500	0.99	15	
1,4-Dichlorobenzene	1.6545	1.7111	1.7303	1.7227	1.7374	1.7174	1.6996	AVRG	R		0.584647		ug/L	1.7104	2	0.0500	0.99	15	
n-Butylbenzene	1.4861	1.7174	2.4267	2.5575	2.6807	2.5858	2.5394	LINR	R	0.115679	0.388039		ug/L	2.2848	0.999	0.0500	0.99	15	
1,2-Dichlorobenzene	1.2492	1.4371	1.5313	1.5246	1.5438	1.5684	1.5607	AVRG	R		0.672100		ug/L	1.4879	8	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.1050	0.1770	0.1879	0.2075	0.2012	0.2041	0.2038	LINR	R	0.322757	4.891854		ug/L	0.1838	1.000	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.4628	0.5726	0.8803	0.9914	1.1365	1.0754	1.0893	LINR	R	1.030392	0.905468		ug/L	0.8869	0.999	0.0500	0.99	15	
Hexachlorobutadiene	0.2079m	0.2843	0.3847	0.4030	0.4128	0.4236	0.4167	LINR	R	0.637503	2.372506		ug/L	0.3618	1.000	0.0500	0.99	15	
Naphthalene	0.5063	0.8205	1.7507	2.1708	2.7882	2.6390	2.7159	QUAD	R	2.092349	0.363385	-9.28E-6	ug/L	1.9131	0.998	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.3135	0.4789	0.7452	0.8545	1.0301	0.9905	1.0279	QUAD	R	1.457878	1.005918	-0.00044	ug/L	0.7772	0.999	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.0673	0.0736	0.0875	0.0870	0.0926	0.0914	0.0913	AVRG	R		11.85341		ug/L	0.0844	12	0.0050	0.99	15	
Isopropyl Ether (DIPE)	1.6774	1.9675	2.3047	2.4358	2.4233	2.4269	2.2873	AVRG	R		0.450945		ug/L	2.2176	13	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	1.0268	1.1931	1.4739	1.3687	1.5586	1.7575	1.7203	QUAD	R	0.920278	0.646750	-0.00046	ug/L	1.4427	0.998	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	0.7997	0.8359	0.9959	0.9102	0.9766	1.0604	1.0519	AVRG	R		1.055686		ug/L	0.9473	11	0.0500	0.99	15	
Cyclohexanone		0.1906	0.1708	0.2512	0.1400	0.1551	0.0885	AVRG	R		6.022741		ug/L	0.1660	33	0.0050	0.99	15	rsd
Ethanol		0.0090	0.0105	0.0111	0.0105	0.0103	0.0098	AVRG	R		98.08398		ug/L	0.0102	7	5.0E-4	0.99	15	
Isopropanol		0.0565	0.0581	0.0612	0.0613	0.0622	0.0617	AVRG	R		16.62767		ug/L	0.0601	4	0.0050	0.99	15	
Tetrahydrofuran	0.2155	0.2313	0.2607	0.2622	0.2578	0.2436	0.2403	AVRG	R		4.090159		ug/L	0.2445	7	0.0050	0.99	15	
Dibromofluoromethane	0.5830	0.5858	0.5967	0.5887	0.5791	0.5766	0.5664	AVRG	R		1.717216		ug/L	0.5823	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3630	0.3633	0.3704	0.3544	0.3486	0.3547	0.3386	AVRG	R		2.807848		ug/L	0.3561	3	0.0500	0.99	15	
Trifluorotoluene	0.4056	0.3562	0.5024	0.5118	0.5355	0.5425	0.5424	AVRG	R		2.061033		ug/L	0.4852	15	0.0500	0.99	15	

111

Flags used: irf=ICAL minimum RF failure m=manual integration rsd=ICAL %RSD failure

Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA04 HP GCMS VOA 04 Reviewed By:
Calnum: 435200741001 Name: 826GOX04 Type: WATER Date: 19-MAY-2005 19:01 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Toluene-d8	1.0400	1.0447	1.0564	1.0265	1.0409	1.0597	1.0361	AVRG	R		0.958357		ug/L	1.0435	1	0.0500	0.99	15	
Bromofluorobenzene	1.0399	1.0428	1.0106	1.0374	0.9877	0.9857	0.9711	AVRG	R		0.989368		ug/L	1.0107	3	0.0500	0.99	15	

112

Flags used: irf=ICAL minimum RF failure m=manual integration rsd=ICAL %RSD failure
Curves: AVRG: Average response factor LINR: Linear regression QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA04 Run Name : QC294570
Seqnum : 435202238004 Filename : dek04 Injected : 20-MAY-2005 12:39
Calnum : 435200741001 Caldate : 19-MAY-2005 Caltype : WATER
Standards: S629 (10000X), S491 (10000X), S285 (10000X), S296 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	25.00000	17.52080	ug/L	**-30**	30	!v-
Chloromethane	25.00000	20.87710	ug/L	-16	30	
Vinyl Chloride	25.00000	22.29110	ug/L	-11	20	
Bromomethane	25.00000	18.79960	ug/L	**-25**	30	!v-
Chloroethane	25.00000	23.46310	ug/L	-6	30	
Trichlorofluoromethane	25.00000	20.98620	ug/L	-16	30	
Acetone	25.00000	20.26280	ug/L	-19	40	
Freon 113	25.00000	19.71870	ug/L	**-21**	30	!v-
1,1-Dichloroethene	25.00000	24.42340	ug/L	-2	20	
Methylene Chloride	25.00000	24.43920	ug/L	-2	30	
Carbon Disulfide	25.00000	24.33680	ug/L	-3	30	
MTBE	25.00000	22.81920	ug/L	-9	30	
trans-1,2-Dichloroethene	25.00000	27.13810	ug/L	9	30	
Vinyl Acetate	25.00000	27.21300	ug/L	9	40	
1,1-Dichloroethane	25.00000	25.47090	ug/L	2	30	
2-Butanone	25.00000	22.59660	ug/L	-10	40	
2,2-Dichloropropane	25.00000	30.61950	ug/L	**22**	30	!v+
cis-1,2-Dichloroethene	25.00000	27.75990	ug/L	11	30	
Chloroform	25.00000	26.17600	ug/L	5	20	
Bromochloromethane	25.00000	26.84160	ug/L	7	30	
1,1,1-Trichloroethane	25.00000	26.10980	ug/L	4	30	
1,1-Dichloropropene	25.00000	25.35400	ug/L	1	30	
Carbon Tetrachloride	25.00000	24.24000	ug/L	-3	30	
1,2-Dichloroethane	25.00000	24.33630	ug/L	-3	30	
Benzene	25.00000	25.92210	ug/L	4	30	
Trichloroethene	25.00000	26.55700	ug/L	6	30	
1,2-Dichloropropane	25.00000	24.54940	ug/L	-2	20	
Bromodichloromethane	25.00000	29.59550	ug/L	18	30	
Dibromomethane	25.00000	24.89690	ug/L	0	30	
2-Chloroethylvinylether	25.00000	59.24090	ug/L	**137**	40	v+ ***
4-Methyl-2-Pentanone	25.00000	23.45640	ug/L	-6	40	
Tetramethyl THF	25.00000	26.21560	ug/L	5	30	
cis-1,3-Dichloropropene	25.00000	28.00700	ug/L	12	30	
Toluene	25.00000	26.61030	ug/L	6	20	
trans-1,3-Dichloropropene	25.00000	26.45680	ug/L	6	30	
1,1,2-Trichloroethane	25.00000	25.32900	ug/L	1	30	
2-Hexanone	25.00000	23.42800	ug/L	-6	40	
1,3-Dichloropropane	25.00000	25.53870	ug/L	2	30	
Tetrachloroethene	25.00000	26.67920	ug/L	7	30	
Dibromochloromethane	25.00000	26.20430	ug/L	5	30	
1,2-Dibromoethane	25.00000	24.58250	ug/L	-2	30	
Chlorobenzene	25.00000	25.33370	ug/L	1	30	
1,1,1,2-Tetrachloroethane	25.00000	25.65290	ug/L	3	30	
Ethylbenzene	25.00000	27.34770	ug/L	9	20	
m,p-Xylenes	50.00000	54.36440	ug/L	9	30	
o-Xylene	25.00000	25.33790	ug/L	1	30	
Styrene	25.00000	25.09320	ug/L	0	30	

!=warning +=high bias -=low bias v=ICV

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA04 Run Name : QC294570
Seqnum : 435202238004 Filename : dek04 Injected : 20-MAY-2005 12:39
Calnum : 435200741001 Caldate : 19-MAY-2005 Caltype : WATER
Standards: S629 (10000X), S491 (10000X), S285 (10000X), S296 (5000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Bromoform	25.00000	23.79760	ug/L	-5	30	
Isopropylbenzene	25.00000	23.85620	ug/L	-5	30	
1,1,2,2-Tetrachloroethane	25.00000	23.15500	ug/L	-7	30	
1,2,3-Trichloropropane	25.00000	23.62510	ug/L	-5	30	
Propylbenzene	25.00000	27.09640	ug/L	8	30	
Bromobenzene	25.00000	25.20430	ug/L	1	30	
1,3,5-Trimethylbenzene	25.00000	28.59420	ug/L	14	30	
2-Chlorotoluene	25.00000	27.76420	ug/L	11	30	
4-Chlorotoluene	25.00000	27.16590	ug/L	9	30	
tert-Butylbenzene	25.00000	25.59390	ug/L	2	30	
1,2,4-Trimethylbenzene	25.00000	28.56030	ug/L	14	30	
sec-Butylbenzene	25.00000	25.87120	ug/L	3	30	
para-Isopropyl Toluene	25.00000	25.22380	ug/L	1	30	
1,3-Dichlorobenzene	25.00000	26.92070	ug/L	8	30	
1,4-Dichlorobenzene	25.00000	25.92210	ug/L	4	30	
n-Butylbenzene	25.00000	26.84730	ug/L	7	30	
1,2-Dichlorobenzene	25.00000	27.19610	ug/L	9	30	
1,2-Dibromo-3-Chloropropane	25.00000	23.56760	ug/L	-6	30	
1,2,4-Trichlorobenzene	25.00000	24.90430	ug/L	0	30	
Hexachlorobutadiene	25.00000	27.64960	ug/L	11	30	
Naphthalene	25.00000	21.86640	ug/L	-13	30	
1,2,3-Trichlorobenzene	25.00000	23.92940	ug/L	-4	30	
tert-Butyl Alcohol (TBA)	125.0000	109.3668	ug/L	-13	30	
Isopropyl Ether (DIPE)	25.00000	23.56410	ug/L	-6	30	
Ethyl tert-Butyl Ether (ETBE)	25.00000	27.81260	ug/L	11	30	
Methyl tert-Amyl Ether (TAME)	25.00000	26.40500	ug/L	6	30	
Cyclohexanone	250.0000	54.74660	ug/L	**-78**	30	v- ***
Ethanol	2500.000	1971.417	ug/L	**-21**	30	!v-
Isopropanol	250.0000	191.0770	ug/L	**-24**	30	!v-
Tetrahydrofuran	250.0000	234.7220	ug/L	-6	30	

ISTD (ICAL=dej23)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	732596	840921	14.79	10.77	10.76	-0.01
1,4-Difluorobenzene	1144004	1303477	13.94	11.92	11.91	-0.01
Chlorobenzene-d5	974277	1137665	16.77	15.91	15.91	0.00
1,4-Dichlorobenzene-d4	518968	584869	12.70	18.66	18.65	-0.01

5/23/05

5/20/05

!=warning +=high bias -=low bias v=ICV
Page 2 of 2

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA04 Run Name : 50PPB IDF : 1.0
Seqnum : 435219373003 Filename : df103 Injected : 01-JUN-2005 09:42
Calnum : 435200741001 Caldate : 19-MAY-2005 Caltype : WATER
Standards: S568 (10000X), S538 (10000X), S570 (20000X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.6133	0.6491	50.00000	48.53110	ug/L	-3	30	0.0500	
Chloromethane	0.9428	0.9789	50.00000	51.91620	ug/L	4	30	0.1000	
Vinyl Chloride	0.7978	0.8532	50.00000	53.47020	ug/L	7	20	0.0500	
Bromomethane	0.7938	0.8504	50.00000	53.56110	ug/L	7	30	0.0500	
Chloroethane	0.4481	0.5003	50.00000	55.82610	ug/L	12	30	0.0500	
Trichlorofluoromethane	0.7867	0.8598	50.00000	50.09280	ug/L	0	30	0.0500	
Acetone	0.3252	0.2705	50.00000	44.09600	ug/L	-12	40	0.0500	
Freon 113	0.5686	0.5441	50.00000	42.92480	ug/L	-14	30	0.0500	
1,1-Dichloroethene	0.5309	0.4916	50.00000	46.29970	ug/L	-7	20	0.0500	
Methylene Chloride	0.7077	0.6588	50.00000	46.54230	ug/L	-7	30	0.0500	
Carbon Disulfide	1.9866	1.8701	50.00000	47.06710	ug/L	-6	30	0.0500	
MTBE	1.6931	1.5949	50.00000	47.10000	ug/L	-6	30	0.0500	
trans-1,2-Dichloroethene	0.5770	0.5989	50.00000	51.90490	ug/L	4	30	0.0500	
Vinyl Acetate	1.5541	1.2312	50.00000	39.61250	ug/L	-21	40	0.0500	
1,1-Dichloroethane	1.1305	1.0795	50.00000	47.74550	ug/L	-5	30	0.1000	
2-Butanone	0.4650	0.3796	50.00000	40.81410	ug/L	-18	40	0.0500	
2,2-Dichloropropane	0.6135	0.3456	50.00000	28.16840	ug/L	**-44**	30	0.0500	c- ***
cis-1,2-Dichloroethene	0.6262	0.6421	50.00000	51.26510	ug/L	3	30	0.0500	
Chloroform	1.0075	1.0187	50.00000	50.55770	ug/L	1	20	0.0500	
Bromochloromethane	0.3497	0.3708	50.00000	53.01850	ug/L	6	30	0.0500	
1,1,1-Trichloroethane	0.7330	0.7342	50.00000	50.07660	ug/L	0	30	0.0500	
1,1-Dichloropropene	0.4517	0.4542	50.00000	50.27060	ug/L	1	30	0.0500	
Carbon Tetrachloride	0.3291	0.3466	50.00000	45.42780	ug/L	-9	30	0.0500	
1,2-Dichloroethane	0.5007	0.4928	50.00000	49.21270	ug/L	-2	30	0.0500	
Benzene	1.4577	1.5096	50.00000	51.78010	ug/L	4	30	0.0500	
Trichloroethene	0.3501	0.3670	50.00000	52.42030	ug/L	5	30	0.0500	
1,2-Dichloropropane	0.4316	0.4440	50.00000	51.43440	ug/L	3	20	0.0500	
Bromodichloromethane	0.4475	0.4756	50.00000	53.13710	ug/L	6	30	0.0500	
Dibromomethane	0.3004	0.3002	50.00000	49.95320	ug/L	0	30	0.0500	
2-Chloroethylvinylether	0.0034	**0.0062**	50.00000	90.90750	ug/L	**82**	40	0.0500	c+ calc
4-Methyl-2-Pentanone	0.5464	0.4988	50.00000	45.64210	ug/L	-9	40	0.0500	
Tetramethyl THF	0.8177	0.8120	50.00000	49.65060	ug/L	-1	30	0.0500	
cis-1,3-Dichloropropene	0.5710	0.5612	50.00000	49.13620	ug/L	-2	30	0.0500	
Toluene	0.8416	0.8984	50.00000	53.37820	ug/L	7	20	0.0500	
trans-1,3-Dichloropropene	0.4917	0.4977	50.00000	50.61780	ug/L	1	30	0.0500	
1,1,2-Trichloroethane	0.2024	0.2102	50.00000	51.93070	ug/L	4	30	0.0500	
2-Hexanone	0.4428	0.3737	50.00000	42.19710	ug/L	-16	40	0.0500	
1,3-Dichloropropane	0.7142	0.7260	50.00000	50.82410	ug/L	2	30	0.0500	
Tetrachloroethene	0.3967	0.4207	50.00000	53.03030	ug/L	6	30	0.0500	
Dibromochloromethane	0.4789	0.4767	50.00000	49.76830	ug/L	0	30	0.0500	
1,2-Dibromoethane	0.4279	0.4338	50.00000	50.69060	ug/L	1	30	0.0500	
Chlorobenzene	1.1356	1.1471	50.00000	50.50690	ug/L	1	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3918	0.4049	50.00000	51.66900	ug/L	3	30	0.0500	
Ethylbenzene	1.6944	1.7183	50.00000	50.70480	ug/L	1	20	0.0500	
m,p-Xylenes	0.6631	0.7226	100.0000	108.9627	ug/L	9	30	0.0500	

!=warning +=high bias -=low bias c=CCV calc=check quantitation crf=CCV min RF failure irf=ICAL minimum RF failure rsd=ICAL %RSD failure

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA04 Run Name : 50PPB IDF : 1.0
Seqnum : 435219373003 Filename : df103 Injected : 01-JUN-2005 09:42
Calnum : 435200741001 Caldate : 19-MAY-2005 Caltype : WATER
Standards: S568 (10000X), S538 (10000X), S570 (20000X), S638 (5000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D Max	%D Min	RF	Flags
o-Xylene	0.6317	0.7112	50.00000	49.56560	ug/L	-1	30	0.0500	
Styrene	1.1194	1.2232	50.00000	48.53010	ug/L	-3	30	0.0500	
Bromoform	0.4083	0.3997	50.00000	48.95710	ug/L	-2	30	0.1000	
Isopropylbenzene	2.8747	2.9345	50.00000	46.70600	ug/L	-7	30	0.0500	
1,1,2,2-Tetrachloroethane	1.2988	1.1075	50.00000	42.63580	ug/L	-15	30	0.3000	
1,2,3-Trichloropropane	0.3559	0.3323	50.00000	46.69630	ug/L	-7	30	0.0500	
Propylbenzene	3.7173	3.5491	50.00000	47.73750	ug/L	-5	30	0.0500	
Bromobenzene	0.9606	0.9703	50.00000	50.50280	ug/L	1	30	0.0500	
1,3,5-Trimethylbenzene	2.5030	2.5777	50.00000	51.49310	ug/L	3	30	0.0500	
2-Chlorotoluene	2.5161	2.4912	50.00000	49.50460	ug/L	-1	30	0.0500	
4-Chlorotoluene	2.3376	2.3352	50.00000	49.94790	ug/L	0	30	0.0500	
tert-Butylbenzene	1.9780	2.0416	50.00000	46.80610	ug/L	-6	30	0.0500	
1,2,4-Trimethylbenzene	2.5355	2.5841	50.00000	50.95830	ug/L	2	30	0.0500	
sec-Butylbenzene	3.0932	3.1088	50.00000	45.29590	ug/L	-9	30	0.0500	
para-Isopropyl Toluene	2.3922	2.4812	50.00000	45.02340	ug/L	-10	30	0.0500	
1,3-Dichlorobenzene	1.5630	1.6505	50.00000	52.79690	ug/L	6	30	0.0500	
1,4-Dichlorobenzene	1.7104	1.6952	50.00000	49.55380	ug/L	-1	30	0.0500	
n-Butylbenzene	2.2848	2.2600	50.00000	43.96440	ug/L	-12	30	0.0500	
1,2-Dichlorobenzene	1.4879	1.5592	50.00000	52.39760	ug/L	5	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.1838	0.1671	50.00000	41.18290	ug/L	-18	30	0.0500	
1,2,4-Trichlorobenzene	0.8869	0.9915	50.00000	45.91900	ug/L	-8	30	0.0500	
Hexachlorobutadiene	0.3618	0.3852	50.00000	46.32920	ug/L	-7	30	0.0500	
Naphthalene	1.9131	2.0946	50.00000	40.04750	ug/L	-20	30	0.0500	
1,2,3-Trichlorobenzene	0.7772	0.8730	50.00000	44.52130	ug/L	-11	30	0.0500	
tert-Butyl Alcohol (TBA)	0.0844	0.0676	500.0000	400.4228	ug/L	-20	30	0.0050	
Isopropyl Ether (DIPE)	2.2176	2.1080	50.00000	47.52900	ug/L	-5	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	1.4427	1.6581	50.00000	51.36170	ug/L	3	30	0.0500	
Methyl tert-Amyl Ether (TAME)	0.9473	1.0590	50.00000	55.89710	ug/L	12	30	0.0500	
Cyclohexanone	0.1660	0.1009	500.0000	303.8761	ug/L	**-39**	30	0.0050	c- rsd
Ethanol	0.0102	0.0091	5000.000	4439.552	ug/L	-11	30	5.0E-4	
Isopropanol	0.0601	0.0476	500.0000	395.5963	ug/L	**-21**	30	0.0050	!c-
Tetrahydrofuran	0.2445	0.2112	500.0000	431.8494	ug/L	-14	30	0.0050	
Dibromofluoromethane	0.5823	0.5631	50.00000	48.34830	ug/L	-3	30	0.0500	
1,2-Dichloroethane-d4	0.3561	0.3342	50.00000	46.92220	ug/L	-6	30	0.0500	
Trifluorotoluene	0.4852	0.5045	50.00000	51.98510	ug/L	4	30	0.0500	
Toluene-d8	1.0435	1.0568	50.00000	50.63790	ug/L	1	30	0.0500	
Bromofluorobenzene	1.0107	0.9887	50.00000	48.90930	ug/L	-2	30	0.0500	

ISTD (ICAL=dej23)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	732596	1181725	61.31	10.77	10.77	0.00
1,4-Difluorobenzene	1144004	1736492	51.79	11.92	11.93	0.01
Chlorobenzene-d5	974277	1555699	59.68	15.91	15.92	0.01
1,4-Dichlorobenzene-d4	518968	843803	62.59	18.66	18.67	0.01

!=warning +=high bias -=low bias c=CCV calc=check quantitation crf=CCV min RF failure irf=ICAL minimum RF failure rsd=ICAL %RSD failure

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 01-JUN-2005
Sequence: 435219373 (df1)
Instrument ID: MSVOA04

ICAL Filename: dej23
Date Analyzed: 19-MAY-2005
Time Analyzed: 21:12

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	732596	10.77	1144004	11.92	974277	15.91	518968	18.66
LOWER LIMIT	366298	10.27	572002	11.42	487139	15.41	259484	18.16
UPPER LIMIT	1465192	11.27	2288008	12.42	1948554	16.41	1037936	19.16

TYPE	SAMPLE	#								
CCV	50PPB	003	1181725	10.77	1736492	11.93	1555699	15.92	843803	18.67
BS	QC295691	004	1247944	10.78	1841475	11.93	1582602	15.92	827503	18.67
BSD	QC295692	005	1175151	10.79	1754098	11.93	1491535	15.92	803549	18.67
BLANK	QC295690	007	1093153	10.78	1643967	11.92	1443986	15.93	682949	18.67
SAMPLE	179729-003	008	1053396	10.79	1624370	11.93	1428138	15.93	660599	18.67
SAMPLE	179729-004	009	1048195	10.79	1614958	11.93	1410969	15.93	661217	18.67
SAMPLE	179757-001	010	1120366	10.79	1713876	11.94	1517086	15.93	700827	18.67
SAMPLE	179757-002	011	1027911	10.79	1576071	11.93	1374007	15.93	641511	18.67
SAMPLE	179757-003	012	1027065	10.79	1606295	11.93	1410102	15.93	669411	18.67
SAMPLE	179745-002	013	1021256	10.79	1580403	11.93	1397784	15.93	636434	18.67
SAMPLE	179745-003	014	1019757	10.78	1595602	11.94	1395176	15.93	640193	18.67
SAMPLE	179745-004	015	1004788	10.79	1568828	11.93	1370767	15.93	672386	18.67
SAMPLE	179745-005	016	1052217	10.78	1635845	11.94	1417170	15.93	675954	18.67
SAMPLE	179756-001	017	1008934	10.79	1579328	11.93	1376620	15.93	652225	18.67
SAMPLE	179714-001	018	966267	10.79	1526739	11.94	1340387	15.93	621883	18.67
SAMPLE	179714-002	019	1002606	10.79	1525821	11.94	1352007	15.93	644572	18.67
SAMPLE	179706-001	020	1017495	10.79	1582450	11.94	1422070	15.93	644275	18.67
SAMPLE	179745-001	021	972842	10.79	1572809	11.94	1379259	15.93	652632	18.67
SAMPLE	179729-004	022	1017190	10.79	1533761	11.94	1361899	15.93	632466	18.67
SAMPLE	179718-001	023	939693	10.79	1509123	11.94	1331519	15.93	616162	18.67
SAMPLE	179718-002	024	953456	10.79	1520773	11.94	1333526	15.94	623942	18.67

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 435200741 Instrument: MSVOA04 HP GCMS VOA 04 Begun: 19-MAY-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
01	dej01	X	IB			19-MAY-2005 09:41	1.0					1	
02	dej02	TUN	BFB			19-MAY-2005 10:09	1.0					2	
03	dej03	CCV	35PPB			19-MAY-2005 10:39	1.0	3	5000			3 4 5 1 cc+	
04	dej04	TUN	BFB			19-MAY-2005 11:06	1.0					2	
05	dej05	CCV	35PPB			19-MAY-2005 11:23	1.0	6	5000			3 4 5 1 cc+	
06	dej06	TUN	BFB			19-MAY-2005 12:22	1.0					2	
07	dej07	CCV	30PPB			19-MAY-2005 12:52	1.0	5	5000			3 4 5 1	
08	dej08	LCS	QC294369	102184	Water	19-MAY-2005 13:34	1.0	6	5000			6 7 8 1 spk	
09	dej09	X	IB			19-MAY-2005 14:06	1.0					1	
10	dej10	LCS	QC294369	102184	Water	19-MAY-2005 14:35	1.0	6	5000			6 7 8 1	
11	dej11	TUN	BFB			19-MAY-2005 15:07	1.0	1				2 t	
12	dej12	TUN	BFB			19-MAY-2005 15:27	1.0					2	
13	dej13	CCV	30PPB			19-MAY-2005 15:43	1.0	2	5000			3 4 5 1	
14	dej14	LCS	QC294369	102184	Water	19-MAY-2005 16:18	1.0	3	5000			1 6 7 8 spk	
16	dej16	X	IB			19-MAY-2005 17:24	1.0					1	
17	dej17	X	IB			19-MAY-2005 17:56	1.0					1	
18	dej18	X	CALIB			19-MAY-2005 18:29	1.0					1	
19	dej19	ICAL	0.5-1PPB			19-MAY-2005 19:01	1.0					3 4 5 1	
20	dej20	ICAL	2PPB			19-MAY-2005 19:34	1.0					3 4 5 1	
21	dej21	ICAL	10PPB			19-MAY-2005 20:06	1.0					3 4 5 1	
22	dej22	ICAL	20PPB			19-MAY-2005 20:39	1.0					3 4 5 1	
23	dej23	ICAL	50PPB			19-MAY-2005 21:12	1.0					3 4 5 1	
24	dej24	ICAL	75PPB			19-MAY-2005 21:44	1.0					3 4 5 1	
25	dej25	ICAL	100PPB			19-MAY-2005 22:17	1.0					3 4 5 1	
26	dej26	ICV	25PPB			19-MAY-2005 22:50	1.0	1	5000			7 1	
27	dej27	ICV	25PPB			19-MAY-2005 23:22	1.0	2	5000			6 8 1	
28	dej28	X	IB			19-MAY-2005 23:55	1.0					1	
29	dej29	X	IB			20-MAY-2005 00:27	1.0					1	
30	dej30	X	IB			20-MAY-2005 01:00	1.0					1	

NOT USED

NOT USED

118

ICAL - No 2Cleve; No Cyclohex; F12 to 75 PPB ICV - 2Cleve ↑; Cyclohex ↓ (WL: F12 ↓; BrMe ↓; F113 ↓; 22DCP ↑; EtOH ↓; IsoprOH ↓)

Stds used: 1=S296 2=04WS2425 3=S568 4=S538 5=S570 6=S629 7=S491 8=S285
Flags used: +=high bias cc=CCV CCC failure spk=5% spike rule t=tune failure

Analyst: [signature] Date: 5/20/05

* DEJ15 = IB

5/20/05

IID VOA 4 changed to 04

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 435202238 Instrument: MSVOA04 HP GCMS VOA 04 Begun: 20-MAY-2005

Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	dek01	X	IB			20-MAY-2005 10:38	1.0					1	
002	dek02	TUN	BFB			20-MAY-2005 11:11	1.0					2	
003	dek03	CCV	25PPB			20-MAY-2005 11:53	1.0	4	5000			3 4 5 1	
004	dek04	ICV	QC294570	102234	Water	20-MAY-2005 12:39	1.0	2	5000			6 7 8 1	
005	dek05	BSD	QC294571	102234	Water	20-MAY-2005 13:11	1.0	5	5000			6 7 8 1	

119

Stds used: 1=S296 2=04WS2425 3=S568 4=S538 5=S570 6=S629 7=S491 8=S285

Analyst: _____ Date: 5/20/05

5/24/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 435219373 Instrument: MSVOA04 HP GCMS VOA 04 Begun: 01-JUN-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv4

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	df101	X	IB			01-JUN-2005 08:13	1.0						1	
002	df102	TUN	BFB			01-JUN-2005 09:25	1.0						2	
003	df103	CCV	50PPB			01-JUN-2005 09:42	1.0	3		5000			3 4 5 1	
004	df104	BS	QC295691	102513	Water	01-JUN-2005 10:28	1.0	3		5000			6 7 8 1	
005	df105	BSD	QC295692	102513	Water	01-JUN-2005 11:00	1.0	3		5000			6 7 8 1	
006	df106	X	IB			01-JUN-2005 11:33	1.0						1	
007	df107	BLANK	QC295690	102513	Water	01-JUN-2005 12:06	1.0	1	1	5000			1	
008	df108	SAMPLE	179729-003	102513	Water	01-JUN-2005 12:38	1.0			5000	B	7	1	
009	df109	SAMPLE	179729-004	102513	Water	01-JUN-2005 13:10	1.0	1		5000		L	1 RR1.67x 1:TCLME=117.540	
010	df110	SAMPLE	179757-001	102513	Water	01-JUN-2005 13:43	1.0			5000		<2	1	
011	df111	SAMPLE	179757-002	102513	Water	01-JUN-2005 14:15	1.0			5000	↓		1	
012	df112	SAMPLE	179757-003	102513	Water	01-JUN-2005 14:48	1.0			5000	A		1	
013	df113	SAMPLE	179745-002	102513	Water	01-JUN-2005 15:24	1.0			5000	B		1	
014	df114	SAMPLE	179745-003	102513	Water	01-JUN-2005 15:56	1.0			5000			1	
015	df115	SAMPLE	179745-004	102513	Water	01-JUN-2005 16:29	1.0			5000			1RR.1x ✓ o-xylene, isopropBz, 120	
016	df116	SAMPLE	179745-005	102513	Water	01-JUN-2005 17:02	1.0			5000	↓		1	
017	df117	SAMPLE	179756-001	102513	Water	01-JUN-2005 17:34	1.0			5000	A		1	
018	df118	SAMPLE	179714-001	102513	Water	01-JUN-2005 18:06	1.0			5000	C		1	
019	df119	SAMPLE	179714-002	102513	Water	01-JUN-2005 18:39	1.0			5000	B		1	
020	df120	SAMPLE	179706-001	102513	Water	01-JUN-2005 19:11	1.0			5000	B		1	
021	df121	SAMPLE	179745-001	102513	Water	01-JUN-2005 19:44	2.0			5000	↓		1	
022	df122	SAMPLE	179729-004	102513	Water	01-JUN-2005 20:16	1.667			5000	C	5	1	
023	df123	SAMPLE	179718-001	102513	Water	01-JUN-2005 20:49	1.0			5000	A	<2	1	
024	df124	SAMPLE	179718-002	102513	Water	01-JUN-2005 21:21	1.0			5000	↓	↓	1	
025	df125	X	IB			01-JUN-2005 21:54	1.0						1	
026	df126	X	IB			01-JUN-2005 22:26	1.0						1	
027	df127	X	IB			01-JUN-2005 22:59	1.0						1	

ICAL: no 2-clave, no cyclohexanone; F12 to 75ppb
ICV: 2-clave ↑, cyclohexanone ↓ (WL: F12 ↓, Bromo ↓, F113 ↓, 2,2-DCPA ↑, etOH ↓, IPA ↓)
CCV: 2,2-DCPA ↓, no 2-clave, cyclohexanone ↓ (WL: IPA ↓)

Stds used: 1=S638 2=04WS2425 3=S568 4=S538 5=S570 6=S491 7=S629 8=S285

Analyst: _____ Date: 6/2/05

GC/MS VOA SAMPLE PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

DATE: 6/11/05
PREPPED BY.

WATER

	SAMPLE NUM	AMT g/mL	VIAL	pH	Head Space	SHELF	INST	COMMENTS	TRANSFER
			B	7			4	1X	
1	179729-3		J	6				1X	
2	-4		B	<2				1X	
3	179759-1		↓	↓				1X	
4	-2		A		LV			TB	
5	-3		B					2X foam	
6	179745-1		↓	↓	↓	↓	↓	1X	
7	-2							↓	
8	-3							↓	
9	-4							↓	
0	-5		↓	↓				1X	
1	179756-1		A						
2	~~179760-1~~		↓	↓					
3	-2		C	<2				1X	
4	179714-1		B	↓				TB	
5	-2		B	↓				1X	
6	~~179706-1~~		C	5				RR 1.67x	
7	179729-4								
8									
9									
0									
1									
2									
3									
4									
5								Storage Blanks	
6	179718-1		A	<2				↓	
7	-2		↓	↓					
8									
9									
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
0									
1									
2									

PREPFORM.XLS

8270-SIM
Water

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBIPZ101	Batch#:	102631
Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/03/05
Diln Fac:	1.000	Analyzed:	06/07/05

Analyte	Result	RL	MDL
Naphthalene	ND	0.09	0.03
Acenaphthylene	ND	0.09	0.02
Acenaphthene	ND	0.09	0.02
Fluorene	0.2	0.09	0.02
Phenanthrene	0.03 J	0.09	0.02
Anthracene	ND	0.09	0.01
Fluoranthene	0.03 J	0.09	0.01
Pyrene	ND	0.09	0.009
Benzo(a)anthracene	ND	0.09	0.007
Chrysene	0.01 J	0.09	0.007
Benzo(b)fluoranthene	ND	0.09	0.01
Benzo(k)fluoranthene	ND	0.09	0.01
Benzo(a)pyrene	ND	0.09	0.04
Indeno(1,2,3-cd)pyrene	ND	0.09	0.01
Dibenz(a,h)anthracene	ND	0.09	0.009
Benzo(g,h,i)perylene	ND	0.09	0.006

Surrogate	%REC	Limits
Nitrobenzene-d5	115	45-122
2-Fluorobiphenyl	71	40-120
Terphenyl-d14	42	25-123

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC296175	Batch#:	102631
Matrix:	Water	Prepared:	06/03/05
Units:	ug/L	Analyzed:	06/06/05

Analyte	Result	RL	MDL
Naphthalene	ND	0.1	0.03
Acenaphthylene	ND	0.1	0.02
Acenaphthene	ND	0.1	0.02
Fluorene	ND	0.1	0.03
Phenanthrene	0.03 J	0.1	0.02
Anthracene	ND	0.1	0.02
Fluoranthene	0.03 J	0.1	0.01
Pyrene	ND	0.1	0.009
Benzo(a)anthracene	0.02 J	0.1	0.008
Chrysene	0.02 J	0.1	0.008
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.05
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.009
Benzo(g,h,i)perylene	ND	0.1	0.007

Surrogate	%REC	Limits
Nitrobenzene-d5	96	45-122
2-Fluorobiphenyl	65	40-120
Terphenyl-d14	73	25-123

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296176	Batch#:	102631
Matrix:	Water	Prepared:	06/03/05
Units:	ug/L	Analyzed:	06/06/05

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1.000	0.9359	94	43-128
Pyrene	1.000	1.059 b	106	47-133

Surrogate	%REC	Limits
Nitrobenzene-d5	110	45-122
2-Fluorobiphenyl	75	40-120
Terphenyl-d14	82	25-123

b= See narrative

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	102631
MSS Lab ID:	179828-003	Sampled:	06/03/05
Matrix:	Water	Received:	06/03/05
Units:	ug/L	Prepared:	06/03/05
Diln Fac:	1.000	Analyzed:	06/07/05

Type: MS Lab ID: QC296177

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.02432	1.000	0.5125	51	32-152
Pyrene	<0.009035	1.000	0.5614 b	56 *	68-136

Surrogate	%REC	Limits
Nitrobenzene-d5	67	45-122
2-Fluorobiphenyl	62	40-120
Terphenyl-d14	45	25-123

Type: MSD Lab ID: QC296178

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	1.000	0.8162	82	32-152	46	46
Pyrene	1.000	0.9566 b	96	68-136	52 *	43

Surrogate	%REC	Limits
Nitrobenzene-d5	100	45-122
2-Fluorobiphenyl	67	40-120
Terphenyl-d14	74	25-123

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	102631
MSS Lab ID:	179774-027	Sampled:	05/31/05
Matrix:	Water	Received:	06/01/05
Units:	ug/L	Prepared:	06/03/05
Diln Fac:	1.000	Analyzed:	06/06/05

Type: MS Lab ID: QC296179

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.02432	1.000	0.5994	60	32-152
Pyrene	<0.009035	1.000	0.3872 b	39 *	68-136

Surrogate	%REC	Limits
Nitrobenzene-d5	87	45-122
2-Fluorobiphenyl	56	40-120
Terphenyl-d14	39	25-123

Type: MSD Lab ID: QC296180

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	1.000	0.7813	78	32-152	26	46
Pyrene	1.000	0.5199 b	52 *	68-136	29	43

Surrogate	%REC	Limits
Nitrobenzene-d5	107	45-122
2-Fluorobiphenyl	69	40-120
Terphenyl-d14	53	25-123

*= Value outside of QC limits; see narrative
b= See narrative
RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\042205.b\VDM07.D

Date : 22-APR-2005 16:23

Client ID: dftpp tune std

Instrument: MSBNA03.i

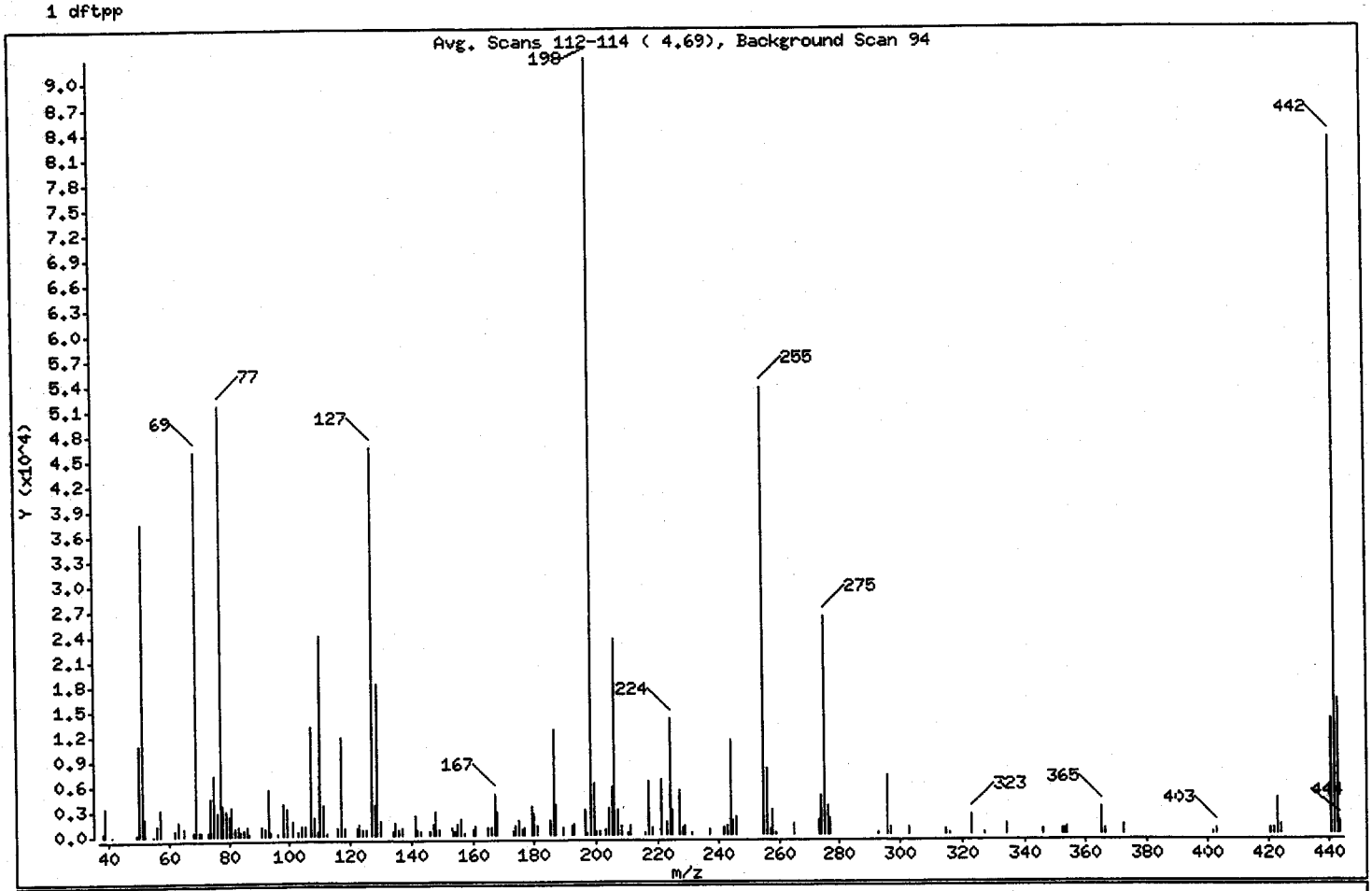
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.36
68	Less than 1.99% of mass 69	0.38 (0.77)
69	Mass 69 relative abundance	49.63
70	Less than 2.00% of mass 69	0.40 (0.80)
127	40.00 - 60.00% of mass 198	49.90
197	Less than 1.00% of mass 198	0.22
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	28.14
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.71
442	40.00 - 99.99% of mass 198	69.44
443	17.00 - 23.00% of mass 442	17.35 (19.40)

8270-SIM ECAL

4/27/05

04/27/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\060705.b\VF701.D

Date : 07-JUN-2005 09:42

Client ID: dftpp tune std

Instrument: MSBNA03.i

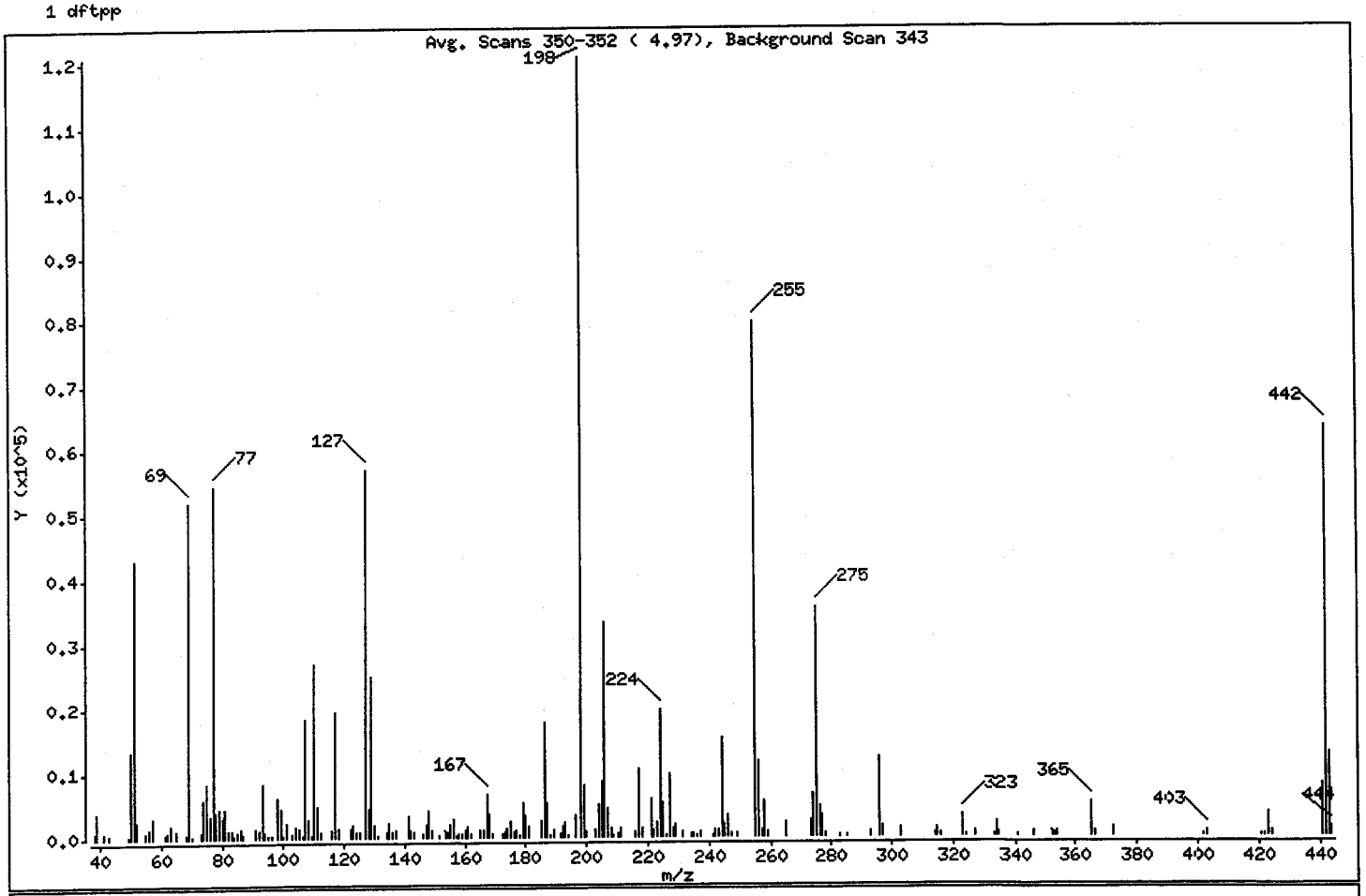
Sample Info: TUN,05WS0188

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.77
68	Less than 1.99% of mass 69	0.44 (1.01)
69	Mass 69 relative abundance	43.01
70	Less than 2.00% of mass 69	0.15 (0.35)
127	40.00 - 60.00% of mass 198	47.16
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 30.00% of mass 198	29.55
365	Greater than 1.00% of mass 198	4.46
441	Present, but less than mass 443	6.58
442	40.00 - 99.99% of mass 198	52.53
443	17.00 - 23.00% of mass 442	10.51 (20.01)

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\060305.b\XF312.D

Date : 03-JUN-2005 19:18

Client ID: dftpp tune std

Instrument: MSBNA05.i

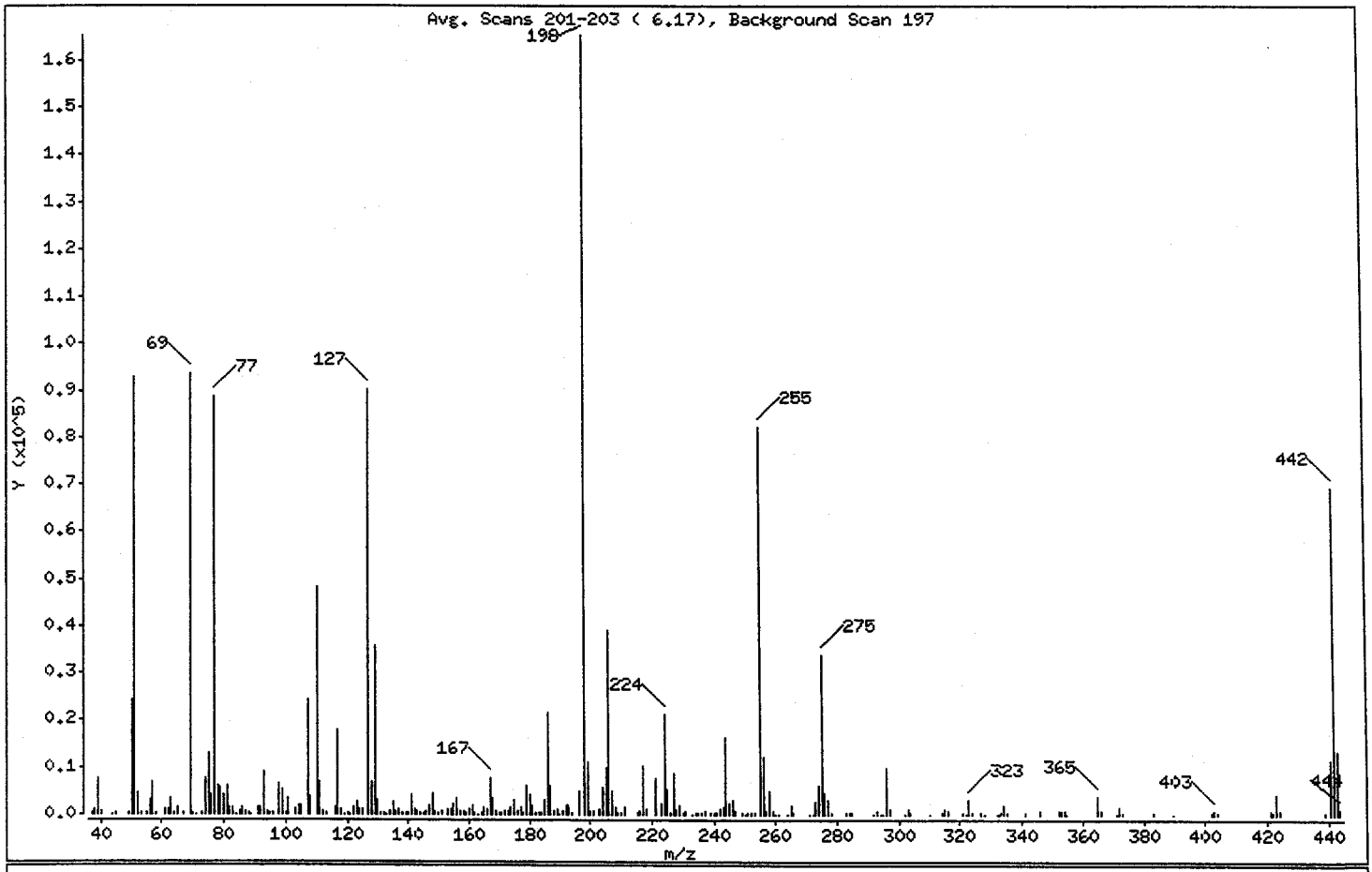
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	56.22
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	56.66
70	Less than 2.00% of mass 69	0.29 (0.52)
127	40.00 - 60.00% of mass 198	54.70
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.63
275	10.00 - 30.00% of mass 198	20.59
365	Greater than 1.00% of mass 198	2.26
441	Present, but less than mass 443	6.83
442	40.00 - 99.99% of mass 198	42.04
443	17.00 - 23.00% of mass 442	7.98 (18.99)

8270-SIM

6/5/05

6/6/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\060505.b\XF501.D

Date : 05-JUN-2005 11:42

Client ID: dftpp tune std

Instrument: MSBNA05.i

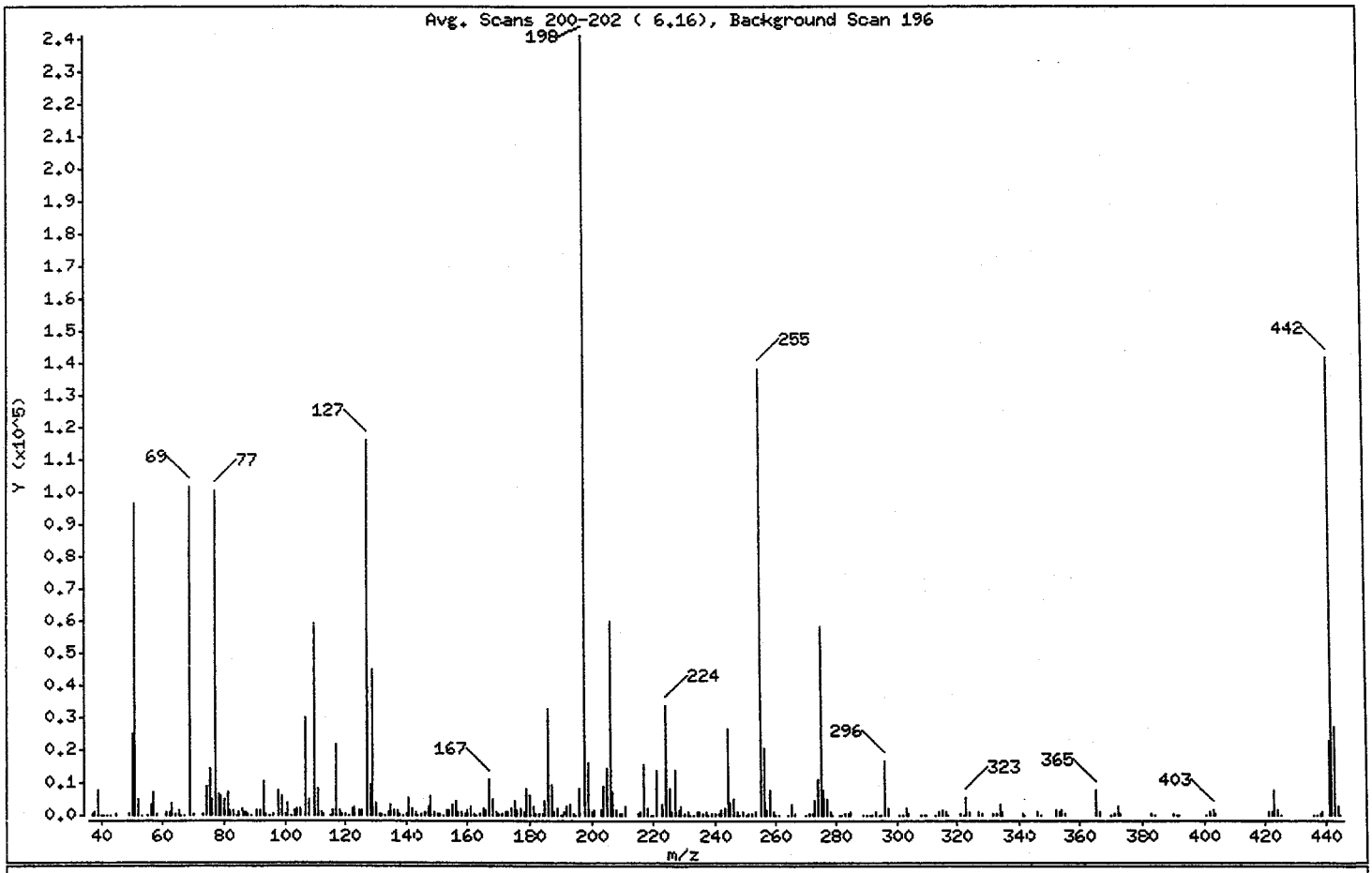
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.13
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	42.22
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	48.15
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	24.08
365	Greater than 1.00% of mass 198	3.15
441	Present, but less than mass 443	9.39
442	40.00 - 99.99% of mass 198	58.77
443	17.00 - 23.00% of mass 442	11.40 (19.40)

6/10/05

Data File: \\GCMSSERVER\DD\chem\MSBNA05.i\060605.b\XF615.D

Date : 06-JUN-2005 19:56

Client ID: dftpp tune std

Instrument: MSBNA05.i

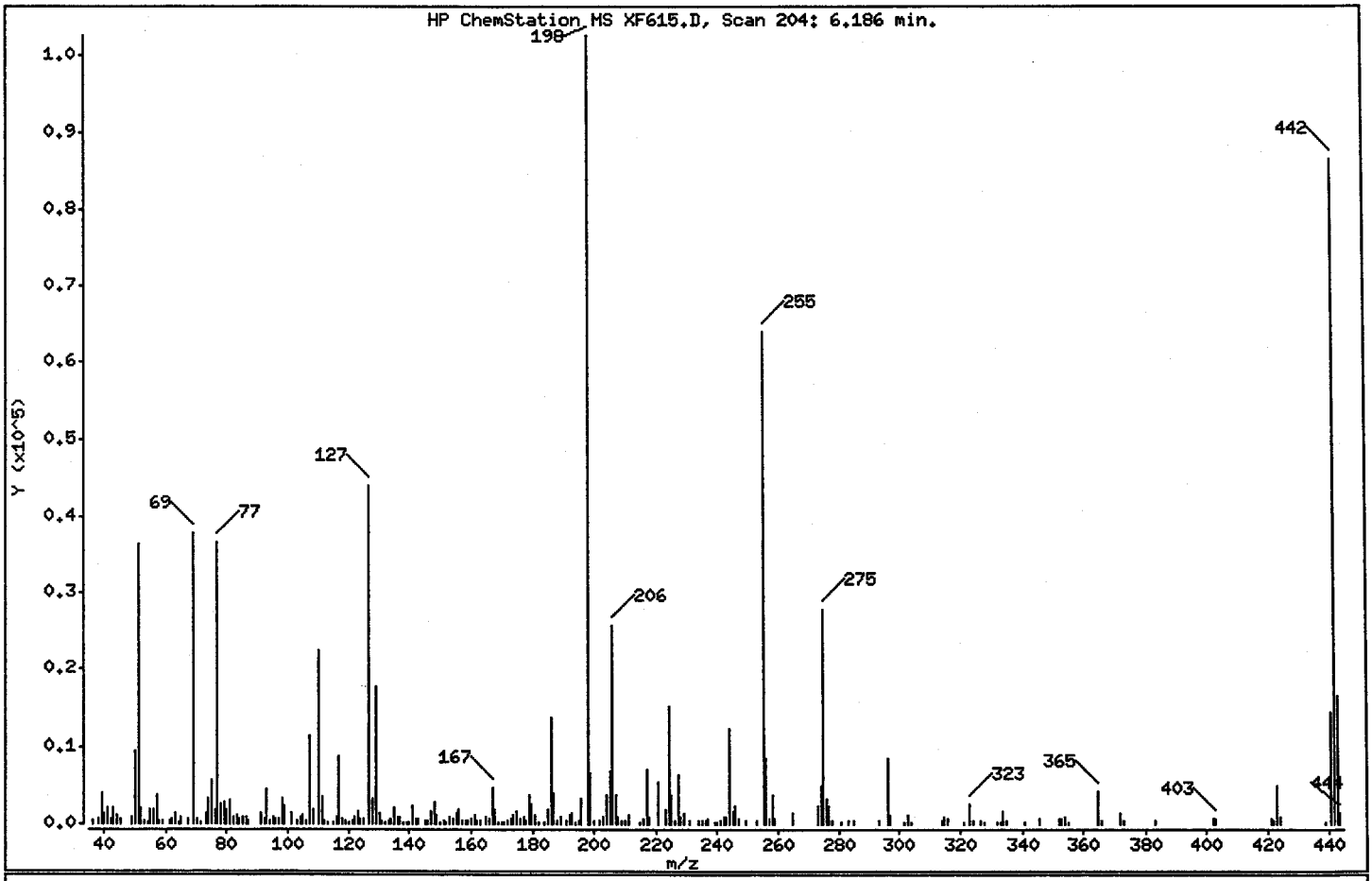
Sample Info: TUN,05WS0188

Operator: LLH

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.55
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	36.75
70	Less than 2.00% of mass 69	0.59 (1.60)
127	40.00 - 60.00% of mass 198	42.81
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.55
275	10.00 - 30.00% of mass 198	27.14
365	Greater than 1.00% of mass 198	4.11
441	Present, but less than mass 443	13.98
442	40.00 - 99.99% of mass 198	84.38
443	17.00 - 23.00% of mass 442	16.08 (19.06)

6/7/05

BNA05 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vdm09	525161929009	0.1ug/mL	22-APR-2005 17:12	05WS0256
2	vdm10	525161929010	0.2ug/mL	22-APR-2005 17:42	05WS0257
3	vdm11	525161929011	0.5ug/mL	22-APR-2005 18:13	05WS0258
4	vdm12	525161929012	1.0ug/mL	22-APR-2005 18:43	05WS0259
5	vdm13	525161929013	2.0ug/mL	22-APR-2005 19:13	05WS0260
6	vdm14	525161929014	5.0ug/mL	22-APR-2005 19:44	05WS0261
7	vdm15	525161929015	10.0ug/mL	22-APR-2005 20:16	05WS0262

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.4410m	0.3850m	0.4215	0.4200	0.3909	0.3282	AVRG	R		2.514055		ng	0.3978	10	0.0500	.99	15	
Naphthalene	0.9880	0.9463	0.8342	0.8574	0.8459	0.9002	0.8408	AVRG	R		1.126711		ng	0.8875	7	0.0500	.99	15	
2-Methylnaphthalene	0.6256	0.6212	0.5682	0.5709	0.5971	0.6321	0.6243	AVRG	R		1.651191		ng	0.6056	4	0.0500	.99	15	
Acenaphthylene	1.7123	1.7265	1.5376	1.6396	1.6537	1.7527	1.5820	AVRG	R		0.603220		ng	1.6578	5	0.0500	.99	15	
Acenaphthene	1.0820	1.0884	0.9646	1.0020	1.0030	1.0784	0.9603	AVRG	R		0.975109		ng	1.0255	5	0.0500	.99	15	
Fluorene	1.3028	1.3074	1.1518	1.2099	1.2210	1.3007	1.1828	AVRG	R		0.806787		ng	1.2395	5	0.0500	.99	15	
Phenanthrene	1.0391	1.0944	0.9101	0.9329	0.9148	0.9854	0.8786	AVRG	R		1.036228		ng	0.9650	8	0.0500	.99	15	
Anthracene	0.8696	0.9280	0.8017	0.8389	0.8534	0.9047	0.7942	AVRG	R		1.168527		ng	0.8558	6	0.0500	.99	15	
Fluoranthene	1.1183	1.2592	0.9906	1.0193	1.0306	1.0933	1.0149	AVRG	R		0.930088		ng	1.0752	9	0.0500	.99	15	
Pyrene	1.2397	1.3151	1.0521	1.0542	1.0357	1.1468	1.0703	AVRG	R		0.884512		ng	1.1306	10	0.0500	.99	15	
Benzo(a)anthracene	1.0535	1.1456	0.9288	0.9657	0.9702	1.0990	1.0390	AVRG	R		0.971986		ng	1.0288	8	0.0500	.99	15	
Chrysene	1.1011	1.1823	0.9409	0.9669	0.9502	1.0414	0.9690	AVRG	R		0.978782		ng	1.0217	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.4303	1.6112	1.2085	1.2018	1.1639	1.2950	1.3578	AVRG	R		0.755255		ng	1.3241	12	0.0500	.99	15	
Benzo(k)fluoranthene	1.6694	1.9892	1.6217	1.6572	1.7341	2.1101	1.7811	AVRG	R		0.557203		ng	1.7947	10	0.0500	.99	15	
Benzo(a)pyrene	1.1526	1.2750	0.9612	1.0024	1.0192	1.1913	1.1426	AVRG	R		0.903896		ng	1.1063	10	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1642	1.3191	1.0280	1.0704	1.1299	1.3890	1.3561	AVRG	R		0.827741		ng	1.2081	12	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9027	1.0229	0.8057	0.8552	0.8986	1.1245	1.1245	AVRG	R		1.039479		ng	0.9620	13	0.0500	.99	15	
Benzo(g,h,i)perylene	1.1316	1.1851	0.8834	0.8993	0.9205	1.0794	1.0936	AVRG	R		0.973170		ng	1.0276	12	0.0500	.99	15	

133

ICAL: OK
ECV: OK

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

4/25/06

4/25/06

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525161929001 Name: 3PAHSIM Type: (normal) Date: 22-APR-2005 17:12 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2416	0.2335	0.2178	0.2397	0.2597	0.2919	0.2741	AVRG	R		3.980899		ng	0.2512	10	0.0500	.99	15	
2-Fluorobiphenyl	1.5089	1.4996	1.2956	1.3308	1.3053	1.3976	1.2368	AVRG	R		0.731113		ng	1.3678	8	0.0500	.99	15	
Terphenyl-d14	0.9628	1.0957	0.8347	0.8512	0.8420	0.9370	0.8143	AVRG	R		1.104497		ng	0.9054	11	0.0500	.99	15	

134

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525161929016 Filename : vdm16 Injected : 22-APR-2005 20:48
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.193400	ng	19	30	
Naphthalene	1.000000	1.074800	ng	7	30	
2-Methylnaphthalene	1.000000	1.083100	ng	8	30	
Acenaphthylene	1.000000	1.037800	ng	4	30	
Acenaphthene	1.000000	1.019300	ng	2	20	
Fluorene	1.000000	1.015700	ng	2	30	
Phenanthrene	1.000000	1.017000	ng	2	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.028700	ng	3	20	
Pyrene	1.000000	0.950800	ng	-5	30	
Benzo(a)anthracene	1.000000	1.012200	ng	1	30	
Chrysene	1.000000	0.941100	ng	-6	30	
Benzo(b)fluoranthene	1.000000	1.012300	ng	1	30	
Benzo(k)fluoranthene	1.000000	1.141900	ng	14	30	
Benzo(a)pyrene	1.000000	1.058500	ng	6	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.974300	ng	-3	30	
Dibenz(a,h)anthracene	1.000000	0.880300	ng	-12	30	
Benzo(g,h,i)perylene	1.000000	1.026000	ng	3	30	

ISTD (CCV=vdm08)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	51105	47283	-7.48	7.15	7.15	0.00
Naphthalene-d8	200201	190314	-4.94	8.85	8.85	0.00
Acenaphthene-d10	111331	106705	-4.16	11.44	11.45	0.01
Phenanthrene-d10	218251	205100	-6.03	13.67	13.67	0.00
Chrysene-d12	222799	202430	-9.14	17.52	17.52	0.00
Perylene-d12	201826	169643	-15.95	19.30	19.30	0.00

4/25/05

4/25/05

8 PT SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545222388001 Name: 5PAHSIM Type: (normal) Date: 03-JUN-2005 22:38 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	xf317	545222388017	0.1 ug/mL	03-JUN-2005 22:38	S755
2	xf318	545222388018	0.2 ug/mL	03-JUN-2005 23:13	S756
3	xf319	545222388019	0.5 ug/mL	03-JUN-2005 23:48	S757
4	xf320	545222388020	1.0 ug/mL	04-JUN-2005 00:24	S754
5	xf321	545222388021	2.0 ug/mL	04-JUN-2005 00:59	S758
6	xf322	545222388022	5.0 ug/mL	04-JUN-2005 01:34	S759
7	xf323	545222388023	10.0 ug/mL	04-JUN-2005 02:10	S760

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.5851m	0.5499m	0.3148m	0.2195m	0.4338m	0.3817m	AVRG	R		2.414694		ng	0.4141	34	0.0500	.99	15	rsd
Naphthalene	0.8390	0.7754	0.8054	0.7375	0.7188	0.6335	0.6250	AVRG	R		1.363332		ng	0.7335	11	0.0500	.99	15	
2-Methylnaphthalene	0.7137	0.6966	0.6722	0.6605	0.5977	0.5182	0.4668	AVRG	R		1.618254		ng	0.6180	15	0.0500	.99	15	
Acenaphthylene	1.8226	1.7909	1.6918	1.4479	1.4017	1.3052		AVRG	R		0.634248		ng	1.5767	14	0.0500	.99	15	
Acenaphthene	0.8912	0.8869	0.8727	0.8214	0.8247	0.7834	0.7335	AVRG	R		1.204037		ng	0.8305	7	0.0500	.99	15	
Fluorene	1.2226	1.1868	1.0903	0.9892	0.9867	0.9221	0.8686	AVRG	R		0.963356		ng	1.0380	13	0.0500	.99	15	
Phenanthrene	0.9040	0.8988	0.8486	0.7628	0.7690	0.7190	0.6838	AVRG	R		1.253123		ng	0.7980	11	0.0500	.99	15	
Anthracene	0.8404	0.8167	0.7639	0.7041	0.7150	0.6794	0.6351	AVRG	R		1.358008		ng	0.7364	10	0.0500	.99	15	
Fluoranthene	1.2186	1.1589	1.0598	0.9280	0.9285	0.8242		AVRG	R		0.980725		ng	1.0197	15	0.0500	.99	15	
Pyrene	1.4876	1.4267	1.3358	1.0289	1.0852	1.0556		LINR	R	-0.06510	0.959435		ng	1.2366	0.999	0.0500	.99	15	
Benzo(a)anthracene	1.3198	1.3011	1.2184	0.9890	1.0256	0.9879	0.9151	AVRG	R		0.902431		ng	1.1081	15	0.0500	.99	15	
Chrysene	1.0657	1.0733	1.0382	0.8953	0.9659	0.9159	0.8539	AVRG	R		1.028198		ng	0.9726	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.2609	1.2348	1.1776	0.9299	1.0574	0.9624	0.9199	AVRG	R		0.928047		ng	1.0775	14	0.0500	.99	15	
Benzo(k)fluoranthene	1.3368	1.2785	1.1561	1.2528	1.3042	1.3076	0.9743	AVRG	R		0.812984		ng	1.2300	10	0.0500	.99	15	
Benzo(a)pyrene	1.1204	1.0973	1.0446	0.8737	0.9549	0.8994	0.8310	AVRG	R		1.026227		ng	0.9744	12	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.1924	1.1410	1.0641	0.9222	1.0101	0.9717	0.9047	AVRG	R		0.971393		ng	1.0294	11	0.0500	.99	15	
Dibenz(a,h)anthracene	0.9415	0.9094	0.8616	0.7640	0.8408	0.8022	0.7474	AVRG	R		1.193143		ng	0.8381	9	0.0500	.99	15	
Benzo(g,h,i)perylene	0.9892	0.9532	0.8993	0.7898	0.8574	0.8074	0.7291	AVRG	R		1.161736		ng	0.8608	11	0.0500	.99	15	

136

Flags used: m=manual integration rsd=ICAL %RSD failure
Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: Oh - 1,4-Dioxane fails %RSD + r^2
CCV: 1,4-Dioxane ↑; Benzo(b)fluoranthene ↑ fail; D
Anthracene ↑; Pyrene ↑; Benzo(k)fluoranthene fail morning (next 5)

06/04/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA05 HP GCMS BNA 05 Reviewed By:
Calnum: 545222388001 Name: 5PAHSIM Type: (normal) Date: 03-JUN-2005 22:38 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.3476	0.3352	0.3443	0.2809	0.2648	0.2688	0.2566	AVRG	R		3.336095		ng	0.2998	14	0.0500	.99	15	
2-Fluorobiphenyl	1.3886	1.3261	1.2492	1.1020	1.1218	1.0356	0.9750	AVRG	R		0.853835		ng	1.1712	13	0.0500	.99	15	
Terphenyl-d14	1.1357	1.0353	1.0817	0.8792	0.8888	0.8297	0.7710	AVRG	R		1.057168		ng	0.9459	15	0.0500	.99	15	

137

Flags used: m=manual integration rsd=ICAL %RSD failure
Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

nstid : MSBNA05 Run Name :
eqnum : 545225342002 Filename : xf502 Injected : 05-JUN-2005 12:04
alnum : 545222388001 Caldate : 03-JUN-2005 Caltype :
tandards: S345

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.525100	ng	53	30	v+ ***
Naphthalene	1.000000	1.129600	ng	13	30	
2-Methylnaphthalene	1.000000	0.995800	ng	0	30	
Acenaphthylene	1.000000	1.050700	ng	5	30	
Acenaphthene	1.000000	1.117100	ng	12	20	
Fluorene	1.000000	1.070800	ng	7	30	
Phenanthrene	1.000000	1.155400	ng	16	30	
Anthracene	1.000000	1.283600	ng	28	30	!v+
Fluoranthene	1.000000	1.109100	ng	11	20	
Pyrene	1.000000	1.258500	ng	26	30	!v+
Benzo(a)anthracene	1.000000	1.139700	ng	14	30	
Chrysene	1.000000	1.079800	ng	8	30	
Benzo(b)fluoranthene	1.000000	1.318000	ng	32	30	v+ ***
Benzo(k)fluoranthene	1.000000	1.295000	ng	30	30	!v+
Benzo(a)pyrene	1.000000	1.043400	ng	4	20	m
Indeno(1,2,3-cd)pyrene	1.000000	1.053900	ng	5	30	
Dibenz(a,h)anthracene	1.000000	0.942800	ng	-6	30	
Benzo(g,h,i)perylene	1.000000	1.179200	ng	18	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV
Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

T 6/6/05

A 06/06/05

=warning +=high bias m=manual integration v=ICV
age 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA05 Run Name : IDF : 1.0
Seqnum : 545226766016 Filename : xf616 Injected : 06-JUN-2005 20:16
Calnum : 545222388001 Caldate : 03-JUN-2005 Caltype :
Standards: S758

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4141	0.5657	2.000000	2.731800	ng	37	30	0.0500	c+ rsd
Naphthalene	0.7335	0.6841	2.000000	1.865400	ng	-7	30	0.0500	
2-Methylnaphthalene	0.6180	0.5776	2.000000	1.869300	ng	-7	30	0.0500	
Acenaphthylene	1.5767	1.5065	2.000000	1.910900	ng	-4	30	0.0500	
Acenaphthene	0.8305	0.8292	2.000000	1.996600	ng	0	20	0.0500	
Fluorene	1.0380	0.9726	2.000000	1.873900	ng	-6	30	0.0500	
Phenanthrene	0.7980	0.7790	2.000000	1.952300	ng	-2	30	0.0500	
Anthracene	0.7364	0.7300	2.000000	1.982700	ng	-1	30	0.0500	
Fluoranthene	1.0197	0.8998	2.000000	1.765000	ng	-12	20	0.0500	
Pyrene	1.2366	1.2291	2.000000	2.293400	ng	15	30	0.0500	
Benzo(a)anthracene	1.1081	1.1236	2.000000	2.028000	ng	1	30	0.0500	
Chrysene	0.9726	0.9874	2.000000	2.030500	ng	2	30	0.0500	
Benzo(b)fluoranthene	1.0775	1.0607	2.000000	1.968700	ng	-2	30	0.0500	
Benzo(k)fluoranthene	1.2300	1.5587	2.000000	2.534500	ng	27	30	0.0500	!c+
Benzo(a)pyrene	0.9744	0.9808	2.000000	2.013000	ng	1	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.0294	1.0514	2.000000	2.042700	ng	2	30	0.0500	
Dibenz(a,h)anthracene	0.8381	0.8756	2.000000	2.089400	ng	4	30	0.0500	
Benzo(g,h,i)perylene	0.8608	0.8935	2.000000	2.076100	ng	4	30	0.0500	
Nitrobenzene-d5	0.2998	0.3379	2.000000	2.254700	ng	13	30	0.0500	
2-Fluorobiphenyl	1.1712	1.0452	2.000000	1.784900	ng	-11	30	0.0500	
Terphenyl-d14	0.9459	0.9207	2.000000	1.946700	ng	-3	30	0.0500	

6/7/05

!=warning +=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525228102002 Filename : vf702 Injected : 07-JUN-2005 10:01
Calnum : 525161929001 Caldate : 22-APR-2005 Caltype :
Standards: S754

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.3978	**0.0027**	1.000000	0.006700	ng	-99	30	0.0500	c- crf
Naphthalene	0.8875	0.7636	1.000000	0.860400	ng	-14	30	0.0500	
2-Methylnaphthalene	0.6056	0.5858	1.000000	0.967200	ng	-3	30	0.0500	
Acenaphthylene	1.6578	1.5316	1.000000	0.923900	ng	-8	30	0.0500	
Acenaphthene	1.0255	0.9124	1.000000	0.889700	ng	-11	20	0.0500	
Fluorene	1.2395	1.1371	1.000000	0.917400	ng	-8	30	0.0500	
Phenanthrene	0.9650	0.7641	1.000000	0.791700	ng	-21	30	0.0500	!c-
Anthracene	0.8558	0.7165	1.000000	0.837200	ng	-16	30	0.0500	
Fluoranthene	1.0752	0.8601	1.000000	0.800000	ng	-20	20	0.0500	
Pyrene	1.1306	0.9709	1.000000	0.858800	ng	-14	30	0.0500	
Benzo(a)anthracene	1.0288	0.8996	1.000000	0.874400	ng	-13	30	0.0500	
Chrysene	1.0217	0.8378	1.000000	0.820000	ng	-18	30	0.0500	
Benzo(b)fluoranthene	1.3241	1.2398	1.000000	0.936400	ng	-6	30	0.0500	
Benzo(k)fluoranthene	1.7947	1.3441	1.000000	0.748900	ng	-25	30	0.0500	!c-
Benzo(a)pyrene	1.1063	1.1439	1.000000	1.034000	ng	3	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.2081	1.3043	1.000000	1.079700	ng	8	30	0.0500	
Dibenz(a,h)anthracene	0.9620	1.0342	1.000000	1.075100	ng	8	30	0.0500	
Benzo(g,h,i)perylene	1.0276	1.0634	1.000000	1.034900	ng	3	30	0.0500	
Nitrobenzene-d5	0.2512	0.2162	1.000000	0.860700	ng	-14	30	0.0500	m
2-Fluorobiphenyl	1.3678	1.3036	1.000000	0.953100	ng	-5	30	0.0500	
Terphenyl-d14	0.9054	0.8339	1.000000	0.921000	ng	-8	30	0.0500	

!=warning -=low bias c=CCV crf=CCV min RF failure m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 06-JUN-2005 CCV Filename: xf616
Sequence: 545226766 (xf6) Date Analyzed: 06-JUN-2005
Instrument ID: MSBNA05 Time Analyzed: 20:16

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	23446	7.26	97952	8.81	42949	11.09	76599	13.05	56765	16.84	53018	18.92
LOWER LIMIT	11723	6.76	48976	8.31	21475	10.59	38300	12.55	28383	16.34	26509	18.42
UPPER LIMIT	46892	7.76	195904	9.31	85898	11.59	153198	13.55	113530	17.34	106036	19.42

TYPE	SAMPLE	#											
CCV		016	23446	7.26	97952	8.81	42949	11.09	76599	13.05	56765	16.84	53018	18.92
BLANK	QC296175	017	22273	7.26	102101	8.81	50630	11.11	86506	13.06	72628	16.87	59247	18.99
LCS	QC296176	018	23171	7.26	104006	8.81	49102	11.11	89319	13.06	68632	16.87	64679	18.99
MSS	179774-027	019	21929	7.26	99729	8.81	49661	11.11	86435	13.06	71441	16.87	58082	18.99
MS	QC296179	020	21731	7.26	97133	8.81	46214	11.11	84357	13.06	67738	16.87	51526	18.99
MSD	QC296180	021	20837	7.26	92628	8.81	44357	11.11	81946	13.06	64060	16.87	56395	18.99
MSS	179828-003	022	21196	7.26	95992	8.81	47982	11.11	83408	13.06	69470	16.87	57090	19.00
MS	QC296177	023	19605	7.26	85800	8.81	41742	11.11	75304	13.06	59548	16.87	45524	18.99
MSD	QC296178	024	19528	7.26	86880	8.81	41084	11.11	75463	13.06	56474	16.87	49126	19.00
SAMPLE	179714-001	025	19344	7.26	84061	8.81	42673	11.11	72769	13.06	59113	16.87	45180	19.00
SAMPLE	179774-029	026	20795	7.26	74801	8.81	41914	11.11	73305	13.06	59822	16.87	163804*	18.99
SAMPLE	179774-026	027	26173	7.26	114089	8.81	58731	11.11	104788	13.06	89267	16.87	41962	18.99
SAMPLE	179774-028	028	27796	7.26	124150	8.81	63336	11.11	112631	13.06	98095	16.87	72241	18.99
SAMPLE	179774-010	029	26602	7.26	187060	8.81	98838*	11.11	102623	13.07	78678	17.00	61545	19.39
SAMPLE	179646-002	030	23332	7.26	104729	8.81	53989	11.11	93669	13.06	71129	16.89	50453	19.04
SAMPLE	179646-030	031	20767	7.26	91985	8.81	47474	11.11	78390	13.06	49256	16.93	22097*	19.22
MS	QC296149	032	18880	7.26	85466	8.81	41947	11.11	72718	13.06	42572	16.95	17243*	19.23
MSD	QC296150	033	16328	7.26	74148	8.81	36221	11.11	59572	13.06	31007	16.96	186658*	18.66
SAMPLE	179646-031	034	6708*	7.26	30571*	8.81	14680*	11.11	22438*	13.07	10362*	17.00	1236*	18.50
SAMPLE	179646-009	035	14*	7.26	62*	8.81	30*	11.11	64*	13.07	29*	17.06	266*	18.50

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 07-JUN-2005 CCV Filename: vf702
Sequence: 525228102 (vf7) Date Analyzed: 07-JUN-2005
Instrument ID: MSBNA03 Time Analyzed: 10:01

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	9753	6.12	41908	7.72	22752	10.22	49586	12.39	45574	16.27	32043	18.05
LOWER LIMIT	4877	5.62	20954	7.23	11376	9.72	24793	11.89	22787	15.77	16022	17.56
UPPER LIMIT	19506	6.62	83816	8.23	45504	10.72	99172	12.89	91148	16.77	64086	18.56

TYPE	SAMPLE	#										
CCV		002	9753	6.12	41908	7.73	22752	10.22	49586	12.39	45574	16.27	32043	18.06
LCS	QC295635	003	10098	6.12	44133	7.73	25167	10.22	55506	12.39	49681	16.28	44731	18.06
SAMPLE	179682-001	004	9811	6.13	43387	7.73	24543	10.22	53586	12.39	46563	16.27	39359	18.04
SAMPLE	179564-001	005	9557	6.13	44542	7.73	24492	10.22	52812	12.38	47695	16.27	30784	18.06
SAMPLE	179603-001	006	9195	6.12	42583	7.73	24504	10.22	49546	12.38	44195	16.27	29161	18.06
SAMPLE	179682-005	007	9989	6.13	45975	7.73	24819	10.22	55213	12.39	48811	16.27	43215	18.04
MSS	179606-008	008	9838	6.13	45657	7.73	21922	10.22	47305	12.39	38890	16.32	15689*	18.15
MS	QC295761	009	9251	6.13	42813	7.73	25222	10.22	47413	12.39	36757	16.31	12885*	18.13
MSD	QC295762	010	8640	6.13	38168	7.73	20924	10.23	44265	12.39	34810	16.32	15802*	18.13
SAMPLE	179682-008	011	8967	6.13	38644	7.73	21412	10.23	46695	12.39	35269	16.29	18246	18.06
MSS	179646-029	012	10087	6.13	45252	7.73	24505	10.23	50432	12.39	38983	16.30	20792	18.09
SAMPLE	179714-001	013	9773	6.13	41746	7.73	23820	10.22	51498	12.39	40851	16.28	20411	18.06
SAMPLE	179646-026	014	8630	6.13	38215	7.73	21861	10.22	74785	12.39	33799	16.29	20587	18.07
SAMPLE	179646-030	015	8859	6.13	38485	7.73	21802	10.22	45412	12.39	33019	16.29	17420	18.07
SAMPLE	179646-031	016	9448	6.13	40391	7.73	21237	10.23	46453	12.39	37152	16.30	20576	18.10

* = Outside QC Limits

MSNA03 8270 SIM CALIBRATION

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525161929 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 22-APR-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	vdm01	TUN	NP NL			22-APR-2005 10:49	1.0	1.0		1	
002	vdm02	CCV				22-APR-2005 11:14	1.0	1.0	1	2	
003	vdm03	SAMPLE	178716-002	101276	Soil	22-APR-2005 12:01	400.0	0.3309	1	3	
004	vdm04	SAMPLE	178716-004	101276	Soil	22-APR-2005 12:32	400.0	0.3308	1	3	
005	vdm05	SAMPLE	178716-007	101276	Soil	22-APR-2005 13:02	500.0	0.3324	1	3	
006	vdm06	SAMPLE	178716-012	101276	Soil	22-APR-2005 13:33	400.0	0.3296	1	3	
007	vdm07	TUN	NP NL			22-APR-2005 16:23	1.0	1.0		1	
008	vdm08	CCV				22-APR-2005 16:38	1.0	1.0	1	2	
009	vdm09	ICAL	0.1ug/mL			22-APR-2005 17:12	1.0	1.0		4	
010	vdm10	ICAL	0.2ug/mL			22-APR-2005 17:42	1.0	1.0		5	
011	vdm11	ICAL	0.5ug/mL			22-APR-2005 18:13	1.0	1.0		6	
012	vdm12	ICAL	1.0ug/mL			22-APR-2005 18:43	1.0	1.0		7	
013	vdm13	ICAL	2.0ug/mL			22-APR-2005 19:13	1.0	1.0		2	
014	vdm14	ICAL	5.0ug/mL			22-APR-2005 19:44	1.0	1.0		8	143
015	vdm15	ICAL	10.0ug/mL			22-APR-2005 20:16	1.0	1.0		9	
016	vdm16	ICV	1.0ug/mL			22-APR-2005 20:48	1.0	1.0	1	10	

ICAL: OK
ICV: OK

Stds used: 1=05WS0188 2=05WS0260 3=05WS0254 4=05WS0256 5=05WS0257 6=05WS0258 7=05WS0259 8=05WS0261 9=05WS0262 10=S345

Analyst: _____ Date: 4/25/05

04/25/05

8270 SIM Calibration

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545222388 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 03-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK uL	Stds Used	>LR
001	xf301	TUN	DFTTP/PEM 50			03-JUN-2005 10:28	1.0	1.0			1	
002	xf302	CCV				03-JUN-2005 10:49	1.0	1.0	1	1	2	
003	xf303	BLANK	QC293259	101891	Water	03-JUN-2005 11:33	1.0	0.001	1	1	3	
004	xf304	MDL	178068-001	101891	Water	03-JUN-2005 12:11	1.0	0.001	1	1	3	
005	xf305	MDL	178068-002	101891	Water	03-JUN-2005 12:48	1.0	0.001	1	1	3	
006	xf306	MDL	178068-003	101891	Water	03-JUN-2005 13:26	1.0	0.001	1	1	3	
007	xf307	MDL	178068-004	101891	Water	03-JUN-2005 14:03	1.0	0.001	1	1	3	
008	xf308	MDL	178068-005	101891	Water	03-JUN-2005 14:41	1.0	0.001	1	1	3	
009	xf309	MDL	178068-006	101891	Water	03-JUN-2005 15:18	1.0	0.001	1	1	3	
010	xf310	MDL	178068-007	101891	Water	03-JUN-2005 15:55	1.0	0.001	1	1	3	
011	xf311	MDL	178068-008	101891	Water	03-JUN-2005 16:33	1.0	0.001	1	1	3	
012	xf312	TUN	NP NL			03-JUN-2005 19:18	1.0	1.0			4	
013	xf313	CCV	updating grp RTs			03-JUN-2005 19:37	1.0	1.0			5	
014	xf314	CCV				03-JUN-2005 20:09	1.0	1.0	10	1	5	6:ACNP=10.7245
015	xf315	CCV				03-JUN-2005 20:58	1.0	1.0	5	1	5	5:ACNP=10.6139
016	xf316	CCV				03-JUN-2005 22:04	1.0	1.0	6	1	6	cc-
017	xf317	ICAL	0.1 ug/mL			03-JUN-2005 22:38	1.0	1.0			7	
018	xf318	ICAL	0.2 ug/mL			03-JUN-2005 23:13	1.0	1.0			8	
019	xf319	ICAL	0.5 ug/mL			03-JUN-2005 23:48	1.0	1.0			9	
020	xf320	ICAL	1.0 ug/mL			04-JUN-2005 00:24	1.0	1.0			6	
021	xf321	ICAL	2.0 ug/mL			04-JUN-2005 00:59	1.0	1.0			10	
022	xf322	ICAL	5.0 ug/mL			04-JUN-2005 01:34	1.0	1.0			11	
023	xf323	ICAL	10.0 ug/mL			04-JUN-2005 02:10	1.0	1.0			5	
024	xf324	ICV	not used			04-JUN-2005 02:46	1.0	1.0	15	1	12	

8270-SIM ICAL: 1,4-Dioxane Curve 9025D r = -NA
RCV: Benzo(b)fluoranthene ↑ Curve ED
- Anthracene ↑; Pyrene ↑; Benzo(k)fluoranthene ↑ Get noisy ions

Stds used: 1=S513 2=S559 3=04SS401 4=05WS0188 5=S760 6=S754 7=S755 8=S756 9=S757 10=S758 11=S759 12=05WS0244
Flags used: -=low bias cc=CCV CCC failure

Analyst: _____ Date: 6/5/05

6/6/05

CL-V

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545225342 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 05-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
001	xf501	TUN	NP NL			05-JUN-2005 11:42	1.0	1.0				1	
002	xf502	ICV				05-JUN-2005 12:04	1.0	1.0	2		1	2	
003	xf503	CCV				05-JUN-2005 12:40	1.0	1.0	1		1	3	
004	xf504	BS	QC296007	102589	Water	05-JUN-2005 13:15	1.0	0.001	1		1	4	
005	xf505	BSD	QC296008	102589	Water	05-JUN-2005 13:49	1.0	0.001	1		1	4	
006	xf506	LCS	QC295635	102499	Water	05-JUN-2005 14:24	1.0	0.001	1		1	4	
007	xf507	MS	QC295636	102499	Water	05-JUN-2005 14:59	1.0	0.0009901	1	9	1	4	
008	xf508	MSD	QC295637	102499	Water	05-JUN-2005 15:34	1.0	0.0009901	1	12	1	4	
009	xf509	MS	QC295956	102574	Soil	05-JUN-2005 16:09	1.0	0.03281	1		1	4	
010	xf510	MSD	QC295957	102574	Soil	05-JUN-2005 16:43	1.0	0.0328	1		1	4	
011	xf511	SAMPLE	179606-020	102574	Soil	05-JUN-2005 17:18	1.0	0.03358	1		1	4	
012	xf512	SAMPLE	179606-012	102526	Soil	05-JUN-2005 17:53	1.0	0.03313	1		1	4	
013	xf513	SAMPLE	179646-002	102574	Soil	05-JUN-2005 18:27	1.0	0.03334	1		1	4	
014	xf514	SAMPLE	179606-015	102574	Soil	05-JUN-2005 19:02	1.0	0.03326	2		1	4	1:PYR=5.86440
015	xf515	SAMPLE	179606-007	102526	Soil	05-JUN-2005 19:37	1.0	0.03375	5	2	1	4	6:DIOXAN=126.973
016	xf516	SAMPLE	179606-013	102526	Soil	05-JUN-2005 20:11	5.0	0.0334	1	2	1	4	
017	xf517	MSS	179646-029	102619	Soil	05-JUN-2005 20:46	1.0	0.03297	1		1	4	
018	xf518	SAMPLE	179606-001	102526	Soil	05-JUN-2005 21:20	10.0	0.0332	1	1	1	4	
019	xf519	SAMPLE	179606-017	102574	Soil	05-JUN-2005 21:56	10.0	0.1677	2		1	4	1:PYR=9.58380
020	xf520	SAMPLE	179682-003	102499	Water	05-JUN-2005 22:32	1.0	0.001		1	1	4 spk	
021	xf521	SAMPLE	179682-008	102499	Water	05-JUN-2005 23:07	1.0	0.00101		2	1	4 spk	
022	xf522	SAMPLE	179682-015	102619	Soil	05-JUN-2005 23:42	1.0	0.03313	8		1	4	8:PYR=67.3981
023	xf523	SAMPLE	179682-014	102619	Soil	06-JUN-2005 00:18	1.0	0.03289	19		1	4 <<t	1:PYR=7.56110
024	xf524	SAMPLE	179682-004	102619	Soil	06-JUN-2005 00:53	1.0	0.03323	19		1	4 <<t	
025	xf525	X	ENDBLANK			06-JUN-2005 01:29	1.0						
026	xf526	X	ENDBLANK			06-JUN-2005 02:05	1.0						
027	xf527	X	ENDBLANK			06-JUN-2005 02:40	1.0						

Stds used: 1=05WS0188 2=S345 3=S758 4=S465
Flags used: <<t=out of clock spk=5% spike rule

Analyst: _____ Date: 6/6/05

Page 1 of 1

2 06/06/05

MB/LCS/MSS1/MSS2 (1) MS2/MSD2

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 545226766 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 06-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	xf601	TUN	NP NL			06-JUN-2005 11:12	1.0	1.0	1			1 t	
002	xf602	TUN	NP NL			06-JUN-2005 11:26	1.0	1.0				1	
003	xf603	CCV				06-JUN-2005 11:46	1.0	1.0	1		1	2	
004	xf604	SAMPLE	179682-007	102499	Water	06-JUN-2005 12:31	1.0	0.001			1	3 spk	
005	xf605	SAMPLE	179682-009	102499	Water	06-JUN-2005 13:06	1.0	0.001			1	3 spk	
006	xf606	SAMPLE	179682-010	102499	Water	06-JUN-2005 13:41	1.0	0.001		1	1	3 spk RR # 35 ↓	
007	xf607	SAMPLE	179682-013	102499	Water	06-JUN-2005 14:15	1.0	0.001			1	3 spk	
008	xf608	SAMPLE	179682-020	102499	Water	06-JUN-2005 14:50	1.0	0.001	1	1	1	3 spk RR IOX 1:NO2BZD=15.8006	
009	xf609	SAMPLE	179603-001	102619	Soil	06-JUN-2005 15:24	5.0	0.03326	4		1	3 all BN, -	
010	xf610	SAMPLE	179701-002	102499	Water	06-JUN-2005 15:59	1.0	0.00102		1	1	3 spk	
011	xf611	SAMPLE	179701-003	102499	Water	06-JUN-2005 16:33	1.0	0.0009434		2	1	3 spk	
012	xf612	SAMPLE	179720-007	102589	Water	06-JUN-2005 17:08	1.0	0.001			1	3 spk — # 43 ↑	
013	xf613	SAMPLE	179720-022	102589	Water	06-JUN-2005 17:43	1.0	0.001			1	3 spk	
014	xf614	SAMPLE	179646-026	102619	Soil	06-JUN-2005 18:18	10.0	0.03388	1		1	3 RR ✓ Benzo(b)	16
015	xf615	TUN	NP NL			06-JUN-2005 19:56	1.0	1.0				1	
016	xf616	CCV				06-JUN-2005 20:16	1.0	1.0	1		1	2	
017	xf617	BLANK	QC296175	102631	Water	06-JUN-2005 20:52	1.0	0.001			1	3	
018	xf618	LCS	QC296176	102631	Water	06-JUN-2005 21:26	1.0	0.001	1		1	3	
019	xf619	MSS 2	179774-027	102631	Water	06-JUN-2005 22:02	1.0	0.001			1	3	
020	xf620	MS 2	QC296179	102631	Water	06-JUN-2005 22:37	1.0	0.001	1	13	1	3 > RR spikes ↓ / 8 ↓	
021	xf621	MSD 2	QC296180	102631	Water	06-JUN-2005 23:12	1.0	0.001	1	10	1	3	
022	xf622	MSS 1	179828-003	102631	Water	06-JUN-2005 23:47	1.0	0.001			1	3	
023	xf623	MS 1	QC296177	102631	Water	07-JUN-2005 00:22	1.0	0.001	1	9	1	3 > RR spikes ↓ / RPD's out	
024	xf624	MSD 1	QC296178	102631	Water	07-JUN-2005 00:58	1.0	0.001	1	5	1	3	
025	xf625	SAMPLE	179714-001	102631	Water	07-JUN-2005 01:34	1.0	0.0009434	1	1	1	3 RR #35 ↓ / outliers / BN/8 ↓	
026	xf626	SAMPLE	179774-029	102631	Water	07-JUN-2005 02:10	1.0	0.001		1	1	3	
027	xf627	SAMPLE	179774-026	102631	Water	07-JUN-2005 02:46	1.0	0.001031			1	3	
028	xf628	SAMPLE	179774-028	102631	Water	07-JUN-2005 03:22	1.0	0.001			1	3	
029	xf629	SAMPLE	179774-010	102631	Water	07-JUN-2005 03:58	1.0	0.0009709		2	1	3 RR IOX BN/8 ↑ M	

CCV: xf603: OK
xf616: OK
- Benzo(k)fluoranthene ↑ 6 uls morning/mid3

Stds used: 1=05WS0188 2=S758 3=S465
Flags used: spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/7/05

J. Mitt 6/7/05

CCV: Benzo(b)fluoranthene ↑ 6 uls FD
- Anthracene ↑; Pyrene ↑; Benzo(k)fluoranthene ↑ 6 uls morning/mid3

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 545226766 Instrument: MSBNA05 HP GCMS BNA 05 Begun: 06-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
030	xf630	SAMPLE	179646-002	102574	Soil	07-JUN-2005 04:33	1.0	0.03334			1	3	
031	xf631	SAMPLE	179646-030	102619	Soil	07-JUN-2005 05:09	2.0	0.0337	1		1	3	PYR=5.97490
032	xf632	MS	QC296149	102619	Soil	07-JUN-2005 05:45	1.0	0.03348	1	4	1	3	
033	xf633	MSD	QC296150	102619	Soil	07-JUN-2005 06:22	1.0	0.03288	1	9	1	3	
034	xf634	SAMPLE	179646-031	102619	Soil	07-JUN-2005 06:58	1.0	0.03332			1	3	
035	xf635	SAMPLE	179646-009	102574	Soil	07-JUN-2005 07:34	1.0	0.03342			1	3	3:PYR=16.8077

147

Stds used: 1=05WS0188 2=S758 3=S465
Flags used: spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/7/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
001	vf701	TUN	NP NL			07-JUN-2005 09:42	1.0	1.0				1	
002	vf702	CCV				07-JUN-2005 10:01	1.0	1.0	1		1	2	
003	vf703	LCS	QC295635	102499	Water	07-JUN-2005 10:33	1.0	0.001			1	3	
004	vf704	SAMPLE	179682-001	102619	Soil	07-JUN-2005 11:04	1.0	0.03295			1	3	
005	vf705	SAMPLE	179564-001	102526	Soil	07-JUN-2005 11:36	2.0	0.03301	2		1	3	RR ↓ Phen/Benzo(k)
006	vf706	SAMPLE	179603-001	102619	Soil	07-JUN-2005 12:08	5.0	0.03326	2		1	3	
007	vf707	SAMPLE	179682-005	102619	Soil	07-JUN-2005 12:39	1.0	0.03295			1	3	
008	vf708	MSS	179606-008	102526	Soil	07-JUN-2005 13:11	1.0	0.0336	1		1	3	NOT USED
009	vf709	MS	QC295761	102526	Soil	07-JUN-2005 13:42	1.0	0.03313		2	1	3	
010	vf710	MSD	QC295762	102526	Soil	07-JUN-2005 14:14	1.0	0.03323		4	1	3	
011	vf711	SAMPLE	179682-008	102499	Water	07-JUN-2005 14:46	~~1.0~~ 5	0.00101		2	1	3	
012	vf712	MSS	179646-029	102619	Soil	07-JUN-2005 15:17	1.0	0.03297	1		1	3	
013	vf713	SAMPLE	179714-001	102631	Water	07-JUN-2005 15:48	1.0	0.0009434	1	1	1	3	reported only Anthracene CW 6/30/05 148
014	vf714	SAMPLE	179646-026	102619	Soil	07-JUN-2005 16:20	10.0	0.03388			1	3	
015	vf715	SAMPLE	179646-030	102619	Soil	07-JUN-2005 16:52	5.0	0.0337			1	3	
016	vf716	SAMPLE	179646-031	102619	Soil	07-JUN-2005 17:25	1.0	0.03332			1	3	
017	vf717	TUN	NP NL			07-JUN-2005 19:24	1.0	1.0	1			1	t
018	vf718	TUN	NP NL			07-JUN-2005 19:36	1.0	1.0				1	
019	vf719	CCV				07-JUN-2005 19:57	1.0	1.0	1		1	4	
020	vf720	SAMPLE	179797-005	102631	Water	07-JUN-2005 20:34	1.0	0.001			1	3	
021	vf721	SAMPLE	179828-004	102631	Water	07-JUN-2005 21:05	1.0	0.001			1	3	
022	vf722	SAMPLE	179828-011	102631	Water	07-JUN-2005 21:38	1.0	0.001		1	1	3	RR #25 #35
023	vf723	SAMPLE	179741-015	102631	Water	07-JUN-2005 22:11	1.0	0.001		1	1	3	
024	vf724	SAMPLE	179741-016	102631	Water	07-JUN-2005 22:43	1.0	0.001		1	1	3	
025	vf725	SAMPLE	179774-029	102631	Water	07-JUN-2005 23:16	1.0	0.001		1	1	3	
026	vf726	SAMPLE	179774-010	102631	Water	07-JUN-2005 23:48	5.0	0.0009709		3	1	3	
027	vf727	SAMPLE	179682-021	102619	Soil	08-JUN-2005 00:21	1.0	0.03326			1	3	RR 2x ↓ Benzo(b)+(k)
028	vf728	SAMPLE	179728-001	102589	Water	08-JUN-2005 00:55	10.0	0.0009709	1	1	1	3	spk 1:NO2BZD=15.3497
029	vf729	SAMPLE	179728-005	102589	Water	08-JUN-2005 01:28	1.0	0.001111			1	3	spk

CCV vf702: Ch
- Phenanthrene ↓; Benzo(b)fluoranthene ↓ but morning limit.

vf719: Nitrobenzene-d5 ↑ Cals ID

ICAL: Ch
RCV: Ch

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/8/05

J: UH 6/8/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525228102 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 07-JUN-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv7
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IOC	SPK	uL	Stds Used	>LR
030	vf730	SAMPLE	179728-012	102589	Water	08-JUN-2005 02:01	1.0	0.001111			1	3 spk	
031	vf731	SAMPLE	179728-014	102589	Water	08-JUN-2005 02:33	1.0	0.001333			1	3 spk	
032	vf732	SAMPLE	179800-003	102589	Water	08-JUN-2005 03:07	1.0	0.001	19	1	1	3 sh spk	
033	vf733	SAMPLE	179800-004	102589	Water	08-JUN-2005 03:40	1.0	0.0009804	19	1	1	3 sh spk	
034	vf734	SAMPLE	179646-002	102574	Soil	08-JUN-2005 04:13	1.0	0.03334			1	3 RR 2X / Benzo(b)+(k)	
035	vf735	SAMPLE	179682-015	102619	Soil	08-JUN-2005 04:44	15.0	0.03313			1	3 20X	
036	vf736	SAMPLE	179682-014	102619	Soil	08-JUN-2005 05:18	2.0	0.03289		1	1	3 5X	
037	vf737	SAMPLE	179682-004	102619	Soil	08-JUN-2005 05:51	1.0	0.03323		1	1	3 #355	
038	vf738	X	ENDBLANK			08-JUN-2005 06:16	1.0						
039	vf739	X	ENDBLANK			08-JUN-2005 06:27	1.0						
040	vf740	X	ENDBLANK			08-JUN-2005 06:38	1.0						

149

Stds used: 1=05WS0188 2=S754 3=05WS0254 4=S758
Flags used: sh=out of sample hold spk=5% spike rule t=tune failure

Analyst: _____ Date: 6/8/05

Curtis & Tompkins Laboratories Sample Preparation Summary 07-JUN-2005 11:04

Batch Number : 102631
Date Extracted: 03-JUN-2005
Extracted by : Stephen Koster
Prep Method : 3520C

Analysis : N/A
Bgroup : SIM
Units : mL
Clean-up :

Spike #1 ID : S771A
Spike #2 ID : S212B
Spike #3 ID :
SOP Version :

Sample	Type	Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179714-001		Mactec, Inc.	Water	1060	mL	1.	0.000943	1	7	1.	0		8270-SIM		
179741-015		Blasland, Bouck & Lee	Water	500	mL	.5	0.001000	1	7	.5	0		8270-SIM		
179741-016		Blasland, Bouck & Lee	Water	500	mL	.5	0.001000	1	7	.5	0		8270-SIM		
179774-010		Blasland, Bouck & Lee	Water	1030	mL	1	0.000971	1	7	1	0		8270-SIM		
179774-026		Blasland, Bouck & Lee	Water	970	mL	1	0.001031	1	7	1	0		8270-SIM		
179774-027		Blasland, Bouck & Lee	Water	500	mL	.5	0.001000	1	7	.5	0		8270-SIM		mss
179774-028		Blasland, Bouck & Lee	Water	1000	mL	1	0.001000	1	7	1	0		8270-SIM		
179774-029		Blasland, Bouck & Lee	Water	1000	mL	1	0.001000	1	7	1	0		8270-SIM		
179797-005		Blasland, Bouck & Lee	Water	1000	mL	1	0.001000	1	7	1	0		8270-SIM		
179828-003		Blasland, Bouck & Lee	Water	500	mL	.5	0.001000	1	7	.5	0		8270-SIM		mss
179828-004		Blasland, Bouck & Lee	Water	1000	mL	1	0.001000	1	7	1	0		8270-SIM		
179828-011		Blasland, Bouck & Lee	Water	1000	mL	1	0.001000	1	7	1	0		8270-SIM		
QC296175	BLANK		Water	1000	mL	1	0.001000	1		1	0		SIM		
QC296176	LCS		Water	1000	mL	1	0.001000	1		1	1		SIM		
QC296177	MS	of 179828-003 J#1	Water	500	mL	.5	0.001000	1	7	.5	.5		SIM		
QC296178	MSD	of 179828-003 J#1	Water	500	mL	.5	0.001000	1	7	.5	.5		SIM		
QC296179	MS	of 179774-027 J#2	Water	500	mL	.5	0.001000	1	7	.5	.5		SIM		
QC296180	MSD	of 179774-027 J#2	Water	500	mL	.5	0.001000	1	7	.5	.5		SIM		

150

Prep Chemist: _____ Reviewed By: _____ Date: 6/7/05

Relinquished By: _____ 6/7/05 Received By: _____ Date: 6/7/05

Curtis & Tompkins, Ltd

8270 WATER PREP LOG

BK2122

LIMS Batch No: ~~102361~~ 102631 6/7/05

LIMS Analysis: SIM

Extracted by: SPK

Date Extracted: 06/03/05

Extraction Method:

☐ mod.EPA 3510c sep. funnel

☑ mod. EPA 3520c cont. L/L

☐ _____

Cleanup Method (if needed):

☐ EPA 3640a GPC

☐ EPA 3630c Silica Gel

	Sample # & letter (LCMS 6/7/05)	Volume of Sample (mL)	Sample pH	Final Volume (mL)	Cleanup (x if needed)	Comments
	MB 7961765	1000	NA	1.0		
	LCS 776	↓	↓	↓		
	MS 787J	500	7	0.5		179828-003 *0.5mL SPIKE/SVA
	MSD 788J	↓				↓
5	MS 8079E	500				179774-027
	MSD 80E+HOLD	↓		↓		↓ ↓
	179714-1 H	1060		1.0		
	179741-05 E	500		0.5		*
	↓ -06 F	↓		↓		~10mL LOST WHILE POURING INTO KD SETUP *
10	179774-010 H	1030		1.0		
	-026 D	970 vol		↓		
	-027 H	~~1000~~ 500		0.5		SAMPLE COLOR DOES NOT MATCH MS/MSD * MSS
	-028 C	1000		1.0		
	↓ -029 C	↓				
15	179797-005 IC	1000		1.0		
	179828-003 D	500		0.5		* MSS
	-004 E	1000		1.0		
	↓ -011 I	↓	↓	↓		
20						

	Mfg & Lot# / LIMS # / Time	Date/ Initials
0.5*/1.0 mL of surrogate solution was added to all samples	5771 4	KW 6/6/05
0.5*/1.0 mL of matrix spiking solution was added to all spikes	5212 B	
pH of all samples adjusted to pH ≤ 2 with H_2SO_4	JT049034	
☐ Samples were continuously extracted	Extraction Start Time: 1700	↓
with 450 mL of CH_2Cl_2 EM45071	Extraction End Time: 1105	SHD 6/7/05
pH of all samples adjusted to pH ≥ 11 with 10 N NaOH	NA	CFL 6/6/05
	Extraction Start Time:	
	Extraction End Time:	
☐ Samples were extracted 3 times with 60 mL of CH_2Cl_2	↓	
Extracts filtered through baked, CH2Cl2-rinsed granular Na2SO4	EM44273	
Concentrated to volumes as noted above	✓	↓

06/03/05

Extraction Chemist **Date**

Continued from Page 5

Continued on Page _____

6/7/05

Reviewed by **Date**

METALS
FILTRATE

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	179714	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBIPZ101	Diln Fac:	1.000
Lab ID:	179714-001	Sampled:	05/27/05
Matrix:	Filtrate	Received:	05/27/05
Units:	ug/L		

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.6 J	60	0.066	102706	06/07/05	06/08/05	200.8	EPA 6020
Arsenic	6.8	5.0	0.79	102706	06/07/05	06/08/05	200.8	EPA 6020
Barium	63	10	0.17	102706	06/07/05	06/08/05	200.8	EPA 6020
Beryllium	ND	2.0	0.14	102706	06/07/05	06/08/05	200.8	EPA 6020
Cadmium	ND	5.0	0.20	102706	06/07/05	06/08/05	200.8	EPA 6020
Chromium	0.69 J	10	0.044	102706	06/07/05	06/08/05	200.8	EPA 6020
Cobalt	2.1 J	20	0.069	102706	06/07/05	06/08/05	200.8	EPA 6020
Copper	1.6 J	10	0.28	102706	06/07/05	06/08/05	200.8	EPA 6020
Lead	0.26 J	3.0	0.048	102706	06/07/05	06/08/05	200.8	EPA 6020
Mercury	ND	0.20	0.080	102800	06/09/05	06/09/05	METHOD	EPA 7470A
Molybdenum	6.7 J	20	0.19	102706	06/07/05	06/08/05	200.8	EPA 6020
Nickel	10 J	20	0.13	102706	06/07/05	06/08/05	200.8	EPA 6020
Selenium	0.60 J	5.0	0.58	102706	06/07/05	06/08/05	200.8	EPA 6020
Silver	ND	5.0	0.16	102706	06/07/05	06/08/05	200.8	EPA 6020
Thallium	ND	5.0	0.17	102706	06/07/05	06/08/05	200.8	EPA 6020
Vanadium	3.0 J	10	0.42	102706	06/07/05	06/08/05	200.8	EPA 6020
Zinc	18 J	20	0.16	102706	06/07/05	06/08/05	200.8	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC296480	Batch#:	102706
Matrix:	Water	Prepared:	06/07/05
Units:	ug/L	Analyzed:	06/07/05

Analyte	Result	RL	MDL
Antimony	ND	60	0.066
Arsenic	ND	5.0	0.79
Barium	ND	10	0.17
Beryllium	ND	2.0	0.14
Cadmium	ND	5.0	0.20
Chromium	ND	10	0.044
Cobalt	ND	20	0.069
Copper	ND	10	0.28
Lead	ND	3.0	0.048
Molybdenum	0.60 J	20	0.19
Nickel	ND	20	0.13
Selenium	ND	5.0	0.58
Silver	ND	5.0	0.16
Thallium	ND	5.0	0.17
Vanadium	ND	10	0.42
Zinc	ND	20	0.16

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	102800
Lab ID:	QC296863	Prepared:	06/09/05
Matrix:	Filtrate	Analyzed:	06/09/05
Units:	ug/L		

Result	RL	MDL
ND	0.20	0.080

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Water	Batch#:	102706
Units:	ug/L	Prepared:	06/07/05
Diln Fac:	1.000	Analyzed:	06/07/05

Type: BS Lab ID: QC296481

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	109.9	110	80-120
Arsenic	100.0	109.0	109	80-120
Barium	100.0	111.0	111	80-120
Beryllium	100.0	106.6	107	80-120
Cadmium	100.0	113.3	113	80-120
Chromium	100.0	107.7	108	80-120
Cobalt	100.0	109.4	109	80-120
Copper	100.0	108.4	108	80-120
Lead	100.0	106.6	107	80-120
Molybdenum	100.0	110.4	110	80-120
Nickel	100.0	107.3	107	80-120
Selenium	100.0	109.2	109	80-120
Silver	100.0	104.7	105	80-120
Thallium	100.0	103.2	103	80-120
Vanadium	100.0	107.0	107	80-120
Zinc	100.0	110.4	110	80-120

Type: BSD Lab ID: QC296482

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	109.7	110	80-120	0	20
Arsenic	100.0	109.3	109	80-120	0	20
Barium	100.0	110.9	111	80-120	0	20
Beryllium	100.0	107.8	108	80-120	1	20
Cadmium	100.0	113.2	113	80-120	0	20
Chromium	100.0	109.0	109	80-120	1	20
Cobalt	100.0	110.4	110	80-120	1	20
Copper	100.0	108.5	109	80-120	0	20
Lead	100.0	108.3	108	80-120	2	20
Molybdenum	100.0	109.8	110	80-120	1	20
Nickel	100.0	108.2	108	80-120	1	20
Selenium	100.0	109.9	110	80-120	1	20
Silver	100.0	104.3	104	80-120	0	20
Thallium	100.0	105.3	105	80-120	2	20
Vanadium	100.0	107.2	107	80-120	0	20
Zinc	100.0	110.9	111	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	102800
Matrix:	Filtrate	Prepared:	06/09/05
Units:	ug/L	Analyzed:	06/09/05
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC296864	5.000	5.090	102	80-120		
BSD	QC296865	5.000	5.220	104	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Batch#:	102706
MSS Lab ID:	179720-007	Sampled:	05/26/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/07/05
Diln Fac:	1.000		

Type: MS Analyzed: 06/07/05
Lab ID: QC296483

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.1639	100.0	110.1	110	80-120
Arsenic	<0.7917	100.0	110.6	111	80-120
Barium	0.9229	100.0	112.4	111	77-125
Beryllium	<0.1383	100.0	107.1	107	80-120
Cadmium	<0.1982	100.0	115.5	116	78-120
Chromium	0.5359	100.0	110.0	109	80-120
Cobalt	0.07521	100.0	112.3	112	80-120
Copper	0.4601	100.0	110.7	110	80-120
Lead	2.549	100.0	111.4	109	80-120
Molybdenum	0.3590	100.0	111.4	111	80-120
Nickel	0.3126	100.0	110.5	110	77-120
Selenium	<0.5760	100.0	111.2	111	64-123
Silver	<0.1570	100.0	106.3	106	71-120
Thallium	0.8764	100.0	106.4	106	62-120
Vanadium	<0.4222	100.0	109.2	109	78-130
Zinc	9.582	100.0	121.0	111	64-129

Type: MSD Analyzed: 06/08/05
Lab ID: QC296484

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	109.9	110	80-120	0	20
Arsenic	100.0	109.2	109	80-120	1	20
Barium	100.0	110.7	110	77-125	2	20
Beryllium	100.0	105.6	106	80-120	1	20
Cadmium	100.0	113.5	114	78-120	2	20
Chromium	100.0	107.7	107	80-120	2	20
Cobalt	100.0	110.8	111	80-120	1	20
Copper	100.0	109.5	109	80-120	1	20
Lead	100.0	109.9	107	80-120	1	20
Molybdenum	100.0	109.2	109	80-120	2	20
Nickel	100.0	109.3	109	77-120	1	20
Selenium	100.0	108.9	109	64-123	2	20
Silver	100.0	104.1	104	71-120	2	20
Thallium	100.0	106.0	105	62-120	0	20
Vanadium	100.0	108.2	108	78-130	1	20
Zinc	100.0	119.8	110	64-129	1	28

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	179714	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	102800
Field ID:	ZZZZZZZZZZ	Sampled:	05/26/05
MSS Lab ID:	179727-002	Received:	05/27/05
Matrix:	Filtrate	Prepared:	06/09/05
Units:	ug/L	Analyzed:	06/09/05
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC296866	<0.07957	5.000	5.230	105	80-120		
MSD	QC296867		5.000	5.040	101	80-120	4	20

RPD= Relative Percent Difference

SERIAL DILUTION USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05
Seqnum : 55228836021
Filename : f0721021
IDF : 1.0
PDF : 1.0
Run type : MSS
Samplenum: 179720-007
Matrix : Water
Batchnum : 102706
Inj : 07-JUN-2005 23:47

Instid : MET05
Seqnum : 55228836022
Filename : f0721022
IDF : 5.0
PDF : 1.0
Run type : SER
Samplenum: QC296485
Matrix : Water
Batchnum : 102706
Inj : 07-JUN-2005 23:53

Analyte	MSS	RL	SER	RL	Units	%D	MAX %D	Flags
Aluminum	*** usable MSS data not found ***							
Antimony	ND	1.00	ND	5.00	ug/L	--	10	u
Arsenic	ND	1.00	ND	5.00	ug/L	--	10	u
Barium	ND	1.00	ND	5.00	ug/L	--	10	u
Beryllium	ND	1.00	ND	5.00	ug/L	--	10	u
Cadmium	ND	1.00	ND	5.00	ug/L	--	10	u
Calcium	*** usable MSS data not found ***							
Chromium	ND	1.00	0.486 J	5.00	ug/L	--	10	u
Cobalt	ND	1.00	ND	5.00	ug/L	--	10	u
Copper	ND	1.00	ND	5.00	ug/L	--	10	u
Iron	121	50.0	125 J	250	ug/L	--	10	u
Lead	2.55	1.00	2.46 J	5.00	ug/L	4	10	u
Magnesium	ND	50.0	55.6 J	250	ug/L	--	10	>c+ u
Manganese	4.15	1.00	4.10 J	5.00	ug/L	1	10	u
Molybdenum	ND	5.00	ND	25.0	ug/L	--	10	u
Nickel	ND	1.00	ND	5.00	ug/L	--	10	u
Potassium	68.5	50.0	106 J	250	ug/L	--	10	u
Selenium	ND	1.00	ND	5.00	ug/L	--	10	u
Silver	ND	1.00	ND	5.00	ug/L	--	10	u
Sodium	*** usable MSS data not found ***							
Thallium	ND	1.00	1.43 J	5.00	ug/L	--	10	u
Vanadium	ND	1.00	ND	5.00	ug/L	--	10	u
Zinc	9.58	1.00	10.8	5.00	ug/L	13*	10	~~u~~ CW 7/1/05

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	633898	-8.08
Scandium	840275	754130	-10.25
Germanium	143702	134413	-6.46
Indium	1033618	1000511	-3.20
Bismuth	581366	623676	7.28

+=high bias >=closing c=CCV u=use

SERIAL DILUTION USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05
Seqnum : 55240136033
Filename : f1518033
IDF : 5.0
PDF : 1.0
Run type : SER
Samplenum: QC296485
Matrix : Water
Batchnum : 102706
Inj : 15-JUN-2005 21:17

MSS : 179720-007

Analyte	MSS Seqnum	MSS	RL	SER	RL	Units	%D	MAX %D	Flags
Aluminum	55240136032	52.3	50.0	33.1 J	250	ug/L	37*	10	u
Antimony	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Arsenic	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Barium	55240136032	ND	1.00	0.943 J	5.00	ug/L	--	10	u
Beryllium	55228836021	ND	1.00	ND	5.00	ug/L	--	10	<c+ u
Cadmium	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Calcium	55240136032	244	50.0	285	250	ug/L	--	10	u
Chromium	55228836021	ND	1.00	1.44 J	5.00	ug/L	--	10	<c+ u
Cobalt	55240136032	ND	1.00	ND	5.00	ug/L	--	10	<c+ u
Copper	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Iron	55228836021	121	50.0	143 J	250	ug/L	--	10	<c+ u
Lead	55228836021	2.55	1.00	2.79 J	5.00	ug/L	9	10	u
Magnesium	55240136032	58.7	50.0	242 J	250	ug/L	--	10	u
Manganese	55228836021	4.15	1.00	4.66 J	5.00	ug/L	12*	10	<c+ u
Molybdenum	55240136032	ND	5.00	ND	25.0	ug/L	--	10	
Nickel	55228836021	ND	1.00	1.00 J	5.00	ug/L	--	10	u
Potassium	55240136032	51.7	50.0	216 J	250	ug/L	--	10	u
Selenium	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Silver	55228836021	ND	1.00	ND	5.00	ug/L	--	10	u
Sodium	*** usable MSS data not found ***								
Thallium	55228836021	ND	1.00	1.89 J	5.00	ug/L	--	10	u
Vanadium	55240136032	ND	1.00	ND	5.00	ug/L	--	10	<c+ u
Zinc	55228836021	9.58	1.00	9.31	5.00	ug/L	3	10	u

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	570752	-10.48
Scandium	715294	614869	-14.04
Germanium	174798	139508	-20.19
Indium	1261003	907899	-28.00
Bismuth	824257	526650	-36.11

+=high bias <=opening c=CCV u=use

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55228836021	Seqnum : 55228836025
Filename : f0721021	Filename : f0721025
IDF : 1.0	IDF : 1.0
PDF : 1.0	PDF : 1.0
Run type : MSS	Run type : PDS
Samplenum: 179720-007	Samplenum: QC296486
Matrix : Water	Matrix : Water
Batchnum : 102706	Batchnum : 102706
Inj : 07-JUN-2005 23:47	Inj : 08-JUN-2005 00:10
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	0.1639	100.0	108.8	109	75-125	u
Arsenic	ND	100.0	108.1	108	75-125	u
Barium	0.9229	100.0	109.9	109	75-125	u
Beryllium	ND	100.0	104.1	104	75-125	u
Cadmium	ND	100.0	111.7	112	75-125	u
Calcium	*** usable MSS data not found ***					
Chromium	0.5359	100.0	106.9	106	75-125	u
Cobalt	0.07521	100.0	108.1	108	75-125	u
Copper	0.4601	100.0	108.2	108	75-125	u
Iron	120.6	10000	10960	108	75-125	u
Lead	2.549	100.0	108.3	106	75-125	u
Magnesium	47.55	10000	12040	120	75-125	>c+ b*
Manganese	4.151	100.0	109.5	105	75-125	u
Molybdenum	0.3590	100.0	109.0	109	75-125	u
Nickel	0.3126	100.0	107.2	107	75-125	u
Potassium	68.47	10000	11930	119	75-125	u
Selenium	ND	100.0	108.1	108	75-125	u
Silver	ND	100.0	103.3	103	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.8764	100.0	102.5	102	75-125	u
Vanadium	ND	100.0	106.9	107	75-125	u
Zinc	9.582	100.0	110.1	101	75-125	u

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	572464	-16.99
Scandium	840275	649562	-22.70
Germanium	143702	122776	-14.56
Indium	1033618	878591	-15.00
Bismuth	581366	542893	-6.62

+=high bias >=closing b=noncompliant c=CCV u=use

REPORTING SUMMARY FOR 179714 METALS Filtrate
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
179714-001	MET05	06/08/05 01:09	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
179714-001	MET04	06/09/05 13:30	1.0										+							
QC296480	MET05	06/07/05 23:29	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296480	MET05	06/15/05 20:54	1.0																	
QC296480	MET05	06/16/05 13:50	1.0																	
QC296481	MET05	06/07/05 23:35	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296481	MET05	06/15/05 21:00	1.0																	
QC296481	MET05	06/16/05 13:56	1.0																	
QC296482	MET05	06/07/05 23:41	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296482	MET05	06/15/05 21:06	1.0																	
QC296482	MET05	06/16/05 14:02	1.0																	
QC296483	MET05	06/07/05 23:59	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296483	MET05	06/15/05 21:23	1.0																	
QC296483	MET05	06/15/05 22:22	10.0																	
QC296483	MET05	06/16/05 14:19	1.0																	
QC296484	MET05	06/08/05 00:05	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296484	MET05	06/15/05 21:29	1.0																	
QC296484	MET05	06/15/05 22:28	10.0																	
QC296484	MET05	06/16/05 14:25	1.0																	
QC296485	MET05	06/07/05 23:53	5.0											+						
QC296485	MET05	06/15/05 21:17	5.0	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
QC296485	MET05	06/15/05 21:47	50.0																	
QC296485	MET05	06/16/05 14:14	5.0																	
QC296486	MET05	06/08/05 00:10	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC296486	MET05	06/15/05 21:35	1.0																	
QC296486	MET05	06/15/05 22:34	10.0																	
QC296486	MET05	06/16/05 14:31	1.0																	
QC296555	MET05	06/08/05 02:54	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC296556	MET05	06/08/05 03:00	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC296557	MET05	06/08/05 04:10	1.0	+	+	+	+	+		+	+	+		+		+	+	+	+	+
QC296557	MET05	06/08/05 04:28	10.0						+						+					
QC296557	MET05	06/08/05 04:45	100.0																	
QC296558	MET05	06/08/05 04:16	1.0	+	+	+	+	+		+	+	+		+		+	+	+	+	+
QC296558	MET05	06/08/05 04:34	10.0						+						+					
QC296558	MET05	06/08/05 05:15	100.0																	
QC296863	MET04	06/09/05 13:18	1.0										+							
QC296864	MET04	06/09/05 13:20	1.0										+							
QC296865	MET04	06/09/05 13:22	1.0										+							

REPORTING SUMMARY FOR 179714 METALS Filtrate
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
QC296866	MET04	06/09/05 13:27	1.0										+								
QC296867	MET04	06/09/05 13:29	1.0										+								

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55228836 Instrument: MET05 Agilent ICP-MS Begun: 07-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	f0721001	TUN	TUNE			07-JUN-2005 21:56	1.0	1.0				1	
003	f0721003	ICALBLK	std-blk			07-JUN-2005 22:07	1.0	1.0				2	
004	f0721004	ICAL	CS1			07-JUN-2005 22:12	1.0	1.0				3	
005	f0721005	ICAL	CS2			07-JUN-2005 22:17	1.0	1.0				4	
006	f0721006	ICAL	CS3			07-JUN-2005 22:22	1.0	1.0				5	
007	f0721007	ICAL	CS4			07-JUN-2005 22:27	1.0	1.0				6	
008	f0721008	ICAL	CS5			07-JUN-2005 22:33	1.0	1.0				7	
009	f0721009	ICAL	CS6			07-JUN-2005 22:38	1.0	1.0				8	
012	f0721012	ICV				07-JUN-2005 22:54	1.0	1.0			1	9 2	
014	f0721014	ICB				07-JUN-2005 23:06	1.0	1.0			1	2	
015	f0721015	ICSA				07-JUN-2005 23:12	1.0	1.0			1	10 2	7:CA=352000
016	f0721016	ICSAB				07-JUN-2005 23:18	1.0	1.0			1	11 2	13:CA=336800
018	f0721018	BLANK	QC296480	102706	Water	07-JUN-2005 23:29	1.0	1.0			1	2	
019	f0721019	BS	QC296481	102706	Water	07-JUN-2005 23:35	1.0	1.0	4	1	1	2	
020	f0721020	BSD	QC296482	102706	Water	07-JUN-2005 23:41	1.0	1.0	4	2	1	2 spk	
021	f0721021	MSS	179720-007	102706	Water	07-JUN-2005 23:47	1.0	1.0	3		1	2	
022	f0721022	SER	QC296485	102706	Water	07-JUN-2005 23:53	5.0	1.0		1	1	2	
023	f0721023	MS	QC296483	102706	Water	07-JUN-2005 23:59	1.0	1.0	1		1	2	
024	f0721024	MSD	QC296484	102706	Water	08-JUN-2005 00:05	1.0	1.0	1		1	2	
025	f0721025	PDS	QC296486	102706	Water	08-JUN-2005 00:10	1.0	1.0	1		1	12 2	
027	f0721027	CCV				08-JUN-2005 00:22	1.0	1.0	4		1	13 2	
028	f0721028	X	RINSE			08-JUN-2005 00:28	1.0					2	
029	f0721029	CCB				08-JUN-2005 00:34	1.0	1.0			1	2	
030	f0721030	SAMPLE	179720-022	102706	Water	08-JUN-2005 00:40	1.0	1.0			1	2	3:MG=33830.0
031	f0721031	SAMPLE	179720-022	102706	Water	08-JUN-2005 00:46	10.0	1.0			1	2	
032	f0721032	SAMPLE	179698-021	102706	Filtra	08-JUN-2005 00:51	1.0	1.0			1	2	4:MG=422600
033	f0721033	SAMPLE	179645-001	102706	Water	08-JUN-2005 00:57	1.0	1.0	5		1	2 spk	4:NA=44210.0
034	f0721034	SAMPLE	179645-002	102706	Water	08-JUN-2005 01:03	1.0	1.0	6		1	2 spk	6:MG=96330.0
035	f0721035	SAMPLE	179714-001	102706	Filtra	08-JUN-2005 01:09	1.0	1.0			1	2	4:NA=204100
037	f0721037	CCV				08-JUN-2005 01:21	1.0	1.0			1	13 2	

Stds used: 1=S689 2=05WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S21 13=S687 14=S686
Flags used: spk=5% spike rule

Analyst: _____ Date: 6/7/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55228836 Instrument: MET05 Agilent ICP-MS Begun: 07-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
038	f0721038	X	RINSE	102706		08-JUN-2005 01:26	1.0					2	
039	f0721039	CCB				08-JUN-2005 01:32	1.0	1.0			1	2	
040	f0721040	ICSA				08-JUN-2005 01:38	1.0	1.0			1	10 2	7:CA=333800
041	f0721041	ICSAB				08-JUN-2005 01:44	1.0	1.0			1	11 2	13:CA=326000
043	f0721043	SAMPLE	179852-008	102706	Filtra	08-JUN-2005 01:56	1.0	1.0			1	2	5:MG=332500
044	f0721044	SAMPLE	179852-009	102706	Filtra	08-JUN-2005 02:02	1.0	1.0	1		1	2	5:MG=411200
045	f0721045	SAMPLE	179852-010	102706	Filtra	08-JUN-2005 02:08	1.0	1.0			1	2	5:MG=336800
046	f0721046	SAMPLE	179808-001	102671	Filtra	08-JUN-2005 02:13	1.0	1.0			1	2	3:MG=723000
049	f0721049	CCV				08-JUN-2005 02:31	1.0	1.0	4		1	13 2	
050	f0721050	X	RINSE	102706		08-JUN-2005 02:37	1.0					2	
051	f0721051	CCB				08-JUN-2005 02:43	1.0	1.0	3		1	2	
052	f0721052	MSS	179728-005	102706	Water	08-JUN-2005 02:48	1.0	1.0	6		1	2	3:CA=95860.0
053	f0721053	MS	QC296555	102706	Water	08-JUN-2005 02:54	1.0	1.0	2		1	2	5:CA=107000
054	f0721054	MSD	QC296556	102706	Water	08-JUN-2005 03:00	1.0	1.0	2		1	2	5:CA=110000
055	f0721055	SAMPLE	179728-002	102706	Water	08-JUN-2005 03:06	1.0	1.0			1	2	1:V=206.900
056	f0721056	SAMPLE	179728-003	102706	Water	08-JUN-2005 03:12	1.0	1.0	1		1	2	1:V=229.900
057	f0721057	SAMPLE	179728-014	102706	Water	08-JUN-2005 03:18	1.0	1.0			1	2	3:CA=211100
059	f0721059	CCV				08-JUN-2005 03:29	1.0	1.0	2		1	13 2	
060	f0721060	X	RINSE	102706		08-JUN-2005 03:35	1.0					2	
061	f0721061	CCB				08-JUN-2005 03:41	1.0	1.0	1		1	2	
062	f0721062	ICSA				08-JUN-2005 03:47	1.0	1.0			1	10 2	7:CA=345600
063	f0721063	ICSAB				08-JUN-2005 03:53	1.0	1.0			1	11 2	13:CA=345400
065	f0721065	MSS	179728-001	102706	Water	08-JUN-2005 04:04	1.0	1.0	9		1	2	8:CA=73720.0
066	f0721066	MS	QC296557	102706	Water	08-JUN-2005 04:10	1.0	1.0	4		1	2	10:CA=84040.0
067	f0721067	MSD	QC296558	102706	Water	08-JUN-2005 04:16	1.0	1.0	4		1	2	10:CA=82570.0
068	f0721068	MSS	179728-001	102706	Water	08-JUN-2005 04:22	10.0	1.0	3		1	2	2:NA=204000
069	f0721069	MS	QC296557	102706	Water	08-JUN-2005 04:28	10.0	1.0	1		1	2	2:NA=205200
070	f0721070	MSD	QC296558	102706	Water	08-JUN-2005 04:34	10.0	1.0	1	1	1	2	2:NA=217100
071	f0721071	MSS	179728-001	102706	Water	08-JUN-2005 04:40	100.0	1.0	1		1	2	1:NA=22360.0
072	f0721072	MS	QC296557	102706	Water	08-JUN-2005 04:45	100.0	1.0	2	2	1	2	1:NA=21470.0

Stds used: 1=S689 2=05WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S21 13=S687 14=S686
Flags used: spk=5% spike rule

Analyst: _____ Date: 6/7/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55228836 Instrument: MET05 Agilent ICP-MS Begun: 07-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
074	f0721074	CCV				08-JUN-2005 04:57	1.0	1.0			1	13 2	
075	f0721075	X	RINSE			08-JUN-2005 05:03	1.0					2	
076	f0721076	CCB				08-JUN-2005 05:09	1.0	1.0	1		1	2	
077	f0721077	MSD	QC296558	102706	Water	08-JUN-2005 05:15	100.0	1.0	6	3	1	2	1:NA=21650.0
078	f0721078	ICSA				08-JUN-2005 05:21	1.0	1.0			1	10 2	7:CA=340200
079	f0721079	ICSAB				08-JUN-2005 05:26	1.0	1.0			1	11 2	13:CA=344700
081	f0721081	CCV				08-JUN-2005 05:38	1.0	1.0	6		1	14 2	
082	f0721082	X	rinse blank			08-JUN-2005 05:44	1.0					2	
083	f0721083	CCB				08-JUN-2005 05:50	1.0	1.0			1	2	

167

Stds used: 1=S689 2=05WS0207 3=S679 4=S680 5=S681 6=S682 7=S677 8=S678 9=S685 10=S683 11=S684 12=S21 13=S687 14=S686
Flags used: spk=5% spike rule

Analyst: Melle Date: 6/7/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55228836001 Name: Type: (normal) Date: 07-JUN-2005 22:07 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	f0721004	55228836004	CS1	07-JUN-2005 22:12	S679
2	f0721005	55228836005	CS2	07-JUN-2005 22:17	S680
3	f0721006	55228836006	CS3	07-JUN-2005 22:22	S681
4	f0721007	55228836007	CS4	07-JUN-2005 22:27	S682
5	f0721008	55228836008	CS5	07-JUN-2005 22:33	S677
6	f0721009	55228836009	CS6	07-JUN-2005 22:38	S678

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		4.7647	2.2223	0.6735	0.5746	0.4938	BLNK	R	-7.28668	2.048319		ug/L	1.7458	0.995	0.995	
Antimony	0.3059	0.2835	0.2591	0.2425	0.2644	0.2499	BLNK	R	-0.05212	3.956974		ug/L	0.2676	0.999	0.995	
Arsenic		0.5436	0.4890	0.4183	0.4351	0.4072	BLNK	R	-0.06838	2.423510		ug/L	0.4586	0.999	0.995	
Barium	0.1514	0.1159	0.1015	0.0900	0.0939	0.0875	BLNK	R	-0.21590	11.27681		ug/L	0.1067	0.999	0.995	
Beryllium	0.1927	0.1815	0.1558	0.1556	0.1596	0.1526	BLNK	R	-0.06788	6.494944		ug/L	0.1663	1.000	0.995	
Cadmium	0.8675	0.5967	0.5083	0.4457	0.4527	0.4212	BLNK	R	-0.18344	2.341699		ug/L	0.5487	0.999	0.995	
Calcium		0.0306	0.0237	0.0181	0.0198	0.0176	BLNK	R	-39.8025	55.68987		ug/L	0.0219	0.996	0.995	
Chromium		8.1251	5.7320	3.7716	3.9429	3.6225	BLNK	R	-0.55763	0.272175		ug/L	5.0388	0.998	0.995	
Cobalt	4.3247	4.1401	3.8385	3.7744	4.0293	3.6893	BLNK	R	-0.02036	0.266181		ug/L	3.9660	0.998	0.995	
Copper		1.4390	1.1640	0.9259	0.9349	0.8646	BLNK	R	-0.33911	1.140342		ug/L	1.0657	0.998	0.995	
Iron		0.1744	0.1295	0.0960	0.1013	0.0931	BLNK	R	-39.7714	10.58290		ug/L	0.1189	0.998	0.995	
Lead	1.3026	1.1504	1.0597	1.0130	1.0790	1.0350	BLNK	R	-0.05762	0.958476		ug/L	1.1066	1.000	0.995	
Magnesium		0.0722	0.0654	0.0679	0.0671	0.0595	BLNK	R	-3.65762	16.38667		ug/L	0.0664	0.996	0.995	
Manganese	9.2581	6.9390	5.7573	4.8060	5.1048	4.6660	BLNK	R	-0.22729	0.210650		ug/L	6.0885	0.998	0.995	
Molybdenum		1.1850	1.0125	0.8948	0.9407	0.8908	BLNK	R	-0.14215	1.111119		ug/L	0.9848	0.999	0.995	
Nickel	1.6816	1.2236	0.9665	0.8368	0.8428	0.7758	BLNK	R	-0.24427	1.268877		ug/L	1.0545	0.998	0.995	
Potassium		2.2585	1.4081	0.6707	0.6274	0.5623	BLNK	R	-136.282	1.752109		ug/L	1.1054	0.997	0.995	
Selenium		0.0652	0.0455	0.0297	0.0281	0.0261	BLNK	R	-0.82573	37.93980		ug/L	0.0389	0.999	0.995	
Silver	2.5116	2.4511	2.3462	2.2659	2.3327	2.3764	BLNK	R	-0.03332	0.422476		ug/L	2.3807	1.000	0.995	
Sodium		2.2184	1.2744	0.7011	0.6644	0.5954	BLNK	R	-126.147	1.653887		ug/L	1.0907	0.997	0.995	

168

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55228836001 Name: Type: (normal) Date: 07-JUN-2005 22:07 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.8381	0.7753	0.7319	0.8810	0.8044	BLNK	R	-0.04200	1.220553		ug/L	0.8062	0.998	0.995	
Vanadium		6.3724	5.2756	4.1811	4.6221	4.2705	BLNK	R	-0.22741	0.230711		ug/L	4.9443	0.998	0.995	
Zinc		2.2402	1.4675	0.5442	0.4741	0.4340	BLNK	R	-1.80548	2.286673		ug/L	1.0320	0.998	0.995	

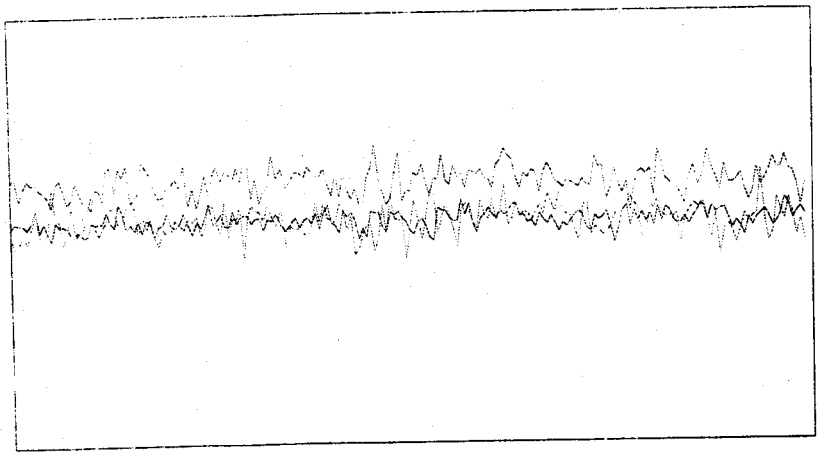
169

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U

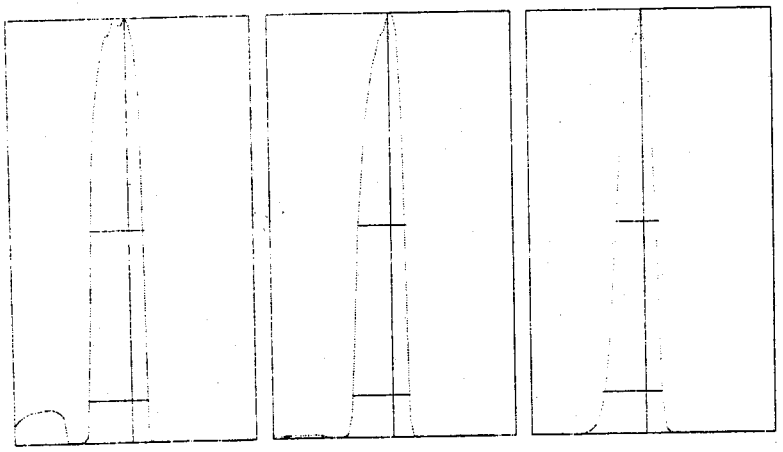


m/z:	7	89	205
Range:	50,000	50,000	50,000
Count:	26,149	29,935	23,212
Mean:	25952.7	30608.5	25983.9
RSD%:	3.76	5.05	6.62
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide: 156/140 0.45%
Doubly Charged: 70/140 1.49%
Background:

m/z:	7	89	205
Cps:	159.6	120.8	135.8



m/z:	7	89	205
Height:	26,175	30,546	28,942
Axis:	7.00	89.00	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.700	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===

RF Power:	1300 W
RF Matching:	1.7 V
Smpl Depth:	8 mm
Torch-H:	-0.2 mm
Torch-V:	-0.1 mm
Carrier Gas:	1.05 L/min
Makeup Gas:	0 L/min
Optional Gas:	--- %
PeriPump1:	0.1 rps
PeriPump2:	--- rps
S/C Temp:	2 degC

===Ion Lenses===

Extract 1:	-139.1 V
Extract 2:	-101 V
Einzel 1,3:	-110 V
Einzel 2:	-1 V
Omega Bias:	-38 V
Omega (+):	-2 V
Omega (-):	3 V
QP Focus:	1 V
Plate Bias:	-5 V

===Q-Pole Parameters===

AMU Gain:	128
AMU Offset:	127
Axis Gain:	1.0003
Axis Offset:	-0.03
QP Bias:	0 V

===Detector Parameters===

Discriminator:	9 mV
Analog HV:	2060 V
Pulse HV:	1820 V

Generated : Jun 06, 2005 11:17:49
Printed : Jun 06, 2005 11:17:55

P/A Factor Tuning Report

Acquired:Jun 6 2005 09:23 pm

Mass[amu]	Element	P/A Factor
6	Li	0.059295
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.079254
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.093017
45	Sc	0.088021
51	V	0.092371
52	Cr	0.094749
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.096226
57	Fe	0.099145
59	Co	0.099518
60	Ni	Sensitivity too low
63	Cu	0.102699
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.100216
95	Mo	Sensitivity too low
98	Mo	0.098896
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.108466
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.108057
118	(In)	0.107241
121	Sb	0.107263
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.112252
166	Er	Sensitivity too low

205	Tl	0.120214
206	(Pb)	0.115829
207	(Pb)	Sensitivity too low
208	Pb	0.118907
209	Bi	0.117582
232	Th	0.120315
238	U	0.120422

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2160 V
Pulse HV: 1900 V

P/A Factor Tuning Report

Acquired: Jun 6 2005 09:29 pm

Mass[amu]	Element	P/A Factor
6	Li	0.059148
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.079063
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.092271
45	Sc	0.088166
51	V	0.091714
52	Cr	0.094187
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.095731
57	Fe	0.098345
59	Co	0.099121
60	Ni	Sensitivity too low
63	Cu	0.101822
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.100272
95	Mo	Sensitivity too low
98	Mo	0.098896
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.107703
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.107990
118	(In)	0.105106
121	Sb	0.106284
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.112230
166	Er	Sensitivity too low

205	Tl	0.119187
206	(Pb)	0.115829
207	(Pb)	Sensitivity too low
208	Pb	0.117791
209	Bi	0.117447
232	Th	0.119662
238	U	0.119483

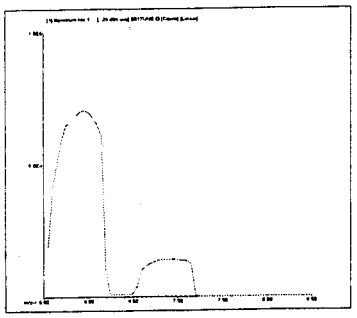
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2160 V
Pulse HV: 1900 V

6020 QC Tune Report

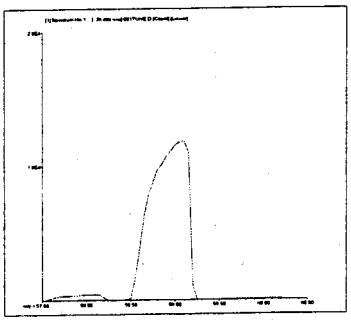
Data File: C:\ICPCHEM\1\DATA\05F0721c.B\001TUNE.D
Date Acquired: Jun 7 2005 09:56 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUNE,S689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

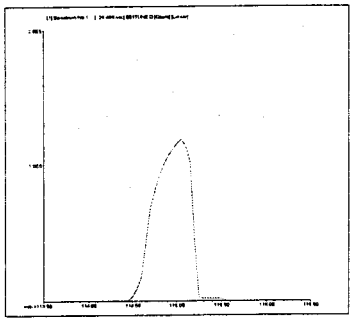
Element	Actual	Required	Flag
7 Li	0.71	5.00	
59 Co	1.65	5.00	
115 In	1.34	5.00	
205 Tl	2.66	5.00	



7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



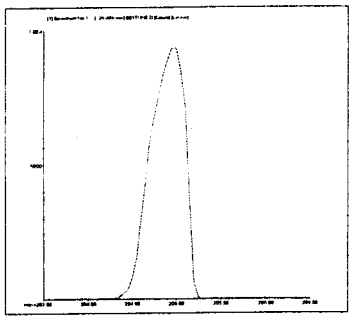
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	204.95	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\002BLNK.D\002BLNK.D#
Date Acquired: Jun 7 2005 10:01 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: Jun 07 2005 00:53 am
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01516	ppb	27.18	0.01516	1.00	
23 Na	95.55	ppb	2.13	95.55	1.00	
26 Mg	-0.71	ppb	11.20	-0.71	1.00	
27 Al	0.8643	ppb	2.59	0.8643	1.00	
39 K	15.17	ppb	13.14	15.17	1.00	
44 Ca	2.138	ppb	23.23	2.138	1.00	
51 V	-0.04511	ppb	94.08	-0.04511	1.00	
52 Cr	0.05613	ppb	14.94	0.05613	1.00	
55 Mn	-0.005133	ppb	365.87	-0.005133	1.00	
57 Fe	4.601	ppb	18.15	4.601	1.00	
59 Co	-0.01161	ppb	20.03	-0.01161	1.00	
60 Ni	0.07701	ppb	23.79	0.07701	1.00	
65 Cu	0.1446	ppb	16.43	0.1446	1.00	
66 Zn	-0.04047	ppb	56.49	-0.04047	1.00	
75 As	0.1937	ppb	9.83	0.1937	1.00	
82 Se	-0.18	ppb	115.83	-0.18	1.00	
95 Mo	0.01356	ppb	168.66	0.01356	1.00	
109 Ag	-0.01177	ppb	44.87	-0.01177	1.00	
111 Cd	-0.1062	ppb	35.96	-0.1062	1.00	
121 Sb	-0.08816	ppb	5.75	-0.08816	1.00	
137 Ba	0.04963	ppb	47.85	0.04963	1.00	
205 Tl	-0.03121	ppb	7.14	-0.03121	1.00	
208 Pb	-0.02242	ppb	13.31	-0.02242	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	679184.94	3.16	---	#VALUE!	30 - 200	
45 Sc	825293.50	0.39	---	#VALUE!	30 - 200	
72 Ge	143262.45	0.70	---	#VALUE!	30 - 200	

115 In	995368.19	2.64	---	#VALUE!	30 - 200
209 Bi	563392.19	0.70	---	#VALUE!	30 - 200

ISTD Ref File : ---

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05F0721c.B\003CAL
Date Acquired:	Jun 7 2005 10:07 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	Jun 07 2005 00:53 am
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	689642.81	A	14490.00	2.10
9	Be	144.44	P	25.89	17.92
23	Na	1281778.00	A	18960.00	1.48
26	Mg	3751.11	P	231.10	6.16
27	Al	59784.44	P	587.40	0.98
39	K	1307163.00	A	13730.00	1.05
44	Ca	12011.30	P	334.90	2.79
45	Sc	840274.50	A	1839.00	0.22
51	V	2833.44	P	256.40	9.05
52	Cr	5888.89	P	262.30	4.45
55	Mn	3101.11	P	110.00	3.55
57	Fe	10802.22	P	409.40	3.79
59	Co	220.00	P	29.06	13.21
60	Ni	553.33	P	52.39	9.47
65	Cu	854.43	P	54.81	6.41
66	Zn	2268.91	P	101.20	4.46
72	Ge	143702.00	P	905.60	0.63
75	As	80.84	P	120.50	149.05
82	Se	62.62	P	19.02	30.37
95	Mo	367.78	P	24.57	6.68
109	Ag	226.67	P	5.77	2.55
111	Cd	225.28	P	38.04	16.89
115	In	1033618.00	A	13610.00	1.32
121	Sb	272.22	P	42.86	15.74
137	Ba	395.56	P	27.95	7.07
205	Tl	401.11	P	68.10	16.98
208	Pb	697.78	P	51.24	7.34
209	Bi	581365.50	P	14580.00	2.51
232	Th	227.78	P	16.78	7.37
238	U	152.22	P	24.57	16.14

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\004CALI.D\004CALI.D#
Date Acquired: Jun 7 2005 10:12 pm
Operator:
Sample Name: CS1,S679
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:09 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	661956.13	A	4704.00	0.71
9	Be	637.78	P	22.19	3.48
23	Na	1468960.00	A	2046.00	0.14
26	Mg	29901.11	P	350.30	1.17
27	Al	28980.00	P	974.40	3.36
39	K	1556508.00	A	11090.00	0.71
44	Ca	16818.25	P	243.70	1.45
45	Sc	780443.88	A	3276.00	0.42
51	V	5873.36	P	333.60	5.68
52	Cr	9013.33	P	336.50	3.73
55	Mn	6441.11	P	227.00	3.52
57	Fe	17396.67	P	347.40	2.00
59	Co	3010.00	P	236.80	7.87
60	Ni	1170.00	P	21.86	1.87
65	Cu	1390.99	P	15.75	1.13
66	Zn	2971.26	P	50.92	1.71
72	Ge	139165.59	P	771.20	0.55
75	As	436.17	P	237.90	54.54
82	Se	83.24	P	13.71	16.47
95	Mo	1027.78	P	41.94	4.08
109	Ag	1747.78	P	132.70	7.59
111	Cd	603.63	P	46.95	7.78
115	In	976486.88	A	8897.00	0.91
121	Sb	1493.33	P	66.92	4.48
137	Ba	738.89	P	16.78	2.27
205	Tl	2656.67	P	20.82	0.78
208	Pb	3706.67	P	87.62	2.36
209	Bi	569061.13	P	4646.00	0.82
232	Th	2726.67	P	164.80	6.04
238	U	2991.11	P	73.13	2.44

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	661956.06	0.71	689642.81	96.0	30 - 200	
45 Sc	780443.94	0.42	840274.50	92.9	30 - 200	
72 Ge	139165.55	0.55	143702.00	96.8	30 - 200	
115 In	976486.94	0.91	1033617.60	94.5	30 - 200	
209 Bi	569061.06	0.82	581365.56	97.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\005CALI.D\005CALI.D#
Date Acquired: Jun 7 2005 10:17 pm
Operator:
Sample Name: CS2,S680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	666203.50	A	2773.00	0.42
9 Be	1208.89	P	66.19	5.48
23 Na	1781415.00	A	20660.00	1.16
26 Mg	57997.78	P	194.70	0.34
27 Al	38258.89	P	958.70	2.51
39 K	1813624.00	A	16110.00	0.89
44 Ca	24584.84	P	346.10	1.41
45 Sc	803049.31	A	4319.00	0.54
51 V	8899.10	P	622.50	7.00
52 Cr	11341.11	P	117.70	1.04
55 Mn	9685.55	P	36.57	0.38
57 Fe	24338.89	P	342.80	1.41
59 Co	5781.11	P	346.10	5.99
60 Ni	1707.78	P	38.63	2.26
65 Cu	2008.65	P	22.20	1.11
66 Zn	3128.07	P	165.30	5.28
72 Ge	139595.59	P	1432.00	1.03
75 As	758.62	P	97.75	12.89
82 Se	90.97	P	8.76	9.63
95 Mo	1654.44	P	51.03	3.08
109 Ag	3421.11	P	35.64	1.04
111 Cd	833.16	P	57.54	6.91
115 In	986815.19	A	6475.00	0.66
121 Sb	2797.78	P	97.54	3.49
137 Ba	1143.33	P	98.21	8.59
205 Tl	4830.00	P	152.10	3.15
208 Pb	6628.89	P	183.50	2.77
209 Bi	576236.63	P	11370.00	1.97
232 Th	5277.78	P	38.92	0.74
238 U	5833.33	P	40.00	0.69

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	666203.50	0.42	689642.81	96.6	30 - 200	
45 Sc	803049.31	0.54	840274.50	95.6	30 - 200	
72 Ge	139595.55	1.03	143702.00	97.1	30 - 200	
115 In	986815.19	0.66	1033617.60	95.5	30 - 200	
209 Bi	576236.63	1.97	581365.56	99.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\006CALI.D\006CALI.D#
Date Acquired: Jun 7 2005 10:22 pm
Operator:
Sample Name: CS3,S681
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:19 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	672376.19	A	8076.00	1.20
9 Be	2094.44	P	65.18	3.11
23 Na	2089786.00	A	7155.00	0.34
26 Mg	107213.30	P	431.80	0.40
27 Al	36447.78	P	787.40	2.16
39 K	2309471.00	A	21040.00	0.91
44 Ca	38811.18	P	377.20	0.97
45 Sc	820275.88	A	20290.00	2.47
51 V	15011.67	P	527.90	3.52
52 Cr	16308.89	P	359.40	2.20
55 Mn	16378.89	P	399.40	2.44
57 Fe	36851.11	P	235.70	0.64
59 Co	10921.11	P	196.20	1.80
60 Ni	2750.00	P	92.38	3.36
65 Cu	3311.78	P	114.20	3.45
66 Zn	4173.87	P	95.04	2.28
72 Ge	142252.91	P	1915.00	1.35
75 As	1391.19	P	196.90	14.15
82 Se	129.30	P	8.47	6.55
95 Mo	2881.11	P	111.10	3.86
109 Ag	6675.56	P	137.70	2.06
111 Cd	1446.21	P	43.07	2.98
115 In	1026370.00	A	24720.00	2.41
121 Sb	5318.89	P	176.40	3.32
137 Ba	2083.33	P	87.18	4.18
205 Tl	9424.44	P	385.00	4.09
208 Pb	12881.11	P	381.20	2.96
209 Bi	608017.69	P	25510.00	4.20
232 Th	10577.78	P	109.10	1.03
238 U	11740.00	P	86.22	0.73

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	672376.19	1.20	689642.81	97.5	30 - 200	
45 Sc	820275.88	2.47	840274.50	97.6	30 - 200	
72 Ge	142252.89	1.35	143702.00	99.0	30 - 200	
115 In	1026369.60	2.41	1033617.60	99.3	30 - 200	
209 Bi	608017.75	4.20	581365.56	104.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\007CALI.D\007CALI.D#
Date Acquired: Jun 7 2005 10:27 pm
Operator:
Sample Name: CS4,S682
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	669021.00	A	5806.00	0.87
9 Be	20821.11	P	372.80	1.79
23 Na	11702260.00	A	66980.00	0.57
26 Mg	1132713.00	A	11550.00	1.02
27 Al	112427.80	P	981.60	0.87
39 K	11195550.00	A	165200.00	1.48
44 Ca	302357.41	P	3518.00	1.16
45 Sc	834691.88	A	10030.00	1.20
51 V	120234.20	P	200.20	0.17
52 Cr	108456.70	P	527.90	0.49
55 Mn	138203.30	P	631.80	0.46
57 Fe	276086.69	P	623.20	0.23
59 Co	108543.30	P	2185.00	2.01
60 Ni	24062.22	P	30.97	0.13
65 Cu	26625.14	P	463.20	1.74
66 Zn	15650.11	P	115.50	0.74
72 Ge	143782.41	P	444.70	0.31
75 As	12029.59	P	126.50	1.05
82 Se	854.71	P	24.09	2.82
95 Mo	25733.33	P	400.30	1.56
109 Ag	65160.00	P	854.70	1.31
111 Cd	12815.50	P	119.80	0.93
115 In	1038327.00	A	16180.00	1.56
121 Sb	50356.66	P	799.90	1.59
137 Ba	18691.11	P	363.00	1.94
205 Tl	90301.11	P	2097.00	2.32
208 Pb	124955.60	P	2359.00	1.89
209 Bi	616848.88	P	13780.00	2.23
232 Th	107587.80	P	3134.00	2.91
238 U	116292.20	P	2674.00	2.30

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	669020.94	0.87	689642.81	97.0	30 - 200	
45 Sc	834691.88	1.20	840274.50	99.3	30 - 200	
72 Ge	143782.45	0.31	143702.00	100.1	30 - 200	
115 In	1038327.30	1.56	1033617.60	100.5	30 - 200	
209 Bi	616848.88	2.23	581365.56	106.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\008CALI.D\008CALI.D#
Date Acquired: Jun 7 2005 10:33 pm
Operator:
Sample Name: CS5,S677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:29 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	638516.00	A	8227.00	1.29
9 Be	203800.00	P	1054.00	0.52
23 Na	104048700.00	A	207200.00	0.20
26 Mg	10511700.00	A	45700.00	0.43
27 Al	899947.63	A	11220.00	1.25
39 K	98261200.00	A	1017000.00	1.04
44 Ca	3096196.00	A	21120.00	0.68
45 Sc	783101.13	A	8707.00	1.11
51 V	1262889.00	A	8085.00	0.64
52 Cr	1077307.00	A	9056.00	0.84
55 Mn	1394748.00	A	18430.00	1.32
57 Fe	2769142.00	A	10820.00	0.39
59 Co	1100915.00	A	9684.00	0.88
60 Ni	230270.00	P	950.60	0.41
65 Cu	255444.20	P	2188.00	0.86
66 Zn	129527.00	P	374.80	0.29
72 Ge	136614.70	P	557.80	0.41
75 As	118874.30	P	437.10	0.37
82 Se	7675.93	P	22.61	0.29
95 Mo	257035.50	P	3933.00	1.53
109 Ag	637351.13	P	14770.00	2.32
111 Cd	123677.70	P	985.50	0.80
115 In	958102.88	A	19500.00	2.04
121 Sb	506644.41	P	7306.00	1.44
137 Ba	179830.00	P	3339.00	1.86
205 Tl	1005705.00	A	17580.00	1.75
208 Pb	1231853.00	P	26520.00	2.15
209 Bi	570965.63	P	16680.00	2.92
232 Th	1220878.00	A	23500.00	1.92
238 U	1286352.00	A	42520.00	3.31

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	638515.94	1.29	689642.81	92.6	30 - 200	
45 Sc	783101.13	1.11	840274.50	93.2	30 - 200	
72 Ge	136614.67	0.41	143702.00	95.1	30 - 200	
115 In	958102.88	2.04	1033617.60	92.7	30 - 200	
209 Bi	570965.56	2.92	581365.56	98.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F0721c.B\009CALI.D\009CALI.D#
Date Acquired: Jun 7 2005 10:38 pm
Operator:
Sample Name: CS6,S678
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 07 2005 10:34 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	668214.19	A	5852.00	0.88
9	Be	407958.91	P	2432.00	0.60
23	Na	205518900.00	A	584000.00	0.28
26	Mg	20540430.00	A	131100.00	0.64
27	Al	1704569.00	A	12570.00	0.74
39	K	194131600.00	A	2486000.00	1.28
44	Ca	6061272.00	A	50130.00	0.83
45	Sc	863053.69	A	9642.00	1.12
51	V	2481117.00	A	27680.00	1.12
52	Cr	2104717.00	A	22090.00	1.05
55	Mn	2710798.00	A	24240.00	0.89
57	Fe	5406631.00	A	38800.00	0.72
59	Co	2143499.00	A	22470.00	1.05
60	Ni	450741.09	P	4608.00	1.02
65	Cu	502324.00	P	3482.00	0.69
66	Zn	252139.41	P	2389.00	0.95
72	Ge	145253.09	P	1690.00	1.16
75	As	236586.00	P	1565.00	0.66
82	Se	15155.44	P	230.10	1.52
95	Mo	517577.69	P	7336.00	1.42
109	Ag	1380661.00	A	7664.00	0.56
111	Cd	244712.50	P	1943.00	0.79
115	In	1052587.00	A	24540.00	2.33
121	Sb	1051998.00	A	10450.00	0.99
137	Ba	368457.81	P	4045.00	1.10
205	Tl	2006784.00	A	47220.00	2.35
208	Pb	2581863.00	A	37090.00	1.44
209	Bi	623677.69	P	10200.00	1.64
232	Th	2541499.00	A	20020.00	0.79
238	U	2610823.00	A	37250.00	1.43

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	668214.19	0.88	689642.81	96.9	30 - 200	
45 Sc	863053.69	1.12	840274.50	102.7	30 - 200	
72 Ge	145253.11	1.16	143702.00	101.1	30 - 200	
115 In	1052587.40	2.33	1033617.60	101.8	30 - 200	
209 Bi	623677.75	1.64	581365.56	107.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F0721c.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: Jun 07, 2005 22:39
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05f0721c.b\003calb.d\	003calb.d#	Jun 7 2005 10:07 pm
2	...hem\1\data\05f0721c.b\004cali.d\	004cali.d#	Jun 7 2005 10:12 pm
3	...hem\1\data\05f0721c.b\005cali.d\	005cali.d#	Jun 7 2005 10:17 pm
4	...hem\1\data\05f0721c.b\006cali.d\	006cali.d#	Jun 7 2005 10:22 pm
5	...hem\1\data\05f0721c.b\007cali.d\	007cali.d#	Jun 7 2005 10:27 pm
6	...hem\1\data\05f0721c.b\008cali.d\	008cali.d#	Jun 7 2005 10:33 pm
7	...hem\1\data\05f0721c.b\009cali.d\	009cali.d#	Jun 7 2005 10:38 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
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Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.540E-1*X +1.045E-2(blank)	---	ppb
Na	23	45	Y = 6.046E-1*X +7.627E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 6.103E-2*X +2.232E-1(blank)	---	ppb
Al	27	45	Y = 4.882E-1*X +3.557E+0(blank)	---	ppb
K	39	45	Y = 5.707E-1*X +7.778E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.796E-2*X +7.147E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 4.334E+0*X +9.857E-1(blank)	---	ppb
Cr	52	72	Y = 3.674E+0*X +2.049E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 4.747E+0*X +1.079E+0(blank)	---	ppb
Fe	57	72	Y = 9.449E-2*X +3.758E+0(blank)	---	ppb
Co	59	72	Y = 3.757E+0*X +7.651E-2(blank)	---	ppb
Ni	60	72	Y = 7.881E-1*X +1.925E-1(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 8.769E-1*X +2.974E-1(blank)	---	ppb
Zn	66	72	Y = 4.373E-1*X +7.896E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 4.126E-1*X +2.821E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.636E-2*X +2.176E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 9.000E-1*X +1.279E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.367E+0*X +7.886E-2(blank)	---	ppb
Cd	111	72	Y = 4.270E-1*X +7.834E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 2.527E-1*X +1.317E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 8.868E-2*X +1.915E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 8.193E-1*X +3.441E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 1.043E+0*X +6.011E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836012
Calnum : 55228836001
Standards: S685, 05WS0207

Run Name :
Filename : f0721012
Caldate : 07-JUN-2005

Injected : 07-JUN-2005 22:54
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	102.7000	ug/L	3	10	
Antimony	100.0000	98.06000	ug/L	-2	10	
Arsenic	100.0000	100.1000	ug/L	0	10	
Barium	100.0000	100.2000	ug/L	0	10	
Beryllium	100.0000	99.13000	ug/L	-1	10	
Cadmium	100.0000	102.1000	ug/L	2	10	
Calcium	10000.00	10400.00	ug/L	4	10	
Chromium	100.0000	101.7000	ug/L	2	10	
Cobalt	100.0000	102.8000	ug/L	3	10	
Copper	100.0000	100.9000	ug/L	1	10	
Iron	10000.00	10260.00	ug/L	3	10	
Lead	100.0000	98.59000	ug/L	-1	10	
Magnesium	10000.00	10370.00	ug/L	4	10	
Manganese	100.0000	102.3000	ug/L	2	10	
Molybdenum	100.0000	100.0000	ug/L	0	10	
Nickel	100.0000	101.2000	ug/L	1	10	
Potassium	10000.00	10330.00	ug/L	3	10	
Selenium	100.0000	101.1000	ug/L	1	10	
Silver	100.0000	94.91000	ug/L	-5	10	
Sodium	10000.00	10350.00	ug/L	4	10	
Thallium	100.0000	99.79000	ug/L	0	10	
Vanadium	100.0000	101.4000	ug/L	1	10	
Zinc	100.0000	101.1000	ug/L	1	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	652294	-5.42
Scandium	840275	809478	-3.67
Germanium	143702	140152	-2.47
Indium	1033618	1013039	-1.99
Bismuth	581366	603817	3.86

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836014
Standards: 05WS0207

Run Name :
Filename : f0721014

Injected : 07-JUN-2005 23:06

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	[0.0793]	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[12.110]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836015 Filename : f0721015 Injected : 07-JUN-2005 23:12
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55228836001	07-JUN-2005	2.544000	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	0.713400	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	0.966300	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	[0.0437]	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	[0.1268]	0.250000	ug/L	
Chromium	55228836001	07-JUN-2005	1.258000	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	2.754000	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	1.754000	0.500000	ug/L	
Lead	55228836001	07-JUN-2005	1.385000	0.250000	ug/L	
Manganese	55228836001	07-JUN-2005	1.007000	0.250000	ug/L	
Nickel	55228836001	07-JUN-2005	1.541000	0.250000	ug/L	
Selenium	55228836001	07-JUN-2005	[0.0464]	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	[0.1521]	0.250000	ug/L	
Thallium	55228836001	07-JUN-2005	[0.1460]	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	[0.1072]	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	4.137000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55228836001	07-JUN-2005	100000	114900	ug/L	115
Calcium	55228836001	07-JUN-2005	300000	352000	ug/L	117
Iron	55228836001	07-JUN-2005	250000	251100	ug/L	100
Magnesium	55228836001	07-JUN-2005	100000	120500	ug/L	121
Molybdenum	55228836001	07-JUN-2005	2000	2167	ug/L	108
Potassium	55228836001	07-JUN-2005	100000	113600	ug/L	114
Sodium	55228836001	07-JUN-2005	250000	280900	ug/L	112

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836016
Calnum : 55228836001
Standards: S684, 05WS0207

Run Name :
Filename : f0721016
Caldate : 07-JUN-2005

Injected : 07-JUN-2005 23:18
Caltype :

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	109500.0	ug/L	10		
Arsenic	100.0000	115.6000	ug/L	16	20	
Cadmium	100.0000	106.3000	ug/L	6	20	
Calcium	300000.0	336800.0	ug/L	12		
Chromium	200.0000	218.1000	ug/L	9	20	
Cobalt	200.0000	217.2000	ug/L	9	20	
Copper	200.0000	204.9000	ug/L	2	20	
Iron	250000.0	250000.0	ug/L	0		
Magnesium	100000.0	113900.0	ug/L	14		
Manganese	200.0000	219.0000	ug/L	10	20	
Molybdenum	2000.000	2139.000	ug/L	7		
Nickel	200.0000	208.8000	ug/L	4	20	
Potassium	100000.0	108800.0	ug/L	9		
Selenium	100.0000	108.8000	ug/L	9	20	
Silver	50.00000	48.36000	ug/L	-3	20	
Sodium	250000.0	266200.0	ug/L	6		
Vanadium	200.0000	223.2000	ug/L	12	20	
Zinc	100.0000	106.1000	ug/L	6	20	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Scandium	840275	702167	-16.44
Germanium	143702	127166	-11.51

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836027
Calnum : 55228836001
Standards: S687, 05WS0207

Run Name :
Filename : f0721027
Caldate : 07-JUN-2005

IDF : 1.0
Injected : 08-JUN-2005 00:22
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5689	150.0000	167.5000	ug/L	**12**	10	c+ ***
Antimony	0.2676	0.2668	150.0000	158.3000	ug/L	6	10	
Arsenic	0.4586	0.4330	150.0000	157.3000	ug/L	5	10	
Barium	0.1067	0.0964	150.0000	162.8000	ug/L	9	10	
Beryllium	0.1663	0.1579	150.0000	153.8000	ug/L	3	10	
Cadmium	0.5487	0.4602	150.0000	161.5000	ug/L	8	10	
Calcium	0.0219	0.0199	15000.00	16600.00	ug/L	**11**	10	c+ ***
Chromium	5.0388	3.8700	150.0000	157.4000	ug/L	5	10	
Cobalt	3.9660	3.9662	150.0000	158.3000	ug/L	6	10	
Copper	1.0657	0.9182	150.0000	156.7000	ug/L	4	10	
Iron	0.1189	0.0995	15000.00	15760.00	ug/L	5	10	
Lead	1.1066	1.1123	150.0000	159.9000	ug/L	7	10	
Magnesium	0.0664	0.0679	15000.00	16690.00	ug/L	**11**	10	c+ ***
Manganese	6.0885	5.0131	150.0000	158.2000	ug/L	5	10	
Molybdenum	0.9848	0.9644	150.0000	160.6000	ug/L	7	10	
Nickel	1.0545	0.8280	150.0000	157.3000	ug/L	5	10	
Potassium	1.1054	0.6308	15000.00	16440.00	ug/L	10	10	
Selenium	0.0389	0.0282	150.0000	159.4000	ug/L	6	10	
Silver	2.3807	2.4281	150.0000	153.8000	ug/L	3	10	
Sodium	1.0907	0.6758	15000.00	16640.00	ug/L	**11**	10	c+ ***
Thallium	0.8062	0.8747	150.0000	160.1000	ug/L	7	10	
Vanadium	4.9443	4.5609	150.0000	157.6000	ug/L	5	10	
Zinc	1.0320	0.4666	150.0000	158.2000	ug/L	5	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	619194	-10.22
Scandium	840275	741799	-11.72
Germanium	143702	133140	-7.35
Indium	1033618	946136	-8.46
Bismuth	581366	580538	-0.14

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836029 Filename : f0721029 Injected : 08-JUN-2005 00:34
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[21.330]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Thallium	55228836001	07-JUN-2005	[0.2462]	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55228836037 Filename : f0721037 Injected : 08-JUN-2005 01:21
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5382	150.0000	158.1000	ug/L	5	10	
Antimony	0.2676	0.2587	150.0000	153.5000	ug/L	2	10	
Arsenic	0.4586	0.4218	150.0000	153.3000	ug/L	2	10	
Barium	0.1067	0.0931	150.0000	157.3000	ug/L	5	10	
Beryllium	0.1663	0.1538	150.0000	149.8000	ug/L	0	10	
Cadmium	0.5487	0.4457	150.0000	156.4000	ug/L	4	10	
Calcium	0.0219	0.0187	15000.00	15590.00	ug/L	4	10	
Chromium	5.0388	3.7687	150.0000	153.3000	ug/L	2	10	
Cobalt	3.9660	3.8395	150.0000	153.3000	ug/L	2	10	
Copper	1.0657	0.8994	150.0000	153.5000	ug/L	2	10	
Iron	0.1189	0.0959	15000.00	15190.00	ug/L	1	10	
Lead	1.1066	1.0813	150.0000	155.4000	ug/L	4	10	
Magnesium	0.0664	0.0638	15000.00	15670.00	ug/L	4	10	
Manganese	6.0885	4.8697	150.0000	153.6000	ug/L	2	10	
Molybdenum	0.9848	0.9261	150.0000	154.2000	ug/L	3	10	
Nickel	1.0545	0.8023	150.0000	152.5000	ug/L	2	10	
Potassium	1.1054	0.5961	15000.00	15530.00	ug/L	4	10	
Selenium	0.0389	0.0274	150.0000	155.1000	ug/L	3	10	
Silver	2.3807	2.3884	150.0000	151.3000	ug/L	1	10	
Sodium	1.0907	0.6308	15000.00	15520.00	ug/L	3	10	
Thallium	0.8062	0.8400	150.0000	153.7000	ug/L	2	10	
Vanadium	4.9443	4.4581	150.0000	154.1000	ug/L	3	10	
Zinc	1.0320	0.4547	150.0000	154.1000	ug/L	3	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	671347	-2.65
Scandium	840275	838070	-0.26
Germanium	143702	144381	0.47
Indium	1033618	1037512	0.38
Bismuth	581366	627332	7.91

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836039
Standards: 05WS0207

Run Name :
Filename : f0721039 Injected : 08-JUN-2005 01:32

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	[0.0750]	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[19.750]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836040 Filename : f0721040 Injected : 08-JUN-2005 01:38
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55228836001	07-JUN-2005	2.379000	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	0.985200	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	0.955900	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	[0.0186]	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	[0.1746]	0.250000	ug/L	
Chromium	55228836001	07-JUN-2005	1.212000	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	2.706000	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	1.757000	0.500000	ug/L	
Lead	55228836001	07-JUN-2005	1.356000	0.250000	ug/L	
Manganese	55228836001	07-JUN-2005	1.037000	0.250000	ug/L	
Nickel	55228836001	07-JUN-2005	1.459000	0.250000	ug/L	
Selenium	55228836001	07-JUN-2005	[0.4594]	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	[0.1541]	0.250000	ug/L	
Thallium	55228836001	07-JUN-2005	[0.1489]	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	[0.1435]	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	4.000000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55228836001	07-JUN-2005	100000	108600	ug/L	109
Calcium	55228836001	07-JUN-2005	300000	333800	ug/L	111
Iron	55228836001	07-JUN-2005	250000	248800	ug/L	100
Magnesium	55228836001	07-JUN-2005	100000	112400	ug/L	112
Molybdenum	55228836001	07-JUN-2005	2000	2176	ug/L	109
Potassium	55228836001	07-JUN-2005	100000	108000	ug/L	108
Sodium	55228836001	07-JUN-2005	250000	263700	ug/L	105

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836041 Filename : f0721041 Injected : 08-JUN-2005 01:44
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	104100.0	ug/L	4		
Arsenic	100.0000	114.4000	ug/L	14	20	
Cadmium	100.0000	108.7000	ug/L	9	20	
Calcium	300000.0	326000.0	ug/L	9		
Chromium	200.0000	215.4000	ug/L	8	20	
Cobalt	200.0000	214.7000	ug/L	7	20	
Copper	200.0000	202.7000	ug/L	1	20	
Iron	250000.0	248600.0	ug/L	-1		
Magnesium	100000.0	108200.0	ug/L	8		
Manganese	200.0000	218.4000	ug/L	9	20	
Molybdenum	2000.000	2160.000	ug/L	8		
Nickel	200.0000	204.8000	ug/L	2	20	
Potassium	100000.0	105000.0	ug/L	5		
Selenium	100.0000	109.0000	ug/L	9	20	
Silver	50.00000	49.53000	ug/L	-1	20	
Sodium	250000.0	252800.0	ug/L	1		
Vanadium	200.0000	219.2000	ug/L	10	20	
Zinc	100.0000	104.3000	ug/L	4	20	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Scandium	840275	713031	-15.14
Germanium	143702	128246	-10.76

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55228836049 Filename : f0721049 Injected : 08-JUN-2005 02:31
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5691	150.0000	167.6000	ug/L	**12**	10	c+ ***
Antimony	0.2676	0.2671	150.0000	158.5000	ug/L	6	10	
Arsenic	0.4586	0.4297	150.0000	156.1000	ug/L	4	10	
Barium	0.1067	0.0952	150.0000	160.7000	ug/L	7	10	
Beryllium	0.1663	0.1579	150.0000	153.7000	ug/L	2	10	
Cadmium	0.5487	0.4554	150.0000	159.8000	ug/L	7	10	
Calcium	0.0219	0.0199	15000.00	16590.00	ug/L	**11**	10	c+ ***
Chromium	5.0388	4.0085	150.0000	163.1000	ug/L	9	10	
Cobalt	3.9660	4.1214	150.0000	164.5000	ug/L	10	10	
Copper	1.0657	0.9350	150.0000	159.6000	ug/L	6	10	
Iron	0.1189	0.1039	15000.00	16460.00	ug/L	10	10	
Lead	1.1066	1.1300	150.0000	162.4000	ug/L	8	10	
Magnesium	0.0664	0.0672	15000.00	16500.00	ug/L	10	10	
Manganese	6.0885	5.2284	150.0000	165.0000	ug/L	10	10	
Molybdenum	0.9848	0.9471	150.0000	157.7000	ug/L	5	10	
Nickel	1.0545	0.8518	150.0000	161.9000	ug/L	8	10	
Potassium	1.1054	0.6378	15000.00	16620.00	ug/L	**11**	10	c+ ***
Selenium	0.0389	0.0278	150.0000	157.5000	ug/L	5	10	
Silver	2.3807	2.3785	150.0000	150.7000	ug/L	0	10	
Sodium	1.0907	0.6765	15000.00	16660.00	ug/L	**11**	10	c+ ***
Thallium	0.8062	0.8937	150.0000	163.6000	ug/L	9	10	
Vanadium	4.9443	4.7415	150.0000	163.9000	ug/L	9	10	
Zinc	1.0320	0.4708	150.0000	159.7000	ug/L	6	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	681960	-1.11
Scandium	840275	827609	-1.51
Germanium	143702	139121	-3.19
Indium	1033618	980044	-5.18
Bismuth	581366	543996	-6.43

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836051 Filename : f0721051 Injected : 08-JUN-2005 02:43
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	[0.0719]	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	[36.480]	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	99.65000	50.00000	ug/L	ib ***
Manganese	55228836001	07-JUN-2005	0.425400	0.250000	ug/L	ib ***
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[37.140]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	758.8000	50.00000	ug/L	ib ***
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55228836059 Filename : f0721059 Injected : 08-JUN-2005 03:29
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S687, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5709	150.0000	168.1000	ug/L	**12**	10	c+ ***
Antimony	0.2676	0.2646	150.0000	157.0000	ug/L	5	10	
Arsenic	0.4586	0.4283	150.0000	155.6000	ug/L	4	10	
Barium	0.1067	0.0938	150.0000	158.4000	ug/L	6	10	
Beryllium	0.1663	0.1527	150.0000	148.7000	ug/L	-1	10	
Cadmium	0.5487	0.4596	150.0000	161.3000	ug/L	8	10	
Calcium	0.0219	0.0195	15000.00	16250.00	ug/L	8	10	
Chromium	5.0388	3.8166	150.0000	155.3000	ug/L	4	10	
Cobalt	3.9660	3.8907	150.0000	155.3000	ug/L	4	10	
Copper	1.0657	0.8960	150.0000	152.9000	ug/L	2	10	
Iron	0.1189	0.0989	15000.00	15660.00	ug/L	4	10	
Lead	1.1066	1.1004	150.0000	158.1000	ug/L	5	10	
Magnesium	0.0664	0.0666	15000.00	16360.00	ug/L	9	10	
Manganese	6.0885	5.0363	150.0000	158.9000	ug/L	6	10	
Molybdenum	0.9848	0.9552	150.0000	159.1000	ug/L	6	10	
Nickel	1.0545	0.8055	150.0000	153.1000	ug/L	2	10	
Potassium	1.1054	0.6207	15000.00	16180.00	ug/L	8	10	
Selenium	0.0389	0.0284	150.0000	160.9000	ug/L	7	10	
Silver	2.3807	2.4246	150.0000	153.6000	ug/L	2	10	
Sodium	1.0907	0.6905	15000.00	17000.00	ug/L	**13**	10	c+ ***
Thallium	0.8062	0.8528	150.0000	156.1000	ug/L	4	10	
Vanadium	4.9443	4.5093	150.0000	155.8000	ug/L	4	10	
Zinc	1.0320	0.4564	150.0000	154.8000	ug/L	3	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	682310	-1.06
Scandium	840275	833492	-0.81
Germanium	143702	146677	2.07
Indium	1033618	1064246	2.96
Bismuth	581366	630167	8.39

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Page 1 of 1

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Instid : MET05 Run Name :
Seqnum : 55228836061 Filename : f0721061 Injected : 08-JUN-2005 03:41
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	[0.0664]	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	i+
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	[0.0864]	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	106.0000	50.00000	ug/L	ib ***
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	i+
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836062 Filename : f0721062 Injected : 08-JUN-2005 03:47
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55228836001	07-JUN-2005	2.361000	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	0.799700	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	0.895400	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	[0.0110]	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	[0.1247]	0.250000	ug/L	
Chromium	55228836001	07-JUN-2005	1.193000	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	2.747000	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	1.749000	0.500000	ug/L	
Lead	55228836001	07-JUN-2005	1.337000	0.250000	ug/L	
Manganese	55228836001	07-JUN-2005	1.285000	0.250000	ug/L	
Nickel	55228836001	07-JUN-2005	1.489000	0.250000	ug/L	
Selenium	55228836001	07-JUN-2005	[0.1998]	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	[0.1500]	0.250000	ug/L	
Thallium	55228836001	07-JUN-2005	[0.1571]	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	[0.1354]	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	4.195000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55228836001	07-JUN-2005	100000	105900	ug/L	106
Calcium	55228836001	07-JUN-2005	300000	345600	ug/L	115
Iron	55228836001	07-JUN-2005	250000	251900	ug/L	101
Magnesium	55228836001	07-JUN-2005	100000	110100	ug/L	110
Molybdenum	55228836001	07-JUN-2005	2000	2230	ug/L	112
Potassium	55228836001	07-JUN-2005	100000	110900	ug/L	111
Sodium	55228836001	07-JUN-2005	250000	259900	ug/L	104

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836063 Filename : f0721063 Injected : 08-JUN-2005 03:53
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	105700.0	ug/L	6		
Arsenic	100.0000	113.2000	ug/L	13	20	
Cadmium	100.0000	113.7000	ug/L	14	20	
Calcium	300000.0	345400.0	ug/L	15		
Chromium	200.0000	217.5000	ug/L	9	20	
Cobalt	200.0000	216.5000	ug/L	8	20	
Copper	200.0000	203.2000	ug/L	2	20	
Iron	250000.0	251800.0	ug/L	1		
Magnesium	100000.0	109000.0	ug/L	9		
Manganese	200.0000	222.6000	ug/L	11	20	
Molybdenum	2000.000	2248.000	ug/L	12		
Nickel	200.0000	207.4000	ug/L	4	20	
Potassium	100000.0	110700.0	ug/L	11		
Selenium	100.0000	110.0000	ug/L	10	20	
Silver	50.00000	51.41000	ug/L	3	20	
Sodium	250000.0	258900.0	ug/L	4		
Vanadium	200.0000	221.7000	ug/L	11	20	
Zinc	100.0000	104.9000	ug/L	5	20	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Scandium	840275	641567	-23.65
Germanium	143702	121149	-15.69

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55228836074
Calnum : 55228836001
Standards: S687, 05WS0207

Run Name :
Filename : f0721074
Caldate : 07-JUN-2005

IDF : 1.0
Injected : 08-JUN-2005 04:57
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5352	150.0000	157.1000	ug/L	5	10	
Antimony	0.2676	0.2570	150.0000	152.5000	ug/L	2	10	
Arsenic	0.4586	0.4211	150.0000	153.0000	ug/L	2	10	
Barium	0.1067	0.0934	150.0000	157.8000	ug/L	5	10	
Beryllium	0.1663	0.1497	150.0000	145.8000	ug/L	-3	10	
Cadmium	0.5487	0.4676	150.0000	164.1000	ug/L	9	10	
Calcium	0.0219	0.0192	15000.00	16030.00	ug/L	7	10	
Chromium	5.0388	3.8451	150.0000	156.4000	ug/L	4	10	
Cobalt	3.9660	3.9437	150.0000	157.4000	ug/L	5	10	
Copper	1.0657	0.9011	150.0000	153.8000	ug/L	3	10	
Iron	0.1189	0.0994	15000.00	15730.00	ug/L	5	10	
Lead	1.1066	1.0932	150.0000	157.1000	ug/L	5	10	
Magnesium	0.0664	0.0626	15000.00	15380.00	ug/L	3	10	
Manganese	6.0885	5.0986	150.0000	160.9000	ug/L	7	10	
Molybdenum	0.9848	0.9588	150.0000	159.7000	ug/L	6	10	
Nickel	1.0545	0.8209	150.0000	156.0000	ug/L	4	10	
Potassium	1.1054	0.6081	15000.00	15840.00	ug/L	6	10	
Selenium	0.0389	0.0279	150.0000	158.0000	ug/L	5	10	
Silver	2.3807	2.4740	150.0000	156.7000	ug/L	4	10	
Sodium	1.0907	0.6333	15000.00	15580.00	ug/L	4	10	
Thallium	0.8062	0.8620	150.0000	157.8000	ug/L	5	10	
Vanadium	4.9443	4.5184	150.0000	156.1000	ug/L	4	10	
Zinc	1.0320	0.4601	150.0000	156.0000	ug/L	4	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	647752	-6.07
Scandium	840275	780370	-7.13
Germanium	143702	136023	-5.34
Indium	1033618	1025189	-0.82
Bismuth	581366	623442	7.24

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836076 Filename : f0721076 Injected : 08-JUN-2005 05:09
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	[0.0736]	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	[0.0678]	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[32.450]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	170.9000	50.00000	ug/L	ib ***
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836078 Filename : f0721078 Injected : 08-JUN-2005 05:21
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55228836001	07-JUN-2005	2.439000	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	1.115000	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	0.950800	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	[0.0048]	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	[0.1340]	0.250000	ug/L	
Chromium	55228836001	07-JUN-2005	1.169000	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	2.818000	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	1.725000	0.500000	ug/L	
Lead	55228836001	07-JUN-2005	1.318000	0.250000	ug/L	
Manganese	55228836001	07-JUN-2005	1.079000	0.250000	ug/L	
Nickel	55228836001	07-JUN-2005	1.507000	0.250000	ug/L	
Selenium	55228836001	07-JUN-2005	[0.0990]	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	[0.1650]	0.250000	ug/L	
Thallium	55228836001	07-JUN-2005	[0.1037]	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	[0.1105]	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	4.071000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55228836001	07-JUN-2005	100000	104900	ug/L	105
Calcium	55228836001	07-JUN-2005	300000	340200	ug/L	113
Iron	55228836001	07-JUN-2005	250000	251800	ug/L	101
Magnesium	55228836001	07-JUN-2005	100000	107900	ug/L	108
Molybdenum	55228836001	07-JUN-2005	2000	2238	ug/L	112
Potassium	55228836001	07-JUN-2005	100000	109800	ug/L	110
Sodium	55228836001	07-JUN-2005	250000	256200	ug/L	102

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836079 Filename : f0721079 Injected : 08-JUN-2005 05:26
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	104700.0	ug/L	5		
Arsenic	100.0000	112.7000	ug/L	13	20	
Cadmium	100.0000	114.0000	ug/L	14	20	
Calcium	300000.0	344700.0	ug/L	15		
Chromium	200.0000	216.1000	ug/L	8	20	
Cobalt	200.0000	215.1000	ug/L	8	20	
Copper	200.0000	201.7000	ug/L	1	20	
Iron	250000.0	251400.0	ug/L	1		
Magnesium	100000.0	107900.0	ug/L	8		
Manganese	200.0000	222.1000	ug/L	11	20	
Molybdenum	2000.000	2247.000	ug/L	12		
Nickel	200.0000	206.0000	ug/L	3	20	
Potassium	100000.0	110500.0	ug/L	11		
Selenium	100.0000	109.9000	ug/L	10	20	
Silver	50.00000	51.96000	ug/L	4	20	
Sodium	250000.0	255900.0	ug/L	2		
Vanadium	200.0000	219.5000	ug/L	10	20	
Zinc	100.0000	105.1000	ug/L	5	20	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Scandium	840275	613597	-26.98
Germanium	143702	116405	-19.00

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55228836081 Filename : f0721081 Injected : 08-JUN-2005 05:38
Calnum : 55228836001 Caldate : 07-JUN-2005 Caltype :
Standards: S686, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.7458	0.5888	100.0000	113.3000	ug/L	**13**	10	c+ ***
Antimony	0.2676	0.2643	100.0000	104.5000	ug/L	5	10	
Arsenic	0.4586	0.4295	100.0000	104.0000	ug/L	4	10	
Barium	0.1067	0.0961	100.0000	108.1000	ug/L	8	10	
Beryllium	0.1663	0.1539	100.0000	99.89000	ug/L	0	10	
Cadmium	0.5487	0.5001	100.0000	116.9000	ug/L	**17**	10	c+ ***
Calcium	0.0219	0.0212	10000.00	11790.00	ug/L	**18**	10	c+ ***
Chromium	5.0388	3.8400	100.0000	104.0000	ug/L	4	10	
Cobalt	3.9660	4.0228	100.0000	107.1000	ug/L	7	10	
Copper	1.0657	0.9149	100.0000	104.0000	ug/L	4	10	
Iron	0.1189	0.1021	10000.00	10770.00	ug/L	8	10	
Lead	1.1066	1.0809	100.0000	103.5000	ug/L	4	10	
Magnesium	0.0664	0.0672	10000.00	11010.00	ug/L	10	10	
Manganese	6.0885	5.1396	100.0000	108.0000	ug/L	8	10	
Molybdenum	0.9848	1.0215	100.0000	113.4000	ug/L	**13**	10	c+ ***
Nickel	1.0545	0.8269	100.0000	104.7000	ug/L	5	10	
Potassium	1.1054	0.6610	10000.00	11450.00	ug/L	**15**	10	c+ ***
Selenium	0.0389	0.0292	100.0000	109.8000	ug/L	10	10	
Silver	2.3807	2.5497	100.0000	107.7000	ug/L	8	10	
Sodium	1.0907	0.6767	10000.00	11070.00	ug/L	**11**	10	c+ ***
Thallium	0.8062	0.8641	100.0000	105.4000	ug/L	5	10	
Vanadium	4.9443	4.5059	100.0000	103.7000	ug/L	4	10	
Zinc	1.0320	0.4714	100.0000	106.0000	ug/L	6	10	

ISTD (ICALBLK=f0721003)	ICALBLK Abund	Abund	%Diff
Lithium	689643	544699	-21.02
Scandium	840275	641159	-23.70
Germanium	143702	123674	-13.94
Indium	1033618	969725	-6.18
Bismuth	581366	618507	6.39

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55228836083 Filename : f0721083 Injected : 08-JUN-2005 05:50
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Antimony	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Arsenic	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Barium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Beryllium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Cadmium	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Calcium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Chromium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Cobalt	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Copper	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Iron	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Lead	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Magnesium	55228836001	07-JUN-2005	ND	50.00000	ug/L	
Manganese	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55228836001	07-JUN-2005	[0.3404]	0.500000	ug/L	
Nickel	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Potassium	55228836001	07-JUN-2005	[26.310]	50.00000	ug/L	
Selenium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Silver	55228836001	07-JUN-2005	ND	0.250000	ug/L	
Sodium	55228836001	07-JUN-2005	[49.280]	50.00000	ug/L	
Thallium	55228836001	07-JUN-2005	ND	0.500000	ug/L	
Vanadium	55228836001	07-JUN-2005	ND	1.000000	ug/L	
Zinc	55228836001	07-JUN-2005	ND	1.000000	ug/L	

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55240136 Instrument: MET05 Agilent ICP-MS Begun: 15-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	f1518001	TUN				15-JUN-2005 18:16	1.0	1.0				1	
003	f1518003	ICALBLK	std-blk			15-JUN-2005 18:27	1.0	1.0				2	
004	f1518004	ICAL	cs1s679			15-JUN-2005 18:33	1.0	1.0				2	
005	f1518005	ICAL	cs2			15-JUN-2005 18:38	1.0	1.0				3	
006	f1518006	ICAL	cs3			15-JUN-2005 18:43	1.0	1.0				4	
007	f1518007	ICAL	cs4			15-JUN-2005 18:48	1.0	1.0				5	
008	f1518008	ICAL	cs5			15-JUN-2005 18:53	1.0	1.0				6	
009	f1518009	ICAL	cs6			15-JUN-2005 18:59	1.0	1.0				7	
010	f1518010	ICV				15-JUN-2005 19:03	1.0	1.0			1	8	
012	f1518012	ICB				15-JUN-2005 19:15	1.0	1.0			1	2	
013	f1518013	ICSA				15-JUN-2005 19:21	1.0	1.0	1		1	9 2	6:CA=294800
014	f1518014	ICSAB				15-JUN-2005 19:27	1.0	1.0			1	10 2	10:CA=301700
016	f1518016	BLANK	QC297530	102961	Filtra	15-JUN-2005 19:38	1.0	1.0	1		1	2	
017	f1518017	BS	QC297531	102961	Filtra	15-JUN-2005 19:44	1.0	1.0	7		1	2	
018	f1518018	BSD	QC297532	102961	Filtra	15-JUN-2005 19:50	1.0	1.0	7		1	2	
019	f1518019	MSS	180014-001	102961	Filtra	15-JUN-2005 19:56	1.0	1.0	7		1	2	3:MG=956300
020	f1518020	SER	QC297535	102961	Filtra	15-JUN-2005 20:02	5.0	1.0		1	1	2	3:MG=192680
021	f1518021	MS	QC297533	102961	Filtra	15-JUN-2005 20:07	1.0	1.0	4	4	1	2	3:MG=904800
022	f1518022	MSD	QC297534	102961	Filtra	15-JUN-2005 20:13	1.0	1.0	4	3	1	2	3:MG=903200
023	f1518023	PDS	QC297536	102961	Filtra	15-JUN-2005 20:19	1.0	1.0	4	3	1	11	3:MG=987300
026	f1518026	CCV				15-JUN-2005 20:37	1.0	1.0	6		1	12	
027	f1518027	X	rinse			15-JUN-2005 20:42	1.0					2	
028	f1518028	CCB				15-JUN-2005 20:48	1.0	1.0	1		1	2	
029	f1518029	BLANK	QC296480	102706	Water	15-JUN-2005 20:54	1.0	1.0	1		1	2	
030	f1518030	BS	QC296481	102706	Water	15-JUN-2005 21:00	1.0	1.0	7		1	2	
031	f1518031	BSD	QC296482	102706	Water	15-JUN-2005 21:06	1.0	1.0	7		1	2	
032	f1518032	MSS	179720-007	102706	Water	15-JUN-2005 21:11	1.0	1.0	3		1	2	
033	f1518033	SER	QC296485	102706	Water	15-JUN-2005 21:17	5.0	1.0		2	1	2	
034	f1518034	MS	QC296483	102706	Water	15-JUN-2005 21:23	1.0	1.0	6	1	1	2	
035	f1518035	MSD	QC296484	102706	Water	15-JUN-2005 21:29	1.0	1.0	6	2	1	2	
036	f1518036	PDS	QC296486	102706	Water	15-JUN-2005 21:35	1.0	1.0	6		1	11	

Stds used: 1=S689 2=05WS0207 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S21 12=S686

Analyst: Marwan Date: 6/15/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55240136 Instrument: MET05 Agilent ICP-MS Begun: 15-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
037	f1518037	MSS	179720-007	102706	Water	15-JUN-2005 21:41	10.0	1.0	1		1	2	
038	f1518038	SER	QC296485	102706	Water	15-JUN-2005 21:47	50.0	1.0			1	2	
041	f1518041	CCV				15-JUN-2005 22:04	1.0	1.0			1	12	
042	f1518042	X	rinse			15-JUN-2005 22:10	1.0					2	
043	f1518043	CCB				15-JUN-2005 22:16	1.0	1.0	1		1	2	
044	f1518044	MS	QC296483	102706	Water	15-JUN-2005 22:22	10.0	1.0	3		1	2	
045	f1518045	MSD	QC296484	102706	Water	15-JUN-2005 22:28	10.0	1.0	3	1	1	2	
046	f1518046	PDS	QC296486	102706	Water	15-JUN-2005 22:34	10.0	1.0	3		1	11	
047	f1518047	SAMPLE	179645-001	102706	Water	15-JUN-2005 22:40	10.0	1.0	1		1	2	1:AL=1260.00
048	f1518048	SAMPLE	179645-002	102706	Water	15-JUN-2005 22:45	10.0	1.0	1		1	2	1:AL=445.600
049	f1518049	SAMPLE	179728-003	102706	Water	15-JUN-2005 22:51	1.0	1.0			1	2	1:V=261.600
050	f1518050	MSS	179728-005	102706	Water	15-JUN-2005 22:57	1.0	1.0	5		1	2	3:CA=84940.0
052	f1518052	CCV				15-JUN-2005 23:09	1.0	1.0	3		1	12	
053	f1518053	X	rinse	102706		15-JUN-2005 23:15	1.0					2	
054	f1518054	CCB				15-JUN-2005 23:20	1.0	1.0	1		1	2	
055	f1518055	ICSA				15-JUN-2005 23:26	1.0	1.0			1	9 2	7:CA=335800
056	f1518056	ICSAB				15-JUN-2005 23:32	1.0	1.0			1	10 2	10:CA=320300
057	f1518057	X	rinse	102706		15-JUN-2005 23:38	1.0					2	
058	f1518058	SAMPLE	179852-009	102706	Filtra	15-JUN-2005 23:44	1.0	1.0	1		1	2	5:MG=410200
059	f1518059	SAMPLE	179893-001	102845	Filtra	15-JUN-2005 23:50	1.0	1.0	1		1	2	4:MG=792400
060	f1518060	SAMPLE	179893-002	102845	Filtra	15-JUN-2005 23:56	1.0	1.0	1		1	2	4:MG=828900
063	f1518063	SAMPLE	179742-001	102729	Water	16-JUN-2005 00:13	1.0	1.0			1	2	1:NA=126300
064	f1518064	SAMPLE	179742-002	102729	Water	16-JUN-2005 00:19	1.0	1.0			1	2	2:CA=56800.0
065	f1518065	SAMPLE	179742-003	102729	Water	16-JUN-2005 00:25	1.0	1.0			1	2	2:NA=179600
066	f1518066	SAMPLE	179742-004	102729	Water	16-JUN-2005 00:31	1.0	1.0			1	2	
067	f1518067	SAMPLE	179742-005	102729	Water	16-JUN-2005 00:37	1.0	1.0			1	2	3:CA=626100
070	f1518070	CCV				16-JUN-2005 00:54	1.0	1.0	9		1	12	
071	f1518071	X	rinse			16-JUN-2005 01:00	1.0					2	
072	f1518072	CCB				16-JUN-2005 01:06	1.0	1.0	1		1	2	
073	f1518073	SAMPLE	179742-006	102729	Water	16-JUN-2005 01:12	1.0	1.0			1	2	2:NA=100800
074	f1518074	SAMPLE	179742-007	102729	Water	16-JUN-2005 01:18	1.0	1.0			1	2	1:NA=109500

Stds used: 1=S689 2=05WS0207 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S21 12=S686

Analyst: [signature] Date: 6/16/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55240136 Instrument: MET05 Agilent ICP-MS Begun: 15-JUN-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
075	f1518075	SAMPLE	179742-008	102729	Water	16-JUN-2005 01:24	1.0	1.0	1	1	2	6:NA=85400.0
076	f1518076	SAMPLE	179742-009	102729	Water	16-JUN-2005 01:29	1.0	1.0		1	2	3:CA=145800
077	f1518077	SAMPLE	179742-010	102729	Water	16-JUN-2005 01:35	1.0	1.0	1	1	2	2:NA=147600
078	f1518078	SAMPLE	179742-011	102729	Water	16-JUN-2005 01:41	1.0	1.0	1	1	2	5:CA=137200
079	f1518079	SAMPLE	179742-012	102729	Water	16-JUN-2005 01:47	1.0	1.0	1	1	2	5:NA=127600
080	f1518080	SAMPLE	179742-013	102729	Water	16-JUN-2005 01:53	1.0	1.0		1	2	2:CA=27040.0
081	f1518081	SAMPLE	179742-014	102729	Water	16-JUN-2005 01:59	1.0	1.0		1	2	3:CA=152300
082	f1518082	SAMPLE	179742-015	102729	Water	16-JUN-2005 02:05	1.0	1.0		1	2	3:CA=248000
085	f1518085	CCV				16-JUN-2005 02:22	1.0	1.0	8	1	12	
086	f1518086	X	rinse			16-JUN-2005 02:28	1.0				2	
087	f1518087	CCB				16-JUN-2005 02:34	1.0	1.0		1	2	
088	f1518088	SAMPLE	179742-016	102729	Water	16-JUN-2005 02:40	1.0	1.0	1	1	2	5:CA=89690.0
089	f1518089	SAMPLE	179742-017	102729	Water	16-JUN-2005 02:46	1.0	1.0		1	2	2:NA=118000
090	f1518090	SAMPLE	179742-018	102729	Water	16-JUN-2005 02:52	1.0	1.0		1	2	3:CA=336200
091	f1518091	SAMPLE	179742-019	102729	Water	16-JUN-2005 02:58	1.0	1.0		1	2	3:CA=54350.0
092	f1518092	SAMPLE	179742-020	102729	Water	16-JUN-2005 03:03	1.0	1.0	1	1	2	4:CA=136200
093	f1518093	CCV				16-JUN-2005 03:09	1.0	1.0	3	1	12	
095	f1518095	CCB				16-JUN-2005 03:21	1.0	1.0	1	1	2	
096	f1518096	ICSA				16-JUN-2005 03:27	1.0	1.0		1	9 2	7:CA=325300
097	f1518097	ICSAB				16-JUN-2005 03:33	1.0	1.0		1	10 2	11:CA=298100

218

Stds used: 1=S689 2=05WS0207 3=S680 4=S681 5=S682 6=S677 7=S678 8=S685 9=S683 10=S684 11=S21 12=S686

Analyst: _____ Date: 6/15/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55240136001 Name: Type: (normal) Date: 15-JUN-2005 18:27 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	f1518005	55240136005	cs2	15-JUN-2005 18:38	S680
2	f1518006	55240136006	cs3	15-JUN-2005 18:43	S681
3	f1518007	55240136007	cs4	15-JUN-2005 18:48	S682
4	f1518008	55240136008	cs5	15-JUN-2005 18:53	S677
5	f1518009	55240136009	cs6	15-JUN-2005 18:59	S678

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum	4.5849	2.4947	0.8130	0.7373	0.6802	BLNK	R	-9.06980	1.526756		ug/L	1.8620	0.996	0.995	
Antimony	0.3196	0.2972	0.2740	0.2899	0.2885	BLNK	R	-0.03836	3.464162		ug/L	0.2938	1.000	0.995	
Arsenic	0.4933	0.4427	0.4626	0.4753	0.4678	BLNK	R	0.117861	2.129448		ug/L	0.4683	1.000	0.995	
Barium	0.1530	0.1276	0.1040	0.1083	0.1067	BLNK	R	-0.22439	9.357030		ug/L	0.1199	1.000	0.995	
Beryllium	0.2150	0.1937	0.1764	0.1783	0.1627	BLNK	R	-0.11910	6.032929		ug/L	0.1852	0.998	0.995	
Cadmium	0.7013	0.6590	0.5579	0.5425	0.5252	BLNK	R	-0.14818	1.893104		ug/L	0.5972	1.000	0.995	
Calcium	0.0315	0.0267	0.0226	0.0234	0.0226	BLNK	R	-26.8877	44.02489		ug/L	0.0254	1.000	0.995	
Chromium	7.1079	5.2175	3.5443	3.4261	3.3762	BLNK	R	-0.51820	0.296235		ug/L	4.5344	1.000	0.995	
Cobalt	4.2495	4.2217	4.0514	4.0510	3.9196	BLNK	R	-0.01996	0.253444		ug/L	4.0987	1.000	0.995	
Copper	1.2189	1.1623	1.0279	1.0215	1.0015	BLNK	R	-0.09893	0.995089		ug/L	1.0864	1.000	0.995	
Iron	0.1463	0.1219	0.0987	0.0974	0.0954	BLNK	R	-24.1523	10.44883		ug/L	0.1119	1.000	0.995	
Lead	1.3376	1.2615	1.2294	1.2445	1.2306	BLNK	R	-0.03008	0.810944		ug/L	1.2607	1.000	0.995	
Magnesium	0.0925	0.0883	0.0863	0.0872	0.0846	BLNK	R	-2.30070	11.74482		ug/L	0.0878	1.000	0.995	
Manganese	5.7425	5.3512	4.7399	4.7528	4.6404	BLNK	R	-0.08077	0.214559		ug/L	5.0454	1.000	0.995	
Molybdenum	1.3797	1.1752	0.9784	1.0147	0.9973	BLNK	R	-0.24160	1.000753		ug/L	1.1091	1.000	0.995	
Nickel	1.0621	0.9539	0.8943	0.8851	0.8607	BLNK	R	-0.10659	1.156006		ug/L	0.9312	1.000	0.995	
Potassium	1.8077	1.2387	0.7290	0.7081	0.6924	BLNK	R	-71.1866	1.443931		ug/L	1.0352	1.000	0.995	
Selenium	0.0692	0.0569	0.0409	0.0390	0.0376	BLNK	R	-0.34687	26.46984		ug/L	0.0487	1.000	0.995	
Silver	2.8814	2.7748	2.6394	2.6054	2.5021	BLNK	R	-0.02310	0.396416		ug/L	2.6806	1.000	0.995	
Sodium	1.2967	1.0789	0.8529	0.8834	0.8650	BLNK	R	-15.3256	1.152271		ug/L	0.9954	1.000	0.995	
Thallium	0.9501	0.9592	0.9108	0.9560	0.9135	BLNK	R	-0.04258	1.084934		ug/L	0.9379	0.999	0.995	

219

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55240136001 Name: Type: (normal) Date: 15-JUN-2005 18:27 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Vanadium	5.2640	4.6510	3.8332	3.8698	3.8048	BLNK	R	-0.18040	0.262223		ug/L	4.2846	1.000	0.995	
Zinc	1.3278	0.9232	0.5835	0.5425	0.5297	BLNK	R	-0.48923	1.884127		ug/L	0.7813	1.000	0.995	

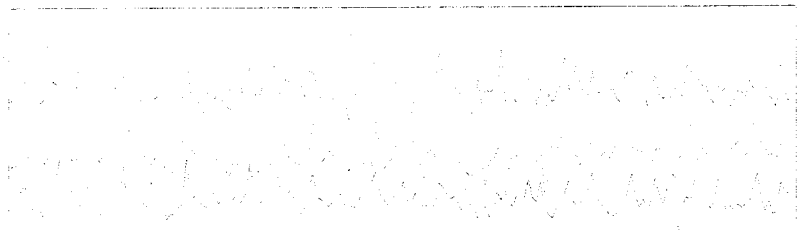
220

Curves: BLNK: Y=aX+[b]ank]

Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



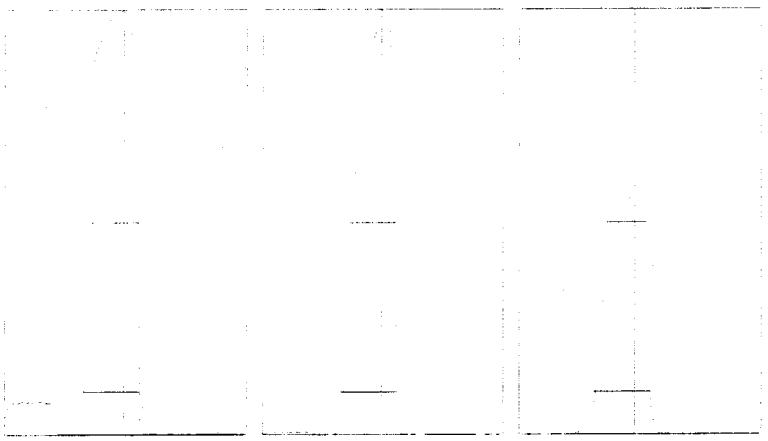
m/z:	7	89	205
Range:	50,000	50,000	50,000
Count:	28,168	38,916	31,883
Mean:	27500.1	40353.9	32863.1
RSD%:	5.09	4.05	4.43
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.46%
Doubly Charged:	70/140	1.60%

Background:

m/z:	7	89	205
Cps:	343.8	179.8	128.6



m/z:	7	89	205
Height:	27,700	39,893	36,836
Axis:	7.00	89.00	204.95
W-50%:	0.65	0.60	0.50
W-10%:	0.700	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===	
RF Power:	1250	W	Extract 1:	-130.1	V	AMU Gain:	128
RF Matching:	1.7	V	Extract 2:	-84	V	AMU Offset:	128
Smpl Depth:	8	mm	Einzel 1,3:	-120	V	Axis Gain:	1.0003
Torch-H:	-0.2	mm	Einzel 2:	11	V	Axis Offset:	-0.03
Torch-V:	-0.1	mm	Omega Bias:	-38	V	QP Bias:	0 V
Carrier Gas:	1.06	L/min	Omega (+):	3.4	V		
Makeup Gas:	0	L/min	Omega (-):	-3	V	===Detector Parameters===	
Optional Gas:	---	%	QP Focus:	-4	V	Discriminator:	9 mV
PeriPump1:	0.1	rps	Plate Bias:	0	V	Analog HV:	2160 V
PeriPump2:	---	rps				Pulse HV:	1900 V
S/C Temp:	2	degC					

Generated : Jun 15, 2005 11:13:14
Printed : Jun 15, 2005 11:13:20

P/A Factor Tuning Report

Acquired:Jun 15 2005 11:34 am

Mass[amu]	Element	P/A Factor
6	Li	0.052618
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.070584
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	Sensitivity too high
45	Sc	0.077550
51	V	0.082195
52	Cr	0.084323
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.085863
57	Fe	0.088872
59	Co	0.089482
60	Ni	Sensitivity too low
63	Cu	0.092558
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.089268
95	Mo	Sensitivity too low
98	Mo	0.088344
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.098067
111	Cd	Sensitivity too low
114	Cd	0.096082
115	In	0.097165
118	(In)	0.096670
121	Sb	0.096132
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.100523
166	Er	Sensitivity too low

205	Tl	0.109163
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.107898
209	Bi	Sensitivity too low
232	Th	0.108726
238	U	0.108610

===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2160 V
Pulse HV: 1900 V

P/A Factor Tuning Report

Acquired:Jun 15 2005 11:41 am

Mass[amu]	Element	P/A Factor
6	Li	0.052570
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.070711
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.081969
45	Sc	0.077658
51	V	0.081743
52	Cr	0.084125
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.085773
57	Fe	0.088526
59	Co	0.089368
60	Ni	Sensitivity too low
63	Cu	0.092320
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.089565
95	Mo	Sensitivity too low
98	Mo	0.088344
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.097506
111	Cd	Sensitivity too low
114	Cd	0.096082
115	In	0.098518
118	(In)	0.095219
121	Sb	0.095741
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.099660
166	Er	Sensitivity too low

205	Tl	0.108548
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.107272
209	Bi	Sensitivity too low
232	Th	0.108390
238	U	0.108266

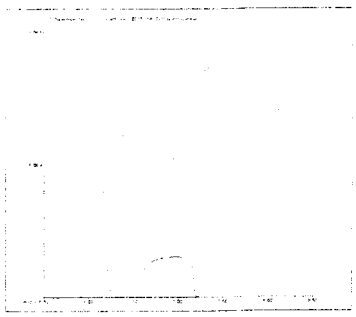
===Detector Parameters===
Discriminator: 9.0 mV
Analog HV: 2160 V
Pulse HV: 1900 V

6020 QC Tune Report

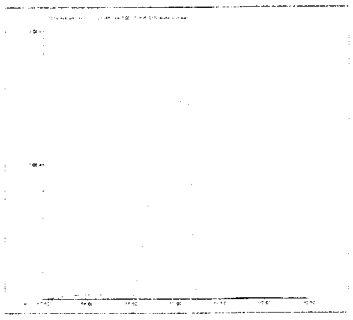
Data File: C:\ICPCHEM\1\DATA\05F1518a.B\001TUNE.D
Date Acquired: Jun 15 2005 06:16 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s689
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

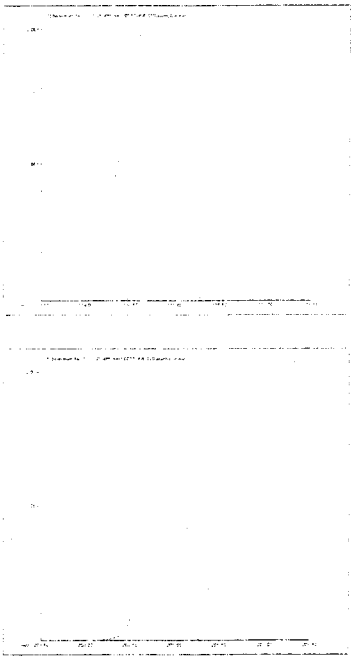
Element	Actual	Required	Flag
7 Li	0.91	5.00	
59 Co	1.40	5.00	
115 In	1.10	5.00	
205 Tl	1.91	5.00	



7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\002BLNK.D\002BLNK.D#
Date Acquired: Jun 15 2005 06:22 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: Jun 15 2005 03:47 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	-0.06676	ppb	14.90	-0.06676	1.00	
23 Na	-6.054	ppb	22.88	-6.054	1.00	
26 Mg	-0.1034	ppb	170.79	-0.1034	1.00	
27 Al	4.221	ppb	4.30	4.221	1.00	
39 K	-19.16	ppb	8.06	-19.16	1.00	
44 Ca	-1.745	ppb	33.67	-1.745	1.00	
51 V	-0.1281	ppb	33.51	-0.1281	1.00	
52 Cr	-0.2855	ppb	2.39	-0.2855	1.00	
55 Mn	-0.04813	ppb	7.67	-0.04813	1.00	
57 Fe	-7.126	ppb	2.61	-7.126	1.00	
59 Co	-0.01893	ppb	7.98	-0.01893	1.00	
60 Ni	-0.1218	ppb	9.70	-0.1218	1.00	
65 Cu	-0.1449	ppb	7.50	-0.1449	1.00	
66 Zn	-2.657	ppb	1.09	-2.657	1.00	
75 As	0.02561	ppb	357.67	0.02561	1.00	
82 Se	-0.2293	ppb	29.18	-0.2293	1.00	
95 Mo	0.05343	ppb	40.73	0.05343	1.00	
109 Ag	-0.02216	ppb	8.10	-0.02216	1.00	
111 Cd	-0.04513	ppb	94.46	-0.04513	1.00	
121 Sb	-0.04604	ppb	6.24	-0.04604	1.00	
137 Ba	-0.1162	ppb	16.54	-0.1162	1.00	
205 Tl	-0.04023	ppb	2.69	-0.04023	1.00	
208 Pb	-0.04565	ppb	3.47	-0.04565	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	623963.06	2.44	---	#VALUE!	30 - 200	
45 Sc	694695.81	2.03	---	#VALUE!	30 - 200	
72 Ge	174897.77	0.89	---	#VALUE!	30 - 200	

115 In	1234093.40	2.47	---	#VALUE!	30 - 200
209 Bi	830386.94	2.10	---	#VALUE!	30 - 200

ISTD Ref File : ---

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05F1518a.B\003CAL
Date Acquired:	Jun 15 2005 06:27 pm
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	Jun 15 2005 03:47 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	637534.00	A	13120.00	2.06
9	Be	251.11	P	51.89	20.66
23	Na	190207.80	P	6371.00	3.35
26	Mg	2803.33	P	154.10	5.50
27	Al	84958.88	P	796.90	0.94
39	K	704707.38	A	19740.00	2.80
44	Ca	8732.25	P	107.30	1.23
45	Sc	715293.50	A	17860.00	2.50
51	V	2409.98	P	600.10	24.90
52	Cr	6114.44	P	22.19	0.36
55	Mn	1316.67	P	96.84	7.35
57	Fe	8076.67	P	311.80	3.86
59	Co	275.56	P	31.51	11.44
60	Ni	322.22	P	10.18	3.16
65	Cu	347.77	P	41.41	11.91
66	Zn	907.79	P	21.69	2.39
72	Ge	174797.80	P	2581.00	1.48
75	As	-194.75	P	134.10	68.86
82	Se	45.88	P	14.42	31.43
95	Mo	843.33	P	54.87	6.51
109	Ag	203.33	P	36.06	17.73
111	Cd	273.36	P	25.71	9.41
115	In	1261003.00	A	26570.00	2.11
121	Sb	278.89	P	41.68	14.95
137	Ba	604.44	P	54.19	8.97
205	Tl	645.56	P	103.40	16.02
208	Pb	611.11	P	6.94	1.14
209	Bi	824257.38	A	20480.00	2.48
232	Th	898.89	P	47.88	5.33
238	U	226.67	P	40.00	17.65

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\004CALI.D\004CALI.D#
Date Acquired: Jun 15 2005 06:33 pm
Operator:
Sample Name: cs1s679
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:29 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	634189.13	A	17760.00	2.80
9 Be	774.44	P	21.69	2.80
23 Na	529196.88	A	13230.00	2.50
26 Mg	32997.78	P	504.60	1.53
27 Al	26937.78	P	835.80	3.10
39 K	975242.69	A	31330.00	3.21
44 Ca	13658.78	P	666.70	4.88
45 Sc	708537.31	A	37010.00	5.22
51 V	6411.02	P	191.70	2.99
52 Cr	9276.67	P	156.20	1.68
55 Mn	5650.00	P	16.67	0.30
57 Fe	16663.33	P	210.60	1.26
59 Co	3934.44	P	96.69	2.46
60 Ni	1103.33	P	35.28	3.20
65 Cu	1198.75	P	15.75	1.31
66 Zn	2407.94	P	169.30	7.03
72 Ge	175391.30	P	6393.00	3.65
75 As	370.16	P	52.88	14.29
82 Se	88.68	P	13.48	15.20
95 Mo	1630.00	P	105.30	6.46
109 Ag	2597.78	P	81.13	3.12
111 Cd	804.92	P	61.87	7.69
115 In	1266658.00	A	74970.00	5.92
121 Sb	2102.22	P	83.69	3.98
137 Ba	1228.89	P	25.46	2.07
205 Tl	4612.22	P	91.79	1.99
208 Pb	5836.67	P	208.70	3.58
209 Bi	833181.88	A	43350.00	5.20
232 Th	3186.67	P	112.60	3.53
238 U	5142.22	P	278.10	5.41

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	634189.13	2.80	637534.00	99.5	30 - 200	
45 Sc	708537.31	5.22	715293.50	99.1	30 - 200	
72 Ge	175391.33	3.65	174797.77	100.3	30 - 200	
115 In	1266658.40	5.92	1261002.90	100.4	30 - 200	
209 Bi	833181.88	5.20	824257.38	101.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\005CALI.D\005CALI.D#
Date Acquired: Jun 15 2005 06:38 pm
Operator:
Sample Name: cs2,s680
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:35 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	602415.81	A	11140.00	1.85
9 Be	1295.56	P	71.83	5.54
23 Na	853293.00	A	12580.00	1.47
26 Mg	60872.22	P	1497.00	2.46
27 Al	30200.00	P	2080.00	6.89
39 K	1189932.00	A	37260.00	3.13
44 Ca	20725.73	P	835.80	4.03
45 Sc	658189.69	A	16720.00	2.54
51 V	8855.19	P	1567.00	17.70
52 Cr	11941.11	P	440.50	3.69
55 Mn	9645.55	P	283.20	2.94
57 Fe	24580.00	P	472.00	1.92
59 Co	7138.89	P	221.20	3.10
60 Ni	1783.33	P	38.44	2.16
65 Cu	2047.52	P	47.18	2.30
66 Zn	2229.19	P	53.16	2.38
72 Ge	167966.91	P	2999.00	1.79
75 As	828.62	P	99.98	12.07
82 Se	116.22	P	21.82	18.77
95 Mo	2318.89	P	160.20	6.91
109 Ag	4840.00	P	129.10	2.67
111 Cd	1178.13	P	70.44	5.98
115 In	1168236.00	A	15250.00	1.31
121 Sb	3733.33	P	133.20	3.57
137 Ba	1787.78	P	55.01	3.08
205 Tl	7474.44	P	104.00	1.39
208 Pb	10524.44	P	207.70	1.97
209 Bi	786787.13	M	8507.00	1.08
232 Th	5614.44	P	460.80	8.21
238 U	9080.00	P	316.30	3.48

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	602415.75	1.85	637534.00	94.5	30 - 200	
45 Sc	658189.69	2.54	715293.50	92.0	30 - 200	
72 Ge	167966.89	1.79	174797.77	96.1	30 - 200	
115 In	1168235.60	1.31	1261002.90	92.6	30 - 200	
209 Bi	786787.06	1.08	824257.38	95.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\006CALI.D\006CALI.D#
Date Acquired: Jun 15 2005 06:43 pm
Operator:
Sample Name: cs3,s681
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:40 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	618975.00	A	5583.00	0.90
9 Be	2397.78	P	48.80	2.04
23 Na	1510495.00	A	23160.00	1.53
26 Mg	123612.20	P	2338.00	1.89
27 Al	34926.67	P	459.90	1.32
39 K	1734932.00	A	62380.00	3.60
44 Ca	37349.76	P	1473.00	3.94
45 Sc	700155.88	A	16980.00	2.43
51 V	16003.67	P	877.00	5.48
52 Cr	17946.67	P	562.20	3.13
55 Mn	18402.22	P	222.20	1.21
57 Fe	41918.89	P	1093.00	2.61
59 Co	14520.00	P	291.70	2.01
60 Ni	3278.89	P	56.99	1.74
65 Cu	3996.14	P	90.74	2.27
66 Zn	3173.95	P	38.43	1.21
72 Ge	171976.41	P	3879.00	2.26
75 As	1523.00	P	140.50	9.23
82 Se	195.84	P	11.56	5.90
95 Mo	4043.33	P	177.80	4.40
109 Ag	9542.22	P	103.40	1.08
111 Cd	2266.61	P	55.52	2.45
115 In	1197275.00	A	8334.00	0.70
121 Sb	7114.44	P	303.00	4.26
137 Ba	3055.56	P	194.80	6.38
205 Tl	15198.89	P	158.30	1.04
208 Pb	19987.78	P	75.74	0.38
209 Bi	792298.00	A	8901.00	1.12
232 Th	10817.78	P	861.80	7.97
238 U	18525.55	P	879.80	4.75

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	618975.00	0.90	637534.00	97.1	30 - 200	
45 Sc	700155.94	2.43	715293.50	97.9	30 - 200	
72 Ge	171976.45	2.26	174797.77	98.4	30 - 200	
115 In	1197275.10	0.70	1261002.90	94.9	30 - 200	
209 Bi	792298.00	1.12	824257.38	96.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\007CALI.D\007CALI.D#
Date Acquired: Jun 15 2005 06:48 pm
Operator:
Sample Name: cs4,s682
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:45 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	644632.81	A	25790.00	4.00
9 Be	22716.67	P	353.00	1.55
23 Na	12963070.00	A	128200.00	0.99
26 Mg	1310856.00	A	7909.00	0.60
27 Al	123526.70	P	658.40	0.53
39 K	11081880.00	A	105000.00	0.95
44 Ca	343957.91	P	2007.00	0.58
45 Sc	760787.31	A	33150.00	4.36
51 V	139947.91	P	1492.00	1.07
52 Cr	129403.30	P	681.50	0.53
55 Mn	173055.59	P	577.30	0.33
57 Fe	360168.91	P	1511.00	0.42
59 Co	147910.00	P	828.00	0.56
60 Ni	32650.00	P	135.00	0.41
65 Cu	37528.75	P	202.20	0.54
66 Zn	21296.55	P	216.70	1.02
72 Ge	182650.70	P	5523.00	3.02
75 As	16893.06	P	296.00	1.75
82 Se	1492.28	P	30.05	2.01
95 Mo	35722.22	P	143.10	0.40
109 Ag	96333.33	P	1274.00	1.32
111 Cd	20361.01	P	706.10	3.47
115 In	1297921.00	A	39060.00	3.01
121 Sb	71092.22	P	901.10	1.27
137 Ba	26978.89	P	358.30	1.33
205 Tl	151600.00	P	2405.00	1.59
208 Pb	204630.00	P	2293.00	1.12
209 Bi	832701.50	A	29310.00	3.52
232 Th	109408.90	P	11790.00	10.78
238 U	188640.00	P	3134.00	1.66

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	644632.81	4.00	637534.00	101.1	30 - 200	
45 Sc	760787.31	4.36	715293.50	106.4	30 - 200	
72 Ge	182650.67	3.02	174797.77	104.5	30 - 200	
115 In	1297921.30	3.01	1261002.90	102.9	30 - 200	
209 Bi	832701.50	3.52	824257.38	101.0	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\008CALI.D\008CALI.D#
Date Acquired: Jun 15 2005 06:53 pm
Operator:
Sample Name: cs5,s677
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:50 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	622216.69	A	13910.00	2.24
9	Be	221838.91	P	2054.00	0.93
23	Na	124314100.00	A	2131000.00	1.71
26	Mg	12274040.00	A	202900.00	1.65
27	Al	1037542.00	A	20270.00	1.95
39	K	99687160.00	A	3163000.00	3.17
44	Ca	3299918.00	A	60380.00	1.83
45	Sc	703818.88	A	14390.00	2.04
51	V	1349990.00	A	16540.00	1.23
52	Cr	1195323.00	A	16900.00	1.41
55	Mn	1658283.00	A	37760.00	2.28
57	Fe	3399089.00	A	79270.00	2.33
59	Co	1413281.00	A	18290.00	1.29
60	Ni	308775.50	P	5020.00	1.63
65	Cu	356370.91	P	6936.00	1.95
66	Zn	189253.59	P	4652.00	2.46
72	Ge	174439.30	P	2144.00	1.23
75	As	165819.00	P	2355.00	1.42
82	Se	13619.49	P	264.90	1.95
95	Mo	354034.41	P	8603.00	2.43
109	Ag	909008.88	A	18030.00	1.98
111	Cd	189277.00	P	6419.00	3.39
115	In	1173474.00	A	29930.00	2.55
121	Sb	679918.88	A	16060.00	2.36
137	Ba	254057.80	P	6540.00	2.57
205	Tl	1464154.00	A	47550.00	3.25
208	Pb	1906254.00	A	22540.00	1.18
209	Bi	765974.50	M	13990.00	1.83
232	Th	1536346.00	A	34520.00	2.25
238	U	1879637.00	A	37520.00	2.00

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	622216.75	2.24	637534.00	97.6	30 - 200	
45 Sc	703818.88	2.04	715293.50	98.4	30 - 200	
72 Ge	174439.33	1.23	174797.77	99.8	30 - 200	
115 In	1173474.00	2.55	1261002.90	93.1	30 - 200	
209 Bi	765974.50	1.83	824257.38	92.9	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05F1518a.B\009CALI.D\009CALI.D#
Date Acquired: Jun 15 2005 06:59 pm
Operator:
Sample Name: cs6,s678
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Jun 15 2005 06:55 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	636598.50	A	17180.00	2.70
9 Be	413998.41	M	17850.00	4.31
23 Na	246213410.00	A	2018000.00	0.82
26 Mg	24091110.00	A	187200.00	0.78
27 Al	1936106.00	A	11220.00	0.58
39 K	197091300.00	A	3428000.00	1.74
44 Ca	6427043.00	A	50080.00	0.78
45 Sc	711595.38	A	4848.00	0.68
51 V	2609786.00	A	41330.00	1.58
52 Cr	2315832.00	A	29850.00	1.29
55 Mn	3183081.00	A	42090.00	1.32
57 Fe	6547218.00	A	95700.00	1.46
59 Co	2688582.00	A	11460.00	0.43
60 Ni	590361.13	P	2287.00	0.39
65 Cu	686967.13	P	1914.00	0.28
66 Zn	363329.31	P	3319.00	0.91
72 Ge	171484.41	P	718.50	0.42
75 As	320844.50	P	5936.00	1.85
82 Se	25761.83	P	309.20	1.20
95 Mo	684077.31	A	17630.00	2.58
109 Ag	1716184.00	A	21200.00	1.24
111 Cd	360243.00	P	4330.00	1.20
115 In	1156368.00	A	17390.00	1.50
121 Sb	1334439.00	A	30980.00	2.32
137 Ba	493445.59	P	5331.00	1.08
205 Tl	2736058.00	A	58520.00	2.14
208 Pb	3685500.00	A	82530.00	2.24
209 Bi	748778.13	M	12540.00	1.67
232 Th	3623352.00	A	55030.00	1.52
238 U	3591008.00	A	57850.00	1.61

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	636598.50	2.70	637534.00	99.9	30 - 200	
45 Sc	711595.44	0.68	715293.50	99.5	30 - 200	
72 Ge	171484.45	0.42	174797.77	98.1	30 - 200	
115 In	1156368.00	1.50	1261002.90	91.7	30 - 200	
209 Bi	748778.13	1.67	824257.38	90.8	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05F1518a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: Jun 15, 2005 15:47
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05f1515a.b\003calb.d\	003calb.d#	Jun 15 2005 03:14 pm
2	...hem\1\data\05f1515a.b\004cali.d\	004cali.d#	Jun 15 2005 03:19 pm
3	...hem\1\data\05f1515a.b\005cali.d\	005cali.d#	Jun 15 2005 03:24 pm
4	...hem\1\data\05f1515a.b\006cali.d\	006cali.d#	Jun 15 2005 03:30 pm
5	...hem\1\data\05f1515a.b\007cali.d\	007cali.d#	Jun 15 2005 03:35 pm
6	...hem\1\data\05f1515a.b\008cali.d\	008cali.d#	Jun 15 2005 03:40 pm
7	...hem\1\data\05f1515a.b\009cali.d\	009cali.d#	Jun 15 2005 03:45 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.868E-1*X +3.230E-2(blank)	---	ppb
Na	23	45	Y = 1.121E+0*X +2.228E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 1.069E-1*X -2.362E-1(blank)	---	ppb
Al	27	45	Y = 8.389E-1*X +2.759E+0(blank)	---	ppb
K	39	45	Y = 8.322E-1*X +6.617E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 2.742E-2*X +6.701E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 5.306E+0*X +1.378E+0(blank)	---	ppb
Cr	52	72	Y = 4.620E+0*X +3.102E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 6.306E+0*X +7.097E-1(blank)	---	ppb
Fe	57	72	Y = 1.274E-1*X +3.212E+0(blank)	---	ppb
Co	59	72	Y = 5.197E+0*X +1.813E-1(blank)	---	ppb
Ni	60	72	Y = 1.128E+0*X +2.200E-1(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 1.271E+0*X +2.749E-1(blank)	---	ppb
Zn	66	72	Y = 6.572E-1*X +2.015E+0(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 5.637E-1*X -2.678E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 4.441E-2*X +2.513E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 1.112E+0*X +2.057E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 2.641E+0*X +1.173E-1(blank)	---	ppb
Cd	111	72	Y = 5.335E-1*X +1.263E-1(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 3.326E-1*X +2.705E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 1.213E-1*X +3.820E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 1.110E+0*X +8.387E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 1.453E+0*X +1.055E-1(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136010 Filename : f1518010 Injected : 15-JUN-2005 19:03
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S685

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	105.3000	ug/L	5	10	
Antimony	100.0000	98.63000	ug/L	-1	10	
Arsenic	100.0000	100.4000	ug/L	0	10	
Barium	100.0000	98.40000	ug/L	-2	10	
Beryllium	100.0000	105.3000	ug/L	5	10	
Cadmium	100.0000	98.35000	ug/L	-2	10	
Calcium	10000.00	9955.000	ug/L	0	10	
Chromium	100.0000	98.61000	ug/L	-1	10	
Cobalt	100.0000	100.9000	ug/L	1	10	
Copper	100.0000	99.70000	ug/L	0	10	
Iron	10000.00	10010.00	ug/L	0	10	
Lead	100.0000	98.27000	ug/L	-2	10	
Magnesium	10000.00	9973.000	ug/L	0	10	
Manganese	100.0000	101.0000	ug/L	1	10	
Molybdenum	100.0000	99.66000	ug/L	0	10	
Nickel	100.0000	99.83000	ug/L	0	10	
Potassium	10000.00	9850.000	ug/L	-2	10	
Selenium	100.0000	100.9000	ug/L	1	10	
Silver	100.0000	98.22000	ug/L	-2	10	
Sodium	10000.00	9920.000	ug/L	-1	10	
Thallium	100.0000	100.3000	ug/L	0	10	
Vanadium	100.0000	99.89000	ug/L	0	10	
Zinc	100.0000	100.7000	ug/L	1	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	647100	1.50
Scandium	715294	727116	1.65
Germanium	174798	177137	1.34
Indium	1261003	1181059	-6.34
Bismuth	824257	771059	-6.45

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136012 Filename : f1518012 Injected : 15-JUN-2005 19:15
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.7430]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.1036]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	[0.3639]	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Thallium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136013 Filename : f1518013 Injected : 15-JUN-2005 19:21
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55240136001	15-JUN-2005	2.267000	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	0.715800	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	0.792500	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	[0.0233]	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	[0.1280]	0.250000	ug/L	
Chromium	55240136001	15-JUN-2005	1.329000	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	2.795000	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	1.740000	0.500000	ug/L	
Lead	55240136001	15-JUN-2005	1.308000	0.250000	ug/L	
Manganese	55240136001	15-JUN-2005	1.036000	0.250000	ug/L	
Nickel	55240136001	15-JUN-2005	1.390000	0.250000	ug/L	
Selenium	55240136001	15-JUN-2005	[0.3441]	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	[0.1620]	0.250000	ug/L	
Thallium	55240136001	15-JUN-2005	[0.1010]	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	[0.1788]	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	3.610000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55240136001	15-JUN-2005	100000	93420	ug/L	93
Calcium	55240136001	15-JUN-2005	300000	294800	ug/L	98
Iron	55240136001	15-JUN-2005	250000	246800	ug/L	99
Magnesium	55240136001	15-JUN-2005	100000	95470	ug/L	95
Molybdenum	55240136001	15-JUN-2005	2000	1918	ug/L	96
Potassium	55240136001	15-JUN-2005	100000	94390	ug/L	94
Sodium	55240136001	15-JUN-2005	250000	0	ug/L	0

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136014 Filename : f1518014 Injected : 15-JUN-2005 19:27
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	95640.00	ug/L	-4		
Arsenic	100.0000	101.6000	ug/L	2	20	
Cadmium	100.0000	92.54000	ug/L	-7	20	
Calcium	300000.0	301700.0	ug/L	1		
Chromium	200.0000	201.2000	ug/L	1	20	
Cobalt	200.0000	196.8000	ug/L	-2	20	
Copper	200.0000	185.1000	ug/L	-7	20	
Iron	250000.0	242300.0	ug/L	-3		
Magnesium	100000.0	97190.00	ug/L	-3		
Manganese	200.0000	200.5000	ug/L	0	20	
Molybdenum	2000.000	1958.000	ug/L	-2		
Nickel	200.0000	189.4000	ug/L	-5	20	
Potassium	100000.0	96610.00	ug/L	-3		
Selenium	100.0000	90.56000	ug/L	-9	20	
Silver	50.00000	47.58000	ug/L	-5	20	
Sodium	250000.0	226100.0	ug/L	-10		
Vanadium	200.0000	208.0000	ug/L	4	20	
Zinc	100.0000	88.31000	ug/L	-12	20	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Scandium	715294	614792	-14.05
Germanium	174798	145103	-16.99

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55240136026 Filename : f1518026 Injected : 15-JUN-2005 20:37
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S686

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7270	100.0000	101.9000	ug/L	2	10	i+
Antimony	0.2938	0.2993	100.0000	103.6000	ug/L	4	10	
Arsenic	0.4683	0.4946	100.0000	105.4000	ug/L	5	10	
Barium	0.1199	0.1125	100.0000	105.0000	ug/L	5	10	
Beryllium	0.1852	0.1924	100.0000	116.0000	ug/L	**16**	10	c+ i+ ***
Cadmium	0.5972	0.5142	100.0000	97.20000	ug/L	-3	10	
Calcium	0.0254	0.0236	10000.00	10350.00	ug/L	4	10	i+
Chromium	4.5344	4.0266	100.0000	118.8000	ug/L	**19**	10	c+ ***
Cobalt	4.0987	4.3889	100.0000	111.2000	ug/L	**11**	10	c+ ***
Copper	1.0864	1.0646	100.0000	105.8000	ug/L	6	10	
Iron	0.1119	0.1065	10000.00	11110.00	ug/L	**11**	10	c+ ***
Lead	1.2607	1.2578	100.0000	102.0000	ug/L	2	10	
Magnesium	0.0878	0.0859	10000.00	10090.00	ug/L	1	10	i+
Manganese	5.0454	5.3319	100.0000	114.3000	ug/L	**14**	10	c+ ***
Molybdenum	1.1091	0.9445	100.0000	94.28000	ug/L	-6	10	
Nickel	0.9312	0.9502	100.0000	109.7000	ug/L	10	10	
Potassium	1.0352	0.7303	10000.00	10470.00	ug/L	5	10	i+
Selenium	0.0487	0.0383	100.0000	101.0000	ug/L	1	10	
Silver	2.6806	2.4955	100.0000	98.90000	ug/L	-1	10	
Sodium	0.9954	0.9362	10000.00	10770.00	ug/L	8	10	i+
Thallium	0.9379	0.9599	100.0000	104.1000	ug/L	4	10	
Vanadium	4.2846	4.5848	100.0000	120.0000	ug/L	**20**	10	c+ ***
Zinc	0.7813	0.5609	100.0000	105.2000	ug/L	5	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	838397	31.51 *
Scandium	715294	995153	39.13 *
Germanium	174798	202758	16.00
Indium	1261003	1293289	2.56
Bismuth	824257	714519	-13.31

+=high bias c=CCV i=ISTD failure
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55240136028
Standards: 05WS0207

Run Name :
Filename : f1518028

Injected : 15-JUN-2005 20:48

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.7540]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.0769]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Calcium	55240136001	15-JUN-2005	[0.1396]	0.500000	ug/L	
Chromium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Copper	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Iron	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Lead	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Magnesium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Manganese	55240136001	15-JUN-2005	[0.3006]	0.500000	ug/L	
Molybdenum	55240136001	15-JUN-2005	[0.1984]	0.250000	ug/L	
Nickel	55240136001	15-JUN-2005	[19.640]	50.00000	ug/L	
Potassium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Silver	55240136001	15-JUN-2005	275.1000	50.00000	ug/L	ib ***
Sodium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Thallium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc						

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CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55240136041
Calnum : 55240136001
Standards: S686

Run Name :
Filename : f1518041
Caldate : 15-JUN-2005

IDF : 1.0
Injected : 15-JUN-2005 22:04
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7749	100.0000	109.2000	ug/L	9	10	
Antimony	0.2938	0.3102	100.0000	107.4000	ug/L	7	10	
Arsenic	0.4683	0.4947	100.0000	105.5000	ug/L	6	10	
Barium	0.1199	0.1138	100.0000	106.3000	ug/L	6	10	
Beryllium	0.1852	0.1789	100.0000	107.8000	ug/L	8	10	
Cadmium	0.5972	0.5637	100.0000	106.6000	ug/L	7	10	
Calcium	0.0254	0.0245	10000.00	10750.00	ug/L	8	10	
Chromium	4.5344	3.5588	100.0000	104.9000	ug/L	5	10	
Cobalt	4.0987	4.1401	100.0000	104.9000	ug/L	5	10	
Copper	1.0864	1.0624	100.0000	105.6000	ug/L	6	10	
Iron	0.1119	0.1006	10000.00	10480.00	ug/L	5	10	
Lead	1.2607	1.3131	100.0000	106.5000	ug/L	7	10	
Magnesium	0.0878	0.0920	10000.00	10810.00	ug/L	8	10	
Manganese	5.0454	4.9589	100.0000	106.3000	ug/L	6	10	
Molybdenum	1.1091	1.0696	100.0000	106.8000	ug/L	7	10	
Nickel	0.9312	0.9065	100.0000	104.7000	ug/L	5	10	
Potassium	1.0352	0.7605	10000.00	10910.00	ug/L	9	10	
Selenium	0.0487	0.0409	100.0000	108.0000	ug/L	8	10	
Silver	2.6806	2.6907	100.0000	106.6000	ug/L	7	10	
Sodium	0.9954	0.9169	10000.00	10550.00	ug/L	6	10	
Thallium	0.9379	1.0049	100.0000	109.0000	ug/L	9	10	
Vanadium	4.2846	4.0884	100.0000	107.0000	ug/L	7	10	
Zinc	0.7813	0.5696	100.0000	106.8000	ug/L	7	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	539427	-15.39
Scandium	715294	615503	-13.95
Germanium	174798	143720	-17.78
Indium	1261003	973445	-22.80
Bismuth	824257	588658	-28.58

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136043 Filename : f1518043 Injected : 15-JUN-2005 22:16
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.4580]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.0728]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	[0.1011]	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	[18.460]	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	64.90000	50.00000	ug/L	ib ***
Thallium	55240136001	15-JUN-2005	[0.1694]	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	ND	1.000000	ug/L	

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Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55240136052 Filename : f1518052 Injected : 15-JUN-2005 23:09
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S686

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7957	100.0000	112.4000	ug/L	**12**	10	c+ ***
Antimony	0.2938	0.3118	100.0000	108.0000	ug/L	8	10	
Arsenic	0.4683	0.5020	100.0000	107.0000	ug/L	7	10	
Barium	0.1199	0.1132	100.0000	105.7000	ug/L	6	10	
Beryllium	0.1852	0.1815	100.0000	109.4000	ug/L	9	10	
Cadmium	0.5972	0.5720	100.0000	108.1000	ug/L	8	10	
Calcium	0.0254	0.0250	10000.00	10990.00	ug/L	10	10	
Chromium	4.5344	3.6486	100.0000	107.6000	ug/L	8	10	
Cobalt	4.0987	4.1984	100.0000	106.4000	ug/L	6	10	
Copper	1.0864	1.0763	100.0000	107.0000	ug/L	7	10	
Iron	0.1119	0.1023	10000.00	10670.00	ug/L	7	10	
Lead	1.2607	1.3361	100.0000	108.3000	ug/L	8	10	
Magnesium	0.0878	0.0939	10000.00	11030.00	ug/L	10	10	
Manganese	5.0454	4.9658	100.0000	106.5000	ug/L	7	10	
Molybdenum	1.1091	1.0780	100.0000	107.6000	ug/L	8	10	
Nickel	0.9312	0.9148	100.0000	105.6000	ug/L	6	10	
Potassium	1.0352	0.7740	10000.00	11110.00	ug/L	**11**	10	c+ ***
Selenium	0.0487	0.0413	100.0000	108.9000	ug/L	9	10	
Silver	2.6806	2.7546	100.0000	109.2000	ug/L	9	10	
Sodium	0.9954	0.9517	10000.00	10950.00	ug/L	10	10	
Thallium	0.9379	1.0341	100.0000	112.1000	ug/L	**12**	10	c+ ***
Vanadium	4.2846	4.1889	100.0000	109.7000	ug/L	10	10	
Zinc	0.7813	0.5709	100.0000	107.1000	ug/L	7	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	558792	-12.35
Scandium	715294	627588	-12.26
Germanium	174798	147067	-15.86
Indium	1261003	1016457	-19.39
Bismuth	824257	607809	-26.26

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136054 Filename : f1518054 Injected : 15-JUN-2005 23:20
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.5390]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	[0.0871]	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	[7.1660]	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	[21.150]	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	104.7000	50.00000	ug/L	ib ***
Thallium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	ND	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136055 Filename : f1518055 Injected : 15-JUN-2005 23:26
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55240136001	15-JUN-2005	2.538000	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	0.689400	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	0.972400	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	[0.0321]	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	[0.1876]	0.250000	ug/L	
Chromium	55240136001	15-JUN-2005	1.364000	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	2.941000	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	1.855000	0.500000	ug/L	
Lead	55240136001	15-JUN-2005	1.426000	0.250000	ug/L	
Manganese	55240136001	15-JUN-2005	1.074000	0.250000	ug/L	
Nickel	55240136001	15-JUN-2005	1.512000	0.250000	ug/L	
Selenium	55240136001	15-JUN-2005	[0.2682]	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	[0.1747]	0.250000	ug/L	
Thallium	55240136001	15-JUN-2005	[0.1414]	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	[0.1647]	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	3.963000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55240136001	15-JUN-2005	100000	107500	ug/L	108
Calcium	55240136001	15-JUN-2005	300000	335800	ug/L	112
Iron	55240136001	15-JUN-2005	250000	257600	ug/L	103
Magnesium	55240136001	15-JUN-2005	100000	109000	ug/L	109
Molybdenum	55240136001	15-JUN-2005	2000	2139	ug/L	107
Potassium	55240136001	15-JUN-2005	100000	109300	ug/L	109
Sodium	55240136001	15-JUN-2005	250000	249800	ug/L	100

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136056 Filename : f1518056 Injected : 15-JUN-2005 23:32
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	101200.0	ug/L	1		
Arsenic	100.0000	105.7000	ug/L	6	20	
Cadmium	100.0000	99.76000	ug/L	0	20	
Calcium	300000.0	320300.0	ug/L	7		
Chromium	200.0000	207.3000	ug/L	4	20	
Cobalt	200.0000	199.0000	ug/L	-1	20	
Copper	200.0000	189.6000	ug/L	-5	20	
Iron	250000.0	243900.0	ug/L	-2		
Magnesium	100000.0	103200.0	ug/L	3		
Manganese	200.0000	204.2000	ug/L	2	20	
Molybdenum	2000.000	2081.000	ug/L	4		
Nickel	200.0000	191.9000	ug/L	-4	20	
Potassium	100000.0	104500.0	ug/L	5		
Selenium	100.0000	91.68000	ug/L	-8	20	
Silver	50.00000	51.77000	ug/L	4	20	
Sodium	250000.0	235400.0	ug/L	-6		
Vanadium	200.0000	217.0000	ug/L	9	20	
Zinc	100.0000	90.03000	ug/L	-10	20	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Scandium	715294	578892	-19.07
Germanium	174798	134618	-22.99

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55240136070 Filename : f1518070 Injected : 16-JUN-2005 00:54
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S686

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7833	100.0000	110.5000	ug/L	**11**	10	c+ ***
Antimony	0.2938	0.3262	100.0000	112.9000	ug/L	**13**	10	c+ ***
Arsenic	0.4683	0.5064	100.0000	107.9000	ug/L	8	10	
Barium	0.1199	0.1207	100.0000	112.7000	ug/L	**13**	10	c+ ***
Beryllium	0.1852	0.1932	100.0000	116.4000	ug/L	**16**	10	c+ ***
Cadmium	0.5972	0.5820	100.0000	110.0000	ug/L	10	10	
Calcium	0.0254	0.0253	10000.00	11120.00	ug/L	**11**	10	c+ ***
Chromium	4.5344	3.9196	100.0000	115.6000	ug/L	**16**	10	c+ ***
Cobalt	4.0987	4.2970	100.0000	108.9000	ug/L	9	10	
Copper	1.0864	1.0737	100.0000	106.7000	ug/L	7	10	
Iron	0.1119	0.1048	10000.00	10930.00	ug/L	9	10	
Lead	1.2607	1.3123	100.0000	106.4000	ug/L	6	10	
Magnesium	0.0878	0.0916	10000.00	10760.00	ug/L	8	10	
Manganese	5.0454	5.2172	100.0000	111.9000	ug/L	**12**	10	c+ ***
Molybdenum	1.1091	1.0321	100.0000	103.0000	ug/L	3	10	
Nickel	0.9312	0.9393	100.0000	108.5000	ug/L	9	10	
Potassium	1.0352	0.7834	10000.00	11240.00	ug/L	**12**	10	c+ ***
Selenium	0.0487	0.0398	100.0000	105.0000	ug/L	5	10	
Silver	2.6806	2.7511	100.0000	109.0000	ug/L	9	10	
Sodium	0.9954	0.9372	10000.00	10780.00	ug/L	8	10	
Thallium	0.9379	1.0094	100.0000	109.5000	ug/L	10	10	
Vanadium	4.2846	4.4602	100.0000	116.8000	ug/L	**17**	10	c+ ***
Zinc	0.7813	0.5633	100.0000	105.6000	ug/L	6	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	646211	1.36
Scandium	715294	724996	1.36
Germanium	174798	162546	-7.01
Indium	1261003	1101639	-12.64
Bismuth	824257	653546	-20.71

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136072 Filename : f1518072 Injected : 16-JUN-2005 01:06
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.5850]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.0852]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	[0.1481]	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	[6.7590]	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	[0.1046]	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	[0.2082]	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	[20.320]	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	57.91000	50.00000	ug/L	ib ***
Thallium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	ND	1.000000	ug/L	

ib=instrument blank

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55240136085 Filename : f1518085 Injected : 16-JUN-2005 02:22
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S686

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7679	100.0000	108.2000	ug/L	8	10	
Antimony	0.2938	0.3217	100.0000	111.4000	ug/L	**11**	10	c+ ***
Arsenic	0.4683	0.5011	100.0000	106.8000	ug/L	7	10	
Barium	0.1199	0.1185	100.0000	110.6000	ug/L	**11**	10	c+ ***
Beryllium	0.1852	0.1863	100.0000	112.3000	ug/L	**12**	10	c+ ***
Cadmium	0.5972	0.5989	100.0000	113.2000	ug/L	**13**	10	c+ ***
Calcium	0.0254	0.0247	10000.00	10850.00	ug/L	9	10	
Chromium	4.5344	3.7271	100.0000	109.9000	ug/L	10	10	
Cobalt	4.0987	4.1404	100.0000	104.9000	ug/L	5	10	
Copper	1.0864	1.0543	100.0000	104.8000	ug/L	5	10	
Iron	0.1119	0.1014	10000.00	10570.00	ug/L	6	10	
Lead	1.2607	1.3425	100.0000	108.8000	ug/L	9	10	
Magnesium	0.0878	0.0913	10000.00	10720.00	ug/L	7	10	
Manganese	5.0454	5.0444	100.0000	108.2000	ug/L	8	10	
Molybdenum	1.1091	1.0692	100.0000	106.8000	ug/L	7	10	
Nickel	0.9312	0.9111	100.0000	105.2000	ug/L	5	10	
Potassium	1.0352	0.7714	10000.00	11070.00	ug/L	**11**	10	c+ ***
Selenium	0.0487	0.0404	100.0000	106.6000	ug/L	7	10	
Silver	2.6806	2.8648	100.0000	113.5000	ug/L	**14**	10	c+ ***
Sodium	0.9954	0.9060	10000.00	10420.00	ug/L	4	10	
Thallium	0.9379	1.0191	100.0000	110.5000	ug/L	**11**	10	c+ ***
Vanadium	4.2846	4.2427	100.0000	111.1000	ug/L	**11**	10	c+ ***
Zinc	0.7813	0.5630	100.0000	105.6000	ug/L	6	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	551771	-13.45
Scandium	715294	617800	-13.63
Germanium	174798	140204	-19.79
Indium	1261003	996501	-20.98
Bismuth	824257	593032	-28.05

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136087 Filename : f1518087 Injected : 16-JUN-2005 02:34
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.6950]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.0744]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	[0.1283]	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	[0.0623]	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	[27.650]	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	[24.630]	50.00000	ug/L	
Thallium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55240136093 Filename : f1518093 Injected : 16-JUN-2005 03:09
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S686

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.8620	0.7098	100.0000	99.29000	ug/L	-1	10	
Antimony	0.2938	0.3096	100.0000	107.2000	ug/L	7	10	
Arsenic	0.4683	0.4862	100.0000	103.7000	ug/L	4	10	
Barium	0.1199	0.1162	100.0000	108.5000	ug/L	9	10	
Beryllium	0.1852	0.1912	100.0000	115.2000	ug/L	**15**	10	c+ ***
Cadmium	0.5972	0.5503	100.0000	104.0000	ug/L	4	10	
Calcium	0.0254	0.0231	10000.00	10150.00	ug/L	2	10	
Chromium	4.5344	3.7998	100.0000	112.0000	ug/L	**12**	10	c+ ***
Cobalt	4.0987	4.2258	100.0000	107.1000	ug/L	7	10	
Copper	1.0864	1.0407	100.0000	103.5000	ug/L	4	10	
Iron	0.1119	0.1026	10000.00	10700.00	ug/L	7	10	
Lead	1.2607	1.2310	100.0000	99.79000	ug/L	0	10	
Magnesium	0.0878	0.0836	10000.00	9818.000	ug/L	-2	10	
Manganese	5.0454	5.1161	100.0000	109.7000	ug/L	10	10	
Molybdenum	1.1091	0.9521	100.0000	95.04000	ug/L	-5	10	
Nickel	0.9312	0.9178	100.0000	106.0000	ug/L	6	10	
Potassium	1.0352	0.7151	10000.00	10250.00	ug/L	3	10	
Selenium	0.0487	0.0380	100.0000	100.3000	ug/L	0	10	
Silver	2.6806	2.5974	100.0000	102.9000	ug/L	3	10	
Sodium	0.9954	0.8343	10000.00	9598.000	ug/L	-4	10	
Thallium	0.9379	0.9416	100.0000	102.1000	ug/L	2	10	
Vanadium	4.2846	4.2939	100.0000	112.4000	ug/L	**12**	10	c+ ***
Zinc	0.7813	0.5459	100.0000	102.4000	ug/L	2	10	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Lithium	637534	640952	0.54
Scandium	715294	741497	3.66
Germanium	174798	161491	-7.61
Indium	1261003	1130437	-10.35
Bismuth	824257	695814	-15.58

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136095 Filename : f1518095 Injected : 16-JUN-2005 03:21
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55240136001	15-JUN-2005	[1.3190]	50.00000	ug/L	
Antimony	55240136001	15-JUN-2005	[0.0778]	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Calcium	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Chromium	55240136001	15-JUN-2005	[0.1133]	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Iron	55240136001	15-JUN-2005	ND	50.00000	ug/L	
Lead	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Magnesium	55240136001	15-JUN-2005	[10.790]	50.00000	ug/L	
Manganese	55240136001	15-JUN-2005	[0.0661]	0.250000	ug/L	
Molybdenum	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Nickel	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Potassium	55240136001	15-JUN-2005	[22.220]	50.00000	ug/L	
Selenium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	ND	0.250000	ug/L	
Sodium	55240136001	15-JUN-2005	50.50000	50.00000	ug/L	ib ***
Thallium	55240136001	15-JUN-2005	ND	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	ND	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	[0.2383]	1.000000	ug/L	

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INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136096 Filename : f1518096 Injected : 16-JUN-2005 03:27
Standards: S683, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55240136001	15-JUN-2005	2.653000	0.250000	ug/L	
Arsenic	55240136001	15-JUN-2005	0.970000	0.500000	ug/L	
Barium	55240136001	15-JUN-2005	1.062000	0.250000	ug/L	
Beryllium	55240136001	15-JUN-2005	[0.0169]	0.250000	ug/L	
Cadmium	55240136001	15-JUN-2005	[0.1420]	0.250000	ug/L	
Chromium	55240136001	15-JUN-2005	1.592000	0.500000	ug/L	
Cobalt	55240136001	15-JUN-2005	3.089000	0.250000	ug/L	
Copper	55240136001	15-JUN-2005	1.975000	0.500000	ug/L	
Lead	55240136001	15-JUN-2005	1.427000	0.250000	ug/L	
Manganese	55240136001	15-JUN-2005	1.407000	0.250000	ug/L	
Nickel	55240136001	15-JUN-2005	1.721000	0.250000	ug/L	
Selenium	55240136001	15-JUN-2005	[0.1096]	0.500000	ug/L	
Silver	55240136001	15-JUN-2005	[0.1596]	0.250000	ug/L	
Thallium	55240136001	15-JUN-2005	[0.1028]	0.500000	ug/L	
Vanadium	55240136001	15-JUN-2005	[0.2944]	1.000000	ug/L	
Zinc	55240136001	15-JUN-2005	3.960000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55240136001	15-JUN-2005	100000	101000	ug/L	101
Calcium	55240136001	15-JUN-2005	300000	325300	ug/L	108
Iron	55240136001	15-JUN-2005	250000	269000	ug/L	108
Magnesium	55240136001	15-JUN-2005	100000	101800	ug/L	102
Molybdenum	55240136001	15-JUN-2005	2000	1854	ug/L	93
Potassium	55240136001	15-JUN-2005	100000	105500	ug/L	106
Sodium	55240136001	15-JUN-2005	250000	230300	ug/L	92

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55240136097 Filename : f1518097 Injected : 16-JUN-2005 03:33
Calnum : 55240136001 Caldate : 15-JUN-2005 Caltype :
Standards: S684, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	92290.00	ug/L	-8		
Arsenic	100.0000	101.4000	ug/L	1	20	
Cadmium	100.0000	89.20000	ug/L	-11	20	
Calcium	300000.0	298100.0	ug/L	-1		
Chromium	200.0000	218.3000	ug/L	9	20	
Cobalt	200.0000	202.9000	ug/L	1	20	
Copper	200.0000	184.7000	ug/L	-8	20	
Iron	250000.0	251200.0	ug/L	0		
Magnesium	100000.0	93070.00	ug/L	-7		
Manganese	200.0000	211.8000	ug/L	6	20	
Molybdenum	2000.000	1740.000	ug/L	-13		
Nickel	200.0000	195.2000	ug/L	-2	20	
Potassium	100000.0	96400.00	ug/L	-4		
Selenium	100.0000	86.10000	ug/L	-14	20	
Silver	50.00000	45.76000	ug/L	-8	20	
Sodium	250000.0	211900.0	ug/L	-15		
Vanadium	200.0000	225.9000	ug/L	13	20	
Zinc	100.0000	86.73000	ug/L	-13	20	

ISTD (ICALBLK=f1518003)	ICALBLK Abund	Abund	%Diff
Scandium	715294	644757	-9.86
Germanium	174798	141313	-19.16

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 07-JUN-2005 ICALBLK Filename: f0721003
Sequence: 55228836 (f0721) Date Analyzed: 07-JUN-2005
Instrument ID: MET05 Time Analyzed: 22:07

	IS1 (LI READING)	IS2 (SC READING)	IS3 (GE READING)	IS4 (IN READING)	IS5 (BI READING)	IS6 (TB READING)
ICALBLK STD	689643	840275	143702	1033618	581366	1169219
LOWER LIMIT	206893	252082	43111	310085	174410	350766
UPPER LIMIT	827571	1008329	172442	1240342	697639	1403063

TYPE	SAMPLE	#						
ICB		014	645399	781101	136325	993120	606217	1161225
ICSA		015	564548	656979	124008	800522	476333	1034054
BLANK	QC296480	018	635961	746308	137751	1017549	621330	1180796
BS	QC296481	019	584482	699640	127959	915523	567544	1117284
BSD	QC296482	020	582301	677414	128192	924324	567092	1131501
MSS	179720-007	021	589988	671813	125840	936565	562992	1089482
SER	QC296485	022	633898	754130	134413	1000511	623676	1192729
MS	QC296483	023	564818	638834	121244	877030	536588	1052855
MSD	QC296484	024	577690	669676	123744	888495	545582	1079041
PDS	QC296486	025	572464	649562	122776	878591	542893	1063003
CCV		027	619194	741799	133140	946136	580538	1132490
CCB		029	617662	719221	131546	956995	598183	1134786
SAMPLE	179720-022	030	522195	597516	107105	648745	364237	814163
SAMPLE	179720-022	031	727578	892128	147116	992220	524313	1148281
SAMPLE	179698-021	032	555425	687405	106616	631704	323012	780813
SAMPLE	179645-001	033	725736	956271	146265	995603	534234	1148220
SAMPLE	179645-002	034	676994	817950	138779	926543	504653	1108661
SAMPLE	179714-001	035	661323	787549	136092	905083	492850	1084662
CCV		037	671347	838070	144381	1037512	627332	1259091
CCB		039	650918	760293	137061	1002687	605766	1156010
ICSA		040	567728	684475	124966	858013	502442	1072556
SAMPLE	179852-008	043	701429	834035	132538	836467	415308	998840
SAMPLE	179852-009	044	678394	798284	122504	735168	370347	890148
SAMPLE	179852-010	045	708183	828573	128730	807559	380543	931522
SAMPLE	179808-001	046	591728	651951	98789	569004	261228	656924
CCV		049	681960	827609	139121	980044	543996	1141345

265

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 07-JUN-2005
Sequence: 55228836 (f0721)
Instrument ID: MET05

ICALBLK Filename: f0721003
Date Analyzed: 07-JUN-2005
Time Analyzed: 22:07

TYPE	SAMPLE	#						
CCB		051	730827	904969	149624	1115477	616567	1268975
MSS	179728-005	052	600422	735208	122772	848154	463867	1011952
MS	QC296555	053	595818	738337	123090	839471	465651	1018083
MSD	QC296556	054	596117	742136	124082	837919	474540	1025347
SAMPLE	179728-002	055	596807	765651	123895	859428	459662	1031111
SAMPLE	179728-003	056	585097	695767	118858	786385	424876	956227
SAMPLE	179728-014	057	617106	770078	130668	901672	511394	1110189
CCV		059	682310	833492	146677	1064246	630167	1261536
CCB		061	736614	898322	153620	1175629	706108*	1383100
ICSA		062	557659	657740	123835	909939	541301	1168618
MSS	179728-001	065	531599	646338	113723	757609	448181	994357
MS	QC296557	066	535054	654214	112557	750667	435267	970400
MSS	179728-001	068	655769	816450	134129	986536	552147	1207016
MSS	179728-001	071	682768	819418	141761	1035661	620042	1220428
CCV		074	647752	780370	136023	1025189	623442	1250267
CCB		076	626364	748289	131597	1019295	632112	1208126
ICSA		078	516555	615032	115960	837107	519949	1129499
CCV		081	544699	641159	123674	969725	618507	1186153
CCB		083	553472	654954	123558	1000500	635612	1195170

266

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 15-JUN-2005
Sequence: 55240136 (f1518)
Instrument ID: MET05

ICALBLK Filename: f1518003
Date Analyzed: 15-JUN-2005
Time Analyzed: 18:27

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	637534	715294	174798	1261003	824257	1349160
LOWER LIMIT	191260	214588	52439	378301	247277	404748
UPPER LIMIT	765041	858352	209757	1513204	989109	1618992

TYPE	SAMPLE	#						
ICB		012	636370	693107	168956	1176099	772931	1271975
ICSA		013	554097	647818	148606	967283	589328	1111245
BLANK	QC297530	016	557566	639156	157857	1176348	764252	1269724
BS	QC297531	017	596899	678233	174766	1189755	788802	1359238
BSD	QC297532	018	624861	712706	178818	1231148	798178	1362481
MSS	180014-001	019	583372	529262	86060	475970	244709*	546863
SER	QC297535	020	748970	833562	143228	849662	420681	889731
MS	QC297533	021	588278	565185	87658	483020	247853	567178
MSD	QC297534	022	556366	542627	84436	471689	239238*	549940
PDS	QC297536	023	554713	534309	84605	450545	242006*	526864
CCV		026	838397*	995153*	202758	1293289	714519	1401942
CCB		028	661654	740266	156229	1012496	595021	1056443
BLANK	QC296480	029	623274	674034	145051	954518	555300	967334
BS	QC296481	030	563343	621259	137809	872208	515276	912531
BSD	QC296482	031	584931	665835	147623	957646	567420	1015750
MSS	179720-007	032	575087	657124	143576	953675	556098	991671
SER	QC296485	033	570752	614869	139508	907899	526650	909761
MS	QC296483	034	529801	601301	136079	896952	532367	961415
MSD	QC296484	035	548522	639056	144663	994659	584580	1050400
PDS	QC296486	036	524091	612186	139343	941055	558877	1006166
MSS	179720-007	037	560629	635545	148439	1005444	605442	1056611
SER	QC296485	038	554417	632592	142722	981339	580920	1014459
CCV		041	539427	615503	143720	973445	588658	1041785
CCB		043	557052	625657	144191	1006655	607240	1044755
MS	QC296483	044	560568	649938	149159	1022296	624044	1093443
MSD	QC296484	045	568507	684463	151178	1098849	650792	1183606

267

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 15-JUN-2005 ICALBLK Filename: f1518003
Sequence: 55240136 (f1518) Date Analyzed: 15-JUN-2005
Instrument ID: MET05 Time Analyzed: 18:27

TYPE	SAMPLE	#						
PDS	QC296486	046	522740	585216	138100	929340	577833	994017
SAMPLE	179645-001	047	542744	627481	143800	1019053	624096	1099800
SAMPLE	179645-002	048	542795	610614	143788	996579	609231	1075165
SAMPLE	179728-003	049	447957	531363	106393	681802	386949	758358
MSS	179728-005	050	528694	626708	129904	876568	484936	966247
CCV		052	558792	627588	147067	1016457	607809	1078684
CCB		054	534994	605550	142845	1012884	600627	1057440
ICSA		055	474631	551466	128518	847488	487637	974049
SAMPLE	179852-009	058	580929	620413	115325	676138	345309	756600
SAMPLE	179893-001	059	527470	510570	86210	469056	232983*	528897
SAMPLE	179893-002	060	509143	503682	85119	458895	219576*	506173
SAMPLE	179742-001	063	675735	765436	160538	1046291	573894	1126682
SAMPLE	179742-002	064	661528	773974	166145	1151980	666763	1256376
SAMPLE	179742-003	065	655444	800884	168448	1150670	673661	1321463
SAMPLE	179742-004	066	635913	702043	163458	1120855	659936	1195271
SAMPLE	179742-005	067	828198*	817099	155350	982274	515069	1150269
CCV		070	646211	724996	162546	1101639	653546	1212058
CCB		072	650147	737909	160613	1108111	639340	1176012
SAMPLE	179742-006	073	630475	741348	156226	1058354	606500	1191937
SAMPLE	179742-007	074	648311	746309	159593	1081784	622121	1220908
SAMPLE	179742-008	075	626941	729347	156854	1046405	577423	1162462
SAMPLE	179742-009	076	637750	735080	154671	1062749	600063	1179766
SAMPLE	179742-010	077	649421	753563	159395	1062397	606737	1197178
SAMPLE	179742-011	078	650521	753554	163559	1097313	630363	1262938
SAMPLE	179742-012	079	649109	762500	162615	1097802	625384	1251986
SAMPLE	179742-013	080	648418	705828	152915	1008157	578184	1155793
SAMPLE	179742-014	081	617337	706941	156000	1096274	618387	1215941
SAMPLE	179742-015	082	725821	871949*	181272	1148612	675919	1423453
CCV		085	551771	617800	140204	996501	593032	1086255
CCB		087	552307	618087	140100	1008277	584627	1048229
SAMPLE	179742-016	088	570813	664509	146426	1003763	558694	1106951
SAMPLE	179742-017	089	618694	691366	150001	1039126	605507	1162217

268

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 15-JUN-2005 ICALBLK Filename: f1518003
Sequence: 55240136 (f1518) Date Analyzed: 15-JUN-2005
Instrument ID: MET05 Time Analyzed: 18:27

TYPE	SAMPLE	#						
SAMPLE	179742-018	090	775269*	888194*	188484	1067147	648139	1377710
SAMPLE	179742-019	091	651167	709754	156298	1101670	656403	1258600
SAMPLE	179742-020	092	673719	778241	168956	1127059	663683	1340458
CCV		093	640952	741497	161491	1130437	695814	1288499
CCB		095	662452	739732	160869	1126292	669232	1227881
ICSA		096	529906	614816	135881	829681	485341	1006904

269

* = Outside QC Limits

Curtis & Tompkins Laboratories Sample Preparation Summary 07-JUN-2005 15:53

Batch Number : 102706
Date Extracted: 07-JUN-2005
Extracted by : Kevin Gaines
Prep Method : 200.8

Analysis : N/A
Bgroup : ICAP
Units : ml
Clean-up :

Spike #1 ID : S21
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179645-001			Treadwell & Rollo	Water	50	ml	50	1.000000	1					TAL/ICP		
179645-002			Treadwell & Rollo	Water	50	ml	50	1.000000	1					TAL/ICP		
179698-021			CH2M Hill	Filtrate	50	ml	50	1.000000	1					T26/ICP		
179714-001			Mactec, Inc.	Filtrate	50	ml	50	1.000000	1					T26/ICP		
179720-007			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179720-022			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179728-001			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179728-002			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179728-003			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179728-005			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179728-014			Blasland, Bouck & Lee	Water	50	ml	50	1.000000	1					PP13/ICAP		
179852-008			Montezuma Wetlands LLC	Filtrate	50	ml	50	1.000000	1					AG, AS, CD, (more)		
179852-009			Montezuma Wetlands LLC	Filtrate	50	ml	50	1.000000	1					AG, AS, CD, (more)		
179852-010			Montezuma Wetlands LLC	Filtrate	50	ml	50	1.000000	1					AG, AS, CD, (more)		
QC296480	BLANK			Water	50	ml	50	1.000000	1					ICAP		
QC296481	BS			Water	50	ml	50	1.000000	1		.5			ICAP		
QC296482	BSD			Water	50	ml	50	1.000000	1		.5			ICAP		
QC296483	MS	of 179720-007		Water	50	ml	50	1.000000	1		.5			ICAP		
QC296484	MSD	of 179720-007		Water	50	ml	50	1.000000	1		.5			ICAP		
QC296485	SER	of 179720-007		Water	50	ml	50	1.000000	1					ICAP		
QC296486	PDS	of 179720-007		Water	50	ml	50	1.000000	1					ICAP		
QC296555	MS	of 179728-005		Water	50	ml	50	1.000000	1					ICAP		
QC296556	MSD	of 179728-005		Water	50	ml	50	1.000000	1					ICAP		
QC296557	MS	of 179728-001		Water	50	ml	50	1.000000	1					ICAP		
QC296558	MSD	of 179728-001		Water	50	ml	50	1.000000	1					ICAP		

270

Prep Chemist: MW for CG Reviewed By: MW Date: 6/7/05

Relinquished By: MW Received By: [illegible] Date: 6/8/05

Water Digestion for ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 102706
Date Digested: 6/7/05
Digested by: KW

Digestion Method
☒ EPA 200.8 for ICP-MS
☐ _____

BK 2104
Page 76

	Sample # and letter	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK	50	50	Y	
	BS			↓	
	BSD			↓	
	MS -07B			N	
5	MSD -07			↓	
	179720-07			↓	
	22			↓	
	645-01D			↓	
	02			↓	
10	714-01G			↓	FILTRATE
	698-21-B			↓	↓
	MS -01M			↓	
	MSD -01			↓	
	179728-01			↓	
15	MS -05			N	
	MSD -05			↓	
	179725-05			↓	
	-02E			↓	
	-03			↓	
20	-14			↓	
	552-08			↓	FILTRATE
	-09			↓	↓
	-10	↓	↓	↓	↓

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90-95 degrees C)	95°C	KW 6/7
5 mL of spike solution was added to all spikes	3-21	↓
	N/A	
concentrated HCl	B0038 BAKER	
concentrated HNO3	B0034 BAKER	
☐ filtered thru' Whatman # 541	D1479357	↓

KW 6/7/05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

MJ 6/7/05
Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45231138 Instrument: MET04 HydraAA HG Analyzer Begun: 09-JUN-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102800	ICALBLK	Std01Rep1				09-JUN-2005 12:18	1.0	1.0									
002	102800	ICAL	Std02Rep1				09-JUN-2005 12:19	1.0	1.0									
003	102800	ICAL	Std03Rep1				09-JUN-2005 12:21	1.0	1.0									
004	102800	ICAL	Std04Rep1				09-JUN-2005 12:23	1.0	1.0									
005	102800	ICAL	Std05Rep1				09-JUN-2005 12:25	1.0	1.0									
006	102800	ICAL	Std06Rep1				09-JUN-2005 12:28	1.0	1.0									
007	102800	ICV					09-JUN-2005 13:14	1.0	1.0	2	5.000	45231138001	5.290		ug/L	106		
008	102800	ICB					09-JUN-2005 13:16	1.0	1.0			45231138001	ND	0.20	ug/L			u
009	102800	BLANK	QC296863		102800	Filtra	09-JUN-2005 13:18	1.0	1.0			45231138001	ND	0.20	ug/L			u
010	102800	BS	QC296864		102800	Filtra	09-JUN-2005 13:20	1.0	1.0		5.000	45231138001	5.090	0.20	ug/L	102		u
011	102800	BSD	QC296865		102800	Filtra	09-JUN-2005 13:22	1.0	1.0		5.000	45231138001	5.220	0.20	ug/L	104	3	u
012	102800	MSS	179727-002		102800	Filtra	09-JUN-2005 13:25	1.0	1.0			45231138001	ND	0.20	ug/L			u
013	102800	MS	QC296866	179727-002	102800	Filtra	09-JUN-2005 13:27	1.0	1.0		5.000	45231138001	5.230	0.20	ug/L	105		u
014	102800	MSD	QC296867	179727-002	102800	Filtra	09-JUN-2005 13:29	1.0	1.0		5.000	45231138001	5.040	0.20	ug/L	101	4	u
015	102800	SAMPLE	179714-001		102800	Filtra	09-JUN-2005 13:30	1.0	1.0			45231138001	ND	0.20	ug/L			u
016	102800	SAMPLE	179721-007		102800	Water	09-JUN-2005 13:32	1.0	1.0			45231138001	ND	0.20	ug/L			u
017	102800	SAMPLE	179728-002		102800	Water	09-JUN-2005 13:34	1.0	1.0			45231138001	ND	0.20	ug/L			u
018	102800	SAMPLE	179728-003		102800	Water	09-JUN-2005 13:36	1.0	1.0			45231138001	ND	0.20	ug/L			u
019	102800	CCV					09-JUN-2005 13:38	1.0	1.0	3	2.500	45231138001	2.660		ug/L	106		
020	102800	CCB					09-JUN-2005 13:40	1.0	1.0			45231138001	ND	0.20	ug/L			u
021	102800	SAMPLE	179728-014		102800	Water	09-JUN-2005 13:43	1.0	1.0			45231138001	ND	0.20	ug/L			u
022	102800	SAMPLE	179852-008		102800	Water	09-JUN-2005 13:44	1.0	1.0			45231138001	ND	0.20	ug/L			u
023	102800	SAMPLE	179852-009		102800	Water	09-JUN-2005 13:46	1.0	1.0			45231138001	ND	0.20	ug/L			u
024	102800	CCV					09-JUN-2005 13:49	1.0	1.0	4	5.000	45231138001	5.680		ug/L	114		
025	102800	CCB					09-JUN-2005 13:54	1.0	1.0			45231138001	ND	0.20	ug/L			

Stds used: 1=S804 2=S806 3=S807 4=S808
Flags used: u=use

Analyst: Andrea Main Date: 6/9/05

272

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45231138001 Name: Type: WATER Date: 09-JUN-2005 12:18 Inj Vol (uL): 2000

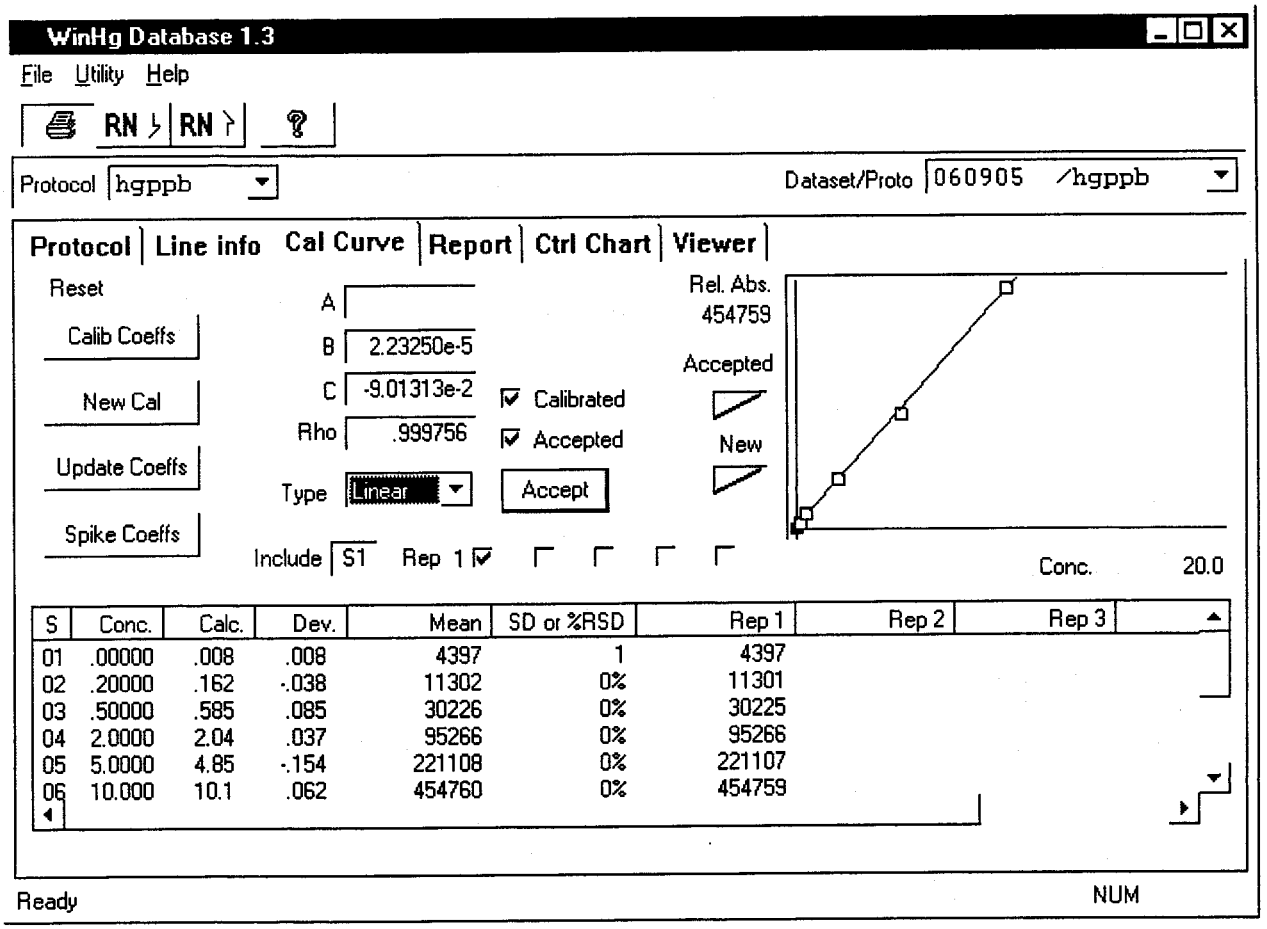
Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	102800	45231138002	Std02Rep1	09-JUN-2005 12:19	S804 (500X)
2	102800	45231138003	Std03Rep1	09-JUN-2005 12:21	S804 (200X)
3	102800	45231138004	Std04Rep1	09-JUN-2005 12:23	S804 (50X)
4	102800	45231138005	Std05Rep1	09-JUN-2005 12:25	S804 (20X)
5	102800	45231138006	Std06Rep1	09-JUN-2005 12:28	S804 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Mercury	56505	60450	47633	44221	45476	LINR	R	-0.09013	2.233E-5		ug/L	50857	1.000	.99	

273

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 060905 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.23250e-5
C -9.01313e-2
Rho .999756
Type Linear
Calibrated
Accepted
Accept
Include S1
Rep 1
Rel. Abs.
454759
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .008 .008 4397 1 4397
02 .20000 .162 -.038 11302 0% 11301
03 .50000 .585 .085 30226 0% 30225
04 2.0000 2.04 .037 95266 0% 95266
05 5.0000 4.85 -.154 221108 0% 221107
06 10.000 10.1 .062 454760 0% 454759
Ready
NUM

Folder: 060905
Protocol: hgppb
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 5		12:18:18 09 Jun 05			HG
Hg	.000	ppb	4397						
		Bkgd 1	11048729						
*** Standard: 2 Rep: 1				Seq: 6		12:19:57 09 Jun 05			HG
Hg	.200	ppb	11301						
		Bkgd 1	11044248						
*** Standard: 3 Rep: 1				Seq: 7		12:21:50 09 Jun 05			HG
Hg	.500	ppb	30225						
		Bkgd 1	11042033						
*** Standard: 4 Rep: 1				Seq: 8		12:23:51 09 Jun 05			HG
Hg	2.00	ppb	95266						
		Bkgd 1	11036074						
*** Standard: 5 Rep: 1				Seq: 9		12:25:41 09 Jun 05			HG
Hg	5.00	ppb	221107						
		Bkgd 1	11031780						
*** Standard: 6 Rep: 1				Seq: 10		12:28:04 09 Jun 05			HG
Hg	10.0	ppb	454759						
		Bkgd 1	11030225						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45231138 Instrument: MET04 HydraAA HG Analyzer Begun: 09-JUN-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	102800	ICALBLK	Std01Rep1				09-JUN-2005 12:18	1.0	1.0									
002	102800	ICAL	Std02Rep1				09-JUN-2005 12:19	1.0	1.0									
003	102800	ICAL	Std03Rep1				09-JUN-2005 12:21	1.0	1.0									
004	102800	ICAL	Std04Rep1				09-JUN-2005 12:23	1.0	1.0									
005	102800	ICAL	Std05Rep1				09-JUN-2005 12:25	1.0	1.0									
006	102800	ICAL	Std06Rep1				09-JUN-2005 12:28	1.0	1.0									
007	102800	ICV					09-JUN-2005 13:14	1.0	1.0	2	5.000	45231138001	5.290		ug/L	106		
008	102800	ICB					09-JUN-2005 13:16	1.0	1.0			45231138001	ND	0.20	ug/L			u
009	102800	BLANK	QC296863		102800	Filtra	09-JUN-2005 13:18	1.0	1.0			45231138001	ND	0.20	ug/L			u
010	102800	BS	QC296864		102800	Filtra	09-JUN-2005 13:20	1.0	1.0		5.000	45231138001	5.090	0.20	ug/L	102		u
011	102800	BSD	QC296865		102800	Filtra	09-JUN-2005 13:22	1.0	1.0		5.000	45231138001	5.220	0.20	ug/L	104	3	u
012	102800	MSS	179727-002		102800	Filtra	09-JUN-2005 13:25	1.0	1.0			45231138001	ND	0.20	ug/L			u
013	102800	MS	QC296866	179727-002	102800	Filtra	09-JUN-2005 13:27	1.0	1.0		5.000	45231138001	5.230	0.20	ug/L	105		u
014	102800	MSD	QC296867	179727-002	102800	Filtra	09-JUN-2005 13:29	1.0	1.0		5.000	45231138001	5.040	0.20	ug/L	101	4	u
015	102800	SAMPLE	179714-001		102800	Filtra	09-JUN-2005 13:30	1.0	1.0			45231138001	ND	0.20	ug/L			u
016	102800	SAMPLE	179721-007		102800	Water	09-JUN-2005 13:32	1.0	1.0			45231138001	ND	0.20	ug/L			u
017	102800	SAMPLE	179728-002		102800	Water	09-JUN-2005 13:34	1.0	1.0			45231138001	ND	0.20	ug/L			u
018	102800	SAMPLE	179728-003		102800	Water	09-JUN-2005 13:36	1.0	1.0			45231138001	ND	0.20	ug/L			u
019	102800	CCV					09-JUN-2005 13:38	1.0	1.0	3	2.500	45231138001	2.660		ug/L	106		
020	102800	CCB					09-JUN-2005 13:40	1.0	1.0			45231138001	ND	0.20	ug/L			u
021	102800	SAMPLE	179728-014		102800	Water	09-JUN-2005 13:43	1.0	1.0			45231138001	ND	0.20	ug/L			u
022	102800	SAMPLE	179852-008		102800	Water	09-JUN-2005 13:44	1.0	1.0			45231138001	ND	0.20	ug/L			u
023	102800	SAMPLE	179852-009		102800	Water	09-JUN-2005 13:46	1.0	1.0			45231138001	ND	0.20	ug/L			u
024	102800	CCV					09-JUN-2005 13:49	1.0	1.0	4	5.000	45231138001	5.680		ug/L	114		
025	102800	CCB					09-JUN-2005 13:54	1.0	1.0			45231138001	ND	0.20	ug/L			

Stds used: 1=S804 2=S806 3=S807 4=S808
Flags used: u=use

Analyst: Andrea Main Date: 6/9/05

Page 1 of 1

276

Curtis & Tompkins Laboratories Sample Preparation Summary 09-JUN-2005 12:03

Batch Number : 102800
Date Extracted: 09-JUN-2005
Extracted by : Andres Marin
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : mL
Clean-up :

Spike #1 ID : S804
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
179714-001			Mactec, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
179721-007			Weston Solutions	Water	50	mL	50	1.000000	1					HG		
179727-002			Treadwell & Rollo	Filtrate	50	mL	50	1.000000	1					HG		
179728-002			Blasland, Bouck & Lee	Water	50	mL	50	1.000000	1					PP13/HG		
179728-003			Blasland, Bouck & Lee	Water	50	mL	50	1.000000	1					PP13/HG		
179728-014			Blasland, Bouck & Lee	Water	50	mL	50	1.000000	1					PP13/HG		
179852-008			Montezuma Wetlands LLC	Water	50	mL	50	1.000000	1					HG		
179852-009			Montezuma Wetlands LLC	Water	50	mL	50	1.000000	1					HG		
QC296863	BLANK			Filtrate	50	mL	50	1.000000	1					HG		
QC296864	BS			Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC296865	BSD			Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC296866	MS	of 179727-002		Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC296867	MSD	of 179727-002		Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC296868	SER	of 179727-002		Filtrate	50	mL	50	1.000000	1					HG		
QC296869	PDS	of 179727-002		Filtrate	50	mL	50	1.000000	1					HG		

277

Prep Chemist: Andres Marin Reviewed By: [signature] Date: 6/8 9/05

Relinquished By: [signature] Received By: [signature] Date: 6/9/05

Water Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 102800
Date Digested: 6/9/05
Digested by: AM.

Digestion Method
☑ EPA 7470A/ EPA 245.1
☐ _____

BK 2087
Page 82

Sample # and letter	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
179714-001	50	50	N	
179721-007				
179727-002 MSS				
179728-002				
↓ 3				
↓ 14				
179852-003				
↓ 9				
MB				
BS				
BSD				
MS				
MSP				

Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes: S804	AM 6/9
ICAL Source WS#: S804	
ICV / CCV WS#: S806, 07, 08, 09	
Digestion of Samples & Standards: Time ON / Temperature ON: 10:00 95°C	
Time OFF/ Temperature OFF: 12:00 95°C	
concentrated H_2SO_4: JTB B03032	
concentrated HNO_3: JTB B04631	
5% $KMnO_4$: K 060905	
5% $K_2S_2O_8$: K_2 060905	
NaCl.hydroxylamine hydrochloride: Hy 053005	
Stannous Chloride: $SnCl_2$ 060905	
☐ filtered thru' 0.45 um syringe filter: —	

Andrés Marín 6/9/05
Prep Chemist / Date

Continued from page _____
Continued on page 1

6/9/5
Reviewed by / Date

Subcontracted Analyses

ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio/Baker Beach

Project Summary 65208
Method 8290
Concentrations shown in pg/L

	BLANK	BBIPZ101
Total TEQ	**6.6**	**3.4**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 1.9	< 1.2
1,2,3,7,8-PeCDD	< 2.4	< 1.3
1,2,3,4,7,8-HxCDD	< 3.3	< 1.6
1,2,3,6,7,8-HxCDD	< 3.1	< 1.5
1,2,3,7,8,9-HxCDD	< 3.1	< 1.5
1,2,3,4,6,7,8-HpCDD	< 6.2	< 2.5
1,2,3,4,6,7,8,9-OCDD	< 11.2	9.0 J
2,3,7,8-TCDF	< 1.3	< 1.0
1,2,3,7,8-PeCDF	< 1.8	< 1.0
2,3,4,7,8-PeCDF	< 1.8	< 0.9
1,2,3,4,7,8-HxCDF	< 2.3	< 1.0
1,2,3,6,7,8-HxCDF	< 2.3	< 1.0
2,3,4,6,7,8-HxCDF	5.0 J	< 0.9
1,2,3,7,8,9-HxCDF	< 2.7	< 1.2
1,2,3,4,6,7,8-HpCDF	< 3.4	< 1.5
1,2,3,4,7,8,9-HpCDF	< 4.1	< 1.8
1,2,3,4,6,7,8,9-OCDF	< 8.7	< 3.3
Total TCDD	< 1.9	< 1.2
Total PeCDD	< 2.4	< 1.3
Total HxCDD	< 3.2	< 1.5
Total HpCDD	< 6.2	< 2.5
Total TCDF	< 1.3	< 1.0
Total PeCDF	< 1.8	< 1.0
Total HxCDF	5.0	< 1.0
Total HpCDF	< 3.7	< 1.7
Extraction Date	6/9/2005	6/9/2005
Analysis Date	6/15/2005	6/15/2005
Primary Filename	S051676	T051787
Confirm Filename	N/A	N/A
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -Sample Specific Detection Limits reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1
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ENO RIVER LABS

Prepared for: Curtis & Tompkins
Reference ID: Presidio/Baker Beach

Project Summary 65208

Method 8290

Concentrations shown in pg/L

	BLANK	BBIPZ101
Total TEQ	**6.6**	**3.4**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 1.9	< 1.2
1,2,3,7,8-PeCDD	< 2.4	< 1.3
1,2,3,4,7,8-HxCDD	< 3.3	< 1.6
1,2,3,6,7,8-HxCDD	< 3.1	< 1.5
1,2,3,7,8,9-HxCDD	< 3.1	< 1.5
1,2,3,4,6,7,8-HpCDD	< 6.2	< 2.5
1,2,3,4,6,7,8,9-OCDD	< 11.2	9.0 J
2,3,7,8-TCDF	< 1.3	< 1.0
1,2,3,7,8-PeCDF	< 1.8	< 1.0
2,3,4,7,8-PeCDF	< 1.8	< 0.9
1,2,3,4,7,8-HxCDF	< 2.3	< 1.0
1,2,3,6,7,8-HxCDF	< 2.3	< 1.0
2,3,4,6,7,8-HxCDF	5.0 J	< 0.9
1,2,3,7,8,9-HxCDF	< 2.7	< 1.2
1,2,3,4,6,7,8-HpCDF	< 3.4	< 1.5
1,2,3,4,7,8,9-HpCDF	< 4.1	< 1.8
1,2,3,4,6,7,8,9-OCDF	< 8.7	< 3.3
Total TCDD	< 1.9	< 1.2
Total PeCDD	< 2.4	< 1.3
Total HxCDD	< 3.2	< 1.5
Total HpCDD	< 6.2	< 2.5
Total TCDF	< 1.3	< 1.0
Total PeCDF	< 1.8	< 1.0
Total HxCDF	5.0	< 1.0
Total HpCDF	< 3.7	< 1.7
Extraction Date	6/9/2005	6/9/2005
Analysis Date	6/15/2005	6/15/2005
Primary Filename	S051676	T051787
Confirm Filename	N/A	N/A
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -Sample Specific Detection Limits reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1

Printed: 06/22/05 20:10

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CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-p-dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	June 22, 2005
Client ID:	Curtis & Tompkins
P.O. Number:	179714
Project Number:	65208

Eno River Labs, LLC has acquired the assets of Triangle Laboratories, Inc. and will continue its operations.

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Overview

The sample and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during sample handling will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analysis of one water sample.

Quality Control Samples

A laboratory method blank was prepared along with each batch of samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Curtis & Tompkins analytical data by Eno River Labs, LLC was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: One water sample was received from Curtis & Tompkins at 6°C in good condition on June 1, 2005 and stored in a refrigerator at 4°C. The client's chain-of-custody did not indicate whether chemical preservatives were utilized prior to shipment.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: The percent recovery for 2,3,4,6,7,8-HxCDF in the LCS is below the QC limits (70 to 130 %). Also, the relative percent differences between the LCS and LCSD for 2,3,4,7,8-PeCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8-HxCDF, and 1,2,3,4,7,8,9-HpCDF are above the QC criteria (<20 %). Since the affected analytes are not detected in the associated field samples, with all detection limits reported less than the target detection limits, these findings have no significant impact on the results. The client was contacted and authorized release of the results without further action.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the laboratory blank above the target detection limit (TDL).

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the amount of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

EMPC stands for **E**stimated **M**aximum **P**ossible **C**oncentration. A dioxin or furan analyte is quantitated as an EMPC when the detected analyte meets the retention time criteria of a dioxin or furan, but not the isotopic ratio criteria. Interferences, such as PCBs, may co-elute or cause quantitative interference, causing a peak ratio to be outside criteria. Low level peaks that are close to the detection limits can be significantly affected by instrument and chemical noise, causing the ratio to be outside criteria. As a result, the reported value(s) should be considered estimated at the highest level possible.

The analytical results presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the results. Should Curtis & Tompkins have any questions or comments regarding this data package, please feel free to contact our customer service at (919) 281-4013.

Released by,

Kenneth Varley

Report Preparation Chemist
Eno River Labs, LLC

The total number of pages in the data package is : 108 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ENO RIVER LABS

ACCREDITED IN ACCORDANCE WITH nelac
FL-E87769 NJ-NC851

ENO RIVER LABS, LLC
LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Primary NELAP Certificate: Florida Department of Health, #E87769; SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2006.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). **Secondary NELAP Certificate: SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of Alabama, Department of Environmental Management. Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires July 31, 2005.

State of Alaska, Department of Environmental Conservation. Certificate #NC1706-05. EPA 1613B, Dioxin (2378-TCDD). Expires December 21, 2005.

State of Arizona, Department of Health Services. Certificate #AZ0423. Drinking Water for Dioxin, Dioxins in Waste Water and Solid or Hazardous Waste. Expires May 25, 2005. Renewal pending.

State of Arkansas, Department of Environmental Quality. Certificate # 04-060-0. Dioxins and Furans. Expires September 1, 2005.

State of California, Department of Health Services, Certificate No. I-2583. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires March 31, 2006.

State of Colorado, Department of Public Health and Environment. SDWA, Dioxin by EPA 1613. Expires April 30, 2006.

State of Connecticut, Department of Health Services. Registration # PH-0117. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF & totals; **RCRA,** Methods 8280/8290, PCDD/PCDF & totals. Expires September 30, 2005.

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Primary NELAP Certificate: **Florida Department of Health, #E87769; SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2006.

Georgia Department of Environmental Quality. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 613, 2,3,7,8-TCDD AND Method 1613, PCDD/PCDF & totals; **RCRA**, Methods 8280/8290, PCDD/PCDF & totals; **CAA**, TO-9A, all dioxins/furans AND TO-13A, semi-volatiles; reciprocity based on FL-DOH NELAP Certificate, expires June 30, 2005.

Georgia Department of Natural Resources, ID # 953. SDWA 2,3,7,8-TCDD (Dioxin) by Method 1613B. Expires July 31, 2005.

Hawaii Department of Health. Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes. Expires June 30, 2005.

Idaho Department of Health and Welfare. Dioxin in drinking water, EPA Method 1613. Expires July 31, 2004. Renewal pending.

Secondary NELAP Certificate: **Illinois Environmental Protection Agency. Accreditation Number #200007, Certificate #001168**; Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Organic, Methods 1613; Hazardous and Solid Waste, Organic, Methods 8280A and 8290. Expires 30 September 2005.

Indiana Department of Health. Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01. Expires July 31, 2005.

Secondary NELAP Certificate: **State of Kansas. Certificate # E-10215**. Drinking Water, Method 1613, 2,3,7,8-TCDD; Wastewater, Methods 1613; Hazardous and Solid Waste, Methods 8280A and 8290. Expires July 31, 2005.

Commonwealth of Kentucky, Department for Environmental Protection. Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water. Expires December 31, 2005.

Secondary NELAP Certificate: **State of Louisiana Department of Environmental Quality. Certificate # 01979. CAA**, TO-9A and TO-13A; **CWA**, Method 1613 PCDDs/PCDFs; **RCRA**, Methods 8280A & 8290 PCDDs/PCDFs; Misc. Methods 1613, 8280A & 8290. Expires 30 June 2005.

Secondary NELAP Certificate: **State of Louisiana Department of Health & Hospitals. Certificate # LA040020. SDWA**, Dioxin (2,3,7,8-TCDD) in Drinking Water. Expires December 31, 2005.

Maine Department of Human Services. Certification #: NC140. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF. Expires May 30, 2006.

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Maryland Department of Health and Mental Hygiene. Certification # 235, SOC 2 (Dioxin). Expires September 30, 2005.

Commonwealth of Massachusetts, Department of Environmental Protection, does not require Certification for Drinking Water Dioxin/Furan analysis.

State of Michigan, Department of Environmental Quality. SDWA; 2,3,7,8 TCDD by Method 1613. Expires July 31, 2005.

Minnesota Department of Health. The certification program in MN does not include dioxins/furans for CWA, SDWA of RCRA. See U.S. EPA Region V.

Mississippi State Department of Health. Dioxin in drinking water. No expiration date.

State of Montana Department of Public Health and Human Services. Dioxin in drinking water. December 31, 2005.

State of Nebraska Department of Health and Human Services. Reciprocal certification with the Florida DOH NELAP Certification. **SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water. Expires June 30, 2005.

State of Nevada, Division of Environmental Protection. Lab Certificate No. NC140-2004-75. SDWA, Method 1613B, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613B, expires July 31, 2005.

Primary NELAP Certificate: State of New Jersey, Department of Environmental Protection, ID #NC010, CLC040001. CAA, Methods 0023A and MM5 (Sampling Train). **Secondary NELAP Certificate: SDWA**, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF & totals; **RCRA**, Method 8290, PCDD/PCDF & totals. Expires June 30, 2005.

State of New Mexico, Environment Department. Safe Drinking Water Act; 2,3,7,8-TCDD by Method 1613. Expires June 30, 2005.

Secondary NELAP Certificate: New York State Department of Health, LAB ID #11026. Potable Water, 2,3,7,8-TCDD, EPA 1613, Serial # 26053; **Non-Potable Water**, 2,3,7,8-TCDD, EPA 1613, Serial # 26054. Expires 1 April, 2006.

State of North Carolina, Department of Health and Human Services. Certificate # 37751. Dioxin in drinking water. Expires July 31, 2005.

North Dakota State Department of Health. Certificate # R-076. SDWA, Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA**, Method 1613, PCDD/PCDF; **RCRA**, Methods 8280A/8290, PCDD/PCDF. Expires July 31, 2005.

Ohio EPA. Ohio does not offer out-of-state lab certifications; certification by EPA Region 5 is honored. Ohio EPA #29382, Analyst #9999.

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Oklahoma Department of Environmental Quality. Laboratory #9951. 2,3,7,8 TCDD (Dioxin). Expires August 31, 2005.

Secondary NELAP Certificate: **Oregon Environmental Laboratory Accreditation Program, Certificate No:-NC200001-002. SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; **CWA,** Method 1613, PCDD/PCDF; **RCRA**, Methods 8280/8290, PCDD/PCDFs. Expires January 31, 2006.

Pennsylvania Department of Environmental Protection. 2,3,7,8 TCDD (Dioxin) in Drinking water, EPA 1613 . Expires July 9, 2005.

State of Tennessee. Department of Environment and Conservation. ID #02992. Dioxin in Drinking water. Expires July 30, 2005.

Texas Natural Resource Conservation Commission. Certification Number: TX264-2002A. SDWA: Chemistry, Dioxin (2378-TCDD), EPA 1613. Expires March 31, 2006.

U.S. EPA Region V. 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613B. Expires February 03, 2006. [Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin]

U.S. EPA Region VIII, for the State of Wyoming. EPA Method 1613 for Dioxin in drinking water. Expires 20 October 2005.

U.S. Navy, NFESC IR QA; NFESC 413. Acceptance to perform samples analysis; water and solids by EPA Methods 8280A, 8290 and 1613B. Expires April 21, 2006.

Secondary NELAP Certificate: **State of Utah, Department of Health. ID # TRIA, Account # 9195445729 SDWA,** Method 1613, 2,3,7,8-TCDD for Dioxin in Drinking Water; CWA, Method 1613, PCDD/PCDF & totals; RCRA, Methods 8280/8290, PCDD/PCDF & totals. Expires June 30, 2005.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613B. Expires June 30, 2005.

State of Washington, Department of Ecology. Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613, 8280, and 8290 in potable and non-potable water. Expires February 8, 2006.

State of West Virginia, Department of Health & Human Resources. Certificate No. 9923C. 2,3,7,8-TCDD (Dioxin), 1613B. Expires December 31, 2005.

State of West Virginia, Department of Environmental Protection. Certificate No. 327. PCDDs and PCDFs (Dioxins/Furans) by EPA Methods 1613B, 8280A and 8290. Expires October 31, 2005.

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State of Wisconsin, Department of Natural Resources. Laboratory ID Number 999869530. Certified for 2,3,7,8-TCDD (Dioxin) in drinking water and for PCDD/PCDF. Expires August 31, 2005.

State of Wyoming, see U.S. EPA Region VIII above.

PHARMACEUTICAL

U.S. Dept of Justice, Drug Enforcement Agency (DEA). Registration number RE0317811. Controlled substance registration for schedules 1,2,3,3N,4,5. Expires 8/31/05.

N.C. Department of Health and Human Services. Registration number NC-PE 0000 2493. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6. Expires 10/31/2005.

Food & Drug Administration (FDA) Registration. ID #'s 001500 3004570112. Annual registration of drug establishment.

OTHER

U.S. Department of Agriculture Soil Permit. Permit No. S-68701. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis. Expires September 30, 2009.

U.S. EPA Large Quantity Hazardous Waste Generator. EPA ID #NCR000137232. Permit indicates that the laboratory is a large generator of hazardous waste. No expiration date.

U.S. Fish and Wildlife Permit. Number LE027890-1. Authorization to import/export wildlife and/or wildlife products. Expires April 30, 2006.

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ENO RIVER LABS, LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 65208
Matrix: WATER
Method: 8290

Isomer	S051676 ID: BLANK Sample (pg/l)	U037211 ID: LCS With Spike (pg/l)	Percent Recovery	U037212 ID: LCSD Spike Dup (pg/l)	Percent Recovery	Relative Percent Difference
2378-TCDD	ND	358	89.5	348	87.1	2.72
12378-PeCDD	ND	1820	91.2	1770	88.7	2.78
123478-HxCDD	ND	2320	116	2260	113	2.62
123678-HxCDD	ND	1870	93.7	1890	94.4	0.74
123789-HxCDD	ND	1680	84.1	1880	94.0	11.1
1234678-HpCDD	ND	1980	99.1	1950	97.7	1.42
OCDD	ND	3860	96.4	4010	100	3.67
2378-TCDF	ND	369	92.3	351	87.7	5.11
12378-PeCDF	ND	1970	98.4	1960	98.2	0.20
23478-PeCDF	ND	1530	76.6	2020	101	27.5
123478-HxCDF	ND	1970	98.3	1930	96.4	1.95
123678-HxCDF	ND	2060	103	2040	102	0.98
234678-HxCDF	5.0	1340	66.6	1870	93.1	33.2
123789-HxCDF	ND	1430	71.7	1900	94.9	27.9
1234678-HpCDF	ND	1990	99.7	2040	102	2.28
1234789-HpCDF	ND	1620	81.1	2010	100	20.9
OCDF	ND	4670	117	4240	106	9.87

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.39
GRY_PSUM v1.12

Processed By: _____ Date: 06/22/05

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
- TCDD/TCDF..: 0.4 ng
- PeCDD/PeCDF: 2.0 ng
- HxCDD/HxCDF: 2.0 ng
- HpCDD/HpCDF: 2.0 ng
- OCDD/OCDF..: 4.0 ng

ENO RIVER LABS

TOXICITY EQUIVALENTS REPORT

LAB Project: 65208
Client Sample: BLANK

Toxicity Equivalents Report
Analysis File: S051676

Client Project:	Presidio/Baker Beach				
Sample Matrix:	WATER	Date Received:	06/01/05	Spike File:	SPMIT32S
LAB ID:	BLANK	Date Extracted:	06/09/05	ICal:	SF5N164
		Date Analyzed:	06/15/05	ConCal:	S051675
Sample Size:	1.000 L	Dilution Factor:	1	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	S051676	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)		TEF		Equivalent
2,3,7,8-TCDD	{1.9}	x	1.	=	1.9
1,2,3,7,8-PeCDD	{2.4}	x	0.5	=	1.2
1,2,3,4,7,8-HxCDD	{3.3}	x	0.1	=	0.33
1,2,3,6,7,8-HxCDD	{3.1}	x	0.1	=	0.31
1,2,3,7,8,9-HxCDD	{3.1}	x	0.1	=	0.31
1,2,3,4,6,7,8-HpCDD	{6.2}	x	0.01	=	0.062
1,2,3,4,6,7,8,9-OCDD	{11.2}	x	0.001	=	0.0112
TOTAL PCDD					4.1
2,3,7,8-TCDF	{1.3}	x	0.1	=	0.13
1,2,3,7,8-PeCDF	{1.8}	x	0.05	=	0.090
2,3,4,7,8-PeCDF	{1.8}	x	0.5	=	0.90
1,2,3,4,7,8-HxCDF	{2.3}	x	0.1	=	0.23
1,2,3,6,7,8-HxCDF	{2.3}	x	0.1	=	0.23
2,3,4,6,7,8-HxCDF	5.0	x	0.1	=	0.50
1,2,3,7,8,9-HxCDF	{2.7}	x	0.1	=	0.27
1,2,3,4,6,7,8-HpCDF	{3.4}	x	0.01	=	0.034
1,2,3,4,7,8,9-HpCDF	{4.1}	x	0.01	=	0.041
1,2,3,4,6,7,8,9-OCDF	{8.7}	x	0.001	=	0.0087
TOTAL PCDF					2.43

Total EPA TEFs, 1989a	TEQ	6.6 pg/L

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.09, MILES 4.22.39

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LAB Project: 65208
Client Sample: BBIPZ101

Toxicity Equivalents Report
Analysis File: T051787

Client Project:	Presidio/Baker Beach				
Sample Matrix:	WATER	Date Received:	06/01/05	Spike File:	SPMIT32S
LAB ID:	404-22-1A	Date Extracted:	06/09/05	ICal:	TF5O224
		Date Analyzed:	06/15/05	ConCal:	T051775
Sample Size:	1.035 L	Dilution Factor:	1	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	S051676	% Lipid:	n/a
GC Column:	DB-5	Analyst:	TTF	% Solids:	n/a

Analytes	Conc. (pg/L)		TEF		Equivalent
2,3,7,8-TCDD	{1.2}	x	1.	=	1.2
1,2,3,7,8-PeCDD	{1.3}	x	0.5	=	0.65
1,2,3,4,7,8-HxCDD	{1.6}	x	0.1	=	0.16
1,2,3,6,7,8-HxCDD	{1.5}	x	0.1	=	0.15
1,2,3,7,8,9-HxCDD	{1.5}	x	0.1	=	0.15
1,2,3,4,6,7,8-HpCDD	{2.5}	x	0.01	=	0.025
1,2,3,4,6,7,8,9-OCDD	9.0	x	0.001	=	0.0090
TOTAL PCDD					2.3
2,3,7,8-TCDF	{1.0}	x	0.1	=	0.10
1,2,3,7,8-PeCDF	{1.0}	x	0.05	=	0.050
2,3,4,7,8-PeCDF	{0.9}	x	0.5	=	0.5
1,2,3,4,7,8-HxCDF	{1.0}	x	0.1	=	0.10
1,2,3,6,7,8-HxCDF	{1.0}	x	0.1	=	0.10
2,3,4,6,7,8-HxCDF	{0.9}	x	0.1	=	0.09
1,2,3,7,8,9-HxCDF	{1.2}	x	0.1	=	0.12
1,2,3,4,6,7,8-HpCDF	{1.5}	x	0.01	=	0.015
1,2,3,4,7,8,9-HpCDF	{1.8}	x	0.01	=	0.018
1,2,3,4,6,7,8,9-OCDF	{3.3}	x	0.001	=	0.0033
TOTAL PCDF					1.1

Total EPA TEFs, 1989a	TEQ	3.4 pg/L

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.09, MILES 4.22.39

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SAMPLE DATA

Lab Project: 65208
Client Sample: BLANK

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: S051676

Client Project:	Presidio/Baker Beach				
Sample Matrix:	WATER	Date Received:	/ /	Spike File:	SPMIT32S
Lab ID:	BLANK	Date Extracted:	06/09/2005	ICal:	SF5N164
		Date Analyzed:	06/15/2005	ConCal:	S051675
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	S051676	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	1.9				
1,2,3,7,8-PeCDD	ND	2.4				
1,2,3,4,7,8-HxCDD	ND	3.3				
1,2,3,6,7,8-HxCDD	ND	3.1				
1,2,3,7,8,9-HxCDD	ND	3.1				
1,2,3,4,6,7,8-HpCDD	ND	6.2				
1,2,3,4,6,7,8,9-OCDD	ND	11.2				
2,3,7,8-TCDF	ND	1.3				
1,2,3,7,8-PeCDF	ND	1.8				
2,3,4,7,8-PeCDF	ND	1.8				
1,2,3,4,7,8-HxCDF	ND	2.3				
1,2,3,6,7,8-HxCDF	ND	2.3				
2,3,4,6,7,8-HxCDF	5.0			1.36	34:13	J
1,2,3,7,8,9-HxCDF	ND	2.7				
1,2,3,4,6,7,8-HpCDF	ND	3.4				
1,2,3,4,7,8,9-HpCDF	ND	4.1				
1,2,3,4,6,7,8,9-OCDF	ND	8.7				

Totals	Conc. (pg/L)	Number	DL	EMPC	Flags
Total TCDD	ND		1.9		
Total PeCDD	ND		2.4		
Total HxCDD	ND		3.2		
Total HpCDD	ND		6.2		
Total TCDF	ND		1.3		
Total PeCDF	ND		1.8		
Total HxCDF	5.0	1			
Total HpCDF	ND		3.7		

MIT3_PSR v1.00, LARS 6.25.06

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Lab Project: **65208** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BLANK** Analysis File: **S051676**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	1540	77.0	40%-135%	0.74	26:15	___
$^{13}C_{12}$-2,3,7,8-TCDD	1430	71.5	40%-135%	0.83	26:57	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1410	70.7	40%-135%	1.47	30:10	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1570	78.3	40%-135%	1.42	31:11	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1640	81.9	40%-135%	0.49	33:42	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1770	88.3	40%-135%	1.19	34:23	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1580	79.1	40%-135%	0.44	36:37	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1380	68.9	40%-135%	0.99	37:40	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2420	60.4	40%-135%	0.83	41:19	___

Surrogate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1360	67.8	40%-135%	1.46	30:51	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1590	79.7	40%-135%	0.50	33:36	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1690	84.6	40%-135%	1.19	34:18	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1390	69.7	40%-135%	0.45	38:11	___

Other Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	136	68.2	40%-135%	26:59	___

Alternate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1430	71.5	40%-135%	0.49	34:58	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1580	78.8	40%-135%	0.49	34:12	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:47	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.17	34:42	___

Data Reviewer: Pam 06/22/2005

MIT3_PSR v1.00, LARS 6.25.06

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Initial ....Date...

Data Review By: DAB 6/16/05

Calculated Noise Height: 0.06

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of S051676B.dbf
06/16/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89					0.875-1.072				
304-306	DC	NL		Height			0.13	0.07	0.06				
	DC	SN	23:09	RO	1.10		0.55			0.882	1368-TCDF		AN
	DC	SN	24:49	RO	2.00		0.12			0.945			
	DC	SN	25:33	RO	0.33		0.16			0.973			
	DC	SN	26:12	RO	1.50		0.32			0.998			
	DC	SN	27:03	RO	3.08		0.23			1.030			
	DC	SN	27:21		0.78		1.37			1.042			
	DC	SN	27:40	RO	1.33		0.27			1.054			
	DC	SN	28:05	RO	1.23		0.23			1.070			
	DC	WH	28:15	RO	0.46		0.30			1.076			
	DC	WH	28:23	RO	0.48		0.34			1.081			
304-306			0 Peaks				0.00						
13C12-TCDF				0.65-0.89					0.962-1.038				
316-318	DC	NL		Height			0.20	0.09	0.11				
			25:51	RO	0.90		2.60	1.13	1.25	0.985			
			26:15		0.74		662.30	282.17	380.13	1.000	13C12-2378-TCDF		ISO
				Height			175.37	74.55	100.82				
316-318			2 Peaks				664.90						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89					0.902-1.044				
320-322	DC	NL		Height			0.11	0.06	0.05				
	DC	SN	25:25	RO	3.20		0.09			0.943			
	DC	SN	26:59	RO	1.00		0.60			1.001	2378-TCDD		AN
	DC	SN	28:03	RO	1.44		0.32			1.041			
	DC	WH	28:12	RO	3.00		0.05			1.046			
	DC	WH	28:19	RO	0.31		0.11			1.051			
	DC	WH	28:23	RO	1.38		0.14			1.053			
320-322			0 Peaks				0.00						
37Cl-TCDD									0.926-1.074				
328	DC	NL		Height			0.08	0.08					
	DC	WL	24:26				0.21			0.907			
	DC	WL	24:35				0.21			0.912			
	DC	WL	24:43				0.15			0.917			
	DC	WL	24:46				0.15			0.919			
	DC	WL	24:54				0.17			0.924			
	DC	SN	25:07				0.20			0.932			
	DC	SN	25:20				0.08			0.940			
	DC	SN	25:21				0.06			0.941			
	DC	SN	25:25				0.15			0.943			

Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				25:38			2.64	2.64		0.951			
	DC	SN		25:47			0.08			0.957			
	DC	SN		25:55			0.16			0.962			
	DC	SN		25:59			0.33			0.964			
	DC	SN		26:12			0.17			0.972			
	DC	SN		26:15			0.08			0.974			
	DC	SN		26:19			0.08			0.976			
	DC	SN		26:22			0.32			0.978			
	DC	SN		26:37			0.19			0.988			
	DC	SN		26:40			0.12			0.989			
	DC	SN		26:44			0.22			0.992			
				26:59			49.36	49.36		1.001	37Cl-TCDD		CLS
				27:17			0.35	0.35		1.012			
	DC	SN		27:22			0.14			1.015			
	DC	SN		27:23			0.12			1.016			
	DC	SN		27:35			0.34			1.024			
	DC	SN		27:40			0.15			1.027			
	DC	SN		27:49			0.35			1.032			
	DC	SN		28:00			0.28			1.039			
	DC	SN		28:08			0.52			1.044			
	DC	SN		28:32			0.65			1.059			
328			3 Peaks				52.35						
13C12-TCDD				0.65-0.89						0.926-1.074			
332-334	DC	NL			Height		0.22	0.17	0.05				
				26:47	0.83		627.79	284.88	342.91	0.994	13C12-1234-TCDD		RS1
				26:57	0.83		474.21	215.44	258.77	1.000	13C12-2378-TCDD		IS1
					Height		134.18	61.29	72.89				
332-334			2 Peaks				1,102.00						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.929-1.061			
340-342	DC	NL			Height		0.13	0.05	0.08				
	DC	SN		28:06	RO	0.50	0.21			0.931			
	DC	SN		28:32	RO	0.40	0.13			0.946			
	DC	SN		28:58	RO	0.50	0.16			0.960			
	DC	SN		29:04	RO	3.40	0.13			0.964			
	DC	SN		29:21	RO	1.07	0.38			0.973			
	DC	SN		29:34	RO	0.08	0.02			0.980			
	DC	SN		29:44		1.33	0.21			0.986			
	DC	SN		29:45	RO	0.78	0.12			0.986			
	DC	SN		29:49	RO	0.75	0.15			0.988			
	DC	SN		29:57	RO	0.38	0.15			0.993			
	DC	SN		29:59	RO	1.11	0.23			0.994			
	DC	SN		30:05	RO	0.75	0.20			0.997			
D	D	SN		30:10	RO	0.81	1.20			1.000	12378-PeCDF		AN
	DC	SN		30:27	RO	0.34	0.26			1.009			
D	D	SN		30:51	RO	0.60	1.05			1.023	23478-PeCDF		AN
	DC	SN		32:00	RO	0.40	0.13			1.061			
	DC	WH		32:11	RO	1.17	0.59			1.067			
340-342			0 Peaks				0.00						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-PeCDF				1.32-1.78						0.867-1.133			
352-354	DC	NL		Height			0.12	0.05	0.07				
				29:19		1.32	1.74	0.99	0.75	0.972			
				30:10		1.47	471.96	280.61	191.35	1.000	13C12-PeCDF 123	IS2	
				Height			147.82	86.27	61.55				
				30:27	RO	1.82	6.04	4.31	2.37	1.009			
				30:51		1.46	446.05	264.86	181.19	1.023	13C12-PeCDF 234	SUR1	
				31:12	RO	2.25	0.71	0.63	0.28	1.034			
				31:50		1.32	6.21	3.53	2.68	1.055			
352-354				6 Peaks			932.71						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.939-1.021			
356-358	DC	NL		Height			0.12	0.07	0.05				
	DC	SN	29:47	RO	1.29		0.36			0.955			
	DC	SN	30:21	RO	0.94		0.28			0.973			
D	D	SN	31:10		1.41		0.94			0.999	12378-PeCDD	AN	
	DC	SN	31:45	RO	1.27		0.28			1.018			
	DC	WH	31:56	RO	0.47		0.15			1.024			
356-358				0 Peaks			0.00						
13C12-PeCDD				1.32-1.78						0.872-1.128			
368-370	DC	NL		Height			0.12	0.06	0.06				
	DC	SN	29:19	RO	0.63		0.20			0.940			
	DC	SN	29:23	RO	1.29		0.18			0.942			
	DC	SN	29:29	RO	1.00		0.28			0.945			
	DC	SN	29:50	RO	1.83		0.15			0.957			
	DC	SN	30:08	RO	2.02		1.07			0.966			
			30:15		1.49		1.92	1.15	0.77	0.970			
			31:11		1.42		317.25	186.39	130.86	1.000	13C12-PeCDD 123	IS3	
			Height				105.19	61.20	43.99				
			31:19	RO	1.29		3.85	1.95	1.51	1.004			
	DC	SN	31:40	RO	2.11		0.48			1.015			
	DC	SN	31:43	RO	0.63		0.39			1.017			
	DC	SN	31:49		1.58		0.31			1.020			
	DC	SN	31:58	RO	1.89		0.23			1.025			
	DC	SN	32:08	RO	0.73		0.13			1.030			
368-370				3 Peaks			323.02						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.964-1.046			
374-376	DC	NL		Height			0.11	0.06	0.05				
D	D	SN	33:38		1.41		0.77			0.998	123478-HxCDF	AN	
D	D	SN	33:43	RO	0.96		0.87			1.000	123678-HxCDF	AN	
	DC	SN	33:52	RO	0.50		0.05			1.005			
	DC	SN	33:57	RO	0.82		0.25			1.007			
	DC	SN	34:02	RO	0.67		0.18			1.010			
			34:13		1.36		1.11	0.64	0.47	1.015	234678-HxCDF	AN	J
	DC	SN	34:43	RO	3.33		0.07			1.030			
D	D	SN	34:59	RO	1.87		0.67			1.038	123789-HxCDF	AN	

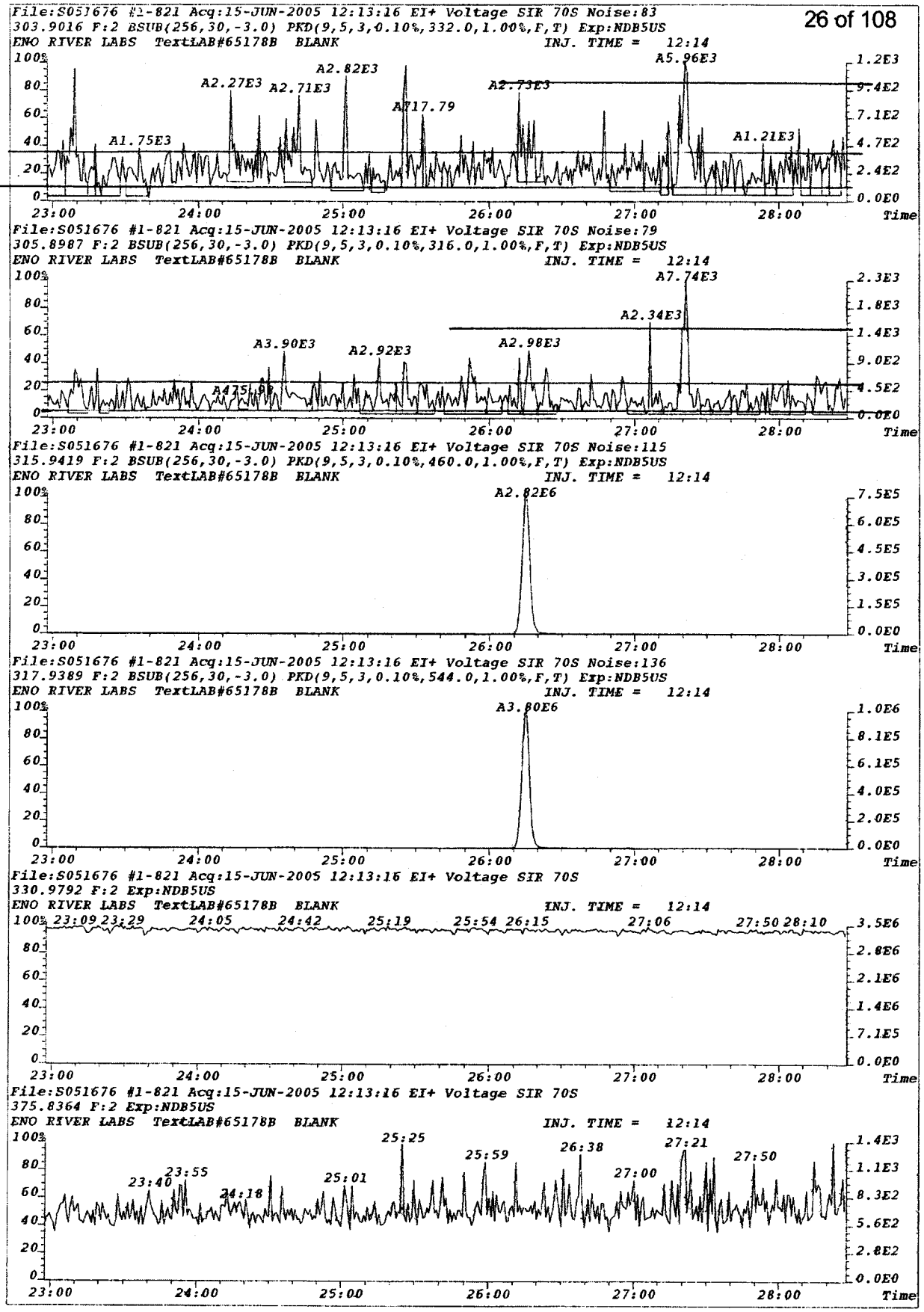
Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		35:09	RO	0.50	0.11			1.043			
	DC	SN		35:13	RO	2.00	0.09			1.045			
	DC	WH		35:16		1.15	0.28			1.046			
	DC	WH		35:28	RO	1.00	0.16			1.052			
374-376		1	Peak				1.11						
13C12-HxCDF				0.43-0.59						0.881-1.119			
384-386	DC	NL			Height		0.20	0.09	0.11				
	DC	SN		32:39		0.59	0.62			0.969			
	DC	SN		32:46	RO	0.28	0.38			0.972			
				33:36		0.50	315.21	105.04	210.17	0.997	13C12-HxCDF 478	SUR2	
				33:42		0.49	325.80	107.69	218.11	1.000	13C12-HxCDF 678	IS4	
					Height		106.39	34.62	71.77				
	DC	SN		34:00	RO	1.11	0.41			1.009			
				34:12		0.49	321.13	105.93	215.20	1.015	13C12-HxCDF 234	ALT2	
				34:21	RO	1.23	0.94	0.76	0.62	1.019			
				34:58		0.49	240.45	78.87	161.58	1.038	13C12-HxCDF 789	ALT1	
				35:13	RO	0.35	0.44	0.15	0.43	1.045			
				35:16	RO	1.25	0.54	0.45	0.36	1.046			
384-386		7	Peaks				1,204.51						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43						0.959-1.014			
390-392	DC	NL			Height		0.13	0.05	0.08				
	DC	SN		34:19	RO	0.92	0.42			0.998	123478-HxCDD		AN
D	D	SN		34:24	RO	1.03	0.67			1.000	123678-HxCDD		AN
D	D	SN		34:42	RO	1.60	0.56			1.009	123789-HxCDD		AN
390-392		0	Peaks				0.00						
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL			Height		0.18	0.07	0.11				
	DC	SN		33:34	RO	0.77	0.36			0.976			
				33:48	RO	0.81	2.31		1.28	1.58	0.983		
				34:18		1.19	225.93	122.90	103.03	0.998	13C12-HxCDD 478	SUR3	
				34:23		1.19	262.57	142.63	119.94	1.000	13C12-HxCDD 678	IS5	
					Height		83.29	45.63	37.66				
				34:42		1.17	274.25	148.13	126.12	1.009	13C12-HxCDD 789	RS2	
402-404		4	Peaks				765.06						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20						0.996-1.048			
408-410	DC	NL			Height		0.15	0.09	0.06				
D	D	SN		36:38	RO	0.63	0.65			1.000	1234678-HpCDF		AN
	DC	SN		36:59	RO	2.00	0.16			1.010			
	DC	SN		37:15	RO	0.86	0.12			1.017			
	DC	SN		38:12	RO	1.45	0.63			1.043	1234789-HpCDF		AN
408-410		0	Peaks				0.00						
13C12-HpCDF				0.37-0.51						0.945-1.109			
418-420	DC	NL			Height		0.15	0.07	0.08				

Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				36:37		0.44	192.97	58.78	134.19	1.000	13C12-HpCDF 678	IS6	
						Height	53.80	16.36	37.44				
	DC	SN		36:59		0.43	0.63			1.010			
	DC	SN		37:12		0.48	0.31			1.016			
	DC	SN		37:46	RO	1.47	0.22			1.031			
	DC	SN		37:58		0.46	0.35			1.037			
				38:11		0.45	147.24	45.61	101.63	1.043	13C12-HpCDF 789	SUR4	
	DC	SN		38:35	RO	1.41	0.53			1.054			
418-420				2 Peaks			340.21						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20				0.976-1.005			
424-426	DC	NL				Height	0.13	0.07	0.06				
	DC	SN		37:40	RO	0.76	0.67			1.000	1234678-HpCDD		AN
	DC	WH		38:09	RO	5.83	0.12			1.013			
424-426				0 Peaks			0.00						
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	0.19	0.10	0.09				
	DC	SN		36:57	RO	0.45	0.27			0.981			
	DC	SN		37:12	RO	2.50	0.12			0.988			
				37:40		0.99	174.16	86.82	87.34	1.000	13C12-HpCDD 678	IS7	
						Height	46.68	22.97	23.71				
				37:53	RO	0.80	0.86	0.44	0.55	1.006			
436-438				2 Peaks			175.02						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02				0.903-1.097			
442-444	DC	NL				Height	0.15	0.07	0.08				
	DC	WL		36:14	RO	0.56	0.11			0.877			
	DC	WL		36:28	RO	1.50	0.11			0.883			
	DC	WL		36:41		0.86	0.41			0.888			
	DC	WL		37:09	RO	0.53	0.21			0.899			
	DC	SN		37:21	RO	0.54	0.15			0.904			
	DC	SN		38:29	RO	1.09	0.42			0.931			
	DC	SN		41:33		1.00	0.76			1.006	OCDF		AN
	DC	SN		42:02	RO	1.33	0.17			1.017			
	DC	SN		42:19	RO	0.45	0.36			1.024			
	DC	SN		42:27		0.96	0.49			1.027			
442-444				0 Peaks			0.00						
OCDD						0.76-1.02				0.903-1.097			
458-460	DC	NL				Height	0.11	0.05	0.06				
	DC	SN		38:17		1.00	0.26			0.927			
	DC	SN		39:14	RO	0.60	0.06			0.950			
	DC	SN		39:22	RO	0.60	0.06			0.953			
	DC	SN		39:30	RO	1.33	0.11			0.956			
	DC	SN		39:55		0.78	0.16			0.966			
	DC	SN		41:21	RO	1.46	0.66			1.001	OCDD		AN
	DC	SN		43:27	RO	0.60	0.25			1.052			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		43:38	RO	0.40	0.04			1.056			
	DC	SN		43:53	RO	0.42	0.11			1.062			
458-460		0	Peaks				0.00						
13C12-OCDD				0.76-1.02						0.952-1.048			
470-472	DC	NL		Height			0.10	0.05	0.05				
	DC	WL		37:11	RO	1.21	0.26			0.900			
	DC	WL		37:34	RO	0.29	0.11			0.909			
	DC	WL		39:16		0.95	0.41			0.950			
	DC	SN		40:08	RO	1.22	0.17			0.971			
	DC	SN		40:24	RO	0.69	0.19			0.978			
	DC	SN		40:35	RO	1.08	0.25			0.982			
				41:19		0.83	232.35	105.64	126.71	1.000	13C12-OCDD		IS8
				Height			49.27	22.81	26.46				
				41:33	RO	1.13	1.27	0.76	0.67	1.006			
	DC	SN		41:40	RO	0.70	0.45			1.008			
	DC	SN		42:10	RO	0.52	0.23			1.021			
	DC	SN		42:21	RO	1.63	0.36			1.025			
	DC	SN		42:35	RO	0.40	0.08			1.031			
	DC	WH		43:22	RO	0.52	0.30			1.050			
	DC	WH		43:54		1.00	0.16			1.063			
	DC	WH		44:19	RO	1.42	0.23			1.073			
	DC	WH		44:36		0.79	0.25			1.079			
470-472		2	Peaks				233.62						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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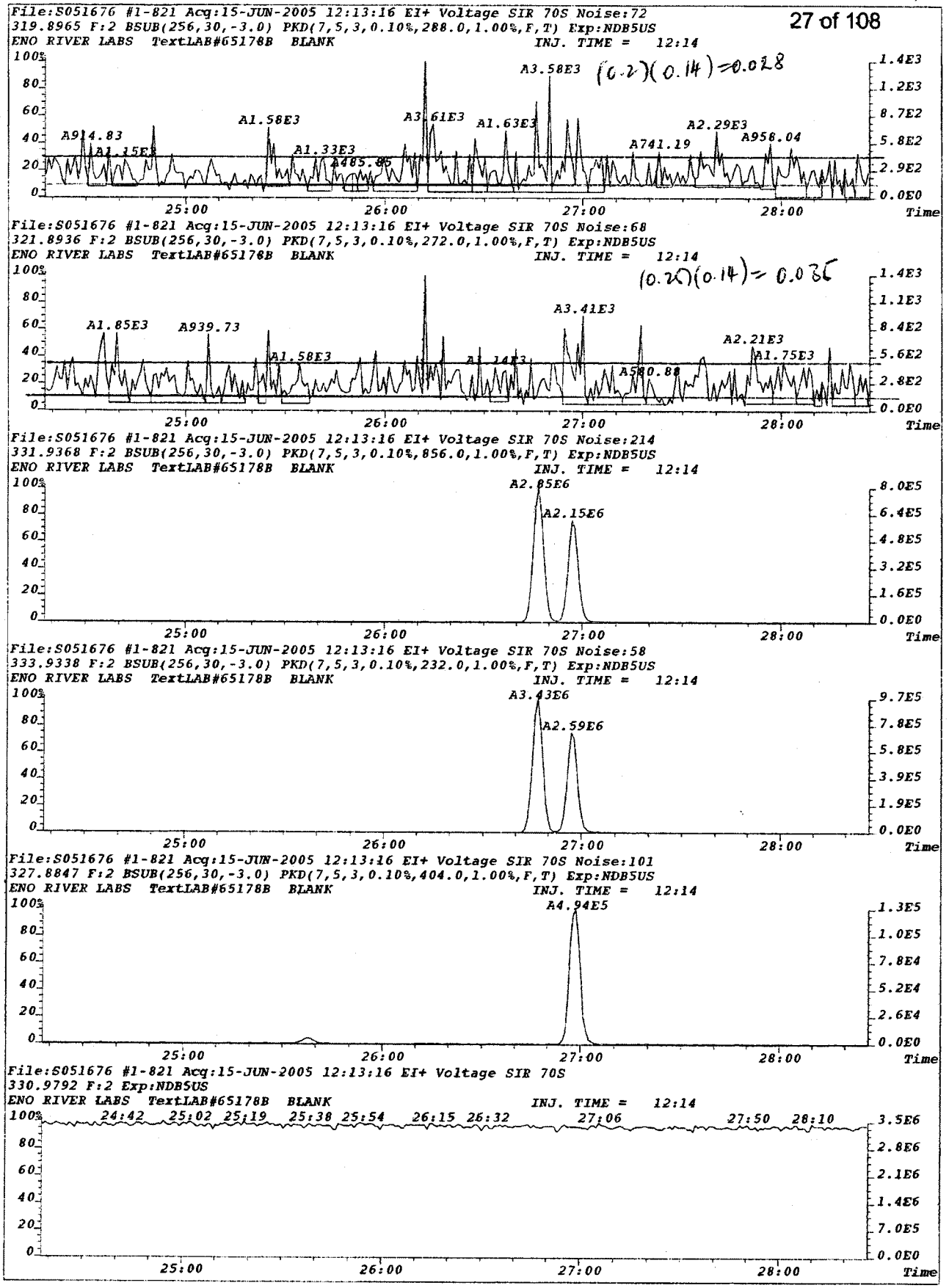
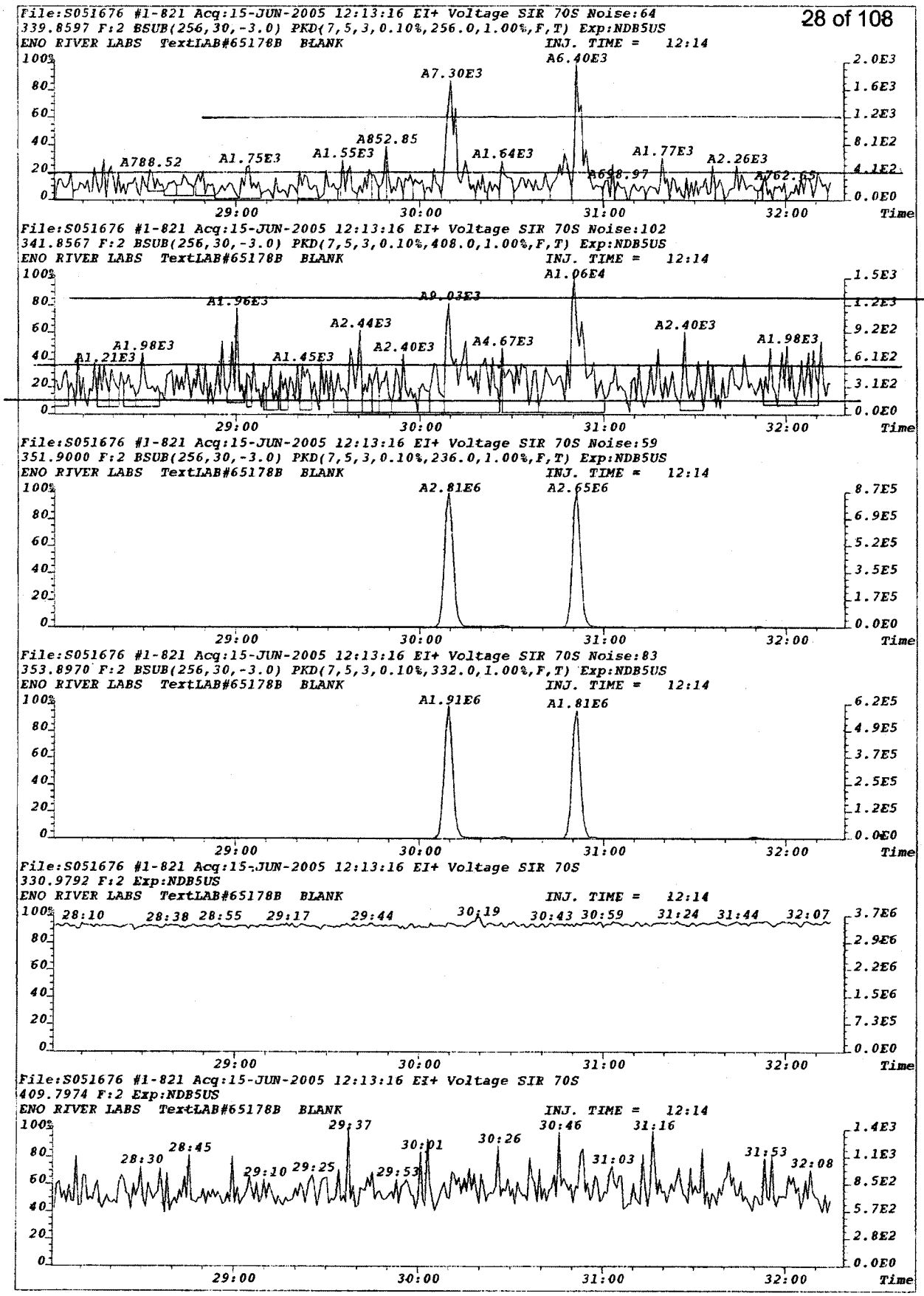
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A1.75E3
A2.27E3
A2.71E3
A2.82E3
A717.79
A2.73E3
A5.96E3
A1.21E3
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:79
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,316.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A3.90E3
A2.92E3
A2.98E3
A2.34E3
A7.74E3
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:115
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,460.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A2.82E6
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:136
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,544.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A3.80E6
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
23:40
23:55
24:18
25:01
25:25
25:59
26:38
27:00
27:21
27:50
Time

N=0.04 75% 6/15/05

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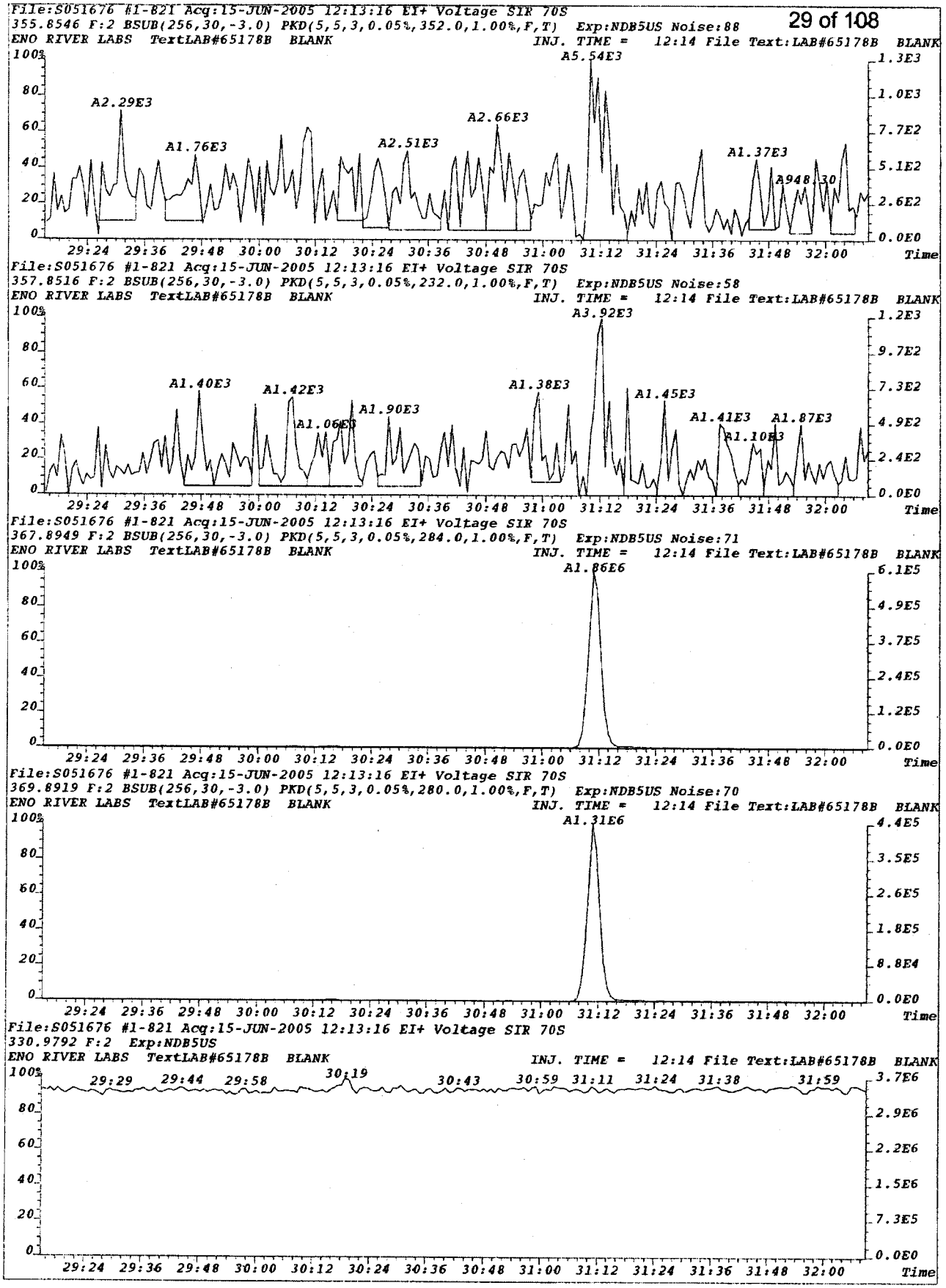
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,256.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A6.40E3
A7.30E3
A852.85
A788.52
A1.75E3
A1.55E3
A1.64E3
A1.77E3
A2.26E3
A698.97
A762.65
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:102
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,408.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A1.06E4
A9.03E3
A1.96E3
A2.44E3
A2.40E3
A4.67E3
A2.40E3
A1.98E3
A1.21E3
A1.45E3
A1.98E3
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:59
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,236.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A2.81E6
A2.65E6
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:83
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,332.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A1.91E6
A1.81E6
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
28:10 28:38 28:55 29:17 29:44 30:19 30:43 30:59 31:24 31:44 32:07
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
28:30 28:45 29:10 29:25 29:37 29:53 30:01 30:26 30:46 31:03 31:16 31:53 32:08
29:00 30:00 31:00 32:00 Time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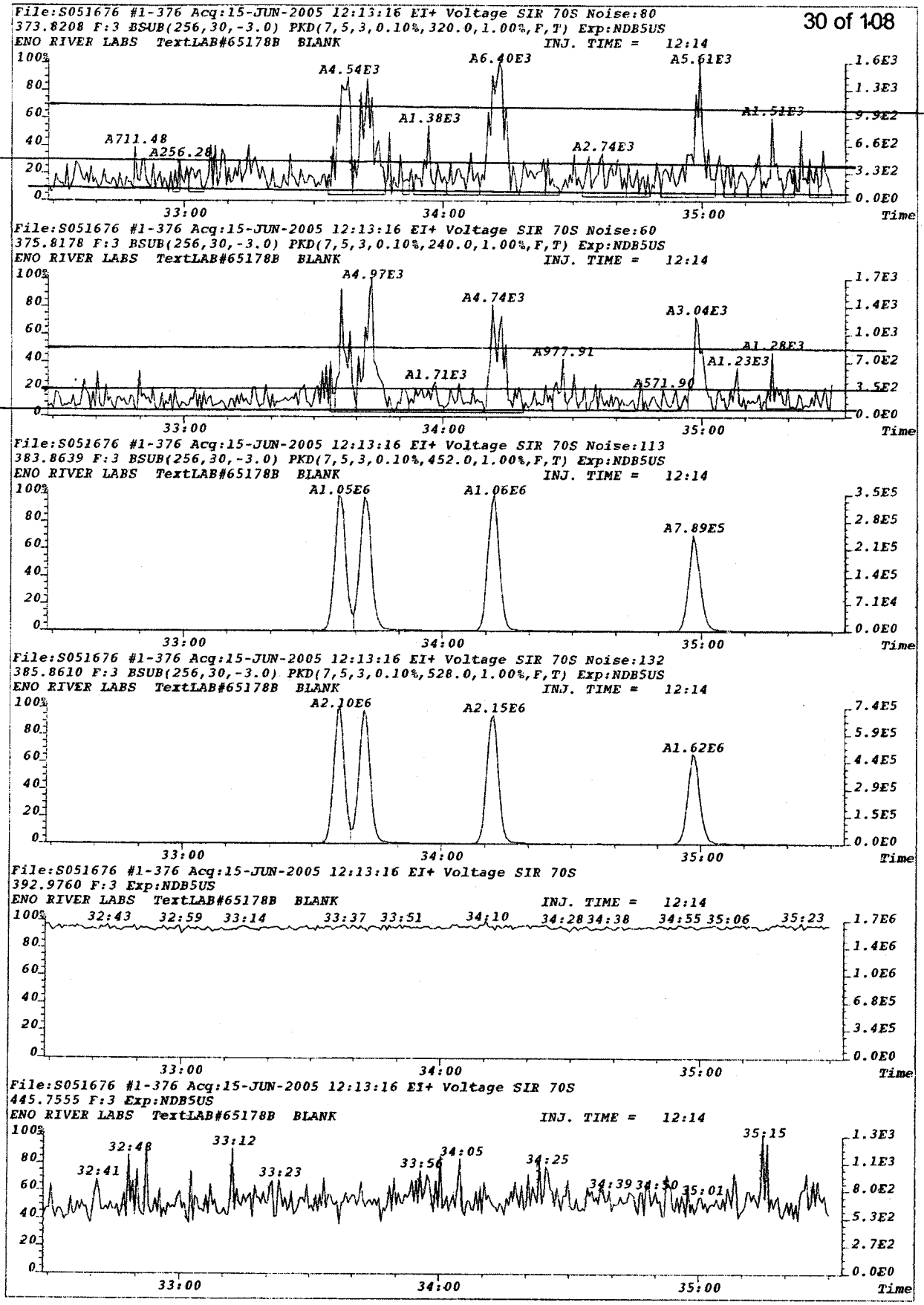
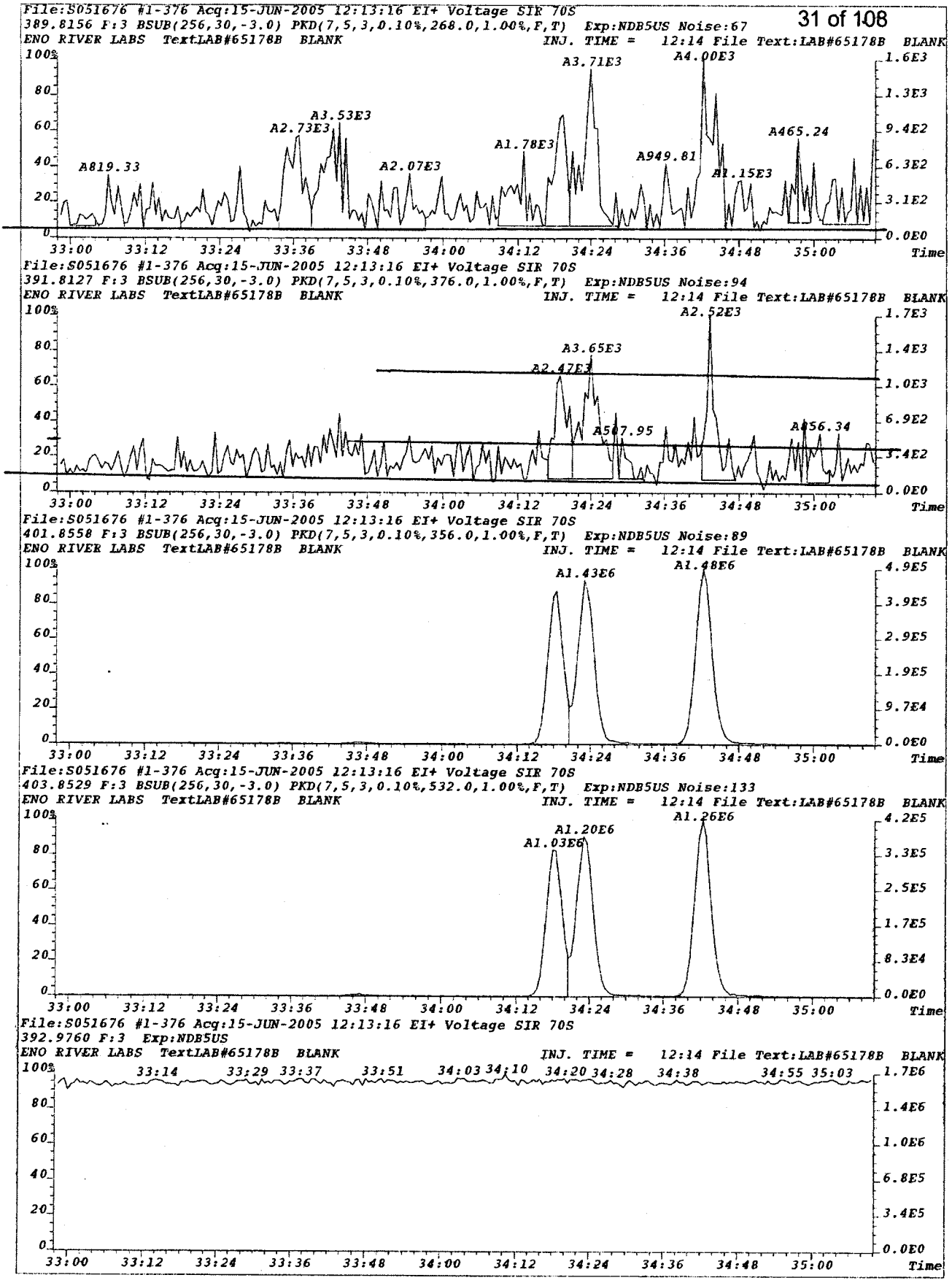
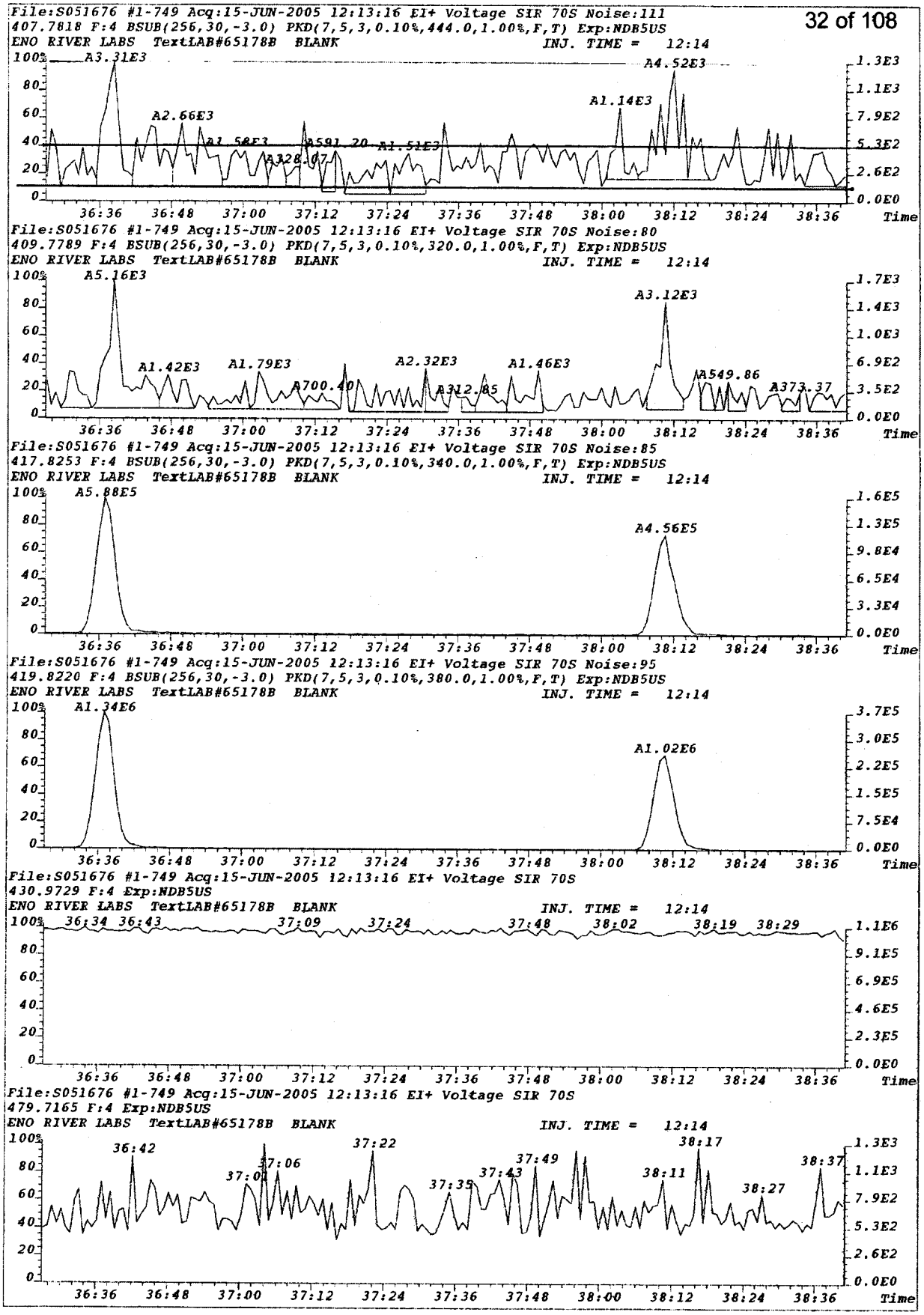
355.8546 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US Noise:88
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A5.54E3
A2.29E3
A2.66E3
A1.76E3
A2.51E3
A1.37E3
A948.30
Time
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
357.8516 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,232.0,1.00%,F,T) Exp:NDB5US Noise:58
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A3.92E3
A1.40E3
A1.42E3
A1.38E3
A1.45E3
A1.90E3
A1.06E3
A1.41E3
A1.87E3
A1.10E3
Time
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
367.8949 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US Noise:71
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.86E6
Time
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
369.8919 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US Noise:70
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.31E6
Time
File:S051676 #1-821 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
Time


File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:80
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,320.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A711.48
A256.28
A4.54E3
A1.38E3
A6.40E3
A2.74E3
A5.61E3
A1.51E3
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:60
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,240.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A4.97E3
A4.74E3
A1.71E3
A977.91
A3.04E3
A1.23E3
A1.28E3
A571.90
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:113
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,452.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A1.05E6
A1.06E6
A7.89E5
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:132
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,528.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A2.10E6
A2.15E6
A1.62E6
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
32:43 32:59 33:14 33:37 33:51 34:10 34:28 34:38 34:55 35:06 35:23
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
32:41
32:48
33:12
33:23
33:56
34:05
34:25
34:39
34:50
35:01
35:15
33:00
34:00
35:00
Time


File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,268.0,1.00%,F,T) Exp:NDB5US Noise:67
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A819.33
A2.73E3
A3.53E3
A2.07E3
A1.78E3
A3.71E3
A949.81
A4.00E3
A1.15E3
A465.24
Time
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,376.0,1.00%,F,T) Exp:NDB5US Noise:94
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A2.52E3
A3.65E3
A2.47E3
A507.95
A456.34
Time
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,356.0,1.00%,F,T) Exp:NDB5US Noise:89
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.43E6
A1.48E6
Time
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,532.0,1.00%,F,T) Exp:NDB5US Noise:133
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.03E6
A1.20E6
A1.26E6
Time
File:S051676 #1-376 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
Time


File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:111
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,444.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A3.31E3
A4.52E3
A2.66E3
A1.14E3
A1.51E3
A328.07
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:80
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,320.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A5.16E3
A3.12E3
A1.42E3
A1.79E3
A700.40
A2.32E3
A1.46E3
A549.86
A373.37
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:85
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,340.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A5.88E5
A4.56E5
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:95
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,380.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
A1.34E6
A1.02E6
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
479.7165 F:4 Exp:NDB5US
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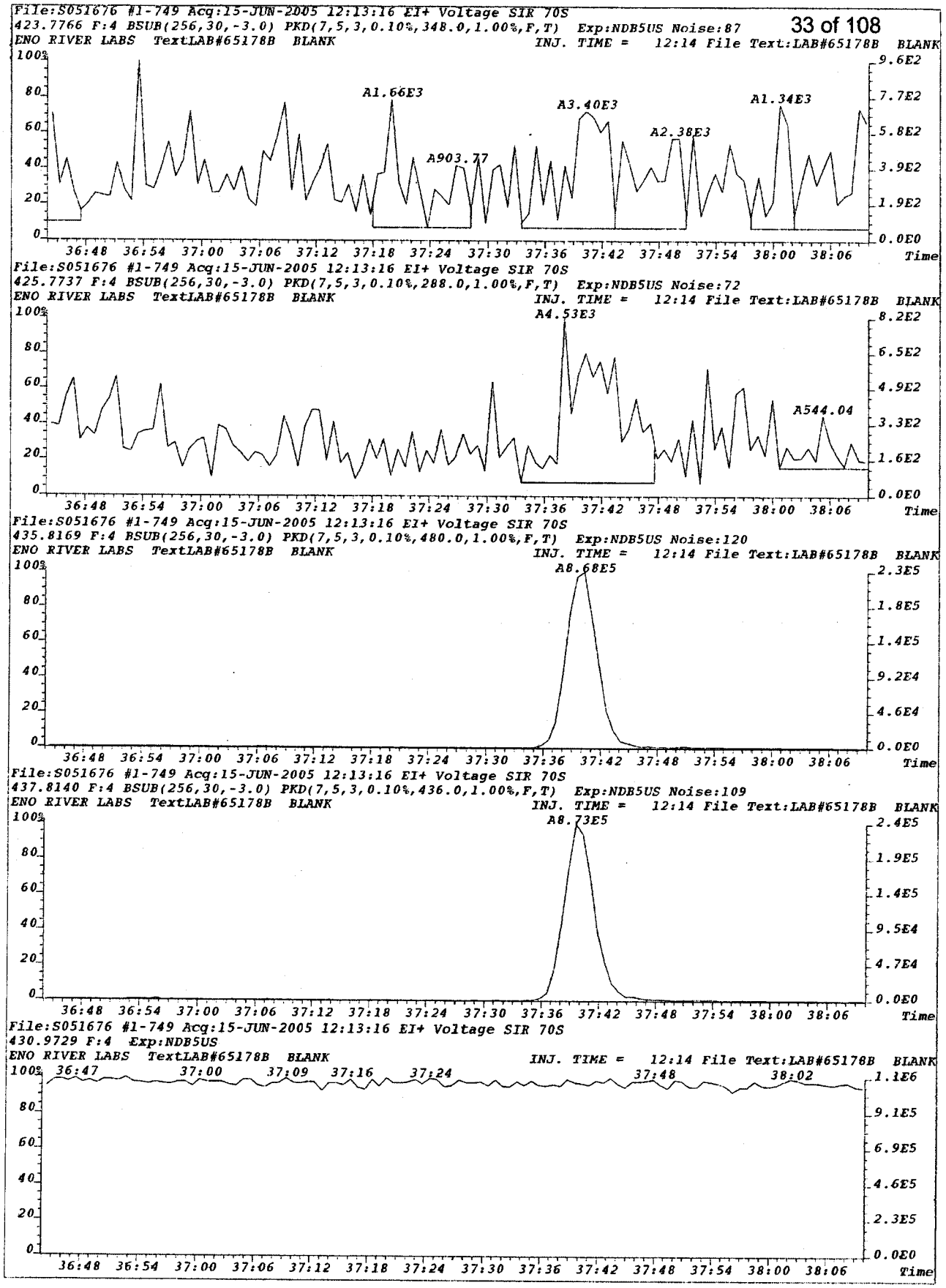
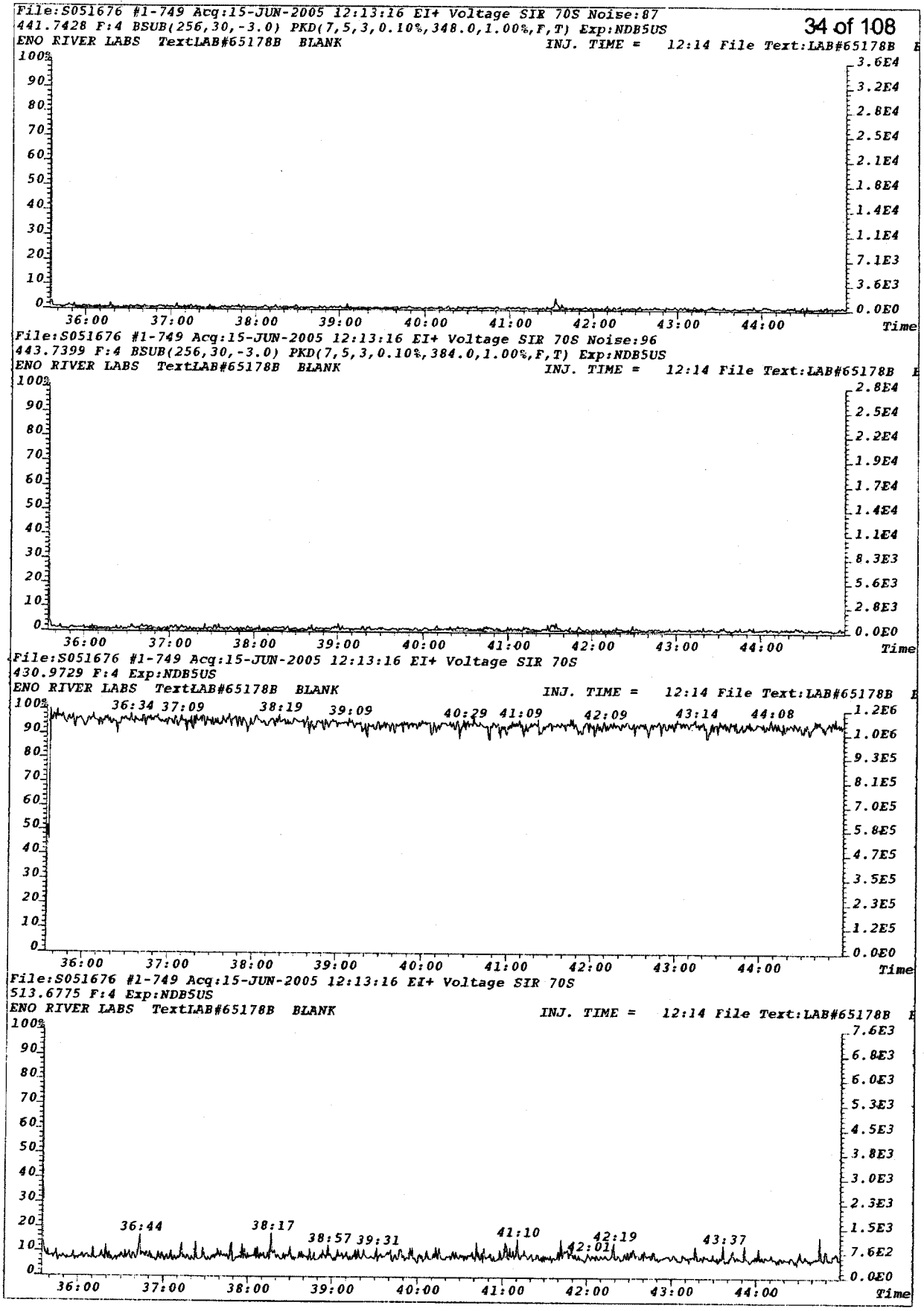
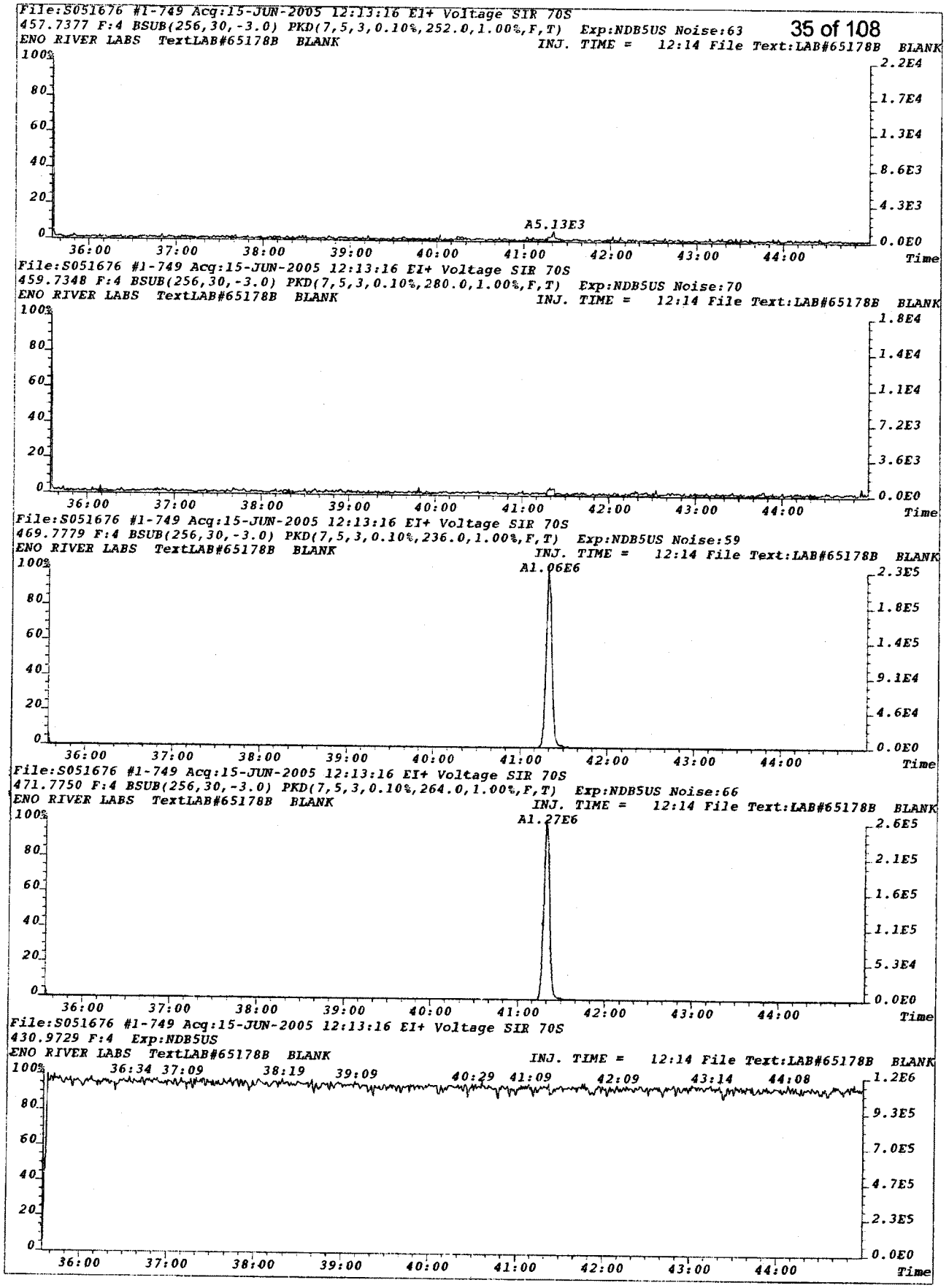
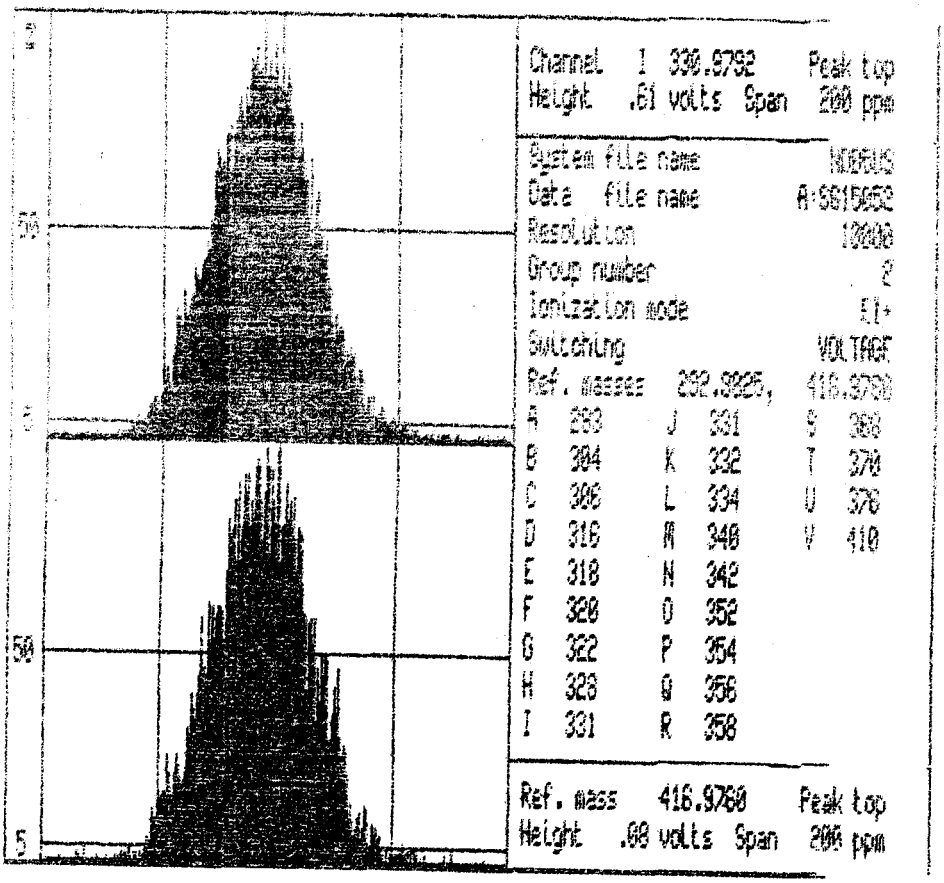
INJ. TIME = 12:14
Time


File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,348.0,1.00%,F,T) Exp:NDB5US Noise:87
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.66E3
A903.77
A3.40E3
A2.38E3
A1.34E3
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,288.0,1.00%,F,T) Exp:NDB5US Noise:72
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A4.53E3
A544.04
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,480.0,1.00%,F,T) Exp:NDB5US Noise:120
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A8.68E5
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,436.0,1.00%,F,T) Exp:NDB5US Noise:109
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A8.73E5
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
Time


File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:87
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,348.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S Noise:96
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,384.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B
36:34 37:09 38:19 39:09 40:29 41:09 42:09 43:14 44:08
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B
36:44 38:17 38:57 39:31 41:10 42:01 42:19 43:37
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00 Time


File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,252.0,1.00%,F,T) Exp:NDB5US Noise:63
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A5.13E3
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,280.0,1.00%,F,T) Exp:NDB5US Noise:70
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,236.0,1.00%,F,T) Exp:NDB5US Noise:59
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.06E6
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,264.0,1.00%,F,T) Exp:NDB5US Noise:66
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
A1.27E6
File:S051676 #1-749 Acq:15-JUN-2005 12:13:16 EI+ Voltage SIR 70S
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B BLANK
INJ. TIME = 12:14 File Text:LAB#65178B BLANK
36:34 37:09 38:19 39:09 40:29 41:09 42:09 43:14 44:08
36:00 37:00 38:00 39:00 40:00 41:00 42:00 43:00 44:00
Time


Channel 1 399.9792 Peak top
Height .61 volts Span 200 ppm
System file name MODBUS
Data file name A:SS15052
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 282.9825, 416.9760
A 293 J 331 S 368
B 304 K 332 T 370
C 306 L 334 U 376
D 316 M 340 V 410
E 318 N 342
F 320 O 352
G 322 P 354
H 328 Q 356
I 331 R 358
Ref. mass 416.9760 Peak top
Height .08 volts Span 200 ppm

Lab Project: **65208** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **BBIPZ101** Analysis File: **T051787**

Client Project:	**Presidio/Baker Beach**				
Sample Matrix:	**WATER**	Date Received:	**06/01/2005**	Spike File:	**SPMIT32S**
Lab ID:	**404-22-1A**	Date Extracted:	**06/09/2005**	ICal:	**TF5O224**
		Date Analyzed:	**06/15/2005**	ConCal:	**T051775**
Sample Size:	**1.035 L**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**S051676**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**TTF**	% Solids:	**n/a**

Analytes	Conc. (pg/L)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	1.2				
1,2,3,7,8-PeCDD	ND	1.3				
1,2,3,4,7,8-HxCDD	ND	1.6				
1,2,3,6,7,8-HxCDD	ND	1.5				
1,2,3,7,8,9-HxCDD	ND	1.5				
1,2,3,4,6,7,8-HpCDD	ND	2.5				
1,2,3,4,6,7,8,9-OCDD	9.0			0.84	41:41	J
2,3,7,8-TCDF	ND	1.0				
1,2,3,7,8-PeCDF	ND	1.0				
2,3,4,7,8-PeCDF	ND	0.9				
1,2,3,4,7,8-HxCDF	ND	1.0				
1,2,3,6,7,8-HxCDF	ND	1.0				
2,3,4,6,7,8-HxCDF	ND	0.9				
1,2,3,7,8,9-HxCDF	ND	1.2				
1,2,3,4,6,7,8-HpCDF	ND	1.5				
1,2,3,4,7,8,9-HpCDF	ND	1.8				
1,2,3,4,6,7,8,9-OCDF	ND	3.3				

Totals	Conc. (pg/L)	Number	DL	EMPC	Flags
Total TCDD	ND		1.2		
Total PeCDD	ND		1.3		
Total HxCDD	ND		1.5		
Total HpCDD	ND		2.5		
Total TCDF	ND		1.0		
Total PeCDF	ND		1.0		
Total HxCDF	ND		1.0		
Total HpCDF	ND		1.7		

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 07:52 06/22/2005

Lab Project: 65208 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: BBIPZ101 Analysis File: T051787

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	834	43.1	40%-135%	0.72	26:27	___
$^{13}C_{12}$-2,3,7,8-TCDD	934	48.4	40%-135%	0.77	27:09	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1050	54.6	40%-135%	1.46	30:21	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1060	55.0	40%-135%	1.47	31:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1180	61.1	40%-135%	0.49	33:53	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1090	56.5	40%-135%	1.20	34:34	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1070	55.2	40%-135%	0.42	36:50	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1070	55.5	40%-135%	1.01	37:55	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	1990	51.6	40%-135%	0.85	41:40	___

Surrogate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	755	39.1	40%-135%	1.47	31:03	V___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1120	57.7	40%-135%	0.50	33:47	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1180	60.9	40%-135%	1.19	34:29	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	669	34.6	40%-135%	0.41	38:26	V___

Other Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	88.1	45.6	40%-135%	27:10	___

Alternate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	751	38.9	40%-135%	0.49	35:10	V___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	854	44.2	40%-135%	0.50	34:23	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.80	26:59	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:54	___

Data Reviewer: _____ 06/22/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 07:52 06/22/2005

Initial ....Date...

Data Review By: PAB 6/22/05

Calculated Noise Height: 0.03

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T051787B.dbf
06/22/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89					0.878-1.071				
304-306	DC	NL			Height		<0.01	0.00	0.00				
	DC	SN	24:28	RO	0.43		0.14			0.925			
	DC	SN	25:00	RO	1.29		0.12			0.945			
	DC	SN	27:33	RO	0.57		0.37			1.042			
304-306			0 Peaks				0.00						
13C12-TCDF				0.65-0.89					0.962-1.038				
316-318	DC	NL			Height		<0.01	0.00	0.00				
	DC	WL	25:26	RO	1.04		1.86			0.962			
			26:27		0.72		442.34	185.12	257.22	1.000	13C12-2378-TCDF	IS0	
					Height		113.47	45.98	67.49				
			27:00	RO	1.57		0.62	0.55	0.35	1.021			
316-318			2 Peaks				442.96						
---------- Above: TCDF / TCDD Follows ----------													
TCDD				0.65-0.89					0.903-1.042				
320-322	DC	NL			Height		<0.01	0.00	0.00				
	DC	SN	24:43	RO	0.27		0.07			0.910	1368-TCDD	AN	
	DC	SN	25:12	RO	0.12		0.01			0.928			
	DC	SN	25:26	RO	1.50		0.04			0.937			
	DC	SN	26:00	RO	3.00		0.02			0.958			
	DC	SN	26:28	RO	5.00		0.07			0.975			
	DC	SN	26:54	RO	0.33		0.05			0.991			
	DC	SN	27:32		0.88		0.15			1.014			
	DC	SN	27:48	RO	0.50		0.05			1.024			
	DC	SN	27:57	RO	4.50		0.04			1.029			
	DC	WH	28:26	RO	0.48		0.01			1.047			
320-322			0 Peaks				0.00						
37C1-TCDD									0.927-1.073				
328	DC	NL			Height		<0.01	0.00					
	DC	WL	24:38				0.10			0.907			
	DC	WL	24:51				0.06			0.915			
	DC	WL	25:03				0.07			0.923			
	DC	SN	25:26				0.09			0.937			
	DC	SN	25:40				0.13			0.945			
			25:51				1.16	1.16		0.952			
	DC	SN	26:02				0.08			0.959			
	DC	SN	26:15				0.03			0.967			
	DC	SN	26:36				0.10			0.980			
	DC	SN	26:45				0.03			0.985			
	DC	SN	26:52				0.05			0.990			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		27:01			0.06			0.995			
				27:10			36.06	36.06		1.001	37Cl-TCDD		CLS
				27:22			0.25	0.25		1.008			
				27:29			0.27	0.27		1.012			
	DC	SN		27:39			0.03			1.018			
	DC	SN		27:43			0.07			1.021			
	DC	SN		28:06			0.07			1.035			
	DC	SN		28:18			0.05			1.042			
	DC	SN		28:29			0.02			1.049			
	DC	SN		28:39			0.04			1.055			
328			4	Peaks			37.74						
13C12-TCDD					0.65-0.89					0.927-1.073			
332-334	DC	NL			Height		0.05	0.05		0.00			
				26:59		0.80	687.61	306.44		381.17	0.994	13C12-1234-TCDD	RS1
				27:09		0.77	366.41	159.04		207.37	1.000	13C12-2378-TCDD	IS1
					Height		102.09	44.31		57.78			
332-334			2	Peaks			1,054.02						

---------- Above: TCDD / PeCDF Follows ----------

PeCDF					1.32-1.78					0.929-1.060			
340-342	DC	NL			Height		0.05	0.05		0.00			
	DC	SN		28:18	RO	0.18	0.03			0.932			
	DC	SN		28:24	RO	0.86	0.20			0.936			
	DC	SN		28:39	RO	0.27	0.05			0.944			
	DC	SN		29:06	RO	6.00	0.03			0.959			
	DC	SN		29:31	RO	10.00	0.05			0.973			
	DC	SN		29:45		1.40	0.12			0.980			
	DC	SN		29:54	RO	0.44	0.07			0.985			
	DC	SN		30:07	RO	1.14	0.18			0.992			
	DC	SN		30:25	RO	6.00	0.13			1.002			
	DC	SN		31:04	RO	0.24	0.08			1.024	23478-PeCDF		AN
	DC	SN		31:35	RO	4.00	0.03			1.041			
	DC	WH		32:11	RO	3.00	0.08			1.060			
	DC	WH		32:26		1.75	0.11			1.069			
340-342			0	Peaks			0.00						
13C12-PeCDF					1.32-1.78					0.868-1.132			
352-354	DC	NL			Height		<0.01	0.00		0.00			
				29:31		1.44	19.50	11.51		7.99	0.973		
				29:59		1.40	7.25	4.23		3.02	0.988		
				30:21		1.46	453.44	268.86		184.58	1.000	13C12-PeCDF 123	IS2
					Height		143.78	84.47		59.31			
				30:38		1.57	5.86	3.58		2.28	1.009		
				31:03		1.47	334.16	198.78		135.38	1.023	13C12-PeCDF 234	SUR1
				31:22		1.61	0.73	0.45		0.28	1.033		
				32:00	RO	1.25	3.60	1.76		1.41	1.054		
352-354			7	Peaks			824.54						

---------- Above: PeCDF / PeCDD Follows ----------

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
PeCDD				1.32-1.78						0.939-1.021			
356-358	DC	NL		Height			<0.01	0.00	0.00				
	DC	SN		29:31	RO	0.70	0.12			0.941			
	DC	SN		29:50		1.60	0.13			0.951			
	DC	SN		29:57	RO	0.60	0.05			0.955			
	DC	SN		30:23	RO	11.00	0.05			0.969			
	DC	SN		30:36	RO	0.67	0.10			0.976			
	DC	SN		31:25	RO	0.75	0.20			1.002			
	DC	SN		31:31	RO	2.33	0.08			1.005			
	DC	SN		31:52	RO	7.50	0.05			1.016			
	DC	WH		32:06	RO	0.75	0.05			1.023			
356-358			0	Peaks			0.00						
13C12-PeCDD				1.32-1.78						0.873-1.127			
368-370	DC	NL		Height			<0.01	0.00	0.00				
				30:19		1.37	0.64	0.37	0.27	0.967			
				30:27	RO	1.87	1.61	1.18	0.63	0.971			
				31:22		1.47	257.38	153.17	104.21	1.000	13C12-PeCDD 123	IS3	
				Height			87.16	52.08	35.08				
368-370			3	Peaks			259.63						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.964-1.045			
374-376	DC	NL		Height			<0.01	0.00	0.00				
	DC	SN		33:06	RO	7.00	0.02			0.977			
	DC	SN		33:12	RO	1.50	0.04			0.980			
	DC	SN		33:29	RO	5.00	0.02			0.988			
	DC	SN		33:37	RO	9.00	0.02			0.992			
	DC	SN		33:48	RO	0.85	0.31			0.998	123478-HxCDF	AN	
	DC	SN		33:54	RO	0.83	0.18			1.000	123678-HxCDF	AN	
	DC	SN		34:05		1.14	0.15			1.006			
	DC	SN		34:12	RO	2.00	0.04			1.009			
	DC	SN		34:23	RO	0.79	0.20			1.015	234678-HxCDF	AN	
	DC	SN		34:37	RO	0.33	0.04			1.022			
	DC	SN		34:56	RO	5.00	0.02			1.031			
	DC	SN		35:03	RO	1.50	0.04			1.034			
	DC	SN		35:11	RO	0.91	0.18			1.038	123789-HxCDF	AN	
	DC	SN		35:16	RO	1.00	0.09			1.041			
	DC	SN		35:23	RO	7.00	0.02			1.044			
	DC	WH		35:27	RO	2.00	0.02			1.046			
	DC	WH		35:37	RO	6.00	0.02			1.051			
	DC	WH		35:47	RO	5.00	0.02			1.056			
374-376			0	Peaks			0.00						
13C12-HxCDF				0.43-0.59						0.882-1.118			
384-386	DC	NL		Height			0.13	0.04	0.09				
				32:50	RO	0.62	3.70	1.25	2.02	0.969			
				32:58		0.47	18.44	5.90	12.54	0.973			
				33:47		0.50	361.14	120.28	240.86	0.997	13C12-HxCDF 478	SUR2	
				33:53		0.49	388.87	128.32	260.55	1.000	13C12-HxCDF 678	IS4	
				Height			126.23	41.00	85.23				

Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				34:02	RO	0.84	1.60	0.54	0.64	1.004			
				34:07	RO	0.42	0.56	0.19	0.45	1.007			
				34:11	RO	0.86	1.10	0.37	0.43	1.009			
				34:23		0.50	287.20	95.37	191.83	1.015	13C12-HxCDF 234	ALT2	
				34:41	RO	1.88	0.24	0.30	0.16	1.024			
				34:54	RO	1.00	0.23	0.15	0.15	1.030			
				35:10		0.49	209.22	68.50	140.72	1.038	13C12-HxCDF 789	ALT1	
	DC	SN		35:27		0.43	0.33			1.046			
384-386			11 Peaks				1,272.30						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD												
390-392				1.05-1.43					0.959-1.013			
	DC	NL		Height			<0.01	0.00	0.00			
	DC	SN	33:11	RO	0.40		0.04			0.960		
	DC	SN	33:22	RO	1.67		0.07			0.965		
	DC	SN	33:47	RO	2.82		0.25			0.977		
	DC	SN	33:53	RO	3.00		0.20			0.980		
	DC	SN	33:57	RO	0.60		0.05			0.982		
	DC	SN	34:04	RO	3.00		0.02			0.986		
	DC	SN	34:17	RO	0.33		0.05			0.992		
	DC	SN	34:35	RO	0.20		0.02			1.000	123678-HxCDD	AN
	DC	SN	34:38	RO	2.50		0.04			1.002		
	DC	SN	34:47	RO	1.00		0.09			1.006		
	DC	SN	34:54		1.40		0.24			1.010	123789-HxCDD	AN
	DC	WH	35:03	RO	0.25		0.02			1.014		
	DC	WH	35:10	RO	0.87		0.23			1.017		
	DC	WH	35:23	RO	1.00		0.09			1.024		
390-392			0 Peaks				0.00					

13C12-HxCDD												
402-404				1.05-1.43					0.971-1.029			
	DC	NL		Height			0.05	0.02	0.03			
			33:58	RO	1.04		2.53	1.17	1.13	0.983		
			34:29		1.19		246.51	134.01	112.50	0.998	13C12-HxCDD 478	SUR3
			34:34		1.20		258.12	140.75	117.37	1.000	13C12-HxCDD 678	IS5
				Height			84.21	45.02	39.19			
			34:54		1.19		431.17	234.58	196.59	1.010	13C12-HxCDD 789	RS2
			35:24	RO	1.88		0.36	0.30	0.16	1.024		
402-404			5 Peaks				938.69					

---------- Above: HxCDD / HpCDF Follows ----------

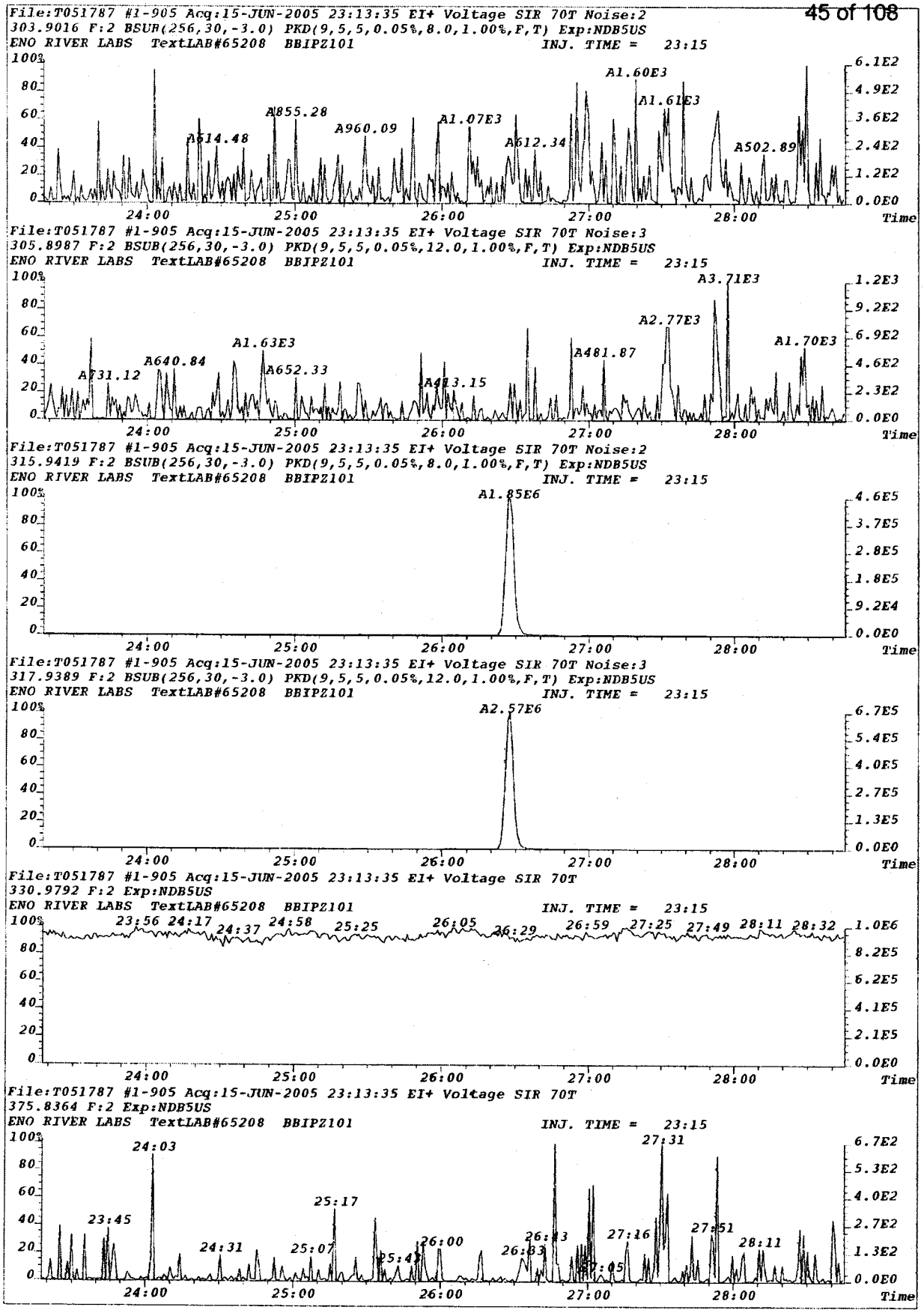
HpCDF												
408-410				0.88-1.20					0.995-1.048			
	DC	NL		Height			0.02	0.02	0.00			
	DC	SN	36:52	RO	6.20		0.10			1.001	1234678-HpCDF	AN
	DC	SN	37:19	RO	1.50		0.12			1.013		
	DC	SN	37:26	RO	1.67		0.06			1.016		
	DC	SN	37:43	RO	3.33		0.06			1.024		
	DC	SN	38:11	RO	1.75		0.08			1.037		
	DC	SN	38:14	RO	0.83		0.10			1.038		
408-410			0 Peaks				0.00					

Compound/ M_Z....	QC.Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-HpCDF				0.37-0.51					0.946-1.108				
418-420	DC	NL		Height			0.05	0.03	0.02				
				36:50		0.42	223.18	66.29	156.89	1.000	13C12-HpCDF	678	IS6
				Height			64.46	18.98	45.48				
				37:00	RO	0.88	1.96	0.60	0.68	1.005			
				37:10	RO	0.53	0.56	0.17	0.32	1.009			
				38:26		0.41	119.08	34.83	84.25	1.043	13C12-HpCDF	789	SUR4
	DC	SN		38:48		0.51	0.56			1.053			
418-420			4 Peaks				344.78						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD				0.88-1.20					0.975-1.004				
424-426	DC	NL		Height			0.02	0.02	0.00				
	DC	SN		37:09	RO	2.25	0.16			0.980			
	DC	SN		37:15	RO	2.67	0.06			0.982			
	DC	SN		37:30	RO	0.75	0.06			0.989			
	DC	SN		37:47	RO	1.43	0.14			0.996			
	DC	WH		38:17	RO	2.50	0.08			1.010			
	DC	WH		38:23	RO	23.00	0.02			1.012			
424-426			0 Peaks				0.00						
13C12-HpCDD				0.88-1.20					0.974-1.026				
436-438	DC	NL		Height			0.06	0.03	0.03				
				37:09		1.04	4.06	2.07	1.99	0.980			
				37:55		1.01	210.15	105.45	104.70	1.000	13C12-HpCDD	678	IS7
				Height			57.54	28.98	28.56				
	DC	SN		38:28	RO	1.59	0.35			1.015			
436-438			2 Peaks				214.21						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF				0.76-1.02					0.904-1.096				
442-444	DC	NL		Height			<0.01	0.00	0.00				
	DC	WL		36:25	RO	2.50	0.04			0.874			
	DC	WL		36:41		0.83	0.11			0.880			
	DC	WL		36:55	RO	3.00	0.04			0.886			
	DC	WL		37:31	RO	0.44	0.08			0.900			
	DC	SN		37:52	RO	2.00	0.06			0.909			
	DC	SN		38:12	RO	0.50	0.11			0.917			
	DC	SN		38:23	RO	1.25	0.15			0.921			
	DC	SN		38:57	RO	0.50	0.06			0.935			
	DC	SN		39:21	RO	0.44	0.08			0.944			
	DC	SN		39:47	RO	0.75	0.06			0.955			
	DC	SN		40:25	RO	0.29	0.04			0.970			
	DC	SN		40:37	RO	1.60	0.09			0.975			
	DC	SN		42:08		1.00	0.12			1.011			
	DC	SN		42:25	RO	1.33	0.06			1.018			
	DC	SN		42:38		1.00	0.04			1.023			
	DC	SN		43:09	RO	0.33	0.04			1.036			
	DC	SN		43:32	RO	0.67	0.04			1.045			
	DC	SN		43:42	RO	2.00	0.08			1.049			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound Name..	ID..	Flags.
	DC	SN		43:59	RO	1.67	0.06			1.056			
	DC	SN		44:13	RO	0.25	0.02			1.061			
	DC	SN		44:45	RO	0.33	0.06			1.074			
442-444			0 Peaks				0.00						
OCDD				0.76-1.02					0.904-1.096				
458-460	DC	NL		Height			<0.01	0.00	0.00				
	DC	WL		36:18	RO	0.17	0.02			0.871			
	DC	WL		37:14	RO	1.33	0.06			0.894			
	DC	WL		37:26	RO	4.00	0.02			0.898			
	DC	SN		37:49		1.00	0.04			0.908			
	DC	SN		38:44		1.00	0.02			0.930			
	DC	SN		39:05	RO	0.75	0.06			0.938			
	DC	SN		39:13	RO	1.67	0.06			0.941			
	DC	SN		39:31	RO	4.00	0.02			0.948			
	DC	SN		39:44	RO	1.33	0.06			0.954			
	DC	SN		40:05		1.00	0.02			0.962			
	DC	SN		41:30	RO	2.00	0.02			0.996			
				41:41		0.84	0.70	0.32	0.38	1.000	OCDD	AN	J
	DC	SN		41:50	RO	3.00	0.04			1.004			
	DC	SN		42:36	RO	0.43	0.06			1.022			
	DC	SN		43:39		1.00	0.08			1.048			
	DC	SN		43:45	RO	0.11	0.01			1.050			
	DC	SN		44:20	RO	0.11	0.01			1.064			
	DC	SN		44:43	RO	0.67	0.04			1.073			
	DC	SN		44:47	RO	2.50	0.04			1.075			
458-460			1 Peak				0.70						
13C12-OCDD				0.76-1.02					0.952-1.048				
470-472	DC	NL		Height			<0.01	0.00	0.00				
				41:40		0.85	280.73	129.36	151.37	1.000	13C12-OCDD	IS8	
				Height			61.82	29.31	32.51				
	DC	SN		42:15	RO	0.68	0.28			1.014			
	DC	SN		42:44	RO	1.75	0.15			1.026			
470-472			1 Peak				280.73						

Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***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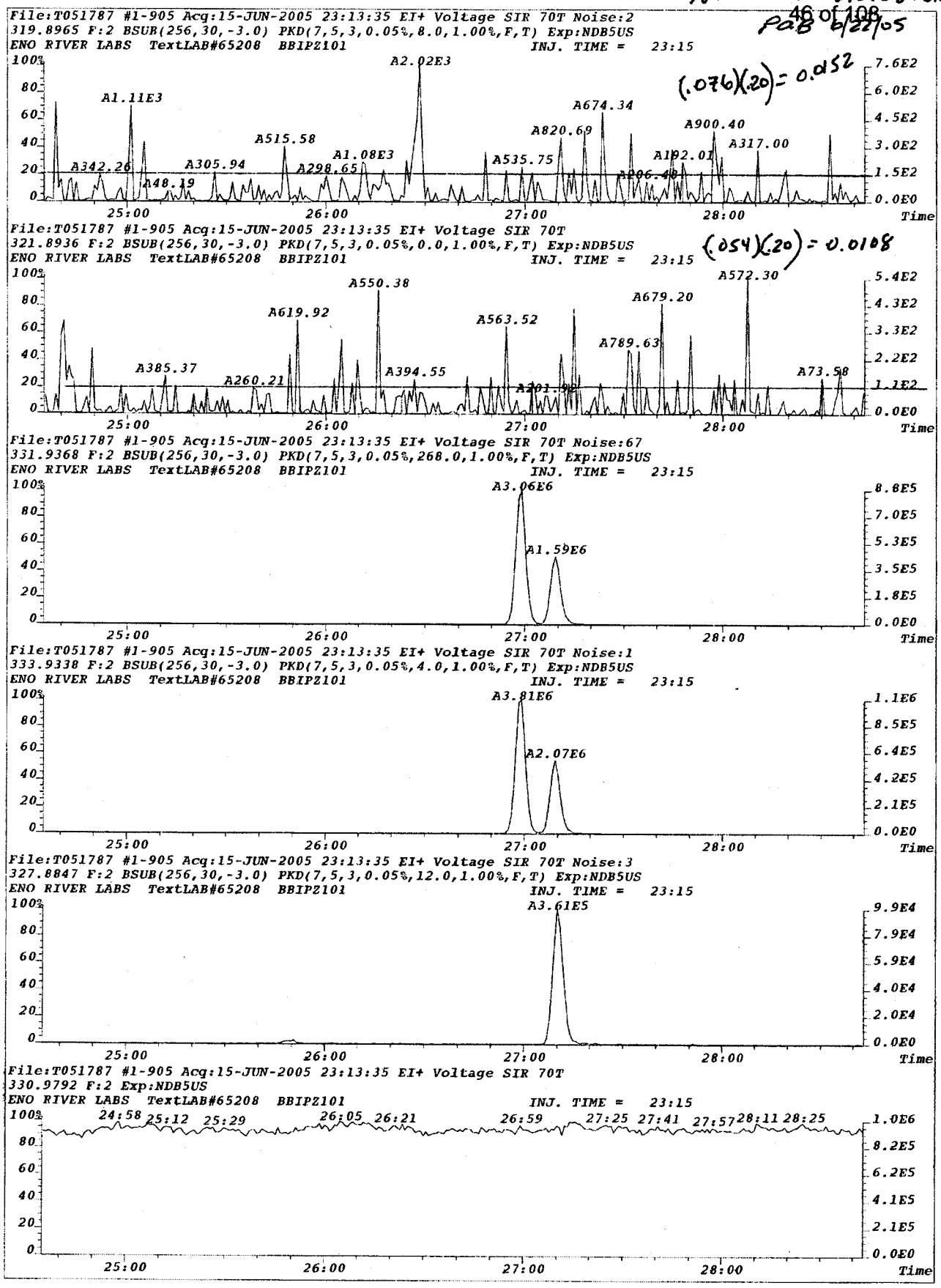
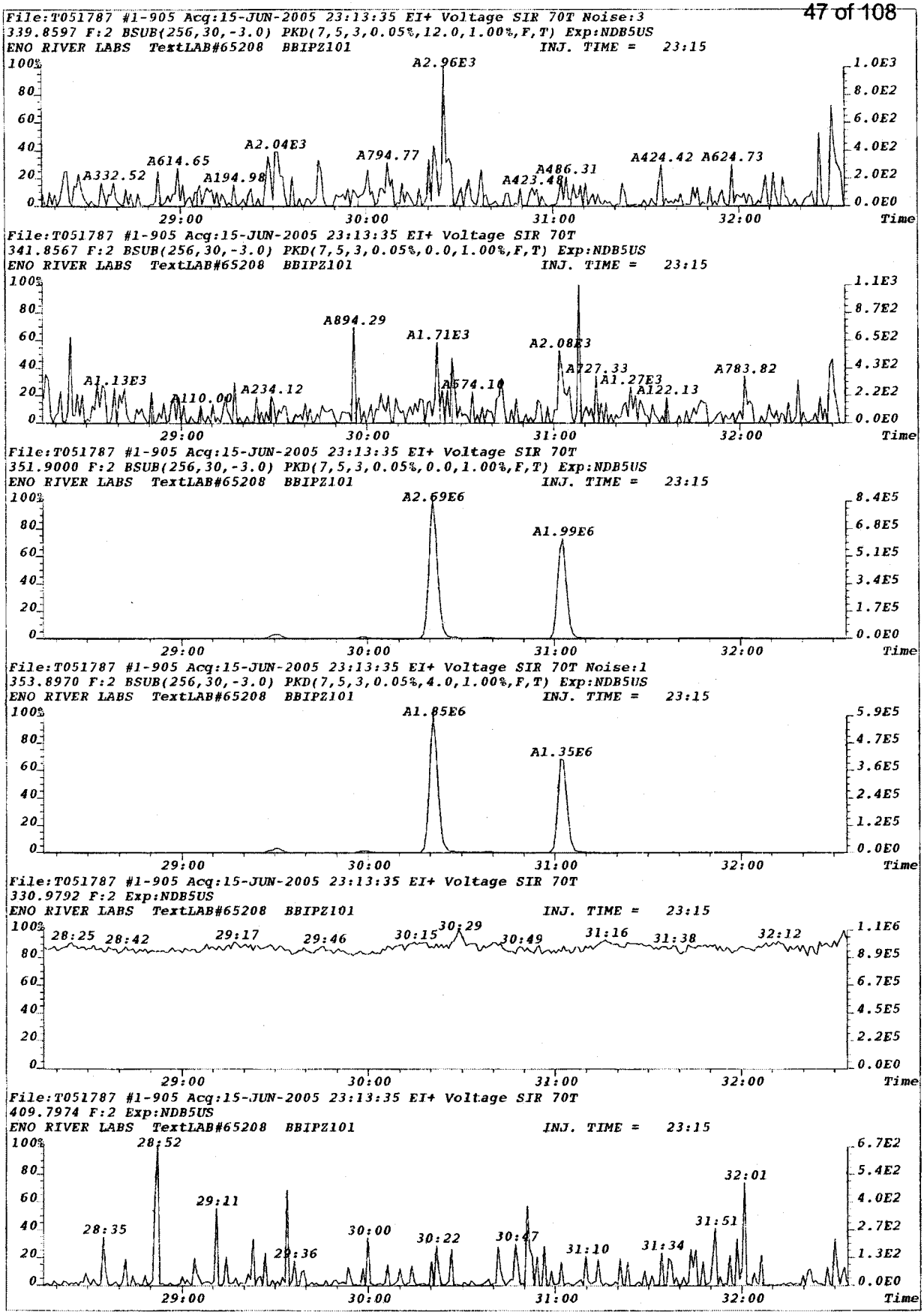
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.60E3
A1.61E3
A855.28
A960.09
A1.07E3
A614.48
A612.34
A502.89
Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A3.71E3
A2.77E3
A1.63E3
A1.70E3
A640.84
A652.33
A481.87
A731.12
Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:2
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.85E6
Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A2.57E6
Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
24:03
27:31
25:17
23:45
24:31
25:07
26:00
27:16
27:51
28:11
Time

N = 0.0152 + 0.0108 = 0.026

46 of 108

PaB 6/22/05

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339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A2.96E3
A2.04E3
A614.65
A794.77
A332.52
A194.98
A423.48
A486.31
A424.42
A624.73
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,0.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A894.29
A1.71E3
A2.08E3
A1.13E3
A727.33
A1.27E3
A783.82
A110.00
A234.12
A574.10
A122.13
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,0.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A2.69E6
A1.99E6
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:1
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.85E6
A1.35E6
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
28:25
28:42
29:17
29:46
30:15
30:29
30:49
31:16
31:38
32:12
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
28:52
28:35
29:11
29:36
30:00
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30:47
31:10
31:34
31:51
32:01
29:00
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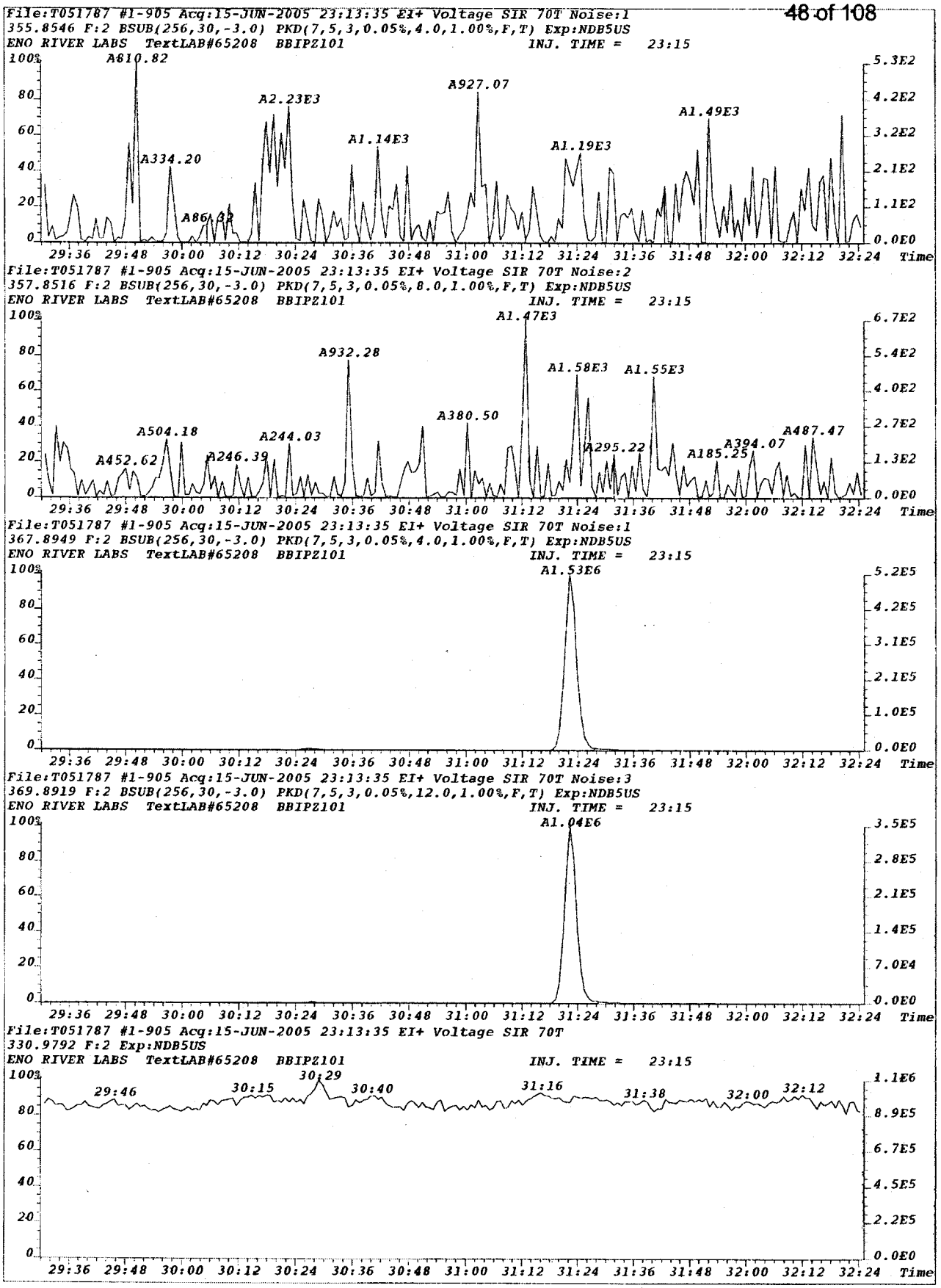
31:00
32:00
Time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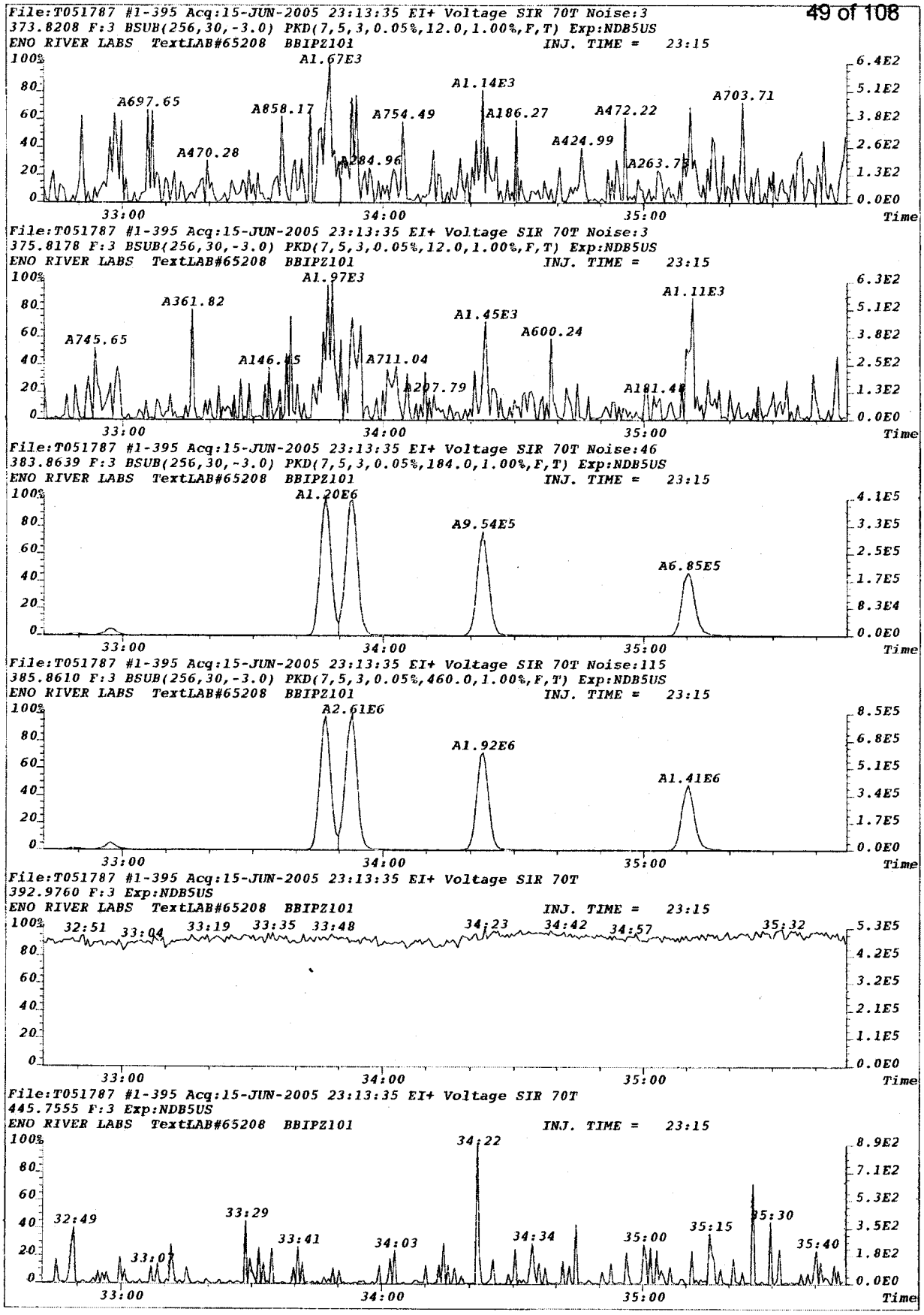
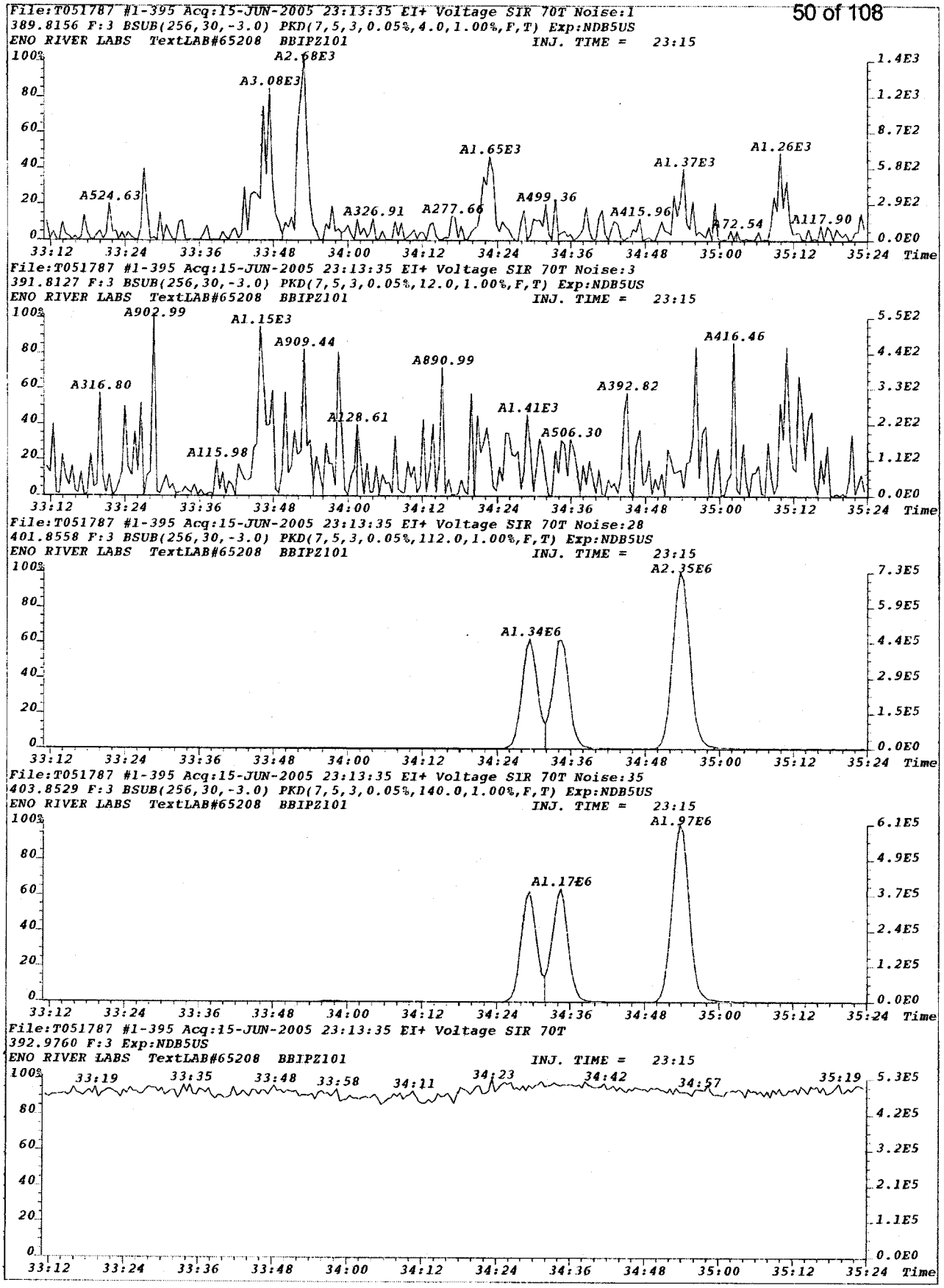
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A810.82
A927.07
A2.23E3
A1.49E3
A1.14E3
A1.19E3
A334.20
A86.42
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:2
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.47E3
A932.28
A1.58E3
A1.55E3
A380.50
A504.18
A244.03
A295.22
A487.47
A394.07
A185.25
A452.62
A246.39
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:1
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.53E6
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.04E6
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time
File:T051787 #1-905 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
29:46
30:15
30:29
30:40
31:16
31:38
32:00
32:12
29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48 32:00 32:12 32:24 Time


File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.67E3
A1.14E3
A697.65
A858.17
A754.49
A186.27
A472.22
A703.71
A470.28
A424.99
A263.73
A284.96
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.97E3
A1.11E3
A361.82
A1.45E3
A745.65
A600.24
A146.85
A711.04
A207.79
A181.48
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:46
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,184.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.20E6
A9.54E5
A6.85E5
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:115
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,460.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A2.61E6
A1.92E6
A1.41E6
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
32:51 33:04 33:19 33:35 33:48 34:23 34:42 34:57 35:32
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
34:22
32:49
33:29
33:41
34:03
33:07
34:34
35:00
35:15
35:30
35:40
33:00
34:00
35:00
Time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389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A2.68E3
A3.08E3
A1.65E3
A1.37E3
A1.26E3
A524.63
A326.91
A277.66
A499.36
A415.96
A172.54
A117.90
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A902.99
A1.15E3
A909.44
A890.99
A416.46
A316.80
A392.82
A1.41E3
A128.61
A506.30
A115.98
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:28
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,112.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A2.35E6
A1.34E6
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:35
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,140.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.97E6
A1.17E6
File:T051787 #1-395 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
33:19
33:35
33:48
33:58
34:11
34:23
34:42
34:57
35:19
33:12
33:24
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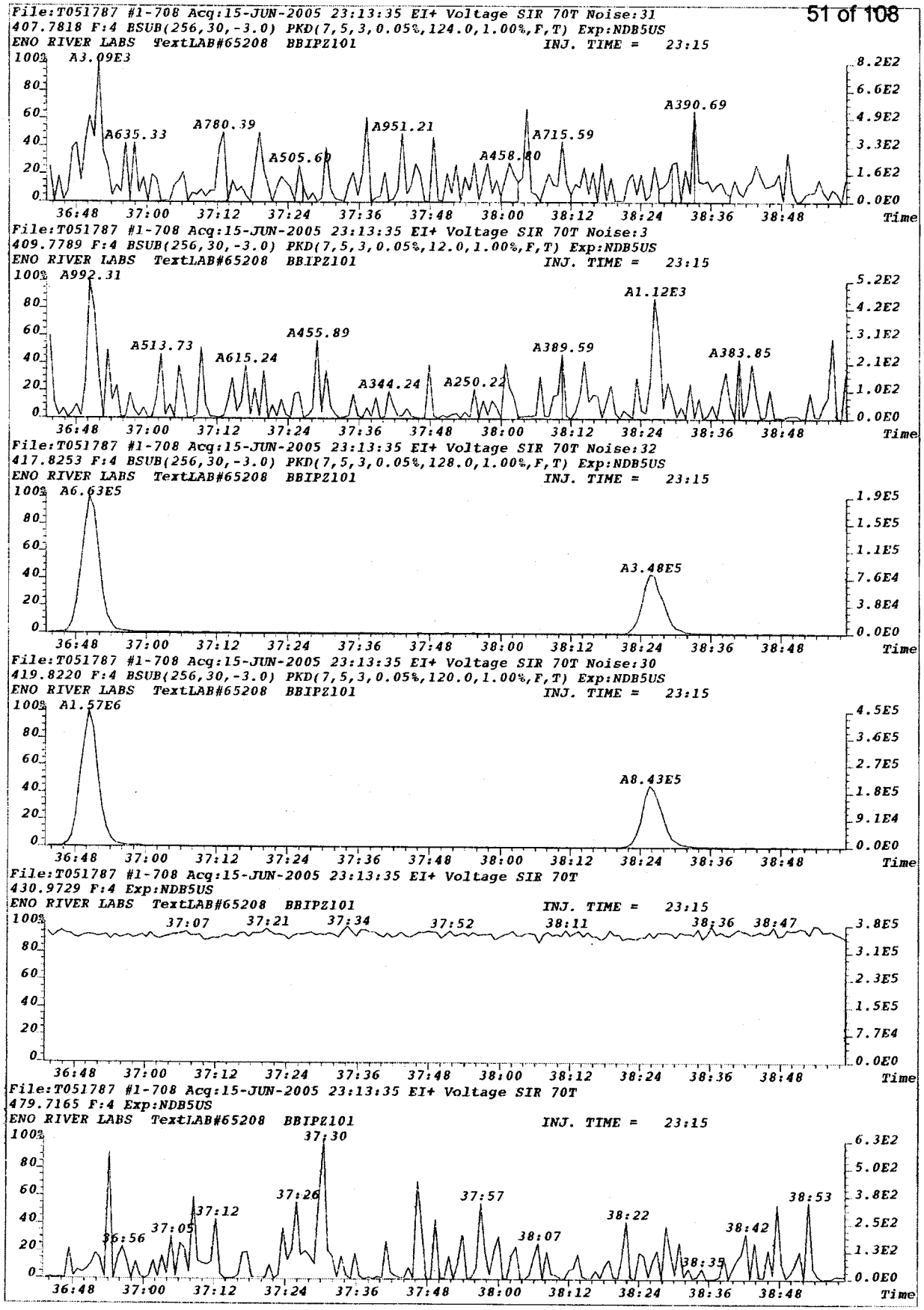
35:00
35:12
35:24
Time


File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:31
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,124.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A3.09E3
A635.33
A780.39
A505.60
A951.21
A458.80
A715.59
A390.69
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A992.31
A513.73
A615.24
A455.89
A344.24
A250.22
A389.59
A1.12E3
A383.85
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:32
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,128.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A6.63E5
A3.48E5
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:30
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,120.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
A1.57E6
A8.43E5
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
37:07
37:21
37:34
37:52
38:11
38:36
38:47
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
37:30
37:26
37:12
37:05
36:56
37:57
38:07
38:22
38:35
38:42
38:53
36:48
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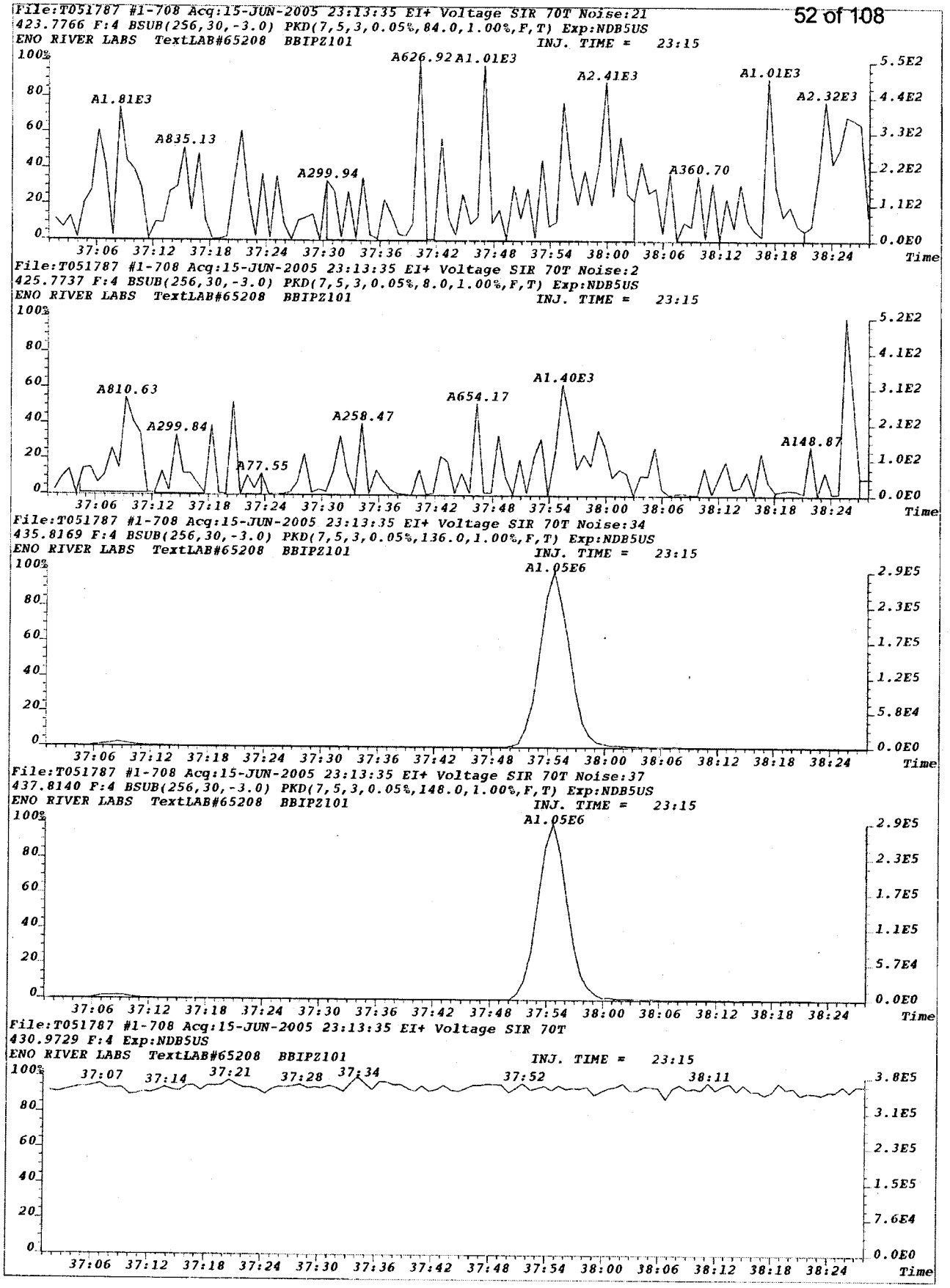
38:24
38:36
38:48
Time


File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:21
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,84.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.81E3
A835.13
A299.94
A626.92
A1.01E3
A2.41E3
A360.70
A1.01E3
A2.32E3
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:2
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A810.63
A299.84
A77.55
A258.47
A654.17
A1.40E3
A148.87
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:34
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,136.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.05E6
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:37
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,148.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.05E6
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
37:07
37:14
37:21
37:28
37:34
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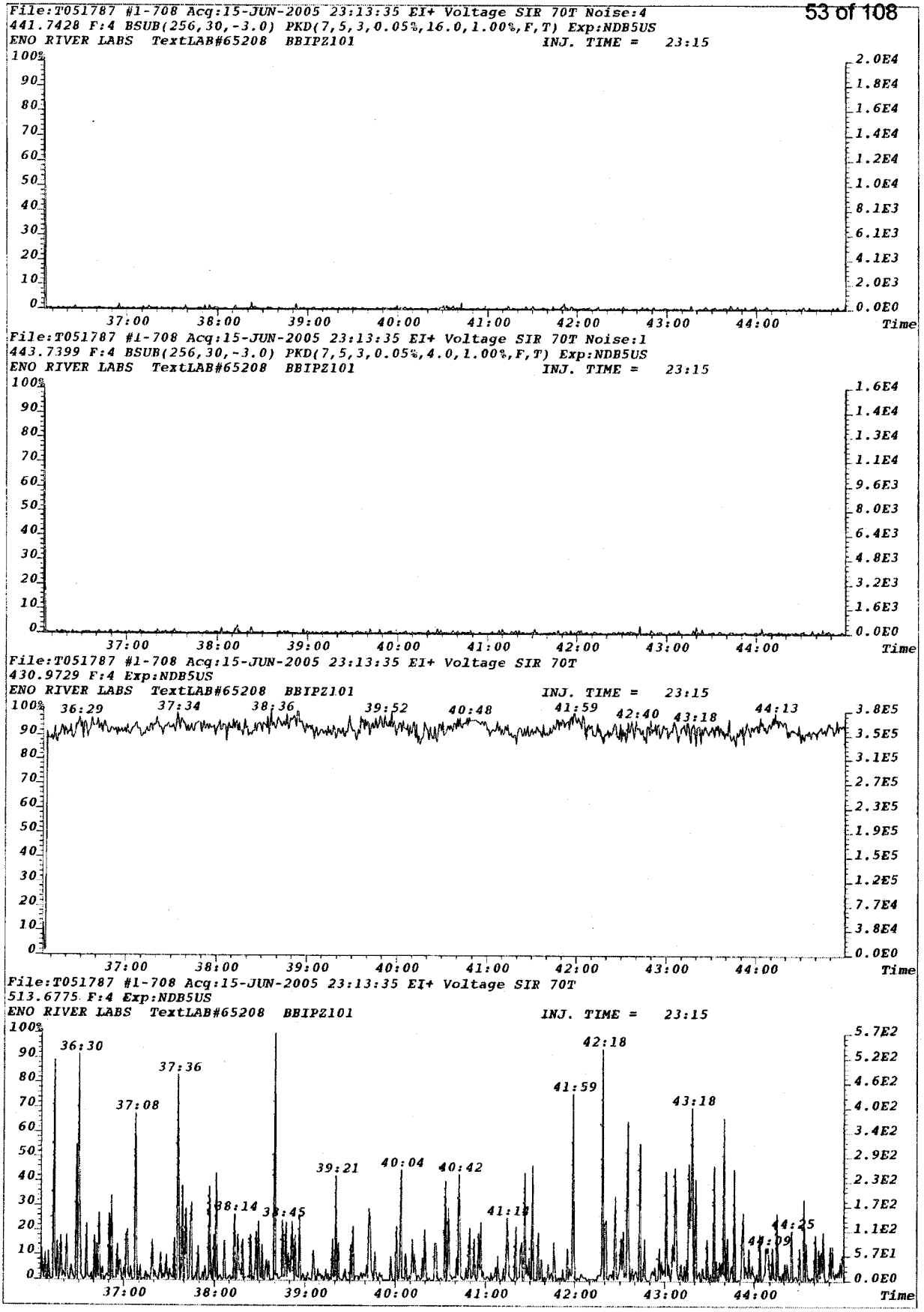
38:11
Time


File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:4
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,16.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:1
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,4.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
36:29
37:34
38:36
39:52
40:48
41:59
42:40
43:18
44:13
Time
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101 INJ. TIME = 23:15
36:30
37:08
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42:18
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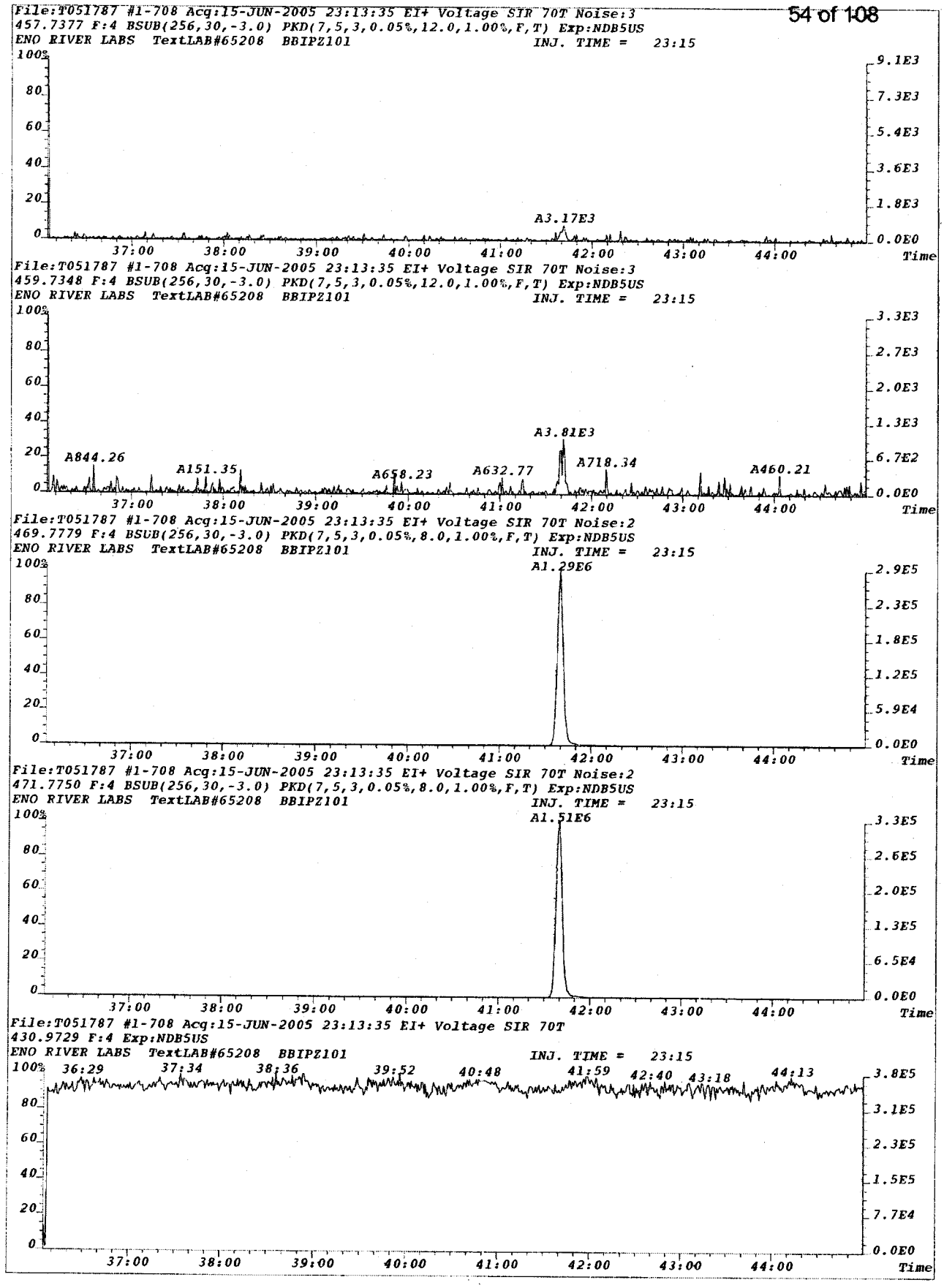
44:09
44:25
Time


File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A3.17E3
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:3
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,12.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A844.26
A151.35
A658.23
A632.77
A3.81E3
A718.34
A460.21
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:2
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.29E6
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T Noise:2
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,8.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
A1.51E6
File:T051787 #1-708 Acq:15-JUN-2005 23:13:35 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65208 BBIPZ101
INJ. TIME = 23:15
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42:40
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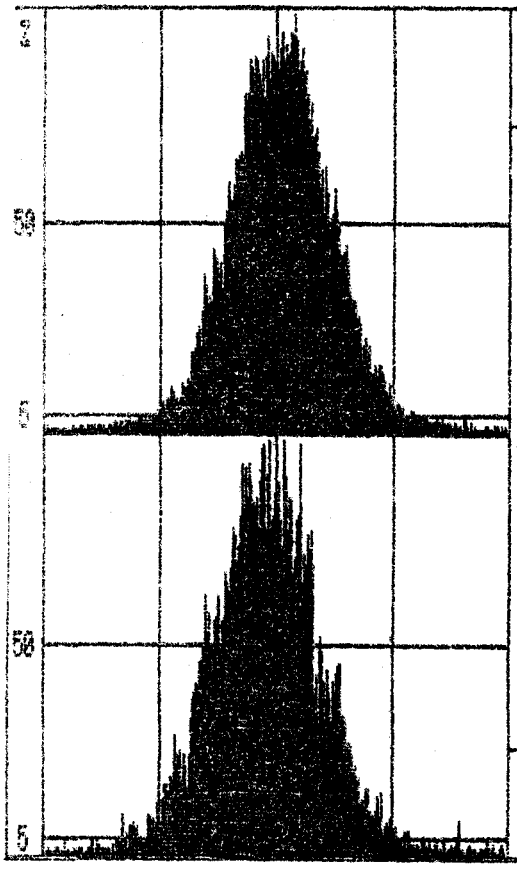
44:13
Time



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Height	.68 volts	Span	200 ppm		
System file name				NDB5US	
Data file name				R:T615051	
Resolution				10000	
Group number				2	
Ionization mode				EI+	
Switching				VOLTAGE	
Ref. masses	292.9825,			416.9760	
A 293	J 331			S 368	
B 304	K 332			T 370	
C 306	L 334			U 376	
D 316	M 340			V 410	
E 318	N 342				
F 320	O 352				
G 322	P 354				
H 328	Q 356				
I 331	R 358				
Ref. mass	416.9760			Peak top	
Height	.09 volts	Span	200 ppm		

Lab Project: 65208
Client Sample: LCS

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: U037211

Client Project:	Presidio/Baker Beach			ICal:	UF5O284
Sample Matrix:	WATER	Date Received:	/ /	Spike File:	SPMIT32S
Lab ID:	LCS	Date Extracted:	06/09/2005	1st CCal:	U037102
		Date Analyzed:	06/16/2005	End CCal:	U037213
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	S051676	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	358			0.82	26:42	
1,2,3,7,8-PeCDD	1820			1.59	30:56	
1,2,3,4,7,8-HxCDD	2320			1.30	34:04	
1,2,3,6,7,8-HxCDD	1870			1.17	34:09	
1,2,3,7,8,9-HxCDD	1680			1.24	34:28	
1,2,3,4,6,7,8-HpCDD	1980			1.03	37:23	
1,2,3,4,6,7,8,9-OCDD	3860			0.84	40:56	
2,3,7,8-TCDF	369			0.70	26:00	
1,2,3,7,8-PeCDF	1970			1.55	29:55	
2,3,4,7,8-PeCDF	1530			1.53	30:36	
1,2,3,4,7,8-HxCDF	1970			1.27	33:23	
1,2,3,6,7,8-HxCDF	2060			1.28	33:29	
2,3,4,6,7,8-HxCDF	1340			1.26	33:58	
1,2,3,7,8,9-HxCDF	1430			1.30	34:44	
1,2,3,4,6,7,8-HpCDF	1990			1.10	36:21	
1,2,3,4,7,8,9-HpCDF	1620			1.10	37:53	
1,2,3,4,6,7,8,9-OCDF	4670			0.89	41:08	

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	1210	60.5	40%-135%	0.71	25:59	
$^{13}C_{12}$-2,3,7,8-TCDD	1350	67.6	40%-135%	0.84	26:41	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1450	72.4	40%-135%	1.45	29:55	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1320	66.0	40%-135%	1.53	30:56	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1590	79.5	40%-135%	0.51	33:28	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1400	69.8	40%-135%	1.21	34:08	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1640	82.1	40%-135%	0.43	36:21	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1200	60.0	40%-135%	1.01	37:22	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2300	57.4	40%-135%	0.85	40:55	

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 07:42 06/22/2005

Lab Project: **65208** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCS** Analysis File: **U037211**

Surrogate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1090	54.5	40%-135%	1.42	30:35	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1620	80.9	40%-135%	0.51	33:22	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1560	78.1	40%-135%	1.21	34:03	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1320	65.9	40%-135%	0.43	37:52	

Other Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	131	65.6	40%-135%	26:42	

Alternate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1180	59.2	40%-135%	0.51	34:43	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1130	56.4	40%-135%	0.52	33:57	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:30	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.22	34:27	

Data Reviewer: _____ 06/22/2005

MJT3_PSR v1.00, LARS 6.25.06

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Initial ....Date...

Data Review By: PAB 6/16/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U037211B.dbf
06/16/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....		OC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF							0.65-0.89				0.874-1.074			
304-306	DC	NL					Height	7.36	3.90	3.46				
					22:51		0.69	2,792.25	1,140.20	1,652.05	0.879	1368-TCDF	AN	
	DC	SN		RO	23:42		2.39	4.55			0.912			
	DC	SN		RO	23:49		1.17	6.94			0.917			
					25:38		0.70	46.22	19.07	27.15	0.987			J
					26:00		0.70	2,269.79	935.21	1,334.58	1.001	2378-TCDF	AN	
304-306			3	Peaks				5,108.26						
13C12-TCDF							0.65-0.89				0.962-1.038			
316-318	DC	NL					Height	4.73	2.42	2.31				
	DC	WL		RO	23:49		0.59	12.48			0.917			
	DC	SN			25:22		0.75	9.46			0.976			
	DC	SN		RO	25:36		1.97	14.81			0.985			
					25:59		0.71	9,179.35	3,826.54	5,352.81	1.000	13C12-2378-TCDF	IS0	
							Height	2,259.99	943.01	1,316.98				
316-318			1	Peak				9,179.35						

---------- Above: TCDF / TCDD Follows ----------

TCDD							0.65-0.89				0.900-1.044			
320-322	DC	NL					Height	2.85	1.57	1.28				
	DC	SN		RO	25:01		6.27	2.32			0.938			
	DC	SN		RO	25:35		0.55	3.40			0.959			
	DC	SN		RO	25:47		1.09	3.31			0.966			
					26:42		0.82	1,612.62	728.42	884.20	1.001	2378-TCDD	AN	
	DC	SN			27:07		0.80	13.07			1.016			
	DC	SN		RO	27:18		2.07	10.09			1.023			
	DC	SN		RO	27:27		3.51	1.65			1.029			
	DC	SN		RO	27:38		0.58	3.01			1.036			
320-322			1	Peak				1,612.62						
37Cl-TCDD											0.925-1.075			
328	DC	NL					Height	1.40	1.40					
	DC	WL			24:05			3.37			0.903			
	DC	WL			24:18			1.19			0.911			
	DC	WL			24:25			8.39			0.915			
	DC	SN			24:45			5.03			0.928			
					24:48			5.90	5.90		0.929			
	DC	SN			24:55			1.46			0.934			
	DC	SN			25:06			2.28			0.941			
					25:11			4.26	4.26		0.944			
					25:19			16.51	16.51		0.949			
	DC	SN			25:45			5.25			0.965			

Compound/ M_Z....	OC	Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN			25:57			4.87			0.973			
					26:42			811.07	811.07		1.001	37Cl-TCDD	CLS	
					26:55			4.38	4.38		1.009			
					27:01			3.67	3.67		1.012			
					27:08			5.56	5.56		1.017			
					27:16			9.30	9.30		1.022			
	DC	SN			27:24			5.89			1.027			
	DC	SN			27:36			3.30			1.034			
	DC	SN			27:41			1.98			1.037			
					28:01			10.42	10.42		1.050			
328			9	Peaks				871.07						
13C12-TCDD					0.65-0.89						0.925-1.075			
332-334	DC	NL			Height			4.55	3.04		1.51			
					26:30		0.83	11,364.16	5,158.84	6,205.32	0.993	13C12-1234-TCDD	RS1	
					26:41		0.84	8,146.03	3,719.48	4,426.55	1.000	13C12-2378-TCDD	IS1	
					Height			2,207.95	988.93	1,219.02				
332-334			2	Peaks				19,510.19						
---------- Above: TCDD / PeCDF Follows ----------														
PeCDF					1.32-1.78						0.929-1.062			
340-342	DC	NL			Height			2.00	0.90		1.10			
					29:04		1.65	42.60	26.50	16.10	0.972			J
					29:55		1.55	9,655.67	5,862.88	3,792.79	1.000	12378-PeCDF	AN	
					30:13		1.39	137.25	79.86	57.39	1.010			J
					30:36		1.53	7,558.38	4,567.94	2,990.44	1.023	23478-PeCDF	AN	
					31:38	RO	0.85	8.87	5.39	6.34	1.057			J
340-342			5	Peaks				17,402.77						
13C12-PeCDF					1.32-1.78						0.866-1.134			
352-354	DC	NL			Height			1.80	0.73		1.07			
					29:35	RO	1.24	18.51	9.03	7.26	0.989			
					29:55		1.45	9,496.86	5,621.02	3,875.84	1.000	13C12-PeCDF 123	IS2	
					Height			2,793.44	1,665.46	1,127.98				
					30:13	RO	1.25	114.90	56.40	45.06	1.010			
					30:35		1.42	7,077.10	4,150.81	2,926.29	1.022	13C12-PeCDF 234	SUR1	
					31:37	RO	1.16	43.91	20.02	17.22	1.057			
352-354			5	Peaks				16,751.28						
---------- Above: PeCDF / PeCDD Follows ----------														
PeCDD					1.32-1.78						0.939-1.022			
356-358	DC	NL			Height			1.51	0.81		0.70			
	DC	SN			29:15	RO	0.90	5.94			0.946			
					30:09	RO	0.97	8.59	5.22	5.39	0.975			J
					30:14	RO	1.19	7.06	3.30	2.77	0.977			J
	DC	SN			30:29	RO	3.03	2.73			0.985			
	DC	SN			30:35	RO	4.99	4.46			0.989			
					30:56		1.59	5,738.08	3,518.39	2,219.69	1.000	12378-PeCDD	AN	
					31:14		1.65	14.26	8.87	5.39	1.010			J
					31:28	RO	1.10	9.13	3.94	3.58	1.017			J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	DC	SN		31:37		1.63	6.82			1.022			
	DC	WH		31:55	RO	0.40	4.54			1.032			
356-358		5	Peaks				5,777.12						
13C12-PeCDD				1.32-1.78					0.871-1.129				
368-370	DC	NL				Height	1.83	1.01	0.82				
	DC	SN		29:08		1.38	4.48			0.942			
	DC	SN		29:26	RO	1.04	8.59			0.952			
				29:51	RO	1.11	13.18	5.73	5.17	0.965			
	DC	SN		30:23	RO	1.11	7.17			0.982			
				30:56		1.53	5,177.84	3,130.85	2,046.99	1.000	13C12-PeCDD 123	IS3	
						Height	1,627.53	999.41	628.12				
				31:15	RO	0.85	8.13	4.94	5.82	1.010			
				31:28	RO	0.60	9.11	5.54	9.16	1.017			
				31:33	RO	0.68	5.35	3.25	4.81	1.020			
368-370		5	Peaks				5,213.61						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.964-1.045				
374-376	DC	NL				Height	5.42	2.55	2.87				
	DC	SN		32:34	RO	1.96	9.09			0.973			
				33:23		1.27	9,656.36	5,405.22	4,251.14	0.998	123478-HxCDF	AN	
				33:29		1.28	10,814.91	6,064.63	4,750.28	1.000	123678-HxCDF	AN	
				33:43		1.36	14.77	8.52	6.25	1.007			J
				33:58		1.26	7,218.93	4,023.00	3,195.93	1.015	234678-HxCDF	AN	
				34:44		1.30	6,005.28	3,399.91	2,605.37	1.038	123789-HxCDF	AN	
374-376		5	Peaks				33,710.25						
13C12-HxCDF				0.43-0.59					0.881-1.119				
384-386	DC	NL				Height	4.26	2.49	1.77				
				33:22		0.51	8,228.99	2,777.05	5,451.94	0.997	13C12-HxCDF 478	SUR2	
				33:28		0.51	8,196.01	2,772.57	5,423.44	1.000	13C12-HxCDF 678	IS4	
						Height	2,806.45	937.61	1,868.84				
				33:57		0.52	5,654.32	1,938.75	3,715.57	1.014	13C12-HxCDF 234	ALT2	
	DC	SN		34:08	RO	0.62	15.81			1.020			
				34:43		0.51	5,015.13	1,694.28	3,320.85	1.037	13C12-HxCDF 789	ALT1	
	DC	SN		35:01	RO	0.36	9.15			1.046			
384-386		4	Peaks				27,094.45						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43					0.959-1.014				
390-392	DC	NL				Height	1.05	0.63	0.42				
				33:28	RO	2.88	5.38	6.92	2.40	0.980			J
				34:04		1.30	6,039.84	3,415.08	2,624.76	0.998	123478-HxCDD	AN	
				34:09		1.17	5,018.02	2,707.78	2,310.24	1.000	123678-HxCDD	AN	
				34:28		1.24	4,686.98	2,591.33	2,095.65	1.010	123789-HxCDD	AN	
	DC	WH		34:43	RO	2.59	11.63			1.017			
	DC	WH		34:47	RO	0.91	5.80			1.019			
390-392		4	Peaks				15,750.22						

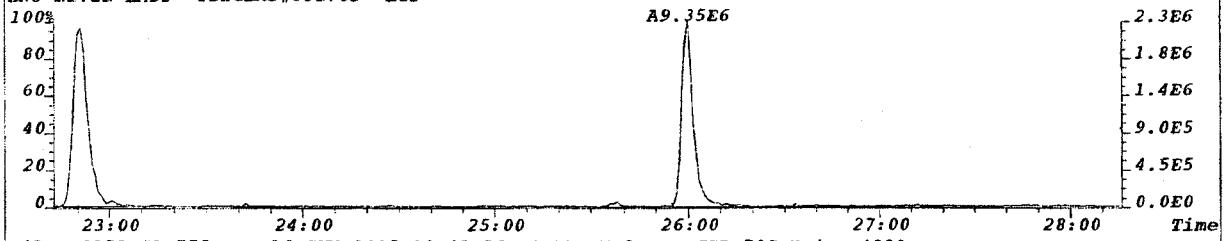
Compound/ M_Z....	OC	Log	Omit	Why	RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags
13C12-HxCDD					1.05-1.43						0.971-1.029			
402-404	DC	NL			Height			2.52	1.35	1.17				
					33:33		1.17	25.91	13.99	11.92	0.983			
					34:03		1.21	4,635.61	2,533.62	2,101.99	0.998	13C12-HxCDD	478	SUR3
					34:08		1.21	4,819.86	2,642.24	2,177.62	1.000	13C12-HxCDD	678	IS5
					Height			1,589.52	868.21	721.31				
					34:27		1.22	6,481.72	3,560.69	2,921.03	1.009	13C12-HxCDD	789	RS2
					34:38	RO	1.73	21.19	16.34	9.46	1.015			
					34:46		1.08	5.48	2.84	2.64	1.019			
					34:51	RO	0.40	3.59	1.99	4.97	1.021			
402-404					7 Peaks			15,993.36						
---------- Above: HxCDD / HpCDF Follows ----------														
HpCDF					0.88-1.20						0.996-1.047			
408-410	DC	NL			Height			3.02	1.68	1.34				
					36:21		1.10	9,050.08	4,733.67	4,316.41	1.000	1234678-HpCDF		AN
					37:53		1.10	5,825.16	3,047.36	2,777.80	1.042	1234789-HpCDF		AN
408-410					2 Peaks			14,875.24						
13C12-HpCDF					0.37-0.51						0.945-1.110			
418-420	DC	NL			Height			1.86	1.10	0.76				
					36:21		0.43	5,602.77	1,685.16	3,917.61	1.000	13C12-HpCDF	678	IS6
					Height			1,689.74	520.54	1,169.20				
					36:51	RO	1.06	6.90	5.06	4.79	1.014			
					37:52		0.43	3,822.51	1,156.54	2,665.97	1.042	13C12-HpCDF	789	SUR4
418-420					3 Peaks			9,432.18						
---------- Above: HpCDF / HpCDD Follows ----------														
HpCDD					0.88-1.20						0.976-1.005			
424-426	DC	NL			Height			0.91	0.63	0.28				
					37:23		1.03	3,813.64	1,931.89	1,881.75	1.000	1234678-HpCDD		AN
	DC	WH	37:51	RO	0.70			13.28			1.013			
424-426					1 Peak			3,813.64						
13C12-HpCDD					0.88-1.20						0.973-1.027			
436-438	DC	NL			Height			2.27	1.05	1.22				
	DC	SN	36:38	RO	0.70			4.57			0.980			
	DC	SN	36:58	RO	2.22			3.39			0.989			
					37:22		1.01	3,659.25	1,837.06	1,822.19	1.000	13C12-HpCDD	678	IS7
					Height			1,035.46	509.13	526.33				
					37:51		0.93	6.55	3.16	3.39	1.013			
436-438					2 Peaks			3,665.80						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------														
OCDF					0.76-1.02						0.902-1.098			
442-444	DC	NL			Height			0.55	0.03	0.52				
					41:08		0.89	7,646.58	3,598.69	4,047.89	1.005	OCDF		AN
					41:28		0.91	20.46	9.74	10.72	1.013			
442-444					2 Peaks			7,667.04						

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
OCDD				0.76-1.02						0.902-1.098			
458-460		DC	NL			Height	0.24	0.08	0.16				
				38:09	RO	0.41	1.53	0.72	1.74	0.932			
				38:19	RO	1.33	2.15	1.52	1.14	0.936			
				40:13		0.83	3.68	1.67	2.01	0.983			
				40:56		0.84	4,953.68	2,266.48	2,687.20	1.000	OCDD		AN
				41:17	RO	1.31	11.34	7.88	6.00	1.009			
				41:44	RO	1.17	2.85	1.77	1.51	1.020			
				43:51	RO	1.04	3.86	2.13	2.04	1.072			
458-460			7	Peaks			4,979.09						
13C12-OCDD				0.76-1.02						0.951-1.049			
470-472		DC	NL			Height	0.12	0.03	0.09				
				40:55		0.85	5,282.23	2,434.49	2,847.74	1.000	13C12-OCDD		IS8
						Height	1,254.67	580.34	674.33				
470-472			1	Peak			5,282.23						

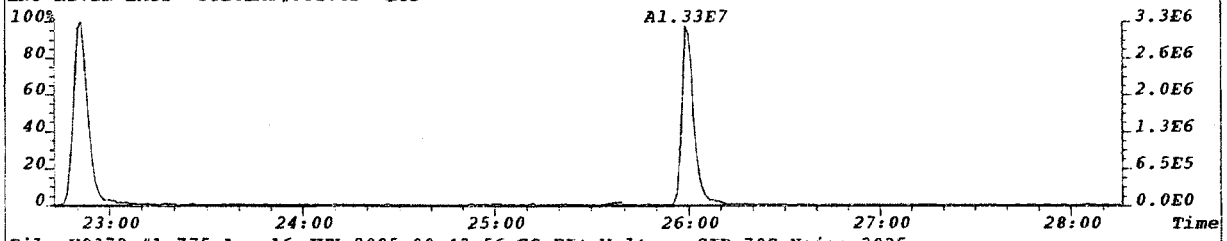
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

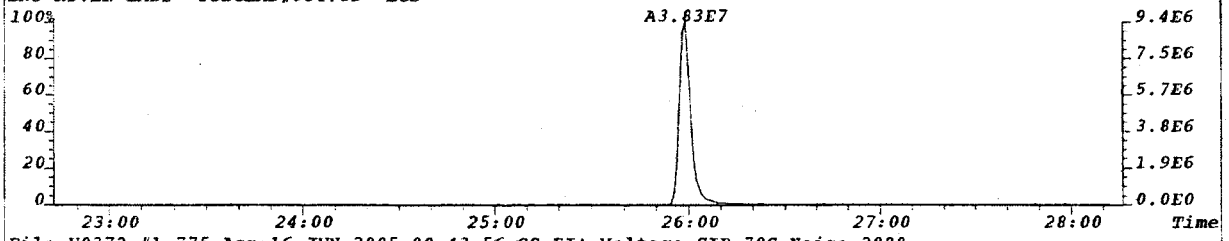
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:4876
303.9016 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,19504.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



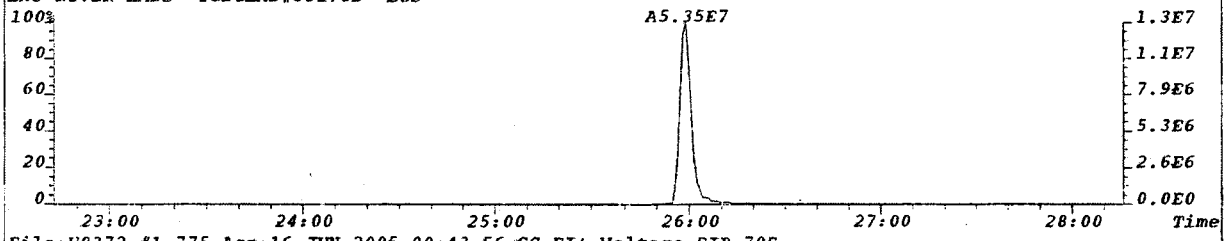
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:4320
305.8987 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,17280.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



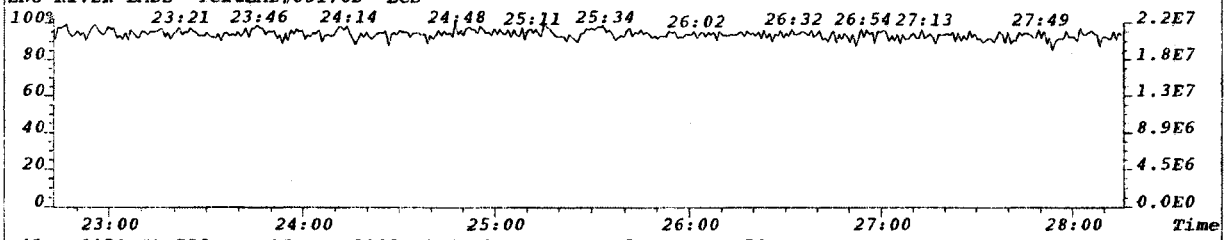
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:3025
315.9419 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,12100.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



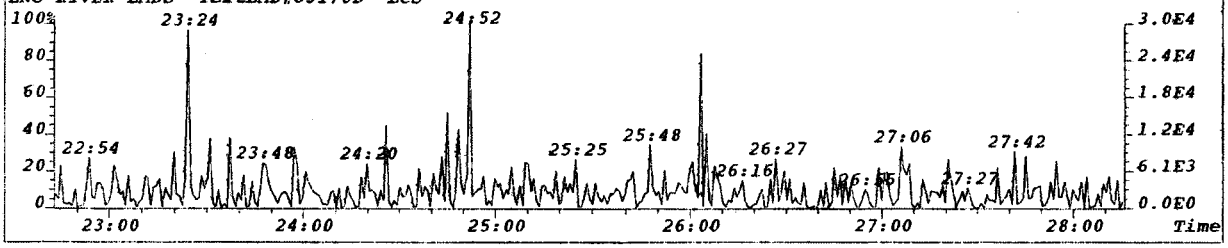
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:2888
317.9389 S:11 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,11552.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



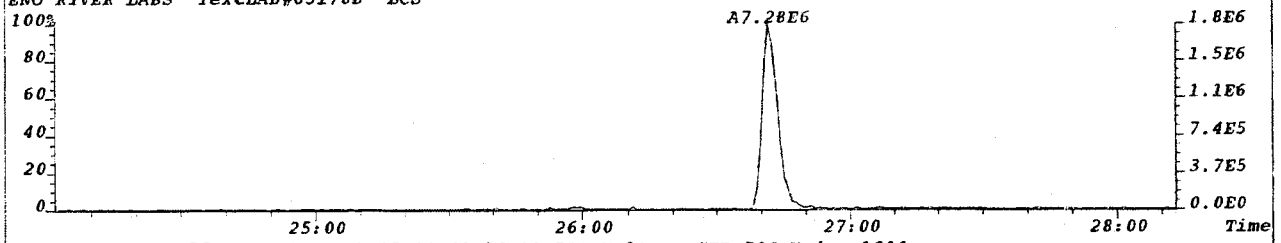
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



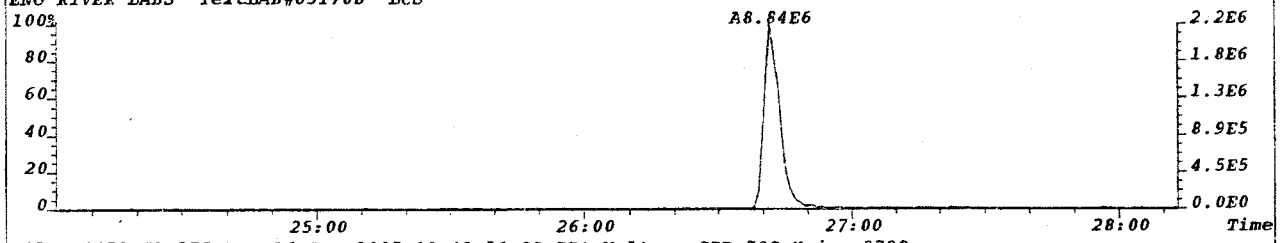
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
375.8364 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



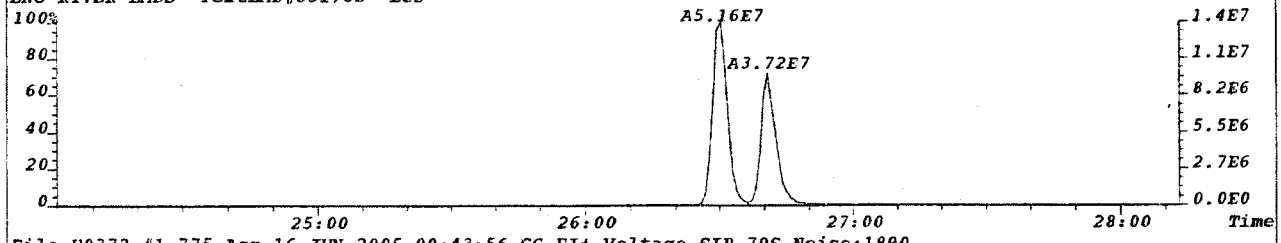
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1962
319.8965 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,7848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



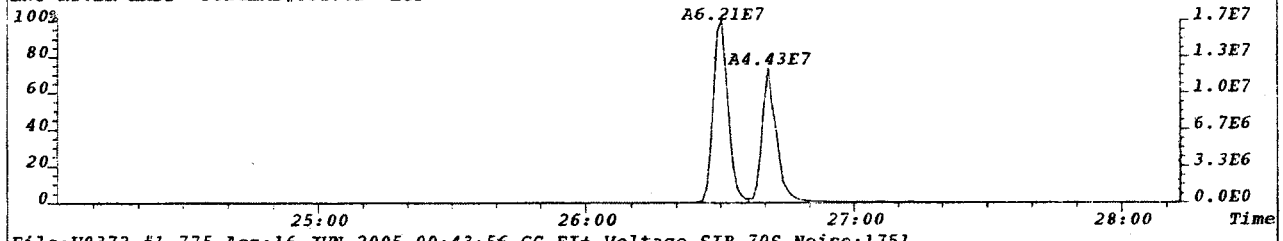
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1606
321.8936 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6424.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



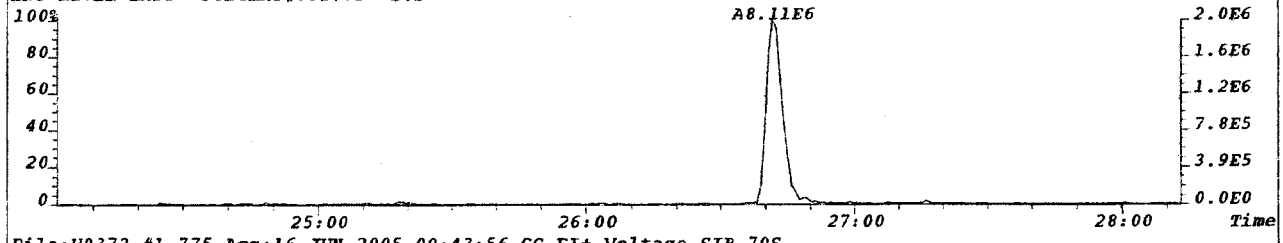
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:3798
331.9368 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,15192.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



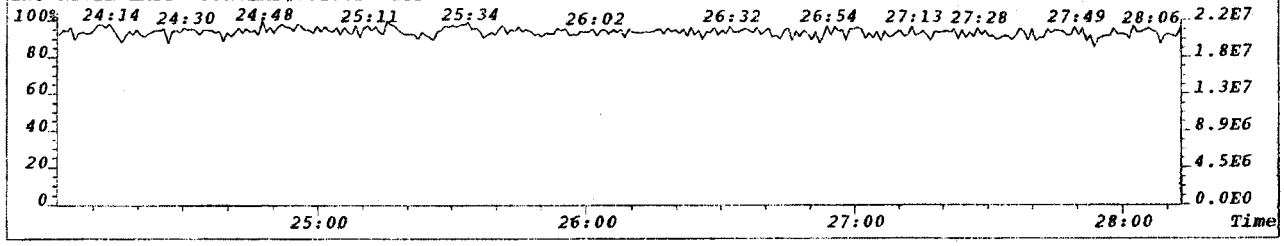
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1890
333.9338 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,7560.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



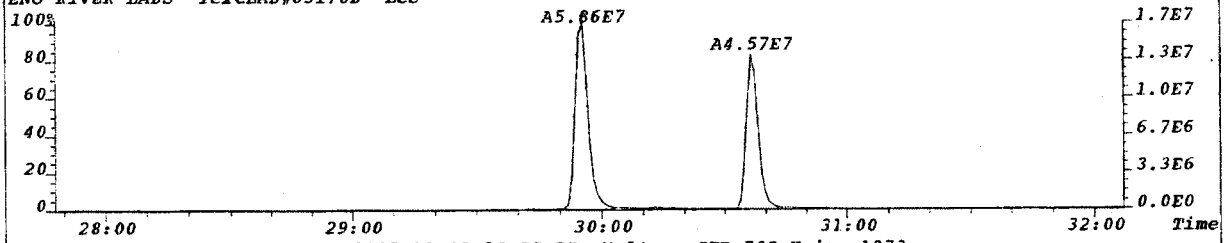
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1751
327.8847 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,7004.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



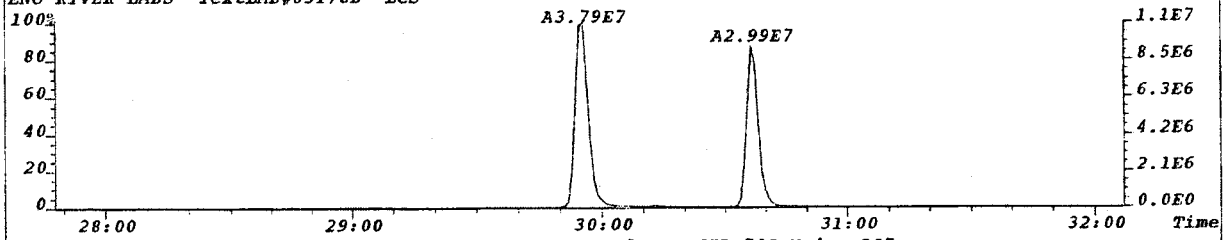
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



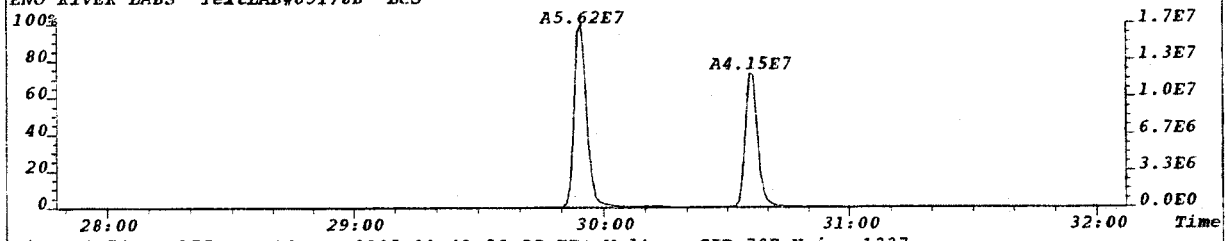
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1122
339.8597 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4488.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



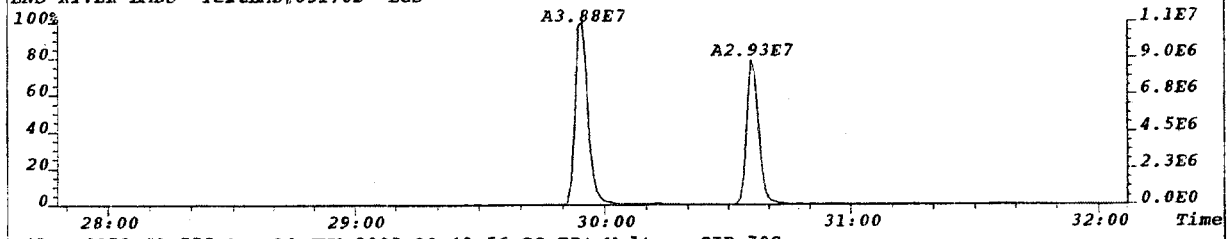
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1373
341.8567 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5492.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



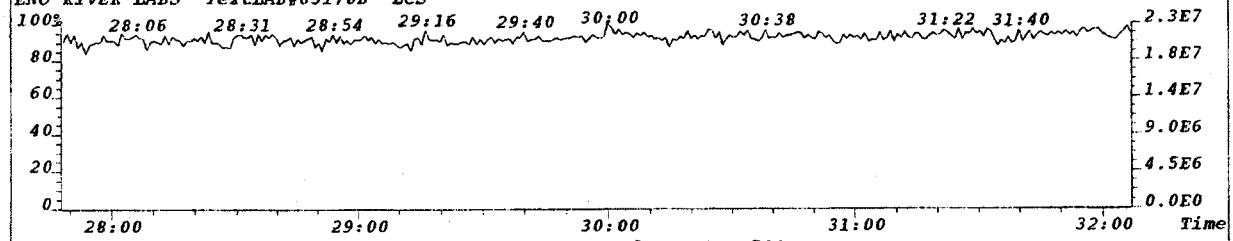
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:907
351.9000 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3628.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



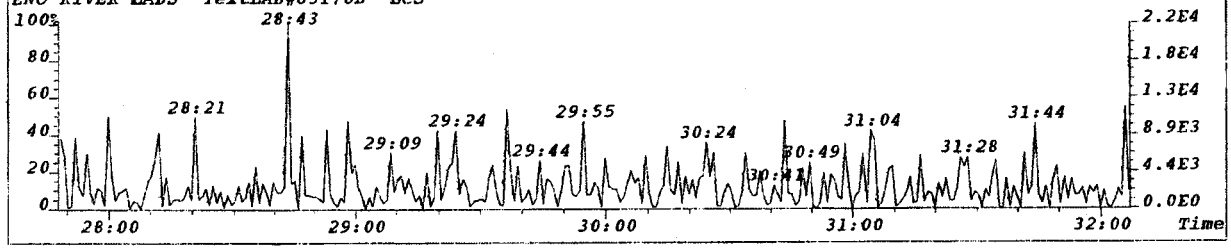
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1337
353.8970 S:11 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5348.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

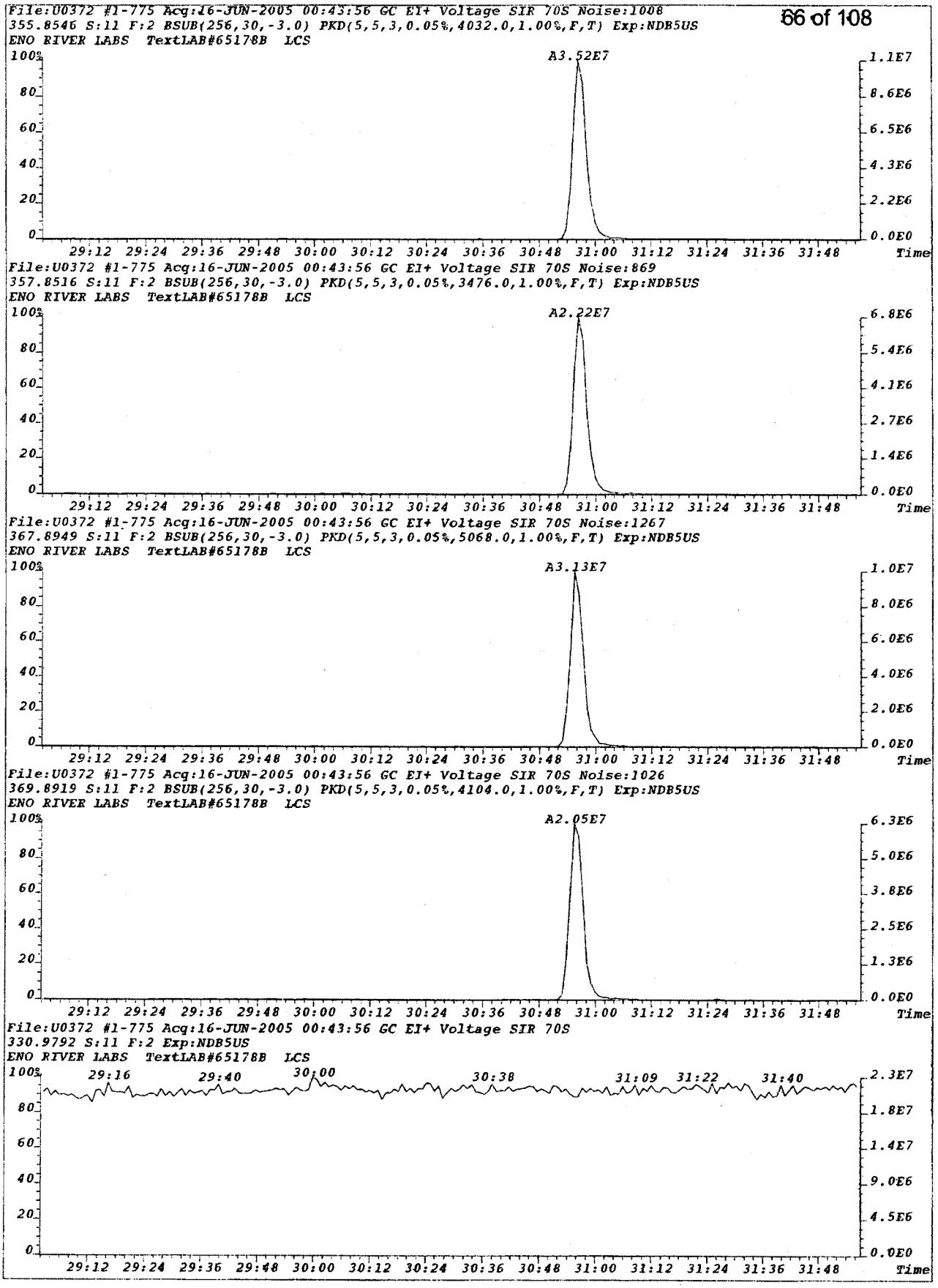


File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

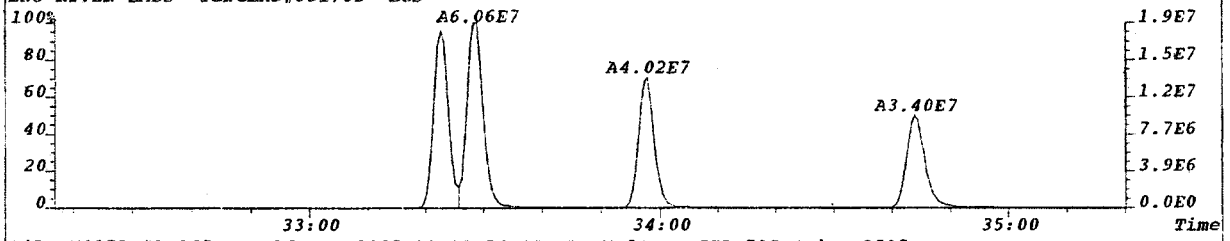


File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
409.7974 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

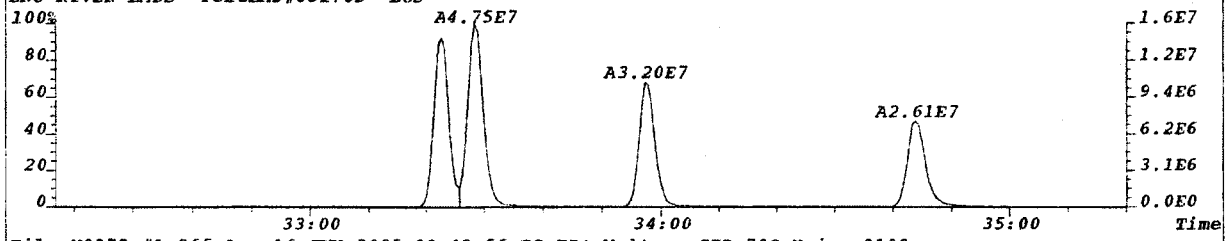



File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1008
355.8546 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4032.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A3.52E7
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:869
357.8516 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,3476.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.22E7
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1267
367.8949 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,5068.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A3.13E7
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1026
369.8919 S:11 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4104.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.05E7
File:U0372 #1-775 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
330.9792 S:11 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
29:16
29:40
30:00
30:38
31:09
31:22
31:40
29:12 29:24 29:36 29:48 30:00 30:12 30:24 30:36 30:48 31:00 31:12 31:24 31:36 31:48
Time

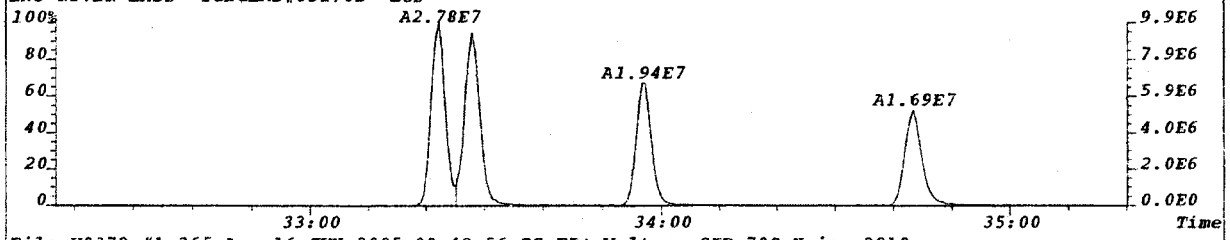
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:3191
373.8208 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12764.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



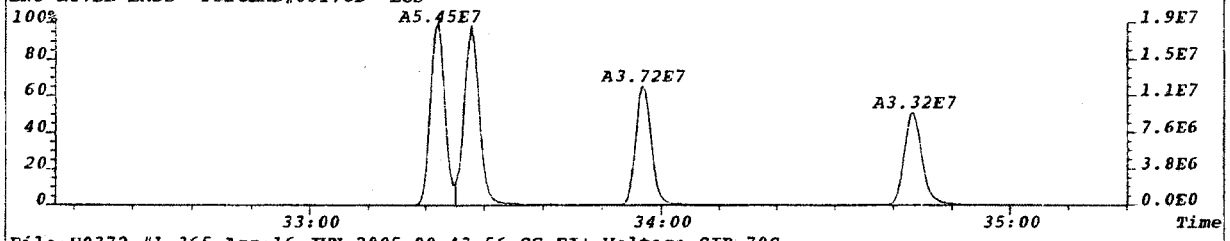
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:3585
375.8178 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,14340.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



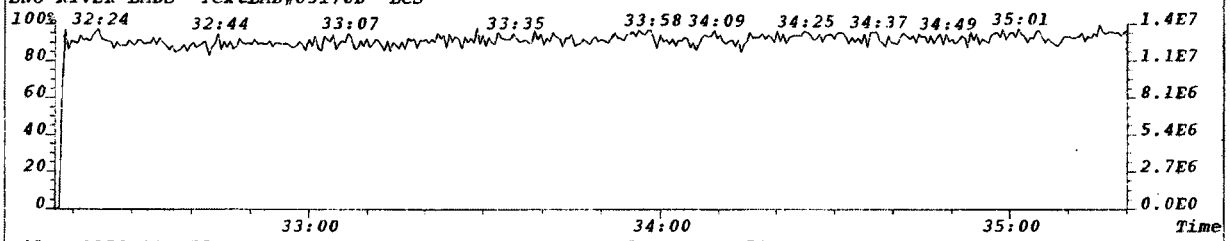
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:3109
383.8639 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,12436.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



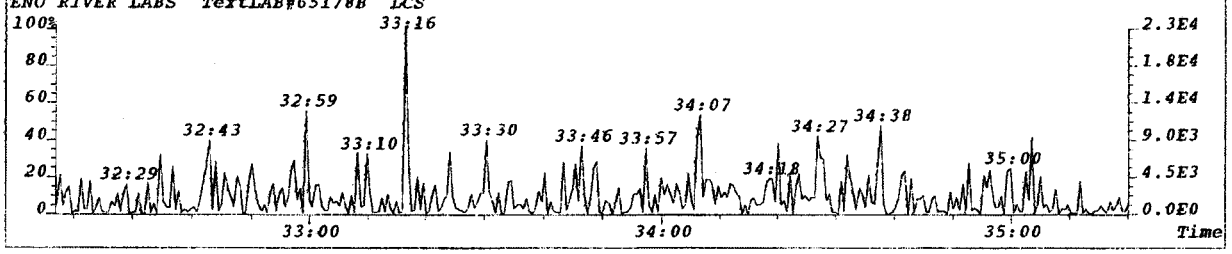
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:2210
385.8610 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8840.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

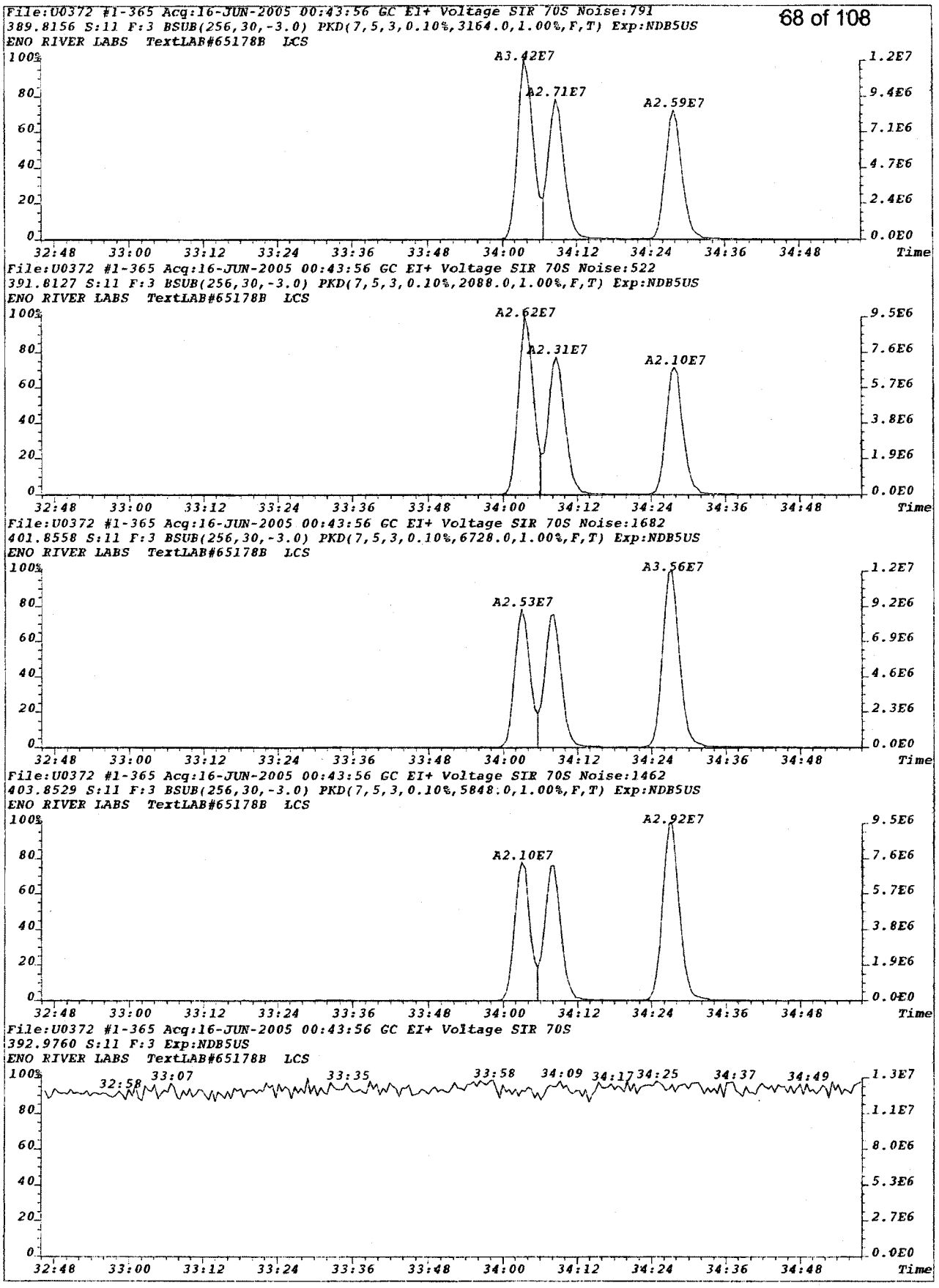


File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
392.9760 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

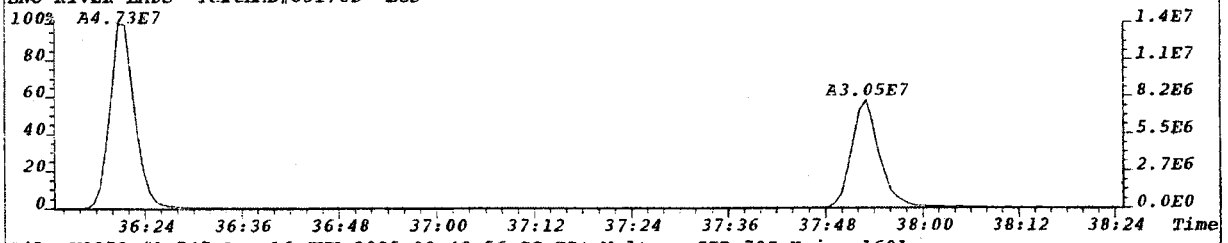


File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
445.7555 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

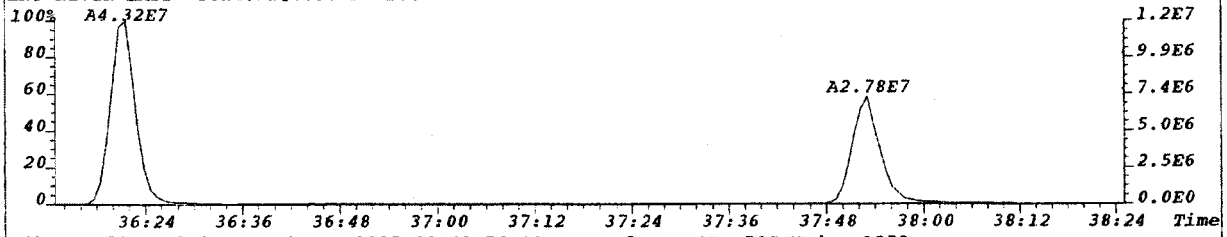



File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:791
389.8156 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3164.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A3.42E7
A2.71E7
A2.59E7
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:522
391.8127 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2088.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.62E7
A2.31E7
A2.10E7
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1682
401.8558 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6728.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A3.56E7
A2.53E7
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1462
403.8529 S:11 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.92E7
A2.10E7
File:U0372 #1-365 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
392.9760 S:11 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
32:58
33:07
33:35
33:58
34:09
34:17
34:25
34:37
34:49
Time

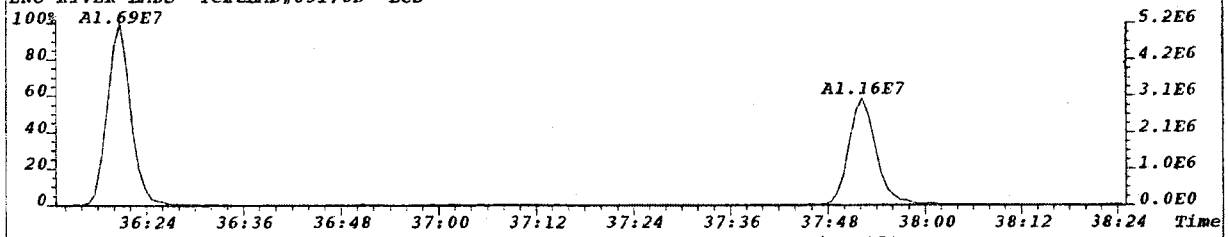
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:2099
407.7818 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8396.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



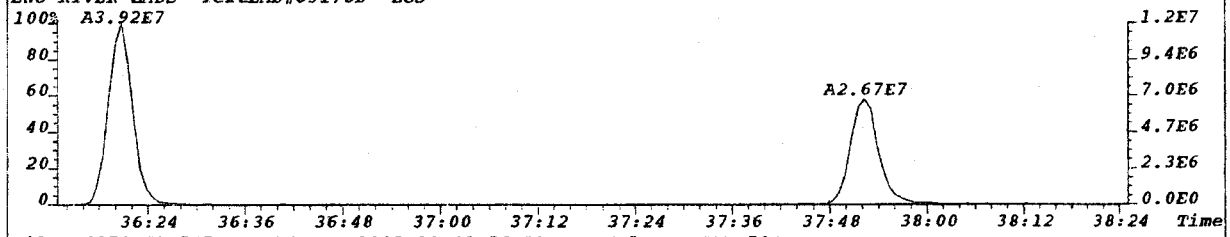
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1681
409.7789 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6724.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



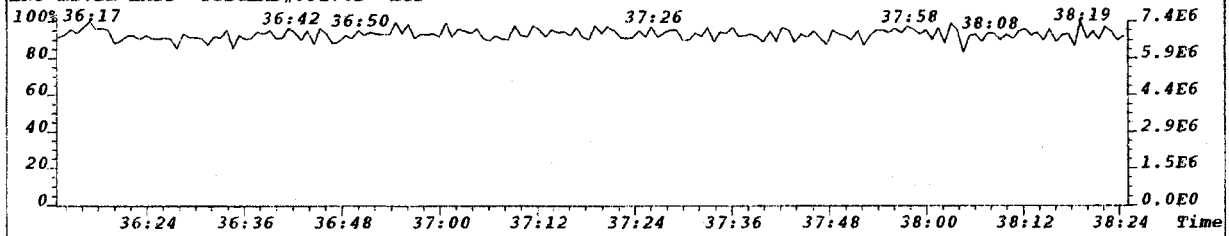
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1372
417.8253 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5488.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



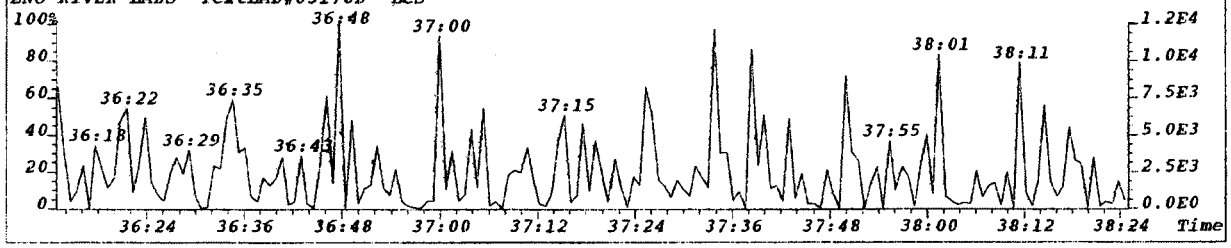
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:953
419.8220 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3812.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



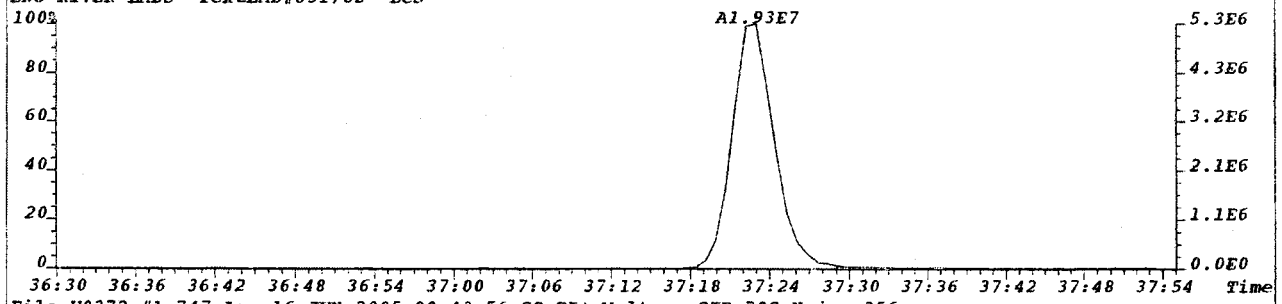
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



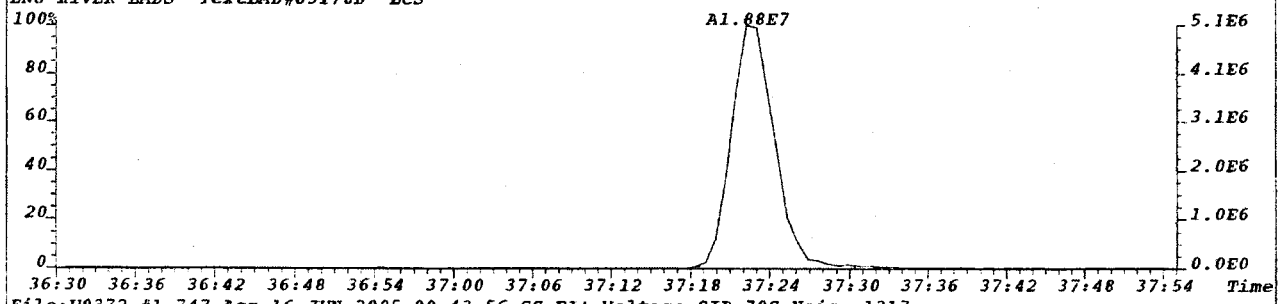
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
479.7165 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



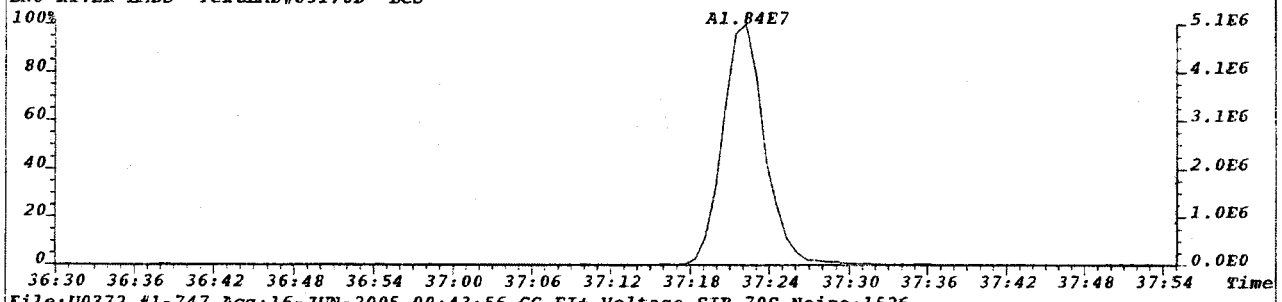
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:792
423.7766 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3168.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



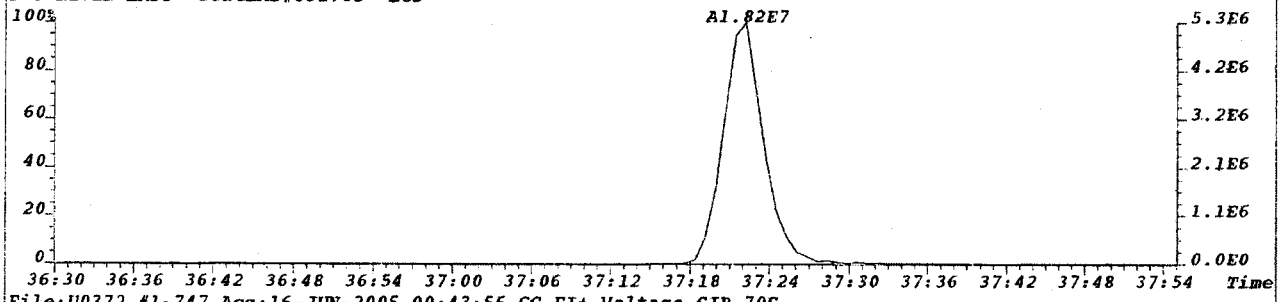
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:356
425.7737 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1424.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



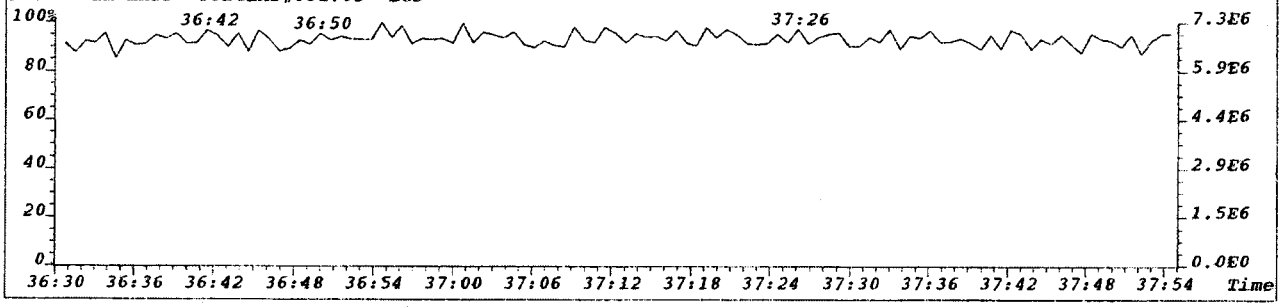
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1317
435.8169 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5268.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



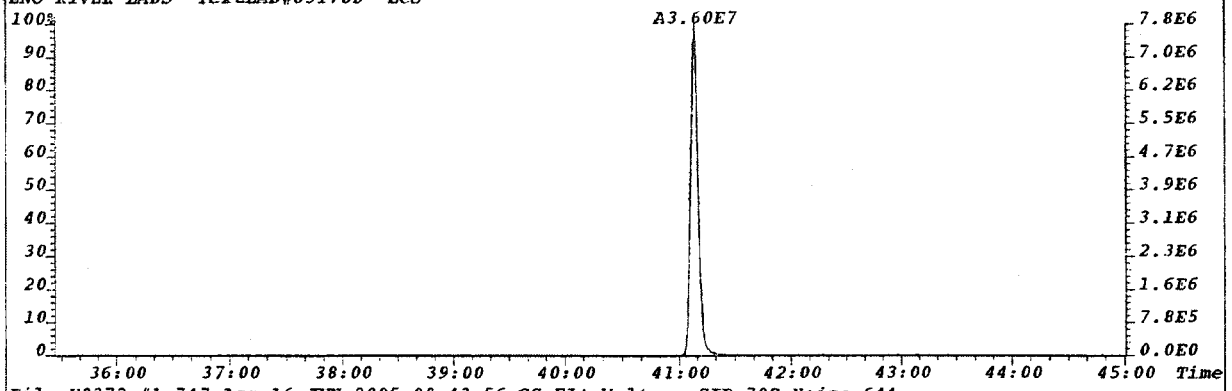
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:1526
437.8140 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6104.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



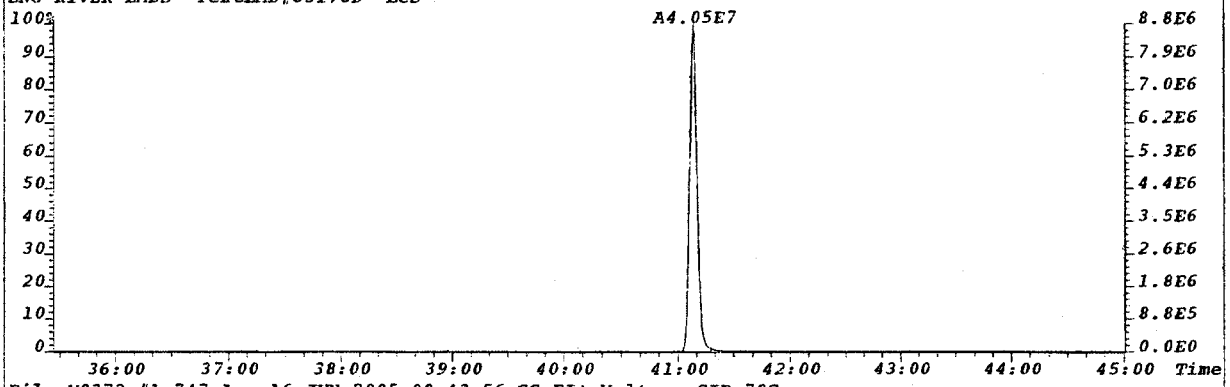
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



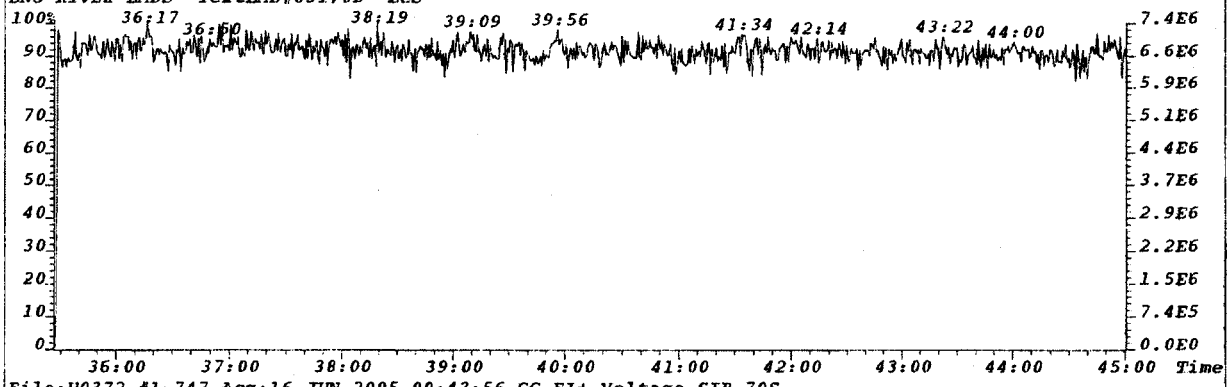
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:39
441.7428 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,156.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



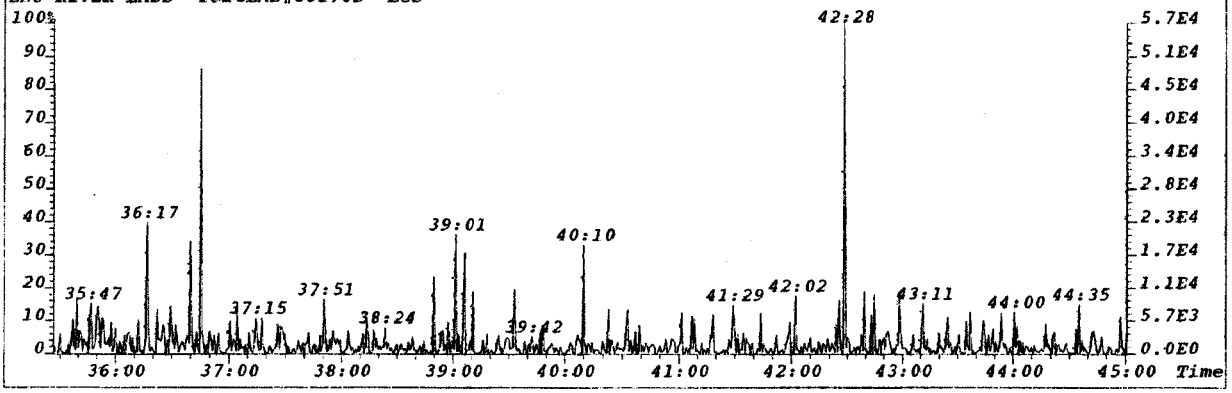
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:644
443.7399 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2576.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS

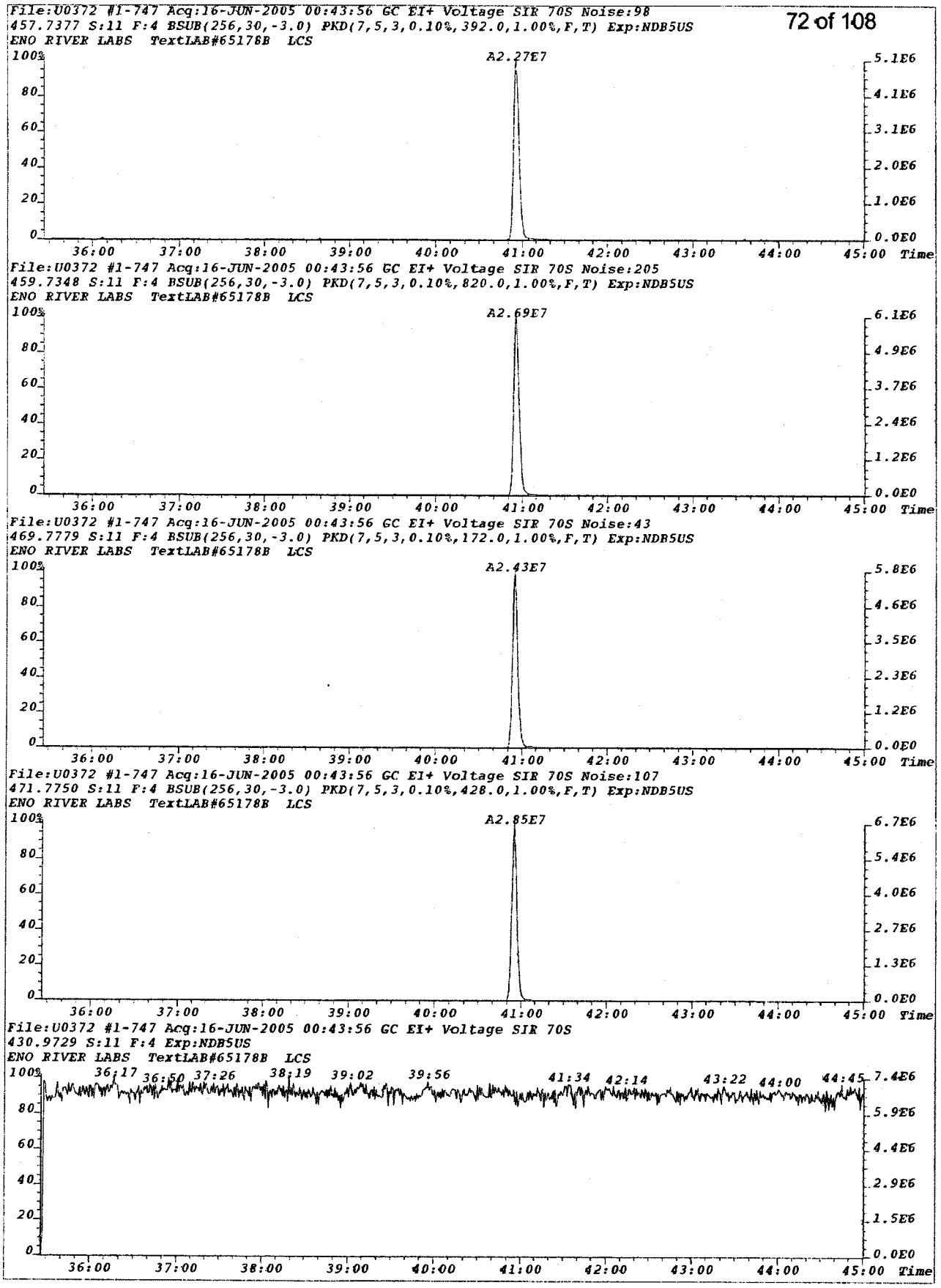


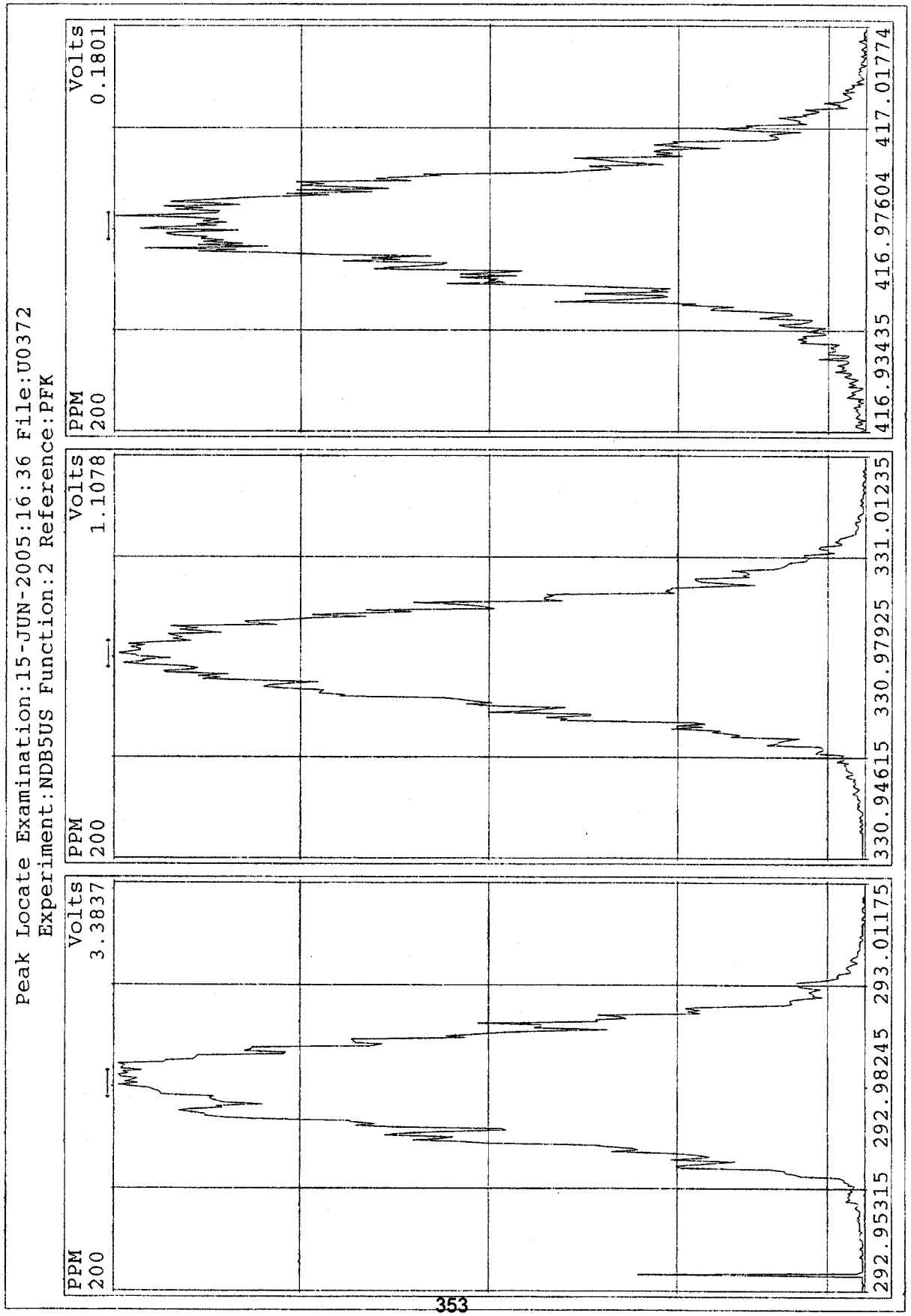
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS



File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
513.6775 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS




File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:98
457.7377 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,392.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.27E7
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:205
459.7348 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,820.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.69E7
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:43
469.7779 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,172.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.43E7
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S Noise:107
471.7750 S:11 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,428.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
A2.85E7
File:U0372 #1-747 Acq:16-JUN-2005 00:43:56 GC EI+ Voltage SIR 70S
430.9729 S:11 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCS
36:17
36:50
37:26
38:19
39:02
39:56
41:34
42:14
43:22
44:00
44:45
Time


Peak Locate Examination:15-JUN-2005:16:36 File:U0372
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
3.3837
292.95315
292.98245
293.01175
PPM
200
Volts
1.1078
330.94615
330.97925
331.01235
PPM
200
Volts
0.1801
416.93435
416.97604
417.01774

Lab Project: 65208 Method 8290 PCDD/PCDF Analysis (b)
Client Sample: LCSD Analysis File: U037212

Client Project:	Presidio/Baker Beach			ICal:	UF5O284
Sample Matrix:	WATER	Date Received:	/ /	Spike File:	SPMIT32S
Lab ID:	LCSD	Date Extracted:	06/09/2005	1st CCal:	U037102
		Date Analyzed:	06/16/2005	End CCal:	U037213
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	S051676	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	348			0.81	26:42	
1,2,3,7,8-PeCDD	1770			1.61	30:56	
1,2,3,4,7,8-HxCDD	2260			1.22	34:03	
1,2,3,6,7,8-HxCDD	1890			1.23	34:08	
1,2,3,7,8,9-HxCDD	1880			1.23	34:28	
1,2,3,4,6,7,8-HpCDD	1950			1.05	37:23	
1,2,3,4,6,7,8,9-OCDD	4010			0.83	40:56	
2,3,7,8-TCDF	351			0.72	25:59	
1,2,3,7,8-PeCDF	1960			1.53	29:55	
2,3,4,7,8-PeCDF	2020			1.53	30:36	
1,2,3,4,7,8-HxCDF	1930			1.27	33:22	
1,2,3,6,7,8-HxCDF	2040			1.28	33:28	
2,3,4,6,7,8-HxCDF	1870			1.27	33:57	
1,2,3,7,8,9-HxCDF	1900			1.28	34:44	
1,2,3,4,6,7,8-HpCDF	2040			1.09	36:21	
1,2,3,4,7,8,9-HpCDF	2010			1.08	37:53	
1,2,3,4,6,7,8,9-OCDF	4240			0.89	41:08	

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	2010	101	40%-135%	0.74	25:58	
$^{13}C_{12}$-2,3,7,8-TCDD	1850	92.4	40%-135%	0.83	26:40	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1870	93.7	40%-135%	1.41	29:54	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2010	100	40%-135%	1.53	30:56	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1700	85.1	40%-135%	0.50	33:28	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1730	86.7	40%-135%	1.21	34:08	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1880	93.9	40%-135%	0.44	36:20	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1720	86.1	40%-135%	1.01	37:22	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3530	88.2	40%-135%	0.86	40:55	

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 07:42 06/22/2005

Lab Project: **65208** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **LCSD** Analysis File: **U037212**

Surrogate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1870	93.5	40%-135%	1.44	30:36	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1690	84.7	40%-135%	0.53	33:22	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1930	96.6	40%-135%	1.23	34:03	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1860	92.9	40%-135%	0.44	37:52	___

Other Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	167	83.4	40%-135%	26:42	___

Alternate Standards (Type B)	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1680	84.0	40%-135%	0.51	34:43	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1680	84.0	40%-135%	0.51	33:57	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.85	26:30	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:27	___

Data Reviewer: PAB 06/22/2005

MIT3_PSR v1.00, LARS 6.25.06

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Printed: 07:42 06/22/2005

Initial ....Date...

Data Review By: PaB 6/16/05

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside
ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of U037212B.dbf
06/16/2005 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.874-1.074			
304-306	DC	NL				Height	6.06	3.65	2.41				
				22:50		0.71	2,843.64	1,178.78	1,664.86	0.879	1368-TCDF	AN	
	DC	SN		23:29	RO	0.27	6.44			0.904			
	DC	SN		23:56	RO	1.75	6.76			0.922			
				25:37		0.79	67.94	29.88	38.06	0.987			J
				25:59		0.72	3,502.91	1,468.01	2,034.90	1.001	2378-TCDF	AN	
	DC	SN		26:32	RO	2.16	5.35			1.022			
	DC	SN		26:44	RO	4.04	5.91			1.030			
304-306			3	Peaks			6,414.49						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	3.87	1.94	1.93				
				25:36		0.80	22.14	9.87	12.27	0.986			
				25:58		0.74	14,922.06	6,366.23	8,555.83	1.000	13C12-2378-TCDF	IS0	
						Height	3,746.21	1,597.29	2,148.92				
316-318			2	Peaks			14,944.20						
---------- Above: TCDF / TCDD Follows ----------													
TCDD						0.65-0.89				0.900-1.044			
320-322	DC	NL				Height	2.35	1.29	1.06				
	DC	SN		25:10	RO	1.18	4.09			0.944			
	DC	SN		25:31	RO	3.20	1.22			0.957			
	DC	SN		25:40	RO	1.10	4.76			0.963			
				26:42		0.81	2,095.99	939.84	1,156.15	1.001	2378-TCDD	AN	
				26:57	RO	2.37	8.30	11.11	4.69	1.011			J
				27:10	RO	1.80	9.04	9.21	5.11	1.019			J
				27:21	RO	2.40	7.31	9.92	4.13	1.026			J
320-322			4	Peaks			2,120.64						
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	1.06	1.06					
	DC	WL		24:27			2.21			0.917			
	DC	WL		24:39			6.42			0.924			
				25:18			17.21	17.21		0.949			
	DC	SN		25:30			2.37			0.956			
	DC	SN		25:37			6.21			0.961			
	DC	SN		25:51			3.85			0.969			
	DC	SN		26:01			2.89			0.976			
	DC	SN		26:07			2.36			0.979			
	DC	SN		26:16			2.36			0.985			
				26:26			2.48	2.48		0.991			
	DC	SN		26:31			3.72			0.994			

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				26:42			1,007.52	1,007.52		1.001	37Cl-TCDD	CLS	
				27:05			8.35	8.35		1.016			
				27:11			2.87	2.87		1.019			
		DC	SN	27:20			8.49			1.025			
		DC	SN	27:30			1.76			1.031			
				27:37			1.31	1.31		1.036			
				27:43			2.41	2.41		1.039			
				27:59			5.46	5.46		1.049			
		DC	SN	28:08			3.95			1.055			
328			8	Peaks			1,047.61						
13C12-TCDD				0.65-0.89						0.925-1.075			
332-334		DC	NL		Height		3.73	2.39	1.34				
		DC	SN	25:06	RO	1.91	10.05			0.941			
				26:30		0.85	11,099.42	5,094.67	6,004.75	0.994	13C12-1234-TCDD	RSI	
				26:40		0.83	10,879.30	4,920.43	5,958.87	1.000	13C12-2378-TCDD	ISI	
					Height		2,786.10	1,263.84	1,522.26				
				27:19	RO	1.08	22.83	13.95	12.90	1.024			
332-334			3	Peaks			22,001.55						
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.929-1.062			
340-342		DC	NL		Height		2.04	1.01	1.03				
				29:04		1.77	37.37	23.89	13.48	0.972			J
				29:35		1.62	19.21	11.88	7.33	0.989			J
				29:55		1.53	12,170.64	7,355.29	4,815.35	1.001	12378-PeCDF	AN	
				30:13		1.48	175.89	104.88	71.01	1.011			J
				30:36		1.53	12,606.82	7,618.45	4,988.37	1.023	23478-PeCDF	AN	
				31:38		1.49	31.87	19.08	12.79	1.058			J
340-342			6	Peaks			25,041.80						
13C12-PeCDF				1.32-1.78						0.866-1.134			
352-354		DC	NL		Height		1.37	0.67	0.70				
				29:33	RO	2.00	13.26	10.41	5.20	0.988			
				29:54		1.41	12,003.00	7,025.35	4,977.65	1.000	13C12-PeCDF 123	IS2	
					Height		3,788.51	2,269.33	1,519.18				
				30:12		1.34	135.24	77.49	57.75	1.010			
	N			30:36		1.44	11,865.16	6,993.18	4,871.98	1.023	13C12-PeCDF 234	SURI	
				31:37		1.51	106.99	64.28	42.71	1.057			
352-354			5	Peaks			24,123.65						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78						0.939-1.022			
356-358		DC	NL		Height		1.61	0.77	0.84				
		DC	SN	29:54	RO	2.47	8.42			0.967			
				30:10	RO	2.43	4.49	4.28	1.76	0.975			J
				30:37	RO	2.00	8.82	6.91	3.46	0.990			J
				30:46	RO	0.62	5.40	3.28	5.29	0.995			J
				30:56		1.61	8,277.78	5,101.91	3,175.87	1.000	12378-PeCDD	AN	
				31:15	RO	0.76	11.38	6.92	9.13	1.010			J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				31:32		1.67	17.04	10.66	6.38	1.019			J
356-358			6 Peaks				8,324.91						
13C12-PeCDD				1.32-1.78						0.871-1.129			
368-370	DC	NL		Height			0.78	0.42	0.36				
				29:49	RO	2.03	13.31	10.61	5.22	0.964			
				30:00		1.73	24.40	15.45	8.95	0.970			
				30:37	RO	1.25	6.38	3.12	2.50	0.990			
				30:56		1.53	7,684.62	4,642.70	3,041.92	1.000	13C12-PeCDD 123	IS3	
				Height			2,389.79	1,423.67	966.12				
				31:25		1.32	13.26	7.55	5.71	1.016			
368-370			5 Peaks				7,741.97						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43						0.964-1.045			
374-376	DC	NL		Height			3.85	2.16	1.69				
				32:33		1.38	18.82	10.90	7.92	0.973			J
				33:22		1.27	12,920.27	7,233.94	5,686.33	0.997	123478-HxCDF	AN	
				33:28		1.28	14,619.05	8,194.43	6,424.62	1.000	123678-HxCDF	AN	
				33:57		1.27	13,753.90	7,704.91	6,048.99	1.014	234678-HxCDF	AN	
				34:44		1.28	10,838.32	6,091.57	4,746.75	1.038	123789-HxCDF	AN	
374-376			5 Peaks				52,150.36						
13C12-HxCDF				0.43-0.59						0.881-1.119			
384-386	DC	NL		Height			2.51	1.33	1.18				
				33:22		0.53	10,982.71	3,788.52	7,194.19	0.997	13C12-HxCDF 478	SUR2	
				33:28		0.50	11,176.17	3,715.81	7,460.36	1.000	13C12-HxCDF 678	IS4	
				Height			3,825.63	1,267.59	2,558.04				
				33:43	RO	0.31	6.57	2.22	7.11	1.007			
				33:48	RO	0.66	12.35	4.17	6.28	1.010			
				33:57		0.51	10,721.52	3,599.79	7,121.73	1.014	13C12-HxCDF 234	ALT2	
				34:43		0.51	9,065.44	3,078.77	5,986.67	1.037	13C12-HxCDF 789	ALT1	
				34:58	RO	0.41	15.25	5.15	12.66	1.045			
384-386			7 Peaks				41,980.01						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43						0.959-1.014			
390-392	DC	NL		Height			1.26	0.76	0.50				
				34:03		1.22	9,292.50	5,098.60	4,193.90	0.998	123478-HxCDD	AN	
				34:08		1.23	8,007.92	4,413.48	3,594.44	1.000	123678-HxCDD	AN	
				34:28		1.23	8,293.00	4,569.70	3,723.30	1.010	123789-HxCDD	AN	
	DC	WH		34:43	RO	0.29	10.15			1.017			
	DC	WH		34:49	RO	0.27	4.37			1.020			
390-392			3 Peaks				25,593.42						
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL		Height			2.76	1.48	1.28				
				33:33	RO	1.45	39.00	25.30	17.41	0.983			
				34:03		1.23	7,311.61	4,039.87	3,271.74	0.998	13C12-HxCDD 478	SUR3	
				34:08		1.21	7,632.96	4,178.72	3,454.24	1.000	13C12-HxCDD 678	IS5	
				Height			2,550.48	1,400.71	1,149.77				

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				34:27		1.21	8,262.15	4,517.90	3,744.25	1.009	13C12-HxCDD	789	RS2
402-404			4	Peaks			23,245.72						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF						0.88-1.20				0.996-1.047			
408-410	DC	NL				Height	4.12	2.09	2.03				
				36:21		1.09	13,490.12	7,033.31	6,456.81	1.000	1234678-HpCDF		AN
				37:53		1.08	10,525.84	5,464.03	5,061.81	1.043	1234789-HpCDF		AN
408-410			2	Peaks			24,015.96						
13C12-HpCDF						0.37-0.51				0.945-1.110			
418-420	DC	NL				Height	1.29	0.92	0.37				
				36:20		0.44	8,171.67	2,491.59	5,680.08	1.000	13C12-HpCDF	678	IS6
						Height	2,390.14	725.56	1,664.58				
				37:52		0.44	6,867.88	2,094.75	4,773.13	1.042	13C12-HpCDF	789	SUR4
				38:13		0.40	18.88	5.40	13.48	1.052			
418-420			3	Peaks			15,058.43						
---------- Above: HpCDF / HpCDD Follows ----------													
HpCDD						0.88-1.20				0.976-1.005			
424-426	DC	NL				Height	3.00	1.73	1.27				
				37:23		1.05	6,885.26	3,518.81	3,366.45	1.000	1234678-HpCDD		AN
424-426			1	Peak			6,885.26						
13C12-HpCDD						0.88-1.20				0.973-1.027			
436-438	DC	NL				Height	2.59	1.34	1.25				
	DC	SN		36:39	RO	1.25	5.88			0.981			
				37:22		1.01	6,696.45	3,363.55	3,332.90	1.000	13C12-HpCDD	678	IS7
						Height	1,867.53	957.17	910.36				
				37:43	RO	0.58	9.47	4.83	8.38	1.009			
436-438			2	Peaks			6,705.92						
---------- Above: HpCDD / Octa-CDD and CDF Follows ----------													
OCDF						0.76-1.02				0.902-1.098			
442-444	DC	NL				Height	0.26	0.03	0.23				
				41:08		0.89	13,585.07	6,395.81	7,189.26	1.005	OCDF		AN
442-444			1	Peak			13,585.07						
OCDD						0.76-1.02				0.902-1.098			
458-460	DC	NL				Height	0.01	0.01	0.00				
				40:56		0.83	10,091.52	4,569.29	5,522.23	1.000	OCDD		AN
458-460			1	Peak			10,091.52						
13C12-OCDD						0.76-1.02				0.951-1.049			
470-472	DC	NL				Height	0.09	0.03	0.06				
				40:11	RO	1.09	4.48	2.58	2.37	0.982			
				40:55		0.86	10,344.09	4,769.89	5,574.20	1.000	13C12-OCDD		IS8
						Height	2,357.58	1,087.08	1,270.50				
				41:30	RO	0.62	6.24	2.94	4.76	1.014			

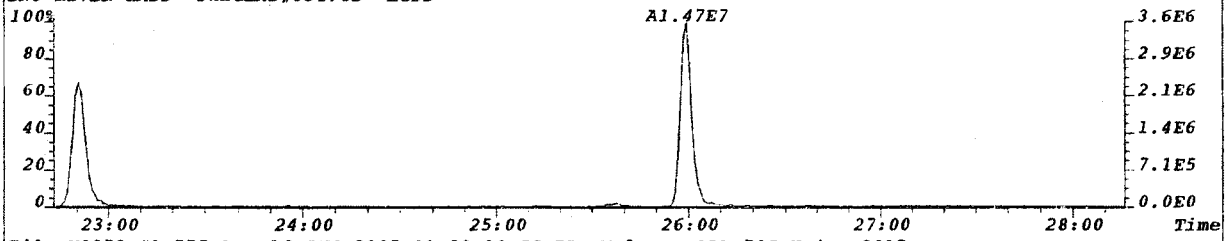
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

470-472 3 Peaks 10,354.81

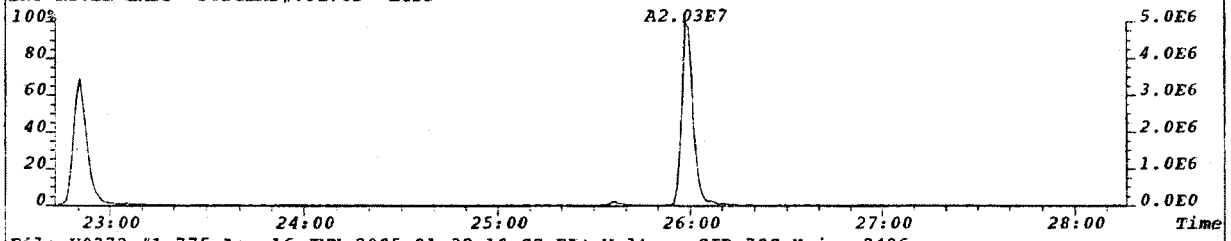
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

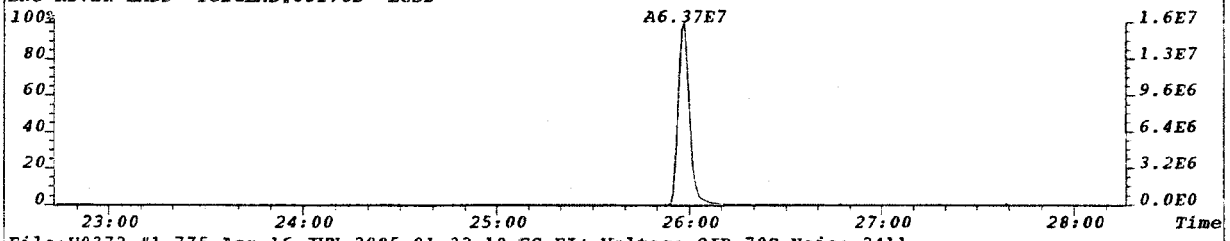
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:4565
303.9016 S:12 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,18260.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



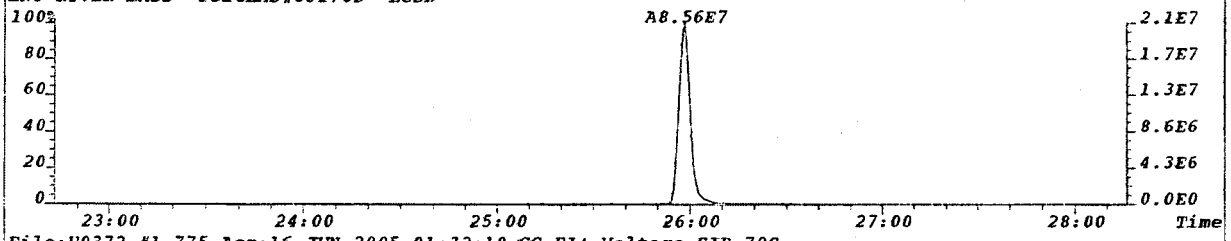
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:3017
305.8987 S:12 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,12068.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



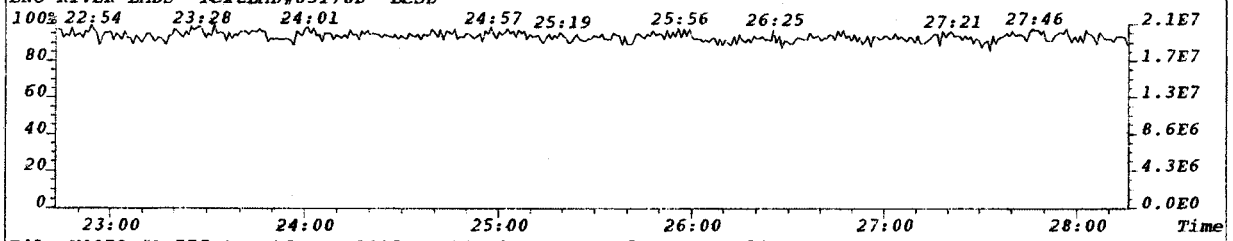
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2426
315.9419 S:12 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,9704.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



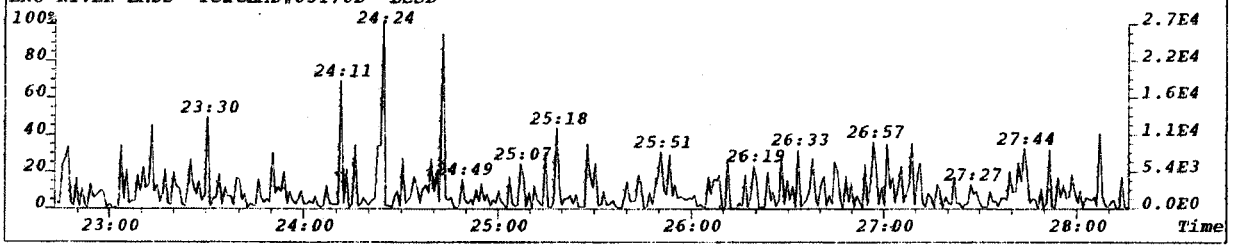
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2411
317.9389 S:12 F:2 BSUB(256,30,-3.0) PKD(9,5,3,0.10%,9644.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



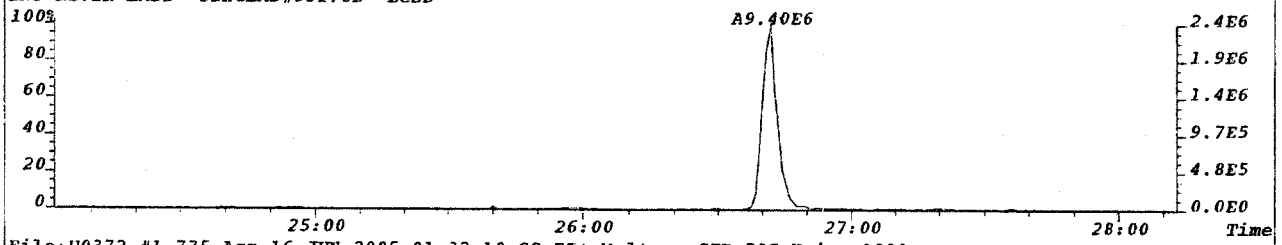
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
330.9792 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



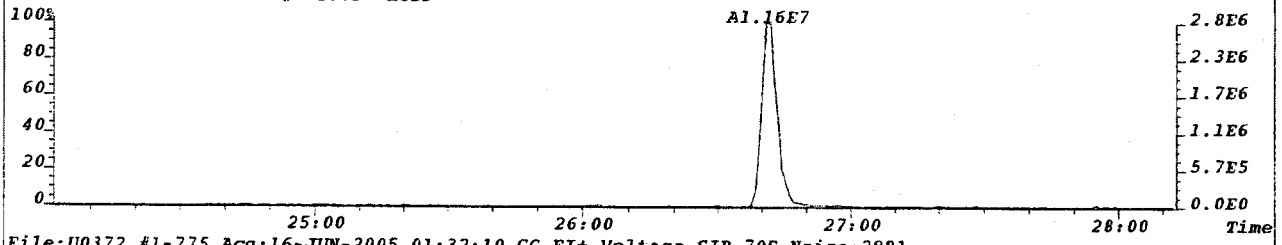
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
375.8364 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



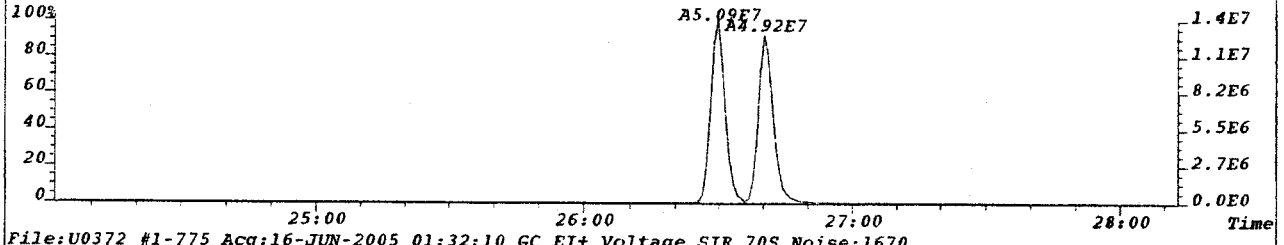
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1610
319.8965 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6440.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



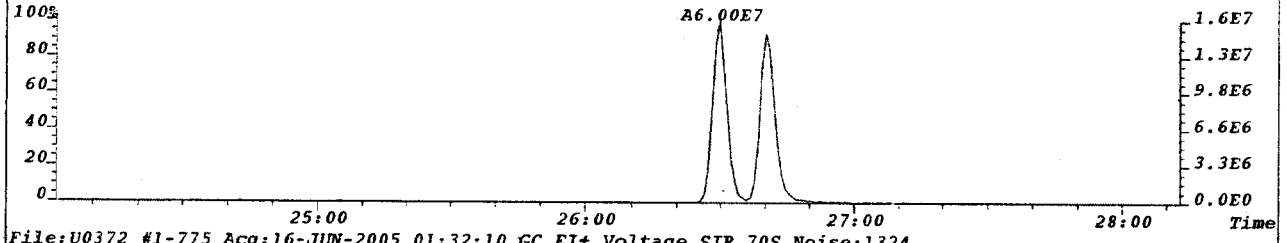
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1330
321.8936 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5320.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



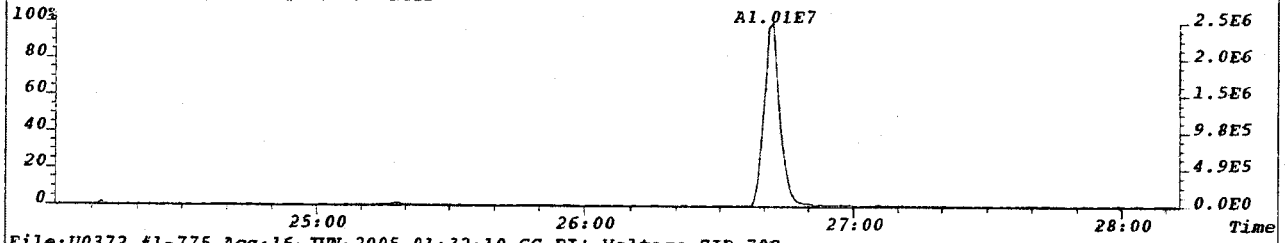
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2991
331.9368 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,11964.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



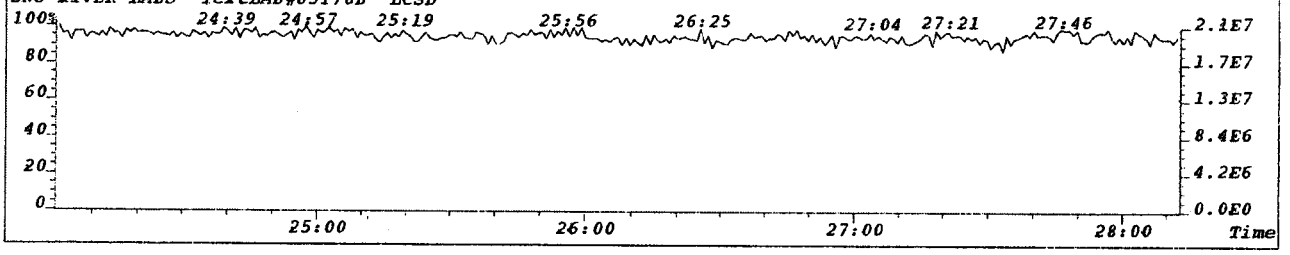
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1670
333.9338 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6680.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



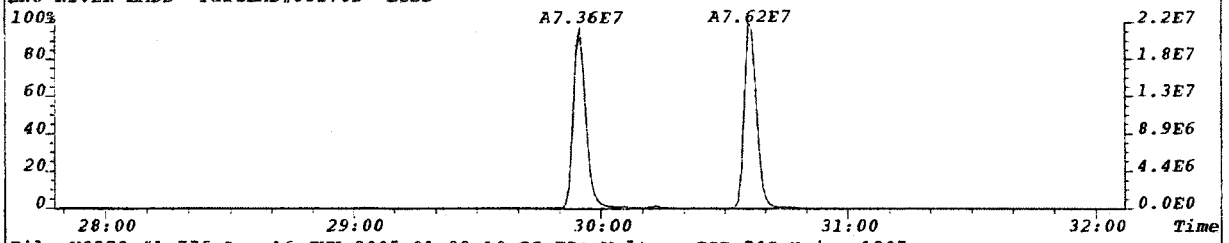
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1324
327.8847 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5296.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



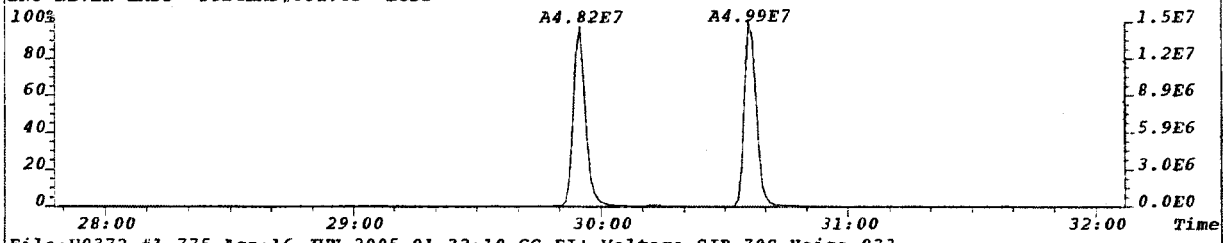
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
330.9792 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



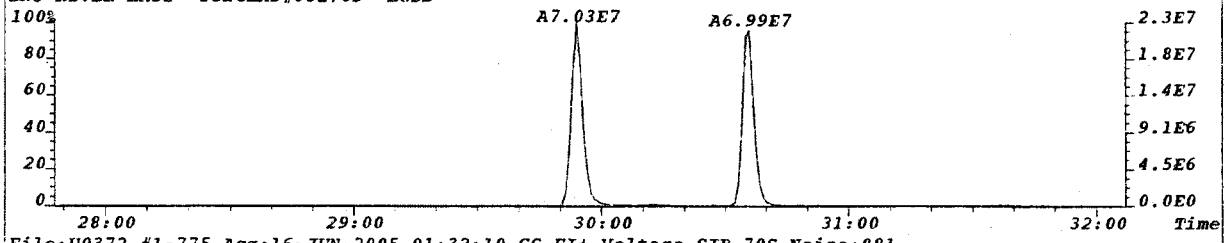
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1263
339.8597 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5052.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



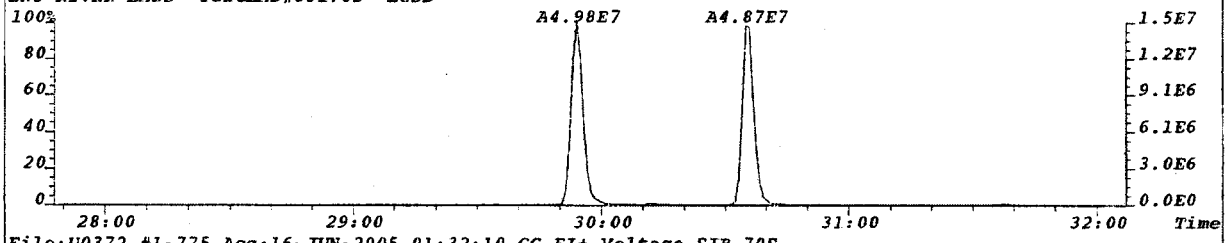
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1287
341.8567 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5148.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



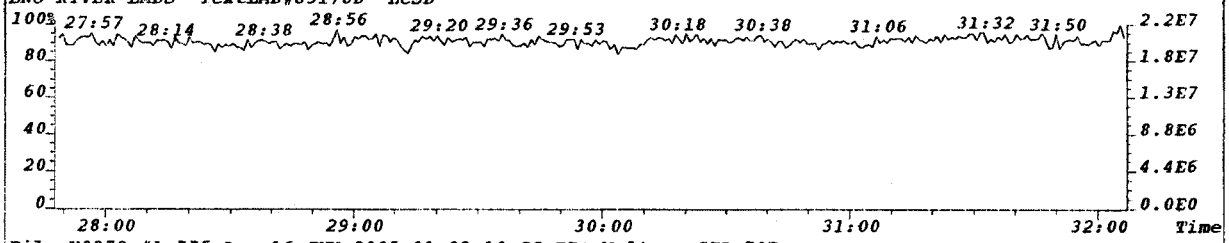
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:833
351.9000 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3332.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



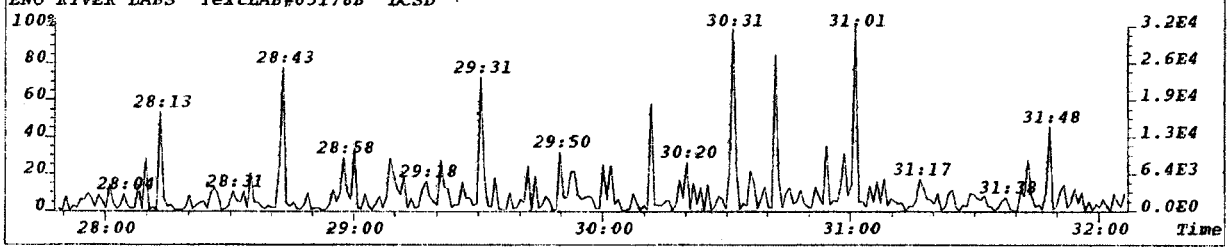
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:881
353.8970 S:12 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3524.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



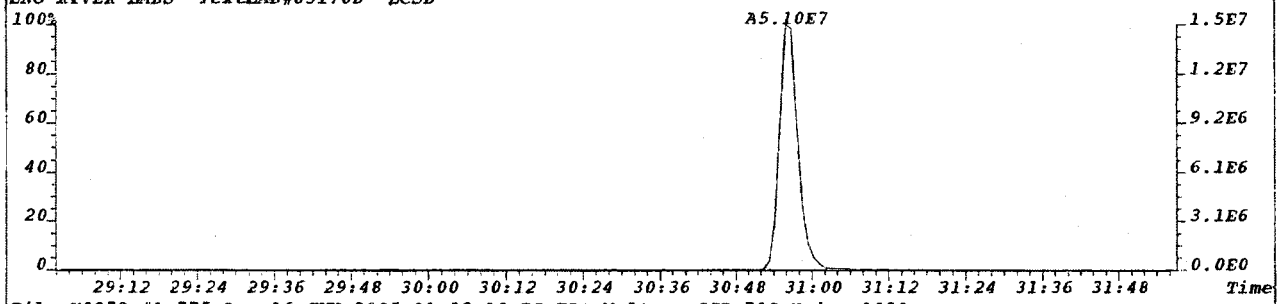
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
330.9792 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



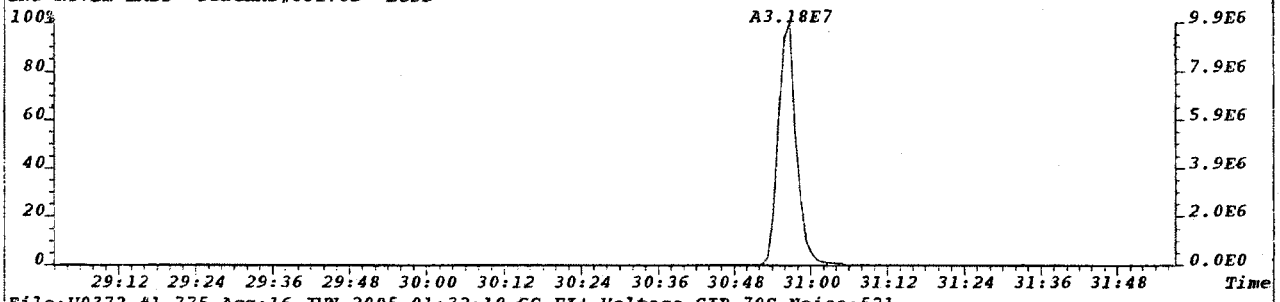
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
409.7974 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



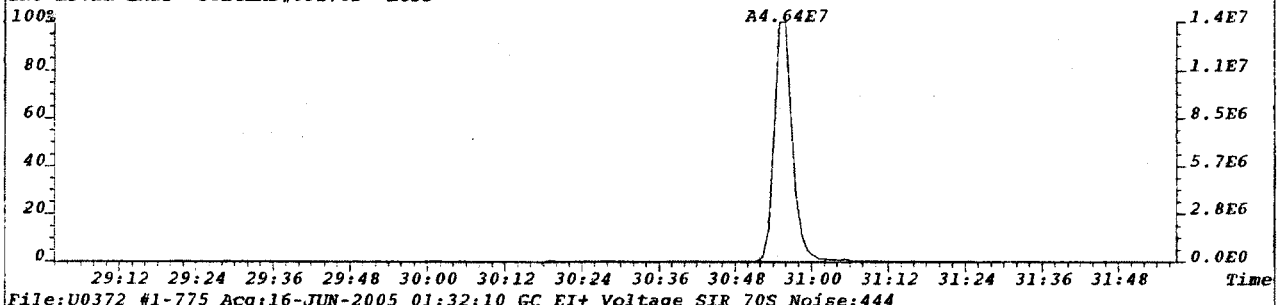
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:962
355.8546 S:12 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,3848.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



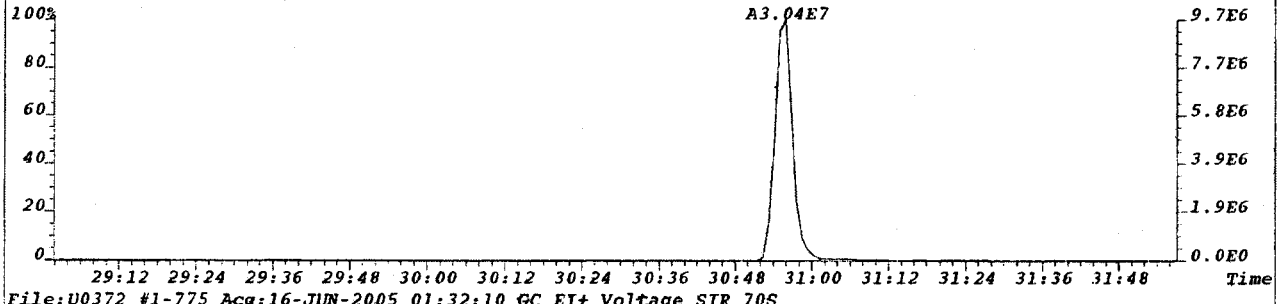
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1050
357.8516 S:12 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,4200.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



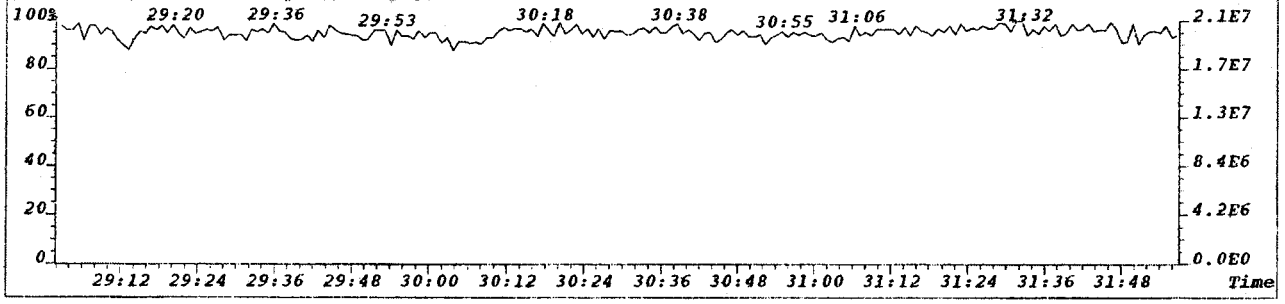
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:521
367.8949 S:12 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,2084.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



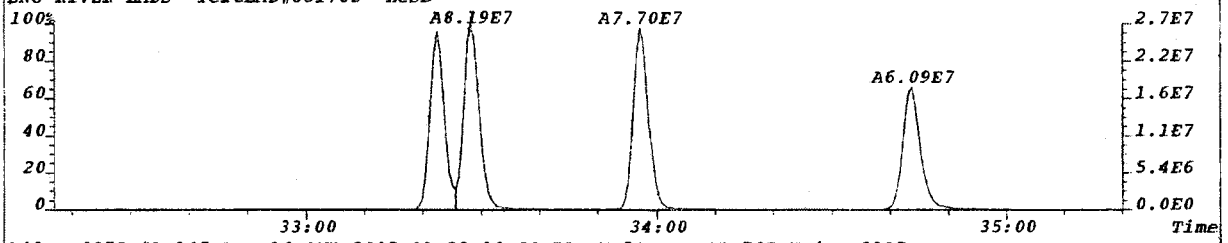
File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:444
369.8919 S:12 F:2 BSUB(256,30,-3.0) PKD(5,5,3,0.05%,1776.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



File:U0372 #1-775 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
330.9792 S:12 F:2 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2703
373.8208 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10812.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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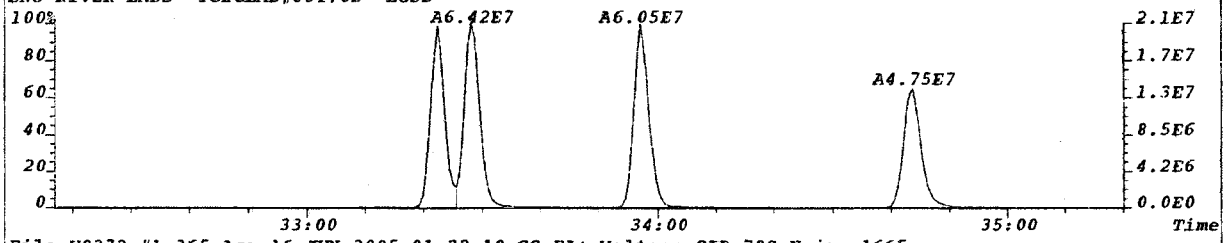
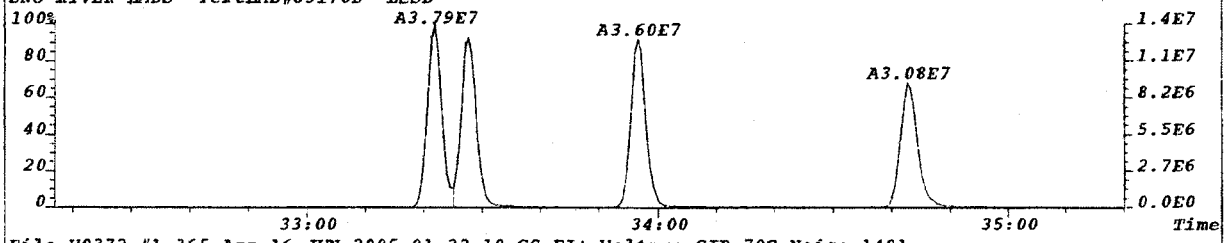
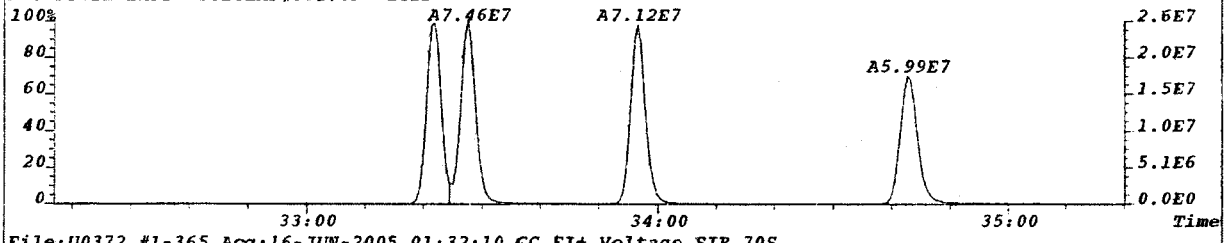
375.8178 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8468.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1665
383.8639 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6660.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1481
385.8610 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,5924.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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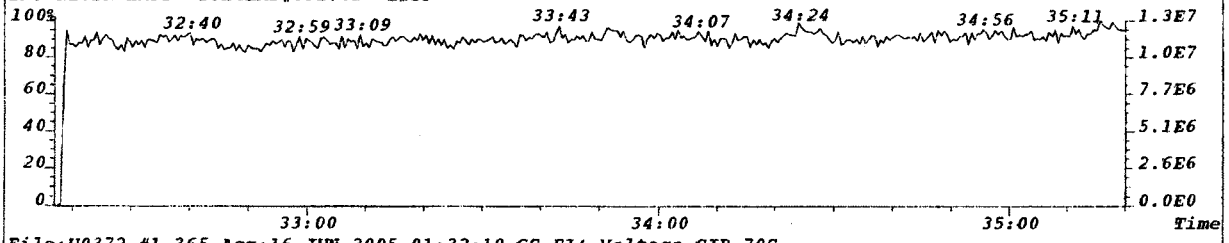
392.9760 S:12 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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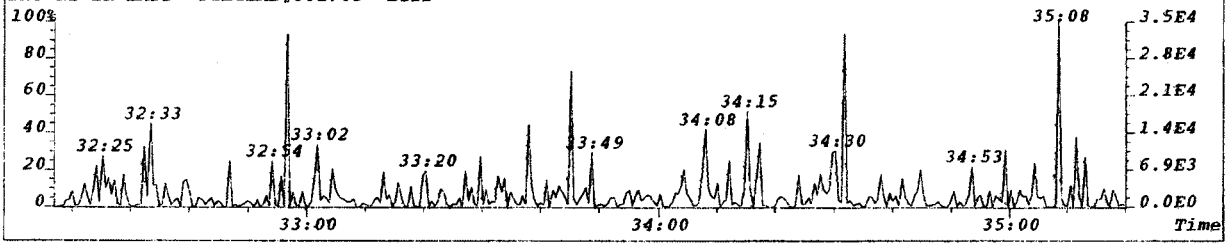
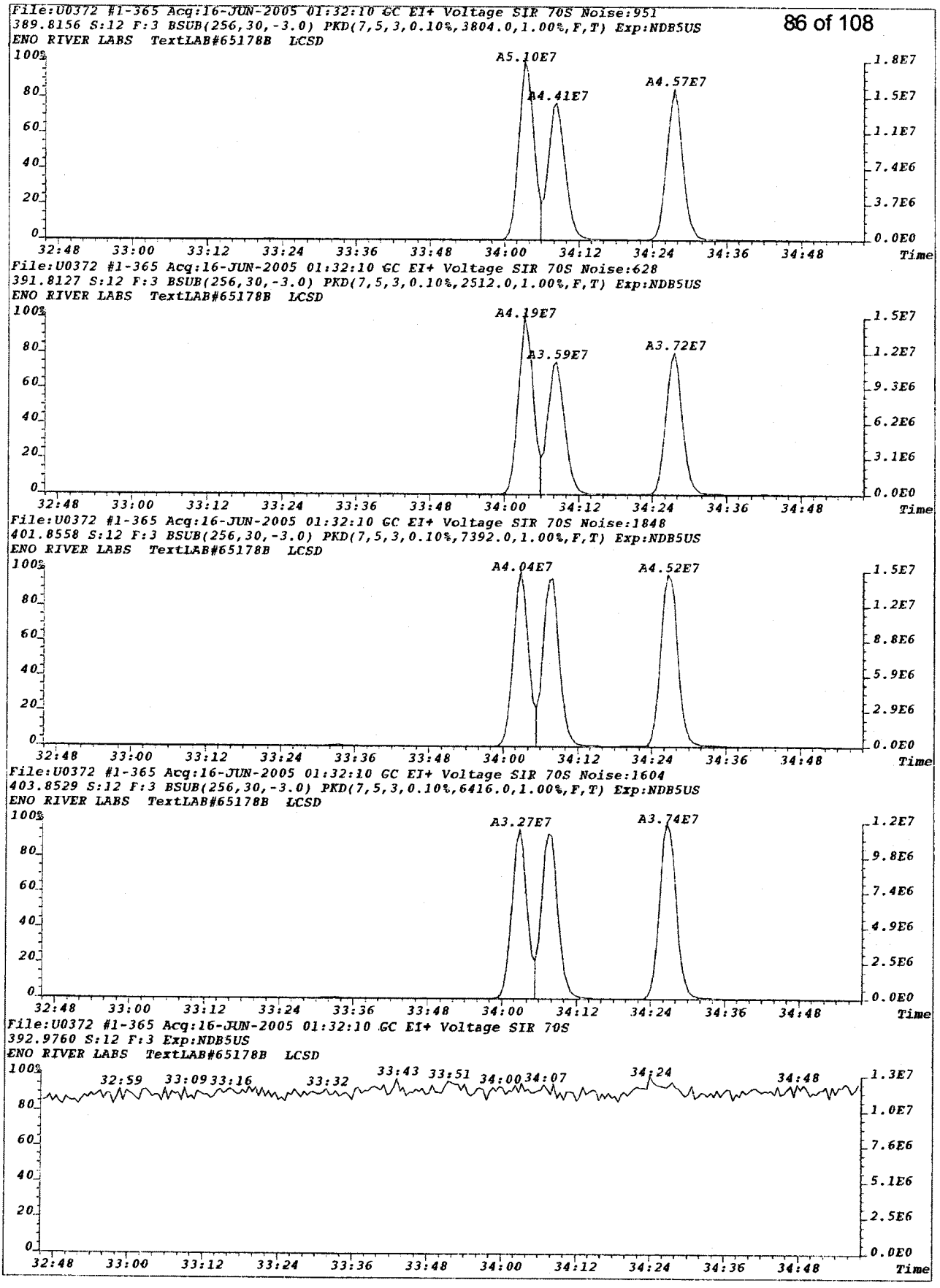
445.7555 S:12 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD

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389.8156 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,3804.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A5.10E7
A4.41E7
A4.57E7
File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:628
391.8127 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,2512.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A4.19E7
A3.59E7
A3.72E7
File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1848
401.8558 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,7392.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A4.04E7
A4.52E7
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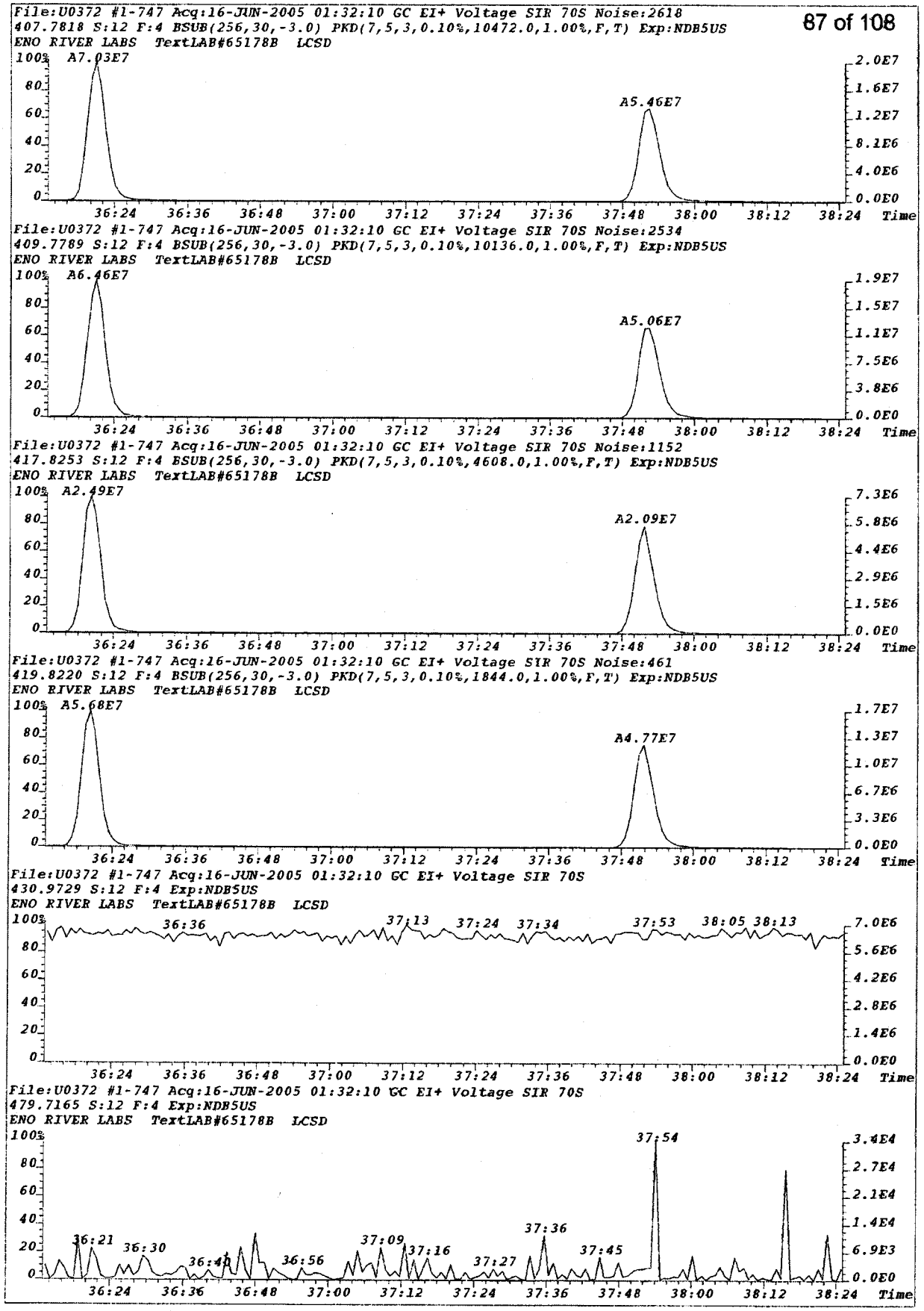
403.8529 S:12 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6416.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A3.27E7
A3.74E7
File:U0372 #1-365 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
392.9760 S:12 F:3 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
32:59
33:09
33:16
33:32
33:43
33:51
34:00
34:07
34:24
34:48
Time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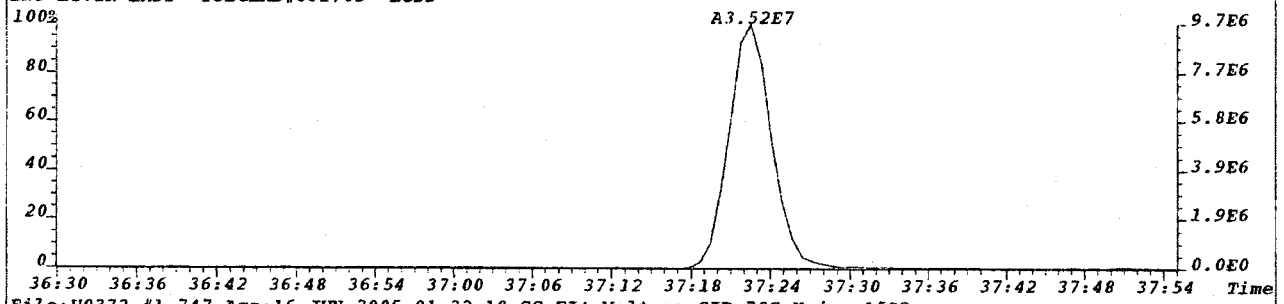
407.7818 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10472.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A7.03E7
A5.46E7
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2534
409.7789 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,10136.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A6.46E7
A5.06E7
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:1152
417.8253 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,4608.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A2.49E7
A2.09E7
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:461
419.8220 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1844.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A5.68E7
A4.77E7
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
430.9729 S:12 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
479.7165 S:12 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
37:54
Time

File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:2160
423.7766 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,8640.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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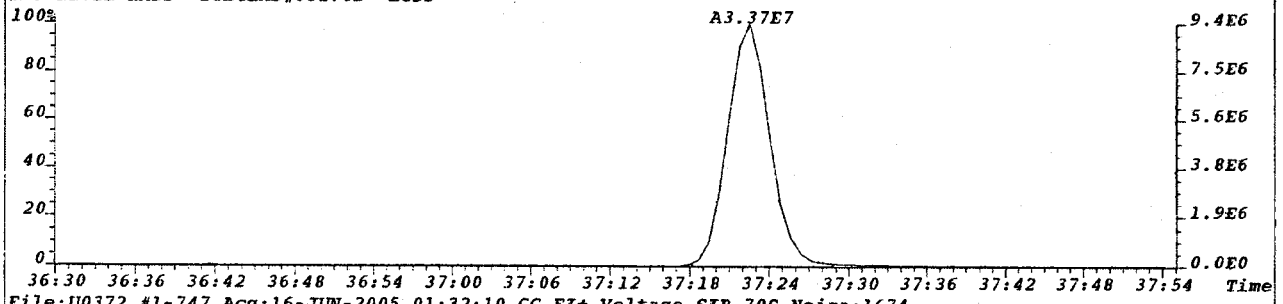
425.7737 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6328.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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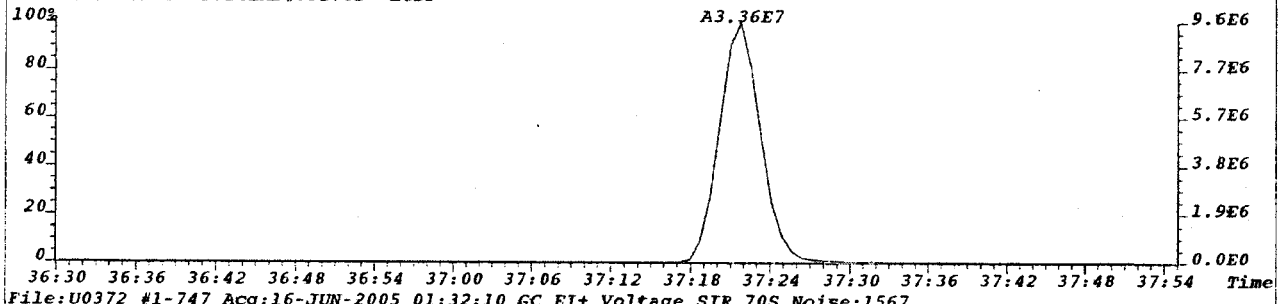
435.8169 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6696.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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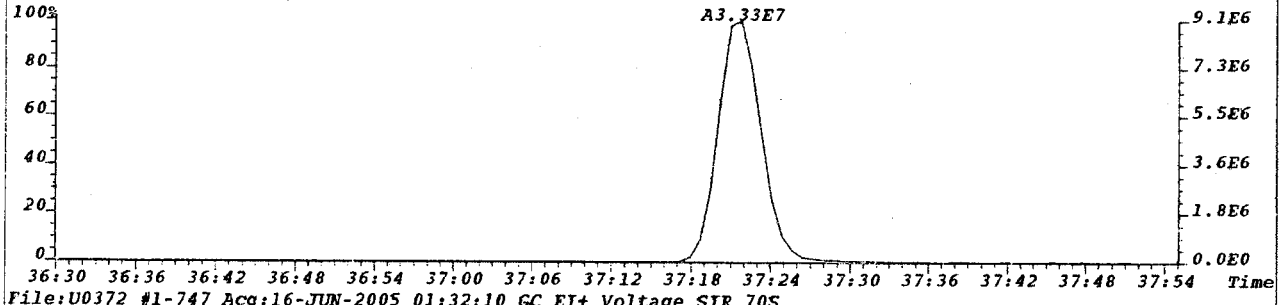
437.8140 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,6268.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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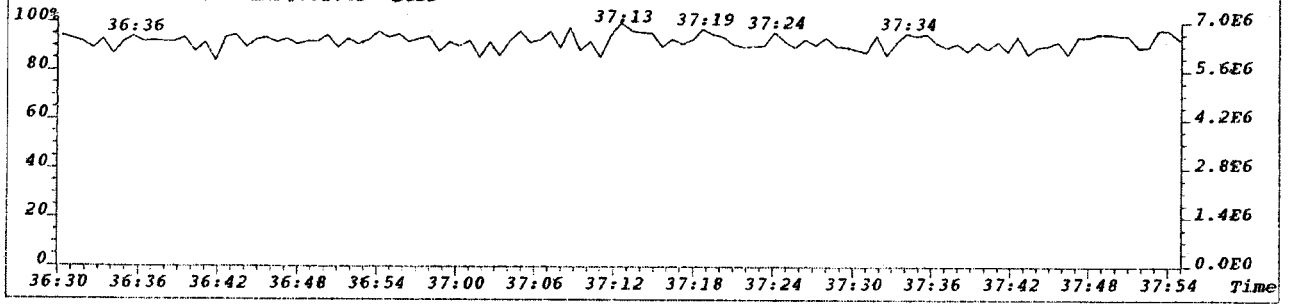
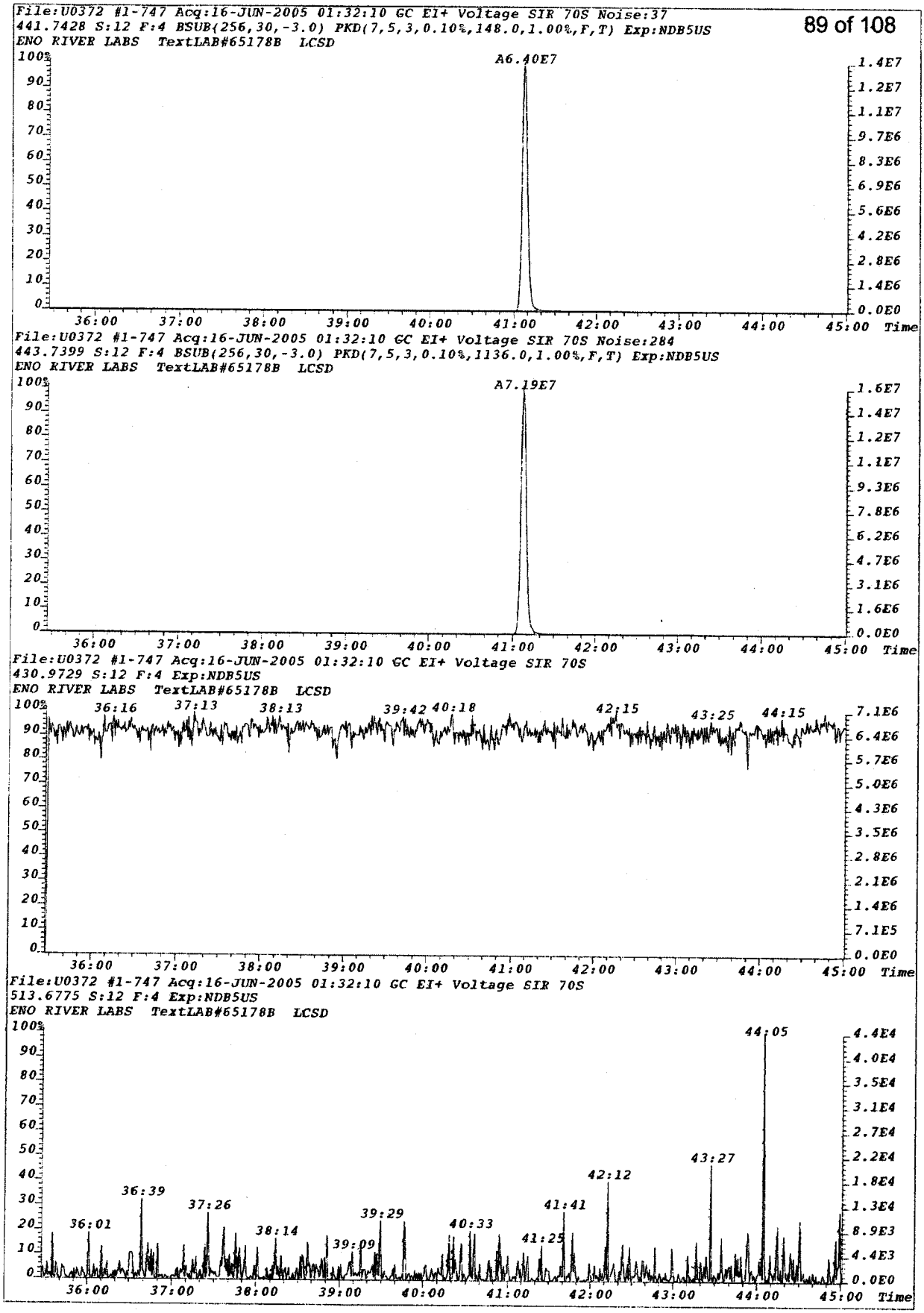
430.9729 S:12 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD

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441.7428 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,148.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A6.40E7
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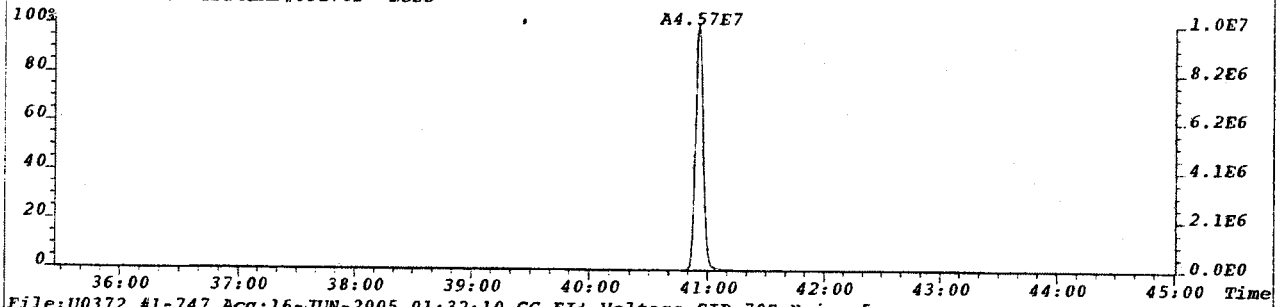
443.7399 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,1136.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
A7.19E7
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
430.9729 S:12 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
36:16
37:13
38:13
39:42
40:18
42:15
43:25
44:15
File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S
513.6775 S:12 F:4 Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD
44:05
43:27
42:12
41:41
36:39
37:26
39:29
36:01
38:14
40:33
39:09
41:25
Time

File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:11
457.7377 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,44.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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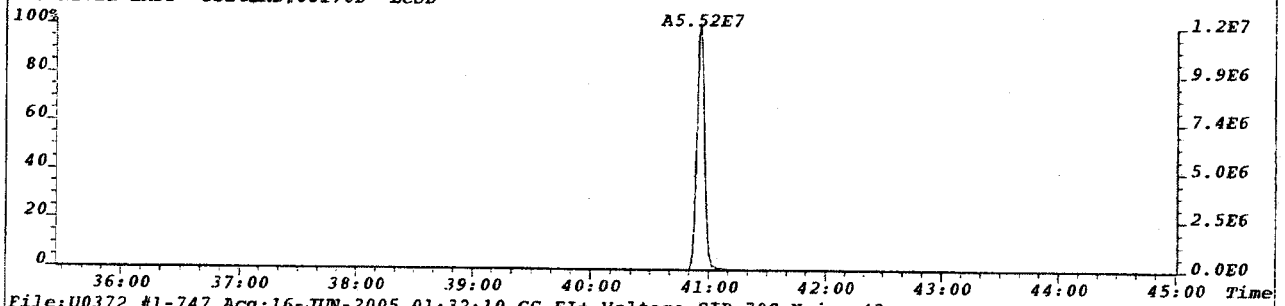
459.7348 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,20.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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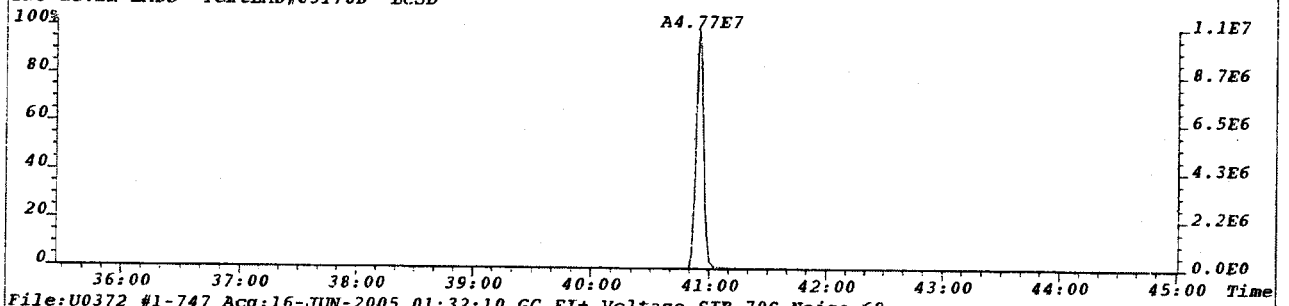
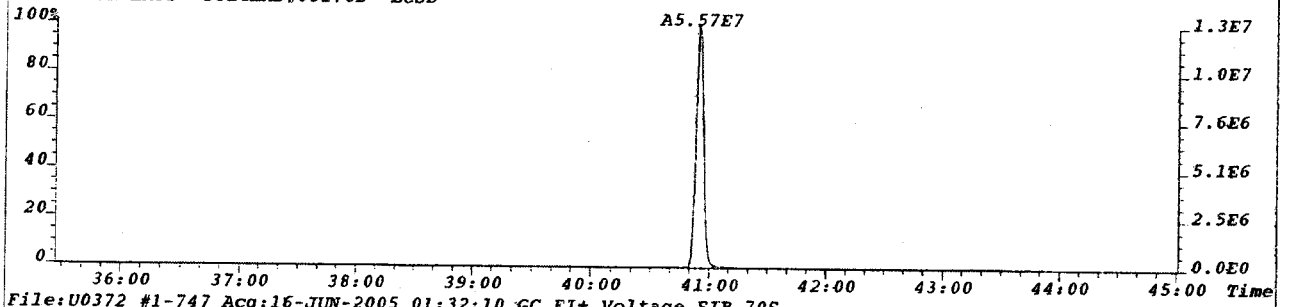
ENO RIVER LABS TextLAB#65178B LCSD



File:U0372 #1-747 Acq:16-JUN-2005 01:32:10 GC EI+ Voltage SIR 70S Noise:69
471.7750 S:12 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.10%,276.0,1.00%,F,T) Exp:NDB5US
ENO RIVER LABS TextLAB#65178B LCSD



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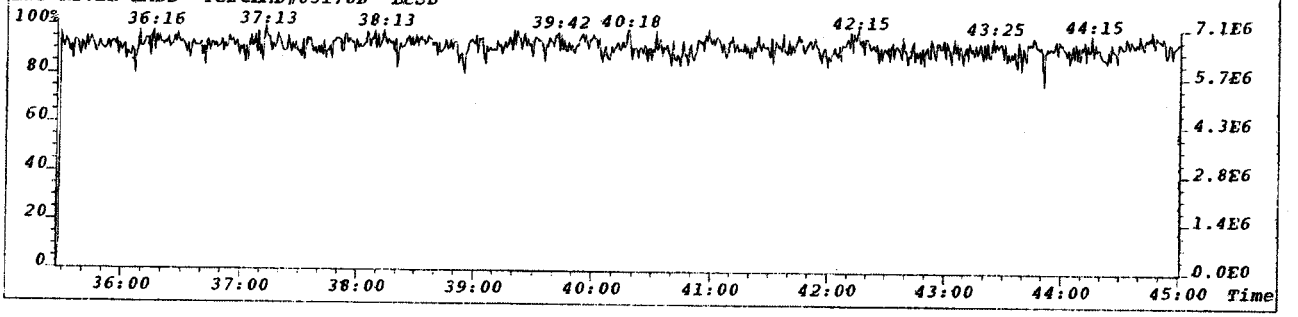
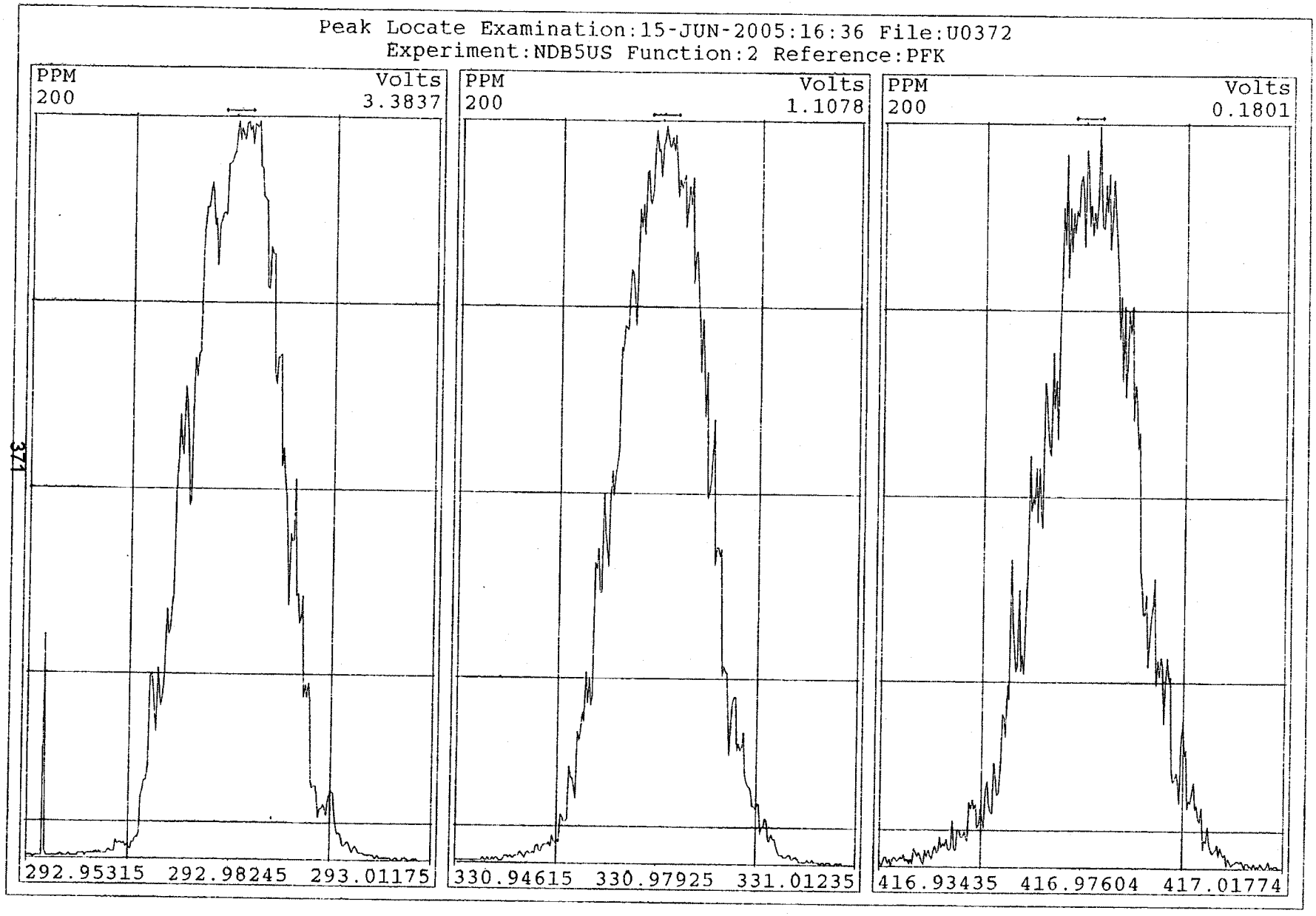
ENO RIVER LABS TextLAB#65178B LCSD




Peak Locate Examination:15-JUN-2005:16:36 File:U0372
Experiment:NDB5US Function:2 Reference:PFK
PPM
200
Volts
3.3837
292.95315 292.98245 293.01175
PPM
200
Volts
1.1078
330.94615 330.97925 331.01235
PPM
200
Volts
0.1801
416.93435 416.97604 417.01774

371

ENO RIVER LABS

DOCUMENT CONTROL

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

LEVEL III

Project Number: 179714
Site: Presidio / Baker Beach

COPY

Subcontract Laboratory:
Eno River Labs, LLC
2445 South Alston Ave
ferris@enoriverlabs.com
Durham, NC 27713
(919) 281-4053
ATTN: Shawn Ferris

Results due: 09-JUNE-2005 JMW 5-27-05 Report Level: III

Please send report to: Patricia Flynn

*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
BBIPZ101	05/27 10:20	Water	8290	179714-001	Dioxins/Furans

Notes:	Relinquished By:	Received By:
	Date/Time: 5/31/5 1230	Date/Time: 6/1/05 10:25

Signature on this form constitutes a firm Purchase Order for the services requested above.
Page 1 of 1

ENO RIVER LABS, LLC -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

Lab Project Number 65208
Client: CUT02 - Curtis & Tompkins
Project: 179714

Book 404

Date Received 06/01/05 By

Page 22

Ice Chest ICE/ICE PACKS Temp 6.0 C

Carrier and Number UP1Z9X31690142756616

Lab Number.. / mR/H:CPM.	Client Sample ID / Client COC ID	Location	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
404-22-1A	BBIPZ101		WATER	JC 6/1/05	USed							
	BBIPZ101	C02										
404-22-1B	BBIPZ101		WATER									
	BBIPZ101	C02										

374

Receiving Remarks:

Archive Remarks:

Form Revised 05/27/1997 -- Page 1 OF 1

94 of 108

ENO RIVER LABS, LLC
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

Lab Proj#: 65208-	Samples: 1	TurnAround.: 21 Day(s)
Prod Code: D01002	Matrix.: Water	Hold Time..: 30 Day(s)
DetectLim: 10 ppq	Type...: B	Start Date.: 06/01/05
	Recvd..: 06/01/05	Ship By....: 06/20/05
		DWL Due Dt.: 06/14/05

Analyte List.: Tetra - Octa

Method.....: Method 8290: Tetra-Octa
Client Proj..: ~~179714~~ Presidio/Baker Beach DAH 6/1/05
Client.....: Curtis & Tompkins (CUT02)

P.O. No.....: 179714	Collect Dt/Tm: 05/27/05 10:20
Contact.....: Patricia Flynn	Phone.....: 510-486-0900
Proj. Mgr....: Client Services	Fax.....: 510-486-0532
	Sample Origin:

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA	Prespike Standard: n/a
	Extraction Exp...: 06/26/05
	EDD(s).....: A130

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option III

See MILES for Instructions/Communications.

Completed by: _____ DATE: 6/1/05

Reviewed by: _____ DATE: 6/1/05 (PMGT01

Date: 06/14/05
Time: 13:39

ENO RIVER LABS, LLC
Wet Lab Extraction and Observations
Project: 65208

PRDPERC v4.05
Page: 1

Sample #	crd	TLI_Number..	Customer.Sample.Id.....	Init. pH...	NaOH Adj. mL..	pH.1.	H2SO4 Adj. mL...	pH.2.	Appearance.	Color.....	Odor...	Vol.	Cl2	Entered.By.....	Date....	Time....	S
002		404-22-1A	BBIPZ101	7.00	n/a	n/a	n/a	n/a	CLOUDY	BEIGE	NO	1035	n/	PRATT	06/14	13:38	F

*** End of Report ***

Extraction

Type: Soxhlet / RapidScreen / Sep Funnel / Cont LL / ASE / Waste Diln. / SPE / Sonication / Tumbler / Food Oil
Oil Column

S.O.P: 020 A Version: 5

Solvent / Solution	Lot Number / ID
MeCl2	045514

For Waters, any filtered? (No) Yes
If Yes, which ones? _____

Comments / Observations: Blank & LCS(D) = ~~Dr2504~~ to IFIC HPLC H2O lot# 043238 obs: (02, 3, 5-9, 11) Clear tan no odor pH=7 FCl=0 (004, 10) Cloudy tan no odor pH=7 FCl=0 65208 (2) Clear Beige no odor pH=7 FCl=0 K 6/09/05

Concentration

Analyst(s)/ Date: K7 6-10-05

Type: Rotovap / KD / Speedvac

S.O.P: 124 Version: 20 Logged in by: K7

Solvent Exchange	Lot Number
Heptane	044758

Tridecane Lot # FT-1-25- 315A

Division: 50%/50% (____mL / ____mL) % Lipids (5 mL / 20 mL) (None)

Comments / Observations: _____

Cleanup

S.O.P: ESP.280 Version: 19 Analyst(s)/ Date: [illegible] 6/13/05
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____
S.O.P: _____ Version: _____ Analyst(s)/ Date: _____

If DSP 280 needed complete the following areas:
Glasswool Lot #: GW-02-_____
Sodium Sulfate Lot #: _____
Acid Coated Silica Gel Lot #: SGA-_____
Heptane Lot#: _____
50g used for: 100g used for:

MeCl2/Hept Solutions
2% ID: CUSPL-23-119-1
20% ID: CUSPL-23-119-2
6% ID:

Comments / Observations: _____

Transfer

Analyst(s)/ Date: LVP 6/14/05

Type: Speedvac / N2

S.O.P: 272 Version: 12

Solvent	Lot Number
Heptane	044758
Hexane	034363

Division: (None) 90%/10% for samples: _____ (____mL/____mL) _____

Comments / Observations: _____

Method: 8290
Matrix: H2O
Ext. Date: 06/09/05
Analyst: K. M.

Project-Sample ID / Internal ID			Gross Weight Before	Gross Weight After	Sample Size g (mL	IC 9034AA VSF-AS 12/10/05 06/09/05 21:00 6.10 ug/mL 20 uL	IC 8498S VSF-MC 10/07/05 06/09/05 21:00 0.01 ug/mL 40 uL	KT 8999W VSF-C 10/07/05 06/10/05 14:10 0.01 ug/mL 20 uL	/ / / / : ug/mL uL	Chemist Spike # Spike ID " Exp. " Date " Time Concen. Volume
65178 B	1	BLANK	N/A	N/A	1000	IC		KT		Any Left ~~Yes / No~~
65178 B	2	403-92-12	1358.76	343.65	965			KT		Yes / No
65178 B	3	403-92-13	1368.42	359.20	980			KT		Yes / No
65178 B	4	403-92-14	1359.89	344.14	965			KT		Yes / No
65178 B	5	403-92-15	1248.30	384.91	860			KT		Yes / No
65178 B	6	403-92-16	1371.83	363.21	980			KT		Yes / No
65178 B	7	403-92-17	1372.37	363.77	980			KT		Yes / No
65178 B	8	403-92-18	1362.08	343.68	970			KT		Yes / No
65178 B	9	403-92-19	1369.66	393.60	975			KT		Yes / No
65178 B	10	403-92-20	1327.59	344.60	925			KT		Yes / No
65178 B	11	403-92-21	1363.32	342.92	970			KT		Yes / No
65178 B	12	LCS	N/A	N/A	1000		IC	KT		~~Yes / No~~
65178 B	13	LCSD	↓	↓	1000		IC	KT		~~Yes / No~~
65208	2	404-22-1A	1538.57	503.62	1035	IC		KT		Yes / No

Project-Sample ID / Internal ID			1	2/3	4/7	8	9								
65178 B	1	BLANK	K	KT 6-10-05	KT 6-10-05	RW 6-13-05	L.P. 6/14/05								
65178 B	2	403-92-12													
65178 B	3	403-92-13													
65178 B	4	403-92-14													
65178 B	5	403-92-15													
65178 B	6	403-92-16													
65178 B	7	403-92-17													
65178 B	8	403-92-18													
65178 B	9	403-92-19													
65178 B	10	403-92-20													
65178 B	11	403-92-21													
65178 B	12	LCS													
65178 B	13	LCSD													
65208	2	404-22-1A	6/9/05	KT 6-10-05	KT 6-10-05	RW 6-13-05	L.P. 6/14/05								

1) Extraction 2) Spike after extraction 3) Add Tridecane 4) Concentrate (10 mL / 3 mL / Tridecane) 5) Combine
6) Divide / Lipid Determ. 7) Solvent Exchange 8) Cleanup (ESP260 / ESP280 / Alumina 9) Transfer ( ) Other:
___ %:____ % Carbon / RS / AgNO3 / Copper)

ENO RIVER LABS, LLC
Transfer Chain-of-Custody Form
Project 65208

Transfer From: DWLL3 To: DMS5

	Initials..	Date.....	Time...
Released by:	L.P.	6/14/05	16:55
Accepted by:	JSY	6/14/05	L.P. 16:44

MILES.ID.....	TLI_No.....	Cust.Id.....
65208- -002	404-22-1A	BBIPZ101

XfrCOC (Rev 11/01/94)

Additional comments or instructions:

ENO RIVER LABS, LLC

Method: Method 8290: Tetra-Octa
HR GC/HRMS ANALYSIS
Required Detection Limit: 10 ppq
PROJECT: 65208

SAMPLE INFORMATION

RS Conc 20 µl @ 100.0 PG/µl

S#.crd	LAB / SAMPLE ID / CLIENT / SAMPLE ID	1ST COLUMN GC/MS FILENAME COLUMN: DB5	CONFIRM	2ND COLUMN CONFIRM FILENAME COLUMN:	USF-RS VOLUME 20µl SOLN ID 9033R	USF-RS INIT. JSY DATE 6/14/05	ANALYSIS COMMENTS
002	404-22-1A / BBIPZ101	7057787	N		↓	↓	

Comments: _____

Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70S-118	DB5	H920911	TO2	2µl	NDB5US	NDB5US

Johnna Johnson 6/14/05
Signature Date

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
S057G62	6/14/05	17:42	G5778A	403-92-2	AG99G88	6.7E5	JSY 6/14/05	3	JSY 6/15/05	
G3	"	18:30	"	-3	AG99G89	1.1E6	"	4	"	
G4	"	19:18	"	-4	AG99G90	9.0E5	"	5	"	
G5	"	20:05	"	-5	AG99G91	1.2E6	"	6	"	
G6	"	20:53	"	-6	AG99719	1.3E6	"	7	"	
G7	"	21:41	"	-7	AG99720	7.8E5	"	8	"	
G8	"	22:29	G5178A	403-92-8	AG99721	8.2E5	"	9	"	
G9	6/14/05	23:16	G5027E61	402-42-119	F05-G02-3	1.3E6	"	10	"	
70	6/15/05	00:04	"	-130	-4	1.5E6	"	11	"	
71	"	00:52	"	LCS	LCS	1.4E6	"	12	"	
72	"	01:40	G5027E61	LCSD	LCSD	1.2E6	"	13	"	
S057G73	6/15/05	02:27	—	900HD	8290116B3 Calcd10	2.7E6	JSY 6/14/05	14	"	Good 8290116B TF 6/15/05
S057G74	6/15/05	10:20	—	9028A	RTCHK	15%	JSY 6/15/05	1		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 47

srvr1/sop/hrrunlog.doc (04/12/2004)

382

120 of 108

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
705-118	DB5	4920911	T02	2 µl	NDB5US	NDB5US

Signature: Johnna Ohm Date: 6/15/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
S051675	6/15/05	11:07	—	9004D	8290/1613 Course 10	2.2 E6	JSY 6/15/05	2		Cont 8290 T-0. JSY 6/15/05
76		12:14	G5778B	Blank	Blank	8.0 E5		1	JSY 6/16/05	
77		13:02	G5778A	403-92-9	AG99722	1.0 E6		2		
78		13:49		-10	AG99724	9.3 E5		3		
79		14:37		-11	AG99725	9.7 E5		4		
80		15:25		LCS	LCS	9.2 E5		5		
81		16:13	G5778A	LCSD	LCSD	1.0 E6		6		
82		17:00	G5027Ar2	402-42-3	F04-003	1.9 E6		7		
83		17:48		LCS	LCS	1.8 E6		8		
84		18:36	G5027Ar2	LCSD	LCSD	1.3 E6		9		
85		19:24	G5027Br1	402-42-29	F04-465	2.0 E6		10		
86		20:11	G5027Br1	-36	F05-002	2.2 E6		11		
S051687	6/15/05	20:59	G5027Fr1	402-42-103	F05-475	2.3 E6	JSY 6/15/05	12		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 48

srvr1/sop/hrrunlog.doc (04/12/2004)

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
705-118	DB5	H920911	TO2	2 µL	NDB5US	NDB5US

Signature: Johnson Date: 6/15/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
S057G88	6/15/05	21:47	G5027Fv1	402-42-104	F05476	1.1E6	JSV 6/15/05	13	JSV 6/16/05	
S057G89	6/15/05	22:35	—	900HD	8290/1613 Column 10	1.2E6	JSV 6/15/05	14	↓	Good 8290 FTB. JSV 6/16/05
S057G90	6/16/05		—	9038A	RTCHK		JSV 6/16/05	1		
S057G91			—	900HD	8290/1613 Column 10		JSV 6/16/05	2		

384

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 49

srvr1/sop/hrrunlog.doc (04/12/2004)

104 of 108

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70T-115	DB5	H9053314	T02	2µL	NDB5US	NDB5US

Signature: Johnson Flynn Date: 6/14/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T051772	6/15/05	01:14	65027Ext	402-42-128	F05-602-2	5.9 ES	JSF 6/14/05	13	JSF 6/15/05	
T051773	6/15/05	02:01	—	900HD	8290/1613 Cocal 10	5.6 ES	JSF 6/14/05	14	↓	Good ending Average RF 6/15/05
T051774	6/15/05	1003	—	90388A	PtCnk	10%	TF 6/15/05	1		
T051775	6/15/05	1252	—	900HD	8290/1613 CONCAL 10	8.2 ES	SG 6/15/05	1		Good 8290 FSO FIB TF 6/15/05
T051776	6/15/05	14:30	65217A	Blank	Blank	7.4 ES	TF 6/15/05	1	JSF 6/16/05	
T051777	↓	15:18	65178B	403-92-12	A699726	7.2 ES	↓	2	↓	
T051778		16:05	↓	-13	A699729	6.6 ES		3		
T051779		16:53		-14	A699730	7.7 ES		4		
T051780		17:41		-15	A699731	6.7 ES		5		
T051781		18:29		-16	A699734	8.1 ES		6		
T051782		19:17		-17	A699735	8.2 ES		7		
T051783	↓	20:04	↓	-18	A699736	5.4 ES	↓	8		
T051784	6/15/05	20:52	65178B	403-92-19	A699737	5.2 ES	TF 6/15/05	9	↓	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 51

srvr1/sop/hrrunlog.doc (04/12/2004)

385

105 of 108

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
TOT-115	DB-5	4905334	TD2	2.0 µl	NDB5US	NDB5US

Deborah Dutcher 6/16/05
Signature Date

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
T051785	6/15/05	21:40	651788	403-92-20	A669738	4.9 ES	TF 6/15/05	10	TSP 6/16/05	
T051786	↓	22:27	651788	403-92-21	A669740	5.4 ES	↓	11	↓	
T051787	6/15/05	23:15	65208	404-22-1A	BBIPZ101	8.8 ES	↓	12	↓	
T051788	6/16/05	00:03	—	9004D	8290/1636conc1:10	7.8 ES	TF 6/15/05	13	↓	Conc 8290 FTB TSP 6/16/05
T051789	6/16/05		—	9038A	RTCHK		TSP 6/16/05	1		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
HOL-9H	DB5	H9053I1	T02	2 µL	NDB5US	NDB5US

Signature _____ Date 6/10/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
W050363	6/10/05	14:18	—	9004D	8290/1613 Concal 10	1.9 E7	JSY 6/10/05	1		NG for 8290. JSY 6/10/05
W050364	6/13/05	14:43	—	9038A	RTCHK	18%	JSY 6/13/05	1		
W050365	6/13/05	16:05	—	9004D	8290/1613 Concal 10	—	TF 6/13/05	1		No lock mass in F2. JSY 6/13/05
W050366	6/13/05	16:58	—	9004D	8290/1613 Concal 10	—	JSY 6/13/05	1		↓
W050367	6/14/05	—	—	—	Mass Calibration	—	JSY 6/14/05	—	—	
W050368	↓	14:27	—	9038A	RTCHK	22%	JSY 6/14/05	1		
W050369	↓	16:11	—	9004D	8290/1613 Concal 10	—	JSY 6/14/05	1		No lock mass in F2. JSY 6/14/05
W050370	6/15/05	—	—	—	Mass Calibration	—	JSY 6/15/05	—	—	
W037101	↓	14:43	—	9038A	RTCHK	20%	↓	1		
W037102	↓	15:32	—	9004D	8290/1613 Concal 10	2.4 E7	JSY 6/15/05	2		Bad 8290/1613B 1-10. JSY 6/15/05
W037201	↓	16:40	05217	Blank	Blank	1.8E7	↓	1	JSY 6/16/05	
↓ 02	↓	17:28	↓	404-31-1	S050G01AT	1.3E7	↓	2	↓	
W037203	6/15/05	18:16	05217	↓ -2	S050G01A2	1.3E7	JSY 6/15/05	3	↓	

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 88

srvr1/sop/hrrunlog.doc (04/12/2004)

387

107 of 108

Eno River Laboratories, LLC
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	GC Descriptor
70U-94	DB5	4905311	T02	2 µL	NDB5US	NDB5US

Signature: Johnson John Date: 6/15/05

Filename	Date*	Time*	Project #	Eno River Labs ID	Client Sample ID	332	Operator/ Date	Auto-sampler Location	Sequence Verified	Comments**
U037204	6/15/05	19:04	G5217	404-31-2MS	S050G0142 MS	1.4E7	JSJ 6/15/05	4	JSJ 6/16/05	
05	↓	19:53	↓	↓ -2MSD	↓ MSD	1.4E7	↓	5	↓	
06	↓	20:41	G5217	LCS	LCS	1.7E7	↓	6	↓	
07	↓	21:30	G5217A	404-31-3	S050G0143	1.3E7	↓	7	↓	
08	↓	22:19	↓	↓ -3MS	↓ MS	1.8E7	↓	8	↓	
09	↓	23:07	↓	↓ -3MSD	↓ MSD	1.3E7	↓	9	↓	
10	6/15/05	23:55	G5217A	LCS	LCS	1.8E7	↓	10	↓	
11	6/16/05	00:43	G5778B	LCS	LCS	1.4E7	↓	11	↓	
12	↓	01:32	G5778B	LCSD	LCSD	1.4E7	↓	12	↓	
U037213	6/16/05	02:20	—	9004D	8290/1613 Cocaine 10	2.2E7	JSJ 6/15/05	13	↓	Good evening only averaged. JSJ 6/16/05
U050373	6/16/05		—	9038A	RTC #K		JSJ 6/16/05	1		

* Transcribed from chromatographic data
** Dated initials required

ConCal Due: _____

Page: 89

srvr1/sop/hrrunlog.doc (04/12/2004)

388

108 of 168

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 180973

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BB1PZ101	180973-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 8/25/05
Operations Manager

Signature: _____ Date: 8/23/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**180973**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**08/02/05**
Samples Received:	**08/02/05**

This hardcopy data package contains sample and QC results for one water sample, requested for the above referenced project on 08/02/05. The sample was received cold and intact.

Metals (EPA 6020 and EPA 7470A) Water:

High % difference was observed for zinc in the serial dilution of BB1PZ101 (lab # 180973-001). No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7470A) Filtrate:

High % difference was observed for zinc in the serial dilution of BB1PZ101 (lab # 180973-001). No other analytical problems were encountered.

Chain of Custody

180973

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 2001

Samplers: A H HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255 005103

Name/Location: PRESIDIO SF - BRDA

Project Manager: M A JACOBVITZ Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED			
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	T22 METALS	DISSOLVED (FIELD FLT)	T22 METALS	TOTAL (LAB FLT)
	✓				2				BB1PZ101		05	08	01	0840			✓		✓	
																				4

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		STANDARD TAT
		RESULTS TO G A LIEBERMAN
		707 793 3858
		METALS - T22/CAM 17 LIST

Received ☑ On Ice ☑ Cold ☐ Ambient ☑ Intact

CHAIN OF CUSTODY RECORD

A H HENKE		MACTEC	8/1/05 1300
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	MICHAEL TARASZKI	MACTEC	8/1/05 1300
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	MICHAEL TARASZKI	MACTEC	8/2/05 0850
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	Joel Ingram	C&T	8/2/05 08:50
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Method of Shipment:			

F1008-B (5/04)

Laboratory Copy *White* | Project Office Copy *Yellow* | Field or Office Copy *Pink*

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 180973 Date Received: 8-2-05 Number of Coolers: 1
Client: Mactec Project: Presidio SF - BBDA

A. Preliminary Examination Phase
Date Opened: 8-2-05 By (print): Tray Windsor (sign) Tray E Windsor

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO N/A
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... YES NO
   Type of ice: Wet Temperature: Cold - no temp blank

B. Login Phase
Date Logged In: 8-2-05 By (print): Tray Windsor (sign) Tray E Windsor

1. Describe type of packing in cooler: Bottles between bagged ice
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? .. (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO N/A
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

Metals Water Results & QC Summary

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	180973	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1PZ101	Diln Fac:	1.000
Lab ID:	180973-001	Sampled:	08/01/05
Matrix:	Water	Received:	08/02/05
Units:	ug/L		

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.3	1.0	0.078	104577	08/05/05	08/13/05	200.8	EPA 6020
Arsenic	13	1.0	0.65	104577	08/05/05	08/13/05	200.8	EPA 6020
Barium	120	1.0	0.23	104577	08/05/05	08/13/05	200.8	EPA 6020
Beryllium	0.33 J	1.0	0.055	104577	08/05/05	08/13/05	200.8	EPA 6020
Cadmium	0.17 J	1.0	0.14	104577	08/05/05	08/13/05	200.8	EPA 6020
Chromium	17	1.0	0.085	104577	08/05/05	08/13/05	200.8	EPA 6020
Cobalt	14	1.0	0.034	104577	08/05/05	08/13/05	200.8	EPA 6020
Copper	60	1.0	0.31	104577	08/05/05	08/13/05	200.8	EPA 6020
Lead	45	1.0	0.24	104577	08/05/05	08/13/05	200.8	EPA 6020
Mercury	ND	0.20	0.080	104678	08/09/05	08/09/05	METHOD	EPA 7470A
Molybdenum	2.2	1.0	0.062	104577	08/05/05	08/13/05	200.8	EPA 6020
Nickel	42	1.0	0.16	104577	08/05/05	08/13/05	200.8	EPA 6020
Selenium	1.9	1.0	0.35	104577	08/05/05	08/13/05	200.8	EPA 6020
Silver	ND	1.0	0.041	104577	08/05/05	08/13/05	200.8	EPA 6020
Thallium	0.94 J	1.0	0.073	104577	08/05/05	08/13/05	200.8	EPA 6020
Vanadium	25	1.0	0.15	104577	08/05/05	08/13/05	200.8	EPA 6020
Zinc	75	1.0	0.52	104577	08/05/05	08/13/05	200.8	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC304009	Batch#:	104577
Matrix:	Water	Prepared:	08/05/05
Units:	ug/L	Analyzed:	08/13/05

Analyte	Result	RL	MDL
Antimony	ND	1.0	0.078
Arsenic	ND	1.0	0.65
Barium	ND	1.0	0.23
Beryllium	ND	1.0	0.055
Cadmium	ND	1.0	0.14
Chromium	ND	1.0	0.085
Cobalt	ND	1.0	0.034
Copper	ND	1.0	0.31
Lead	ND	1.0	0.24
Molybdenum	ND	1.0	0.062
Nickel	ND	1.0	0.16
Selenium	ND	1.0	0.35
Silver	ND	1.0	0.041
Thallium	ND	1.0	0.073
Vanadium	ND	1.0	0.15
Zinc	ND	1.0	0.52

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	104678
Lab ID:	QC304442	Prepared:	08/09/05
Matrix:	Filtrate	Analyzed:	08/09/05
Units:	ug/L		

Result	RL	MDL
ND	0.20	0.080

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Water	Batch#:	104577
Units:	ug/L	Prepared:	08/05/05
Diln Fac:	1.000	Analyzed:	08/13/05

Type: BS Lab ID: QC304010

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	95.62	96	80-120
Arsenic	100.0	95.67	96	80-120
Barium	100.0	101.4	101	80-120
Beryllium	100.0	92.83	93	80-120
Cadmium	100.0	92.02	92	80-120
Chromium	100.0	99.81	100	80-120
Cobalt	100.0	102.9	103	80-120
Copper	100.0	99.23	99	80-120
Lead	100.0	100.1	100	80-120
Molybdenum	100.0	98.50	99	80-120
Nickel	100.0	98.91	99	80-120
Selenium	100.0	86.82	87	80-120
Silver	100.0	98.78	99	80-120
Thallium	100.0	94.73	95	80-120
Vanadium	100.0	100.7	101	80-120
Zinc	100.0	90.52	91	80-120

Type: BSD Lab ID: QC304011

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	97.42	97	80-120	2	20
Arsenic	100.0	97.15	97	80-120	2	20
Barium	100.0	102.9	103	80-120	1	20
Beryllium	100.0	95.62	96	80-120	3	20
Cadmium	100.0	92.08	92	80-120	0	20
Chromium	100.0	101.4	101	80-120	2	20
Cobalt	100.0	104.3	104	80-120	1	20
Copper	100.0	101.1	101	80-120	2	20
Lead	100.0	103.0	103	80-120	3	20
Molybdenum	100.0	99.85	100	80-120	1	20
Nickel	100.0	99.64	100	80-120	1	20
Selenium	100.0	87.32	87	80-120	1	20
Silver	100.0	98.77	99	80-120	0	20
Thallium	100.0	98.87	99	80-120	4	20
Vanadium	100.0	100.2	100	80-120	0	20
Zinc	100.0	93.12	93	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1PZ101	Batch#:	104577
MSS Lab ID:	180973-001	Sampled:	08/01/05
Matrix:	Water	Received:	08/02/05
Units:	ug/L	Prepared:	08/05/05

Type: MS Lab ID: QC304012

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac	Analyzed
Antimony	1.342	100.0	99.46	98	80-120	1.000	08/13/05
Arsenic	12.83	100.0	104.1	91	80-120	1.000	08/13/05
Barium	116.7	100.0	194.0	77	77-125	2.000	08/16/05
Beryllium	0.3298	100.0	90.24	90	80-120	1.000	08/13/05
Cadmium	0.1688	100.0	84.46	84	78-120	1.000	08/13/05
Chromium	17.04	100.0	114.2	97	80-120	1.000	08/13/05
Cobalt	14.30	100.0	112.4	98	80-120	1.000	08/13/05
Copper	59.57	100.0	144.5	85	80-120	1.000	08/13/05
Lead	44.70	100.0	150.0	105	80-120	1.000	08/13/05
Molybdenum	2.226	100.0	100.5	98	80-120	1.000	08/13/05
Nickel	41.77	100.0	130.6	89	77-120	1.000	08/13/05
Selenium	1.918	100.0	79.01	77	64-123	1.000	08/13/05
Silver	<0.04084	100.0	89.57	90	71-120	1.000	08/13/05
Thallium	0.9427	100.0	99.44	98	62-120	1.000	08/13/05
Vanadium	24.86	100.0	125.1	100	78-130	1.000	08/13/05
Zinc	75.39	100.0	154.2	79	64-129	1.000	08/13/05

Type: MSD Lab ID: QC304013

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
Antimony	100.0	99.64	98	80-120	0	20	1.000	08/13/05
Arsenic	100.0	103.1	90	80-120	1	20	1.000	08/13/05
Barium	100.0	198.1	81	77-125	2	20	2.000	08/16/05
Beryllium	100.0	90.99	91	80-120	1	20	1.000	08/13/05
Cadmium	100.0	85.07	85	78-120	1	20	1.000	08/13/05
Chromium	100.0	115.4	98	80-120	1	20	1.000	08/13/05
Cobalt	100.0	113.0	99	80-120	1	20	1.000	08/13/05
Copper	100.0	148.4	89	80-120	3	20	1.000	08/13/05
Lead	100.0	151.1	106	80-120	1	20	1.000	08/13/05
Molybdenum	100.0	101.1	99	80-120	1	20	1.000	08/13/05
Nickel	100.0	132.3	91	77-120	1	20	1.000	08/13/05
Selenium	100.0	77.83	76	64-123	2	20	1.000	08/13/05
Silver	100.0	90.34	90	71-120	1	20	1.000	08/13/05
Thallium	100.0	98.83	98	62-120	1	20	1.000	08/13/05
Vanadium	100.0	127.4	103	78-130	2	20	1.000	08/13/05
Zinc	100.0	155.8	80	64-129	1	28	1.000	08/13/05

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1PZ101	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	104577
MSS Lab ID:	180973-001	Sampled:	08/01/05
Lab ID:	QC304014	Received:	08/02/05
Matrix:	Water	Analyzed:	08/13/05
Units:	ug/L		

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	1.342	1.000	1.445 J	5.000		10
Arsenic	12.83	1.000	13.48	5.000		10
Barium	116.7	1.000	107.6	5.000	8	10
Beryllium	0.3298	1.000	0.3714 J	5.000		10
Cadmium	0.1688	1.000	ND	5.000		10
Chromium	17.04	1.000	17.37	5.000	2	10
Cobalt	14.30	1.000	13.94	5.000	3	10
Copper	59.57	1.000	59.65	5.000	0	10
Lead	44.70	1.000	42.98	5.000	4	10
Molybdenum	2.226	1.000	1.506 J	25.00		10
Nickel	41.77	1.000	43.19	5.000	3	10
Selenium	1.918	1.000	2.186 J	5.000		10
Silver	ND	1.000	ND	5.000		10
Thallium	0.9427	1.000	1.171 J	5.000		10
Vanadium	24.86	1.000	24.05	5.000	3	10
Zinc	75.39	1.000	95.49	5.000	27 *	10

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	104678
Matrix:	Filtrate	Prepared:	08/09/05
Units:	ug/L	Analyzed:	08/09/05
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC304443	5.000	4.650	93	80-120		
BSD	QC304444	5.000	4.340	87	80-120	7	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	104678
Field ID:	ZZZZZZZZZZ	Sampled:	08/08/05
MSS Lab ID:	181114-003	Received:	08/08/05
Matrix:	Filtrate	Prepared:	08/09/05
Units:	ug/L	Analyzed:	08/09/05
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC304445	<0.07957	5.000	5.070	101	80-120		
MSD	QC304446		5.000	5.150	103	80-120	2	20

RPD= Relative Percent Difference

Metal Filtrate Results & QC Summary

Curtis & Tompkins, Ltd.

Dissolved California Title 26 Metals

Lab #:	180973	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BB1PZ101	Diln Fac:	1.000
Lab ID:	180973-001	Sampled:	08/01/05
Matrix:	Filtrate	Received:	08/02/05
Units:	ug/L		

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.1	1.0	0.078	104577	08/05/05	08/13/05	200.8	EPA 6020
Arsenic	7.1	1.0	0.65	104577	08/05/05	08/13/05	200.8	EPA 6020
Barium	74	1.0	0.23	104577	08/05/05	08/13/05	200.8	EPA 6020
Beryllium	ND	1.0	0.055	104577	08/05/05	08/13/05	200.8	EPA 6020
Cadmium	ND	1.0	0.14	104577	08/05/05	08/13/05	200.8	EPA 6020
Chromium	0.69 J	1.0	0.085	104577	08/05/05	08/13/05	200.8	EPA 6020
Cobalt	1.9	1.0	0.034	104577	08/05/05	08/13/05	200.8	EPA 6020
Copper	1.2	1.0	0.31	104577	08/05/05	08/13/05	200.8	EPA 6020
Lead	0.25 J	1.0	0.24	104577	08/05/05	08/13/05	200.8	EPA 6020
Mercury	ND	0.20	0.080	104666	08/09/05	08/09/05	METHOD	EPA 7470A
Molybdenum	5.9	1.0	0.062	104577	08/05/05	08/13/05	200.8	EPA 6020
Nickel	9.4	1.0	0.16	104577	08/05/05	08/13/05	200.8	EPA 6020
Selenium	0.80 J	1.0	0.35	104577	08/05/05	08/13/05	200.8	EPA 6020
Silver	ND	1.0	0.041	104577	08/05/05	08/13/05	200.8	EPA 6020
Thallium	ND	1.0	0.073	104577	08/05/05	08/13/05	200.8	EPA 6020
Vanadium	2.7	1.0	0.15	104577	08/05/05	08/13/05	200.8	EPA 6020
Zinc	17	1.0	0.52	104577	08/05/05	08/13/05	200.8	EPA 6020

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC304009	Batch#:	104577
Matrix:	Water	Prepared:	08/05/05
Units:	ug/L	Analyzed:	08/13/05

Analyte	Result	RL	MDL
Antimony	ND	1.0	0.078
Arsenic	ND	1.0	0.65
Barium	ND	1.0	0.23
Beryllium	ND	1.0	0.055
Cadmium	ND	1.0	0.14
Chromium	ND	1.0	0.085
Cobalt	ND	1.0	0.034
Copper	ND	1.0	0.31
Lead	ND	1.0	0.24
Molybdenum	ND	1.0	0.062
Nickel	ND	1.0	0.16
Selenium	ND	1.0	0.35
Silver	ND	1.0	0.041
Thallium	ND	1.0	0.073
Vanadium	ND	1.0	0.15
Zinc	ND	1.0	0.52

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	104666
Lab ID:	QC304394	Prepared:	08/09/05
Matrix:	Water	Analyzed:	08/09/05
Units:	ug/L		

Result	RL	MDL
ND	0.20	0.080

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Matrix:	Water	Batch#:	104577
Units:	ug/L	Prepared:	08/05/05
Diln Fac:	1.000	Analyzed:	08/13/05

Type: BS Lab ID: QC304010

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	95.62	96	80-120
Arsenic	100.0	95.67	96	80-120
Barium	100.0	101.4	101	80-120
Beryllium	100.0	92.83	93	80-120
Cadmium	100.0	92.02	92	80-120
Chromium	100.0	99.81	100	80-120
Cobalt	100.0	102.9	103	80-120
Copper	100.0	99.23	99	80-120
Lead	100.0	100.1	100	80-120
Molybdenum	100.0	98.50	99	80-120
Nickel	100.0	98.91	99	80-120
Selenium	100.0	86.82	87	80-120
Silver	100.0	98.78	99	80-120
Thallium	100.0	94.73	95	80-120
Vanadium	100.0	100.7	101	80-120
Zinc	100.0	90.52	91	80-120

Type: BSD Lab ID: QC304011

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	97.42	97	80-120	2	20
Arsenic	100.0	97.15	97	80-120	2	20
Barium	100.0	102.9	103	80-120	1	20
Beryllium	100.0	95.62	96	80-120	3	20
Cadmium	100.0	92.08	92	80-120	0	20
Chromium	100.0	101.4	101	80-120	2	20
Cobalt	100.0	104.3	104	80-120	1	20
Copper	100.0	101.1	101	80-120	2	20
Lead	100.0	103.0	103	80-120	3	20
Molybdenum	100.0	99.85	100	80-120	1	20
Nickel	100.0	99.64	100	80-120	1	20
Selenium	100.0	87.32	87	80-120	1	20
Silver	100.0	98.77	99	80-120	0	20
Thallium	100.0	98.87	99	80-120	4	20
Vanadium	100.0	100.2	100	80-120	0	20
Zinc	100.0	93.12	93	80-120	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1PZ101	Batch#:	104577
MSS Lab ID:	180973-001	Sampled:	08/01/05
Matrix:	Water	Received:	08/02/05
Units:	ug/L	Prepared:	08/05/05

Type: MS Lab ID: QC304012

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac	Analyzed
Antimony	1.342	100.0	99.46	98	80-120	1.000	08/13/05
Arsenic	12.83	100.0	104.1	91	80-120	1.000	08/13/05
Barium	116.7	100.0	194.0	77	77-125	2.000	08/16/05
Beryllium	0.3298	100.0	90.24	90	80-120	1.000	08/13/05
Cadmium	0.1688	100.0	84.46	84	78-120	1.000	08/13/05
Chromium	17.04	100.0	114.2	97	80-120	1.000	08/13/05
Cobalt	14.30	100.0	112.4	98	80-120	1.000	08/13/05
Copper	59.57	100.0	144.5	85	80-120	1.000	08/13/05
Lead	44.70	100.0	150.0	105	80-120	1.000	08/13/05
Molybdenum	2.226	100.0	100.5	98	80-120	1.000	08/13/05
Nickel	41.77	100.0	130.6	89	77-120	1.000	08/13/05
Selenium	1.918	100.0	79.01	77	64-123	1.000	08/13/05
Silver	<0.04084	100.0	89.57	90	71-120	1.000	08/13/05
Thallium	0.9427	100.0	99.44	98	62-120	1.000	08/13/05
Vanadium	24.86	100.0	125.1	100	78-130	1.000	08/13/05
Zinc	75.39	100.0	154.2	79	64-129	1.000	08/13/05

Type: MSD Lab ID: QC304013

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
Antimony	100.0	99.64	98	80-120	0	20	1.000	08/13/05
Arsenic	100.0	103.1	90	80-120	1	20	1.000	08/13/05
Barium	100.0	198.1	81	77-125	2	20	2.000	08/16/05
Beryllium	100.0	90.99	91	80-120	1	20	1.000	08/13/05
Cadmium	100.0	85.07	85	78-120	1	20	1.000	08/13/05
Chromium	100.0	115.4	98	80-120	1	20	1.000	08/13/05
Cobalt	100.0	113.0	99	80-120	1	20	1.000	08/13/05
Copper	100.0	148.4	89	80-120	3	20	1.000	08/13/05
Lead	100.0	151.1	106	80-120	1	20	1.000	08/13/05
Molybdenum	100.0	101.1	99	80-120	1	20	1.000	08/13/05
Nickel	100.0	132.3	91	77-120	1	20	1.000	08/13/05
Selenium	100.0	77.83	76	64-123	2	20	1.000	08/13/05
Silver	100.0	90.34	90	71-120	1	20	1.000	08/13/05
Thallium	100.0	98.83	98	62-120	1	20	1.000	08/13/05
Vanadium	100.0	127.4	103	78-130	2	20	1.000	08/13/05
Zinc	100.0	155.8	80	64-129	1	28	1.000	08/13/05

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255 001 22	Analysis:	EPA 6020
Field ID:	BB1PZ101	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	104577
MSS Lab ID:	180973-001	Sampled:	08/01/05
Lab ID:	QC304014	Received:	08/02/05
Matrix:	Water	Analyzed:	08/13/05
Units:	ug/L		

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	1.342	1.000	1.445 J	5.000		10
Arsenic	12.83	1.000	13.48	5.000		10
Barium	116.7	1.000	107.6	5.000	8	10
Beryllium	0.3298	1.000	0.3714 J	5.000		10
Cadmium	0.1688	1.000	ND	5.000		10
Chromium	17.04	1.000	17.37	5.000	2	10
Cobalt	14.30	1.000	13.94	5.000	3	10
Copper	59.57	1.000	59.65	5.000	0	10
Lead	44.70	1.000	42.98	5.000	4	10
Molybdenum	2.226	1.000	1.506 J	25.00		10
Nickel	41.77	1.000	43.19	5.000	3	10
Selenium	1.918	1.000	2.186 J	5.000		10
Silver	ND	1.000	ND	5.000		10
Thallium	0.9427	1.000	1.171 J	5.000		10
Vanadium	24.86	1.000	24.05	5.000	3	10
Zinc	75.39	1.000	95.49	5.000	27 *	10

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	104666
Matrix:	Water	Prepared:	08/09/05
Units:	ug/L	Analyzed:	08/09/05
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC304395	7.500	7.170	96	80-120		
BSD	QC304396	7.500	7.260	97	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California Title 26 Metals

Lab #:	180973	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	104666
Field ID:	ZZZZZZZZZZ	Sampled:	08/04/05
MSS Lab ID:	181083-001	Received:	08/05/05
Matrix:	Water	Prepared:	08/09/05
Units:	ug/L	Analyzed:	08/09/05
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC304397	<0.07957	7.500	7.340	98	80-120		
MSD	QC304398		7.500	7.190	96	80-120	2	20

RPD= Relative Percent Difference

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6020

Instid : MET05	Instid : MET05
Seqnum : 55324690032	Seqnum : 55324690036
Filename : h1311032	Filename : h1311036
IDF : 1.0	IDF : 1.0
PDF : 1.0	PDF : 1.0
Run type : MSS	Run type : PDS
Samplenum: 180973-001	Samplenum: QC304015
Matrix : Water	Matrix : Water
Batchnum : 104577	Batchnum : 104577
Inj : 13-AUG-2005 14:43	Inj : 13-AUG-2005 15:08
Units : ug/L	

Analyte	MSS	Spike Amt	PDS	%Rec	Lim%Rec	Flags
Aluminum	*** usable MSS data not found ***					
Antimony	1.342	100.0	104.7	103	75-125	u
Arsenic	12.83	100.0	106.1	93	75-125	u
Barium	116.7	100.0	229.0 >LR	112	75-125	>LR b*
Beryllium	0.3298	100.0	95.09	95	75-125	u
Cadmium	0.1688	100.0	87.18	87	75-125	u
Calcium	*** usable MSS data not found ***					
Chromium	17.04	100.0	118.8	102	75-125	u
Cobalt	14.30	100.0	115.1	101	75-125	u
Copper	59.57	100.0	153.9	94	75-125	u
Iron	9432	10000	19450	100	75-125	
Lead	44.70	100.0	155.2	111	75-125	u
Magnesium	*** usable MSS data not found ***					
Manganese	*** usable MSS data not found ***					
Molybdenum	2.226	100.0	103.3	101	75-125	u
Nickel	41.77	100.0	136.0	94	75-125	u
Potassium	5330	10000	15240	99	75-125	
Selenium	1.918	100.0	79.88	78	75-125	u
Silver	ND	100.0	92.24	92	75-125	u
Sodium	*** usable MSS data not found ***					
Thallium	0.9427	100.0	102.1	101	75-125	u
Vanadium	24.86	100.0	131.0	106	75-125	u
Zinc	75.39	100.0	160.3	85	75-125	u

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Lithium	1608062	1418328	-11.80
Scandium	1832172	1650754	-9.90
Germanium	404296	371823	-8.03
Indium	2915781	2330053	-20.09
Bismuth	2505984	1937021	-22.70

>LR=overrange b=noncompliant u=use

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 180973 METALS Water
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
180973-001	MET04	08/09/05 19:08	1.0										+							
180973-001	MET05	08/13/05 14:43	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304009	MET05	08/13/05 14:23	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304010	MET05	08/13/05 14:30	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304011	MET05	08/13/05 14:36	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304012	MET05	08/13/05 14:55	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304012	MET05	08/16/05 01:42	2.0			+														
QC304013	MET05	08/13/05 15:02	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304013	MET05	08/16/05 01:49	2.0			+														
QC304014	MET05	08/13/05 14:49	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304015	MET05	08/13/05 15:08	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304442	MET04	08/09/05 18:58	1.0										+							
QC304443	MET04	08/09/05 19:00	1.0										+							
QC304444	MET04	08/09/05 19:02	1.0										+							
QC304445	MET04	08/09/05 19:05	1.0										+							
QC304446	MET04	08/09/05 19:07	1.0										+							

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 180973 METALS Filtrate
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
180973-001	MET04	08/09/05 16:34	1.0										+							
180973-001	MET05	08/13/05 16:44	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304009	MET05	08/13/05 14:23	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304010	MET05	08/13/05 14:30	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304011	MET05	08/13/05 14:36	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304012	MET05	08/13/05 14:55	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304012	MET05	08/16/05 01:42	2.0			+														
QC304013	MET05	08/13/05 15:02	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304013	MET05	08/16/05 01:49	2.0			+														
QC304014	MET05	08/13/05 14:49	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC304015	MET05	08/13/05 15:08	1.0	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+
QC304394	MET04	08/09/05 16:23	1.0										+							
QC304395	MET04	08/09/05 16:25	1.0										+							
QC304396	MET04	08/09/05 16:27	1.0										+							
QC304397	MET04	08/09/05 16:30	1.0										+							
QC304398	MET04	08/09/05 16:32	1.0										+							

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55324690 Instrument: MET05 Agilent ICP-MS Begun: 13-AUG-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	h1311001	TUN				13-AUG-2005 11:30	1.0	1.0				1	
003	h1311003	ICALBLK	std-blk			13-AUG-2005 11:42	1.0	1.0				2	
004	h1311004	ICAL	CS1			13-AUG-2005 11:48	1.0	1.0				3	
005	h1311005	ICAL	CS2			13-AUG-2005 11:53	1.0	1.0				4	
006	h1311006	ICAL	CS3			13-AUG-2005 11:59	1.0	1.0				5	
007	h1311007	ICAL	CS4			13-AUG-2005 12:05	1.0	1.0				6	
008	h1311008	ICAL	CS5			13-AUG-2005 12:11	1.0	1.0				7	
009	h1311009	ICAL	CS6			13-AUG-2005 12:16	1.0	1.0				8	
010	h1311010	ICV				13-AUG-2005 12:22	1.0	1.0			1	9	
012	h1311012	ICB				13-AUG-2005 12:34	1.0	1.0			1	2	
013	h1311013	ICSA				13-AUG-2005 12:41	1.0	1.0	1		1	10 2	6:CA=290600
014	h1311014	ICSAB				13-AUG-2005 12:47	1.0	1.0	1		1	11 2	11:CA=302300
016	h1311016	IDL				13-AUG-2005 13:00	1.0	1.0			1	2	
017	h1311017	IDL				13-AUG-2005 13:06	1.0	1.0			1	2	
018	h1311018	IDL				13-AUG-2005 13:13	1.0	1.0			1	2	
019	h1311019	IDL				13-AUG-2005 13:19	1.0	1.0			1	2	
020	h1311020	IDL				13-AUG-2005 13:26	1.0	1.0			1	2	
021	h1311021	IDL				13-AUG-2005 13:32	1.0	1.0			1	2	
022	h1311022	IDL				13-AUG-2005 13:38	1.0	1.0			1	2	
023	h1311023	CCV				13-AUG-2005 13:45	1.0	1.0			1	12	
025	h1311025	CCB				13-AUG-2005 13:58	1.0	1.0			1	2	
026	h1311026	SAMPLE	181123-017	104715	Water	13-AUG-2005 14:04	2.0	1.0			1	2	
027	h1311027	SAMPLE	181123-020	104715	Water	13-AUG-2005 14:11	2.0	1.0			1	2	
029	h1311029	BLANK	QC304009	104577	Water	13-AUG-2005 14:23	1.0	1.0			1	2	
030	h1311030	BS	QC304010	104577	Water	13-AUG-2005 14:30	1.0	1.0	3		1	2	
031	h1311031	BSD	QC304011	104577	Water	13-AUG-2005 14:36	1.0	1.0	3		1	2	
032	h1311032	MSS	180973-001	104577	Water	13-AUG-2005 14:43	1.0	1.0	5		1	2	4:MG=122900
033	h1311033	SER	QC304014	104577	Water	13-AUG-2005 14:49	5.0	1.0		1	1	2	4:NA=38100.0
034	h1311034	MS	QC304012	104577	Water	13-AUG-2005 14:55	1.0	1.0	1		1	2	5:MG=130300
035	h1311035	MSD	QC304013	104577	Water	13-AUG-2005 15:02	1.0	1.0	1		1	2	5:MG=129000
036	h1311036	PDS	QC304015	104577	Water	13-AUG-2005 15:08	1.0	1.0	1		1	13	5:MG=133400

Stds used: 1=S1134 2=05WS0207 3=S1124 4=S1125 5=S1126 6=S1127 7=S1122 8=S1123 9=S1130 10=S1128 11=S1129 12=S1132 13=S21

Analyst: _____ Date: 9/13/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55324690 Instrument: MET05 Agilent ICP-MS Begun: 13-AUG-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
038	h1311038	CCV				13-AUG-2005 15:21	1.0	1.0	3	1	12	
041	h1311041	CCB				13-AUG-2005 15:40	1.0	1.0		1	2	
042	h1311042	SAMPLE	181054-003	104577	Filtra	13-AUG-2005 15:46	1.0	1.0		1	2	4:MG=804000
043	h1311043	SAMPLE	181054-004	104577	Filtra	13-AUG-2005 15:53	1.0	1.0		1	2	3:MG=844200
045	h1311045	X	181037-001	104577	Water	13-AUG-2005 16:06	1.0				2	
046	h1311046	SAMPLE	181037-002	104577	Water	13-AUG-2005 16:12	1.0	1.0		1	2	1:CA=20330.0
047	h1311047	SAMPLE	181037-003	104577	Water	13-AUG-2005 16:19	1.0	1.0		1	2	
048	h1311048	SAMPLE	181037-004	104577	Water	13-AUG-2005 16:25	1.0	1.0		1	2	
049	h1311049	SAMPLE	181037-005	104577	Water	13-AUG-2005 16:32	1.0	1.0		1	2	
050	h1311050	SAMPLE	181037-006	104577	Water	13-AUG-2005 16:38	1.0	1.0		1	2	
051	h1311051	SAMPLE	180973-001	104577	Filtra	13-AUG-2005 16:44	1.0	1.0		1	2	4:NA=184000
052	h1311052	MS	QC304012	104577	Water	13-AUG-2005 16:51	2.0	1.0		1	2	5:NA=101600
055	h1311055	CCV				13-AUG-2005 17:10	1.0	1.0	3	1	12	
059	h1311059	CCB				13-AUG-2005 17:35	1.0	1.0		1	2	
060	h1311060	ICSA				13-AUG-2005 17:42	1.0	1.0	1	1	10 2	6:CA=296600
061	h1311061	ICSAB				13-AUG-2005 17:48	1.0	1.0	1	1	11 2	7:CA=296600

Stds used: 1=S1134 2=05WS0207 3=S1124 4=S1125 5=S1126 6=S1127 7=S1122 8=S1123 9=S1130 10=S1128 11=S1129 12=S1132 13=S21

Analyst: _____ Date: 8/22/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55324690001 Name: Type: (normal) Date: 13-AUG-2005 11:42 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	h1311004	55324690004	CS1	13-AUG-2005 11:48	S1124
2	h1311005	55324690005	CS2	13-AUG-2005 11:53	S1125
3	h1311006	55324690006	CS3	13-AUG-2005 11:59	S1126
4	h1311007	55324690007	CS4	13-AUG-2005 12:05	S1127
5	h1311008	55324690008	CS5	13-AUG-2005 12:11	S1122
6	h1311009	55324690009	CS6	13-AUG-2005 12:16	S1123

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Aluminum		3.3516	1.7402	0.4978	0.3879	0.3949	BLNK	R	-9.89649	2.696042		ug/L	1.2745	0.995	0.995	
Antimony	0.1949	0.1784	0.1655	0.1588	0.1672	0.1689	BLNK	R	-0.07145	5.935907		ug/L	0.1723	1.000	0.995	
Arsenic		0.3471	0.3070	0.3027	0.3031	0.3029	BLNK	R	-0.14351	3.303588		ug/L	0.3126	1.000	0.995	
Barium	0.0972	0.0899	0.0729	0.0659	0.0664	0.0692	BLNK	R	-0.17318	14.57874		ug/L	0.0769	1.000	0.995	
Beryllium	0.1292	0.1375	0.1334	0.1318	0.1289	0.1272	BLNK	R	-0.02384	7.842751		ug/L	0.1313	1.000	0.995	
Cadmium	0.5714	0.4251	0.3852	0.3280	0.3078	0.2999	BLNK	R	-0.21570	3.320299		ug/L	0.3862	1.000	0.995	
Calcium		0.0166	0.0140	0.0115	0.0112	0.0111	BLNK	R	-45.3311	90.17886		ug/L	0.0129	1.000	0.995	
Chromium		4.3753	3.2228	2.2791	2.1925	2.1257	BLNK	R	-0.55171	0.469035		ug/L	2.8391	1.000	0.995	
Cobalt	2.6283	2.6091	2.5423	2.5495	2.5730	2.5148	BLNK	R	-0.02739	0.395870		ug/L	2.5695	1.000	0.995	
Copper		1.1740	0.9234	0.6716	0.6297	0.6332	BLNK	R	-0.48077	1.585499		ug/L	0.8064	1.000	0.995	
Iron		0.0763	0.0681	0.0605	0.0586	0.0580	BLNK	R	-26.3979	17.23008		ug/L	0.0643	1.000	0.995	
Lead	0.6728	0.6236	0.6295	0.6120	0.6571	0.6617	BLNK	R	-0.03829	1.513984		ug/L	0.6428	1.000	0.995	
Magnesium		0.0460	0.0470	0.0481	0.0462	0.0480	BLNK	R	-6.86333	20.98365		ug/L	0.0471	1.000	0.995	
Manganese	3.6227	3.2523	3.1053	2.9013	2.9075	2.8335	BLNK	R	-0.08378	0.351262		ug/L	3.1038	1.000	0.995	
Molybdenum		0.6300	0.5290	0.4895	0.5024	0.5116	BLNK	R	-0.26648	1.965207		ug/L	0.5325	1.000	0.995	
Nickel	0.8748	0.6840	0.7031	0.5711	0.5459	0.5512	BLNK	R	-0.14621	1.819322		ug/L	0.6550	1.000	0.995	
Potassium		0.7974	0.5847	0.3775	0.3482	0.3482	BLNK	R	-64.9486	2.883048		ug/L	0.4912	1.000	0.995	
Selenium		0.1191	0.0705	0.0288	0.0251	0.0250	BLNK	R	-1.98505	40.49092		ug/L	0.0537	1.000	0.995	
Silver	1.9078	1.7001	1.6148	1.4947	1.4339	1.3752	BLNK	R	-0.10883	0.721408		ug/L	1.5878	1.000	0.995	
Sodium		0.6246	0.5839	0.5227	0.5148	0.5330	BLNK	R	-22.2157	1.891721		ug/L	0.5558	1.000	0.995	

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55324690001 Name: Type: (normal) Date: 13-AUG-2005 11:42 Inj Vol (uL): 1

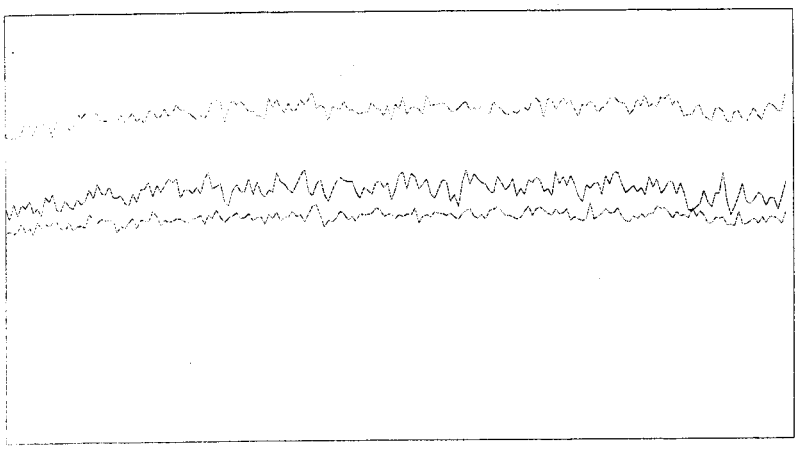
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	Flags
Thallium		0.4689	0.4568	0.4525	0.5013	0.5031	BLNK	R	-0.05779	1.990120		ug/L	0.4765	1.000	0.995	
Vanadium		3.2052	2.6503	2.4091	2.4942	2.4054	BLNK	R	-0.17765	0.413146		ug/L	2.6329	1.000	0.995	
Zinc		1.5110	1.1067	0.4411	0.3680	0.3574	BLNK	R	-1.94379	2.813467		ug/L	0.7568	1.000	0.995	

30

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



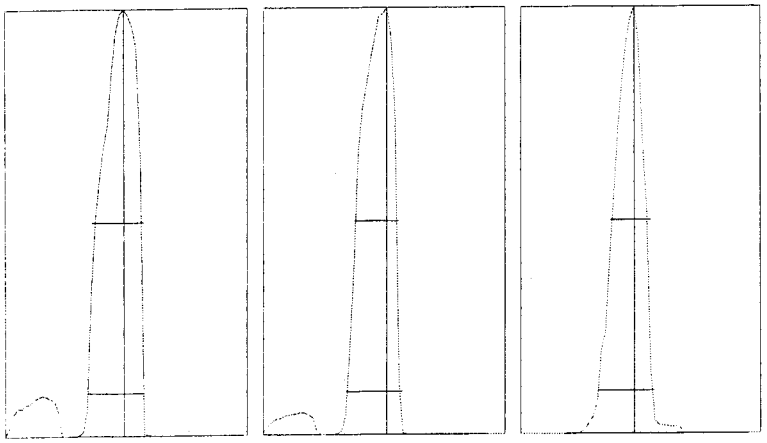
m/z:	7	89	205
Range:	50,000	100,000	100,000
Count:	29,991	53,076	80,740
Mean:	29170.2	52035.1	76999.8
RSD%:	4.21	2.47	2.67
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.36%
Doubly Charged:	70/140	1.06%

Background:

m/z:	7	89	205
Cps:	18.9	17.0	26.0



m/z:	7	89	205
Height:	29,715	52,402	98,912
Axis:	7.00	89.05	204.95
W-50%:	0.65	0.55	0.50
W-10%:	0.700	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-122.7 V	AMU Gain:	129
RF Matching:	1.7 V	Extract 2:	-145 V	AMU Offset:	128
Smpl Depth:	7.2 mm	Einzel 1,3:	-168 V	Axis Gain:	1.0001
Torch-H:	-1.7 mm	Einzel 2:	5 V	Axis Offset:	0.02
Torch-V:	-0.6 mm	Omega Bias:	-39 V	QP Bias:	0 V
Carrier Gas:	1.09 L/min	Omega (+):	6.9 V		
Makeup Gas:	0 L/min	Omega (-):	7 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	7.6 V	Discriminator:	9.2 mV
PeriPump1:	0.1 rps	Plate Bias:	-25.9 V	Analog HV:	1850 V
PeriPump2:	--- rps			Pulse HV:	1090 V
S/C Temp:	2 degC				

Generated : Aug 13, 2005 09:05:50
Printed : Aug 13, 2005 09:05:58

P/A Factor Tuning Report

Acquired:Aug 13 2005 09:20 am

Mass[amu]	Element	P/A Factor
6	Li	0.070889
9	Be	0.076162
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.088244
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	Sensitivity too high
45	Sc	0.090681
51	V	0.092042
52	Cr	0.092543
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.093522
57	Fe	Sensitivity too high
59	Co	0.093879
60	Ni	0.091638
63	Cu	0.093239
65	Cu	0.092084
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.092684
95	Mo	0.090716
98	Mo	0.091944
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.093455
111	Cd	Sensitivity too low
114	Cd	0.092802
115	In	0.094736
118	(In)	0.095504
121	Sb	0.094325
135	Ba	Sensitivity too low
137	Ba	0.092097
159	Tb	0.096955
166	Er	Sensitivity too low

205	Tl	0.096976
206	(Pb)	0.095342
207	(Pb)	0.094575
208	Pb	0.096178
209	Bi	0.096424
232	Th	0.097091
238	U	0.097197

===Detector Parameters===
Discriminator: 9.2 mV
Analog HV: 1850 V
Pulse HV: 1090 V

P/A Factor Tuning Report

Acquired:Aug 13 2005 09:28 am

Mass[amu]	Element	P/A Factor
6	Li	0.070434
9	Be	0.075698
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.088175
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	Sensitivity too high
45	Sc	0.090360
51	V	0.091760
52	Cr	0.092279
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.093200
57	Fe	Sensitivity too high
59	Co	0.093615
60	Ni	0.091098
63	Cu	0.092895
65	Cu	0.091696
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.092446
95	Mo	0.090321
98	Mo	0.091634
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.093153
111	Cd	Sensitivity too low
114	Cd	0.092460
115	In	0.094344
118	(In)	0.094983
121	Sb	0.093829
135	Ba	Sensitivity too low
137	Ba	0.091650
159	Tb	0.096507
166	Er	Sensitivity too low

205	Tl	0.096688
206	(Pb)	0.095234
207	(Pb)	0.094497
208	Pb	0.095966
209	Bi	0.096236
232	Th	0.096822
238	U	0.097193

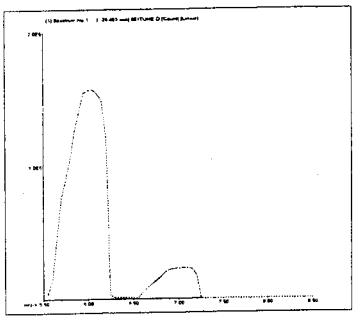
===Detector Parameters===
Discriminator: 9.2 mV
Analog HV: 1850 V
Pulse HV: 1090 V

6020 QC Tune Report

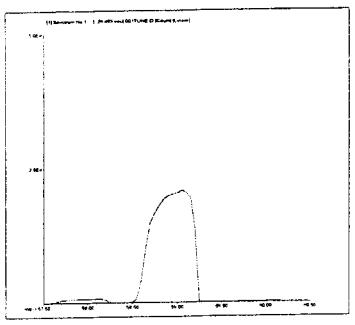
Data File: C:\ICPCHEM\1\DATA\05H1311b.B\001TUNE.D
Date Acquired: Aug 13 2005 11:30 am
Acq. Method: TN6020.M
Operator:
Sample Name: TUN,S1134
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

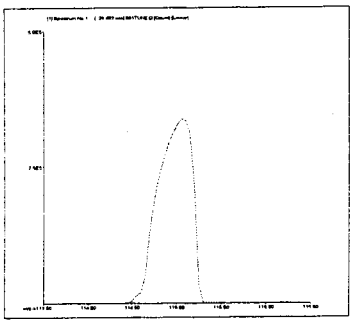
Element	Actual	Required	Flag
7 Li	0.76	5.00	
59 Co	1.74	5.00	
115 In	0.81	5.00	
205 Tl	1.91	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



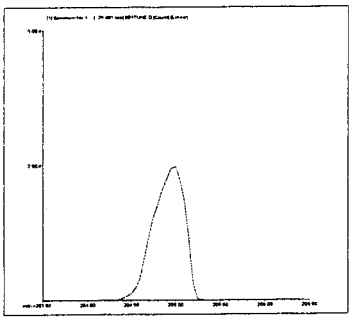
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\002BLNK.D\002BLNK.D#
Date Acquired: Aug 13 2005 11:35 am
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: Aug 13 2005 10:38 am
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.004249	ppb	217.98	0.004249	1.00	
23 Na	-2.446	ppb	11.00	-2.446	1.00	
26 Mg	0.5566	ppb	29.61	0.5566	1.00	
27 Al	3.094	ppb	3.38	3.094	1.00	
39 K	-21.02	ppb	4.73	-21.02	1.00	
44 Ca	8.016	ppb	7.82	8.016	1.00	
51 V	0.06609	ppb	68.32	0.06609	1.00	
52 Cr	0.06248	ppb	21.06	0.06248	1.00	
55 Mn	-0.002777	ppb	189.05	-0.002777	1.00	
57 Fe	5.477	ppb	2.44	5.477	1.00	
59 Co	0.006996	ppb	23.14	0.006996	1.00	
60 Ni	-0.02089	ppb	31.34	-0.02089	1.00	
65 Cu	0.02527	ppb	97.19	0.02527	1.00	
66 Zn	-0.1156	ppb	27.04	-0.1156	1.00	
75 As	0.02997	ppb	235.07	0.02997	1.00	
82 Se	-0.1021	ppb	25.46	-0.1021	1.00	
95 Mo	0.1646	ppb	26.80	0.1646	1.00	
109 Ag	-0.0181	ppb	55.75	-0.0181	1.00	
111 Cd	-0.01097	ppb	208.93	-0.01097	1.00	
121 Sb	0.002895	ppb	361.66	0.002895	1.00	
137 Ba	0.04634	ppb	23.13	0.04634	1.00	
205 Tl	0.06113	ppb	40.62	0.06113	1.00	
208 Pb	-0.0005112	ppb	402.58	-0.000511	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1551582.60	0.39	---	#VALUE!	30 - 200	
45 Sc	1851206.40	0.15	---	#VALUE!	30 - 200	
72 Ge	404697.78	0.44	---	#VALUE!	30 - 200	

115 In	2961692.50	1.23	---	#VALUE!	30 - 200
209 Bi	2551786.00	1.73	---	#VALUE!	30 - 200

ISTD Ref File : ---

3 :Element Failures	0 :Max. Number of Failures Allowed
0 :ISTD Failures	5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes:	Fail
ISTD:	Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\05H1311b.B\003CAL
Date Acquired:	Aug 13 2005 11:42 am
Operator:	
Sample Name:	std-blk
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\60200111.M
Calibration File:	C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update:	Aug 13 2005 10:38 am
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1608062.00	A	35550.00	2.21
9	Be	97.78	P	7.70	7.87
23	Na	429981.09	P	6872.00	1.60
26	Mg	11977.78	P	445.70	3.72
27	Al	134528.91	P	5433.00	4.04
39	K	824953.63	A	8771.00	1.06
44	Ca	18412.17	P	290.10	1.58
45	Sc	1832172.00	A	61540.00	3.36
51	V	3486.26	P	706.20	20.26
52	Cr	9507.78	P	89.09	0.94
55	Mn	1926.67	P	105.40	5.47
57	Fe	12388.89	P	326.70	2.64
59	Co	558.89	P	56.70	10.15
60	Ni	650.00	P	32.83	5.05
65	Cu	2454.39	P	242.60	9.88
66	Zn	5588.38	P	287.20	5.14
72	Ge	404295.81	P	9260.00	2.29
75	As	351.93	P	107.70	30.60
82	Se	396.33	P	3.66	0.92
95	Mo	1097.78	P	132.90	12.11
109	Ag	1220.00	P	64.29	5.27
111	Cd	525.87	P	78.33	14.90
115	In	2915781.00	A	85540.00	2.93
121	Sb	702.22	P	72.44	10.32
137	Ba	692.22	P	13.88	2.01
205	Tl	1454.44	P	41.68	2.87
208	Pb	1265.56	P	119.30	9.43
209	Bi	2505984.00	A	96690.00	3.86
232	Th	921.11	P	37.47	4.07
238	U	520.00	P	37.12	7.14

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\004CALI.D\004CALI.D#
Date Acquired: Aug 13 2005 11:48 am
Operator:
Sample Name: CS1,S1124
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 11:44 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1575318.00	A	26360.00	1.67
9 Be	1017.78	P	63.01	6.19
23 Na	676649.19	A	1510.00	0.22
26 Mg	43067.77	P	933.90	2.17
27 Al	57422.22	P	1310.00	2.28
39 K	1124941.00	A	5799.00	0.52
44 Ca	21432.50	P	613.00	2.86
45 Sc	1830161.00	A	29870.00	1.63
51 V	7783.42	P	325.60	4.18
52 Cr	13513.33	P	122.50	0.91
55 Mn	7311.11	P	68.83	0.94
57 Fe	19700.00	P	228.50	1.16
59 Co	5304.44	P	23.41	0.44
60 Ni	1765.56	P	86.94	4.92
65 Cu	3819.81	P	151.90	3.98
66 Zn	6937.71	P	32.35	0.47
72 Ge	403660.00	P	3078.00	0.76
75 As	883.23	P	3.32	0.38
82 Se	435.66	P	10.37	2.38
95 Mo	1645.56	P	112.90	6.86
109 Ag	3851.11	P	149.20	3.87
111 Cd	1153.50	P	106.40	9.22
115 In	2915256.00	A	38480.00	1.32
121 Sb	2842.22	P	134.70	4.74
137 Ba	1416.67	P	34.80	2.46
205 Tl	6238.89	P	113.30	1.82
208 Pb	8438.89	P	80.71	0.96
209 Bi	2508815.00	A	37130.00	1.48
232 Th	4671.11	P	184.60	3.95
238 U	6996.67	P	153.40	2.19

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1575318.00	1.67	1608061.80	98.0	30 - 200	
45 Sc	1830160.80	1.63	1832171.60	99.9	30 - 200	
72 Ge	403660.00	0.76	404295.78	99.8	30 - 200	
115 In	2915255.80	1.32	2915781.30	100.0	30 - 200	
209 Bi	2508815.00	1.48	2505984.30	100.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\005CALI.D\005CALI.D#
Date Acquired: Aug 13 2005 11:53 am
Operator:
Sample Name: CS2,S1125
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 11:49 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1564299.00	A	15010.00	0.96
9 Be	2151.11	P	24.57	1.14
23 Na	1137772.00	A	5929.00	0.52
26 Mg	83772.22	P	1404.00	1.68
27 Al	61051.11	P	908.60	1.49
39 K	1452518.00	A	16450.00	1.13
44 Ca	30199.25	P	542.90	1.80
45 Sc	1821611.00	A	9288.00	0.51
51 V	12969.90	P	835.00	6.44
52 Cr	17700.00	P	459.40	2.60
55 Mn	13157.78	P	386.80	2.94
57 Fe	30878.89	P	425.00	1.38
59 Co	10553.33	P	102.00	0.97
60 Ni	2766.67	P	48.42	1.75
65 Cu	4749.63	P	144.40	3.04
66 Zn	6113.08	P	248.30	4.06
72 Ge	404513.31	P	4713.00	1.17
75 As	1402.51	P	273.00	19.47
82 Se	481.89	P	21.91	4.55
95 Mo	2548.89	P	82.82	3.25
109 Ag	6877.78	P	152.00	2.21
111 Cd	1719.20	P	88.30	5.14
115 In	2889950.00	A	29700.00	1.03
121 Sb	5154.44	P	83.16	1.61
137 Ba	2597.78	P	83.02	3.20
205 Tl	11774.44	P	467.70	3.97
208 Pb	15663.33	P	273.60	1.75
209 Bi	2511499.00	A	17600.00	0.70
232 Th	10978.89	P	343.10	3.13
238 U	14154.44	P	375.80	2.66

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1564298.80	0.96	1608061.80	97.3	30 - 200	
45 Sc	1821611.40	0.51	1832171.60	99.4	30 - 200	
72 Ge	404513.34	1.17	404295.78	100.1	30 - 200	
115 In	2889950.30	1.03	2915781.30	99.1	30 - 200	
209 Bi	2511499.00	0.70	2505984.30	100.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\006CALI.D\006CALI.D#
Date Acquired: Aug 13 2005 11:59 am
Operator:
Sample Name: CS3,S1126
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 11:55 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1622860.00	A	26370.00	1.62
9 Be	4328.89	P	137.10	3.17
23 Na	2116428.00	A	39110.00	1.85
26 Mg	170503.30	P	1636.00	0.96
27 Al	63092.22	P	1006.00	1.59
39 K	2119715.00	A	6860.00	0.32
44 Ca	50860.89	P	960.80	1.89
45 Sc	1812816.00	A	19340.00	1.07
51 V	21574.67	P	890.00	4.13
52 Cr	26238.89	P	630.00	2.40
55 Mn	25281.11	P	149.20	0.59
57 Fe	55442.22	P	290.80	0.52
59 Co	20696.67	P	292.10	1.41
60 Ni	5724.44	P	93.11	1.63
65 Cu	7518.13	P	143.80	1.91
66 Zn	9009.64	P	106.70	1.18
72 Ge	407061.09	P	1758.00	0.43
75 As	2499.42	P	162.30	6.49
82 Se	574.21	P	8.18	1.43
95 Mo	4306.67	P	52.39	1.22
109 Ag	13146.67	P	51.32	0.39
111 Cd	3136.17	P	34.15	1.09
115 In	2921659.00	A	34830.00	1.19
121 Sb	9671.11	P	154.00	1.59
137 Ba	4257.78	P	160.90	3.78
205 Tl	23381.11	P	367.90	1.57
208 Pb	32214.44	P	119.70	0.37
209 Bi	2559809.00	A	65600.00	2.56
232 Th	23771.11	P	478.70	2.01
238 U	28533.33	P	445.00	1.56

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1622860.10	1.62	1608061.80	100.9	30 - 200	
45 Sc	1812816.40	1.07	1832171.60	98.9	30 - 200	
72 Ge	407061.13	0.43	404295.78	100.7	30 - 200	
115 In	2921659.50	1.19	2915781.30	100.2	30 - 200	
209 Bi	2559808.80	2.56	2505984.30	102.1	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\007CALI.D\007CALI.D#
Date Acquired: Aug 13 2005 12:05 pm
Operator:
Sample Name: CS4,S1127
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 00:01 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1585873.00	A	26250.00	1.66
9 Be	41798.89	P	268.00	0.64
23 Na	18995440.00	A	163800.00	0.86
26 Mg	1749133.00	A	11060.00	0.63
27 Al	180916.70	P	1513.00	0.84
39 K	13719060.00	A	251100.00	1.83
44 Ca	419159.31	P	5164.00	1.23
45 Sc	1817070.00	A	21670.00	1.19
51 V	196418.50	P	3579.00	1.82
52 Cr	185806.70	P	2681.00	1.44
55 Mn	236532.20	P	2962.00	1.25
57 Fe	493322.19	P	4395.00	0.89
59 Co	207856.70	P	3239.00	1.56
60 Ni	46561.11	P	901.90	1.94
65 Cu	54756.62	P	839.30	1.53
66 Zn	35954.12	P	355.80	0.99
72 Ge	407647.31	P	6555.00	1.61
75 As	24675.20	P	234.60	0.95
82 Se	2344.70	P	32.78	1.40
95 Mo	39902.22	P	165.50	0.41
109 Ag	121864.40	P	1986.00	1.63
111 Cd	26740.55	P	496.50	1.86
115 In	2899237.00	A	22080.00	0.76
121 Sb	92056.66	P	856.70	0.93
137 Ba	38222.22	P	475.40	1.24
205 Tl	224901.09	P	4207.00	1.87
208 Pb	304188.91	P	2589.00	0.85
209 Bi	2485486.00	A	28100.00	1.13
232 Th	245546.70	P	6433.00	2.62
238 U	281954.41	P	3784.00	1.34

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1585873.40	1.66	1608061.80	98.6	30 - 200	
45 Sc	1817069.90	1.19	1832171.60	99.2	30 - 200	
72 Ge	407647.34	1.61	404295.78	100.8	30 - 200	
115 In	2899237.30	0.76	2915781.30	99.4	30 - 200	
209 Bi	2485485.50	1.13	2505984.30	99.2	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\008CALI.D\008CALI.D#
Date Acquired: Aug 13 2005 12:11 pm
Operator:
Sample Name: CS5,S1122
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 00:07 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1607540.00	A	10540.00	0.66
9 Be	414274.41	P	456.50	0.11
23 Na	184350300.00	A	3073000.00	1.67
26 Mg	16551820.00	A	238500.00	1.44
27 Al	1388937.00	A	23320.00	1.68
39 K	124701400.00	A	696000.00	0.56
44 Ca	4023208.00	A	27030.00	0.67
45 Sc	1790531.00	A	23250.00	1.30
51 V	2053118.00	A	14800.00	0.72
52 Cr	1804670.00	A	11100.00	0.62
55 Mn	2393345.00	A	24580.00	1.03
57 Fe	4824832.00	A	16520.00	0.34
59 Co	2118057.00	A	22590.00	1.07
60 Ni	449414.41	P	5707.00	1.27
65 Cu	518367.00	P	8295.00	1.60
66 Zn	302942.00	P	3141.00	1.04
72 Ge	411615.50	P	6288.00	1.53
75 As	249475.80	P	2034.00	0.82
82 Se	20665.10	P	191.10	0.92
95 Mo	413595.50	P	7146.00	1.73
109 Ag	1180269.00	A	8261.00	0.70
111 Cd	253427.59	P	3979.00	1.57
115 In	2803899.00	A	23200.00	0.83
121 Sb	937805.13	A	10210.00	1.09
137 Ba	372633.31	P	5021.00	1.35
205 Tl	2399997.00	A	12890.00	0.54
208 Pb	3145919.00	A	20770.00	0.66
209 Bi	2393943.00	A	17600.00	0.74
232 Th	3060818.00	A	35210.00	1.15
238 U	3086857.00	A	42270.00	1.37

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1607539.90	0.66	1608061.80	100.0	30 - 200	
45 Sc	1790530.50	1.30	1832171.60	97.7	30 - 200	
72 Ge	411615.53	1.53	404295.78	101.8	30 - 200	
115 In	2803898.80	0.83	2915781.30	96.2	30 - 200	
209 Bi	2393943.30	0.74	2505984.30	95.5	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1311b.B\009CALI.D\009CALI.D#
Date Acquired: Aug 13 2005 12:16 pm
Operator:
Sample Name: CS6,S1123
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 13 2005 00:12 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1607348.00	A	91080.00	5.67
9 Be	815732.81	A	5274.00	0.65
23 Na	368900900.00	A	4585000.00	1.24
26 Mg	33234110.00	A	240600.00	0.72
27 Al	2730667.00	A	10360.00	0.38
39 K	240855810.00	A	1088000.00	0.45
44 Ca	7673197.00	A	55190.00	0.72
45 Sc	1737277.00	A	143000.00	8.23
51 V	3888973.00	A	26870.00	0.69
52 Cr	3437603.00	A	38220.00	1.11
55 Mn	4582241.00	A	48720.00	1.06
57 Fe	9379772.00	A	69790.00	0.74
59 Co	4067111.00	A	49740.00	1.22
60 Ni	891318.19	A	18690.00	2.10
65 Cu	1024462.00	A	20520.00	2.00
66 Zn	578243.88	P	10580.00	1.83
72 Ge	405389.31	P	27290.00	6.73
75 As	490210.69	P	10780.00	2.20
82 Se	40389.72	P	794.00	1.97
95 Mo	827309.00	A	8889.00	1.07
109 Ag	2223155.00	A	5987.00	0.27
111 Cd	484913.09	P	2042.00	0.42
115 In	2686616.00	A	196700.00	7.32
121 Sb	1809440.00	A	24040.00	1.33
137 Ba	741637.88	M	10010.00	1.35
205 Tl	4690310.00	A	50250.00	1.07
208 Pb	6166655.00	A	31700.00	0.51
209 Bi	2337508.00	A	166100.00	7.11
232 Th	6180618.00	A	66640.00	1.08
238 U	6136256.00	A	25880.00	0.42

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1607348.40	5.67	1608061.80	100.0	30 - 200	
45 Sc	1737276.80	8.23	1832171.60	94.8	30 - 200	
72 Ge	405389.34	6.73	404295.78	100.3	30 - 200	
115 In	2686616.30	7.32	2915781.30	92.1	30 - 200	
209 Bi	2337507.50	7.11	2505984.30	93.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1311b.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: Aug 13, 2005 12:18
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05h1311b.b\003calb.d\	003calb.d#	Aug 13 2005 11:42 am
2	...hem\1\data\05h1311b.b\004cali.d\	004cali.d#	Aug 13 2005 11:48 am
3	...hem\1\data\05h1311b.b\005cali.d\	005cali.d#	Aug 13 2005 11:53 am
4	...hem\1\data\05h1311b.b\006cali.d\	006cali.d#	Aug 13 2005 11:59 am
5	...hem\1\data\05h1311b.b\007cali.d\	007cali.d#	Aug 13 2005 12:05 pm
6	...hem\1\data\05h1311b.b\008cali.d\	008cali.d#	Aug 13 2005 12:11 pm
7	...hem\1\data\05h1311b.b\009cali.d\	009cali.d#	Aug 13 2005 12:16 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.275E-1*X +3.040E-3(blank)	---	ppb
Na	23	45	Y = 5.286E-1*X +1.174E+1(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 4.766E-2*X +3.271E-1(blank)	---	ppb
Al	27	45	Y = 3.709E-1*X +3.671E+0(blank)	---	ppb
K	39	45	Y = 3.469E-1*X +2.253E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.109E-2*X +5.027E-1(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 2.420E+0*X +4.300E-1(blank)	---	ppb
Cr	52	72	Y = 2.132E+0*X +1.176E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.847E+0*X +2.385E-1(blank)	---	ppb
Fe	57	72	Y = 5.804E-2*X +1.532E+0(blank)	---	ppb
Co	59	72	Y = 2.526E+0*X +6.918E-2(blank)	---	ppb
Ni	60	72	Y = 5.497E-1*X +8.036E-2(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 6.307E-1*X +3.032E-1(blank)	---	ppb
Zn	66	72	Y = 3.554E-1*X +6.909E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 3.027E-1*X +4.344E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.470E-2*X +4.902E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 5.089E-1*X +1.356E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 1.386E+0*X +1.509E-1(blank)	---	ppb
Cd	111	72	Y = 3.012E-1*X +6.496E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.685E-1*X +1.204E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 6.859E-2*X +1.188E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 5.025E-1*X +2.904E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 6.605E-1*X +2.529E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55324690010 Filename : h1311010 Injected : 13-AUG-2005 12:22
Calnum : 55324690001 Caldate : 13-AUG-2005 Caltype :
Standards: S1130

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	101.4000	ug/L	1	10	
Antimony	100.0000	102.7000	ug/L	3	10	
Arsenic	100.0000	103.8000	ug/L	4	10	
Barium	100.0000	99.72000	ug/L	0	10	
Beryllium	100.0000	102.1000	ug/L	2	10	
Cadmium	100.0000	103.5000	ug/L	4	10	
Calcium	10000.00	10250.00	ug/L	3	10	
Chromium	100.0000	103.4000	ug/L	3	10	
Cobalt	100.0000	104.6000	ug/L	5	10	
Copper	100.0000	100.9000	ug/L	1	10	
Iron	10000.00	10370.00	ug/L	4	10	
Lead	100.0000	101.3000	ug/L	1	10	
Magnesium	10000.00	10390.00	ug/L	4	10	
Manganese	100.0000	105.2000	ug/L	5	10	
Molybdenum	100.0000	101.3000	ug/L	1	10	
Nickel	100.0000	101.2000	ug/L	1	10	
Potassium	10000.00	10150.00	ug/L	2	10	
Selenium	100.0000	105.5000	ug/L	6	10	
Silver	100.0000	103.7000	ug/L	4	10	
Sodium	10000.00	10340.00	ug/L	3	10	
Thallium	100.0000	103.5000	ug/L	4	10	
Vanadium	100.0000	103.0000	ug/L	3	10	
Zinc	100.0000	105.2000	ug/L	5	10	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Lithium	1608062	1604952	-0.19
Scandium	1832172	1747296	-4.63
Germanium	404296	405807	0.37
Indium	2915781	2763519	-5.22
Bismuth	2505984	2402040	-4.15

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690012
Standards: 05WS0207

Run Name :
Filename : h1311012

Injected : 13-AUG-2005 12:34

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Antimony	55324690001	13-AUG-2005	[0.1617]	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Calcium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Chromium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Iron	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Lead	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Magnesium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Manganese	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Nickel	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Potassium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Selenium	55324690001	13-AUG-2005	[0.3973]	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Sodium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Thallium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	ND	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55324690013 Filename : h1311013 Injected : 13-AUG-2005 12:41
Standards: S1128, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55324690001	13-AUG-2005	2.290000	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	0.513300	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	0.772600	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	[0.0000]	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	[0.0903]	0.250000	ug/L	
Chromium	55324690001	13-AUG-2005	1.363000	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	2.746000	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	1.415000	0.500000	ug/L	
Lead	55324690001	13-AUG-2005	1.177000	0.250000	ug/L	
Manganese	55324690001	13-AUG-2005	0.969900	0.250000	ug/L	
Nickel	55324690001	13-AUG-2005	1.837000	0.250000	ug/L	
Selenium	55324690001	13-AUG-2005	2.526000	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	[0.1326]	0.250000	ug/L	
Thallium	55324690001	13-AUG-2005	[0.0755]	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	[0.1569]	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	6.693000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55324690001	13-AUG-2005	100000	82340	ug/L	82
Calcium	55324690001	13-AUG-2005	300000	290600	ug/L	97
Iron	55324690001	13-AUG-2005	250000	239400	ug/L	96
Magnesium	55324690001	13-AUG-2005	100000	86780	ug/L	87
Molybdenum	55324690001	13-AUG-2005	2000	1954	ug/L	98
Potassium	55324690001	13-AUG-2005	100000	90540	ug/L	91
Sodium	55324690001	13-AUG-2005	250000	0	ug/L	0

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55324690014 Filename : h1311014 Injected : 13-AUG-2005 12:47
Calnum : 55324690001 Caldate : 13-AUG-2005 Caltype :
Standards: S1129, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	80190.00	ug/L	-20		
Arsenic	100.0000	103.3000	ug/L	3	20	
Cadmium	100.0000	103.5000	ug/L	4	20	
Calcium	300000.0	302300.0	ug/L	1		
Chromium	200.0000	227.6000	ug/L	14	20	
Cobalt	200.0000	213.6000	ug/L	7	20	
Copper	200.0000	198.2000	ug/L	-1	20	
Iron	250000.0	245800.0	ug/L	-2		
Magnesium	100000.0	84090.00	ug/L	-16		
Manganese	200.0000	222.4000	ug/L	11	20	
Molybdenum	2000.000	2009.000	ug/L	0		
Nickel	200.0000	203.2000	ug/L	2	20	
Potassium	100000.0	92930.00	ug/L	-7		
Selenium	100.0000	90.38000	ug/L	-10	20	
Silver	50.00000	53.25000	ug/L	7	20	
Sodium	250000.0	0.000000	ug/L	-100	calc sat	***
Vanadium	200.0000	233.2000	ug/L	17	20	
Zinc	100.0000	99.32000	ug/L	-1	20	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Scandium	1832172	1740131	-5.02
Germanium	404296	373853	-7.53

calc=check quantitation sat=saturated

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55324690023 Filename : h1311023 Injected : 13-AUG-2005 13:45
Calnum : 55324690001 Caldate : 13-AUG-2005 Caltype :
Standards: S1132

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.2745	0.4163	150.0000	158.5000	ug/L	6	10	
Antimony	0.1723	0.1636	150.0000	145.6000	ug/L	-3	10	
Arsenic	0.3126	0.2989	150.0000	148.0000	ug/L	-1	10	
Barium	0.0769	0.0686	150.0000	149.9000	ug/L	0	10	
Beryllium	0.1313	0.1257	150.0000	147.9000	ug/L	-1	10	
Cadmium	0.3862	0.2937	150.0000	146.1000	ug/L	-3	10	
Calcium	0.0129	0.0108	15000.00	14610.00	ug/L	-3	10	
Chromium	2.8391	2.0968	150.0000	147.0000	ug/L	-2	10	
Cobalt	2.5695	2.4762	150.0000	147.0000	ug/L	-2	10	
Copper	0.8064	0.6259	150.0000	148.4000	ug/L	-1	10	
Iron	0.0643	0.0567	15000.00	14640.00	ug/L	-2	10	
Lead	0.6428	0.6478	150.0000	147.1000	ug/L	-2	10	
Magnesium	0.0471	0.0473	15000.00	14890.00	ug/L	-1	10	
Manganese	3.1038	2.8071	150.0000	147.8000	ug/L	-1	10	
Molybdenum	0.5325	0.4897	150.0000	144.1000	ug/L	-4	10	
Nickel	0.6550	0.5267	150.0000	143.6000	ug/L	-4	10	
Potassium	0.4912	0.3416	15000.00	14710.00	ug/L	-2	10	
Selenium	0.0537	0.0242	150.0000	145.0000	ug/L	-3	10	
Silver	1.5878	1.3461	150.0000	145.6000	ug/L	-3	10	
Sodium	0.5558	0.5254	15000.00	14890.00	ug/L	-1	10	
Thallium	0.4765	0.4925	150.0000	147.0000	ug/L	-2	10	
Vanadium	2.6329	2.3842	150.0000	147.6000	ug/L	-2	10	
Zinc	0.7568	0.3509	150.0000	146.1000	ug/L	-3	10	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Lithium	1608062	1608631	0.04
Scandium	1832172	1762382	-3.81
Germanium	404296	411844	1.87
Indium	2915781	2706403	-7.18
Bismuth	2505984	2405066	-4.03

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690025
Standards: 05WS0207

Run Name :
Filename : h1311025

Injected : 13-AUG-2005 13:58

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Antimony	55324690001	13-AUG-2005	[0.1913]	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Calcium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Chromium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Iron	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Lead	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Magnesium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Manganese	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Nickel	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Potassium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Selenium	55324690001	13-AUG-2005	[0.4550]	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Sodium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Thallium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	ND	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690038
Calnum : 55324690001
Standards: S1132

Run Name :
Filename : h1311038
Caldate : 13-AUG-2005

IDF : 1.0
Injected : 13-AUG-2005 15:21
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.2745	0.4780	150.0000	183.4000	ug/L	22	10	c+ ***
Antimony	0.1723	0.1682	150.0000	149.7000	ug/L	0	10	
Arsenic	0.3126	0.3082	150.0000	152.6000	ug/L	2	10	
Barium	0.0769	0.0703	150.0000	153.5000	ug/L	2	10	
Beryllium	0.1313	0.1236	150.0000	145.4000	ug/L	-3	10	
Cadmium	0.3862	0.2875	150.0000	143.0000	ug/L	-5	10	
Calcium	0.0129	0.0113	15000.00	15250.00	ug/L	2	10	
Chromium	2.8391	2.1154	150.0000	148.3000	ug/L	-1	10	
Cobalt	2.5695	2.5626	150.0000	152.1000	ug/L	1	10	
Copper	0.8064	0.6434	150.0000	152.5000	ug/L	2	10	
Iron	0.0643	0.0581	15000.00	15000.00	ug/L	0	10	
Lead	0.6428	0.6711	150.0000	152.4000	ug/L	2	10	
Magnesium	0.0471	0.0542	15000.00	17040.00	ug/L	14	10	c+ ***
Manganese	3.1038	2.8218	150.0000	148.6000	ug/L	-1	10	
Molybdenum	0.5325	0.4990	150.0000	146.8000	ug/L	-2	10	
Nickel	0.6550	0.5426	150.0000	147.9000	ug/L	-1	10	
Potassium	0.4912	0.3623	15000.00	15600.00	ug/L	4	10	
Selenium	0.0537	0.0248	150.0000	148.9000	ug/L	-1	10	
Silver	1.5878	1.3230	150.0000	143.1000	ug/L	-5	10	
Sodium	0.5558	0.5898	15000.00	16720.00	ug/L	11	10	c+ ***
Thallium	0.4765	0.5131	150.0000	153.1000	ug/L	2	10	
Vanadium	2.6329	2.4074	150.0000	149.0000	ug/L	-1	10	
Zinc	0.7568	0.3612	150.0000	150.5000	ug/L	0	10	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Lithium	1608062	1709585	6.31
Scandium	1832172	1709072	-6.72
Germanium	404296	420718	4.06
Indium	2915781	2652378	-9.03
Bismuth	2505984	2335969	-6.78

+=high bias c=CCV

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690041
Standards: 05WS0207

Run Name :
Filename : h1311041

Injected : 13-AUG-2005 15:40

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55324690001	13-AUG-2005	[6.6910]	50.00000	ug/L	
Antimony	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Calcium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Chromium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Iron	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Lead	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Magnesium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Manganese	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Nickel	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Potassium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Selenium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Sodium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Thallium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	ND	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690055
Calnum : 55324690001
Standards: S1132

Run Name :
Filename : h1311055
Caldate : 13-AUG-2005

IDF : 1.0
Injected : 13-AUG-2005 17:10
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	1.2745	0.5006	150.0000	192.5000	ug/L	**28**	10	c+ ***
Antimony	0.1723	0.1699	150.0000	151.2000	ug/L	1	10	
Arsenic	0.3126	0.3111	150.0000	154.0000	ug/L	3	10	
Barium	0.0769	0.0734	150.0000	160.2000	ug/L	7	10	
Beryllium	0.1313	0.1201	150.0000	141.3000	ug/L	-6	10	
Cadmium	0.3862	0.2745	150.0000	136.5000	ug/L	-9	10	
Calcium	0.0129	0.0113	15000.00	15260.00	ug/L	2	10	
Chromium	2.8391	2.0699	150.0000	145.1000	ug/L	-3	10	
Cobalt	2.5695	2.5152	150.0000	149.3000	ug/L	0	10	
Copper	0.8064	0.6430	150.0000	152.4000	ug/L	2	10	
Iron	0.0643	0.0565	15000.00	14570.00	ug/L	-3	10	
Lead	0.6428	0.6779	150.0000	153.9000	ug/L	3	10	
Magnesium	0.0471	0.0557	15000.00	17530.00	ug/L	**17**	10	c+ ***
Manganese	3.1038	2.7539	150.0000	145.0000	ug/L	-3	10	
Molybdenum	0.5325	0.5001	150.0000	147.1000	ug/L	-2	10	
Nickel	0.6550	0.5321	150.0000	145.1000	ug/L	-3	10	
Potassium	0.4912	0.3707	15000.00	15970.00	ug/L	6	10	
Selenium	0.0537	0.0256	150.0000	153.5000	ug/L	2	10	
Silver	1.5878	1.2864	150.0000	139.1000	ug/L	-7	10	
Sodium	0.5558	0.5903	15000.00	16730.00	ug/L	**12**	10	c+ ***
Thallium	0.4765	0.5167	150.0000	154.2000	ug/L	3	10	
Vanadium	2.6329	2.3310	150.0000	144.3000	ug/L	-4	10	
Zinc	0.7568	0.3533	150.0000	147.1000	ug/L	-2	10	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Lithium	1608062	1675226	4.18
Scandium	1832172	1671773	-8.75
Germanium	404296	425043	5.13
Indium	2915781	2585982	-11.31
Bismuth	2505984	2389623	-4.64

+=high bias c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05
Seqnum : 55324690059
Standards: 05WS0207

Run Name :
Filename : h1311059 Injected : 13-AUG-2005 17:35

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55324690001	13-AUG-2005	[8.3500]	50.00000	ug/L	
Antimony	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Calcium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Chromium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Iron	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Lead	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Magnesium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Manganese	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55324690001	13-AUG-2005	[0.2014]	0.500000	ug/L	
Nickel	55324690001	13-AUG-2005	ND	0.250000	ug/L	
tassium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
elenium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	ND	0.250000	ug/L	
Sodium	55324690001	13-AUG-2005	ND	50.00000	ug/L	
Thallium	55324690001	13-AUG-2005	ND	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	ND	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55324690060 Filename : h1311060 Injected : 13-AUG-2005 17:42
Standards: S1128, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55324690001	13-AUG-2005	2.233000	0.250000	ug/L	
Arsenic	55324690001	13-AUG-2005	[0.4196]	0.500000	ug/L	
Barium	55324690001	13-AUG-2005	0.907700	0.250000	ug/L	
Beryllium	55324690001	13-AUG-2005	[0.0000]	0.250000	ug/L	
Cadmium	55324690001	13-AUG-2005	[0.0485]	0.250000	ug/L	
Chromium	55324690001	13-AUG-2005	1.201000	0.500000	ug/L	
Cobalt	55324690001	13-AUG-2005	2.603000	0.250000	ug/L	
Copper	55324690001	13-AUG-2005	1.396000	0.500000	ug/L	
Lead	55324690001	13-AUG-2005	1.202000	0.250000	ug/L	
Manganese	55324690001	13-AUG-2005	0.926900	0.250000	ug/L	
Nickel	55324690001	13-AUG-2005	2.157000	0.250000	ug/L	
Selenium	55324690001	13-AUG-2005	2.763000	0.500000	ug/L	
Silver	55324690001	13-AUG-2005	[0.0939]	0.250000	ug/L	
Thallium	55324690001	13-AUG-2005	[0.0237]	0.500000	ug/L	
Vanadium	55324690001	13-AUG-2005	[0.1716]	1.000000	ug/L	
Zinc	55324690001	13-AUG-2005	7.455000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55324690001	13-AUG-2005	100000	108800	ug/L	109
Calcium	55324690001	13-AUG-2005	300000	296600	ug/L	99
Iron	55324690001	13-AUG-2005	250000	224600	ug/L	90
Magnesium	55324690001	13-AUG-2005	100000	110700	ug/L	111
Molybdenum	55324690001	13-AUG-2005	2000	1889	ug/L	94
Potassium	55324690001	13-AUG-2005	100000	97830	ug/L	98
Sodium	55324690001	13-AUG-2005	250000	0	ug/L	0

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55324690061 Filename : h1311061 Injected : 13-AUG-2005 17:48
Calnum : 55324690001 Caldate : 13-AUG-2005 Caltype :
Standards: S1129, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	108500.0	ug/L	9		
Arsenic	100.0000	105.1000	ug/L	5	20	
Cadmium	100.0000	84.20000	ug/L	-16	20	
Calcium	300000.0	296600.0	ug/L	-1		
Chromium	200.0000	196.3000	ug/L	-2	20	
Cobalt	200.0000	199.3000	ug/L	0	20	
Copper	200.0000	192.0000	ug/L	-4	20	
Iron	250000.0	221600.0	ug/L	-11		
Magnesium	100000.0	112200.0	ug/L	12		
Manganese	200.0000	196.3000	ug/L	-2	20	
Molybdenum	2000.000	1885.000	ug/L	-6		
Nickel	200.0000	189.9000	ug/L	-5	20	
Potassium	100000.0	98320.00	ug/L	-2		
Selenium	100.0000	91.72000	ug/L	-8	20	
Silver	50.00000	44.20000	ug/L	-12	20	
Sodium	250000.0	0.000000	ug/L	-100	calc sat	***
Vanadium	200.0000	201.1000	ug/L	1	20	
Zinc	100.0000	94.96000	ug/L	-5	20	

ISTD (ICALBLK=h1311003)	ICALBLK Abund	Abund	%Diff
Scandium	1832172	1283376	-29.95
Germanium	404296	344371	-14.82

calc=check quantitation sat=saturated
Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55328262 Instrument: MET05 Agilent ICP-MS Begun: 15-AUG-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	h1523001	TUN				15-AUG-2005 23:02	1.0	1.0				1	
003	h1523003	ICALBLK	std-blk			15-AUG-2005 23:13	1.0	1.0				2	
004	h1523004	ICAL	CS1			15-AUG-2005 23:19	1.0	1.0				3	
005	h1523005	ICAL	CS2			15-AUG-2005 23:25	1.0	1.0				4	
006	h1523006	ICAL	CS3			15-AUG-2005 23:30	1.0	1.0				5	
007	h1523007	ICAL	CS4			15-AUG-2005 23:36	1.0	1.0				6	
008	h1523008	ICAL	CS5			15-AUG-2005 23:42	1.0	1.0				7	
009	h1523009	ICAL	CS6			15-AUG-2005 23:48	1.0	1.0				8	
010	h1523010	ICV				15-AUG-2005 23:53	1.0	1.0	1		1	9 2	
012	h1523012	ICB				16-AUG-2005 00:06	1.0	1.0	1		1	2	
013	h1523013	ICSA				16-AUG-2005 00:12	1.0	1.0			1	10 2	7:CA=311600
014	h1523014	ICSAB				16-AUG-2005 00:19	1.0	1.0	1		1	11 2	10:CA=309700
023	h1523023	CCV				16-AUG-2005 01:17	1.0	1.0	1		1	12 2	1:AG=284.400
026	h1523026	CCB				16-AUG-2005 01:36	1.0	1.0			1	2	
027	h1523027	MS	QC304012	104577	Water	16-AUG-2005 01:42	2.0	1.0	1	1	1	2	5:NA=95000.0
028	h1523028	MSD	QC304013	104577	Water	16-AUG-2005 01:49	2.0	1.0	1	1	1	2	5:NA=96700.0
030	h1523030	BLANK	QC303720	104509	Filtra	16-AUG-2005 02:02	1.0	1.0	1		1	2	
031	h1523031	BS	QC303721	104509	Filtra	16-AUG-2005 02:08	1.0	1.0	1	1	1	2	
032	h1523032	BSD	QC303722	104509	Filtra	16-AUG-2005 02:14	1.0	1.0	1	1	1	2	
033	h1523033	MSS	180970-002	104509	Filtra	16-AUG-2005 02:21	5.0	1.0	5		1	2	3:MG=229200
034	h1523034	SER	QC303725	104509	Filtra	16-AUG-2005 02:27	25.0	1.0		5	1	2	3:NA=129880
035	h1523035	MS	QC303723	104509	Filtra	16-AUG-2005 02:33	5.0	1.0			1	2	3:MG=223400
036	h1523036	MSD	QC303724	104509	Filtra	16-AUG-2005 02:40	5.0	1.0		1	1	2	3:MG=218800
037	h1523037	PDS	QC303726	104509	Filtra	16-AUG-2005 02:46	5.0	1.0		1	1	13 2	3:MG=220800
039	h1523039	CCV				16-AUG-2005 02:59	1.0	1.0	1		1	12 2	1:AG=293.100
043	h1523043	CCB				16-AUG-2005 03:25	1.0	1.0			1	2	
044	h1523044	SAMPLE	180970-003	104509	Filtra	16-AUG-2005 03:31	5.0	1.0	7		1	2	3:CA=68620.0
045	h1523045	SAMPLE	180970-004	104509	Filtra	16-AUG-2005 03:38	5.0	1.0	7		1	2	4:MG=151720
046	h1523046	SAMPLE	180970-005	104509	Filtra	16-AUG-2005 03:44	5.0	1.0	7		1	2	3:MG=120260
047	h1523047	SAMPLE	180846-001	104509	Filtra	16-AUG-2005 03:51	5.0	1.0	7		1	2	4:MG=174780
048	h1523048	SAMPLE	181003-002	104509	Filtra	16-AUG-2005 03:57	5.0	1.0	9		1	2	6:FE=104980

Stds used: 1=S1134 2=05WS0207 3=S1124 4=S1125 5=S1126 6=S1127 7=S1122 8=S1123 9=S1130 10=S1128 11=S1129 12=S1132 13=S21

Analyst: _____ Date: 8/15/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 55328262 Instrument: MET05 Agilent ICP-MS Begun: 15-AUG-2005
Analytical Method: EPA 6020 SOP Version: 6020_rv1

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
049	h1523049	SAMPLE	181003-002	104509	Filtra	16-AUG-2005 04:04	5.0	1.0	9	1	2	6:AL=369400
050	h1523050	SAMPLE	181003-003	104509	Filtra	16-AUG-2005 04:10	5.0	1.0	8	1	2	4:NA=151480
051	h1523051	SAMPLE	181004-002	104509	Filtra	16-AUG-2005 04:16	5.0	1.0	8	1	2	4:CA=236800
052	h1523052	SAMPLE	181004-003	104509	Filtra	16-AUG-2005 04:23	5.0	1.0	6	1	2	
053	h1523053	ICSA				16-AUG-2005 04:29	1.0	1.0		1	10 2	7:CA=317800
055	h1523055	CCV				16-AUG-2005 04:42	1.0	1.0	4	1	12 2	1:AG=304.400
059	h1523059	CCB				16-AUG-2005 05:08	1.0	1.0	6	1	2	
060	h1523060	ICSAB				16-AUG-2005 05:14	1.0	1.0	1	1	11 2	11:CA=318900
062	h1523062	BLANK	QC303808	104528	Filtra	16-AUG-2005 05:27	1.0				2	
063	h1523063	BS	QC303809	104528	Filtra	16-AUG-2005 05:33	1.0				2	
064	h1523064	BSD	QC303810	104528	Filtra	16-AUG-2005 05:40	1.0				2	
065	h1523065	MSS	181030-003	104528	Filtra	16-AUG-2005 05:46	5.0				2	
066	h1523066	SER	QC303813	104528	Filtra	16-AUG-2005 05:52	25.0				2	
067	h1523067	MS	QC303811	104528	Filtra	16-AUG-2005 05:59	5.0				2	
068	h1523068	MSD	QC303812	104528	Filtra	16-AUG-2005 06:05	5.0				2	
069	h1523069	PDS	QC303814	104528	Filtra	16-AUG-2005 06:12	5.0				13 2	
070	h1523070	SAMPLE	181030-001	104528	Filtra	16-AUG-2005 06:18	5.0				2	
072	h1523072	CCV				16-AUG-2005 06:31	1.0				12 2	
076	h1523076	CCB				16-AUG-2005 06:57	1.0				2	
077	h1523077	SAMPLE	181030-002	104528	Filtra	16-AUG-2005 07:03	5.0				2	
078	h1523078	SAMPLE	181031-001	104528	Filtra	16-AUG-2005 07:10	5.0				2	
079	h1523079	SAMPLE	181031-002	104528	Filtra	16-AUG-2005 07:16	5.0				2	
080	h1523080	SAMPLE	181031-003	104528	Filtra	16-AUG-2005 07:23	5.0				2	
081	h1523081	SAMPLE	181031-004	104528	Filtra	16-AUG-2005 07:29	5.0				2	
082	h1523082	SAMPLE	181031-005	104528	Filtra	16-AUG-2005 07:35	5.0				2	
083	h1523083	SAMPLE	181031-006	104528	Filtra	16-AUG-2005 07:42	5.0				2	
084	h1523084	SAMPLE	181031-007	104528	Filtra	16-AUG-2005 07:48	5.0				2	
085	h1523085	SAMPLE	181031-008	104528	Filtra	16-AUG-2005 07:55	5.0				2	
086	h1523086	SAMPLE	181031-009	104528	Filtra	16-AUG-2005 08:01	5.0				2	
088	h1523088	CCV				16-AUG-2005 08:14	1.0				12 2	

Stds used: 1=S1134 2=05WS0207 3=S1124 4=S1125 5=S1126 6=S1127 7=S1122 8=S1123 9=S1130 10=S1128 11=S1129 12=S1132 13=S21

Analyst: _____ Date: 8/15/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55328262001 Name: Type: (normal) Date: 15-AUG-2005 23:13 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	h1523004	55328262004	CS1	15-AUG-2005 23:19	S1124
2	h1523005	55328262005	CS2	15-AUG-2005 23:25	S1125
3	h1523006	55328262006	CS3	15-AUG-2005 23:30	S1126
4	h1523007	55328262007	CS4	15-AUG-2005 23:36	S1127
5	h1523008	55328262008	CS5	15-AUG-2005 23:42	S1122
6	h1523009	55328262009	CS6	15-AUG-2005 23:48	S1123

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Aluminum		55.572	24.473	3.0457	0.8084	0.6521	BLNK	R	-51.9759	1.920769		ug/L	16.910	0.998	0.995	
Antimony	0.2093	0.1710	0.1472	0.1329	0.1400	0.1436	BLNK	R	-0.17975	7.006430		ug/L	0.1573	1.000	0.995	
Arsenic		0.4388	0.3453	0.2985	0.2864	0.2855	BLNK	R	-0.22422	3.505295		ug/L	0.3309	1.000	0.995	
Barium	0.1327	0.0989	0.0776	0.0618	0.0613	0.0621	BLNK	R	-0.30437	16.17050		ug/L	0.0824	1.000	0.995	
Beryllium	0.1613	0.1305	0.1179	0.1129	0.1104	0.1068	BLNK	R	-0.11256	9.305483		ug/L	0.1233	1.000	0.995	
Cadmium	0.5354	0.3886	0.3201	0.2517	0.2316	0.2263	BLNK	R	-0.33223	4.406656		ug/L	0.3256	1.000	0.995	
Calcium		0.0578	0.0322	0.0131	0.0115	0.0112	BLNK	R	-211.564	90.20989		ug/L	0.0252	1.000	0.995	
Chromium		3.9838	2.7490	1.7317	1.6256	1.5663	BLNK	R	-0.72735	0.636378		ug/L	2.3313	1.000	0.995	
Cobalt	3.3368	2.8807	2.4667	2.1567	2.1364	2.0678	BLNK	R	-0.16247	0.480873		ug/L	2.5075	1.000	0.995	
Copper		1.0711	0.8056	0.6119	0.5565	0.5445	BLNK	R	-0.41965	1.832810		ug/L	0.7179	1.000	0.995	
Iron		0.1700	0.1012	0.0522	0.0469	0.0450	BLNK	R	-134.810	22.20634		ug/L	0.0831	1.000	0.995	
Lead	0.9589	0.7927	0.6798	0.6292	0.6215	0.6326	BLNK	R	-0.14160	1.587673		ug/L	0.7191	1.000	0.995	
Magnesium		0.4099	0.2210	0.0898	0.0680	0.0661	BLNK	R	-269.645	15.28069		ug/L	0.1709	1.000	0.995	
Manganese	9.3420	6.2631	3.9634	2.3630	2.1741	2.0921	BLNK	R	-0.95295	0.476945		ug/L	4.3663	1.000	0.995	
Molybdenum		1.4130	0.9335	0.5558	0.5253	0.5295	BLNK	R	-0.85521	1.901379		ug/L	0.7914	1.000	0.995	
Nickel	1.1167	0.8194	0.6268	0.5028	0.4606	0.4478	BLNK	R	-0.34073	2.224435		ug/L	0.6623	1.000	0.995	
Potassium		1.9192	1.1419	0.5318	0.4384	0.4354	BLNK	R	-170.333	2.316915		ug/L	0.8933	1.000	0.995	
Selenium		0.1622	0.0991	0.0290	0.0220	0.0214	BLNK	R	-3.57251	47.39426		ug/L	0.0667	1.000	0.995	
Silver	1.3997	0.9883	0.7763	0.6133	0.5895	0.5990	BLNK	R	-0.35577	1.678302		ug/L	0.8277	1.000	0.995	
Sodium		24.005	11.434	1.7343	0.7830	0.7178	BLNK	R	-1844.79	1.520330		ug/L	7.7349	1.000	0.995	

Curves: BLNK: Y=aX+[blank]

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET05 Agilent ICP-MS Reviewed By: ---
Calnum: 55328262001 Name: Type: (normal) Date: 15-AUG-2005 23:13 Inj Vol (uL): 1

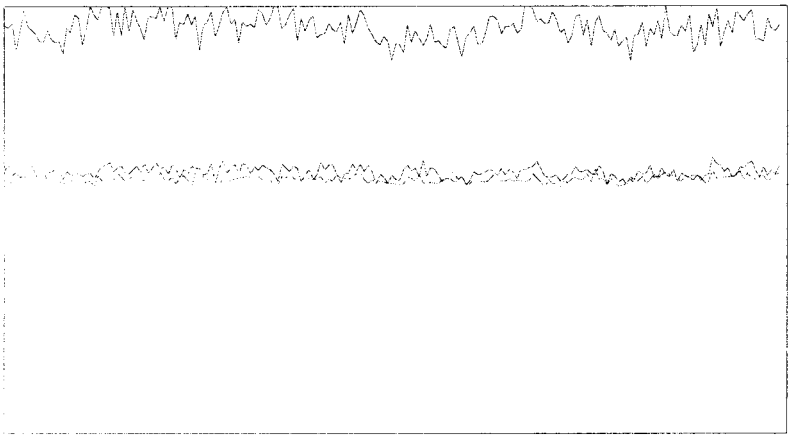
Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Thallium		0.5786	0.5016	0.4564	0.4711	0.4716	BLNK	R	-0.16398	2.123108		ug/L	0.4959	1.000	0.995	
Vanadium		3.0466	2.3471	1.8476	1.8640	1.8091	BLNK	R	-0.30635	0.550460		ug/L	2.1829	1.000	0.995	
Zinc		1.3250	0.7993	0.3683	0.3050	0.2943	BLNK	R	-1.66504	3.406650		ug/L	0.6184	1.000	0.995	

70

Curves: BLNK: Y=aX+[blank]
Instrument amount = a0 + response * a1 + response^2 * a2

Tune Report

Tune File : ATUNE.U



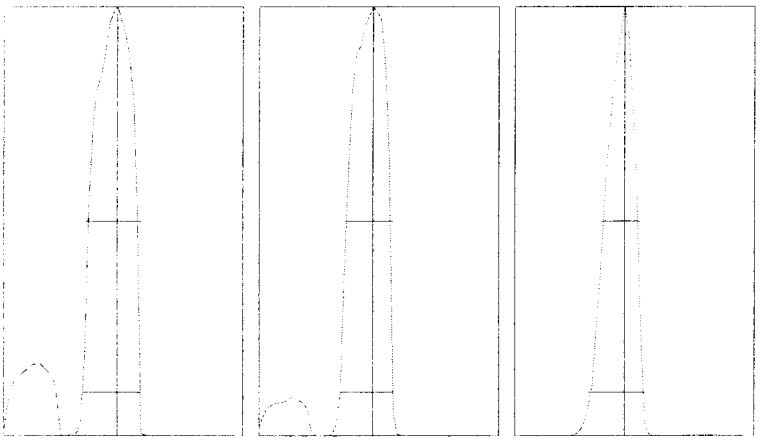
m/z:	7	89	205
Range:	20,000	50,000	50,000
Count:	19,091	31,342	30,375
Mean:	18992.9	30569.0	29706.7
RSD%:	3.25	2.17	1.39
n:	200		

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec

Oxide:	156/140	0.39%
Doubly Charged:	70/140	2.20%

Background:

m/z:	7	89	205
Cps:	21.7	16.9	20.5



m/z:	7	89	205
Height:	19,852	30,749	39,872
Axis:	6.95	88.95	204.90
W-50%:	0.70	0.60	0.50
W-10%:	0.7500	0.6500	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power:	1300 W	Extract 1:	-122.7 V	AMU Gain:	129
RF Matching:	1.7 V	Extract 2:	-145 V	AMU Offset:	128
Smpl Depth:	7.2 mm	Einzel 1,3:	-168 V	Axis Gain:	1.0001
Torch-H:	-1.7 mm	Einzel 2:	5 V	Axis Offset:	0.02
Torch-V:	-0.6 mm	Omega Bias:	-39 V	QP Bias:	0 V
Carrier Gas:	1.09 L/min	Omega (+):	6.9 V		
Makeup Gas:	0 L/min	Omega (-):	7 V	===Detector Parameters===	
Optional Gas:	--- %	QP Focus:	7.6 V	Discriminator:	9.2 mV
PeriPump1:	0.1 rps	Plate Bias:	-25.9 V	Analog HV:	1850 V
PeriPump2:	--- rps			Pulse HV:	1090 V
S/C Temp:	2 degC				

Generated : Aug 15, 2005 10:59:58
Printed : Aug 15, 2005 11:00:05

P/A Factor Tuning Report

Acquired:Aug 15 2005 11:13 am

Mass[amu]	Element	P/A Factor
6	Li	0.073111
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086371
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.088961
45	Sc	0.086996
51	V	0.087856
52	Cr	0.087816
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.088635
57	Fe	0.089355
59	Co	0.088585
60	Ni	Sensitivity too low
63	Cu	0.087251
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.087581
95	Mo	Sensitivity too low
98	Mo	0.086007
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.086120
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.087277
118	(In)	0.087792
121	Sb	0.085922
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.088475
166	Er	Sensitivity too low

205	Tl	0.087225
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.086331
209	Bi	0.086690
232	Th	0.087060
238	U	0.087303

===Detector Parameters===
Discriminator: 9.2 mV
Analog HV: 1850 V
Pulse HV: 1090 V

P/A Factor Tuning Report

Acquired:Aug 15 2005 11:18 am

Mass[amu]	Element	P/A Factor
6	Li	0.072915
9	Be	Sensitivity too low
23	Na	Sensitivity too high
25	Mg	Sensitivity too high
26	Mg	Sensitivity too high
27	Al	0.086441
39	K	Sensitivity too high
43	Ca	Sensitivity too low
44	Ca	0.089053
45	Sc	0.087070
51	V	0.088032
52	Cr	0.088041
53	Cr	Sensitivity too low
54	Fe	Sensitivity too high
55	Mn	0.088806
57	Fe	0.089409
59	Co	0.088659
60	Ni	Sensitivity too low
63	Cu	0.087459
65	Cu	Sensitivity too low
66	Zn	Sensitivity too low
72	Ge	Sensitivity too low
75	As	Sensitivity too low
77	(As)	Sensitivity too low
82	Se	Sensitivity too low
83	(As)	Sensitivity too low
88	(Ca)	Sensitivity too low
89	Y	0.087466
95	Mo	Sensitivity too low
98	Mo	0.085964
99	(Mo)	Sensitivity too low
106	(Cd)	Sensitivity too low
108	(Cd)	Sensitivity too low
109	Ag	0.086322
111	Cd	Sensitivity too low
114	Cd	Sensitivity too low
115	In	0.087172
118	(In)	0.087506
121	Sb	0.086143
135	Ba	Sensitivity too low
137	Ba	Sensitivity too low
159	Tb	0.088503
166	Er	Sensitivity too low

205	Tl	0.087425
206	(Pb)	Sensitivity too low
207	(Pb)	Sensitivity too low
208	Pb	0.086595
209	Bi	0.086792
232	Th	0.087443
238	U	0.087499

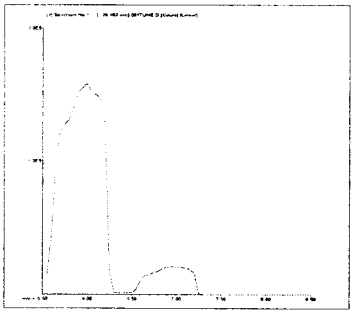
===Detector Parameters===
Discriminator: 9.2 mV
Analog HV: 1850 V
Pulse HV: 1090 V

6020 QC Tune Report

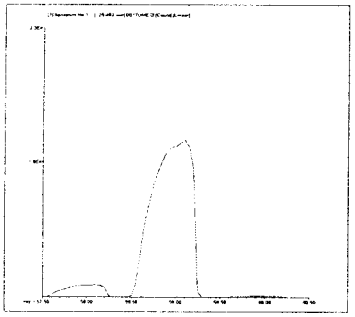
Data File: C:\ICPCHEM\1\DATA\05H1523a.B\001TUNE.D
Date Acquired: Aug 15 2005 11:02 pm
Acq. Method: TN6020.M
Operator:
Sample Name: TUN,S1134
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

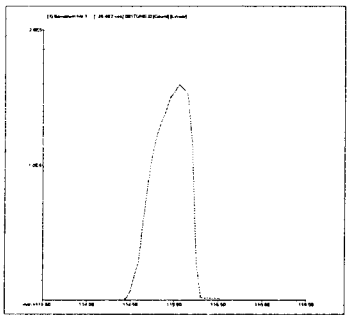
Element	Actual	Required	Flag
7 Li	3.85	5.00	
59 Co	1.01	5.00	
115 In	1.01	5.00	
205 Tl	1.59	5.00	



7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.10
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



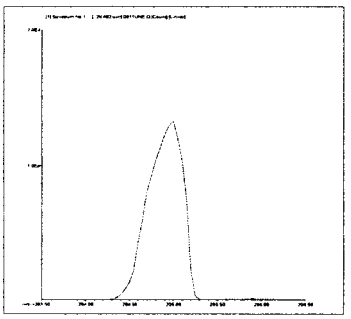
115 In

Mass Calib.

Actual:	115.05	
Required:	114.90 -	115.10
Flag:		

Peak Width

Actual:	0.65
Required:	0.90
Flag:	



205 Tl

Mass Calib.

Actual:	205.00	
Required:	204.90 -	205.10
Flag:		

Peak Width

Actual:	0.55
Required:	0.90
Flag:	

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\002BLNK.D\002BLNK.D#
Date Acquired: Aug 15 2005 11:07 pm
Acq. Method: 60200111.M
Operator:
Sample Name: rinse
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal. Update: Aug 15 2005 10:36 pm
Sample Type: 6-Blank
Dilution Factor: 1.00

QC Elements

Element	Corr. Conc.		RSD(%)	Raw Conc.	High Limit	Flag
9 Be	0.01997	ppb	103.71	0.01997	1.00	
23 Na	138.4	ppb	184.83	138.4	1.00	
26 Mg	18.38	ppb	218.34	18.38	1.00	
27 Al	2.918	ppb	237.11	2.918	1.00	
39 K	12.6	ppb	204.92	12.6	1.00	
44 Ca	3.289	ppb	967.77	3.289	1.00	
51 V	0.06997	ppb	74.86	0.06997	1.00	
52 Cr	-0.0938	ppb	39.88	-0.0938	1.00	
55 Mn	0.04701	ppb	221.23	0.04701	1.00	
57 Fe	10.26	ppb	117.84	10.26	1.00	
59 Co	0.01875	ppb	44.03	0.01875	1.00	
60 Ni	0.008495	ppb	461.57	0.008495	1.00	
65 Cu	0.02051	ppb	69.92	0.02051	1.00	
66 Zn	-0.04068	ppb	216.89	-0.04068	1.00	
75 As	0.02978	ppb	395.57	0.02978	1.00	
82 Se	0.006166	ppb	4575.10	0.006166	1.00	
95 Mo	0.03885	ppb	244.17	0.03885	1.00	
109 Ag	0.04005	ppb	4.50	0.04005	1.00	
111 Cd	0.05892	ppb	97.57	0.05892	1.00	
121 Sb	-0.03388	ppb	56.70	-0.03388	1.00	
137 Ba	-0.01448	ppb	66.48	-0.01448	1.00	
205 Tl	0.1158	ppb	13.83	0.1158	1.00	
208 Pb	0.006865	ppb	215.15	0.006865	1.00	
232 Th	----	ppb	--------	----	1.00	
238 U	----	ppb	--------	----	1.00	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1528334.50	8.61	---	#VALUE!	30 - 200	
45 Sc	1001003.90	12.54	---	#VALUE!	30 - 200	
72 Ge	258999.77	6.76	---	#VALUE!	30 - 200	

115 In	1421461.00	10.17	---	#VALUE!	30 - 200
209 Bi	1449890.60	9.03	---	#VALUE!	30 - 200

ISTD Ref File : ---

6 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 5 :Max. Nnumber of ISTD Failures Allowed

QC Results:

Analytes: Fail
ISTD: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\003CAL
Date Acquired: Aug 15 2005 11:13 pm
Operator:
Sample Name: std-blk
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 10:36 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1529624.00	A	61640.00	4.03
9	Be	370.00	P	18.56	5.02
23	Na	24323300.00	A	805700.00	3.31
26	Mg	353777.81	P	13830.00	3.91
27	Al	542723.63	M	49880.00	9.19
39	K	1473546.00	A	28870.00	1.96
44	Ca	47012.61	P	962.30	2.05
45	Sc	1002290.00	A	13120.00	1.31
51	V	2917.70	P	237.50	8.14
52	Cr	5988.89	P	131.20	2.19
55	Mn	10471.11	P	82.28	0.79
57	Fe	31816.67	P	423.50	1.33
59	Co	1771.11	P	58.25	3.29
60	Ni	802.22	P	63.80	7.95
65	Cu	1199.58	P	48.12	4.01
66	Zn	2562.13	P	159.00	6.21
72	Ge	262059.80	P	3410.00	1.30
75	As	334.89	P	167.80	50.11
82	Se	395.02	P	3.53	0.89
95	Mo	2357.78	P	77.27	3.28
109	Ag	1111.11	P	80.65	7.26
111	Cd	395.13	P	26.92	6.81
115	In	1418034.00	A	36860.00	2.60
121	Sb	726.67	P	67.66	9.31
137	Ba	533.33	P	15.28	2.87
205	Tl	2233.33	P	93.87	4.20
208	Pb	2581.11	P	43.50	1.69
209	Bi	1447203.00	A	33770.00	2.33
232	Th	1586.67	P	145.30	9.16
238	U	1137.78	P	46.23	4.06

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\004CALI.D\004CALI.D#
Date Acquired: Aug 15 2005 11:19 pm
Operator:
Sample Name: CS1,S1124
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:15 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1525880.00	A	35990.00	2.36
9 Be	1231.11	P	89.21	7.25
23 Na	21593740.00	A	666100.00	3.08
26 Mg	348028.91	P	9879.00	2.84
27 Al	476761.09	P	16760.00	3.52
39 K	1613557.00	A	47960.00	2.97
44 Ca	48631.79	P	1116.00	2.29
45 Sc	998939.88	A	5923.00	0.59
51 V	5332.37	P	560.30	10.51
52 Cr	8491.11	P	351.30	4.14
55 Mn	12186.67	P	416.00	3.41
57 Fe	35328.89	P	818.50	2.32
59 Co	4352.22	P	35.64	0.82
60 Ni	1456.67	P	43.72	3.00
65 Cu	1965.17	P	110.40	5.62
66 Zn	4128.51	P	18.85	0.46
72 Ge	260865.80	P	2365.00	0.91
75 As	815.43	P	157.20	19.28
82 Se	420.62	P	14.86	3.53
95 Mo	2695.56	P	154.30	5.72
109 Ag	1825.56	P	15.03	0.82
111 Cd	698.32	P	33.05	4.73
115 In	1426641.00	A	5219.00	0.37
121 Sb	1493.33	P	78.81	5.28
137 Ba	946.67	P	12.02	1.27
205 Tl	4984.44	P	44.39	0.89
208 Pb	6913.33	P	125.80	1.82
209 Bi	1442100.00	A	11010.00	0.76
232 Th	1485.56	P	28.35	1.91
238 U	1240.00	P	115.50	9.31

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1525880.00	2.36	1529623.60	99.8	30 - 200	
45 Sc	998939.88	0.59	1002290.10	99.7	30 - 200	
72 Ge	260865.77	0.91	262059.77	99.5	30 - 200	
115 In	1426640.80	0.37	1418033.60	100.6	30 - 200	
209 Bi	1442100.00	0.76	1447202.90	99.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\005CALI.D\005CALI.D#
Date Acquired: Aug 15 2005 11:25 pm
Operator:
Sample Name: CS2,S1125
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:21 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1594761.00	A	38140.00	2.39
9 Be	2080.00	P	49.10	2.36
23 Na	24355300.00	A	1334000.00	5.48
26 Mg	415853.31	P	20300.00	4.88
27 Al	563762.38	M	56690.00	10.06
39 K	1947292.00	A	63790.00	3.28
44 Ca	58629.69	P	3616.00	6.17
45 Sc	1014670.00	A	3015.00	0.30
51 V	7980.43	P	178.60	2.24
52 Cr	10435.56	P	26.74	0.26
55 Mn	16407.78	P	478.70	2.92
57 Fe	44537.77	P	2419.00	5.43
59 Co	7545.56	P	208.20	2.76
60 Ni	2146.67	P	102.00	4.75
65 Cu	2806.00	P	105.60	3.76
66 Zn	3470.79	P	55.41	1.60
72 Ge	261956.00	P	1096.00	0.42
75 As	1149.70	P	144.70	12.59
82 Se	424.84	P	5.03	1.18
95 Mo	3702.22	P	312.40	8.44
109 Ag	2588.89	P	66.78	2.58
111 Cd	1017.94	P	16.22	1.59
115 In	1425138.00	A	13330.00	0.94
121 Sb	2435.56	P	222.00	9.12
137 Ba	1408.89	P	56.70	4.02
205 Tl	8340.00	P	239.50	2.87
208 Pb	11424.44	P	378.60	3.31
209 Bi	1441905.00	A	22180.00	1.54
232 Th	1667.78	P	81.94	4.91
238 U	1460.00	P	35.12	2.41

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1594761.50	2.39	1529623.60	104.3	30 - 200	
45 Sc	1014669.80	0.30	1002290.10	101.2	30 - 200	
72 Ge	261956.00	0.42	262059.77	100.0	30 - 200	
115 In	1425138.00	0.94	1418033.60	100.5	30 - 200	
209 Bi	1441904.80	1.54	1447202.90	99.6	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\006CALI.D\006CALI.D#
Date Acquired: Aug 15 2005 11:30 pm
Operator:
Sample Name: CS3,S1126
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:26 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1552271.00	A	20800.00	1.34
9	Be	3660.00	P	121.70	3.33
23	Na	23079570.00	A	396600.00	1.72
26	Mg	445890.00	P	10750.00	2.41
27	Al	493890.09	M	41610.00	8.43
39	K	2304272.00	A	58220.00	2.53
44	Ca	65018.78	P	253.60	0.39
45	Sc	1009559.00	A	21290.00	2.11
51	V	12433.13	P	214.70	1.73
52	Cr	14564.44	P	290.90	2.00
55	Mn	20996.67	P	162.00	0.77
57	Fe	53626.66	P	170.10	0.32
59	Co	13067.78	P	88.34	0.68
60	Ni	3320.00	P	43.33	1.31
65	Cu	4268.04	P	69.39	1.63
66	Zn	4234.52	P	62.35	1.47
72	Ge	264887.31	P	2247.00	0.85
75	As	1828.85	P	151.10	8.26
82	Se	524.93	P	11.89	2.27
95	Mo	4945.56	P	92.03	1.86
109	Ag	4112.22	P	76.76	1.87
111	Cd	1695.17	P	114.10	6.73
115	In	1436968.00	A	13700.00	0.95
121	Sb	4230.00	P	121.70	2.88
137	Ba	2230.00	P	92.07	4.13
205	Tl	14565.55	P	317.00	2.18
208	Pb	19742.22	P	192.70	0.98
209	Bi	1451995.00	A	8513.00	0.59
232	Th	1785.56	P	62.57	3.50
238	U	1786.67	P	67.41	3.77

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1552271.10	1.34	1529623.60	101.5	30 - 200	
45 Sc	1009559.00	2.11	1002290.10	100.7	30 - 200	
72 Ge	264887.34	0.85	262059.77	101.1	30 - 200	
115 In	1436967.60	0.95	1418033.60	101.3	30 - 200	
209 Bi	1451995.40	0.59	1447202.90	100.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\007CALI.D\007CALI.D#
Date Acquired: Aug 15 2005 11:36 pm
Operator:
Sample Name: CS4,S1127
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:32 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	1543943.00	A	27670.00	1.79
9 Be	34853.33	P	391.50	1.12
23 Na	34209528.00	A	642900.00	1.88
26 Mg	1770639.00	A	25250.00	1.43
27 Al	600766.13	A	15870.00	2.64
39 K	10490020.00	A	54530.00	0.52
44 Ca	258590.59	P	3997.00	1.55
45 Sc	986244.81	A	5390.00	0.55
51 V	97776.60	P	2994.00	3.06
52 Cr	91635.55	P	1910.00	2.08
55 Mn	125036.70	P	1880.00	1.50
57 Fe	276427.81	P	2757.00	1.00
59 Co	114121.10	P	1432.00	1.25
60 Ni	26601.11	P	209.80	0.79
65 Cu	32376.74	P	330.10	1.02
66 Zn	19486.31	P	248.00	1.27
72 Ge	264571.81	P	3065.00	1.16
75 As	15795.55	P	255.20	1.62
82 Se	1535.82	P	15.13	0.99
95 Mo	29411.11	P	198.40	0.67
109 Ag	32450.00	P	167.10	0.51
111 Cd	13320.07	P	260.60	1.96
115 In	1426092.00	A	23720.00	1.66
121 Sb	37915.56	P	832.90	2.20
137 Ba	17621.11	P	285.50	1.62
205 Tl	131238.91	P	1350.00	1.03
208 Pb	180933.30	P	540.80	0.30
209 Bi	1438025.00	A	17950.00	1.25
232 Th	7650.00	P	193.70	2.53
238 U	8387.78	P	90.33	1.08

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1543943.40	1.79	1529623.60	100.9	30 - 200	
45 Sc	986244.88	0.55	1002290.10	98.4	30 - 200	
72 Ge	264571.78	1.16	262059.77	101.0	30 - 200	
115 In	1426091.60	1.66	1418033.60	100.6	30 - 200	
209 Bi	1438025.10	1.25	1447202.90	99.4	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\008CALI.D\008CALI.D#
Date Acquired: Aug 15 2005 11:42 pm
Operator:
Sample Name: CS5,S1122
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:38 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1497915.00	A	36910.00	2.46
9	Be	330544.41	P	6264.00	1.90
23	Na	158442590.00	A	1964000.00	1.24
26	Mg	13768430.00	A	97510.00	0.71
27	Al	1636257.00	A	39830.00	2.43
39	K	88705584.00	A	443100.00	0.50
44	Ca	2329552.00	A	33040.00	1.42
45	Sc	1011898.00	A	12370.00	1.22
51	V	1005126.00	A	6152.00	0.61
52	Cr	876711.13	A	18490.00	2.11
55	Mn	1172337.00	A	7060.00	0.60
57	Fe	2530757.00	A	57300.00	2.26
59	Co	1152084.00	A	13110.00	1.14
60	Ni	248402.20	P	5082.00	2.05
65	Cu	300093.00	P	5307.00	1.77
66	Zn	164494.00	P	2783.00	1.69
72	Ge	269641.09	P	3830.00	1.42
75	As	154423.00	P	2100.00	1.36
82	Se	11847.39	P	169.70	1.43
95	Mo	283341.09	P	9434.00	3.33
109	Ag	317823.31	P	3280.00	1.03
111	Cd	124881.30	P	653.00	0.52
115	In	1377638.00	A	11890.00	0.86
121	Sb	385681.09	P	5704.00	1.48
137	Ba	168864.41	P	2900.00	1.72
205	Tl	1313331.00	A	11450.00	0.87
208	Pb	1732811.00	A	9488.00	0.55
209	Bi	1394297.00	A	21680.00	1.55
232	Th	76191.11	P	221.70	0.29
238	U	72714.44	P	385.70	0.53

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1497915.30	2.46	1529623.60	97.9	30 - 200	
45 Sc	1011898.40	1.22	1002290.10	101.0	30 - 200	
72 Ge	269641.09	1.42	262059.77	102.9	30 - 200	
115 In	1377638.00	0.86	1418033.60	97.2	30 - 200	
209 Bi	1394296.60	1.55	1447202.90	96.3	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\05H1523a.B\009CALI.D\009CALI.D#
Date Acquired: Aug 15 2005 11:48 pm
Operator:
Sample Name: CS6,S1123
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\60200111.M
Calibration File: C:\ICPCHEM\1\CALIB\60200111.C
Last Cal Update: Aug 15 2005 11:44 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	1503768.00	A	11300.00	0.75
9	Be	642407.81	A	14970.00	2.33
23	Na	291582690.00	A	3820000.00	1.31
26	Mg	26849890.00	A	106000.00	0.39
27	Al	2649062.00	A	94690.00	3.57
39	K	176855700.00	A	4157000.00	2.35
44	Ca	4531723.00	A	47710.00	1.05
45	Sc	1015589.00	A	11140.00	1.10
51	V	1966668.00	A	24900.00	1.27
52	Cr	1702780.00	A	26770.00	1.57
55	Mn	2274314.00	A	16920.00	0.74
57	Fe	4893126.00	A	48110.00	0.98
59	Co	2247686.00	A	25410.00	1.13
60	Ni	486824.41	P	2837.00	0.58
65	Cu	591940.69	P	7756.00	1.31
66	Zn	319899.19	P	2912.00	0.91
72	Ge	271774.69	P	2883.00	1.06
75	As	310331.09	P	2420.00	0.78
82	Se	23314.00	P	185.50	0.80
95	Mo	575597.69	P	7205.00	1.25
109	Ag	651188.69	A	8449.00	1.30
111	Cd	245982.00	P	1039.00	0.42
115	In	1360212.00	A	6035.00	0.44
121	Sb	781465.13	A	4547.00	0.58
137	Ba	337991.09	P	3116.00	0.92
205	Tl	2557836.00	A	31800.00	1.24
208	Pb	3431142.00	A	1023.00	0.03
209	Bi	1355887.00	A	4601.00	0.34
232	Th	151388.91	P	745.30	0.49
238	U	145552.20	P	1227.00	0.84

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1503767.50	0.75	1529623.60	98.3	30 - 200	
45 Sc	1015588.90	1.10	1002290.10	101.3	30 - 200	
72 Ge	271774.66	1.06	262059.77	103.7	30 - 200	
115 In	1360212.50	0.44	1418033.60	95.9	30 - 200	
209 Bi	1355887.10	0.34	1447202.90	93.7	30 - 200	

ISTD Ref File : C:\ICPCHEM\1\DATA\05H1523a.B\003CALB.D\003CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass

ISTD: Pass

Calibration Summary

Calibration : C:\ICPCHEM\1\CALIB\60200111.C
Last Calib: Aug 15, 2005 23:49
Cal Type : External Calibration Method
Cal Title :

Standard Data Files

Level	DataPath	DataFile	Date Acquired
1	...hem\1\data\05h1523a.b\003calb.d\	003calb.d#	Aug 15 2005 11:13 pm
2	...hem\1\data\05h1523a.b\004cali.d\	004cali.d#	Aug 15 2005 11:19 pm
3	...hem\1\data\05h1523a.b\005cali.d\	005cali.d#	Aug 15 2005 11:25 pm
4	...hem\1\data\05h1523a.b\006cali.d\	006cali.d#	Aug 15 2005 11:30 pm
5	...hem\1\data\05h1523a.b\007cali.d\	007cali.d#	Aug 15 2005 11:36 pm
6	...hem\1\data\05h1523a.b\008cali.d\	008cali.d#	Aug 15 2005 11:42 pm
7	...hem\1\data\05h1523a.b\009cali.d\	009cali.d#	Aug 15 2005 11:48 pm
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Level	BkgPath	BkgFile	Interference Correction
1	---	---	ON
2	---	---	ON
3	---	---	ON
4	---	---	ON
5	---	---	ON
6	---	---	ON
7	---	---	ON
8	---		
9	---		
10	---		
11	---		
12	---		
13	---		
14	---		
15	---		
16	---		
17	---		
18	---		
19	---		
20	---		

Name	m/z	IS	Equation	r	Units
Li	6	---	Excluded	---	ppb
Be	9	6	Y = 1.075E-1*X +1.210E-2(blank)	---	ppb
Na	23	45	Y = 6.578E-1*X +1.213E+3(blank)	---	ppb
Mg	25	45	Excluded	---	ppb
Mg	26	45	Y = 6.544E-2*X +1.765E+1(blank)	---	ppb
Al	27	45	Y = 5.206E-1*X +2.706E+1(blank)	---	ppb
K	39	45	Y = 4.316E-1*X +7.352E+1(blank)	---	ppb
Ca	43	45	Excluded	---	ppb
Ca	44	45	Y = 1.109E-2*X +2.345E+0(blank)	---	ppb
Sc	45	---	Excluded	---	ppb
	50	---	--------	???	
V	51	72	Y = 1.817E+0*X +5.565E-1(blank)	---	ppb
Cr	52	72	Y = 1.571E+0*X +1.143E+0(blank)	---	ppb
Cr	53	72	Excluded	---	ppb
Fe	54	72	Excluded	---	ppb
Mn	55	72	Y = 2.097E+0*X +1.998E+0(blank)	---	ppb
Fe	57	72	Y = 4.503E-2*X +6.071E+0(blank)	---	ppb
Co	59	72	Y = 2.080E+0*X +3.379E-1(blank)	---	ppb
Ni	60	72	Y = 4.496E-1*X +1.532E-1(blank)	---	ppb
Cu	63	72	Excluded	---	ppb
Cu	65	72	Y = 5.456E-1*X +2.290E-1(blank)	---	ppb
Zn	66	72	Y = 2.935E-1*X +4.888E-1(blank)	---	ppb
Ge	72	---	Excluded	---	ppb
As	75	72	Y = 2.853E-1*X +6.397E-2(blank)	---	ppb
(As)	77	72	Excluded	---	ppb
Se	82	72	Y = 2.110E-2*X +7.538E-2(blank)	---	ppb
(As)	83	72	Excluded	---	ppb
(Ca)	88	72	Excluded	---	ppb
Y	89	72	Excluded	---	ppb
Mo	95	72	Y = 5.259E-1*X +4.498E-1(blank)	---	ppb
Mo	98	72	Excluded	---	ppb
(Mo)	99	72	Excluded	---	ppb
(Cd)	106	72	Excluded	---	ppb
(Cd)	108	72	Excluded	---	ppb
Ag	109	72	Y = 5.958E-1*X +2.120E-1(blank)	---	ppb
Cd	111	72	Y = 2.269E-1*X +7.539E-2(blank)	---	ppb
Cd	114	72	Excluded	---	ppb
In	115	---	Excluded	---	ppb
(In)	118	---	Excluded	---	ppb
Sb	121	115	Y = 1.427E-1*X +2.566E-2(blank)	---	ppb
Ba	135	115	Excluded	---	ppb
Ba	137	115	Y = 6.184E-2*X +1.882E-2(blank)	---	ppb
Tb	159	---	Excluded	---	ppb
Er	166	115	Excluded	---	ppb
Tl	205	209	Y = 4.710E-1*X +7.724E-2(blank)	---	ppb
(Pb)	206	209	Excluded	---	ppb
(Pb)	207	209	Excluded	---	ppb
Pb	208	209	Y = 6.299E-1*X +8.919E-2(blank)	---	ppb
Bi	209	---	Excluded	---	ppb
Th	232	209	Excluded	---	ppb
U	238	209	Excluded	---	ppb

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262010 Filename : h1523010 Injected : 15-AUG-2005 23:53
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1130, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Aluminum	100.0000	101.9000	ug/L	2	10	
Antimony	100.0000	102.3000	ug/L	2	10	
Arsenic	100.0000	103.0000	ug/L	3	10	
Barium	100.0000	99.97000	ug/L	0	10	
Beryllium	100.0000	103.4000	ug/L	3	10	
Cadmium	100.0000	104.2000	ug/L	4	10	
Calcium	10000.00	10350.00	ug/L	4	10	
Chromium	100.0000	105.0000	ug/L	5	10	
Cobalt	100.0000	103.9000	ug/L	4	10	
Copper	100.0000	105.2000	ug/L	5	10	
Iron	10000.00	10540.00	ug/L	5	10	
Lead	100.0000	101.5000	ug/L	2	10	
Magnesium	10000.00	10450.00	ug/L	5	10	
Manganese	100.0000	104.8000	ug/L	5	10	
Molybdenum	100.0000	102.4000	ug/L	2	10	
Nickel	100.0000	104.2000	ug/L	4	10	
Potassium	10000.00	10550.00	ug/L	6	10	
Selenium	100.0000	105.2000	ug/L	5	10	
Silver	100.0000	196.9000	ug/L	**97**	10	v+ ***
Sodium	10000.00	10290.00	ug/L	3	10	
Thallium	100.0000	103.2000	ug/L	3	10	
Vanadium	100.0000	104.4000	ug/L	4	10	
Zinc	100.0000	103.6000	ug/L	4	10	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Lithium	1529624	1510791	-1.23
Scandium	1002290	990343	-1.19
Germanium	262060	266118	1.55
Indium	1418034	1364779	-3.76
Bismuth	1447203	1374511	-5.02

+=high bias v=ICV

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262012 Filename : h1523012 Injected : 16-AUG-2005 00:06
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Antimony	55328262001	15-AUG-2005	0.252700	0.250000	ug/L	ib ***
Arsenic	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Beryllium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Calcium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Chromium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Iron	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Lead	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Magnesium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Manganese	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Nickel	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Potassium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Selenium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Sodium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Thallium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	ND	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	ND	1.000000	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262013 Filename : h1523013 Injected : 16-AUG-2005 00:12
Standards: S1128, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55328262001	15-AUG-2005	2.558000	0.250000	ug/L	
Arsenic	55328262001	15-AUG-2005	0.679700	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	0.895700	0.250000	ug/L	
Beryllium	55328262001	15-AUG-2005	[0.0000]	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	[0.0350]	0.250000	ug/L	
Chromium	55328262001	15-AUG-2005	1.211000	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	2.653000	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	1.588000	0.500000	ug/L	
Lead	55328262001	15-AUG-2005	1.288000	0.250000	ug/L	
Manganese	55328262001	15-AUG-2005	0.936600	0.250000	ug/L	
Nickel	55328262001	15-AUG-2005	2.373000	0.250000	ug/L	
Selenium	55328262001	15-AUG-2005	1.579000	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	[0.1937]	0.250000	ug/L	
Thallium	55328262001	15-AUG-2005	[0.0416]	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	[0.0652]	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	9.054000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55328262001	15-AUG-2005	100000	102700	ug/L	103
Calcium	55328262001	15-AUG-2005	300000	311600	ug/L	104
Iron	55328262001	15-AUG-2005	250000	232400	ug/L	93
Magnesium	55328262001	15-AUG-2005	100000	105000	ug/L	105
Molybdenum	55328262001	15-AUG-2005	2000	2039	ug/L	102
Potassium	55328262001	15-AUG-2005	100000	102500	ug/L	103
Sodium	55328262001	15-AUG-2005	250000	243700	ug/L	97

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262014 Filename : h1523014 Injected : 16-AUG-2005 00:19
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1129, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	100600.0	ug/L	1		
Arsenic	100.0000	108.5000	ug/L	9	20	
Cadmium	100.0000	101.1000	ug/L	1	20	
Calcium	300000.0	309700.0	ug/L	3		
Chromium	200.0000	205.4000	ug/L	3	20	
Cobalt	200.0000	200.3000	ug/L	0	20	
Copper	200.0000	199.0000	ug/L	-1	20	
Iron	250000.0	222900.0	ug/L	-11		
Magnesium	100000.0	102200.0	ug/L	2		
Manganese	200.0000	199.5000	ug/L	0	20	
Molybdenum	2000.000	2046.000	ug/L	2		
Nickel	200.0000	199.3000	ug/L	0	20	
Potassium	100000.0	103800.0	ug/L	4		
Selenium	100.0000	99.13000	ug/L	-1	20	
Silver	50.00000	96.19000	ug/L	**92**	20	ab+ ***
Sodium	250000.0	240100.0	ug/L	-4		
Vanadium	200.0000	211.5000	ug/L	6	20	
Zinc	100.0000	102.0000	ug/L	2	20	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Scandium	1002290	882541	-11.95
Germanium	262060	249640	-4.74

+=high bias ab=ICSAB

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55328262023 Filename : h1523023 Injected : 16-AUG-2005 01:17
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1132, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	16.910	0.7395	150.0000	161.1000	ug/L	7	10	
Antimony	0.1573	0.1442	150.0000	151.4000	ug/L	1	10	
Arsenic	0.3309	0.2958	150.0000	155.3000	ug/L	4	10	
Barium	0.0824	0.0615	150.0000	148.9000	ug/L	-1	10	
Beryllium	0.1233	0.1088	150.0000	151.8000	ug/L	1	10	
Cadmium	0.3256	0.2392	150.0000	157.8000	ug/L	5	10	
Calcium	0.0252	0.0117	15000.00	15610.00	ug/L	4	10	
Chromium	2.3313	1.6087	150.0000	152.8000	ug/L	2	10	
Cobalt	2.5075	2.1211	150.0000	152.8000	ug/L	2	10	
Copper	0.7179	0.5687	150.0000	155.9000	ug/L	4	10	
Iron	0.0831	0.0461	15000.00	15210.00	ug/L	1	10	
Lead	0.7191	0.6435	150.0000	153.1000	ug/L	2	10	
Magnesium	0.1709	0.0693	15000.00	15610.00	ug/L	4	10	
Manganese	4.3663	2.1516	150.0000	153.0000	ug/L	2	10	
Molybdenum	0.7914	0.5515	150.0000	156.4000	ug/L	4	10	
Nickel	0.6623	0.4653	150.0000	154.9000	ug/L	3	10	
Potassium	0.8933	0.4662	15000.00	16030.00	ug/L	7	10	
Selenium	0.0667	0.0222	150.0000	154.5000	ug/L	3	10	
Silver	0.8277	1.1310	150.0000	284.4000	ug/L	**90**	10	>LR c+ ***
Sodium	7.7349	0.7735	15000.00	15800.00	ug/L	5	10	
Thallium	0.4959	0.4956	150.0000	157.7000	ug/L	5	10	
Vanadium	2.1829	1.8777	150.0000	154.7000	ug/L	3	10	
Zinc	0.6184	0.3050	150.0000	154.2000	ug/L	3	10	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Lithium	1529624	1557441	1.82
Scandium	1002290	994707	-0.76
Germanium	262060	266507	1.70
Indium	1418034	1359006	-4.16
Bismuth	1447203	1382867	-4.45

+=high bias >LR=overrange c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262026 Filename : h1523026 Injected : 16-AUG-2005 01:36
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Antimony	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Arsenic	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Beryllium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Calcium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Chromium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Iron	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Lead	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Magnesium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Manganese	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Nickel	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Potassium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Selenium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Sodium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Thallium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	ND	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	ND	1.000000	ug/L	

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55328262039 Filename : h1523039 Injected : 16-AUG-2005 02:59
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1132, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	16.910	0.7233	150.0000	156.4000	ug/L	4	10	
Antimony	0.1573	0.1392	150.0000	146.2000	ug/L	-3	10	
Arsenic	0.3309	0.2932	150.0000	153.9000	ug/L	3	10	
Barium	0.0824	0.0573	150.0000	138.8000	ug/L	-7	10	
Beryllium	0.1233	0.1102	150.0000	153.8000	ug/L	3	10	
Cadmium	0.3256	0.2477	150.0000	163.4000	ug/L	9	10	
Calcium	0.0252	0.0117	15000.00	15660.00	ug/L	4	10	
Chromium	2.3313	1.5780	150.0000	149.9000	ug/L	0	10	
Cobalt	2.5075	2.0673	150.0000	149.0000	ug/L	-1	10	
Copper	0.7179	0.5585	150.0000	153.1000	ug/L	2	10	
Iron	0.0831	0.0446	15000.00	14730.00	ug/L	-2	10	
Lead	0.7191	0.6530	150.0000	155.4000	ug/L	4	10	
Magnesium	0.1709	0.0675	15000.00	15200.00	ug/L	1	10	
Manganese	4.3663	2.0822	150.0000	148.0000	ug/L	-1	10	
Molybdenum	0.7914	0.5677	150.0000	161.0000	ug/L	7	10	
Nickel	0.6623	0.4521	150.0000	150.5000	ug/L	0	10	
Potassium	0.8933	0.4649	15000.00	15990.00	ug/L	7	10	
Selenium	0.0667	0.0222	150.0000	154.6000	ug/L	3	10	
Silver	0.8277	1.1657	150.0000	293.1000	ug/L	**95**	10	>LR c+ ***
Sodium	7.7349	0.7437	15000.00	15120.00	ug/L	1	10	
Thallium	0.4959	0.4992	150.0000	158.8000	ug/L	6	10	
Vanadium	2.1829	1.8432	150.0000	151.9000	ug/L	1	10	
Zinc	0.6184	0.2983	150.0000	150.8000	ug/L	1	10	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Lithium	1529624	1517874	-0.77
Scandium	1002290	1024813	2.25
Germanium	262060	273749	4.46
Indium	1418034	1461378	3.06
Bismuth	1447203	1481884	2.40

+=high bias >LR=overrange c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262043 Filename : h1523043 Injected : 16-AUG-2005 03:25
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55328262001	15-AUG-2005	[1.9140]	50.00000	ug/L	
Antimony	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Arsenic	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Beryllium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Calcium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Chromium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Iron	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Lead	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Magnesium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Manganese	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Molybdenum	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Nickel	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Potassium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Selenium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Sodium	55328262001	15-AUG-2005	ND	50.00000	ug/L	
Thallium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	ND	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	ND	1.000000	ug/L	

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262053 Filename : h1523053 Injected : 16-AUG-2005 04:29
Standards: S1128, 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	55328262001	15-AUG-2005	2.230000	0.250000	ug/L	
Arsenic	55328262001	15-AUG-2005	0.662000	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	1.052000	0.250000	ug/L	
Beryllium	55328262001	15-AUG-2005	[0.0338]	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	[0.2271]	0.250000	ug/L	
Chromium	55328262001	15-AUG-2005	1.302000	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	2.659000	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	1.746000	0.500000	ug/L	
Lead	55328262001	15-AUG-2005	1.390000	0.250000	ug/L	
Manganese	55328262001	15-AUG-2005	1.643000	0.250000	ug/L	
Nickel	55328262001	15-AUG-2005	2.396000	0.250000	ug/L	
Selenium	55328262001	15-AUG-2005	1.233000	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	0.353600	0.250000	ug/L	
Thallium	55328262001	15-AUG-2005	[0.0877]	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	[0.1806]	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	9.081000	1.000000	ug/L	

SPIKED INTERFERENTS

Analyte	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Aluminum	55328262001	15-AUG-2005	100000	99650	ug/L	100
Calcium	55328262001	15-AUG-2005	300000	317800	ug/L	106
Iron	55328262001	15-AUG-2005	250000	220200	ug/L	88
Magnesium	55328262001	15-AUG-2005	100000	100600	ug/L	101
Molybdenum	55328262001	15-AUG-2005	2000	2086	ug/L	104
Potassium	55328262001	15-AUG-2005	100000	105500	ug/L	106
Sodium	55328262001	15-AUG-2005	250000	236300	ug/L	95

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name : IDF : 1.0
Seqnum : 55328262055 Filename : h1523055 Injected : 16-AUG-2005 04:42
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1132, 05WS0207

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	16.910	0.8458	150.0000	191.7000	ug/L	**28**	10	c+ ***
Antimony	0.1573	0.1408	150.0000	147.8000	ug/L	-1	10	
Arsenic	0.3309	0.2998	150.0000	157.4000	ug/L	5	10	
Barium	0.0824	0.0553	150.0000	133.8000	ug/L	**-11**	10	c- ***
Beryllium	0.1233	0.1070	150.0000	149.2000	ug/L	-1	10	
Cadmium	0.3256	0.2580	150.0000	170.2000	ug/L	**13**	10	c+ ***
Calcium	0.0252	0.0123	15000.00	16390.00	ug/L	9	10	
Chromium	2.3313	1.6180	150.0000	153.7000	ug/L	2	10	
Cobalt	2.5075	2.1066	150.0000	151.8000	ug/L	1	10	
Copper	0.7179	0.5710	150.0000	156.5000	ug/L	4	10	
Iron	0.0831	0.0457	15000.00	15100.00	ug/L	1	10	
Lead	0.7191	0.6557	150.0000	156.0000	ug/L	4	10	
Magnesium	0.1709	0.0682	15000.00	15360.00	ug/L	2	10	
Manganese	4.3663	2.1314	150.0000	151.5000	ug/L	1	10	
Molybdenum	0.7914	0.5788	150.0000	164.2000	ug/L	9	10	
Nickel	0.6623	0.4620	150.0000	153.8000	ug/L	3	10	
Potassium	0.8933	0.4801	15000.00	16510.00	ug/L	10	10	
Selenium	0.0667	0.0228	150.0000	158.4000	ug/L	6	10	
Silver	0.8277	1.2107	150.0000	304.4000	ug/L	**103**	10	>LR c+ ***
Sodium	7.7349	0.7880	15000.00	16130.00	ug/L	8	10	
Thallium	0.4959	0.5053	150.0000	160.7000	ug/L	7	10	
Vanadium	2.1829	1.8934	150.0000	156.0000	ug/L	4	10	
Zinc	0.6184	0.3036	150.0000	153.4000	ug/L	2	10	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Lithium	1529624	1515681	-0.91
Scandium	1002290	962749	-3.95
Germanium	262060	248921	-5.01
Indium	1418034	1343162	-5.28
Bismuth	1447203	1427806	-1.34

+=high bias -=low bias >LR=overrange c=CCV
Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262059 Filename : h1523059 Injected : 16-AUG-2005 05:08
Standards: 05WS0207

Analyte	Calnum	Caldate	QuantAmt	RL	Units	Flags
Aluminum	55328262001	15-AUG-2005	[44.050]	50.00000	ug/L	
Antimony	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Arsenic	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Barium	55328262001	15-AUG-2005	0.316200	0.250000	ug/L	ib ***
Beryllium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Cadmium	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Calcium	55328262001	15-AUG-2005	126.2000	50.00000	ug/L	ib ***
Chromium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Cobalt	55328262001	15-AUG-2005	[0.0714]	0.250000	ug/L	
Copper	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Iron	55328262001	15-AUG-2005	51.50000	50.00000	ug/L	ib ***
Lead	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Magnesium	55328262001	15-AUG-2005	109.9000	50.00000	ug/L	ib ***
Manganese	55328262001	15-AUG-2005	0.591500	0.250000	ug/L	ib ***
Molybdenum	55328262001	15-AUG-2005	[0.4083]	0.500000	ug/L	
Nickel	55328262001	15-AUG-2005	ND	0.250000	ug/L	
Potassium	55328262001	15-AUG-2005	[47.510]	50.00000	ug/L	
Selenium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Silver	55328262001	15-AUG-2005	[0.1662]	0.250000	ug/L	
Sodium	55328262001	15-AUG-2005	576.0000	50.00000	ug/L	ib ***
Thallium	55328262001	15-AUG-2005	ND	0.500000	ug/L	
Vanadium	55328262001	15-AUG-2005	ND	1.000000	ug/L	
Zinc	55328262001	15-AUG-2005	ND	1.000000	ug/L	

ib=instrument blank

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET05 Run Name :
Seqnum : 55328262060 Filename : h1523060 Injected : 16-AUG-2005 05:14
Calnum : 55328262001 Caldate : 15-AUG-2005 Caltype :
Standards: S1129, 05WS0207

Analyte	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Aluminum	100000.0	99460.00	ug/L	-1		
Arsenic	100.0000	108.7000	ug/L	9	20	
Cadmium	100.0000	105.0000	ug/L	5	20	
Calcium	300000.0	318900.0	ug/L	6		
Chromium	200.0000	209.2000	ug/L	5	20	
Cobalt	200.0000	200.5000	ug/L	0	20	
Copper	200.0000	197.7000	ug/L	-1	20	
Iron	250000.0	221100.0	ug/L	-12		
Magnesium	100000.0	101100.0	ug/L	1		
Manganese	200.0000	200.5000	ug/L	0	20	
Molybdenum	2000.000	2095.000	ug/L	5		
Nickel	200.0000	199.0000	ug/L	-1	20	
Potassium	100000.0	105900.0	ug/L	6		
Selenium	100.0000	99.55000	ug/L	0	20	
Silver	50.00000	101.2000	ug/L	**102**	20	ab+ ***
Sodium	250000.0	235500.0	ug/L	-6		
Vanadium	200.0000	218.1000	ug/L	9	20	
Zinc	100.0000	100.9000	ug/L	1	20	

ISTD (ICALBLK=h1523003)	ICALBLK Abund	Abund	%Diff
Scandium	1002290	858031	-14.39
Germanium	262060	230976	-11.86

+=high bias ab=ICSAB

Curtis & Tompkins Laboratories Sample Preparation Summary 05-AUG-2005 09:47

Batch Number : 104577
Date Extracted: 05-AUG-2005
Extracted by : Kevin Gaines
Prep Method : 200.8

Analysis : N/A
Bgroup : ICAP
Units : mL
Clean-up :

Spike #1 ID : S21
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
180973-001			Mactec, Inc.	Filtrate	50	mL	50	1.000000	1				T26/ICP		
180973-001			Mactec, Inc.	Water	50	mL	50	1.000000	1				T26/ICP		
181037-002			URS Corporation	Water	50	mL	50	1.000000	1				SE		
181037-003			URS Corporation	Water	50	mL	50	1.000000	1				V		
181037-004			URS Corporation	Water	50	mL	50	1.000000	1				V		
181037-005			URS Corporation	Water	50	mL	50	1.000000	1				V		
181037-006			URS Corporation	Water	50	mL	50	1.000000	1				V		
181054-001			Montezuma Wetlands LLC	Filtrate	50	mL	50	1.000000	1				AG, AS, CD, (more)		
181054-002			Montezuma Wetlands LLC	Filtrate	50	mL	50	1.000000	1				AG, AS, CD, (more)		
181054-003			Montezuma Wetlands LLC	Filtrate	50	mL	50	1.000000	1				AG, AS, CD, (more)		
181054-004			Montezuma Wetlands LLC	Filtrate	50	mL	50	1.000000	1				AG, AS, CD, (more)		
QC304009	BLANK			Water	50	mL	50	1.000000	1				ICAP		
QC304010	BS			Water	50	mL	50	1.000000	1	.5			ICAP		
QC304011	BSD			Water	50	mL	50	1.000000	1	.5			ICAP		
QC304012	MS	of 180973-001		Water	50	mL	50	1.000000	1	.5			ICAP		
QC304013	MSD	of 180973-001		Water	50	mL	50	1.000000	1	.5			ICAP		
QC304014	SER	of 180973-001		Water	50	mL	50	1.000000	1				ICAP		
QC304015	PDS	of 180973-001		Water	50	mL	50	1.000000	1				ICAP		

107

Prep Chemist: [signature] 8/5/05 Reviewed By: [signature] Date: 8/10/05

Relinquished By: [signature] 8/5/05 Received By: [signature] Date: 8/10/05

Water Digestion for ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 104577
Date Digested: 8/5/05
Digested by: [signature]

Digestion Method
☒ EPA 200.8 for ICP-MS
☐ _____

BK 2159
Page 45

Sample # and letter	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
BLK	50	50	N	
BS				
BSD				
MS-01A				
MSD-01				
180973-01				
037-01				
-02				
-03				
-04				
-05				
-06				
973-01B				FIELD FILTERED
054-01D				
-02A				
-03D				
-04A				

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90-95 degrees C)	93	KHS 8/5
.5 mL of spike solution was added to all spikes	S-21	
concentrated HCl	B13025 BAKER	
concentrated HNO3	B17028 BAKER	
☐ filtered thru' Whatman # 541	N/A	

[signature] 8/5/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

[signature]
Reviewed by / Date

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 13-AUG-2005
Sequence: 55324690 (h1311)
Instrument ID: MET05

ICALBLK Filename: h1311003
Date Analyzed: 13-AUG-2005
Time Analyzed: 11:42

		IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
	ICALBLK STD	1608062	1832172	404296	2915781	2505984	4382174
	LOWER LIMIT	482419	549652	121289	874734	751795	1314652
	UPPER LIMIT	1929674	2198606	485155	3498937	3007181	5258609

TYPE	SAMPLE	#						
ICB		012	1664066	1746331	398527	2803636	2491889	4293802
ICSA		013	1348334	1697557	371278	2519661	1942468	3861327
CCV		023	1608631	1762382	411844	2706403	2405066	4318593
CCB		025	1686487	1763576	401788	2815775	2532515	4342286
SAMPLE	181123-017	026	1717822	1810699	425116	2910100	2651256	4536983
SAMPLE	181123-020	027	1717232	1737984	412795	2810882	2567662	4424335
BLANK	QC304009	029	1751012	1781487	412554	2831648	2599024	4443879
BS	QC304010	030	1562266	1546481	364009	2339135	2156275	3961058
BSD	QC304011	031	1562279	1548534	372992	2366835	2178493	4005616
MSS	180973-001	032	1537342	1650520	370555	2354322	1988742	4076026
SER	QC304014	033	1687214	1846683	428305	2802665	2350116	4422081
MS	QC304012	034	1494560	1633598	373361	2331181	1981855	4005279
MSD	QC304013	035	1476145	1702656	378556	2406415	1990803	4080277
PDS	QC304015	036	1418328	1650754	371823	2330053	1937021	3882782
CCV		038	1709585	1709072	420718	2652378	2335969	4235405
CCB		041	1857325	1823508	435929	2878579	2538253	4445820
SAMPLE	181054-003	042	949405	1355402	256970	1644437	942361	2371003
SAMPLE	181054-004	043	859205	1403213	250205	1572758	857839	2208628
SAMPLE	181037-002	046	1385901	1435066	346024	2247141	2607822	4483196
SAMPLE	181037-003	047	1416952	1445510	343482	2248158	2557763	4459565
SAMPLE	181037-004	048	1430145	1491566	353432	2310910	2512921	4470892
SAMPLE	181037-005	049	1513971	1593871	367000	2423378	2536694	4497814
SAMPLE	181037-006	050	1511791	1621108	370573	2459125	2454292	4402250
SAMPLE	180973-001	051	1461017	1549143	355146	2287163	2094725	4156808
MS	QC304012	052	1532213	1672336	393946	2470437	2263497	4438451
CCV		055	1675226	1671773	425043	2585982	2389623	4427421
CCB		059	1661875	1606487	413006	2565124	2568985	4509597
ICSA		060	1299923	1333191	351275	2035959	1859899	3740057

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 16-AUG-2005 ICALBLK Filename: h1523003
Sequence: 55328262 (h1523) Date Analyzed: 15-AUG-2005
Instrument ID: MET05 Time Analyzed: 23:13

	IS1 (LI) READING	IS2 (SC) READING	IS3 (GE) READING	IS4 (IN) READING	IS5 (BI) READING	IS6 (TB) READING
ICALBLK STD	1529624	1002290	262060	1418034	1447203	2380272
LOWER LIMIT	458887	300687	78618	425410	434161	714082
UPPER LIMIT	1835549	1202748	314472	1701641	1736644	2856326

TYPE	SAMPLE	#						
ICB		012	1579783	1043454	271788	1478025	1495728	2444400
ICSA		013	1263974	878824	248400	1174724	1060521	2083333
CCV		023	1557441	994707	266507	1359006	1382867	2319506
CCB		026	1588273	997956	258749	1401367	1445251	2322333
MS	QC304012	027	1445366	947900	241693	1241709	1181638	2134618
MSD	QC304013	028	1448459	971738	244782	1261015	1194251	2140120
BLANK	QC303720	030	1620521	1038320	270232	1476936	1486972	2385568
BS	QC303721	031	1498580	962697	248055	1289297	1288875	2170720
BSD	QC303722	032	1537946	972767	251924	1299231	1298503	2189183
MSS	180970-002	033	1274315	930338	236196	1209176	1068236	2141398
SER	QC303725	034	1464342	1052749	274330	1422209	1363965	2422385
MS	QC303723	035	1223658	899326	234634	1179695	1087396	2114103
MSD	QC303724	036	1236409	911629	236188	1206632	1113045	2162008
PDS	QC303726	037	1174238	887854	231410	1189165	1134276	2161669
CCV		039	1517874	1024813	273749	1461378	1481884	2402808
CCB		043	1584257	1040176	265836	1473921	1543276	2361598
SAMPLE	180970-003	044	1402048	967120	246422	1271093	1228188	2226936
SAMPLE	180970-004	045	1270652	932718	235873	1230410	1077241	2124164
SAMPLE	180970-005	046	1300484	922442	242134	1224856	1112024	2131129
SAMPLE	180846-001	047	1283008	941808	239811	1231948	1064157	2141708
SAMPLE	181003-002	048	1522845	995366	261431	1303541	1303784	2345333
SAMPLE	181003-002	049	1715503	855006	263086	1153199	1088556	2221586
SAMPLE	181003-003	050	1413639	1004126	257815	1354615	1373464	2250570
SAMPLE	181004-002	051	1312982	958547	239008	1256711	1168523	2181615
SAMPLE	181004-003	052	1589204	1050099	264862	1488277	1548867	2315682
ICSA		053	1263351	870188	238536	1165149	1126063	1947934
CCV		055	1515681	962749	248921	1343162	1427806	2125471
CCB		059	1589462	1003780	251971	1424021	1507363	2189679

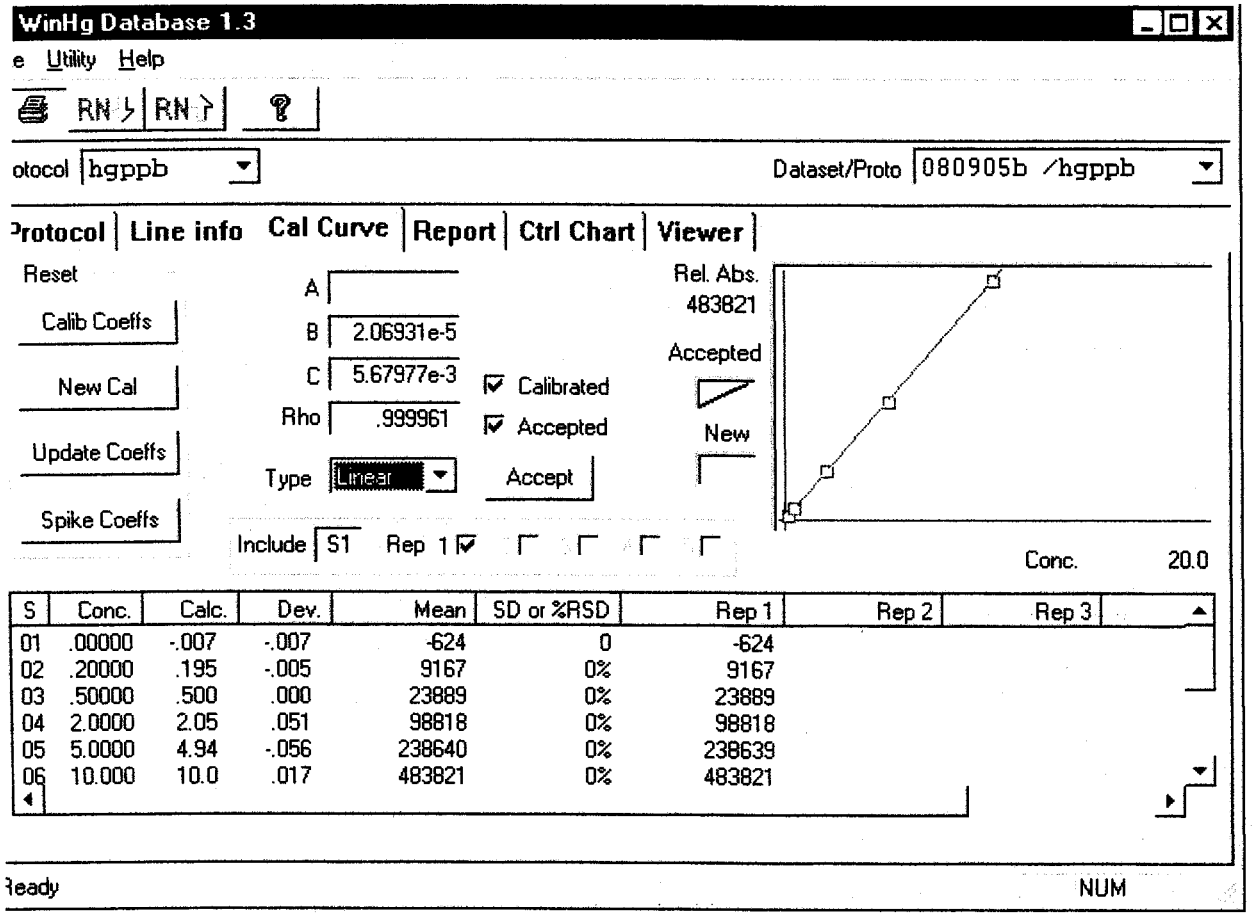
SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45319309 Instrument: MET04 HydraAA HG Analyzer Begun: 09-AUG-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	104678	ICALBLK	Std01Rep1				09-AUG-2005 17:49	1.0	1.0									
002	104678	ICAL	Std02Rep1				09-AUG-2005 17:51	1.0	1.0									
003	104678	ICAL	Std03Rep1				09-AUG-2005 17:53	1.0	1.0									
004	104678	ICAL	Std04Rep1				09-AUG-2005 17:55	1.0	1.0									
005	104678	ICAL	Std05Rep1				09-AUG-2005 17:57	1.0	1.0									
006	104678	ICAL	Std06Rep1				09-AUG-2005 17:59	1.0	1.0									
007	104678	ICV					09-AUG-2005 18:53	1.0	1.0	2	5.000	45319309001	4.970		ug/L	99		
008	104678	ICB					09-AUG-2005 18:55	1.0	1.0			45319309001	ND	0.20	ug/L			
009	104678	BLANK	QC304442		104678	Filtra	09-AUG-2005 18:58	1.0	1.0			45319309001	ND	0.20	ug/L			u
010	104678	BS	QC304443		104678	Filtra	09-AUG-2005 19:00	1.0	1.0		5.000	45319309001	4.650	0.20	ug/L	93		u
011	104678	BSD	QC304444		104678	Filtra	09-AUG-2005 19:02	1.0	1.0		5.000	45319309001	4.340	0.20	ug/L	87	7	u
012	104678	MSS	181114-003		104678	Filtra	09-AUG-2005 19:03	1.0	1.0			45319309001	ND	0.20	ug/L			u
013	104678	MS	QC304445	181114-003	104678	Filtra	09-AUG-2005 19:05	1.0	1.0		5.000	45319309001	5.070	0.20	ug/L	101		u
014	104678	MSD	QC304446	181114-003	104678	Filtra	09-AUG-2005 19:07	1.0	1.0		5.000	45319309001	5.150	0.20	ug/L	103	2	u
015	104678	SAMPLE	180973-001		104678	Water	09-AUG-2005 19:08	1.0	1.0			45319309001	ND	0.20	ug/L			u
016	104678	SAMPLE	181004-002		104678	Filtra	09-AUG-2005 19:11	1.0	1.0			45319309001	ND	0.20	ug/L			u
017	104678	SAMPLE	181004-003		104678	Filtra	09-AUG-2005 19:13	1.0	1.0			45319309001	ND	0.20	ug/L			u
018	104678	SAMPLE	181021-001		104678	Filtra	09-AUG-2005 19:15	1.0	1.0			45319309001	ND	0.20	ug/L			u
019	104678	CCV					09-AUG-2005 19:16	1.0	1.0	3	2.500	45319309001	2.590		ug/L	104		
020	104678	CCB					09-AUG-2005 19:18	1.0	1.0			45319309001	ND	0.20	ug/L			
021	104678	SAMPLE	181021-002		104678	Filtra	09-AUG-2005 19:20	1.0	1.0			45319309001	ND	0.20	ug/L			u
022	104678	SAMPLE	181069-010		104678	Water	09-AUG-2005 19:22	1.0	1.0			45319309001	ND	0.20	ug/L			u
023	104678	SAMPLE	181113-001		104678	Filtra	09-AUG-2005 19:24	1.0	1.0			45319309001	ND	0.20	ug/L			u
024	104678	SAMPLE	181113-002		104678	Filtra	09-AUG-2005 19:26	1.0	1.0			45319309001	ND	0.20	ug/L			u
025	104678	SAMPLE	181113-003		104678	Filtra	09-AUG-2005 19:28	1.0	1.0			45319309001	ND	0.20	ug/L			u
026	104678	SAMPLE	181113-004		104678	Filtra	09-AUG-2005 19:30	1.0	1.0			45319309001	ND	0.20	ug/L			u
027	104678	SAMPLE	181113-005		104678	Filtra	09-AUG-2005 19:31	1.0	1.0			45319309001	ND	0.20	ug/L			u
028	104678	SAMPLE	181113-006		104678	Filtra	09-AUG-2005 19:33	1.0	1.0			45319309001	ND	0.20	ug/L			u
029	104678	SAMPLE	181113-007		104678	Filtra	09-AUG-2005 19:35	1.0	1.0			45319309001	ND	0.20	ug/L			u
030	104678	SAMPLE	181113-008		104678	Filtra	09-AUG-2005 19:36	1.0	1.0			45319309001	ND	0.20	ug/L			u
031	104678	CCV					09-AUG-2005 19:38	1.0	1.0	4	5.000	45319309001	5.180		ug/L	104		
032	104678	CCB					09-AUG-2005 19:40	1.0	1.0			45319309001	[0.02800]	0.20	ug/L			
033	104678	SAMPLE	181113-009		104678	Filtra	09-AUG-2005 19:42	1.0	1.0			45319309001	ND	0.20	ug/L			u
034	104678	SAMPLE	181113-010		104678	Filtra	09-AUG-2005 19:44	1.0	1.0			45319309001	ND	0.20	ug/L			u
035	104678	SAMPLE	181113-011		104678	Filtra	09-AUG-2005 19:46	1.0	1.0			45319309001	ND	0.20	ug/L			u
036	104678	SAMPLE	181114-001		104678	Filtra	09-AUG-2005 19:48	1.0	1.0			45319309001	ND	0.20	ug/L			u
037	104678	SAMPLE	181114-002		104678	Filtra	09-AUG-2005 19:50	1.0	1.0			45319309001	ND	0.20	ug/L			u
038	104678	CCV					09-AUG-2005 19:52	1.0	1.0	5	7.500	45319309001	7.490		ug/L	100		
039	104678	CCB					09-AUG-2005 19:54	1.0	1.0			45319309001	[0.01100]	0.20	ug/L			

Stds used: 1=S1294 2=S1296 3=S1297 4=S1298 5=S1299
Flags used: u=use

Analyst: AMarow Date: 8/9/05


WinHg Database 1.3
e Utility Help
RN
RN
otocol hgppb
Dataset/Proto 080905b /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.06931e-5
C 5.67977e-3
Rho .999961
Type Linear
Calibrated
Accepted
Accept
Include S1
Rep 1
Rel. Abs.
483821
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.007 -.007 -624 0 -624
02 .20000 .195 -.005 9167 0% 9167
03 .50000 .500 .000 23889 0% 23889
04 2.0000 2.05 .051 98818 0% 98818
05 5.0000 4.94 -.056 238640 0% 238639
06 10.000 10.0 .017 483821 0% 483821
Ready
NUM

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45319309001 Name: Type: WATER Date: 09-AUG-2005 17:49 Inj Vol (uL): 2000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	104678	45319309002	Std02Rep1	09-AUG-2005 17:51	S1294 (500X)
2	104678	45319309003	Std03Rep1	09-AUG-2005 17:53	S1294 (200X)
3	104678	45319309004	Std04Rep1	09-AUG-2005 17:55	S1294 (50X)
4	104678	45319309005	Std05Rep1	09-AUG-2005 17:57	S1294 (20X)
5	104678	45319309006	Std06Rep1	09-AUG-2005 17:59	S1294 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	45835	47778	49409	47728	48382	LINR	R	0.005680	2.069E-5		ug/L	47826	1.000	.99	

113

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		17:49:33 09 Aug 05			HG
Hg	.000	ppb	-624						
		Bkgd 1	9949745						
*** Standard: 2 Rep: 1				Seq: 2		17:51:32 09 Aug 05			HG
Hg	.200	ppb	9167						
		Bkgd 1	9950831						
*** Standard: 3 Rep: 1				Seq: 3		17:53:14 09 Aug 05			HG
Hg	.500	ppb	23889						
		Bkgd 1	9951371						
*** Standard: 4 Rep: 1				Seq: 4		17:55:37 09 Aug 05			HG
Hg	2.00	ppb	98818						
		Bkgd 1	9948165						
*** Standard: 5 Rep: 1				Seq: 5		17:57:19 09 Aug 05			HG
Hg	5.00	ppb	238639						
		Bkgd 1	9944251						
*** Standard: 6 Rep: 1				Seq: 6		17:59:03 09 Aug 05			HG
Hg	10.0	ppb	483821						
		Bkgd 1	9940500						
*** Check Standard: 2			Ck2s1296	Seq: 7		18:53:09 09 Aug 05			HG
Line	Flag		Intensities						
Hg			239790						
		Bkgd 1	9961223						
*** Check Standard: 1			Ck1ICB	Seq: 8		18:55:30 09 Aug 05			HG
Line	Flag		Intensities						
Hg			-1893						
		Bkgd 1	9957727						
*** Sample ID: qc304442				Seq: 9		18:58:31 09 Aug 05			HG
			104678,1						
Hg	-.002	ppb	-373						
		Bkgd 1	9957639						

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: qc304443				Seq: 10	19:00:10 09 Aug 05	HG		
			104678,1					
Hg	4.65	ppb	224260					
		Bkgd 1	9956671					
*** Sample ID: qc304444				Seq: 11	19:02:08 09 Aug 05	HG		
			104678,1					
Hg	4.34	ppb	209234					
		Bkgd 1	9956373					
*** Sample ID: 181114-003				Seq: 12	19:03:47 09 Aug 05	HG		
			104678,1					
Hg	-.019	ppb	-1201					
		Bkgd 1	9953830					
*** Sample ID: qc304445				Seq: 13	19:05:26 09 Aug 05	HG		
			104678,1					
Hg	5.07	ppb	244858					
		Bkgd 1	9954990					
*** Sample ID: qc304446				Seq: 14	19:07:04 09 Aug 05	HG		
			104678,1					
Hg	5.15	ppb	248606					
		Bkgd 1	9949924					
*** Sample ID: 180973-001				Seq: 15	19:08:43 09 Aug 05	HG		
			104678,1					
Hg	-.028	ppb	-1629					
		Bkgd 1	9948664					
*** Sample ID: 181004-002				Seq: 16	19:11:06 09 Aug 05	HG		
			104678,1					
Hg	.013	ppb	365					
		Bkgd 1	9950799					
*** Sample ID: 181004-003				Seq: 17	19:13:01 09 Aug 05	HG		
			104678,1					
Hg	.013	ppb	336					
		Bkgd 1	9951295					

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 181021-001				Seq: 18	19:15:04 09 Aug 05	HG			
			104678,1						
Hg	.048	ppb	2057						
		Bkgd 1	9950088						=
									=
*** Check Standard: 3			Ck3s1297	Seq: 19	19:16:48 09 Aug 05	HG			
Line	Flag		Intensities						
Hg			124882						
		Bkgd 1	9951451						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 20	19:18:32 09 Aug 05	HG			
Line	Flag		Intensities						
Hg			-934						
		Bkgd 1	9952043						=
									=
*** Sample ID: 181021-002				Seq: 21	19:20:17 09 Aug 05	HG			
			104678,1						
Hg	.005	ppb	-54						
		Bkgd 1	9953798						=
									=
*** Sample ID: 181069-010				Seq: 22	19:22:30 09 Aug 05	HG			
			104678,1						
Hg	.081	ppb	3624						
		Bkgd 1	9954434						=
									=
*** Sample ID: 181113-001				Seq: 23	19:24:08 09 Aug 05	HG			
			104678,1						
Hg	.034	ppb	1356						
		Bkgd 1	9952618						=
									=
*** Sample ID: 181113-002				Seq: 24	19:26:29 09 Aug 05	HG			
			104678,1						
Hg	.017	ppb	524						
		Bkgd 1	9952255						=
									=
*** Sample ID: 181113-003				Seq: 25	19:28:08 09 Aug 05	HG			
			104678,1						
Hg	.032	ppb	1257						
		Bkgd 1	9952815						=
									=

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 181113-004				Seq: 26	19:30:08 09 Aug 05	HG		
			104678,1					
Hg	.029	ppb	1106					
		Bkgd 1	9954522					
*** Sample ID: 181113-005				Seq: 27	19:31:49 09 Aug 05	HG		
			104678,1					
Hg	.024	ppb	862					
		Bkgd 1	9955955					
*** Sample ID: 181113-006				Seq: 28	19:33:32 09 Aug 05	HG		
			104678,1					
Hg	-.050	ppb	-2699					
		Bkgd 1	9956982					
*** Sample ID: 181113-007				Seq: 29	19:35:12 09 Aug 05	HG		
			104678,1					
Hg	.012	ppb	329					
		Bkgd 1	9961331					
*** Sample ID: 181113-008				Seq: 30	19:36:56 09 Aug 05	HG		
			104678,1					
Hg	-.006	ppb	-558					
		Bkgd 1	9963521					
*** Check Standard: 5			Ck5s1298	Seq: 31	19:38:41 09 Aug 05	HG		
Line	Flag		Intensities					
Hg			250228					
		Bkgd 1	9965085					
*** Check Standard: 6			Ck6CCB	Seq: 32	19:40:40 09 Aug 05	HG		
Line	Flag		Intensities					
Hg			1071					
		Bkgd 1	9962555					
*** Sample ID: 181113-009				Seq: 33	19:42:44 09 Aug 05	HG		
			104678,1					
Hg	.055	ppb	2369					
		Bkgd 1	9961004					

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 181113-010				Seq: 34	19:44:36 09 Aug 05	HG			
				104678,1					
Hg	-.007	ppb	-603						
		Bkgd 1	9956146						=
									=
*** Sample ID: 181113-011				Seq: 35	19:46:19 09 Aug 05	HG			
				104678,1					
Hg	.027	ppb	1010						
		Bkgd 1	9956854						=
									=
*** Sample ID: 181114-001				Seq: 36	19:48:27 09 Aug 05	HG			
				104678,1					
Hg	.027	ppb	1022						
		Bkgd 1	9958443						=
									=
*** Sample ID: 181114-002				Seq: 37	19:50:26 09 Aug 05	HG			
				104678,1					
Hg	.021	ppb	726						
		Bkgd 1	9959395						=
									=
*** Check Standard: 4			Ck4s1299	Seq: 38	19:52:05 09 Aug 05	HG			
Line	Flag		Intensities						
Hg			361758						
		Bkgd 1	9959541						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 39	19:54:16 09 Aug 05	HG			
Line	Flag		Intensities						
Hg			269						
		Bkgd 1	9958216						=
									=

Curtis & Tompkins Laboratories Sample Preparation Summary 09-AUG-2005 17:17

Batch Number : 104678
Date Extracted: 09-AUG-2005
Extracted by : Aaron Maroni
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : mL
Clean-up :

Spike #1 ID : S1294
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
180973-001			Mactec, Inc.	Water	50	mL	50	1.000000	1					T26/HG		
181004-002			MWH	Filtrate	50	mL	50	1.000000	1					TAL/HG		
181004-003			MWH	Filtrate	50	mL	50	1.000000	1					TAL/HG		
181021-001			MWH	Filtrate	50	mL	50	1.000000	1					TAL/HG		
181021-002			MWH	Filtrate	50	mL	50	1.000000	1					TAL/HG		
181069-010			Weston Solutions	Water	50	mL	50	1.000000	1					HG		
181113-001			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-002			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-003			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-004			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-005			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-006			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-007			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-008			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-009			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-010			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181113-011			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181114-001			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181114-002			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
181114-003			Tetra Tech EC, Inc.	Filtrate	50	mL	50	1.000000	1					T26/HG		
QC304442	BLANK			Filtrate	50	mL	50	1.000000	1					HG		
QC304443	BS			Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC304444	BSD			Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC304445	MS	of 181114-003		Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC304446	MSD	of 181114-003		Filtrate	50	mL	50	1.000000	1		2.5			HG		
QC304447	SER	of 181114-003		Filtrate	50	mL	50	1.000000	1					HG		
QC304448	PDS	of 181114-003		Filtrate	50	mL	50	1.000000	1					HG		

Prep Chemist: A Maroni 8/9/05 Reviewed By: _____ Date: _____

Relinquished By: A Maroni 8/9/05 Received By: A Maroni Date: 8/9/05

d. **Water Digestion for Mercury**

Curtis & Tompkins, Ltd.

LIMS Batch #: 104678
Date Digested: 8/9/05
Digested by: BAM

Digestion Method
☑ EPA 7470A/ EPA 245.1
☐ _____

BK 1929
Page 33

	Sample # and letter	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
	180973-1 B	50	50	N	
	181004-2 O				
	↓ -3 N				
	181021-1 I				
5	↓ -2 I				
	181069-10 H				
	181113-1 A				
	-2				
	-3				
10	-4				
	-5				
	-6				
	-7				
	-8				
15	-9				
	-10				
	-11				
	181114-1 A				
	-2				
20	↓ -3 ↓ MS				
	Blank				
	BS				
	BSD				
	MS				
	MSD				

Date
8/9/05

2.5 mL of spike solution was added to all spikes

Digestion of Samples & Standards:

	Reagent ID/ LIMS# / Time	Initials / Date
	S1294	BAM 8/9/05
ICAL Source WS#	S1294	
ICV / CCV WS#	S1296, 97, 98, 99	
Time ON / Temperature ON	5:00 @ 95°C	
Time OFF/ Temperature OFF	7:00 @ 95°C	
concentrated H_2SO_4	Baker B03852	
concentrated HNO_3	Baker B17078	
5% $KMnO_4$	K 080505	
5% $K_2S_2O_8$	~~K2~~ 072605	
NaCl.hydroxylamine hydrochloride	Hyd 072605	
Stannous Chloride	$SnCl_2$ 080505	↓
☐ filtered thru' 0.45 um syringe filter	—	—

BMerton 8/9/05
Prep Chemist / Date

Continued from page 120

Continued on page

N Mus
Reviewed by / Date

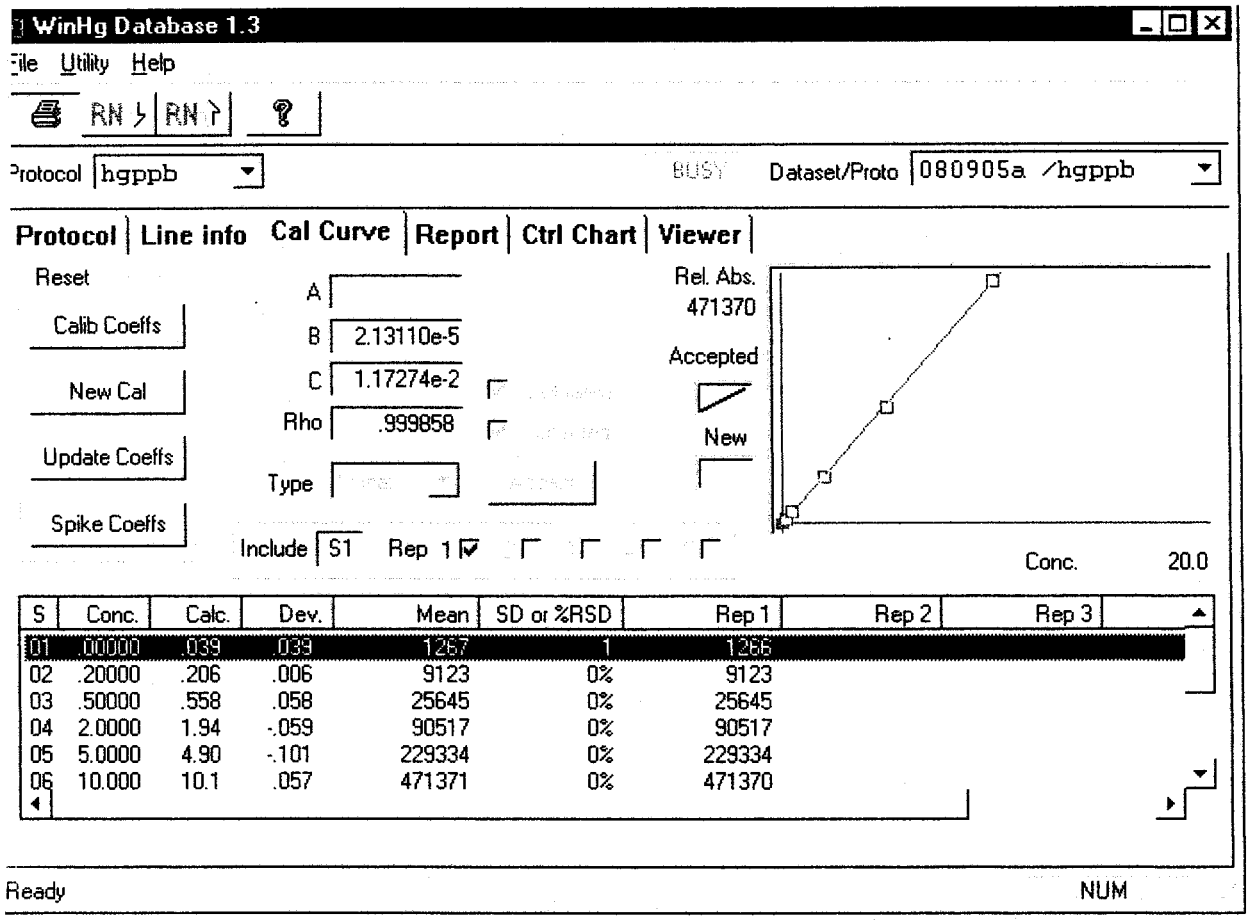
SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45319220 Instrument: MET04 HydraAA HG Analyzer Begun: 09-AUG-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	104666	CCV					09-AUG-2005 16:20	1.0	1.0	1	5.000	45319113001	5.220		ug/L	104		
002	104666	CCB					09-AUG-2005 16:21	1.0	1.0			45319113001	[0.008000]	0.20	ug/L			u
003	104666	BLANK	QC304394		104666	Water	09-AUG-2005 16:23	1.0	1.0			45319113001	ND	0.20	ug/L			u
004	104666	BS	QC304395		104666	Water	09-AUG-2005 16:25	1.0	1.0		7.500	45319113001	7.170	0.20	ug/L	96		u
005	104666	BSD	QC304396		104666	Water	09-AUG-2005 16:27	1.0	1.0		7.500	45319113001	7.260	0.20	ug/L	97	1	u
006	104666	MSS	181083-001		104666	Water	09-AUG-2005 16:29	1.0	1.0			45319113001	ND	0.20	ug/L			u
007	104666	MS	QC304397	181083-001	104666	Water	09-AUG-2005 16:30	1.0	1.0		7.500	45319113001	7.340	0.20	ug/L	98		u
008	104666	MSD	QC304398	181083-001	104666	Water	09-AUG-2005 16:32	1.0	1.0		7.500	45319113001	7.190	0.20	ug/L	96	2	u
009	104666	SAMPLE	180973-001		104666	Filtra	09-AUG-2005 16:34	1.0	1.0			45319113001	ND	0.20	ug/L			u
010	104666	SAMPLE	180984-005		104666	Water	09-AUG-2005 16:36	1.0	1.0			45319113001	ND	0.20	ug/L			u
011	104666	SAMPLE	181007-001		104666	Water	09-AUG-2005 16:38	1.0	1.0			45319113001	0.65	0.20	ug/L			u
~~012~~	~~104666~~	~~SAMPLE~~	~~181091-001~~		~~104666~~	~~Water~~	~~09-AUG-2005 16:40~~	~~1.0~~	~~1.0~~			~~45319113001~~	~~ND~~	~~0.20~~	~~ug/L~~	SPS 08/10/05		
013	104666	CCV					09-AUG-2005 16:42	1.0	1.0	2	2.500	45319113001	2.710		ug/L	108		
014	104666	CCB					09-AUG-2005 16:43	1.0	1.0			45319113001	ND	0.20	ug/L			
015	104666	SAMPLE	181091-002		104666	Water	09-AUG-2005 16:45	1.0	1.0			45319113001	ND	0.20	ug/L			u
016	104666	SAMPLE	181091-003		104666	Water	09-AUG-2005 16:47	1.0	1.0			45319113001	ND	0.20	ug/L			u
017	104666	SAMPLE	181091-004		104666	Water	09-AUG-2005 16:49	1.0	1.0			45319113001	ND	0.20	ug/L			u
018	104666	SAMPLE	181091-005		104666	Water	09-AUG-2005 16:51	1.0	1.0			45319113001	ND	0.20	ug/L			u
019	104666	SAMPLE	181091-006		104666	Water	09-AUG-2005 16:54	1.0	1.0			45319113001	0.080 J	0.20	ug/L			B u
020	104666	SAMPLE	181091-007		104666	Water	09-AUG-2005 16:56	1.0	1.0			45319113001	0.13 J	0.20	ug/L			u
021	104666	SAMPLE	181091-008		104666	Water	09-AUG-2005 16:57	1.0	1.0			45319113001	ND	0.20	ug/L			u
022	104666	SAMPLE	181091-009		104666	Water	09-AUG-2005 16:59	1.0	1.0			45319113001	ND	0.20	ug/L			u
023	104666	SAMPLE	181091-010		104666	Water	09-AUG-2005 17:01	1.0	1.0			45319113001	ND	0.20	ug/L			u
024	104666	SAMPLE	181091-011		104666	Water	09-AUG-2005 17:03	1.0	1.0			45319113001	ND	0.20	ug/L			u
025	104666	CCV					09-AUG-2005 17:05	1.0	1.0	1	5.000	45319113001	5.370		ug/L	107		
026	104666	CCB					09-AUG-2005 17:06	1.0	1.0			45319113001	[0.04500]	0.20	ug/L			
027	104666	SAMPLE	181093-001		104666	Water	09-AUG-2005 17:08	1.0	1.0			45319113001	0.11 J	0.20	ug/L			u
028	104666	SAMPLE	181093-002		104666	Water	09-AUG-2005 17:10	1.0	1.0			45319113001	ND	0.20	ug/L			u
029	104666	CCV					09-AUG-2005 17:12	1.0	1.0	3	7.500	45319113001	7.920		ug/L	106		
030	104666	CCB					09-AUG-2005 17:13	1.0	1.0			45319113001	ND	0.20	ug/L			

Stds used: 1=S1298 2=S1297 3=S1299
Flags used: B=method blank contamination u=use

Analyst: [signature] Date: 081005


WinHg Database 1.3
File Utility Help
Protocol hgppb
BUSY
Dataset/Proto 080905a /hgppb
Protocol Line info Cal Curve Report Ctrl Chart Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.13110e-5
C 1.17274e-2
Rho .999858
Type
Include S1 Rep 1
Rel. Abs.
471370
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .039 .039 1267 1 1266
02 .20000 .206 .006 9123 0% 9123
03 .50000 .558 .058 25645 0% 25645
04 2.0000 1.94 -.059 90517 0% 90517
05 5.0000 4.90 -.101 229334 0% 229334
06 10.000 10.1 .057 471371 0% 471370
Ready
NUM

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45319113001 Name: Type: WATER Date: 09-AUG-2005 14:33 Inj Vol (uL): 2000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	104660	45319113002	Std02Rep1	09-AUG-2005 14:35	S1294 (500X)
2	104660	45319113003	Std03Rep1	09-AUG-2005 14:37	S1294 (200X)
3	104660	45319113004	Std04Rep1	09-AUG-2005 14:39	S1294 (50X)
4	104660	45319113005	Std05Rep1	09-AUG-2005 14:41	S1294 (20X)
5	104660	45319113006	Std06Rep1	09-AUG-2005 14:42	S1294 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	45615	51290	45259	45867	47137	LINR	R	0.011727	2.131E-5		ug/L	47033	1.000	.99	

123

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

Protocol: hgppb

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 2		14:33:58 09 Aug 05		HG	
Hg	.000	ppb	1266						
		Bkgd 1	9938800						= =
*** Standard: 2 Rep: 1				Seq: 3		14:35:49 09 Aug 05		HG	
Hg	.200	ppb	9123						
		Bkgd 1	9936707						= =
*** Standard: 3 Rep: 1				Seq: 4		14:37:49 09 Aug 05		HG	
Hg	.500	ppb	25645						
		Bkgd 1	9937991						= =
*** Standard: 4 Rep: 1				Seq: 5		14:39:29 09 Aug 05		HG	
Hg	2.00	ppb	90517						
		Bkgd 1	9934553						= =
*** Standard: 5 Rep: 1				Seq: 6		14:41:12 09 Aug 05		HG	
Hg	5.00	ppb	229334						
		Bkgd 1	9929504						= =
*** Standard: 6 Rep: 1				Seq: 7		14:42:52 09 Aug 05		HG	
Hg	10.0	ppb	471370						
		Bkgd 1	9925660						= =
*** Check Standard: 2			Ck2s1296	Seq: 8		14:54:21 09 Aug 05		HG	
Line	Flag		Intensities						
Hg			240633						
		Bkgd 1	9915958						= =
*** Check Standard: 1			CklICB	Seq: 9		14:56:19 09 Aug 05		HG	
Line	Flag		Intensities						
Hg			188						
		Bkgd 1	9914672						= =
*** Sample ID: qc304361				Seq: 10		14:58:09 09 Aug 05		HG	
			104660,1						
Hg	.053	ppb	1943						
		Bkgd 1	9916443						= =

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Check Standard: 5			Ck5s1298	Seq: 1		16:20:16 09 Aug 05			HG
Line	Flag		Intensities						
Hg			244599						
		Bkgd 1	9942807						
*** Check Standard: 6			Ck6CCB	Seq: 2		16:21:58 09 Aug 05			HG
Line	Flag		Intensities						
Hg			-159						
		Bkgd 1	9942692						
*** Sample ID: qc304394			104666	Seq: 3		16:23:39 09 Aug 05			HG
			104666,1						
Hg	.048	ppb	1691						
		Bkgd 1	9943775						
*** Sample ID: qc304395			104666	Seq: 4		16:25:40 09 Aug 05			HG
			104666,1						
Hg	7.17	ppb	335909						
		Bkgd 1	9941439						=
									=
*** Sample ID: qc304396			104666	Seq: 5		16:27:22 09 Aug 05			HG
			104666,1						
Hg	7.26	ppb	340120						
		Bkgd 1	9937849						=
									=
*** Sample ID: 184083-001			104666	Seq: 6		16:29:01 09 Aug 05			HG
			104666,1						
Hg	.002	ppb	-477						
		Bkgd 1	9932973						=
									=
*** Sample ID: qc304397			104666	Seq: 7		16:30:59 09 Aug 05			HG
			104666,1						
Hg	7.34	ppb	343909						
		Bkgd 1	9934496						=
									=
*** Sample ID: qc304398			104666	Seq: 8		16:32:38 09 Aug 05			HG
			104666,1						
Hg	7.19	ppb	336863						
		Bkgd 1	9929742						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 180973-001 104666				Seq: 9		16:34:19 09 Aug 05		HG	
				104666,1					
Hg	-.018	ppb	-1412						
		Bkgd 1	9931667						=
									=
*** Sample ID: 180984-005 104666				Seq: 10		16:36:11 09 Aug 05		HG	
				104666,1					
Hg	.151	ppb	6551						
		Bkgd 1	9934405						=
									=
*** Sample ID: 181007-001 104666				Seq: 11		16:38:15 09 Aug 05		HG	
				104666,1					
Hg	.648	ppb	29855						
		Bkgd 1	9936498						=
									=
*** Sample ID: 181091-001 104666				Seq: 12		16:40:15 09 Aug 05		HG	
				104666,1					
Hg	-.020	ppb	-1497						
		Bkgd 1	9934897						=
									=
*** Check Standard: 3		Ck3s1297		Seq: 13		16:42:06 09 Aug 05		HG	
Line	Flag		Intensities						
Hg			126784						
		Bkgd 1	9938881						=
									=
*** Check Standard: 6		Ck6CCB		Seq: 14		16:43:45 09 Aug 05		HG	
Line	Flag		Intensities						
Hg			-773						
		Bkgd 1	9938137						=
									=
*** Sample ID: 181091-002 104666				Seq: 15		16:45:55 09 Aug 05		HG	
				104666,1					
Hg	.067	ppb	2606						
		Bkgd 1	9936267						=
									=
*** Sample ID: 181091-003 104666				Seq: 16		16:47:44 09 Aug 05		HG	
				104666,1					
Hg	.033	ppb	1017						
		Bkgd 1	9938234						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 181091-004 104666 Seq: 17 16:49:27 09 Aug 05 HG
104666,1

Hg	.062	ppb	2351						=
		Bkgd 1	9937842						=

*** Sample ID: 181091-005 104666 Seq: 18 16:51:26 09 Aug 05 HG
104666,1

Hg	.079	ppb	3142						=
		Bkgd 1	9930337						=

*** Sample ID: 181091-006 Seq: 19 16:54:32 09 Aug 05 HG
104666,1

Hg	.080	ppb	3193						=
		Bkgd 1	9928855						=

*** Sample ID: 181091-007 Seq: 20 16:56:12 09 Aug 05 HG
104666,1

Hg	.133	ppb	5710						=
		Bkgd 1	9926408						=

*** Sample ID: 181091-008 Seq: 21 16:57:53 09 Aug 05 HG
104666,1

Hg	.018	ppb	309						=
		Bkgd 1	9923752						=

*** Sample ID: 181091-009 Seq: 22 16:59:42 09 Aug 05 HG
104666,1

Hg	-.023	ppb	-1649						=
		Bkgd 1	9921457						=

*** Sample ID: 181091-010 Seq: 23 17:01:43 09 Aug 05 HG
104666,1

Hg	.006	ppb	-261						=
		Bkgd 1	9922829						=

*** Sample ID: 181091-011 Seq: 24 17:03:34 09 Aug 05 HG
104666,1

Hg	-.029	ppb	-1919						=
		Bkgd 1	9923224						=

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Check Standard: 5			Ck5s1298	Seq: 25		17:05:14 09 Aug 05		HG	
Line Flag			Intensities						
Hg			251333						
		Bkgd 1	9921255						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 26		17:06:54 09 Aug 05		HG	
Line Flag			Intensities						
Hg			1549						
		Bkgd 1	9923001						=
									=
*** Sample ID: 181093-001				Seq: 27		17:08:38 09 Aug 05		HG	
			104666,1						
Hg	.110	ppb	4617						
		Bkgd 1	9925337						=
									=
*** Sample ID: 181093-002				Seq: 28		17:10:19 09 Aug 05		HG	
			104666,1						
Hg	.021	ppb	423						
		Bkgd 1	9924145						=
									=
*** Check Standard: 4			Ck4s1299	Seq: 29		17:12:03 09 Aug 05		HG	
Line Flag			Intensities						
Hg			371322						
		Bkgd 1	9923527						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 30		17:13:42 09 Aug 05		HG	
Line Flag			Intensities						
Hg			-3883						
		Bkgd 1	9916178						=
									=

Curtis & Tompkins Laboratories Sample Preparation Summary 09-AUG-2005 16:36

Batch Number : 104666
Date Extracted: 09-AUG-2005
Extracted by : Dennis Dougherty
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : mL
Clean-up :

Spike #1 ID : S1294
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
180973-001			Mactec, Inc.	Filtrate	50	mL		0.000000	1				T26/HG		
180984-005			Polymatrix	Water	50	mL		0.000000	1				HG		
181007-001			Acme Fill Corp.	Water	50	mL		0.000000	1				HG		
181083-001			LFR Levine Fricke	Water	50	mL	50	1.000000	1				T26/HG		
181091-001			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-002			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-003			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-004			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-005			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-006			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-007			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-008			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-009			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-010			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181091-011			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181093-001			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
181093-002			Tetra Tech EC, Inc.	Water	50	mL	50	1.000000	1				T26/HG		
QC304394	BLANK			Water	50	mL	50	1.000000	1				HG		
QC304395	BS			Water	50	mL	50	1.000000	1	3.75			HG		
QC304396	BSD			Water	50	mL	50	1.000000	1	3.75			HG		
QC304397	MS	of 181083-001		Water	50	mL	50	1.000000	1	3.75			HG		
QC304398	MSD	of 181083-001		Water	50	mL	50	1.000000	1	3.75			HG		

129

Prep Chemist: _____ Reviewed By: _____ Date: 8/10/05

Relinquished By: _____ Received By: _____ Date: 081005

Water Digestion for Mercury

Curtis & Tompkins, Lt

LIMS Batch #: 104666
Date Digested: 8/9/05
Digested by: 55

Digestion Method
☑ EPA 7470A/ EPA 245.1
☐ _____

BK 1929
Page 32

Sample # and letter	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
181083-001 I	50 ml	50 ml		Filtered in lab
180984-005 B				↓
180973-001 B				Field Filtered.
181091-001 A				
-002 A				
-003 A				
-004 A				
-005 A				
-006 A				
-007 A				
-008 A				
-009 A				
-010 A				
-011 A				
181093-001 A				
181093-002 A				
181007-001 B				Field Filtered
Blank				
BS				
BSD				
181083-001 MS				
-001 MSD				
	N/A			

3.75 55 080905
~~2.5~~ mL of spike solution was added to all spikes

	Reagent ID/ LIMS# / Time	Initials / Date
ICAL Source WS#	51294	55 080905
ICV / CCV WS#	51294	
Digestion of Samples & Standards: Time ON / Temperature ON	51296, 97, 98 & 99	
Time OFF/ Temperature OFF	12:30 pm 93°C	
concentrated H_2SO_4		
concentrated HNO_3	Baker B033052	
5% $KMnO_4$	Baker B17028	
5% $K_2S_2O_8$	K080505	
NaCl.hydroxylamine hydrochloride	$K_2$072603	
Stannous Chloride	$H_3$072605	
☐ filtered thru' 0.45 um syringe filter	SnCl2 080505	

080905
Prep Chemist / Date

Continued from page 130

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 182254

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBITP110(8.0)	182254-001
BBITP110(12.0)	182254-002
BBITP113(3.0)	182254-003
BBITP113(5.5)	182254-004
BBITP111(1.5)	182254-005
BBITP111(6.0)	182254-006
BBITP111(3.0)	182254-007
BBITP110(1.5)	182254-008

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 11/7/05
Operations Manager

Signature: _____ Date: 11/4/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**182254**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**10/04/05**
Samples Received:	**10/04/05**

This hardcopy data package contains sample and QC results for eight soil samples, requested for the above referenced project on 10/04/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Encore samples not analyzed within 48 hours were frozen. Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 106339; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Encore samples not analyzed within 48 hours were frozen. High responses were observed for a number of analytes in the ICV analyzed 09/30/05 11:46; these analytes were not detected at or above the RL in the associated samples. Low response was observed for Freon 12 in the ICV analyzed 09/29/05 17:58; this analyte was not detected at or above the RL in the associated samples. Low response was observed for carbon disulfide in the CCV analyzed 10/06/05 09:26; this analyte met minimum response criteria. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High response was observed for naphthalene in the CCV analyzed 10/19/05 08:44; this analyte was not detected at or above the RL in the associated samples, and affected data was qualified with "b". Low internal standard responses were observed for chrysene-d12 and perylene-d12 in BBITP113(3.0) (lab # 182254-003). Many analytes were detected between the MDL and the RL in the method blank for batch 106817. No other analytical problems were encountered.

Pesticides (EPA 8081A):
High ICAL percent RSD (relative standard deviation) was observed for delta-BHC in the calibration analyzed 09/27/05 22:26; average ICAL %RSD met method requirements, and this analyte was not detected at or above the RL in the associated samples. High response was observed for methoxychlor in the ICV analyzed 09/22/05 04:25; average ICV drift met method requirements, and this analyte was not detected at or above the RL in the associated samples. High response was observed for methoxychlor in the ICV analyzed 09/28/05 02:12; average ICV drift met method requirements, and this analyte was not

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**182254**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**10/04/05**
Samples Received:	**10/04/05**

Pesticides (EPA 8081A):
detected at or above the RL in the associated samples. High response was observed for heptachlor in the CCV analyzed 10/18/05 00:53; average CCV drift met method requirements, and this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Polychlorinated Biphenyls (PCBs) (EPA 8082):
No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
Chromium, copper, and molybdenum were detected between the MDL and the RL in the method blank for batch 106787; these analytes were either not detected in samples at or above the RL, or detected at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

182254

CHAIN OF CUSTODY FORM

Seq. No.: № 2004

Samplers: ALL MACTEC

Lab: CASTLE TESTING

Job Number: 577265

Name/Location: PRESIDIO OF - SIXTH AVENUE TANK AREA

Project Manager: MARK JACOBUS Recorder: [signature] (Signature Required)

MATRIX			# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION	
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH
	✓		1						05	1700	05	10	03	1100	BBITP10 14	8.0
	✓		1						05	1701	05	10	03	1150	↓	12.0
	✓		1						05	1702	05	10	03	1550	BBITP10 13	3.0
	✓		1						05	1703	05	10	03	1605	↓	5.5
	✓		1						05	1704	05	10	04	0845	BBITP10 11	1.5
	✓		1						05	1705	05	10	04	0915	↓	6.0
	✓		1						05	1706	05	10	04	0930	↓	3.0
	✓		1						05	1707	05	10	04	0950	BBITP10 10	1.5

ALL CHANGES MADE 10/24/05 AM

ANALYSIS REQUESTED

METALS (LUFT, CCR, TTLC)	TPH-d, TPH-g (8015M/8260)	TPH-g (8015M)	BTEX (8021B/8260)	OC Pes (8081A)	PCB's (8082)	VOC (8260B)										
✓	✓	✓	✓	✓	✓	✓										FILL/DIST/NATIVE
✓	✓	✓	✓	✓	✓	✓										NATIVE
✓	✓	✓	✓	✓	✓	✓										FILL
✓	✓	✓	✓	✓	✓	✓										NATIVE
✓	✓	✓	✓	✓	✓	✓										FILL
✓	✓	✓	✓	✓	✓	✓										NATIVE
✓	✓	✓	✓	✓	✓	✓										FILL
✓	✓	✓	✓	✓	✓	✓										FILL

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		- STANDARD TAT
		- RESULTS TO GAIL GRAHAM
		TOT 793 7868
		- TAKE SAMPLE FROM
		ENDICATED ON TUBE

CHAIN OF CUSTODY RECORD

	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	ALL MACTEC	MACTEC	10/24/05 1000
Received By (Signature)	Tony Rios	C&T	10/
Relinquished By (Signature)			
Received By (Signature)			
Relinquished By (Signature)			
Received By (Signature)			

Method of Shipment: C-1 COURIER

Laboratory Copy Project Office Copy Field or Office Copy

Patricia Flynn

From: "Lieberman, Gary" <GALieberman@mactec.com>
To: "Patricia Flynn" <pat@ctberk.com>
Sent: Monday, October 24, 2005 1:56 PM
Attach: Document.pdf
Subject: FW:

Pat attached is chain of custody (# 2004) for samples collected from Baker Beach on October 3. By virtue of this message please change the sample #s as indicated.

All BB1TP107 samples to BB1TP110
All BB1TP109 samples to BB1TP113
All BB1TP108 samples to BB1TP111

I can not find the sample delivery # in my data, so I don't think we have been given results yet. I apologize for any confusion. Please call me if you have any questions. Thanks

Gary

-----Original Message-----
From: LIEBERMAN, GARY [mailto:galieberman@mactec.com]
Sent: Monday, October 24, 2005 1:44 PM
To: Lieberman, Gary
Subject:

TVH Results & QC Summary

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106339
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000		

Field ID:	BBITP110(8.0)	Moisture:	15%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-001	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.032 J	0.21	0.0074

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	59-140
Bromofluorobenzene (FID)	111	62-149

Field ID:	BBITP110(12.0)	Moisture:	16%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-002	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.012 J	0.19	0.0067

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	59-140
Bromofluorobenzene (FID)	109	62-149

Field ID:	BBITP113(3.0)	Moisture:	11%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-003	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.039 J	0.20	0.0073

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	59-140
Bromofluorobenzene (FID)	107	62-149

Field ID:	BBITP113(5.5)	Moisture:	10%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-004	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.028 J	0.17	0.0063

Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	59-140
Bromofluorobenzene (FID)	106	62-149

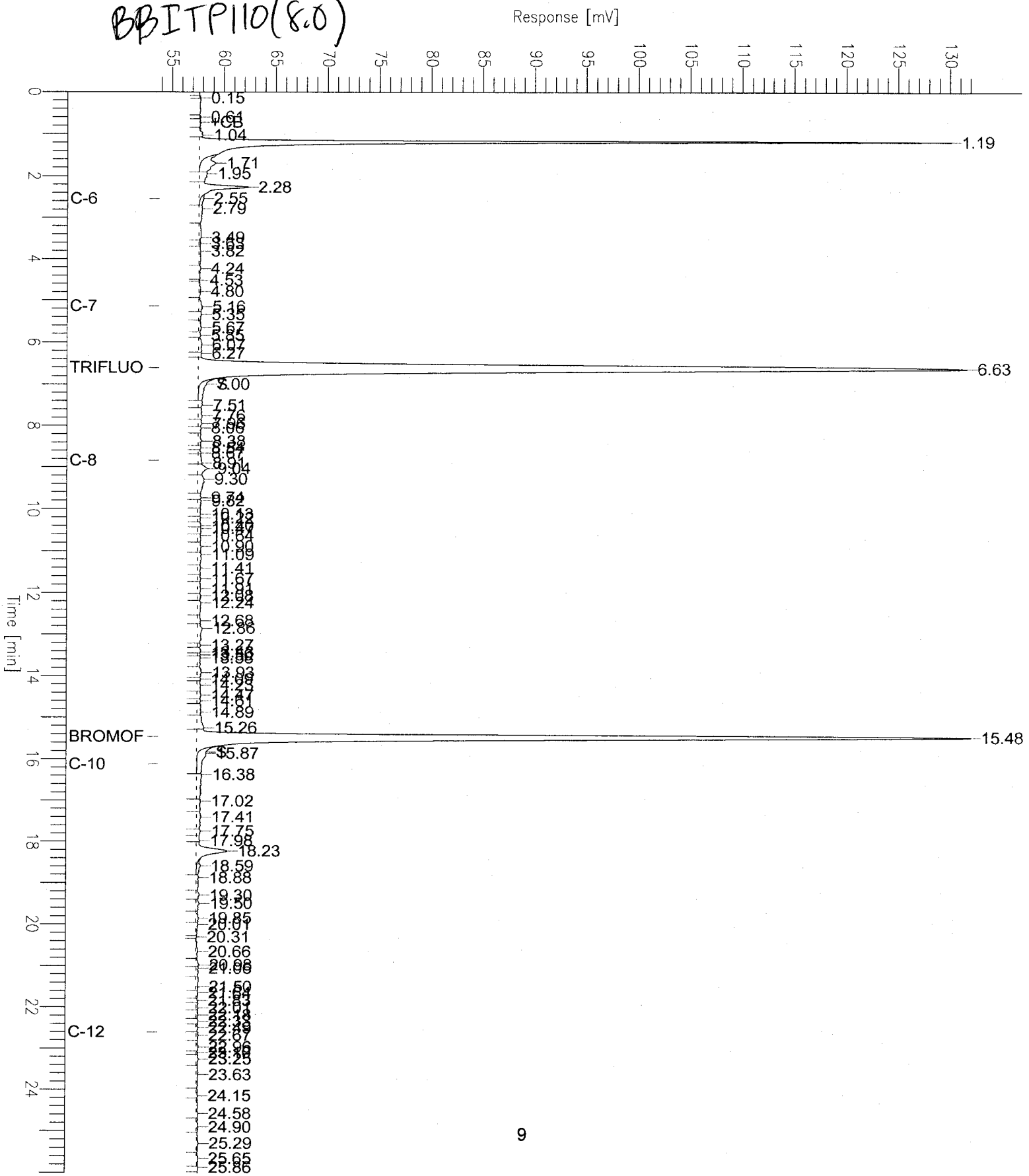
J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

GC04 TVH 'J' Data File FID

Sample Name : 182254-001,106339,etvh
FileName : G:\GC04\DATA\277J021.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 54 mV

Sample #: b Page 1 of 1
Date : 10/5/05 08:02 AM
Time of Injection: 10/4/05 06:56 PM
Low Point : 53.76 mV High Point : 132.15 mV
Plot Scale: 78.4 mV

BBITP110(8.0)

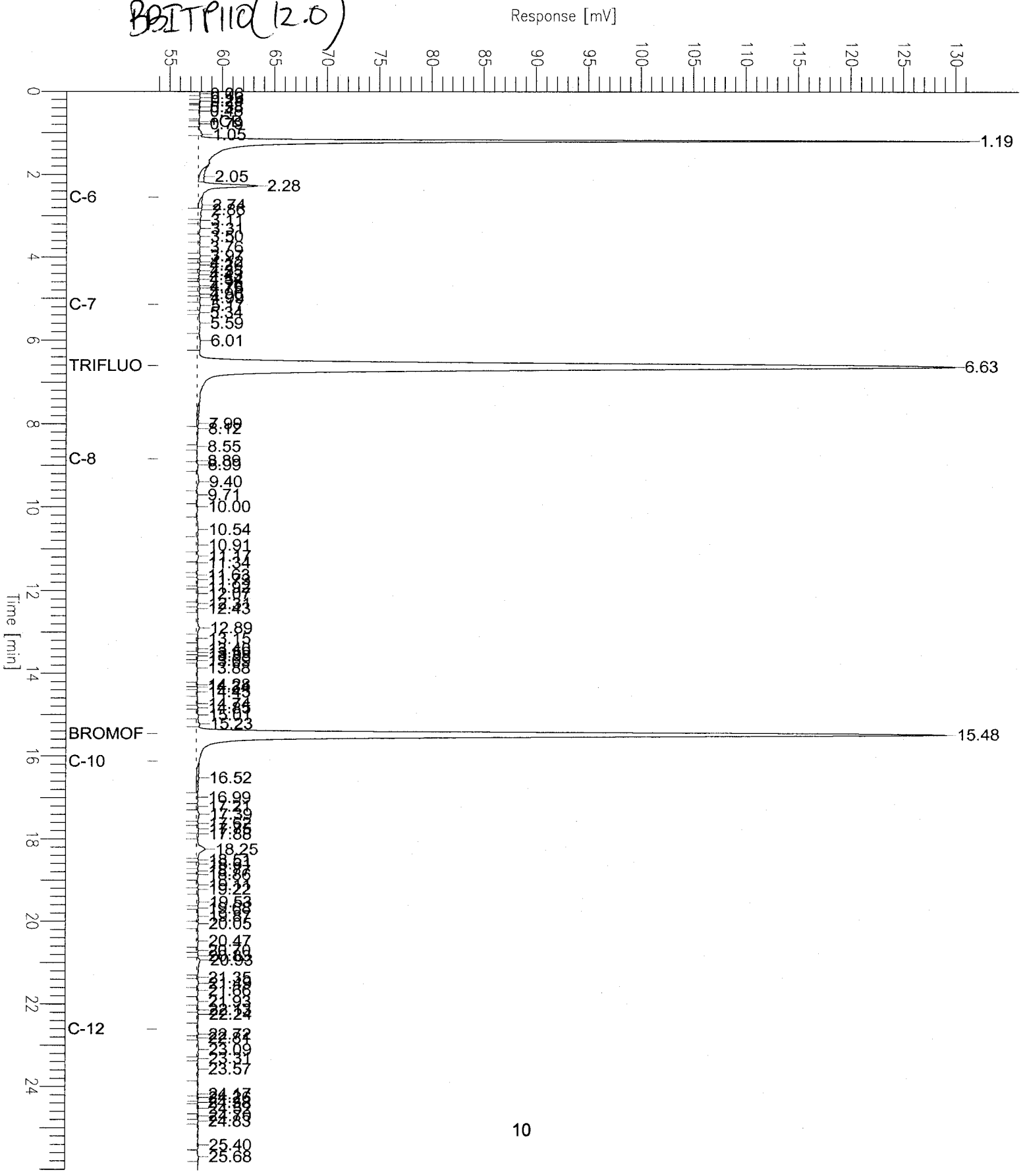


GC04 TVH 'J' Data File FID

Sample Name : 182254-002,106339,etvh
FileName : G:\GC04\DATA\277J022.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 54 mV

Sample #: b Page 1 of 1
Date : 10/4/05 07:58 PM
Time of Injection: 10/4/05 07:32 PM
Low Point : 53.88 mV High Point : 131.35 mV
Plot Scale: 77.5 mV

BBITP110(12.0)

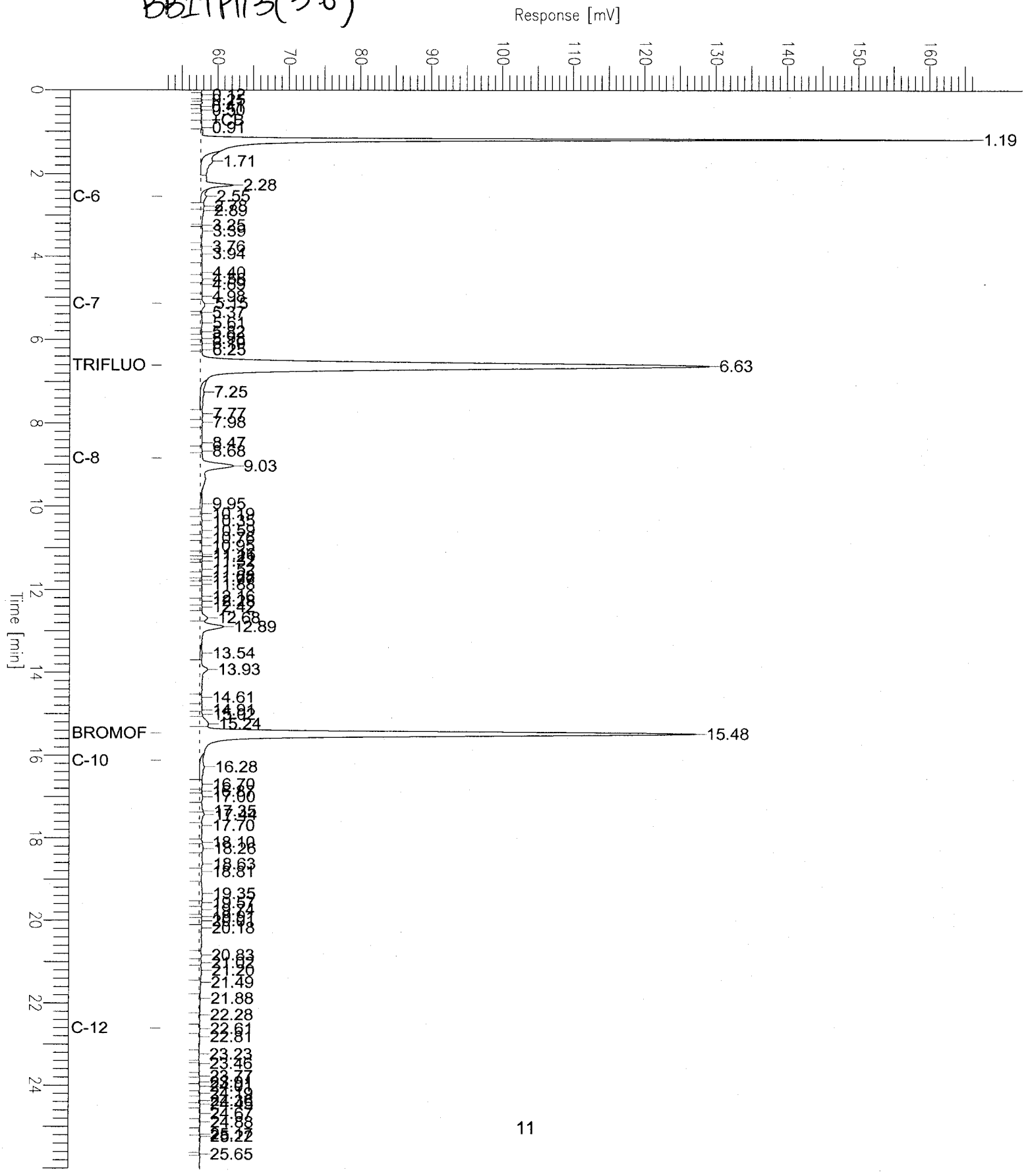


GC04 TVH 'J' Data File FID

Sample Name : 182254-003,106339,etvh
FileName : G:\GC04\DATA\277J023.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 52 mV

Sample #: b Page 1 of 1
Date : 10/4/05 08:34 PM
Time of Injection: 10/4/05 08:08 PM
Low Point : 52.11 mV High Point : 166.17 mV
Plot Scale: 114.1 mV

BBITP113(30)

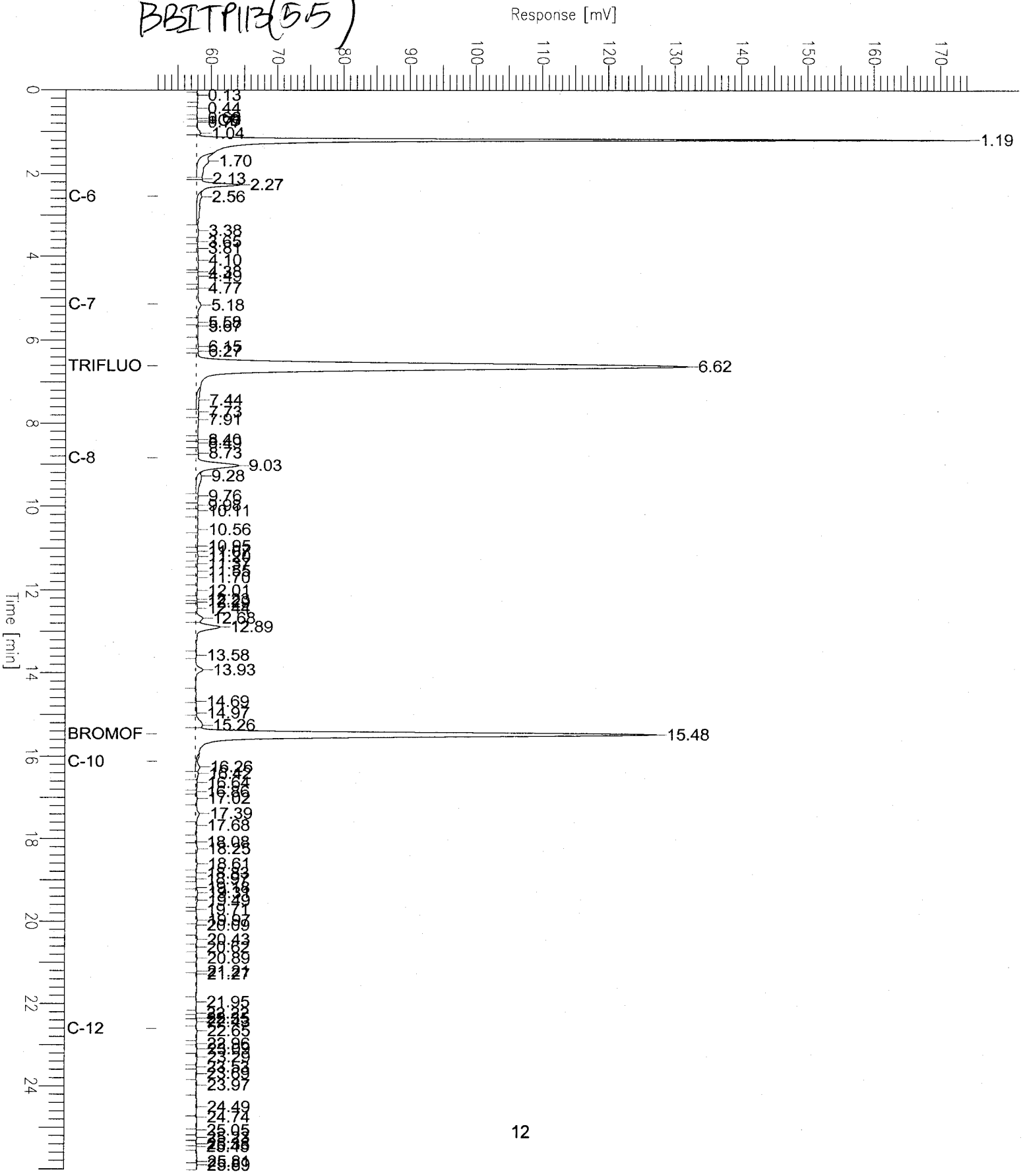


GC04 TVH 'J' Data File FID

Sample Name : 182254-004,106339,etvh
FileName : G:\GC04\DATA\277J026.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 52 mV

Sample #: b Page 1 of 1
Date : 10/4/05 10:22 PM
Time of Injection: 10/4/05 09:55 PM
Low Point : 51.93 mV High Point : 174.50 mV
Plot Scale: 122.6 mV

BBITP113(55)



Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106339
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000		

Field ID:	BBITP111(1.5)	Moisture:	13%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-005	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.023 J	0.21	0.0076

Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	59-140
Bromofluorobenzene (FID)	118	62-149

Field ID:	BBITP111(6.0)	Moisture:	9%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-006	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.014 J	0.19	0.0069

Surrogate	%REC	Limits
Trifluorotoluene (FID)	90	59-140
Bromofluorobenzene (FID)	107	62-149

Field ID:	BBITP111(3.0)	Moisture:	7%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-007	Analyzed:	10/04/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.020 J	0.26	0.0092

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	59-140
Bromofluorobenzene (FID)	94	62-149

Field ID:	BBITP110(1.5)	Moisture:	11%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-008	Analyzed:	10/05/05
Basis:	dry		

Analyte	Result	RL	MDL
Gasoline C7-C12	0.019 J	0.19	0.0069

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	59-140
Bromofluorobenzene (FID)	93	62-149

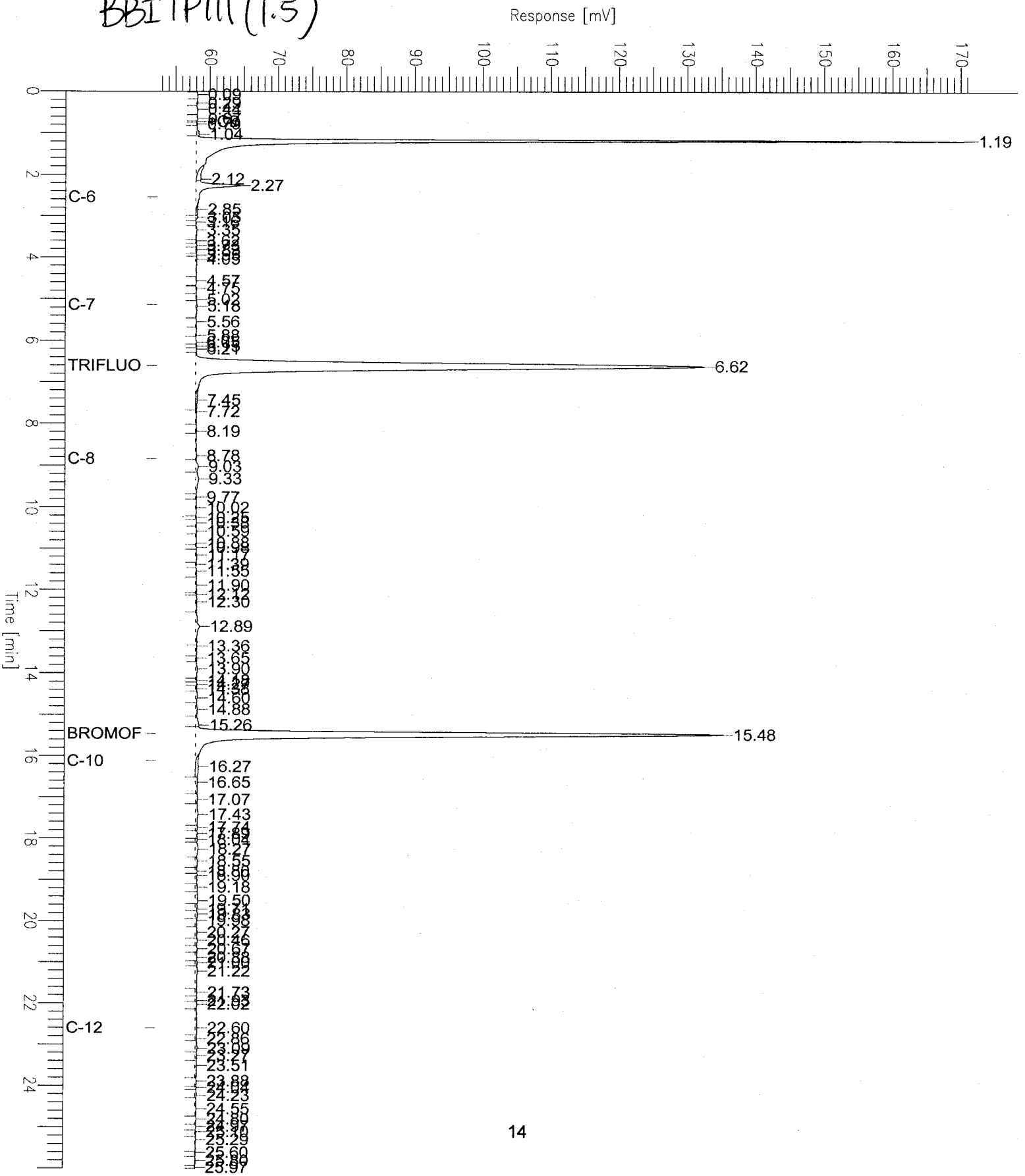
J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

GC04 TVH 'J' Data File FID

Sample Name : 182254-005,106339,etvh
FileName : G:\GC04\DATA\277J027.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 52 mV

Sample #: b Page 1 of 1
Date : 10/4/05 10:57 PM
Time of Injection: 10/4/05 10:31 PM
Low Point : 52.28 mV High Point : 171.14 mV
Plot Scale: 118.9 mV

BBITP111 (1.5)

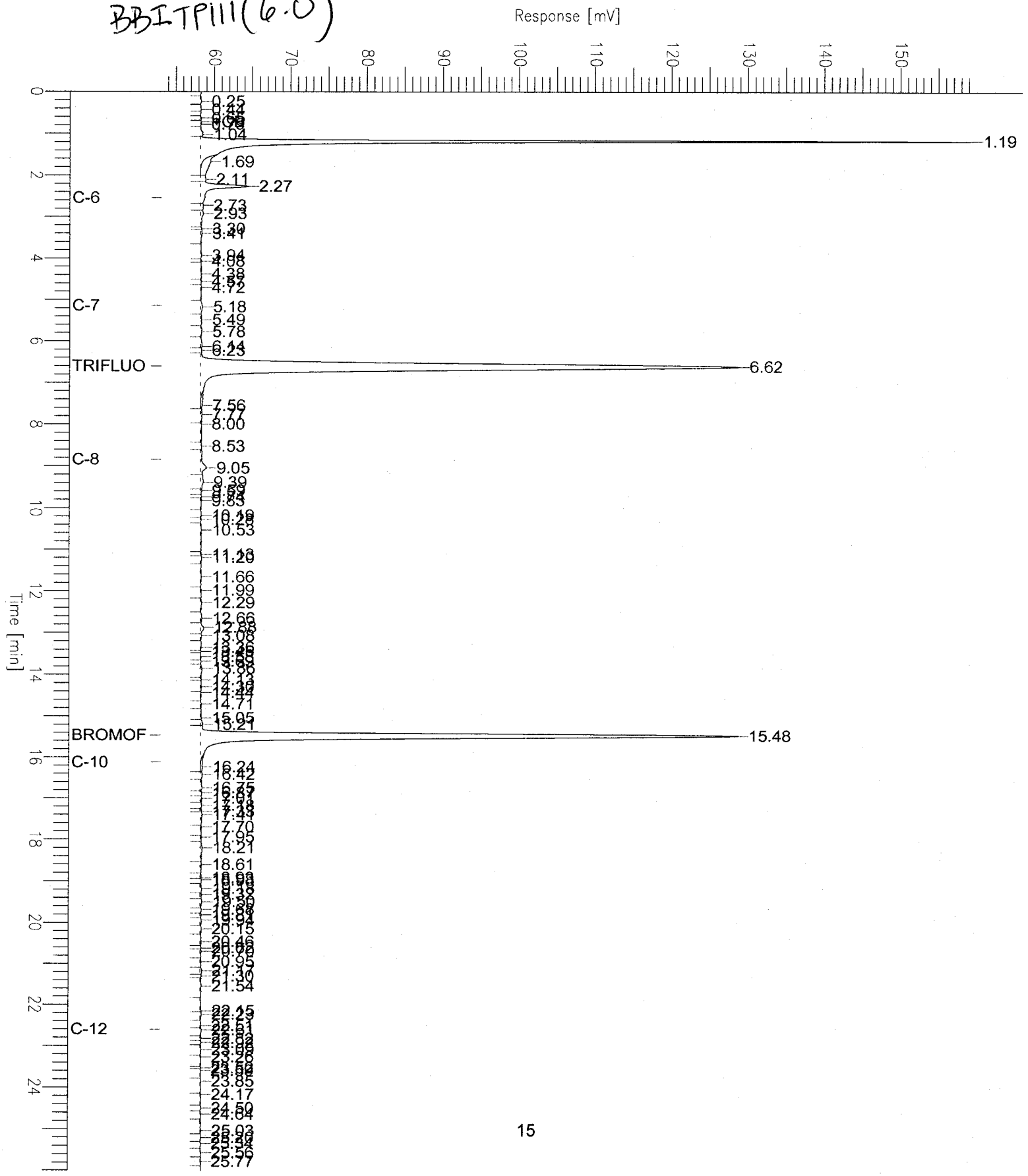


GC04 TVH 'J' Data File FID

Sample Name : 182254-006,106339,etvh
FileName : G:\GC04\DATA\277J028.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 53 mV

Sample #: b Page 1 of 1
Date : 10/4/05 11:33 PM
Time of Injection: 10/4/05 11:07 PM
Low Point : 53.08 mV High Point : 159.55 mV
Plot Scale: 106.5 mV

BBITP111(6.0)

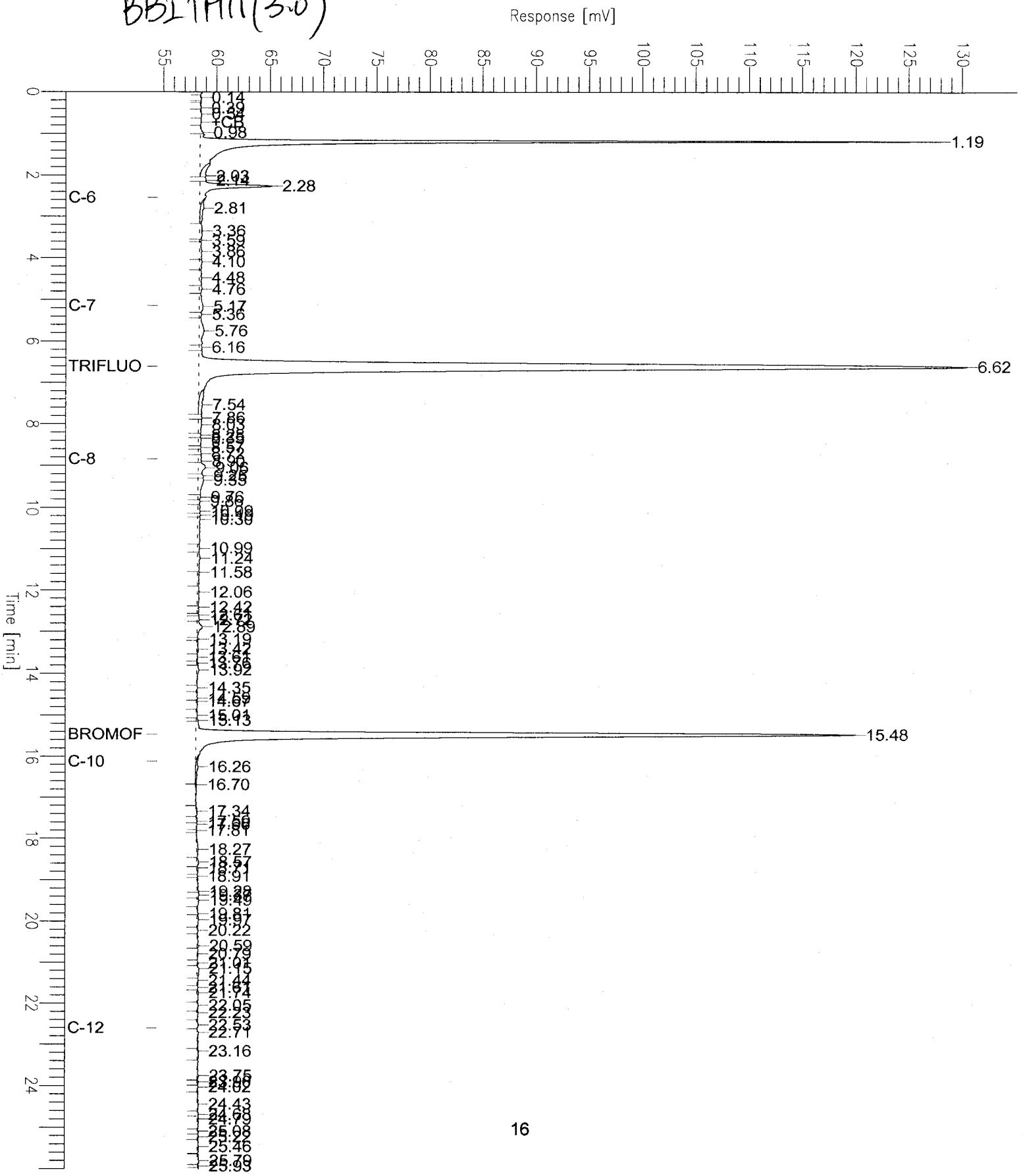


GC04 TVH 'J' Data File FID

Sample Name : 182254-007,106339,etvh
FileName : G:\GC04\DATA\277J029.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 54 mV

Sample #: b Page 1 of 1
Date : 10/5/05 12:09 AM
Time of Injection: 10/4/05 11:43 PM
Low Point : 54.40 mV High Point : 130.58 mV
Plot Scale: 76.2 mV

BBITP111(3.0)

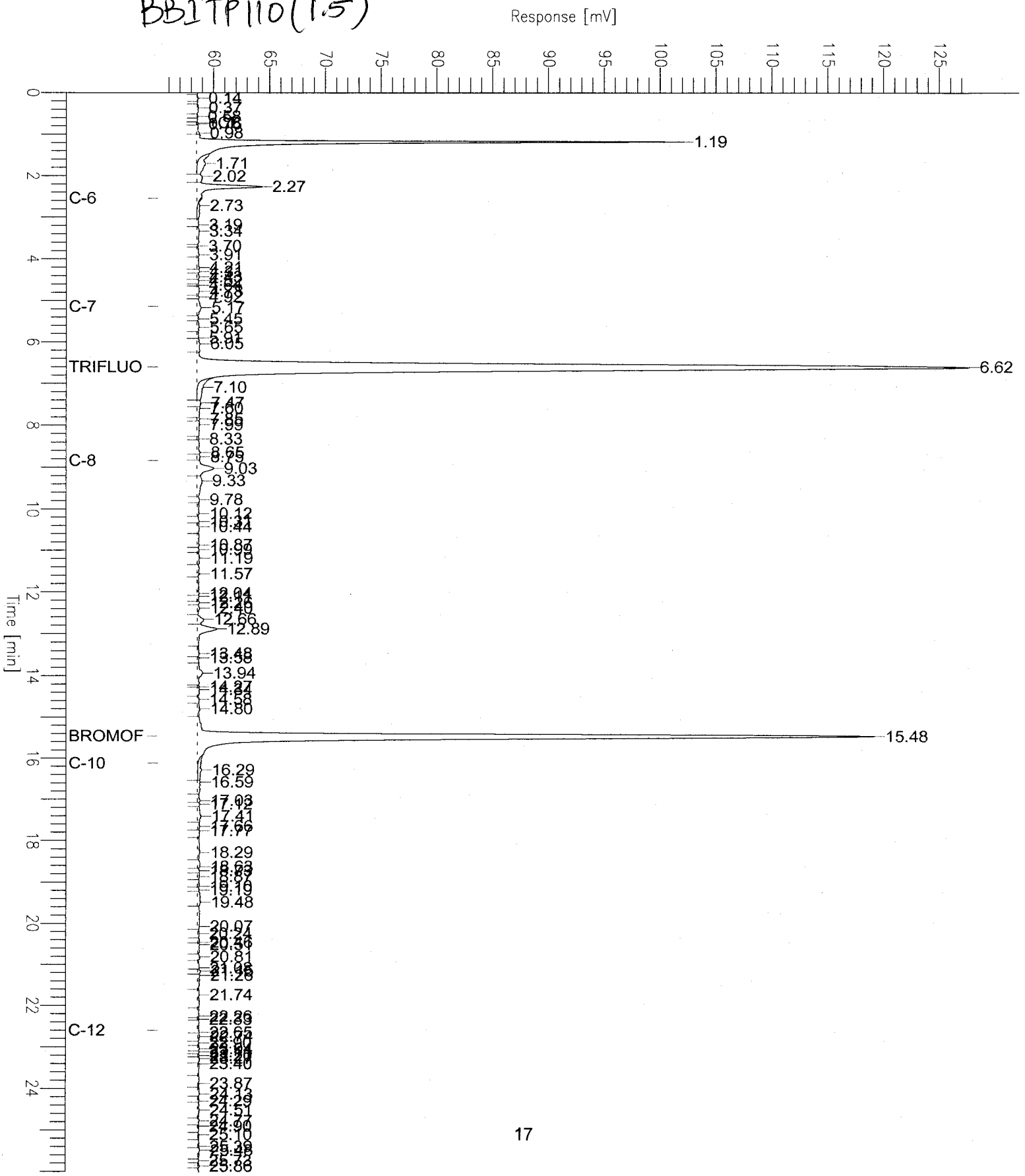


GC04 TVH 'J' Data File FID

Sample Name : 182254-008,106339,etvh
FileName : G:\GC04\DATA\277J030.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 55 mV

Sample #: b Page 1 of 1
Date : 10/5/05 12:45 AM
Time of Injection: 10/5/05 12:18 AM
Low Point : 55.02 mV High Point : 127.75 mV
Plot Scale: 72.7 mV

BBITP110(1.5)



Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106339
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000		

Type:	BLANK	Basis:	as received
Lab ID:	QC311317	Analyzed:	10/04/05

Analyte	Result	RL	MDL
Gasoline C7-C12	0.021 J	0.20	0.0072

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	59-140
Bromofluorobenzene (FID)	99	62-149

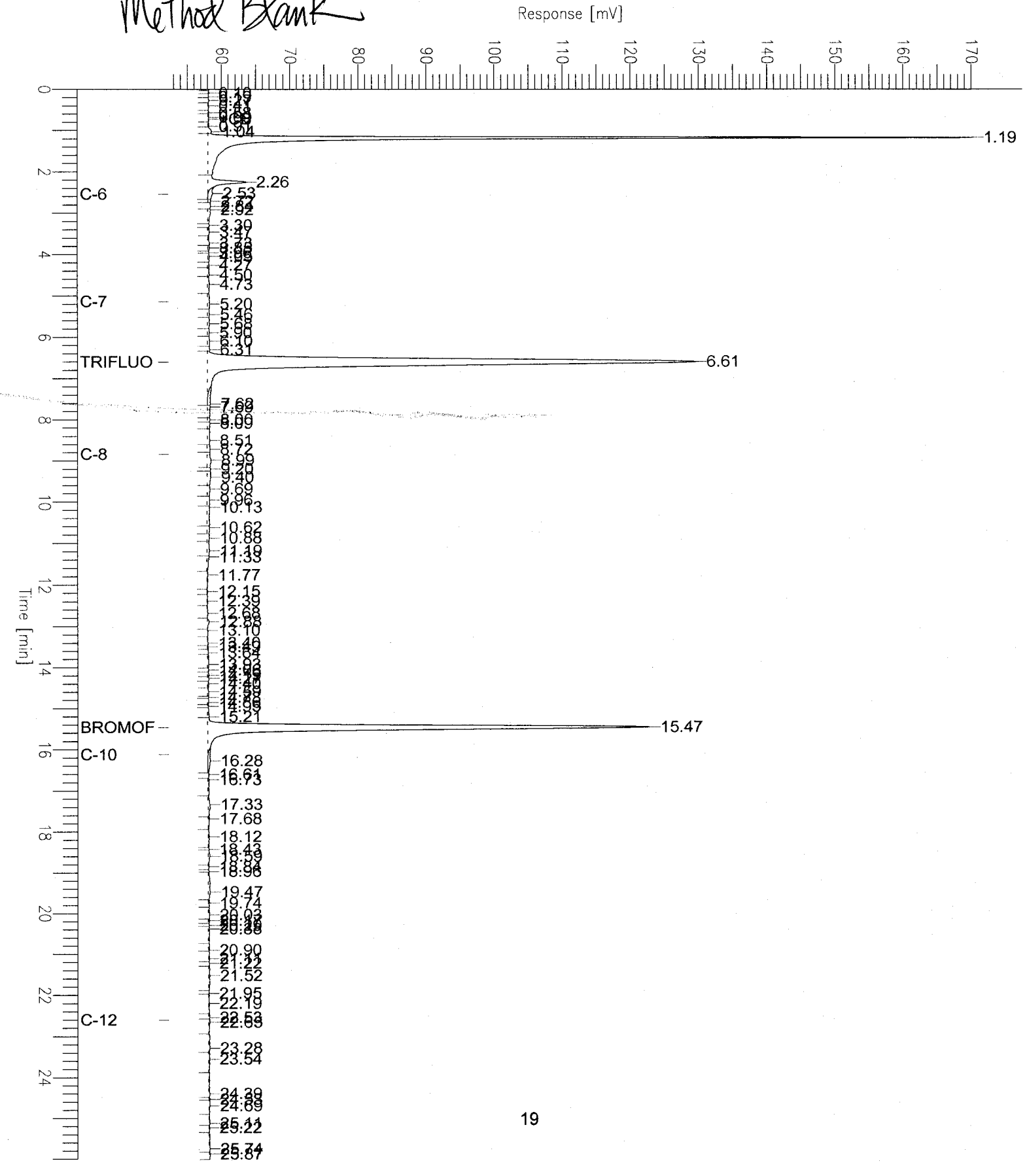
J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

GC04 TVH 'J' Data File FID

Sample Name : mb,qc311317,106339
FileName : g:\gc04\data\277j003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 52 mV

Sample #: Page 1 of 1
Date : 10/5/05 11:55 AM
Time of Injection: 10/4/05 07:34 AM
Low Point : 52.17 mV High Point : 170.38 mV
Plot Scale: 118.2 mV

Method Blank

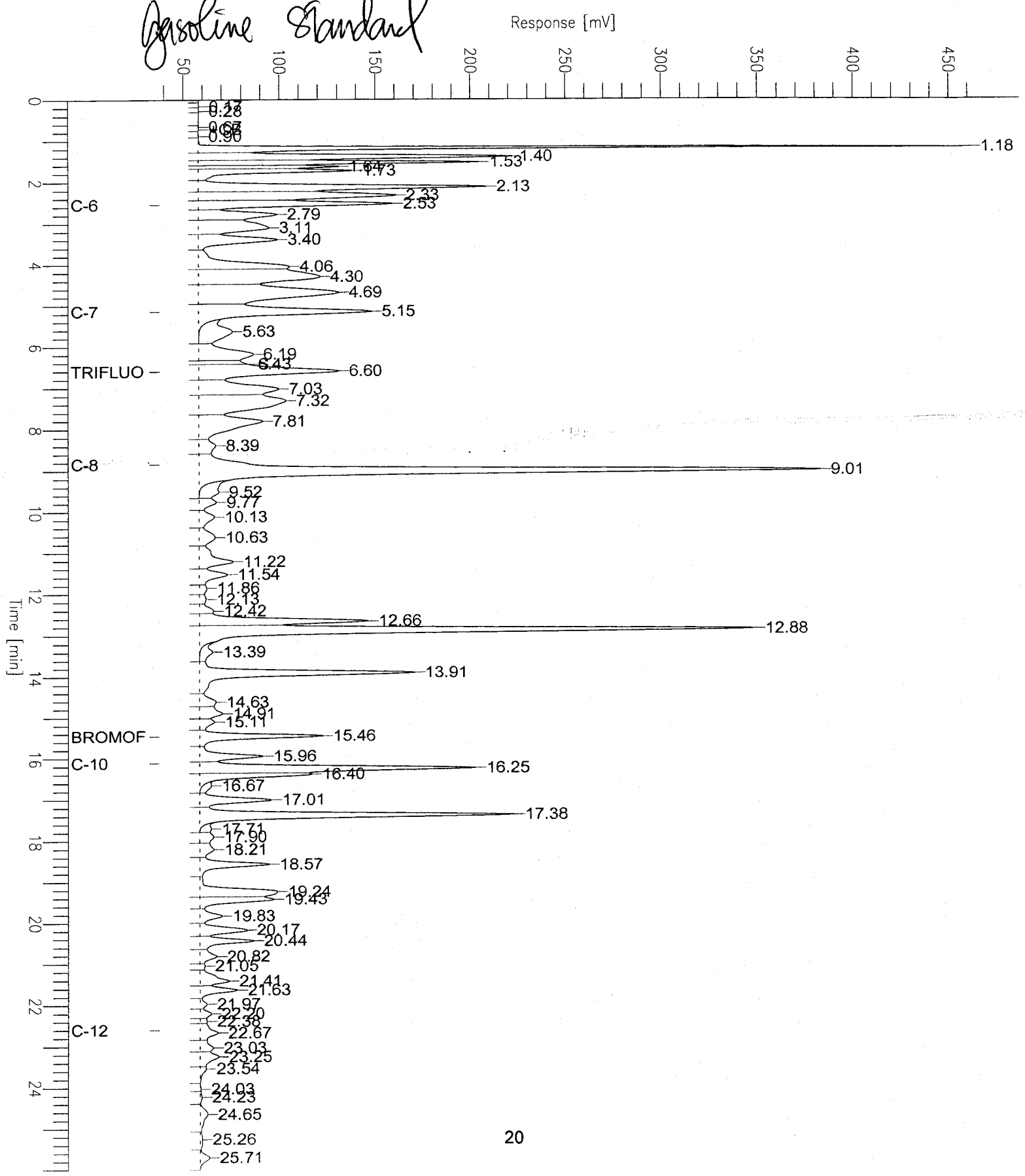


GC04 TVH 'J' Data File FID

Sample Name : ccv/lcs,qc311318,106339,S1574,5/5000
FileName : G:\GC04\DATA\277J002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 38 mV

Sample #: Page 1 of 1
Date : 10/4/05 07:59 AM
Time of Injection: 10/4/05 06:59 AM
Low Point : 37.72 mV High Point : 461.56 mV
Plot Scale: 423.8 mV

Gasoline Standard



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC311318	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106339
Units:	mg/Kg	Analyzed:	10/04/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.20	102	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	59-140
Bromofluorobenzene (FID)	100	62-149

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)			
Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	182233-010	Batch#:	106339
Matrix:	Soil	Sampled:	10/03/05
Units:	mg/Kg	Received:	10/03/05
Basis:	as received	Analyzed:	10/04/05

Type: MS Lab ID: QC311477

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.08376	9.091	7.191	78	44-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	59-140
Bromofluorobenzene (FID)	105	62-149

Type: MSD Lab ID: QC311478

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.804	8.173	83	44-120	5	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	59-140
Bromofluorobenzene (FID)	112	62-149

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 304466014001 Name: tvh Type: (normal) Date: 18-NOV-2004 20:30 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	323_007	304466014007	tvh1	18-NOV-2004 20:30	04WS1982 (1000X), 04WS1966 (5000X)
2	323_008	304466014008	tvh2	18-NOV-2004 21:05	04WS1983 (1000X), 04WS1966 (5000X)
3	323_009	304466014009	tvh3	18-NOV-2004 21:41	04WS1984 (1000X), 04WS1966 (5000X)
4	323_010	304466014010	tvh4	18-NOV-2004 22:17	04WS1985 (2000X), 04WS1966 (5000X)
5	323_011	304466014011	tvh5	18-NOV-2004 22:52	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	J	2584.4	1778.6	1670.9	2095.6	1820.2	AVRG	R		5.025E-4		ng	1989.9	18	0.995	20	

23

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC04 Calname : tvh
Calnum : 304466014001 Caldate : 18-NOV-2004 Caltype :

ICV 304466014013 (323_013) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	J	304466014013	19-NOV-2004	10000.0 10789	ng	8

INITIAL CALIBRATION REPORT FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC04 Gas Chromatograph #4 TVH/BTXE Reviewed By: MCH
Calnum: 305258188001 Name: Type: (normal) Date: 28-JUN-2005 07:52 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	179_002	305258188002	tft/bfb 1	28-JUN-2005 07:52	S658 (5000X)
2	179_003	305258188003	tft/bfb 2	28-JUN-2005 08:33	S659 (5000X)
3	179_004	305258188004	tft/bfb 3	28-JUN-2005 09:09	S660 (5000X)
4	179_005	305258188005	tft/bfb 4	28-JUN-2005 09:52	S661 (5000X)
5	179_006	305258188006	tft/bfb 5	28-JUN-2005 10:30	S662 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	J	1760.7	1965.1	1879.7	1872.9	1871.9	AVRG	R		5.347E-4		ng	1870.1	4	0.995	20	
Bromofluorobenzene (FID)	J	1059.7	1178.7	1140.8	1129.7	1107.2	AVRG	R		8.903E-4		ng	1123.2	4	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Segnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305399264002	04-OCT-2005 06:59	304466014001	18-NOV-2004	1989.9	2030.6	10000	10205	ng	2	15	u
GC04	J	305399264013	04-OCT-2005 14:02	304466014001	18-NOV-2004	1989.9	2008.8	15000	15142	ng	1	15	
GC04	J	305399264024	04-OCT-2005 20:44	304466014001	18-NOV-2004	1989.9	1895.3	10000.0	9524.3	ng	-5	15	
GC04	J	305399264025	04-OCT-2005 21:20	304466014001	18-NOV-2004	1989.9	1989.8	10000.0	9999.3	ng	0	15	
GC04	J	305399264031	05-OCT-2005 00:54	304466014001	18-NOV-2004	1989.9	1980.0	5000.0	4974.9	ng	-1	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Segnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305399264002	04-OCT-2005 06:59	305258188001	28-JUN-2005	1870.1	2057.0	450.00	494.99	ng	10	15	u
GC04	J	305399264013	04-OCT-2005 14:02	305258188001	28-JUN-2005	1870.1	2373.2	450.00	571.06	ng	27	15	c+
GC04	J	305399264024	04-OCT-2005 20:44	305258188001	28-JUN-2005	1870.1	1989.6	450.00	478.75	ng	6	15	
GC04	J	305399264031	05-OCT-2005 00:54	305258188001	28-JUN-2005	1870.1	1878.9	450.00	452.13	ng	0	15	

pass
AYT 10/5/05

IN-House QC Limits

TFT-FID-S

59-140 % Rec.

10/4/05

+=high bias c=CCV u=use
Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 182254 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC04	J	305399264002	04-OCT-2005 06:59	305258188001	28-JUN-2005	1123.2	1121.5	450.00	449.30	ng	0	15	u
GC04	J	305399264013	04-OCT-2005 14:02	305258188001	28-JUN-2005	1123.2	1235.1	450.00	494.81	ng	10	15	
GC04	J	305399264024	04-OCT-2005 20:44	305258188001	28-JUN-2005	1123.2	1143.1	450.00	457.97	ng	2	15	
GC04	J	305399264031	05-OCT-2005 00:54	305258188001	28-JUN-2005	1123.2	1096.8	450.00	439.41	ng	-2	15	

u=use

PROJECT GC04 Hydrocarbon Log

Notebook No. BK 19944

Continued From Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Begun: 18-NOV-2004

Sequence: 304466014 Instrument: GC04
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #4 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	323_001	CCV/LCS	QC272860	96636	Soil	18-NOV-2004 14:54	1.0				1 2	
002	323_002	CCV	minsp	96636		18-NOV-2004 15:37	1.0				3 2	
003	323_003	CCV	minsp	96636		18-NOV-2004 16:12	1.0				3 2	
004	323_004	BLANK	QC272859	96636	Soil	18-NOV-2004 16:48	1.0				2	
005	323_005	X	ib			18-NOV-2004 19:19	1.0				2	
006	323_006	X	ib			18-NOV-2004 19:54	1.0				4 2	
007	323_007	ICAL	tvh1			18-NOV-2004 20:30	1.0				5 2	
008	323_008	ICAL	tvh2			18-NOV-2004 21:05	1.0				6 2	
009	323_009	ICAL	tvh3			18-NOV-2004 21:41	1.0				7 2	
010	323_010	ICAL	tvh4			18-NOV-2004 22:17	1.0				7 2	
011	323_011	ICAL	tvh5			18-NOV-2004 22:52	1.0				2	
012	323_012	X	ib			18-NOV-2004 23:28	1.0				1 2	
013	323_013	ICV	tvh			19-NOV-2004 00:04	1.0	1	5000		8 9 2	
014	323_014	X	crbmkr			19-NOV-2004 00:39	1.0				2	
015	323_015	X	ib			19-NOV-2004 01:15	1.0				2	
016	323_016	X	ib			19-NOV-2004 06:53	1.0				10	
017	323_017	ICAL	tft/bfb 1			19-NOV-2004 07:29	1.0				11	
018	323_018	ICAL	tft/bfb 2			19-NOV-2004 08:05	1.0				12	
019	323_019	ICAL	tft/bfb 3			19-NOV-2004 08:47	1.0				13	
020	323_020	ICAL	tft/bfb 4			19-NOV-2004 09:29	1.0				14	
021	323_021	ICAL	tft/bfb 5			19-NOV-2004 10:16	1.0					

Stds used: 1=04WS2154 2=04WS1986 3=04WS1162 4=04WS1982 5=04WS1983 6=04WS1984 7=04WS1985 8=02SS420 9=02SS421 10=04WS1886 11=04WS1887 12=04WS1888 13=04WS1889 14=04WS1890

Analyst: _____ Date: 11.19.04

Page 1 of 1

Continued on Page

Read and Understood By

Signature _____ Date 11/19/04

Signature _____ Date 11/19/04

PASS/USE

PASS/USE 1:F3BZME=953.541

PASS/USE

PASS/USE

Seq - 3272 on Nov 19.

89

PROJECT GC04 Sequence 09 Pulz

Notebook No. BK 2017

Continued From Page ____

95

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305258188 Instrument: GC04
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #4 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 28-JUN-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
001	179_001	X	ib			28-JUN-2005 07:08	1.0					1	
002	179_002	ICAL	tft/bfb 1			28-JUN-2005 07:52	1.0					2	pass
003	179_003	ICAL	tft/bfb 2			28-JUN-2005 08:33	1.0					3	
004	179_004	ICAL	tft/bfb 3			28-JUN-2005 09:09	1.0					4	
005	179_005	ICAL	tft/bfb 4			28-JUN-2005 09:52	1.0					5	
006	179_006	ICAL	tft/bfb 5			28-JUN-2005 10:30	1.0					6	
007	179_007	X	ib			28-JUN-2005 11:06	1.0					1	
008	179_008	ICAL	btxe 1			28-JUN-2005 11:42	1.0					7 1	pass
009	179_009	ICAL	mtbe 1			28-JUN-2005 12:18	1.0					8 1	
010	179_010	ICAL	mbtxe 2			28-JUN-2005 12:54	1.0					8 1	
011	179_011	ICAL	mbtxe 3			28-JUN-2005 13:30	1.0					8 1	
012	179_012	ICAL	mbtxe 4			28-JUN-2005 14:06	1.0					9 1	
013	179_013	ICAL	mbtxe 5			28-JUN-2005 14:42	1.0					9 1	
014	179_014	ICAL	mbtxe 6			28-JUN-2005 15:17	1.0					9 1	
015	179_015	ICAL	mtbe 7			28-JUN-2005 15:53	1.0					10 1	
016	179_016	X	ib			28-JUN-2005 16:29	1.0					1	
017	179_017	X	mbtxe			28-JUN-2005 17:05	1.0					11 1	Not Used
018	179_018	ICV	mbtxe			28-JUN-2005 17:41	1.0	1	5000			11 1	pass

Stds used: 1=S645 2=S658 3=S659 4=S660 5=S661 6=S662 7=S877 8=S878 9=S879 10=S880 11=S886

Analyst: _____ Date: 6/29/05

Page 1 of 1

6/29/05

Continued on Page ____

Read and Understood By

Signed _____ Date 6/29/05

Signed _____ Date 06/29/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305399264 Instrument: GC04
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #4 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 04-OCT-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
001	277_001	X	ib			04-OCT-2005 06:24	1.0					1	
002	277_002	CCV/LCS	QC311318	106339	Soil	04-OCT-2005 06:59	1.0		5000			2 1 pass	
003	277_003	BLANK	QC311317	106339	Soil	04-OCT-2005 07:34	1.0	9	5000			1 2 1/2 pass	
004	277_004	SAMPLE	182233-006	106339	Soil	04-OCT-2005 08:09	1.0		5000			1	
005	277_005	MSS	182233-010	106339	Soil	04-OCT-2005 08:54	1.0	7	5000			1	
006	277_006	SAMPLE	182153-008	106339	Soil	04-OCT-2005 09:31	1.0		5000			1	
007	277_007	SAMPLE	182153-009	106339	Soil	04-OCT-2005 10:07	1.0		5000			1	
008	277_008	SAMPLE	182153-010	106339	Soil	04-OCT-2005 10:43	1.0		5000			1	
009	277_009	SAMPLE	182222-005	106339	Soil	04-OCT-2005 11:19	1.0		5000			1 low sp	
010	277_010	MS	QC311164	106296	Soil	04-OCT-2005 11:55	1.0	3	5000			2 1 fail/confirms matrix	
011	277_011	MSD	QC311168	106296	Soil	04-OCT-2005 12:31	1.0	3	5000			2 1	
012	277_012	X	meoh blk	106339		04-OCT-2005 13:07	5.0					1 clean	
013	277_013	CCV	tvh	106339		04-OCT-2005 14:02	1.0		5000			2 1 pass	
014	277_014	SAMPLE	182246-001	106339	Soil	04-OCT-2005 14:45	1.0		5000			1	
015	277_015	SAMPLE	182233-005	106339	Soil	04-OCT-2005 15:21	25.0	2	5000			1 1:F3BZME=1138.66	
016	277_016	SAMPLE	182233-004	106339	Soil	04-OCT-2005 15:57	25.0		5000			1	
017	277_017	MS	QC311477	106339	Soil	04-OCT-2005 16:33	1.0		5000			2 1 pass	
018	277_018	MSD	QC311478	106339	Soil	04-OCT-2005 17:09	1.0		5000			2 1	
019	277_019	SAMPLE	182248-009	106339	Soil	04-OCT-2005 17:45	1.0		5000			1 Comp	
020	277_020	SAMPLE	182248-010	106339	Soil	04-OCT-2005 18:20	1.0		5000			1	
021	277_021	SAMPLE	182254-001	106339	Soil	04-OCT-2005 18:56	1.0		5000			1	
022	277_022	SAMPLE	182254-002	106339	Soil	04-OCT-2005 19:32	1.0		5000			1	
023	277_023	SAMPLE	182254-003	106339	Soil	04-OCT-2005 20:08	1.0		5000			1	
024	277_024	CCV	tvh	106339		04-OCT-2005 20:44	1.0		5000			2 1 pass	
025	277_025	CCV	tvh	106339		04-OCT-2005 21:20	1.0		5000			2 1	
026	277_026	SAMPLE	182254-004	106339	Soil	04-OCT-2005 21:55	1.0		5000			1	
027	277_027	SAMPLE	182254-005	106339	Soil	04-OCT-2005 22:31	1.0		5000			1	
028	277_028	SAMPLE	182254-006	106339	Soil	04-OCT-2005 23:07	1.0		5000			1	
029	277_029	SAMPLE	182254-007	106339	Soil	04-OCT-2005 23:43	1.0		5000			1	
030	277_030	SAMPLE	182254-008	106339	Soil	05-OCT-2005 00:18	1.0		5000			1	

Stds used: 1=S1421 2=S1574

Analyst: _____ Date: 10/5/05

Page 1 of 2

10/5/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 305399264 Instrument: GC04
Analytical Method: EPA 8015B
Analytical Method: EPA 8021B

Gas Chromatograph #4 TVH/BTXE
SOP Version: TVH_BTXE_rv11
SOP Version: TVH_BTXE_rv11

Begun: 04-OCT-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IOC	SPK uL	VL	pH	Stds Used	>LR
031	277_031	CCV	tvh	106339		05-OCT-2005 00:54	1.0		5000			2 1 pass	
032	277_032	CCV	tvh	106339		05-OCT-2005 01:30	1.0		5000			2 1	

SAMPLES in QC = EM128974 - M104/104

10/5/05

Stds used: 1=S1421 2=S1574

Analyst: _____ Date: 10/5/05

Page 2 of 2

Continued on Page

Read and Understood By

Signed 10/5/05 Date

31

Signed 10/5/05 Date

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 106339
Date Started: 03-OCT-2005
Batched by : Adam Pereira

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
182153-008			Acton Mickelson En	Soil	ETVH	10-OCT-2005
182153-009			Acton Mickelson En	Soil	ETVH	10-OCT-2005
182153-010			Acton Mickelson En	Soil	ETVH	10-OCT-2005
182222-005			Treadwell & Rollo	Soil	TVH	07-OCT-2005
182233-004			Ninyo & Moore	Soil	TVH	07-OCT-2005
182233-005			Ninyo & Moore	Soil	TVH	07-OCT-2005
182233-006			Ninyo & Moore	Soil	TVH	07-OCT-2005
182233-010			Ninyo & Moore	Soil	TVH	07-OCT-2005
182246-001			Pacific States Env	Soil	TVH	10-OCT-2005
182248-009			URS Corporation	Soil	TVH	10-OCT-2005
182248-010			URS Corporation	Soil	TVH	10-OCT-2005
182254-001			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-002			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-003			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-004			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-005			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-006			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-007			Mactec, Inc.	Soil	ETVH	17-OCT-2005
182254-008			Mactec, Inc.	Soil	ETVH	17-OCT-2005
QC311317	BLANK			Soil		
QC311318	LCS			Soil		
QC311477	MS	of 182233-010		Soil		
QC311478	MSD	of 182233-010		Soil		

19

Sample ID	Core	Tip	Weight (g)	Core (?)	Mn Wash (?)	Thickness of Pile
182210	-016	B	5.72	No	No	@ 4.30 ft
	-018	B	3.96			
	-019	B	5.92			
182179	-005	B	5.18			
182186	-007	A	0.94			
182179	-009	C	5.85			
182210	-018	C				
	-19	C	5.57	No	No	@ 6.0 ft
182222	-001	A	4.16			
	002		5.04	Yes	No	Apr 10/3/05
	003		4.95			
	004		4.95			
	005 Comp		5.07			
182233	006	A	0.90			
	010		0.98	No	No	
MS 233	-006	A	0.97			
MSD			1.08			
182153	008	D	1.07			
	009	D	5.59	No	No	Apr 10/4/05
MS 233	-010	A	6.16			
MSD			1.10			
182153	-010	D	1.02			
MS 122	-014	K	5.49			
MSD		L	5.80	No	No	Apr 10/4/05
182246	-001	A	5.69			
182248	-001	A	1.02	No	No	@ 10.9 ft
	-002	A	1.06	Yes		
	-003	A	3.09			
	-004	A	3.04			
	-009	Comp	2.97			
	-005	A	0.94			
	-006	A	3.04			
	-007	A	3.52			
	-008	A	2.93			
	-010	Comp	3.07			
182254	-001		0.96			
			5.68	No	No	@ 10 ft

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Signed — Date 10.4.05

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Project TUK/MBTA Soil Weight Log Col DR 2106

Continued from Page

Sample ID	Cat	ID	Weight (g)	Cyan (-)	N-Hexane (-)	Thinks to Peter
182254	-002	B	6.37	No	No	DP10-1r
	-003	B	5.54			
	-004	B	6.36			
	-005	B	5.40			
	-006	B	5.71			
	-007	B	4.18			
	-008	B	5.83			
182249-001		A	0.92	No	No	mmp 10/5/05
MS 182249-001			0.94			
MSD " -001			0.99			
182255-008		B	6.05	No	No	mmp 10/05/05
	-009		6.43			
	-010		6.24			
	-011		5.81			
	-012		5.46			
	-013		5.54			
	-014		6.19			
	-015		5.13			
	-019		4.75			
	-022		5.85			

Continued on Page

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Signed Date

TEH results & QC Summary

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106755
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000	Prepared:	10/14/05

Field ID:	BBITP110(8.0)	Moisture:	15%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-001	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.2
Fuel Oil C24-C36	ND	5.8

Surrogate	%REC	Limits
Hexacosane	100	65-135

Field ID:	BBITP110(12.0)	Moisture:	16%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-002	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.2
Fuel Oil C24-C36	ND	5.9

Surrogate	%REC	Limits
Hexacosane	117	65-135

Field ID:	BBITP113(3.0)	Moisture:	11%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-003	Analyzed:	10/17/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	35 H Y	1.1
Fuel Oil C24-C36	130	5.6

Surrogate	%REC	Limits
Hexacosane	106	65-135

Field ID:	BBITP113(5.5)	Moisture:	10%
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-004	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.1
Fuel Oil C24-C36	ND	5.5

Surrogate	%REC	Limits
Hexacosane	70	65-135

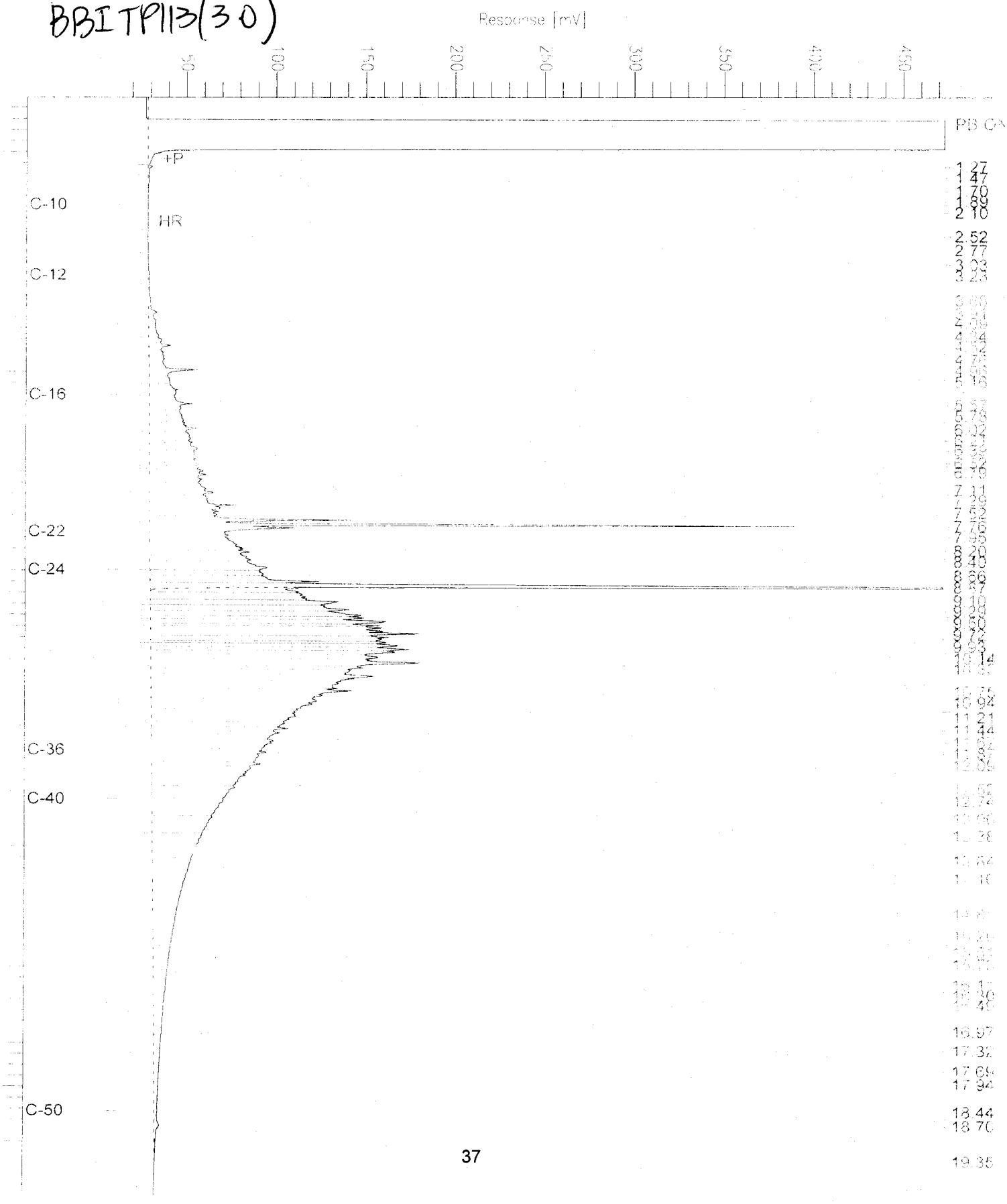
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 182254-003sg,106755
Filename : G:\GC15\CBB\289B043.RAW
Method : BTEH2748.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 13 mV

Sample #: 106755 Page 1 of 1
Date : 10/17/05 09:16 AM
Time of Injection: 10/17/05 07:20 AM
Low Point : 12.51 mV High Point : 473.04 mV
Plot Scale: 460.5 mV

BBITP113(30)



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106755
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000	Prepared:	10/14/05

Field ID:	BBITP111(1.5)	Moisture:	13%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-005	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.2
Fuel Oil C24-C36	6.0	5.8

Surrogate	%REC	Limits
Hexacosane	90	65-135

Field ID:	BBITP111(6.0)	Moisture:	9%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-006	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.1
Fuel Oil C24-C36	ND	5.5

Surrogate	%REC	Limits
Hexacosane	94	65-135

Field ID:	BBITP111(3.0)	Moisture:	7%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-007	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	1.1
Fuel Oil C24-C36	6.8	5.4

Surrogate	%REC	Limits
Hexacosane	103	65-135

Field ID:	BBITP110(1.5)	Moisture:	11%
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-008	Analyzed:	10/16/05
Basis:	dry	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C12-C24	1.7 H Y	1.1
Fuel Oil C24-C36	12	5.6

Surrogate	%REC	Limits
Hexacosane	95	65-135

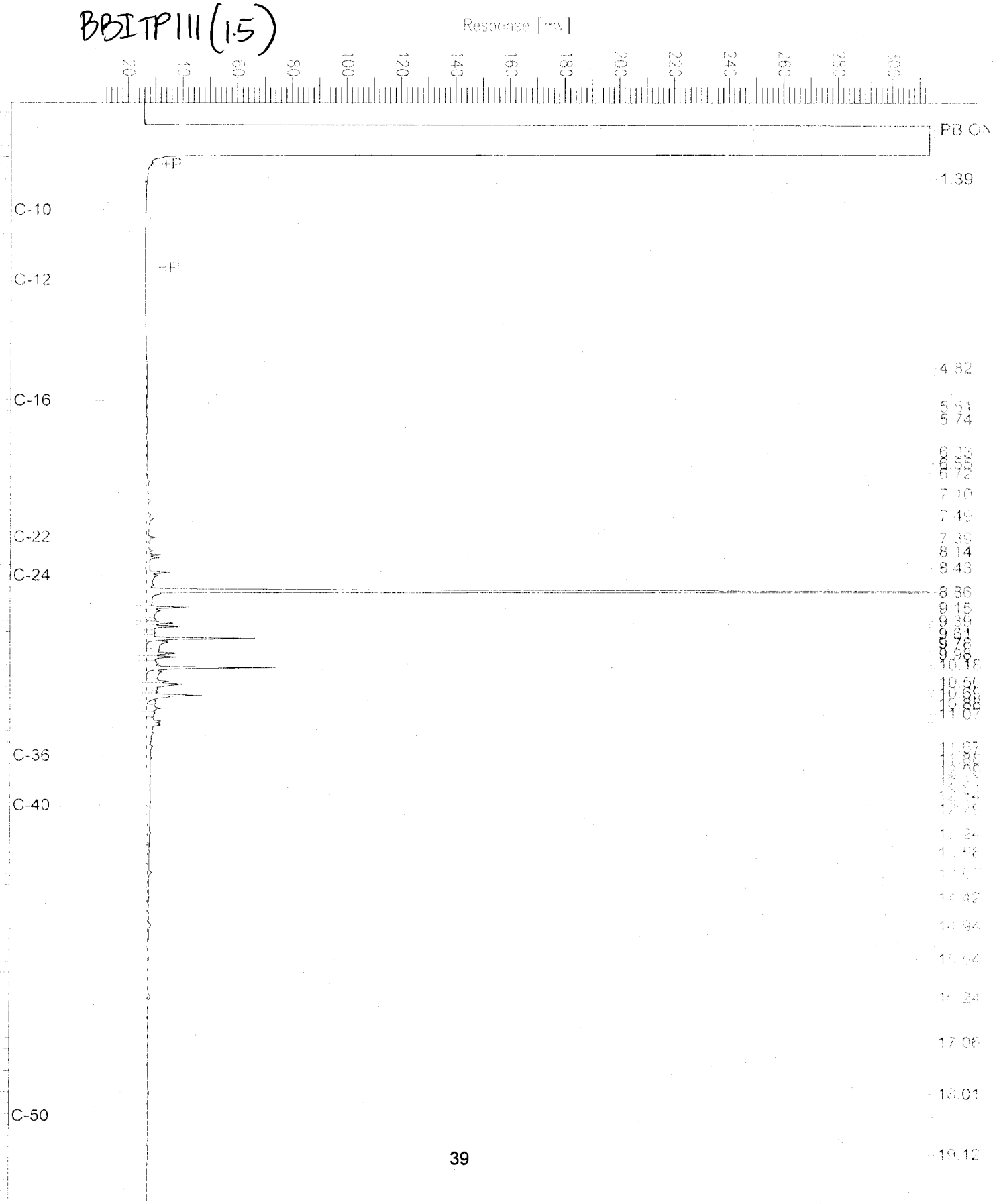
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 182254-005sg,106755
Filename : G:\GC15\CHB\289B012.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 106755 Page 1 of 1
Date : 10/17/05 08:53 AM
Time of Injection: 10/16/05 04:29 PM
Low Point : 11.20 mV High Point : 313.54 mV
Plot Scale: 302.3 mV

BBITP111 (1.5)

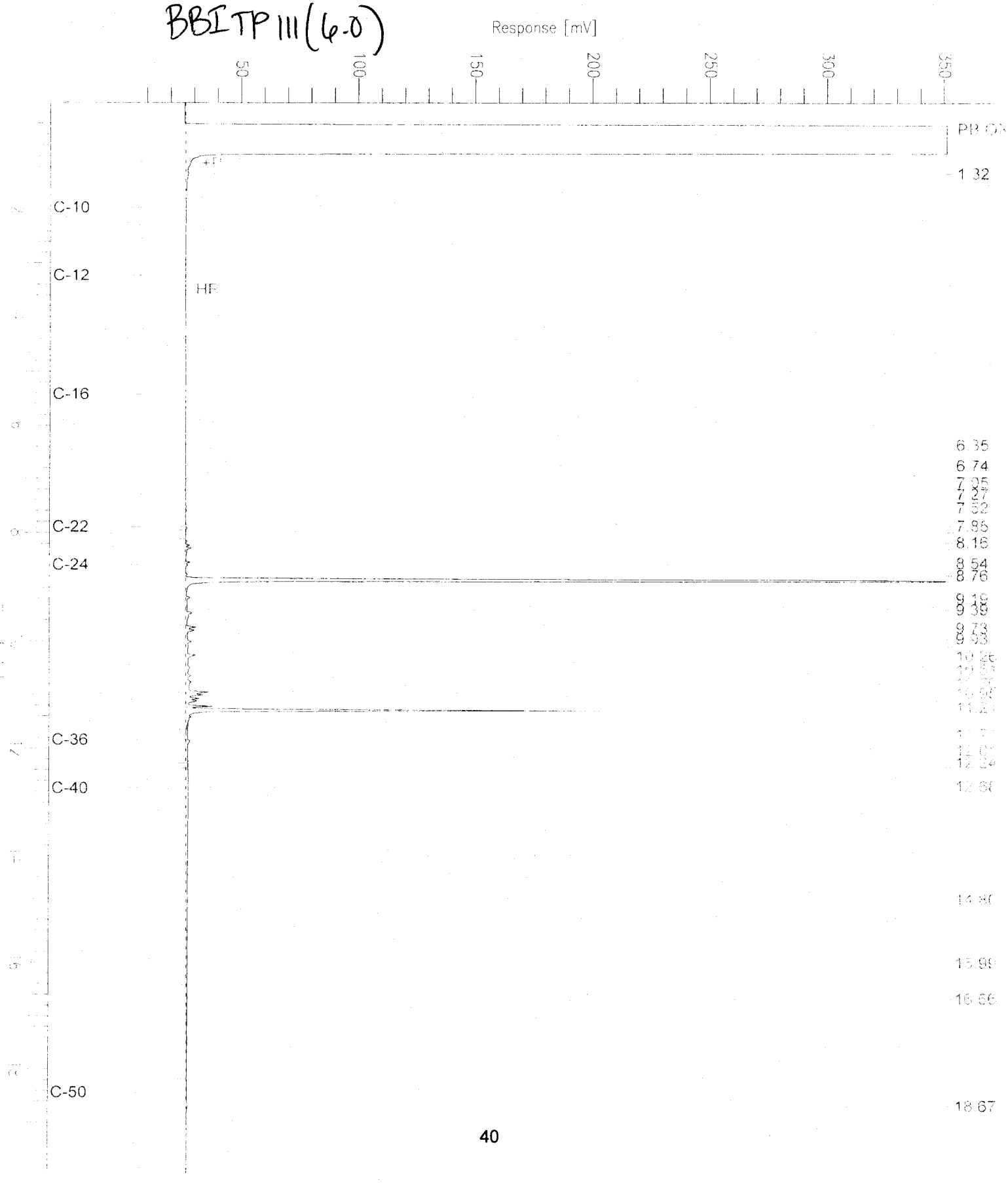


Chromatogram

Sample Name : 182254-006sg,106755
FileName : G:\GC15\CHB\289B013.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 106755 Page 1 of 1
Date : 10/17/05 08:53 AM
Time of Injection: 10/16/05 04:58 PM
Low Point : 7.30 mV High Point : 351.26 mV
Plot Scale: 344.0 mV

BBITP III (6.0)



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	106755
Units:	mg/Kg	Received:	10/04/05
Diln Fac:	1.000	Prepared:	10/14/05

Type:	BLANK	Analyzed:	10/16/05
Lab ID:	QC313062	Cleanup Method:	EPA 3630C
Basis:	as received		

Analyte	Result	RL
Diesel C12-C24	ND	0.99
Fuel Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
Hexacosane	88	65-135

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

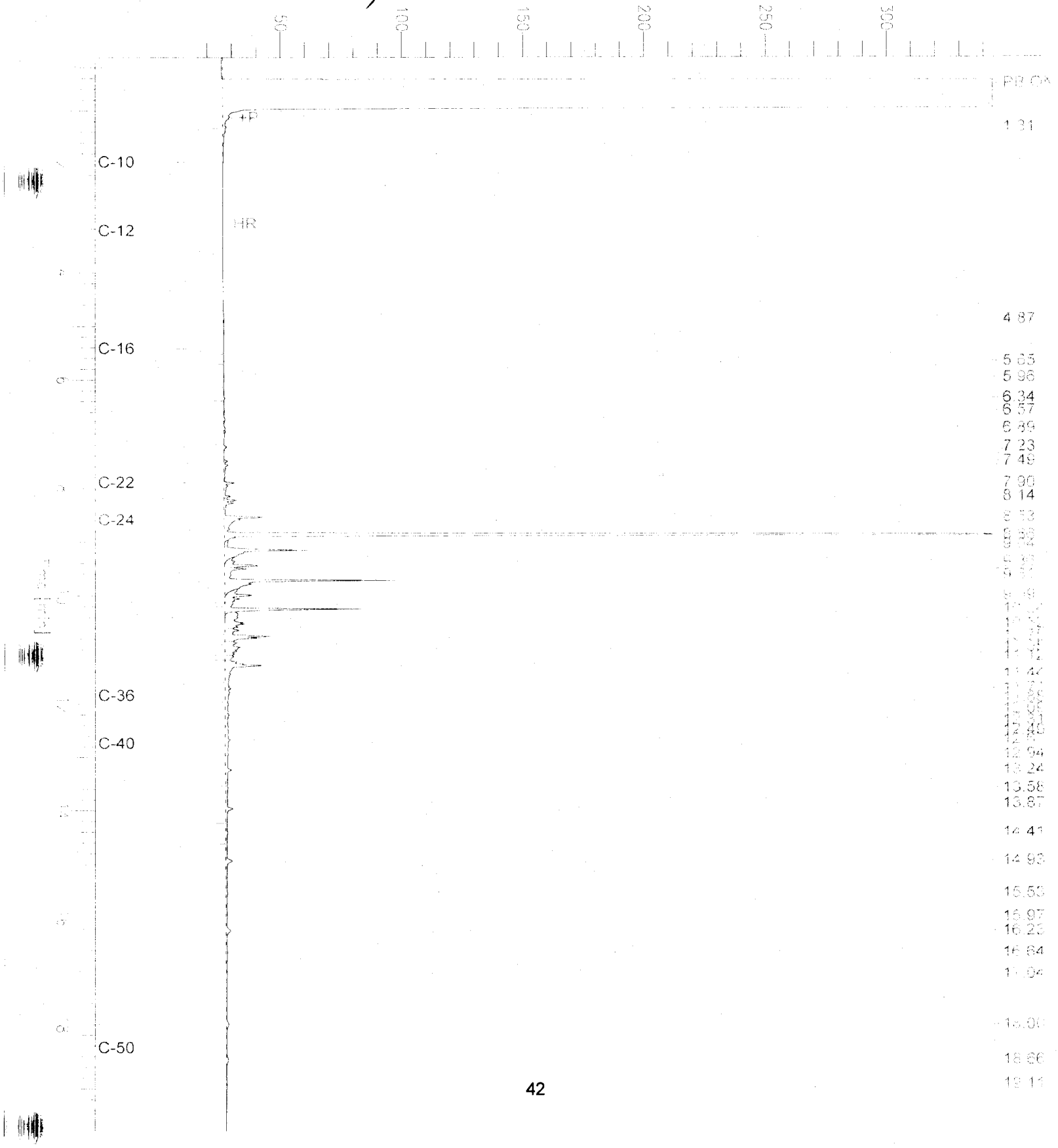
Chromatogram

Sample Name : 182254-007sg,106755
FileName : G:\GC15\CHB\289B014.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 11 mV

Sample #: 106755 Page 1 of 1
Date : 10/17/05 08:54 AM
Time of Injection: 10/16/05 05:26 PM
Low Point : 11.19 mV High Point : 343.74 mV
Plot Scale: 332.5 mV

BBI TP111(3.0)

Response [mV]



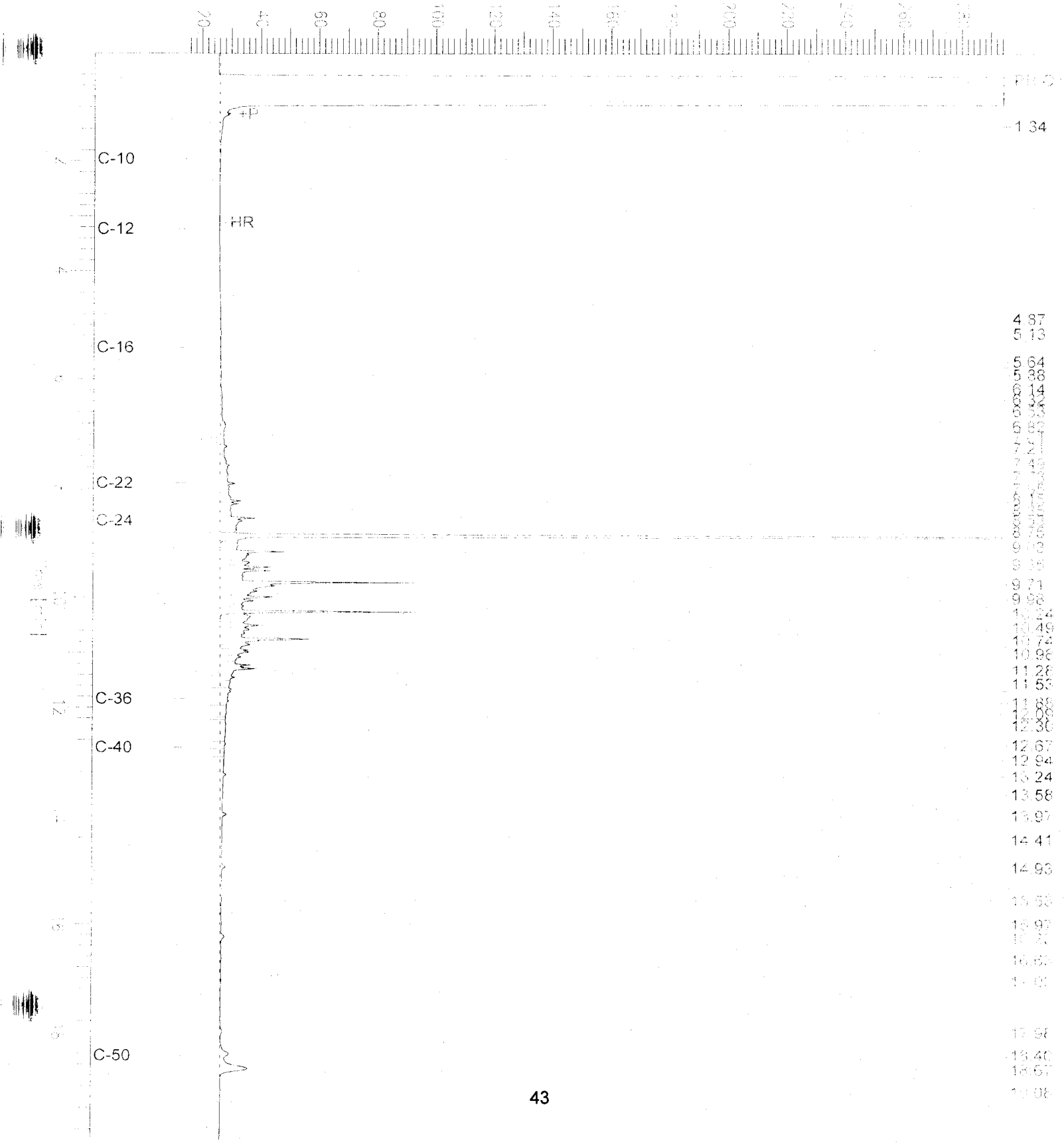
Chromatogram

Sample Name : 182254-008sg,106755
FileName : G:\GC15\CHB\289B018.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 15 mV

Sample #: 106755 Page 1 of 1
Date : 10/17/05 08:56 AM
Time of Injection: 10/16/05 07:21 PM
Low Point : 14.63 mV High Point : 294.28 mV
Plot Scale: 279.6 mV

BBITP110(1.5)

Response [mV]

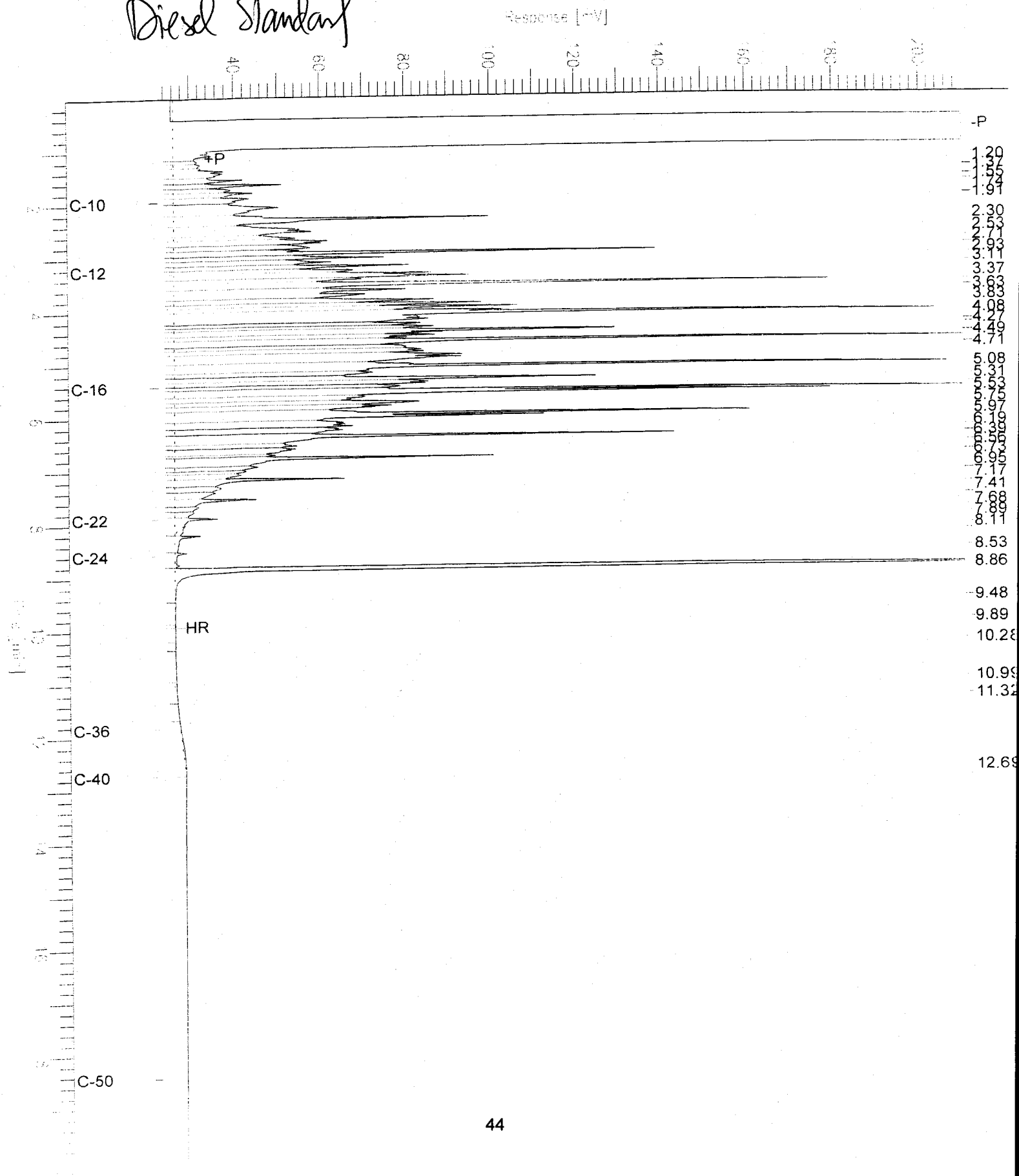


Chromatogram

Sample Name : ccv,S1522,dsl
FileName : G:\GC15\CHB\289B003.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min
End Time : 19.99 min
Scale Factor: 0.0
Plot Offset: 28 mV

Sample #: 500mg/L
Date : 10/16/05 11:37 AM
Time of Injection: 10/16/05 10:52 AM
Low Point : 22.71 mV
High Point : 209.91 mV
Plot Scale: 187.2 mV

Diesel Standard

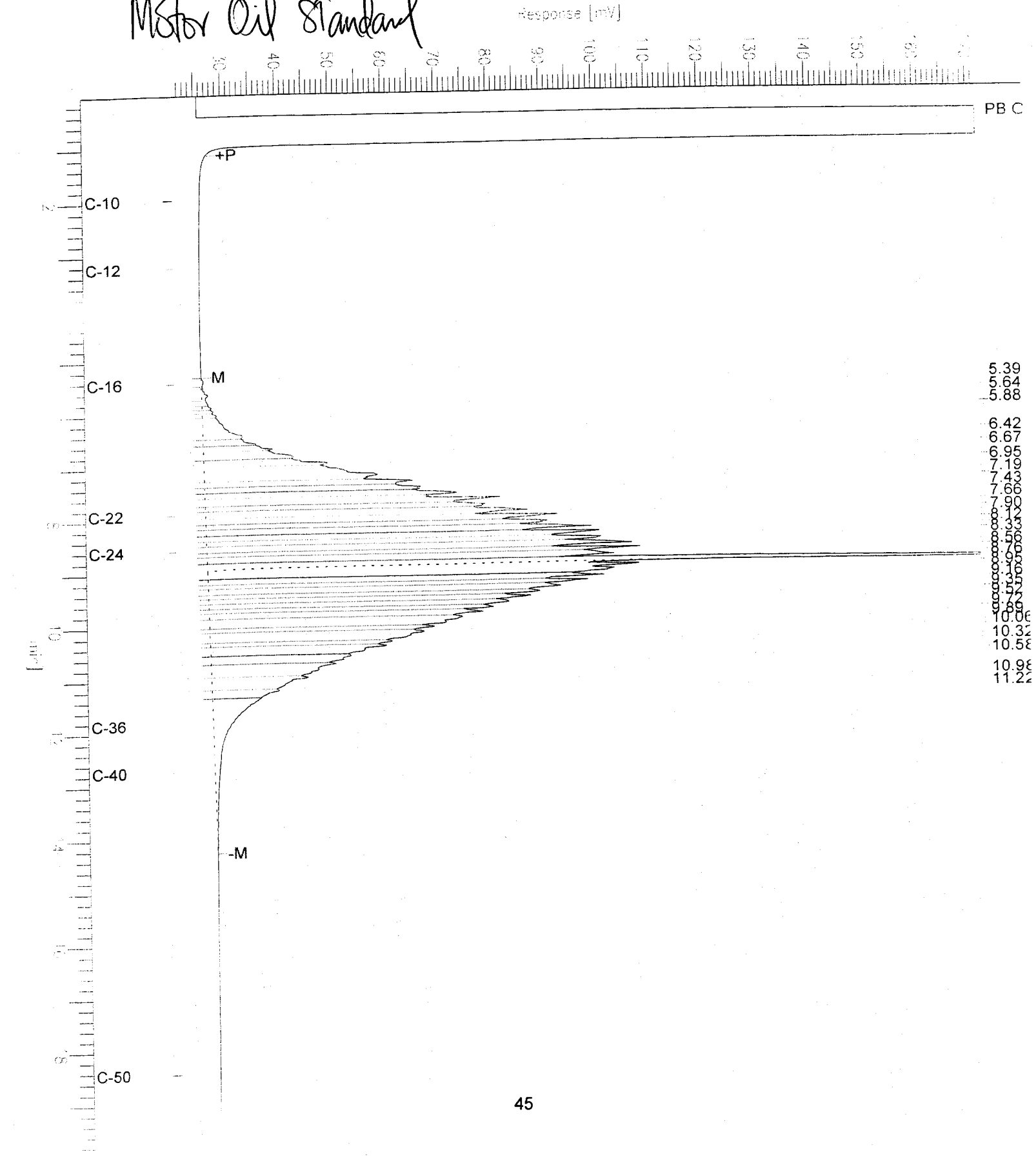


Chromatogram

Sample Name : ccv,S1657,mo
FileName : G:\GC15\CHB\289B004.RAW
Method : BTEH274S.MTH
Start Time : 0.01 min
End Time : 19.99 min
Scale Factor: 0.0
Plot Offset: 21 mV

Sample #: 500mg/L
Date : 10/16/05 12:32 PM
Time of Injection: 10/16/05 11:21 AM
Low Point : 21.04 mV
High Point : 171.76 mV
Plot Scale: 150.7 mV

Motor Oil Standard



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC313063	Batch#:	106755
Matrix:	Soil	Prepared:	10/14/05
Units:	mg/Kg	Analyzed:	10/16/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	49.91	45.08	90	65-135

Surrogate	%REC	Limits
Hexacosane	107	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBITP111(1.5)	Batch#:	106755
MSS Lab ID:	182254-005	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	mg/Kg	Prepared:	10/14/05
Basis:	dry	Analyzed:	10/16/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC313064
Moisture: 13%
Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	0.8911	57.19	49.97	86	65-135

Surrogate	%REC	Limits
Hexacosane	104	65-135

Type: MSD
Lab ID: QC313065
Moisture: 13%
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	57.12	56.53	97	65-135	12	35

Surrogate	%REC	Limits
Hexacosane	116	65-135

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MCH
Calnum: 165393986001 Name: Diesel Type: (normal) Date: 30-SEP-2005 16:58 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	273b003	165393986003	dsl10	30-SEP-2005 16:58	S430
2	273b004	165393986004	dsl100	30-SEP-2005 17:26	S429
3	273b005	165393986005	dsl250	30-SEP-2005 17:55	S427
4	273b006	165393986006	dsl500	30-SEP-2005 18:25	S1590
5	273b007	165393986007	dsl1000	30-SEP-2005 18:54	S425
6	273b008	165393986008	dsl2500	30-SEP-2005 19:23	S424
7	273b009	165393986009	dsl5000	30-SEP-2005 19:52	S423

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Diesel C12-C24	21628	24645	26088	24493	27640	26316	24371	AVRG	R		3.996E-5		mg/L	25026	8	0.995	20	

48

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC15B Calname : Diesel
Calnum : 165393986001 Caldate : 30-SEP-2005 Caltype :

ICV 165393986011 (273b011) standards: S1178

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C12-C24	B	165393986011	30-SEP-2005	500.00	516.87	mg/L	3

INITIAL CALIBRATION REPORT FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MCH
Calnum: 165288605003 Name: Motor Oil Type: (normal) Date: 19-JUL-2005 18:48 Inj Vol (uL): 3

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	200b008	165288605008	mo50	19-JUL-2005 18:48	S693
2	200b009	165288605009	mo250	19-JUL-2005 19:17	S694
3	200b010	165288605010	mo500	19-JUL-2005 19:46	S695
4	200b011	165288605011	mo1000	19-JUL-2005 20:15	S696
5	200b012	165288605012	mo2500	19-JUL-2005 20:44	S697
6	200b013	165288605013	mo5000	19-JUL-2005 21:13	S691

Analyte	L1	L2	L3	L4	L5	L6	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	16388	17311	17323	18732	14912	11808	AVRG R		6.219E-5		mg/L	16079	15	0.995	20	

50

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Reviewed By: MCH
Calnum: 165393986002 Name: Hexacosane Type: (normal) Date: 30-SEP-2005 21:48 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	273b013	165393986013	hex	30-SEP-2005 21:48	S1469
2	273b014	165393986014	hex	30-SEP-2005 22:17	S1470
3	273b015	165393986015	hex	30-SEP-2005 22:46	S1471
4	273b016	165393986016	hex	30-SEP-2005 23:15	S1472
5	273b017	165393986017	hex	30-SEP-2005 23:44	S1473

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Hexacosane	27279	27727	28160	27712	27583	AVRG R		3.611E-5		mg/L	27692	1	0.995	20	

51

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C12-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC15B	B	165416783003	16-OCT-2005 10:52	165393986001	30-SEP-2005	25026	24423	500.00	487.95	mg/L	-2	15	
GC15B	B	165416783015	16-OCT-2005 17:55	165393986001	30-SEP-2005	25026	25044	1000.0	1000.7	mg/L	0	15	
GC15B	B	165416783029	17-OCT-2005 00:39	165393986001	30-SEP-2005	25026	24260	250.00	242.34	mg/L	-3	15	
GC15B	B	165416783046	17-OCT-2005 08:46	165393986001	30-SEP-2005	25026	24814	500.00	495.76	mg/L	-1	15	

CONTINUING CALIBRATION SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	RF/CF	Avg RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC15B	B	165416783004	16-OCT-2005 11:21	165288605003	19-JUL-2005	16079	14287	500.00	444.27	mg/L	-11	15	
GC15B	B	165416783016	16-OCT-2005 18:24	165288605003	19-JUL-2005	16079	15231	500.00	473.64	mg/L	-5	15	
GC15B	B	165416783030	17-OCT-2005 01:08	165288605003	19-JUL-2005	16079	14685	500.00	456.65	mg/L	-9	15	
GC15B	B	165416783047	17-OCT-2005 09:15	165288605003	19-JUL-2005	16079	14169	500.00	440.60	mg/L	-12	15	

CONTINUING CALIBRATION SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC15B	B	165416783003	16-OCT-2005 10:52	165393986002	30-SEP-2005	27692	31028	50.000	56.023	mg/L	12	15	
GC15B	B	165416783015	16-OCT-2005 17:55	165393986002	30-SEP-2005	27692	31656	50.000	57.157	mg/L	14	15	
GC15B	B	165416783029	17-OCT-2005 00:39	165393986002	30-SEP-2005	27692	30802	50.000	55.615	mg/L	11	15	
GC15B	B	165416783046	17-OCT-2005 08:46	165393986002	30-SEP-2005	27692	31526	50.000	56.922	mg/L	14	15	

SEQUENCE SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 165288605 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 19-JUL-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	200b001	X	primer			19-JUL-2005 10:05	1.0						
002	200b002	X	ib			19-JUL-2005 10:34	1.0						
003	200b003	CCV	dsl			19-JUL-2005 11:02	1.0		3			1	
004	200b004	CCV	mo			19-JUL-2005 11:31	1.0	5	3			2	
005	200b005	CCV	jet			19-JUL-2005 14:02	1.0		3			3	
006	200b006	CCV	hyfl			19-JUL-2005 14:30	1.0		3			4	
007	200b007	X	ib			19-JUL-2005 18:19	1.0						
008	200b008	ICAL	mo50			19-JUL-2005 18:48	1.0					5	
009	200b009	ICAL	mo250			19-JUL-2005 19:17	1.0					6	
010	200b010	ICAL	mo500			19-JUL-2005 19:46	1.0					7	
011	200b011	ICAL	mo1000			19-JUL-2005 20:15	1.0					8	
012	200b012	ICAL	mo2500			19-JUL-2005 20:44	1.0					9	
013	200b013	ICAL	mo5000			19-JUL-2005 21:13	1.0					10	
014	200b014	X	ib			19-JUL-2005 21:42	1.0						
015	200b015	CCV	mo			19-JUL-2005 22:11	1.0	1	3			2	

Stds used: 1=S1030 2=S1044 3=S1135 4=S1136 5=S693 6=S694 7=S695 8=S696 9=S697 10=S691

SEQUENCE SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 165393986 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 30-SEP-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	273b001	X	primer			30-SEP-2005 14:26	1.0						
002	273b002	X	ib			30-SEP-2005 14:54	1.0						
003	273b003	ICAL	dsl10			30-SEP-2005 16:58	1.0					1	
004	273b004	ICAL	dsl100			30-SEP-2005 17:26	1.0					2	
005	273b005	ICAL	dsl250			30-SEP-2005 17:55	1.0					3	
006	273b006	ICAL	dsl500			30-SEP-2005 18:25	1.0					4	
007	273b007	ICAL	dsl1000			30-SEP-2005 18:54	1.0					5	
008	273b008	ICAL	dsl2500			30-SEP-2005 19:23	1.0					6	
009	273b009	ICAL	dsl5000			30-SEP-2005 19:52	1.0					7	
010	273b010	X	ib			30-SEP-2005 20:21	1.0						
011	273b011	ICV	dsl			30-SEP-2005 20:50	1.0		3			8	
012	273b012	X	ib			30-SEP-2005 21:19	1.0						
013	273b013	ICAL	hex			30-SEP-2005 21:48	1.0					9	
014	273b014	ICAL	hex			30-SEP-2005 22:17	1.0					10	
015	273b015	ICAL	hex			30-SEP-2005 22:46	1.0					11	
016	273b016	ICAL	hex			30-SEP-2005 23:15	1.0					12	
017	273b017	ICAL	hex			30-SEP-2005 23:44	1.0					13	
018	273b018	X	ib			01-OCT-2005 00:13	1.0						

Stds used: 1=S430 2=S429 3=S427 4=S1590 5=S425 6=S424 7=S423 8=S1178 9=S1469 10=S1470 11=S1471 12=S1472 13=S1473

SEQUENCE SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 165416783 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 16-OCT-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	289b002	X	ib			16-OCT-2005 10:23	1.0						
003	289b003	CCV	dsl			16-OCT-2005 10:52	1.0	1.0			3	1	
004	289b004	CCV	mo			16-OCT-2005 11:21	1.0	1.0	1		3	2	
005	289b005	BLANK	QC313062 S	106755	Soil	16-OCT-2005 13:08	1.0	0.0994	9		3		
006	289b006	LCS	QC313063 S	106755	Soil	16-OCT-2005 13:37	1.0	0.09982			3		
007	289b007	MS	QC313064 S	106755	Soil	16-OCT-2005 14:06	1.0	0.0995			3		
008	289b008	MSD	QC313065 S	106755	Soil	16-OCT-2005 14:34	1.0	0.09938			3		
009	289b009	SAMPLE	182254-001 S	106755	Soil	16-OCT-2005 15:03	1.0	0.09944			3		
010	289b010	SAMPLE	182254-002 S	106755	Soil	16-OCT-2005 15:32	1.0	0.09972			3		
011	289b011	SAMPLE	182254-004 S	106755	Soil	16-OCT-2005 16:00	1.0	0.09976			3		
012	289b012	MSS	182254-005 S	106755	Soil	16-OCT-2005 16:29	1.0	0.1004	9		3		
013	289b013	SAMPLE	182254-006 S	106755	Soil	16-OCT-2005 16:58	1.0	0.1005			3		
014	289b014	SAMPLE	182254-007 S	106755	Soil	16-OCT-2005 17:26	1.0	0.09996			3		
015	289b015	CCV	dsl			16-OCT-2005 17:55	1.0	1.0			3	3	
016	289b016	CCV	mo			16-OCT-2005 18:24	1.0	1.0	2		3	2	
017	289b017	X	ccv			16-OCT-2005 18:52	1.0					3	
018	289b018	SAMPLE	182254-008 S	106755	Soil	16-OCT-2005 19:21	1.0	0.1002			3		
019	289b019	SAMPLE	182255-001 S	106755	Soil	16-OCT-2005 19:50	1.0	0.1001			3		
020	289b020	SAMPLE	182255-002 S	106755	Soil	16-OCT-2005 20:19	1.0	0.1006			3		
021	289b021	SAMPLE	182255-003 S	106755	Soil	16-OCT-2005 20:48	1.0	0.1006			3		
022	289b022	SAMPLE	182255-004 S	106755	Soil	16-OCT-2005 21:17	1.0	0.0996			3		
023	289b023	SAMPLE	182255-006 S	106755	Soil	16-OCT-2005 21:46	1.0	0.1003	2		3	11:BUNKC:=22567.4	
024	289b024	SAMPLE	182255-007 S	106755	Soil	16-OCT-2005 22:15	1.0	0.1006			3		
025	289b025	SAMPLE	182255-008 S	106755	Soil	16-OCT-2005 22:44	1.0	0.1004			3		
026	289b026	SAMPLE	182255-009 S	106755	Soil	16-OCT-2005 23:13	1.0	0.09954			3		
027	289b027	SAMPLE	182255-005 S	106755	Soil	16-OCT-2005 23:42	1.0	0.1006	1	1	3	12:BUNKC:=27621.8	
028	289b028	X	ib			17-OCT-2005 00:10	1.0						
029	289b029	CCV	dsl			17-OCT-2005 00:39	1.0	1.0			3	4	
030	289b030	CCV	mo			17-OCT-2005 01:08	1.0	1.0	1		3	2	
031	289b031	X	ccv			17-OCT-2005 01:37	1.0					4	
032	289b032	LCS	QC312727 S	106672	Soil	17-OCT-2005 02:05	1.0	0.0993			3		

Stds used: 1=S1522 2=S1657 3=S1764 4=S1613

SEQUENCE SUMMARY FOR 182254 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 165416783 Instrument: GC15B Gas Chromatograph #15 (Channel B) TEH Begun: 16-OCT-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
033	289b033	SAMPLE	182425-035 S	106681	Water	17-OCT-2005 02:34	5.0	0.005			3		
034	289b034	SAMPLE	182294-003 S	106681	Water	17-OCT-2005 03:03	40.0	0.005			3	7:BUNKC:=11631.9	
035	289b035	SAMPLE	182294-004 S	106681	Water	17-OCT-2005 03:31	50.0	0.01			3	7:BUNKC:=11384.7	
036	289b036	SAMPLE	182363-028 S	106672	Soil	17-OCT-2005 04:00	2.0	0.1004			3		
037	289b037	SAMPLE	182363-034 S	106672	Soil	17-OCT-2005 04:29	10.0	0.1004			3	2:BUNKC:=11900.4	
038	289b038	X	ib			17-OCT-2005 04:57	1.0						
039	289b039	SAMPLE	182363-042 S	106755	Soil	17-OCT-2005 05:26	1.0	0.0996			3		
040	289b040	SAMPLE	182255-010 S	106755	Soil	17-OCT-2005 05:54	1.0	0.1004	1	1	3	10:BUNKC:=29738.9	
041	289b041	X	ib			17-OCT-2005 06:23	10.0						
042	289b042	SAMPLE	182363-041 S	106755	Soil	17-OCT-2005 06:51	10.0	0.1000			3		
043	289b043	SAMPLE	182254-003 S	106755	Soil	17-OCT-2005 07:20	1.0	0.09994			3		
044	289b044	X	ib			17-OCT-2005 07:48	1.0						
045	289b045	X	ib			17-OCT-2005 08:17	1.0						
046	289b046	CCV	dsl			17-OCT-2005 08:46	1.0	1.0			3	1	
047	289b047	CCV	mo			17-OCT-2005 09:15	1.0	1.0	1		3	2	
049	289b049	LCS	QC313134 S	106777	Soil	17-OCT-2005 10:35	1.0	0.09994			3		
050	289b050	BLANK	QC313133 S	106777	Soil	17-OCT-2005 11:04	1.0	0.09948	7		3		

Stds used: 1=S1522 2=S1657 3=S1764 4=S1613

Curtis & Tompkins Laboratories Sample Preparation Summary 15-OCT-2005 22:49

Batch Number : 106755
Date Extracted: 14-OCT-2005
Extracted by : Matthew Josh McManus
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S1622C
Spike #2 ID : S1709A
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-001			Mactec, Inc.	Soil	50.28	g	5	0.099443	1	1	0		TEHM	3630C	
182254-002			Mactec, Inc.	Soil	50.14	g	5	0.099721	1	1	0		TEHM	3630C	
182254-003			Mactec, Inc.	Soil	50.03	g	5	0.099940	1	1	0		TEHM	3630C	
182254-004			Mactec, Inc.	Soil	50.12	g	5	0.099761	1	1	0		TEHM	3630C	
182254-005			Mactec, Inc.	Soil	49.79	g	5	0.100422	1	1	0		TEHM	3630C	mss
182254-006			Mactec, Inc.	Soil	49.76	g	5	0.100482	1	1	0		TEHM	3630C	
182254-007			Mactec, Inc.	Soil	50.02	g	5	0.099960	1	1	0		TEHM	3630C	
182254-008			Mactec, Inc.	Soil	49.92	g	5	0.100160	1	1	0		TEHM	3630C	
182255-001			Acton Mickelson Environmental	Soil	49.95	g	5	0.100100	1	1	0		TEHM	3630C	
182255-002			Acton Mickelson Environmental	Soil	49.72	g	5	0.100563	1	1	0		TEHM	3630C	
182255-003			Acton Mickelson Environmental	Soil	49.72	g	5	0.100563	1	1	0		TEHM	3630C	
182255-004			Acton Mickelson Environmental	Soil	50.2	g	5	0.099602	1	1	0		TEHM	3630C	
182255-005			Acton Mickelson Environmental	Soil	49.71	g	5	0.100583	1	1	0		TEHM	3630C	
182255-006			Acton Mickelson Environmental	Soil	49.83	g	5	0.100341	1	1	0		TEHM	3630C	
182255-007			Acton Mickelson Environmental	Soil	49.68	g	5	0.100644	1	1	0		TEHM	3630C	
182255-008			Acton Mickelson Environmental	Soil	49.78	g	5	0.100442	1	1	0		TEHM	3630C	
182255-009			Acton Mickelson Environmental	Soil	50.23	g	5	0.099542	1	1	0		TEHM	3630C	
182255-010			Acton Mickelson Environmental	Soil	49.79	g	5	0.100422	1	1	0		TEHM	3630C	
182363-041			URS Corporation	Soil	49.98	g	5	0.100040	1	1	0		TEHM	3630C	
182363-042			URS Corporation	Soil	50.2	g	5	0.099602	1	1	0		TEHM	3630C	
QC313062	BLANK			Soil	50.3	g	5	0.099404	1	1	0		TEH	3630C	sharpie contamination
QC313063	LCS			Soil	50.09	g	5	0.099820	1	1	1		TEH	3630C	
QC313064	MS	of 182254-005		Soil	50.25	g	5	0.099502	1	1	1		TEH	3630C	
QC313065	MSD	of 182254-005		Soil	50.31	g	5	0.099384	1	1	1		TEH	3630C	

Prep Chemist: _____ Reviewed By: _____ Date: 10/17/05

Relinquished By: _____ Received By: _____ Date: 10/17/05

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2213

LIMS Batch No: 106755
LIMS Analysis TEH/M
Extracted by: MJM
Date Extracted: 10/14/05

Extraction Method:
☒ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☒ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	182254-001 A	50.28	5.0	X	
	-002	50.14			
	-003	50.03			
	-004	50.12 MJM 10/14/05			
5	-005	~~50.05~~ 49.79			MSS
	-006	49.76			
	-007	50.02			
	-008	49.92			
	182255-001 A	49.95			
10	-002	49.72			
	-003	49.72			
	-004	50.20			
	-005	49.71			
	-006	49.83			
15	-007	49.68			
	-008	49.78			
	-009	50.23			
	-010	~~49.79~~			
	182363- ~~011~~ 041 A	49.98			
20	MJM 10/14/05 042	50.20			
	MB QC13062	50.30			sharpie contamination
	LCS 63	50.09			
	MS 64	50.25			
	MSD 65	50.31			
	MJM 10/15/05				

Granular Na_2SO_4 (powder)

Sand weighed out for QC samples
Samples were dried with CH_2Cl_2-rinsed granular Na_2SO_4
1.0 mL of TEH_SURR surrogate solution was added to all samples
1.0 mL of TEH_SP matrix spiking solution was added to all spikes
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all
Samples were: ☐ sonicated 3 times ☒ placed on shaker table at:
taken off shaker table at:
Extracts filtered through baked, rinsed powdered Na_2SO_4
Concentrated to volumes as noted above

	Mfg & Lot # / LIMS # / Time	Date/Initials
Sand	EM44135439	10/14/05 MJM
Na_2SO_4	JTB25151	↓
Surrogate	S1622C	
Spike	S1709A	
CH_2Cl_2	EM45188	
Acetone	EM45125	
Shaker on	1620	
Shaker off	1820	↓
Filtered	JTB25151	10/15/05 MJM
Concentrated	✓	↓

MJM 10/14/05
Extraction Chemist / Date

Continued from page _____
Continued on page _____

10/17/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: MJM
Cleanup Date: 10/15/05

Benchbook # **BK 2209**
Page 38

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
182254-001	106755	1.0	1.0	
-002				
-003				
-004				
-005				MSS
-006				
-007				*
-008				
182255-001				
-002				
-003				
-004				
-005				
-006				
-007				
-008				
-009				*
MJM 10/15/05 -010				
182363-041				too dark to vial in clear vial
-042				
MB QC313062				
LCS 63				
MS 64				
MSD 65				

mjm 10/15/05

* no extra sg-ed sample remaining
JDM 10/16/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	mjm 10/15/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP6128	
Extracts were eluted with 4.0 mL CH_2Cl_2	EM45224	
Concentrated to volumes as noted above	✓	

Extraction Chemist / Date 10/15/05

Continued from page 1
Continued on page ____

Reviewed by / Date 10/16/05

Project Soil Aliquot

Bk2219

Continued from Page

SAMPLE I.D.	Weight(g)	Analysis	Comments
182363-021A	49.81	TEHM	
022	49.62		
023	49.61		
024	50.07		
025	50.35		
028	49.80		
029	49.81		
030	50.31		
031	50.29		
032	50.29		MSS
033	50.22		Rocky
034	49.82		
037	50.03		Rocky
038	49.91		↓
041	49.98		
042	50.20		
043	49.85		
044	50.32		
045	49.83		
048	49.59		
049	49.73		
050	49.80		
MB	49.91		Na_2SO_4 EM44135459
LCS	50.35		↓
MS	49.84		of 182363-032A
MSD	50.43		↓
182212-009A	29.75	8270	MSS
MB	29.81		Na_2SO_4 EM44135459
LCS	30.30		↓
MS	30.03		of 182212-009A
MSD	29.62		↓
182337-001	30.42	8270	Comp of A, B, C, D
↓ 002	30.00	↓	Comp of A, B, C, D
182332-005B	29.70	8270	
182314-001A	29.56		
↓ 002	29.79		

Continued on Page

Yvonne Dunham 10/12/05

Signed Date

Read and Understood By

Signed Date

Project Soil Aliquot BK2219

Continued from Page

SAMPLE I.D.	Weight(g)	Analysis	Comments
182363-025 A	30.12	8270-SIM	
028	30.29		
029	29.91		
030	30.25		
031	30.24		
032	30.46		
034	~~29.70~~ 29.83		
037	30.05		
038	30.39		
041	29.68		
042	29.50		
043	30.32		
044	29.71		
045	29.70		
048	30.18		
049	29.71		
050	~~15.36~~ 15.08		Limited Sample
033	29.70		
182255-025 A	30.01	CON	
024	29.76		
182255-001 A	49.95	TE+M	
2	49.72		
3	49.72		
4	50.20		
5	49.71		
6	49.83		
7	49.68		
8	49.78		
9	50.23		
10	49.79		not included in MB 10/17/05
11	~~49.94~~		
12	49.88		
13	49.85		
14	49.62		
15	49.70		
16	49.77		

Continued on Page

Signed Date

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SAMPLE I.D.	Weight (g)	Analysis	Comments
182255-017 A	50.28	TEHM	
018	50.47		
019	49.73		
020	49.68		
021	50.10		
022	50.38		
023	50.31		
182254-001A	50.28	TEHM	
-002	50.14		
-003	50.03		
-004	50.12		
~~-005~~	50.05		* not included * see QC soil Aliquot page MJM
-006	49.76		
-007	50.02		
-008	49.92		

Continued on Page

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Project Soil Aliquot

BK2279

Continued from Page

SAMPLE I.D.	Weight (g)	Analysis	Comments
~~182317-MSD~~	50.37	TEH	182317-001A
182314-001A	49.77	TEH	
002	49.63		
003	49.68		
004	50.09		
005	50.21		
006	49.73		
182314-011A	50.15	TEH/MS	compost 001,003,004,005,006,010
182254-005A	49.79	TEH	MSS
MB	50.30		EM4413543 9
~~MS~~ LCS	50.09		↓
MS	50.25		182254-005A
MSD	50.31		↓
182255-008A	30.34	8270	
009	30.26		
010	30.48		
011	29.60		
012	30.11		
013	29.90		
014	29.93		
015	29.69		
019	29.90		
022	30.14		
182254-001A	29.75	8270-SIM	
2	29.70		
3	29.73		
4	29.59		
5	29.77		
6	29.92		
7	29.94		
8	30.22		MSS
LCS	29.82		EM4413543 9
MB	29.81		↓
MS	29.72		182254-001A
MSD	29.56		↓

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Signed

10/14/05

Date

Read and Understood By

Signed

Date

Pesticides Results & QC Summary

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-001	alpha-BHC	GC16	B	10/11/05 19:27
182254-001	beta-BHC	GC16	A	10/11/05 19:27
182254-001	gamma-BHC	GC16	B	10/11/05 19:27
182254-001	delta-BHC	GC16	B	10/11/05 19:27
182254-001	Heptachlor	GC16	B	10/11/05 19:27
182254-001	Aldrin	GC16	A	10/11/05 19:27
182254-001	Heptachlor epoxide	GC16	B	10/11/05 19:27
182254-001	Endosulfan I	GC16	B	10/11/05 19:27
182254-001	Dieldrin	GC16	B	10/11/05 19:27
182254-001	4,4'-DDE	GC16	B	10/11/05 19:27
182254-001	Endrin	GC16	B	10/11/05 19:27
182254-001	Endosulfan II	GC16	B	10/11/05 19:27
182254-001	Endosulfan sulfate	GC16	B	10/11/05 19:27
182254-001	4,4'-DDD	GC16	B	10/11/05 19:27
182254-001	Endrin aldehyde	GC16	A	10/11/05 19:27
182254-001	4,4'-DDT	GC16	B	10/11/05 19:27
182254-001	alpha-Chlordane	GC16	B	10/11/05 19:27
182254-001	gamma-Chlordane	GC16	B	10/11/05 19:27
182254-001	Methoxychlor	GC16	B	10/11/05 19:27
182254-001	Toxaphene	GC16	B	10/11/05 19:27
182254-001	TCMX	GC16	B	10/11/05 19:27
182254-001	Decachlorobiphenyl	GC16	B	10/11/05 19:27
182254-002	alpha-BHC	GC16	B	10/11/05 19:58
182254-002	beta-BHC	GC16	B	10/11/05 19:58
182254-002	gamma-BHC	GC16	B	10/11/05 19:58
182254-002	delta-BHC	GC16	B	10/11/05 19:58
182254-002	Heptachlor	GC16	B	10/11/05 19:58
182254-002	Aldrin	GC16	B	10/11/05 19:58
182254-002	Heptachlor epoxide	GC16	B	10/11/05 19:58
182254-002	Endosulfan I	GC16	B	10/11/05 19:58
182254-002	Dieldrin	GC16	B	10/11/05 19:58
182254-002	4,4'-DDE	GC16	B	10/11/05 19:58
182254-002	Endrin	GC16	B	10/11/05 19:58
182254-002	Endosulfan II	GC16	B	10/11/05 19:58
182254-002	Endosulfan sulfate	GC16	B	10/11/05 19:58
182254-002	4,4'-DDD	GC16	B	10/11/05 19:58
182254-002	Endrin aldehyde	GC16	B	10/11/05 19:58
182254-002	4,4'-DDT	GC16	B	10/11/05 19:58
182254-002	alpha-Chlordane	GC16	B	10/11/05 19:58
182254-002	gamma-Chlordane	GC16	B	10/11/05 19:58
182254-002	Methoxychlor	GC16	B	10/11/05 19:58
182254-002	Toxaphene	GC16	B	10/11/05 19:58
182254-002	TCMX	GC16	B	10/11/05 19:58
182254-002	Decachlorobiphenyl	GC16	B	10/11/05 19:58
182254-003	alpha-BHC	GC16	B	10/11/05 20:28
182254-003	beta-BHC	GC16	B	10/11/05 20:28
182254-003	gamma-BHC	GC16	B	10/11/05 20:28
182254-003	delta-BHC	GC16	B	10/11/05 20:28
182254-003	Heptachlor	GC16	B	10/11/05 20:28
182254-003	Aldrin	GC16	B	10/11/05 20:28
182254-003	Heptachlor epoxide	GC16	B	10/11/05 20:28
182254-003	Endosulfan I	GC16	B	10/11/05 20:28

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-003	Dieldrin	GC16	B	10/11/05 20:28
182254-003	4,4'-DDE	GC16	B	10/11/05 20:28
182254-003	Endrin	GC16	B	10/11/05 20:28
182254-003	Endosulfan II	GC16	B	10/11/05 20:28
182254-003	Endosulfan sulfate	GC16	B	10/11/05 20:28
182254-003	4,4'-DDD	GC16	B	10/11/05 20:28
182254-003	Endrin aldehyde	GC16	B	10/11/05 20:28
182254-003	4,4'-DDT	GC16	B	10/11/05 20:28
182254-003	alpha-Chlordane	GC16	B	10/11/05 20:28
182254-003	gamma-Chlordane	GC16	B	10/11/05 20:28
182254-003	Methoxychlor	GC16	B	10/11/05 20:28
182254-003	Toxaphene	GC16	B	10/11/05 20:28
182254-003	TCMX	GC16	B	10/11/05 20:28
182254-003	Decachlorobiphenyl	GC16	B	10/11/05 20:28
182254-004	alpha-BHC	GC16	B	10/11/05 20:59
182254-004	beta-BHC	GC16	B	10/11/05 20:59
182254-004	gamma-BHC	GC16	B	10/11/05 20:59
182254-004	delta-BHC	GC16	B	10/11/05 20:59
182254-004	Heptachlor	GC16	B	10/11/05 20:59
182254-004	Aldrin	GC16	B	10/11/05 20:59
182254-004	Heptachlor epoxide	GC16	B	10/11/05 20:59
182254-004	Endosulfan I	GC16	B	10/11/05 20:59
182254-004	Dieldrin	GC16	B	10/11/05 20:59
182254-004	4,4'-DDE	GC16	B	10/11/05 20:59
182254-004	Endrin	GC16	B	10/11/05 20:59
182254-004	Endosulfan II	GC16	B	10/11/05 20:59
182254-004	Endosulfan sulfate	GC16	B	10/11/05 20:59
182254-004	4,4'-DDD	GC16	B	10/11/05 20:59
182254-004	Endrin aldehyde	GC16	B	10/11/05 20:59
182254-004	4,4'-DDT	GC16	B	10/11/05 20:59
182254-004	alpha-Chlordane	GC16	B	10/11/05 20:59
182254-004	gamma-Chlordane	GC16	B	10/11/05 20:59
182254-004	Methoxychlor	GC16	B	10/11/05 20:59
182254-004	Toxaphene	GC16	B	10/11/05 20:59
182254-004	TCMX	GC16	B	10/11/05 20:59
182254-004	Decachlorobiphenyl	GC16	B	10/11/05 20:59
182254-005	alpha-BHC	GC16	B	10/11/05 21:29
182254-005	beta-BHC	GC16	B	10/11/05 21:29
182254-005	gamma-BHC	GC16	B	10/11/05 21:29
182254-005	delta-BHC	GC16	B	10/11/05 21:29
182254-005	Heptachlor	GC16	B	10/11/05 21:29
182254-005	Aldrin	GC16	B	10/11/05 21:29
182254-005	Heptachlor epoxide	GC16	B	10/11/05 21:29
182254-005	Endosulfan I	GC16	B	10/11/05 21:29
182254-005	Dieldrin	GC16	B	10/11/05 21:29
182254-005	4,4'-DDE	GC16	B	10/11/05 21:29
182254-005	Endrin	GC16	B	10/11/05 21:29
182254-005	Endosulfan II	GC16	B	10/11/05 21:29
182254-005	Endosulfan sulfate	GC16	B	10/11/05 21:29
182254-005	4,4'-DDD	GC16	B	10/11/05 21:29
182254-005	Endrin aldehyde	GC16	B	10/11/05 21:29
182254-005	4,4'-DDT	GC16	B	10/11/05 21:29

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-005	alpha-Chlordane	GC16	B	10/11/05 21:29
182254-005	gamma-Chlordane	GC16	B	10/11/05 21:29
182254-005	Methoxychlor	GC16	B	10/11/05 21:29
182254-005	Toxaphene	GC16	B	10/11/05 21:29
182254-005	TCMX	GC16	B	10/11/05 21:29
182254-005	Decachlorobiphenyl	GC16	B	10/11/05 21:29
182254-006	alpha-BHC	GC16	B	10/11/05 22:00
182254-006	beta-BHC	GC16	B	10/11/05 22:00
182254-006	gamma-BHC	GC16	B	10/11/05 22:00
182254-006	delta-BHC	GC16	B	10/11/05 22:00
182254-006	Heptachlor	GC16	B	10/11/05 22:00
182254-006	Aldrin	GC16	B	10/11/05 22:00
182254-006	Heptachlor epoxide	GC16	B	10/11/05 22:00
182254-006	Endosulfan I	GC16	B	10/11/05 22:00
182254-006	Dieldrin	GC16	B	10/11/05 22:00
182254-006	4,4'-DDE	GC16	B	10/11/05 22:00
182254-006	Endrin	GC16	B	10/11/05 22:00
182254-006	Endosulfan II	GC16	B	10/11/05 22:00
182254-006	Endosulfan sulfate	GC16	B	10/11/05 22:00
182254-006	4,4'-DDD	GC16	B	10/11/05 22:00
182254-006	Endrin aldehyde	GC16	B	10/11/05 22:00
182254-006	4,4'-DDT	GC16	B	10/11/05 22:00
182254-006	alpha-Chlordane	GC16	B	10/11/05 22:00
182254-006	gamma-Chlordane	GC16	B	10/11/05 22:00
182254-006	Methoxychlor	GC16	B	10/11/05 22:00
182254-006	Toxaphene	GC16	B	10/11/05 22:00
182254-006	TCMX	GC16	B	10/11/05 22:00
182254-006	Decachlorobiphenyl	GC16	B	10/11/05 22:00
182254-007	alpha-BHC	GC23	B	10/17/05 21:35
182254-007	beta-BHC	GC23	B	10/17/05 21:35
182254-007	gamma-BHC	GC23	B	10/17/05 21:35
182254-007	delta-BHC	GC23	B	10/17/05 21:35
182254-007	Heptachlor	GC23	B	10/17/05 21:35
182254-007	Aldrin	GC23	B	10/17/05 21:35
182254-007	Heptachlor epoxide	GC23	B	10/17/05 21:35
182254-007	Endosulfan I	GC23	B	10/17/05 21:35
182254-007	Dieldrin	GC23	B	10/17/05 21:35
182254-007	4,4'-DDE	GC23	B	10/17/05 21:35
182254-007	Endrin	GC23	B	10/17/05 21:35
182254-007	Endosulfan II	GC23	B	10/17/05 21:35
182254-007	Endosulfan sulfate	GC23	B	10/17/05 21:35
182254-007	4,4'-DDD	GC23	B	10/17/05 21:35
182254-007	Endrin aldehyde	GC23	B	10/17/05 21:35
182254-007	4,4'-DDT	GC23	B	10/17/05 21:35
182254-007	alpha-Chlordane	GC23	B	10/17/05 21:35
182254-007	gamma-Chlordane	GC23	B	10/17/05 21:35
182254-007	Methoxychlor	GC23	B	10/17/05 21:35
182254-007	Toxaphene	GC23	B	10/17/05 21:35
182254-007	TCMX	GC23	B	10/17/05 21:35
182254-007	Decachlorobiphenyl	GC23	B	10/17/05 21:35
182254-008	alpha-BHC	GC23	B	10/17/05 22:03

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-008	beta-BHC	GC23	B	10/17/05 22:03
182254-008	gamma-BHC	GC23	B	10/17/05 22:03
182254-008	delta-BHC	GC23	B	10/17/05 22:03
182254-008	Heptachlor	GC23	B	10/17/05 22:03
182254-008	Aldrin	GC23	B	10/17/05 22:03
182254-008	Heptachlor epoxide	GC23	B	10/17/05 22:03
182254-008	Endosulfan I	GC23	B	10/17/05 22:03
182254-008	Dieldrin	GC23	A	10/17/05 22:03
182254-008	4,4'-DDE	GC23	B	10/17/05 22:03
182254-008	Endrin	GC23	B	10/17/05 22:03
182254-008	Endosulfan II	GC23	B	10/17/05 22:03
182254-008	Endosulfan sulfate	GC23	B	10/17/05 22:03
182254-008	4,4'-DDD	GC23	B	10/17/05 22:03
182254-008	Endrin aldehyde	GC23	B	10/17/05 22:03
182254-008	4,4'-DDT	GC23	B	10/17/05 22:03
182254-008	alpha-Chlordane	GC23	A	10/17/05 22:03
182254-008	gamma-Chlordane	GC23	B	10/17/05 22:03
182254-008	Methoxychlor	GC23	B	10/17/05 22:03
182254-008	Toxaphene	GC23	B	10/17/05 22:03
182254-008	TCMX	GC23	B	10/17/05 22:03
182254-008	Decachlorobiphenyl	GC23	B	10/17/05 22:03
QC312393	alpha-BHC	GC16	B	10/11/05 18:26
QC312393	beta-BHC	GC16	B	10/11/05 18:26
QC312393	gamma-BHC	GC16	B	10/11/05 18:26
QC312393	delta-BHC	GC16	B	10/11/05 18:26
QC312393	Heptachlor	GC16	B	10/11/05 18:26
QC312393	Aldrin	GC16	B	10/11/05 18:26
QC312393	Heptachlor epoxide	GC16	B	10/11/05 18:26
QC312393	Endosulfan I	GC16	B	10/11/05 18:26
QC312393	Dieldrin	GC16	B	10/11/05 18:26
QC312393	4,4'-DDE	GC16	B	10/11/05 18:26
QC312393	Endrin	GC16	B	10/11/05 18:26
QC312393	Endosulfan II	GC16	B	10/11/05 18:26
QC312393	Endosulfan sulfate	GC16	B	10/11/05 18:26
QC312393	4,4'-DDD	GC16	B	10/11/05 18:26
QC312393	Endrin aldehyde	GC16	B	10/11/05 18:26
QC312393	4,4'-DDT	GC16	B	10/11/05 18:26
QC312393	alpha-Chlordane	GC16	B	10/11/05 18:26
QC312393	gamma-Chlordane	GC16	B	10/11/05 18:26
QC312393	Methoxychlor	GC16	B	10/11/05 18:26
QC312393	Toxaphene	GC16	B	10/11/05 18:26
QC312393	TCMX	GC16	B	10/11/05 18:26
QC312393	Decachlorobiphenyl	GC16	B	10/11/05 18:26
QC312397	gamma-BHC	GC16	B	10/11/05 18:57
QC312397	Heptachlor	GC16	B	10/11/05 18:57
QC312397	Aldrin	GC16	B	10/11/05 18:57
QC312397	Dieldrin	GC16	B	10/11/05 18:57
QC312397	Endrin	GC16	B	10/11/05 18:57
QC312397	4,4'-DDT	GC16	B	10/11/05 18:57
QC312397	TCMX	GC16	B	10/11/05 18:57
QC312397	Decachlorobiphenyl	GC16	B	10/11/05 18:57

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC312398	gamma-BHC	GC16	B	10/11/05 22:30
QC312398	Heptachlor	GC16	B	10/11/05 22:30
QC312398	Aldrin	GC16	B	10/11/05 22:30
QC312398	Dieldrin	GC16	B	10/11/05 22:30
QC312398	Endrin	GC16	B	10/11/05 22:30
QC312398	4,4'-DDT	GC16	B	10/11/05 22:30
QC312398	TCMX	GC16	B	10/11/05 22:30
QC312398	Decachlorobiphenyl	GC16	B	10/11/05 22:30
QC312399	gamma-BHC	GC16	B	10/11/05 23:01
QC312399	Heptachlor	GC16	B	10/11/05 23:01
QC312399	Aldrin	GC16	B	10/11/05 23:01
QC312399	Dieldrin	GC16	B	10/11/05 23:01
QC312399	Endrin	GC16	B	10/11/05 23:01
QC312399	4,4'-DDT	GC16	B	10/11/05 23:01
QC312399	TCMX	GC16	B	10/11/05 23:01
QC312399	Decachlorobiphenyl	GC16	B	10/11/05 23:01
QC313149	alpha-BHC	GC23	B	10/17/05 20:39
QC313149	beta-BHC	GC23	B	10/17/05 20:39
QC313149	gamma-BHC	GC23	B	10/17/05 20:39
QC313149	delta-BHC	GC23	B	10/17/05 20:39
QC313149	Heptachlor	GC23	B	10/17/05 20:39
QC313149	Aldrin	GC23	B	10/17/05 20:39
QC313149	Heptachlor epoxide	GC23	B	10/17/05 20:39
QC313149	Endosulfan I	GC23	B	10/17/05 20:39
QC313149	Dieldrin	GC23	B	10/17/05 20:39
QC313149	4,4'-DDE	GC23	B	10/17/05 20:39
QC313149	Endrin	GC23	B	10/17/05 20:39
QC313149	Endosulfan II	GC23	B	10/17/05 20:39
QC313149	Endosulfan sulfate	GC23	B	10/17/05 20:39
QC313149	4,4'-DDD	GC23	B	10/17/05 20:39
QC313149	Endrin aldehyde	GC23	B	10/17/05 20:39
QC313149	4,4'-DDT	GC23	B	10/17/05 20:39
QC313149	alpha-Chlordane	GC23	B	10/17/05 20:39
QC313149	gamma-Chlordane	GC23	B	10/17/05 20:39
QC313149	Methoxychlor	GC23	B	10/17/05 20:39
QC313149	Toxaphene	GC23	B	10/17/05 20:39
QC313149	TCMX	GC23	B	10/17/05 20:39
QC313149	Decachlorobiphenyl	GC23	B	10/17/05 20:39
QC313150	gamma-BHC	GC23	B	10/17/05 21:07
QC313150	Heptachlor	GC23	B	10/17/05 21:07
QC313150	Aldrin	GC23	B	10/17/05 21:07
QC313150	Dieldrin	GC23	B	10/17/05 21:07
QC313150	Endrin	GC23	B	10/17/05 21:07
QC313150	4,4'-DDT	GC23	B	10/17/05 21:07
QC313150	TCMX	GC23	B	10/17/05 21:07
QC313150	Decachlorobiphenyl	GC23	B	10/17/05 21:07
QC313151	gamma-BHC	GC23	B	10/17/05 22:59
QC313151	Heptachlor	GC23	B	10/17/05 22:59
QC313151	Aldrin	GC23	B	10/17/05 22:59
QC313151	Dieldrin	GC23	B	10/17/05 22:59

REPORTING SUMMARY FOR 182254 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC313151	Endrin	GC23	B	10/17/05 22:59
QC313151	4,4'-DDT	GC23	B	10/17/05 22:59
QC313151	TCMX	GC23	B	10/17/05 22:59
QC313151	Decachlorobiphenyl	GC23	B	10/17/05 22:59
QC313152	gamma-BHC	GC23	B	10/17/05 23:28
QC313152	Heptachlor	GC23	B	10/17/05 23:28
QC313152	Aldrin	GC23	B	10/17/05 23:28
QC313152	Dieldrin	GC23	B	10/17/05 23:28
QC313152	Endrin	GC23	B	10/17/05 23:28
QC313152	4,4'-DDT	GC23	B	10/17/05 23:28
QC313152	TCMX	GC23	B	10/17/05 23:28
QC313152	Decachlorobiphenyl	GC23	B	10/17/05 23:28

Confirmation Report for 182254 8081 Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result	Confirmation	RPD	%D
182254-001	BBITP107(8.0)	beta-BHC	0.5174 J	0.4677	10	-10
182254-001	BBITP107(8.0)	delta-BHC	1.264 J C	0.4263	99	-66
182254-001	BBITP107(8.0)	Aldrin	0.5901 J	0.4368	30	-26
182254-001	BBITP107(8.0)	Endrin aldehyde	4.412 C	0.4110	166	-91
182254-002	BBITP107(12.0)	delta-BHC	0.6681 J C	0.2578	89	-61
182254-007	BBITP108(3.0)	Endosulfan sulfate	0.7966 J C	0.4314	59	-46
182254-007	BBITP108(3.0)	4,4'-DDD	0.2260 J C	0.4621	69	104
182254-007	BBITP108(3.0)	4,4'-DDT	0.5902 J	0.4588	25	-22
182254-007	BBITP108(3.0)	gamma-Chlordane	0.2452 J	0.2846	15	16
182254-008	BBITP107(1.5)	Heptachlor epoxide	0.9928 J	0.8797	12	-11
182254-008	BBITP107(1.5)	Dieldrin	1.913 J C	0.6500	99	-66
182254-008	BBITP107(1.5)	Endosulfan sulfate	2.703 J C	0.3167	158	-88
182254-008	BBITP107(1.5)	alpha-Chlordane	9.434 C	4.903	63	-48
182254-008	BBITP107(1.5)	gamma-Chlordane	4.509	3.979	13	-12

C=RPD between columns exceeds 40% J=estimated

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP110(8.0)	Batch#:	106600
Lab ID:	182254-001	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	1.000		

Moisture: 15%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.0	0.13
beta-BHC	0.52 J	2.0	0.22
gamma-BHC	ND	2.0	0.099
delta-BHC	1.3 C J	2.0	0.20
Heptachlor	ND	2.0	0.30
Aldrin	0.59 J	2.0	0.24
Heptachlor epoxide	ND	2.0	0.41
Endosulfan I	ND	2.0	0.29
Dieldrin	ND	3.9	0.54
4,4'-DDE	ND	3.9	0.46
Endrin	ND	3.9	0.82
Endosulfan II	ND	3.9	0.73
Endosulfan sulfate	ND	3.9	0.76
4,4'-DDD	ND	3.9	1.0
Endrin aldehyde	4.4 C	3.9	0.68
4,4'-DDT	ND	3.9	0.45
alpha-Chlordane	ND	2.0	0.33
gamma-Chlordane	ND	2.0	0.36
Methoxychlor	ND	20	5.0
Toxaphene	ND	71	17

Surrogate	%REC	Limits
TCMX	60	42-127
Decachlorobiphenyl	102	43-141

C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP110(12.0)	Batch#:	106600
Lab ID:	182254-002	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	1.000		

Moisture: 16%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	2.1	0.13
beta-BHC	ND	2.1	0.34
gamma-BHC	ND	2.1	0.10
delta-BHC	0.67 C J	2.1	0.21
Heptachlor	ND	2.1	0.31
Aldrin	ND	2.1	0.32
Heptachlor epoxide	ND	2.1	0.42
Endosulfan I	ND	2.1	0.30
Dieldrin	ND	4.0	0.55
4,4'-DDE	ND	4.0	0.47
Endrin	ND	4.0	0.83
Endosulfan II	ND	4.0	0.75
Endosulfan sulfate	ND	4.0	0.78
4,4'-DDD	ND	4.0	1.0
Endrin aldehyde	ND	4.0	0.34
4,4'-DDT	ND	4.0	0.46
alpha-Chlordane	ND	2.1	0.34
gamma-Chlordane	ND	2.1	0.37
Methoxychlor	ND	21	5.2
Toxaphene	ND	73	17

Surrogate	%REC	Limits
TCMX	55	42-127
Decachlorobiphenyl	85	43-141

C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP113(3.0)	Batch#:	106600
Lab ID:	182254-003	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	5.000		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	9.6	0.62
beta-BHC	ND	9.6	1.6
gamma-BHC	ND	9.6	0.47
delta-BHC	ND	9.6	0.96
Heptachlor	ND	9.6	1.4
Aldrin	ND	9.6	1.5
Heptachlor epoxide	ND	9.6	2.0
Endosulfan I	ND	9.6	1.4
Dieldrin	ND	19	2.5
4,4'-DDE	ND	19	2.2
Endrin	ND	19	3.9
Endosulfan II	ND	19	3.5
Endosulfan sulfate	ND	19	3.6
4,4'-DDD	ND	19	4.9
Endrin aldehyde	ND	19	1.6
4,4'-DDT	ND	19	2.1
alpha-Chlordane	ND	9.6	1.6
gamma-Chlordane	ND	9.6	1.7
Methoxychlor	ND	96	24
Toxaphene	ND	340	79

Surrogate	%REC	Limits
TCMX	79	42-127
Decachlorobiphenyl	124	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP113(5.5)	Batch#:	106600
Lab ID:	182254-004	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	1.000		

Moisture: 10% Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.12
beta-BHC	ND	1.9	0.31
gamma-BHC	ND	1.9	0.092
delta-BHC	ND	1.9	0.19
Heptachlor	ND	1.9	0.28
Aldrin	ND	1.9	0.29
Heptachlor epoxide	ND	1.9	0.39
Endosulfan I	ND	1.9	0.27
Dieldrin	ND	3.6	0.50
4,4'-DDE	ND	3.6	0.43
Endrin	ND	3.6	0.76
Endosulfan II	ND	3.6	0.68
Endosulfan sulfate	ND	3.6	0.71
4,4'-DDD	ND	3.6	0.96
Endrin aldehyde	ND	3.6	0.31
4,4'-DDT	ND	3.6	0.42
alpha-Chlordane	ND	1.9	0.31
gamma-Chlordane	ND	1.9	0.33
Methoxychlor	ND	19	4.7
Toxaphene	ND	66	15

Surrogate	%REC	Limits
TCMX	54	42-127
Decachlorobiphenyl	80	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP111(1.5)	Batch#:	106600
Lab ID:	182254-005	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	1.000		

Moisture: 13%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.13
beta-BHC	ND	1.9	0.33
gamma-BHC	ND	1.9	0.096
delta-BHC	ND	1.9	0.20
Heptachlor	ND	1.9	0.29
Aldrin	ND	1.9	0.31
Heptachlor epoxide	ND	1.9	0.40
Endosulfan I	ND	1.9	0.28
Dieldrin	ND	3.8	0.52
4,4'-DDE	ND	3.8	0.44
Endrin	ND	3.8	0.79
Endosulfan II	ND	3.8	0.71
Endosulfan sulfate	ND	3.8	0.74
4,4'-DDD	ND	3.8	1.0
Endrin aldehyde	ND	3.8	0.32
4,4'-DDT	ND	3.8	0.43
alpha-Chlordane	ND	1.9	0.32
gamma-Chlordane	ND	1.9	0.35
Methoxychlor	ND	19	4.9
Toxaphene	ND	69	16

Surrogate	%REC	Limits
TCMX	71	42-127
Decachlorobiphenyl	100	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP111(6.0)	Batch#:	106600
Lab ID:	182254-006	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	1.000		

Moisture: 9%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.12
beta-BHC	ND	1.9	0.32
gamma-BHC	ND	1.9	0.093
delta-BHC	ND	1.9	0.19
Heptachlor	ND	1.9	0.28
Aldrin	ND	1.9	0.30
Heptachlor epoxide	ND	1.9	0.39
Endosulfan I	ND	1.9	0.28
Dieldrin	ND	3.7	0.50
4,4'-DDE	ND	3.7	0.43
Endrin	ND	3.7	0.77
Endosulfan II	ND	3.7	0.69
Endosulfan sulfate	ND	3.7	0.72
4,4'-DDD	ND	3.7	0.97
Endrin aldehyde	ND	3.7	0.31
4,4'-DDT	ND	3.7	0.42
alpha-Chlordane	ND	1.9	0.31
gamma-Chlordane	ND	1.9	0.34
Methoxychlor	ND	19	4.7
Toxaphene	ND	67	16

Surrogate	%REC	Limits
TCMX	57	42-127
Decachlorobiphenyl	95	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP111(3.0)	Batch#:	106779
Lab ID:	182254-007	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/16/05
Basis:	dry	Analyzed:	10/17/05
Diln Fac:	1.000		

Moisture: 7%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.8	0.23
beta-BHC	ND	1.8	0.30
gamma-BHC	ND	1.8	0.20
delta-BHC	ND	1.8	0.26
Heptachlor	ND	1.8	0.24
Aldrin	ND	1.8	0.26
Heptachlor epoxide	ND	1.8	0.47
Endosulfan I	ND	1.8	0.084
Dieldrin	ND	3.5	0.17
4,4'-DDE	ND	3.5	0.23
Endrin	ND	3.5	0.53
Endosulfan II	ND	3.5	0.20
Endosulfan sulfate	0.80 C J	3.5	0.27
4,4'-DDD	0.23 C J	3.5	0.18
Endrin aldehyde	ND	3.5	0.20
4,4'-DDT	0.59 J	3.5	0.43
alpha-Chlordane	ND	1.8	0.093
gamma-Chlordane	0.25 J	1.8	0.14
Methoxychlor	ND	18	1.6
Toxaphene	ND	64	18

Surrogate	%REC	Limits
TCMX	83	42-127
Decachlorobiphenyl	66	43-141

C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP110(1.5)	Batch#:	106779
Lab ID:	182254-008	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/16/05
Basis:	dry	Analyzed:	10/17/05
Diln Fac:	1.000		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.25
beta-BHC	ND	1.9	0.32
gamma-BHC	ND	1.9	0.21
delta-BHC	ND	1.9	0.28
Heptachlor	ND	1.9	0.25
Aldrin	ND	1.9	0.28
Heptachlor epoxide	0.99 J	1.9	0.50
Endosulfan I	ND	1.9	0.090
Dieldrin	1.9 C J	3.7	0.35
4,4'-DDE	ND	3.7	0.24
Endrin	ND	3.7	0.57
Endosulfan II	ND	3.7	0.21
Endosulfan sulfate	2.7 C J	3.7	0.29
4,4'-DDD	ND	3.7	0.19
Endrin aldehyde	ND	3.7	0.21
4,4'-DDT	ND	3.7	0.46
alpha-Chlordane	9.4 C	1.9	0.20
gamma-Chlordane	4.5	1.9	0.15
Methoxychlor	ND	19	1.7
Toxaphene	ND	68	19

Surrogate	%REC	Limits
TCMX	110	42-127
Decachlorobiphenyl	89	43-141

C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC312393	Batch#:	106600
Matrix:	Soil	Prepared:	10/11/05
Units:	ug/Kg	Analyzed:	10/11/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.11
beta-BHC	ND	1.7	0.29
gamma-BHC	ND	1.7	0.084
delta-BHC	ND	1.7	0.17
Heptachlor	ND	1.7	0.26
Aldrin	ND	1.7	0.27
Heptachlor epoxide	ND	1.7	0.35
Endosulfan I	ND	1.7	0.25
Dieldrin	ND	3.3	0.46
4,4'-DDE	ND	3.3	0.39
Endrin	ND	3.3	0.69
Endosulfan II	ND	3.3	0.62
Endosulfan sulfate	ND	3.3	0.65
4,4'-DDD	ND	3.3	0.87
Endrin aldehyde	ND	3.3	0.28
4,4'-DDT	ND	3.3	0.38
alpha-Chlordane	ND	1.7	0.28
gamma-Chlordane	ND	1.7	0.30
Methoxychlor	ND	17	4.3
Toxaphene	ND	60	14

Surrogate	%REC	Limits
TCMX	58	42-127
Decachlorobiphenyl	98	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

50.0

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC312397	Batch#:	106600
Matrix:	Soil	Prepared:	10/11/05
Units:	ug/Kg	Analyzed:	10/11/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.50	10.32	76	42-128
Heptachlor	13.50	11.25	83	45-130
Aldrin	13.50	10.28	76	50-124
Dieldrin	27.00	21.94	81	46-136
Endrin	27.00	22.69	84	42-139
4,4'-DDT	27.00	27.63	102	42-145

Surrogate	%REC	Limits
TCMX	58	42-127
Decachlorobiphenyl	91	43-141

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP113(3.0)	Batch#:	106600
MSS Lab ID:	182254-003	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/11/05
Diln Fac:	5.000		

Type: MS
Lab ID: QC312398

Moisture: 11%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.4698	14.89	11.69	78	46-120
Heptachlor	<1.431	14.89	13.04	88	47-120
Aldrin	<1.496	14.89	12.14	82	48-120
Dieldrin	<2.547	29.78	25.49	86	47-126
Endrin	<3.877	29.78	26.42	89	49-129
4,4'-DDT	<2.130	29.78	26.39	89	30-144

Surrogate	%REC	Limits
TCMX	78	42-127
Decachlorobiphenyl	112	43-141

Type: MSD
Lab ID: QC312399

Moisture: 11%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	14.83	10.09	68	46-120	14	40
Heptachlor	14.83	11.16	75	47-120	15	43
Aldrin	14.83	11.02	74	48-120	9	38
Dieldrin	29.67	22.08	74	47-126	14	38
Endrin	29.67	21.02	71	49-129	22	40
4,4'-DDT	29.67	25.50	86	30-144	3	49

Surrogate	%REC	Limits
TCMX	68	42-127
Decachlorobiphenyl	96	43-141

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313149	Batch#:	106779
Matrix:	Soil	Prepared:	10/16/05
Units:	ug/Kg	Analyzed:	10/17/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.22
beta-BHC	ND	1.7	0.28
gamma-BHC	ND	1.7	0.19
delta-BHC	ND	1.7	0.25
Heptachlor	ND	1.7	0.22
Aldrin	ND	1.7	0.25
Heptachlor epoxide	ND	1.7	0.44
Endosulfan I	ND	1.7	0.080
Dieldrin	ND	3.3	0.17
4,4'-DDE	ND	3.3	0.22
Endrin	ND	3.3	0.50
Endosulfan II	ND	3.3	0.18
Endosulfan sulfate	ND	3.3	0.26
4,4'-DDD	ND	3.3	0.17
Endrin aldehyde	ND	3.3	0.18
4,4'-DDT	ND	3.3	0.41
alpha-Chlordane	ND	1.7	0.088
gamma-Chlordane	ND	1.7	0.14
Methoxychlor	ND	17	1.5
Toxaphene	ND	60	17

Surrogate	%REC	Limits
TCMX	93	42-127
Decachlorobiphenyl	70	43-141

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC313150	Batch#:	106779
Matrix:	Soil	Prepared:	10/16/05
Units:	ug/Kg	Analyzed:	10/17/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.51	12.65	94	42-128
Heptachlor	13.51	14.43 #	107	45-130
Aldrin	13.51	12.66	94	50-124
Dieldrin	27.02	24.98	92	46-136
Endrin	27.02	25.21	93	42-139
4,4'-DDT	27.02	24.76	92	42-145

Surrogate	%REC	Limits
TCMX	91	42-127
Decachlorobiphenyl	65	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBITP111(3.0)	Batch#:	106779
MSS Lab ID:	182254-007	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/16/05
Basis:	dry	Analyzed:	10/17/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC313151

Moisture: 7%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.1986	14.25	13.08	92	46-120
Heptachlor	<0.2379	14.25	14.94 #	105	47-120
Aldrin	<0.2630	14.25	13.48	95	48-120
Dieldrin	<0.1748	28.50	27.10	95	47-126
Endrin	<0.5339	28.50	27.30	96	49-129
4,4'-DDT	0.5902	28.50	23.79	81	30-144

Surrogate	%REC	Limits
TCMX	94	42-127
Decachlorobiphenyl	83	43-141

Type: MSD
Lab ID: QC313152

Moisture: 7%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	14.43	13.86	96	46-120	5	40
Heptachlor	14.43	15.64 #	108	47-120	3	43
Aldrin	14.43	14.24	99	48-120	4	38
Dieldrin	28.87	27.84	96	47-126	1	38
Endrin	28.87	27.88	97	49-129	1	40
4,4'-DDT	28.87	23.32	79	30-144	3	49

Surrogate	%REC	Limits
TCMX	96	42-127
Decachlorobiphenyl	76	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235381020001 Name: Type: (normal) Date: 22-SEP-2005 00:18 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	264_019	235381020019	pest_1	22-SEP-2005 00:18	S737
2	264_020	235381020020	pest_2	22-SEP-2005 00:49	S874
3	264_021	235381020021	pest_3	22-SEP-2005 01:20	S1377
4	264_022	235381020022	pest_4	22-SEP-2005 01:51	S1378
5	264_023	235381020023	pest_5	22-SEP-2005 02:21	S1379
6	264_024	235381020024	pest_6	22-SEP-2005 02:52	S875
7	264_025	235381020025	pest_7	22-SEP-2005 03:23	S876

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
alpha-BHC	A	2186.7	2104.9	2380.9	2430.3	2727.2	3497.0		AVRG	R		3.915E-4		pg	2554.5	20	0.995	20	
gamma-BHC	A	2229.2	2244.6	2463.6	2482.3	2740.2	3468.5	3353.1	AVRG	R		3.688E-4		pg	2711.6	19	0.995	20	
beta-BHC	A	1799.6	1668.7	1735.7	1586.2	1661.2	1837.1	1653.4	AVRG	R		5.862E-4		pg	1706.0	5	0.995	20	
delta-BHC	A	2116.2	1981.6	2148.1	2158.9	2392.7	3263.2		AVRG	R		4.267E-4		pg	2343.4	20	0.995	20	
Heptachlor	A	2494.9	2344.4	2488.7	2286.6	2411.5	2753.7	2503.1	AVRG	R		4.050E-4		pg	2469.0	6	0.995	20	
Aldrin	A	2638.9	2517.5	2657.6	2545.8	2738.2	3196.0	2987.9	AVRG	R		3.630E-4		pg	2754.6	9	0.995	20	
Heptachlor epoxide	A	3209.2	2999.7	3147.5	2849.3	2961.9	3093.3	2707.3	AVRG	R		3.338E-4		pg	2995.5	6	0.995	20	
gamma-Chlordane	A	3329.3	3031.7	3171.8	2886.8	3014.7	3266.1	2900.0	AVRG	R		3.241E-4		pg	3085.8	6	0.995	20	
alpha-Chlordane	A	3449.2	3111.5	3263.8	2972.8	3097.1	3374.9	2942.8	AVRG	R		3.151E-4		pg	3173.1	6	0.995	20	
4,4'-DDE	A	2117.9	2038.4	2300.1	2275.9	2440.7	2810.0	2421.9	AVRG	R		4.267E-4		pg	2343.5	11	0.995	20	
Endosulfan I	A	3269.8	3028.4	3116.4	2824.8	2996.0	3195.1	2725.2	AVRG	R		3.309E-4		pg	3022.2	6	0.995	20	
Dieldrin	A	2729.4	2597.1	2794.6	2642.5	2762.7	3001.2	2559.8	AVRG	R		3.667E-4		pg	2726.8	5	0.995	20	
Endrin	A	2348.9	2178.7	2359.7	2111.2	2191.3	2462.4	2050.4	AVRG	R		4.458E-4		pg	2243.2	7	0.995	20	
4,4'-DDD	A	1607.2	1561.4	1728.8	1725.7	1819.7	2162.6	1842.7	AVRG	R		5.623E-4		pg	1778.3	11	0.995	20	
Endosulfan II	A	2698.7	2571.1	2719.6	2494.3	2547.7	2669.4	2204.0	AVRG	R		3.910E-4		pg	2557.8	7	0.995	20	
4,4'-DDT	A	1325.3	880.15	1084.4	1007.3	1094.9	1438.6	1316.0	AVRG	R		8.593E-4		pg	1163.8	17	0.995	20	
Endrin aldehyde	A	2916.6	2475.0	2456.6	2167.1	2174.5	2198.8	1768.2	AVRG	R		4.333E-4		pg	2308.1	15	0.995	20	
Methoxychlor	A	658.51	639.29	714.73	635.83	654.97	728.30	590.35	AVRG	R		0.001515		pg	660.28	7	0.995	20	
Endosulfan sulfate	A	2793.8	2505.0	2567.0	2282.7	2314.1	2393.6	1949.8	AVRG	R		4.165E-4		pg	2400.9	11	0.995	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD Reviewed By: MCH
Calnum: 235381020001 Name: Type: (normal) Date: 22-SEP-2005 00:18 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
TCMX	A	2808.8	2780.3	2914.6	2727.6	2882.0	3087.8	2737.4	AVRG	R		3.511E-4		pg	2848.4	4	0.995	20	
Decachlorobiphenyl	A	3310.0	2957.1	3161.6	2648.5	2574.6	2219.0		AVRG	R		3.556E-4		pg	2811.8	14	0.995	20	
alpha-BHC	B	8367.6	7776.7	8351.7	7691.7	8135.6	8578.5	7772.8	AVRG	R		1.235E-4		pg	8096.4	4	0.995	20	
gamma-BHC	B	8282.5	7690.7	7919.2	7145.0	7489.2	7989.3	7137.8	AVRG	R		1.305E-4		pg	7664.8	6	0.995	20	
beta-BHC	B	5438.8	4696.3	4613.9	3884.1	3943.0	3849.8	3256.1	AVRG	R		2.358E-4		pg	4240.3	17	0.995	20	
delta-BHC	B	8114.8	7504.9	7619.9	6944.6	7257.8	7979.4	7032.8	AVRG	R		1.335E-4		pg	7493.4	6	0.995	20	
Heptachlor	B	6823.4	6156.3	6095.4	5278.0	5469.5	5666.9	4918.0	AVRG	R		1.732E-4		pg	5772.5	11	0.995	20	
Aldrin	B	8055.9	7345.5	7424.5	6630.3	6894.6	7180.5	6262.9	AVRG	R		1.406E-4		pg	7113.4	8	0.995	20	
Heptachlor epoxide	B	8582.6	7294.6	7365.6	6247.8	6400.1	6208.5	5185.7	AVRG	R		1.480E-4		pg	6755.0	16	0.995	20	
gamma-Chlordane	B	8690.7	7722.4	7657.0	6652.1	6799.2	6831.2	5832.0	AVRG	R		1.395E-4		pg	7169.2	13	0.995	20	
alpha-Chlordane	B	9082.6	7896.6	7681.6	6598.9	6710.4	6808.8	5738.7	AVRG	R		1.386E-4		pg	7216.8	15	0.995	20	
4,4'-DDE	B	6190.8	5804.7	6307.9	5499.4	5696.5	5876.2	4852.9	AVRG	R		1.740E-4		pg	5746.9	8	0.995	20	
Endosulfan I	B	8151.7	7137.1	6938.7	5960.6	6047.7	6027.0	4989.1	AVRG	R		1.547E-4		pg	6464.6	16	0.995	20	
Dieldrin	B	6947.4	6388.4	6520.4	5719.9	5853.4	5907.7	4826.4	AVRG	R		1.660E-4		pg	6023.4	11	0.995	20	
Endrin	B	5389.4	4926.5	5060.5	4293.7	4429.9	4613.4	3723.7	AVRG	R		2.158E-4		pg	4633.8	12	0.995	20	
4,4'-DDD	B	5221.6	4381.4	4644.8	4189.4	4255.3	4355.1	3533.9	AVRG	R		2.289E-4		pg	4368.8	12	0.995	20	
Endosulfan II	B	6884.8	6079.3	6025.6	5182.3	5208.0	5062.8	4066.8	AVRG	R		1.818E-4		pg	5501.4	17	0.995	20	
4,4'-DDT	B	2703.1	2338.4	2604.4	2410.5	2507.0	2846.0	2510.1	AVRG	R		3.906E-4		pg	2559.9	7	0.995	20	
Endrin aldehyde	B	5787.2	4918.1	4673.0	4040.0	3982.6	3872.3	3098.8	AVRG	R		2.305E-4		pg	4338.9	20	0.995	20	
Methoxychlor	B	1560.6	1167.6	1199.6	995.76	1000.3	1073.4	872.16	AVRG	R		8.895E-4		pg	1124.2	20	0.995	20	
Endosulfan sulfate	B	6397.8	5393.6	5168.2	4433.7	4351.1	4295.3	3441.9	AVRG	R		2.091E-4		pg	4783.1	20	0.995	20	
TCMX	B	7650.9	7010.3	6711.9	5816.5	5975.0	5928.1	5120.5	AVRG	R		1.583E-4		pg	6316.2	14	0.995	20	
Decachlorobiphenyl	B	4815.1	3854.8	3972.3	3268.9	3162.4	2794.0		AVRG	R		2.744E-4		pg	3644.6	20	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	10	20	
EPA 8081A	B	22	13	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Calname :
Calnum : 235381020001 Caldate : 22-SEP-2005 Caltype :

ICV 235381020027 (264_027) standards: S1463

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	235381020027	22-SEP-2005	25.000	28.580	pg	14	15	
gamma-BHC	A	235381020027	22-SEP-2005	25.000	26.978	pg	8	15	
beta-BHC	A	235381020027	22-SEP-2005	25.000	25.831	pg	3	15	
delta-BHC	A	235381020027	22-SEP-2005	25.000	28.798	pg	15	15	
Heptachlor	A	235381020027	22-SEP-2005	25.000	26.641	pg	7	15	
Aldrin	A	235381020027	22-SEP-2005	25.000	25.918	pg	4	15	
Heptachlor epoxide	A	235381020027	22-SEP-2005	25.000	25.870	pg	3	15	
gamma-Chlordane	A	235381020027	22-SEP-2005	25.000	25.336	pg	1	15	
alpha-Chlordane	A	235381020027	22-SEP-2005	25.000	25.720	pg	3	15	
4,4'-DDE	A	235381020027	22-SEP-2005	25.000	23.609	pg	-6	15	
Endosulfan I	A	235381020027	22-SEP-2005	25.000	25.442	pg	2	15	
Dieldrin	A	235381020027	22-SEP-2005	25.000	24.277	pg	-3	15	
Endrin	A	235381020027	22-SEP-2005	25.000	24.624	pg	-2	15	
4,4'-DDD	A	235381020027	22-SEP-2005	25.000	23.691	pg	-5	15	
Endosulfan II	A	235381020027	22-SEP-2005	25.000	25.951	pg	4	15	
4,4'-DDT	A	235381020027	22-SEP-2005	25.000	23.259	pg	-7	15	
Endrin aldehyde	A	235381020027	22-SEP-2005	25.000	25.490	pg	2	15	
Methoxychlor	A	235381020027	22-SEP-2005	25.000	24.573	pg	-2	15	
Endosulfan sulfate	A	235381020027	22-SEP-2005	25.000	25.899	pg	4	15	
alpha-BHC	B	235381020027	22-SEP-2005	25.000	26.475	pg	6	15	
gamma-BHC	B	235381020027	22-SEP-2005	25.000	25.803	pg	3	15	
beta-BHC	B	235381020027	22-SEP-2005	25.000	24.192	pg	-3	15	
delta-BHC	B	235381020027	22-SEP-2005	25.000	26.618	pg	6	15	
Heptachlor	B	235381020027	22-SEP-2005	25.000	25.882	pg	4	15	
Aldrin	B	235381020027	22-SEP-2005	25.000	25.412	pg	2	15	
Heptachlor epoxide	B	235381020027	22-SEP-2005	25.000	24.700	pg	-1	15	
gamma-Chlordane	B	235381020027	22-SEP-2005	25.000	24.479	pg	-2	15	
alpha-Chlordane	B	235381020027	22-SEP-2005	25.000	24.467	pg	-2	15	
4,4'-DDE	B	235381020027	22-SEP-2005	25.000	25.976	pg	4	15	
Endosulfan I	B	235381020027	22-SEP-2005	25.000	24.951	pg	0	15	
Dieldrin	B	235381020027	22-SEP-2005	25.000	25.469	pg	2	15	
Endrin	B	235381020027	22-SEP-2005	25.000	26.348	pg	5	15	
4,4'-DDD	B	235381020027	22-SEP-2005	25.000	25.648	pg	3	15	
Endosulfan II	B	235381020027	22-SEP-2005	25.000	26.703	pg	7	15	
4,4'-DDT	B	235381020027	22-SEP-2005	25.000	25.556	pg	2	15	
Endrin aldehyde	B	235381020027	22-SEP-2005	25.000	26.242	pg	5	15	
Methoxychlor	B	235381020027	22-SEP-2005	25.000	29.960	pg	**20**	15	v+ ***
Endosulfan sulfate	B	235381020027	22-SEP-2005	25.000	26.611	pg	6	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	5	15	
EPA 8081A	B	20	5	15	

+=high bias v=ICV
Page 1 of 1

INITIAL CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805389648001 Name: Type: (normal) Date: 27-SEP-2005 22:26 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	270_021	805389648021	pest_1	27-SEP-2005 22:26	S737
2	270_022	805389648022	pest_2	27-SEP-2005 22:54	S874
3	270_023	805389648023	pest_3	27-SEP-2005 23:22	S1377
4	270_024	805389648024	pest_4	27-SEP-2005 23:51	S1378
5	270_025	805389648025	pest_5	28-SEP-2005 00:19	S1379
6	270_026	805389648026	pest_6	28-SEP-2005 00:47	S875
7	270_027	805389648027	pest_7	28-SEP-2005 01:16	S876

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	13930	14401	14391	13314	13749	13637	14621	AVRG	R		7.140E-5		pg	14006	3	0.995	20	
gamma-BHC	A	13214	13410	13144	11920	12474	12619	13530	AVRG	R		7.751E-5		pg	12902	5	0.995	20	
beta-BHC	A	9708.6	7233.5	6382.7	5310.3	5452.1	5226.7	5039.2	AVRG	R		1.578E-4		pg	6336.2	**27**	0.995	20	rsd ***
delta-BHC	A	23571	18282	15537	13129	13582	13966	14282	AVRG	R		6.231E-5		pg	16050	**23**	0.995	20	rsd ***
Heptachlor	A	7809.9	9007.6	9205.2	8693.3	9210.9	9673.7	10225	AVRG	R		1.097E-4		pg	9118.0	8	0.995	20	
Aldrin	A	11022	11617	11489	10367	10797	10950	11332	AVRG	R		9.024E-5		pg	11082	4	0.995	20	
Heptachlor epoxide	A	10246	10358	10562	9411.6	9874.3	9671.3	9933.9	AVRG	R		9.992E-5		pg	10008	4	0.995	20	
gamma-Chlordane	A	11239	10694	10536	9511.1	9922.7	9929.7	10230	AVRG	R		9.714E-5		pg	10295	6	0.995	20	
alpha-Chlordane	A	10475	10533	10195	9127.0	9547.2	9666.3	9922.7	AVRG	R		1.008E-4		pg	9923.7	5	0.995	20	
4,4'-DDE	A	10014	10265	10065	9174.9	9815.7	10481	9286.9	AVRG	R		1.013E-4		pg	9871.8	5	0.995	20	
Endosulfan I	A	9347.7	9523.9	9543.9	8494.2	8965.2	8841.1	9100.9	AVRG	R		1.097E-4		pg	9116.7	4	0.995	20	
Dieldrin	A	9970.4	10457	10242	9304.7	9918.3	10584	9505.7	AVRG	R		1.000E-4		pg	9997.4	5	0.995	20	
Endrin	A	7783.4	8348.7	8231.0	7379.0	7663.6	8147.0	7769.9	AVRG	R		1.265E-4		pg	7903.2	4	0.995	20	
4,4'-DDD	A	8389.1	8399.0	8345.4	7477.7	7997.2	8437.6	7855.5	AVRG	R		1.230E-4		pg	8128.8	4	0.995	20	
Endosulfan II	A	9037.0	9032.5	8878.1	7817.3	8346.4	8615.2	8167.3	AVRG	R		1.169E-4		pg	8556.3	5	0.995	20	
4,4'-DDT	A	7629.3	8273.4	7992.9	7245.1	7823.2	8372.2	7860.0	AVRG	R		1.268E-4		pg	7885.1	5	0.995	20	
Endrin aldehyde	A	8668.5	7628.5	7146.3	6155.6	6492.2	6477.7	6276.7	AVRG	R		1.433E-4		pg	6977.9	13	0.995	20	
Methoxychlor	A	2956.3	3127.5	3082.7	2901.6	3124.0	3038.9	2391.0	AVRG	R		3.394E-4		pg	2946.0	9	0.995	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805389648001 Name: Type: (normal) Date: 27-SEP-2005 22:26 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Endosulfan sulfate	A	9212.7	8349.6	7786.1	6996.7	7261.5	7314.8	7002.9	AVRG	R		1.298E-4		pg	7703.5	11	0.995	20	
TCMX	A	8883.3	9055.6	8593.9	7938.9	8320.2	8381.8	8663.1	AVRG	R		1.170E-4		pg	8548.1	4	0.995	20	
Decachlorobiphenyl	A	4480.0	4407.6	5354.8	4975.1	5287.6	4684.3	4476.5	AVRG	R		2.079E-4		pg	4809.4	8	0.995	20	
alpha-BHC	B	8669.8	8247.2	8369.3	8128.7	8196.7	7731.2	8380.1	AVRG	R		1.213E-4		pg	8246.1	3	0.995	20	
gamma-BHC	B	8601.7	8135.9	7878.4	7870.6	7772.7	7538.0	8026.1	AVRG	R		1.254E-4		pg	7974.8	4	0.995	20	
beta-BHC	B	5427.3	4229.8	3863.6	3600.6	3379.7	3207.4		AVRG	R		2.531E-4		pg	3951.4	20	0.995	20	
delta-BHC	B	13513	10101	8997.6	8317.0	7943.1	8051.2	8329.3	AVRG	R		1.073E-4		pg	9321.7	**21**	0.995	20	rsd ***
Heptachlor	B	6169.7	6107.0	6235.6	6209.1	6030.8	6004.7	6275.4	AVRG	R		1.627E-4		pg	6147.5	2	0.995	20	
Aldrin	B	8023.5	7552.3	7269.4	7035.8	6747.6	6676.5	6600.1	AVRG	R		1.403E-4		pg	7129.3	7	0.995	20	
Heptachlor epoxide	B	7481.0	6950.0	6807.0	6500.0	6150.2	5944.8	5785.9	AVRG	R		1.534E-4		pg	6517.0	9	0.995	20	
gamma-Chlordane	B	7740.1	7117.9	6958.6	6601.4	6225.4	6123.9	6017.9	AVRG	R		1.496E-4		pg	6683.6	9	0.995	20	
alpha-Chlordane	B	7657.6	7215.8	6843.0	6436.2	6057.0	6063.7	5951.8	AVRG	R		1.514E-4		pg	6603.6	10	0.995	20	
4,4'-DDE	B	7017.8	6681.4	6490.2	6196.2	5853.3	6197.6	6127.0	AVRG	R		1.571E-4		pg	6366.2	6	0.995	20	
Endosulfan I	B	7092.5	6651.2	6392.0	6034.4	5685.9	5592.2	5368.6	AVRG	R		1.635E-4		pg	6116.7	10	0.995	20	
Dieldrin	B	7488.0	6914.2	6585.0	6293.2	5947.8	6226.7	6184.4	AVRG	R		1.534E-4		pg	6519.9	8	0.995	20	
Endrin	B	6156.6	5851.7	5625.1	5249.3	4834.0	5006.7	5142.2	AVRG	R		1.849E-4		pg	5409.4	9	0.995	20	
4,4'-DDD	B	6050.5	5841.3	5574.2	5111.4	4790.4	4976.6	5054.8	AVRG	R		1.872E-4		pg	5342.7	9	0.995	20	
Endosulfan II	B	6740.4	6133.7	5837.5	5417.5	5082.4	5212.9	5274.8	AVRG	R		1.763E-4		pg	5671.3	11	0.995	20	
4,4'-DDT	B	5434.7	5138.4	5206.5	4940.2	4696.7	4911.1	5169.0	AVRG	R		1.972E-4		pg	5070.9	5	0.995	20	
Endrin aldehyde	B	6444.1	5356.0	4774.8	4268.3	3997.7	3970.7	3925.5	AVRG	R		2.138E-4		pg	4676.7	20	0.995	20	
Methoxychlor	B	2331.3	2140.7	2099.6	1950.0	1827.0	1979.6	1755.0	AVRG	R		4.970E-4		pg	2011.9	10	0.995	20	
Endosulfan sulfate	B	6822.1	5808.8	5438.8	4928.5	4589.7	4600.5	4583.2	AVRG	R		1.904E-4		pg	5253.1	16	0.995	20	
TCMX	B	5717.8	5297.7	5206.9	4936.2	5125.6	4784.7	5111.0	AVRG	R		1.935E-4		pg	5168.5	6	0.995	20	
Decachlorobiphenyl	B	4797.7	4262.1	4673.0	4025.9	3628.5	3352.2	3435.0	AVRG	R		2.485E-4		pg	4024.9	14	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	8	20	
EPA 8081A	B	22	10	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :

ICV 805389648029 (270_029) standards: S1463

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	805389648029	28-SEP-2005	25.000	26.418	pg	6	15	
gamma-BHC	A	805389648029	28-SEP-2005	25.000	26.201	pg	5	15	
beta-BHC	A	805389648029	28-SEP-2005	25.000	22.966	pg	-8	15	
delta-BHC	A	805389648029	28-SEP-2005	25.000	23.191	pg	-7	15	
Heptachlor	A	805389648029	28-SEP-2005	25.000	29.721	pg	**19**	15	v+ ***
Aldrin	A	805389648029	28-SEP-2005	25.000	26.686	pg	7	15	
Heptachlor epoxide	A	805389648029	28-SEP-2005	25.000	26.589	pg	6	15	
gamma-Chlordane	A	805389648029	28-SEP-2005	25.000	25.654	pg	3	15	
alpha-Chlordane	A	805389648029	28-SEP-2005	25.000	25.734	pg	3	15	
4,4'-DDE	A	805389648029	28-SEP-2005	25.000	26.671	pg	7	15	
Endosulfan I	A	805389648029	28-SEP-2005	25.000	26.976	pg	8	15	
Dieldrin	A	805389648029	28-SEP-2005	25.000	26.389	pg	6	15	
Endrin	A	805389648029	28-SEP-2005	25.000	28.107	pg	12	15	
4,4'-DDD	A	805389648029	28-SEP-2005	25.000	26.556	pg	6	15	
Endosulfan II	A	805389648029	28-SEP-2005	25.000	26.924	pg	8	15	
4,4'-DDT	A	805389648029	28-SEP-2005	25.000	27.418	pg	10	15	
Endrin aldehyde	A	805389648029	28-SEP-2005	25.000	26.518	pg	6	15	
Methoxychlor	A	805389648029	28-SEP-2005	25.000	32.377	pg	30	15	v+ ***
Endosulfan sulfate	A	805389648029	28-SEP-2005	25.000	26.247	pg	5	15	
alpha-BHC	B	805389648029	28-SEP-2005	25.000	23.573	pg	-6	15	
gamma-BHC	B	805389648029	28-SEP-2005	25.000	26.290	pg	5	15	
beta-BHC	B	805389648029	28-SEP-2005	25.000	23.469	pg	-6	15	
delta-BHC	B	805389648029	28-SEP-2005	25.000	23.815	pg	-5	15	
Heptachlor	B	805389648029	28-SEP-2005	25.000	27.612	pg	10	15	
Aldrin	B	805389648029	28-SEP-2005	25.000	26.281	pg	5	15	
Heptachlor epoxide	B	805389648029	28-SEP-2005	25.000	26.117	pg	4	15	
gamma-Chlordane	B	805389648029	28-SEP-2005	25.000	25.735	pg	3	15	
alpha-Chlordane	B	805389648029	28-SEP-2005	25.000	25.677	pg	3	15	
4,4'-DDE	B	805389648029	28-SEP-2005	25.000	27.025	pg	8	15	
Endosulfan I	B	805389648029	28-SEP-2005	25.000	26.371	pg	5	15	
Dieldrin	B	805389648029	28-SEP-2005	25.000	26.101	pg	4	15	
Endrin	B	805389648029	28-SEP-2005	25.000	27.199	pg	9	15	
4,4'-DDD	B	805389648029	28-SEP-2005	25.000	27.112	pg	8	15	
Endosulfan II	B	805389648029	28-SEP-2005	25.000	26.988	pg	8	15	
4,4'-DDT	B	805389648029	28-SEP-2005	25.000	28.021	pg	12	15	
Endrin aldehyde	B	805389648029	28-SEP-2005	25.000	26.642	pg	7	15	
Methoxychlor	B	805389648029	28-SEP-2005	25.000	33.742	pg	35	15	v+ ***
Endosulfan sulfate	B	805389648029	28-SEP-2005	25.000	26.639	pg	7	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	8	15	
EPA 8081A	B	20	8	15	

+=high bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235409778002 Run Name: pem Injected: 11-OCT-2005 13:38
Filename: 284_002 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	111136.57
Endrin aldehyde	A	3653.04
Endrin ketone	A	4177.97

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	146011.46
4,4'-DDE	A	594.96
4,4'-DDD	A	4808.38

4,4'-DDT Breakdown %: 4
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	205660.89
Endrin aldehyde	B	10941.93
Endrin ketone	B	10228.94

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	253946.46
4,4'-DDE	B	1849.57
4,4'-DDD	B	15929.08

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC16 Gas Chromatograph #16 ECD
Seqnum: 235409778017 Run Name: pem Injected: 12-OCT-2005 00:02
Filename: 284_017 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	126706.3
Endrin aldehyde	A	3893.96
Endrin ketone	A	4937.91

Endrin Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	175633.17
4,4'-DDE	A	561.7
4,4'-DDD	A	5748.75

4,4'-DDT Breakdown %: 3
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	233699.97
Endrin aldehyde	B	7366.57
Endrin ketone	B	11883.17

Endrin Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	312317.08
4,4'-DDE	B	2323.02
4,4'-DDD	B	20655.17

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805418195012 Run Name: pem Injected: 17-OCT-2005 14:50
Filename: 290_012 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	376150.47
Endrin aldehyde	A	9751.23
Endrin ketone	A	22115.37

Endrin Breakdown %: 8
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	703555.69
4,4'-DDE	A	5134.37
4,4'-DDD	A	45863.41

4,4'-DDT Breakdown %: 7
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	227623.59
Endrin aldehyde	B	12165.41
Endrin ketone	B	23604.89

Endrin Breakdown %: 14
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	415197.28
4,4'-DDE	B	2830.49
4,4'-DDD	B	46022.05

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805418195024 Run Name: pem Injected: 18-OCT-2005 00:24
Filename: 290_024 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	413978
Endrin aldehyde	A	13844
Endrin ketone	A	36728.85

Endrin Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	724065.91
4,4'-DDE	A	3195.95
4,4'-DDD	A	85526

4,4'-DDT Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	260214.57
Endrin aldehyde	B	6694.54
Endrin ketone	B	26968.92

Endrin Breakdown %: 11
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	430027.41
4,4'-DDE	B	2238.35
4,4'-DDD	B	53780.58

4,4'-DDT Breakdown %: 12
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_3 IDF : 1.0
Seqnum : 235409778003 Filename : 284_003 Injected : 11-OCT-2005 14:09
Calnum : 235381020001 Caldate : 22-SEP-2005 Caltype :
Standards: S1653

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2554.5	2068.9	10.00000	8.099166	pg	**-19**	15	c- ***
gamma-BHC	A	2711.6	2167.1	10.00000	7.991678	pg	**-20**	15	c- ***
beta-BHC	A	1706.0	1532.0	10.00000	8.980209	pg	-10	15	
delta-BHC	A	2343.4	1838.4	10.00000	7.845009	pg	**-22**	15	c- ***
Heptachlor	A	2469.0	2420.9	10.00000	9.805102	pg	-2	15	
Aldrin	A	2754.6	2340.7	10.00000	8.497592	pg	-15	15	
Heptachlor epoxide	A	2995.5	2812.7	10.00000	9.389990	pg	-6	15	
gamma-Chlordane	A	3085.8	2845.1	10.00000	9.220142	pg	-8	15	
alpha-Chlordane	A	3173.1	2936.0	10.00000	9.252761	pg	-7	15	
4,4'-DDE	A	2343.5	1967.6	20.00000	16.79161	pg	**-16**	15	c- ***
Endosulfan I	A	3022.2	2865.6	10.00000	9.481813	pg	-5	15	
Dieldrin	A	2726.8	2508.8	20.00000	18.40134	pg	-8	15	
Endrin	A	2243.2	2214.1	20.00000	19.74002	pg	-1	15	
4,4'-DDD	A	1778.3	1422.2	20.00000	15.99550	pg	**-20**	15	c- ***
Endosulfan II	A	2557.8	2481.1	20.00000	19.40030	pg	-3	15	
4,4'-DDT	A	1163.8	1227.5	20.00000	21.09418	pg	5	15	
Endrin aldehyde	A	2308.1	2205.4	20.00000	19.10981	pg	-4	15	
Methoxychlor	A	660.28	806.75	100.0000	122.1826	pg	**22**	15	c+ ***
Endosulfan sulfate	A	2400.9	2364.4	20.00000	19.69631	pg	-2	15	
TCMX	A	2848.4	2576.3	20.00000	18.08946	pg	-10	15	
Decachlorobiphenyl	A	2811.8	3307.9	20.00000	23.52911	pg	**18**	15	c+
alpha-BHC	B	8096.4	7258.1	10.00000	8.964677	pg	-10	15	
gamma-BHC	B	7664.8	6876.7	10.00000	8.971818	pg	-10	15	
beta-BHC	B	4240.3	4057.2	10.00000	9.568117	pg	-4	15	
delta-BHC	B	7493.4	6448.4	10.00000	8.605369	pg	-14	15	
Heptachlor	B	5772.5	5228.7	10.00000	9.057944	pg	-9	15	
Aldrin	B	7113.4	6671.4	10.00000	9.378514	pg	-6	15	
Heptachlor epoxide	B	6755.0	6560.9	10.00000	9.712683	pg	-3	15	
gamma-Chlordane	B	7169.2	6967.3	10.00000	9.718297	pg	-3	15	
alpha-Chlordane	B	7216.8	7005.7	10.00000	9.707542	pg	-3	15	
4,4'-DDE	B	5746.9	5428.2	20.00000	18.89083	pg	-6	15	
Endosulfan I	B	6464.6	6316.0	10.00000	9.770124	pg	-2	15	
Dieldrin	B	6023.4	5913.5	20.00000	19.63505	pg	-2	15	
Endrin	B	4633.8	4521.9	20.00000	19.51676	pg	-2	15	
4,4'-DDD	B	4368.8	3776.9	20.00000	17.29014	pg	-14	15	
Endosulfan II	B	5501.4	5731.9	20.00000	20.83819	pg	4	15	
4,4'-DDT	B	2559.9	2658.5	20.00000	20.77024	pg	4	15	
Endrin aldehyde	B	4338.9	4255.2	20.00000	19.61417	pg	-2	15	
Methoxychlor	B	1124.2	1077.6	100.0000	95.85780	pg	-4	15	
Endosulfan sulfate	B	4783.1	4812.3	20.00000	20.12234	pg	1	15	
TCMX	B	6316.2	6048.5	20.00000	19.15237	pg	-4	15	
Decachlorobiphenyl	B	3644.6	4116.6	20.00000	22.58988	pg	13	15	
Average EPA 8081A	A		(count=22)				10	15	
Average EPA 8081A	B		(count=22)				6	15	

+=high bias -=low bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC16 Run Name : pest_4 IDF : 1.0
Seqnum : 235409778018 Filename : 284_018 Injected : 12-OCT-2005 00:32
Calnum : 235381020001 Caldate : 22-SEP-2005 Caltype :
Standards: S1654

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	2554.5	2742.6	20.00000	21.47276	pg	7	15	
gamma-BHC	A	2711.6	2826.6	20.00000	20.84784	pg	4	15	
beta-BHC	A	1706.0	1753.4	20.00000	20.55517	pg	3	15	
delta-BHC	A	2343.4	2417.2	20.00000	20.62956	pg	3	15	
Heptachlor	A	2469.0	2757.7	20.00000	22.33876	pg	12	15	
Aldrin	A	2754.6	2803.8	20.00000	20.35781	pg	2	15	
Heptachlor epoxide	A	2995.5	3176.2	20.00000	21.20676	pg	6	15	
gamma-Chlordane	A	3085.8	3226.2	20.00000	20.91043	pg	5	15	
alpha-Chlordane	A	3173.1	3331.3	20.00000	20.99706	pg	5	15	
4,4'-DDE	A	2343.5	2550.7	40.00000	43.53622	pg	9	15	
Endosulfan I	A	3022.2	3132.2	20.00000	20.72738	pg	4	15	
Dieldrin	A	2726.8	2984.5	40.00000	43.78048	pg	9	15	
Endrin	A	2243.2	2637.8	40.00000	47.03553	pg	**18**	15	c+ ***
4,4'-DDD	A	1778.3	1868.7	40.00000	42.03381	pg	5	15	
Endosulfan II	A	2557.8	2783.0	40.00000	43.52071	pg	9	15	
4,4'-DDT	A	1163.8	1521.3	40.00000	52.28599	pg	**31**	15	c+ ***
Endrin aldehyde	A	2308.1	2343.9	40.00000	40.62076	pg	2	15	
Methoxychlor	A	660.28	896.80	200.0000	271.6423	pg	**36**	15	c+ ***
Endosulfan sulfate	A	2400.9	2585.2	40.00000	43.07039	pg	8	15	
TCMX	A	2848.4	2981.2	40.00000	41.86567	pg	5	15	
Decachlorobiphenyl	A	2811.8	2961.8	40.00000	42.13469	pg	5	15	
alpha-BHC	B	8096.4	8057.8	20.00000	19.90480	pg	0	15	
gamma-BHC	B	7664.8	7561.7	20.00000	19.73089	pg	-1	15	
beta-BHC	B	4240.3	4060.8	20.00000	19.15323	pg	-4	15	
delta-BHC	B	7493.4	7251.1	20.00000	19.35315	pg	-3	15	
Heptachlor	B	5772.5	5677.4	20.00000	19.67063	pg	-2	15	
Aldrin	B	7113.4	7011.4	20.00000	19.71301	pg	-1	15	
Heptachlor epoxide	B	6755.0	6710.2	20.00000	19.86742	pg	-1	15	
gamma-Chlordane	B	7169.2	7154.8	20.00000	19.95979	pg	0	15	
alpha-Chlordane	B	7216.8	7122.7	20.00000	19.73927	pg	-1	15	
4,4'-DDE	B	5746.9	5727.8	40.00000	39.86701	pg	0	15	
Endosulfan I	B	6464.6	6391.2	20.00000	19.77308	pg	-1	15	
Dieldrin	B	6023.4	6267.3	40.00000	41.61967	pg	4	15	
Endrin	B	4633.8	5047.1	40.00000	43.56711	pg	9	15	
4,4'-DDD	B	4368.8	4286.5	40.00000	39.24611	pg	-2	15	
Endosulfan II	B	5501.4	5704.3	40.00000	41.47539	pg	4	15	
4,4'-DDT	B	2559.9	2468.6	40.00000	38.57324	pg	-4	15	
Endrin aldehyde	B	4338.9	4152.1	40.00000	38.27864	pg	-4	15	
Methoxychlor	B	1124.2	1226.4	200.0000	218.1768	pg	9	15	
Endosulfan sulfate	B	4783.1	4818.3	40.00000	40.29479	pg	1	15	
TCMX	B	6316.2	6058.8	40.00000	38.37021	pg	-4	15	
Decachlorobiphenyl	B	3644.6	3833.9	40.00000	42.07727	pg	5	15	
Average EPA 8081A	A		(count=22)				9	15	
Average EPA 8081A	B		(count=22)				3	15	

+=high bias c=CCV
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805418195014 Filename : 290_014 Injected : 17-OCT-2005 15:54
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :
Standards: S1378

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	14006	14252	20.00000	20.35052	pg	2	15	
gamma-BHC	A	12902	13001	20.00000	20.15357	pg	1	15	
beta-BHC	A	6336.2	5433.8	20.00000	17.15171	pg	-14	15	rsd ***
delta-BHC	A	16050	13387	20.00000	16.68210	pg	**-17**	15	c- rsd ***
Heptachlor	A	9118.0	11331	20.00000	24.85430	pg	**24**	15	c+ ***
Aldrin	A	11082	11559	20.00000	20.86128	pg	4	15	
Heptachlor epoxide	A	10008	10604	20.00000	21.19045	pg	6	15	
gamma-Chlordane	A	10295	10669	20.00000	20.72806	pg	4	15	
alpha-Chlordane	A	9923.7	10278	20.00000	20.71327	pg	4	15	
4,4'-DDE	A	9871.8	10275	40.00000	41.63185	pg	4	15	
Endosulfan I	A	9116.7	9801.3	20.00000	21.50175	pg	8	15	
Dieldrin	A	9997.4	10497	40.00000	41.99978	pg	5	15	
Endrin	A	7903.2	8362.2	40.00000	42.32316	pg	6	15	
4,4'-DDD	A	8128.8	8611.5	40.00000	42.37519	pg	6	15	
Endosulfan II	A	8556.3	8740.0	40.00000	40.85913	pg	2	15	
4,4'-DDT	A	7885.1	7815.1	40.00000	39.64452	pg	-1	15	
Endrin aldehyde	A	6977.9	6713.4	40.00000	38.48341	pg	-4	15	
Methoxychlor	A	2946.0	3147.3	200.0000	213.6676	pg	7	15	
Endosulfan sulfate	A	7703.5	7553.2	40.00000	39.21973	pg	-2	15	
TCMX	A	8548.1	8647.5	40.00000	40.46482	pg	1	15	
Decachlorobiphenyl	A	4809.4	5612.4	40.00000	46.67841	pg	**17**	15	c+
alpha-BHC	B	8246.1	8814.4	20.00000	21.37834	pg	7	15	
gamma-BHC	B	7974.8	8154.4	20.00000	20.45059	pg	2	15	
beta-BHC	B	3951.4	3572.7	20.00000	18.08328	pg	-10	15	
delta-BHC	B	9321.7	8232.0	20.00000	17.66188	pg	-12	15	rsd ***
Heptachlor	B	6147.5	6799.6	20.00000	22.12174	pg	11	15	
Aldrin	B	7129.3	7483.0	20.00000	20.99208	pg	5	15	
Heptachlor epoxide	B	6517.0	6920.2	20.00000	21.23732	pg	6	15	
gamma-Chlordane	B	6683.6	7058.7	20.00000	21.12233	pg	6	15	
alpha-Chlordane	B	6603.6	6909.4	20.00000	20.92623	pg	5	15	
4,4'-DDE	B	6366.2	6627.6	40.00000	41.64226	pg	4	15	
Endosulfan I	B	6116.7	6399.7	20.00000	20.92532	pg	5	15	
Dieldrin	B	6519.9	6645.9	40.00000	40.77282	pg	2	15	
Endrin	B	5409.4	5084.8	40.00000	37.59972	pg	-6	15	
4,4'-DDD	B	5342.7	5536.7	40.00000	41.45254	pg	4	15	
Endosulfan II	B	5671.3	5711.2	40.00000	40.28099	pg	1	15	
4,4'-DDT	B	5070.9	4801.9	40.00000	37.87787	pg	-5	15	
Endrin aldehyde	B	4676.7	4496.9	40.00000	38.46174	pg	-4	15	
Methoxychlor	B	2011.9	1845.2	200.0000	183.4308	pg	-8	15	
Endosulfan sulfate	B	5253.1	4974.3	40.00000	37.87732	pg	-5	15	
TCMX	B	5168.5	5528.9	40.00000	42.78881	pg	7	15	
Decachlorobiphenyl	B	4024.9	3416.7	40.00000	33.95572	pg	-15	15	
Average EPA 8081A	A		(count=22)				6	15	
Average EPA 8081A	B		(count=22)				6	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_5 IDF : 1.0
Seqnum : 805418195025 Filename : 290_025 Injected : 18-OCT-2005 00:53
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :
Standards: S1379

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	14006	14943	25.00000	26.67192	pg	7	15	
gamma-BHC	A	12902	13497	25.00000	26.15409	pg	5	15	
beta-BHC	A	6336.2	5649.4	25.00000	22.29037	pg	-11	15	rsd ***
delta-BHC	A	16050	13930	25.00000	21.69824	pg	-13	15	rsd ***
Heptachlor	A	9118.0	11337	25.00000	31.08378	pg	**24**	15	c+ ***
Aldrin	A	11082	12100	25.00000	27.29531	pg	9	15	
Heptachlor epoxide	A	10008	10940	25.00000	27.32846	pg	9	15	
gamma-Chlordane	A	10295	11141	25.00000	27.05499	pg	8	15	
alpha-Chlordane	A	9923.7	10706	25.00000	26.97124	pg	8	15	
4,4'-DDE	A	9871.8	11018	50.00000	55.80420	pg	12	15	
Endosulfan I	A	9116.7	9844.8	25.00000	26.99647	pg	8	15	
Dieldrin	A	9997.4	10987	50.00000	54.94988	pg	10	15	
Endrin	A	7903.2	8695.4	50.00000	55.01189	pg	10	15	
4,4'-DDD	A	8128.8	9466.5	50.00000	58.22858	pg	**16**	15	c+ ***
Endosulfan II	A	8556.3	9185.1	50.00000	53.67474	pg	7	15	
4,4'-DDT	A	7885.1	7503.3	50.00000	47.57852	pg	-5	15	
Endrin aldehyde	A	6977.9	6948.6	50.00000	49.79020	pg	0	15	
Methoxychlor	A	2946.0	3107.8	250.0000	263.7301	pg	5	15	
Endosulfan sulfate	A	7703.5	7938.2	50.00000	51.52322	pg	3	15	
TCMX	A	8548.1	9034.8	50.00000	52.84670	pg	6	15	
Decachlorobiphenyl	A	4809.4	5452.9	50.00000	56.68984	pg	13	15	
alpha-BHC	B	8246.1	9122.3	25.00000	27.65619	pg	11	15	
gamma-BHC	B	7974.8	8359.5	25.00000	26.20612	pg	5	15	
beta-BHC	B	3951.4	3657.7	25.00000	23.14197	pg	-7	15	
delta-BHC	B	9321.7	8612.9	25.00000	23.09885	pg	-8	15	rsd ***
Heptachlor	B	6147.5	7155.4	25.00000	29.09909	pg	**16**	15	c+ ***
Aldrin	B	7129.3	7668.8	25.00000	26.89179	pg	8	15	
Heptachlor epoxide	B	6517.0	7139.4	25.00000	27.38763	pg	10	15	
gamma-Chlordane	B	6683.6	7286.9	25.00000	27.25657	pg	9	15	
alpha-Chlordane	B	6603.6	7029.9	25.00000	26.61399	pg	6	15	
4,4'-DDE	B	6366.2	6851.6	50.00000	53.81260	pg	8	15	
Endosulfan I	B	6116.7	6693.2	25.00000	27.35638	pg	9	15	
Dieldrin	B	6519.9	6920.1	50.00000	53.06908	pg	6	15	
Endrin	B	5409.4	5601.2	50.00000	51.77283	pg	4	15	
4,4'-DDD	B	5342.7	5821.7	50.00000	54.48231	pg	9	15	
Endosulfan II	B	5671.3	5910.5	50.00000	52.10881	pg	4	15	
4,4'-DDT	B	5070.9	4482.1	50.00000	44.19414	pg	-12	15	
Endrin aldehyde	B	4676.7	4531.3	50.00000	48.44539	pg	-3	15	
Methoxychlor	B	2011.9	1925.3	250.0000	239.2405	pg	-4	15	
Endosulfan sulfate	B	5253.1	5120.1	50.00000	48.73463	pg	-3	15	
TCMX	B	5168.5	5638.0	50.00000	54.54190	pg	9	15	
Decachlorobiphenyl	B	4024.9	3407.2	50.00000	42.32596	pg	-15	15	
Average EPA 8081A	A		(count=22)				9	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235381020 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 21-SEP-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
002	264_002	PEM	pem			21-SEP-2005 14:20	1.0						1	
003	264_003	CCV	pest_3			21-SEP-2005 14:51	1.0						2	
004	264_004	CCV	pest_3			21-SEP-2005 15:22	1.0						2	
017	264_017	PEM	pem			21-SEP-2005 23:17	1.0			1			1	1:DDT44=133.905
018	264_018	X	hex			21-SEP-2005 23:48	1.0							
019	264_019	ICAL	pest_1			22-SEP-2005 00:18	1.0						3	
020	264_020	ICAL	pest_2			22-SEP-2005 00:49	1.0						4	
021	264_021	ICAL	pest_3			22-SEP-2005 01:20	1.0						2	
022	264_022	ICAL	pest_4			22-SEP-2005 01:51	1.0						5	
023	264_023	ICAL	pest_5			22-SEP-2005 02:21	1.0						6	
024	264_024	ICAL	pest_6			22-SEP-2005 02:52	1.0						7	
025	264_025	ICAL	pest_7			22-SEP-2005 03:23	1.0						8	
027	264_027	ICV				22-SEP-2005 04:25	1.0	1		1			9	
028	264_028	X				22-SEP-2005 04:56	1.0						9	

102

Stds used: 1=S1554 2=S1377 3=S737 4=S874 5=S1378 6=S1379 7=S875 8=S876 9=S1463

SEQUENCE SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805389648 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 27-SEP-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
006	270_006	X	pem			27-SEP-2005 14:08	1.0		1			1	
018	270_018	PEM	pem			27-SEP-2005 21:01	1.0		1			1	
019	270_019	X	hex			27-SEP-2005 21:29	1.0						
020	270_020	X	hex			27-SEP-2005 21:57	1.0						
021	270_021	ICAL	pest_1			27-SEP-2005 22:26	1.0					2	
022	270_022	ICAL	pest_2			27-SEP-2005 22:54	1.0					3	
023	270_023	ICAL	pest_3			27-SEP-2005 23:22	1.0					4	
024	270_024	ICAL	pest_4			27-SEP-2005 23:51	1.0					5	
025	270_025	ICAL	pest_5			28-SEP-2005 00:19	1.0					6	
026	270_026	ICAL	pest_6			28-SEP-2005 00:47	1.0					7	
027	270_027	ICAL	pest_7			28-SEP-2005 01:16	1.0					8	
029	270_029	ICV				28-SEP-2005 02:12	1.0	3	1			9	
030	270_030	X	icv			28-SEP-2005 02:41	1.0					9	
032	270_032	X	pem			28-SEP-2005 03:37	1.0					1	

103

Stds used: 1=S1554 2=S737 3=S874 4=S1377 5=S1378 6=S1379 7=S875 8=S876 9=S1463

SEQUENCE SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 235409778 Instrument: GC16 Gas Chromatograph #16 ECD Begun: 11-OCT-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
002	284_002	PEM	pem			11-OCT-2005 13:38	1.0	1.0		1	1	
003	284_003	CCV	pest_3			11-OCT-2005 14:09	1.0	1.0	6	1	2	
004	284_004	X	pest_3			11-OCT-2005 14:40	1.0	1.0		1	2	
006	284_006	BLANK	QC312393	106600	Soil	11-OCT-2005 18:26	1.0	0.6693	5	1		
007	284_007	LCS	QC312397	106600	Soil	11-OCT-2005 18:57	1.0	0.675	8	1		
008	284_008	SAMPLE	182254-001	106600	Soil	11-OCT-2005 19:27	1.0	0.67	5	1		
009	284_009	SAMPLE	182254-002	106600	Soil	11-OCT-2005 19:58	1.0	0.677	5	1		
010	284_010	MSS	182254-003	106600	Soil	11-OCT-2005 20:28	5.0	0.6667	5	1		
011	284_011	SAMPLE	182254-004	106600	Soil	11-OCT-2005 20:59	1.0	0.6629	5	1		
012	284_012	SAMPLE	182254-005	106600	Soil	11-OCT-2005 21:29	1.0	0.6649	5	1		
013	284_013	SAMPLE	182254-006	106600	Soil	11-OCT-2005 22:00	1.0	0.6748	5	1		
014	284_014	MS	QC312398	106600	Soil	11-OCT-2005 22:30	5.0	0.6627	8	1		
015	284_015	MSD	QC312399	106600	Soil	11-OCT-2005 23:01	5.0	0.6601	8	1		
017	284_017	PEM	pem			12-OCT-2005 00:02	1.0	1.0		1	1	
018	284_018	CCV	pest_4			12-OCT-2005 00:32	1.0	1.0	3	1	3	
019	284_019	X	pest_4			12-OCT-2005 01:03	1.0				3	

Stds used: 1=S1554 2=S1653 3=S1654

SEQUENCE SUMMARY FOR 182254 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805418195 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 17-OCT-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	290_002	PEM	pem			17-OCT-2005 09:55	1.0	1.0			1	1	
003	290_003	CCV	pest_3			17-OCT-2005 10:24	1.0	1.0	5		1	2	
006	290_006	X	QC313149	106779	Soil	17-OCT-2005 11:56	1.0	0.668			1		
007	290_007	X	QC313150	106779	Soil	17-OCT-2005 12:24	1.0	0.6754			1		
008	290_008	X	182254-007	106779	Soil	17-OCT-2005 12:52	1.0	0.657			1		
009	290_009	X	182254-008	106779	Soil	17-OCT-2005 13:21	1.0	0.6689			1		
010	290_010	X	QC313151	106779	Soil	17-OCT-2005 13:49	1.0	0.6627			1		
011	290_011	X	QC313152	106779	Soil	17-OCT-2005 14:17	1.0	0.6711			1		
012	290_012	PEM	pem			17-OCT-2005 14:50	1.0	1.0			1	1	
013	290_013	X	pest_4			17-OCT-2005 15:18	1.0	1.0			1	3	
014	290_014	CCV	pest_4			17-OCT-2005 15:54	1.0	1.0	4		1	3	
016	290_016	BLANK	QC313149	106779	Soil	17-OCT-2005 20:39	1.0	0.668	1		1		
017	290_017	LCS	QC313150	106779	Soil	17-OCT-2005 21:07	1.0	0.6754	6		1		
018	290_018	MSS	182254-007	106779	Soil	17-OCT-2005 21:35	1.0	0.657	1		1		
019	290_019	SAMPLE	182254-008	106779	Soil	17-OCT-2005 22:03	1.0	0.6689	1		1		
020	290_020	SAMPLE	182417-005	106779	Soil	17-OCT-2005 22:31	5.0	0.6614	1		1		
021	290_021	MS	QC313151	106779	Soil	17-OCT-2005 22:59	1.0	0.6627	6		1		
022	290_022	MSD	QC313152	106779	Soil	17-OCT-2005 23:28	1.0	0.6711	6	1	1		
024	290_024	PEM	pem			18-OCT-2005 00:24	1.0	1.0			1	1	
025	290_025	CCV	pest_5			18-OCT-2005 00:53	1.0	1.0	6		1	4	
026	290_026	X	pest_5			18-OCT-2005 01:21	1.0					4	
029	290_029	SAMPLE	182391-001	106779	Soil	18-OCT-2005 02:45	100.0	0.6631	1		1		
030	290_030	SAMPLE	182391-002	106779	Soil	18-OCT-2005 03:14	250.0	0.6689	1		1		
031	290_031	SAMPLE	182391-003	106779	Soil	18-OCT-2005 03:42	250.0	0.6687	1		1		
032	290_032	MSS	182391-004	106779	Soil	18-OCT-2005 04:10	50.0	0.6592	1		1		
033	290_033	SAMPLE	182391-005	106779	Soil	18-OCT-2005 04:38	100.0	0.6711	1		1		
034	290_034	SAMPLE	182391-006	106779	Soil	18-OCT-2005 05:07	100.0	0.6732	1		1		
036	290_036	PEM	pem			18-OCT-2005 06:03	1.0	1.0			1	1	
037	290_037	X	pest_3			18-OCT-2005 06:31	1.0	1.0			1	2	
038	290_038	CCV	pest_3			18-OCT-2005 06:59	1.0	1.0	7		1	2	

Stds used: 1=S1554 2=S1653 3=S1378 4=S1379

Curtis & Tompkins Laboratories Sample Preparation Summary 11-OCT-2005 15:48

Batch Number : 106600
Date Extracted: 11-OCT-2005
Extracted by : Brian Rob Gorajski
Prep Method : 3550B

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685A
Spike #2 ID : S1460A
Spike #3 ID : S1154E
SOP Version : 8081s_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-001			Mactec, Inc.	Soil	29.85	g	20	0.670017	1	.04	0	0	8081, PCB		
182254-002			Mactec, Inc.	Soil	29.54	g	20	0.677048	1	.04	0	0	8081, PCB		
182254-003			Mactec, Inc.	Soil	30	g	20	0.666667	1	.04	0	0	8081, PCB		MSS (PCB and 8081)
182254-004			Mactec, Inc.	Soil	30.17	g	20	0.662910	1	.04	0	0	8081, PCB		
182254-005			Mactec, Inc.	Soil	30.08	g	20	0.664894	1	.04	0	0	8081, PCB		
182254-006			Mactec, Inc.	Soil	29.64	g	20	0.674764	1	.04	0	0	8081, PCB		
182291-003			Innovative Technical Solutions	Soil	30.3	g	20	0.660066	1	.04	0	0	8081, PCB		
182291-004			Innovative Technical Solutions	Soil	30.4	g	20	0.657895	1	.04	0	0	8081, PCB		
182291-005			Innovative Technical Solutions	Soil	29.71	g	20	0.673174	1	.04	0	0	8081, PCB		
182298-002			Environ	Soil	29.88	g	20	0.669344	1	.04	0	0	8081, PCB		
182298-003			Environ	Soil	30.09	g	20	0.664673	1	.04	0	0	8081, PCB		
182298-004			Environ	Soil	30.36	g	20	0.658762	1	.04	0	0	8081, PCB		
182298-006			Environ	Soil	29.73	g	20	0.672721	1	.04	0	0	8081, PCB		
182298-007			Environ	Soil	29.77	g	20	0.671817	1	.04	0	0	8081, PCB		
182298-009			Environ	Soil	29.82	g	20	0.670691	1	.04	0	0	8081, PCB		
182298-010			Environ	Soil	29.78	g	20	0.671592	1	.04	0	0	8081, PCB		
182298-011			Environ	Soil	30.28	g	20	0.660502	1	.04	0	0	8081, PCB		
182332-005			Environ	Soil	30.15	g	20	0.663350	1	.04	0	0	8081, PCB		
182337-001			TRC Environmental Solutions, I	Soil	30.05	g	20	0.665557	1	.04	0	0	8081, PCB		
182337-002			TRC Environmental Solutions, I	Soil	29.62	g	20	0.675219	1	.04	0	0	8081, PCB		
QC312393	BLANK			Soil	29.88	g	20	0.669344	1	.04	0	0	8081, PCB		
QC312394	LCS			Soil	29.87	g	20	0.669568	1	.04	.05	0	8081 PCB		
QC312395	MS	of 182254-003		Soil	30	g	20	0.666667	1	.04	.05	0	8081 PCB ↓		
QC312396	MSD	of 182254-003		Soil	30.32	g	20	0.659631	1	.04	.05	0	8081		
QC312397	LCS			Soil	29.63	g	20	0.674992	1	.04	0	.05	8081		
QC312398	MS	of 182254-003		Soil	30.18	g	20	0.662691	1	.04	0	.05	8081		
QC312399	MSD	of 182254-003		Soil	30.3	g	20	0.660066	1	.04	0	.05	8081		

JOM 10/11/05

Prep Chemist: Brian Gorajski Reviewed By: Jennifer Lee Date: 10/11/05

Relinquished By: Brian Gorajski Received By: JM Date: 10/11/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2164

LIMS Batch No: 106600 **Extraction Method:** **Cleanup Meth** Page 42

LIMS Analysis: 8081 ☑ EPA 3550b Sonication ☐ EPA 364

Extracted by: BRG ☐ EPA 3545 PFE (Mth#_____) ☑ EPA 362

Date Extracted: 10/11/05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

	Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
	182254-001	29.85	20	X	
	2	29.54			
	3	30.00			MSS
	4	30.17			
5	5	30.08			
	6	29.64			
	182291-003	30.30			
	4	30.40			
	5	29.71			
10	182298-002	29.88			
	03	30.09			
	04	30.36			
	06	29.73			
	07	29.77			Sharpie contamination
15	09	29.82			
	10	29.78			
	11	30.28			
	182332-005	30.15			
	182337-001	30.05			
20	02	29.62			
	MB QC312397	29.88			
	LCS 7	29.63			
	MS 8	30.18			
	MSD 9	30.30			BRG 10/11/05

Mfg & Lot # / LIMS # / Time	Initials / Date
EM44135439	BRG 10/11/05
JTBA24616	
S1685A	
S1154E	
✓	
✓	
NA	
↓	
↓	
JTBA24616	
C0049	
✓	
✓	↓

gram Na2SO4

~~Sand~~ weighed out for QC samples

dried with CH_2Cl_2-rinsed ☑ ~~granular~~ powder Na_2SO_4 ☐ diatomaceous earth

0.04 mL of surrogate solution was added to all samples

0.05 mL of spike solution was added to all spikes

1:1 CH_2Cl_2 (lot# EM 45188):Acetone(lot# EM 45125) was added to all

☑ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted

ASE Cellulose Filters used:

Soxhlets on at:

Soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4

Exchanged 2x with Hexane

Concentrated: ☑ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil

Extraction Chemist / Date

107

Continued from page ____

Continued on page ____

Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: BRG
Cleanup Date: 10/11/05

Benchbook # **BK 1984**
Page 61

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
182254-001	106600	1.0	1.0	
2				
3				MSS
4				Spilled ~1ml/10ml before cooking
5				
6				
182291-003				
4				
5				
182298-002				
3				
4				
6				
7				
9				
10				
11				
182332-005				
182337-001				
2				
MBQC312393				
LCS 4				
MS 5				
MSD 6				

BRG 10/11/05

	Mfg & Lot # / Time / Program	Initials / Date
☑ Extracts were cleaned up using Florisil cartridges	SP2557	BRG 10/11/05
Florisil cartridges/ columns rinsed 3x with Hexane	C0049	
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone — Hexane	C0737	
Acetone	EMD 45047	
Concentrated to volumes as noted above	✓	

Continued from page ___
Continued on page ___

10/11/05
Extraction Chemist / Date

10/11/05
Reviewed by / Date

SAMPLE I.D.	Weight (g)	Analysis	Comments
182168-MS	49.66	TEH/M	182168-022 thru
MSD	49.64		
023	50.45		
182254-001A	29.85	P/P	
002	29.54		
003	30.00		
004	30.17		
005	30.08		
006	29.64		
007	30.44		
008	29.90		
182329-003A	29.97	8310	MSS EM44135439
LCS	29.98		
MB	29.88		
MS	29.81		182329-003A
MSD	30.36		
182285-001AC	29.85	8310	
2	30.15		
3	29.62		
4	29.78		
5	29.66		MSS EM44135439
LCS	30.20		
MB	29.72		182285-005A
MS	29.72		
MSD	30.12		
182298-002B	29.88	P/P	
003	30.09		
004A	30.36		
006	29.73		
007	29.77		
009	29.82		
010B	29.78		
011	30.28		
182291-003A	30.30	P/P	
004	30.40		
005	29.71		

Continued on Page

Signed: [signature] Date: 10/10/05

Read and Understood By

Signed Date

SAMPLE I.D.	Weight (g)	Analysis	Comments
182332-005 A	30.15	P/P	
182337-001	30.05	P/P	Comp of A, B, C, & D
↓ 002	29.62	↓	Comp of A, B, C, & D
182308-001			
2			
3			
4			
9			
10			
11			
12			
17			
18			
19			
20			
25			
26			
27			
28			
33			
34			
35			
36			
41			
42			
43			
44			
49			
50			
51			
52			
58 53			
58			
59			
60			
61			

Continued on Page

Project Soil Aliquot BK2177

Continued from Page —

Sample ID	Weight (g)	Analysis	Comments
182254-003A	30.00	P/P	MSS PCB # 8081
MB	29.88	↓	Na_2SO_4 EM44135439
LCS	29.87	PCB	↓
MS	30.00	↓	182254-003A
MSD	30.32	8081	↓
LCS	29.63	↓	Na_2SO_4 EM44135439
MS	30.18	TEHM	182254-003A
MSD	30.30	↓	↓
182298-001A	49.69		
002	49.60		
003	49.78		
004	49.99		
005	50.10		
006	49.94		
007	50.39		
009	49.90		
010	50.17		
011	50.22		
182314-001A	49.95	TEH	
002	49.55	↓	
003	49.55		
004	49.71		
005	49.86		
006	49.81		
011	50.05		Compose 007,008,009 O.D.
182285-001D	50.02		
2	50.06		
3	49.84		
4	49.96		
5	49.65		MSS
LCS	49.90		EM44135439
MB	50.20		↓
MS	49.82		182285-005D
MSD	49.86		

Continued on Page

Signed — Date 10/11/05

Read and Understood By

Signed — Date

Curtis & Tompkins Laboratories Sample Preparation Summary 16-OCT-2005 17:30

Batch Number : 106779
Date Extracted: 16-OCT-2005
Extracted by : Brian Rob Gorajski
Prep Method : 3550B

Analysis : ~~PCB~~ 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685A
Spike #2 ID : S1154E
Spike #3 ID : S1460A
SOP Version : PCB_3550_rv8

Sample	Type		Client		Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-007			Mactec, Inc.		Soil	30.44	g	20	0.657030	1	.04	0	0	8081		MSS (8081)
182254-008			Mactec, Inc.		Soil	29.9	g	20	0.668896	1	.04	0	0	8081		
182391-001			Tetra Tech EC, Inc.		Soil	30.16	g	20	0.663130	1	.04	0	0	8081, PCB		
182391-002			Tetra Tech EC, Inc.		Soil	29.9	g	20	0.668896	1	.04	0	0	8081, PCB		
182391-003			Tetra Tech EC, Inc.		Soil	29.91	g	20	0.668673	1	.04	0	0	8081, PCB		
182391-004			Tetra Tech EC, Inc.		Soil	30.34	g	20	0.659196	1	.04	0	0	8081, PCB		MSS (PCB)
182391-005			Tetra Tech EC, Inc.		Soil	29.8	g	20	0.671141	1	.04	0	0	8081, PCB		
182391-006			Tetra Tech EC, Inc.		Soil	29.71	g	20	0.673174	1	.04	0	0	8081, PCB		
182417-005			Pacific States Env	Contractor	Soil	30.24	g	20	0.661376	1	.04	0	0	8081		
QC313149	BLANK				Soil	29.94	g	20	0.668003	1	.04	0	0	8081, PCB		
QC313150	LCS				Soil	29.61	g	20	0.675447	1	.04	.05	0	8081		
QC313151	MS	of 182254-007			Soil	30.18	g	20	0.662691	1	.04	.05	0	8081		
QC313152	MSD	of 182254-007			Soil	29.8	g	20	0.671141	1	.04	.05	0	8081		
QC313153	LCS				Soil	29.78	g	20	0.671592	1	.04	0	.05	PCB		
QC313154	MS	of 182391-004			Soil	30.05	g	20	0.665557	1	.04	0	.05	PCB		
QC313155	MSD	of 182391-004			Soil	30.01	g	20	0.666445	1	.04	0	.05	PCB		

DM 10/17/05

Prep Chemist: Brian Gorajski Reviewed By: [illegible] Date: 10/17/05

Relinquished By: Brian Gorajski Received By: JP Date: 10/17/05

Curtis & Tompkins, Ltd.

8081 SOIL PREP LOG

BK 2164

Page 43

LIMS Batch No: 106779
LIMS Analysis: 8081
Extracted by: BRG
Date Extracted: 10/16/05

Extraction Method:
- ☑ EPA 3550b Sonication
- ☐ EPA 3545 PFE (Mth#_____)
- ☐ EPA 3540c Soxhlet
- ☐ _____

Cleanup Method:
- ☐ EPA 3640a GPC
- ☑ EPA 3620b Florisil
- ☐ _____

Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
182254-007	30.44	20.0	x	MSS
↓ 8	29.90	↓	↓	
182391-001	30.16			
2	29.90			
3	29.91			
4	30.34			~~MSS~~ BRC 10/16/05
5	29.80			
6	29.71			
182417-005	30.24			
MB QC313149	29.94			
LCS 50	29.61			
MS 51	30.18			
MSD ↓ 52	29.80	↓	↓	

BRG 10/16/05

Gran. Na_2SO_4

Sand weighed out for QC samples

dried with CH_2Cl_2-rinsed ☑ ~~granular~~ powdered Na_2SO_4 ☐ diatomaceous earth

0.04 mL of surrogate solution was added to all samples

0.05 mL of spike solution was added to all spikes

1:1 CH_2Cl_2 (lot# EM45224):Acetone(lot# EM45125) was added to all

☑ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted

ASE Cellulose Filters used:

Soxhlets on at:

Soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4

Exchanged 2x with Hexane

Concentrated: ☑ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☑ Florisil

Mfg & Lot # / LIMS # / Time	Initials / Date
EM44135439	BRG 10/16/05
JTB 25151	
S16B5A	
S1154E	
✓	
✓	
NA	
↓	
JTB 25151	
C0737	
✓	
✓	↓

Brian Daigle 10/16/05
Extraction Chemist / Date

Continued from page 113 —
Continued on page —

Jennifer Shee 10/17/05
Reviewed by / Date

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JM
Cleanup Date: 10/17/05

Benchbook # **BK 1984**
Page 63

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
MB QC3131149	106779	1.0	1.0	
LCS 50				
MS 51				
MSD 52				
182417-005				
182254-007				MSS
-008				
182239-001				
-002				
-003				
-004				
-005				
-006				

10/18/05

☐ Extracts were cleaned up using Florisil cartridges

Florisil cartridges/ columns rinsed 3x with Hexane

Extracts were eluted with 90 mL 9:1 Hexane/Acetone

Concentrated to volumes as noted above

	Mfg & Lot # / Time / Program	Initials / Date
	SP2557	JM 10/17/05
Hexane	107137	
Acetone	C0737	
	EM 45047	
	✓	

10/17/05
Extraction Chemist / Date

Continued from page ___
Continued on page 114

Jessica Shee 10/18/05
Reviewed by / Date

SAMPLE I.D.	Weight (g)	Analysis	Comments
182168-MS	49.66	TEH/M	182168-002 H.T.
MSD	49.64		
023	50.45		
182254-001A	29.85	PLP	
002	29.54		
003	30.00		
004	30.17		
005	30.08		
006	29.64		
007	30.44		MSS
008	29.90		
182329-003A	29.97	8310	MSS
LCS	29.98		EM141354 39
MB	29.88		
MS	29.81		182329-003A
MSD	30.36		
182285-001 AC	29.85	8310	
2	30.15		
3	29.62		
4	29.78		
5	29.66		MSS
LCS	30.20		EM141354 39
MB	29.72		
MS	29.72		182285-005A
MSD	30.12		
182298-002B	29.88	PLP	
003	30.09		
004A	30.36		
006	29.73		
007	29.77		
009	29.82		
010B	29.78		
011	30.28	PLP	
182291-003A	30.30		
004	30.40		
005	29.71		

Continued on Page

Read and Understood By

Signed Date 10/10/05

115

Signed Date

Sample I.D.	Dwt (g)	Analysis	Comments
182363-023A	29.97	PCB	
44	29.91		
45	29.82		
48	29.94		
49	30.22		
50	29.91		
182417-005A	29.71		Comp of 182417-001A
182391-001AB	29.74	8270	2A
002	30.09		3A
003	29.70		4A
004	29.68		
005	30.26		
006	29.66		
182428-004A	49.55	TEHM	
182391-001B	29.62	PCB	
2	30.48		
3	29.63		
4	29.63		
5	29.95		MSS
LCS	29.98		EM44135459
MB	30.15		
MS	29.77		182391-005B
MSD	30.06		
006	29.79		
182391-001B	30.16	8081/PCB	
2	29.90		
3	29.91		
4	30.34		MSS (PCB)
LCS	29.78	PCB	EM44135459
MB	29.94	8081/PCB	
MS	30.05	PCB	182391-004B
MSD	30.01		
182391-005B	29.80	8081/PCB	
006	29.71		
182363-023A	30.06	8270SIM	
182363 024	30.08		

Continued on Page

Read and Understood By

Signed Date Signed Date

Project Soil Aliquot

BK2219

Continued from Page

Sample ID	Weight (g)	Analysis	Comments
182417-5A	30.24	8081	Comp of 1,2,3,4
LCS	29.61	8081	EM4413 5439
MS	30.18	↓	182257-007A
MSD	29.80		↓

Continued on Page

Brian Dunphy
Signed

10/16/05
Date

Read and Understood By

Signed

Date

PCBs Results & QC Summary

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Received:	10/04/05

Field ID:	BBITP110(8.0)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-001	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	15%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	1.8
Aroclor-1221	ND	23	7.5
Aroclor-1232	ND	11	1.9
Aroclor-1242	ND	11	1.7
Aroclor-1248	ND	11	2.4
Aroclor-1254	ND	11	3.9
Aroclor-1260	ND	11	1.8

Surrogate	%REC	Limits
TCMX	88	62-142
Decachlorobiphenyl	98	53-153

Field ID:	BBITP110(12.0)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-002	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	16%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1.9
Aroclor-1221	ND	23	7.7
Aroclor-1232	ND	12	1.9
Aroclor-1242	ND	12	1.7
Aroclor-1248	ND	12	2.4
Aroclor-1254	ND	12	4.0
Aroclor-1260	ND	12	1.8

Surrogate	%REC	Limits
TCMX	98	62-142
Decachlorobiphenyl	104	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Received:	10/04/05

Field ID:	BBITP113(3.0)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-003	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/13/05
Moisture:	11%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	1.7
Aroclor-1221	ND	22	7.2
Aroclor-1232	ND	11	1.8
Aroclor-1242	ND	11	1.6
Aroclor-1248	ND	11	2.3
Aroclor-1254	ND	11	3.0
Aroclor-1260	14	11	1.7

Surrogate	%REC	Limits
TCMX	106	62-142
Decachlorobiphenyl	119	53-153

Field ID:	BBITP113(5.5)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/03/05
Lab ID:	182254-004	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	10%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	1.7
Aroclor-1221	ND	21	7.0
Aroclor-1232	ND	11	1.7
Aroclor-1242	ND	11	1.6
Aroclor-1248	ND	11	2.2
Aroclor-1254	ND	11	3.7
Aroclor-1260	ND	11	1.7

Surrogate	%REC	Limits
TCMX	97	62-142
Decachlorobiphenyl	111	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Dilu Fac:	1.000
Units:	ug/Kg	Received:	10/04/05

Field ID:	BBITP111(1.5)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-005	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	13%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	1.8
Aroclor-1221	ND	22	7.3
Aroclor-1232	ND	11	1.8
Aroclor-1242	ND	11	1.6
Aroclor-1248	ND	11	2.3
Aroclor-1254	ND	11	3.8
Aroclor-1260	ND	11	1.7

Surrogate	%REC	Limits
TCMX	106	62-142
Decachlorobiphenyl	107	53-153

Field ID:	BBITP111(6.0)	Batch#:	106600
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-006	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	9%	Cleanup Method:	EPA 3620B

Analyte	Result	RL	MDL
Aroclor-1016	ND	11	1.7
Aroclor-1221	ND	21	7.1
Aroclor-1232	ND	11	1.8
Aroclor-1242	ND	11	1.6
Aroclor-1248	ND	11	2.2
Aroclor-1254	ND	11	3.7
Aroclor-1260	ND	11	1.7

Surrogate	%REC	Limits
TCMX	89	62-142
Decachlorobiphenyl	102	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Dilu Fac:	1.000
Units:	ug/Kg	Received:	10/04/05

Field ID:	BBITP111(3.0)	Batch#:	106718
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-007	Prepared:	10/13/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	7%	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	2.0
Aroclor-1221	ND	26	8.5
Aroclor-1232	ND	13	2.1
Aroclor-1242	ND	13	1.9
Aroclor-1248	ND	13	2.7
Aroclor-1254	ND	13	4.4
Aroclor-1260	ND	13	2.0

Surrogate	%REC	Limits
TCMX	102	62-142
Decachlorobiphenyl	93	53-153

Field ID:	BBITP110(1.5)	Batch#:	106718
Type:	SAMPLE	Sampled:	10/04/05
Lab ID:	182254-008	Prepared:	10/13/05
Basis:	dry	Analyzed:	10/14/05
Moisture:	11%	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	2.2
Aroclor-1221	ND	27	9.0
Aroclor-1232	ND	13	2.2
Aroclor-1242	ND	13	2.0
Aroclor-1248	ND	13	2.8
Aroclor-1254	ND	13	4.6
Aroclor-1260	ND	13	2.1

Surrogate	%REC	Limits
TCMX	97	62-142
Decachlorobiphenyl	97	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Diln Fac:	1.000
Units:	ug/Kg	Received:	10/04/05

Type:	BLANK	Prepared:	10/11/05
Lab ID:	QC312393	Analyzed:	10/12/05
Basis:	as received	Cleanup Method:	EPA 3620B
Batch#:	106600		

Analyte	Result	RL	MDL
Aroclor-1016	ND	9.6	1.5
Aroclor-1221	ND	19	6.4
Aroclor-1232	ND	9.6	1.6
Aroclor-1242	ND	9.6	1.4
Aroclor-1248	ND	9.6	2.0
Aroclor-1254	ND	9.6	2.7
Aroclor-1260	ND	9.6	1.5

Surrogate	%REC	Limits
TCMX	93	62-142
Decachlorobiphenyl	93	53-153

Type:	BLANK	Prepared:	10/13/05
Lab ID:	QC312903	Analyzed:	10/13/05
Basis:	as received	Cleanup Method:	EPA 3665A
Batch#:	106718		

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	1.9
Aroclor-1221	ND	24	7.9
Aroclor-1232	ND	12	2.0
Aroclor-1242	ND	12	1.8
Aroclor-1248	ND	12	2.5
Aroclor-1254	ND	12	4.1
Aroclor-1260	ND	12	1.9

Surrogate	%REC	Limits
TCMX	100	62-142
Decachlorobiphenyl	116	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC312394	Batch#:	106600
Matrix:	Soil	Prepared:	10/11/05
Units:	ug/Kg	Analyzed:	10/12/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
Aroclor-1248	167.4	204.7	122	72-155

Surrogate	%REC	Limits
TCMX	93	62-142
Decachlorobiphenyl	111	53-153

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBITP113(3.0)	Batch#:	106600
MSS Lab ID:	182254-003	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/11/05
Basis:	dry	Analyzed:	10/13/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC312395

Moisture: 11%
Cleanup Method: EPA 3620B

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1248	<2.271	187.3	211.2	113	77-168

Surrogate	%REC	Limits
TCMX	82	62-142
Decachlorobiphenyl	84	53-153

Type: MSD
Lab ID: QC312396

Moisture: 11%
Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1248	185.3	212.2	115	77-168	2	37

Surrogate	%REC	Limits
TCMX	98	62-142
Decachlorobiphenyl	99	53-153

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC312904	Batch#:	106718
Matrix:	Soil	Prepared:	10/13/05
Units:	ug/Kg	Analyzed:	10/13/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1248	168.6	201.6	120	72-155

Surrogate	%REC	Limits
TCMX	100	62-142
Decachlorobiphenyl	114	53-153

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	BBITP111(3.0)	Batch#:	106718
MSS Lab ID:	182254-007	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/13/05
Basis:	dry	Analyzed:	10/14/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC312905

Moisture: 7%
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1248	<2.686	178.5	212.3	119	77-168

Surrogate	%REC	Limits
TCMX	102	62-142
Decachlorobiphenyl	96	53-153

Type: MSD
Lab ID: QC312906

Moisture: 7%
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1248	177.7	209.4	118	77-168	1	37

Surrogate	%REC	Limits
TCMX	102	62-142
Decachlorobiphenyl	103	53-153

RPD= Relative Percent Difference

REPORTING SUMMARY FOR 182254 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-001	Aroclor-1016	GC22	A	10/14/05 07:59
182254-001	Aroclor-1221	GC22	A	10/14/05 07:59
182254-001	Aroclor-1232	GC22	A	10/14/05 07:59
182254-001	Aroclor-1242	GC22	A	10/14/05 07:59
182254-001	Aroclor-1248	GC22	A	10/14/05 07:59
182254-001	Aroclor-1254	GC22	B	10/14/05 07:59
182254-001	Aroclor-1260	GC22	A	10/14/05 07:59
182254-001	TCMX	GC22	A	10/14/05 07:59
182254-001	Decachlorobiphenyl	GC22	A	10/14/05 07:59
182254-002	Aroclor-1016	GC22	A	10/14/05 08:25
182254-002	Aroclor-1221	GC22	A	10/14/05 08:25
182254-002	Aroclor-1232	GC22	A	10/14/05 08:25
182254-002	Aroclor-1242	GC22	A	10/14/05 08:25
182254-002	Aroclor-1248	GC22	A	10/14/05 08:25
182254-002	Aroclor-1254	GC22	B	10/14/05 08:25
182254-002	Aroclor-1260	GC22	A	10/14/05 08:25
182254-002	TCMX	GC22	A	10/14/05 08:25
182254-002	Decachlorobiphenyl	GC22	A	10/14/05 08:25
182254-003	Aroclor-1016	GC22	A	10/13/05 01:53
182254-003	Aroclor-1221	GC22	A	10/13/05 01:53
182254-003	Aroclor-1232	GC22	A	10/13/05 01:53
182254-003	Aroclor-1242	GC22	A	10/13/05 01:53
182254-003	Aroclor-1248	GC22	A	10/13/05 01:53
182254-003	Aroclor-1254	GC22	A	10/13/05 01:53
182254-003	Aroclor-1260	GC22	A	10/13/05 01:53
182254-003	TCMX	GC22	B	10/13/05 01:53
182254-003	Decachlorobiphenyl	GC22	B	10/13/05 01:53
182254-004	Aroclor-1016	GC22	A	10/14/05 08:52
182254-004	Aroclor-1221	GC22	A	10/14/05 08:52
182254-004	Aroclor-1232	GC22	A	10/14/05 08:52
182254-004	Aroclor-1242	GC22	A	10/14/05 08:52
182254-004	Aroclor-1248	GC22	A	10/14/05 08:52
182254-004	Aroclor-1254	GC22	B	10/14/05 08:52
182254-004	Aroclor-1260	GC22	A	10/14/05 08:52
182254-004	TCMX	GC22	A	10/14/05 08:52
182254-004	Decachlorobiphenyl	GC22	A	10/14/05 08:52
182254-005	Aroclor-1016	GC22	A	10/14/05 09:18
182254-005	Aroclor-1221	GC22	A	10/14/05 09:18
182254-005	Aroclor-1232	GC22	A	10/14/05 09:18
182254-005	Aroclor-1242	GC22	A	10/14/05 09:18
182254-005	Aroclor-1248	GC22	A	10/14/05 09:18
182254-005	Aroclor-1254	GC22	B	10/14/05 09:18
182254-005	Aroclor-1260	GC22	A	10/14/05 09:18
182254-005	TCMX	GC22	A	10/14/05 09:18
182254-005	Decachlorobiphenyl	GC22	A	10/14/05 09:18
182254-006	Aroclor-1016	GC22	A	10/14/05 09:45
182254-006	Aroclor-1221	GC22	A	10/14/05 09:45
182254-006	Aroclor-1232	GC22	A	10/14/05 09:45
182254-006	Aroclor-1242	GC22	A	10/14/05 09:45

REPORTING SUMMARY FOR 182254 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182254-006	Aroclor-1248	GC22	A	10/14/05 09:45
182254-006	Aroclor-1254	GC22	B	10/14/05 09:45
182254-006	Aroclor-1260	GC22	A	10/14/05 09:45
182254-006	TCMX	GC22	A	10/14/05 09:45
182254-006	Decachlorobiphenyl	GC22	A	10/14/05 09:45
182254-007	Aroclor-1016	GC22	A	10/14/05 01:21
182254-007	Aroclor-1221	GC22	A	10/14/05 01:21
182254-007	Aroclor-1232	GC22	A	10/14/05 01:21
182254-007	Aroclor-1242	GC22	A	10/14/05 01:21
182254-007	Aroclor-1248	GC22	A	10/14/05 01:21
182254-007	Aroclor-1254	GC22	B	10/14/05 01:21
182254-007	Aroclor-1260	GC22	A	10/14/05 01:21
182254-007	TCMX	GC22	A	10/14/05 01:21
182254-007	Decachlorobiphenyl	GC22	A	10/14/05 01:21
182254-008	Aroclor-1016	GC22	A	10/14/05 12:24
182254-008	Aroclor-1221	GC22	A	10/14/05 12:24
182254-008	Aroclor-1232	GC22	A	10/14/05 12:24
182254-008	Aroclor-1242	GC22	A	10/14/05 12:24
182254-008	Aroclor-1248	GC22	A	10/14/05 12:24
182254-008	Aroclor-1254	GC22	B	10/14/05 12:24
182254-008	Aroclor-1260	GC22	A	10/14/05 12:24
182254-008	TCMX	GC22	A	10/14/05 12:24
182254-008	Decachlorobiphenyl	GC22	A	10/14/05 12:24
QC312393	Aroclor-1016	GC22	A	10/12/05 22:47
QC312393	Aroclor-1221	GC22	A	10/12/05 22:47
QC312393	Aroclor-1232	GC22	A	10/12/05 22:47
QC312393	Aroclor-1242	GC22	A	10/12/05 22:47
QC312393	Aroclor-1248	GC22	A	10/12/05 22:47
QC312393	Aroclor-1254	GC22	A	10/12/05 22:47
QC312393	Aroclor-1260	GC22	A	10/12/05 22:47
QC312393	TCMX	GC22	B	10/12/05 22:47
QC312393	Decachlorobiphenyl	GC22	B	10/12/05 22:47
QC312903	Aroclor-1016	GC22	A	10/13/05 22:16
QC312903	Aroclor-1221	GC22	A	10/13/05 22:16
QC312903	Aroclor-1232	GC22	A	10/13/05 22:16
QC312903	Aroclor-1242	GC22	A	10/13/05 22:16
QC312903	Aroclor-1248	GC22	A	10/13/05 22:16
QC312903	Aroclor-1254	GC22	B	10/13/05 22:16
QC312903	Aroclor-1260	GC22	A	10/13/05 22:16
QC312903	TCMX	GC22	A	10/13/05 22:16
QC312903	Decachlorobiphenyl	GC22	A	10/13/05 22:16
QC312394	Aroclor-1248	GC22	A	10/12/05 23:13
QC312394	TCMX	GC22	B	10/12/05 23:13
QC312394	Decachlorobiphenyl	GC22	B	10/12/05 23:13
QC312395	Aroclor-1248	GC22	A	10/13/05 02:19
QC312395	TCMX	GC22	B	10/13/05 02:19
QC312395	Decachlorobiphenyl	GC22	B	10/13/05 02:19

REPORTING SUMMARY FOR 182254 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC312396	Aroclor-1248	GC22	A	10/13/05 02:46
QC312396	TCMX	GC22	B	10/13/05 02:46
QC312396	Decachlorobiphenyl	GC22	B	10/13/05 02:46
QC312904	Aroclor-1248	GC22	A	10/13/05 22:42
QC312904	TCMX	GC22	A	10/13/05 22:42
QC312904	Decachlorobiphenyl	GC22	A	10/13/05 22:42
QC312905	Aroclor-1248	GC22	A	10/14/05 01:48
QC312905	TCMX	GC22	A	10/14/05 01:48
QC312905	Decachlorobiphenyl	GC22	A	10/14/05 01:48
QC312906	Aroclor-1248	GC22	A	10/14/05 02:14
QC312906	TCMX	GC22	A	10/14/05 02:14
QC312906	Decachlorobiphenyl	GC22	A	10/14/05 02:14

Hit Report for 182254 PCB Soil
Curtis & Tompkins Laboratories

Units: ug/Kg

Lab ID	Client ID	Analyte	Result
182254-003	BBITP109(3.0)	Aroclor-1260	14.21

INITIAL CALIBRATION REPORT FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255407474001 Name: Type: (normal) Date: 09-OCT-2005 23:14 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	282_003	255407474003	pcb10_2	09-OCT-2005 23:14	S1364
2	282_004	255407474004	pcb25_5	09-OCT-2005 23:41	S1385
3	282_005	255407474005	pcb100_20	10-OCT-2005 00:08	S1209
4	282_006	255407474006	pcb250_50	10-OCT-2005 00:34	S1384
5	282_007	255407474007	pcb500_100	10-OCT-2005 01:01	S1635
6	282_008	255407474008	pcb750_150	10-OCT-2005 01:27	S1383
7	282_009	255407474009	pcb1k_200	10-OCT-2005 01:54	S1365

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	403.60	357.79	345.14	318.45	312.32	312.53	310.70	AVRG	R		0.002965		pg	337.22	10	.99	20	
Aroclor-1016 Peak # 2	A	854.34	791.72	792.16	725.25	700.00	727.70	700.20	AVRG	R		0.001323		pg	755.91	8	.99	20	
Aroclor-1016 Peak # 3	A	1191.3	1158.1	1023.0	1001.2	1026.4	1146.9	1084.5	AVRG	R		9.173E-4		pg	1090.2	7	.99	20	
Aroclor-1016 Peak # 4	A	619.14	641.97	573.69	572.71	596.52	606.13	614.57	AVRG	R		0.001657		pg	603.53	4	.99	20	
Aroclor-1016 Peak # 5	A	552.99	498.57	508.24	451.74	438.37	480.52	449.70	AVRG	R		0.002071		pg	482.87	8	.99	20	
Aroclor-1260 Peak # 1	A	1235.7	1059.4	963.60	905.46	936.65	1018.8	1020.6	AVRG	R		9.804E-4		pg	1020.0	11	.99	20	
Aroclor-1260 Peak # 2	A	2058.6	1851.0	1670.3	1600.1	1754.1	1980.1	2066.1	AVRG	R		5.393E-4		pg	1854.3	10	.99	20	
Aroclor-1260 Peak # 3	A	867.87	751.44	665.00	640.57	647.94	684.66	673.40	AVRG	R		0.001420		pg	704.41	11	.99	20	
Aroclor-1260 Peak # 4	A	1157.1	1014.4	926.44	863.54	898.08	980.54	1010.2	AVRG	R		0.001022		pg	978.62	10	.99	20	
Aroclor-1260 Peak # 5	A	1066.2	975.41	883.30	820.25	838.25	911.95	917.97	AVRG	R		0.001091		pg	916.20	9	.99	20	
TCMX	A	24028	21846	21274	22651	25603	24304	20925	AVRG	R		4.358E-5		pg	22947	8	.99	20	
Decachlorobiphenyl	A	15715	17283	14893	14404	18396	16192	13115	AVRG	R		6.364E-5		pg	15714	11	.99	20	
Aroclor-1016 Peak # 1	B	322.61	309.13	309.76	293.00	285.52	267.76	259.57	AVRG	R		0.003419		pg	292.48	8	.99	20	
Aroclor-1016 Peak # 2	B	457.49	408.54	411.00	376.36	366.07	343.50	332.76	AVRG	R		0.002597		pg	385.10	11	.99	20	
Aroclor-1016 Peak # 3	B	1560.2	1381.3	1317.3	1199.1	1209.2	1154.3	1128.7	AVRG	R		7.821E-4		pg	1278.6	12	.99	20	
Aroclor-1016 Peak # 4	B	617.33	537.89	520.01	471.76	465.01	438.77	426.50	AVRG	R		0.002013		pg	496.75	13	.99	20	
Aroclor-1016 Peak # 5	B	429.56	374.46	370.35	332.38	328.24	306.24	297.78	AVRG	R		0.002870		pg	348.43	13	.99	20	
Aroclor-1260 Peak # 1	B	970.30	903.57	823.23	734.75	741.46	701.15	695.71	AVRG	R		0.001257		pg	795.74	13	.99	20	
Aroclor-1260 Peak # 2	B	1221.5	1134.5	1025.5	910.59	924.50	913.08	935.78	AVRG	R		9.907E-4		pg	1009.4	12	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255407474001 Name: Type: (normal) Date: 09-OCT-2005 23:14 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	461.33	438.33	407.40	363.20	359.29	340.41	346.56	AVRG	R		0.002577		pg	388.07	12	.99	20	
Aroclor-1260 Peak # 4	B	732.31	716.03	645.69	568.93	567.45	544.40	562.29	AVRG	R		0.001614		pg	619.59	13	.99	20	
Aroclor-1260 Peak # 5	B	1057.5	1019.9	882.83	777.52	774.21	754.41	805.26	AVRG	R		0.001153		pg	867.36	14	.99	20	
TCMX	B	18599	16179	16464	15970	16124	16001	16030	AVRG	R		6.068E-5		pg	16481	6	.99	20	
Decachlorobiphenyl	B	12778	13148	11218	10407	11031	12917	12488	AVRG	R		8.335E-5		pg	11998	9	.99	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255407474002 Name: Type: (normal) Date: 10-OCT-2005 03:40 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	282_013	255407474013	ar1254	10-OCT-2005 03:40	S1464

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	576.63	AVRG	R		0.001734		pg	576.63	0	.99	20	
Aroclor-1254 Peak # 2	A	805.02	AVRG	R		0.001242		pg	805.02	0	.99	20	
Aroclor-1254 Peak # 3	A	629.17	AVRG	R		0.001589		pg	629.17	0	.99	20	
Aroclor-1254 Peak # 4	A	1092.9	AVRG	R		9.150E-4		pg	1092.9	0	.99	20	
Aroclor-1254 Peak # 5	A	885.13	AVRG	R		0.001130		pg	885.13	0	.99	20	
Aroclor-1254 Peak # 1	B	565.02	AVRG	R		0.001770		pg	565.02	0	.99	20	
Aroclor-1254 Peak # 2	B	274.39	AVRG	R		0.003644		pg	274.39	0	.99	20	
Aroclor-1254 Peak # 3	B	525.61	AVRG	R		0.001903		pg	525.61	0	.99	20	
Aroclor-1254 Peak # 4	B	917.64	AVRG	R		0.001090		pg	917.64	0	.99	20	
Aroclor-1254 Peak # 5	B	124.05	AVRG	R		0.008061		pg	124.05	0	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC22 Gas Chromatograph #22 ECD Reviewed By: MCH
Calnum: 255407474003 Name: Type: (normal) Date: 10-OCT-2005 04:07 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	282_014	255407474014	ar1248	10-OCT-2005 04:07	S1437

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1248 Peak # 1	A	365.96	AVRG	R		0.002733		pg	365.96	0	.99	20	
Aroclor-1248 Peak # 2	A	448.63	AVRG	R		0.002229		pg	448.63	0	.99	20	
Aroclor-1248 Peak # 3	A	631.51	AVRG	R		0.001584		pg	631.51	0	.99	20	
Aroclor-1248 Peak # 4	A	762.26	AVRG	R		0.001312		pg	762.26	0	.99	20	
Aroclor-1248 Peak # 5	A	609.88	AVRG	R		0.001640		pg	609.88	0	.99	20	
Aroclor-1248 Peak # 1	B	359.51	AVRG	R		0.002782		pg	359.51	0	.99	20	
Aroclor-1248 Peak # 2	B	456.27	AVRG	R		0.002192		pg	456.27	0	.99	20	
Aroclor-1248 Peak # 3	B	539.59	AVRG	R		0.001853		pg	539.59	0	.99	20	
Aroclor-1248 Peak # 4	B	650.74	AVRG	R		0.001537		pg	650.74	0	.99	20	
Aroclor-1248 Peak # 5	B	533.58	AVRG	R		0.001874		pg	533.58	0	.99	20	

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC22 Calname :
Calnum : 255407474001 Caldate : 09-OCT-2005 Caltype :

ICV 255407474011 (282_011) standards: S1553

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	255407474011	10-OCT-2005	250.00	258.02	pg	3	15
Aroclor-1260	A	255407474011	10-OCT-2005	250.00	239.60	pg	-4	15
Aroclor-1016	B	255407474011	10-OCT-2005	250.00	249.02	pg	0	15
Aroclor-1260	B	255407474011	10-OCT-2005	250.00	240.05	pg	-4	15

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005			100.00	85.647	pg	-14	15	
GC22	B	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005			100.00	99.978	pg	0	15	
GC22	A	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005			500.00	478.47	pg	-4	15	
GC22	B	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005			500.00	487.92	pg	-2	15	
GC22	A	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005			250.00	251.20	pg	0	15	
GC22	B	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005			250.00	245.21	pg	-2	15	
GC22	A	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005			100.00	108.33	pg	8	15	
GC22	B	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005			100.00	103.86	pg	4	15	
GC22	A	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005			500.00	477.34	pg	-5	15	
GC22	B	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005			500.00	465.83	pg	-7	15	
GC22	A	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005			250.00	246.79	pg	-1	15	
GC22	B	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005			250.00	241.10	pg	-4	15	

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1248

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255411254015	12-OCT-2005 21:01	255407474003	10-OCT-2005			250.00	255.68	pg	2	15	
GC22	B	255411254015	12-OCT-2005 21:01	255407474003	10-OCT-2005			250.00	243.80	pg	-2	15	
GC22	A	255411254032	13-OCT-2005 04:32	255407474003	10-OCT-2005			250.00	263.36	pg	5	15	
GC22	B	255411254032	13-OCT-2005 04:32	255407474003	10-OCT-2005			250.00	256.33	pg	3	15	
GC22	A	255412703003	13-OCT-2005 20:30	255407474003	10-OCT-2005			250.00	256.27	pg	3	15	
GC22	B	255412703003	13-OCT-2005 20:30	255407474003	10-OCT-2005			250.00	236.10	pg	-6	15	
GC22	A	255412703020	14-OCT-2005 04:00	255407474003	10-OCT-2005			250.00	263.75	pg	5	15	
GC22	B	255412703020	14-OCT-2005 04:00	255407474003	10-OCT-2005			250.00	236.25	pg	-5	15	

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1254

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255412703005	13-OCT-2005 21:23	255407474002	10-OCT-2005			250.00	269.92	pg	8	15	
GC22	B	255412703005	13-OCT-2005 21:23	255407474002	10-OCT-2005			250.00	223.48	pg	-11	15	
GC22	A	255412703022	14-OCT-2005 04:53	255407474002	10-OCT-2005			250.00	289.12	pg	**16**	15	c+ ***
GC22	B	255412703022	14-OCT-2005 04:53	255407474002	10-OCT-2005			250.00	253.14	pg	1	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005			100.00	103.30	pg	3	15	
GC22	B	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005			100.00	95.847	pg	-4	15	
GC22	A	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005			500.00	474.03	pg	-5	15	
GC22	B	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005			500.00	491.62	pg	-2	15	
GC22	A	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005			250.00	230.73	pg	-8	15	
GC22	B	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005			250.00	243.02	pg	-3	15	
GC22	A	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005			100.00	102.96	pg	3	15	
GC22	B	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005			100.00	106.09	pg	6	15	
GC22	A	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005			500.00	475.68	pg	-5	15	
GC22	B	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005			500.00	443.23	pg	-11	15	
GC22	A	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005			250.00	238.11	pg	-5	15	
GC22	B	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005			250.00	234.02	pg	-6	15	

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005	22947	22440	20.000	19.558	pg	-2	15	
GC22	B	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005	16481	16578	20.000	20.118	pg	1	15	
GC22	A	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005	22947	26689	100.00	116.31	pg	**16**	15	c+
GC22	B	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005	16481	17462	100.00	105.95	pg	6	15	
GC22	A	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005	22947	23869	50.000	52.008	pg	4	15	
GC22	B	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005	16481	16480	50.000	49.997	pg	0	15	
GC22	A	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005	22947	22428	20.000	19.548	pg	-2	15	
GC22	B	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005	16481	17068	20.000	20.712	pg	4	15	
GC22	A	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005	22947	25759	100.00	112.25	pg	12	15	
GC22	B	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005	16481	16979	100.00	103.02	pg	3	15	
GC22	A	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005	22947	23162	50.000	50.469	pg	1	15	
GC22	B	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005	16481	16387	50.000	49.715	pg	-1	15	

+=high bias c=CCV

CONTINUING CALIBRATION SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC22	A	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005	15714	15324	20.000	19.503	pg	-2	15	
GC22	B	255411254014	12-OCT-2005 20:34	255407474001	09-OCT-2005	11998	10131	20.000	16.887	pg	**-16**	15	c-
GC22	A	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005	15714	18479	100.00	117.60	pg	**18**	15	c+
GC22	B	255411254031	13-OCT-2005 04:06	255407474001	09-OCT-2005	11998	13273	100.00	110.62	pg	11	15	
GC22	A	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005	15714	13870	50.000	44.131	pg	-12	15	
GC22	B	255412703001	13-OCT-2005 14:23	255407474001	09-OCT-2005	11998	10984	50.000	45.774	pg	-8	15	
GC22	A	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005	15714	14198	20.000	18.071	pg	-10	15	
GC22	B	255412703018	14-OCT-2005 03:07	255407474001	09-OCT-2005	11998	11870	20.000	19.786	pg	-1	15	
GC22	A	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005	15714	18033	100.00	114.76	pg	15	15	
GC22	B	255412703035	14-OCT-2005 10:38	255407474001	09-OCT-2005	11998	11091	100.00	92.438	pg	-8	15	
GC22	A	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005	15714	15050	50.000	47.887	pg	-4	15	
GC22	B	255412703041	14-OCT-2005 13:54	255407474001	09-OCT-2005	11998	10644	50.000	44.357	pg	-11	15	

+=high bias -=low bias c=CCV

SEQUENCE SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255407474 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 09-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	282_001	X	hex			09-OCT-2005 22:21	1.0					
002	282_002	X	hex			09-OCT-2005 22:48	1.0					
003	282_003	ICAL	pcb10_2			09-OCT-2005 23:14	1.0				1	
004	282_004	ICAL	pcb25_5			09-OCT-2005 23:41	1.0				2	
005	282_005	ICAL	pcb100_20			10-OCT-2005 00:08	1.0				3	
006	282_006	ICAL	pcb250_50			10-OCT-2005 00:34	1.0				4	
007	282_007	ICAL	pcb500_100			10-OCT-2005 01:01	1.0				5	
008	282_008	ICAL	pcb750_150			10-OCT-2005 01:27	1.0				6	
009	282_009	ICAL	pcb1k_200			10-OCT-2005 01:54	1.0				7	
011	282_011	ICV	ultra_1660			10-OCT-2005 02:47	1.0	1			8	
013	282_013	ICAL	ar1254			10-OCT-2005 03:40	1.0				9	
014	282_014	ICAL	ar1248			10-OCT-2005 04:07	1.0				10	

Stds used: 1=S1364 2=S1385 3=S1209 4=S1384 5=S1635 6=S1383 7=S1365 8=S1553 9=S1464 10=S1437

SEQUENCE SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255411254 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 12-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
001	285_001	CCV	pcb250_50			12-OCT-2005 14:14	1.0	1.0	1	1	
002	285_002	X	ccv			12-OCT-2005 14:48	1.0			1	
003	285_003	CCV	ar1248			12-OCT-2005 15:21	1.0	1.0	1	2	
005	285_005	LCS	QC312267	106567	Soil	12-OCT-2005 16:20	1.0	0.8229	1		
006	285_006	SAMPLE	182129-005	106535	Wipe	12-OCT-2005 16:46	2.0	100.0	1		
007	285_007	SAMPLE	182129-006	106535	Wipe	12-OCT-2005 17:13	2.0	100.0	1		
008	285_008	SAMPLE	182129-008	106535	Wipe	12-OCT-2005 17:40	5.0	100.0	1		
009	285_009	SAMPLE	182162-001	106567	Soil	12-OCT-2005 18:06	2.0	0.8395	1		
010	285_010	SAMPLE	182162-003	106567	Soil	12-OCT-2005 18:33	2.0				
011	285_011	SAMPLE	182162-003	106567	Soil	12-OCT-2005 19:14	5.0	0.8216	1		
013	285_013	X	pcb100_20			12-OCT-2005 20:07	1.0			3	
014	285_014	CCV	pcb100_20			12-OCT-2005 20:34	1.0	1.0	1	3	
015	285_015	CCV	ar1248			12-OCT-2005 21:01	1.0	1.0	1	2	
019	285_019	BLANK	QC312393	106600	Soil	12-OCT-2005 22:47	1.0	0.6693	1		
020	285_020	LCS	QC312394	106600	Soil	12-OCT-2005 23:13	1.0	0.6696	1		
021	285_021	SAMPLE	182291-003	106600	Soil	12-OCT-2005 23:40	1.0	0.6601	1		
022	285_022	SAMPLE	182291-004	106600	Soil	13-OCT-2005 00:06	1.0	0.6579	1		
023	285_023	SAMPLE	182291-005	106600	Soil	13-OCT-2005 00:33	1.0	0.6732	1		
024	285_024	SAMPLE	182329-002	106567	Soil	13-OCT-2005 00:59	1.0	0.8328	1		
025	285_025	SAMPLE	182332-005	106600	Soil	13-OCT-2005 01:26	1.0	0.6633	1		
026	285_026	MSS	182254-003	106600	Soil	13-OCT-2005 01:53	1.0	0.6667	1		
027	285_027	MS	QC312395	106600	Soil	13-OCT-2005 02:19	1.0	0.6667	1		
028	285_028	MSD	QC312396	106600	Soil	13-OCT-2005 02:46	1.0	0.6596	1		
030	285_030	X	pcb500_100			13-OCT-2005 03:39	1.0			4	
031	285_031	CCV	pcb500_100			13-OCT-2005 04:06	1.0	1.0	1	4	
032	285_032	CCV	ar1248			13-OCT-2005 04:32	1.0	1.0	1	2	
036	285_036	BLANK	QC312526	106628	Water	13-OCT-2005 06:19	1.0	0.025	1		
037	285_037	BS	QC312527	106628	Water	13-OCT-2005 06:45	1.0	0.025	1		
038	285_038	BSD	QC312528	106628	Water	13-OCT-2005 07:12	1.0	0.025	1		
039	285_039	SAMPLE	182353-001	106628	Water	13-OCT-2005 07:38	1.0				
041	285_041	CCV	pcb250_50			13-OCT-2005 08:31	1.0	1.0	1	1	

Stds used: 1=S1384 2=S1437 3=S1209 4=S1635

SEQUENCE SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255411254 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 12-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
042	285_042	X	ccv			13-OCT-2005 08:58	1.0			1	
043	285_043	CCV	ar1248			13-OCT-2005 09:24	1.0	1.0	1	2	
044	285_044	X	ccv			13-OCT-2005 09:51	1.0			2	
047	285_047	SAMPLE	182353-001	106628	Water	13-OCT-2005 11:24	5.0				
048	285_048	SAMPLE	182353-001	106628	Water	13-OCT-2005 12:37	2.0	0.02404	1		
050	285_050	CCV	pcb100_20			13-OCT-2005 13:30	1.0	1.0	1	3	

145

Stds used: 1=S1384 2=S1437 3=S1209 4=S1635

SEQUENCE SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255412703 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 13-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	286_001	CCV	pcb250_50			13-OCT-2005 14:23	1.0	1.0		1	1	
002	286_002	X	ccv			13-OCT-2005 14:49	1.0				1	
003	286_003	CCV	ar1248			13-OCT-2005 20:30	1.0	1.0		1	2	
004	286_004	X	ccv			13-OCT-2005 20:56	1.0				2	
005	286_005	CCV	ar1254			13-OCT-2005 21:23	1.0	1.0		1	3	
007	286_007	BLANK	QC312903	106718	Soil	13-OCT-2005 22:16	1.0	0.8229		1		
008	286_008	LCS	QC312904	106718	Soil	13-OCT-2005 22:42	1.0	0.8429		1		
009	286_009	SAMPLE	182363-004	106718	Soil	13-OCT-2005 23:09	1.0	0.8221	1	1		
010	286_010	SAMPLE	182363-007	106718	Soil	13-OCT-2005 23:35	1.0	0.8284		1		
011	286_011	SAMPLE	182363-016	106718	Soil	14-OCT-2005 00:02	1.0	0.8248		1		
012	286_012	SAMPLE	182363-025	106718	Soil	14-OCT-2005 00:28	1.0	0.8457		1		
013	286_013	SAMPLE	182363-031	106718	Soil	14-OCT-2005 00:55	1.0	0.8342		1		
014	286_014	MSS	182254-007	106718	Soil	14-OCT-2005 01:21	1.0	0.824		1		
015	286_015	MS	QC312905	106718	Soil	14-OCT-2005 01:48	1.0	0.83		1		
016	286_016	MSD	QC312906	106718	Soil	14-OCT-2005 02:14	1.0	0.8264		1		
018	286_018	CCV	pcb100_20			14-OCT-2005 03:07	1.0	1.0		1	4	
019	286_019	X	ccv			14-OCT-2005 03:34	1.0				4	
020	286_020	CCV	ar1248			14-OCT-2005 04:00	1.0	1.0		1	2	
021	286_021	X	ccv			14-OCT-2005 04:27	1.0				2	
022	286_022	CCV	ar1254			14-OCT-2005 04:53	1.0	1.0	1	1	3	
024	286_024	SAMPLE	182363-044	106718	Soil	14-OCT-2005 05:46	1.0	0.8358		1		
025	286_025	SAMPLE	182363-045	106718	Soil	14-OCT-2005 06:13	1.0	0.8372		1		
026	286_026	SAMPLE	182363-048	106718	Soil	14-OCT-2005 06:39	1.0	0.835		1		
027	286_027	SAMPLE	182363-049	106718	Soil	14-OCT-2005 07:06	1.0	0.8273		1		
028	286_028	SAMPLE	182363-050	106718	Soil	14-OCT-2005 07:32	1.0	0.8358		1		
029	286_029	SAMPLE	182254-001	106600	Soil	14-OCT-2005 07:59	1.0	0.67		1		
030	286_030	SAMPLE	182254-002	106600	Soil	14-OCT-2005 08:25	1.0	0.677		1		
031	286_031	SAMPLE	182254-004	106600	Soil	14-OCT-2005 08:52	1.0	0.6629		1		
032	286_032	SAMPLE	182254-005	106600	Soil	14-OCT-2005 09:18	1.0	0.6649		1		
033	286_033	SAMPLE	182254-006	106600	Soil	14-OCT-2005 09:45	1.0	0.6748		1		
035	286_035	CCV	pcb500_100			14-OCT-2005 10:38	1.0	1.0		1	5	

Stds used: 1=S1384 2=S1437 3=S1588 4=S1209 5=S1635

SEQUENCE SUMMARY FOR 182254 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 255412703 Instrument: GC22 Gas Chromatograph #22 ECD Begun: 13-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
036	286_036	X	ccv			14-OCT-2005 11:04	1.0			5	
039	286_039	SAMPLE	182254-008	106718	Soil	14-OCT-2005 12:24	1.0	0.8336	1		
041	286_041	CCV	pcb250_50			14-OCT-2005 13:54	1.0	1.0	1	1	
042	286_042	X	ccv			14-OCT-2005 14:21	1.0			1	
043	286_043	X	ccv			14-OCT-2005 14:47	1.0			3	

147

Stds used: 1=S1384 2=S1437 3=S1588 4=S1209 5=S1635

Curtis & Tompkins Laboratories Sample Preparation Summary 11-OCT-2005 15:48

Batch Number : 106600
Date Extracted: 11-OCT-2005
Extracted by : Brian Rob Gorajski
Prep Method : 3550B

Analysis : ~~8081~~ PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685A
Spike #2 ID : S1460A
Spike #3 ID : S1154E
SOP Version : 8081s_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-001			Mactec, Inc.	Soil	29.85	g	20	0.670017	1	.04	0	0	8081, PCB		
182254-002			Mactec, Inc.	Soil	29.54	g	20	0.677048	1	.04	0	0	8081, PCB		
182254-003			Mactec, Inc.	Soil	30	g	20	0.666667	1	.04	0	0	8081, PCB		MSS (PCB and 8081)
182254-004			Mactec, Inc.	Soil	30.17	g	20	0.662910	1	.04	0	0	8081, PCB		
182254-005			Mactec, Inc.	Soil	30.08	g	20	0.664894	1	.04	0	0	8081, PCB		
182254-006			Mactec, Inc.	Soil	29.64	g	20	0.674764	1	.04	0	0	8081, PCB		
182291-003			Innovative Technical Solutions	Soil	30.3	g	20	0.660066	1	.04	0	0	8081, PCB		
182291-004			Innovative Technical Solutions	Soil	30.4	g	20	0.657895	1	.04	0	0	8081, PCB		
182291-005			Innovative Technical Solutions	Soil	29.71	g	20	0.673174	1	.04	0	0	8081, PCB		
182298-002			Environ	Soil	29.88	g	20	0.669344	1	.04	0	0	8081, PCB		
182298-003			Environ	Soil	30.09	g	20	0.664673	1	.04	0	0	8081, PCB		
182298-004			Environ	Soil	30.36	g	20	0.658762	1	.04	0	0	8081, PCB		
182298-006			Environ	Soil	29.73	g	20	0.672721	1	.04	0	0	8081, PCB		
182298-007			Environ	Soil	29.77	g	20	0.671817	1	.04	0	0	8081, PCB		
182298-009			Environ	Soil	29.82	g	20	0.670691	1	.04	0	0	8081, PCB		
182298-010			Environ	Soil	29.78	g	20	0.671592	1	.04	0	0	8081, PCB		
182298-011			Environ	Soil	30.28	g	20	0.660502	1	.04	0	0	8081, PCB		
182332-005			Environ	Soil	30.15	g	20	0.663350	1	.04	0	0	8081, PCB		
182337-001			TRC Environmental Solutions, I	Soil	30.05	g	20	0.665557	1	.04	0	0	8081, PCB		
182337-002			TRC Environmental Solutions, I	Soil	29.62	g	20	0.675219	1	.04	0	0	8081, PCB		
QC312393	BLANK			Soil	29.88	g	20	0.669344	1	.04	0	0	8081, PCB		
QC312394	LCS			Soil	29.87	g	20	0.669568	1	.04	.05	0	8081 PCB		
QC312395	MS	of 182254-003		Soil	30	g	20	0.666667	1	.04	.05	0	8081 PCB ↓		
QC312396	MSD	of 182254-003		Soil	30.32	g	20	0.659631	1	.04	.05	0	8081		
QC312397	LCS			Soil	29.63	g	20	0.674992	1	.04	0	.05	8081		
QC312398	MS	of 182254-003		Soil	30.18	g	20	0.662691	1	.04	0	.05	8081		
QC312399	MSD	of 182254-003		Soil	30.3	g	20	0.660066	1	.04	0	.05	8081		

JDM 10/11/05

148

Prep Chemist: Brian Gorajski Reviewed By: Jennifer Lee Date: 10/11/05

Relinquished By: Brian Gorajski Received By: [illegible] Date: 10/11/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

LIMS Batch No: 106600
LIMS Analysis PCB
Extracted by: BRG
Date Extracted: 10/11/05

- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ EPA 3545 PFE (ASE Method# ____)
- ☐ Other ____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	182254-001	29.85	20	
	2	29.54		
	3	30.00		MSS
	4	30.17		
5	5	30.08		
	6	29.64		
	182291-003	30.30		
	4	30.40		
	5	29.71		
10	182298-002	29.88		
	03	30.09		
	04	30.36		
	06 BRG 10/11/05	29.73		
	~~06~~ 07	29.77		Sharpie contamination
15	09	29.82		
	10	29.78		
	11	30.28		
	182332-005	30.15		
	182337-001	30.05		
20	2	29.62		
	MB QC 312393	29.88		
	LCS 4	29.87		
	MS 5	30.00		
	MSD 6	30.32		BRG 10/11/05

	Mfg & Lot # / LIMS # / Time	Initials / Date
~~Sand~~ weighed out for QC samples	EM44135439	BRG 10/11/05
dried with CH_2Cl_2-rinsed ☑ ~~granular~~ powder Na_2SO_4 ☐ diatomaceous earth (from Na_2SO_4)	JTBA 24616	
0.04 mL of surrogate solution was added to all samples	51685A	
0.05 mL of spike solution Ar 1248 was added to all spikes	51460A	
1:1 CH_2Cl_2 (lot# EM45188):Acetone(lot# EM4525) was added to all	✓	
☑ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted	✓	
ASE Cellulose Filters used:	NA	
PFE (ASE) / soxhlets on at:	↓	
PFE (ASE) / soxhlets off at:	↓	
Extracts filtered through baked, CH_2Cl_2-rinsed ~~granular~~ powdered Na_2SO_4	JTBA24616	
Concentrated to volumes noted above after exchange to Hexane Lot#	C0049	
EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#	A49034	
Centrifuged for 1 min; ~~10~~ 5mL transferred to labelled vial	✓	↓

Brenna Dougherty 10/11/05
Extraction Chemist / Date

Continued from page ____
Continued on page ____

Jennifer Mee 10/11/05
Reviewed by / Date

SAMPLE I.D.	Weight (g)	Analysis Comments
182168-MS	49.66	TEH M 182168-032 H+L
MSD	49.64	
023	50.45	
182254-001A	29.85	PIP
002	29.54	
003	30.00	
004	30.17	
005	30.08	
006	29.64	
007	30.44	
008	29.90	
182329-003A	29.97	8310 MSS EM44135439
LCS	29.98	
MB	29.88	
MS	29.81	182329-003A
MSD	30.36	
182285-001AC	29.85	8310
2	30.15	
3	29.62	
4	29.78	
5	29.66	MSS EM44135439
LCS	30.20	
MB	29.72	182285-005A
MS	29.72	
MSD	30.12	
182298-002B	29.88	PIP
003	30.09	
004A	30.36	
006	29.73	
007	29.77	
009	29.82	
010B	29.78	
011	30.28	
182291-003A	30.30	PIP
004	30.40	
005	29.71	

Continued on Page

Signed 10/10/05 Date

Read and Understood By

Signed Date

SAMPLE I.D.	~~Weight (g)~~	Analysis	Comments
182332-005 A	30.15	P/P	
182337-001	30.05	P/P	Comp of A, B, C, D
↓ 002	29.62	↓	Comp of A, B, C, D

Continued on Page

Signed Date

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Signed Date

198 Project Soil Aliquot BK2177

Continued from Page —

Sample ID	Weight (g)	Analysis	Comments
182254-003A	30.00	P/P	MSS PCB #8081
MB	29.88	↓	Na_2SO_4 EM44135439
LCS	29.87	PCB	↓
MS	30.00	↓	182254-003A
MSD	30.32	8081	↓
LCS	29.63	↓	Na_2SO_4 EM44135439
MS	30.18	TEHM	182254-003A
MSD	30.30	↓	↓
182298-001A	49.69		
002	49.60		
003	49.78		
004	49.99		
005	50.10		
006	49.94		
007	50.39		
009	49.90		
010	50.17		
011	50.22		
182314-001A	49.95	TEH	
002	49.55	↓	
003	49.55		
004	49.71		
005	49.86		
006	49.81		
011	50.05		Comp of 007,008,009, 010.
182285-001D	50.02		
2	50.06		
3	49.84		
4	49.96		
5	49.65		MSS EM44135439
LCS	49.90		↓
MB	50.20		182285-005D
MS	49.82		
MSD	49.86		

Continued on Page

Signed — Date 10/11/05

Read and Understood By

Signed — Date

Curtis & Tompkins Laboratories Sample Preparation Summary 14-OCT-2005 11:54

Batch Number : 106718
Date Extracted: 13-OCT-2005
Extracted by : Kristine Harrison
Prep Method : 3550B

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685B
Spike #2 ID : S1460
Spike #3 ID :
SOP Version : PCB_3550_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-007			Mactec, Inc.	Soil	30.34	g	25	0.823995	1		.05	0		PCB	3665A	mss
182254-008			Mactec, Inc.	Soil	29.99	g	25	0.833611	1		.05	0		PCB	3665A	
182363-004			URS Corporation	Soil	30.41	g	25	0.822098	1		.05	0		PCB	3665A	
182363-007			URS Corporation	Soil	30.18	g	25	0.828363	1		.05	0		PCB	3665A	
182363-016			URS Corporation	Soil	30.31	g	25	0.824810	1		.05	0		PCB	3665A	
182363-025			URS Corporation	Soil	29.56	g	25	0.845737	1		.05	0		PCB	3665A	
182363-031			URS Corporation	Soil	29.97	g	25	0.834168	1		.05	0		PCB	3665A	
182363-044			URS Corporation	Soil	29.91	g	25	0.835841	1		.05	0		PCB	3665A	
182363-045			URS Corporation	Soil	29.86	g	25	0.837240	1		.05	0		PCB	3665A	
182363-048			URS Corporation	Soil	29.94	g	25	0.835003	1		.05	0		PCB	3665A	
182363-049			URS Corporation	Soil	30.22	g	25	0.827267	1		.05	0		PCB	3665A	
182363-050			URS Corporation	Soil	29.91	g	25	0.835841	1		.05	0		PCB	3665A	
182387-005			URS Corporation	Soil	29.97	g	25	0.834168	1		.05	0		PCB	3665A	
182387-013			URS Corporation	Soil	29.85	g	25	0.837521	1		.05	0		PCB	3665A	
182387-015			URS Corporation	Soil	30.03	g	25	0.832501	1		.05	0		PCB	3665A	
182387-016			URS Corporation	Soil	29.67	g	25	0.842602	1		.05	0		PCB	3665A	
182387-019			URS Corporation	Soil	29.97	g	25	0.834168	1		.05	0		PCB	3665A	
182387-020			URS Corporation	Soil	29.82	g	25	0.838364	1		.05	0		PCB	3665A	
182387-021			URS Corporation	Soil	29.51	g	25	0.847170	1		.05	0		PCB	3665A	
182417-005			Pacific States Env	Contractor Soil	29.71	g	25	0.841468	1		.05	0		PCB	3665A	
QC312903	BLANK			Soil	30.38	g	25	0.822910	1		.05	0		PCB	3665A	
QC312904	LCS			Soil	29.66	g	25	0.842886	1		.05	.05		PCB	3665A	
QC312905	MS	of 182254-007		Soil	30.12	g	25	0.830013	1		.05	.05		PCB	3665A	
QC312906	MSD	of 182254-007		Soil	30.25	g	25	0.826446	1		.05	.05		PCB	3665A	

Prep Chemist: _____ Reviewed By: Jennifer Gargan Date: 10/14/05

Relinquished By: _____ Received By: Jennifer Gargan Date: 10/14/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

BK 2167

Page 76

LIMS Batch No: 10718
LIMS Analysis PCB
Extracted by: KMH
Date Extracted: 10/13/05

- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ EPA 3545 PFE (ASE Method# _____)
- ☐ Other _____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	182254-007	30.34	25.0	mss
	↓ 8	29.99		
	182363-004	30.41		
	7	30.18		
5	16	30.81		
	25	29.56		
	31	29.97		
	44	29.91		
	45	29.86		
10	48	29.94		
	49	30.22		rocks
	50	29.91		
	182387-005	29.97		
	13	29.85		
15	15	30.03		rocks
	16	29.67		
	19	29.97		
	20	29.82		rocks
	21	29.51		
20	182417-005	29.71		
	MB QC312903	30.38		
	LCS 4	29.66		
	MS 5	30.12		
	MSD 6	30.25		
				KMH 10/13/05

granular Na_2SO_4 Sand weighed out for QC samples

dried with CH_2Cl_2-rinsed ☑ ~~granular~~ Na_2SO_4 ☐ diatomaceous earth

6.05 mL of surrogate solution was added to all samples

0.05 mL of spike solution AC1248 was added to all spikes

1:1 CH_2Cl_2 (lot# EA45788):Acetone(lot# EA45125) was added to all

☑ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted

ASE Cellulose Filters used:

PFE (ASE) / soxhlets on at:

PFE (ASE) / soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed ~~granular~~ Na_2SO_4

Concentrated to volumes noted above after exchange to Hexane Lot#

EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#

Centrifuged for 1 min; 10mL transferred to labelled vial

Mfg & Lot # / LIMS # / Time	Initials / Date
EM44135489	KMH 10/13/05
JTB2515	
S1685B	
S1410	
✓	
✓	
NA	
↓	
↓	
JTB2551	
C0787	
JTBA49034	
✓	↓

Extraction Chemist / Date 10/13/05

Continued from page ____
Continued on page ____

Jennifer Gangan 10/14/05
Reviewed by / Date

6 Project Soil Aliquot BK2219

Continued from Page

SAMPLE I.D.	Weight(g)	Analysis	Comments
182387-005 A	29.97	PCB	
0013	29.85		
0015	30.03		
0016	29.67		
019	29.97		
020	29.82		
021	29.51		
182426-001 A	49.54	TEH	
2	49.80		
3	49.64		
4	49.79		
5	49.59		
6	49.78		
7	49.63		
8	49.94		
182391-001 B	49.70	TEH	
002	49.76		
003	50.01		
004	50.21		
005	49.58		
006	49.74		
LCS	49.90		MSS
MB	50.29		EM144135489
MS	49.68		↓
MSD	50.31		182391-006B
			↓
MB	30.38	PCB	EM144135439
LCS	29.66		↓
MS	30.12		182254-007A
MSD	30.25		↓
182254-007A	30.34		MSS
↓ 8↓	29.99		
182363-004A	30.41		
7	30.18		
16	30.31		
25↓	29.56		

Continued on Page

Read and Understood By

Signed

Date

Date

Sample ID	Depth (a)	Conclusion P&B	Comments
182383-031A	29.97		
44	29.91		
45	29.82		
48	29.94		
49	30.22		
50	29.91		
182417-005A	29.71		
182391-001 AB	29.74	8270	Comp of 182417-001A
002	30.09		2A
003	29.70		3A
004	29.68		4A
005	30.26		
006	29.66		
182428-004A	49.55	TEH/M	

Continued on Page

Read and Understood By

Signed Date Signed Date

Continued from Page

SAMPLE I.D.	Weight(g)	Analysis	Comments
182387-005 A	29.97	PCB	
0013	29.85		
0015	30.03		
0016	29.67		
019	29.97		
020	29.82		
021	29.51		

Continued on Page

Signed _____ Date 10/12/05

Read and Understood By

Signed _____ Date _____

VOCs results & QC Summary

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(8.0)	Diln Fac:	0.8772
Lab ID:	182254-001	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	10	2.3
Chloromethane	ND	10	2.6
Vinyl Chloride	ND	10	2.9
Bromomethane	ND	10	2.5
Chloroethane	ND	10	2.9
Trichlorofluoromethane	ND	5.2	2.7
Acetone	ND	21	3.5
Freon 113	ND	5.2	1.5
1,1-Dichloroethene	ND	5.2	1.7
Methylene Chloride	ND	21	4.5
Carbon Disulfide	ND	5.2	4.5
MTBE	ND	5.2	0.84
trans-1,2-Dichloroethene	ND	5.2	1.3
Vinyl Acetate	ND	52	0.74
1,1-Dichloroethane	ND	5.2	1.3
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.2	1.2
2,2-Dichloropropane	ND	5.2	1.4
Chloroform	ND	5.2	1.4
Bromochloromethane	ND	5.2	0.90
1,1,1-Trichloroethane	ND	5.2	1.5
1,1-Dichloropropene	ND	5.2	1.2
Carbon Tetrachloride	ND	5.2	1.2
1,2-Dichloroethane	ND	5.2	0.82
Benzene	ND	5.2	1.2
Trichloroethene	ND	5.2	1.1
1,2-Dichloropropane	ND	5.2	0.90
Bromodichloromethane	ND	5.2	0.63
Dibromomethane	ND	5.2	0.59
4-Methyl-2-Pentanone	ND	10	0.98
cis-1,3-Dichloropropene	ND	5.2	0.71
Toluene	ND	5.2	1.1
trans-1,3-Dichloropropene	ND	5.2	0.67
1,1,2-Trichloroethane	ND	5.2	0.93
2-Hexanone	ND	10	0.80
1,3-Dichloropropane	ND	5.2	0.83
Tetrachloroethene	ND	5.2	1.1
Dibromochloromethane	ND	5.2	0.65
1,2-Dibromoethane	ND	5.2	0.90
Chlorobenzene	ND	5.2	1.7
1,1,1,2-Tetrachloroethane	ND	5.2	0.89
Ethylbenzene	ND	5.2	1.2
m,p-Xylenes	ND	5.2	2.4
o-Xylene	ND	5.2	1.1
Styrene	ND	5.2	1.0
Bromoform	ND	5.2	0.46
Isopropylbenzene	ND	5.2	1.2
1,1,2,2-Tetrachloroethane	ND	5.2	0.64
1,2,3-Trichloropropane	ND	5.2	1.0
Propylbenzene	ND	5.2	1.2
Bromobenzene	ND	5.2	0.82
1,3,5-Trimethylbenzene	ND	5.2	1.3

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(8.0)	Diln Fac:	0.8772
Lab ID:	182254-001	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.2	1.2
4-Chlorotoluene	ND	5.2	1.0
tert-Butylbenzene	ND	5.2	1.1
1,2,4-Trimethylbenzene	ND	5.2	1.0
sec-Butylbenzene	ND	5.2	1.1
para-Isopropyl Toluene	ND	5.2	1.1
1,3-Dichlorobenzene	ND	5.2	0.95
1,4-Dichlorobenzene	ND	5.2	0.58
n-Butylbenzene	ND	5.2	0.87
1,2-Dichlorobenzene	ND	5.2	0.88
1,2-Dibromo-3-Chloropropane	ND	5.2	1.5
1,2,4-Trichlorobenzene	ND	5.2	0.70
Hexachlorobutadiene	ND	5.2	0.68
Naphthalene	ND	5.2	0.77
1,2,3-Trichlorobenzene	ND	5.2	0.44

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	102	80-123
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(12.0)	Diln Fac:	0.8333
Lab ID:	182254-002	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Moisture: 16%

Analyte	Result	RL	MDL
Freon 12	ND	9.9	2.2
Chloromethane	ND	9.9	2.5
Vinyl Chloride	ND	9.9	2.8
Bromomethane	ND	9.9	2.4
Chloroethane	ND	9.9	2.8
Trichlorofluoromethane	ND	5.0	2.6
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.6
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.3
MTBE	ND	5.0	0.80
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	9.9	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.60
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	9.9	0.94
cis-1,3-Dichloropropene	ND	5.0	0.68
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	9.9	0.76
1,3-Dichloropropane	ND	5.0	0.80
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.87
Chlorobenzene	ND	5.0	1.6
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.96
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	0.99
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.79
1,3,5-Trimethylbenzene	ND	5.0	1.2

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(12.0)	Diln Fac:	0.8333
Lab ID:	182254-002	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.96
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.91
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.84
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.67
Hexachlorobutadiene	ND	5.0	0.65
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	103	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP113(3.0)	Diln Fac:	0.8929
Lab ID:	182254-003	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.72
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.88
1,1,1-Trichloroethane	ND	5.0	1.5
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.1
1,2-Dichloropropane	ND	5.0	0.88
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.58
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.91
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.1
Dibromochloromethane	ND	5.0	0.64
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.45
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.63
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP113(3.0)	Diln Fac:	0.8929
Lab ID:	182254-003	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/05/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.57
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.86
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.75
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	102	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP113(5.5)	Diln Fac:	0.7937
Lab ID:	182254-004	Batch#:	106461
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Moisture: 10%

Analyte	Result	RL	MDL
Freon 12	ND	8.8	1.9
Chloromethane	ND	8.8	2.2
Vinyl Chloride	ND	8.8	2.5
Bromomethane	ND	8.8	2.1
Chloroethane	ND	8.8	2.5
Trichlorofluoromethane	ND	4.4	2.3
Acetone	ND	18	3.0
Freon 113	ND	4.4	1.3
1,1-Dichloroethene	ND	4.4	1.5
Methylene Chloride	ND	18	3.8
Carbon Disulfide	ND	4.4	3.8
MTBE	ND	4.4	0.71
trans-1,2-Dichloroethene	ND	4.4	1.1
Vinyl Acetate	ND	44	0.63
1,1-Dichloroethane	ND	4.4	1.1
2-Butanone	ND	8.8	1.3
cis-1,2-Dichloroethene	ND	4.4	1.0
2,2-Dichloropropane	ND	4.4	1.2
Chloroform	ND	4.4	1.2
Bromochloromethane	ND	4.4	0.77
1,1,1-Trichloroethane	ND	4.4	1.3
1,1-Dichloropropene	ND	4.4	1.0
Carbon Tetrachloride	ND	4.4	1.1
1,2-Dichloroethane	ND	4.4	0.70
Benzene	ND	4.4	1.0
Trichloroethene	ND	4.4	0.93
1,2-Dichloropropane	ND	4.4	0.77
Bromodichloromethane	ND	4.4	0.54
Dibromomethane	ND	4.4	0.51
4-Methyl-2-Pentanone	ND	8.8	0.84
cis-1,3-Dichloropropene	ND	4.4	0.61
Toluene	1.9 J	4.4	0.91
trans-1,3-Dichloropropene	ND	4.4	0.57
1,1,2-Trichloroethane	ND	4.4	0.80
2-Hexanone	ND	8.8	0.68
1,3-Dichloropropane	ND	4.4	0.71
Tetrachloroethene	ND	4.4	0.92
Dibromochloromethane	ND	4.4	0.56
1,2-Dibromoethane	ND	4.4	0.77
Chlorobenzene	ND	4.4	1.5
1,1,1,2-Tetrachloroethane	ND	4.4	0.76
Ethylbenzene	ND	4.4	1.0
m,p-Xylenes	ND	4.4	2.0
o-Xylene	ND	4.4	0.97
Styrene	ND	4.4	0.85
Bromoform	ND	4.4	0.39
Isopropylbenzene	ND	4.4	1.0
1,1,2,2-Tetrachloroethane	ND	4.4	0.55
1,2,3-Trichloropropane	ND	4.4	0.88
Propylbenzene	ND	4.4	1.0
Bromobenzene	ND	4.4	0.70

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP113(5.5)	Diln Fac:	0.7937
Lab ID:	182254-004	Batch#:	106461
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.4	1.1
2-Chlorotoluene	ND	4.4	1.0
4-Chlorotoluene	ND	4.4	0.85
tert-Butylbenzene	ND	4.4	0.96
1,2,4-Trimethylbenzene	ND	4.4	0.89
sec-Butylbenzene	ND	4.4	0.96
para-Isopropyl Toluene	ND	4.4	0.91
1,3-Dichlorobenzene	ND	4.4	0.81
1,4-Dichlorobenzene	ND	4.4	0.50
n-Butylbenzene	ND	4.4	0.75
1,2-Dichlorobenzene	ND	4.4	0.75
1,2-Dibromo-3-Chloropropane	ND	4.4	1.3
1,2,4-Trichlorobenzene	ND	4.4	0.60
Hexachlorobutadiene	ND	4.4	0.58
Naphthalene	ND	4.4	0.65
1,2,3-Trichlorobenzene	ND	4.4	0.37

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	104	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-124

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(1.5)	Diln Fac:	0.8621
Lab ID:	182254-005	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Moisture: 13%

Analyte	Result	RL	MDL
Freon 12	ND	9.9	2.2
Chloromethane	ND	9.9	2.5
Vinyl Chloride	ND	9.9	2.8
Bromomethane	ND	9.9	2.4
Chloroethane	ND	9.9	2.8
Trichlorofluoromethane	ND	5.0	2.6
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.6
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.3
MTBE	ND	5.0	0.80
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	9.9	1.4
cis-1,2-Dichloroethene	ND	5.0	1.1
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.78
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.60
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	9.9	0.94
cis-1,3-Dichloropropene	ND	5.0	0.68
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.64
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	9.9	0.76
1,3-Dichloropropane	ND	5.0	0.80
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.87
Chlorobenzene	ND	5.0	1.6
1,1,1,2-Tetrachloroethane	ND	5.0	0.85
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.96
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	0.99
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.79
1,3,5-Trimethylbenzene	ND	5.0	1.2

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(1.5)	Diln Fac:	0.8621
Lab ID:	182254-005	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.96
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.91
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.84
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.67
Hexachlorobutadiene	ND	5.0	0.65
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	106	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(6.0)	Diln Fac:	0.8197
Lab ID:	182254-006	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Moisture: 9%

Analyte	Result	RL	MDL
Freon 12	ND	9.0	2.0
Chloromethane	ND	9.0	2.2
Vinyl Chloride	ND	9.0	2.5
Bromomethane	ND	9.0	2.2
Chloroethane	ND	9.0	2.5
Trichlorofluoromethane	ND	4.5	2.4
Acetone	ND	18	3.1
Freon 113	ND	4.5	1.3
1,1-Dichloroethene	ND	4.5	1.5
Methylene Chloride	ND	18	3.9
Carbon Disulfide	ND	4.5	3.9
MTBE	ND	4.5	0.73
trans-1,2-Dichloroethene	ND	4.5	1.1
Vinyl Acetate	ND	45	0.64
1,1-Dichloroethane	ND	4.5	1.1
2-Butanone	ND	9.0	1.3
cis-1,2-Dichloroethene	ND	4.5	1.0
2,2-Dichloropropane	ND	4.5	1.2
Chloroform	ND	4.5	1.2
Bromochloromethane	ND	4.5	0.79
1,1,1-Trichloroethane	ND	4.5	1.3
1,1-Dichloropropene	ND	4.5	1.1
Carbon Tetrachloride	ND	4.5	1.1
1,2-Dichloroethane	ND	4.5	0.71
Benzene	ND	4.5	1.1
Trichloroethene	ND	4.5	0.95
1,2-Dichloropropane	ND	4.5	0.79
Bromodichloromethane	ND	4.5	0.55
Dibromomethane	ND	4.5	0.52
4-Methyl-2-Pentanone	ND	9.0	0.86
cis-1,3-Dichloropropene	ND	4.5	0.62
Toluene	ND	4.5	0.93
trans-1,3-Dichloropropene	ND	4.5	0.59
1,1,2-Trichloroethane	ND	4.5	0.81
2-Hexanone	ND	9.0	0.69
1,3-Dichloropropane	ND	4.5	0.73
Tetrachloroethene	ND	4.5	0.94
Dibromochloromethane	ND	4.5	0.57
1,2-Dibromoethane	ND	4.5	0.79
Chlorobenzene	ND	4.5	1.5
1,1,1,2-Tetrachloroethane	ND	4.5	0.78
Ethylbenzene	ND	4.5	1.1
m,p-Xylenes	ND	4.5	2.1
o-Xylene	ND	4.5	0.99
Styrene	ND	4.5	0.87
Bromoform	ND	4.5	0.40
Isopropylbenzene	ND	4.5	1.1
1,1,2,2-Tetrachloroethane	ND	4.5	0.56
1,2,3-Trichloropropane	ND	4.5	0.90
Propylbenzene	ND	4.5	1.0
Bromobenzene	ND	4.5	0.72
1,3,5-Trimethylbenzene	ND	4.5	1.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(6.0)	Diln Fac:	0.8197
Lab ID:	182254-006	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	4.5	1.1
4-Chlorotoluene	ND	4.5	0.87
tert-Butylbenzene	ND	4.5	0.98
1,2,4-Trimethylbenzene	ND	4.5	0.91
sec-Butylbenzene	ND	4.5	0.98
para-Isopropyl Toluene	ND	4.5	0.93
1,3-Dichlorobenzene	ND	4.5	0.83
1,4-Dichlorobenzene	ND	4.5	0.51
n-Butylbenzene	ND	4.5	0.76
1,2-Dichlorobenzene	ND	4.5	0.77
1,2-Dibromo-3-Chloropropane	ND	4.5	1.3
1,2,4-Trichlorobenzene	ND	4.5	0.61
Hexachlorobutadiene	ND	4.5	0.59
Naphthalene	ND	4.5	0.67
1,2,3-Trichlorobenzene	ND	4.5	0.38

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(3.0)	Diln Fac:	1.000
Lab ID:	182254-007	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Moisture: 7%

Analyte	Result	RL	MDL
Freon 12	ND	11	2.4
Chloromethane	ND	11	2.7
Vinyl Chloride	ND	11	3.0
Bromomethane	ND	11	2.6
Chloroethane	ND	11	3.0
Trichlorofluoromethane	ND	5.4	2.9
Acetone	ND	22	3.7
Freon 113	ND	5.4	1.6
1,1-Dichloroethene	ND	5.4	1.8
Methylene Chloride	ND	22	4.7
Carbon Disulfide	ND	5.4	4.7
MTBE	ND	5.4	0.87
trans-1,2-Dichloroethene	ND	5.4	1.3
Vinyl Acetate	ND	54	0.77
1,1-Dichloroethane	ND	5.4	1.3
2-Butanone	ND	11	1.6
cis-1,2-Dichloroethene	ND	5.4	1.2
2,2-Dichloropropane	ND	5.4	1.4
Chloroform	ND	5.4	1.4
Bromochloromethane	ND	5.4	0.94
1,1,1-Trichloroethane	ND	5.4	1.6
1,1-Dichloropropene	ND	5.4	1.3
Carbon Tetrachloride	ND	5.4	1.3
1,2-Dichloroethane	ND	5.4	0.85
Benzene	ND	5.4	1.3
Trichloroethene	ND	5.4	1.1
1,2-Dichloropropane	ND	5.4	0.94
Bromodichloromethane	ND	5.4	0.65
Dibromomethane	ND	5.4	0.62
4-Methyl-2-Pentanone	ND	11	1.0
cis-1,3-Dichloropropene	ND	5.4	0.74
Toluene	ND	5.4	1.1
trans-1,3-Dichloropropene	ND	5.4	0.70
1,1,2-Trichloroethane	ND	5.4	0.97
2-Hexanone	ND	11	0.83
1,3-Dichloropropane	ND	5.4	0.87
Tetrachloroethene	ND	5.4	1.1
Dibromochloromethane	ND	5.4	0.68
1,2-Dibromoethane	ND	5.4	0.94
Chlorobenzene	ND	5.4	1.8
1,1,1,2-Tetrachloroethane	ND	5.4	0.93
Ethylbenzene	ND	5.4	1.3
m,p-Xylenes	ND	5.4	2.5
o-Xylene	ND	5.4	1.2
Styrene	ND	5.4	1.0
Bromoform	ND	5.4	0.48
Isopropylbenzene	ND	5.4	1.3
1,1,2,2-Tetrachloroethane	ND	5.4	0.67
1,2,3-Trichloropropane	ND	5.4	1.1
Propylbenzene	ND	5.4	1.2
Bromobenzene	ND	5.4	0.86
1,3,5-Trimethylbenzene	ND	5.4	1.3

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP111(3.0)	Diln Fac:	1.000
Lab ID:	182254-007	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	5.4	1.3
4-Chlorotoluene	ND	5.4	1.0
tert-Butylbenzene	ND	5.4	1.2
1,2,4-Trimethylbenzene	ND	5.4	1.1
sec-Butylbenzene	ND	5.4	1.2
para-Isopropyl Toluene	ND	5.4	1.1
1,3-Dichlorobenzene	ND	5.4	0.99
1,4-Dichlorobenzene	ND	5.4	0.61
n-Butylbenzene	ND	5.4	0.91
1,2-Dichlorobenzene	ND	5.4	0.92
1,2-Dibromo-3-Chloropropane	ND	5.4	1.6
1,2,4-Trichlorobenzene	ND	5.4	0.73
Hexachlorobutadiene	ND	5.4	0.71
Naphthalene	ND	5.4	0.80
1,2,3-Trichlorobenzene	ND	5.4	0.46

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	104	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(1.5)	Diln Fac:	0.8621
Lab ID:	182254-008	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	9.7	2.1
Chloromethane	ND	9.7	2.4
Vinyl Chloride	ND	9.7	2.7
Bromomethane	ND	9.7	2.3
Chloroethane	ND	9.7	2.7
Trichlorofluoromethane	ND	4.8	2.6
Acetone	ND	19	3.3
Freon 113	ND	4.8	1.4
1,1-Dichloroethene	ND	4.8	1.6
Methylene Chloride	ND	19	4.2
Carbon Disulfide	ND	4.8	4.2
MTBE	ND	4.8	0.78
trans-1,2-Dichloroethene	ND	4.8	1.2
Vinyl Acetate	ND	48	0.69
1,1-Dichloroethane	ND	4.8	1.2
2-Butanone	ND	9.7	1.4
cis-1,2-Dichloroethene	ND	4.8	1.1
2,2-Dichloropropane	ND	4.8	1.3
Chloroform	ND	4.8	1.3
Bromochloromethane	ND	4.8	0.85
1,1,1-Trichloroethane	ND	4.8	1.4
1,1-Dichloropropene	ND	4.8	1.1
Carbon Tetrachloride	ND	4.8	1.2
1,2-Dichloroethane	ND	4.8	0.77
Benzene	ND	4.8	1.1
Trichloroethene	ND	4.8	1.0
1,2-Dichloropropane	ND	4.8	0.85
Bromodichloromethane	ND	4.8	0.59
Dibromomethane	ND	4.8	0.56
4-Methyl-2-Pentanone	ND	9.7	0.92
cis-1,3-Dichloropropene	ND	4.8	0.67
Toluene	ND	4.8	1.0
trans-1,3-Dichloropropene	ND	4.8	0.63
1,1,2-Trichloroethane	ND	4.8	0.88
2-Hexanone	ND	9.7	0.75
1,3-Dichloropropane	ND	4.8	0.78
Tetrachloroethene	ND	4.8	1.0
Dibromochloromethane	ND	4.8	0.61
1,2-Dibromoethane	ND	4.8	0.85
Chlorobenzene	ND	4.8	1.6
1,1,1,2-Tetrachloroethane	ND	4.8	0.83
Ethylbenzene	ND	4.8	1.1
m,p-Xylenes	ND	4.8	2.2
o-Xylene	ND	4.8	1.1
Styrene	ND	4.8	0.94
Bromoform	ND	4.8	0.43
Isopropylbenzene	ND	4.8	1.1
1,1,2,2-Tetrachloroethane	ND	4.8	0.60
1,2,3-Trichloropropane	ND	4.8	0.97
Propylbenzene	ND	4.8	1.1
Bromobenzene	ND	4.8	0.77
1,3,5-Trimethylbenzene	ND	4.8	1.2

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBITP110(1.5)	Diln Fac:	0.8621
Lab ID:	182254-008	Batch#:	106461
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Analyzed:	10/06/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	4.8	1.1
4-Chlorotoluene	ND	4.8	0.94
tert-Butylbenzene	ND	4.8	1.1
1,2,4-Trimethylbenzene	ND	4.8	0.98
sec-Butylbenzene	ND	4.8	1.1
para-Isopropyl Toluene	ND	4.8	1.0
1,3-Dichlorobenzene	ND	4.8	0.89
1,4-Dichlorobenzene	ND	4.8	0.55
n-Butylbenzene	ND	4.8	0.82
1,2-Dichlorobenzene	ND	4.8	0.83
1,2-Dibromo-3-Chloropropane	ND	4.8	1.4
1,2,4-Trichlorobenzene	ND	4.8	0.65
Hexachlorobutadiene	ND	4.8	0.64
Naphthalene	ND	4.8	0.72
1,2,3-Trichlorobenzene	ND	4.8	0.41

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	103	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC311685	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106427
Units:	ug/Kg	Analyzed:	10/05/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	23.74	95	78-127
Benzene	25.00	24.25	97	80-120
Trichloroethene	25.00	25.28	101	80-120
Toluene	25.00	24.76	99	80-120
Chlorobenzene	25.00	25.09	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-120
1,2-Dichloroethane-d4	96	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	95	80-124

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC311686	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106427
Units:	ug/Kg	Analyzed:	10/05/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC311686	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106427
Units:	ug/Kg	Analyzed:	10/05/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	97	80-123
Toluene-d8	97	80-120
Bromofluorobenzene	103	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9434
MSS Lab ID:	182230-013	Batch#:	106427
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/03/05
Basis:	as received	Analyzed:	10/05/05

Type: MS Lab ID: QC311737

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<1.589	23.58	25.62	109	66-125
Benzene	<1.134	23.58	23.93	101	67-120
Trichloroethene	<1.009	23.58	24.92	106	63-124
Toluene	1.828	23.58	25.36	100	63-120
Chlorobenzene	<1.589	23.58	23.42	99	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	100	80-123
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-124

Type: MSD Lab ID: QC311738

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	23.58	23.14	98	66-125	10	20
Benzene	23.58	22.72	96	67-120	5	20
Trichloroethene	23.58	23.51	100	63-124	6	20
Toluene	23.58	24.23	95	63-120	5	20
Chlorobenzene	23.58	22.78	97	59-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	96	80-124

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC311830	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106461
Units:	ug/Kg	Analyzed:	10/06/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.19	97	78-127
Benzene	25.00	25.19	101	80-120
Trichloroethene	25.00	26.16	105	80-120
Toluene	25.00	25.87	103	80-120
Chlorobenzene	25.00	26.35	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-120
1,2-Dichloroethane-d4	95	80-123
Toluene-d8	98	80-120
Bromofluorobenzene	95	80-124

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC311831	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106461
Units:	ug/Kg	Analyzed:	10/06/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC311831	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106461
Units:	ug/Kg	Analyzed:	10/06/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	102	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.667
MSS Lab ID:	182230-006	Batch#:	106461
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/03/05
Basis:	as received	Analyzed:	10/06/05

Type: MS Lab ID: QC311905

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<2.754	41.67	50.63	122	66-125
Benzene	<1.965	41.67	39.05	94	67-120
Trichloroethene	<1.749	41.67	41.25	99	63-124
Toluene	<1.717	41.67	38.31	92	63-120
Chlorobenzene	<2.755	41.67	34.73	83	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-124

Type: MSD Lab ID: QC311906

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	41.67	48.08	115	66-125	5	20
Benzene	41.67	36.35	87	67-120	7	20
Trichloroethene	41.67	36.66	88	63-124	12	20
Toluene	41.67	34.56	83	63-120	10	20
Chlorobenzene	41.67	30.48	73	59-120	13	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-124

RPD= Relative Percent Difference

8260/8450C S ICAL

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\092905.b\FIT05.D

Date : 29-SEP-2005 10:59

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

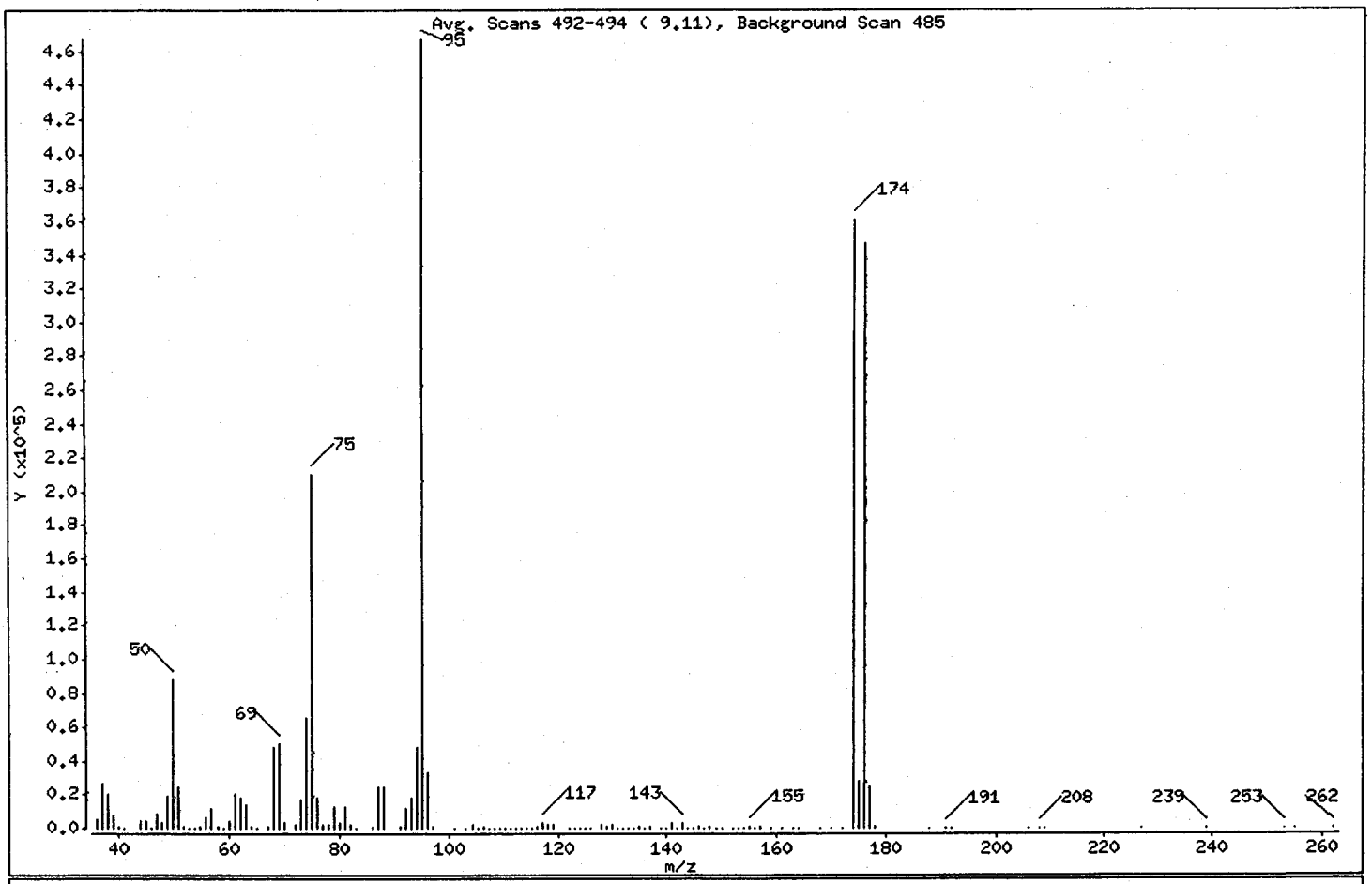
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.88
75	30.00 - 60.00% of mass 95	45.02
96	5.00 - 9.00% of mass 95	7.18
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	77.17
175	5.00 - 9.00% of mass 174	6.04 (7.82)
176	95.01 - 100.99% of mass 174	74.30 (96.28)
177	5.00 - 9.00% of mass 176	5.39 (7.26)

9/29/2005

9/30/05

5260/GADX 3 (CV

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\093005.b\FIU02.D

Date : 30-SEP-2005 09:12

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

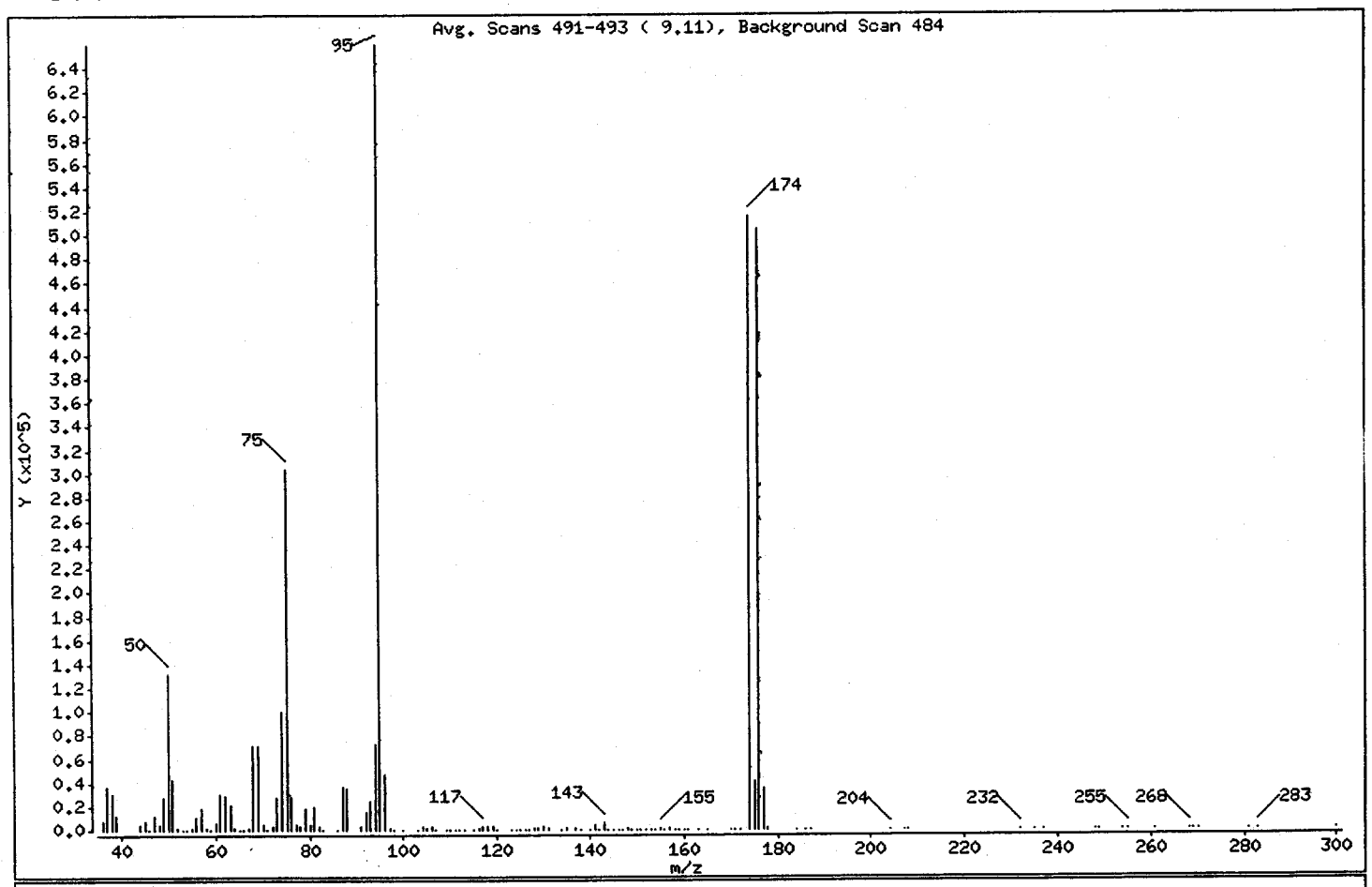
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.95
75	30.00 - 60.00% of mass 95	46.14
96	5.00 - 9.00% of mass 95	7.16
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	78.01
175	5.00 - 9.00% of mass 174	6.32 (8.10)
176	95.01 - 100.99% of mass 174	76.46 (98.01)
177	5.00 - 9.00% of mass 176	5.40 (7.07)

9/30/05

9/30/05

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\100505.b\FJ501.D

Date : 05-OCT-2005 08:50

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

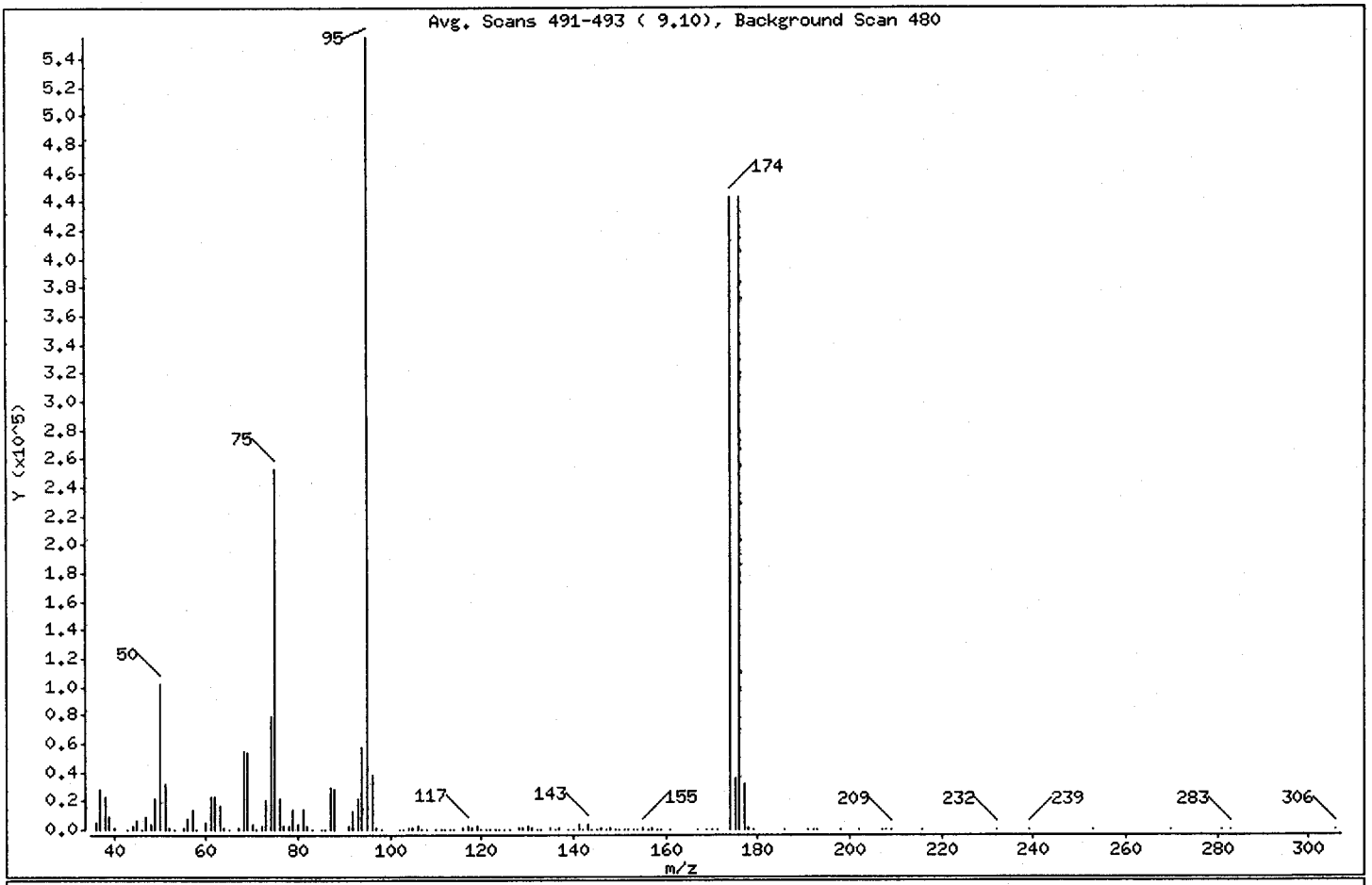
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.32
75	30.00 - 60.00% of mass 95	45.58
96	5.00 - 9.00% of mass 95	6.98
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	79.80
175	5.00 - 9.00% of mass 174	6.49 (8.14)
176	95.01 - 100.99% of mass 174	79.75 (99.94)
177	5.00 - 9.00% of mass 176	5.69 (7.14)

PASS/FAIL

10/6/05

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\100505.b\FJ506.D

Date : 05-OCT-2005 12:04

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

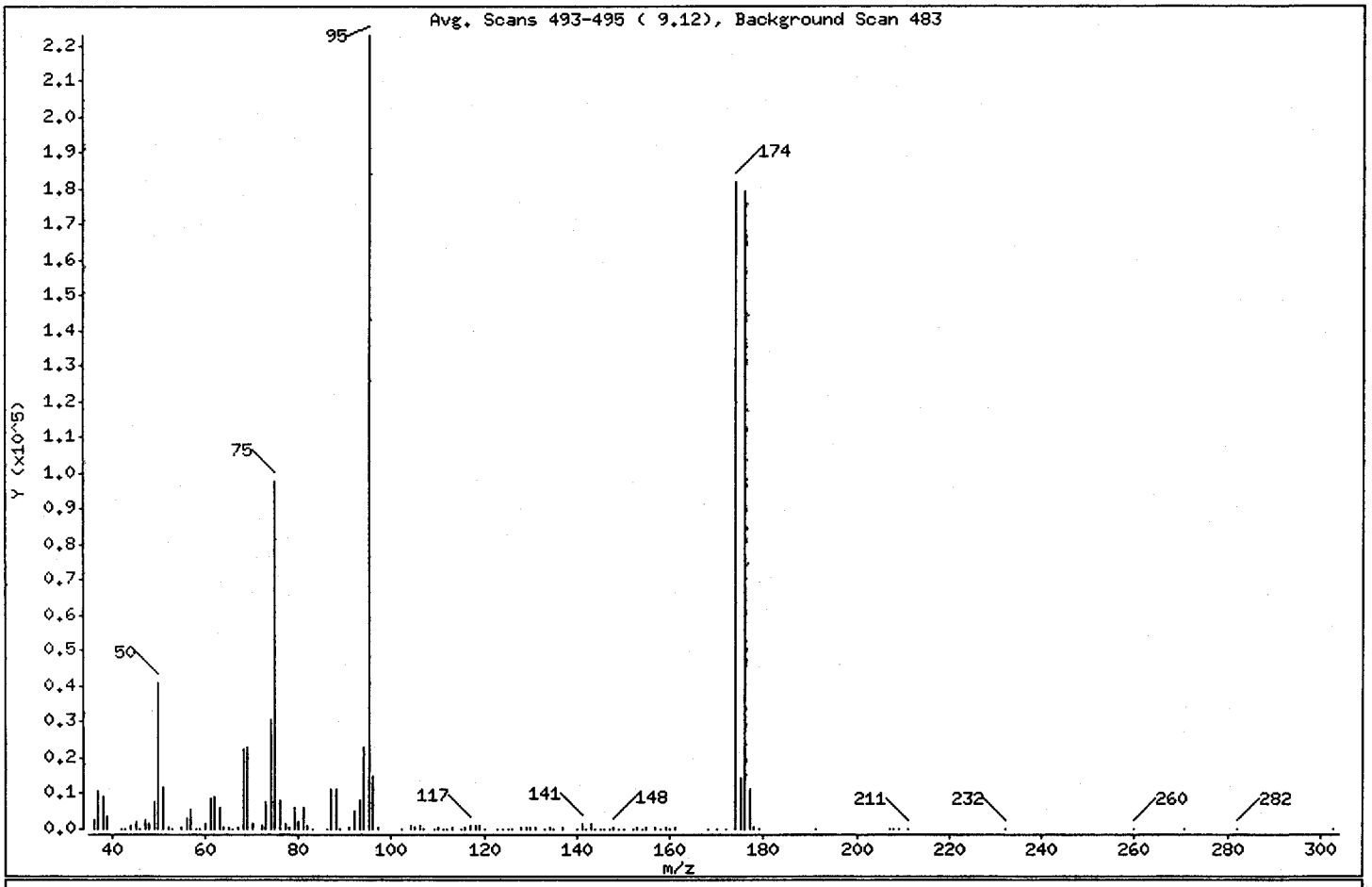
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.33
75	30.00 - 60.00% of mass 95	43.82
96	5.00 - 9.00% of mass 95	6.75
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	81.50
175	5.00 - 9.00% of mass 174	6.54 (8.03)
176	95.01 - 100.99% of mass 174	80.57 (98.85)
177	5.00 - 9.00% of mass 176	5.11 (6.35)

mc 10/6/05

10/6/05

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\100605.b\FJ602.D

Date : 06-OCT-2005 09:08

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

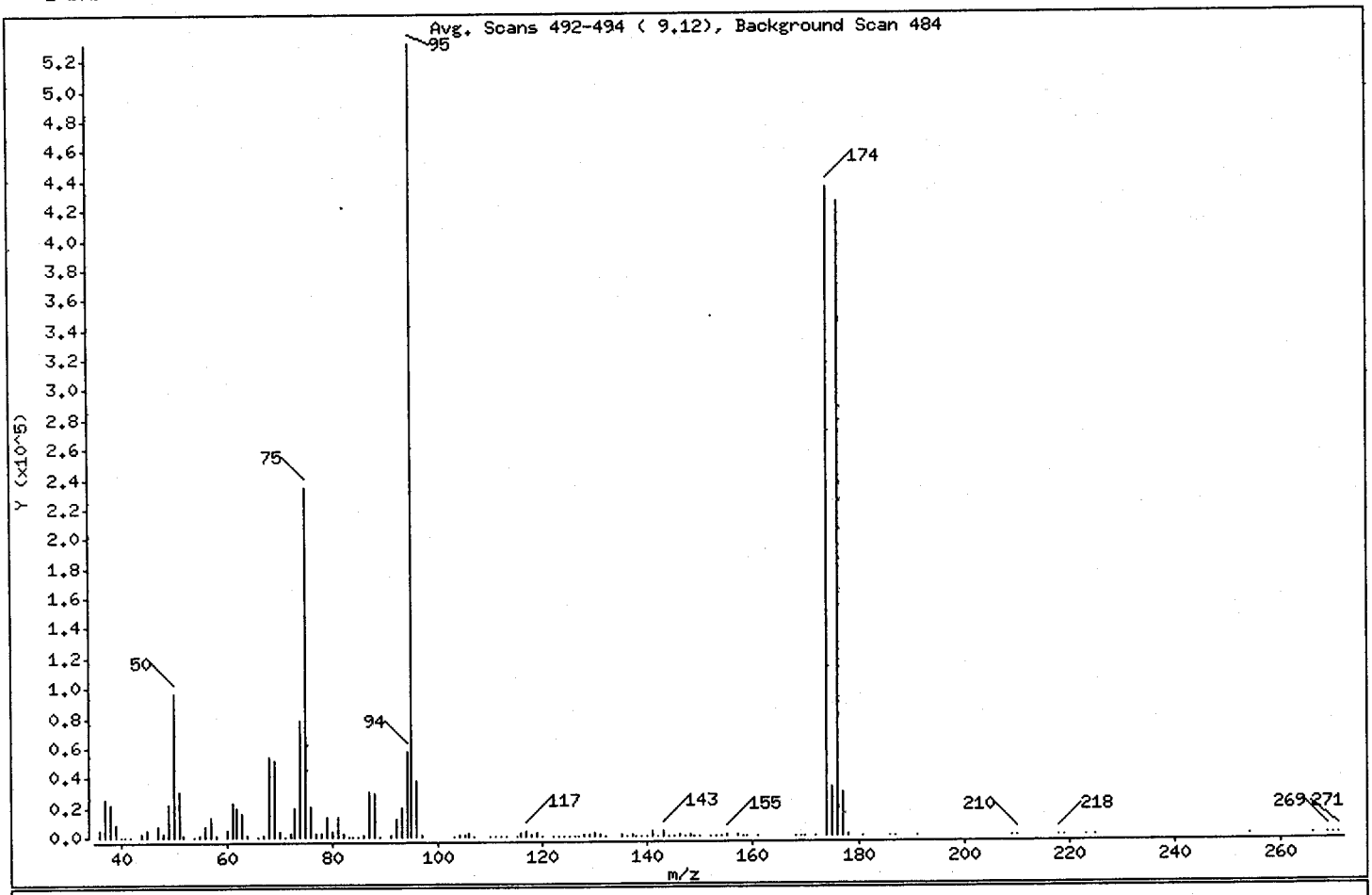
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.07
75	30.00 - 60.00% of mass 95	44.08
96	5.00 - 9.00% of mass 95	7.14
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	81.73
175	5.00 - 9.00% of mass 174	6.32 (7.73)
176	95.01 - 100.99% of mass 174	80.00 (97.89)
177	5.00 - 9.00% of mass 176	5.63 (7.03)

10/6/05

10/6/05

8260/6A50X 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455392201001 Name: 826GOX6S Type: SOIL Date: 29-SEP-2005 11:52 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	fit07	455392201007	5PPB	29-SEP-2005 11:52	S1500 (100000X), S1499 (100000X), S1355 (1000X)
2	fit08	455392201008	10PPB	29-SEP-2005 12:27	S1500 (50000X), S1499 (50000X), S1355 (1000X)
3	fit10	455392201010	50PPB	29-SEP-2005 13:38	S1500 (10000X), S1499 (10000X), S1355 (1000X)
4	fit11	455392201011	60PPB	29-SEP-2005 14:13	S1500 (8333X), S1499 (8333X), S1355 (1000X)
5	fit12	455392201012	75PPB	29-SEP-2005 14:48	S1500 (6667X), S1499 (6667X), S1355 (1000X)
6	fit13	455392201013	100PPB	29-SEP-2005 15:23	S1500 (5000X), S1499 (5000X), S1355 (1000X)
7	fit15	455392201015	20PPB	29-SEP-2005 17:22	S1500 (25000X), S1499 (25000X), S1355 (1000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.8019	0.8261	0.8769	0.9496	0.9282	0.8750	0.7288	AVRG	R		1.169296		ug/L	0.8552	9	0.0500	0.99	15	
Chloromethane	1.1699	1.0445	1.0050	1.0122	0.9814	0.9228m	1.0004	AVRG	R		0.980899		ug/L	1.0195	7	0.1000	0.99	15	
Vinyl Chloride	0.8869	0.7970	0.8339	0.8603	0.8414	0.7887	0.7717	AVRG	R		1.211095		ug/L	0.8257	5	0.0500	0.99	15	
Bromomethane	0.3828	0.3821	0.4388	0.4657	0.4561	0.4656	0.4490	AVRG	R		2.302594		ug/L	0.4343	8	0.0500	0.99	15	
Chloroethane	0.4333	0.4338	0.4173	0.4332	0.4208	0.4020	0.4247	AVRG	R		2.360805		ug/L	0.4236	3	0.0500	0.99	15	
Trichlorofluoromethane	0.8173	0.8030	0.8334	0.8951	0.8553	0.8008	0.7266	AVRG	R		1.221319		ug/L	0.8188	6	0.0500	0.99	15	
Acetone		0.4100	0.3336	0.4008	0.4026	0.3701	0.4140	AVRG	R		2.573856		ug/L	0.3885	8	0.0500	0.99	15	
Freon 113	0.3595	0.4665	0.4699	0.5893	0.5340	0.5597	0.4590	QUAD	R	2.024757	1.928167	-0.00345	ug/L	0.4911	0.992	0.0500	0.99	15	
1,1-Dichloroethene	0.4727	0.4879	0.4934	0.5251	0.4855	0.4911	0.4865	AVRG	R		2.033599		ug/L	0.4917	3	0.0500	0.99	15	
Methylene Chloride		0.7382	0.7106	0.7146	0.6846	0.6709	0.7086	AVRG	R		1.419276		ug/L	0.7046	3	0.0500	0.99	15	
Carbon Disulfide	3.6676	3.5315	2.1443	2.0764	1.9079		2.1815	QUAD	R	-1.78924	0.366833	0.001128	ug/L	2.5849	0.994	0.0500	0.99	15	
MTBE	2.0487	2.0410	1.8754	1.9026	1.8163	1.7304	1.9379	AVRG	R		0.524252		ug/L	1.9075	6	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.6146	0.6435	0.6366	0.6479	0.5957	0.5973	0.6318	AVRG	R		1.602802		ug/L	0.6239	3	0.0500	0.99	15	
Vinyl Acetate	1.6117	1.5967	1.5159	1.4331	1.2818	1.3171	1.5075	AVRG	R		0.682010		ug/L	1.4663	9	0.0500	0.99	15	
1,1-Dichloroethane	1.2154	1.2864	1.1948	1.2207	1.1384	1.1083	1.2302	AVRG	R		0.833907		ug/L	1.1992	5	0.1000	0.99	15	
2-Butanone		0.5921	0.5826	0.5967	0.5979	0.5726	0.5869	AVRG	R		1.700291		ug/L	0.5881	2	0.0500	0.99	15	
2,2-Dichloropropane	0.7436	0.7694	0.7213	0.7703	0.7116	0.7050	0.7302	AVRG	R		1.358819		ug/L	0.7359	4	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.7295	0.7373	0.7121	0.7262	0.6868	0.6701	0.7036	AVRG	R		1.409679		ug/L	0.7094	3	0.0500	0.99	15	

Flags used: m=manual integration for incomplete integration in Target
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

* ICAL - no Cyclohexane
- high pt dropped for CS_2

* ICV - OK, LCS/LCSD - F12 ↓, Propylbenz ↑, tertbutylbenz ↑, secbutylbenz ↑, nbutylbenz ↑, Hexchlorbut ↑

10/20/05

8260/6A50A 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455392201001 Name: 826GOX6S Type: SOIL Date: 29-SEP-2005 11:52 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Chloroform	1.0777	1.1037	1.0512	1.0763	1.0185	0.9903	1.0751	AVRG	R		0.946869		ug/L	1.0561	4	0.0500	0.99	15	
Bromochloromethane	0.3777	0.3838	0.3974	0.4093	0.3935	0.3874	0.3936	AVRG	R		2.552142		ug/L	0.3918	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.6779	0.7127	0.7029	0.7676	0.7078	0.7126	0.7089	AVRG	R		1.402681		ug/L	0.7129	4	0.0500	0.99	15	
1,1-Dichloropropene	0.3688	0.4142	0.4107	0.4604	0.4241	0.4258	0.4148	AVRG	R		2.398236		ug/L	0.4170	6	0.0500	0.99	15	
Carbon Tetrachloride	0.2862	0.3276	0.3252	0.3787	0.3499	0.3568	0.3167	AVRG	R		2.990044		ug/L	0.3344	9	0.0500	0.99	15	
1,2-Dichloroethane	0.4738	0.4778	0.4557	0.4666	0.4547	0.4437	0.4576	AVRG	R		2.167271		ug/L	0.4614	3	0.0500	0.99	15	
Benzene	1.3657	1.3953	1.2738	1.2894	1.1937	1.1443	1.3320	AVRG	R		0.778295		ug/L	1.2849	7	0.0500	0.99	15	
Trichloroethene	0.3347	0.3302	0.3293	0.3549	0.3366	0.3314	0.3360	AVRG	R		2.974729		ug/L	0.3362	3	0.0500	0.99	15	
1,2-Dichloropropane	0.4321	0.4396	0.4179	0.4352	0.4129	0.4047	0.4184	AVRG	R		2.364257		ug/L	0.4230	3	0.0500	0.99	15	
Bromodichloromethane	0.4433	0.4465	0.4415	0.4525	0.4356	0.4293	0.4267	AVRG	R		2.276139		ug/L	0.4393	2	0.0500	0.99	15	
Dibromomethane	0.2777	0.2770	0.2734	0.2791	0.2710	0.2670	0.2664	AVRG	R		3.662093		ug/L	0.2731	2	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.5779	0.5720	0.5719	0.5686	0.5416	0.5558	AVRG	R		1.771080		ug/L	0.5646	2	0.0500	0.99	15	
Tetramethyl THF	0.9024	0.9002	0.8459	0.8474	0.8100	0.7698	0.8665	AVRG	R		1.178007		ug/L	0.8489	6	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.6092	0.6148	0.5915	0.5983	0.5772	0.5642	0.6040	AVRG	R		1.683008		ug/L	0.5942	3	0.0500	0.99	15	
Toluene	0.7815	0.7917	0.7543	0.7809	0.7379	0.7213	0.7739	AVRG	R		1.310492		ug/L	0.7631	3	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.5166	0.5241	0.5236	0.5316	0.5017	0.4904	0.5183	AVRG	R		1.940981		ug/L	0.5152	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1775	0.1807	0.1851	0.1915	0.1891	0.1862	0.1875	AVRG	R		5.394259		ug/L	0.1854	3	0.0500	0.99	15	
2-Hexanone		0.5281	0.5259	0.5326	0.5347	0.5069	0.5233	AVRG	R		1.903825		ug/L	0.5253	2	0.0500	0.99	15	
1,3-Dichloropropane	0.6069	0.6872	0.6615	0.6713	0.6477	0.6273	0.6710	AVRG	R		1.530775		ug/L	0.6533	4	0.0500	0.99	15	
Tetrachloroethene	0.2904	0.3241	0.3230	0.3647	0.3442	0.3493	0.3303	AVRG	R		3.009440		ug/L	0.3323	7	0.0500	0.99	15	
Dibromochloromethane	0.4278	0.4483	0.4481	0.4669	0.4507	0.4447	0.4372	AVRG	R		2.240915		ug/L	0.4462	3	0.0500	0.99	15	
1,2-Dibromoethane	0.3755	0.3876	0.3895	0.3940	0.3870	0.3765	0.3802	AVRG	R		2.601887		ug/L	0.3843	2	0.0500	0.99	15	
Chlorobenzene	1.0996	1.1367	1.0406	1.0495	0.9894	0.9562	1.0817	AVRG	R		0.951900		ug/L	1.0505	6	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3616	0.3789	0.3873	0.4039	0.3851	0.3828	0.3854	AVRG	R		2.607023		ug/L	0.3836	3	0.0500	0.99	15	
Ethylbenzene	1.5976	1.6893	1.4984	1.5485	1.4359	1.3347	1.6100	AVRG	R		0.653319		ug/L	1.5306	8	0.0500	0.99	15	
m,p-Xylenes	0.6268	0.6649	0.6081	0.6431	0.5963	0.5770	0.6355	AVRG	R		1.608577		ug/L	0.6217	5	0.0500	0.99	15	
o-Xylene	0.6349	0.6655	0.6272	0.6581	0.6277	0.6198	0.6461	AVRG	R		1.562734		ug/L	0.6399	3	0.0500	0.99	15	
Styrene	1.0945	1.1508	1.0885	1.1113	1.0530	1.0156	1.1255	AVRG	R		0.916308		ug/L	1.0913	4	0.0500	0.99	15	
Bromoform	0.2879	0.2881	0.3115	0.3200	0.3160	0.3111	0.2965	AVRG	R		3.284795		ug/L	0.3044	4	0.1000	0.99	15	
Isopropylbenzene	3.2842	3.5262	3.0294	3.2304	2.9439	2.7882	3.3002	AVRG	R		0.316706		ug/L	3.1575	8	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	1.3989	1.4861	1.4037	1.3729	1.3093	1.2892	1.3996	AVRG	R		0.724658		ug/L	1.3800	5	0.3000	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/624mx 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455392201001 Name: 826GOX6S Type: SOIL Date: 29-SEP-2005 11:52 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,2,3-Trichloropropane	1.1529	1.1747	1.1254	1.1295	1.0759	1.0515	1.1292	AVRG	R		0.892970		ug/L	1.1199	4	0.0500	0.99	15	
Propylbenzene	3.9056	4.2486	3.6149	3.8214	3.4459	3.1974	3.9862	AVRG	R		0.266972		ug/L	3.7457	9	0.0500	0.99	15	
Bromobenzene	1.0116	1.0331	1.0009	1.0047	0.9701	0.9653	0.9963	AVRG	R		1.002601		ug/L	0.9974	2	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.4989	2.7236	2.4627	2.6315	2.4322	2.3054	2.5761	AVRG	R		0.397041		ug/L	2.5186	5	0.0500	0.99	15	
2-Chlorotoluene	2.9431	3.0688	2.6946	2.7889	2.5929	2.4477	2.8537	AVRG	R		0.361017		ug/L	2.7699	8	0.0500	0.99	15	
4-Chlorotoluene	2.8172	2.8749	2.5353	2.5743	2.3764	2.2380	2.6867	AVRG	R		0.386680		ug/L	2.5861	9	0.0500	0.99	15	
tert-Butylbenzene	2.0922	2.2952	2.0788	2.3280	2.1434	2.0624	2.2139	AVRG	R		0.460107		ug/L	2.1734	5	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.2955	2.4675	2.3475	2.4757	2.3069	2.2200	2.3944	AVRG	R		0.424048		ug/L	2.3582	4	0.0500	0.99	15	
sec-Butylbenzene	2.9160	3.3633	2.9665	3.3004	3.0104	2.8574	3.1382	AVRG	R		0.324793		ug/L	3.0789	6	0.0500	0.99	15	
para-Isopropyl Toluene	2.2527	2.5573	2.3643	2.6560	2.4282	2.3533	2.4674	AVRG	R		0.409854		ug/L	2.4399	6	0.0500	0.99	15	
1,3-Dichlorobenzene	1.7300	1.6591	1.6640	1.7200	1.6144	1.5556	1.7336	AVRG	R		0.599486		ug/L	1.6681	4	0.0500	0.99	15	
1,4-Dichlorobenzene	1.7886	1.8409	1.6969	1.7407	1.6432	1.5894	1.7699	AVRG	R		0.579969		ug/L	1.7242	5	0.0500	0.99	15	
n-Butylbenzene	1.7657	1.9269	1.9666	2.2569	2.0830	2.0463	1.9662	AVRG	R		0.499584		ug/L	2.0017	8	0.0500	0.99	15	
1,2-Dichlorobenzene	1.6431	1.6940	1.5719	1.6260	1.5465	1.4929	1.6019	AVRG	R		0.626331		ug/L	1.5966	4	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2663	0.2550	0.2560	0.2666	0.2643	0.2600	0.2490	AVRG	R		3.852098		ug/L	0.2596	3	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.5117	0.5873	0.6796	0.7439	0.7048	0.7199	0.6418	AVRG	R		1.525414		ug/L	0.6556	13	0.0500	0.99	15	
Hexachlorobutadiene	0.3313	0.4080	0.3772	0.4964	0.4613	0.4788	0.3583	AVRG	R		2.404462		ug/L	0.4159	15	0.0500	0.99	15	
Naphthalene	0.9881	1.1983	1.5026	1.7027	1.6873	1.6694	1.4389	QUAD	R	2.835243	0.593016	-0.00010	ug/L	1.4553	0.998	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.4546	0.5211	0.6158	0.6957	0.6780	0.6795	0.5835	AVRG	R		1.655605		ug/L	0.6040	15	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.1388	0.1479	0.1410	0.1360	0.1348	0.1286	0.1345	AVRG	R		7.280056		ug/L	0.1374	4	0.0050	0.99	15	
Isopropyl Ether (DIPE)	2.8845	2.8593	2.5546	2.5535	2.3625	2.2271	2.7090	AVRG	R		0.385663		ug/L	2.5929	9	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	2.1707	2.1462	1.9875	1.9987	1.8772	1.8021	2.0445	AVRG	R		0.499042		ug/L	2.0038	7	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	1.0785	1.0819	1.0395	1.0515	1.0024	0.9632	1.0460	AVRG	R		0.963788		ug/L	1.0376	4	0.0500	0.99	15	
Ethanol		0.0202	0.0187	0.0181	0.0176	0.0171	0.0182	AVRG	R		54.60876		ug/L	0.0183	6	5.0E-4	0.99	15	
Isopropanol		0.1107	0.1020	0.0980	0.0971	0.0944	0.0972	AVRG	R		10.01022		ug/L	0.0999	6	0.0050	0.99	15	
Tetrahydrofuran	0.3281	0.3286	0.2888	0.2746	0.2618	0.2331	0.2989	AVRG	R		3.475708		ug/L	0.2877	12	0.0050	0.99	15	
Dibromofluoromethane	0.7013	0.6847	0.6877	0.7003	0.6907	0.6843	0.7020	AVRG	R		1.443025		ug/L	0.6930	1	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3537	0.3552	0.3515	0.3616	0.3562	0.3583	0.3550	AVRG	R		2.809599		ug/L	0.3559	1	0.0500	0.99	15	
Trifluorotoluene	0.3529	0.4128	0.4072	0.4759	0.4444	0.4489	0.4162	AVRG	R		2.366249		ug/L	0.4226	9	0.0500	0.99	15	
Toluene-d8	1.0160	1.0047	1.0177	1.0143	1.0243	1.0304	1.0007	AVRG	R		0.984802		ug/L	1.0154	1	0.0500	0.99	15	
Bromofluorobenzene	1.2004	1.1970	1.1581	1.1722	1.1626	1.1703	1.1827	AVRG	R		0.849169		ug/L	1.1776	1	0.0500	0.99	15	

Flags used: m=manual integration

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/624 6x 5 ic 4c

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455392201001 Name: 826GOX6S Type: SOIL Date: 29-SEP-2005 11:52 Inj Vol (uL): 5000

191

Flags used: m=manual integration
Curves: AVRG: Average response factor QUAD: Quadratic regression
Instrument amount = a0 + response * a1 + response^2 * a2

S2600 / 6450X 5 ICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 25PPB
Seqnum : 455392201016 Filename : fit16 Injected : 29-SEP-2005 17:58
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1534 (10000X), S1355 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	25.00000	19.22610	ug/L	**-23**	30	!v-
Chloromethane	25.00000	23.82150	ug/L	-5	30	
Vinyl Chloride	25.00000	24.44190	ug/L	-2	20	
Bromomethane	25.00000	23.72540	ug/L	-5	30	
Chloroethane	25.00000	25.28880	ug/L	1	30	
Trichlorofluoromethane	25.00000	28.39770	ug/L	14	30	

ISTD (ICAL=fit10)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1421172	1477372	3.95	12.45	12.46	0.01
1,4-Difluorobenzene	2513348	2645641	5.26	13.77	13.78	0.01
1,4-Dichlorobenzene-d4	898288	893441	-0.54	21.25	21.25	0.00

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AC 9/30/05

!=warning -=low bias v=ICV
Page 1 of 1

S200/6436 S ICV

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 25PPB
Seqnum : 455393641006 Filename : fiu06 Injected : 30-SEP-2005 11:46
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1459 (10000X), S1283 (10000X), S1355 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Acetone	25.00000	23.31460	ug/L	-7	40	
Freon 113	25.00000	26.30260	ug/L	5	30	
1,1-Dichloroethene	25.00000	28.63890	ug/L	15	20	
Methylene Chloride	25.00000	27.45230	ug/L	10	30	
Carbon Disulfide	25.00000	20.73650	ug/L	-17	30	
MTBE	25.00000	21.87440	ug/L	-13	30	
trans-1,2-Dichloroethene	25.00000	27.94850	ug/L	12	30	
Vinyl Acetate	25.00000	24.54240	ug/L	-2	40	
1,1-Dichloroethane	25.00000	27.85900	ug/L	11	30	
2-Butanone	25.00000	25.45550	ug/L	2	40	
2,2-Dichloropropane	25.00000	28.90270	ug/L	16	30	
cis-1,2-Dichloroethene	25.00000	28.09430	ug/L	12	30	
Chloroform	25.00000	27.69040	ug/L	11	20	
Bromochloromethane	25.00000	26.22740	ug/L	5	30	
1,1,1-Trichloroethane	25.00000	28.59600	ug/L	14	30	
1,1-Dichloropropene	25.00000	29.03870	ug/L	16	30	
Carbon Tetrachloride	25.00000	29.17390	ug/L	17	30	
1,2-Dichloroethane	25.00000	26.74730	ug/L	7	30	
Benzene	25.00000	28.26990	ug/L	13	30	
Trichloroethene	25.00000	27.97400	ug/L	12	30	
1,2-Dichloropropane	25.00000	26.67280	ug/L	7	20	
Bromodichloromethane	25.00000	28.91510	ug/L	16	30	
Dibromomethane	25.00000	26.13170	ug/L	5	30	
4-Methyl-2-Pentanone	25.00000	27.50450	ug/L	10	40	
Tetramethyl THF	25.00000	27.54240	ug/L	10	30	
cis-1,3-Dichloropropene	25.00000	27.27640	ug/L	9	30	
Toluene	25.00000	27.65960	ug/L	11	20	
trans-1,3-Dichloropropene	25.00000	26.02480	ug/L	4	30	
1,1,2-Trichloroethane	25.00000	26.21920	ug/L	5	30	
2-Hexanone	25.00000	27.48820	ug/L	10	40	
1,3-Dichloropropane	25.00000	27.34550	ug/L	9	30	
Tetrachloroethene	25.00000	28.29230	ug/L	13	30	
Dibromochloromethane	25.00000	28.28130	ug/L	13	30	
1,2-Dibromoethane	25.00000	26.29370	ug/L	5	30	
Chlorobenzene	25.00000	28.37280	ug/L	13	30	
1,1,1,2-Tetrachloroethane	25.00000	26.72030	ug/L	7	30	
Ethylbenzene	25.00000	29.53780	ug/L	18	20	
m,p-Xylenes	50.00000	57.59010	ug/L	15	30	
o-Xylene	25.00000	28.08190	ug/L	12	30	
Styrene	25.00000	28.70420	ug/L	15	30	
Bromoform	25.00000	25.71500	ug/L	3	30	
Isopropylbenzene	25.00000	27.92180	ug/L	12	30	
1,1,2,2-Tetrachloroethane	25.00000	26.72640	ug/L	7	30	
1,2,3-Trichloropropane	25.00000	27.14210	ug/L	9	30	
Propylbenzene	25.00000	30.66190	ug/L	**23**	30	!v+
Bromobenzene	25.00000	26.86770	ug/L	7	30	
1,3,5-Trimethylbenzene	25.00000	29.74530	ug/L	19	30	

!=warning +=high bias v=ICV

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8260/6452 5 ICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 25PPB
Seqnum : 455393641006 Filename : fiu06 Injected : 30-SEP-2005 11:46
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1459 (10000X), S1283 (10000X), S1355 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
2-Chlorotoluene	25.00000	29.20930	ug/L	17	30	
4-Chlorotoluene	25.00000	28.42780	ug/L	14	30	
tert-Butylbenzene	25.00000	30.31640	ug/L	**21**	30	!v+
1,2,4-Trimethylbenzene	25.00000	29.15410	ug/L	17	30	
sec-Butylbenzene	25.00000	32.06550	ug/L	**28**	30	!v+
para-Isopropyl Toluene	25.00000	30.04290	ug/L	20	30	
1,3-Dichlorobenzene	25.00000	28.31610	ug/L	13	30	
1,4-Dichlorobenzene	25.00000	27.87740	ug/L	12	30	
n-Butylbenzene	25.00000	31.57450	ug/L	**26**	30	!v+
1,2-Dichlorobenzene	25.00000	27.06920	ug/L	8	30	
1,2-Dibromo-3-Chloropropane	25.00000	25.52830	ug/L	2	30	
1,2,4-Trichlorobenzene	25.00000	28.50990	ug/L	14	30	
Hexachlorobutadiene	25.00000	31.37670	ug/L	**26**	30	!v+
Naphthalene	25.00000	26.01190	ug/L	4	30	
1,2,3-Trichlorobenzene	25.00000	27.25060	ug/L	9	30	
tert-Butyl Alcohol (TBA)	125.0000	116.1278	ug/L	-7	30	
Isopropyl Ether (DIPE)	25.00000	24.01620	ug/L	-4	30	
Ethyl tert-Butyl Ether (ETBE)	25.00000	25.50360	ug/L	2	30	
Methyl tert-Amyl Ether (TAME)	25.00000	23.59580	ug/L	-6	30	
Ethanol	2500.000	2088.895	ug/L	-16	30	
Isopropanol	250.0000	216.3781	ug/L	-13	30	
Tetrahydrofuran	250.0000	264.9136	ug/L	6	30	

ISTD (ICAL=fit10)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1421172	1456449	2.48	12.45	12.47	0.02
1,4-Difluorobenzene	2513348	2616720	4.11	13.77	13.79	0.02
Chlorobenzene-d5	2078926	2134377	2.67	18.41	18.42	0.01
1,4-Dichlorobenzene-d4	898288	912148	1.54	21.25	21.25	0.00

!=warning +=high bias v=ICV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 30PPB IDF : 1.0
Seqnum : 455400850002 Filename : fj502 Injected : 05-OCT-2005 09:08
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1500 (16667X), S1499 (16667X), S1355 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.8552	0.9930	30.00000	34.83280	ug/L	16	30	0.0500	
Chloromethane	1.0195	1.0699	30.00000	31.48470	ug/L	5	30	0.1000	
Vinyl Chloride	0.8257	0.8421	30.00000	30.59640	ug/L	2	20	0.0500	
Bromomethane	0.4343	0.4661	30.00000	32.19410	ug/L	7	30	0.0500	
Chloroethane	0.4236	0.4241	30.00000	30.03710	ug/L	0	30	0.0500	
Trichlorofluoromethane	0.8188	0.8920	30.00000	32.68100	ug/L	9	30	0.0500	
Acetone	0.3885	0.3430	30.00000	26.48460	ug/L	-12	40	0.0500	
Freon 113	0.4911	0.3980	30.00000	24.55270	ug/L	-18	30	0.0500	
1,1-Dichloroethene	0.4917	0.4402	30.00000	26.85450	ug/L	-10	20	0.0500	
Methylene Chloride	0.7046	0.6925	30.00000	29.48690	ug/L	-2	30	0.0500	
Carbon Disulfide	2.5849	1.8248	30.00000	21.67490	ug/L	**-28**	30	0.0500	!c-
MTBE	1.9075	1.7175	30.00000	27.01270	ug/L	-10	30	0.0500	
trans-1,2-Dichloroethene	0.6239	0.5828	30.00000	28.02490	ug/L	-7	30	0.0500	
Vinyl Acetate	1.4663	1.3567	30.00000	27.75760	ug/L	-7	40	0.0500	
1,1-Dichloroethane	1.1992	1.0922	30.00000	27.32360	ug/L	-9	30	0.1000	
2-Butanone	0.5881	0.4743	30.00000	24.19250	ug/L	-19	40	0.0500	
2,2-Dichloropropane	0.7359	0.6795	30.00000	27.69860	ug/L	-8	30	0.0500	
cis-1,2-Dichloroethene	0.7094	0.6678	30.00000	28.23970	ug/L	-6	30	0.0500	
Chloroform	1.0561	1.0070	30.00000	28.60440	ug/L	-5	20	0.0500	
Bromochloromethane	0.3918	0.3688	30.00000	28.23310	ug/L	-6	30	0.0500	
1,1,1-Trichloroethane	0.7129	0.6304	30.00000	26.52710	ug/L	-12	30	0.0500	
1,1-Dichloropropene	0.4170	0.3941	30.00000	28.35480	ug/L	-5	30	0.0500	
Carbon Tetrachloride	0.3344	0.3089	30.00000	27.70660	ug/L	-8	30	0.0500	
1,2-Dichloroethane	0.4614	0.4451	30.00000	28.93670	ug/L	-4	30	0.0500	
Benzene	1.2849	1.3189	30.00000	30.79460	ug/L	3	30	0.0500	
Trichloroethene	0.3362	0.3302	30.00000	29.46370	ug/L	-2	30	0.0500	
1,2-Dichloropropane	0.4230	0.4231	30.00000	30.00880	ug/L	0	20	0.0500	
Bromodichloromethane	0.4393	0.4439	30.00000	30.31070	ug/L	1	30	0.0500	
Dibromomethane	0.2731	0.2666	30.00000	29.28790	ug/L	-2	30	0.0500	
4-Methyl-2-Pentanone	0.5646	0.5092	30.00000	27.05470	ug/L	-10	40	0.0500	
Tetramethyl THF	0.8489	0.8284	30.00000	29.27530	ug/L	-2	30	0.0500	
cis-1,3-Dichloropropene	0.5942	0.6032	30.00000	30.45390	ug/L	2	30	0.0500	
Toluene	0.7631	0.8130	30.00000	31.96270	ug/L	7	20	0.0500	
trans-1,3-Dichloropropene	0.5152	0.5259	30.00000	30.62210	ug/L	2	30	0.0500	
1,1,2-Trichloroethane	0.1854	0.1871	30.00000	30.27910	ug/L	1	30	0.0500	
2-Hexanone	0.5253	0.4702	30.00000	26.85680	ug/L	-10	40	0.0500	
1,3-Dichloropropane	0.6533	0.6427	30.00000	29.51570	ug/L	-2	30	0.0500	
Tetrachloroethene	0.3323	0.3403	30.00000	30.72400	ug/L	2	30	0.0500	
Dibromochloromethane	0.4462	0.4524	30.00000	30.41260	ug/L	1	30	0.0500	
1,2-Dibromoethane	0.3843	0.3932	30.00000	30.68910	ug/L	2	30	0.0500	
Chlorobenzene	1.0505	1.1410	30.00000	32.58300	ug/L	9	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3836	0.3948	30.00000	30.87580	ug/L	3	30	0.0500	
Ethylbenzene	1.5306	1.6118	30.00000	31.58990	ug/L	5	20	0.0500	
m,p-Xylenes	0.6217	0.6434	60.00000	62.09820	ug/L	3	30	0.0500	
o-Xylene	0.6399	0.6629	30.00000	31.07860	ug/L	4	30	0.0500	
Styrene	1.0913	1.1727	30.00000	32.23760	ug/L	7	30	0.0500	

!=warning -=low bias c=CCV
Page 1 of 2

B 10/5/05

10/6/05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 30PPB IDF : 1.0
Seqnum : 455400850002 Filename : fj502 Injected : 05-OCT-2005 09:08
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1500 (16667X), S1499 (16667X), S1355 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3044	0.3187	30.00000	31.40730	ug/L	5	30	0.1000	
Isopropylbenzene	3.1575	3.2273	30.00000	30.66330	ug/L	2	30	0.0500	
1,1,2,2-Tetrachloroethane	1.3800	1.4756	30.00000	32.07850	ug/L	7	30	0.3000	
1,2,3-Trichloropropane	1.1199	1.1381	30.00000	30.48970	ug/L	2	30	0.0500	
Propylbenzene	3.7457	3.8001	30.00000	30.43570	ug/L	1	30	0.0500	
Bromobenzene	0.9974	1.0972	30.00000	33.00260	ug/L	10	30	0.0500	
1,3,5-Trimethylbenzene	2.5186	2.5434	30.00000	30.29530	ug/L	1	30	0.0500	
2-Chlorotoluene	2.7699	2.8760	30.00000	31.14810	ug/L	4	30	0.0500	
4-Chlorotoluene	2.5861	2.7158	30.00000	31.50480	ug/L	5	30	0.0500	
tert-Butylbenzene	2.1734	2.1849	30.00000	30.15890	ug/L	1	30	0.0500	
1,2,4-Trimethylbenzene	2.3582	2.4362	30.00000	30.99220	ug/L	3	30	0.0500	
sec-Butylbenzene	3.0789	3.0678	30.00000	29.89200	ug/L	0	30	0.0500	
para-Isopropyl Toluene	2.4399	2.4925	30.00000	30.64690	ug/L	2	30	0.0500	
1,3-Dichlorobenzene	1.6681	1.8724	30.00000	33.67480	ug/L	12	30	0.0500	
1,4-Dichlorobenzene	1.7242	1.8928	30.00000	32.93340	ug/L	10	30	0.0500	
n-Butylbenzene	2.0017	1.9841	30.00000	29.73630	ug/L	-1	30	0.0500	
1,2-Dichlorobenzene	1.5966	1.7330	30.00000	32.56310	ug/L	9	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2596	0.2627	30.00000	30.35680	ug/L	1	30	0.0500	
1,2,4-Trichlorobenzene	0.6556	0.6808	30.00000	31.15340	ug/L	4	30	0.0500	
Hexachlorobutadiene	0.4159	0.3981	30.00000	28.71800	ug/L	-4	30	0.0500	
Naphthalene	1.4553	1.3740	30.00000	27.10830	ug/L	-10	30	0.0500	
1,2,3-Trichlorobenzene	0.6040	0.6179	30.00000	30.68850	ug/L	2	30	0.0500	
tert-Butyl Alcohol (TBA)	0.1374	0.1035	300.0000	226.0346	ug/L	**-25**	30	0.0050	!c-
Isopropyl Ether (DIPE)	2.5929	2.3766	30.00000	27.49680	ug/L	-8	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	2.0038	1.8247	30.00000	27.31780	ug/L	-9	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0376	1.0283	30.00000	29.73200	ug/L	-1	30	0.0500	
Ethanol	0.0183	0.0140	3000.000	2292.616	ug/L	**-24**	30	5.0E-4	!c-
Isopropanol	0.0999	0.0744	300.0000	223.3034	ug/L	**-26**	30	0.0050	!c-
Tetrahydrofuran	0.2877	0.2363	300.0000	246.4315	ug/L	-18	30	0.0050	
Dibromofluoromethane	0.6930	0.6221	50.00000	44.88250	ug/L	-10	30	0.0500	
1,2-Dichloroethane-d4	0.3559	0.3372	50.00000	47.36360	ug/L	-5	30	0.0500	
Trifluorotoluene	0.4226	0.4235	30.00000	30.06520	ug/L	0	30	0.0500	
Toluene-d8	1.0154	1.0280	50.00000	50.61760	ug/L	1	30	0.0500	
Bromofluorobenzene	1.1776	1.1665	50.00000	49.52840	ug/L	-1	30	0.0500	

ISTD (ICAL=fit10)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1421172	1762222	24.00	12.45	12.46	0.01
1,4-Difluorobenzene	2513348	2905966	15.62	13.77	13.78	0.01
Chlorobenzene-d5	2078926	2458635	18.26	18.41	18.42	0.01
1,4-Dichlorobenzene-d4	898288	1076697	19.86	21.25	21.25	0.00

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CONTINUING CALIBRATION REPORT
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Instid : MSVOA06 Run Name : 30PPB IDF : 1.0
Seqnum : 455400850007 Filename : fj507 Injected : 05-OCT-2005 12:21
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1355 (1000X), S1500 (16667X), S1499 (16667X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.8552	0.9085	30.00000	31.86750	ug/L	6	30	0.0500	
Chloromethane	1.0195	0.9510	30.00000	27.98390	ug/L	-7	30	0.1000	
Vinyl Chloride	0.8257	0.7981	30.00000	28.99750	ug/L	-3	20	0.0500	
Bromomethane	0.4343	0.4346	30.00000	30.02370	ug/L	0	30	0.0500	
Chloroethane	0.4236	0.4032	30.00000	28.55650	ug/L	-5	30	0.0500	
Trichlorofluoromethane	0.8188	0.8782	30.00000	32.17700	ug/L	7	30	0.0500	
Acetone	0.3885	0.3232	30.00000	24.95670	ug/L	-17	40	0.0500	
Freon 113	0.4911	0.3946	30.00000	24.36820	ug/L	-19	30	0.0500	
1,1-Dichloroethene	0.4917	0.4357	30.00000	26.57980	ug/L	-11	20	0.0500	
Methylene Chloride	0.7046	0.6842	30.00000	29.13410	ug/L	-3	30	0.0500	
Carbon Disulfide	2.5849	1.9794	30.00000	23.97340	ug/L	-20	30	0.0500	
MTBE	1.9075	1.8479	30.00000	29.06290	ug/L	-3	30	0.0500	
trans-1,2-Dichloroethene	0.6239	0.5909	30.00000	28.41230	ug/L	-5	30	0.0500	
Vinyl Acetate	1.4663	1.4428	30.00000	29.52110	ug/L	-2	40	0.0500	
1,1-Dichloroethane	1.1992	1.1110	30.00000	27.79540	ug/L	-7	30	0.1000	
2-Butanone	0.5881	0.5111	30.00000	26.07290	ug/L	-13	40	0.0500	
2,2-Dichloropropane	0.7359	0.6708	30.00000	27.34560	ug/L	-9	30	0.0500	
cis-1,2-Dichloroethene	0.7094	0.6830	30.00000	28.88530	ug/L	-4	30	0.0500	
Chloroform	1.0561	1.0215	30.00000	29.01730	ug/L	-3	20	0.0500	
Bromochloromethane	0.3918	0.3837	30.00000	29.37640	ug/L	-2	30	0.0500	
1,1,1-Trichloroethane	0.7129	0.6471	30.00000	27.23210	ug/L	-9	30	0.0500	
1,1-Dichloropropene	0.4170	0.3833	30.00000	27.57790	ug/L	-8	30	0.0500	
Carbon Tetrachloride	0.3344	0.3090	30.00000	27.71590	ug/L	-8	30	0.0500	
1,2-Dichloroethane	0.4614	0.4552	30.00000	29.59720	ug/L	-1	30	0.0500	
Benzene	1.2849	1.2948	30.00000	30.23320	ug/L	1	30	0.0500	
Trichloroethene	0.3362	0.3246	30.00000	28.96920	ug/L	-3	30	0.0500	
1,2-Dichloropropane	0.4230	0.4146	30.00000	29.40720	ug/L	-2	20	0.0500	
Bromodichloromethane	0.4393	0.4456	30.00000	30.42880	ug/L	1	30	0.0500	
Dibromomethane	0.2731	0.2710	30.00000	29.76970	ug/L	-1	30	0.0500	
4-Methyl-2-Pentanone	0.5646	0.5332	30.00000	28.33000	ug/L	-6	40	0.0500	
Tetramethyl THF	0.8489	0.8292	30.00000	29.30560	ug/L	-2	30	0.0500	
cis-1,3-Dichloropropene	0.5942	0.5957	30.00000	30.07640	ug/L	0	30	0.0500	
Toluene	0.7631	0.7725	30.00000	30.36910	ug/L	1	20	0.0500	
trans-1,3-Dichloropropene	0.5152	0.5290	30.00000	30.80170	ug/L	3	30	0.0500	
1,1,2-Trichloroethane	0.1854	0.1842	30.00000	29.81010	ug/L	-1	30	0.0500	
2-Hexanone	0.5253	0.5030	30.00000	28.73110	ug/L	-4	40	0.0500	
1,3-Dichloropropane	0.6533	0.6754	30.00000	31.01430	ug/L	3	30	0.0500	
Tetrachloroethene	0.3323	0.3287	30.00000	29.67700	ug/L	-1	30	0.0500	
Dibromochloromethane	0.4462	0.4751	30.00000	31.94210	ug/L	6	30	0.0500	
1,2-Dibromoethane	0.3843	0.3956	30.00000	30.87600	ug/L	3	30	0.0500	
Chlorobenzene	1.0505	1.0939	30.00000	31.23820	ug/L	4	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3836	0.4014	30.00000	31.39710	ug/L	5	30	0.0500	
Ethylbenzene	1.5306	1.5770	30.00000	30.90800	ug/L	3	20	0.0500	
m,p-Xylenes	0.6217	0.6460	60.00000	62.35100	ug/L	4	30	0.0500	
o-Xylene	0.6399	0.6625	30.00000	31.05860	ug/L	4	30	0.0500	
Styrene	1.0913	1.1568	30.00000	31.80040	ug/L	6	30	0.0500	

10/5/05

10/6/05

CONTINUING CALIBRATION REPORT
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Instid : MSVOA06 Run Name : 30PPB IDF : 1.0
Seqnum : 455400850007 Filename : fj507 Injected : 05-OCT-2005 12:21
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1355 (1000X), S1500 (16667X), S1499 (16667X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3044	0.3232	30.00000	31.84860	ug/L	6	30	0.1000	
Isopropylbenzene	3.1575	3.1826	30.00000	30.23830	ug/L	1	30	0.0500	
1,1,2,2-Tetrachloroethane	1.3800	1.4000	30.00000	30.43600	ug/L	1	30	0.3000	
1,2,3-Trichloropropane	1.1199	1.0968	30.00000	29.38100	ug/L	-2	30	0.0500	
Propylbenzene	3.7457	3.7606	30.00000	30.11960	ug/L	0	30	0.0500	
Bromobenzene	0.9974	1.0255	30.00000	30.84470	ug/L	3	30	0.0500	
1,3,5-Trimethylbenzene	2.5186	2.5556	30.00000	30.44070	ug/L	1	30	0.0500	
2-Chlorotoluene	2.7699	2.8196	30.00000	30.53730	ug/L	2	30	0.0500	
4-Chlorotoluene	2.5861	2.6265	30.00000	30.46870	ug/L	2	30	0.0500	
tert-Butylbenzene	2.1734	2.1664	30.00000	29.90310	ug/L	0	30	0.0500	
1,2,4-Trimethylbenzene	2.3582	2.4220	30.00000	30.81190	ug/L	3	30	0.0500	
sec-Butylbenzene	3.0789	3.0883	30.00000	30.09140	ug/L	0	30	0.0500	
para-Isopropyl Toluene	2.4399	2.4575	30.00000	30.21650	ug/L	1	30	0.0500	
1,3-Dichlorobenzene	1.6681	1.7880	30.00000	32.15720	ug/L	7	30	0.0500	
1,4-Dichlorobenzene	1.7242	1.7908	30.00000	31.15850	ug/L	4	30	0.0500	
n-Butylbenzene	2.0017	1.9340	30.00000	28.98640	ug/L	-3	30	0.0500	
1,2-Dichlorobenzene	1.5966	1.7046	30.00000	32.03020	ug/L	7	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2596	0.2501	30.00000	28.90460	ug/L	-4	30	0.0500	
1,2,4-Trichlorobenzene	0.6556	0.6759	30.00000	30.93030	ug/L	3	30	0.0500	
Hexachlorobutadiene	0.4159	0.4236	30.00000	30.55250	ug/L	2	30	0.0500	
Naphthalene	1.4553	1.5247	30.00000	29.75010	ug/L	-1	30	0.0500	
1,2,3-Trichlorobenzene	0.6040	0.6404	30.00000	31.80510	ug/L	6	30	0.0500	
tert-Butyl Alcohol (TBA)	0.1374	0.1181	300.0000	257.9683	ug/L	-14	30	0.0050	
Isopropyl Ether (DIPE)	2.5929	2.5061	30.00000	28.99480	ug/L	-3	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	2.0038	1.9161	30.00000	28.68670	ug/L	-4	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0376	1.0408	30.00000	30.09440	ug/L	0	30	0.0500	
Ethanol	0.0183	0.0147	3000.000	2414.932	ug/L	-20	30	5.0E-4	
Isopropanol	0.0999	0.0812	300.0000	243.6994	ug/L	-19	30	0.0050	
Tetrahydrofuran	0.2877	0.2707	300.0000	282.2831	ug/L	-6	30	0.0050	
Dibromofluoromethane	0.6930	0.6599	50.00000	47.61390	ug/L	-5	30	0.0500	
1,2-Dichloroethane-d4	0.3559	0.3439	50.00000	48.30840	ug/L	-3	30	0.0500	
Trifluorotoluene	0.4226	0.4002	30.00000	28.40860	ug/L	-5	30	0.0500	
Toluene-d8	1.0154	1.0017	50.00000	49.32330	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.1776	1.1249	50.00000	47.76000	ug/L	-4	30	0.0500	

ISTD (ICAL=fit10)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1421172	1501854	5.68	12.45	12.45	0.00
1,4-Difluorobenzene	2513348	2563614	2.00	13.77	13.77	0.00
Chlorobenzene-d5	2078926	2097211	0.88	18.41	18.41	0.00
1,4-Dichlorobenzene-d4	898288	929467	3.47	21.25	21.25	0.00

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 20PPB IDF : 1.0
Seqnum : 455402267003 Filename : fj603 Injected : 06-OCT-2005 09:26
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1500 (25000X), S1499 (25000X), S1355 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.8552	0.9588	20.00000	22.42210	ug/L	12	30	0.0500	
Chloromethane	1.0195	0.9973	20.00000	19.56560	ug/L	-2	30	0.1000	
Vinyl Chloride	0.8257	0.7897	20.00000	19.12730	ug/L	-4	20	0.0500	
Bromomethane	0.4343	0.3966	20.00000	18.26210	ug/L	-9	30	0.0500	
Chloroethane	0.4236	0.4068	20.00000	19.20590	ug/L	-4	30	0.0500	
Trichlorofluoromethane	0.8188	0.8423	20.00000	20.57410	ug/L	3	30	0.0500	
Acetone	0.3885	0.3281	20.00000	16.88770	ug/L	-16	40	0.0500	
Freon 113	0.4911	0.4703	20.00000	19.85670	ug/L	-1	30	0.0500	
1,1-Dichloroethene	0.4917	0.4742	20.00000	19.28570	ug/L	-4	20	0.0500	
Methylene Chloride	0.7046	0.6950	20.00000	19.72670	ug/L	-1	30	0.0500	
Carbon Disulfide	2.5849	1.9827	20.00000	14.53170	ug/L	-27	30	0.0500	!c-
MTBE	1.9075	1.8110	20.00000	18.98890	ug/L	-5	30	0.0500	
trans-1,2-Dichloroethene	0.6239	0.6235	20.00000	19.98550	ug/L	0	30	0.0500	
Vinyl Acetate	1.4663	1.3756	20.00000	18.76340	ug/L	-6	40	0.0500	
1,1-Dichloroethane	1.1992	1.1814	20.00000	19.70360	ug/L	-1	30	0.1000	
2-Butanone	0.5881	0.4697	20.00000	15.97130	ug/L	-20	40	0.0500	
2,2-Dichloropropane	0.7359	0.7736	20.00000	21.02410	ug/L	5	30	0.0500	
cis-1,2-Dichloroethene	0.7094	0.7068	20.00000	19.92830	ug/L	0	30	0.0500	
Chloroform	1.0561	1.0609	20.00000	20.09120	ug/L	0	20	0.0500	
Bromochloromethane	0.3918	0.3861	20.00000	19.70980	ug/L	-1	30	0.0500	
1,1,1-Trichloroethane	0.7129	0.7029	20.00000	19.71830	ug/L	-1	30	0.0500	
1,1-Dichloropropene	0.4170	0.4209	20.00000	20.18990	ug/L	1	30	0.0500	
Carbon Tetrachloride	0.3344	0.3321	20.00000	19.85980	ug/L	-1	30	0.0500	
1,2-Dichloroethane	0.4614	0.4485	20.00000	19.44200	ug/L	-3	30	0.0500	
Benzene	1.2849	1.3599	20.00000	21.16810	ug/L	6	30	0.0500	
Trichloroethene	0.3362	0.3426	20.00000	20.38280	ug/L	2	30	0.0500	
1,2-Dichloropropane	0.4230	0.4238	20.00000	20.04150	ug/L	0	20	0.0500	
Bromodichloromethane	0.4393	0.4528	20.00000	20.61440	ug/L	3	30	0.0500	
Dibromomethane	0.2731	0.2650	20.00000	19.40690	ug/L	-3	30	0.0500	
4-Methyl-2-Pentanone	0.5646	0.4704	20.00000	16.66160	ug/L	-17	40	0.0500	
Tetramethyl THF	0.8489	0.8062	20.00000	18.99410	ug/L	-5	30	0.0500	
cis-1,3-Dichloropropene	0.5942	0.6052	20.00000	20.36950	ug/L	2	30	0.0500	
Toluene	0.7631	0.8145	20.00000	21.34920	ug/L	7	20	0.0500	
trans-1,3-Dichloropropene	0.5152	0.5182	20.00000	20.11690	ug/L	1	30	0.0500	
1,1,2-Trichloroethane	0.1854	0.1816	20.00000	19.59540	ug/L	-2	30	0.0500	
2-Hexanone	0.5253	0.4280	20.00000	16.29550	ug/L	-19	40	0.0500	
1,3-Dichloropropane	0.6533	0.6553	20.00000	20.06120	ug/L	0	30	0.0500	
Tetrachloroethene	0.3323	0.3517	20.00000	21.17110	ug/L	6	30	0.0500	
Dibromochloromethane	0.4462	0.4496	20.00000	20.14980	ug/L	1	30	0.0500	
1,2-Dibromoethane	0.3843	0.3759	20.00000	19.56190	ug/L	-2	30	0.0500	
Chlorobenzene	1.0505	1.1327	20.00000	21.56490	ug/L	8	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3836	0.4045	20.00000	21.09080	ug/L	5	30	0.0500	
Ethylbenzene	1.5306	1.6630	20.00000	21.72990	ug/L	9	20	0.0500	
m,p-Xylenes	0.6217	0.6826	40.00000	43.91800	ug/L	10	30	0.0500	
o-Xylene	0.6399	0.6868	20.00000	21.46710	ug/L	7	30	0.0500	
Styrene	1.0913	1.1721	20.00000	21.48100	ug/L	7	30	0.0500	

!=warning -=low bias c=CCV

199

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 20PPB IDF : 1.0
Seqnum : 455402267003 Filename : fj603 Injected : 06-OCT-2005 09:26
Calnum : 455392201001 Caldate : 29-SEP-2005 Caltype : SOIL
Standards: S1500 (25000X), S1499 (25000X), S1355 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3044	0.3051	20.00000	20.04390	ug/L	0	30	0.1000	
Isopropylbenzene	3.1575	3.2986	20.00000	20.89390	ug/L	4	30	0.0500	
1,1,2,2-Tetrachloroethane	1.3800	1.3091	20.00000	18.97310	ug/L	-5	30	0.3000	
1,2,3-Trichloropropane	1.1199	1.0084	20.00000	18.00870	ug/L	-10	30	0.0500	
Propylbenzene	3.7457	3.9855	20.00000	21.28030	ug/L	6	30	0.0500	
Bromobenzene	0.9974	1.0242	20.00000	20.53690	ug/L	3	30	0.0500	
1,3,5-Trimethylbenzene	2.5186	2.6529	20.00000	21.06660	ug/L	5	30	0.0500	
2-Chlorotoluene	2.7699	2.9153	20.00000	21.04940	ug/L	5	30	0.0500	
4-Chlorotoluene	2.5861	2.7119	20.00000	20.97290	ug/L	5	30	0.0500	
tert-Butylbenzene	2.1734	2.2166	20.00000	20.39700	ug/L	2	30	0.0500	
1,2,4-Trimethylbenzene	2.3582	2.5377	20.00000	21.52220	ug/L	8	30	0.0500	
sec-Butylbenzene	3.0789	3.2027	20.00000	20.80420	ug/L	4	30	0.0500	
para-Isopropyl Toluene	2.4399	2.5532	20.00000	20.92890	ug/L	5	30	0.0500	
1,3-Dichlorobenzene	1.6681	1.8391	20.00000	22.05030	ug/L	10	30	0.0500	
1,4-Dichlorobenzene	1.7242	1.8375	20.00000	21.31430	ug/L	7	30	0.0500	
n-Butylbenzene	2.0017	2.0139	20.00000	20.12190	ug/L	1	30	0.0500	
1,2-Dichlorobenzene	1.5966	1.7065	20.00000	21.37640	ug/L	7	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2596	0.2223	20.00000	17.12760	ug/L	-14	30	0.0500	
1,2,4-Trichlorobenzene	0.6556	0.6746	20.00000	20.58190	ug/L	3	30	0.0500	
Hexachlorobutadiene	0.4159	0.3923	20.00000	18.86690	ug/L	-6	30	0.0500	
Naphthalene	1.4553	1.3066	20.00000	18.26320	ug/L	-9	30	0.0500	
1,2,3-Trichlorobenzene	0.6040	0.5980	20.00000	19.80100	ug/L	-1	30	0.0500	
tert-Butyl Alcohol (TBA)	0.1374	0.0950	200.0000	138.3217	ug/L	-31	30	0.0050	c- ***
Isopropyl Ether (DIPE)	2.5929	2.5923	20.00000	19.99530	ug/L	0	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	2.0038	1.9556	20.00000	19.51830	ug/L	-2	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.0376	1.0320	20.00000	19.89340	ug/L	-1	30	0.0500	
Ethanol	0.0183	0.0123	2000.000	1343.370	ug/L	-33	30	5.0E-4	c- ***
Isopropanol	0.0999	0.0662	200.0000	132.4579	ug/L	-34	30	0.0050	c- ***
Tetrahydrofuran	0.2877	0.2408	200.0000	167.3946	ug/L	-16	30	0.0050	
Dibromofluoromethane	0.6930	0.6722	50.00000	48.49850	ug/L	-3	30	0.0500	
1,2-Dichloroethane-d4	0.3559	0.3433	50.00000	48.23040	ug/L	-4	30	0.0500	
Trifluorotoluene	0.4226	0.4347	20.00000	20.57080	ug/L	3	30	0.0500	
Toluene-d8	1.0154	1.0059	50.00000	49.52910	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.1776	1.1408	50.00000	48.43500	ug/L	-3	30	0.0500	

ISTD (ICAL=fit10)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	1421172	1670237	17.53	12.45	12.46	0.01
1,4-Difluorobenzene	2513348	2882752	14.70	13.77	13.78	0.01
Chlorobenzene-d5	2078926	2366049	13.81	18.41	18.41	0.00
1,4-Dichlorobenzene-d4	898288	1054527	17.39	21.25	21.25	0.00

!=warning -=low bias c=CCV
Page 2 of 2

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 05-OCT-2005
Sequence: 455400850 (fj5)
Instrument ID: MSVOA06

ICAL Filename: fit10
Date Analyzed: 29-SEP-2005
Time Analyzed: 13:38

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	1421172	12.45	2513348	13.77	2078926	18.41	898288	21.25
LOWER LIMIT	710586	11.95	1256674	13.27	1039463	17.91	449144	20.75
UPPER LIMIT	2842344	12.95	5026696	14.27	4157852	18.91	1796576	21.75

TYPE	SAMPLE	#								
CCV	30PPB	002	1762222	12.46	2905966	13.78	2458635	18.42	1076697	21.25
LCS	QC311685	005	1550371	12.45	2674037	13.77	2207878	18.41	975326	21.24
CCV	30PPB	007	1501854	12.45	2563614	13.77	2097211	18.41	929467	21.25
BLANK	QC311686	008	1456337	12.45	2552917	13.77	2080547	18.41	855874	21.24
MSS	182230-013	009	1483162	12.46	2624783	13.78	2216489	18.41	948926	21.24
SAMPLE	182230-014	010	1483823	12.45	2609404	13.77	2171779	18.41	941521	21.24
MSS	182230-013	011	1543327	12.46	2709279	13.78	2216370	18.41	968753	21.25
SAMPLE	182230-015	012	1484198	12.46	2664203	13.78	2256100	18.41	996283	21.25
SAMPLE	182230-016	013	1510082	12.46	2660094	13.78	2179306	18.41	928948	21.25
MS	QC311737	014	1691897	12.46	3008771	13.78	2469475	18.41	1069875	21.25
MSD	QC311738	015	1550601	12.46	2728471	13.78	2289168	18.41	1034536	21.25
SAMPLE	182254-001	017	1511281	12.46	2680569	13.78	2267826	18.42	997243	21.24
SAMPLE	182254-002	018	1482149	12.46	2646066	13.78	2251388	18.41	985580	21.25
SAMPLE	182254-003	019	1436104	12.46	2592489	13.78	2185646	18.42	940579	21.24
SAMPLE	182230-019	020	1471496	12.46	2612361	13.78	2191445	18.41	926285	21.25
SAMPLE	182230-020	021	1497082	12.45	2631065	13.77	2152035	18.41	940207	21.25
SAMPLE	182230-021	022	1512381	12.45	2637510	13.77	2165901	18.41	962317	21.25
SAMPLE	182230-023	023	1495300	12.46	2651684	13.78	2198066	18.41	979726	21.25
SAMPLE	182230-024	024	1457226	12.45	2550971	13.77	2144045	18.41	950161	21.25
SAMPLE	182186-005	025	1497680	12.45	2635920	13.78	2142284	18.41	979484	21.25
SAMPLE	182186-007	026	1548010	12.46	2735600	13.78	2277442	18.42	990132	21.24
SAMPLE	182186-003	027	1529030	12.45	2641461	13.77	2197473	18.41	994043	21.25

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 06-OCT-2005
Sequence: 455402267 (fj6)
Instrument ID: MSVOA06

ICAL Filename: fit10
Date Analyzed: 29-SEP-2005
Time Analyzed: 13:38

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	1421172	12.45	2513348	13.77	2078926	18.41	898288	21.25
LOWER LIMIT	710586	11.95	1256674	13.27	1039463	17.91	449144	20.75
UPPER LIMIT	2842344	12.95	5026696	14.27	4157852	18.91	1796576	21.75

TYPE	SAMPLE	#							
CCV	20PPB	003	1670237	12.46	2882752	13.78	2366049	18.41	1054527	21.25
LCS	QC311830	004	1514440	12.46	2630129	13.78	2125411	18.42	948163	21.25
BLANK	QC311831	005	1539280	12.46	2699798	13.78	2274561	18.42	993152	21.24
MSS	182230-006	006	1483789	12.45	2599574	13.77	2177812	18.41	933996	21.25
SAMPLE	182254-004	007	1520502	12.46	2716108	13.78	2315512	18.42	974176	21.25
MSS	182230-006	008	1467656	12.46	2583911	13.78	2142624	18.41	889815	21.25
SAMPLE	182254-005	009	1488885	12.46	2678019	13.78	2248538	18.41	963451	21.25
SAMPLE	182230-003	010	1496028	12.46	2637063	13.78	2205922	18.41	929635	21.25
SAMPLE	182230-019	011	1488491	12.46	2679107	13.78	2190552	18.42	915740	21.25
SAMPLE	182230-025	012	1489584	12.46	2658084	13.78	2232310	18.41	973190	21.25
SAMPLE	182230-018	013	1537387	12.46	2756297	13.78	2260238	18.42	999544	21.25
SAMPLE	182230-007	014	1572292	12.46	2758454	13.78	2335788	18.42	1024706	21.25
SAMPLE	182254-006	015	1555658	12.47	2716422	13.79	2309621	18.42	1016262	21.25
SAMPLE	182254-007	016	1536618	12.46	2728038	13.79	2304634	18.42	974450	21.25
SAMPLE	182254-008	017	1565473	12.46	2784882	13.79	2320504	18.42	990716	21.25
SAMPLE	182255-001	018	1516774	12.47	2716685	13.79	2262041	18.42	918969	21.25
SAMPLE	182255-002	019	1534330	12.46	2732251	13.78	2216516	18.42	920093	21.25
SAMPLE	182255-003	020	1478676	12.47	2648062	13.79	2200830	18.42	913497	21.25
MS	QC311905	021	1467008	12.47	2639253	13.79	2215919	18.42	981984	21.25
MSD	QC311906	022	1517545	12.47	2666992	13.79	2230959	18.42	989936	21.25

8260/6450 5 ICAL

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455392201 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 29-SEP-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	fit01	X	IB			29-SEP-2005 08:41	1.0				1	
002	fit02	TUN	BFB			29-SEP-2005 09:32	1.0				2	
003	fit03	X	CALIB IB			29-SEP-2005 09:49	1.0				1	
005	fit05	TUN	BFB			29-SEP-2005 10:59	1.0				2	
006	fit06	X	CALIB IB			29-SEP-2005 11:17	1.0				1	
007	fit07	ICAL	5PPB			29-SEP-2005 11:52	1.0				3 4 1	
008	fit08	ICAL	10PPB			29-SEP-2005 12:27	1.0				3 4 1	
009	fit09	X	20PPB			29-SEP-2005 13:03	1.0				3 4 1	
010	fit10	ICAL	50PPB			29-SEP-2005 13:38	1.0				3 4 1	
011	fit11	ICAL	60PPB			29-SEP-2005 14:13	1.0				3 4 1	
012	fit12	ICAL	75PPB			29-SEP-2005 14:48	1.0				3 4 1	
013	fit13	ICAL	100PPB			29-SEP-2005 15:23	1.0				3 4 1	
014	fit14	X	IB			29-SEP-2005 16:47	1.0				1	
015	fit15	ICAL	20PPB			29-SEP-2005 17:22	1.0				3 4 1	
016	fit16	ICV	25PPB			29-SEP-2005 17:58	1.0	5000			5 1	
018	fit18 *	X	IB			29-SEP-2005 19:08	1.0				1	
019	fit19	X	IB			29-SEP-2005 19:43	1.0				1	
020	fit20	X	IB			29-SEP-2005 20:18	1.0				1	

* fit17 was an ICV that was not used.

* ICAL - no Cyclhex
- CS_2 to 75 ppb

* ICV - OK, USACE - B12L, propbenz, tert-butbenz, secbutbenz, nbutbenz, 1Me2ethbenz

Stds used: 1=S1355 2=S959 3=S1500 4=S1499 5=S1534

Analyst: _____ Date: 9/30/05

Page 1 of 1

8260/624 5 ICV

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455393641 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 30-SEP-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fiu01	X	IB			30-SEP-2005 08:41	1.0						1	
002	fiu02	TUN	BFB			30-SEP-2005 09:12	1.0						2	
003	fiu03	CCV	50PPB			30-SEP-2005 09:30	1.0	1		5000			3 4 1	
004	fiu04	BS	QC311181	106302	Soil	30-SEP-2005 10:34	1.0	2	1	5000			5 6 7 1	
005	fiu05	BSD	QC311182	106302	Soil	30-SEP-2005 11:10	1.0	2	1	5000			5 6 7 1	
006	fiu06	ICV	25PPB			30-SEP-2005 11:46	1.0			5000			6 7 1	

204

Stds used: 1=S1355 2=S959 3=S1500 4=S1499 5=S1534 6=S1459 7=S1283

Analyst: RBB Date: 9/30/05

9/30/05

1-3

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455400850 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 05-OCT-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fj501	TUN	BFB			05-OCT-2005 08:50	1.0						1	
002	fj502	CCV	30PPB			05-OCT-2005 09:08	1.0			5000			2 3 4	
003	fj503	X	QC311685	106427	Soil	05-OCT-2005 09:56	1.0			5000			5 6 7 4 spk	
004	fj504	X	IB			05-OCT-2005 10:31	1.0			5000			4	
005	fj505	LCS	QC311685	106427	Soil	05-OCT-2005 11:06	1.0		1	5000			5 6 7 4	
006	fj506	TUN	BFB			05-OCT-2005 12:04	1.0						1	
007	fj507	CCV	30PPB			05-OCT-2005 12:21	1.0			5000			4 2 3	
008	fj508	BLANK	QC311686	106427	Soil	05-OCT-2005 12:57	1.0		1	5000			4	
009	fj509	MSS	182230-013	106427	Soil	05-OCT-2005 13:32	0.9615	2	1	5000	A		4 RR 5x	2:ACE=387.668
010	fj510	SAMPLE	182230-014	106427	Soil	05-OCT-2005 14:07	4.545			5000			4	
011	fj511	MSS	182230-013	106427	Soil	05-OCT-2005 14:42	5.0		1	5000			4 Ace, 2Bnzt only	
012	fj512	SAMPLE	182230-015	106427	Soil	05-OCT-2005 15:17	4.545			5000			4	
013	fj513	SAMPLE	182230-016	106427	Soil	05-OCT-2005 15:52	4.545			5000			4	
014	fj514	MS	QC311737	106427	Soil	05-OCT-2005 16:27	0.9434			5000			4 5 6 7	2:ACE=415.112
015	fj515	MSD	QC311738	106427	Soil	05-OCT-2005 17:03	0.9434			5000			4 5 6 7	2:ACE=385.492
016	fj516	X	IB			05-OCT-2005 17:38	1.0						4	
017	fj517	SAMPLE	182254-001	106427	Soil	05-OCT-2005 18:13	0.8772			5000	C		4	
018	fj518	SAMPLE	182254-002	106427	Soil	05-OCT-2005 18:48	0.8333			5000			4	
019	fj519	SAMPLE	182254-003	106427	Soil	05-OCT-2005 19:23	0.8929			5000			4	
020	fj520	SAMPLE	182230-019	106427	Soil	05-OCT-2005 19:58	0.9434	2		5000	A		4 RR 5x	2:ACE=153.386
021	fj521	SAMPLE	182230-020	106427	Soil	05-OCT-2005 20:33	0.9615	1		5000			4	1:ACE=278.114
022	fj522	SAMPLE	182230-021	106427	Soil	05-OCT-2005 21:08	0.9804	2		5000			4	2:ACE=467.869
023	fj523	SAMPLE	182230-023	106427	Soil	05-OCT-2005 21:43	0.9615	1		5000			4 RR 5x CS2 curved	1:ACE=315.747
024	fj524	SAMPLE	182230-024	106427	Soil	05-OCT-2005 22:18	1.0	2		5000			4 RR 25x	2:ACE=620.006
025	fj525	SAMPLE	182186-005	106427	Soil	05-OCT-2005 22:53	3.333			5000			4 MeCl2 only	
026	fj526	SAMPLE	182186-007	106427	Soil	05-OCT-2005 23:28	3.333	1		5000			4 RR 25x	1:MTLNCL=197.923
027	fj527	SAMPLE	182186-003	106427	Soil	06-OCT-2005 00:03	5.556			5000			4 MeCl2 only	2:CLBZME=141.186
028	fj528	X	IB			06-OCT-2005 00:38	1.0						4	
029	fj529	X	233-4			06-OCT-2005 01:13	1.0	screen			A		4 50x	
030	fj530	X	233-5			06-OCT-2005 01:48	1.0	↓			↓		4 50x, NAPH 60 on col	

205

Stds used: 1=S959 2=S1500 3=S1499 4=S1355 5=S1534 6=S1459 7=S1689
Flags used: spk=5% spike rule

mcw 10/6/05

* ICAL - no Cydhex
* ICV - OK, USACE - Fr12↓, Pripbent↑, tertbutbent, secbutbenT
isobutbenT, Hexlbenz↑

Analyst: [signature] Date: 10/6/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455400850 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 05-OCT-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
031	fj531	X	233-6			06-OCT-2005 02:24	1.0	Screen	A	2	4 SOX, NAPH 57 on col	
032	fj532	X	IB			06-OCT-2005 02:59	1.0				4	
033	fj533	X	IB			06-OCT-2005 03:35	1.0				4	
034	fj534	X	IB			06-OCT-2005 04:10	1.0				4	
035	fj535	X	6A			06-OCT-2005 04:45	1.0				4	
036	fj536	X	6B			06-OCT-2005 05:21	1.0				4	

206

Stds used: 1=S959 2=S1500 3=S1499 4=S1355 5=S1534 6=S1459 7=S1689
Flags used: spk=5% spike rule

Analyst: _____ Date: 10/6/05 10/6/05

4 - 8

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455402267 Instrument: MSVOA06 HP GCMS VOA 06
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

Begun: 06-OCT-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fj601	X	IB			06-OCT-2005 08:27	1.0						1	
002	fj602	TUN	BFB			06-OCT-2005 09:08	1.0						2	
003	fj603	CCV	20PPB			06-OCT-2005 09:26	1.0	3		5000			3 4 1	
004	fj604	LCS	QC311830	106461	Soil	06-OCT-2005 10:15	1.0	3	3	5000			5 6 7 1	
005	fj605	BLANK	QC311831	106461	Soil	06-OCT-2005 10:50	1.0		1	5000			1	
006	fj606	MSS	182230-006	106461	Soil	06-OCT-2005 11:25	3.333		1	5000	A		1	
007	fj607	SAMPLE	182254-004	106461	Soil	06-OCT-2005 12:05	0.7937			5000	C		1	
008	fj608	MSS	182230-006	106461	Soil	06-OCT-2005 12:40	1.667		1	5000	A		1	
009	fj609	SAMPLE	182254-005	106461	Soil	06-OCT-2005 13:15	0.8621			5000	C		1	
010	fj610	SAMPLE	182230-003	106461	Soil	06-OCT-2005 13:50	5.0	1		5000	A		1	1:ACE=144.323
011	fj611	SAMPLE	182230-019	106461	Soil	06-OCT-2005 14:26	5.0			5000			1	
012	fj612	SAMPLE	182230-025	106461	Soil	06-OCT-2005 15:01	3.333			5000			1	
013	fj613	SAMPLE	182230-018	106461	Soil	06-OCT-2005 15:36	5.0			5000			1	
014	fj614	SAMPLE	182230-007	106461	Soil	06-OCT-2005 16:12	2.500	1		5000			1	1:ACE=261.385
015	fj615	SAMPLE	182254-006	106461	Soil	06-OCT-2005 16:47	0.8197			5000	C		1	
016	fj616	SAMPLE	182254-007	106461	Soil	06-OCT-2005 17:22	1.0			5000			1	
017	fj617	SAMPLE	182254-008	106461	Soil	06-OCT-2005 17:57	0.8621			5000			1	
018	fj618	SAMPLE	182255-001	106461	Soil	06-OCT-2005 18:33	0.7692			5000	B		1	
019	fj619	SAMPLE	182255-002	106461	Soil	06-OCT-2005 19:08	1.02			5000			1	
020	fj620	SAMPLE	182255-003	106461	Soil	06-OCT-2005 19:43	0.9615			5000			1	
021	fj621	MS	QC311905	106461	Soil	06-OCT-2005 20:18	1.667	4		5000	A		1 5 6 7	1:ACE=117.100
022	fj622	MSD	QC311906	106461	Soil	06-OCT-2005 20:53	1.667	4		5000			1 5 6 7	1:ACE=109.679
023	fj623	X	IB			06-OCT-2005 21:28	1.0						1	
024	fj624	X	IB			06-OCT-2005 22:03	1.0						1	
025	fj625	X	IB			06-OCT-2005 22:38	1.0						1	
026	fj626	X	6A			06-OCT-2005 23:13	1.0						1	
027	fj627	X	6B			06-OCT-2005 23:48	1.0						1	

* ICal - no Cyclohex
* ICV - OK, usACE - Pr12↓, Propbenz↑, tertbutbenz↑, secbutbenz↑, nbutbenz↑, Hexbenz↑
* CCV - TBA↓, EtOH↓, IPA↓, usACE - CS2↓

Stds used: 1=S1355 2=S959 3=S1500 4=S1499 5=S1534 6=S1459 7=S1689

Analyst: [signature] Date: 10/7/05 [signature] 10/7/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 10/5/05

Prepped by: Z

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182230-1	0.2	A	5	3	25x		
2	2	5.1			↓	~~1x 25x 5x~~ 1x load/list		
3	3	0.2			3	25x		
4	4	5.1			5	~~1x 25x 5x~~ 1x load/list		
5	5	5.4			↓	~~25x 5x~~ 1x ↓		
6	6	5.0			↓	~~5x~~ 1x ↓		
7	7	5.1			3	~~25x 5x~~ 1x load/list		
8	8	0.2			3	25x, thin lite		
9	9	5.0			3	~~1x 5x~~ 1x load/list		
10	10	0.025			3	200x		
11	11	0.2			↓	~~5x, Tol on col~~ 25x		
12	12	0.9			↓	~~5x, Tol 50 on col~~ 25x		
13	13	5.2			6	1x MSS/MSJ/MSD		
14	14	1.1			↓	5x, PCE 85 on col		
15	15	1.1			↓	5x, PCE 93 on col		
16	16	1.1			↓	5x		
17	17	1.0 ✓			3	5x		
18	18	5.2			↓	1x		
19	19	5.3			~~6~~	1x		
20	20	5.2			↓	1x		
21	21	5.1			↓	1x		
22	22	0.2			3	25x		
23	23	5.2			6	1x		
24	24	5.0			↓	1x		
25	25	5.2	↓		3	1x MSS/MSJ/MSD		
26	26	1.0			3	5x		

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182230-13	1.0	A		6	RR 5x 5030; not encore		
2	182254-1	5.7	C		↓	Encore		
3	-2	6.0	↓		↓	↓		
4	-3	5.6						
5	~~-4~~							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 10/6/05

Prepped by: JD

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182230 - 23	1.0	A		3	RR 5x, Acc 0.2. CS2 curve - MSS/MS/MSD		R
2	182186 - 7	0.2				RR 25x, MeCl2 0.2		
3	182233 - 4	0.1				50x, high NT		
4	- 5	0.1				50x, NAPH, 60 on 61		
5	- 6	0.1				50x, NONH 57 on col		
6	182230 - 4	0.2			3	RR 25x, DBFM ↑, 12DCA ↑ Acc	770	
7	- 5	0.2				Acc	680	
8	- 6	1.5			6	RR 3.3x, DBFM ↑, 12DCA ↑ ~~MSS/MS/MSD~~		JD 10/6
9	182179 - 12	0.008	E		3	625x, high NT		
10	- 13	0.015				333x		
11	- 15	0.61				500x		
12	~~182230 - 25~~					~~RR 5X 4X methanol~~		
13	~~182230 - 18~~					~~RR 3.3x meth. OK~~		
14	~~- 7~~					~~RR 5X~~		
15	182186 - 1	0.2	A		3	25x		
16	2	0.2	A			25x		
17	6	0.2				25x		
18	8	0.04				125x		
19	182230 - 6	3.0	A		6	RR 1.5x MSS/MS/MSD, 0.2		
20	4	0.9			3	RR 5X		
21	5	1.0				RR 5x		
22	18	1.0	A		3	5X		
23								
24								
25								
26								

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182281 - 1	5.4	A		5			B. X
2	- 2	5.4						
3	- 3	5.0						
4	- 4	5.1						
5	182254 - 4	6.3	C		6			
6	- 5	5.8						
7	- 6	6.1						
8	- 7	5.0						
9	- 8	5.8						
10								
11								
12								
13								
14								
15								
16								
17								

SVOC Results & QC Summary

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP110(8.0)	Batch#:	106817
Lab ID:	182254-001	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/19/05
Diln Fac:	1.000		

Moisture: 15%

Analyte	Result	RL	MDL
Naphthalene	1.3 J b	5.9	0.91
Acenaphthylene	ND	5.9	1.7
Acenaphthene	ND	5.9	0.91
Fluorene	ND	5.9	1.3
Phenanthrene	2.0 J	5.9	1.1
Anthracene	1.6 J	5.9	1.4
Fluoranthene	3.9 J	5.9	1.6
Pyrene	5.4 J	5.9	1.3
Benzo(a)anthracene	4.9 J	5.9	1.2
Chrysene	3.8 J	5.9	1.1
Benzo(b)fluoranthene	4.7 J	5.9	1.3
Benzo(k)fluoranthene	4.7 J	5.9	0.71
Benzo(a)pyrene	3.8 J	5.9	1.1
Indeno(1,2,3-cd)pyrene	3.9 J	5.9	1.1
Dibenz(a,h)anthracene	3.9 J	5.9	1.1
Benzo(g,h,i)perylene	3.8 J	5.9	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	103	33-151
2-Fluorobiphenyl	64	34-126
Terphenyl-d14	87	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP110(12.0)	Batch#:	106817
Lab ID:	182254-002	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/19/05
Diln Fac:	1.000		

Moisture: 16%

Analyte	Result	RL	MDL
Naphthalene	ND	6.0	0.92
Acenaphthylene	ND	6.0	1.8
Acenaphthene	ND	6.0	0.92
Fluorene	ND	6.0	1.4
Phenanthrene	ND	6.0	1.1
Anthracene	ND	6.0	1.5
Fluoranthene	ND	6.0	1.6
Pyrene	ND	6.0	1.4
Benzo(a)anthracene	ND	6.0	1.3
Chrysene	ND	6.0	1.2
Benzo(b)fluoranthene	ND	6.0	1.3
Benzo(k)fluoranthene	ND	6.0	0.72
Benzo(a)pyrene	ND	6.0	1.1
Indeno(1,2,3-cd)pyrene	ND	6.0	1.2
Dibenz(a,h)anthracene	ND	6.0	1.1
Benzo(g,h,i)perylene	ND	6.0	1.1

Surrogate	%REC	Limits
Nitrobenzene-d5	93	33-151
2-Fluorobiphenyl	58	34-126
Terphenyl-d14	78	42-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP113(3.0)	Batch#:	106817
Lab ID:	182254-003	Sampled:	10/03/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/19/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	5.3 J b	5.7	0.87
Acenaphthylene	ND	5.7	1.7
Acenaphthene	ND	5.7	0.87
Fluorene	ND	5.7	1.3
Phenanthrene	2.9 J	5.7	1.1
Anthracene	ND	5.7	1.4
Fluoranthene	8.1	5.7	1.5
Pyrene	16	5.7	1.3
Benzo(a)anthracene	6.7	5.7	1.2
Chrysene	11	5.7	1.1
Benzo(b)fluoranthene	8.5	5.7	1.2
Benzo(k)fluoranthene	7.2	5.7	0.68
Benzo(a)pyrene	8.7	5.7	1.0
Indeno(1,2,3-cd)pyrene	4.5 J	5.7	1.1
Dibenz(a,h)anthracene	4.5 J	5.7	1.0
Benzo(g,h,i)perylene	12	5.7	0.99

Surrogate	%REC	Limits
Nitrobenzene-d5	96	33-151
2-Fluorobiphenyl	71	34-126
Terphenyl-d14	108	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP113(5.5)	Diln Fac:	1.000
Lab ID:	182254-004	Batch#:	106817
Matrix:	Soil	Sampled:	10/03/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Prepared:	10/17/05

Moisture: 10%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	5.2 J	5.6	0.87	10/21/05
Acenaphthylene	ND	5.6	1.7	10/19/05
Acenaphthene	ND	5.6	0.86	10/19/05
Fluorene	ND	5.6	1.3	10/19/05
Phenanthrene	2.0 J	5.6	1.1	10/19/05
Anthracene	1.7 J	5.6	1.4	10/19/05
Fluoranthene	4.1 J	5.6	1.5	10/19/05
Pyrene	5.6 J	5.6	1.3	10/19/05
Benzo(a)anthracene	5.1 J	5.6	1.2	10/19/05
Chrysene	4.3 J	5.6	1.1	10/19/05
Benzo(b)fluoranthene	6.3	5.6	1.2	10/19/05
Benzo(k)fluoranthene	6.9	5.6	0.67	10/19/05
Benzo(a)pyrene	5.2 J	5.6	1.0	10/19/05
Indeno(1,2,3-cd)pyrene	4.7 J	5.6	1.1	10/19/05
Dibenz(a,h)anthracene	4.7 J	5.6	1.0	10/19/05
Benzo(g,h,i)perylene	4.2 J	5.6	0.99	10/19/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	87	33-151	10/19/05
2-Fluorobiphenyl	60	34-126	10/19/05
Terphenyl-d14	81	42-135	10/19/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP111(1.5)	Diln Fac:	1.000
Lab ID:	182254-005	Batch#:	106817
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Prepared:	10/17/05

Moisture: 13%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	15	5.8	0.89	10/20/05
Acenaphthylene	ND	5.8	1.7	10/19/05
Acenaphthene	ND	5.8	0.89	10/19/05
Fluorene	ND	5.8	1.3	10/19/05
Phenanthrene	2.2 J	5.8	1.1	10/19/05
Anthracene	ND	5.8	1.4	10/19/05
Fluoranthene	2.8 J	5.8	1.6	10/19/05
Pyrene	3.3 J	5.8	1.3	10/19/05
Benzo(a)anthracene	1.7 J	5.8	1.2	10/19/05
Chrysene	3.5 J	5.8	1.1	10/19/05
Benzo(b)fluoranthene	2.9 J	5.8	1.2	10/19/05
Benzo(k)fluoranthene	2.4 J	5.8	0.69	10/19/05
Benzo(a)pyrene	1.9 J	5.8	1.0	10/19/05
Indeno(1,2,3-cd)pyrene	1.2 J	5.8	1.1	10/19/05
Dibenz(a,h)anthracene	ND	5.8	1.0	10/19/05
Benzo(g,h,i)perylene	1.4 J	5.8	1.0	10/19/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	89	33-151	10/19/05
2-Fluorobiphenyl	61	34-126	10/19/05
Terphenyl-d14	75	42-135	10/19/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP111(6.0)	Batch#:	106817
Lab ID:	182254-006	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/19/05
Diln Fac:	1.000		

Moisture: 9%

Analyte	Result	RL	MDL
Naphthalene	1.0 J b	5.5	0.85
Acenaphthylene	ND	5.5	1.6
Acenaphthene	ND	5.5	0.84
Fluorene	ND	5.5	1.2
Phenanthrene	ND	5.5	1.0
Anthracene	ND	5.5	1.3
Fluoranthene	ND	5.5	1.5
Pyrene	ND	5.5	1.2
Benzo(a)anthracene	ND	5.5	1.2
Chrysene	ND	5.5	1.1
Benzo(b)fluoranthene	ND	5.5	1.2
Benzo(k)fluoranthene	ND	5.5	0.66
Benzo(a)pyrene	ND	5.5	0.99
Indeno(1,2,3-cd)pyrene	ND	5.5	1.1
Dibenz(a,h)anthracene	ND	5.5	0.98
Benzo(g,h,i)perylene	ND	5.5	0.96

Surrogate	%REC	Limits
Nitrobenzene-d5	94	33-151
2-Fluorobiphenyl	67	34-126
Terphenyl-d14	79	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP111(3.0)	Diln Fac:	1.000
Lab ID:	182254-007	Batch#:	106817
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Prepared:	10/17/05

Moisture: 7%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	23	5.4	0.83	10/20/05
Acenaphthylene	ND	5.4	1.6	10/19/05
Acenaphthene	ND	5.4	0.83	10/19/05
Fluorene	ND	5.4	1.2	10/19/05
Phenanthrene	ND	5.4	1.0	10/19/05
Anthracene	ND	5.4	1.3	10/19/05
Fluoranthene	2.0 J	5.4	1.4	10/19/05
Pyrene	1.6 J	5.4	1.2	10/19/05
Benzo(a)anthracene	ND	5.4	1.1	10/19/05
Chrysene	1.3 J	5.4	1.0	10/19/05
Benzo(b)fluoranthene	1.7 J	5.4	1.2	10/19/05
Benzo(k)fluoranthene	1.6 J	5.4	0.64	10/19/05
Benzo(a)pyrene	1.0 J	5.4	0.97	10/19/05
Indeno(1,2,3-cd)pyrene	ND	5.4	1.0	10/19/05
Dibenz(a,h)anthracene	ND	5.4	0.96	10/19/05
Benzo(g,h,i)perylene	ND	5.4	0.94	10/19/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	96	33-151	10/19/05
2-Fluorobiphenyl	66	34-126	10/19/05
Terphenyl-d14	76	42-135	10/19/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP110(1.5)	Diln Fac:	1.000
Lab ID:	182254-008	Batch#:	106817
Matrix:	Soil	Sampled:	10/04/05
Units:	ug/Kg	Received:	10/04/05
Basis:	dry	Prepared:	10/17/05

Moisture: 11%

Analyte	Result	RL	MDL	Analyzed
Naphthalene	18	5.6	0.86	10/20/05
Acenaphthylene	ND	5.6	1.6	10/19/05
Acenaphthene	ND	5.6	0.85	10/19/05
Fluorene	ND	5.6	1.3	10/19/05
Phenanthrene	3.4 J	5.6	1.1	10/19/05
Anthracene	ND	5.6	1.3	10/19/05
Fluoranthene	4.7 J	5.6	1.5	10/19/05
Pyrene	5.9	5.6	1.3	10/19/05
Benzo(a)anthracene	2.8 J	5.6	1.2	10/19/05
Chrysene	4.8 J	5.6	1.1	10/19/05
Benzo(b)fluoranthene	3.9 J	5.6	1.2	10/19/05
Benzo(k)fluoranthene	4.0 J	5.6	0.67	10/19/05
Benzo(a)pyrene	4.0 J	5.6	1.0	10/19/05
Indeno(1,2,3-cd)pyrene	2.7 J	5.6	1.1	10/19/05
Dibenz(a,h)anthracene	1.7 J	5.6	0.99	10/19/05
Benzo(g,h,i)perylene	2.9 J	5.6	0.98	10/19/05

Surrogate	%REC	Limits	Analyzed
Nitrobenzene-d5	97	33-151	10/19/05
2-Fluorobiphenyl	67	34-126	10/19/05
Terphenyl-d14	75	42-135	10/19/05

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313307	Batch#:	106817
Matrix:	Soil	Prepared:	10/17/05
Units:	ug/Kg	Analyzed:	10/19/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.77
Acenaphthylene	ND	5.0	1.5
Acenaphthene	ND	5.0	0.77
Fluorene	ND	5.0	1.1
Phenanthrene	0.99 J	5.0	0.96
Anthracene	ND	5.0	1.2
Fluoranthene	2.1 J	5.0	1.3
Pyrene	2.9 J	5.0	1.1
Benzo(a)anthracene	2.7 J	5.0	1.1
Chrysene	2.2 J	5.0	0.97
Benzo(b)fluoranthene	3.3 J	5.0	1.1
Benzo(k)fluoranthene	3.7 J	5.0	0.60
Benzo(a)pyrene	3.0 J	5.0	0.91
Indeno(1,2,3-cd)pyrene	3.8 J	5.0	0.97
Dibenz(a,h)anthracene	3.2 J	5.0	0.89
Benzo(g,h,i)perylene	4.0 J	5.0	0.88

Surrogate	%REC	Limits
Nitrobenzene-d5	92	33-151
2-Fluorobiphenyl	69	34-126
Terphenyl-d14	91	42-135

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC313308	Batch#:	106817
Matrix:	Soil	Prepared:	10/17/05
Units:	ug/Kg	Analyzed:	10/19/05
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.53	27.72	83	49-120
Pyrene	33.53	34.01	101	48-120

Surrogate	%REC	Limits
Nitrobenzene-d5	99	33-151
2-Fluorobiphenyl	70	34-126
Terphenyl-d14	82	42-135

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBITP110(1.5)	Batch#:	106817
MSS Lab ID:	182254-008	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	ug/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/19/05
Diln Fac:	1.000		

Type: MS Moisture: 11%
Lab ID: QC313309

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.8548	37.81	30.87	82	52-125
Pyrene	5.915	37.81	39.34	88	39-135

Surrogate	%REC	Limits
Nitrobenzene-d5	98	33-151
2-Fluorobiphenyl	69	34-126
Terphenyl-d14	77	42-135

Type: MSD Moisture: 11%
Lab ID: QC313310

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	38.01	30.87	81	52-125	1	35
Pyrene	38.01	37.70	84	39-135	5	44

Surrogate	%REC	Limits
Nitrobenzene-d5	102	33-151
2-Fluorobiphenyl	69	34-126
Terphenyl-d14	80	42-135

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\091305.b\VID02.D

Date : 13-SEP-2005 10:07

Client ID: dftpp tune std

Instrument: MSBNA03.i

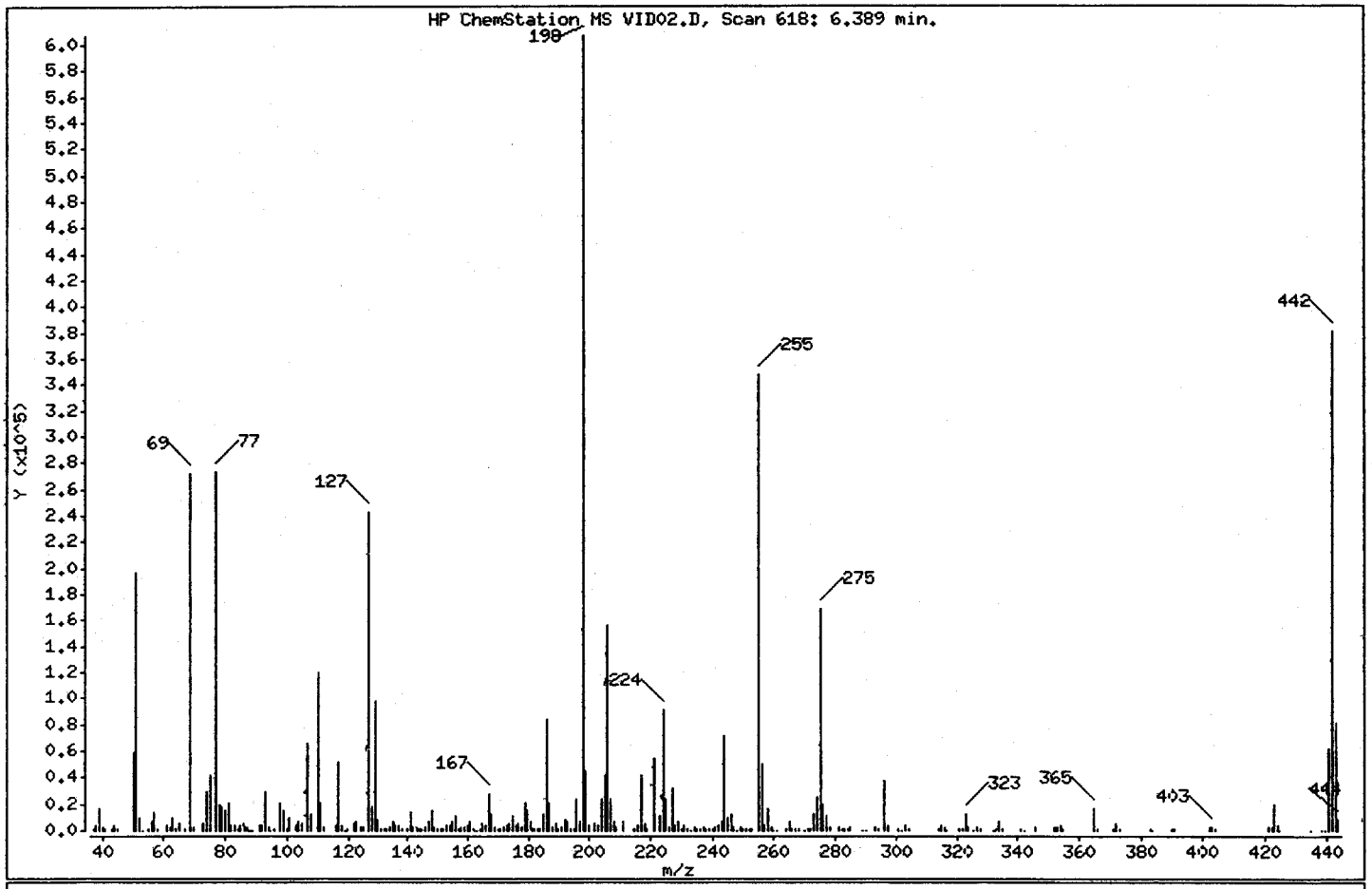
Sample Info: TUN,S800

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.48
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	44.88
70	Less than 2.00% of mass 69	0.35 (0.78)
127	40.00 - 60.00% of mass 198	40.05
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.25
275	10.00 - 30.00% of mass 198	27.75
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	10.03
442	40.00 - 99.99% of mass 198	62.85
443	17.00 - 23.00% of mass 442	13.36 (21.25)

8270-SIM ECAL

9/13/05

9/13/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\101905.b\VJJ01.D

Date : 19-OCT-2005 08:21

Client ID: dftpp tune std

Instrument: MSBNA03.i

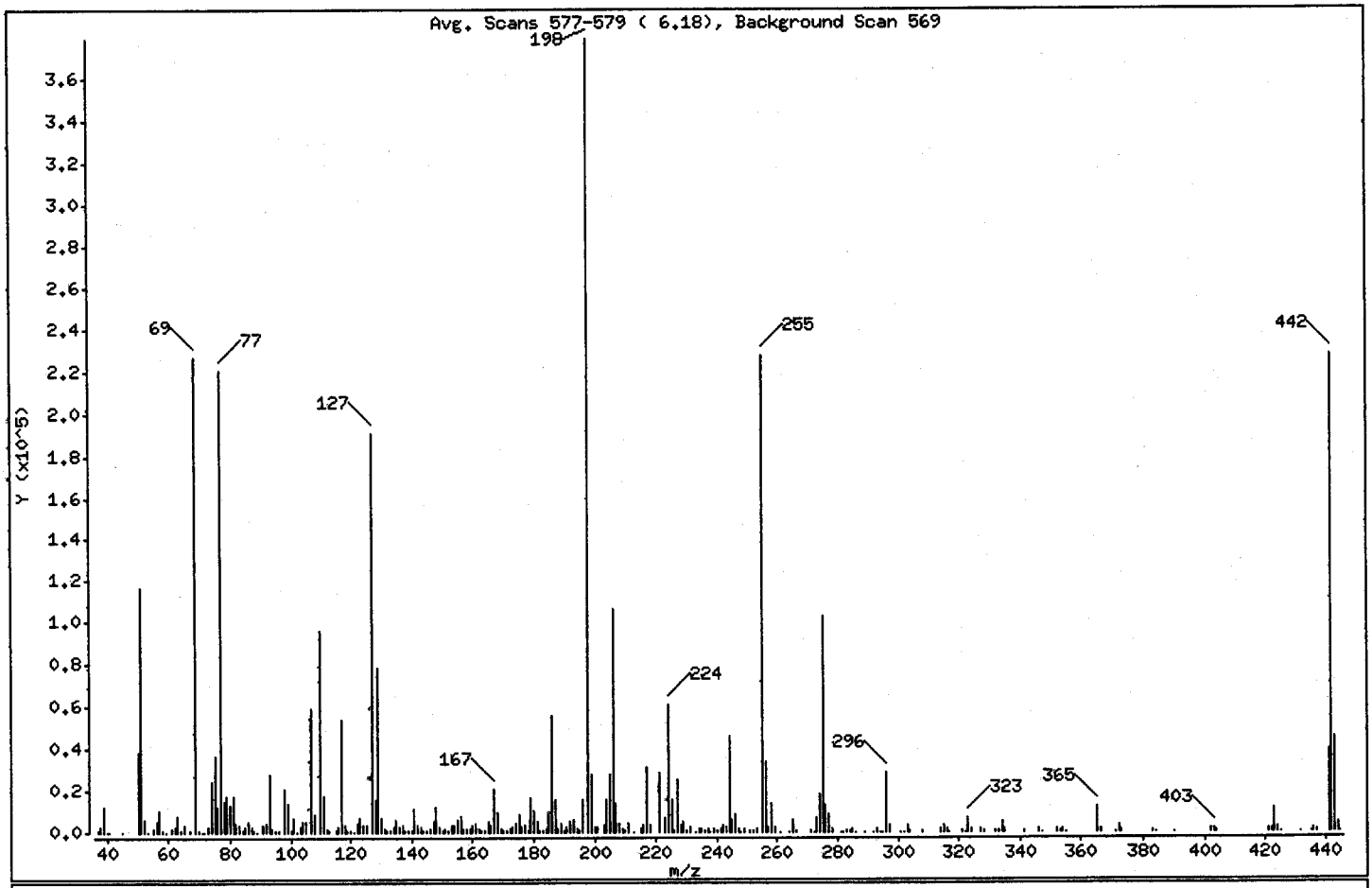
Sample Info: TUN,S1637

Operator: AD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	30.70
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	59.77
70	Less than 2.00% of mass 69	0.22 (0.36)
127	40.00 - 60.00% of mass 198	50.30
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.34
275	10.00 - 30.00% of mass 198	27.17
365	Greater than 1.00% of mass 198	3.19
441	Present, but less than mass 443	10.38
442	40.00 - 99.99% of mass 198	60.10
443	17.00 - 23.00% of mass 442	12.01 (19.98)

10/20/05

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\102005.b\VJK03.D

Date : 20-OCT-2005 11:21

Client ID: dftpp tune std

Instrument: MSBNA03.i

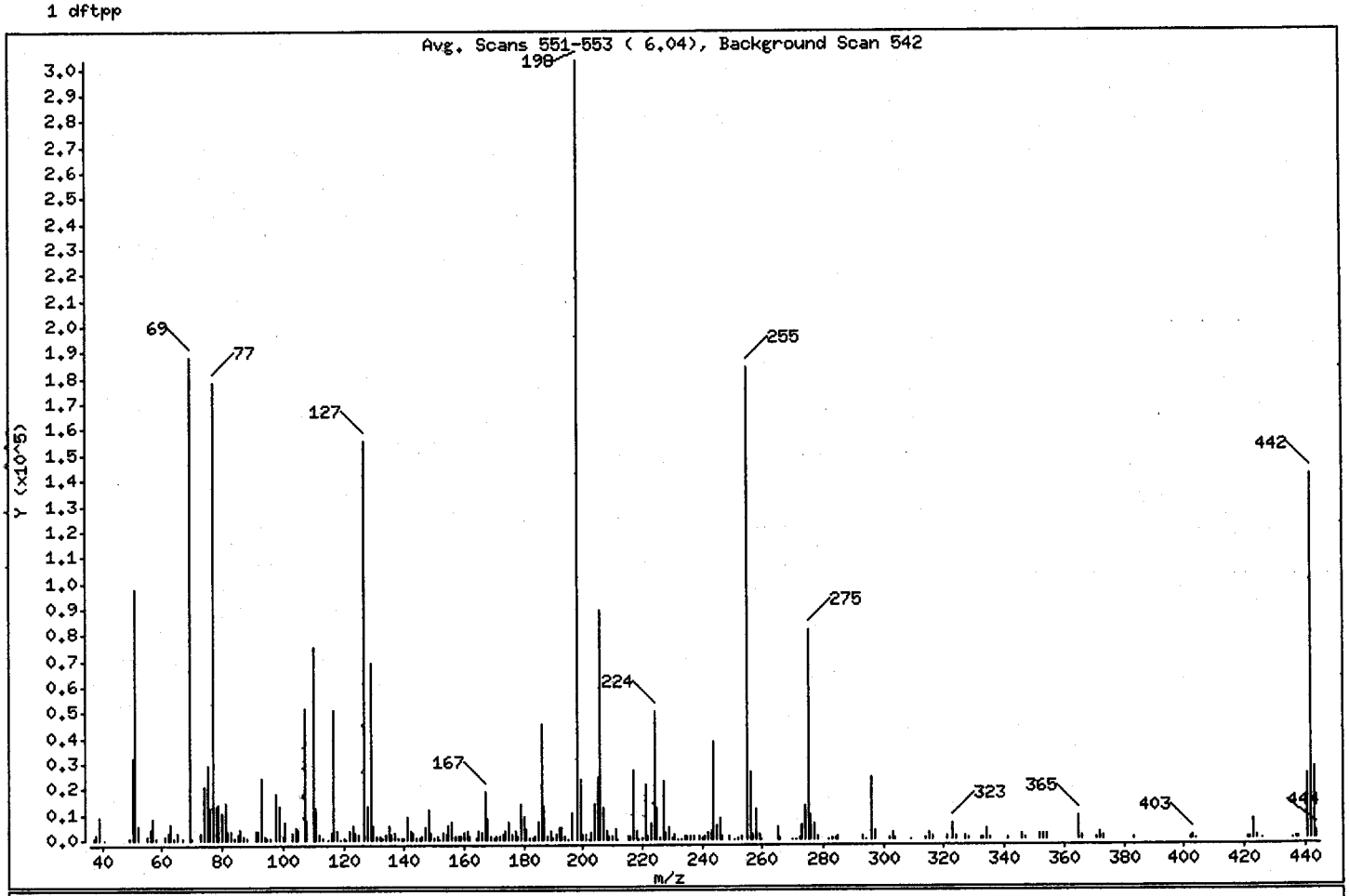
Sample Info: TUN,S1637

Operator: AD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.09
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	62.05
70	Less than 2.00% of mass 69	0.30 (0.49)
127	40.00 - 60.00% of mass 198	51.29
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.78
275	10.00 - 30.00% of mass 198	26.79
365	Greater than 1.00% of mass 198	2.97
441	Present, but less than mass 443	8.32
442	40.00 - 99.99% of mass 198	46.67
443	17.00 - 23.00% of mass 442	9.29 (19.91)

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\102005.b\VJK14.D

Date : 20-OCT-2005 18:36

Client ID: dftpp tune std

Instrument: MSBNA03.i

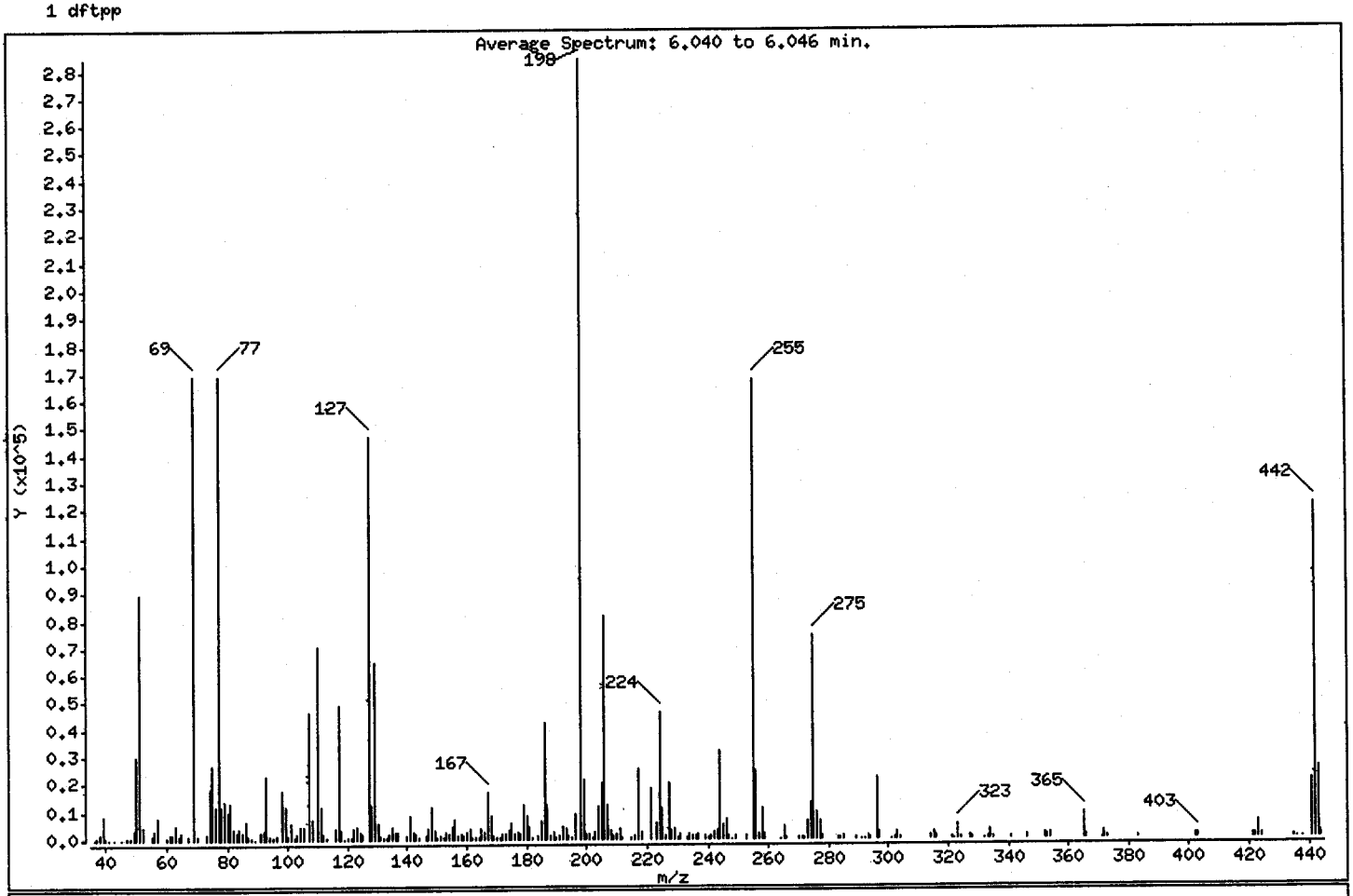
Sample Info: TUN,S1637

Operator: AD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	31.38
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	59.48
70	Less than 2.00% of mass 69	0.49 (0.83)
127	40.00 - 60.00% of mass 198	51.65
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.54
275	10.00 - 30.00% of mass 198	26.14
365	Greater than 1.00% of mass 198	3.24
441	Present, but less than mass 443	7.36
442	40.00 - 99.99% of mass 198	42.74
443	17.00 - 23.00% of mass 442	9.01 (21.09)

ISNA03 8270-SIM Calibration

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525369247001 Name: 3PAHSIM Type: (normal) Date: 13-SEP-2005 10:30 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vid03	525369247003	0.1ug/mL	13-SEP-2005 10:30	S1210
2	vid04	525369247004	0.2ug/mL	13-SEP-2005 11:02	S1211
3	vid05	525369247005	0.5ug/mL	13-SEP-2005 11:37	S1212
4	vid06	525369247006	1.0ug/mL	13-SEP-2005 12:09	S1213
5	vid07	525369247007	2.0ug/mL	13-SEP-2005 12:42	S1214
6	vid08	525369247008	5.0ug/mL	13-SEP-2005 13:15	S1215
7	vid09	525369247009	10.0ug/mL	13-SEP-2005 13:46	S1216

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MkRSD	Flags
1,4-Dioxane		0.5356m	0.4845m	0.4579m	0.4425m	0.4170	0.3638	AVRG	R		2.221174		ng	0.4502	13	0.0500	.99	15	
Naphthalene	0.7635	0.7844	0.7291	0.7101	0.7165	0.6775	0.6567	AVRG	R		1.389471		ng	0.7197	6	0.0500	.99	15	
2-Methylnaphthalene	0.7016	0.7366	0.6696	0.6627	0.6560	0.6136	0.5719	AVRG	R		1.517802		ng	0.6588	8	0.0500	.99	15	
Acenaphthylene	1.2916	1.3667	1.2933	1.2937	1.2911	1.2481	1.2032	AVRG	R		0.778847		ng	1.2839	4	0.0500	.99	15	
Acenaphthene	0.8891	0.9246	0.8342	0.8187	0.8234	0.7987	0.7606	AVRG	R		1.196732		ng	0.8356	7	0.0500	.99	15	
Fluorene	1.1665	1.1888	1.0930	1.0630	1.0519	1.0315	1.0177	AVRG	R		0.919548		ng	1.0875	6	0.0500	.99	15	
Phenanthrene	0.8883	0.9134	0.8580	0.8254	0.8092	0.7770	0.7388	AVRG	R		1.204783		ng	0.8300	7	0.0500	.99	15	
Anthracene	0.6977	0.7572	0.7295	0.7193	0.7275	0.6998	0.6687	AVRG	R		1.400075		ng	0.7142	4	0.0500	.99	15	
Fluoranthene	1.0751	1.1358	1.0843	1.0274	1.0088	0.9592	0.9143	AVRG	R		0.971559		ng	1.0293	7	0.0500	.99	15	
Pyrene	1.1345	1.1491	1.0733	1.0252	1.0010	0.9468	0.8935	AVRG	R		0.969085		ng	1.0319	9	0.0500	.99	15	
Benzo(a)anthracene	0.9431	0.9966	0.9602	0.9554	0.9377	0.9167	0.8788	AVRG	R		1.062474		ng	0.9412	4	0.0500	.99	15	
Chrysene	1.0264	1.0478	0.9586	0.9299	0.9109	0.8664	0.8210	AVRG	R		1.066912		ng	0.9373	9	0.0500	.99	15	
Benzo(b)fluoranthene	1.1445	1.2236	1.1810	1.0622	1.1382	1.0776	1.0529	AVRG	R		0.888329		ng	1.1257	6	0.0500	.99	15	
Benzo(k)fluoranthene	1.1909	1.1589	1.1339	1.1613	1.0995	1.1198	1.1486	AVRG	R		0.873581		ng	1.1447	3	0.0500	.99	15	
Benzo(a)pyrene	0.8807	0.9249	0.9232	0.9252	0.9472	0.9550	0.9335	AVRG	R		1.078627		ng	0.9271	3	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.0140	1.0450	1.0444	1.0098	1.0494	1.0663	1.0660	AVRG	R		0.959571		ng	1.0421	2	0.0500	.99	15	
Dibenz(a,h)anthracene	0.8226	0.8290	0.8324	0.8161	0.8561	0.8801	0.8848	AVRG	R		1.182209		ng	0.8459	3	0.0500	.99	15	
Benzo(g,h,i)perylene	0.9259	0.9377	0.9364	0.8899	0.8978	0.8902	0.8558	AVRG	R		1.105220		ng	0.9048	3	0.0500	.99	15	

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

RCL: OK
ACV: OK

9/13/05

9/13/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525369247001 Name: 3PAHSIM Type: (normal) Date: 13-SEP-2005 10:30 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2955	0.2971	0.2874	0.2984	0.3011	0.3025	0.2931	AVRG	R		3.373317		ng	0.2964	2	0.0500	.99	15	
2-Fluorobiphenyl	1.4113	1.4145	1.2840	1.2247	1.2023	1.1589	1.1039	AVRG	R		0.795490		ng	1.2571	10	0.0500	.99	15	
Terphenyl-d14	1.0589	1.0807	1.0305	0.9659	0.9264	0.8888	0.8344	AVRG	R		1.031604		ng	0.9694	9	0.0500	.99	15	

227

Flags used: m=manual integration
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525369247010 Filename : vid10 Injected : 13-SEP-2005 14:18
Calnum : 525369247001 Caldate : 13-SEP-2005 Caltype :
Standards: S797

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.028600	ng	3	30	m
Naphthalene	1.000000	1.061400	ng	6	30	
2-Methylnaphthalene	1.000000	1.033900	ng	3	30	
Acenaphthylene	1.000000	0.993400	ng	-1	30	
Acenaphthene	1.000000	0.969400	ng	-3	20	
Fluorene	1.000000	0.969100	ng	-3	30	
Phenanthrene	1.000000	1.034400	ng	3	30	
Anthracene	1.000000	1.065600	ng	7	30	
Fluoranthene	1.000000	1.036100	ng	4	20	
Pyrene	1.000000	0.968300	ng	-3	30	
Benzo(a)anthracene	1.000000	1.030000	ng	3	30	
Chrysene	1.000000	0.945600	ng	-5	30	
Benzo(b)fluoranthene	1.000000	1.047000	ng	5	30	
Benzo(k)fluoranthene	1.000000	1.134800	ng	13	30	
Benzo(a)pyrene	1.000000	1.108500	ng	11	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.995200	ng	0	30	
Dibenz(a,h)anthracene	1.000000	0.896900	ng	-10	30	
Benzo(g,h,i)perylene	1.000000	1.063300	ng	6	30	

ISTD (CCV=vid01)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	147294	58868	-60.03	7.47	7.47	0.00
Naphthalene-d8	321700	231617	-28.00	9.20	9.20	0.00
Acenaphthene-d10	210291	168678	-19.79	11.81	11.81	0.00
Phenanthrene-d10	442603	333636	-24.62	14.06	14.06	0.00
Chrysene-d12	466052	341458	-26.73	17.89	17.89	0.00
Perylene-d12	418674	269246	-35.69	19.68	19.68	0.00

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525420981002 Filename : vjj02 Injected : 19-OCT-2005 08:44
Calnum : 525369247001 Caldate : 13-SEP-2005 Caltype :
Standards: S1213

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4502	0.5515	1.000000	1.224900	ng	22	30	0.0500	!c+ m
Naphthalene	0.7197	0.9226	1.000000	1.281900	ng	28	30	0.0500	!c+
2-Methylnaphthalene	0.6588	0.7065	1.000000	1.072400	ng	7	30	0.0500	
Acenaphthylene	1.2839	1.5299	1.000000	1.191600	ng	19	30	0.0500	
Acenaphthene	0.8356	0.9226	1.000000	1.104100	ng	10	20	0.0500	
Fluorene	1.0875	1.1482	1.000000	1.055900	ng	6	30	0.0500	
Phenanthrene	0.8300	0.8800	1.000000	1.060200	ng	6	30	0.0500	
Anthracene	0.7142	0.8232	1.000000	1.152600	ng	15	30	0.0500	
Fluoranthene	1.0293	1.0979	1.000000	1.066600	ng	7	20	0.0500	
Pyrene	1.0319	1.2338	1.000000	1.195700	ng	20	30	0.0500	
Benzo(a)anthracene	0.9412	1.0677	1.000000	1.134400	ng	13	30	0.0500	
Chrysene	0.9373	0.9830	1.000000	1.048800	ng	5	30	0.0500	
Benzo(b)fluoranthene	1.1257	1.1911	1.000000	1.058100	ng	6	30	0.0500	
Benzo(k)fluoranthene	1.1447	1.2828	1.000000	1.120600	ng	12	30	0.0500	
Benzo(a)pyrene	0.9271	0.8427	1.000000	0.909000	ng	-9	20	0.0500	m
Indeno(1,2,3-cd)pyrene	1.0421	1.0749	1.000000	1.031400	ng	3	30	0.0500	
Dibenz(a,h)anthracene	0.8459	0.7919	1.000000	0.936200	ng	-6	30	0.0500	
Benzo(g,h,i)perylene	0.9048	0.9192	1.000000	1.016000	ng	2	30	0.0500	
Nitrobenzene-d5	0.2964	0.3966	1.000000	1.337800	ng	34	30	0.0500	c+
2-Fluorobiphenyl	1.2571	1.1582	1.000000	0.921300	ng	-8	30	0.0500	
Terphenyl-d14	0.9694	0.9537	1.000000	0.983900	ng	-2	30	0.0500	

10/26/05

!=warning +=high bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525422503005 Filename : vjk05 Injected : 20-OCT-2005 12:21
Calnum : 525369247001 Caldate : 13-SEP-2005 Caltype :
Standards: S1213

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4502	0.5014	1.000000	1.113700	ng	11	30	0.0500	m
Naphthalene	0.7197	0.8552	1.000000	1.188200	ng	19	30	0.0500	
2-Methylnaphthalene	0.6588	0.6714	1.000000	1.019100	ng	2	30	0.0500	
Acenaphthylene	1.2839	1.5167	1.000000	1.181300	ng	18	30	0.0500	
Acenaphthene	0.8356	0.8911	1.000000	1.066400	ng	7	20	0.0500	
Fluorene	1.0875	1.1327	1.000000	1.041600	ng	4	30	0.0500	
Phenanthrene	0.8300	0.8685	1.000000	1.046400	ng	5	30	0.0500	
Anthracene	0.7142	0.7849	1.000000	1.099000	ng	10	30	0.0500	
Fluoranthene	1.0293	1.1448	1.000000	1.112200	ng	11	20	0.0500	
Pyrene	1.0319	1.1856	1.000000	1.149000	ng	15	30	0.0500	
Benzo(a)anthracene	0.9412	1.0990	1.000000	1.167600	ng	17	30	0.0500	
Chrysene	0.9373	0.9665	1.000000	1.031100	ng	3	30	0.0500	
Benzo(b)fluoranthene	1.1257	1.1823	1.000000	1.050300	ng	5	30	0.0500	
Benzo(k)fluoranthene	1.1447	1.2206	1.000000	1.066300	ng	7	30	0.0500	
Benzo(a)pyrene	0.9271	1.0681	1.000000	1.152000	ng	15	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.0421	1.1074	1.000000	1.062600	ng	6	30	0.0500	
Dibenz(a,h)anthracene	0.8459	0.8404	1.000000	0.993600	ng	-1	30	0.0500	
Benzo(g,h,i)perylene	0.9048	0.9390	1.000000	1.037800	ng	4	30	0.0500	
Nitrobenzene-d5	0.2964	0.3308	1.000000	1.115900	ng	12	30	0.0500	m
2-Fluorobiphenyl	1.2571	1.1570	1.000000	0.920400	ng	-8	30	0.0500	
Terphenyl-d14	0.9694	1.0069	1.000000	1.038700	ng	4	30	0.0500	

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525422503015 Filename : vjk15 Injected : 20-OCT-2005 18:56
Calnum : 525369247001 Caldate : 13-SEP-2005 Caltype :
Standards: S1213

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.4502	0.4307	1.000000	0.956700	ng	-4	30	0.0500	m
Naphthalene	0.7197	0.8461	1.000000	1.175600	ng	18	30	0.0500	
2-Methylnaphthalene	0.6588	0.7016	1.000000	1.064900	ng	6	30	0.0500	
Acenaphthylene	1.2839	1.4990	1.000000	1.167500	ng	17	30	0.0500	
Acenaphthene	0.8356	0.8877	1.000000	1.062300	ng	6	20	0.0500	
Fluorene	1.0875	1.1340	1.000000	1.042800	ng	4	30	0.0500	
Phenanthrene	0.8300	0.8452	1.000000	1.018300	ng	2	30	0.0500	
Anthracene	0.7142	0.7488	1.000000	1.048400	ng	5	30	0.0500	
Fluoranthene	1.0293	1.1232	1.000000	1.091300	ng	9	20	0.0500	
Pyrene	1.0319	1.1833	1.000000	1.146700	ng	15	30	0.0500	
Benzo(a)anthracene	0.9412	1.1079	1.000000	1.177100	ng	18	30	0.0500	
Chrysene	0.9373	0.9682	1.000000	1.033000	ng	3	30	0.0500	
Benzo(b)fluoranthene	1.1257	1.1832	1.000000	1.051100	ng	5	30	0.0500	
Benzo(k)fluoranthene	1.1447	1.2231	1.000000	1.068500	ng	7	30	0.0500	
Benzo(a)pyrene	0.9271	1.0677	1.000000	1.151700	ng	15	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.0421	1.0911	1.000000	1.047000	ng	5	30	0.0500	
Dibenz(a,h)anthracene	0.8459	0.8164	1.000000	0.965200	ng	-3	30	0.0500	
Benzo(g,h,i)perylene	0.9048	0.9545	1.000000	1.055000	ng	6	30	0.0500	
Nitrobenzene-d5	0.2964	0.3312	1.000000	1.117200	ng	12	30	0.0500	m
2-Fluorobiphenyl	1.2571	1.1618	1.000000	0.924200	ng	-8	30	0.0500	
Terphenyl-d14	0.9694	0.9952	1.000000	1.026700	ng	3	30	0.0500	

m=manual integration
Page 1 of 1

10.21.05

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 19-OCT-2005
Sequence: 525420981 (vjj)
Instrument ID: MSBNA03

CCV Filename: vjj02
Date Analyzed: 19-OCT-2005
Time Analyzed: 08:44

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	33205	7.71	124185	9.47	84834	12.08	157165	14.34	131865	18.16	97774	19.97
LOWER LIMIT	16603	7.21	62093	8.97	42417	11.58	78583	13.84	65933	17.66	48887	19.47
UPPER LIMIT	66410	8.21	248370	9.97	169668	12.58	314330	14.84	263730	18.66	195548	20.47

TYPE	SAMPLE	#											
CCV		002	33205	7.71	124185	9.47	84834	12.08	157165	14.34	131865	18.16	97774	19.97
BLANK	QC313307	003	28963	7.71	119841	9.45	82627	12.08	164911	14.34	132791	18.16	81686	19.97
LCS	QC313308	004	27589	7.71	115112	9.45	78661	12.08	156551	14.34	121693	18.16	75789	19.97
MSS	182254-008	005	31529	7.71	125550	9.45	87825	12.08	169821	14.34	131283	18.16	84792	19.97
MS	QC313309	006	31542	7.71	132374	9.45	91260	12.08	174379	14.34	136474	18.16	89168	19.97
MSD	QC313310	007	29386	7.71	125580	9.45	85229	12.08	172217	14.34	140812	18.16	113617	19.97
SAMPLE	182264-001	008	57618	7.71	235703	9.45	149301	12.08	263155	14.34	209648	18.16	131983	19.97
SAMPLE	182264-002	009	40112	7.71	161283	9.45	110705	12.08	210695	14.34	192603	18.16	114349	19.97
SAMPLE	182254-001	010	31027	7.71	129079	9.45	92187	12.08	184121	14.34	144065	18.16	112721	19.96
SAMPLE	182254-002	011	31189	7.71	128588	9.45	91440	12.08	177332	14.34	136789	18.16	103677	19.97
SAMPLE	182254-003	012	23655	7.71	107154	9.45	69258	12.08	118081	14.34	59441*	18.17	35545*	19.98
SAMPLE	182254-004	013	29998	7.71	125124	9.45	88086	12.08	178374	14.34	145776	18.16	99002	19.97
SAMPLE	182254-005	014	29934	7.71	123423	9.45	88456	12.08	171586	14.34	133741	18.16	72966	19.97
SAMPLE	182254-006	015	28986	7.71	126585	9.45	85938	12.08	167289	14.34	127763	18.16	83557	19.96
SAMPLE	182254-007	016	31277	7.71	129207	9.45	88673	12.08	171244	14.34	132376	18.16	74289	19.97
SAMPLE	182363-005	017	29440	7.71	116280	9.45	83353	12.08	155287	14.34	113042	18.16	61747	19.97
SAMPLE	182363-004	018	27681	7.71	118711	9.45	84645	12.08	154761	14.34	111073	18.16	61145	19.97

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 20-OCT-2005 CCV Filename: vjk05
Sequence: 525422503 (vjk) Date Analyzed: 20-OCT-2005
Instrument ID: MSBNA03 Time Analyzed: 12:21

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	28357	7.57	110199	9.30	73265	11.92	146382	14.18	133027	18.00	108385	19.80
LOWER LIMIT	14179	7.07	55100	8.80	36633	11.42	73191	13.68	66514	17.50	54193	19.30
UPPER LIMIT	56714	8.07	220398	9.80	146530	12.42	292764	14.68	266054	18.50	216770	20.30

TYPE	SAMPLE	#											
CCV		005	28357	7.57	110199	9.30	73265	11.92	146382	14.18	133027	18.00	108385	19.80
BLANK	QC313307	006	16040	7.57	67779	9.31	40287	11.92	76323	14.18	68154	18.00	51273*	19.80
SAMPLE	182264-001	007	15341	7.57	60813	9.30	37369	11.92	69449*	14.18	56696*	18.00	43398*	19.80
SAMPLE	182254-003	008	15481	7.57	72861	9.31	38103	11.92	64590*	14.17	36221*	18.02	32642*	19.81
SAMPLE	182254-004	009	11588*	7.57	47882*	9.31	29694*	11.92	53822*	14.17	37883*	18.00	25185*	19.80
SAMPLE	182254-005	010	17046	7.57	70941	9.31	44239	11.92	78079	14.18	63461*	18.00	46227*	19.80
SAMPLE	182254-007	011	17285	7.57	69989	9.30	43111	11.92	79935	14.18	76635	18.00	58325	19.80
MSS	182254-008	012	18523	7.57	73994	9.31	45256	11.92	81242	14.18	68583	18.00	47003*	19.80

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 20-OCT-2005 CCV Filename: vjk15
Sequence: 525422503 (vjk) Date Analyzed: 20-OCT-2005
Instrument ID: MSBNA03 Time Analyzed: 18:56

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	24626	7.57	95324	9.30	63243	11.92	124161	14.18	110361	18.01	88148	19.81
LOWER LIMIT	12313	7.07	47662	8.80	31622	11.42	62081	13.68	55181	17.51	44074	19.31
UPPER LIMIT	49252	8.07	190648	9.80	126486	12.42	248322	14.68	220722	18.51	176296	20.31

TYPE	SAMPLE	#											
CCV		015	24626	7.57	95324	9.30	63243	11.92	124161	14.18	110361	18.01	88148	19.81
BLANK	QC313536	016	28382	7.57	117659	9.30	82123	11.92	167087	14.18	135251	18.01	97603	19.80
LCS	QC313537	017	25957	7.56	105589	9.30	74416	11.92	159456	14.18	136523	18.00	114946	19.80
BLANK	QC313740	018	27458	7.56	110866	9.30	80620	11.92	164692	14.18	134453	18.00	107018	19.80
LCS	QC313741	019	28204	7.56	112731	9.30	79404	11.92	168463	14.18	135228	18.00	108895	19.80
MSS	182470-011	020	27457	7.57	110891	9.30	79697	11.92	148028	14.18	133920	18.00	102074	19.80
MS	QC313742	021	29231	7.56	117256	9.30	84256	11.92	155078	14.18	141786	18.00	122420	19.80
MSD	QC313743	022	29573	7.56	118722	9.30	86006	11.92	163964	14.18	143293	18.00	123679	19.80
SAMPLE	182470-009	023	28942	7.57	113083	9.30	85703	11.92	171304	14.18	137390	18.00	111893	19.80
SAMPLE	182254-004	024	28724	7.56	113650	9.30	83550	11.92	169414	14.18	142873	18.00	114551	19.80
SAMPLE	182264-001	025	30383	7.56	118299	9.31	86827	11.91	171019	14.17	142914	18.00	123217	19.80
MSS	182553-004	026	29675	7.56	115375	9.30	82337	11.92	164003	14.17	134515	18.00	99234	19.80
MS	QC313538	027	27024	7.56	106645	9.30	74789	11.92	151216	14.18	116578	18.00	100524	19.80
MSD	QC313539	028	28153	7.57	111216	9.31	78150	11.92	157590	14.18	131692	18.00	102287	19.81
SAMPLE	182470-004	029	30549	7.57	122727	9.30	86866	11.92	168367	14.18	135657	18.00	98196	19.80
SAMPLE	182470-010	030	28847	7.56	114811	9.31	79318	11.92	161566	14.17	131514	18.00	91682	19.80
SAMPLE	182363-010	031	27671	7.56	112824	9.30	77138	11.92	149219	14.18	118209	18.01	75538	19.81
SAMPLE	182363-013	032	26750	7.56	110485	9.30	75989	11.92	149158	14.17	120001	18.00	81557	19.80
SAMPLE	182363-041	033	27258	7.57	110587	9.30	78978	11.92	161366	14.18	124394	18.00	82477	19.80
SAMPLE	182425-035	034	26625	7.56	96676	9.31	67859	11.92	132150	14.18	135960	18.02	92697	19.83
SAMPLE	182457-058	035	26597	7.56	104729	9.30	67967	11.92	128720	14.18	100283	18.01	70687	19.81
SAMPLE	182470-001	036	25168	7.57	98193	9.30	68555	11.92	137377	14.18	111524	18.01	78610	19.81

TSNA03 8270-SIM Calibration

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525369247 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 13-SEP-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	vid01	CCV	SS1215			13-SEP-2005 09:30	1.0					
002	vid02	TUN	NP NL			13-SEP-2005 10:07	1.0				1	
003	vid03	ICAL	0.1ug/mL			13-SEP-2005 10:30	1.0				2	
004	vid04	ICAL	0.2ug/mL			13-SEP-2005 11:02	1.0				3	
005	vid05	ICAL	0.5ug/mL			13-SEP-2005 11:37	1.0				4	
006	vid06	ICAL	1.0ug/mL			13-SEP-2005 12:09	1.0				5	
007	vid07	ICAL	2.0ug/mL			13-SEP-2005 12:42	1.0				6	
008	vid08	ICAL	5.0ug/mL			13-SEP-2005 13:15	1.0				7	
009	vid09	ICAL	10.0ug/mL			13-SEP-2005 13:46	1.0				8	
010	vid10	ICV	1.0ug/mL			13-SEP-2005 14:18	1.0	1			9	
011	vid11	TUN	NP NL			13-SEP-2005 16:31	1.0				1	

ICAL: Ok
ICV: Ok

235

Stds used: 1=S800 2=S1210 3=S1211 4=S1212 5=S1213 6=S1214 7=S1215 8=S1216 9=S797

Analyst: [signature] Date: 9/13/05

Page 1 of 1

[signature] 9/13/05

-1,2,3,6,6

PNB/LCS/LCSD/MS/MSD

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525420981 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 19-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

- 4 combine gmss
- 5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vjj01	TUN	NP NL			19-OCT-2005 08:21	1.0	1.0				1	
002	vjj02	CCV				19-OCT-2005 08:44	1.0	1.0			1	2	
003	vjj03	BLANK	QC313307	106817	Soil	19-OCT-2005 09:27	1.0	0.03355			1	3	
004	vjj04	LCS	QC313308	106817	Soil	19-OCT-2005 09:59	1.0	0.03353			1	3	
005	vjj05	MSS	182254-008	106817	Soil	19-OCT-2005 10:33	1.0	0.03309	1		1	3	
006	vjj06	MS	QC313309	106817	Soil	19-OCT-2005 11:08	1.0	0.03365			1	3	
007	vjj07	MSD	QC313310	106817	Soil	19-OCT-2005 11:40	1.0	0.03383			1	3	
008	vjj08	SAMPLE	182264-001	106817	Soil	19-OCT-2005 12:12	1.0	0.0336	1	1	1	3	
009	vjj09	SAMPLE	182264-002	106817	Soil	19-OCT-2005 12:45	1.0	0.03381	1		1	3	
010	vjj10	SAMPLE	182254-001	106817	Soil	19-OCT-2005 13:17	1.0	0.03361	1		1	3	
011	vjj11	SAMPLE	182254-002	106817	Soil	19-OCT-2005 13:50	1.0	0.03367			1	3	
012	vjj12	SAMPLE	182254-003	106817	Soil	19-OCT-2005 14:23	1.0	0.03364	1		1	3 DLV	
013	vjj13	SAMPLE	182254-004	106817	Soil	19-OCT-2005 14:57	1.0	0.0338	1		1	3	
014	vjj14	SAMPLE	182254-005	106817	Soil	19-OCT-2005 15:32	1.0	0.03359	1		1	3	
015	vjj15	SAMPLE	182254-006	106817	Soil	19-OCT-2005 16:04	1.0	0.03342	1		1	3	
016	vjj16	SAMPLE	182254-007	106817	Soil	19-OCT-2005 16:37	1.0	0.0334	1		1	3	
017	vjj17	SAMPLE	182363-005	106705	Soil	19-OCT-2005 17:12	20.0	0.03352			1	3 spk DLV	
018	vjj18	SAMPLE	182363-004	106705	Soil	19-OCT-2005 17:45	10.0	0.03318			1	3 spk	
019	vjj19	TUN	NP NL			19-OCT-2005 19:03	1.0	1.0				1	
020	vjj20	CCV				19-OCT-2005 19:24	1.0	1.0			1	2	
021	vjj21	SAMPLE	182425-036	106766	Water	19-OCT-2005 19:58	1.0	0.0009524			1	3	
022	vjj22	SAMPLE	182387-026	106766	Water	19-OCT-2005 20:32	1.0	0.0009434			1	3	
023	vjj23	SAMPLE	182457-058	106766	Water	19-OCT-2005 21:08	10.0	0.0009524			1	3	
024	vjj24	SAMPLE	182339-001	106766	Water	19-OCT-2005 21:43	50.0	0.0009524			1	3	
025	vjj25	SAMPLE	182387-022	106766	Water	19-OCT-2005 22:16	25.0	0.0009615			1	3	
026	vjj26	SAMPLE	182425-031	106766	Water	19-OCT-2005 22:50	5.0	0.0009615			1	3 DLV	
027	vjj27	SAMPLE	182425-032	106766	Water	19-OCT-2005 23:23	5.0	0.0009524			1	3	
028	vjj28	SAMPLE	182425-035	106766	Water	19-OCT-2005 23:57	3.0	0.0009709		2	1	3	
029	vjj29	SAMPLE	182425-033	106766	Water	20-OCT-2005 00:31	5.0	0.0009709			1	3	

CCV: vjj02: OK - 1,4-Dioxane ↑; Naphthalene ↑; Nitrobenzene-d5 ↑ (surr) for reporting limits

vjj20: OK - Naphthalene ↑; Pyrene ↑; Benzo(a)anthracene ↑; Nitrobenzene-d5 ↑ (surr) for reporting limits

Stds used: 1=S1637 2=S1213 3=S835
Flags used: spk=5% spike rule

Analyst: _____ Date: 10/20/05

Page 1 of 2

J: Naphthalene

ICAL: OK
ICV: OK

-7

-4,5 combine -8MSS

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525422503 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 20-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vjk01	TUN	NP NL			20-OCT-2005 09:43	1.0	1.0				1 not used	
002	vjk02	CCV				20-OCT-2005 10:09	1.0	1.0			1	2	
003	vjk03	TUN	NP NL			20-OCT-2005 11:21	1.0	1.0				1	
004	vjk04	CCV				20-OCT-2005 11:41	1.0	1.0	3		1	2 cc+	
005	vjk05	CCV				20-OCT-2005 12:21	1.0	1.0			1	2	
006	vjk06	BLANK	QC313307 (4)	106817	Soil	20-OCT-2005 13:25	1.0	0.03355		1	1	3	
007	vjk07	SAMPLE	182264-001	106817	Soil	20-OCT-2005 13:57	1.0	0.0336		3	1	3 RR per VJK25	
008	~~vjk08~~	~~SAMPLE~~	~~182254-003~~	~~106817~~	~~Soil~~	20-OCT-2005 14:30	1.0	0.03364		3	1	3	
009	~~vjk09~~	~~SAMPLE~~	~~182254-004~~	~~106817~~	~~Soil~~	20-OCT-2005 15:04	1.0	0.0338		1	1	3 RR per VJK24	
010	vjk10	SAMPLE	182254-005	106817	Soil	20-OCT-2005 15:37	1.0	0.03359			1	3	
011	vjk11	SAMPLE	182254-007	106817	Soil	20-OCT-2005 16:12	1.0	0.0334			1	3	
012	vjk12	MSS	182254-008	106817	Soil	20-OCT-2005 16:45	1.0	0.03309			1	3	
013	vjk13	TUN	NP NL			20-OCT-2005 18:20	1.0	1.0	1			1 t not used	
014	vjk14	TUN	NP NL			20-OCT-2005 18:36	1.0	1.0				1	
015	vjk15	CCV				20-OCT-2005 18:56	1.0	1.0			1	2	
016	vjk16	BLANK	QC313536 (3)	106879	Soil	20-OCT-2005 19:32	1.0	0.03361			1	3	
017	vjk17	LCS	QC313537	106879	Soil	20-OCT-2005 20:06	1.0	0.03286			1	3	
018	vjk18	BLANK	QC313740	106929	Soil	20-OCT-2005 20:41	1.0	0.0335			1	3	
019	vjk19	LCS	QC313741 (3)	106929	Soil	20-OCT-2005 21:17	1.0	0.03349			1	3	
020	vjk20	MSS	182470-011	106929	Soil	20-OCT-2005 21:53	1.0	0.03369			1	3	
021	vjk21	MS	QC313742	106929	Soil	20-OCT-2005 22:29	1.0	0.0333			1	3	
022	vjk22	MSD	QC313743	106929	Soil	20-OCT-2005 23:05	1.0	0.03323			1	3	
023	vjk23	SAMPLE	182470-009	106929	Soil	20-OCT-2005 23:38	1.0	0.03369			1	3	
024	vjk24	SAMPLE	182254-004	106817	Soil	21-OCT-2005 00:15	1.0	0.0338			1	3 naph mcg	
025	vjk25	SAMPLE	182264-001	106817	Soil	21-OCT-2005 00:48	1.0	0.0336			1	3	
026	vjk26	MSS	182553-004	106879	Soil	21-OCT-2005 01:22	1.0	0.03369			1	3	
027	vjk27	MS	QC313538	106879	Soil	21-OCT-2005 01:57	1.0	0.03332			1	3	
028	vjk28	MSD	QC313539	106879	Soil	21-OCT-2005 02:33	1.0	0.03349			1	3	
029	vjk29	SAMPLE	182470-004	106929	Soil	21-OCT-2005 03:09	1.0	0.03287			1	3	

Stds used: 1=S1637 2=S1213 3=S835
Flags used: +=high bias <<t=out of clock cc=CCV CCC failure spk=5% spike rule t=tune failure

Analyst: [signature] Date: 10/21/05
Page 1 of 2

* ICAL = ok
* ICV = ok
* CCV VJK05 = ok
CCV VJK15 = ok

APD 10.21.05

Curtis & Tompkins Laboratories Sample Preparation Summary 19-OCT-2005 10:15

Batch Number : 106817
Date Extracted: 17-OCT-2005
Extracted by : Sheila H. Dodson
Prep Method : 3550B

Analysis : N/A
Bgroup : SIM
Units : g
Clean-up :

Spike #1 ID : S1729A
Spike #2 ID : S1443C
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-001			Mactec, Inc.	Soil	29.75	g	1	0.033613	1		1	0		8270-SIM		
182254-002			Mactec, Inc.	Soil	29.7	g	1	0.033670	1		1	0		8270-SIM		
182254-003			Mactec, Inc.	Soil	29.73	g	1	0.033636	1		1	0		8270-SIM		
182254-004			Mactec, Inc.	Soil	29.59	g	1	0.033795	1		1	0		8270-SIM		
182254-005			Mactec, Inc.	Soil	29.77	g	1	0.033591	1		1	0		8270-SIM		
182254-006			Mactec, Inc.	Soil	29.92	g	1	0.033422	1		1	0		8270-SIM		
182254-007			Mactec, Inc.	Soil	29.94	g	1	0.033400	1		1	0		8270-SIM		
182254-008			Mactec, Inc.	Soil	30.22	g	1	0.033091	1		1	0		8270-SIM		MSS
182264-001			URS Corporation	Soil	29.76	g	1	0.033602	1		1	0		8270-SIM		
182264-002			URS Corporation	Soil	29.58	g	1	0.033807	1		1	0		8270-SIM		
182425-001			URS Corporation	Soil	30.14	g	1	0.033179	1		1	0		8270-SIM		
182425-002			URS Corporation	Soil	29.8	g	1	0.033557	1		1	0		8270-SIM		
182425-003			URS Corporation	Soil	29.89	g	1	0.033456	1		1	0		8270-SIM		
182425-004			URS Corporation	Soil	30.07	g	1	0.033256	1		1	0		8270-SIM		
182425-005			URS Corporation	Soil	29.94	g	1	0.033400	1		1	0		8270-SIM		
182425-006			URS Corporation	Soil	29.81	g	1	0.033546	1		1	0		8270-SIM		
182425-007			URS Corporation	Soil	29.77	g	1	0.033591	1		1	0		8270-SIM		
182425-010			URS Corporation	Soil	29.61	g	1	0.033772	1		1	0		8270-SIM		
182425-011			URS Corporation	Soil	30	g	1	0.033333	1		1	0		8270-SIM		
182425-012			URS Corporation	Soil	30.32	g	1	0.032982	1		1	0		8270-SIM		
QC313307	BLANK			Soil	29.81	g	1	0.033546	1		1	0		SIM		
QC313308	LCS			Soil	29.82	g	1	0.033535	1		1	1		SIM		
QC313309	MS	of 182254-008		Soil	29.72	g	1	0.033647	1		1	1		SIM		
QC313310	MSD	of 182254-008		Soil	29.56	g	1	0.033829	1		1	1		SIM		

Prep Chemist: _____ Reviewed By: DM for KMH Date: 10/18/05

Relinquished By: _____ Received By: _____ Date: 10/19/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG** BK 2178 page 83 of 100

LIMS Batch No: 106817 Extraction Method:
LIMS Analysis 8270-SVM ☑ EPA 3550b Sonication
Extracted by: SHD ☐ EPA 3540c Soxhlet
Date Extracted: 10/17/05 ☐ Other _____

Cleanup Method (if necessary):
☐ EPA 3640a GPC
☐ EPA 3630c Silica Gel
☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	182425-001	SHD 10/17 29.75 30.14	1.0		
	-002	29.80	✓		
	-003	29.839	✓		
	-004	29.59 30.07	✓		
5	-005	29.774	✓		
	-006	29.92 81	✓		
	-007	29.88 77	✓		
	-010	29.61	✓		
	-011	30.00	✓		
10	-012	30.32	✓		
	182254-001	29.75	✓		
	-002	29.70	✓		
	-003	29.73	✓		
	-004	29.59	✓		
15	-005	29.77	✓		
	-006	29.92	✓		
	-007	29.94	✓		
	-008	30.22	✓		MSS
	182764-001	29.76			
20	-002	29.58			
	MB QC313307	29.82 81	✓		
	LCS 08	29.81 82	✓		
	MS 09	29.72	✓		
	MSD 10	29.56	✓		
	MJM 10/18/05				

Na_2SO_4
~~Sand~~ weighed out for QC samples

Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4

1.0 mL of surrogate solution was added to all samples

1.0 mL of matrix spiking solution was added to all spikes

≥100mL 1:1 CH_2Cl_2:Acetone was added to all:

Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:

soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4

Concentrated: ☑ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel

Concentrated to final volumes as noted above

	Mfg & Lot # / LIMS # / Time	Date/Initials
	EM 44135439	SHD 10/17/05
	JTB 25151	
	S1729A ✓ ✓	
	S1443C	
CH_2Cl_2	EM 45188	
Acetone	EM 45125	
	✓	10/18/05 MJM
soxhlets off at:	N/A	
	JTB25151	
	✓	
	N/A	
	✓	

10/17/05
Extraction Chemist / Date

Continued from page _____
Continued on page 239

JOM for KMH 10/18/05
Reviewed by / Date

Project Soil Aliquot BK2279

Continued from Page

SAMPLE I.D.	Weight (g)	Analysis	Comments
~~182317-MSD~~	50.37	TEH	182317-001A
182314-001A	49.77	TEH	
002	49.63		
003	49.68		
004	50.09		
005	50.21		
006	49.73		
182314-011A	50.15	TEH/MM	comp of 001, 003, 004, 010
182254-005A	49.79	TEH	MSS
MB	50.30		EM4413543 9
~~MS~~ LCS	50.09		↓
MS	50.25		182254-005A
MSD	50.31		↓
182255-008A	30.34	8270	
009	30.26		
010	30.48		
011	29.60		
012	30.11		
013	29.90		
014	29.93		
015	29.69		
019	29.90		
022	30.14		
182254-001A	29.75	8270-SIM	
2	29.70		
3	29.73		
4	29.59		
5	29.77		
6	29.92		
7	29.94		
8	30.22		
LCS	29.82		MSS
MB	29.81		EM4413543 9
MS	29.72		↓
MSD	29.56		182254-001A
			~~008A~~

JDM 10/19/05

Continued on Page

Signed [signature] Date 10/14/05

Read and Understood By

240

Signed Date

Metals Results & QC Summary

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP110(8.0)	Basis:	dry
Lab ID:	182254-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/03/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 15%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.59 J	2.7	0.098	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	4.4	0.23	0.090	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	98	0.46	0.047	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.37	0.091	0.0090	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.82	0.23	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	66	0.46	0.031	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	9.7	0.91	0.023	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	10	0.46	0.043	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	5.4	0.14	0.048	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.015 J	0.021	0.0041	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.72 J	0.91	0.020	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	41	0.91	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.23	0.071	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.23	0.039	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.15 J	0.23	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	61	0.46	0.029	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	34	0.91	0.097	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP110(12.0)	Basis:	dry
Lab ID:	182254-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/03/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 16%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.63 J	3.2	0.11	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	5.5	0.26	0.10	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	92	0.53	0.054	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.35	0.11	0.010	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.93	0.26	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	100	0.53	0.035	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	11	1.1	0.027	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	19	0.53	0.050	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	4.8	0.16	0.056	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.053	0.023	0.0044	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.63 J	1.1	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	69	1.1	0.032	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.26	0.082	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.26	0.046	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.20 J	0.26	0.032	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	68	0.53	0.033	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	38	1.1	0.11	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP113(3.0)	Basis:	dry
Lab ID:	182254-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/03/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.12 J	2.7	0.097	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	5.8	0.23	0.090	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	110	0.45	0.046	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.33	0.091	0.0090	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.96	0.23	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	78	0.45	0.030	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	12	0.91	0.023	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	17	0.45	0.043	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	39	0.14	0.048	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.072	0.022	0.0043	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.68 J	0.91	0.020	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	59	0.91	0.027	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.23	0.070	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.23	0.039	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.071 J	0.23	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	68	0.45	0.029	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	58	0.91	0.097	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP113(5.5)	Basis:	dry
Lab ID:	182254-004	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/03/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 10%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.8	0.10	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	3.1	0.23	0.093	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	52	0.47	0.048	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.20	0.093	0.0093	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.71	0.23	0.022	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	76	0.47	0.031	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	5.3	0.93	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	5.0	0.47	0.044	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	3.1	0.14	0.049	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.015 J	0.023	0.0043	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.41 J	0.93	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	28	0.93	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.23	0.073	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.23	0.040	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.17 J	0.23	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	70	0.47	0.029	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	21	0.93	0.10	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP111(1.5)	Basis:	dry
Lab ID:	182254-005	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/04/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 13%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.18 J	3.2	0.11	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	4.3	0.26	0.10	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	100	0.53	0.054	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.37	0.11	0.010	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.82	0.26	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	56	0.53	0.035	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	12	1.1	0.027	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	19	0.53	0.050	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	49	0.16	0.056	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.10	0.021	0.0041	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.58 J	1.1	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	32	1.1	0.032	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	0.45	0.26	0.082	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.26	0.046	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	ND	0.26	0.032	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	53	0.53	0.033	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	64	1.1	0.11	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP111(6.0)	Basis:	dry
Lab ID:	182254-006	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/04/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 9%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.29 J	2.4	0.087	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	5.8	0.20	0.080	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	100	0.40	0.041	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.46	0.081	0.0080	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.92	0.20	0.019	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	80	0.40	0.027	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	16	0.81	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	18	0.40	0.038	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	5.8	0.12	0.043	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.063	0.021	0.0040	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.62 J	0.81	0.018	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	58	0.81	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.20	0.063	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.20	0.035	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.054 J	0.20	0.025	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	64	0.40	0.026	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	33	0.81	0.086	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP111(3.0)	Basis:	dry
Lab ID:	182254-007	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/04/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 7%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	3.4	0.12	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	3.0	0.28	0.11	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	73	0.56	0.057	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.21	0.11	0.011	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.58	0.28	0.026	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	66	0.56	0.038	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	7.1	1.1	0.029	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	5.9	0.56	0.053	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	3.2	0.17	0.059	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	ND	0.023	0.0044	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.45 J	1.1	0.025	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	31	1.1	0.034	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	ND	0.28	0.087	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.28	0.048	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.26 J	0.28	0.034	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	56	0.56	0.035	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	21	1.1	0.12	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182254	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBITP110(1.5)	Basis:	dry
Lab ID:	182254-008	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/04/05
Units:	mg/Kg	Received:	10/04/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.8	0.10	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Arsenic	5.3	0.23	0.092	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Barium	150	0.46	0.048	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Beryllium	0.36	0.093	0.0092	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cadmium	0.84	0.23	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Chromium	61	0.46	0.031	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Cobalt	12	0.93	0.024	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Copper	16	0.46	0.044	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Lead	11	0.14	0.049	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Mercury	0.049	0.022	0.0043	106510	10/07/05	10/07/05	METHOD	EPA 7471A
Molybdenum	0.59 J	0.93	0.021	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Nickel	49	0.93	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Selenium	0.19 J	0.23	0.072	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Silver	ND	0.23	0.040	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Thallium	0.11 J	0.23	0.028	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Vanadium	61	0.46	0.029	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B
Zinc	41	0.93	0.099	106787	10/17/05	10/17/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC312039	Batch#:	106510
Matrix:	Soil	Prepared:	10/07/05
Units:	mg/Kg	Analyzed:	10/07/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106510
Units:	mg/Kg	Prepared:	10/07/05
Basis:	as received	Analyzed:	10/07/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC312040	0.5000	0.5360	107	80-120		
BSD	QC312041	0.5000	0.5110	102	80-120	5	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BBITP110(1.5)	Batch#:	106510
MSS Lab ID:	182254-008	Sampled:	10/04/05
Matrix:	Soil	Received:	10/04/05
Units:	mg/Kg	Prepared:	10/07/05
Basis:	dry	Analyzed:	10/07/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC312042	0.04944	0.5300	0.6084	105	56-148	11%		
MSD	QC312043		0.5508	0.6356	106	56-148	11%	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313185	Batch#:	106787
Matrix:	Soil	Prepared:	10/17/05
Units:	mg/Kg	Analyzed:	10/17/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.063 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	0.18 J	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	0.030 J	1.0	0.022
Nickel	ND	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	106787
Units:	mg/Kg	Prepared:	10/17/05
Basis:	as received	Analyzed:	10/17/05
Diln Fac:	1.000		

Type: BS Lab ID: QC313186

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	96.35	96	80-120
Arsenic	50.00	50.01	100	80-120
Barium	100.0	100.5	101	80-120
Beryllium	2.500	2.561	102	80-120
Cadmium	10.00	10.11	101	80-120
Chromium	100.0	100.3	100	80-120
Cobalt	25.00	24.26	97	80-120
Copper	12.50	12.48	100	80-120
Lead	100.0	97.46	97	80-120
Molybdenum	20.00	20.89	104	80-120
Nickel	25.00	24.76	99	80-120
Selenium	50.00	49.82	100	80-120
Silver	10.00	9.162	92	80-120
Thallium	50.00	49.59	99	80-120
Vanadium	25.00	25.04	100	80-120
Zinc	25.00	25.05	100	80-120

Type: BSD Lab ID: QC313187

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	91.84	92	80-120	5	20
Arsenic	50.00	47.60	95	80-120	5	20
Barium	100.0	96.66	97	80-120	4	20
Beryllium	2.500	2.468	99	80-120	4	20
Cadmium	10.00	9.729	97	80-120	4	20
Chromium	100.0	96.54	97	80-120	4	20
Cobalt	25.00	23.06	92	80-120	5	20
Copper	12.50	11.96	96	80-120	4	20
Lead	100.0	92.39	92	80-120	5	20
Molybdenum	20.00	19.89	99	80-120	5	20
Nickel	25.00	23.58	94	80-120	5	20
Selenium	50.00	47.29	95	80-120	5	20
Silver	10.00	8.831	88	80-120	4	20
Thallium	50.00	47.27	95	80-120	5	20
Vanadium	25.00	23.76	95	80-120	5	20
Zinc	25.00	24.00	96	80-120	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	106787
MSS Lab ID:	182483-002	Sampled:	10/14/05
Matrix:	Soil	Received:	10/14/05
Units:	mg/Kg	Prepared:	10/17/05
Basis:	dry	Analyzed:	10/17/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC313188

Moisture: 7%

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	1.829	103.4	54.47	51	9-120
Arsenic	4.310	51.70	53.27	95	73-120
Barium	161.9	103.4	259.3	94	54-137
Beryllium	0.3026	2.585	2.845	98	79-120
Cadmium	1.094	10.34	10.91	95	72-120
Chromium	58.18	103.4	154.5	93	65-120
Cobalt	6.947	25.85	30.05	89	63-120
Copper	14.33	12.92	26.96	98	52-145
Lead	94.56	103.4	180.7	83	57-125
Molybdenum	0.7214	20.68	20.26	94	69-120
Nickel	24.28	25.85	49.53	98	47-135
Selenium	<0.08698	51.70	48.28	93	68-120
Silver	<0.04846	10.34	8.320	80	77-120
Thallium	0.1637	51.70	47.08	91	68-120
Vanadium	54.14	25.85	77.88	92	51-137
Zinc	118.3	25.85	142.2	93 NM	43-141

Type: MSD
Lab ID: QC313189

Moisture: 7%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	105.4	54.95	50	9-120	1	22
Arsenic	52.71	53.73	94	73-120	1	20
Barium	105.4	263.4	96	54-137	1	20
Beryllium	2.635	2.905	99	79-120	0	20
Cadmium	10.54	10.97	94	72-120	1	20
Chromium	105.4	160.7	97	65-120	3	20
Cobalt	26.35	30.73	90	63-120	1	20
Copper	13.18	27.45	100	52-145	1	20
Lead	105.4	186.2	87	57-125	2	20
Molybdenum	21.08	20.45	94	69-120	1	20
Nickel	26.35	49.71	96	47-135	1	20
Selenium	52.71	48.52	92	68-120	1	20
Silver	10.54	8.320	79	77-120	2	20
Thallium	52.71	47.20	89	68-120	2	20
Vanadium	26.35	82.30	107	51-137	5	20
Zinc	26.35	145.7	104 NM	43-141	2	20

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182254	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	182483-002	Batch#:	106787
Lab ID:	QC313190	Sampled:	10/14/05
Matrix:	Soil	Received:	10/14/05
Units:	mg/Kg	Analyzed:	10/17/05

Moisture: 7%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	ND	3.360	3.504 J	16.80		10
Arsenic	4.310	0.2800	4.605	1.400		10
Barium	161.9	0.5600	161.0	2.800	1	10
Beryllium	0.3026	0.1120	0.3083 J	0.5600		10
Cadmium	1.094	0.2800	1.157 J	1.400		10
Chromium	58.18	0.5600	57.90	2.800	0	10
Cobalt	6.947	1.120	7.154	5.600	3	10
Copper	14.33	0.5600	14.17	2.800	1	10
Lead	94.56	0.1680	97.09	0.8401	3	10
Molybdenum	ND	1.120	0.8921 J	5.600		10
Nickel	24.28	1.120	24.57	5.600	1	10
Selenium	ND	0.2800	ND	1.400		10
Silver	ND	0.2800	ND	1.400		10
Thallium	ND	0.2800	0.5319 J	1.400		10
Vanadium	54.14	0.5600	52.95	2.800	2	10
Zinc	118.3	1.120	118.6	5.600	0	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 182254 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
182254-001	MET04	10/07/05 12:21	1.0										+							
182254-001	MET08	10/17/05 08:36	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182254-002	MET04	10/07/05 12:23	1.0										+							
182254-002	MET08	10/17/05 08:39	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+		+	+
182254-002	MET08	10/17/05 08:44	1.0															+		
182254-003	MET04	10/07/05 12:25	1.0										+							
182254-003	MET08	10/17/05 08:41	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182254-004	MET04	10/07/05 12:27	1.0										+							
182254-004	MET08	10/17/05 08:46	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182254-005	MET04	10/07/05 12:28	1.0										+							
182254-005	MET08	10/17/05 08:48	1.0	+	+	+	+	+	+	+	+	+		+	+		+	+	+	+
182254-005	MET08	10/17/05 08:53	1.0													+				
182254-006	MET04	10/07/05 12:30	1.0										+							
182254-006	MET08	10/17/05 08:51	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182254-007	MET04	10/07/05 12:36	1.0										+							
182254-007	MET08	10/17/05 08:55	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182254-008	MET04	10/07/05 11:52	1.0										+							
182254-008	MET08	10/17/05 08:58	1.0	+	+	+	+	+	+	+	+	+		+	+		+	+	+	+
182254-008	MET08	10/17/05 09:19	1.0													+				
QC312039	MET04	10/07/05 11:47	1.0										+							
QC312040	MET04	10/07/05 11:48	1.0										+							
QC312041	MET04	10/07/05 11:50	1.0										+							
QC312042	MET04	10/07/05 11:54	1.0										+							
QC312043	MET04	10/07/05 11:56	1.0										+							
QC313185	MET08	10/17/05 08:02	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313186	MET08	10/17/05 08:06	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313187	MET08	10/17/05 08:08	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313188	MET08	10/17/05 08:18	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313189	MET08	10/17/05 08:21	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313190	MET08	10/17/05 08:13	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 182254 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
QC313191	MET08	10/17/05 08:16	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6010B

Instid	: MET08	Instid	: MET08
Seqnum	: 85418035014	Seqnum	: 85418035016
Filename	: 101705r.txt	Filename	: 101705r.txt
IDF	: 1.0	IDF	: 1.0
PDF	: 52.08	PDF	: 52.08
Run type	: MSS	Run type	: PDS
Samplenum	: 182483-002	Samplenum	: QC313191
Matrix	: Soil	Matrix	: Soil
Batchnum	: 106787	Batchnum	: 106787
Inj	: 17-OCT-2005 08:10	Inj	: 17-OCT-2005 08:16

Analyte	MSS	Ch	Spike Amt	PDS	Ch	%Rec	Lim%Rec		Flags
Aluminum	*** couldn't find a primary channel in PDS ***								
Antimony	32.65	A	2000	2164	A	107	75-125	ug/L	u
Arsenic	76.96	A	1000	1152	A	107	75-125	ug/L	u
Barium	2890	A	2000	4881	A	100	75-125	ug/L	u
Beryllium	5.404	A	50.00	59.48	A	108	75-125	ug/L	u
Cadmium	19.53	A	200.0	228.2	A	104	75-125	ug/L	u
Calcium	21930	R	20000	41300	R	97	75-125	ug/L	
Chromium	1039	A	2000	3108	A	103	75-125	ug/L	u
Cobalt	124.0	A	500.0	634.3	A	102	75-125	ug/L	u
Copper	255.9	A	250.0	519.6	A	105	75-125	ug/L	u
Iron	*** couldn't find a primary channel in PDS ***								
Lead	1689	A	2000	3636	A	97	75-125	ug/L	u
Magnesium	38000	R	20000	56680	R	93	75-125	ug/L	
Manganese	5803	A	500.0	6214	A	82	75-125	ug/L	:
Molybdenum	12.88	A	400.0	443.7	A	108	75-125	ug/L	u
Nickel	433.6	A	500.0	937.5	A	101	75-125	ug/L	u
Potassium	13350	R	10000	23160	R	98	75-125	ug/L	
Selenium	ND	A	1000	1070	A	107	75-125	ug/L	u
Silver	ND	A	200.0	152.7	A	76	75-125	ug/L	u
Sodium	1945	R	20000	22160	R	101	75-125	ug/L	
Thallium	2.924	A	1000	1021	A	102	75-125	ug/L	u
Vanadium	966.7	A	500.0	1484	A	103	75-125	ug/L	u
Zinc	2112	A	500.0	2564	A	90	75-125	ug/L	: u
Boron	39.16	A	1000	1086	A	105	75-125	ug/L	
Tin	23.84	A	1000	1055	A	103	75-125	ug/L	
Titanium	8825	A	1000	9733	A	91	75-125	ug/L	:

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	2024087	-3.39

:=recovery not meaningful u=use

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85418035 Instrument: MET08 PE ICP Begun: 17-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	101705r.	ICALBLK				17-OCT-2005 07:15	1.0	1.0				
002	101705r.	ICAL	CRIM08			17-OCT-2005 07:19	1.0	1.0			1	
003	101705r.	ICAL	CS100			17-OCT-2005 07:23	1.0	1.0			2	
004	101705r.	ICAL	CS1K			17-OCT-2005 07:26	1.0	1.0			3	
005	101705r.	ICAL	CS10K			17-OCT-2005 07:28	1.0	1.0			4	
006	101705r.	ICAL	CS100K			17-OCT-2005 07:31	1.0	1.0			5	
007	101705r.	ICV				17-OCT-2005 07:33	1.0	1.0		5000	6	
008	101705r.	ICB				17-OCT-2005 07:41	1.0	1.0		5000		
009	101705r.	ICSA				17-OCT-2005 07:45	1.0	1.0		5000	7	10:AL=491716
010	101705r.	ICSAB				17-OCT-2005 07:47	1.0	1.0		5000	8	5:AL=503267
011	101705r.	BLANK	QC313185	106787	Soil	17-OCT-2005 08:02	1.0	50.0		5000		
012	101705r.	BS	QC313186	106787	Soil	17-OCT-2005 08:06	1.0	50.0		5000		
013	101705r.	BSD	QC313187	106787	Soil	17-OCT-2005 08:08	1.0	50.0		5000		
014	101705r.	MSS	182483-002	106787	Soil	17-OCT-2005 08:10	1.0	52.08	2	5000		2:FE=324636
015	101705r.	SER	QC313190	106787	Soil	17-OCT-2005 08:13	5.0	52.08		5000		260
016	101705r.	PDS	QC313191	106787	Soil	17-OCT-2005 08:16	1.0	52.08		5000	9 10	2:FE=343116
017	101705r.	MS	QC313188	106787	Soil	17-OCT-2005 08:18	1.0	48.08		5000		3:FE=374665
018	101705r.	MSD	QC313189	106787	Soil	17-OCT-2005 08:21	1.0	49.02		5000		3:FE=379672
019	101705r.	X	RINSE			17-OCT-2005 08:23	1.0					
020	101705r.	CCV				17-OCT-2005 08:26	1.0	1.0		5000	11	
021	101705r.	X	FLUSH			17-OCT-2005 08:29	1.0					
022	101705r.	CCB				17-OCT-2005 08:32	1.0	1.0		5000		
023	101705r.	SAMPLE	182254-001	106787	Soil	17-OCT-2005 08:36	1.0	38.76	1	5000		3:FE=445869
024	101705r.	SAMPLE	182254-002	106787	Soil	17-OCT-2005 08:39	1.0	44.25	1	5000		3:FE=442744
025	101705r.	SAMPLE	182254-003	106787	Soil	17-OCT-2005 08:41	1.0	40.32	1	5000		3:FE=509497
026	101705r.	SAMPLE	182254-002	106787	Soil	17-OCT-2005 08:44	1.0	44.25	1	5000		3:FE=456536
027	101705r.	SAMPLE	182254-004	106787	Soil	17-OCT-2005 08:46	1.0	42.02	1	5000		3:FE=462641
028	101705r.	SAMPLE	182254-005	106787	Soil	17-OCT-2005 08:48	1.0	45.87	1	5000		3:FE=366561
029	101705r.	SAMPLE	182254-006	106787	Soil	17-OCT-2005 08:51	1.0	36.76	1	5000		5:FE=554785
030	101705r.	SAMPLE	182254-005	106787	Soil	17-OCT-2005 08:53	1.0	45.87	1	5000		3:FE=347554
031	101705r.	SAMPLE	182254-007	106787	Soil	17-OCT-2005 08:55	1.0	52.08	1	5000		2:FE=297474

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1190 7=S1177 8=S1412 9=S520 10=S521 11=S1191

Analyst: MDL Date: 10/17/5

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85418035 Instrument: MET08 PE ICP Begun: 17-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
032	101705r.	SAMPLE	182254-008	106787	Soil	17-OCT-2005 08:58	1.0	41.32	2	5000	4:FE=434365	
033	101705r.	X	RINSE			17-OCT-2005 09:00	1.0					
034	101705r.	CCV				17-OCT-2005 09:03	1.0	1.0		5000	11	
035	101705r.	X	FLUSH			17-OCT-2005 09:06	1.0					
036	101705r.	CCB				17-OCT-2005 09:09	1.0	1.0		5000		
037	101705r.	SAMPLE	182474-001	106787	Miscel	17-OCT-2005 09:13	10.0	41.67		5000		
038	101705r.	SAMPLE	182480-001	106787	Soil	17-OCT-2005 09:17	1.0	28.41		5000	4:FE=508992	
039	101705r.	SAMPLE	182254-008	106787	Soil	17-OCT-2005 09:19	1.0	41.32	1	5000	4:FE=441135	
040	101705r.	SAMPLE	182480-002	106787	Soil	17-OCT-2005 09:22	1.0	41.67		5000	4:FE=384943	
041	101705r.	SAMPLE	182483-003	106787	Soil	17-OCT-2005 09:24	1.0	38.17		5000	3:FE=377226	
042	101705r.	SAMPLE	182483-004	106787	Soil	17-OCT-2005 09:27	1.0	46.30		5000	2:FE=369604	
043	101705r.	SAMPLE	182483-005	106787	Soil	17-OCT-2005 09:29	1.0	49.50		5000	2:FE=352190	
044	101705r.	SAMPLE	182483-006	106787	Soil	17-OCT-2005 09:31	1.0	35.97		5000	4:FE=405816	
045	101705r.	SAMPLE	182483-007	106787	Soil	17-OCT-2005 09:34	1.0	47.17		5000	4:FE=358657	
046	101705r.	SAMPLE	182501-001	106787	Soil	17-OCT-2005 09:36	1.0	40.65		5000	5:FE=514487	
047	101705r.	ICSAB				17-OCT-2005 09:39	1.0	1.0		5000	8 5:CA=495541	
048	101705r.	X	RINSE			17-OCT-2005 09:42	1.0					
049	101705r.	X				17-OCT-2005 09:44	1.0				11	
050	101705r.	CCV				17-OCT-2005 09:53	1.0	1.0		5000	11	
051	101705r.	X	FLUSH			17-OCT-2005 09:56	1.0					
052	101705r.	CCB				17-OCT-2005 10:00	1.0	1.0		5000		

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1190 7=S1177 8=S1412 9=S520 10=S521 11=S1191

Analyst: MDL Date: 10/17/5

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET08 PE ICP Reviewed By: ---
Calnum: 85418035001 Name: Type: (normal) Date: 17-OCT-2005 07:15 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	101705r.	85418035002	CRIM08	17-OCT-2005 07:19	S1172
2	101705r.	85418035003	CS100	17-OCT-2005 07:23	S1537
3	101705r.	85418035004	CS1K	17-OCT-2005 07:26	S1536
4	101705r.	85418035005	CS10K	17-OCT-2005 07:28	S1538
5	101705r.	85418035006	CS100K	17-OCT-2005 07:31	S1176

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Antimony	A	39.056	43.434	43.800	43.083		LOR0	R	0.000000	0.023207		ug/L	42.343	1.000	0.995	
Arsenic	A	19.294	19.362	19.271	19.221		LOR0	R	0.000000	0.052026		ug/L	19.287	1.000	0.995	
Barium	A	397.15	386.01	384.26	377.26		LOR0	R	0.000000	0.002650		ug/L	386.17	1.000	0.995	
Beryllium	A	4227.7	4201.8	4160.9			LOR0	R	0.000000	2.403E-4		ug/L	4196.8	1.000	0.995	
Boron	A	154.43		156.12	159.31		LOR0	R	0.000000	0.006278		ug/L	156.62	1.000	0.995	
Cadmium	A	437.04	440.51	437.26	422.73		LOR0	R	0.000000	0.002365		ug/L	434.39	1.000	0.995	
Chromium	A	126.88	119.90	117.63	116.45		LOR0	R	0.000000	0.008587		ug/L	120.21	1.000	0.995	
Cobalt	A	142.18	138.02	140.25	138.71		LOR0	R	0.000000	0.007209		ug/L	139.79	1.000	0.995	
Copper	A	864.73	815.55	826.59	824.11		LOR0	R	0.000000	0.001213		ug/L	832.74	1.000	0.995	
Lead	A	79.690	72.606	72.066	70.074		LOR0	R	0.000000	0.014267		ug/L	73.609	1.000	0.995	
Manganese	A	1252.4	1216.5	1205.5	1140.5		LOR0	R	0.000000	8.763E-4		ug/L	1203.7	1.000	0.995	
Molybdenum	A	52.205	50.771	49.999	49.257		LOR0	R	0.000000	0.020299		ug/L	50.558	1.000	0.995	
Nickel	A	80.561	78.552	79.291	77.030		LOR0	R	0.000000	0.012978		ug/L	78.859	1.000	0.995	
Selenium	A	15.397	19.134	18.938	19.004		LOR0	R	0.000000	0.052622		ug/L	18.118	1.000	0.995	
Silver	A	481.77	529.35	527.67	524.47		LOR0	R	0.000000	0.001904		ug/L	515.82	1.000	0.995	
Thallium	A	25.813	25.816	26.145	25.270		LOR0	R	0.000000	0.039559		ug/L	25.761	1.000	0.995	
Tin	A	22.211	22.529	22.421	22.025		LOR0	R	0.000000	0.045395		ug/L	22.297	1.000	0.995	
Titanium	A	1174.3	1188.6	1166.1	1146.2		LOR0	R	0.000000	8.723E-4		ug/L	1168.8	1.000	0.995	
Vanadium	A	143.89	140.16	141.06	141.87		LOR0	R	0.000000	0.007049		ug/L	141.74	1.000	0.995	
Zinc	A	139.39	141.68	146.16	144.58		LOR0	R	0.000000	0.006916		ug/L	142.95	1.000	0.995	
Aluminum	R	2.2053		2.1833	2.1486	2.1592	LOR0	R	0.000000	0.463153		ug/L	2.1741	1.000	0.995	

262

Curves: LOR0: Linear regression forced thru origin, including 0,0 point

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET08 PE ICP Reviewed By: ---
Calnum: 85418035001 Name: Type: (normal) Date: 17-OCT-2005 07:15 Inj Vol (uL): 5000

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Calcium	R	10.368		11.279	11.207	11.015	LOR0	R	0.000000	0.090766		ug/L	10.967	1.000	0.995	
Iron	R	17.429		17.125	16.792	16.254	LOR0	R	0.000000	0.061503		ug/L	16.900	1.000	0.995	
Magnesium	R	1.5951		1.6954	1.6758	1.6220	LOR0	R	0.000000	0.616309		ug/L	1.6471	1.000	0.995	
Potassium	R	3.5565		3.6823	3.7056	3.6640	LOR0	R	0.000000	0.272895		ug/L	3.6521	1.000	0.995	
Sodium	R	11.289		11.461	11.411	11.070	LOR0	R	0.000000	0.090303		ug/L	11.308	1.000	0.995	

263

Curves: LOR0: Linear regression forced thru origin, including 0,0 point
Instrument amount = a0 + response * a1 + response^2 * a2

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	133.0 kPa	0.55 L/min

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10/17/2005 6:53:21 AM Hg ReAlign... Actual peak offset (nm): -0.002
Drift (nm): -0.000 Slit adjustment: 0

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Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	1182.8
-6.5	15.0	1840.8
-6.0	15.0	2664.0
-5.5	15.0	3628.8
-5.0	15.0	5578.6
-4.5	15.0	10330.1
-4.0	15.0	18384.0
-3.5	15.0	29384.0
-3.0	15.0	42511.6
-2.5	15.0	54775.1
-2.0	15.0	61093.1
-1.5	15.0	61537.6
-1.0	15.0	72290.8
-0.5	15.0	87917.8
0.0	15.0	123277.5
0.5	15.0	103223.0
1.0	15.0	78978.9
1.5	15.0	54980.7
2.0	15.0	35111.1
2.5	15.0	20563.9
3.0	15.0	12016.0
3.5	15.0	7184.4
4.0	15.0	4500.5
4.5	15.0	4123.5
5.0	15.0	2970.4
5.5	15.0	1929.6
6.0	15.0	1535.5
6.5	15.0	1330.8
7.0	15.0	1096.0

10/17/2005 6:58:19 AM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 123277.5 for Radial viewing

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Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	620956.7
-1.6	15.0	864964.4
-1.2	15.0	1159189.7
-0.8	15.0	1448358.8
-0.4	15.0	1644244.0
0.0	15.0	1703793.5
0.4	15.0	1658896.9
0.8	15.0	1405786.8
1.2	15.0	1155843.9
1.6	15.0	861947.6
2.0	15.0	647876.2
0.0	10.0	17013.3
0.0	10.5	53210.6
0.0	11.0	80947.0
0.0	11.5	129316.0
0.0	12.0	194682.8
0.0	12.5	424017.1
0.0	13.0	618902.9
0.0	13.5	821762.1
0.0	14.0	1082440.0
0.0	14.5	1567065.0
0.0	15.0	1694864.7
0.0	15.5	1724776.6
0.0	16.0	1641376.3
0.0	16.5	1213826.9

0.0	17.0	924443.9
0.0	17.5	718249.2
0.0	18.0	511753.9
0.0	18.5	353071.7
0.0	19.0	131042.7
0.0	19.5	62563.6
0.0	20.0	25745.9
-0.8	15.5	1453930.2
-0.4	15.5	1642966.4
0.0	15.5	1711175.7
0.4	15.5	1605371.2
0.8	15.5	1416561.0
0.0	13.5	860635.2
0.0	14.0	1111501.0
0.0	14.5	1562816.0
0.0	15.0	1715392.7
0.0	15.5	1729467.8
0.0	16.0	1614771.3
0.0	16.5	1203065.7
0.0	17.0	942143.3
0.0	17.5	715861.1

10/17/2005 7:00:58 AM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 1729467.8 for Axial viewing
Y viewing position set to 15.5 mm having Peak intensity 1729467.8 for Axial viewing

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Analysis Begun

Start Time: 10/17/2005 7:15:48 AM **Plasma On Time: 10/17/2005 6:17:19 AM**
Logged In Analyst: Curtis and Tompkins **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077N5071902 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\Curtis and Tompkins\Sample Information\101705.sif
Batch ID: 106787
Results Data Set: 101705
Results Library: C:\pe\Curtis and Tompkins\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: ICALBLK, **Date Collected: 10/17/2005 7:15:48 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-1390.7	415.45	29.87%	[0.00]	ug/L
Al 308.215 R	60.7	10.76	17.74%	[0.00]	ug/L
As 188.979	-136.1	23.21	17.06%	[0.00]	ug/L
B 249.677	129.7	46.95	36.19%	[0.00]	ug/L
Ba 233.527	-420.1	49.88	11.87%	[0.00]	ug/L
Be 313.107	1235.1	142.65	11.55%	[0.00]	ug/L
Ca 315.887 R	538.2	152.48	28.33%	[0.00]	ug/L
Cd 214.440	19.5	10.37	53.29%	[0.00]	ug/L
Co 228.616	-126.1	11.01	8.73%	[0.00]	ug/L
Cr 267.716	175.4	13.74	7.83%	[0.00]	ug/L
Cu 324.752	-1624.7	110.21	6.78%	[0.00]	ug/L
Fe 238.204 R	15.4	8.16	52.94%	[0.00]	ug/L
K 766.490 R	-2869.9	217.79	7.59%	[0.00]	ug/L
Mg 279.077 R	-168.7	1.31	0.78%	[0.00]	ug/L
Mn 257.610	125.4	11.54	9.20%	[0.00]	ug/L
Mo 202.031	7.7	6.57	85.61%	[0.00]	ug/L
Na 589.592 R	3949.2	226.24	5.73%	[0.00]	ug/L
Ni 231.604	440.8	10.64	2.41%	[0.00]	ug/L

Sequence No.: 1 Autosampler Location: 1
Sample ID: ICALBLK, Date Collected: 10/17/2005 7:15:48 AM
Analyst: Data Type: Reprocessed on 10/17/2005 7:54:30 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-1390.7	415.45	29.87%	[0.00]	ug/L
Al 308.215 R	60.7	10.76	17.74%	[0.00]	ug/L
As 188.979	-136.1	23.21	17.06%	[0.00]	ug/L
B 249.677	129.7	46.95	36.19%	[0.00]	ug/L
Ba 233.527	-420.1	49.88	11.87%	[0.00]	ug/L
Be 313.107	1235.1	142.65	11.55%	[0.00]	ug/L
Ca 315.887 R	538.2	152.48	28.33%	[0.00]	ug/L
Cd 214.440	19.5	10.37	53.29%	[0.00]	ug/L
Co 228.616	-126.1	11.01	8.73%	[0.00]	ug/L
Cr 267.716	175.4	13.74	7.83%	[0.00]	ug/L
Cu 324.752	-1624.7	110.21	6.78%	[0.00]	ug/L
Fe 238.204 R	15.4	8.16	52.94%	[0.00]	ug/L
K 766.490 R	-2869.9	217.79	7.59%	[0.00]	ug/L
Mg 279.077 R	-168.7	1.31	0.78%	[0.00]	ug/L
Mn 257.610	125.4	11.54	9.20%	[0.00]	ug/L
Mo 202.031	7.7	6.57	85.61%	[0.00]	ug/L
Na 589.592 R	3949.2	226.24	5.73%	[0.00]	ug/L
Ni 231.604	440.8	10.64	2.41%	[0.00]	ug/L
Pb 220.353	55.8	26.24	47.01%	[0.00]	ug/L
Sb 206.836	976.1	9.83	1.01%	[0.00]	ug/L
Se 196.026	24.6	14.74	59.99%	[0.00]	ug/L
Ti 334.940 R	679.3	60.31	8.88%	[0.00]	ug/L
Tl 190.801	65.2	15.40	23.62%	[0.00]	ug/L
V 292.402	-1139.6	13.32	1.17%	[0.00]	ug/L
Zn 206.200	-118.6	2.25	1.90%	[0.00]	ug/L
Sn 189.927	-8.0	5.24	65.39%	[0.00]	ug/L

Sequence No.: 2
Sample ID: ICAL,CRIM08
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 10/17/2005 7:19:57 AM
Data Type: Reprocessed on 10/17/2005 7:54:31 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CRIM08

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CRIM08

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2095056.7	16069.26	0.77%	100.0	%
Y	195653.1	1876.99	0.96%	100.0	%
Ag 328.068†	2408.9	205.50	8.53%	[5.0]	ug/L
Al 308.215 R†	220.5	48.20	21.86%	[100]	ug/L
As 188.979†	96.5	9.54	9.89%	[5.0]	ug/L
B 249.677†	15442.9	141.16	0.91%	[100]	ug/L
Ba 233.527†	1985.7	9.79	0.49%	[5.0]	ug/L
Be 313.107†	8455.5	55.01	0.65%	[2.0]	ug/L
Ca 315.887 R†	2073.5	70.06	3.38%	[200]	ug/L
Cd 214.440†	2185.2	16.98	0.78%	[5.0]	ug/L
Co 228.616†	710.9	6.28	0.88%	[5.0]	ug/L
Cr 267.716†	634.4	4.61	0.73%	[5.0]	ug/L
Cu 324.752†	4323.7	240.34	5.56%	[5.0]	ug/L
Fe 238.204 R†	1742.9	37.01	2.12%	[100]	ug/L
K 766.490 R†	1778.2	162.30	9.13%	[500]	ug/L
Mg 279.077 R†	319.0	32.32	10.13%	[200]	ug/L
Mn 257.610†	6261.8	52.59	0.84%	[5.0]	ug/L
Mo 202.031†	261.0	6.12	2.34%	[5.0]	ug/L
Na 589.592 R†	5644.6	105.30	1.87%	[500]	ug/L
Ni 231.604†	402.8	8.18	2.03%	[5.0]	ug/L
Pb 220.353†	239.1	5.40	2.26%	[3.0]	ug/L
Sb 206.836†	195.3	14.93	7.64%	[5.0]	ug/L
Se 196.026†	77.0	41.11	53.39%	[5.0]	ug/L
Ti 334.940 R†	11742.9	30.17	0.26%	[10]	ug/L
Tl 190.801†	129.1	2.12	1.64%	[5.0]	ug/L
V 292.402†	719.4	13.69	1.90%	[5.0]	ug/L
Zn 206.200†	2787.7	25.33	0.91%	[20]	ug/L
Sn 189.927†	888.4	12.21	1.37%	[40]	ug/L

Sequence No.: 3 Autosampler Location: 3
Sample ID: ICAL,CS100 Date Collected: 10/17/2005 7:23:04 AM
Analyst: Data Type: Reprocessed on 10/17/2005 7:54:32 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CS100

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2063472.8	60034.49	2.91%	98.49	%
Y	194568.6	2845.66	1.46%	99.45	%
Ag 328.068†	52935.4	1790.73	3.38%	[100]	ug/L
As 188.979†	1936.2	48.16	2.49%	[100]	ug/L
Ba 233.527†	38601.3	1211.29	3.14%	[100]	ug/L
Be 313.107†	420182.1	12796.25	3.05%	[100]	ug/L
Cd 214.440†	44051.3	1504.74	3.42%	[100]	ug/L
Co 228.616†	13801.8	390.45	2.83%	[100]	ug/L
Cr 267.716†	11990.1	364.64	3.04%	[100]	ug/L
Cu 324.752†	81555.1	2448.40	3.00%	[100]	ug/L
Mn 257.610†	121650.0	3856.55	3.17%	[100]	ug/L
Mo 202.031†	5077.1	134.49	2.65%	[100]	ug/L
Ni 231.604†	7855.2	254.57	3.24%	[100]	ug/L
Pb 220.353†	7260.6	235.67	3.25%	[100]	ug/L
Sb 206.836†	4343.4	187.77	4.32%	[100]	ug/L
Se 196.026†	1913.4	39.98	2.09%	[100]	ug/L
Ti 334.940 R†	118855.6	3859.81	3.25%	[100]	ug/L
Tl 190.801†	2581.6	71.23	2.76%	[100]	ug/L
V 292.402†	14015.7	363.14	2.59%	[100]	ug/L
Zn 206.200†	14168.0	405.69	2.86%	[100]	ug/L
Sn 189.927†	2252.9	59.13	2.62%	[100]	ug/L

Sequence No.: 4 Autosampler Location: 4
Sample ID: ICAL,CS1K Date Collected: 10/17/2005 7:26:07 AM
Analyst: Data Type: Reprocessed on 10/17/2005 7:54:33 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS1K

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CS1K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2099141.4	16939.96	0.81%	100.2	%
Y	195101.8	1985.35	1.02%	99.72	%
Ag 328.068†	527670.6	1631.59	0.31%	[1000]	ug/L
Al 308.215 R†	2183.3	59.50	2.73%	[1000]	ug/L
As 188.979†	19271.4	242.60	1.26%	[1000]	ug/L
B 249.677†	156115.5	590.68	0.38%	[1000]	ug/L
Ba 233.527†	384264.4	1138.72	0.30%	[1000]	ug/L
Be 313.107†	4160867.6	10491.57	0.25%	[1000]	ug/L
Ca 315.887 R†	11279.0	189.64	1.68%	[1000]	ug/L
Cd 214.440†	437264.0	1846.68	0.42%	[1000]	ug/L
Co 228.616†	140248.5	427.72	0.30%	[1000]	ug/L
Cr 267.716†	117625.2	101.84	0.09%	[1000]	ug/L
Cu 324.752†	826586.7	2006.68	0.24%	[1000]	ug/L
Fe 238.204 R†	17124.9	330.60	1.93%	[1000]	ug/L
K 766.490 R†	3682.3	5.43	0.15%	[1000]	ug/L
Mg 279.077 R†	1695.4	55.53	3.28%	[1000]	ug/L
Mn 257.610†	1205471.3	2362.56	0.20%	[1000]	ug/L
Mo 202.031†	49999.3	790.11	1.58%	[1000]	ug/L
Na 589.592 R†	11461.4	307.34	2.68%	[1000]	ug/L
Ni 231.604†	79291.1	156.00	0.20%	[1000]	ug/L
Pb 220.353†	72066.4	1105.92	1.53%	[1000]	ug/L
Sb 206.836†	43799.7	587.76	1.34%	[1000]	ug/L
Se 196.026†	18938.2	590.96	3.12%	[1000]	ug/L
Ti 334.940 R†	1166143.6	2287.76	0.20%	[1000]	ug/L
Tl 190.801†	26145.1	351.87	1.35%	[1000]	ug/L
V 292.402†	141058.9	477.38	0.34%	[1000]	ug/L
Zn 206.200†	146156.7	674.17	0.46%	[1000]	ug/L
Sn 189.927†	22421.3	322.09	1.44%	[1000]	ug/L

Sequence No.: 5 Autosampler Location: 5
Sample ID: ICAL,CS10K Date Collected: 10/17/2005 7:28:25 AM
Analyst: Data Type: Reprocessed on 10/17/2005 7:54:34 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS10K

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CS10K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2037448.4	20621.39	1.01%	97.25	%
Y	190326.3	2142.38	1.13%	97.28	%
Ag 328.068†	1048934.1	13219.22	1.26%	[2000]	ug/L
Al 308.215 R†	21486.1	230.47	1.07%	[10000]	ug/L
As 188.979†	192205.1	1649.02	0.86%	[10000]	ug/L
B 249.677†	1593090.8	5820.65	0.37%	[10000]	ug/L
Ba 233.527†	3772590.3	16459.25	0.44%	[10000]	ug/L
Ca 315.887 R†	112069.2	1080.06	0.96%	[10000]	ug/L
Cd 214.440†	4227332.8	11013.22	0.26%	[10000]	ug/L
Co 228.616†	1387063.5	5734.83	0.41%	[10000]	ug/L
Cr 267.716†	1164465.7	2803.41	0.24%	[10000]	ug/L
Cu 324.752†	8241083.8	28201.88	0.34%	[10000]	ug/L
Fe 238.204 R†	167922.6	1360.45	0.81%	[10000]	ug/L
K 766.490 R†	37056.5	80.48	0.22%	[10000]	ug/L
Mg 279.077 R†	16758.1	173.15	1.03%	[10000]	ug/L
Mn 257.610†	11404770.2	134802.68	1.18%	[10000]	ug/L
Mo 202.031†	492571.4	5920.95	1.20%	[10000]	ug/L
Na 589.592 R†	114111.0	1255.66	1.10%	[10000]	ug/L
Ni 231.604†	770299.1	8194.77	1.06%	[10000]	ug/L
Pb 220.353†	700735.7	8247.81	1.18%	[10000]	ug/L
Sb 206.836†	430829.4	3718.92	0.86%	[10000]	ug/L
Se 196.026†	190040.0	1166.08	0.61%	[10000]	ug/L
Ti 334.940 R†	11462441.0	143781.96	1.25%	[10000]	ug/L
Tl 190.801†	252701.3	2297.61	0.91%	[10000]	ug/L
V 292.402†	1418708.7	2582.15	0.18%	[10000]	ug/L
Zn 206.200†	1445786.8	3208.34	0.22%	[10000]	ug/L
Sn 189.927†	220246.6	1903.97	0.86%	[10000]	ug/L

Sequence No.: 6
Sample ID: ICAL,CS100K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:
Autosampler Location: 6
Date Collected: 10/17/2005 7:31:14 AM
Data Type: Reprocessed on 10/17/2005 7:54:34 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100K

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CS100K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1927638.4	19212.56	1.00%	92.01	%
Y	188454.2	1210.01	0.64%	96.32	%
Al 308.215 R†	215921.5	2017.45	0.93%	[100000]	ug/L
Ca 315.887 R†	1101542.9	11556.60	1.05%	[100000]	ug/L
Fe 238.204 R†	1625385.7	17430.75	1.07%	[100000]	ug/L
K 766.490 R†	366400.7	3194.27	0.87%	[100000]	ug/L
Mg 279.077 R†	162202.4	1805.88	1.11%	[100000]	ug/L
Na 589.592 R†	1107039.3	8762.43	0.79%	[100000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin Thru 0	0.0	525.1	0.00000	0.999997	
Al 308.215 R	4	Lin Thru 0	0.0	2.159	0.00000	1.000000	
As 188.979	4	Lin Thru 0	0.0	19.22	0.00000	1.000000	
B 249.677	3	Lin Thru 0	0.0	159.3	0.00000	0.999998	
Ba 233.527	4	Lin Thru 0	0.0	377.3	0.00000	0.999998	
Be 313.107	3	Lin Thru 0	0.0	4161	0.00000	1.000000	
Ca 315.887 R	4	Lin Thru 0	0.0	11.02	0.00000	0.999998	
Cd 214.440	4	Lin Thru 0	0.0	422.9	0.00000	0.999994	
Co 228.616	4	Lin Thru 0	0.0	138.7	0.00000	0.999999	
Cr 267.716	4	Lin Thru 0	0.0	116.5	0.00000	0.999999	
Cu 324.752	4	Lin Thru 0	0.0	824.1	0.00000	1.000000	
Fe 238.204 R	4	Lin Thru 0	0.0	16.26	0.00000	0.999994	
K 766.490 R	4	Lin Thru 0	0.0	3.664	0.00000	0.999999	
Mg 279.077 R	4	Lin Thru 0	0.0	1.623	0.00000	0.999995	
Mn 257.610	4	Lin Thru 0	0.0	1141	0.00000	0.999984	
Mo 202.031	4	Lin Thru 0	0.0	49.26	0.00000	0.999999	
Na 589.592 R	4	Lin Thru 0	0.0	11.07	0.00000	0.999995	
Ni 231.604	4	Lin Thru 0	0.0	77.05	0.00000	0.999996	
Pb 220.353	4	Lin Thru 0	0.0	70.09	0.00000	0.999996	
Sb 206.836	4	Lin Thru 0	0.0	43.09	0.00000	0.999999	
Se 196.026	4	Lin Thru 0	0.0	19.00	0.00000	1.000000	
Ti 334.940 R	4	Lin Thru 0	0.0	1146	0.00000	0.999998	
Tl 190.801	4	Lin Thru 0	0.0	25.28	0.00000	0.999994	
V 292.402	4	Lin Thru 0	0.0	141.9	0.00000	1.000000	
Zn 206.200	4	Lin Thru 0	0.0	144.6	0.00000	0.999999	
Sn 189.927	4	Lin Thru 0	0.0	22.03	0.00000	0.999998	

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035007 Filename : 101705r.txt Injected : 17-OCT-2005 07:33
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1190

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max	Flags
Antimony	A	5000.000	5333.219	ug/L	7	10	
Arsenic	A	5000.000	5302.608	ug/L	6	10	
Barium	A	5000.000	5212.807	ug/L	4	10	
Beryllium	A	500.0000	522.0093	ug/L	4	10	
Boron	A	5000.000	5334.415	ug/L	7	10	
Cadmium	A	5000.000	5260.502	ug/L	5	10	
Chromium	A	5000.000	5192.797	ug/L	4	10	
Cobalt	A	5000.000	5142.493	ug/L	3	10	
Copper	A	5000.000	5005.944	ug/L	0	10	
Lead	A	5000.000	5131.561	ug/L	3	10	
Manganese	A	5000.000	5302.768	ug/L	6	10	
Molybdenum	A	5000.000	5227.048	ug/L	5	10	
Nickel	A	5000.000	5216.647	ug/L	4	10	
Selenium	A	5000.000	5327.114	ug/L	7	10	
Silver	A	1000.000	980.0658	ug/L	-2	10	
Thallium	A	5000.000	5290.381	ug/L	6	10	
Tin	A	5000.000	5069.361	ug/L	1	10	
Titanium	A	5000.000	5122.629	ug/L	2	10	
Vanadium	A	5000.000	5200.322	ug/L	4	10	
Zinc	A	5000.000	5254.180	ug/L	5	10	
Aluminum	R	20000.00	19478.02	ug/L	-3	10	
Calcium	R	20000.00	19888.59	ug/L	-1	10	
Iron	R	20000.00	20092.65	ug/L	0	10	
Magnesium	R	20000.00	20187.59	ug/L	1	10	
Potassium	R	20000.00	19511.46	ug/L	-2	10	
Sodium	R	20000.00	19822.17	ug/L	-1	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1988834	-5.07

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035008 Filename : 101705r.txt Injected : 17-OCT-2005 07:41
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85418035001	17-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85418035001	17-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85418035001	17-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85418035001	17-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85418035001	17-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85418035001	17-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85418035001	17-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85418035001	17-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85418035001	17-OCT-2005	ND	5.000000	0.712167	ug/L	
Lead	A	85418035001	17-OCT-2005	ND	3.000000	0.569754	ug/L	
Manganese	A	85418035001	17-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85418035001	17-OCT-2005	[2.0116]	5.000000	0.430298	ug/L	!ib
Nickel	A	85418035001	17-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85418035001	17-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85418035001	17-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85418035001	17-OCT-2005	ND	5.000000	0.931695	ug/L	
Tin	A	85418035001	17-OCT-2005	ND	40.00000	4.402847	ug/L	
Titanium	A	85418035001	17-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85418035001	17-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85418035001	17-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85418035001	17-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85418035001	17-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85418035001	17-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85418035001	17-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85418035001	17-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85418035001	17-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035009 Filename : 101705r.txt Injected : 17-OCT-2005 07:45
Standards: S1177

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	A	85418035001	17-OCT-2005	[-3.630]	5.000000	ug/L	
Arsenic	A	85418035001	17-OCT-2005	[0.4677]	5.000000	ug/L	
Barium	A	85418035001	17-OCT-2005	[0.0659]	5.000000	ug/L	
Beryllium	A	85418035001	17-OCT-2005	[7.7E-5]	2.000000	ug/L	
Boron	A	85418035001	17-OCT-2005	[-18.17]	100.0000	ug/L	
Cadmium	A	85418035001	17-OCT-2005	[3.3693]	5.000000	ug/L	
Cobalt	A	85418035001	17-OCT-2005	[-0.828]	5.000000	ug/L	
Lead	A	85418035001	17-OCT-2005	[1.7677]	3.000000	ug/L	
Molybdenum	A	85418035001	17-OCT-2005	[3.0666]	5.000000	ug/L	
Selenium	A	85418035001	17-OCT-2005	[3.9908]	5.000000	ug/L	
Silver	A	85418035001	17-OCT-2005	[1.9093]	5.000000	ug/L	
Thallium	A	85418035001	17-OCT-2005	[4.7794]	5.000000	ug/L	
Tin	A	85418035001	17-OCT-2005	[12.549]	40.00000	ug/L	
Zinc	A	85418035001	17-OCT-2005	[1.7336]	20.00000	ug/L	
Potassium	R	85418035001	17-OCT-2005	[-12.94]	500.0000	ug/L	
Sodium	R	85418035001	17-OCT-2005	[79.523]	500.0000	ug/L	

SPIKED INTERFERENTS

Analyte	Ch	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Chromium	A	85418035001	17-OCT-2005	20000	19578.03165	ug/L	98
Copper	A	85418035001	17-OCT-2005	20000	20729.78059	ug/L	104
Manganese	A	85418035001	17-OCT-2005	20000	19217.9094	ug/L	96
Nickel	A	85418035001	17-OCT-2005	20000	18017.36362	ug/L	90
Titanium	A	85418035001	17-OCT-2005	20000	19876.96172	ug/L	99
Vanadium	A	85418035001	17-OCT-2005	20000	20602.86062	ug/L	103
Aluminum	R	85418035001	17-OCT-2005	500000	491716.0072	ug/L	98
Calcium	R	85418035001	17-OCT-2005	500000	481104.3965	ug/L	96
Iron	R	85418035001	17-OCT-2005	200000	186956.483	ug/L	93
Magnesium	R	85418035001	17-OCT-2005	500000	477196.9446	ug/L	95

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035010 Filename : 101705r.txt Injected : 17-OCT-2005 07:47
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1412

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	500.0000	561.9807	ug/L	12	20	
Arsenic	A	500.0000	530.5272	ug/L	6	20	
Barium	A	500.0000	538.1245	ug/L	8	20	
Beryllium	A	500.0000	536.9137	ug/L	7	20	
Cadmium	A	1000.000	1029.535	ug/L	3	20	
Chromium	A	500.0000	525.8453	ug/L	5	20	
Cobalt	A	500.0000	466.6149	ug/L	-7	20	
Copper	A	500.0000	529.1930	ug/L	6	20	
Lead	A	1000.000	958.0879	ug/L	-4	20	
Manganese	A	500.0000	539.0001	ug/L	8	20	
Molybdenum	A	500.0000	528.9392	ug/L	6	20	
Nickel	A	1000.000	946.5163	ug/L	-5	20	
Selenium	A	500.0000	517.8449	ug/L	4	20	
Silver	A	1000.000	1094.620	ug/L	9	20	
Thallium	A	500.0000	492.4880	ug/L	-2	20	
Titanium	A	20000.00	20198.02	ug/L	1		
Vanadium	A	500.0000	553.2135	ug/L	11	20	
Zinc	A	1000.000	971.4125	ug/L	-3	20	
Aluminum	R	500000.0	503266.9	ug/L	1		
Calcium	R	500000.0	488127.1	ug/L	-2		
Iron	R	200000.0	190092.3	ug/L	-5		
Magnesium	R	500000.0	489343.1	ug/L	-2		

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1758807	-16.05

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85418035020 Filename : 101705r.txt Injected : 17-OCT-2005 08:26
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1191

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	42.343	46.226	5000.000	5363.902	ug/L	7	10	
Arsenic	A	19.287	19.946	5000.000	5188.532	ug/L	4	10	
Barium	A	386.17	389.29	5000.000	5158.507	ug/L	3	10	
Beryllium	A	4196.8	4264.3	500.0000	512.3844	ug/L	2	10	
Boron	A	156.62	165.86	5000.000	5206.524	ug/L	4	10	
Cadmium	A	434.39	433.91	5000.000	5130.451	ug/L	3	10	
Chromium	A	120.21	119.46	5000.000	5128.825	ug/L	3	10	
Cobalt	A	139.79	140.86	5000.000	5066.904	ug/L	1	10	
Copper	A	832.74	821.86	5000.000	4986.228	ug/L	0	10	
Lead	A	73.609	70.415	5000.000	5022.911	ug/L	0	10	
Manganese	A	1203.7	1187.3	5000.000	5202.335	ug/L	4	10	
Molybdenum	A	50.558	50.731	5000.000	5148.854	ug/L	3	10	
Nickel	A	78.859	79.230	5000.000	5141.288	ug/L	3	10	
Selenium	A	18.118	19.801	5000.000	5209.814	ug/L	4	10	
Silver	A	515.82	511.88	1000.000	974.7879	ug/L	-3	10	
Thallium	A	25.761	26.222	5000.000	5186.598	ug/L	4	10	
Tin	A	22.297	21.652	5000.000	4914.511	ug/L	-2	10	
Titanium	A	1168.8	1161.3	5000.000	5064.579	ug/L	1	10	
Vanadium	A	141.74	145.96	5000.000	5144.543	ug/L	3	10	
Zinc	A	142.95	148.28	5000.000	5127.389	ug/L	3	10	
Aluminum	R	2.1741	2.1142	20000.00	19583.67	ug/L	-2	10	
Calcium	R	10.967	10.998	20000.00	19965.38	ug/L	0	10	
Iron	R	16.900	16.231	20000.00	19965.32	ug/L	0	10	
Magnesium	R	1.6471	1.6318	20000.00	20114.22	ug/L	1	10	
Potassium	R	3.6521	3.6278	20000.00	19800.29	ug/L	-1	10	
Sodium	R	11.308	11.118	20000.00	20079.16	ug/L	0	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1974359	-5.76

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035022 Filename : 101705r.txt Injected : 17-OCT-2005 08:32
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85418035001	17-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85418035001	17-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85418035001	17-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85418035001	17-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85418035001	17-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85418035001	17-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85418035001	17-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85418035001	17-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85418035001	17-OCT-2005	[1.0708]	5.000000	0.712167	ug/L	!ib
Lead	A	85418035001	17-OCT-2005	[0.9437]	3.000000	0.569754	ug/L	!ib
Manganese	A	85418035001	17-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85418035001	17-OCT-2005	[1.8929]	5.000000	0.430298	ug/L	!ib
Nickel	A	85418035001	17-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85418035001	17-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85418035001	17-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85418035001	17-OCT-2005	ND	5.000000	0.931695	ug/L	
Tin	A	85418035001	17-OCT-2005	ND	40.00000	4.402847	ug/L	
Titanium	A	85418035001	17-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85418035001	17-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85418035001	17-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85418035001	17-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85418035001	17-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85418035001	17-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85418035001	17-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85418035001	17-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85418035001	17-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85418035034 Filename : 101705r.txt Injected : 17-OCT-2005 09:03
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1191

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	42.343	47.271	5000.000	5485.129	ug/L	10	10	
Arsenic	A	19.287	20.259	5000.000	5270.036	ug/L	5	10	
Barium	A	386.17	392.63	5000.000	5202.750	ug/L	4	10	
Beryllium	A	4196.8	4274.1	500.0000	513.5622	ug/L	3	10	
Boron	A	156.62	165.10	5000.000	5182.861	ug/L	4	10	
Cadmium	A	434.39	433.45	5000.000	5124.989	ug/L	2	10	
Chromium	A	120.21	119.87	5000.000	5146.364	ug/L	3	10	
Cobalt	A	139.79	141.85	5000.000	5102.526	ug/L	2	10	
Copper	A	832.74	822.66	5000.000	4991.075	ug/L	0	10	
Lead	A	73.609	71.000	5000.000	5064.626	ug/L	1	10	
Manganese	A	1203.7	1200.1	5000.000	5258.498	ug/L	5	10	
Molybdenum	A	50.558	51.268	5000.000	5203.300	ug/L	4	10	
Nickel	A	78.859	80.135	5000.000	5200.019	ug/L	4	10	
Selenium	A	18.118	19.929	5000.000	5243.487	ug/L	5	10	
Silver	A	515.82	516.22	1000.000	983.0543	ug/L	-2	10	
Thallium	A	25.761	26.445	5000.000	5230.571	ug/L	5	10	
Tin	A	22.297	21.802	5000.000	4948.529	ug/L	-1	10	
Titanium	A	1168.8	1178.3	5000.000	5138.857	ug/L	3	10	
Vanadium	A	141.74	146.32	5000.000	5157.080	ug/L	3	10	
Zinc	A	142.95	147.87	5000.000	5113.174	ug/L	2	10	
Aluminum	R	2.1741	2.0299	20000.00	18803.01	ug/L	-6	10	
Calcium	R	10.967	10.843	20000.00	19682.73	ug/L	-2	10	
Iron	R	16.900	15.661	20000.00	19263.56	ug/L	-4	10	
Magnesium	R	1.6471	1.6096	20000.00	19840.09	ug/L	-1	10	
Potassium	R	3.6521	3.5345	20000.00	19290.70	ug/L	-4	10	
Sodium	R	11.308	10.745	20000.00	19405.45	ug/L	-3	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1965745	-6.17

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035036 Filename : 101705r.txt Injected : 17-OCT-2005 09:09
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85418035001	17-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85418035001	17-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85418035001	17-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85418035001	17-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85418035001	17-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85418035001	17-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85418035001	17-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85418035001	17-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85418035001	17-OCT-2005	[0.8677]	5.000000	0.712167	ug/L	!ib
Lead	A	85418035001	17-OCT-2005	[0.8320]	3.000000	0.569754	ug/L	!ib
Manganese	A	85418035001	17-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85418035001	17-OCT-2005	[1.7324]	5.000000	0.430298	ug/L	!ib
Nickel	A	85418035001	17-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85418035001	17-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85418035001	17-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85418035001	17-OCT-2005	ND	5.000000	0.931695	ug/L	
Tin	A	85418035001	17-OCT-2005	ND	40.00000	4.402847	ug/L	
Titanium	A	85418035001	17-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85418035001	17-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85418035001	17-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85418035001	17-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85418035001	17-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85418035001	17-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85418035001	17-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85418035001	17-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85418035001	17-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035047 Filename : 101705r.txt Injected : 17-OCT-2005 09:39
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1412

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	500.0000	588.4312	ug/L	18	20	
Arsenic	A	500.0000	529.9977	ug/L	6	20	
Barium	A	500.0000	536.6664	ug/L	7	20	
Beryllium	A	500.0000	525.1337	ug/L	5	20	
Cadmium	A	1000.000	998.7934	ug/L	0	20	
Chromium	A	500.0000	528.0501	ug/L	6	20	
Cobalt	A	500.0000	469.7792	ug/L	-6	20	
Copper	A	500.0000	510.9040	ug/L	2	20	
Lead	A	1000.000	950.9507	ug/L	-5	20	
Manganese	A	500.0000	530.1567	ug/L	6	20	
Molybdenum	A	500.0000	527.2289	ug/L	5	20	
Nickel	A	1000.000	951.8420	ug/L	-5	20	
Selenium	A	500.0000	530.2557	ug/L	6	20	
Silver	A	1000.000	1086.296	ug/L	9	20	
Thallium	A	500.0000	482.4348	ug/L	-4	20	
Titanium	A	20000.00	20379.13	ug/L	2		
Vanadium	A	500.0000	557.4823	ug/L	11	20	
Zinc	A	1000.000	962.9295	ug/L	-4	20	
Aluminum	R	500000.0	493801.1	ug/L	-1		
Calcium	R	500000.0	495541.3	ug/L	-1		
Iron	R	200000.0	185283.0	ug/L	-7		
Magnesium	R	500000.0	494153.3	ug/L	-1		

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1745192	-16.70

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85418035050 Filename : 101705r.txt Injected : 17-OCT-2005 09:53
Calnum : 85418035001 Caldate : 17-OCT-2005 Caltype :
Standards: S1191

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	42.343	47.194	5000.000	5476.188	ug/L	10	10	
Arsenic	A	19.287	20.490	5000.000	5330.210	ug/L	7	10	
Barium	A	386.17	398.20	5000.000	5276.552	ug/L	6	10	
Beryllium	A	4196.8	4330.5	500.0000	520.3362	ug/L	4	10	
Boron	A	156.62	168.32	5000.000	5283.831	ug/L	6	10	
Cadmium	A	434.39	443.61	5000.000	5245.109	ug/L	5	10	
Chromium	A	120.21	121.73	5000.000	5226.527	ug/L	5	10	
Cobalt	A	139.79	144.24	5000.000	5188.568	ug/L	4	10	
Copper	A	832.74	828.34	5000.000	5025.499	ug/L	1	10	
Lead	A	73.609	72.091	5000.000	5142.453	ug/L	3	10	
Manganese	A	1203.7	1201.5	5000.000	5264.623	ug/L	5	10	
Molybdenum	A	50.558	51.864	5000.000	5263.797	ug/L	5	10	
Nickel	A	78.859	81.136	5000.000	5265.004	ug/L	5	10	
Selenium	A	18.118	20.173	5000.000	5307.807	ug/L	6	10	
Silver	A	515.82	517.43	1000.000	985.3619	ug/L	-1	10	
Thallium	A	25.761	26.709	5000.000	5282.926	ug/L	6	10	
Tin	A	22.297	21.864	5000.000	4962.738	ug/L	-1	10	
Titanium	A	1168.8	1171.4	5000.000	5108.838	ug/L	2	10	
Vanadium	A	141.74	148.26	5000.000	5225.544	ug/L	5	10	
Zinc	A	142.95	151.66	5000.000	5244.392	ug/L	5	10	
Aluminum	R	2.1741	2.0527	20000.00	19013.98	ug/L	-5	10	
Calcium	R	10.967	11.049	20000.00	20057.99	ug/L	0	10	
Iron	R	16.900	15.931	20000.00	19595.75	ug/L	-2	10	
Magnesium	R	1.6471	1.6561	20000.00	20413.42	ug/L	2	10	
Potassium	R	3.6521	3.5435	20000.00	19340.01	ug/L	-3	10	
Sodium	R	11.308	10.778	20000.00	19466.27	ug/L	-3	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	2095057	1985019	-5.25

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85418035052 Filename : 101705r.txt Injected : 17-OCT-2005 10:00
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85418035001	17-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85418035001	17-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85418035001	17-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85418035001	17-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85418035001	17-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85418035001	17-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85418035001	17-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85418035001	17-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85418035001	17-OCT-2005	[0.9819]	5.000000	0.712167	ug/L	!ib
Lead	A	85418035001	17-OCT-2005	[2.1428]	3.000000	0.569754	ug/L	!ib
Manganese	A	85418035001	17-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85418035001	17-OCT-2005	[2.3824]	5.000000	0.430298	ug/L	!ib
Nickel	A	85418035001	17-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85418035001	17-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85418035001	17-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85418035001	17-OCT-2005	ND	5.000000	0.931695	ug/L	
Tin	A	85418035001	17-OCT-2005	ND	40.00000	4.402847	ug/L	
Titanium	A	85418035001	17-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85418035001	17-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85418035001	17-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85418035001	17-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85418035001	17-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85418035001	17-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85418035001	17-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85418035001	17-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85418035001	17-OCT-2005	ND	500.0000	39.23202	ug/L	

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Curtis & Tompkins Laboratories Sample Preparation Summary 17-OCT-2005 05:34

Batch Number : 106787
Date Extracted: 17-OCT-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : S520
Spike #2 ID : S521
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182254-001			Mactec, Inc.	Soil	1.29	g	50	38.759690	1					T26/ICP		
182254-002			Mactec, Inc.	Soil	1.13	g	50	44.247788	1					T26/ICP		
182254-003			Mactec, Inc.	Soil	1.24	g	50	40.322581	1					T26/ICP		
182254-004			Mactec, Inc.	Soil	1.19	g	50	42.016807	1					T26/ICP		
182254-005			Mactec, Inc.	Soil	1.09	g	50	45.871560	1					T26/ICP		
182254-006			Mactec, Inc.	Soil	1.36	g	50	36.764706	1					T26/ICP		
182254-007			Mactec, Inc.	Soil	.96	g	50	52.083333	1					T26/ICP		
182254-008			Mactec, Inc.	Soil	1.21	g	50	41.322314	1					T26/ICP		
182474-001			ConocoPhillips Company	Miscell.	1.2	g	50	41.666667	1					V		
182480-001			Baseline Environmental	Soil	1.76	g	50	28.409091	1					AS, PB, SB		
182480-002			Baseline Environmental	Soil	1.2	g	50	41.666667	1					AS, PB, SB		
182483-002			Presidio Trust	Soil	.96	g	50	52.083333	1					PB		mss
182483-003			Presidio Trust	Soil	1.31	g	50	38.167939	1					PB		
182483-004			Presidio Trust	Soil	1.08	g	50	46.296296	1					PB		
182483-005			Presidio Trust	Soil	1.01	g	50	49.504950	1					PB		
182483-006			Presidio Trust	Soil	1.39	g	50	35.971223	1					PB		
182483-007			Presidio Trust	Soil	1.06	g	50	47.169811	1					PB		
182501-001			Coast Wood Preserving	Soil	1.23	g	50	40.650407	1					AS		
QC313185	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC313186	BS			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC313187	BSD			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC313188	MS	of 182483-002		Soil	1.04	g	50	48.076923	1		.5	.5		ICAP		
QC313189	MSD	of 182483-002		Soil	1.02	g	50	49.019608	1		.5	.5		ICAP		
QC313190	SER	of 182483-002		Soil	.96	g	50	52.083333	1					ICAP		
QC313191	PDS	of 182483-002		Soil	.96	g	50	52.083333	1					ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: 10/17/5

Relinquished By: _____ Received By: _____ Date: 10/17/5

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 106787
Date Digested: 10/16/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2220
Page 6

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLKQC 313185		Ø	50.0	y	
*	BS 313186					
*	BSD 313187					
*	182483-002MS	A	1.04			
*	-002MSD		1.02			
	182254-001	A	1.29			
	002		1.13			
	003		1.24			
	004		1.19			
10	005		1.09			
	006		1.36			
	007		0.96			
	008		1.21			
	182474-001		1.20			comp 3 jars A-D, 5.0g of each.
15	182480-001	A	1.76			
	002		1.20			
	182483-002	A	0.96			(less)
	003		1.31			
	004		1.08			
20	005		1.01			
	006		1.39			
	007		1.06			
	182501-001	A	1.23			

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95°C	VV 10/16/05
0.5 mL of spike solution was added to all spikes	5520 *	
	5521 *	
1:1 HNO3	B320414-100205	
concentrated HNO3	B320414- JTBaker	
3mL 30% hydrogen peroxide	44138475-VWR	
concentrated HCl	B28035- JTBaker	
☒ filtered thru' Whatman # 541	F66607	

10/16/05
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

10/17/5
Reviewed by / Date

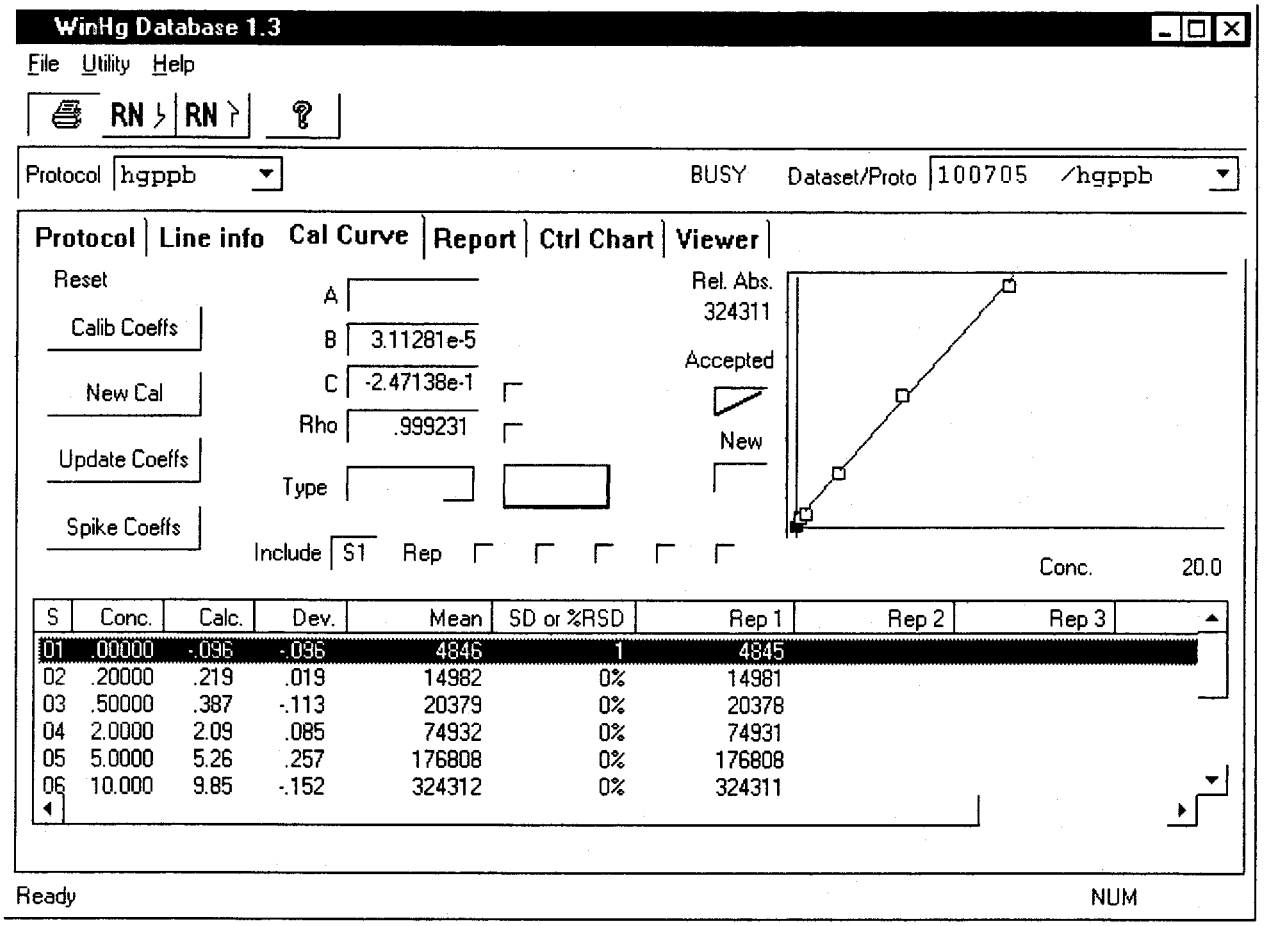
SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45403901 Instrument: MET04 HydraAA HG Analyzer Begun: 07-OCT-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	106510	CCV					07-OCT-2005 11:41	1.0	1.0	1	5.000	45403786001	5.410		ug/L	108		
002	106510	CCB					07-OCT-2005 11:44	1.0	1.0			45403786001	ND	0.20	ug/L			
003	106510	BLANK	QC312039		106510	Soil	07-OCT-2005 11:47	1.0	100.0			45403786001	ND	0.020	mg/Kg			u
004	106510	BS	QC312040		106510	Soil	07-OCT-2005 11:48	1.0	100.0		0.5000	45403786001	0.5360	0.020	mg/Kg	107		u
005	106510	BSD	QC312041		106510	Soil	07-OCT-2005 11:50	1.0	100.0		0.5000	45403786001	0.5110	0.020	mg/Kg	102	5	u
006	106510	MSS	182254-008		106510	Soil	07-OCT-2005 11:52	1.0	100.0			45403786001	0.044	0.020	mg/Kg			u
007	106510	MS	QC312042	182254-008	106510	Soil	07-OCT-2005 11:54	1.0	94.34		0.4717	45403786001	0.5415	0.019	mg/Kg	105		u
008	106510	MSD	QC312043	182254-008	106510	Soil	07-OCT-2005 11:56	1.0	98.04		0.4902	45403786001	0.5657	0.020	mg/Kg	106	1	u
009	106510	SAMPLE	182251-001		106510	Miscel	07-OCT-2005 11:57	1.0	67.57			45403786001	ND	0.014	mg/Kg			u
010	106510	SAMPLE	182251-002		106510	Miscel	07-OCT-2005 11:59	1.0	100.0			45403786001	ND	0.020	mg/Kg			u
011	106510	SAMPLE	182251-003		106510	Miscel	07-OCT-2005 12:01	1.0	96.15			45403786001	ND	0.019	mg/Kg			u
012	106510	SAMPLE	182251-004		106510	Miscel	07-OCT-2005 12:08	1.0	72.46			45403786001	ND	0.014	mg/Kg			u
013	106510	CCV					07-OCT-2005 12:10	1.0	1.0	2	2.500	45403786001	2.470		ug/L	99		
014	106510	CCB					07-OCT-2005 12:12	1.0	1.0			45403786001	ND	0.20	ug/L			
015	106510	SAMPLE	182251-005		106510	Miscel	07-OCT-2005 12:14	1.0	96.15			45403786001	ND	0.019	mg/Kg			u
016	106510	SAMPLE	182251-006		106510	Miscel	07-OCT-2005 12:16	1.0	96.15			45403786001	ND	0.019	mg/Kg			u
017	106510	SAMPLE	182251-007		106510	Miscel	07-OCT-2005 12:17	1.0	96.15			45403786001	ND	0.019	mg/Kg			u
018	106510	SAMPLE	182251-008		106510	Miscel	07-OCT-2005 12:19	1.0	106.4			45403786001	ND	0.021	mg/Kg			u
019	106510	SAMPLE	182254-001		106510	Soil	07-OCT-2005 12:21	1.0	90.91			45403786001	0.013 J	0.018	mg/Kg			u
020	106510	SAMPLE	182254-002		106510	Soil	07-OCT-2005 12:23	1.0	96.15			45403786001	0.045	0.019	mg/Kg			u
021	106510	SAMPLE	182254-003		106510	Soil	07-OCT-2005 12:25	1.0	100.0			45403786001	0.064	0.020	mg/Kg			u
022	106510	SAMPLE	182254-004		106510	Soil	07-OCT-2005 12:27	1.0	102.0			45403786001	0.013 J	0.020	mg/Kg			u
023	106510	SAMPLE	182254-005		106510	Soil	07-OCT-2005 12:28	1.0	92.59			45403786001	0.087	0.019	mg/Kg			u
024	106510	SAMPLE	182254-006		106510	Soil	07-OCT-2005 12:30	1.0	96.15			45403786001	0.057	0.019	mg/Kg			u
025	106510	CCV					07-OCT-2005 12:32	1.0	1.0	3	5.000	45403786001	4.930		ug/L	99		
026	106510	CCB					07-OCT-2005 12:34	1.0	1.0			45403786001	ND	0.20	ug/L			
027	106510	SAMPLE	182254-007		106510	Soil	07-OCT-2005 12:36	1.0	106.4			45403786001	ND	0.021	mg/Kg			u
028	106510	CCV					07-OCT-2005 12:38	1.0	1.0	4	7.500	45403786001	7.930		ug/L	106		
029	106510	CCB					07-OCT-2005 12:40	1.0	1.0			45403786001	ND	0.20	ug/L			

Stds used: 1=S1705 2=S1706 3=S1707 4=S1708
Flags used: u=use

Analyst: Jason Dickson Date: 10-7-05


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
BUSY
Dataset/Proto 100705 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 3.11281e-5
C -2.47138e-1
Rho .999231
Type
Include S1 Rep
Rel. Abs.
324311
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.096 -.096 4846 1 4845
02 .20000 .219 .019 14982 0% 14981
03 .50000 .387 -.113 20379 0% 20378
04 2.0000 2.09 .085 74932 0% 74931
05 5.0000 5.26 .257 176808 0% 176808
06 10.000 9.85 -.152 324312 0% 324311
Ready
NUM

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45403786001 Name: Type: SOIL Date: 07-OCT-2005 09:46 Inj Vol (uL): 2000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	106504	45403786002	Std02Rep1	07-OCT-2005 09:48	S1703 (500X)
2	106504	45403786003	Std03Rep1	07-OCT-2005 09:50	S1703 (200X)
3	106504	45403786004	Std04Rep1	07-OCT-2005 09:51	S1703 (50X)
4	106504	45403786005	Std05Rep1	07-OCT-2005 09:53	S1703 (20X)
5	106504	45403786006	Std06Rep1	07-OCT-2005 09:55	S1703 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	74905	40756	37466	35362	32431	LINR	R	-0.24714	3.113E-5		ug/L	44184	0.998	.99	

287

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 5		09:46:48 07 Oct 05			HG
Hg	.000	ppb	4845						
		Bkgd 1	8965665						
*** Standard: 2 Rep: 1				Seq: 6		09:48:27 07 Oct 05			HG
Hg	.200	ppb	14981						
		Bkgd 1	8961988						
*** Standard: 3 Rep: 1				Seq: 7		09:50:11 07 Oct 05			HG
Hg	.500	ppb	20378						
		Bkgd 1	8959888						
*** Standard: 4 Rep: 1				Seq: 8		09:51:56 07 Oct 05			HG
Hg	2.00	ppb	74931						
		Bkgd 1	8956698						
*** Standard: 5 Rep: 1				Seq: 9		09:53:40 07 Oct 05			HG
Hg	5.00	ppb	176808						
		Bkgd 1	8957242						
*** Standard: 6 Rep: 1				Seq: 10		09:55:42 07 Oct 05			HG
Hg	10.0	ppb	324311						
		Bkgd 1	8952433						

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Check Standard: 2			Ck2S1705	Seq: 1		11:41:56 07 Oct 05			HG
Line	Flag		Intensities						
Hg			181728						
		Bkgd 1	8928471						
*** Check Standard: 1			Ck1ICB	Seq: 2		11:44:52 07 Oct 05			HG
Line	Flag		Intensities						
Hg			-982						
		Bkgd 1	8917696						
*** Sample ID: qc312039				Seq: 3		11:47:03 07 Oct 05			HG
			106510,1						
Hg	-.150	ppb	3116						
		Bkgd 1	8920724						
*** Sample ID: qc312040				Seq: 4		11:48:41 07 Oct 05			HG
			106510,1						
Hg	5.36	ppb	180183						
		Bkgd 1	8920324						=
*** Sample ID: qc312041				Seq: 5		11:50:32 07 Oct 05			HG
			106510,1						
Hg	5.11	ppb	172051						
		Bkgd 1	8912031						=
*** Sample ID: 182254-008				Seq: 6		11:52:26 07 Oct 05			HG
			106510,1						
Hg	.440	ppb	22085						
		Bkgd 1	8919214						=
*** Sample ID: qc312042				Seq: 7		11:54:17 07 Oct 05			HG
			106510,1						
Hg	5.74	ppb	192360						
		Bkgd 1	8911424						=
*** Sample ID: qc312043				Seq: 8		11:56:01 07 Oct 05			HG
			106510,1						
Hg	5.77	ppb	193270						
		Bkgd 1	8910399						=

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 182251-001				Seq: 9		11:57:39 07 Oct 05		HG	
			106510,1						
Hg	-.454	ppb	-6647						
		Bkgd 1	8908338						=
									=
*** Sample ID: 182251-002				Seq: 10		11:59:22 07 Oct 05		HG	
			106510,1						
Hg	-.010	ppb	7630						
		Bkgd 1	8912396						=
									=
*** Sample ID: 182251-003				Seq: 11		12:01:01 07 Oct 05		HG	
			106510,1						
Hg	-.373	ppb	-4051						
		Bkgd 1	8909038						=
									=
*** Sample ID: 182251-004 106510				Seq: 12		12:08:19 07 Oct 05		HG	
			106510,1						
Hg	-.163	ppb	2692						
		Bkgd 1	8902309						=
									=
*** Check Standard: 3			Ck3S1706	Seq: 13		12:10:28 07 Oct 05		HG	
Line	Flag		Intensities						
Hg			87337						
		Bkgd 1	8902153						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 14		12:12:42 07 Oct 05		HG	
Line	Flag		Intensities						
Hg			3731						
		Bkgd 1	8907431						=
									=
*** Sample ID: 182251-005 106510				Seq: 15		12:14:33 07 Oct 05		HG	
			106510,1						
Hg	-.153	ppb	3015						
		Bkgd 1	8908481						=
									=
*** Sample ID: 182251-006 106510				Seq: 16		12:16:10 07 Oct 05		HG	
			106510,1						
Hg	-.010	ppb	7609						
		Bkgd 1	8910489						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 182251-007 106510				Seq: 17		12:17:59 07 Oct 05			HG
			106510,1						
Hg	-.218	ppb	936						
		Bkgd 1	8910185						=
									=
*** Sample ID: 182251-008 106510				Seq: 18		12:19:51 07 Oct 05			HG
			106510,1						
Hg	-.037	ppb	6739						
		Bkgd 1	8909719						=
									=
*** Sample ID: 182254-001				Seq: 19		12:21:46 07 Oct 05			HG
			106510,1						
Hg	.144	ppb	12567						
		Bkgd 1	8907343						=
									=
*** Sample ID: 182254-002				Seq: 20		12:23:34 07 Oct 05			HG
			106510,1						
Hg	.464	ppb	22850						
		Bkgd 1	8912303						=
									=
*** Sample ID: 182254-003				Seq: 21		12:25:26 07 Oct 05			HG
			106510,1						
Hg	.639	ppb	28460						
		Bkgd 1	8917110						=
									=
*** Sample ID: 182254-004				Seq: 22		12:27:05 07 Oct 05			HG
			106510,1						
Hg	.131	ppb	12138						
		Bkgd 1	8912793						=
									=
*** Sample ID: 182254-005				Seq: 23		12:28:44 07 Oct 05			HG
			106510,1						
Hg	.937	ppb	38042						
		Bkgd 1	8916469						=
									=
*** Sample ID: 182254-006				Seq: 24		12:30:53 07 Oct 05			HG
			106510,1						
Hg	.593	ppb	26978						
		Bkgd 1	8915102						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Check Standard: 5			Ck5S1707	Seq: 25		12:32:36 07 Oct 05		HG	
Line Flag			Intensities						
Hg			166391						
		Bkgd 1	8917742						= =
*** Check Standard: 6			Ck6CCB	Seq: 26		12:34:27 07 Oct 05		HG	
Line Flag			Intensities						
Hg			2197						
		Bkgd 1	8914129						= =
*** Sample ID: 182254-007				Seq: 27		12:36:23 07 Oct 05		HG	
			106510,1						
Hg	-.049	ppb	6374						
		Bkgd 1	8916174						= =
*** Check Standard: 4			Ck4S1708	Seq: 28		12:38:19 07 Oct 05		HG	
Line Flag			Intensities						
Hg			262679						
		Bkgd 1	8916563						= =
*** Check Standard: 6			Ck6CCB	Seq: 29		12:40:42 07 Oct 05		HG	
Line Flag			Intensities						
Hg			-793						
		Bkgd 1	8913608						= =

Curtis & Tompkins Laboratories Sample Preparation Summary 07-OCT-2005 13:22

Batch Number : 106510
Date Extracted: 07-OCT-2005
Extracted by : Jasmine Dickison
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S1703
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182251-001			GWF Power Systems	Miscell.	.74	g	50	67.567568	1					T26/HG		
182251-002			GWF Power Systems	Miscell.	.5	g	50	100.000000	1					T26/HG		
182251-003			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
182251-004			GWF Power Systems	Miscell.	.69	g	50	72.463768	1					T26/HG		
182251-005			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
182251-006			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
182251-007			GWF Power Systems	Miscell.	.52	g	50	96.153846	1					T26/HG		
182251-008			GWF Power Systems	Miscell.	.47	g	50	106.382979	1					T26/HG		
182254-001			Mactec, Inc.	Soil	.55	g	50	90.909091	1					T26/HG		
182254-002			Mactec, Inc.	Soil	.52	g	50	96.153846	1					T26/HG		
182254-003			Mactec, Inc.	Soil	.5	g	50	100.000000	1					T26/HG		
182254-004			Mactec, Inc.	Soil	.49	g	50	102.040816	1					T26/HG		
182254-005			Mactec, Inc.	Soil	.54	g	50	92.592593	1					T26/HG		
182254-006			Mactec, Inc.	Soil	.52	g	50	96.153846	1					T26/HG		
182254-007			Mactec, Inc.	Soil	.47	g	50	106.382979	1					T26/HG		
182254-008			Mactec, Inc.	Soil	.5	g	50	100.000000	1					T26/HG		
QC312039	BLANK			Soil	.5	g	50	100.000000	1					HG		
QC312040	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC312041	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC312042	MS	of 182254-008		Soil	.53	g	50	94.339623	1		2.5			HG		
QC312043	MSD	of 182254-008		Soil	.51	g	50	98.039216	1		2.5			HG		
QC312044	SER	of 182254-008		Soil	.5	g	50	100.000000	1					HG		
QC312045	PDS	of 182254-008		Soil	.5	g	50	100.000000	1					HG		

Prep Chemist: Jasmine Dickison Reviewed By: [signature] Date: 10-7-05

Relinquished By: Jasmine Dickison Received By: Jasmine Dickison Date: 10-7-05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 106507 JGD 106510

Date Digested: 10-07-05

Digested by: JGD

Digestion Method

☑ EPA 7471A

☐ _____

BK 2150

Page 97

Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
182251-001 A	.74	50	Y	
- 2	.5			
- 3	.52			
- 4	0.69			
- 5	.52			
- 6	.52			
- 7	.52			
- 8	.47			
182254-001 A	.55			
- 2 A	.52			
- 3 A	.5			
- 4 A	.49			
- 5 A	.54			
- 6 A	.52			
- 7 A	.47			
- 8 A	.5			*MSS
Blank 182291-001 JGD	0.5			
BS - 2 JGD	0.5			
BSD - 3 JGD	0.5			
MS - 4 JGD	.53			
MSD - 5 JGD	.51			
		JGD		

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	S1703	JGD 10-7-05
ICAL Source WS#	S1703	
ICV / CCV WS#	S1705.06,07,08	
Digestion of Samples & Standards: Time ON / Temperature ON	9:00am 95°C	
Time OFF/ Temperature OFF	9:30am	
concentrated H_2SO_4	–	
Aqua Regia Acids (HNO3+ HCl)	AR 100705	
5% $KMnO_4$	K 100405	
5% $K_2S_2O_8$	–	
NaCl.hydroxylamine hydrochloride	Hy 100405	
Stannous Chloride	$SnCl_2$ 100405	
☐ filtered thru' 0.45 um syringe filter	Millipore R5BN 49778	

10/7/05

294

Continued from page ∅

Continued on page ∅

10/7

Reviewed by / Date

Percent Moisture Summary Report

Batch: 106547
Date: 10/10/05
Method: CLP SOW 390
Analyst: CCH

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
182254-001	15.1525	21.6518	20.6690	85	15
182254-002	15.4302	23.3827	22.0987	84	16
182254-003	15.6146	22.8529	22.0269	89	11
182254-004	14.9949	24.0905	23.1394	90	10
182254-005	15.1694	20.9462	20.1760	87	13
182254-006	15.4687	23.9415	23.1955	91	9
182254-007	15.0390	21.6152	21.1423	93	7
182254-008	15.3247	21.1437	20.5281	89	11
182296-001	15.2152	21.4253	20.4819	85	15
182296-002	15.4824	21.8113	20.8647	85	15
182296-003	15.6186	22.5622	21.4062	83	17
182296-004	15.1255	23.1762	22.4129	91	9
182296-005	15.1124	21.0480	20.3346	88	12
182296-006	15.4346	22.4910	21.5144	86	14
182312-001	15.2306	22.0521	21.7225	95	5
182312-002	15.4077	23.2648	19.4847	52	48
182312-003	15.3442	23.3400	21.3752	75	25
182321-001	15.6317	21.5270	20.3196	80	20
182321-002	15.3496	23.0902	21.0803	74	26
182321-003	15.5705	24.9739	22.8407	77	23
QC312187 of 182296-006	14.9567	20.5708	19.7825	86	14
			RPD:	0.2%	1.4%

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 182357

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255 001 22
Location: Presidio / Baker Beach

Sample ID	Lab ID
BBSB119(2.5)	182357-001
BBSB119(4.5)	182357-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 11/8/05
Operations Manager

Signature: _____ Date: 11/7/05
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**182357**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**10/10/05**
Samples Received:	**10/10/05**

This hardcopy data package contains sample and QC results for two soil samples, requested for the above referenced project on 10/10/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 106592; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High recovery was observed for 1,1-dichloroethene in the MSD for batch 106606; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):
High response was observed for benzo(k)fluoranthene in the ICV analyzed 10/25/05 17:33; this analyte was not detected at or above the RL in the associated samples. High responses were observed for benzo(g,h,i)perylene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene in the CCV analyzed 10/26/05 16:17 and the CCV analyzed 10/27/05 10:19; these analytes were not detected at or above the RL in the associated sample and method blank, and affected data was qualified with "b". No other analytical problems were encountered.

Pesticides (EPA 8081A):
High ICAL percent RSDs (relative standard deviations) were observed for beta-BHC and delta-BHC in the calibration analyzed 09/27/05 22:26; average ICAL %RSD met method requirements, and these analytes were not detected at or above the RL in the associated samples. High responses were observed for heptachlor and methoxychlor in the ICV analyzed 09/28/05 02:12; average ICV drift met method requirements, and these analytes were not detected at or above the RL in the associated samples. Low responses were observed for beta-BHC and delta-BHC in the CCV analyzed 10/20/05 16:44; average CCV drift met method requirements. Low response was observed for delta-BHC in the CCV analyzed 10/20/05 10:18; average CCV drift met method requirements. High response was observed for heptachlor; average CCV drift met method

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**182357**
Client:	**Mactec, Inc.**
Project:	**57255 001 22**
Location:	**Presidio / Baker Beach**
Request Date:	**10/10/05**
Samples Received:	**10/10/05**

Pesticides (EPA 8081A):
requirements, and this analyte was not detected at or above the RL in the associated samples. High recovery was observed for 4,4'-DDT in the MS for batch 106900; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. Endrin aldehyde was detected between the MDL and the RL in the method blank for batch 106900; this analyte was not detected in samples at or above the RL. BBSB119(2.5) (lab # 182357-001) was diluted due to the dark, viscous nature of the sample extract. No other analytical problems were encountered.

Polychlorinated Biphenyls (PCBs) (EPA 8082):
High surrogate recovery was observed for decachlorobiphenyl in the MSD for batch 107008; the corresponding TCMX surrogate recovery was within limits, and the parent sample was not a project sample. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
A number of analytes were detected between the MDL and the RL in the method blank for batch 106917; these analytes were either not detected in samples at or above the RL, or detected at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

182357

Seq. No.: № 2005

Samplers: A.H. HENKE

Lab: CURTIS TOMPKINS

Job Number: 57255

Name/Location: PRESIDIO SF - BDDA

Project Manager: M.A. JACOBVITZ

Recorder: _____ (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION	
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH
	✓		7				-1	B	BSB119(2.5)	05	10	10	1005		
	✓		7				-2	D	BSB119(4.5)	05	10	10	1615		

ANALYSIS REQUESTED

Methane (SW8015B)	TPH-d (SW8015M)	TPH-g (SW8015M)	PAHs (8270SIM)	OCPs (8081A)	PCBs (8082)	VOC (8260B)	
✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	

5

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		- STANDARD TAT
		- RESULTS TO G.A. LIEBERMAN
		(707) 793 3858

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	A.H. HENKE (Print Name)	MACTEC (Company)	10/10/05 : 1050 Date/Time
Received By (Signature)	Tony Rojas (Print Name)	CT (Company)	10/10/05 : Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: CT COURIER

F1068-B (5/04)

Laboratory Copy *White* | Project Office Copy *Yellow* | Field or Office Copy *Pink*

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 182357 Date Received: 10/10/05 Number of Coolers: 1
Client: MACTEC Project: Presidio - SF

A. Preliminary Examination Phase
Date Opened: 10/10/05 By (print): John P. (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO N/A
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... YES NO
   Type of ice: wet Temperature: on ice NO temp Ø

B. Login Phase
Date Logged In: 10/10/05 By (print): John P. (sign) [signature]

1. Describe type of packing in cooler: 2Q loc bags
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO N/A
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

_____

_____

_____

_____

_____

_____

TPH-PURGEABLE HYDROCARBONS IN SOIL

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05
Diln Fac:	1.000	Analyzed:	10/11/05
Batch#:	106592		

Field ID: BBSB119(2.5) Basis: dry
Type: SAMPLE Moisture: 11%
Lab ID: 182357-001

Analyte	Result	RL	MDL
Gasoline C7-C12	0.018 J	0.18	0.0039

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	59-140
Bromofluorobenzene (FID)	99	62-149

Field ID: BBSB119(4.5) Basis: dry
Type: SAMPLE Moisture: 11%
Lab ID: 182357-002

Analyte	Result	RL	MDL
Gasoline C7-C12	0.019 J	0.24	0.0050

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	59-140
Bromofluorobenzene (FID)	108	62-149

Type: BLANK Basis: as received
Lab ID: QC312369

Analyte	Result	RL	MDL
Gasoline C7-C12	0.018 J	0.20	0.0042

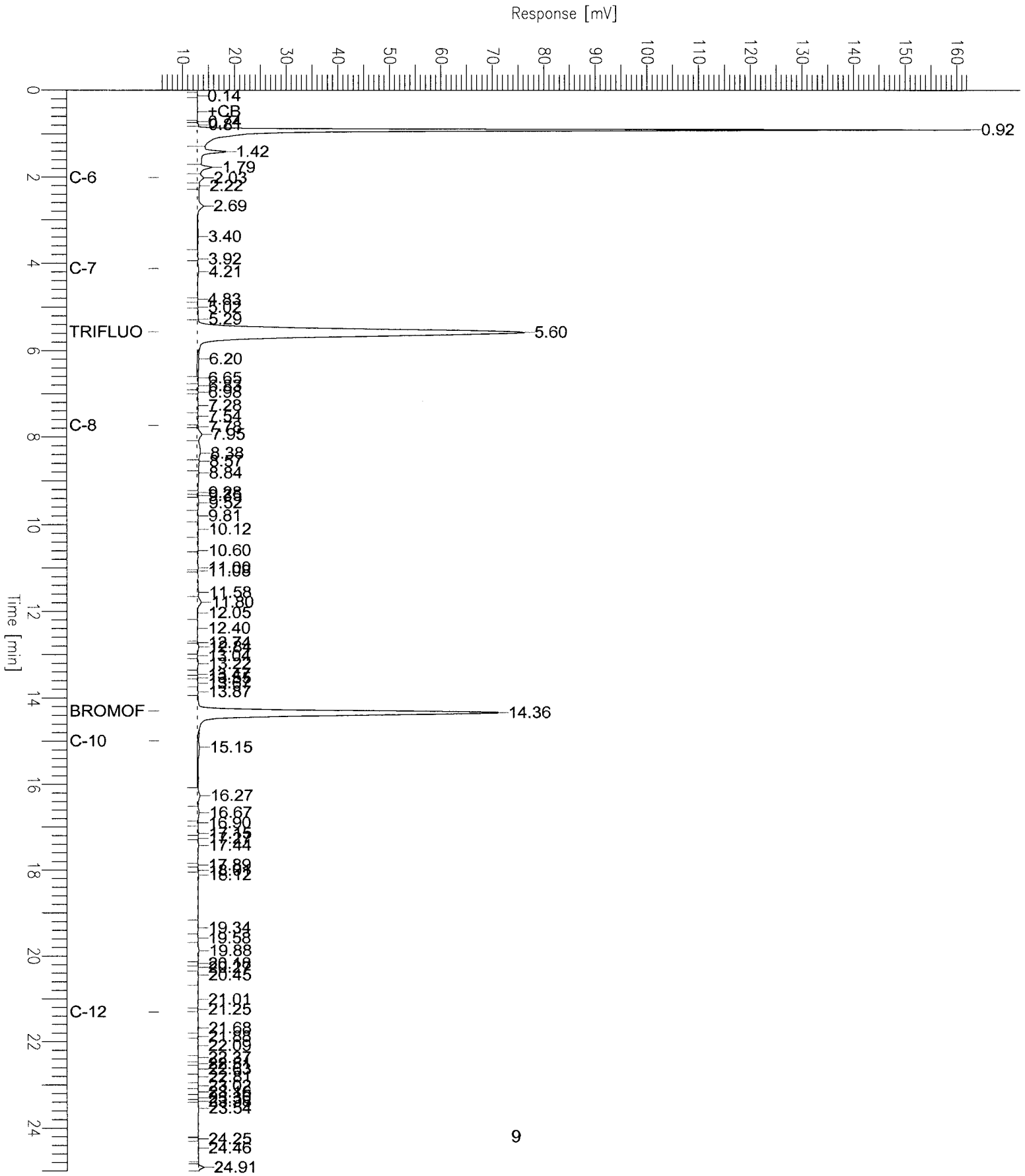
Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	59-140
Bromofluorobenzene (FID)	102	62-149

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

Sample Name : 182357-001,106592,tvh
FileName : G:\GC05\DATA\284G005.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 5 mV

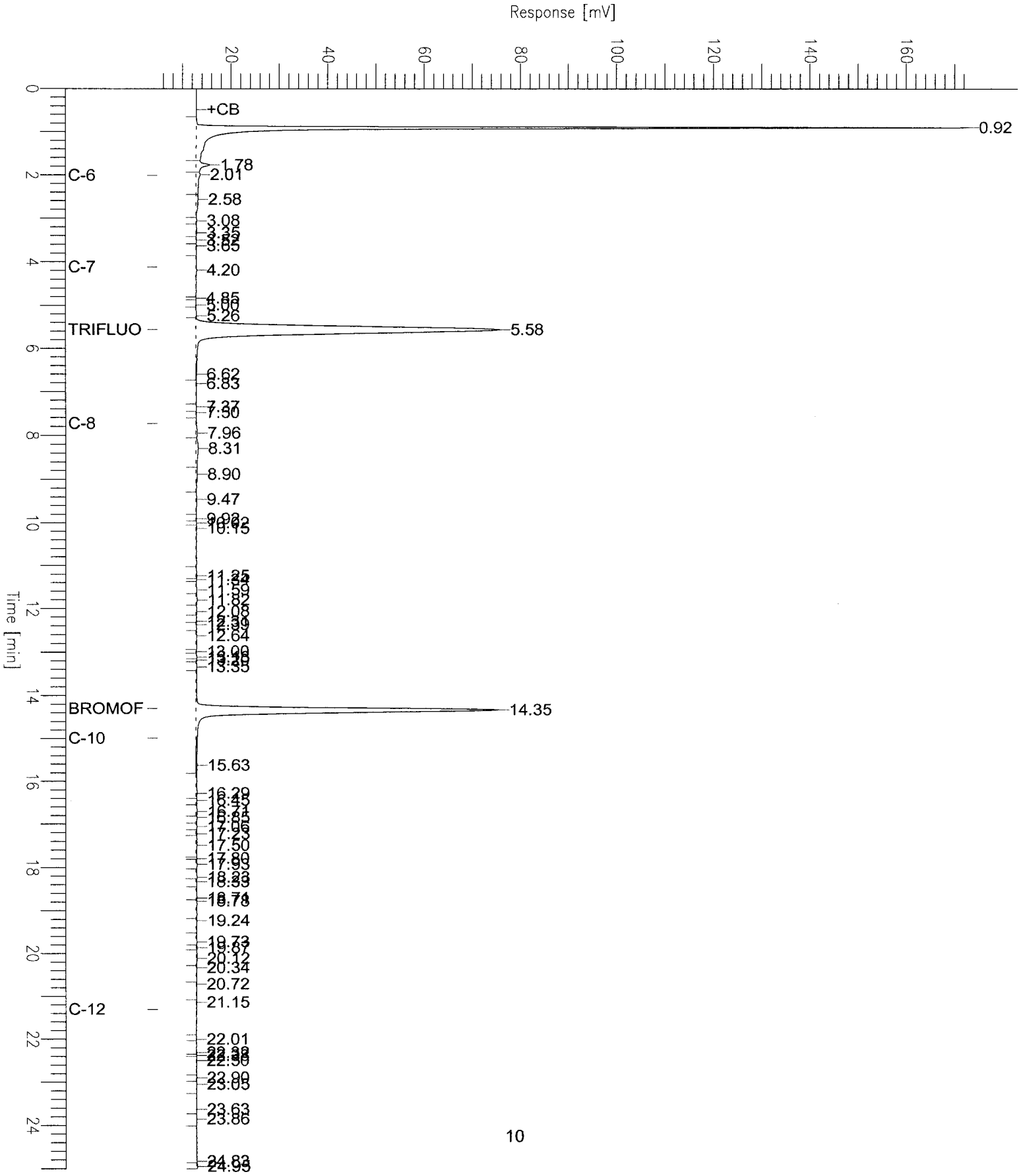
Sample #: b Page 1 of 1
Date : 10/11/05 11:11 AM
Time of Injection: 10/11/05 10:45 AM
Low Point : 5.23 mV High Point : 162.88 mV
Plot Scale: 157.6 mV



Chromatogram

Sample Name : 182357-002,106592,tvh
FileName : G:\GC05\DATA\284G006.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 5 mV

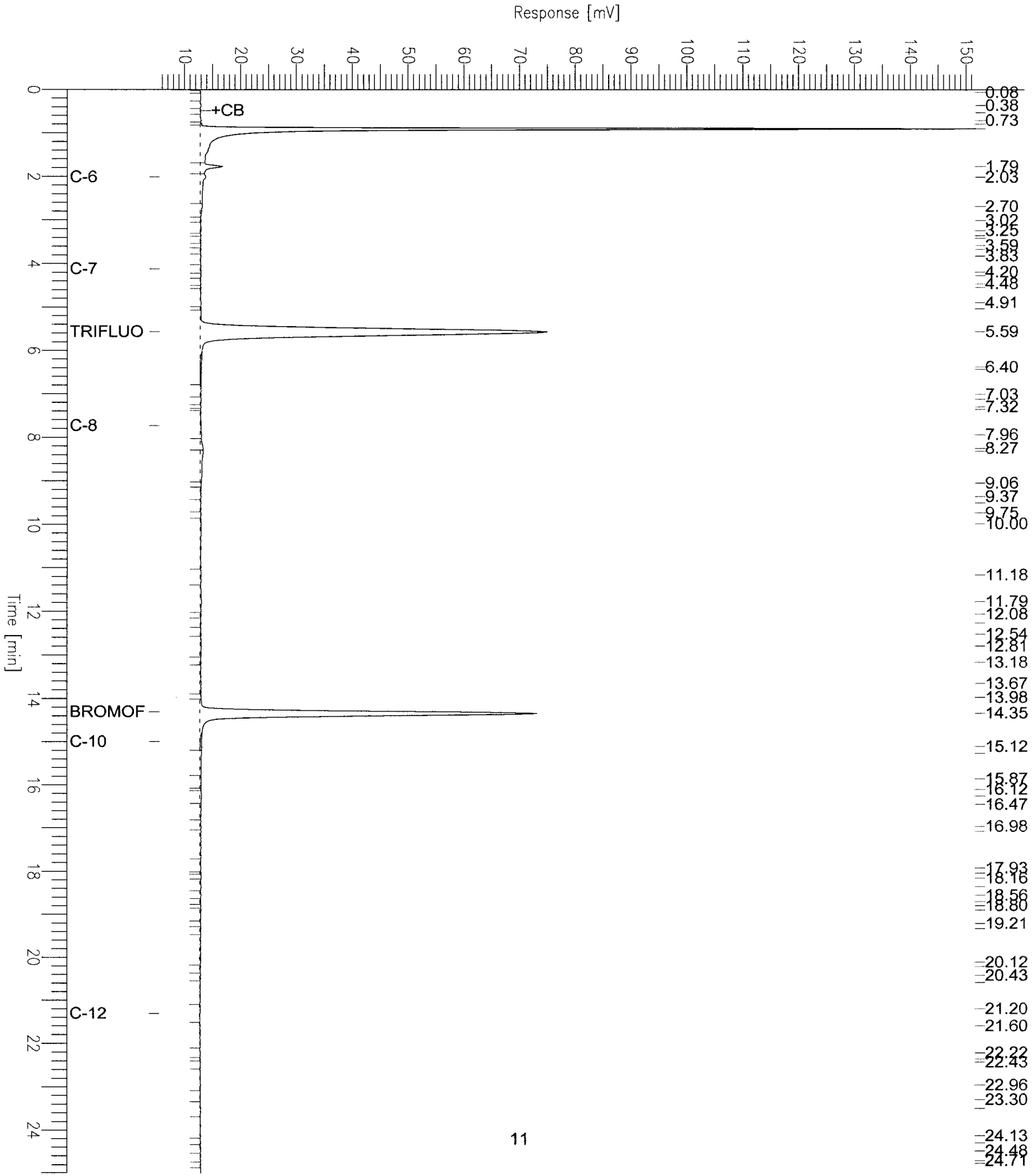
Sample #: b Page 1 of 1
Date : 10/11/05 11:42 AM
Time of Injection: 10/11/05 11:17 AM
Low Point : 4.68 mV High Point : 173.04 mV
Plot Scale: 168.4 mV



Chromatogram

Sample Name : mb,qc312369,106592
FileName : G:\GC05\DATA\284G004.RAW
Method :
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 0.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 10/12/05 10:29 AM
Time of Injection: 10/11/05 09:52 AM
Low Point : 5.45 mV High Point : 151.69 mV
Plot Scale: 146.2 mV

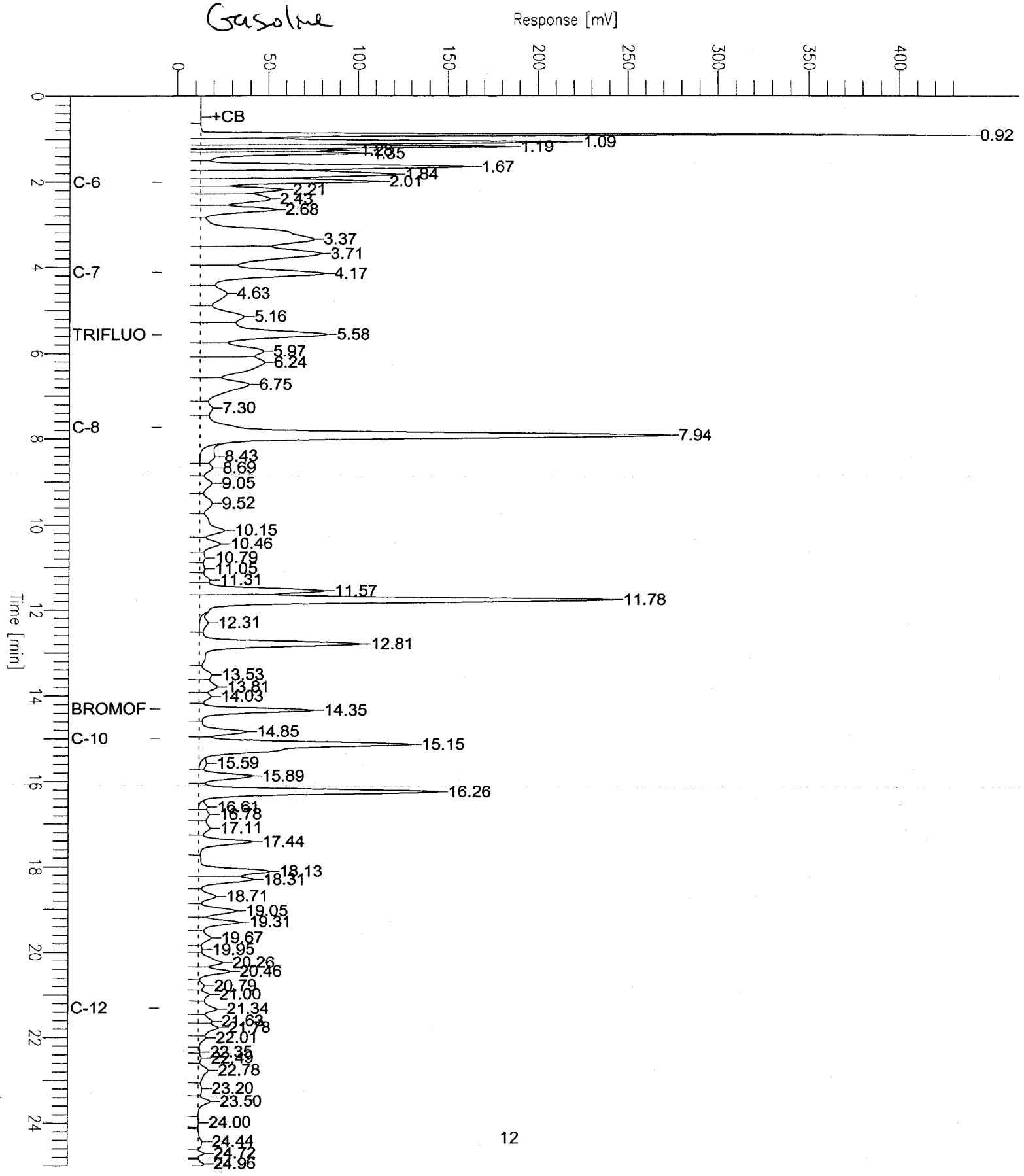


Chromatogram

Sample Name : ccv/lcs,qc312371,106592,S1574,5/5000
FileName : G:\GC05\DATA\284G003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: -8 mV

Sample #: Page 1 of 1
Date : 10/11/05 09:46 AM
Time of Injection: 10/11/05 09:20 AM
Low Point : -8.48 mV High Point : 439.47 mV
Plot Scale: 448.0 mV

Gasoline



Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC312371	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106592
Units:	mg/Kg	Analyzed:	10/11/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.513	95	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	131	59-140
Bromofluorobenzene (FID)	109	62-149

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	182387-003	Batch#:	106592
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/11/05
Basis:	as received	Analyzed:	10/12/05

Type: MS Lab ID: QC312550

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.05713	9.524	7.790	81	44-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	59-140
Bromofluorobenzene (FID)	107	62-149

Type: MSD Lab ID: QC312551

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.804	7.654	77	44-120	5	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	59-140
Bromofluorobenzene (FID)	107	62-149

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Reviewed By: MCH
Calnum: 314466280001 Name: tvh Type: (normal) Date: 18-NOV-2004 20:23 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Segnum	Samplenum	Analyzed	Standards
1	323_003	314466280003	tvh1	18-NOV-2004 20:23	04WS1982 (1000X), 04WS1966 (5000X)
2	323_004	314466280004	tvh2	18-NOV-2004 20:55	04WS1983 (1000X), 04WS1966 (5000X)
3	323_005	314466280005	tvh3	18-NOV-2004 21:26	04WS1984 (1000X), 04WS1966 (5000X)
4	323_006	314466280006	tvh4	18-NOV-2004 21:58	04WS1985 (2000X), 04WS1966 (5000X)
5	323_007	314466280007	tvh5	18-NOV-2004 22:30	04WS1985 (1000X), 04WS1966 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Gasoline C7-C12	G	1766.4	1506.6	1526.6	1948.9	1844.3	AVRG	R		5.819E-4		ng	1718.5	11	0.995	20	

15

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Instid : GC05 Calname : tvh
Calnum : 314466280001 Caldate : 18-NOV-2004 Caltype :

ICV 314466280009 (323_009) standards: 04WS2154 (1000X), 04WS1966 (5000X)

Analyte	Ch	ICV Seqnum	Date	Spiked Quant	Units	%D
Gasoline C7-C12	G	314466280009	18-NOV-2004	10000.0 11239	ng	12

INITIAL CALIBRATION REPORT FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Reviewed By: MCH
Calnum: 315217882001 Name: TFT/BFB Type: (normal) Date: 31-MAY-2005 07:54 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	151_002	315217882002	tft/bfb 1	31-MAY-2005 07:54	S658 (5000X)
2	151_003	315217882003	tft/bfb 2	31-MAY-2005 08:41	S659 (5000X)
3	151_004	315217882004	tft/bfb 3	31-MAY-2005 09:13	S660 (5000X)
4	151_005	315217882005	tft/bfb 4	31-MAY-2005 09:45	S661 (5000X)
5	151_006	315217882006	tft/bfb 5	31-MAY-2005 10:26	S662 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Trifluorotoluene (FID)	G	1805.9	1874.0	1717.9	1714.8	1667.0	AVRG	R		5.695E-4		ng	1755.9	5	0.995	20	
Bromofluorobenzene (FID)	G	945.15	1060.0	998.37	1028.6	1008.6	AVRG	R		9.919E-4		ng	1008.1	4	0.995	20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Gasoline C7-C12

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC05	G	315409457003	11-OCT-2005 09:20	314466280001	18-NOV-2004	1718.5	1634.9	10000	9513.1	ng	-5	15	u
GC05	G	315409457012	11-OCT-2005 20:20	314466280001	18-NOV-2004	1718.5	1563.7	15000	13649	ng	-9	15	
GC05	G	315409457025	12-OCT-2005 03:12	314466280001	18-NOV-2004	1718.5	1596.2	10000.0	9288.3	ng	-7	15	
GC05	G	315409457028	12-OCT-2005 04:47	314466280001	18-NOV-2004	1718.5	1636.3	5000.0	4760.8	ng	-5	15	

u=use

CONTINUING CALIBRATION SUMMARY FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Trifluorotoluene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC05	G	315409457002	11-OCT-2005 08:48	315217882001	31-MAY-2005	1755.9	1649.1	450.00	422.63	ng	-6	15	
GC05	G	315409457003	11-OCT-2005 09:20	315217882001	31-MAY-2005	1755.9	2294.0	450.00	587.89	ng	**31**	15	c+ u
GC05	G	315409457012	11-OCT-2005 20:20	315217882001	31-MAY-2005	1755.9	1977.2	450.00	506.70	ng	13	15	
GC05	G	315409457024	12-OCT-2005 02:41	315217882001	31-MAY-2005	1755.9	2235.5	450.00	572.91	ng	**27**	15	c+
GC05	G	315409457028	12-OCT-2005 04:47	315217882001	31-MAY-2005	1755.9	1879.3	450.00	481.63	ng	7	15	

mmo 10/12/05

IN-House QC Limits

TFT-FID-S

59-140 %Rec.

+=high bias c=CCV u=use
Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 182357 GCVOA Soil
Curtis & Tompkins Laboratories

Analyte: Bromofluorobenzene (FID)

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC05	G	315409457002	11-OCT-2005 08:48	315217882001	31-MAY-2005	1008.1	1058.5	450.00	472.49	ng	5	15	
GC05	G	315409457003	11-OCT-2005 09:20	315217882001	31-MAY-2005	1008.1	1102.6	450.00	492.18	ng	9	15	u
GC05	G	315409457012	11-OCT-2005 20:20	315217882001	31-MAY-2005	1008.1	1122.4	450.00	501.00	ng	11	15	
GC05	G	315409457024	12-OCT-2005 02:41	315217882001	31-MAY-2005	1008.1	1105.4	450.00	493.43	ng	10	15	
GC05	G	315409457028	12-OCT-2005 04:47	315217882001	31-MAY-2005	1008.1	1024.2	450.00	457.16	ng	2	15	

u=use

PROJECT Gasoline by BTX

Notebook No. BK 1960

Continued From Page

89

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 314466280 Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Begun: 18-NOV-2004
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	323_001	X	ib			18-NOV-2004 19:20	1.0					1	
002	323_002	X	ib			18-NOV-2004 19:52	1.0					1	
003	323_003	ICAL	tvh1			18-NOV-2004 20:23	1.0					2 1	
004	323_004	ICAL	tvh2			18-NOV-2004 20:55	1.0					3 1	
005	323_005	ICAL	tvh3			18-NOV-2004 21:26	1.0					4 1	
006	323_006	ICAL	tvh4			18-NOV-2004 21:58	1.0					5 1	
007	323_007	ICAL	tvh5			18-NOV-2004 22:30	1.0					5 1	
008	323_008	X	ib			18-NOV-2004 23:02	1.0					1	
009	323_009	ICV	tvh			18-NOV-2004 23:33	1.0	1	5000			6 1	1:F3BZME=992.437
010	323_010	X	crbmrk			19-NOV-2004 00:05	1.0					7 8 1	
011	323_011	X	ib			19-NOV-2004 00:37	1.0					1	
012	323_012	X	ib			19-NOV-2004 07:00	1.0					1	
013	323_013	ICAL	tft/bfb 1			19-NOV-2004 07:32	1.0					9	
014	323_014	ICAL	tft/bfb 2			19-NOV-2004 08:11	1.0					10	
015	323_015	ICAL	tft/bfb 3			19-NOV-2004 08:54	1.0					11	
016	323_016	ICAL	tft/bfb 4			19-NOV-2004 09:35	1.0					12	
017	323_017	ICAL	tft/bfb 5			19-NOV-2004 10:22	1.0					13	

Stds used: 1=04WS1966 2=04WS1982 3=04WS1983 4=04WS1984 5=04WS1985 6=04WS2154 7=02SS420 8=02SS421 9=04WS1886 10=04WS1887 11=04WS1888 12=04WS1889 13=04WS1890

Analyst: _____ Date: 11/19/04

Page 1 of 1

pass/lbe

pass/lbe

pass JSL

Signed

11/19/04

Date

21

Read and Understood By

Signed

Continued on Page

11/19/04

Date

PROJECT GLOS Sequence by RWK

Notebook No. RK-2019

Continued From Page

75

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315217882 Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Begun: 31-MAY-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	151_001	X	ib			31-MAY-2005 07:22	1.0				1	
002	151_002	ICAL	tft/bfb 1			31-MAY-2005 07:54	1.0				2 pass	
003	151_003	ICAL	tft/bfb 2			31-MAY-2005 08:41	1.0				3	
004	151_004	ICAL	tft/bfb 3			31-MAY-2005 09:13	1.0				4	
005	151_005	ICAL	tft/bfb 4			31-MAY-2005 09:45	1.0				5	
006	151_006	ICAL	tft/bfb 5			31-MAY-2005 10:26	1.0				6	
007	151_007	CCV/LCS	QC295584	102486	Soil	31-MAY-2005 13:14	1.0				7 1 Not used	
008	151_008	CCV/LCS	QC295583	102486	Soil	31-MAY-2005 13:46	1.0				8 1	
009	151_009	BLANK	QC295582	102486	Soil	31-MAY-2005 14:18	1.0				1	

Stand VSOP in QL = EA125897A—M/04/01

Stds used: 1=S645 2=S658 3=S659 4=S660 5=S661 6=S662 7=S623 8=S601

Analyst: _____ Date: 6/3/05

Page 1 of 1

6/3/05

Signed

6/3/05

Date

Read and Understood By

Signed

6/3/05

Date

Continued on Page

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 315409457 Instrument: GC05 Gas Chromatograph #5 TVH/BTXE Begun: 11-OCT-2005
Analytical Method: EPA 8015B SOP Version: TVH_BTXE_rv11
Analytical Method: EPA 8021B SOP Version: TVH_BTXE_rv11

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	Core ID VL	pH	Stds Used	>LR
001	284_001	X	ib			11-OCT-2005 08:17	1.0					1	
002	284_002	CCV/LCS	QC312370	106592	Soil	11-OCT-2005 08:48	1.0		5000			2 1 pass/use	
003	284_003	CCV/LCS	QC312371	106592	Soil	11-OCT-2005 09:20	1.0		5000			3 1 ↓	
004	284_004	BLANK	QC312369	106592	Soil	11-OCT-2005 09:52	1.0	5	5000			1 pass/use ≤ 1/2RL	
005	284_005	SAMPLE	182357-001	106592	Soil	11-OCT-2005 10:45	1.0		5000	D		1	
006	284_006	SAMPLE	182357-002	106592	Soil	11-OCT-2005 11:17	1.0		5000	↓		1 prc/x	
007	284_007	SAMPLE	182387-001	106592	Soil	11-OCT-2005 17:34	1.0		5000	A		1	
008	284_008	MSS	182387-003	106592	Soil	11-OCT-2005 18:12	1.0	2	5000			1	
009	284_009	SAMPLE	182387-004	106592	Soil	11-OCT-2005 18:44	1.0		5000			1	
010	284_010	SAMPLE	182387-002	106592	Soil	11-OCT-2005 19:16	1.0		2 5000			1	
011	284_011	SAMPLE	182387-005	106592	Soil	11-OCT-2005 19:48	1.0		5000	↓		1	
012	284_012	CCV	tvh	106592		11-OCT-2005 20:20	1.0		5000			3 1 pass/use	
013	284_013	CCV	tvh	106592		11-OCT-2005 20:51	1.0		5000			3 1 ↓	
014	284_014	SAMPLE	182387-008	106592	Soil	11-OCT-2005 21:23	1.0		5000	A		1	
015	284_015	SAMPLE	182387-009	106592	Soil	11-OCT-2005 21:55	1.0		5000			1	
016	284_016	SAMPLE	182387-011	106592	Soil	11-OCT-2005 22:26	1.0		5000			1	
017	284_017	SAMPLE	182387-013	106592	Soil	11-OCT-2005 22:58	1.0		2 5000			1 prc/x	
018	284_018	SAMPLE	182387-015	106592	Soil	11-OCT-2005 23:30	1.0		5000			1	
019	284_019	SAMPLE	182387-016	106592	Soil	12-OCT-2005 00:02	1.0		5000			1	
020	284_020	SAMPLE	182387-019	106592	Soil	12-OCT-2005 00:34	1.0		5000			1	
021	284_021	SAMPLE	182387-020	106592	Soil	12-OCT-2005 01:05	1.0		5000			1	
022	284_022	SAMPLE	182387-021	106592	Soil	12-OCT-2005 01:37	1.0		5000			1 prc/x	
023	284_023	SAMPLE	182387-014	106592	Soil	12-OCT-2005 02:09	25.0		5000	↓		1 prc/x	
024	284_024	CCV	tvh	106592		12-OCT-2005 02:41	1.0		5000			3 1 pass/use	
025	284_025	CCV	tvh	106592		12-OCT-2005 03:12	1.0		5000			3 1	
026	284_026	MS	QC312550	106592	Soil	12-OCT-2005 03:44	1.0		5000	A		3 1	
027	284_027	MSD	QC312551	106592	Soil	12-OCT-2005 04:15	1.0		5000	↓		3 1	
028	284_028	CCV	tvh	106592		12-OCT-2005 04:47	1.0		5000			3 1	

Stds used: 1=S1421 2=S1577 3=S1574

Analyst: Micah Pepper Date: 10/12/05

Page 1 of 1

Sand used in QC: EM 128474-M104164

10/12/05

Signed — Date — Read and Understood By — Signed — Date

Continued on Page

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 106592
Date Started: 11-OCT-2005
Batched by : Adam Pereira

Analysis : N/A
Bgroup : TVH
Department : GC Organics

Sample	Type		Client	Matrix	Analyses	Due Date
182357-001			Mactec, Inc.	Soil	ETVH	21-OCT-2005
182357-002			Mactec, Inc.	Soil	ETVH	21-OCT-2005
182387-001			URS Corporation	Soil	TVH	17-OCT-2005
182387-002			URS Corporation	Soil	TVH	17-OCT-2005
182387-003			URS Corporation	Soil	TVH	17-OCT-2005
182387-004			URS Corporation	Soil	TVH	17-OCT-2005
182387-005			URS Corporation	Soil	TVH	17-OCT-2005
182387-008			URS Corporation	Soil	TVH	17-OCT-2005
182387-009			URS Corporation	Soil	TVH	17-OCT-2005
182387-011			URS Corporation	Soil	TVH	17-OCT-2005
182387-013			URS Corporation	Soil	TVH	17-OCT-2005
182387-014			URS Corporation	Soil	TVH	17-OCT-2005
182387-015			URS Corporation	Soil	TVH	17-OCT-2005
182387-016			URS Corporation	Soil	TVH	17-OCT-2005
182387-019			URS Corporation	Soil	TVH	17-OCT-2005
182387-020			URS Corporation	Soil	TVH	17-OCT-2005
182387-021			URS Corporation	Soil	TVH	17-OCT-2005
QC312369	BLANK			Soil		
QC312370	LCS			Soil		
QC312371	LCS			Soil		
QC312550	MS	of 182387-003		Soil		
QC312551	MSD	of 182387-003		Soil		

Sample ID core/jar	Weight (g)	Comp.	Wt% Soil (%)	Initials & Date
182357 -001 B	6.16	No	No	DP 10.12
-002 B	4.72			
182363-034 A	1.03	No	No	App 10/11/05
182387-001 A	1.02	No	No	DP 10.12
-002 A	0.74			
-003 A	0.79			
No of 182387-003 A	1.05			
No of 182387-003 A	1.02			
182387 -004 A	0.93			
-005 A	0.91			
-008 A	0.98			
-009 A	1.01			
-011 A	0.98			
-013 A	1.04			
-015 A	1.01			
-016 A	0.97			
-019 A	1.00			
-020 A	0.97			
-021 A	0.55			
182385 -001 A	0.96	No	No	DP 10.12
182391 -001 C	5.11			
-002 C	3.96			
-003 C	4.47			
-004 C	4.74			
-005 C	4.56			
-006 C	4.39			
182387-002 A	0.94			mmw 10/12/05
-013	0.98			
-014	0.98			
-021 C	0.93			
182413-001 B	4.04	No	No	DP 10.12
-002 B	4.76			
-003 B	4.78			
-004 B	5.87			
No of 182385 -001 A	0.96	No	No	DP 10.12
No of 182385 -001 A	1.00			

Continued on Page

TPH-EXTRACTABLES DATA

SOIL

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	106992	Analyzed:	10/23/05

Field ID:	BBSB119(2.5)	Basis:	dry
Type:	SAMPLE	Moisture:	11%
Lab ID:	182357-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	23 H Y	1.1	0.24
Fuel Oil C24-C36	190	5.6	1.7

Surrogate	%REC	Limits
Hexacosane	84	48-132

Field ID:	BBSB119(4.5)	Basis:	dry
Type:	SAMPLE	Moisture:	11%
Lab ID:	182357-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	ND	1.1	0.24
Fuel Oil C24-C36	ND	5.6	1.7

Surrogate	%REC	Limits
Hexacosane	79	48-132

Type:	BLANK	Basis:	as received
Lab ID:	QC314004	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	ND	1.0	0.21
Fuel Oil C24-C36	ND	5.0	1.5

Surrogate	%REC	Limits
Hexacosane	85	48-132

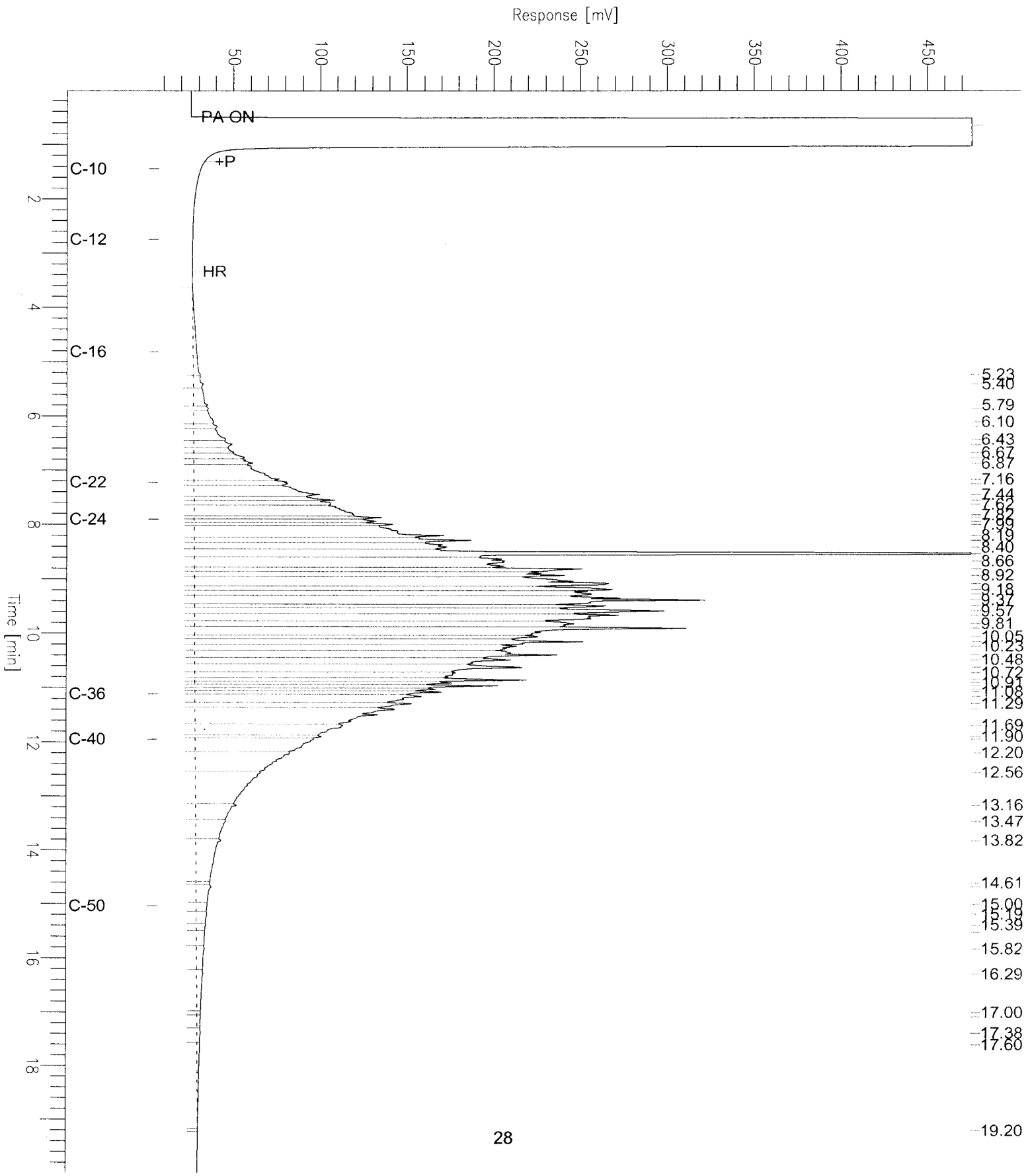
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Chromatogram

1 TJP 10/24/05

Sample Name : 182357-002sg,106992
FileName : G:\GC17\CHA\296A014.RAW
Method : ATEH294.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 106992 Page 1 of 1
Date : 10/24/05 09:10 AM
Time of Injection: 10/23/05 09:28 PM
Low Point : 6.87 mV High Point : 475.76 mV
Plot Scale: 468.9 mV



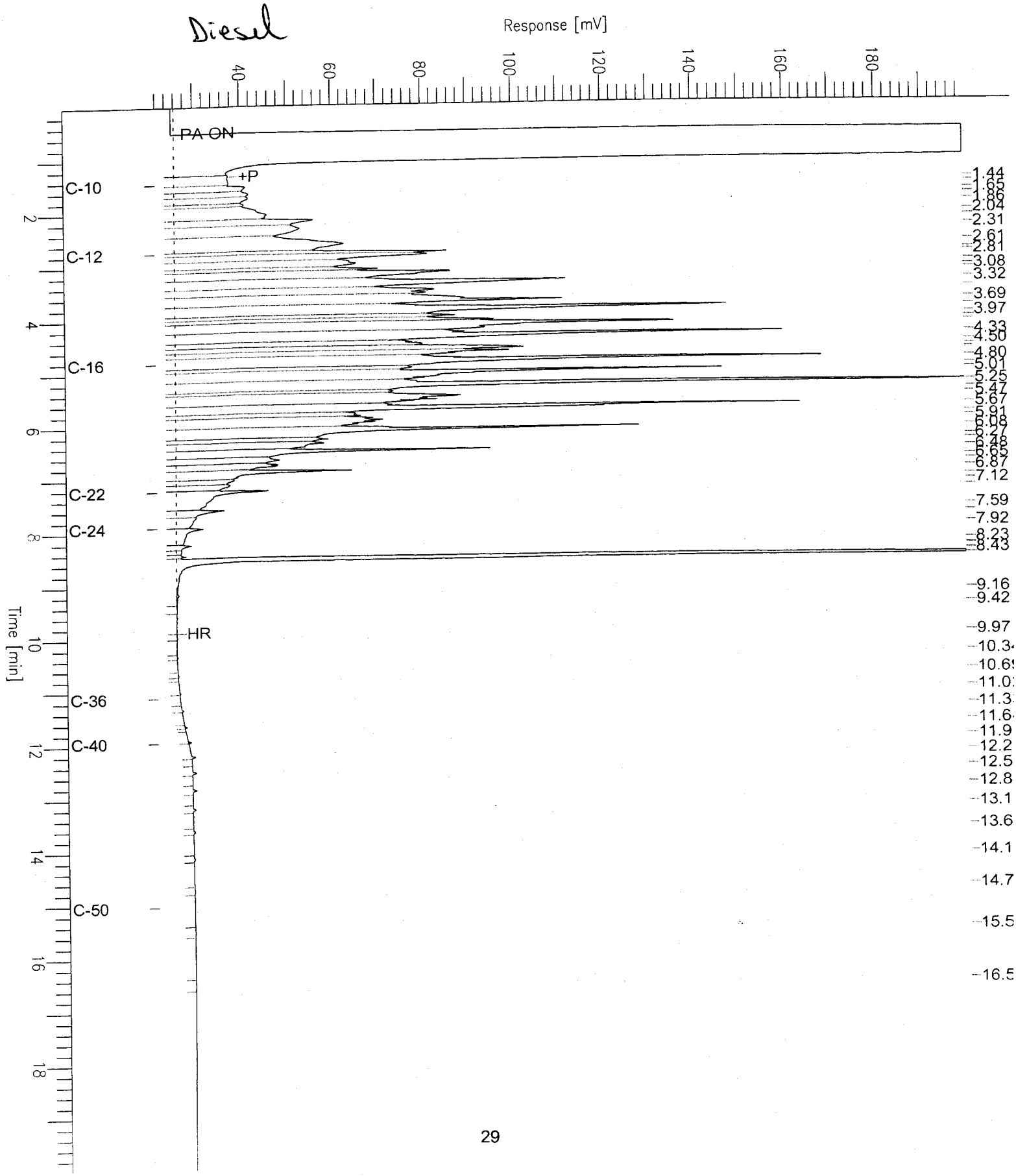
Chromatogram

Sample Name : ccv,S1522,dsl
FileName : G:\GC17\CHA\296A003.RAW
Method : ATEH294.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 19.99 min
Plot Offset: 22 mV

Sample #: 500mg/L
Date : 10/23/05 03:09 PM
Time of Injection: 10/23/05 02:31 PM
Low Point : 21.92 mV
Plot Scale: 177.3 mV

High Point : 199.27 mV



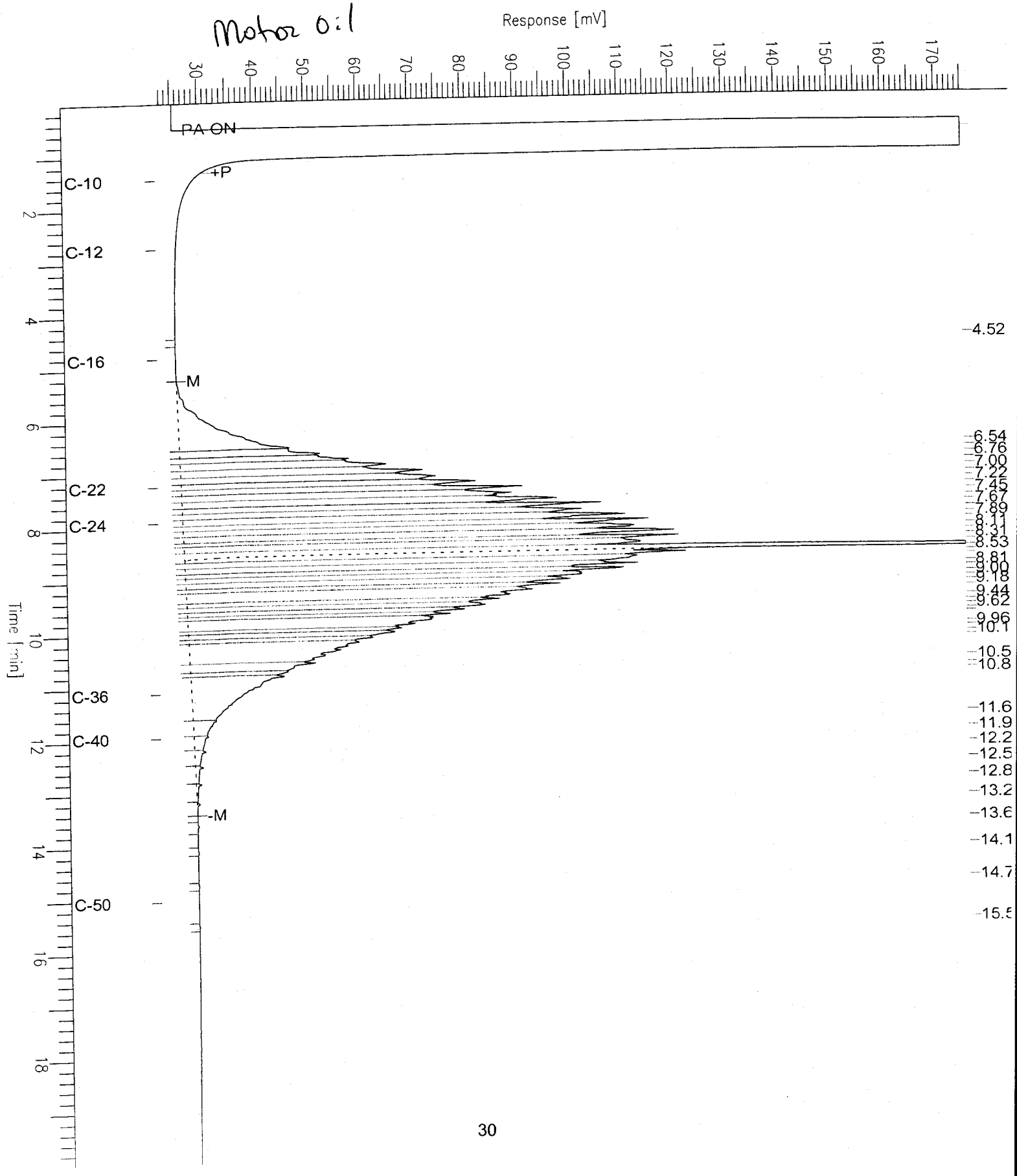
Chromatogram

Sample Name : ccv,S1710,mo
FileName : G:\GC17\CHA\296A004.RAW
Method : ATEH294.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 19.99 min
Plot Offset: 22 mV

Sample #: 500mg/L
Date : 10/23/05 03:19 PM
Time of Injection: 10/23/05 03:00 PM
Low Point : 22.25 mV
Plot Scale: 152.8 mV

Motor 0:1



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC314005	Batch#:	106992
Matrix:	Soil	Prepared:	10/21/05
Units:	mg/Kg	Analyzed:	10/23/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	50.15	53.50	107	55-137

Surrogate	%REC	Limits
Hexacosane	103	48-132

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBSB119(4.5)	Batch#:	106992
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/21/05
Basis:	dry	Analyzed:	10/23/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC314006

Moisture: 11%
Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	<0.2380	55.87	38.79	69	33-159

Surrogate	%REC	Limits
Hexacosane	70	48-132

Type: MSD
Lab ID: QC314007

Moisture: 11%
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	55.76	41.61	75	33-159	7	46

Surrogate	%REC	Limits
Hexacosane	75	48-132

RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769001 Name: dsl Type: (normal) Date: 12-APR-2005 15:46 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a003	175147769003	dsl10	12-APR-2005 15:46	05WS0167
2	102a004	175147769004	dsl100	12-APR-2005 16:15	05WS0169
3	102a005	175147769005	dsl250	12-APR-2005 16:43	05WS0170
4	102a006	175147769006	dsl500	12-APR-2005 17:12	05WS0171
5	102a007	175147769007	dsl1000	12-APR-2005 17:40	05WS0172
6	102a008	175147769008	dsl2500	12-APR-2005 18:09	05WS0173
7	102a009	175147769009	dsl5000	12-APR-2005 18:37	05WS0174

Analyte	L1	L2	L3	L4	L5	L6	L7	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Diesel C12-C24	21971	27259	26130	26550	26420	27308	26715	AVRG R		3.839E-5		mg/L	26050	7	0.995	20	

33

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Instid : GC17A Calname : dsl
Calnum : 175147769001 Caldate : 12-APR-2005 Caltype :

ICV 175147769011 (102a011) standards: S110

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D
Diesel C12-C24	A	175147769011	12-APR-2005	500.00	477.43	mg/L	-5

INITIAL CALIBRATION REPORT FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769002 Name: mo Type: (normal) Date: 12-APR-2005 20:32 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a013	175147769013	mo50	12-APR-2005 20:32	04WS2172
2	102a014	175147769014	mo250	12-APR-2005 21:00	04WS2173
3	102a015	175147769015	mo500	12-APR-2005 21:29	04WS2174
4	102a016	175147769016	mo1000	12-APR-2005 21:57	04WS2175
5	102a017	175147769017	mo2500	12-APR-2005 22:26	04WS2176
6	102a018	175147769018	mo5000	12-APR-2005 22:55	04WS2169

Analyte	L1	L2	L3	L4	L5	L6	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Motor Oil C24-C36	19368	20746	21476	21316	21490	20562	AVRG	R		4.802E-5		mg/L	20827	4	0.995	20	

35

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Reviewed By: MCH
Calnum: 175147769003 Name: hex Type: (normal) Date: 12-APR-2005 23:52 Inj Vol (uL): 3

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102a020	175147769020	hex5	12-APR-2005 23:52	S112
2	102a021	175147769021	hex10	13-APR-2005 00:21	S113
3	102a022	175147769022	hex25	13-APR-2005 00:49	S114
4	102a023	175147769023	hex50	13-APR-2005 01:18	S115
5	102a024	175147769024	hex75	13-APR-2005 01:47	S116

Analyte	L1	L2	L3	L4	L5	Type X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2 MxRSD	Flags
Hexacosane	34053	35110	33549	32398	34102	AVRG R		2.955E-5		mg/L	33842	3	0.995 20	

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Diesel C12-C24

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175427054003	23-OCT-2005 14:31	175147769001	12-APR-2005	26050	27898	500.00	535.47	mg/L	7	15	
GC17A	A	175427054015	23-OCT-2005 21:57	175147769001	12-APR-2005	26050	27389	1000.0	1051.4	mg/L	5	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Motor Oil C24-C36

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175427054004	23-OCT-2005 15:00	175147769002	12-APR-2005	20827	20252	500.00	486.22	mg/L	-3	15	
GC17A	A	175427054016	23-OCT-2005 22:25	175147769002	12-APR-2005	20827	20132	500.00	483.32	mg/L	-3	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Analyte: Hexacosane

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC17A	A	175427054003	23-OCT-2005 14:31	175147769003	12-APR-2005	33842	34220	50.000	50.558	mg/L	1	15	
GC17A	A	175427054015	23-OCT-2005 21:57	175147769003	12-APR-2005	33842	34819	50.000	51.443	mg/L	3	15	

SEQUENCE SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175147769 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 12-APR-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	102a001	X	primer			12-APR-2005 14:49	1.0					
002	102a002	X	ib			12-APR-2005 15:18	1.0					
003	102a003	ICAL	dsl10			12-APR-2005 15:46	1.0				1	
004	102a004	ICAL	dsl100			12-APR-2005 16:15	1.0				2	
005	102a005	ICAL	dsl250			12-APR-2005 16:43	1.0				3	
006	102a006	ICAL	dsl500			12-APR-2005 17:12	1.0				4	
007	102a007	ICAL	dsl1000			12-APR-2005 17:40	1.0				5	
008	102a008	ICAL	dsl2500			12-APR-2005 18:09	1.0				6	
009	102a009	ICAL	dsl5000			12-APR-2005 18:37	1.0				7	
010	102a010	X	ib			12-APR-2005 19:06	1.0					
011	102a011	ICV	dsl			12-APR-2005 19:34	1.0	3			8	
012	102a012	X	ib			12-APR-2005 20:03	1.0					
013	102a013	ICAL	mo50			12-APR-2005 20:32	1.0				9	
014	102a014	ICAL	mo250			12-APR-2005 21:00	1.0				10	
015	102a015	ICAL	mo500			12-APR-2005 21:29	1.0				11	40
016	102a016	ICAL	mo1000			12-APR-2005 21:57	1.0				12	
017	102a017	ICAL	mo2500			12-APR-2005 22:26	1.0				13	
018	102a018	ICAL	mo5000			12-APR-2005 22:55	1.0				14	
019	102a019	X	ib			12-APR-2005 23:23	1.0					
020	102a020	ICAL	hex5			12-APR-2005 23:52	1.0				15	
021	102a021	ICAL	hex10			13-APR-2005 00:21	1.0				16	
022	102a022	ICAL	hex25			13-APR-2005 00:49	1.0				17	
023	102a023	ICAL	hex50			13-APR-2005 01:18	1.0				18	
024	102a024	ICAL	hex75			13-APR-2005 01:47	1.0				19	
025	102a025	X	ib			13-APR-2005 02:16	1.0					

Stds used: 1=05WS0167 2=05WS0169 3=05WS0170 4=05WS0171 5=05WS0172 6=05WS0173 7=05WS0174 8=S110 9=04WS2172 10=04WS2173 11=04WS2174 12=04WS2175 13=04WS2176 14=04WS2169 15=S112 16=S113 17=S114 18=S115 19=S116

SEQUENCE SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175427054 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 23-OCT-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
001	296a001	X	primer			23-OCT-2005 13:34	1.0					
002	296a002	X	ib			23-OCT-2005 14:02	1.0					
003	296a003	CCV	dsl			23-OCT-2005 14:31	1.0	1.0		3	1	
004	296a004	CCV	mo			23-OCT-2005 15:00	1.0	1.0		3	2	
005	296a005	BLANK	QC314004 S	106992	Soil	23-OCT-2005 17:08	1.0	0.1000	8	3		
006	296a006	LCS	QC314005 S	106992	Soil	23-OCT-2005 17:37	1.0	0.1003		3		
007	296a007	MS	QC314006 S	106992	Soil	23-OCT-2005 18:06	1.0	0.09944		3		
008	296a008	MSD	QC314007 S	106992	Soil	23-OCT-2005 18:35	1.0	0.09925		3		
009	296a009	MSS	182357-002 S	106992	Soil	23-OCT-2005 19:03	1.0	0.09986	8	3		
010	296a010	SAMPLE	182390-001 S	106992	Soil	23-OCT-2005 19:32	1.0	0.1006		3		
011	296a011	SAMPLE	182390-002 S	106992	Soil	23-OCT-2005 20:01	1.0	0.09992		3		
012	296a012	SAMPLE	182457-044 S	106992	Soil	23-OCT-2005 20:30	1.0	0.1002		3		
013	296a013	SAMPLE	182457-045 S	106992	Soil	23-OCT-2005 20:59	1.0	0.09958		3		
014	296a014	SAMPLE	182357-001 S	106992	Soil	23-OCT-2005 21:28	1.0	0.1002		3		
015	296a015	CCV	dsl			23-OCT-2005 21:57	1.0	1.0		3	3	41
016	296a016	CCV	mo			23-OCT-2005 22:25	1.0	1.0		3	2	
017	296a017	X	ccv			23-OCT-2005 22:54	1.0				3	
018	296a018	SAMPLE	182457-057 S	106992	Soil	23-OCT-2005 23:23	1.0	0.09934		3		
019	296a019	SAMPLE	182457-056 S	106992	Soil	23-OCT-2005 23:53	1.0	0.1003		3		
020	296a020	SAMPLE	182457-052 S	106992	Soil	24-OCT-2005 00:22	1.0	0.1001		3		
021	296a021	SAMPLE	182457-053 S	106992	Soil	24-OCT-2005 00:51	1.0	0.09952		3		
022	296a022	SAMPLE	182457-048 S	106992	Soil	24-OCT-2005 01:19	1.0	0.1002		3		
023	296a023	X	ib			24-OCT-2005 01:48	1.0					
024	296a024	SAMPLE	182457-049 S	106992	Soil	24-OCT-2005 02:16	20.0	0.1001		3		
025	296a025	SAMPLE	182457-050 S	106992	Soil	24-OCT-2005 02:45	20.0	0.1000		3		
026	296a026	SAMPLE	182457-051 S	106992	Soil	24-OCT-2005 03:14	50.0	0.09948		3	2:BUNKC:=6379.74	
027	296a027	X	ib			24-OCT-2005 03:42	1.0					
028	296a028	SAMPLE	182457-054 S	106992	Soil	24-OCT-2005 04:11	50.0	0.09984		3	2:BUNKC:=5846.44	
029	296a029	SAMPLE	182457-055 S	106992	Soil	24-OCT-2005 04:40	20.0	0.1009	2	3	10:BUNKC:=23594.3	
030	296a030	X	ib			24-OCT-2005 05:08	1.0					
031	296a031	CCV	dsl			24-OCT-2005 05:37	1.0	1.0		3	4	

Stds used: 1=S1522 2=S1710 3=S1764 4=S1613

SEQUENCE SUMMARY FOR 182357 TEHM Soil
Curtis & Tompkins Laboratories

Sequence: 175427054 Instrument: GC17A Gas Chromatograph #17 (Channel A) TEH Begun: 23-OCT-2005
Analytical Method: EPA 8015B SOP Version: TEH_rv12

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC SPK uL	Stds Used	>LR
032	296a032	CCV	mo			24-OCT-2005 06:05	1.0	1.0	3	2	
033	296a033	X	ccv			24-OCT-2005 06:34	1.0			4	

42

Stds used: 1=S1522 2=S1710 3=S1764 4=S1613

Curtis & Tompkins Laboratories Sample Preparation Summary 24-OCT-2005 09:58

Batch Number : 106992
Date Extracted: 21-OCT-2005
Extracted by : Sheila H. Dodson
Prep Method : SHAKER TABLE

Analysis : N/A
Bgroup : TEH
Units : g
Clean-up :

Spike #1 ID : S1772D
Spike #2 ID : S1709B
Spike #3 ID :
SOP Version : TEH1_rv9

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001			Mactec, Inc.	Soil	49.91	g	5	0.100180	1		1	0		TEHM	3630C	
182357-002			Mactec, Inc.	Soil	50.07	g	5	0.099860	1		1	0		TEHM	3630C	MSS
182390-001			Acton Mickelson Environmental	Soil	49.68	g	5	0.100644	1		1	0		TEHM	3630C	
182390-002			Acton Mickelson Environmental	Soil	50.04	g	5	0.099920	1		1	0		TEHM	3630C	
182457-044			URS Corporation	Soil	49.92	g	5	0.100160	1		1	0		TEHM	3630C	
182457-045			URS Corporation	Soil	50.21	g	5	0.099582	1		1	0		TEHM	3630C	
182457-048			URS Corporation	Soil	49.92	g	5	0.100160	1		1	0		TEHM	3630C	
182457-049			URS Corporation	Soil	49.97	g	5	0.100060	1		1	0		TEHM	3630C	
182457-050			URS Corporation	Soil	50	g	5	0.100000	1		1	0		TEHM	3630C	
182457-051			URS Corporation	Soil	50.26	g	5	0.099483	1		1	0		TEHM	3630C	
182457-052			URS Corporation	Soil	49.96	g	5	0.100080	1		1	0		TEHM	3630C	
182457-053			URS Corporation	Soil	50.24	g	5	0.099522	1		1	0		TEHM	3630C	
182457-054			URS Corporation	Soil	50.08	g	5	0.099840	1		1	0		TEHM	3630C	
182457-055			URS Corporation	Soil	49.54	g	5	0.100929	1		1	0		TEHM	3630C	
182457-056			URS Corporation	Soil	49.83	g	5	0.100341	1		1	0		TEHM	3630C	
182457-057			URS Corporation	Soil	50.33	g	5	0.099344	1		1	0		TEHM	3630C	
182484-001			URS Corporation	Soil	49.63	g	5	0.100746	1		1	0		TEHM	3630C	
182497-005			Erler & Kalinowski, Inc.	Soil	50.11	g	5	0.099780	1		1	0		TEH	3630C	
182521-001			Fugro West Inc.	Soil	50.28	g	5	0.099443	1		1	0		TEHM	3630C	
QC314004	BLANK			Soil	50	g	5	0.100000	1		1	0		TEH	3630C	
QC314005	LCS			Soil	49.85	g	5	0.100301	1		1	1		TEH	3630C	
QC314006	MS	of 182357-002		Soil	50.28	g	5	0.099443	1		1	1		TEH	3630C	
QC314007	MSD	of 182357-002		Soil	50.38	g	5	0.099246	1		1	1		TEH	3630C	

Prep Chemist: _____ Reviewed By: _____ Date: 10/25/05

Relinquished By: _____ Received By: _____ Date: 10/25/05

Curtis & Tompkins, Ltd. **TEH SOIL PREP LOG** BK 2213

LIMS Batch No: 106992
LIMS Analysis TEH
Extracted by: SHD
Date Extracted: 10/21/05

Extraction Method:
☑ Mechanical Shaker Table
☐ EPA 3550 Sonication
☐ Other _____

Cleanup Method (if necessary):
☑ EPA 3630 Silica Gel
☐ Other _____

	Sample # & letter	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	182357-001	49.91	5.0	X	
	-002	50.07		↓	MSS
	182390-001	49.68		X	
	-002	50.04			
5	182457-044	49.92			
	-045	50.21			
	-048	49.92			
	-049	49.97			
	-050	50.00			
10	-051	50.26			
	-052	49.96			
	-053	50.24			
	-054	50.08			
	-055	49.54			
15	-056	49.83			
	-057	50.33			
	182484-001	49.163			
	182497-005	50.11			
	182521-001	50.28			
20	MB QC 314004	50.00			
	LCS 5	49.85		↓	
	MS 6	50.28		X	
	MSD 7	50.38	↓	↓	
					MJM 10/22/05

	Mfg & Lot # / LIMS # / Time	Date/Initials
~~Sand~~ Na_2SO_4 weighed out for QC samples	EM 44135439	SHD 10/21/05
Samples were dried with CH_2Cl_2-rinsed ~~granular~~ powder Na_2SO_4	STB 25151	
1.0 mL of TEH_SURR surrogate solution was added to all samples	S1772D	
1.0 mL of TEH_SP matrix spiking solution was added to all spikes	S1709B	
≥ 75 mL of 1+1 (CH_2Cl_2+Acetone) was added to all CH_2Cl_2	EM 45188	
Acetone	EM 45125	
Samples were: ☐ sonicated 3 times ☑ placed on shaker table at:	1220	
taken off shaker table at:	1455	SHD 10/21/05
Extracts filtered through baked, rinsed powdered Na_2SO_4	STB 25151	SEE for MJM 10/22/05
Concentrated to volumes as noted above	✓	↓

(For SHD) ↓

10/22/05

Extraction Chemist / Date

Continued from page _____
Continued on page 44

Reviewed by / Date

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: MJM
Cleanup Date: 10/22/05

Benchbook # **BK 2209**
Page 52

Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
182357-001	106992	1.0	1.0	
182357-002				MSS
182390-001				
-002				
182457-044				
-045				
-048				
-049				
-050				
-051				
-052				
-053				
-054				
-055				
-056				
-057				
182484-001				
182497-005				
182521-001				
MB QC314004				
QC 05				
MS 06				
MSD 07				
			MJM	10/22/05

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled ____ g columns	N/A	MJM 10/22/05
☑ Extracts were cleaned up using 1.0 g cartridges	SP 6128	
Extracts were eluted with 40 mL CH_2Cl_2	EM45188	
Concentrated to volumes as noted above	✓	

MJM 10/22/05
Extraction Chemist / Date

Continued from page /
Continued on page /

Jennifer Mee 10/28/05
Reviewed by / Date

Sample I.D.	Weight (g)	Analysis	Comments
125-002	50.18	TEH	MSS
	50.32		
	49.74		
	49.79		
	49.64		
10-003A	29.91	8270	
004	29.95		
005	30.02		
006	29.66		
007	29.67		
0-001A	29.94	8100	
2	29.64		
7-005A	30.08	8270	Comp of 001A, 002A, 005A 004A
57-002A	50.07 X	TEH	
001A	49.91		
28-001A	49.94	TEH	
002	50.42		
003	50.06		
004	49.88		
005	50.43		
006	50.10		
007	50.48		
008	49.68		
009	49.88		
35-018A	50.06	TEHM	
27-005A	50.11	TEHM	Comp of 001A, 002A, 005A 004A
0-001A	49.68	TEHM	
002	X 50.04		
1-001A	50.28	TEHM	

Continued on Page

Signed 10/18/05 Date 46

Read and Understood By

Signed Date

Project Soil Aliquot BK2219

Continued from Page

SAMPLE I.D.	Weight (g)	Analysis	Comments
182457-018 A	49.94	TEHM	
019			No SAMPLE Available
020	50.15		
021	49.87		
022	49.70		
023	50.06		
024	49.87		
027	50.39		
030	50.31		
031	50.10		
032	50.35		
033	50.19		
034	49.70		
037	49.95		
038	49.68		
039	49.54		
040	50.01		
041	49.95		
042	49.95		
043	50.00		
044	49.92		
045	50.21		
048	49.92		
049	49.97		
050	50.00		
051	50.26		
052	49.96		
053	50.24		
054	50.08		
055	49.54		MSS EM441 35439 → 182457-055A
LCS	49.99		
MB	49.81		
MS	50.09		
MSD	50.32		
056	49.83		
057	50.33		

Continued on Page

Signed: [signature] Date: ~~10/19/05~~ 10/20/05

Read and Understood By

Signed Date

Project Soil Aliquot

Continued from Page

Sample ID	Weight (g)	Analyses SHO 10/21/05 TCH	Comments
MB	50.00	↓	EM144135435
LCS	49.85	↓	↓
MS	50.28	↓	of 182357-002A
MSD	50.38	↓	↓
182357-002A	50.07	↓	MSS
			T.D. 10/21/05

Continued on Page

Read and Understood By

Signed Date Signed Date

PESTICIDE DATA

(SOIL)

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB119(2.5)	Batch#:	106900
Lab ID:	182357-001	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	10.00		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	19	2.6
beta-BHC	ND #	19	14
gamma-BHC	ND	19	0.95
delta-BHC	ND #	19	2.7
Heptachlor	ND	19	3.8
Aldrin	ND	19	3.6
Heptachlor epoxide	ND	19	2.7
Endosulfan I	ND	19	10
Dieldrin	ND	37	5.7
4,4'-DDE	ND	37	4.8
Endrin	ND	37	8.0
Endosulfan II	ND	37	13
Endosulfan sulfate	ND	37	8.2
4,4'-DDD	ND	37	7.5
Endrin aldehyde	ND	37	10
4,4'-DDT	ND	37	8.2
alpha-Chlordane	ND	19	3.4
gamma-Chlordane	ND	19	3.3
Methoxychlor	ND	190	52
Toxaphene	ND	670	190

Surrogate	%REC	Limits
TCMX	DO	42-127
Decachlorobiphenyl	DO	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB119(4.5)	Batch#:	106900
Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	1.000		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.26
beta-BHC	ND #	1.9	1.4
gamma-BHC	ND	1.9	0.097
delta-BHC	ND #	1.9	0.27
Heptachlor	ND	1.9	0.39
Aldrin	ND	1.9	0.37
Heptachlor epoxide	ND	1.9	0.27
Endosulfan I	ND	1.9	1.0
Dieldrin	ND	3.7	0.58
4,4'-DDE	ND	3.7	0.49
Endrin	ND	3.7	0.82
Endosulfan II	ND	3.7	1.3
Endosulfan sulfate	ND	3.7	0.84
4,4'-DDD	ND	3.7	0.76
Endrin aldehyde	ND	3.7	1.0
4,4'-DDT	ND	3.7	0.83
alpha-Chlordane	ND	1.9	0.34
gamma-Chlordane	ND	1.9	0.33
Methoxychlor	ND	19	5.3
Toxaphene	ND	68	19

Surrogate	%REC	Limits
TCMX	86	42-127
Decachlorobiphenyl	96	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313628	Batch#:	106900
Matrix:	Soil	Prepared:	10/19/05
Units:	ug/Kg	Analyzed:	10/20/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.23
beta-BHC	ND #	1.7	1.2
gamma-BHC	ND	1.7	0.084
delta-BHC	ND #	1.7	0.24
Heptachlor	ND	1.7	0.34
Aldrin	ND	1.7	0.32
Heptachlor epoxide	ND	1.7	0.24
Endosulfan I	ND	1.7	0.90
Dieldrin	ND	3.3	0.51
4,4'-DDE	ND	3.3	0.42
Endrin	ND	3.3	0.71
Endosulfan II	ND	3.3	1.1
Endosulfan sulfate	ND	3.3	0.73
4,4'-DDD	ND	3.3	0.66
Endrin aldehyde	1.9 J	3.3	0.90
4,4'-DDT	ND	3.3	0.73
alpha-Chlordane	ND	1.7	0.30
gamma-Chlordane	ND	1.7	0.29
Methoxychlor	ND	17	4.6
Toxaphene	ND	59	18

Surrogate	%REC	Limits
TCMX	100	42-127
Decachlorobiphenyl	112	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC313629	Batch#:	106900
Matrix:	Soil	Prepared:	10/19/05
Units:	ug/Kg	Analyzed:	10/20/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.25	9.817	74	42-128
Heptachlor	13.25	12.46 #	94	45-130
Aldrin	13.25	10.40	78	50-124
Dieldrin	26.51	20.84	79	46-136
Endrin	26.51	22.30	84	42-139
4,4'-DDT	26.51	20.15	76	42-145

Surrogate	%REC	Limits
TCMX	82	42-127
Decachlorobiphenyl	84	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	106900
MSS Lab ID:	182560-001	Sampled:	10/17/05
Matrix:	Soil	Received:	10/18/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	as received	Analyzed:	10/20/05
Diln Fac:	5.000		

Type: MS Cleanup Method: EPA 3620B
Lab ID: QC313630

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.4228	13.29	11.72	88	46-120
Heptachlor	<1.683	13.29	15.58 #	117	47-120
Aldrin	<1.611	13.29	12.48	94	48-120
Dieldrin	10.90	26.58	40.45	111	47-126
Endrin	<3.562	26.58	28.07	106	49-129
4,4'-DDT	35.66	26.58	76.10	154 *	30-144

Surrogate	%REC	Limits
TCMX	79	42-127
Decachlorobiphenyl	93	43-141

Type: MSD Cleanup Method: EPA 3620B
Lab ID: QC313631

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.35	10.67	80	46-120	10	40
Heptachlor	13.35	14.06 #	105	47-120	11	43
Aldrin	13.35	11.66	87	48-120	7	38
Dieldrin	26.70	35.47	92	47-126	13	38
Endrin	26.70	26.02	97	49-129	8	40
4,4'-DDT	26.70	66.43	117	30-144	14	49

Surrogate	%REC	Limits
TCMX	85	42-127
Decachlorobiphenyl	92	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805389648001 Name: Type: (normal) Date: 27-SEP-2005 22:26 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	270_021	805389648021	pest_1	27-SEP-2005 22:26	S737
2	270_022	805389648022	pest_2	27-SEP-2005 22:54	S874
3	270_023	805389648023	pest_3	27-SEP-2005 23:22	S1377
4	270_024	805389648024	pest_4	27-SEP-2005 23:51	S1378
5	270_025	805389648025	pest_5	28-SEP-2005 00:19	S1379
6	270_026	805389648026	pest_6	28-SEP-2005 00:47	S875
7	270_027	805389648027	pest_7	28-SEP-2005 01:16	S876

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
alpha-BHC	A	13930	14401	14391	13314	13749	13637	14621	AVRG	R		7.140E-5		pg	14006	3	0.995	20	
gamma-BHC	A	13214	13410	13144	11920	12474	12619	13530	AVRG	R		7.751E-5		pg	12902	5	0.995	20	
beta-BHC	A	9708.6	7233.5	6382.7	5310.3	5452.1	5226.7	5039.2	AVRG	R		1.578E-4		pg	6336.2	**27**	0.995	20	rsd ***
delta-BHC	A	23571	18282	15537	13129	13582	13966	14282	AVRG	R		6.231E-5		pg	16050	**23**	0.995	20	rsd ***
Heptachlor	A	7809.9	9007.6	9205.2	8693.3	9210.9	9673.7	10225	AVRG	R		1.097E-4		pg	9118.0	8	0.995	20	
Aldrin	A	11022	11617	11489	10367	10797	10950	11332	AVRG	R		9.024E-5		pg	11082	4	0.995	20	
Heptachlor epoxide	A	10246	10358	10562	9411.6	9874.3	9671.3	9933.9	AVRG	R		9.992E-5		pg	10008	4	0.995	20	
gamma-Chlordane	A	11239	10694	10536	9511.1	9922.7	9929.7	10230	AVRG	R		9.714E-5		pg	10295	6	0.995	20	
alpha-Chlordane	A	10475	10533	10195	9127.0	9547.2	9666.3	9922.7	AVRG	R		1.008E-4		pg	9923.7	5	0.995	20	
4,4'-DDE	A	10014	10265	10065	9174.9	9815.7	10481	9286.9	AVRG	R		1.013E-4		pg	9871.8	5	0.995	20	
Endosulfan I	A	9347.7	9523.9	9543.9	8494.2	8965.2	8841.1	9100.9	AVRG	R		1.097E-4		pg	9116.7	4	0.995	20	
Dieldrin	A	9970.4	10457	10242	9304.7	9918.3	10584	9505.7	AVRG	R		1.000E-4		pg	9997.4	5	0.995	20	
Endrin	A	7783.4	8348.7	8231.0	7379.0	7663.6	8147.0	7769.9	AVRG	R		1.265E-4		pg	7903.2	4	0.995	20	
4,4'-DDD	A	8389.1	8399.0	8345.4	7477.7	7997.2	8437.6	7855.5	AVRG	R		1.230E-4		pg	8128.8	4	0.995	20	
Endosulfan II	A	9037.0	9032.5	8878.1	7817.3	8346.4	8615.2	8167.3	AVRG	R		1.169E-4		pg	8556.3	5	0.995	20	
4,4'-DDT	A	7629.3	8273.4	7992.9	7245.1	7823.2	8372.2	7860.0	AVRG	R		1.268E-4		pg	7885.1	5	0.995	20	
Endrin aldehyde	A	8668.5	7628.5	7146.3	6155.6	6492.2	6477.7	6276.7	AVRG	R		1.433E-4		pg	6977.9	13	0.995	20	
Methoxychlor	A	2956.3	3127.5	3082.7	2901.6	3124.0	3038.9	2391.0	AVRG	R		3.394E-4		pg	2946.0	9	0.995	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD Reviewed By: MCH
Calnum: 805389648001 Name: Type: (normal) Date: 27-SEP-2005 22:26 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Endosulfan sulfate	A	9212.7	8349.6	7786.1	6996.7	7261.5	7314.8	7002.9	AVRG	R		1.298E-4		pg	7703.5	11	0.995	20	
TCMX	A	8883.3	9055.6	8593.9	7938.9	8320.2	8381.8	8663.1	AVRG	R		1.170E-4		pg	8548.1	4	0.995	20	
Decachlorobiphenyl	A	4480.0	4407.6	5354.8	4975.1	5287.6	4684.3	4476.5	AVRG	R		2.079E-4		pg	4809.4	8	0.995	20	
alpha-BHC	B	8669.8	8247.2	8369.3	8128.7	8196.7	7731.2	8380.1	AVRG	R		1.213E-4		pg	8246.1	3	0.995	20	
gamma-BHC	B	8601.7	8135.9	7878.4	7870.6	7772.7	7538.0	8026.1	AVRG	R		1.254E-4		pg	7974.8	4	0.995	20	
beta-BHC	B	5427.3	4229.8	3863.6	3600.6	3379.7	3207.4		AVRG	R		2.531E-4		pg	3951.4	20	0.995	20	
delta-BHC	B	13513	10101	8997.6	8317.0	7943.1	8051.2	8329.3	AVRG	R		1.073E-4		pg	9321.7	**21**	0.995	20	rsd ***
Heptachlor	B	6169.7	6107.0	6235.6	6209.1	6030.8	6004.7	6275.4	AVRG	R		1.627E-4		pg	6147.5	2	0.995	20	
Aldrin	B	8023.5	7552.3	7269.4	7035.8	6747.6	6676.5	6600.1	AVRG	R		1.403E-4		pg	7129.3	7	0.995	20	
Heptachlor epoxide	B	7481.0	6950.0	6807.0	6500.0	6150.2	5944.8	5785.9	AVRG	R		1.534E-4		pg	6517.0	9	0.995	20	
gamma-Chlordane	B	7740.1	7117.9	6958.6	6601.4	6225.4	6123.9	6017.9	AVRG	R		1.496E-4		pg	6683.6	9	0.995	20	
alpha-Chlordane	B	7657.6	7215.8	6843.0	6436.2	6057.0	6063.7	5951.8	AVRG	R		1.514E-4		pg	6603.6	10	0.995	20	
4,4'-DDE	B	7017.8	6681.4	6490.2	6196.2	5853.3	6197.6	6127.0	AVRG	R		1.571E-4		pg	6366.2	6	0.995	20	
Endosulfan I	B	7092.5	6651.2	6392.0	6034.4	5685.9	5592.2	5368.6	AVRG	R		1.635E-4		pg	6116.7	10	0.995	20	
Dieldrin	B	7488.0	6914.2	6585.0	6293.2	5947.8	6226.7	6184.4	AVRG	R		1.534E-4		pg	6519.9	8	0.995	20	
Endrin	B	6156.6	5851.7	5625.1	5249.3	4834.0	5006.7	5142.2	AVRG	R		1.849E-4		pg	5409.4	9	0.995	20	
4,4'-DDD	B	6050.5	5841.3	5574.2	5111.4	4790.4	4976.6	5054.8	AVRG	R		1.872E-4		pg	5342.7	9	0.995	20	
Endosulfan II	B	6740.4	6133.7	5837.5	5417.5	5082.4	5212.9	5274.8	AVRG	R		1.763E-4		pg	5671.3	11	0.995	20	
4,4'-DDT	B	5434.7	5138.4	5206.5	4940.2	4696.7	4911.1	5169.0	AVRG	R		1.972E-4		pg	5070.9	5	0.995	20	
Endrin aldehyde	B	6444.1	5356.0	4774.8	4268.3	3997.7	3970.7	3925.5	AVRG	R		2.138E-4		pg	4676.7	20	0.995	20	
Methoxychlor	B	2331.3	2140.7	2099.6	1950.0	1827.0	1979.6	1755.0	AVRG	R		4.970E-4		pg	2011.9	10	0.995	20	
Endosulfan sulfate	B	6822.1	5808.8	5438.8	4928.5	4589.7	4600.5	4583.2	AVRG	R		1.904E-4		pg	5253.1	16	0.995	20	
TCMX	B	5717.8	5297.7	5206.9	4936.2	5125.6	4784.7	5111.0	AVRG	R		1.935E-4		pg	5168.5	6	0.995	20	
Decachlorobiphenyl	B	4797.7	4262.1	4673.0	4025.9	3628.5	3352.2	3435.0	AVRG	R		2.485E-4		pg	4024.9	14	0.995	20	

Method	Ch	Count	Avg %RSD	Limit	Flags
EPA 8081A	A	22	8	20	
EPA 8081A	B	22	10	20	

Flags used: rsd=ICAL %RSD failure
Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Calname :
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :

ICV 805389648029 (270_029) standards: S1463

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max	
alpha-BHC	A	805389648029	28-SEP-2005	25.000	26.418	pg	6	15	
gamma-BHC	A	805389648029	28-SEP-2005	25.000	26.201	pg	5	15	
beta-BHC	A	805389648029	28-SEP-2005	25.000	22.966	pg	-8	15	
delta-BHC	A	805389648029	28-SEP-2005	25.000	23.191	pg	-7	15	
Heptachlor	A	805389648029	28-SEP-2005	25.000	29.721	pg	**19**	15	v+ ***
Aldrin	A	805389648029	28-SEP-2005	25.000	26.686	pg	7	15	
Heptachlor epoxide	A	805389648029	28-SEP-2005	25.000	26.589	pg	6	15	
gamma-Chlordane	A	805389648029	28-SEP-2005	25.000	25.654	pg	3	15	
alpha-Chlordane	A	805389648029	28-SEP-2005	25.000	25.734	pg	3	15	
4,4'-DDE	A	805389648029	28-SEP-2005	25.000	26.671	pg	7	15	
Endosulfan I	A	805389648029	28-SEP-2005	25.000	26.976	pg	8	15	
Dieldrin	A	805389648029	28-SEP-2005	25.000	26.389	pg	6	15	
Endrin	A	805389648029	28-SEP-2005	25.000	28.107	pg	12	15	
4,4'-DDD	A	805389648029	28-SEP-2005	25.000	26.556	pg	6	15	
Endosulfan II	A	805389648029	28-SEP-2005	25.000	26.924	pg	8	15	
4,4'-DDT	A	805389648029	28-SEP-2005	25.000	27.418	pg	10	15	
Endrin aldehyde	A	805389648029	28-SEP-2005	25.000	26.518	pg	6	15	
Methoxychlor	A	805389648029	28-SEP-2005	25.000	32.377	pg	**30**	15	v+ ***
Endosulfan sulfate	A	805389648029	28-SEP-2005	25.000	26.247	pg	5	15	
alpha-BHC	B	805389648029	28-SEP-2005	25.000	23.573	pg	-6	15	
gamma-BHC	B	805389648029	28-SEP-2005	25.000	26.290	pg	5	15	
beta-BHC	B	805389648029	28-SEP-2005	25.000	23.469	pg	-6	15	
delta-BHC	B	805389648029	28-SEP-2005	25.000	23.815	pg	-5	15	
Heptachlor	B	805389648029	28-SEP-2005	25.000	27.612	pg	10	15	
Aldrin	B	805389648029	28-SEP-2005	25.000	26.281	pg	5	15	
Heptachlor epoxide	B	805389648029	28-SEP-2005	25.000	26.117	pg	4	15	
gamma-Chlordane	B	805389648029	28-SEP-2005	25.000	25.735	pg	3	15	
alpha-Chlordane	B	805389648029	28-SEP-2005	25.000	25.677	pg	3	15	
4,4'-DDE	B	805389648029	28-SEP-2005	25.000	27.025	pg	8	15	
Endosulfan I	B	805389648029	28-SEP-2005	25.000	26.371	pg	5	15	
Dieldrin	B	805389648029	28-SEP-2005	25.000	26.101	pg	4	15	
Endrin	B	805389648029	28-SEP-2005	25.000	27.199	pg	9	15	
4,4'-DDD	B	805389648029	28-SEP-2005	25.000	27.112	pg	8	15	
Endosulfan II	B	805389648029	28-SEP-2005	25.000	26.988	pg	8	15	
4,4'-DDT	B	805389648029	28-SEP-2005	25.000	28.021	pg	12	15	
Endrin aldehyde	B	805389648029	28-SEP-2005	25.000	26.642	pg	7	15	
Methoxychlor	B	805389648029	28-SEP-2005	25.000	33.742	pg	**35**	15	v+ ***
Endosulfan sulfate	B	805389648029	28-SEP-2005	25.000	26.639	pg	7	15	

Method	Ch	Count	Avg %D	Limit	Flags
EPA 8081A	A	20	8	15	
EPA 8081A	B	20	8	15	

+=high bias v=ICV
Page 1 of 1

PERFORMANCE EVALUATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805422510002 Run Name: pem Injected: 20-OCT-2005 09:50
Filename: 293_002 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	402461.03
Endrin aldehyde	A	9969.21
Endrin ketone	A	28418.95

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	728330.71
4,4'-DDE	A	3153.4
4,4'-DDD	A	66102.34

4,4'-DDT Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	258175.34
Endrin aldehyde	B	8447.49
Endrin ketone	B	26410.52

Endrin Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	437780.83
4,4'-DDE	B	2634.39
4,4'-DDD	B	48694.58

4,4'-DDT Breakdown %: 10
Breakdown Limit %: 15

PERFORMANCE EVALUATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instrument: GC23 Gas Chromatograph #23 ECD
Seqnum: 805422510014 Run Name: pem Injected: 20-OCT-2005 15:47
Filename: 293_014 Standard(s): S1554

Analyte	Ch	Area
Endrin	A	376624.4
Endrin aldehyde	A	6134.02
Endrin ketone	A	30197.59

Endrin Breakdown %: 9
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	A	627664
4,4'-DDE	A	4766.73
4,4'-DDD	A	79478.2

4,4'-DDT Breakdown %: 12
Breakdown Limit %: 15

Analyte	Ch	Area
Endrin	B	239137.73
Endrin aldehyde	B	4660.77
Endrin ketone	B	21223.22

Endrin Breakdown %: 10
Breakdown Limit %: 15

Analyte	Ch	Area
4,4'-DDT	B	361949.91
4,4'-DDE	B	1918.25
4,4'-DDD	B	62643.63

4,4'-DDT Breakdown %: 15
Breakdown Limit %: 15

CONTINUING CALIBRATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_3 IDF : 1.0
Seqnum : 805422510003 Filename : 293_003 Injected : 20-OCT-2005 10:18
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :
Standards: S1653

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	14006	14725	10.00000	10.51290	pg	5	15	
gamma-BHC	A	12902	13143	10.00000	10.18728	pg	2	15	
beta-BHC	A	6336.2	5615.6	10.00000	8.862754	pg	-11	15	rsd ***
delta-BHC	A	16050	13521	10.00000	8.424390	pg	**-16**	15	c- rsd ***
Heptachlor	A	9118.0	11261	10.00000	12.35016	pg	**24**	15	c+ ***
Aldrin	A	11082	11720	10.00000	10.57526	pg	6	15	
Heptachlor epoxide	A	10008	10733	10.00000	10.72396	pg	7	15	
gamma-Chlordane	A	10295	10767	10.00000	10.45906	pg	5	15	
alpha-Chlordane	A	9923.7	10372	10.00000	10.45205	pg	5	15	
4,4'-DDE	A	9871.8	10375	20.00000	21.01997	pg	5	15	
Endosulfan I	A	9116.7	9574.7	10.00000	10.50234	pg	5	15	
Dieldrin	A	9997.4	10426	20.00000	20.85707	pg	4	15	
Endrin	A	7903.2	8461.5	20.00000	21.41283	pg	7	15	
4,4'-DDD	A	8128.8	8776.9	20.00000	21.59457	pg	8	15	
Endosulfan II	A	8556.3	8847.6	20.00000	20.68108	pg	3	15	
4,4'-DDT	A	7885.1	7655.6	20.00000	19.41779	pg	-3	15	
Endrin aldehyde	A	6977.9	6684.1	20.00000	19.15797	pg	-4	15	
Methoxychlor	A	2946.0	2996.9	100.0000	101.7294	pg	2	15	
Endosulfan sulfate	A	7703.5	7672.1	20.00000	19.91849	pg	0	15	
TCMX	A	8548.1	8750.3	20.00000	20.47312	pg	2	15	
Decachlorobiphenyl	A	4809.4	5058.6	20.00000	21.03634	pg	5	15	
alpha-BHC	B	8246.1	9148.3	10.00000	11.09405	pg	11	15	
gamma-BHC	B	7974.8	8601.2	10.00000	10.78548	pg	8	15	
beta-BHC	B	3951.4	3860.2	10.00000	9.769258	pg	-2	15	
delta-BHC	B	9321.7	8765.3	10.00000	9.403070	pg	-6	15	rsd ***
Heptachlor	B	6147.5	7245.2	10.00000	11.78570	pg	**18**	15	c+ ***
Aldrin	B	7129.3	7896.7	10.00000	11.07633	pg	11	15	
Heptachlor epoxide	B	6517.0	7474.8	10.00000	11.46967	pg	15	15	
gamma-Chlordane	B	6683.6	7474.0	10.00000	11.18257	pg	12	15	
alpha-Chlordane	B	6603.6	7303.4	10.00000	11.05974	pg	11	15	
4,4'-DDE	B	6366.2	6953.8	20.00000	21.84612	pg	9	15	
Endosulfan I	B	6116.7	6871.1	10.00000	11.23335	pg	12	15	
Dieldrin	B	6519.9	7007.3	20.00000	21.49521	pg	7	15	
Endrin	B	5409.4	5651.5	20.00000	20.89521	pg	4	15	
4,4'-DDD	B	5342.7	5845.5	20.00000	21.88191	pg	9	15	
Endosulfan II	B	5671.3	6057.7	20.00000	21.36234	pg	7	15	
4,4'-DDT	B	5070.9	4801.6	20.00000	18.93766	pg	-5	15	
Endrin aldehyde	B	4676.7	4728.0	20.00000	20.21911	pg	1	15	
Methoxychlor	B	2011.9	1977.5	100.0000	98.29096	pg	-2	15	
Endosulfan sulfate	B	5253.1	5343.1	20.00000	20.34283	pg	2	15	
TCMX	B	5168.5	5760.8	20.00000	22.29156	pg	11	15	
Decachlorobiphenyl	B	4024.9	3806.4	20.00000	18.91429	pg	-5	15	
Average EPA 8081A	A		(count=22)				6	15	
Average EPA 8081A	B		(count=22)				8	15	

+=high bias -=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

CONTINUING CALIBRATION REPORT FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Instid : GC23 Run Name : pest_4 IDF : 1.0
Seqnum : 805422510016 Filename : 293_016 Injected : 20-OCT-2005 16:44
Calnum : 805389648001 Caldate : 27-SEP-2005 Caltype :
Standards: S1654

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
alpha-BHC	A	14006	12838	20.00000	18.33155	pg	-8	15	
gamma-BHC	A	12902	11649	20.00000	18.05829	pg	-10	15	
beta-BHC	A	6336.2	4978.8	20.00000	15.71547	pg	**-21**	15	c- rsd ***
delta-BHC	A	16050	12146	20.00000	15.13534	pg	**-24**	15	c- rsd ***
Heptachlor	A	9118.0	9986.0	20.00000	21.90394	pg	10	15	
Aldrin	A	11082	10478	20.00000	18.91011	pg	-5	15	
Heptachlor epoxide	A	10008	9621.8	20.00000	19.22812	pg	-4	15	
gamma-Chlordane	A	10295	9654.1	20.00000	18.75544	pg	-6	15	
alpha-Chlordane	A	9923.7	9329.7	20.00000	18.80275	pg	-6	15	
4,4'-DDE	A	9871.8	9350.4	40.00000	37.88737	pg	-5	15	
Endosulfan I	A	9116.7	8807.6	20.00000	19.32178	pg	-3	15	
Dieldrin	A	9997.4	9499.5	40.00000	38.00764	pg	-5	15	
Endrin	A	7903.2	7728.9	40.00000	39.11745	pg	-2	15	
4,4'-DDD	A	8128.8	8189.3	40.00000	40.29783	pg	1	15	
Endosulfan II	A	8556.3	8060.4	40.00000	37.68172	pg	-6	15	
4,4'-DDT	A	7885.1	6722.1	40.00000	34.10010	pg	-15	15	
Endrin aldehyde	A	6977.9	6164.6	40.00000	35.33789	pg	-12	15	
Methoxychlor	A	2946.0	2797.7	200.0000	189.9338	pg	-5	15	
Endosulfan sulfate	A	7703.5	7052.6	40.00000	36.62051	pg	-8	15	
TCMX	A	8548.1	7774.4	40.00000	36.37958	pg	-9	15	
Decachlorobiphenyl	A	4809.4	5002.6	40.00000	41.60649	pg	4	15	
alpha-BHC	B	8246.1	7758.8	20.00000	18.81804	pg	-6	15	
gamma-BHC	B	7974.8	7200.4	20.00000	18.05790	pg	-10	15	
beta-BHC	B	3951.4	3158.0	20.00000	15.98415	pg	**-20**	15	c- ***
delta-BHC	B	9321.7	7313.5	20.00000	15.69136	pg	**-22**	15	c- rsd ***
Heptachlor	B	6147.5	6015.8	20.00000	19.57180	pg	-2	15	
Aldrin	B	7129.3	6574.1	20.00000	18.44245	pg	-8	15	
Heptachlor epoxide	B	6517.0	6123.2	20.00000	18.79159	pg	-6	15	
gamma-Chlordane	B	6683.6	6198.0	20.00000	18.54681	pg	-7	15	
alpha-Chlordane	B	6603.6	6056.2	20.00000	18.34232	pg	-8	15	
4,4'-DDE	B	6366.2	5783.5	40.00000	36.33848	pg	-9	15	
Endosulfan I	B	6116.7	5663.1	20.00000	18.51687	pg	-7	15	
Dieldrin	B	6519.9	5826.3	40.00000	35.74484	pg	-11	15	
Endrin	B	5409.4	4630.6	40.00000	34.24153	pg	-14	15	
4,4'-DDD	B	5342.7	5017.7	40.00000	37.56632	pg	-6	15	
Endosulfan II	B	5671.3	4990.4	40.00000	35.19728	pg	-12	15	
4,4'-DDT	B	5070.9	3872.2	40.00000	30.54414	pg	**-24**	15	c- ***
Endrin aldehyde	B	4676.7	3873.3	40.00000	33.12840	pg	**-17**	15	c- ***
Methoxychlor	B	2011.9	1568.7	200.0000	155.9472	pg	**-22**	15	c- ***
Endosulfan sulfate	B	5253.1	4383.5	40.00000	33.37818	pg	**-17**	15	c- ***
TCMX	B	5168.5	4807.2	40.00000	37.20368	pg	-7	15	
Decachlorobiphenyl	B	4024.9	2891.8	40.00000	28.73929	pg	**-28**	15	c-
Average EPA 8081A	A		(count=22)				8	15	
Average EPA 8081A	B		(count=22)				13	15	

-=low bias c=CCV rsd=ICAL %RSD failure
Page 1 of 1

SEQUENCE SUMMARY FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805389648 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 27-SEP-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
006	270_006	X	pem			27-SEP-2005 14:08	1.0		1			1	
018	270_018	PEM	pem			27-SEP-2005 21:01	1.0		1			1	
019	270_019	X	hex			27-SEP-2005 21:29	1.0						
020	270_020	X	hex			27-SEP-2005 21:57	1.0						
021	270_021	ICAL	pest_1			27-SEP-2005 22:26	1.0					2	
022	270_022	ICAL	pest_2			27-SEP-2005 22:54	1.0					3	
023	270_023	ICAL	pest_3			27-SEP-2005 23:22	1.0					4	
024	270_024	ICAL	pest_4			27-SEP-2005 23:51	1.0					5	
025	270_025	ICAL	pest_5			28-SEP-2005 00:19	1.0					6	
026	270_026	ICAL	pest_6			28-SEP-2005 00:47	1.0					7	
027	270_027	ICAL	pest_7			28-SEP-2005 01:16	1.0					8	
029	270_029	ICV				28-SEP-2005 02:12	1.0	3	1			9	
030	270_030	X	icv			28-SEP-2005 02:41	1.0					9	
032	270_032	X	pem			28-SEP-2005 03:37	1.0					1	

62

Stds used: 1=S1554 2=S737 3=S874 4=S1377 5=S1378 6=S1379 7=S875 8=S876 9=S1463

SEQUENCE SUMMARY FOR 182357 8081 Soil
Curtis & Tompkins Laboratories

Sequence: 805422510 Instrument: GC23 Gas Chromatograph #23 ECD Begun: 20-OCT-2005
Analytical Method: EPA 8081A SOP Version: 8081_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
002	293_002	PEM	pem			20-OCT-2005 09:50	1.0	1.0			1	1	
003	293_003	CCV	pest_3			20-OCT-2005 10:18	1.0	1.0	5		1	2	
004	293_004	BLANK	QC313628	106900	Soil	20-OCT-2005 10:48	1.0	0.6575	9		1		
005	293_005	LCS	QC313629	106900	Soil	20-OCT-2005 11:16	1.0	0.6627	11		1		
006	293_006	SAMPLE	182539-008	106900	Soil	20-OCT-2005 11:44	1.0	0.6729	8		1		
007	293_007	SAMPLE	182357-001	106900	Soil	20-OCT-2005 12:27	10.0	0.6588	8		1		
008	293_008	SAMPLE	182357-002	106900	Soil	20-OCT-2005 12:55	1.0	0.6711	8		1		
009	293_009	SAMPLE	182507-002	106900	Soil	20-OCT-2005 13:23	5.0	0.6631	8		1		
010	293_010	MSS	182560-001	106900	Soil	20-OCT-2005 13:52	5.0	0.6588	9		1		
011	293_011	MS	QC313630	106900	Soil	20-OCT-2005 14:20	5.0	0.6645	11	7	1		
012	293_012	MSD	QC313631	106900	Soil	20-OCT-2005 14:48	5.0	0.6676	11	2	1		
014	293_014	PEM	pem			20-OCT-2005 15:47	1.0	1.0			1	1	
015	293_015	X	pest_4			20-OCT-2005 16:15	1.0	1.0			1	3 ac	
016	293_016	CCV	pest_4			20-OCT-2005 16:44	1.0	1.0	9		1	3	

63

Stds used: 1=S1554 2=S1653 3=S1654
Flags used: ac=average CCV drift out

Curtis & Tompkins Laboratories Sample Preparation Summary 19-OCT-2005 14:30

Batch Number : 106900
Date Extracted: 19-OCT-2005
Extracted by : Jessie O'Brien Mee
Prep Method : 3545

Analysis : 8081
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685B
Spike #2 ID : S1154C
Spike #3 ID :
SOP Version : 8081ASE_rv0

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001			Mactec, Inc.	Soil	15.18	g	10	0.658762	1		.02	0		8081	3620B	
182357-002			Mactec, Inc.	Soil	14.9	g	10	0.671141	1		.02	0		8081	3620B	
182507-002			East Bay Regional Park Distric	Soil	15.08	g	10	0.663130	1		.02	0		8081	3620B	
182539-008			Mactec, Inc.	Soil	14.86	g	10	0.672948	1		.02	0		8081	3620B	
182560-001			TRC Environmental Solutions, I	Soil	15.18	g	10	0.658762	1		.02	0		8081	3620B	MSS
QC313628	BLANK			Soil	15.21	g	10	0.657462	1		.02	0		8081	3620B	
QC313629	LCS			Soil	15.09	g	10	0.662691	1		.02	.025		8081	3620B	
QC313630	MS	of 182560-001		Soil	15.05	g	10	0.664452	1		.02	.025		8081	3620B	
QC313631	MSD	of 182560-001		Soil	14.98	g	10	0.667557	1		.02	.025		8081	3620B	

64

Prep Chemist: Jessie Mee Reviewed By: [signature] Date: 10/19/05

Relinquished By: Jessie Mee Received By: JP Date: 10/20/05

Curtis & Tompkins, Ltd. **8081 SOIL PREP LOG** BK 2164

LIMS Batch No: 106900 **Extraction Method:** **Cleanup Method:** Page 44

LIMS Analysis: 8081 ☐ EPA 3550b Sonication ☐ EPA 3640a GPC

Extracted by: JMM ☒ EPA 3545 PFE (Mth# 10) ☒ EPA 3620b Florisil

Date Extracted: 19 Oct 05 ☐ EPA 3540c Soxhlet ☐ _____

☐ _____

Sample # and letter	Sample Wt (g)	Final Vol (mL)	Cleanup (x if needed)	Comments
182357-001	15.18	10.0	X	
↓ 02	14.90	↓	↓	
182507-002	15.08			
182539-008	14.86			
182560-001	15.18			MSS
MB QC313.28	15.21			
LCS 29	15.09			
MS 30	15.05			
MSD ↓ 31	14.98			

JMM 10/19/05

Granular Na_2SO_4 ~~Sand~~ weighed out for QC samples

dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☒ diatomaceous earth

0.02 mL of surrogate solution was added to all samples

0.025 mL of spike solution was added to all spikes

1:1 CH_2Cl_2 (lot# EM45188):Acetone(lot# EM45047) was added to all

☐ sonicated 3 times w/ ≥100mL ☒ PFE extracted ☐ soxhlet extracted

ASE Cellulose Filters used:

Soxhlets on at:

Soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4

Exchanged 2x with Hexane

Concentrated: ☒ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☒ Florisil

Mfg & Lot # / LIMS # / Time	Initials / Date
EM135439	JMM 10/19/05
Rocket 20701AA	
S1185B	
S1154C	
✓	
✓	
Rocket 4510101	
NA	
C0737	
✓	
✓	↓

Jessica Lee 10/19/05

Extraction Chemist / Date

65

Continued from page —

Continued on page —

Reviewed by / Da

Curtis & Tompkins, Ltd. **Florisil Cleanup** **EPA 3620B**

Prep Chemist: JDM
Cleanup Date: 19 Oct 05

Benchbook # **BK 1984**
Page 64

Sample #	Extraction Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
182357-001	106900	1.0	1.0	
↓ 02	↓	↓	↓	
182507-002				
182539-008				
182560-001				MSS
MB QC313628				
LCS 29				
MS 30				
MSD 31				

JDM 10/19/05

☒ Extracts were cleaned up using Florisil cartridges
Florisil cartridges/ columns rinsed 3x with Hexane
Extracts were eluted with 9.0 mL 9:1 Hexane/Acetone
Concentrated to volumes as noted above

Mfg & Lot # / Time / Program	Initials / Date
SP [illegible]57	JDM 10/19/05
CO737	
CO737	
EM45125	
	KMH 10/19/05

JDM 10/19/05
Extraction Chemist / Date

Continued from page —
Continued on page —

KMH 10/19/05
Reviewed by / Date

Project Soil Aliquot

BK2219

Continued from Page

Sample I.D.	Weight (g)	Analysis	Comments
MB	49.74	TEH	Na_2SO_4 EM44135439
LCS A	49.99		
LCS B	49.98		
LCS C	50.27		
LCS D	49.96	TEH	Na_2SO_4 EM44135439
MB	50.29		
BS	50.17		
BSD	49.69		
182286-027A	50.01	8270	Na_2SO_4 EM44135439
MB	29.93		
LCS A	29.95		
LCS B	30.05		
LCS C	29.90		
LCS D	30.04		
182553-001 A	29.89	8270-S/M	Aliased of 182286-006A
002	29.80		Aliased of 182313-001A
003	30.09		Aliased of 182286-007A
004	29.68		MSS-Aliased of 182313-002A EM44135439
LCS	30.43		
MB	29.75		
MS	30.01		
MSD	29.86		
182539-008A	~~30.40~~ 14.86	8081	
182507-002A	~~29.95~~ 15.08	8081	
182357-001A	~~30.40~~ 15.18	8081	
002	~~30.25~~ 14.90	8081	
182560-001	15.18	8081	MSS-Comp of A,B,C,D EM44135439
LCS	15.09		
MB	15.21		
MS	15.05		
MSD	14.98		

Continued on Page

Read and Understood By

Signed

10/19/05

Date

Signed

Date

REPORTING SUMMARY FOR 182357 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182357-001	alpha-BHC	GC23	A	10/20/05 12:27
182357-001	beta-BHC	GC23	A	10/20/05 12:27
182357-001	gamma-BHC	GC23	A	10/20/05 12:27
182357-001	delta-BHC	GC23	A	10/20/05 12:27
182357-001	Heptachlor	GC23	A	10/20/05 12:27
182357-001	Aldrin	GC23	A	10/20/05 12:27
182357-001	Heptachlor epoxide	GC23	A	10/20/05 12:27
182357-001	Endosulfan I	GC23	A	10/20/05 12:27
182357-001	Dieldrin	GC23	A	10/20/05 12:27
182357-001	4,4'-DDE	GC23	A	10/20/05 12:27
182357-001	Endrin	GC23	A	10/20/05 12:27
182357-001	Endosulfan II	GC23	A	10/20/05 12:27
182357-001	Endosulfan sulfate	GC23	A	10/20/05 12:27
182357-001	4,4'-DDD	GC23	A	10/20/05 12:27
182357-001	Endrin aldehyde	GC23	A	10/20/05 12:27
182357-001	4,4'-DDT	GC23	A	10/20/05 12:27
182357-001	alpha-Chlordane	GC23	A	10/20/05 12:27
182357-001	gamma-Chlordane	GC23	A	10/20/05 12:27
182357-001	Methoxychlor	GC23	A	10/20/05 12:27
182357-001	Toxaphene	GC23	B	10/20/05 12:27
182357-001	TCMX	GC23	A	10/20/05 12:27
182357-001	Decachlorobiphenyl	GC23	A	10/20/05 12:27
182357-002	alpha-BHC	GC23	A	10/20/05 12:55
182357-002	beta-BHC	GC23	A	10/20/05 12:55
182357-002	gamma-BHC	GC23	A	10/20/05 12:55
182357-002	delta-BHC	GC23	A	10/20/05 12:55
182357-002	Heptachlor	GC23	A	10/20/05 12:55
182357-002	Aldrin	GC23	A	10/20/05 12:55
182357-002	Heptachlor epoxide	GC23	A	10/20/05 12:55
182357-002	Endosulfan I	GC23	A	10/20/05 12:55
182357-002	Dieldrin	GC23	A	10/20/05 12:55
182357-002	4,4'-DDE	GC23	A	10/20/05 12:55
182357-002	Endrin	GC23	A	10/20/05 12:55
182357-002	Endosulfan II	GC23	A	10/20/05 12:55
182357-002	Endosulfan sulfate	GC23	A	10/20/05 12:55
182357-002	4,4'-DDD	GC23	A	10/20/05 12:55
182357-002	Endrin aldehyde	GC23	A	10/20/05 12:55
182357-002	4,4'-DDT	GC23	A	10/20/05 12:55
182357-002	alpha-Chlordane	GC23	A	10/20/05 12:55
182357-002	gamma-Chlordane	GC23	A	10/20/05 12:55
182357-002	Methoxychlor	GC23	A	10/20/05 12:55
182357-002	Toxaphene	GC23	B	10/20/05 12:55
182357-002	TCMX	GC23	A	10/20/05 12:55
182357-002	Decachlorobiphenyl	GC23	A	10/20/05 12:55
QC313628	alpha-BHC	GC23	A	10/20/05 10:48
QC313628	beta-BHC	GC23	A	10/20/05 10:48
QC313628	gamma-BHC	GC23	A	10/20/05 10:48
QC313628	delta-BHC	GC23	A	10/20/05 10:48
QC313628	Heptachlor	GC23	A	10/20/05 10:48
QC313628	Aldrin	GC23	A	10/20/05 10:48
QC313628	Heptachlor epoxide	GC23	A	10/20/05 10:48
QC313628	Endosulfan I	GC23	A	10/20/05 10:48

REPORTING SUMMARY FOR 182357 8081 Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
QC313628	Dieldrin	GC23	A	10/20/05 10:48
QC313628	4,4'-DDE	GC23	A	10/20/05 10:48
QC313628	Endrin	GC23	A	10/20/05 10:48
QC313628	Endosulfan II	GC23	A	10/20/05 10:48
QC313628	Endosulfan sulfate	GC23	A	10/20/05 10:48
QC313628	4,4'-DDD	GC23	A	10/20/05 10:48
QC313628	Endrin aldehyde	GC23	A	10/20/05 10:48
QC313628	4,4'-DDT	GC23	A	10/20/05 10:48
QC313628	alpha-Chlordane	GC23	A	10/20/05 10:48
QC313628	gamma-Chlordane	GC23	A	10/20/05 10:48
QC313628	Methoxychlor	GC23	A	10/20/05 10:48
QC313628	Toxaphene	GC23	A	10/20/05 10:48
QC313628	TCMX	GC23	A	10/20/05 10:48
QC313628	Decachlorobiphenyl	GC23	A	10/20/05 10:48
QC313629	gamma-BHC	GC23	A	10/20/05 11:16
QC313629	Heptachlor	GC23	A	10/20/05 11:16
QC313629	Aldrin	GC23	A	10/20/05 11:16
QC313629	Dieldrin	GC23	A	10/20/05 11:16
QC313629	Endrin	GC23	A	10/20/05 11:16
QC313629	4,4'-DDT	GC23	A	10/20/05 11:16
QC313629	TCMX	GC23	A	10/20/05 11:16
QC313629	Decachlorobiphenyl	GC23	A	10/20/05 11:16
QC313630	gamma-BHC	GC23	A	10/20/05 14:20
QC313630	Heptachlor	GC23	A	10/20/05 14:20
QC313630	Aldrin	GC23	A	10/20/05 14:20
QC313630	Dieldrin	GC23	A	10/20/05 14:20
QC313630	Endrin	GC23	A	10/20/05 14:20
QC313630	4,4'-DDT	GC23	A	10/20/05 14:20
QC313630	TCMX	GC23	A	10/20/05 14:20
QC313630	Decachlorobiphenyl	GC23	A	10/20/05 14:20
QC313631	gamma-BHC	GC23	A	10/20/05 14:48
QC313631	Heptachlor	GC23	A	10/20/05 14:48
QC313631	Aldrin	GC23	A	10/20/05 14:48
QC313631	Dieldrin	GC23	A	10/20/05 14:48
QC313631	Endrin	GC23	A	10/20/05 14:48
QC313631	4,4'-DDT	GC23	A	10/20/05 14:48
QC313631	TCMX	GC23	A	10/20/05 14:48
QC313631	Decachlorobiphenyl	GC23	A	10/20/05 14:48

Polychlorinated Biphenyls Soil

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	107008		

Field ID:	BBSB119(2.5)	Moisture:	11%
Type:	SAMPLE	Analyzed:	10/24/05
Lab ID:	182357-001	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	7.0
Aroclor-1221	ND	27	10
Aroclor-1232	ND	13	3.2
Aroclor-1242	ND	13	2.9
Aroclor-1248	ND	13	0.63
Aroclor-1254	ND	13	6.8
Aroclor-1260	ND	13	3.8

Surrogate	%REC	Limits
TCMX	112	62-142
Decachlorobiphenyl	120	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	107008		

Field ID:	BBSB119(4.5)	Moisture:	11%
Type:	SAMPLE	Analyzed:	10/24/05
Lab ID:	182357-002	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	7.0
Aroclor-1221	ND	27	10
Aroclor-1232	ND	13	3.2
Aroclor-1242	ND	13	2.8
Aroclor-1248	ND	13	0.62
Aroclor-1254	ND	13	6.8
Aroclor-1260	ND	13	3.7

Surrogate	%REC	Limits
TCMX	102	62-142
Decachlorobiphenyl	128	53-153

Type:	BLANK	Analyzed:	10/23/05
Lab ID:	QC314075	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	6.3
Aroclor-1221	ND	24	9.1
Aroclor-1232	ND	12	2.8
Aroclor-1242	ND	12	2.5
Aroclor-1248	ND	12	0.56
Aroclor-1254	ND	12	6.1
Aroclor-1260	ND	12	3.3

Surrogate	%REC	Limits
TCMX	105	62-142
Decachlorobiphenyl	99	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC314076	Batch#:	107008
Matrix:	Soil	Prepared:	10/21/05
Units:	ug/Kg	Analyzed:	10/23/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1248	164.2	170.4	104	72-155

Surrogate	%REC	Limits
TCMX	91	62-142
Decachlorobiphenyl	85	53-153

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	182403-013	Batch#:	107008
Matrix:	Soil	Sampled:	10/11/05
Units:	ug/Kg	Received:	10/12/05
Basis:	dry	Prepared:	10/21/05

Type:	MS	Analyzed:	10/23/05
Lab ID:	QC314077	Cleanup Method:	EPA 3665A
Moisture:	22%		

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1248	<0.7174	215.5	290.5	135	77-168

Surrogate	%REC	Limits
TCMX	109	62-142
Decachlorobiphenyl	147	53-153

Type:	MSD	Analyzed:	10/24/05
Lab ID:	QC314078	Cleanup Method:	EPA 3665A
Moisture:	22%		

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1248	214.2	277.1	129	77-168	4	37

Surrogate	%REC	Limits
TCMX	103	62-142
Decachlorobiphenyl	372 *	53-153

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

INITIAL CALIBRATION REPORT FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825423432001 Name: Type: (normal) Date: 21-OCT-2005 01:12 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	293_014	825423432014	pcb10_2	21-OCT-2005 01:12	S1364
2	293_015	825423432015	pcb25_5	21-OCT-2005 01:39	S1385
3	293_016	825423432016	pcb100_20	21-OCT-2005 02:07	S1209
4	293_017	825423432017	pcb250_50	21-OCT-2005 02:35	S1384
5	293_018	825423432018	pcb500_100	21-OCT-2005 03:03	S1635
6	293_019	825423432019	pcb750_150	21-OCT-2005 03:31	S1383
7	293_020	825423432020	pcb1k_200	21-OCT-2005 03:58	S1365

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	MxRSD	Flags
Aroclor-1016 Peak # 1	A	224.14	234.45	192.26	187.44	184.64	174.26	170.34	AVRG	R		0.005119		pg	195.36	13	.99	20	
Aroclor-1016 Peak # 2	A	323.07	363.10	329.41	315.44	315.59	302.71	271.84	AVRG	R		0.003152		pg	317.31	9	.99	20	
Aroclor-1016 Peak # 3	A	910.26	872.73	809.26	763.67	756.59	735.07	727.98	AVRG	R		0.001255		pg	796.51	9	.99	20	
Aroclor-1016 Peak # 4	A	305.30	309.65	226.59	218.47	223.01	218.62	214.47	AVRG	R		0.004079		pg	245.16	17	.99	20	
Aroclor-1016 Peak # 5	A	233.09	246.91	221.06	203.80	207.92	197.97	194.36	AVRG	R		0.004651		pg	215.01	9	.99	20	
Aroclor-1260 Peak # 1	A	1126.1	1129.6	1021.1	955.28	920.60	926.91	926.23	AVRG	R		9.992E-4		pg	1000.8	9	.99	20	
Aroclor-1260 Peak # 2	A	319.45	310.70	284.74	271.66	260.24	261.33	260.81	AVRG	R		0.003555		pg	281.27	9	.99	20	
Aroclor-1260 Peak # 3	A	608.50	539.96	480.06	443.14	427.02	434.81	430.32	AVRG	R		0.002081		pg	480.54	14	.99	20	
Aroclor-1260 Peak # 4	A	1506.1	1370.5	1244.3	1157.6	1110.5	1156.0	1168.5	AVRG	R		8.033E-4		pg	1244.8	12	.99	20	
Aroclor-1260 Peak # 5	A	256.60	243.26	234.93	221.56	209.21	216.60	219.26	AVRG	R		0.004371		pg	228.77	7	.99	20	
TCMX	A	11978	10979	9529.9	9066.8	9267.7	8976.0	8810.1	AVRG	R		1.020E-4		pg	9801.0	12	.99	20	
Decachlorobiphenyl	A	7420.5	6680.4	6166.2	5587.2	5152.0	5938.6	6055.0	AVRG	R		1.628E-4		pg	6142.8	12	.99	20	
Aroclor-1016 Peak # 1	B	264.40	190.18	192.68	220.55	219.28	224.56	184.28	AVRG	R		0.004679		pg	213.70	13	.99	20	
Aroclor-1016 Peak # 2	B	359.00	354.58	300.94	292.98	284.93	285.25	276.39	AVRG	R		0.003250		pg	307.72	11	.99	20	
Aroclor-1016 Peak # 3	B	1124.9	1058.2	1041.0	948.07	974.29	1045.8	1094.0	AVRG	R		9.607E-4		pg	1040.9	6	.99	20	
Aroclor-1016 Peak # 4	B	448.47	414.25	411.27	390.75	384.36	395.66	394.74	AVRG	R		0.002465		pg	405.64	5	.99	20	
Aroclor-1016 Peak # 5	B	363.94	280.40	246.27	244.37	228.35	244.07	226.04	AVRG	R		0.003818		pg	261.92	18	.99	20	
Aroclor-1260 Peak # 1	B	1748.8	1475.6	1331.2	1293.2	1316.8	1421.9	1502.3	AVRG	R		6.938E-4		pg	1441.4	11	.99	20	
Aroclor-1260 Peak # 2	B	935.88	875.21	747.69	706.10	716.25	776.12	789.42	AVRG	R		0.001262		pg	792.38	11	.99	20	

75

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825423432001 Name: Type: (normal) Date: 21-OCT-2005 01:12 Inj Vol (uL): 1

Analyte	Ch	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1260 Peak # 3	B	823.50	647.96	614.35	593.43	590.09	615.48	633.62	AVRG	R		0.001549		pg	645.49	13	.99	20	
Aroclor-1260 Peak # 4	B	2056.4	1803.0	1739.3	1757.1	1925.0	2185.2	2451.6	AVRG	R		5.030E-4		pg	1988.2	13	.99	20	
Aroclor-1260 Peak # 5	B	895.10	809.25	810.98	789.04	799.88	835.62	871.83	AVRG	R		0.001204		pg	830.24	5	.99	20	
TCMX	B	14525	13505	13095	14083	16277	14438	12320	AVRG	R		7.125E-5		pg	14035	9	.99	20	
Decachlorobiphenyl	B	12912	11215	10294	10086	11198	13812	13939	AVRG	R		8.388E-5		pg	11922	14	.99	20	

76

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION 2ND SOURCE VALIDATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Instid : GC25 Calname :
Calnum : 825423432001 Caldate : 21-OCT-2005 Caltype :

ICV 825423432022 (293_022) standards: S1553

Analyte	Ch	ICV Seqnum	Date	Spiked	Quant	Units	%D	Max
Aroclor-1016	A	825423432022	21-OCT-2005	250.00	240.64	pg	-4	15
Aroclor-1260	A	825423432022	21-OCT-2005	250.00	265.11	pg	6	15
Aroclor-1016	B	825423432022	21-OCT-2005	250.00	235.52	pg	-6	15
Aroclor-1260	B	825423432022	21-OCT-2005	250.00	250.47	pg	0	15

INITIAL CALIBRATION REPORT FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825423432002 Name: Type: (normal) Date: 21-OCT-2005 05:49 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	293_024	825423432024	ar1248	21-OCT-2005 05:49	S1437

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1248 Peak # 1	A	393.06	AVRG	R		0.002544		pg	393.06	0	.99	20	
Aroclor-1248 Peak # 2	A	340.00	AVRG	R		0.002941		pg	340.00	0	.99	20	
Aroclor-1248 Peak # 3	A	191.59	AVRG	R		0.005219		pg	191.59	0	.99	20	
Aroclor-1248 Peak # 4	A	368.70	AVRG	R		0.002712		pg	368.70	0	.99	20	
Aroclor-1248 Peak # 5	A	318.66	AVRG	R		0.003138		pg	318.66	0	.99	20	
Aroclor-1248 Peak # 1	B	274.56	AVRG	R		0.003642		pg	274.56	0	.99	20	
Aroclor-1248 Peak # 2	B	340.37	AVRG	R		0.002938		pg	340.37	0	.99	20	
Aroclor-1248 Peak # 3	B	487.62	AVRG	R		0.002051		pg	487.62	0	.99	20	
Aroclor-1248 Peak # 4	B	233.50	AVRG	R		0.004283		pg	233.50	0	.99	20	
Aroclor-1248 Peak # 5	B	495.97	AVRG	R		0.002016		pg	495.97	0	.99	20	

78

Curves: AVRG: Average response factor

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Instrument: GC25 Gas Chromatograph #25 ECD Reviewed By: MCH
Calnum: 825423432003 Name: Type: (normal) Date: 21-OCT-2005 06:17 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	293_025	825423432025	ar1254	21-OCT-2005 06:17	S1464

Analyte	Ch	L1	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MnR^2	MxRSD	Flags
Aroclor-1254 Peak # 1	A	282.75	AVRG	R		0.003537		pg	282.75	0	.99	20	
Aroclor-1254 Peak # 2	A	430.10	AVRG	R		0.002325		pg	430.10	0	.99	20	
Aroclor-1254 Peak # 3	A	333.79	AVRG	R		0.002996		pg	333.79	0	.99	20	
Aroclor-1254 Peak # 4	A	587.04	AVRG	R		0.001703		pg	587.04	0	.99	20	
Aroclor-1254 Peak # 5	A	570.12	AVRG	R		0.001754		pg	570.12	0	.99	20	
Aroclor-1254 Peak # 1	B	468.39	AVRG	R		0.002135		pg	468.39	0	.99	20	
Aroclor-1254 Peak # 2	B	552.62	AVRG	R		0.001810		pg	552.62	0	.99	20	
Aroclor-1254 Peak # 3	B	452.60	AVRG	R		0.002209		pg	452.60	0	.99	20	
Aroclor-1254 Peak # 4	B	822.64	AVRG	R		0.001216		pg	822.64	0	.99	20	
Aroclor-1254 Peak # 5	B	1011.3	AVRG	R		9.888E-4		pg	1011.3	0	.99	20	

79

Curves: AVRG: Average response factor
Instrument amount = a0 + response * a1 + response^2 * a2

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1016

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005			500.00	514.63	pg	3	15	
GC25	B	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005			500.00	467.32	pg	-7	15	
GC25	A	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005			100.00	114.18	pg	14	15	
GC25	B	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005			100.00	97.835	pg	-2	15	
GC25	A	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005			250.00	277.67	pg	11	15	
GC25	B	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005			250.00	239.61	pg	-4	15	
GC25	A	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005			500.00	534.94	pg	7	15	
GC25	B	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005			500.00	490.58	pg	-2	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1248

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219004	23-OCT-2005 18:00	825423432002	21-OCT-2005			250.00	248.58	pg	-1	15	
GC25	B	825427219004	23-OCT-2005 18:00	825423432002	21-OCT-2005			250.00	229.67	pg	-8	15	
GC25	A	825427219021	24-OCT-2005 01:51	825423432002	21-OCT-2005			250.00	246.43	pg	-1	15	
GC25	B	825427219021	24-OCT-2005 01:51	825423432002	21-OCT-2005			250.00	251.19	pg	0	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1254

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219006	23-OCT-2005 18:55	825423432003	21-OCT-2005			250.00	263.84	pg	6	15	
GC25	B	825427219006	23-OCT-2005 18:55	825423432003	21-OCT-2005			250.00	234.79	pg	-6	15	
GC25	A	825427219023	24-OCT-2005 02:46	825423432003	21-OCT-2005			250.00	280.12	pg	12	15	
GC25	B	825427219023	24-OCT-2005 02:46	825423432003	21-OCT-2005			250.00	246.25	pg	-1	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Aroclor-1260

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005			500.00	456.84	pg	-9	15	
GC25	B	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005			500.00	462.52	pg	-7	15	
GC25	A	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005			100.00	113.70	pg	14	15	
GC25	B	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005			100.00	98.050	pg	-2	15	
GC25	A	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005			250.00	271.42	pg	9	15	
GC25	B	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005			250.00	241.37	pg	-3	15	
GC25	A	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005			500.00	529.64	pg	6	15	
GC25	B	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005			500.00	498.78	pg	0	15	

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: TCMX

Instid	Ch	Segnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005	9801.0	10631	100.00	108.47	pg	8	15	
GC25	B	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005	14035	15493	100.00	110.39	pg	10	15	
GC25	A	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005	9801.0	11152	20.000	22.757	pg	14	15	
GC25	B	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005	14035	13458	20.000	19.178	pg	-4	15	
GC25	A	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005	9801.0	10593	50.000	54.040	pg	8	15	
GC25	B	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005	14035	15832	50.000	56.402	pg	13	15	
GC25	A	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005	9801.0	10154	100.00	103.60	pg	4	15	
GC25	B	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005	14035	16943	100.00	120.72	pg	**21**	15	c+

Ch. A used

max is 25

+=high bias c=CCV

Page 1 of 1

CONTINUING CALIBRATION SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Analyte: Decachlorobiphenyl

Instid	Ch	Seqnum	Injected	Calnum	Caldate	Avg RF/CF	RF/CF	SpkAmt	QntAmt	Units	%D	Max %D	Flags
GC25	A	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005	6142.8	5518.4	100.00	89.835	pg	-10	15	
GC25	B	825427219003	23-OCT-2005 17:22	825423432001	21-OCT-2005	11922	10760	100.00	90.254	pg	-10	15	
GC25	A	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005	6142.8	7095.9	20.000	23.103	pg	16	15	c+
GC25	B	825427219019	24-OCT-2005 00:55	825423432001	21-OCT-2005	11922	10743	20.000	18.022	pg	-10	15	
GC25	A	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005	6142.8	6160.2	50.000	50.141	pg	0	15	
GC25	B	825427219036	24-OCT-2005 08:46	825423432001	21-OCT-2005	11922	10869	50.000	45.582	pg	-9	15	
GC25	A	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005	6142.8	6440.3	100.00	104.84	pg	5	15	
GC25	B	825427219045	24-OCT-2005 12:55	825423432001	21-OCT-2005	11922	11883	100.00	99.670	pg	0	15	

+=high bias c=CCV

SEQUENCE SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825423432 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 21-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
013	293_013	X	hex			21-OCT-2005 00:44	1.0					
014	293_014	ICAL	pcb10_2			21-OCT-2005 01:12	1.0				1	
015	293_015	ICAL	pcb25_5			21-OCT-2005 01:39	1.0				2	
016	293_016	ICAL	pcb100_20			21-OCT-2005 02:07	1.0				3	
017	293_017	ICAL	pcb250_50			21-OCT-2005 02:35	1.0				4	
018	293_018	ICAL	pcb500_100			21-OCT-2005 03:03	1.0				5	
019	293_019	ICAL	pcb750_150			21-OCT-2005 03:31	1.0				6	
020	293_020	ICAL	pcb1k_200			21-OCT-2005 03:58	1.0				7	
022	293_022	ICV	ultra_1660			21-OCT-2005 04:54	1.0	1			8	
024	293_024	ICAL	ar1248			21-OCT-2005 05:49	1.0				9	
025	293_025	ICAL	ar1254			21-OCT-2005 06:17	1.0				10	

86

Stds used: 1=S1364 2=S1385 3=S1209 4=S1384 5=S1635 6=S1383 7=S1365 8=S1553 9=S1437 10=S1464

SEQUENCE SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825427219 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 23-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	296_001	X	pcb500_100			23-OCT-2005 16:19	1.0					1	
002	296_002	X	ccv			23-OCT-2005 16:49	1.0					1	
003	296_003	CCV	pcb500_100			23-OCT-2005 17:22	1.0	1.0			1	1	
004	296_004	CCV	ar1248			23-OCT-2005 18:00	1.0	1.0			1	2	
006	296_006	CCV	ar1254			23-OCT-2005 18:55	1.0	1.0			1	3	
008	296_008	BLANK	QC314075	107008	Soil	23-OCT-2005 19:51	1.0	0.8306			1		
009	296_009	LCS	QC314076	107008	Soil	23-OCT-2005 20:19	1.0	0.821			1		
010	296_010	SAMPLE	182457-039	107008	Soil	23-OCT-2005 20:46	1.0	0.8361	1	1	1		2:PCB101=17985.2
011	296_011	SAMPLE	182457-043	107008	Soil	23-OCT-2005 21:14	1.0	0.8432			1		
012	296_012	SAMPLE	182457-051	107008	Soil	23-OCT-2005 21:42	1.0	0.8333	1		1		2:PCB101=1933.10
013	296_013	SAMPLE	182457-052	107008	Soil	23-OCT-2005 22:10	1.0	0.8367			1		
014	296_014	SAMPLE	182457-056	107008	Soil	23-OCT-2005 22:37	1.0	0.8278			1		
015	296_015	MSS	182403-013	107008	Soil	23-OCT-2005 23:05	1.0	0.8308		2	1		
016	296_016	MS	QC314077	107008	Soil	23-OCT-2005 23:32	1.0	0.8403		1	1		3:PCB101=3491.78
017	296_017	MSD	QC314078	107008	Soil	24-OCT-2005 00:00	1.0	0.8353		2	1		
019	296_019	CCV	pcb100_20			24-OCT-2005 00:55	1.0	1.0			1	4	
020	296_020	X	ccv			24-OCT-2005 01:23	1.0					4	
021	296_021	CCV	ar1248			24-OCT-2005 01:51	1.0	1.0			1	2	
023	296_023	CCV	ar1254			24-OCT-2005 02:46	1.0	1.0			1	3	
025	296_025	SAMPLE	182484-001	107008	Soil	24-OCT-2005 03:42	1.0	0.8281	2	1	1		2:PCB101=18645.0
026	296_026	SAMPLE	182487-006	107008	Soil	24-OCT-2005 04:09	1.0	0.8232			1		
027	296_027	SAMPLE	182487-007	107008	Soil	24-OCT-2005 04:37	1.0	0.8245		3	1		
028	296_028	SAMPLE	182487-012	107008	Soil	24-OCT-2005 05:05	1.0	0.8256	2	1	1		3:PCB101=20976.6
029	296_029	SAMPLE	182487-018	107008	Soil	24-OCT-2005 05:32	1.0	0.8331	1	1	1		2:PCB101=7880.18
030	296_030	SAMPLE	182487-025	107008	Soil	24-OCT-2005 06:00	1.0	0.8226	4		1		6:PCB101=27820.9
031	296_031	SAMPLE	182487-035	107008	Soil	24-OCT-2005 06:28	1.0	0.8224			1		
032	296_032	SAMPLE	182487-039	107008	Soil	24-OCT-2005 06:55	1.0	0.8278			1		
033	296_033	SAMPLE	182487-042	107008	Soil	24-OCT-2005 07:23	1.0	0.8319		1	1		
034	296_034	SAMPLE	182487-043	107008	Soil	24-OCT-2005 07:50	1.0	0.8361		1	1		
036	296_036	CCV	pcb250_50			24-OCT-2005 08:46	1.0	1.0			1	5	
040	296_040	SAMPLE	182487-044	107008	Soil	24-OCT-2005 10:36	1.0	0.8267			1		

Stds used: 1=S1635 2=S1437 3=S1464 4=S1209 5=S1384

SEQUENCE SUMMARY FOR 182357 PCB Soil
Curtis & Tompkins Laboratories

Sequence: 825427219 Instrument: GC25 Gas Chromatograph #25 ECD Begun: 23-OCT-2005
Analytical Method: EPA 8082 SOP Version: 8082_rv.6

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
041	296_041	SAMPLE	182357-001	107008	Soil	24-OCT-2005 11:04	1.0	0.8314	1	1	2:PCB101=1374.41	
042	296_042	SAMPLE	182357-002	107008	Soil	24-OCT-2005 11:32	1.0	0.8235		1		
043	296_043	SAMPLE	182560-001	107008	Soil	24-OCT-2005 12:00	1.0	0.8264		1		
045	296_045	CCV	pcb500_100			24-OCT-2005 12:55	1.0	1.0		1	1	
046	296_046	X	ccv			24-OCT-2005 13:23	1.0				1	

88

Stds used: 1=S1635 2=S1437 3=S1464 4=S1209 5=S1384

Curtis & Tompkins Laboratories Sample Preparation Summary 21-OCT-2005 17:28

Batch Number : 107008
Date Extracted: 21-OCT-2005
Extracted by : Junn Masongsong
Prep Method : 3550B

Analysis : PCB
Bgroup : N/A
Units : g
Clean-up :

Spike #1 ID : S1685B
Spike #2 ID : S1828A
Spike #3 ID :
SOP Version : PCB_3550_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001			Mactec, Inc.	Soil	30.07	g	25	0.831393	1		.05	0		PCB	3665A	
182357-002			Mactec, Inc.	Soil	30.36	g	25	0.823452	1		.05	0		PCB	3665A	
182403-013			Weston Solutions	Soil	30.09	g	25	0.830841	1		.05	0		PCB	3665A	MSS
182457-039			URS Corporation	Soil	29.9	g	25	0.836120	1		.05	0		PCB	3665A	
182457-043			URS Corporation	Soil	29.65	g	25	0.843170	1		.05	0		PCB	3665A	
182457-051			URS Corporation	Soil	30	g	25	0.833333	1		.05	0		PCB	3665A	
182457-052			URS Corporation	Soil	29.88	g	25	0.836680	1		.05	0		PCB	3665A	
182457-056			URS Corporation	Soil	30.2	g	25	0.827815	1		.05	0		PCB	3665A	
182484-001			URS Corporation	Soil	30.19	g	25	0.828089	1		.05	0		PCB	3665A	
182487-006			URS Corporation	Soil	30.37	g	25	0.823181	1		.05	0		PCB	3665A	
182487-007			URS Corporation	Soil	30.32	g	25	0.824538	1		.05	0		PCB	3665A	
182487-012			URS Corporation	Soil	30.28	g	25	0.825627	1		.05	0		PCB	3665A	
182487-018			URS Corporation	Soil	30.01	g	25	0.833056	1		.05	0		PCB	3665A	
182487-025			URS Corporation	Soil	30.39	g	25	0.822639	1		.05	0		PCB	3665A	
182487-035			URS Corporation	Soil	30.4	g	25	0.822368	1		.05	0		PCB	3665A	
182487-039			URS Corporation	Soil	30.2	g	25	0.827815	1		.05	0		PCB	3665A	
182487-042			URS Corporation	Soil	30.05	g	25	0.831947	1		.05	0		PCB	3665A	
182487-043			URS Corporation	Soil	29.9	g	25	0.836120	1		.05	0		PCB	3665A	
182487-044			URS Corporation	Soil	30.24	g	25	0.826720	1		.05	0		PCB	3665A	
182560-001			TRC Environmental Solutions, I	Soil	30.25	g	25	0.826446	1		.05	0		PCB	3665A	
QC314075	BLANK			Soil	30.1	g	25	0.830565	1		.05	0		PCB	3665A	
QC314076	LCS			Soil	30.45	g	25	0.821018	1		.05	.05		PCB	3665A	~~182403-013A~~
QC314077	MS	of 182403-013		Soil	29.75	g	25	0.840336	1		.05	.05		PCB	3665A	~~182403-013A~~
QC314078	MSD	of 182403-013		Soil	29.93	g	25	0.835282	1		.05	.05		PCB	3665A	

Prep Chemist: JDM for JM Reviewed By: [signature] Date: 10/24/05

Relinquished By: JDM for JM Received By: Jennifer Gargan Date: 10/27/05

Curtis & Tompkins, Ltd.

PCB SOIL PREP LOG

LIMS Batch No: 107008

LIMS Analysis PCB

Extracted by: JM

Date Extracted: 10/21/05

- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ EPA 3545 PFE (ASE Method# ____)
- ☐ Other ____

	Sample ID	Sample Wt (g)	Final Vol (mL)	Comments
	MB QC314079	30.10	2.0	EM4413543A
	LCS " 76	30.45		"
	MS " 77	29.70		182403.013A
	MSD " 78	29.93		"
5	182357.001	30.07		
	182357.002	30.26		
	182403.013	30.09		MS/MSD
	182464.001	30.19		COMP A→D
	182560.001	30.25		COMP A→D
10	182457.039	29.90		
	.043	29.65		
	.051	30.00		
	.052	29.88		
	" .056	30.20		
15	182487.006	30.24		
	.007	30.32		
	.012	30.28		
	.018	30.01		
	.025	30.39		
	.035	30.46		
20	.039	30.20		
	.042	30.05		
	.043	29.90		
	" .044	30.24	"	

JM 10/21/05

Granular Na_2SO_4

~~Sand~~ weighed out for QC samples

dried with CH_2Cl_2-rinsed ☐ granular Na_2SO_4 ☐ diatomaceous earth

0.05 mL of surrogate solution was added to all samples

0.05 mL of spike solution AR1248 was added to all spikes

1:1 CH_2Cl_2 (lot# EM45188):Acetone(lot# EM45126) was added to all

☐ sonicated 3 times w/ ≥100mL ☐ PFE extracted ☐ soxhlet extracted

ASE Cellulose Filters used:

PFE (ASE) / soxhlets on at:

PFE (ASE) / soxhlets off at:

Extracts filtered through baked, CH_2Cl_2-rinsed granular Na_2SO_4

Concentrated to volumes noted above after exchange to Hexane Lot#

EPA 3665A Clean-up: vortexed w/ 10mL H_2SO_4 Lot#

Centrifuged for 1 min; 10mL transferred to labelled vial

Mfg & Lot # / LIMS # / Time	Initials / Date
EM4413543A	JM 10/21/05
JTB2557	
516853 B	
518284	
✓	
✓	
NA	
↓	
↓	
JTB2557	
C0737	
JTBA49034	↓
✓	

10/21/05

Extraction Chemist / Date

Continued from page ____

Continued on page ____

Jennifer Lee 10/24/05

Reviewed by / Date

Project Soil Aliquot

Continued from Page

Sample ID	Weight (g)	Analyses SHO 10/21/05	Comments
MB	50.00	TOH	EM44135A35
LCS	49.85	↓	↓
MS	50.28	↓	of 182357-002
MSD	50.38	↓	↓
182357-002A	50.07	↓	MSS
			T.O. 10/21/05
182457-039A	29.90	PCB	
043	29.65	↓	
051	30.00	↓	
052	29.88	↓	
↓ 056 ↓	30.20	↓	
182403-013A	30.09	PCB	MSS
LCS	30.45	↓	EM44135439
MB	30.10	↓	↓
MS	29.75	↓	182403
MSD	29.93	↓	~~182457~~-013A
182560-001	30.25	PCB	T.O. 10/21/05
182357-002A	30.07	PCB	↓
↓ 002 ↓	30.36	↓	Comp of A, B, C, D
			T.O. 10/21/05
182484-002A	29.83	8270-SIM	Comp of A, B, C, D
182487-001A	30.34	↓	↓
002	30.43	↓	↓
005	30.03	↓	↓
006	29.69	↓	↓
007	30.41	↓	↓
008	30.12	↓	↓
009	30.08	↓	↓
010	29.97	↓	↓
011	29.72	↓	↓
012	30.34	↓	↓
015	30.42	↓	↓
016	30.48	↓	↓
017	29.66	↓	↓
018	29.79	↓	↓
↓ 019 ↓	30.42	↓	↓

Continued on Page

Read and Understood By

Signed Date

Signed Date

SAMPLE I.D.	Weight (g)	Analysis	Comments
182413-004A	29.44	8270	
182484-001	30.19	PCB	Comp of A, B, C, D
182487-006A	30.37	PCB	
007	30.32		
012	30.28		
018	30.01		
025	30.39		
035	30.40		
039	30.20		
042	30.05		
043	29.90		
044	30.24		

Continued on Page

Signed Date 10/19/05 92

Read and Understood By

Signed Date

REPORTING SUMMARY FOR 182357 PCB Soil

Sample ID	Analyte	Inst ID	Ch	Date & Time
182357-001	Aroclor-1016	GC25	A	10/24/05 11:04
182357-001	Aroclor-1221	GC25	A	10/24/05 11:04
182357-001	Aroclor-1232	GC25	A	10/24/05 11:04
182357-001	Aroclor-1242	GC25	A	10/24/05 11:04
182357-001	Aroclor-1248	GC25	A	10/24/05 11:04
182357-001	Aroclor-1254	GC25	A	10/24/05 11:04
182357-001	Aroclor-1260	GC25	A	10/24/05 11:04
182357-001	TCMX	GC25	A	10/24/05 11:04
182357-001	Decachlorobiphenyl	GC25	A	10/24/05 11:04
182357-002	Aroclor-1016	GC25	A	10/24/05 11:32
182357-002	Aroclor-1221	GC25	A	10/24/05 11:32
182357-002	Aroclor-1232	GC25	A	10/24/05 11:32
182357-002	Aroclor-1242	GC25	A	10/24/05 11:32
182357-002	Aroclor-1248	GC25	A	10/24/05 11:32
182357-002	Aroclor-1254	GC25	A	10/24/05 11:32
182357-002	Aroclor-1260	GC25	A	10/24/05 11:32
182357-002	TCMX	GC25	A	10/24/05 11:32
182357-002	Decachlorobiphenyl	GC25	A	10/24/05 11:32
QC314075	Aroclor-1016	GC25	A	10/23/05 19:51
QC314075	Aroclor-1221	GC25	A	10/23/05 19:51
QC314075	Aroclor-1232	GC25	A	10/23/05 19:51
QC314075	Aroclor-1242	GC25	A	10/23/05 19:51
QC314075	Aroclor-1248	GC25	A	10/23/05 19:51
QC314075	Aroclor-1254	GC25	A	10/23/05 19:51
QC314075	Aroclor-1260	GC25	A	10/23/05 19:51
QC314075	TCMX	GC25	B	10/23/05 19:51
QC314075	Decachlorobiphenyl	GC25	B	10/23/05 19:51
QC314076	Aroclor-1248	GC25	A	10/23/05 20:19
QC314076	TCMX	GC25	B	10/23/05 20:19
QC314076	Decachlorobiphenyl	GC25	B	10/23/05 20:19
QC314077	Aroclor-1248	GC25	A	10/23/05 23:32
QC314077	TCMX	GC25	B	10/23/05 23:32
QC314077	Decachlorobiphenyl	GC25	B	10/23/05 23:32
QC314078	Aroclor-1248	GC25	A	10/24/05 00:00
QC314078	TCMX	GC25	B	10/24/05 00:00
QC314078	Decachlorobiphenyl	GC25	B	10/24/05 00:00

Volatile Organics
Soil

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(2.5)	Diln Fac:	0.8197
Lab ID:	182357-001	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	9.2	2.0
Chloromethane	ND	9.2	2.3
Vinyl Chloride	ND	9.2	2.6
Bromomethane	ND	9.2	2.2
Chloroethane	ND	9.2	2.6
Trichlorofluoromethane	ND	4.6	2.4
Acetone	20	18	3.1
Freon 113	ND	4.6	1.4
1,1-Dichloroethene	ND	4.6	1.5
Methylene Chloride	ND	18	4.0
Carbon Disulfide	ND	4.6	4.0
MTBE	ND	4.6	0.75
trans-1,2-Dichloroethene	ND	4.6	1.1
Vinyl Acetate	ND	46	0.66
1,1-Dichloroethane	ND	4.6	1.1
2-Butanone	4.7 J	9.2	1.3
cis-1,2-Dichloroethene	ND	4.6	1.1
2,2-Dichloropropane	ND	4.6	1.2
Chloroform	ND	4.6	1.2
Bromochloromethane	ND	4.6	0.81
1,1,1-Trichloroethane	ND	4.6	1.3
1,1-Dichloropropene	ND	4.6	1.1
Carbon Tetrachloride	ND	4.6	1.1
1,2-Dichloroethane	ND	4.6	0.73
Benzene	ND	4.6	1.1
Trichloroethene	ND	4.6	0.97
1,2-Dichloropropane	ND	4.6	0.80
Bromodichloromethane	ND	4.6	0.56
Dibromomethane	ND	4.6	0.53
4-Methyl-2-Pentanone	ND	9.2	0.87
cis-1,3-Dichloropropene	ND	4.6	0.63
Toluene	ND	4.6	0.95
trans-1,3-Dichloropropene	ND	4.6	0.60
1,1,2-Trichloroethane	ND	4.6	0.83
2-Hexanone	ND	9.2	0.71
1,3-Dichloropropane	ND	4.6	0.74
Tetrachloroethene	ND	4.6	0.97
Dibromochloromethane	ND	4.6	0.58
1,2-Dibromoethane	ND	4.6	0.81
Chlorobenzene	ND	4.6	1.5
1,1,1,2-Tetrachloroethane	ND	4.6	0.79
Ethylbenzene	ND	4.6	1.1
m,p-Xylenes	ND	4.6	2.1
o-Xylene	ND	4.6	1.0
Styrene	ND	4.6	0.89
Bromoform	ND	4.6	0.41
Isopropylbenzene	ND	4.6	1.1
1,1,2,2-Tetrachloroethane	ND	4.6	0.57
1,2,3-Trichloropropane	ND	4.6	0.92
Propylbenzene	ND	4.6	1.1
Bromobenzene	ND	4.6	0.73

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(2.5)	Diln Fac:	0.8197
Lab ID:	182357-001	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.6	1.1
2-Chlorotoluene	ND	4.6	1.1
4-Chlorotoluene	ND	4.6	0.89
tert-Butylbenzene	ND	4.6	1.0
1,2,4-Trimethylbenzene	ND	4.6	0.93
sec-Butylbenzene	ND	4.6	1.0
para-Isopropyl Toluene	ND	4.6	0.95
1,3-Dichlorobenzene	ND	4.6	0.84
1,4-Dichlorobenzene	ND	4.6	0.52
n-Butylbenzene	ND	4.6	0.78
1,2-Dichlorobenzene	ND	4.6	0.79
1,2-Dibromo-3-Chloropropane	ND	4.6	1.3
1,2,4-Trichlorobenzene	ND	4.6	0.62
Hexachlorobutadiene	ND	4.6	0.61
Naphthalene	ND	4.6	0.68
1,2,3-Trichlorobenzene	ND	4.6	0.39

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	108	80-124

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(4.5)	Diln Fac:	0.7937
Lab ID:	182357-002	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	8.9	2.0
Chloromethane	ND	8.9	2.2
Vinyl Chloride	ND	8.9	2.5
Bromomethane	ND	8.9	2.1
Chloroethane	ND	8.9	2.5
Trichlorofluoromethane	ND	4.5	2.4
Acetone	ND	18	3.0
Freon 113	ND	4.5	1.3
1,1-Dichloroethene	ND	4.5	1.5
Methylene Chloride	ND	18	3.9
Carbon Disulfide	ND	4.5	3.9
MTBE	ND	4.5	0.72
trans-1,2-Dichloroethene	ND	4.5	1.1
Vinyl Acetate	ND	45	0.64
1,1-Dichloroethane	ND	4.5	1.1
2-Butanone	ND	8.9	1.3
cis-1,2-Dichloroethene	ND	4.5	1.0
2,2-Dichloropropane	ND	4.5	1.2
Chloroform	ND	4.5	1.2
Bromochloromethane	ND	4.5	0.78
1,1,1-Trichloroethane	ND	4.5	1.3
1,1-Dichloropropene	ND	4.5	1.0
Carbon Tetrachloride	ND	4.5	1.1
1,2-Dichloroethane	ND	4.5	0.71
Benzene	ND	4.5	1.1
Trichloroethene	ND	4.5	0.94
1,2-Dichloropropane	ND	4.5	0.78
Bromodichloromethane	ND	4.5	0.54
Dibromomethane	ND	4.5	0.51
4-Methyl-2-Pentanone	ND	8.9	0.85
cis-1,3-Dichloropropene	ND	4.5	0.61
Toluene	ND	4.5	0.92
trans-1,3-Dichloropropene	ND	4.5	0.58
1,1,2-Trichloroethane	ND	4.5	0.81
2-Hexanone	ND	8.9	0.69
1,3-Dichloropropane	ND	4.5	0.72
Tetrachloroethene	ND	4.5	0.93
Dibromochloromethane	ND	4.5	0.56
1,2-Dibromoethane	ND	4.5	0.78
Chlorobenzene	ND	4.5	1.5
1,1,1,2-Tetrachloroethane	ND	4.5	0.77
Ethylbenzene	ND	4.5	1.1
m,p-Xylenes	ND	4.5	2.1
o-Xylene	ND	4.5	0.98
Styrene	ND	4.5	0.86
Bromoform	ND	4.5	0.40
Isopropylbenzene	ND	4.5	1.1
1,1,2,2-Tetrachloroethane	ND	4.5	0.56
1,2,3-Trichloropropane	ND	4.5	0.89
Propylbenzene	ND	4.5	1.0
Bromobenzene	ND	4.5	0.71
1,3,5-Trimethylbenzene	ND	4.5	1.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(4.5)	Diln Fac:	0.7937
Lab ID:	182357-002	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	4.5	1.1
4-Chlorotoluene	ND	4.5	0.86
tert-Butylbenzene	ND	4.5	0.97
1,2,4-Trimethylbenzene	ND	4.5	0.90
sec-Butylbenzene	ND	4.5	0.97
para-Isopropyl Toluene	ND	4.5	0.92
1,3-Dichlorobenzene	ND	4.5	0.82
1,4-Dichlorobenzene	ND	4.5	0.50
n-Butylbenzene	ND	4.5	0.76
1,2-Dichlorobenzene	ND	4.5	0.76
1,2-Dibromo-3-Chloropropane	ND	4.5	1.3
1,2,4-Trichlorobenzene	ND	4.5	0.60
Hexachlorobutadiene	ND	4.5	0.59
Naphthalene	ND	4.5	0.66
1,2,3-Trichlorobenzene	ND	4.5	0.38

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC312429	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC312429	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC312428	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.85	107	78-127
Benzene	25.00	25.14	101	80-120
Trichloroethene	25.00	25.72	103	80-120
Toluene	25.00	25.03	100	80-120
Chlorobenzene	25.00	25.43	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	99	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-124

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	25.00
MSS Lab ID:	182168-022	Batch#:	106606
Matrix:	Soil	Sampled:	09/27/05
Units:	ug/Kg	Received:	09/29/05
Basis:	dry	Analyzed:	10/11/05

Type: MS Moisture: 15%
Lab ID: QC312511

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<12.20	735.3	900.7	122	66-125
Benzene	<9.038	735.3	777.2	106	67-120
Trichloroethene	<12.47	735.3	797.4	108	63-124
Toluene	<5.951	735.3	775.7	105	63-120
Chlorobenzene	<9.600	735.3	748.9	102	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-124
Trifluorotoluene (MeOH)	94	31-132

Type: MSD Moisture: 15%
Lab ID: QC312512

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	735.3	966.8	131 *	66-125	7	20
Benzene	735.3	831.4	113	67-120	7	20
Trichloroethene	735.3	851.2	116	63-124	7	20
Toluene	735.3	838.5	114	63-120	8	20
Chlorobenzene	735.3	819.0	111	59-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	104	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-124
Trifluorotoluene (MeOH)	99	31-132

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

8260/624SGA 5 ICAL

Data File: \\GCMSSERVER\DB\chem\MSVOA06.i\101005.b\FJA13.D

Date : 10-OCT-2005 16:15

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

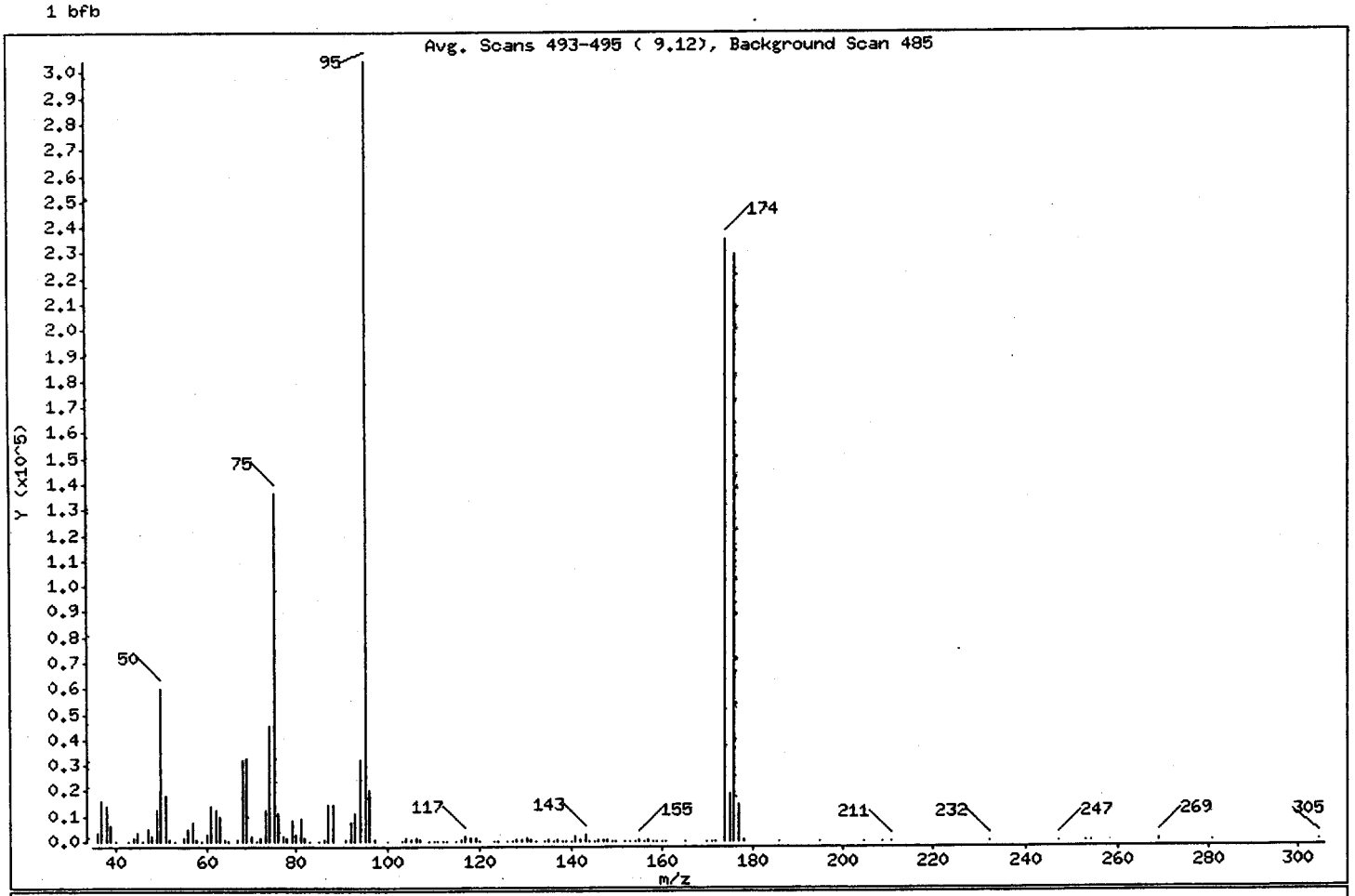
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.69
75	30.00 - 60.00% of mass 95	44.87
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	77.33
175	5.00 - 9.00% of mass 174	6.15 (7.96)
176	95.01 - 100.99% of mass 174	75.40 (97.51)
177	5.00 - 9.00% of mass 176	4.94 (6.55)

R 10/11/05

10/11/05

S260/6153 S ICV

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\101105.b\FJB02.D

Date : 11-OCT-2005 09:13

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

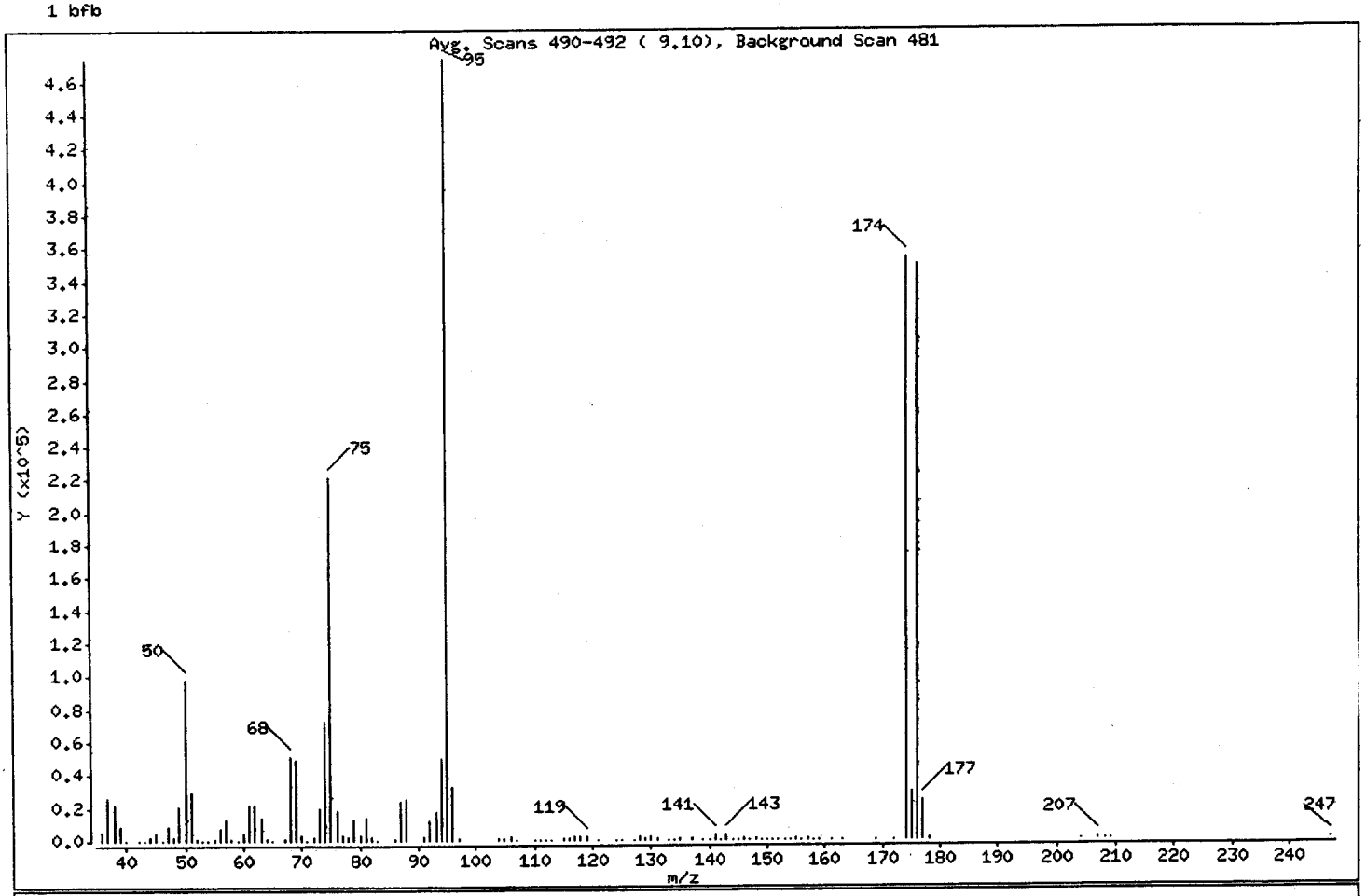
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.83
75	30.00 - 60.00% of mass 95	46.83
96	5.00 - 9.00% of mass 95	6.92
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	74.59
175	5.00 - 9.00% of mass 174	6.22 (8.34)
176	95.01 - 100.99% of mass 174	73.65 (98.75)
177	5.00 - 9.00% of mass 176	5.00 (6.79)

Problems

Problems

Data File: \\GCMSSERVER\DD\chem\MSVOA06.i\101105.b\FJB02.D

Date : 11-OCT-2005 09:13

Client ID: bfb tune std

Instrument: MSVOA06.i

Sample Info: BFB,S959

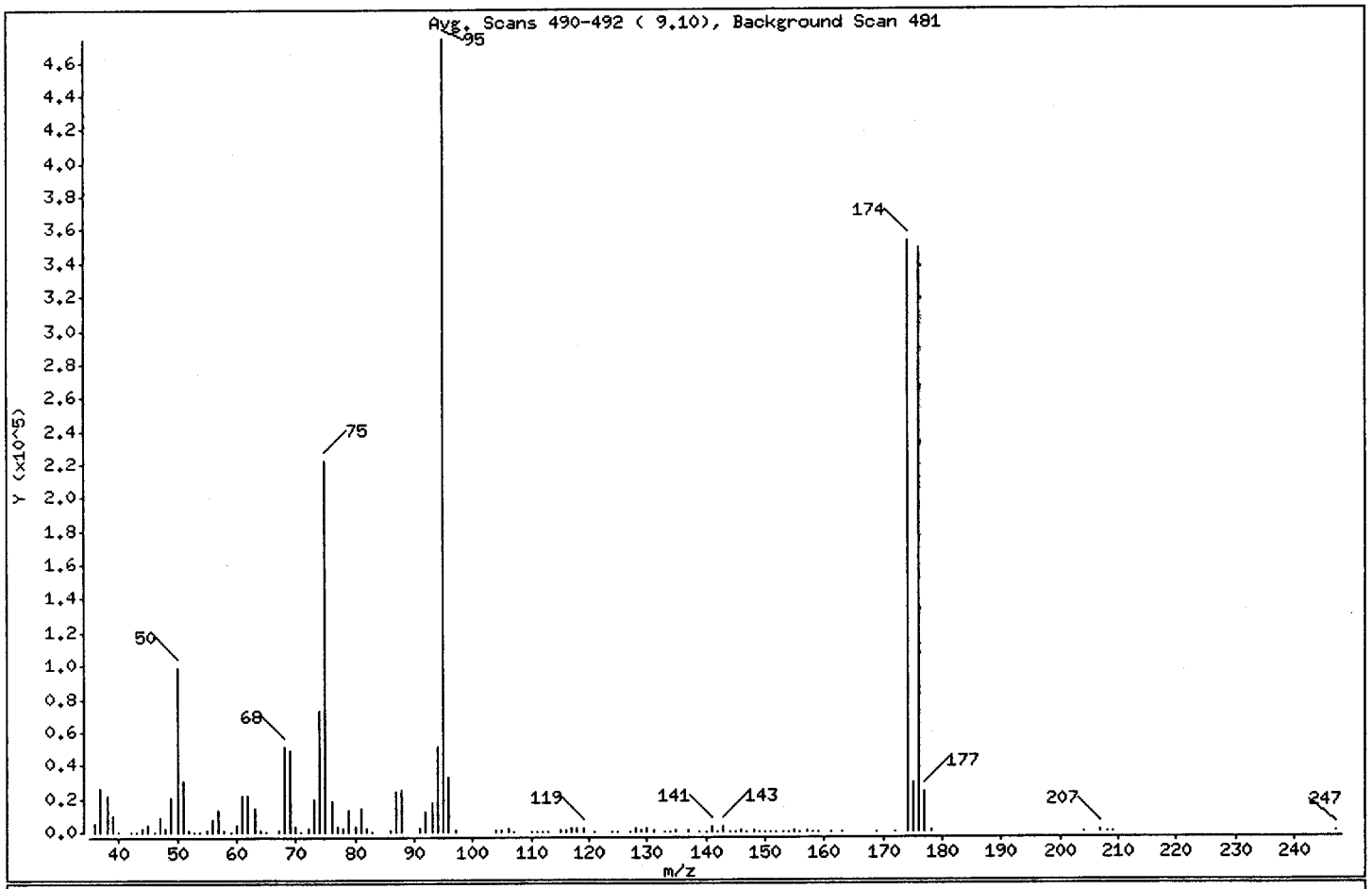
Volume Injected (uL): 1.0

Operator: BO

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.83
75	30.00 - 60.00% of mass 95	46.83
96	5.00 - 9.00% of mass 95	6.92
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 99.99% of mass 95	74.59
175	5.00 - 9.00% of mass 174	6.22 (8.34)
176	95.01 - 100.99% of mass 174	73.65 (98.75)
177	5.00 - 9.00% of mass 176	5.00 (6.79)

BO 10/11/05

8260/6450x 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455408039001 Name: 826GOX6S Type: SOIL Date: 10-OCT-2005 17:43 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	fja16	455408039016	5PPB	10-OCT-2005 17:43	S1598 (100000X), S1711 (100000X), S1673 (1000X)
2	fja17	455408039017	10PPB	10-OCT-2005 18:18	S1598 (50000X), S1711 (50000X), S1673 (1000X)
3	fja18	455408039018	20PPB	10-OCT-2005 18:52	S1598 (25000X), S1711 (25000X), S1673 (1000X)
4	fja19	455408039019	50PPB	10-OCT-2005 19:27	S1598 (10000X), S1711 (10000X), S1673 (1000X)
5	fja20	455408039020	60PPB	10-OCT-2005 20:02	S1598 (8333X), S1711 (8333X), S1673 (1000X)
6	fja21	455408039021	75PPB	10-OCT-2005 20:38	S1598 (6667X), S1711 (6667X), S1673 (1000X)
7	fja22	455408039022	100PPB	10-OCT-2005 21:13	S1598 (5000X), S1711 (5000X), S1673 (1000X)

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Freon 12	0.8067	0.6660	0.8148	0.8912	0.8722	0.9004	0.8879	AVRG	R		1.198811		ug/L	0.8342	10	0.0500	0.99	15	
Chloromethane	1.1339	1.0491	1.1071	1.0883	1.0752	1.0414	1.0212	AVRG	R		0.931323		ug/L	1.0737	4	0.1000	0.99	15	
Vinyl Chloride	0.8837	0.7722	0.8697	0.9060	0.8771	0.8605	0.8490	AVRG	R		1.163133		ug/L	0.8597	5	0.0500	0.99	15	
Bromomethane	0.5043	0.4553	0.4625	0.5004	0.5143	0.5110	0.5092	AVRG	R		2.024862		ug/L	0.4939	5	0.0500	0.99	15	
Chloroethane	0.4706	0.4197	0.4552	0.4574	0.4547	0.4434	0.4304	AVRG	R		2.235273		ug/L	0.4474	4	0.0500	0.99	15	
Trichlorofluoromethane	0.8458	0.7037	0.8192	0.8838	0.8697	0.8716	0.8638	AVRG	R		1.195029		ug/L	0.8368	7	0.0500	0.99	15	
Acetone		0.5321	0.4872	0.4455	0.4433	0.3982	0.4036	AVRG	R		2.214119		ug/L	0.4516	11	0.0500	0.99	15	
Freon 113	0.4307	0.3966	0.4074	0.5667	0.6042	0.5780	0.5735	LINR	R	3.217261	1.656707		ug/L	0.5082	0.996	0.0500	0.99	15	
1,1-Dichloroethene	0.5095	0.4794	0.4706	0.5250	0.5427	0.5208	0.5226	AVRG	R		1.960521		ug/L	0.5101	5	0.0500	0.99	15	
Methylene Chloride		0.7918	0.7772	0.7271	0.7471	0.7140	0.7378	AVRG	R		1.334845		ug/L	0.7492	4	0.0500	0.99	15	
Carbon Disulfide	2.5813	2.2533	2.1900	2.2766	2.2773	2.1927	2.1372	AVRG	R		0.440022		ug/L	2.2726	6	0.0500	0.99	15	
MTBE	2.0825	1.9699	2.0277	1.8770	1.9339	1.8739	1.9280	AVRG	R		0.511213		ug/L	1.9561	4	0.0500	0.99	15	
trans-1,2-Dichloroethene	0.6511	0.6257	0.6410	0.6493	0.6644	0.6424	0.6454	AVRG	R		1.548909		ug/L	0.6456	2	0.0500	0.99	15	
Vinyl Acetate	1.9573	1.7644	1.8155	1.6925	1.7877	1.7565	1.6894	AVRG	R		0.561649		ug/L	1.7805	5	0.0500	0.99	15	
1,1-Dichloroethane	1.4146	1.3353	1.3334	1.2950	1.3300	1.2674	1.2512	AVRG	R		0.758660		ug/L	1.3181	4	0.1000	0.99	15	
2-Butanone		0.6916	0.6841	0.6596	0.6801	0.6326	0.6514	AVRG	R		1.500216		ug/L	0.6666	3	0.0500	0.99	15	
2,2-Dichloropropane	0.8040	0.7433	0.7451	0.8053	0.8122	0.7816	0.7870	AVRG	R		1.277711		ug/L	0.7826	4	0.0500	0.99	15	
cis-1,2-Dichloroethene	0.7724	0.7404	0.7447	0.7246	0.7499	0.7132	0.7370	AVRG	R		1.350803		ug/L	0.7403	3	0.0500	0.99	15	
Chloroform	1.1617	1.1333	1.1563	1.1259	1.1640	1.1022	1.1131	AVRG	R		0.879778		ug/L	1.1367	2	0.0500	0.99	15	

106

Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

* RAL - OK, no Cyclhex
* ICV - OK

Riollins

10/11/05

8260/6450X 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455408039001 Name: 826GOX6S Type: SOIL Date: 10-OCT-2005 17:43 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Bromochloromethane	0.4011	0.3902	0.4021	0.3965	0.4114	0.4011	0.4244	AVRG	R		2.476285		ug/L	0.4038	3	0.0500	0.99	15	
1,1,1-Trichloroethane	0.7726	0.7107	0.7106	0.7958	0.8271	0.7871	0.7843	AVRG	R		1.299121		ug/L	0.7698	6	0.0500	0.99	15	
1,1-Dichloropropene	0.4276	0.3808	0.3982	0.4608	0.4846	0.4557	0.4530	AVRG	R		2.287019		ug/L	0.4373	8	0.0500	0.99	15	
Carbon Tetrachloride	0.3195	0.2922	0.3032	0.3760	0.3947	0.3780	0.3805	AVRG	R		2.864037		ug/L	0.3492	12	0.0500	0.99	15	
1,2-Dichloroethane	0.5245	0.5250	0.5130	0.4931	0.5103	0.4951	0.5024	AVRG	R		1.964418		ug/L	0.5091	3	0.0500	0.99	15	
Benzene	1.4592	1.3929	1.3865	1.3322	1.3725	1.2781	1.2521	AVRG	R		0.738913		ug/L	1.3533	5	0.0500	0.99	15	
Trichloroethene	0.3500	0.3218	0.3381	0.3496	0.3616	0.3428	0.3461	AVRG	R		2.904552		ug/L	0.3443	4	0.0500	0.99	15	
1,2-Dichloropropane	0.4778	0.4526	0.4566	0.4476	0.4621	0.4432	0.4443	AVRG	R		2.198385		ug/L	0.4549	3	0.0500	0.99	15	
Bromodichloromethane	0.4657	0.4616	0.4639	0.4528	0.4733	0.4558	0.4674	AVRG	R		2.160139		ug/L	0.4629	2	0.0500	0.99	15	
Dibromomethane	0.2928	0.2806	0.2792	0.2764	0.2846	0.2760	0.2886	AVRG	R		3.538306		ug/L	0.2826	2	0.0500	0.99	15	
4-Methyl-2-Pentanone		0.6370	0.6370	0.6132	0.6377	0.6075	0.6134	AVRG	R		1.601721		ug/L	0.6243	2	0.0500	0.99	15	
Tetramethyl THF	1.0315	0.9831	0.9906	0.9199	0.9480	0.9104	0.9138	AVRG	R		1.045210		ug/L	0.9567	5	0.0500	0.99	15	
cis-1,3-Dichloropropene	0.6452	0.6262	0.6427	0.6194	0.6363	0.6091	0.6137	AVRG	R		1.593600		ug/L	0.6275	2	0.0500	0.99	15	
Toluene	0.8131	0.7824	0.7957	0.7860	0.8074	0.7705	0.7532	AVRG	R		1.270832		ug/L	0.7869	3	0.0500	0.99	15	
trans-1,3-Dichloropropene	0.5654	0.5580	0.5657	0.5324	0.5580	0.5315	0.5488	AVRG	R		1.813516		ug/L	0.5514	3	0.0500	0.99	15	
1,1,2-Trichloroethane	0.1936	0.1855	0.1915	0.1883	0.1972	0.1901	0.1985	AVRG	R		5.205664		ug/L	0.1921	2	0.0500	0.99	15	
2-Hexanone		0.5893	0.5987	0.5709	0.5929	0.5577	0.5592	AVRG	R		1.729762		ug/L	0.5781	3	0.0500	0.99	15	
1,3-Dichloropropane	0.7383	0.7301	0.7130	0.6801	0.6981	0.6648	0.6861	AVRG	R		1.425537		ug/L	0.7015	4	0.0500	0.99	15	
Tetrachloroethene	0.3069	0.2863	0.3037	0.3532	0.3684	0.3463	0.3490	AVRG	R		3.025507		ug/L	0.3305	9	0.0500	0.99	15	
Dibromochloromethane	0.4625	0.4530	0.4549	0.4543	0.4698	0.4569	0.4755	AVRG	R		2.169275		ug/L	0.4610	2	0.0500	0.99	15	
1,2-Dibromoethane	0.4107	0.3932	0.3978	0.3883	0.3985	0.3926	0.4057	AVRG	R		2.511850		ug/L	0.3981	2	0.0500	0.99	15	
Chlorobenzene	1.1515	1.1153	1.1350	1.0858	1.0952	1.0385	1.0311	AVRG	R		0.914749		ug/L	1.0932	4	0.3000	0.99	15	
1,1,1,2-Tetrachloroethane	0.3837	0.3783	0.3864	0.3899	0.4039	0.3859	0.4042	AVRG	R		2.561977		ug/L	0.3903	3	0.0500	0.99	15	
Ethylbenzene	1.6930	1.6081	1.6535	1.6479	1.6625	1.5547	1.4837	AVRG	R		0.619287		ug/L	1.6148	5	0.0500	0.99	15	
m,p-Xylenes	0.6496	0.5838	0.6479	0.6612	0.6727	0.6332	0.6156	AVRG	R		1.568104		ug/L	0.6377	5	0.0500	0.99	15	
o-Xylene	0.6515	0.6511	0.6667	0.6627	0.6881	0.6464	0.6449	AVRG	R		1.517955		ug/L	0.6588	2	0.0500	0.99	15	
Styrene	1.1083	1.1268	1.1832	1.1450	1.1759	1.1147	1.1023	AVRG	R		0.879827		ug/L	1.1366	3	0.0500	0.99	15	
Bromoform	0.3022	0.3006	0.3079	0.3036	0.3230	0.3171	0.3350	AVRG	R		3.197184		ug/L	0.3128	4	0.1000	0.99	15	
Isopropylbenzene	3.6059	3.3876	3.3823	3.5151	3.5489	3.2544	3.0615	AVRG	R		0.294666		ug/L	3.3937	6	0.0500	0.99	15	
1,1,2,2-Tetrachloroethane	1.6472	1.5920	1.5193	1.4233	1.4735	1.4134	1.4010	AVRG	R		0.668599		ug/L	1.4957	6	0.3000	0.99	15	
1,2,3-Trichloropropane	1.4410	1.2779	1.2466	1.1764	1.1942	1.1656	1.1727	AVRG	R		0.806970		ug/L	1.2392	8	0.0500	0.99	15	
Propylbenzene	4.4568	4.0363	4.0866	4.2494	4.2659	3.9184	3.6002	AVRG	R		0.244639		ug/L	4.0877	7	0.0500	0.99	15	

107

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/6A50X 5 ICAL

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSVOA06 HP GCMS VOA 06 Reviewed By:
Calnum: 455408039001 Name: 826GQX6S Type: SOIL Date: 10-OCT-2005 17:43 Inj Vol (uL): 5000

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Bromobenzene	1.0821	1.0204	1.0324	1.0093	1.0368	0.9912	1.0008	AVRG	R		0.975874		ug/L	1.0247	3	0.0500	0.99	15	
1,3,5-Trimethylbenzene	2.7536	2.6251	2.7208	2.8598	2.8775	2.6663	2.5720	AVRG	R		0.366971		ug/L	2.7250	4	0.0500	0.99	15	
2-Chlorotoluene	3.2192	3.0511	3.0874	3.0402	3.0639	2.8425	2.7176	AVRG	R		0.332985		ug/L	3.0031	6	0.0500	0.99	15	
4-Chlorotoluene	2.9729	2.8348	2.8770	2.8042	2.8062	2.6050	2.4790	AVRG	R		0.361212		ug/L	2.7685	6	0.0500	0.99	15	
tert-Butylbenzene	2.2859	2.1634	2.2213	2.4380	2.4646	2.2815	2.1868	AVRG	R		0.436367		ug/L	2.2916	5	0.0500	0.99	15	
1,2,4-Trimethylbenzene	2.6021	2.5222	2.6195	2.7217	2.7050	2.5166	2.4668	AVRG	R		0.385591		ug/L	2.5934	4	0.0500	0.99	15	
sec-Butylbenzene	3.3472	3.1198	3.2062	3.6526	3.6519	3.3539	3.1319	AVRG	R		0.298334		ug/L	3.3519	7	0.0500	0.99	15	
para-Isopropyl Toluene	2.5473	2.4169	2.5184	2.8527	2.8765	2.6453	2.5566	AVRG	R		0.380153		ug/L	2.6305	7	0.0500	0.99	15	
1,3-Dichlorobenzene	1.8424	1.7407	1.8080	1.7676	1.7887	1.6963	1.6760	AVRG	R		0.568198		ug/L	1.7599	3	0.0500	0.99	15	
1,4-Dichlorobenzene	1.8874	1.7879	1.7854	1.7892	1.7990	1.7070	1.7102	AVRG	R		0.561530		ug/L	1.7808	3	0.0500	0.99	15	
n-Butylbenzene	2.0273	1.9115	2.0404	2.4653	2.4862	2.3053	2.2534	AVRG	R		0.451922		ug/L	2.2128	10	0.0500	0.99	15	
1,2-Dichlorobenzene	1.7239	1.6879	1.7031	1.6612	1.6762	1.6141	1.6149	AVRG	R		0.599243		ug/L	1.6688	3	0.0500	0.99	15	
1,2-Dibromo-3-Chloropropane	0.2749	0.2959	0.2906	0.2803	0.2860	0.2763	0.2797	AVRG	R		3.528541		ug/L	0.2834	3	0.0500	0.99	15	
1,2,4-Trichlorobenzene	0.6190	0.6217	0.6877	0.7639	0.7816	0.7549	0.8038	AVRG	R		1.390963		ug/L	0.7189	11	0.0500	0.99	15	
Hexachlorobutadiene	0.4159	0.3875	0.3828	0.5125	0.5179	0.4904	0.4982	AVRG	R		2.183945		ug/L	0.4579	13	0.0500	0.99	15	
Naphthalene	1.3002	1.4003	1.5854	1.7427	1.7655	1.7922	1.8927	AVRG	R		0.609820		ug/L	1.6398	13	0.0500	0.99	15	
1,2,3-Trichlorobenzene	0.5623	0.5857	0.6595	0.7019	0.7347	0.7176	0.7776	AVRG	R		1.477015		ug/L	0.6770	12	0.0500	0.99	15	
tert-Butyl Alcohol (TBA)	0.1548	0.1488	0.1521	0.1417	0.1484	0.1428	0.1377	AVRG	R		6.820613		ug/L	0.1466	4	0.0050	0.99	15	
Isopropyl Ether (DIPE)	3.0000	2.9109	2.9103	2.6796	2.7202	2.5761	2.5402	AVRG	R		0.361994		ug/L	2.7625	6	0.0500	0.99	15	
Ethyl tert-Butyl Ether (ETBE)	2.1841	2.1424	2.1503	2.0177	2.0573	1.9859	1.9861	AVRG	R		0.481966		ug/L	2.0748	4	0.0500	0.99	15	
Methyl tert-Amyl Ether (TAME)	1.1729	1.1427	1.1637	1.1000	1.1361	1.0915	1.1086	AVRG	R		0.884322		ug/L	1.1308	3	0.0500	0.99	15	
Ethanol		0.0213	0.0210	0.0204	0.0208	0.0198	0.0188	AVRG	R		49.20573		ug/L	0.0203	5	5.0E-4	0.99	15	
Isopropanol		0.1105	0.1099	0.1051	0.1106	0.1049	0.1025	AVRG	R		9.323918		ug/L	0.1073	3	0.0050	0.99	15	
Tetrahydrofuran	0.3884	0.3715	0.3626	0.3261	0.3280	0.3099	0.2872	AVRG	R		2.949005		ug/L	0.3391	11	0.0050	0.99	15	
Dibromofluoromethane	0.7151	0.6969	0.6983	0.7027	0.7009	0.7239	0.7235	AVRG	R		1.410901		ug/L	0.7088	2	0.0500	0.99	15	
1,2-Dichloroethane-d4	0.3798	0.3760	0.3793	0.3717	0.3768	0.3794	0.3920	AVRG	R		2.636571		ug/L	0.3793	2	0.0500	0.99	15	
Trifluorotoluene	0.3818	0.3468	0.3595	0.4488	0.4705	0.4501	0.4450	AVRG	R		2.411629		ug/L	0.4147	12	0.0500	0.99	15	
Toluene-d8	1.0476	1.0422	1.0360	1.0393	1.0474	1.0529	1.0401	AVRG	R		0.958183		ug/L	1.0436	1	0.0500	0.99	15	
Bromofluorobenzene	1.2514	1.2547	1.2092	1.1884	1.2113	1.1843	1.1850	AVRG	R		0.825059		ug/L	1.2120	2	0.0500	0.99	15	

Curves: AVRG: Average response factor LINR: Linear regression

Instrument amount = a0 + response * a1 + response^2 * a2

8260/624 or 5 10.2

SECOND SOURCE CALIBRATION VERIFICATION

Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name :
Seqnum : 455409482006 Filename : fjb06 Injected : 11-OCT-2005 11:16
Calnum : 455408039001 Caldate : 10-OCT-2005 Caltype : SOIL
Standards: S1738 (10000X), S1459 (10000X), S1689 (10000X), S1673 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Freon 12	25.00000	20.41930	ug/L	-18	30	
Chloromethane	25.00000	23.62520	ug/L	-5	30	
Vinyl Chloride	25.00000	24.16800	ug/L	-3	20	
Bromomethane	25.00000	28.80250	ug/L	15	30	
Chloroethane	25.00000	24.63870	ug/L	-1	30	
Trichlorofluoromethane	25.00000	26.28870	ug/L	5	30	
Acetone	25.00000	20.43770	ug/L	-18	40	
Freon 113	25.00000	25.46280	ug/L	2	30	
1,1-Dichloroethene	25.00000	26.85110	ug/L	7	20	
Methylene Chloride	25.00000	24.86990	ug/L	-1	30	
Carbon Disulfide	25.00000	23.29760	ug/L	-7	30	
MTBE	25.00000	24.15850	ug/L	-3	30	
trans-1,2-Dichloroethene	25.00000	25.59160	ug/L	2	30	
Vinyl Acetate	25.00000	17.45180	ug/L	-30	40	
1,1-Dichloroethane	25.00000	24.08650	ug/L	-4	30	
2-Butanone	25.00000	23.16550	ug/L	-7	40	
2,2-Dichloropropane	25.00000	26.15570	ug/L	5	30	
cis-1,2-Dichloroethene	25.00000	24.73490	ug/L	-1	30	
Chloroform	25.00000	24.15410	ug/L	-3	20	
Bromochloromethane	25.00000	23.73080	ug/L	-5	30	
1,1,1-Trichloroethane	25.00000	25.99430	ug/L	4	30	
1,1-Dichloropropene	25.00000	27.38600	ug/L	10	30	
Carbon Tetrachloride	25.00000	27.29250	ug/L	9	30	
1,2-Dichloroethane	25.00000	23.81530	ug/L	-5	30	
Benzene	25.00000	25.13950	ug/L	1	30	
Trichloroethene	25.00000	25.71660	ug/L	3	30	
1,2-Dichloropropane	25.00000	23.29190	ug/L	-7	20	
Bromodichloromethane	25.00000	25.20240	ug/L	1	30	
Dibromomethane	25.00000	23.39210	ug/L	-6	30	
4-Methyl-2-Pentanone	25.00000	24.61930	ug/L	-2	40	
Tetramethyl THF	25.00000	23.77690	ug/L	-5	30	
cis-1,3-Dichloropropene	25.00000	23.97380	ug/L	-4	30	
Toluene	25.00000	25.02600	ug/L	0	20	
trans-1,3-Dichloropropene	25.00000	22.06250	ug/L	-12	30	
1,1,2-Trichloroethane	25.00000	23.52490	ug/L	-6	30	
2-Hexanone	25.00000	24.56650	ug/L	-2	40	
1,3-Dichloropropane	25.00000	24.77070	ug/L	-1	30	
Tetrachloroethene	25.00000	27.55950	ug/L	10	30	
Dibromochloromethane	25.00000	25.33160	ug/L	1	30	
1,2-Dibromoethane	25.00000	23.34610	ug/L	-7	30	
Chlorobenzene	25.00000	25.42950	ug/L	2	30	
1,1,1,2-Tetrachloroethane	25.00000	24.51930	ug/L	-2	30	
Ethylbenzene	25.00000	26.68060	ug/L	7	20	
m,p-Xylenes	50.00000	53.37480	ug/L	7	30	
o-Xylene	25.00000	25.57510	ug/L	2	30	
Styrene	25.00000	25.45500	ug/L	2	30	
Bromoform	25.00000	23.72710	ug/L	-5	30	

2 columns Brouillon

8260/6250X 5 ICAL

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name :
Seqnum : 455409482006 Filename : fjb06 Injected : 11-OCT-2005 11:16
Calnum : 455408039001 Caldate : 10-OCT-2005 Caltype : SOIL
Standards: S1738 (10000X), S1459 (10000X), S1689 (10000X), S1673 (1000X)

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
Isopropylbenzene	25.00000	25.26420	ug/L	1	30	
1,1,2,2-Tetrachloroethane	25.00000	23.87310	ug/L	-5	30	
1,2,3-Trichloropropane	25.00000	23.85630	ug/L	-5	30	
Propylbenzene	25.00000	27.22390	ug/L	9	30	
Bromobenzene	25.00000	24.45070	ug/L	-2	30	
1,3,5-Trimethylbenzene	25.00000	26.20920	ug/L	5	30	
2-Chlorotoluene	25.00000	25.63790	ug/L	3	30	
4-Chlorotoluene	25.00000	25.38720	ug/L	2	30	
tert-Butylbenzene	25.00000	28.04770	ug/L	12	30	
1,2,4-Trimethylbenzene	25.00000	25.14770	ug/L	1	30	
sec-Butylbenzene	25.00000	28.48120	ug/L	14	30	
para-Isopropyl Toluene	25.00000	26.50920	ug/L	6	30	
1,3-Dichlorobenzene	25.00000	24.65870	ug/L	-1	30	
1,4-Dichlorobenzene	25.00000	24.36520	ug/L	-3	30	
n-Butylbenzene	25.00000	27.12670	ug/L	9	30	
1,2-Dichlorobenzene	25.00000	24.66480	ug/L	-1	30	
1,2-Dibromo-3-Chloropropane	25.00000	24.29390	ug/L	-3	30	
1,2,4-Trichlorobenzene	25.00000	23.38250	ug/L	-6	30	
Hexachlorobutadiene	25.00000	28.63940	ug/L	15	30	
Naphthalene	25.00000	22.76410	ug/L	-9	30	
1,2,3-Trichlorobenzene	25.00000	23.27090	ug/L	-7	30	
tert-Butyl Alcohol (TBA)	125.0000	129.9240	ug/L	4	30	
Isopropyl Ether (DIPE)	25.00000	25.32310	ug/L	1	30	
Ethyl tert-Butyl Ether (ETBE)	25.00000	27.67870	ug/L	11	30	
Methyl tert-Amyl Ether (TAME)	25.00000	23.88500	ug/L	-4	30	
Ethanol	2500.000	2503.700	ug/L	0	30	
Isopropanol	250.0000	254.6452	ug/L	2	30	
Tetrahydrofuran	250.0000	267.8520	ug/L	7	30	

ISTD (ICAL=fja19)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	966431	1142036	18.17	12.45	12.45	0.00
1,4-Difluorobenzene	1732399	2034219	17.42	13.77	13.77	0.00
Chlorobenzene-d5	1428918	1636952	14.56	18.41	18.41	0.00
1,4-Dichlorobenzene-d4	603408	698416	15.75	21.25	21.25	0.00

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 25PPB IDF : 1.0
Seqnum : 455409482003 Filename : fjb03 Injected : 11-OCT-2005 09:31
Calnum : 455408039001 Caldate : 10-OCT-2005 Caltype : SOIL
Standards: S1500 (20000X), S1499 (20000X), S1673 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Freon 12	0.8342	0.9311	25.00000	27.90400	ug/L	12	30	0.0500	
Chloromethane	1.0737	1.1587	25.00000	26.97860	ug/L	8	30	0.1000	
Vinyl Chloride	0.8597	0.9220	25.00000	26.80920	ug/L	7	20	0.0500	
Bromomethane	0.4939	0.5260	25.00000	26.62800	ug/L	7	30	0.0500	
Chloroethane	0.4474	0.4588	25.00000	25.64010	ug/L	3	30	0.0500	
Trichlorofluoromethane	0.8368	0.8965	25.00000	26.78340	ug/L	7	30	0.0500	
Acetone	0.4516	0.3954	25.00000	21.88850	ug/L	-12	40	0.0500	
Freon 113	0.5082	0.5537	25.00000	26.15220	ug/L	5	30	0.0500	
1,1-Dichloroethene	0.5101	0.5189	25.00000	25.43080	ug/L	2	20	0.0500	
Methylene Chloride	0.7492	0.7594	25.00000	25.34170	ug/L	1	30	0.0500	
Carbon Disulfide	2.2726	2.3067	25.00000	25.37450	ug/L	1	30	0.0500	
MTBE	1.9561	1.9531	25.00000	24.96140	ug/L	0	30	0.0500	
trans-1,2-Dichloroethene	0.6456	0.6526	25.00000	25.27030	ug/L	1	30	0.0500	
Vinyl Acetate	1.7805	1.7621	25.00000	24.74150	ug/L	-1	40	0.0500	
1,1-Dichloroethane	1.3181	1.3314	25.00000	25.25170	ug/L	1	30	0.1000	
2-Butanone	0.6666	0.5784	25.00000	21.69310	ug/L	-13	40	0.0500	
2,2-Dichloropropane	0.7826	0.8477	25.00000	27.07870	ug/L	8	30	0.0500	
cis-1,2-Dichloroethene	0.7403	0.7471	25.00000	25.22820	ug/L	1	30	0.0500	
Chloroform	1.1367	1.1655	25.00000	25.63360	ug/L	3	20	0.0500	
Bromochloromethane	0.4038	0.4076	25.00000	25.23190	ug/L	1	30	0.0500	
1,1,1-Trichloroethane	0.7698	0.8015	25.00000	26.03180	ug/L	4	30	0.0500	
1,1-Dichloropropene	0.4373	0.4737	25.00000	27.08350	ug/L	8	30	0.0500	
Carbon Tetrachloride	0.3492	0.3676	25.00000	26.31830	ug/L	5	30	0.0500	
1,2-Dichloroethane	0.5091	0.5067	25.00000	24.88470	ug/L	0	30	0.0500	
Benzene	1.3533	1.3989	25.00000	25.84120	ug/L	3	30	0.0500	
Trichloroethene	0.3443	0.3631	25.00000	26.36350	ug/L	5	30	0.0500	
1,2-Dichloropropane	0.4549	0.4657	25.00000	25.59550	ug/L	2	20	0.0500	
Bromodichloromethane	0.4629	0.4715	25.00000	25.46470	ug/L	2	30	0.0500	
Dibromomethane	0.2826	0.2738	25.00000	24.22000	ug/L	-3	30	0.0500	
4-Methyl-2-Pentanone	0.6243	0.5660	25.00000	22.66610	ug/L	-9	40	0.0500	
Tetramethyl THF	0.9567	0.9405	25.00000	24.57450	ug/L	-2	30	0.0500	
cis-1,3-Dichloropropene	0.6275	0.6506	25.00000	25.92150	ug/L	4	30	0.0500	
Toluene	0.7869	0.8214	25.00000	26.09650	ug/L	4	20	0.0500	
trans-1,3-Dichloropropene	0.5514	0.5593	25.00000	25.35790	ug/L	1	30	0.0500	
1,1,2-Trichloroethane	0.1921	0.1900	25.00000	24.72660	ug/L	-1	30	0.0500	
2-Hexanone	0.5781	0.5204	25.00000	22.50480	ug/L	-10	40	0.0500	
1,3-Dichloropropane	0.7015	0.7144	25.00000	25.46180	ug/L	2	30	0.0500	
Tetrachloroethene	0.3305	0.3565	25.00000	26.96790	ug/L	8	30	0.0500	
Dibromochloromethane	0.4610	0.4760	25.00000	25.81340	ug/L	3	30	0.0500	
1,2-Dibromoethane	0.3981	0.3879	25.00000	24.35830	ug/L	-3	30	0.0500	
Chlorobenzene	1.0932	1.1634	25.00000	26.60650	ug/L	6	30	0.3000	
1,1,1,2-Tetrachloroethane	0.3903	0.4090	25.00000	26.19360	ug/L	5	30	0.0500	
Ethylbenzene	1.6148	1.7780	25.00000	27.52680	ug/L	10	20	0.0500	
m,p-Xylenes	0.6377	0.7052	50.00000	55.29270	ug/L	11	30	0.0500	
o-Xylene	0.6588	0.7128	25.00000	27.05060	ug/L	8	30	0.0500	
Styrene	1.1366	1.2508	25.00000	27.51240	ug/L	10	30	0.0500	

!=warning -=low bias c=CCV

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSVOA06 Run Name : 25PPB IDF : 1.0
Seqnum : 455409482003 Filename : fjb03 Injected : 11-OCT-2005 09:31
Calnum : 455408039001 Caldate : 10-OCT-2005 Caltype : SOIL
Standards: S1500 (20000X), S1499 (20000X), S1673 (1000X)

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
Bromoform	0.3128	0.3148	25.00000	25.16100	ug/L	1	30	0.1000	
Isopropylbenzene	3.3937	3.6592	25.00000	26.95580	ug/L	8	30	0.0500	
1,1,2,2-Tetrachloroethane	1.4957	1.4731	25.00000	24.62200	ug/L	-2	30	0.3000	
1,2,3-Trichloropropane	1.2392	1.2064	25.00000	24.33830	ug/L	-3	30	0.0500	
Propylbenzene	4.0877	4.3907	25.00000	26.85310	ug/L	7	30	0.0500	
Bromobenzene	1.0247	1.0747	25.00000	26.21840	ug/L	5	30	0.0500	
1,3,5-Trimethylbenzene	2.7250	2.8562	25.00000	26.20330	ug/L	5	30	0.0500	
2-Chlorotoluene	3.0031	3.1982	25.00000	26.62400	ug/L	6	30	0.0500	
4-Chlorotoluene	2.7685	3.0008	25.00000	27.09820	ug/L	8	30	0.0500	
tert-Butylbenzene	2.2916	2.3496	25.00000	25.63250	ug/L	3	30	0.0500	
1,2,4-Trimethylbenzene	2.5934	2.6830	25.00000	25.86380	ug/L	3	30	0.0500	
sec-Butylbenzene	3.3519	3.4511	25.00000	25.73950	ug/L	3	30	0.0500	
para-Isopropyl Toluene	2.6305	2.6542	25.00000	25.22530	ug/L	1	30	0.0500	
1,3-Dichlorobenzene	1.7599	1.9087	25.00000	27.11270	ug/L	8	30	0.0500	
1,4-Dichlorobenzene	1.7808	1.9141	25.00000	26.87020	ug/L	7	30	0.0500	
n-Butylbenzene	2.2128	2.1232	25.00000	23.98820	ug/L	-4	30	0.0500	
1,2-Dichlorobenzene	1.6688	1.7854	25.00000	26.74670	ug/L	7	30	0.0500	
1,2-Dibromo-3-Chloropropane	0.2834	0.2628	25.00000	23.18330	ug/L	-7	30	0.0500	
1,2,4-Trichlorobenzene	0.7189	0.7226	25.00000	25.12930	ug/L	1	30	0.0500	
Hexachlorobutadiene	0.4579	0.4192	25.00000	22.88980	ug/L	-8	30	0.0500	
Naphthalene	1.6398	1.5550	25.00000	23.70630	ug/L	-5	30	0.0500	
1,2,3-Trichlorobenzene	0.6770	0.6650	25.00000	24.55550	ug/L	-2	30	0.0500	
tert-Butyl Alcohol (TBA)	0.1466	0.1172	250.0000	199.8105	ug/L	-20	30	0.0050	
Isopropyl Ether (DIPE)	2.7625	2.8100	25.00000	25.42970	ug/L	2	30	0.0500	
Ethyl tert-Butyl Ether (ETBE)	2.0748	2.0958	25.00000	25.25300	ug/L	1	30	0.0500	
Methyl tert-Amyl Ether (TAME)	1.1308	1.1257	25.00000	24.88650	ug/L	0	30	0.0500	
Ethanol	0.0203	0.0158	2500.000	1938.417	ug/L	-22	30	5.0E-4	!c-
Isopropanol	0.1073	0.0860	250.0000	200.5184	ug/L	-20	30	0.0050	
Tetrahydrofuran	0.3391	0.3135	250.0000	231.1481	ug/L	-8	30	0.0050	
Dibromofluoromethane	0.7088	0.7087	50.00000	49.99500	ug/L	0	30	0.0500	
1,2-Dichloroethane-d4	0.3793	0.3751	50.00000	49.45100	ug/L	-1	30	0.0500	
Trifluorotoluene	0.4147	0.4515	25.00000	27.22100	ug/L	9	30	0.0500	
Toluene-d8	1.0436	1.0350	50.00000	49.58810	ug/L	-1	30	0.0500	
Bromofluorobenzene	1.2120	1.1997	50.00000	49.48920	ug/L	-1	30	0.0500	

ISTD (ICAL=fja19)	ICAL Area	Area	%Diff	ICAL RT	RT	Diff
Pentafluorobenzene	966431	1145544	18.53	12.45	12.45	0.00
1,4-Difluorobenzene	1732399	2066406	19.28	13.77	13.77	0.00
Chlorobenzene-d5	1428918	1684529	17.89	18.41	18.41	0.00
1,4-Dichlorobenzene-d4	603408	715400	18.56	21.25	21.24	-0.01

!=warning -=low bias c=CCV

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 11-OCT-2005
Sequence: 455409482 (fjb)
Instrument ID: MSVOA06

ICAL Filename: fja19
Date Analyzed: 10-OCT-2005
Time Analyzed: 19:27

	IS1 (PFLBZ)		IS2 (14DFB)		IS3 (CLBZD5)		IS4 (DCBZ14D4)	
	READING	RT	READING	RT	READING	RT	READING	RT
ICAL STD	966431	12.45	1732399	13.77	1428918	18.41	603408	21.25
LOWER LIMIT	483216	11.95	866200	13.27	714459	17.91	301704	20.75
UPPER LIMIT	1932862	12.95	3464798	14.27	2857836	18.91	1206816	21.75

TYPE	SAMPLE	#							
CCV	25PPB	003	1145544	12.45	2066406	13.77	1684529	18.41	715400	21.24
LCS	QC312428	006	1142036	12.45	2034219	13.77	1636952	18.41	698416	21.25
BLANK	QC312429	007	1118243	12.44	2020981	13.76	1690261	18.40	675575	21.24
SAMPLE	182168-020	008	1139190	12.44	2065745	13.77	1698834	18.42	649689	21.25
SAMPLE	182168-021	009	1201717	12.44	2195011	13.77	1866323	18.42	751794	21.26
MSS	182168-022	010	1211625	12.44	2238061	13.77	1839831	18.42	718934	21.26
SAMPLE	182168-023	011	1229383	12.44	2232792	13.78	1855960	18.42	726581	21.26
SAMPLE	182348-007	012	1305752	12.45	2359523	13.77	1996414	18.41	795578	21.24
SAMPLE	182348-008	013	1276757	12.45	2319992	13.77	1960672	18.41	792173	21.25
MS	QC312511	014	1316822	12.45	2404414	13.77	2034448	18.44	853123	21.26
MSD	QC312512	015	1288237	12.44	2358950	13.77	1967941	18.43	822449	21.26
PREPBLK	QC312432	016	1347203	12.44	2476104	13.78	2082772	18.42	833230	21.26
PREPBLK	QC312433	017	1323874	12.44	2406805	13.77	1996862	18.42	785590	21.26
SAMPLE	182357-001	018	1351079	12.45	2431172	13.77	2069020	18.41	807061	21.25
SAMPLE	182357-002	019	1270670	12.45	2283409	13.77	1913448	18.41	762533	21.24
SAMPLE	182328-001	020	1326351	12.45	2411556	13.77	2041360	18.41	816551	21.24
SAMPLE	182328-002	021	1285775	12.44	2282953	13.76	1879229	18.40	705191	21.24
SAMPLE	182328-003	022	1276617	12.45	2357022	13.77	1999188	18.40	797876	21.24
SAMPLE	182328-004	023	1281720	12.45	2351885	13.77	1936695	18.41	717871	21.25

8260/GACSX 5 ICAL

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455408039 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 10-OCT-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used	>LR
001	fja01	X	IB			10-OCT-2005 08:39	1.0						1	
002	fja02	X	BFB			10-OCT-2005 09:12	1.0						2	
003	fja03	X	20PPB			10-OCT-2005 09:29	1.0			5000			3 4 1 cc+	
004	fja04	X	BFB			10-OCT-2005 10:05	1.0						2	
005	fja05	X	20PPB			10-OCT-2005 10:22	1.0			5000			3 4 1	
006	fja06	X	QC312242	106562	Soil	10-OCT-2005 11:25	1.0			5000			5 6 7 1 spk	
007	fja07	X	QC312243 M	106562	Soil	10-OCT-2005 12:00	25.0			5000			8 1	
008	fja08	X	QC312242	106562	Soil	10-OCT-2005 12:35	1.0			5000			5 6 7 1 spk	
009	fja09	TUN	BFB adj tune			10-OCT-2005 13:29	1.0						2	
010	fja10	CCV	20PPB			10-OCT-2005 13:46	1.0			5000			3 4 1	
011	fja11	LCS	QC312242	106562	Soil	10-OCT-2005 14:21	1.0		3	5000			5 6 7 1	
012	fja12	LCS	QC312242	106562	Soil	10-OCT-2005 15:23	1.0		17	5000			5 6 7 1 spk	
013	fja13	TUN	BFB			10-OCT-2005 16:15	1.0						2	
014	fja14	X	IB			10-OCT-2005 16:32	1.0						1	
015	fja15	X	CALIB IB			10-OCT-2005 17:08	1.0						1	114
016	fja16	ICAL	5PPB			10-OCT-2005 17:43	1.0						9 10 1	
017	fja17	ICAL	10PPB			10-OCT-2005 18:18	1.0						9 10 1	
018	fja18	ICAL	20PPB			10-OCT-2005 18:52	1.0						9 10 1	
019	fja19	ICAL	50PPB			10-OCT-2005 19:27	1.0						9 10 1	
020	fja20	ICAL	60PPB			10-OCT-2005 20:02	1.0						9 10 1	
021	fja21	ICAL	75PPB			10-OCT-2005 20:38	1.0						9 10 1	
022	fja22	ICAL	100PPB			10-OCT-2005 21:13	1.0						9 10 1	
023	fja23	ICV	25PPB			10-OCT-2005 21:48	1.0	1		5000			5 1	
024	fja24	ICV	25PPB			10-OCT-2005 22:23	1.0			5000			6 7 1	
025	fja25	X	IB			10-OCT-2005 22:58	1.0						1	
026	fja26	X	IB			10-OCT-2005 23:33	1.0						1	
027	fja27	X	IB			11-OCT-2005 00:08	1.0						1	

Stds used: 1=S1673 2=S959 3=S1500 4=S1499 5=S1534 6=S1459 7=S1689 8=S1575 9=S1598 10=S1711
Flags used: +=high bias cc=CCV CCC failure spk=5% spike rule

Analyst: RJO Date: 10/11/05

* ICAL - OK ; no CCC/chron
* ICV - OK

RJO 10/11/05

8260/624SIM SICV

SEQUENCE SUMMARY

Curtis & Tompkins Laboratories

Sequence: 455409482 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 11-OCT-2005

Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	fjb01	X	IB			11-OCT-2005 08:42	1.0				1	
002	fjb02	TUN	BFB			11-OCT-2005 09:13	1.0				2	
003	fjb03	CCV	25PPB			11-OCT-2005 09:31	1.0	5000			3 4 1	
004	fjb04	X	IB Purged IB instead of LCS			11-OCT-2005 10:06	1.0	5000			1 spk	
005	fjb05	X	IB			11-OCT-2005 10:41	1.0				1	
006	fjb06	ICV				11-OCT-2005 11:16	1.0	5000			5 6 7 1	

115

Stds used: 1=S1673 2=S959 3=S1500 4=S1499 5=S1738 6=S1459 7=S1689

Flags used: spk=5% spike rule

Analyst: RBO Date: 10/11/05

Page 1 of 1

1 - 2

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 455409482 Instrument: MSVOA06 HP GCMS VOA 06 Begun: 11-OCT-2005
Analytical Method: EPA 8260B SOP Version: 8260B_rv5

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK uL	VL	pH	Stds Used	>LR
001	fjb01	X	IB			11-OCT-2005 08:42	1.0					1	
002	fjb02	TUN	BFB			11-OCT-2005 09:13	1.0					2	
003	fjb03	CCV	25PPB			11-OCT-2005 09:31	1.0		5000			3 4 1	
004	fjb04	X	IB			11-OCT-2005 10:06	1.0		5000			1 spk	
005	fjb05	X	IB			11-OCT-2005 10:41	1.0					1	
006	fjb06	LCS	QC312428	106606	Soil	11-OCT-2005 11:16	1.0		5000			5 6 7 1	
007	fjb07	BLANK	QC312429	106606	Soil	11-OCT-2005 11:51	1.0	1	5000			1	
008	fjb08	SAMPLE	182168-020 M	106606	Soil	11-OCT-2005 12:26	25.0		5000	C		8 1	
009	fjb09	SAMPLE	182168-021 M	106606	Soil	11-OCT-2005 13:02	25.0		5000	F		8 1	
010	fjb10	MSS	182168-022 M	106606	Soil	11-OCT-2005 13:37	25.0		5000			8 1	
011	fjb11	SAMPLE	182168-023 M	106606	Soil	11-OCT-2005 14:13	25.0		5000			8 1	
012	fjb12	SAMPLE	182348-007	106606	Soil	11-OCT-2005 14:48	0.9259		5000	A		1	
013	fjb13	SAMPLE	182348-008	106606	Soil	11-OCT-2005 15:24	1.0		5000			1	
014	fjb14	MS	QC312511 M	106606	Soil	11-OCT-2005 15:59	25.0	2	5000	F		8 1 5 6 7	118
015	fjb15	MSD	QC312512 M	106606	Soil	11-OCT-2005 16:33	25.0	2	5000			8 1 5 6 7	
016	fjb16	PREPBLK	QC312432 M	106606	Soil	11-OCT-2005 17:08	25.0		5000	X		8 1 9127 A	
017	fjb17	PREPBLK	QC312433 M	106606	Soil	11-OCT-2005 17:44	25.0		5000			8 1 B	
018	fjb18	SAMPLE	182357-001	106606	Soil	11-OCT-2005 18:19	0.8197		5000	C		1	
019	fjb19	SAMPLE	182357-002	106606	Soil	11-OCT-2005 18:54	0.7937		5000			1	
020	fjb20	SAMPLE	182328-001	106606	Soil	11-OCT-2005 19:30	0.8772		5000	B		1	
021	fjb21	SAMPLE	182328-002	106606	Soil	11-OCT-2005 20:05	0.9804		5000			1	
022	fjb22	SAMPLE	182328-003	106606	Soil	11-OCT-2005 20:40	0.8197		5000			1	
023	fjb23	SAMPLE	182328-004	106606	Soil	11-OCT-2005 21:15	0.9091	71	5000			1 <<t Re ix	
024	fjb24	X	IB			11-OCT-2005 21:51	1.0					1	
025	fjb25	X	IB			11-OCT-2005 22:27	1.0					1	
026	fjb26	X	IB			11-OCT-2005 23:02	1.0					1	
027	fjb27	X	IB			11-OCT-2005 23:36	1.0					1	
028	fjb28	X	IB			12-OCT-2005 00:12	1.0					1	
029	fjb29	X	6A			12-OCT-2005 00:47	1.0					1	
030	fjb30	X	6B			12-OCT-2005 01:23	1.0					1	

Stds used: 1=S1673 2=S959 3=S1500 4=S1499 5=S1738 6=S1459 7=S1689 8=S1575
Flags used: <<t=out of clock spk=5% spike rule

* ICAL - OK
* ICV - OK
* CCV - OK, USACE - EtOH 1

Analyst: RLO Date: 10/12/05

Page 1 of 1

AL 10/12/05

MSVOA SOIL PREP LOG SHEET

CURTIS & TOMPKINS, LTD.

Date: 10/11/05

Prepped by: Zie

8260 5030

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182311-2	5.1	A		6	RR 1x, high MT TBA failed RSD		
2	182348-7	5.4	A		6			
3	-8	5.0	A		6			
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25	PREPBLK 9/29 A	0.2				25x		
26	B							

ENCORE 8260/5035

	Sample ID	grams/ mLs	core#	Meoh	inst.	COMMENTS	hold date	due date
1	182168-20	0.2	C		6	25x MS1/MSD 2x 10/11	10/11	
2	-21		F					
3	-22					MS1/MS/MSD		
4	-23							
5	182295-24	5.7	B					
6	-25	5.0						
7	182328-1	5.7	B					
8	-2	5.1						
9	-3	6.1						
10	-4	5.5						
11	-5	5.4						
12	182348-7	5.4						
13	-8	5.0						
14	182357-1	6.1	C		6			
15	-2	6.3						
16								
17						117		

8270-SIM
Soil

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB119(2.5)	Batch#:	107020
Lab ID:	182357-001	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/23/05
Basis:	dry	Analyzed:	10/28/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	ND	5.6	0.86
Acenaphthylene	ND	5.6	1.6
Acenaphthene	ND	5.6	0.86
Fluorene	ND	5.6	1.3
Phenanthrene	6.5	5.6	1.1
Anthracene	1.6 J	5.6	1.3
Fluoranthene	6.7	5.6	1.5
Pyrene	13	5.6	1.3
Benzo(a)anthracene	5.8	5.6	1.2
Chrysene	11	5.6	1.1
Benzo(b)fluoranthene	5.4 J	5.6	1.2
Benzo(k)fluoranthene	4.6 J	5.6	0.67
Benzo(a)pyrene	6.5	5.6	1.0
Indeno(1,2,3-cd)pyrene	4.7 J	5.6	1.1
Dibenz(a,h)anthracene	3.9 J	5.6	0.99
Benzo(g,h,i)perylene	5.9	5.6	0.98

Surrogate	%REC	Limits
Nitrobenzene-d5	101	33-151
2-Fluorobiphenyl	73	34-126
Terphenyl-d14	96	42-135

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB119(4.5)	Batch#:	107020
Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/23/05
Basis:	dry	Analyzed:	10/27/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	ND	5.6	0.51
Acenaphthylene	ND	5.6	0.53
Acenaphthene	ND	5.6	0.53
Fluorene	ND	5.6	0.66
Phenanthrene	0.85 J	5.6	0.61
Anthracene	ND	5.6	0.42
Fluoranthene	1.3 J	5.6	0.61
Pyrene	0.84 J	5.6	0.47
Benzo(a)anthracene	0.76 J	5.6	0.54
Chrysene	ND	5.6	0.76
Benzo(b)fluoranthene	ND	5.6	0.91
Benzo(k)fluoranthene	ND	5.6	0.83
Benzo(a)pyrene	ND	5.6	0.34
Indeno(1,2,3-cd)pyrene	0.57 J b	5.6	0.50
Dibenz(a,h)anthracene	ND	5.6	0.59
Benzo(g,h,i)perylene	ND	5.6	0.64

Surrogate	%REC	Limits
Nitrobenzene-d5	109	33-151
2-Fluorobiphenyl	95	34-126
Terphenyl-d14	98	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC314115	Batch#:	107020
Matrix:	Soil	Prepared:	10/23/05
Units:	ug/Kg	Analyzed:	10/25/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.1	0.46
Acenaphthylene	ND	5.1	0.48
Acenaphthene	ND	5.1	0.48
Fluorene	ND	5.1	0.60
Phenanthrene	ND	5.1	0.55
Anthracene	ND	5.1	0.38
Fluoranthene	ND	5.1	0.55
Pyrene	ND	5.1	0.42
Benzo(a)anthracene	ND	5.1	0.48
Chrysene	ND	5.1	0.69
Benzo(b)fluoranthene	ND	5.1	0.82
Benzo(k)fluoranthene	ND	5.1	0.75
Benzo(a)pyrene	ND	5.1	0.31
Indeno(1,2,3-cd)pyrene	ND	5.1	0.45
Dibenz(a,h)anthracene	ND	5.1	0.53
Benzo(g,h,i)perylene	ND	5.1	0.58

Surrogate	%REC	Limits
Nitrobenzene-d5	95	33-151
2-Fluorobiphenyl	102	34-126
Terphenyl-d14	110	42-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Matrix:	Soil	Batch#:	107020
Units:	ug/Kg	Prepared:	10/23/05
Basis:	as received	Analyzed:	10/26/05
Diln Fac:	1.000		

Type: BS Lab ID: QC314116

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.09	30.24	91	49-120
Pyrene	33.09	22.23	67	48-120

Surrogate	%REC	Limits
Nitrobenzene-d5	98	33-151
2-Fluorobiphenyl	97	34-126
Terphenyl-d14	77	42-135

Type: BSD Lab ID: QC314117

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	33.76	29.06	86	49-120	6	20
Pyrene	33.76	21.59	64	48-120	5	20

Surrogate	%REC	Limits
Nitrobenzene-d5	77	33-151
2-Fluorobiphenyl	91	34-126
Terphenyl-d14	76	42-135

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\102605.b\VJQ02.D

Date : 26-OCT-2005 13:43

Client ID: dftpp tune std

Instrument: MSBNA03.i

Sample Info: TUN,S1637

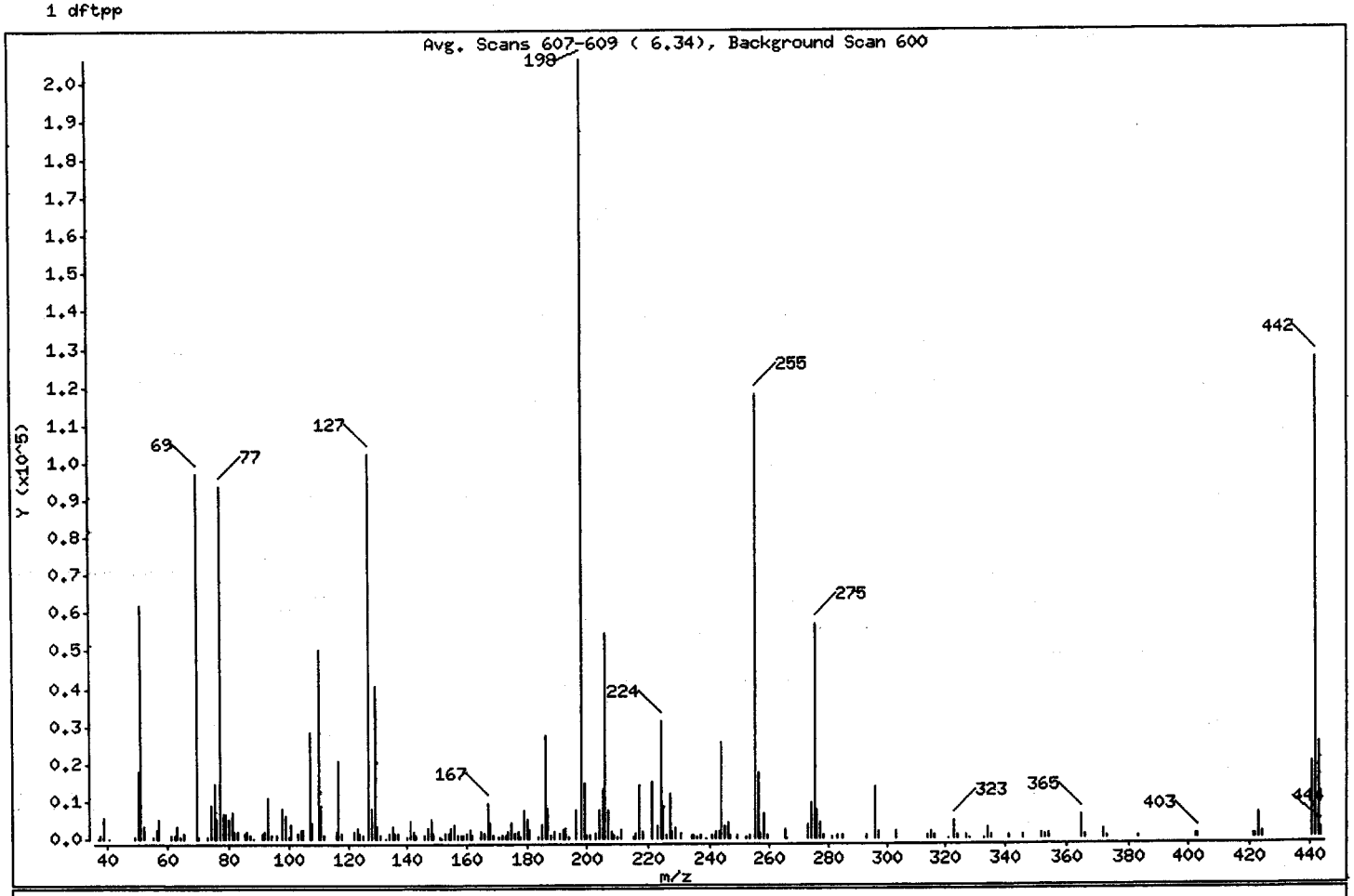
Volume Injected (uL): 1.0

Operator: AD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	30.00
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.23
70	Less than 2.00% of mass 69	0.22 (0.46)
127	40.00 - 60.00% of mass 198	49.74
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.11
275	10.00 - 30.00% of mass 198	27.60
365	Greater than 1.00% of mass 198	2.93
441	Present, but less than mass 443	9.76
442	40.00 - 99.99% of mass 198	61.68
443	17.00 - 23.00% of mass 442	12.10 (19.61)

BNA03

SIM ERAL

10/26/05

Ac 10127123

Data File: \\GCMSSERVER\DD\chem\MSBNA03.i\102705.b\VJR11.D

Date : 27-OCT-2005 19:03

Client ID: dftpp tune std

Instrument: MSBNA03.i

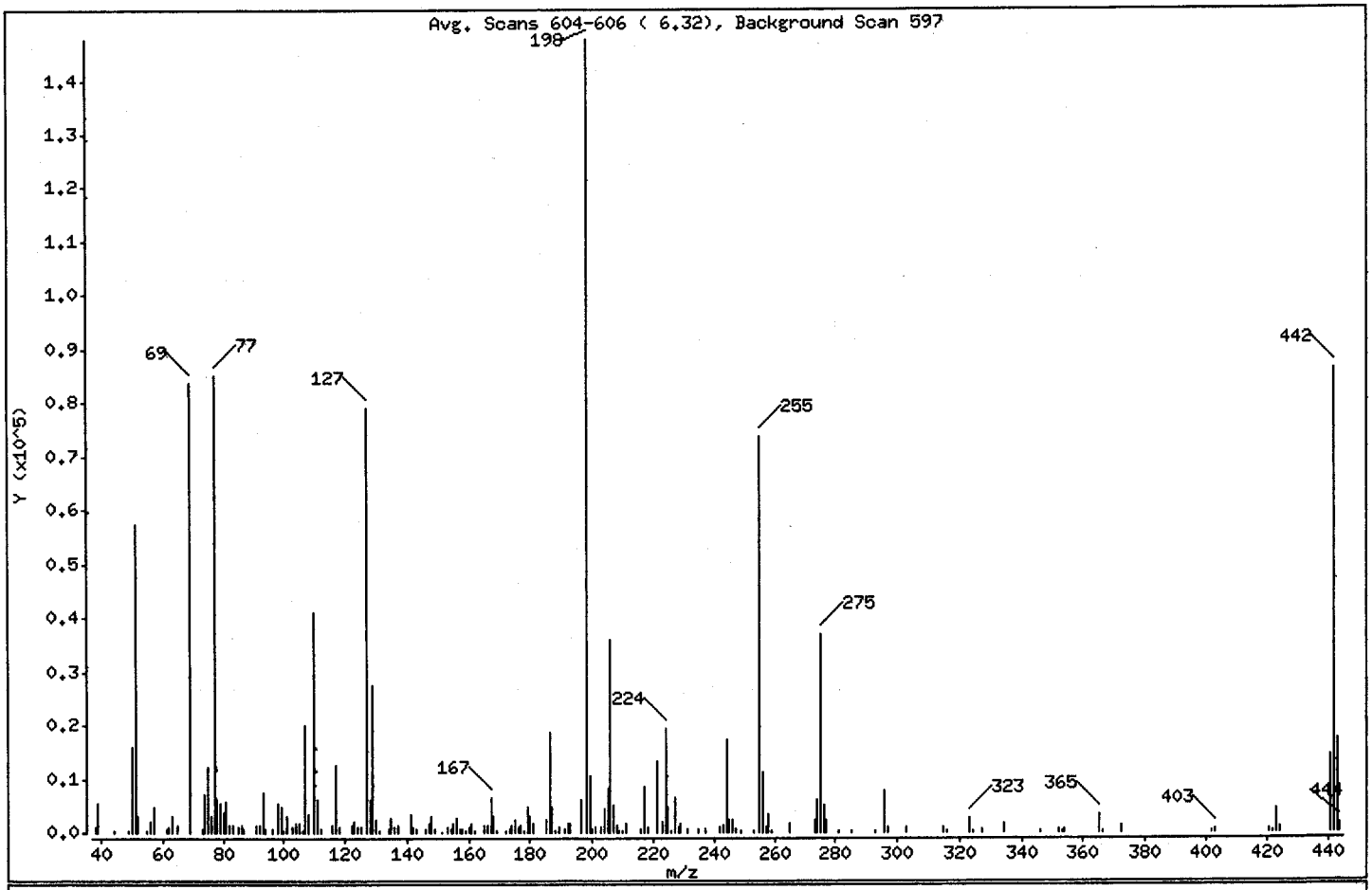
Sample Info: TUN,S1637

Operator: AD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.77
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	56.88
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	53.56
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.15
275	10.00 - 30.00% of mass 198	25.05
365	Greater than 1.00% of mass 198	2.31
441	Present, but less than mass 443	9.63
442	40.00 - 99.99% of mass 198	58.49
443	17.00 - 23.00% of mass 442	11.64 (19.91)

10-28-05

Data File: \\GCMSSERVER\DD\chem\MSBNA04.i\102505.b\WJP01.D

Date : 25-OCT-2005 12:04

Client ID: dftpp tune std

Instrument: MSBNA04.i

Sample Info: TUN,S1637

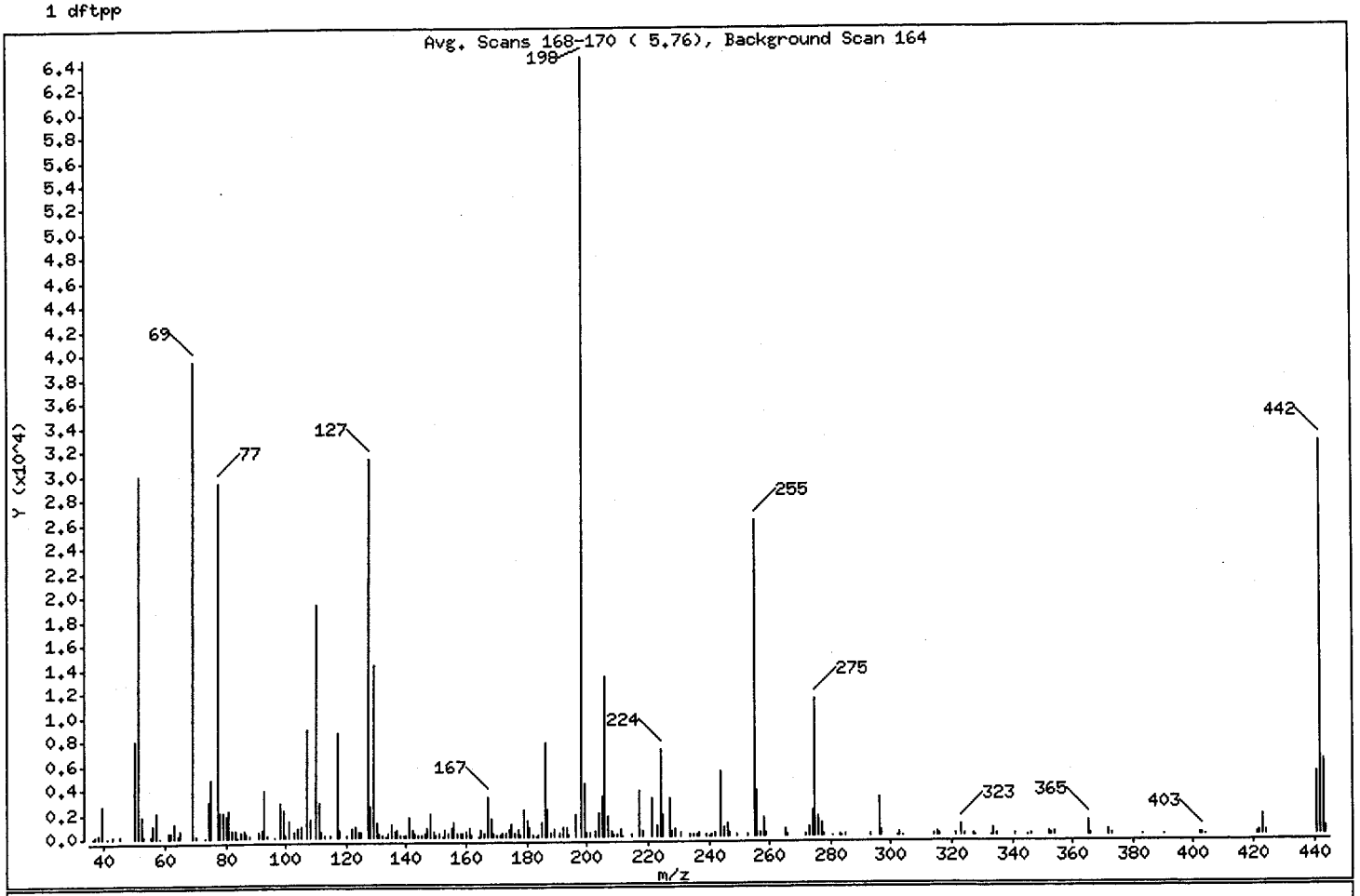
Volume Injected (uL): 1.0

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.55
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	61.10
70	Less than 2.00% of mass 69	0.32 (0.52)
127	40.00 - 60.00% of mass 198	48.46
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	17.46
365	Greater than 1.00% of mass 198	1.91
441	Present, but less than mass 443	7.71
442	40.00 - 99.99% of mass 198	50.29
443	17.00 - 23.00% of mass 442	9.43 (18.75)

Data File: \\GCMSSERVER\DD\chem\MSBNA04.i\102605.b\WJQ07.D

Date : 26-OCT-2005 15:38

Client ID: dftpp tune std

Instrument: MSBNA04.i

Sample Info: TUN,S1637

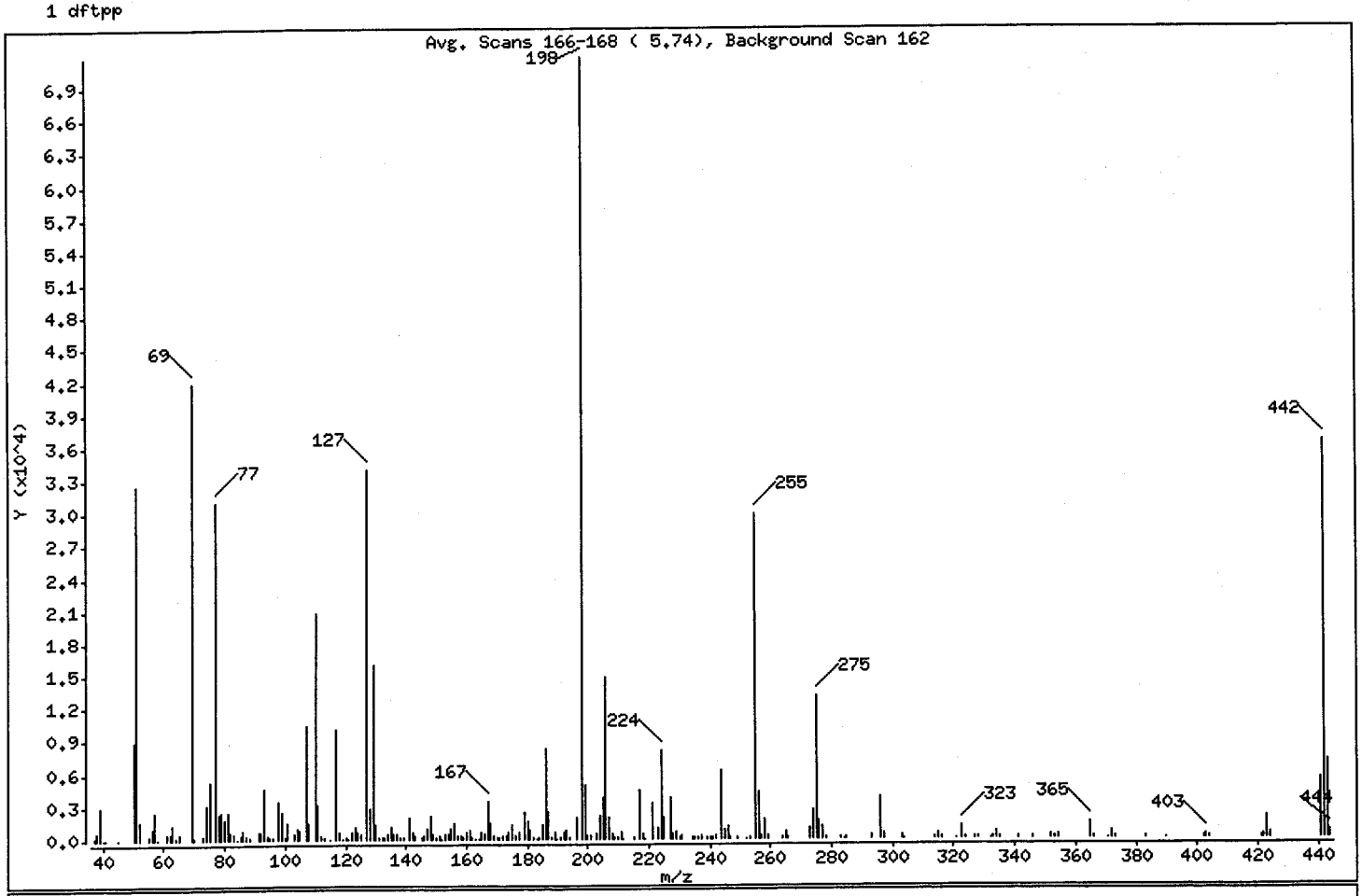
Volume Injected (uL): 1.0

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.37
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	58.36
70	Less than 2.00% of mass 69	0.14 (0.24)
127	40.00 - 60.00% of mass 198	47.33
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	18.06
365	Greater than 1.00% of mass 198	1.96
441	Present, but less than mass 443	7.56
442	40.00 - 99.99% of mass 198	50.91
443	17.00 - 23.00% of mass 442	9.90 (19.45)

Data File: \\GCMSSERVER\DD\chem\MSBNA04.i\102705.b\WJR01.D

Date : 27-OCT-2005 09:58

Client ID: dftpp tune std

Instrument: MSBNA04.i

Sample Info: TUN,S1637

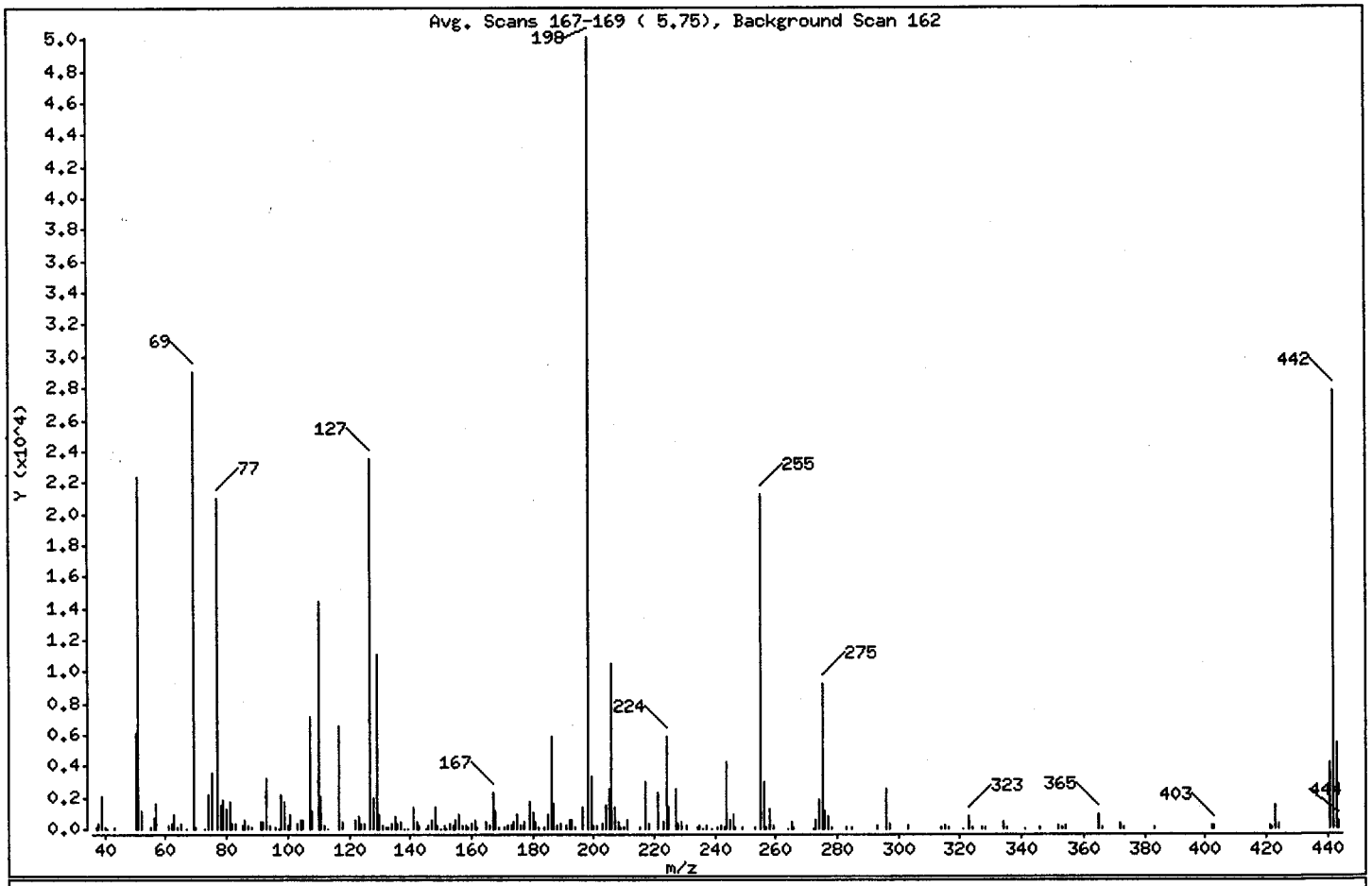
Volume Injected (uL): 1.0

Operator: BVD

Column phase: Xti 5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.56
68	Less than 1.99% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.91
70	Less than 2.00% of mass 69	0.20 (0.35)
127	40.00 - 60.00% of mass 198	46.95
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 30.00% of mass 198	18.30
365	Greater than 1.00% of mass 198	1.89
441	Present, but less than mass 443	8.27
442	40.00 - 99.99% of mass 198	55.47
443	17.00 - 23.00% of mass 442	10.79 (19.45)

WJR 28/10

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA04 HP GCMS BNA 04 Reviewed By:
Calnum: 535429844001 Name: 4PAHSIM Type: (normal) Date: 25-OCT-2005 12:32 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	wjp02	535429844002	0.1ug/mL	25-OCT-2005 12:32	S1863
2	wjp03	535429844003	0.2ug/mL	25-OCT-2005 13:07	S1864
3	wjp04	535429844004	0.5ug/mL	25-OCT-2005 13:42	S1873
4	wjp05	535429844005	1.0ug/mL	25-OCT-2005 14:18	S1866
5	wjp06	535429844006	2.0ug/mL	25-OCT-2005 14:53	S1867
6	wjp07	535429844007	5.0ug/mL	25-OCT-2005 15:28	S1868
7	wjp08	535429844008	10.0ug/mL	25-OCT-2005 16:58	S1869

• ICAL – OK

• ICV – Benzo(k)fluoranthene fails ↑ % D warning limit

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane		0.5245m	0.5255m	0.5537m	0.5455m	0.5127	0.4887	AVRG	R		1.904402		ng	0.5251	4	0.0500	.99	15	
Naphthalene	1.0182	0.9742	0.9260	0.9195	0.8615	0.7808	0.7169	AVRG	R		1.129558		ng	0.8853	12	0.0500	.99	15	
2-Methylnaphthalene	0.6316	0.6064	0.6034	0.6077	0.5809	0.5231	0.4805	AVRG	R		1.735374		ng	0.5762	9	0.0500	.99	15	
Acenaphthylene	1.7336	1.5743	1.5098	1.5186	1.5036	1.3869	1.2896	AVRG	R		0.665631		ng	1.5023	9	0.0500	.99	15	
Acenaphthene	1.0492	0.9945	0.9656	0.9853	0.9424	0.8743	0.7482	AVRG	R		1.067169		ng	0.9371	11	0.0500	.99	15	
Fluorene	1.1670	1.0979	1.0280	1.0460	1.0160	0.9559	0.9321	AVRG	R		0.966452		ng	1.0347	8	0.0500	.99	15	
Phenanthrene	1.0879m	1.0441	1.0300	1.0282	0.9818	0.8998	0.8253	AVRG	R		1.014920		ng	0.9853	9	0.0500	.99	15	
Anthracene	0.9431m	0.9038	0.9240	0.9515	0.8454	0.8040	0.8292	AVRG	R		1.128847		ng	0.8859	7	0.0500	.99	15	
Fluoranthene	1.0945m	1.0356	1.0087	1.0651	0.9593	0.9259	0.7858	AVRG	R		1.018188		ng	0.9821	11	0.0500	.99	15	
Pyrene	2.2534	2.2650	2.0411	1.8871	1.7088	1.5226		AVRG	R		0.513787		ng	1.9463	15	0.0500	.99	15	
Benzo(a)anthracene	1.1553	0.9874	1.0038	1.0935	1.0764	1.0404	1.0100	AVRG	R		0.950199		ng	1.0524	6	0.0500	.99	15	
Chrysene	1.3654	1.3073	1.2812	1.2860	1.2508	1.2302		AVRG	R		0.777113		ng	1.2868	4	0.0500	.99	15	
Benzo(b)fluoranthene	1.2211	1.2497	1.2616	1.2781	1.1983	1.1794		AVRG	R		0.812113		ng	1.2314	3	0.0500	.99	15	
Benzo(k)fluoranthene	1.6183	1.4300	1.4184	1.5581	1.8676	1.8178		AVRG	R		0.617910		ng	1.6184	12	0.0500	.99	15	
Benzo(a)pyrene	0.8649	0.9356	0.8138	1.0079	1.0776	1.0973	1.0148	AVRG	R		1.027604		ng	0.9731	11	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	0.6483	0.5939	0.6278	0.7587	0.8018	0.8510	0.8630	AVRG	R		1.360688		ng	0.7349	15	0.0500	.99	15	
Dibenz(a,h)anthracene	0.4694	0.4081	0.4298	0.4828	0.5428	0.6171	0.6450	LINR	R	0.176566	1.534413		ng	0.5136	0.999	0.0500	.99	15	
Benzo(g,h,i)perylene	0.7008	0.6603	0.6528	0.7447	0.7688	0.7848	0.7474	AVRG	R		1.383526		ng	0.7228	7	0.0500	.99	15	

128

Flags used: m=manual integration
Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

06/15/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA04 HP GCMS BNA 04 Reviewed By:
Calnum: 535429844001 Name: 4PAHSIM Type: (normal) Date: 25-OCT-2005 12:32 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.3379	0.3076	0.3071	0.3054	0.3209	0.3032	0.2857	AVRG	R		3.229052		ng	0.3097	5	0.0500	.99	15	
2-Fluorobiphenyl	1.4128	1.3223	1.2222	1.2296	1.1709	1.0587	0.9254	AVRG	R		0.839139		ng	1.1917	14	0.0500	.99	15	
Terphenyl-d14	1.3250	1.2782	1.2146	1.2411	1.0848	0.9737		AVRG	R		0.843005		ng	1.1862	11	0.0500	.99	15	

129

Flags used: m=manual integration
Curves: AVRG: Average response factor LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

6/19/05

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA04 Run Name : 1.0ug/mL
Seqnum : 535429844009 Filename : wjp09 Injected : 25-OCT-2005 17:33
Calnum : 535429844001 Caldate : 25-OCT-2005 Caltype :
Standards: S1860

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.008900	ng	1	30	m
Naphthalene	1.000000	1.055500	ng	6	30	
2-Methylnaphthalene	1.000000	1.063200	ng	6	30	
Acenaphthylene	1.000000	1.058500	ng	6	30	
Acenaphthene	1.000000	1.070900	ng	7	20	
Fluorene	1.000000	1.039400	ng	4	30	
Phenanthrene	1.000000	1.084000	ng	8	30	
Anthracene	1.000000	1.036600	ng	4	30	
Fluoranthene	1.000000	1.082100	ng	8	20	
Pyrene	1.000000	0.958400	ng	-4	30	
Benzo(a)anthracene	1.000000	1.059900	ng	6	30	
Chrysene	1.000000	1.056500	ng	6	30	
Benzo(b)fluoranthene	1.000000	1.098500	ng	10	30	
Benzo(k)fluoranthene	1.000000	1.243100	ng	**24**	30	!v+ m
Benzo(a)pyrene	1.000000	1.102400	ng	10	20	
Indeno(1,2,3-cd)pyrene	1.000000	1.023900	ng	2	30	
Dibenz(a,h)anthracene	1.000000	0.943600	ng	-6	30	
Benzo(g,h,i)perylene	1.000000	1.020400	ng	2	30	

NO INTERNAL STANDARD REFERENCE RUN FOUND FOR CCV
Internal standards: DCBZ14D4, NAPHD8, ACEND10, PHEND10, CHYD12, PERYD12

10/26/05

!=warning +=high bias m=manual integration v=ICV
Page 1 of 1

10/26/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525431383002 Name: 3PAHSIM Type: (normal) Date: 26-OCT-2005 15:47 Inj Vol (uL): 1

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	vjq05	525431383005	0.1ug/mL	26-OCT-2005 15:47	S1863
2	vjq06	525431383006	0.2ug/mL	26-OCT-2005 16:24	S1864
3	vjq07	525431383007	0.5ug/mL	26-OCT-2005 16:59	S1873
4	vjq08	525431383008	1.0ug/mL	26-OCT-2005 17:32	S1866
5	vjq09	525431383009	2.0ug/mL	26-OCT-2005 18:04	S1867
6	vjq10	525431383010	5.0ug/mL	26-OCT-2005 18:38	S1868
7	vjq11	525431383011	10.0ug/mL	26-OCT-2005 19:13	S1869

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
1,4-Dioxane	0.5054m	0.5963m	0.5778m	0.5989m	0.6149	0.5969	0.5821	AVRG	R		1.718960		ng	0.5817	6	0.0500	.99	15	
Naphthalene	0.8966	0.8674	0.8447	0.8752	0.8511	0.8182	0.7857	AVRG	R		1.178653		ng	0.8484	4	0.0500	.99	15	
2-Methylnaphthalene	0.6180	0.5882	0.5827	0.6205	0.6192	0.5824	0.5582	AVRG	R		1.678973		ng	0.5956	4	0.0500	.99	15	
Acenaphthylene	1.4254	1.3541	1.3622	1.4836	1.5571	1.5375	1.4904	AVRG	R		0.685586		ng	1.4586	6	0.0500	.99	15	
Acenaphthene	1.0161	0.9431	0.9285	0.9609	0.9612	0.9383	0.9148	AVRG	R		1.050592		ng	0.9518	3	0.0500	.99	15	
Fluorene	1.2403	1.1736	1.1514	1.1794	1.1743	1.1376	1.1100	AVRG	R		0.857156		ng	1.1666	3	0.0500	.99	15	
Phenanthrene	1.1145	1.0183	0.9982	1.0114	0.9513	0.9505	0.7874	AVRG	R		1.024658		ng	0.9759	10	0.0500	.99	15	
Anthracene	0.8985m	0.8168	0.8380	0.9044	0.8778	0.8885	0.7304	AVRG	R		1.175604		ng	0.8506	7	0.0500	.99	15	
Fluoranthene	1.4388	1.1608	1.2497	1.1565	1.1162	1.0919	0.9170	AVRG	R		0.860899		ng	1.1616	14	0.0500	.99	15	
Pyrene	1.7921	1.4469	1.4774	1.4357	1.3229	1.3632		AVRG	R		0.678873		ng	1.4730	11	0.0500	.99	15	
Benzo(a)anthracene	1.3882	1.0900	1.1768	1.1664	1.1080	1.1536	0.9052	AVRG	R		0.876282		ng	1.1412	13	0.0500	.99	15	
Chrysene	1.4033	1.1527	1.1283	1.1408	1.0162	1.0616		AVRG	R		0.869209		ng	1.1505	12	0.0500	.99	15	
Benzo(b)fluoranthene	1.9638	1.4939	1.6042	1.4895	1.3590	1.4921		AVRG	R		0.638123		ng	1.5671	13	0.0500	.99	15	
Benzo(k)fluoranthene	1.9818	1.8654	1.5306	1.5117	1.6563	1.6969	1.3265	AVRG	R		0.605059		ng	1.6527	13	0.0500	.99	15	
Benzo(a)pyrene	1.1558m	1.1398	1.1834	1.2156	1.1470	1.2491	0.9906	AVRG	R		0.866182		ng	1.1545	7	0.0500	.99	15	
Indeno(1,2,3-cd)pyrene	1.4625	1.1559	1.2156	1.1937	1.1398	1.2237	0.9823	AVRG	R		0.835956		ng	1.1962	12	0.0500	.99	15	
Dibenz(a,h)anthracene	1.1924	0.9278	0.9852	0.9809	0.9412	1.0264	0.8384	AVRG	R		1.015599		ng	0.9846	11	0.0500	.99	15	
Benzo(g,h,i)perylene	1.2876	0.9930	1.0316	0.9945	0.9402	0.9869	0.7798	AVRG	R		0.998050		ng	1.0020	15	0.0500	.99	15	

131

Flags used: m=manual integration

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

ICAL: good

ICV: good

10-28-05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MSBNA03 HP GCMS BNA 03 Reviewed By:
Calnum: 525431383002 Name: 3PAHSIM Type: (normal) Date: 26-OCT-2005 15:47 Inj Vol (uL): 1

Analyte	L1	L2	L3	L4	L5	L6	L7	Type	X	a0	a1	a2	units	avg	r^2 %RSD	MinRF	MnR^2	MxRSD	Flags
Nitrobenzene-d5	0.2529	0.2344	0.2427	0.2715	0.2897	0.2984	0.2950	AVRG	R		3.714402		ng	0.2692	10	0.0500	.99	15	
2-Fluorobiphenyl	1.3568	1.3019	1.2250	1.2493	1.2132	1.1591	1.1096	AVRG	R		0.812541		ng	1.2307	7	0.0500	.99	15	
Terphenyl-d14	1.5348	1.1487	1.2427	1.0994	1.0322	1.0310	0.7989	QUAD	R	0.133605	0.593783	0.078735	ng	1.1268	0.997	0.0500	.99	15	

132

Flags used: m=manual integration

Curves: AVRG: Average response factor QUAD: Quadratic regression

Instrument amount = a0 + response * a1 + response^2 * a2

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : 1.0ug/mL
Seqnum : 525431383012 Filename : vjq12 Injected : 26-OCT-2005 19:45
Calnum : 525431383002 Caldate : 26-OCT-2005 Caltype :
Standards: S1860

Analyte	SpkAmt	QuantAmt	Units	%D	Max	Flags
1,4-Dioxane	1.000000	1.103900	ng	10	30	
Naphthalene	1.000000	1.081100	ng	8	30	
2-Methylnaphthalene	1.000000	1.122700	ng	12	30	
Acenaphthylene	1.000000	1.066700	ng	7	30	
Acenaphthene	1.000000	1.041200	ng	4	20	
Fluorene	1.000000	1.033000	ng	3	30	
Phenanthrene	1.000000	1.058800	ng	6	30	
Anthracene	1.000000	1.127400	ng	13	30	
Fluoranthene	1.000000	0.972600	ng	-3	20	
Pyrene	1.000000	0.998700	ng	0	30	
Benzo(a)anthracene	1.000000	1.071900	ng	7	30	
Chrysene	1.000000	0.985300	ng	-1	30	
Benzo(b)fluoranthene	1.000000	0.974400	ng	-3	30	
Benzo(k)fluoranthene	1.000000	1.143500	ng	14	30	
Benzo(a)pyrene	1.000000	1.075000	ng	8	20	
Indeno(1,2,3-cd)pyrene	1.000000	0.993800	ng	-1	30	
Dibenz(a,h)anthracene	1.000000	1.011500	ng	1	30	
Benzo(g,h,i)perylene	1.000000	1.013300	ng	1	30	

ISTD (CCV=vjq04)	CCV Area	Area	%Diff	CCV RT	RT	Diff
1,4-Dichlorobenzene-d4	26994	29615	9.71	7.86	7.85	-0.01
Naphthalene-d8	117201	132208	12.80	9.61	9.61	0.00
Acenaphthene-d10	58558	67886	15.93	12.25	12.24	-0.01
Phenanthrene-d10	103390	111864	8.20	14.51	14.50	-0.01
Chrysene-d12	88093	88538	0.51	18.31	18.31	0.00
Perylene-d12	56054	51541	-8.05	20.13	20.12	-0.01

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA04
Seqnum : 535431193008
Calnum : 535429844001
Standards: S1873

Run Name :
Filename : wjq08
Caldate : 25-OCT-2005

IDF : 1.0
Injected : 26-OCT-2005 16:17
Caltype :

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.5251	0.4030	0.500000	0.383700	ng	-23	30	0.0500	!c- m
Naphthalene	0.8853	0.9145	0.500000	0.516500	ng	3	30	0.0500	
2-Methylnaphthalene	0.5762	0.6183	0.500000	0.536500	ng	7	30	0.0500	
Acenaphthylene	1.5023	1.6307	0.500000	0.542700	ng	9	30	0.0500	
Acenaphthene	0.9371	0.9597	0.500000	0.512100	ng	2	20	0.0500	
Fluorene	1.0347	1.1443	0.500000	0.553000	ng	11	30	0.0500	
Phenanthrene	0.9853	1.0291	0.500000	0.522300	ng	4	30	0.0500	
Anthracene	0.8859	0.9026	0.500000	0.509500	ng	2	30	0.0500	
Fluoranthene	0.9821	1.1496	0.500000	0.585300	ng	17	20	0.0500	
Pyrene	1.9463	1.5612	0.500000	0.401100	ng	-20	30	0.0500	
Benzo(a)anthracene	1.0524	1.2279	0.500000	0.583400	ng	17	30	0.0500	
Chrysene	1.2868	1.2599	0.500000	0.489500	ng	-2	30	0.0500	
Benzo(b)fluoranthene	1.2314	1.1991	0.500000	0.486900	ng	-3	30	0.0500	
Benzo(k)fluoranthene	1.6184	1.9117	0.500000	0.590600	ng	18	30	0.0500	
Benzo(a)pyrene	0.9731	1.1026	0.500000	0.566500	ng	13	20	0.0500	
Indeno(1,2,3-cd)pyrene	0.7349	0.9469	0.500000	0.644200	ng	29	30	0.0500	!c+ m
Dibenz(a,h)anthracene	0.5136	0.7180	0.500000	0.727400	ng	45	30	0.0500	c+ m **
Benzo(g,h,i)perylene	0.7228	0.8470	0.500000	0.585900	ng	17	30	0.0500	m
Nitrobenzene-d5	0.3097	0.3492	0.500000	0.563800	ng	13	30	0.0500	
2-Fluorobiphenyl	1.1917	1.2282	0.500000	0.515300	ng	3	30	0.0500	
Terphenyl-d14	1.1862	1.0265	0.500000	0.432700	ng	-13	30	0.0500	

!=warning +=high bias -=low bias c=CCV m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA03 Run Name : IDF : 1.0
Seqnum : 525432687012 Filename : vjr12 Injected : 27-OCT-2005 19:22
Calnum : 525431383002 Caldate : 26-OCT-2005 Caltype :
Standards: S1866

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.5817	0.6499	1.000000	1.117200	ng	12	30	0.0500	m
Naphthalene	0.8484	0.9145	1.000000	1.077900	ng	8	30	0.0500	
2-Methylnaphthalene	0.5956	0.6281	1.000000	1.054500	ng	5	30	0.0500	
Acenaphthylene	1.4586	1.7477	1.000000	1.198200	ng	20	30	0.0500	
Acenaphthene	0.9518	1.0225	1.000000	1.074200	ng	7	20	0.0500	
Fluorene	1.1666	1.2363	1.000000	1.059700	ng	6	30	0.0500	
Phenanthrene	0.9759	1.0473	1.000000	1.073100	ng	7	30	0.0500	
Anthracene	0.8506	1.0048	1.000000	1.181300	ng	18	30	0.0500	
Fluoranthene	1.1616	1.1481	1.000000	0.988400	ng	-1	20	0.0500	
Pyrene	1.4730	1.5807	1.000000	1.073100	ng	7	30	0.0500	
Benzo(a)anthracene	1.1412	1.2730	1.000000	1.115500	ng	12	30	0.0500	
Chrysene	1.1505	1.1104	1.000000	0.965100	ng	-3	30	0.0500	
Benzo(b)fluoranthene	1.5671	1.4686	1.000000	0.937100	ng	-6	30	0.0500	
Benzo(k)fluoranthene	1.6527	1.4648	1.000000	0.886300	ng	-11	30	0.0500	
Benzo(a)pyrene	1.1545	1.2440	1.000000	1.077500	ng	8	20	0.0500	
Indeno(1,2,3-cd)pyrene	1.1962	1.1790	1.000000	0.985600	ng	-1	30	0.0500	
Dibenz(a,h)anthracene	0.9846	0.9811	1.000000	0.996400	ng	0	30	0.0500	
Benzo(g,h,i)perylene	1.0020	1.0095	1.000000	1.007600	ng	1	30	0.0500	
Nitrobenzene-d5	0.2692	0.2549	1.000000	0.946900	ng	-5	30	0.0500	
2-Fluorobiphenyl	1.2307	1.1674	1.000000	0.948500	ng	-5	30	0.0500	
Terphenyl-d14	1.1268	1.1331	1.000000	0.907500	ng	-9	30	0.0500	

10-28-05

m=manual integration
Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MSBNA04 Run Name : IDF : 1.0
Seqnum : 535432598002 Filename : wjr02 Injected : 27-OCT-2005 10:19
Calnum : 535429844001 Caldate : 25-OCT-2005 Caltype :
Standards: S1866

Analyte	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Min RF	Flags
1,4-Dioxane	0.5251	0.3889	1.000000	0.740700	ng	-26	30	0.0500	!c- m
Naphthalene	0.8853	0.9272	1.000000	1.047300	ng	5	30	0.0500	
2-Methylnaphthalene	0.5762	0.6013	1.000000	1.043400	ng	4	30	0.0500	
Acenaphthylene	1.5023	1.6427	1.000000	1.093400	ng	9	30	0.0500	
Acenaphthene	0.9371	0.9730	1.000000	1.038300	ng	4	20	0.0500	
Fluorene	1.0347	1.0800	1.000000	1.043800	ng	4	30	0.0500	
Phenanthrene	0.9853	1.0250	1.000000	1.040300	ng	4	30	0.0500	
Anthracene	0.8859	0.8834	1.000000	0.997300	ng	0	30	0.0500	
Fluoranthene	0.9821	1.0717	1.000000	1.091200	ng	9	20	0.0500	
Pyrene	1.9463	1.6515	1.000000	0.848500	ng	-15	30	0.0500	
Benzo(a)anthracene	1.0524	1.2347	1.000000	1.173300	ng	17	30	0.0500	
Chrysene	1.2868	1.2478	1.000000	0.969700	ng	-3	30	0.0500	
Benzo(b)fluoranthene	1.2314	1.3285	1.000000	1.078900	ng	8	30	0.0500	
Benzo(k)fluoranthene	1.6184	1.8392	1.000000	1.136500	ng	14	30	0.0500	
Benzo(a)pyrene	0.9731	1.1515	1.000000	1.183300	ng	18	20	0.0500	
Indeno(1,2,3-cd)pyrene	0.7349	1.0381	1.000000	1.412500	ng	41	30	0.0500	c+ ***
Dibenz(a,h)anthracene	0.5136	0.7622	1.000000	1.346100	ng	35	30	0.0500	c+ ***
Benzo(g,h,i)perylene	0.7228	0.9004	1.000000	1.245700	ng	25	30	0.0500	!c+
Nitrobenzene-d5	0.3097	0.3407	1.000000	1.100200	ng	10	30	0.0500	
2-Fluorobiphenyl	1.1917	1.2348	1.000000	1.036100	ng	4	30	0.0500	
Terphenyl-d14	1.1862	1.0844	1.000000	0.914200	ng	-9	30	0.0500	

10/27/05

!=warning +=high bias -=low bias c=CCV m=manual integration
Page 1 of 1

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 26-OCT-2005
Sequence: 535431193 (wjq)
Instrument ID: MSBNA04

CCV Filename: wjq08
Date Analyzed: 26-OCT-2005
Time Analyzed: 16:17

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	9336	10.33	36015	11.97	18920	14.24	29813	16.16	22659	19.81	18977	21.77
LOWER LIMIT	4668	9.83	18008	11.47	9460	13.75	14907	15.66	11330	19.31	9489	21.27
UPPER LIMIT	18672	10.83	72030	12.47	37840	14.75	59626	16.66	45318	20.31	37954	22.27

TYPE	SAMPLE	#											
CCV		008	9336	10.33	36015	11.97	18920	14.25	29813	16.16	22659	19.81	18977	21.77
BLANK	QC313473	009	7249	10.33	27852	11.98	14469	14.24	22573	16.16	17237	19.81	12620	21.77
BS	QC313474	010	7482	10.33	29187	11.97	14966	14.24	22954	16.16	18152	19.82	14331	21.77
BSD	QC313475	011	9068	10.33	36032	11.97	18861	14.24	29380	16.16	23032	19.81	18792	21.77
LCS	QC314410	012	6822	10.33	27092	11.96	13530	14.25	21127	16.16	16826	19.81	13596	21.77
BLANK	QC314409	013	6560	10.32	26101	11.97	13277	14.24	20326	16.16	15481	19.81	11956	21.77
BLANK	QC314115	014	8756	10.33	34418	11.97	18176	14.24	28089	16.16	20705	19.81	15426	21.77
BS	QC314116	015	7224	10.33	28300	11.97	14474	14.24	22376	16.16	17156	19.81	13646	21.77
BSD	QC314117	016	7331	10.33	29072	11.96	15011	14.25	23452	16.16	17284	19.81	13627	21.77
MSS	182378-001	017	7317	10.33	28579	11.97	14655	14.24	22648	16.16	17356	19.81	13756	21.77
MS	QC314411	018	7322	10.32	28761	11.97	14918	14.24	23148	16.16	17404	19.81	14781	21.77
MSD	QC314412	019	6520	10.33	25988	11.96	13096	14.25	20464	16.15	15379	19.81	13003	21.77
SAMPLE	182457-054	020	8069	10.33	28267	11.97	14309	14.25	18989	16.17	13660	19.83	8061*	21.79
SAMPLE	182457-034	021	8477	10.33	33688	11.97	21900	14.25	27755	16.17	19857	19.84	11576	21.79
SAMPLE	182457-037	022	6641	10.33	26126	11.97	17597	14.24	21821	16.17	15673	19.84	9246*	21.79
SAMPLE	182487-009	023	8171	10.33	28674	11.97	14600	14.26	19804	16.18	13085	19.84	6250*	21.79
SAMPLE	182487-055	024	7971	10.33	29510	11.97	15002	14.24	21459	16.17	13702	19.83	6802*	21.79
SAMPLE	182457-032	025	8504	10.33	30801	11.96	14888	14.25	21899	16.17	12735	19.83	5719*	21.79
SAMPLE	182457-040	026	6967	10.33	27857	11.97	14528	14.24	20955	16.16	11646	19.81	6001*	21.77

137

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 27-OCT-2005 CCV Filename: vjr12
Sequence: 525432687 (vjr) Date Analyzed: 27-OCT-2005
Instrument ID: MSBNA03 Time Analyzed: 19:22

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	22850	7.85	107140	9.61	53371	12.24	88468	14.50	65078	18.31	37068	20.13
LOWER LIMIT	11425	7.35	53570	9.11	26686	11.75	44234	14.00	32539	17.81	18534	19.63
UPPER LIMIT	45700	8.35	214280	10.11	106742	12.75	176936	15.00	130156	18.81	74136	20.63

TYPE	SAMPLE	#											
CCV		012	22850	7.85	107140	9.61	53371	12.25	88468	14.50	65078	18.31	37068	20.13
BS	QC314116	013	18528	7.85	88579	9.61	48418	12.25	79985	14.51	55723	18.31	31924	20.13
BSD	QC314117	014	18857	7.86	91604	9.61	49586	12.25	81603	14.51	55919	18.31	32579	20.13
BLANK	QC314118	015	19530	7.86	94094	9.61	51647	12.25	85275	14.50	59872	18.31	33449	20.13
LCS	QC314119	016	19023	7.85	93198	9.61	50453	12.25	82735	14.51	58910	18.31	34264	20.13
BLANK	QC314272	017	19884	7.85	95291	9.61	51964	12.24	84732	14.51	60812	18.31	34645	20.13
BS	QC314273	018	18521	7.86	89835	9.61	48247	12.25	79777	14.51	57526	18.31	33570	20.13
BSD	QC314274	019	19155	7.86	91998	9.61	49137	12.25	81167	14.50	58779	18.31	34190	20.13
MSS	182601-004	020	17775	7.85	85580	9.61	46693	12.25	77682	14.51	54882	18.31	33216	20.13
MS	QC314120	021	16426	7.86	76807	9.61	15933*	12.25	65775	14.51	41966	18.31	1583*	20.13
MSD	QC314121	022	18448	7.86	90665	9.61	49805	12.25	82308	14.51	58487	18.31	38431	20.13
SAMPLE	182487-036	023	19516	7.85	94959	9.61	52162	12.24	85367	14.51	63350	18.31	38549	20.13
SAMPLE	182487-034	024	18034	7.86	88203	9.61	48202	12.25	77971	14.51	58287	18.31	34124	20.13
SAMPLE	182487-033	025	22891	7.86	86812	9.61	47493	12.25	76344	14.50	55554	18.31	33412	20.13
SAMPLE	182378-011	026	18878	7.85	86936	9.61	46527	12.24	75508	14.51	57621	18.31	34998	20.13
SAMPLE	182378-013	027	18796	7.85	85120	9.61	46739	12.25	75266	14.50	56085	18.31	34637	20.13
SAMPLE	182378-014	028	17941	7.85	83852	9.61	44995	12.25	73746	14.50	57202	18.31	34448	20.13
SAMPLE	182378-012	029	17190	7.85	80616	9.61	42739	12.25	66850	14.51	40920	18.31	26354	20.13
SAMPLE	182487-045	030	18003	7.85	86754	9.61	45961	12.25	76492	14.50	51122	18.31	31263	20.13
SAMPLE	182357-001	031	19551	7.85	92676	9.61	52750	12.25	87421	14.50	43670	18.32	27866	20.14
SAMPLE	182553-002	032	17990	7.85	82324	9.61	47106	12.25	75676	14.50	39427	18.31	26594	20.13
SAMPLE	182487-037	033	17246	7.85	79791	9.61	45869	12.24	72778	14.50	38745	18.31	22219	20.13

* = Outside QC Limits

INTERNAL STANDARD SUMMARY
Curtis & Tompkins Laboratories

Sequence Date: 27-OCT-2005 CCV Filename: wjr02
Sequence: 535432598 (wjr) Date Analyzed: 27-OCT-2005
Instrument ID: MSBNA04 Time Analyzed: 10:19

	IS1 (DCBZ14D4)		IS2 (NAPHD8)		IS3 (ACEND10)		IS4 (PHEND10)		IS5 (CHYD12)		IS6 (PERYD12)	
	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT	READING	RT
CCV STD	5919	10.35	23001	12.00	11424	14.27	16060	16.18	10377	19.84	8482	21.79
LOWER LIMIT	2960	9.85	11501	11.50	5712	13.77	8030	15.68	5189	19.34	4241	21.29
UPPER LIMIT	11838	10.85	46002	12.50	22848	14.77	32120	16.68	20754	20.34	16964	22.29

TYPE	SAMPLE	#										
CCV		002	5919	10.35	23001	12.00	11424	14.27	16060	16.18	10377	19.84	8482	21.79
SAMPLE	182357-002	003	5587	10.35	21481	12.00	11197	14.27	15540	16.18	10249	19.84	7892	21.79
SAMPLE	182357-001	004	6397	10.35	25443	11.98	12961	14.27	17736	16.18	10915	19.84	6623	21.80
SAMPLE	182484-001	005	7117	10.35	28409	12.00	15998	14.27	22558	16.20	13469	19.84	10400	21.80
SAMPLE	182457-038	006	6167	10.35	22129	12.00	12803	14.29	19647	16.20	11634	19.85	9296	21.80
SAMPLE	182457-049	007	6068	10.36	24629	12.00	13075	14.27	19114	16.20	10837	19.84	8291	21.80
SAMPLE	182457-023	008	6197	10.35	25562	12.00	13703	14.27	19942	16.20	11475	19.84	9187	21.80
SAMPLE	182457-027	009	6592	10.36	26669	12.00	14148	14.27	20796	16.20	10732	19.85	8560	21.80
SAMPLE	182457-039	010	10760	10.36	28329	12.00	14992	14.29	20942	16.20	12249	19.85	7946	21.81
SAMPLE	182457-041	011	7644	10.36	31312	12.00	17121	14.27	25002	16.19	13678	19.84	10006	21.80
SAMPLE	182520-001	012	6277	10.35	24653	12.00	20659	14.28	20686	16.20	12167	19.84	8020	21.80

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 535429844 Instrument: MSBNA04 HP GCMS BNA 04 Begun: 25-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC SPK uL	VL	pH	Stds Used	>LR
001	wjp01	TUN	NP NL			25-OCT-2005 12:04	1.0				1	
002	wjp02	ICAL	0.1ug/mL			25-OCT-2005 12:32	1.0				2	
003	wjp03	ICAL	0.2ug/mL			25-OCT-2005 13:07	1.0				3	
004	wjp04	ICAL	0.5ug/mL			25-OCT-2005 13:42	1.0				4	
005	wjp05	ICAL	1.0ug/mL			25-OCT-2005 14:18	1.0				5	
006	wjp06	ICAL	2.0ug/mL			25-OCT-2005 14:53	1.0				6	
007	wjp07	ICAL	5.0ug/mL			25-OCT-2005 15:28	1.0				7	
008	wjp08	ICAL	10.0ug/mL			25-OCT-2005 16:58	1.0				8	
009	wjp09	ICV	1.0ug/mL			25-OCT-2005 17:33	1.0	1			9	
010	wjp10	TUN	NP NL			25-OCT-2005 19:45	1.0				10	
011	wjp11	CCV				25-OCT-2005 20:02	1.0	1			5	

• ICAL - OK

• ~~ICV~~ -

• ICV - Benzo(k)fluoranthene ↑ fails 1.1 ~~warning limits~~

140

Stds used: 1=S1637 2=S1863 3=S1864 4=S1873 5=S1866 6=S1867 7=S1868 8=S1869 9=S1860 10=S800

Analyst: _____ Date: 6/25/05

Page 1 of 1

6/24/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525431383 Instrument: MSBNA03 HP GCMS BNA 03
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

Begun: 26-OCT-2005

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	IQC	SPK	uL	VL	pH	Stds Used		>LR
001	vjq01	TUN	NP NL			26-OCT-2005 13:22	1.0						1		
002	vjq02	TUN	NP NL			26-OCT-2005 13:43	1.0						1		
003	vjq03	CCV				26-OCT-2005 14:19	1869								
004	vjq04	CCV				26-OCT-2005 15:03	1.0	15		1			2	cc+	15:BZKF=13.6887
005	vjq05	ICAL	0.1ug/mL			26-OCT-2005 15:47	1.0						3		
006	vjq06	ICAL	0.2ug/mL			26-OCT-2005 16:24	1.0						4		
007	vjq07	ICAL	0.5ug/mL			26-OCT-2005 16:59	1.0						5		
008	vjq08	ICAL	1.0ug/mL			26-OCT-2005 17:32	1.0						6		
009	vjq09	ICAL	2.0ug/mL			26-OCT-2005 18:04	1.0						7		
010	vjq10	ICAL	5.0ug/mL			26-OCT-2005 18:38	1.0						8		
011	vjq11	ICAL	10.0ug/mL			26-OCT-2005 19:13	1.0						2		
012	vjq12	ICV	1.0ug/mL			26-OCT-2005 19:45	1.0			1			9		
013	vjq13	TUN	NP NL			26-OCT-2005 21:37	1.0						1		
014	vjq14	CCV				26-OCT-2005 21:54	1.0			1			6		

141

• ICAL | - OK

• ICV | - OK

Stds used: 1=S1637 2=S1869 3=S1863 4=S1864 5=S1873 6=S1866 7=S1867 8=S1868 9=S1860
Flags used: +=high bias cc=CCV CCC failure

Analyst: _____ Date: 10/27/05

10/27/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 535431193 Instrument: MSBNA04 HP GCMS BNA 04 Begun: 26-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	wjq01	TUN	NP NL			26-OCT-2005 10:33	1.0	1.0				1	
002	wjq02	CCV	PAHDIOX			26-OCT-2005 10:54	1.0	1.0	2		1	2	
003	wjq03	CCV	PAHDIOX			26-OCT-2005 11:31	1.0	1.0	2		1	3	
004	wjq04	TUN	NP NL			26-OCT-2005 13:04	1.0	1.0				1	
005	wjq05	CCV				26-OCT-2005 13:23	1.0	1.0	11		1	3 cc-	
006	wjq06	CCV				26-OCT-2005 14:46	1.0	1.0	21		1	4	21:INP123=14.0530
007	wjq07	TUN	NP NL			26-OCT-2005 15:38	1.0	1.0				1	
008	wjq08	CCV				26-OCT-2005 16:17	1.0	1.0	1		1	3	
009	wjq09	BLANK	QC313473	106861	Water	26-OCT-2005 16:57	1.0	0.001	1		1	5	
010	wjq10	BS	QC313474	106861	Water	26-OCT-2005 17:32	1.0	0.001	1		1	5	
011	wjq11	BSD	QC313475	106861	Water	26-OCT-2005 18:07	1.0	0.001	1		1	5	
012	wjq12	LCS	QC314410	107089	Soil	26-OCT-2005 18:43	1.0	0.03382	1		1	5	
013	wjq13	BLANK	QC314409	107089	Soil	26-OCT-2005 19:19	1.0	0.03311	1		1	5	
014	wjq14	BLANK	QC314115	107020	Soil	26-OCT-2005 19:56	1.0	0.0338	1		1	5	
015	wjq15	BS	QC314116	107020	Soil	26-OCT-2005 20:31	1.0	0.03309	1		1	5	
016	wjq16	BSD	QC314117	107020	Soil	26-OCT-2005 21:07	1.0	0.03376	1	3	1	5 spk	
017	wjq17	MSS	182378-001	107089	Soil	26-OCT-2005 21:41	1.0	0.03372	21		1	5 sh	
018	wjq18	MS	QC314411	107089	Soil	26-OCT-2005 22:15	1.0	0.0336	1		1	5	
019	wjq19	MSD	QC314412	107089	Soil	26-OCT-2005 22:50	1.0	0.0334	1		1	5	
020	wjq20	SAMPLE	182457-054	107020	Soil	26-OCT-2005 23:25	3.0	0.3333	1		1	5	
021	wjq21	SAMPLE	182457-034	107011	Soil	26-OCT-2005 23:59	5.0	0.336	13		1	5	13:PHAN=129.769
022	wjq22	SAMPLE	182457-037	107011	Soil	27-OCT-2005 00:34	5.0	0.3344	14		1	5	14:PHAN=113.693
023	wjq23	SAMPLE	182487-009	107020	Soil	27-OCT-2005 01:09	10.0	0.3324	19		1	5 <<t	
024	wjq24	SAMPLE	182487-055	106861	Water	27-OCT-2005 01:44	50.0	0.0381	19		1	5 <<t	
025	wjq25	SAMPLE	182457-032	107011	Soil	27-OCT-2005 02:18	20.0	0.1678	19		1	5 <<t	
026	wjq26	SAMPLE	182457-040	107011	Soil	27-OCT-2005 02:53	20.0	0.1641	19		1	5 <<t	

CCV: Dibenz(a,h)anthracene ↑ 6 of 8 ↓. 1,4-Dioxane ↓; Indeno(1,2,3-cd)pyrene ↑ 6 of 8 many limits

4 CCV: 5 CCV: WL = Benzo(k)fluoranthene ↑

Stds used: 1=S1637 2=S1866 3=S1873 4=S1869 5=S1861
Flags used: -=low bias <<t=out of clock cc=CCV CCC failure sh=out of sample hold spk=5% spike rule

Analyst: _____ Date: 10/27/05

Page 1 of 1

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525432687 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 27-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	vjr01	TUN	NP NL			27-OCT-2005 11:27	1.0	1.0				1	
002	vjr02	CCV				27-OCT-2005 12:11	1.0	1.0			1	2	
003	vjr03	BLANK	QC313473	106861	Water	27-OCT-2005 12:58	1.0	0.001			1	3	
004	vjr04	SAMPLE	182378-002	107089	Soil	27-OCT-2005 13:32	1.0	0.03291	19		1	3 sh	
005	vjr05	SAMPLE	182378-003	107089	Soil	27-OCT-2005 14:05	1.0	0.0334	19		1	3 sh	
006	vjr06	SAMPLE	182378-004	107089	Soil	27-OCT-2005 14:38	1.0	0.06673	19		1	3 sh	
007	vjr07	SAMPLE	182378-005	107089	Soil	27-OCT-2005 15:12	1.0	0.03297	19		1	3 sh	
008	vjr08	SAMPLE	182378-006	107089	Soil	27-OCT-2005 15:46	1.0	0.03292	19		1	3 sh	
009	vjr09	SAMPLE	182378-007	107089	Soil	27-OCT-2005 16:20	1.0	0.03346	19		1	3 sh	
010	vjr10	SAMPLE	182378-008	107089	Soil	27-OCT-2005 16:54	1.0	0.03377	19		1	3 sh	
011	vjr11	TUN	BP BL			27-OCT-2005 19:03	1.0	1.0				1	
012	vjr12	CCV				27-OCT-2005 19:22	1.0	1.0			1	2	
013	vjr13	BS	QC314116	107020	Soil	27-OCT-2005 19:58	1.0	0.03309			1	3	
014	vjr14	BSD	QC314117	107020	Soil	27-OCT-2005 20:30	1.0	0.03376		3	1	3 spk	143
015	vjr15	BLANK	QC314118	107021	Water	27-OCT-2005 21:03	1.0	0.001		2	1	3	
016	vjr16	LCS	QC314119	107021	Water	27-OCT-2005 21:35	1.0	0.001		3	1	3 spk	
017	vjr17	BLANK	QC314272	107054	Water	27-OCT-2005 22:08	1.0	0.001			1	3	
018	vjr18	BS	QC314273	107054	Water	27-OCT-2005 22:41	1.0	0.001			1	3	
019	vjr19	BSD	QC314274	107054	Water	27-OCT-2005 23:14	1.0	0.001			1	3	
020	vjr20	MSS	182601-004	107021	Water	27-OCT-2005 23:47	1.0	0.001			1	3 spk	
021	vjr21	MS	QC314120	107021	Water	28-OCT-2005 00:23	1.0	0.001	1	7	1	3	1:BZBF=9.11960
022	vjr22	MSD	QC314121	107021	Water	28-OCT-2005 00:56	1.0	0.001		13	1	3	
023	vjr23	SAMPLE	182487-036	107041	Soil	28-OCT-2005 01:30	1.0	0.03307			1	3	
024	vjr24	SAMPLE	182487-034	107041	Soil	28-OCT-2005 02:04	250.0	0.03347			1	3	
025	vjr25	SAMPLE	182487-033	107041	Soil	28-OCT-2005 02:38	500.0	0.0337			1	3	
026	vjr26	SAMPLE	182378-011	107089	Soil	28-OCT-2005 03:13	1.0	0.03348	19		1	3 sh	
027	vjr27	SAMPLE	182378-013	107089	Soil	28-OCT-2005 03:47	1.0	0.03338	19		1	3 sh	
028	vjr28	SAMPLE	182378-014	107089	Soil	28-OCT-2005 04:22	1.0	0.03319	19		1	3 sh	
029	vjr29	SAMPLE	182378-012	107089	Soil	28-OCT-2005 04:58	1.0	0.03309	19		1	3 sh	

Stds used: 1=S1637 2=S1866 3=S1829
Flags used: <<t=out of clock sh=out of sample hold spk=5% spike rule

ICAL: good ICV: good
CCV1: Nitrobenzene-d5 ↓
CCV2: good

Analyst: _____ Date: 10-28-05

10-31-05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 525432687 Instrument: MSBNA03 HP GCMS BNA 03 Begun: 27-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
030	vjr30	SAMPLE	182487-045	106861	Water	28-OCT-2005 05:34	3.0	0.0009434	1		1	3	1:NAPH=10.6694
031	vjr31	SAMPLE	182357-001	107020	Soil	28-OCT-2005 06:09	1.0	0.0331			1	3	
032	vjr32	SAMPLE	182553-002	106879	Soil	28-OCT-2005 06:45	1.0	0.03356			1	3	
033	vjr33	SAMPLE	182487-037	107041	Soil	28-OCT-2005 07:21	5.0	0.03343	19	1	1	3 <<t	

144

Stds used: 1=S1637 2=S1866 3=S1829
Flags used: <<t=out of clock sh=out of sample hold spk=5% spike rule

Analyst: _____ Date: 10-28-05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 535432598 Instrument: MSBNA04 HP GCMS BNA 04 Begun: 27-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	wjr01	TUN	NP NL			27-OCT-2005 09:58	1.0	1.0				1	
002	~~wjr02~~	CCV				27-OCT-2005 10:19	1.0	1.0	2		1	2	
003	wjr03	SAMPLE	182357-002	107020	Soil	27-OCT-2005 11:03	1.0	0.03341	1		1	3	
004	wjr04	SAMPLE	182357-001	107020	Soil	27-OCT-2005 11:38	1.0	0.0331	3		1	3	
005	wjr05	SAMPLE	182484-001	107020	Soil	27-OCT-2005 12:16	10.0	0.3352	2		1	3	
006	wjr06	SAMPLE	182457-038	107011	Soil	27-OCT-2005 13:15	1.0	0.03337	2		1	3	
007	wjr07	SAMPLE	182457-049	107011	Soil	27-OCT-2005 13:49	300.0	0.03344	3		1	3	1:PYR=5.30440
008	wjr08	SAMPLE	182457-023	107011	Soil	27-OCT-2005 14:24	75.0	0.03295	2		1	3	
009	wjr09	SAMPLE	182457-027	107011	Soil	27-OCT-2005 14:58	15.0	0.03356	6		1	3	4:BZBF=11.7358
010	wjr10	SAMPLE	182457-039	107011	Soil	27-OCT-2005 15:32	50.0	0.06625	1		1	3	
011	wjr11	SAMPLE	182457-041	107011	Soil	27-OCT-2005 16:07	50.0	0.03348	2		1	3	
012	wjr12	SAMPLE	182520-001	106861	Water	27-OCT-2005 16:42	1.0	0.001	4		1	3	
013	wjr13	TUN	NP NL			27-OCT-2005 18:41	1.0	1.0				1	
014	wjr14	CCV				27-OCT-2005 18:58	1.0	1.0	6		1	2 cc+	45
015	wjr15	CCV				27-OCT-2005 19:34	1.0	1.0	21		1	4	20:INP123=14.4558
016	wjr16	TUN	NP NL			27-OCT-2005 20:34	1.0	1.0				1	
017	wjr17	CCV				27-OCT-2005 20:51	1.0	1.0	3		1	2	
018	wjr18	SAMPLE	182601-002	107054	Water	27-OCT-2005 21:26	1.0	0.001	5		1	3	
019	wjr19	BLANK	QC314728	107166	Soil	27-OCT-2005 22:00	1.0	0.03312	1		1	3	
020	wjr20	LCS	QC314729	107166	Soil	27-OCT-2005 22:34	1.0	0.03336	3		1	3	
021	wjr21	SAMPLE	182601-003	107054	Water	27-OCT-2005 23:08	1.0	0.001	5		1	3	
022	wjr22	SAMPLE	182601-007	107054	Water	27-OCT-2005 23:42	1.0	0.0009804	5		1	3	
023	wjr23	SAMPLE	182601-001	107054	Water	28-OCT-2005 00:18	1.0	0.001	5		1	3	
024	wjr24	SAMPLE	182543-001	107021	Water	28-OCT-2005 00:54	1.0	0.0009804	5		1	3 spk	
025	wjr25	SAMPLE	182543-002	107021	Water	28-OCT-2005 01:30	1.0	0.0009804	2		1	3 spk	
026	wjr26	SAMPLE	182543-003	107021	Water	28-OCT-2005 02:06	1.0	0.0009804	5	1	1	3 spk	
027	wjr27	SAMPLE	182543-004	107021	Water	28-OCT-2005 02:41	1.0	0.0009804	5		1	3 spk	
028	wjr28	SAMPLE	182601-008	107054	Water	28-OCT-2005 03:17	1.0	0.001053	1		1	3	
029	wjr29	SAMPLE	182487-039	107166	Soil	28-OCT-2005 03:53	1.0	0.03324	1		1	3	

CCV wjr01: Indeno(1,2,3-cd)pyrene ↑; Dibenz(a,h)anthracene ↑ final ID
– 1,4-Dioxane ↓; Benzo(g,h,i)perylene ↑ Cont meeting limits

~~CCV~~: CCV wjr17: 1,4-Dioxane ↓; Indeno(1,2,3-cd)pyrene ↑; Dibenz(a,h)anthracene ↑ final ID
– Benzo(a)anthracene ↑; Benzo(g,h,i)perylene ↑ Cont meeting limits

Exception CCV: [illegible] ↑ Cont meeting limits

Stds used: 1=S1637 2=S1866 3=S1861 4=S1869
Flags used: +=high bias cc=CCV CCC failure sh=out of sample hold spk=5% spike rule

Analyst: _____ Date: 10/28/05
10/28/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 535432598 Instrument: MSBNA04 HP GCMS BNA 04 Begun: 27-OCT-2005
Analytical Method: EPA 8270C SOP Version: 8270C_rv8
Analytical Method: EPA 8270C-SIM SOP Version: 8270-SIM_rv0

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
030	wjr30	SAMPLE	182487-044	107166	Soil	28-OCT-2005 04:28	1.0	0.03367	2		1	3	
031	wjr31	SAMPLE	182378-010 ✓	107089	Soil	28-OCT-2005 05:04	2.0	0.03286	19		1	3 sh	
032	wjr32	SAMPLE	182378-009	107089	Soil	28-OCT-2005 05:40	2.0	0.03342	19	3	1	3 sh	
033	wjr33	SAMPLE	182487-055 ✓	106861	Water	28-OCT-2005 06:15	50.0	0.0381	2		1	3	

146

Stds used: 1=S1637 2=S1866 3=S1861 4=S1869
Flags used: +=high bias cc=CCV CCC failure sh=out of sample hold spk=5% spike rule

Analyst: _____ Date: 10/28/05

Curtis & Tompkins Laboratories Sample Preparation Summary 24-OCT-2005 08:49

Batch Number : 107020
Date Extracted: 23-OCT-2005
Extracted by : Brian Rob Gorajski
Prep Method : 3550B

Analysis : N/A
Bgroup : SIM
Units : g
Clean-up :

Spike #1 ID : S1831A
Spike #2 ID : S1443B
Spike #3 ID :
SOP Version :

Sample	Type	Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH	Clean D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001		Mactec, Inc.	Soil	30.21	g	1	0.033102		1	1	0		8270-SIM		
182357-002		Mactec, Inc.	Soil	29.93	g	1	0.033411		1	1	0		8270-SIM		
182457-050		URS Corporation	Soil	30.04	g	1	0.033289		1	1	0		8270-SIM		
182457-051		URS Corporation	Soil	30	g	10	0.333333		1	1	0		8270-SIM		
182457-052		URS Corporation	Soil	30.23	g	1	0.033080		1	1	0		8270-SIM		
182457-053		URS Corporation	Soil	29.95	g	1	0.033389		1	1	0		8270-SIM		
182457-054		URS Corporation	Soil	30	g	10	0.333333		1	1	0		8270-SIM		
182457-055		URS Corporation	Soil	30.02	g	20	0.666223		1	1	0		8270-SIM		
182457-056		URS Corporation	Soil	30.08	g	1	0.033245		1	1	0		8270-SIM		
182457-057		URS Corporation	Soil	30.33	g	1	0.032971		1	1	0		8270-SIM		
182484-001		URS Corporation	Soil	29.83	g	10	0.335233		1	1	0		8270-SIM		
182487-001		URS Corporation	Soil	30.34	g	2.5	0.082399		1	1	0		8270-SIM		
182487-002		URS Corporation	Soil	30.43	g	1	0.032862		1	1	0		8270-SIM		
182487-005		URS Corporation	Soil	30.03	g	1	0.033300		1	1	0		8270-SIM		
182487-006		URS Corporation	Soil	29.69	g	1	0.033681		1	1	0		8270-SIM		
182487-007		URS Corporation	Soil	30.41	g	1	0.032884		1	1	0		8270-SIM		
182487-008		URS Corporation	Soil	30.12	g	1	0.033201		1	1	0		8270-SIM		
182487-009		URS Corporation	Soil	30.08	g	10	0.332447		1	1	0		8270-SIM		
182487-010		URS Corporation	Soil	29.97	g	20	0.667334		1	1	0		8270-SIM		
182664-001		Geomatrix Consultants	Soil	30.03	g	1	0.033300		1	1	0		8270-SIM		
QC314115	BLANK		Soil	29.59	g	1	0.033795		1	1	0		SIM		
QC314116	BS		Soil	30.22	g	1	0.033091		1	1	1		SIM		
QC314117	BSD		Soil	29.62	g	1	0.033761		1	1	1		SIM		

147

Prep Chemist: Brian Gorajski Reviewed By: Jesse Shaw Date: 10/24/05

Relinquished By: Brian Gorajski Received By: [illegible] Date: 10/25/05

Curtis & Tompkins, Ltd. **8270 SOIL PREP LOG**

LIMS Batch No: 107020
LIMS Analysis 8270 - SIM
Extracted by: BRG
Date Extracted: 10/23/05

Extraction Method:
- ☑ EPA 3550b Sonication
- ☐ EPA 3540c Soxhlet
- ☐ Other _____

Cleanup Method (if necessary):
- ☐ EPA 3640a GPC
- ☐ EPA 3630c Silica Gel
- ☐ Other _____

	Sample ID	Weight of Sample (g)	Final Volume (mL)	Cleanup (x if needed)	Comments
	182357-001	30.21	1.0		
	2	29.93	↓		
	182457-050	30.04	↓		
	51	30.00	10.0		Would not concentrate further ☆
5	52	30.23	1.0		
	53	29.95	↓		
	54	30.00	10.0		☆
	55	30.02	20.0		☆
	56	30.08	1.0		
10	57	30.33	↓		
	182484-001	29.83	10.0		☆
	182487-001	30.34	2.5		☆
	02	30.43	1.0		
	05	30.03	↓		
15	06	29.69	↓		
	07	30.41	↓		
	08	30.12	↓		
	09	30.08	10.0		☆
	10	29.97	20.0		☆
20	182664-001	30.03	1.0		
	MB QC314115	29.59	↓		
	BS 6	30.22	↓		
	BSD 7	29.62	↓		
					BRG 10/23/05

Gran Na_2SO_4
~~Sand~~ weighed out for QC samples

Samples were dried with baked, CH_2Cl_2-rinsed granular Na_2SO_4

1.0 mL of surrogate solution was added to all samples

1.0 mL of matrix spiking solution was added to all spikes

≥100mL 1:1 CH_2Cl_2:Acetone was added to all:

Samples were: ☑ sonicated 3 times ☐ soxhlet extractors on at:

Extracts filtered through baked, CH_2Cl_2-rinsed powdered Na_2SO_4

Concentrated: ☑ to volumes as noted above ☐ to clean-up volume

Clean-up (if necessary): ☐ GPC (see GPC run log) ☐ Silica Gel

Concentrated to final volumes as noted above

	Mfg & Lot # / LIMS # / Time	Date/Initials
	EM 44135439	BRG 10/23/05
	JTB 25151	
	S1831A	
	S1443B	
CH_2Cl_2	EM45188	
Acetone	EM45125	
	✓	
soxhlets off at:	NA	
	JTB25151	
	✓	
	NA	
	✓	

Brian Tompkin 10/23/05
Extraction Chemist / Date

Continued from page ___
Continued on page ___

Jennifer Green 10/24/05
Reviewed by / Date

30 Project Soil Aliquot BK2219

Continued from Page

SAMPLE I.D.	Weight (g)	Analysis	Comments
182487-020 A	29.70	8270-SIM	
023	29.86		
024	30.09		
025	~~29.07~~ 29.05		No Sample Remaining
026	29.67		
028	29.89		
029	30.02		
031	30.35		
032	30.47		
033	29.67		
034	29.88		
035	30.35		
036	30.24		
037	29.91		
038	30.20		
039	30.08		
042	29.85		
043	30.13		
044	29.70		EM4413549
MB	29.65		
LCS	30.41		
LCSD	29.95		
MB	29.59		
LCS	30.22		
LCSD	29.62		
182487-001 A	50.11	TCLP	Rocky
002	50.21		
005	49.86		
006	50.16		
007	49.64		
008	49.62		
009	49.62		Rocky, Peak Sludge
010	49.99		
011	50.07		
012	49.85		Rocky Sludge
015	50.00		

Continued on Page

Jessica Dunbar 10/21/05

Signed Date

Read and Understood By

Signed Date

Continued from Page

Sample ID	Weight (g)	Analysis	Comments
182357-001A	30.21	8270-SIM	
182357-002A	29.93	↓	
182669-001B	30.03		BRG 10/23/05

Continued on Page

Read and Understood By

Signed Date Signed Date

Metals
(Soil)

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182357	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB119(2.5)	Basis:	dry
Lab ID:	182357-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.52 J	3.5	0.13	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Arsenic	4.0	0.29	0.12	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Barium	86	0.59	0.060	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Beryllium	0.25	0.12	0.012	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cadmium	0.89	0.29	0.027	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Chromium	97	0.59	0.039	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cobalt	6.8	1.2	0.030	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Copper	14	0.59	0.056	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Lead	150	0.18	0.062	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Mercury	0.026	0.016	0.0030	106673	10/12/05	10/12/05	METHOD	EPA 7471A
Molybdenum	0.63 J	1.2	0.026	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Nickel	37	1.2	0.035	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Selenium	ND	0.29	0.091	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Silver	ND	0.29	0.051	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Thallium	0.14 J	0.29	0.036	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Vanadium	67	0.59	0.037	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Zinc	57	1.2	0.12	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	182357	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB119(4.5)	Basis:	dry
Lab ID:	182357-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.71 J	3.2	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Arsenic	3.2	0.27	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Barium	46	0.54	0.055	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Beryllium	0.22	0.11	0.011	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cadmium	0.74	0.27	0.025	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Chromium	74	0.54	0.036	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cobalt	6.6	1.1	0.027	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Copper	10	0.54	0.051	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Lead	3.2	0.16	0.056	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Mercury	0.021	0.020	0.0039	106673	10/12/05	10/12/05	METHOD	EPA 7471A
Molybdenum	0.45 J	1.1	0.024	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Nickel	47	1.1	0.032	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Selenium	ND	0.27	0.083	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Silver	ND	0.27	0.046	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Thallium	ND	0.27	0.033	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Vanadium	47	0.54	0.034	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Zinc	24	1.1	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC312732	Batch#:	106673
Matrix:	Soil	Prepared:	10/12/05
Units:	mg/Kg	Analyzed:	10/12/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313706	Batch#:	106917
Matrix:	Soil	Prepared:	10/20/05
Units:	mg/Kg	Analyzed:	10/20/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.046 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	0.066 J	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	0.041 J	1.0	0.022
Nickel	0.037 J	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106673
Units:	mg/Kg	Prepared:	10/12/05
Basis:	as received	Analyzed:	10/12/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC312733	0.5000	0.5380	108	80-120		
BSD	QC312734	0.5000	0.5260	105	80-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	106917
Units:	mg/Kg	Prepared:	10/20/05
Basis:	as received	Analyzed:	10/20/05
Diln Fac:	1.000		

Type: BS Lab ID: QC313707

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	107.0	107	80-120
Arsenic	50.00	52.14	104	80-120
Barium	100.0	104.6	105	80-120
Beryllium	2.500	2.623	105	80-120
Cadmium	10.00	10.47	105	80-120
Chromium	100.0	103.8	104	80-120
Cobalt	25.00	25.51	102	80-120
Copper	12.50	12.63	101	80-120
Lead	100.0	101.7	102	80-120
Molybdenum	20.00	21.35	107	80-120
Nickel	25.00	26.16	105	80-120
Selenium	50.00	51.23	102	80-120
Silver	10.00	9.572	96	80-120
Thallium	50.00	51.06	102	80-120
Vanadium	25.00	25.94	104	80-120
Zinc	25.00	25.77	103	80-120

Type: BSD Lab ID: QC313708

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	107.1	107	80-120	0	20
Arsenic	50.00	51.92	104	80-120	0	20
Barium	100.0	105.4	105	80-120	1	20
Beryllium	2.500	2.666	107	80-120	2	20
Cadmium	10.00	10.48	105	80-120	0	20
Chromium	100.0	104.7	105	80-120	1	20
Cobalt	25.00	25.54	102	80-120	0	20
Copper	12.50	12.74	102	80-120	1	20
Lead	100.0	101.9	102	80-120	0	20
Molybdenum	20.00	21.37	107	80-120	0	20
Nickel	25.00	26.12	104	80-120	0	20
Selenium	50.00	51.81	104	80-120	1	20
Silver	10.00	9.581	96	80-120	0	20
Thallium	50.00	51.06	102	80-120	0	20
Vanadium	25.00	25.90	104	80-120	0	20
Zinc	25.00	25.77	103	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BBSB119(4.5)	Batch#:	106673
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/12/05
Basis:	dry	Analyzed:	10/12/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC312735	0.02104	0.5402	0.5596	100	56-148	11%		
MSD	QC312736		0.4843	0.5201	103	56-148	11%	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	BBSB119(4.5)	Batch#:	106917
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/20/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	1.000		

Type: MS Moisture: 11%
Lab ID: QC313709

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.7105	120.8	53.43	44	9-120
Arsenic	3.154	60.41	60.51	95	73-120
Barium	46.25	120.8	161.5	95	54-137
Beryllium	0.2170	3.020	3.116	96	79-120
Cadmium	0.7421	12.08	12.19	95	72-120
Chromium	74.49	120.8	180.8	88	65-120
Cobalt	6.602	30.20	32.41	85	63-120
Copper	10.26	15.10	26.09	105	52-145
Lead	3.235	120.8	113.2	91	57-125
Molybdenum	0.4550	24.16	22.89	93	69-120
Nickel	47.34	30.20	75.28	93	47-135
Selenium	<0.08310	60.41	54.93	91	68-120
Silver	<0.04630	12.08	9.992	83	77-120
Thallium	<0.03265	60.41	54.58	90	68-120
Vanadium	47.20	30.20	75.92	95	51-137
Zinc	24.44	30.20	53.46	96	43-141

Type: MSD Moisture: 11%
Lab ID: QC313710

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	93.63	38.70	41	9-120	7	22
Arsenic	46.82	44.23	88	73-120	7	20
Barium	93.63	129.8	89	54-137	4	20
Beryllium	2.341	2.350	91	79-120	5	20
Cadmium	9.363	9.103	89	72-120	5	20
Chromium	93.63	146.9	77	65-120	6	20
Cobalt	23.41	24.87	78	63-120	6	20
Copper	11.70	20.73	89	52-145	9	20
Lead	93.63	83.23	85	57-125	6	20
Molybdenum	18.73	16.79	87	69-120	6	20
Nickel	23.41	65.01	76	47-135	5	20
Selenium	46.82	40.16	86	68-120	6	20
Silver	9.363	7.219	77	77-120	7	20
Thallium	46.82	39.81	85	68-120	6	20
Vanadium	23.41	66.11	81	51-137	5	20
Zinc	23.41	44.98	88	43-141	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	BBSB119(4.5)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	182357-002	Batch#:	106917
Lab ID:	QC313711	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Analyzed:	10/20/05

Moisture: 11%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	0.7105	3.210	0.7645 J	16.05		10
Arsenic	3.154	0.2675	3.393	1.338		10
Barium	46.25	0.5350	43.90	2.675	5	10
Beryllium	0.2170	0.1070	0.1883 J	0.5350		10
Cadmium	0.7421	0.2675	0.6815 J	1.338		10
Chromium	74.49	0.5350	71.07	2.675	5	10
Cobalt	6.602	1.070	6.435	5.350	3	10
Copper	10.26	0.5350	9.702	2.675	5	10
Lead	3.235	0.1605	3.469	0.8026	7	10
Molybdenum	0.4550	1.070	0.5577 J	5.350		10
Nickel	47.34	1.070	46.12	5.350	3	10
Selenium	ND	0.2675	ND	1.338		10
Silver	ND	0.2675	ND	1.338		10
Thallium	ND	0.2675	ND	1.338		10
Vanadium	47.20	0.5350	44.35	2.675	6	10
Zinc	24.44	1.070	22.60	5.350	8	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

POST DIGEST SPIKE USER REPORT
Curtis & Tompkins Laboratories
EPA 6010B

Instid	: MET08	Instid	: MET08
Seqnum	: 85422396083	Seqnum	: 85422396085
Filename	: 102005r.txt	Filename	: 102005r.txt
IDF	: 1.0	IDF	: 1.0
PDF	: 47.62	PDF	: 47.62
Run type	: MSS	Run type	: PDS
Samplenum	: 182357-002	Samplenum	: QC313712
Matrix	: Soil	Matrix	: Soil
Batchnum	: 106917	Batchnum	: 106917
Inj	: 20-OCT-2005 12:09	Inj	: 20-OCT-2005 12:15

Analyte	MSS	Ch	Spike Amt	PDS	Ch	%Rec	Lim%Rec		Flags
Aluminum	*** couldn't find a primary channel in PDS ***								
Antimony	13.28	A	2000	2075	A	103	75-125	ug/L	u
Arsenic	58.94	A	1000	1134	A	107	75-125	ug/L	u
Barium	864.5	A	2000	2891	A	101	75-125	ug/L	u
Beryllium	4.056	A	50.00	57.35	A	107	75-125	ug/L	u
Cadmium	13.87	A	200.0	226.8	A	106	75-125	ug/L	u
Calcium	36290	R	20000	56450	R	101	75-125	ug/L	
Chromium	1392	A	2000	3432	A	102	75-125	ug/L	u
Cobalt	123.4	A	500.0	640.4	A	103	75-125	ug/L	u
Copper	191.8	A	250.0	457.3	A	106	75-125	ug/L	u
Iron	*** couldn't find a primary channel in PDS ***								
Lead	60.47	A	2000	2114	A	103	75-125	ug/L	u
Magnesium	62540	R	20000	81460	R	95	75-125	ug/L	
Manganese	3146	A	500.0	3584	A	88	75-125	ug/L	:
Molybdenum	8.503	A	400.0	424.4	A	104	75-125	ug/L	u
Nickel	884.7	A	500.0	1402	A	103	75-125	ug/L	u
Potassium	8874	R	10000	19070	R	102	75-125	ug/L	
Selenium	ND	A	1000	1073	A	107	75-125	ug/L	u
Silver	ND	A	200.0	143.7	A	**72***	75-125	ug/L	u
Sodium	4074	R	20000	24410	R	102	75-125	ug/L	
Thallium	ND	A	1000	1034	A	103	75-125	ug/L	u
Vanadium	882.1	A	500.0	1402	A	104	75-125	ug/L	u
Zinc	456.9	A	500.0	965.1	A	102	75-125	ug/L	u
Boron	94.33	A	1000	1145	A	105	75-125	ug/L	
Titanium	*** usable MSS data not found ***								

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1916950	-1.01

:=recovery not meaningful u=use

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 182357 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
182357-001	MET04	10/12/05 18:02	1.0										+							
182357-001	MET08	10/20/05 12:22	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
182357-002	MET04	10/12/05 17:56	1.0										+							
182357-002	MET08	10/20/05 12:09	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC312732	MET04	10/12/05 17:51	1.0										+							
QC312733	MET04	10/12/05 17:53	1.0										+							
QC312734	MET04	10/12/05 17:54	1.0										+							
QC312735	MET04	10/12/05 17:58	1.0										+							
QC312736	MET04	10/12/05 17:59	1.0										+							
QC313706	MET08	10/20/05 12:02	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313707	MET08	10/20/05 12:05	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313708	MET08	10/20/05 12:07	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313709	MET08	10/20/05 12:17	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313710	MET08	10/20/05 12:20	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313711	MET08	10/20/05 12:12	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC313712	MET08	10/20/05 12:15	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45411377 Instrument: MET04 HydraAA HG Analyzer Begun: 12-OCT-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	106663	ICALBLK	Std01Rep1				12-OCT-2005 16:17	1.0	1.0									
002	106663	ICAL	Std02Rep1				12-OCT-2005 16:19	1.0	1.0									
003	106663	ICAL	Std03Rep1				12-OCT-2005 16:21	1.0	1.0									
004	106663	ICAL	Std04Rep1				12-OCT-2005 16:22	1.0	1.0									
005	106663	ICAL	Std05Rep1				12-OCT-2005 16:24	1.0	1.0									
006	106663	ICAL	Std06Rep1				12-OCT-2005 16:26	1.0	1.0									
007	106663	ICV					12-OCT-2005 16:29	1.0	1.0	2	5.000	45411377001	4.960		ug/L	99		
008	106663	ICB					12-OCT-2005 16:31	1.0	1.0			45411377001	ND	0.20	ug/L			
009	106663	BLANK	QC312688		106663	Soil	12-OCT-2005 16:33	1.0	100.0			45411377001	ND	0.020	mg/Kg			u
010	106663	BS	QC312689		106663	Soil	12-OCT-2005 16:35	1.0	100.0		0.5000	45411377001	0.5640	0.020	mg/Kg	113		u
011	106663	BSD	QC312690		106663	Soil	12-OCT-2005 16:37	1.0	100.0		0.5000	45411377001	0.5220	0.020	mg/Kg	104	8	u
012	106663	MSS	182295-003		106663	Soil	12-OCT-2005 16:39	1.0	83.33			45411377001	0.051	0.017	mg/Kg			u
013	106663	MS	QC312691	182295-003	106663	Soil	12-OCT-2005 16:41	1.0	86.21		0.4310	45411377001	0.4931	0.017	mg/Kg	103		u
014	106663	MSD	QC312692	182295-003	106663	Soil	12-OCT-2005 16:43	1.0	86.21		0.4310	45411377001	0.4897	0.017	mg/Kg	102	1	u
015	106663	SAMPLE	182295-001		106663	Soil	12-OCT-2005 16:44	1.0	92.59			45411377001	0.088	0.019	mg/Kg			u
016	106663	SAMPLE	182295-002		106663	Soil	12-OCT-2005 16:46	1.0	73.53			45411377001	ND	0.015	mg/Kg			u
017	106663	SAMPLE	182295-004		106663	Soil	12-OCT-2005 16:48	1.0	61.73			45411377001	0.032	0.012	mg/Kg			u
018	106663	SAMPLE	182295-005		106663	Soil	12-OCT-2005 16:49	1.0	90.91			45411377001	0.040	0.018	mg/Kg			u
019	106663	CCV					12-OCT-2005 16:51	1.0	1.0	3	2.500	45411377001	2.580		ug/L	103		
020	106663	CCB					12-OCT-2005 16:53	1.0	1.0			45411377001	ND	0.20	ug/L			
021	106663	SAMPLE	182295-006		106663	Soil	12-OCT-2005 16:55	1.0	108.7			45411377001	0.038	0.022	mg/Kg			u
022	106663	SAMPLE	182295-007		106663	Soil	12-OCT-2005 16:56	1.0	84.75			45411377001	0.026	0.017	mg/Kg			u
023	106663	SAMPLE	182295-008		106663	Soil	12-OCT-2005 16:58	1.0	96.15			45411377001	0.022	0.019	mg/Kg			u
024	106663	SAMPLE	182295-009		106663	Soil	12-OCT-2005 17:00	1.0	84.75			45411377001	ND	0.017	mg/Kg			u
025	106663	SAMPLE	182295-010		106663	Soil	12-OCT-2005 17:01	1.0	87.72			45411377001	0.046	0.018	mg/Kg			u
026	106663	SAMPLE	182295-011		106663	Soil	12-OCT-2005 17:03	1.0	81.97			45411377001	0.019	0.016	mg/Kg			u
027	106663	SAMPLE	182295-012		106663	Soil	12-OCT-2005 17:05	1.0	89.29			45411377001	0.030	0.018	mg/Kg			u
028	106663	SAMPLE	182295-015		106663	Soil	12-OCT-2005 17:07	1.0	84.75			45411377001	ND	0.017	mg/Kg			u
029	106663	SAMPLE	182295-016		106663	Soil	12-OCT-2005 17:08	1.0	62.50			45411377001	0.019	0.013	mg/Kg			u
030	106663	SAMPLE	182295-024		106663	Soil	12-OCT-2005 17:10	1.0	100.0			45411377001	ND	0.020	mg/Kg			u
031	106663	CCV					12-OCT-2005 17:12	1.0	1.0	4	5.000	45411377001	4.920		ug/L	98		
032	106663	CCB					12-OCT-2005 17:14	1.0	1.0			45411377001	ND	0.20	ug/L			
033	106663	SAMPLE	182295-025		106663	Soil	12-OCT-2005 17:16	1.0	92.59			45411377001	ND	0.019	mg/Kg			u
034	106663	SAMPLE	182295-026		106663	Soil	12-OCT-2005 17:18	1.0	98.04			45411377001	0.022	0.020	mg/Kg			u
035	106663	SAMPLE	182367-001		106663	Soil	12-OCT-2005 17:20	1.0	96.15			45411377001	0.027	0.019	mg/Kg			u
036	106663	SAMPLE	182367-002		106663	Soil	12-OCT-2005 17:22	1.0	98.04			45411377001	0.028	0.020	mg/Kg			u
037	106663	SAMPLE	182385-001		106663	Soil	12-OCT-2005 17:23	1.0	96.15			45411377001	0.24	0.019	mg/Kg			u
038	106663	CCV					12-OCT-2005 17:25	1.0	1.0	5	7.500	45411377001	7.160		ug/L	95		
039	106663	CCB					12-OCT-2005 17:27	1.0	1.0			45411377001	ND	0.20	ug/L			

Stds used: 1=S1750 2=S1752 3=S1753 4=S1754 5=S1755
Flags used: u=use

Analyst: _____ Date: _____

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45411467 Instrument: MET04 HydraAA HG Analyzer Begun: 12-OCT-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	106673	ICV					12-OCT-2005 17:47	1.0	1.0	1	5.000	45411377001	4.690		ug/L	94		
002	106673	ICB					12-OCT-2005 17:49	1.0	1.0			45411377001	[0.01100]	0.20	ug/L			
003	106673	BLANK	QC312732		106673	Soil	12-OCT-2005 17:51	1.0	100.0			45411377001	ND	0.020	mg/Kg			u
004	106673	BS	QC312733		106673	Soil	12-OCT-2005 17:53	1.0	100.0		0.5000	45411377001	0.5380	0.020	mg/Kg	108		u
005	106673	BSD	QC312734		106673	Soil	12-OCT-2005 17:54	1.0	100.0		0.5000	45411377001	0.5260	0.020	mg/Kg	105	2	u
006	106673	MSS	182357-002		106673	Soil	12-OCT-2005 17:56	1.0	90.91			45411377001	0.019	0.018	mg/Kg			u
007	106673	MS	QC312735	182357-002	106673	Soil	12-OCT-2005 17:58	1.0	96.15		0.4808	45411377001	0.4981	0.019	mg/Kg	100		u
008	106673	MSD	QC312736	182357-002	106673	Soil	12-OCT-2005 17:59	1.0	86.21		0.4310	45411377001	0.4629	0.017	mg/Kg	103	3	u
009	106673	SAMPLE	182357-001		106673	Soil	12-OCT-2005 18:02	1.0	69.44			45411377001	0.023	0.014	mg/Kg			u
010	106673	SAMPLE	182387-001		106673	Soil	12-OCT-2005 18:04	1.0	96.15			45411377001	ND	0.019	mg/Kg			u
011	106673	SAMPLE	182387-002		106673	Soil	12-OCT-2005 18:06	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
012	106673	SAMPLE	182387-003		106673	Soil	12-OCT-2005 18:08	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
013	106673	CCV					12-OCT-2005 18:09	1.0	1.0	2	2.500	45411377001	2.350		ug/L	94		
014	106673	CCB					12-OCT-2005 18:11	1.0	1.0			45411377001	ND	0.20	ug/L			
015	106673	SAMPLE	182387-004		106673	Soil	12-OCT-2005 18:13	1.0	94.34			45411377001	0.057	0.019	mg/Kg			u
016	106673	SAMPLE	182387-005		106673	Soil	12-OCT-2005 18:15	1.0	90.91			45411377001	ND	0.018	mg/Kg			u
017	106673	SAMPLE	182387-008		106673	Soil	12-OCT-2005 18:17	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
018	106673	SAMPLE	182387-009		106673	Soil	12-OCT-2005 18:19	1.0	102.0			45411377001	0.19	0.020	mg/Kg			u
019	106673	SAMPLE	182387-011		106673	Soil	12-OCT-2005 18:21	1.0	62.50			45411377001	0.47	0.013	mg/Kg			u
020	106673	SAMPLE	182387-013		106673	Soil	12-OCT-2005 18:23	1.0	57.47			45411377001	0.35	0.011	mg/Kg			u
021	106673	SAMPLE	182387-014		106673	Soil	12-OCT-2005 18:25	1.0	104.2			45411377001	0.083	0.021	mg/Kg			u
022	106673	SAMPLE	182387-015		106673	Soil	12-OCT-2005 18:27	1.0	87.72			45411377001	0.30	0.018	mg/Kg			u
023	106673	SAMPLE	182387-016		106673	Soil	12-OCT-2005 18:29	1.0	96.15			45411377001	0.39	0.019	mg/Kg			u
024	106673	SAMPLE	182387-019		106673	Soil	12-OCT-2005 18:31	1.0	102.0			45411377001	0.19	0.020	mg/Kg			u
025	106673	CCV					12-OCT-2005 18:34	1.0	1.0	3	5.000	45411377001	4.880		ug/L	98		
026	106673	CCB					12-OCT-2005 18:36	1.0	1.0			45411377001	ND	0.20	ug/L			
027	106673	SAMPLE	182387-020		106673	Soil	12-OCT-2005 18:37	1.0	108.7			45411377001	ND	0.022	mg/Kg			u
028	106673	SAMPLE	182387-021		106673	Soil	12-OCT-2005 18:39	1.0	84.75			45411377001	0.022	0.017	mg/Kg			u
029	106673	CCV					12-OCT-2005 18:41	1.0	1.0	4	7.500	45411377001	7.340		ug/L	98		
030	106673	CCB					12-OCT-2005 18:43	1.0	1.0			45411377001	ND	0.20	ug/L			

Stds used: 1=S1752 2=S1753 3=S1754 4=S1755
Flags used: u=use

Analyst: [signature] Date: 10/12/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET04 HydraAA HG Analyzer Reviewed By: ---
Calnum: 45411377001 Name: Type: SOIL Date: 12-OCT-2005 16:17 Inj Vol (uL): 2000

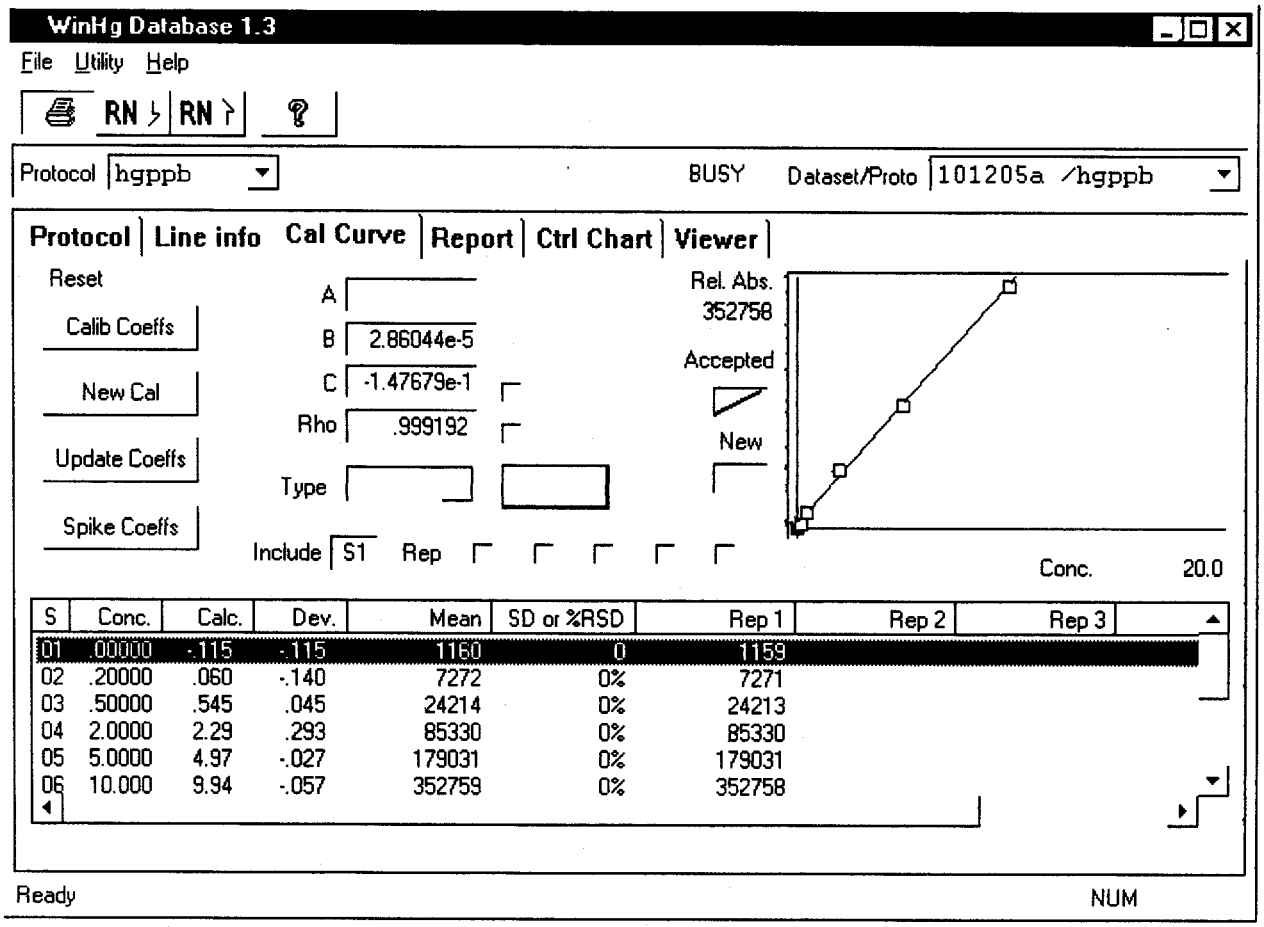
Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	106663	45411377002	Std02Rep1	12-OCT-2005 16:19	S1750 (500X)
2	106663	45411377003	Std03Rep1	12-OCT-2005 16:21	S1750 (200X)
3	106663	45411377004	Std04Rep1	12-OCT-2005 16:22	S1750 (50X)
4	106663	45411377005	Std05Rep1	12-OCT-2005 16:24	S1750 (20X)
5	106663	45411377006	Std06Rep1	12-OCT-2005 16:26	S1750 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Mercury	36355	48426	42665	35806	35276	LINR	R	-0.14768	2.860E-5		ug/L	39706	0.998	.99	

165

Curves: LINR: Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
BUSY
Dataset/Proto 101205a /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.86044e-5
C -1.47679e-1
Rho .999192
Type
Include S1 Rep
Rel. Abs.
352758
Accepted
New
Conc. 20.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.115 -.115 1160 0 1159
02 .20000 .060 -.140 7272 0% 7271
03 .50000 .545 .045 24214 0% 24213
04 2.0000 2.29 .293 85330 0% 85330
05 5.0000 4.97 -.027 179031 0% 179031
06 10.000 9.94 -.057 352759 0% 352758
Ready
NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 19		16:17:54 12 Oct 05			HG
Hg	.000	ppb	1159						
		Bkgd 1	8982315						
*** Standard: 2 Rep: 1				Seq: 20		16:19:36 12 Oct 05			HG
Hg	.200	ppb	7271						
		Bkgd 1	8982402						
*** Standard: 3 Rep: 1				Seq: 21		16:21:19 12 Oct 05			HG
Hg	.500	ppb	24213						
		Bkgd 1	8984955						
*** Standard: 4 Rep: 1				Seq: 22		16:22:59 12 Oct 05			HG
Hg	2.00	ppb	85330						
		Bkgd 1	8981055						
*** Standard: 5 Rep: 1				Seq: 23		16:24:55 12 Oct 05			HG
Hg	5.00	ppb	179031						
		Bkgd 1	8977217						
*** Standard: 6 Rep: 1				Seq: 24		16:26:36 12 Oct 05			HG
Hg	10.0	ppb	352758						
		Bkgd 1	8980019						
*** Check Standard: 2			Ck2S1752	Seq: 25		16:29:33 12 Oct 05			HG
Line	Flag		Intensities						
Hg			178523						
		Bkgd 1	8985421						
*** Check Standard: 1			Ck1ICB	Seq: 26		16:31:26 12 Oct 05			HG
Line	Flag		Intensities						
Hg			4744						
		Bkgd 1	8984220						
*** Sample ID: qc312688			10663 106663,1	Seq: 27		16:33:35 12 Oct 05			HG
Hg	-.053	ppb	3316						
		Bkgd 1	8985784						

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 45411467 Instrument: MET04 HydraAA HG Analyzer Begun: 12-OCT-2005
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	106673	ICV					12-OCT-2005 17:47	1.0	1.0	1	5.000	45411377001	4.690		ug/L	94		
002	106673	ICB					12-OCT-2005 17:49	1.0	1.0			45411377001	[0.01100]	0.20	ug/L			
003	106673	BLANK	QC312732		106673	Soil	12-OCT-2005 17:51	1.0	100.0			45411377001	ND	0.020	mg/Kg			u
004	106673	BS	QC312733		106673	Soil	12-OCT-2005 17:53	1.0	100.0		0.5000	45411377001	0.5380	0.020	mg/Kg	108		u
005	106673	BSD	QC312734		106673	Soil	12-OCT-2005 17:54	1.0	100.0		0.5000	45411377001	0.5260	0.020	mg/Kg	105	2	u
006	106673	MSS	182357-002		106673	Soil	12-OCT-2005 17:56	1.0	90.91			45411377001	0.019	0.018	mg/Kg			u
007	106673	MS	QC312735	182357-002	106673	Soil	12-OCT-2005 17:58	1.0	96.15		0.4808	45411377001	0.4981	0.019	mg/Kg	100		u
008	106673	MSD	QC312736	182357-002	106673	Soil	12-OCT-2005 17:59	1.0	86.21		0.4310	45411377001	0.4629	0.017	mg/Kg	103	3	u
009	106673	SAMPLE	182357-001		106673	Soil	12-OCT-2005 18:02	1.0	69.44			45411377001	0.023	0.014	mg/Kg			u
010	106673	SAMPLE	182387-001		106673	Soil	12-OCT-2005 18:04	1.0	96.15			45411377001	ND	0.019	mg/Kg			u
011	106673	SAMPLE	182387-002		106673	Soil	12-OCT-2005 18:06	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
012	106673	SAMPLE	182387-003		106673	Soil	12-OCT-2005 18:08	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
013	106673	CCV					12-OCT-2005 18:09	1.0	1.0	2	2.500	45411377001	2.350		ug/L	94		
014	106673	CCB					12-OCT-2005 18:11	1.0	1.0			45411377001	ND	0.20	ug/L			
015	106673	SAMPLE	182387-004		106673	Soil	12-OCT-2005 18:13	1.0	94.34			45411377001	0.057	0.019	mg/Kg			u
016	106673	SAMPLE	182387-005		106673	Soil	12-OCT-2005 18:15	1.0	90.91			45411377001	ND	0.018	mg/Kg			u
017	106673	SAMPLE	182387-008		106673	Soil	12-OCT-2005 18:17	1.0	104.2			45411377001	ND	0.021	mg/Kg			u
018	106673	SAMPLE	182387-009		106673	Soil	12-OCT-2005 18:19	1.0	102.0			45411377001	0.19	0.020	mg/Kg			u
019	106673	SAMPLE	182387-011		106673	Soil	12-OCT-2005 18:21	1.0	62.50			45411377001	0.47	0.013	mg/Kg			u
020	106673	SAMPLE	182387-013		106673	Soil	12-OCT-2005 18:23	1.0	57.47			45411377001	0.35	0.011	mg/Kg			u
021	106673	SAMPLE	182387-014		106673	Soil	12-OCT-2005 18:25	1.0	104.2			45411377001	0.083	0.021	mg/Kg			u
022	106673	SAMPLE	182387-015		106673	Soil	12-OCT-2005 18:27	1.0	87.72			45411377001	0.30	0.018	mg/Kg			u
023	106673	SAMPLE	182387-016		106673	Soil	12-OCT-2005 18:29	1.0	96.15			45411377001	0.39	0.019	mg/Kg			u
024	106673	SAMPLE	182387-019		106673	Soil	12-OCT-2005 18:31	1.0	102.0			45411377001	0.19	0.020	mg/Kg			u
025	106673	CCV					12-OCT-2005 18:34	1.0	1.0	3	5.000	45411377001	4.880		ug/L	98		
026	106673	CCB					12-OCT-2005 18:36	1.0	1.0			45411377001	ND	0.20	ug/L			
027	106673	SAMPLE	182387-020		106673	Soil	12-OCT-2005 18:37	1.0	108.7			45411377001	ND	0.022	mg/Kg			u
028	106673	SAMPLE	182387-021		106673	Soil	12-OCT-2005 18:39	1.0	84.75			45411377001	0.022	0.017	mg/Kg			u
029	106673	CCV					12-OCT-2005 18:41	1.0	1.0	4	7.500	45411377001	7.340		ug/L	98		
030	106673	CCB					12-OCT-2005 18:43	1.0	1.0			45411377001	ND	0.20	ug/L			

Stds used: 1=S1752 2=S1753 3=S1754 4=S1755
Flags used: u=use

Analyst: _____ Date: 10/12/05

Curtis & Tompkins Laboratories Sample Preparation Summary 12-OCT-2005 16:36

Batch Number : 106673
Date Extracted: 12-OCT-2005
Extracted by : Jasmine Dickison
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S1750
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001			Mactec, Inc.	Soil	.72	g	50	69.444444	1					T26/HG		
182357-002			Mactec, Inc.	Soil	.55	g	50	90.909091	1					T26/HG		
182387-001			URS Corporation	Soil	.52	g	50	96.153846	1					T26/HG		
182387-002			URS Corporation	Soil	.48	g	50	104.166667	1					T26/HG		
182387-003			URS Corporation	Soil	.48	g	50	104.166667	1					T26/HG		
182387-004			URS Corporation	Soil	.53	g	50	94.339623	1					T26/HG		
182387-005			URS Corporation	Soil	.55	g	50	90.909091	1					T26/HG		
182387-008			URS Corporation	Soil	.48	g	50	104.166667	1					T26/HG		
182387-009			URS Corporation	Soil	.49	g	50	102.040816	1					T26/HG		
182387-011			URS Corporation	Soil	.8	g	50	62.500000	1					T26/HG		
182387-013			URS Corporation	Soil	.87	g	50	57.471264	1					T26/HG		
182387-014			URS Corporation	Soil	.48	g	50	104.166667	1					T26/HG		
182387-015			URS Corporation	Soil	.57	g	50	87.719298	1					T26/HG		
182387-016			URS Corporation	Soil	.52	g	50	96.153846	1					T26/HG		
182387-019			URS Corporation	Soil	.49	g	50	102.040816	1					T26/HG		
182387-020			URS Corporation	Soil	.46	g	50	108.695652	1					T26/HG		
182387-021			URS Corporation	Soil	.59	g	50	84.745763	1					T26/HG		
QC312732	BLANK			Soil	.5	g	50	100.000000	1					HG		
QC312733	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC312734	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC312735	MS	of 182357-002		Soil	.52	g	50	96.153846	1		2.5			HG		
QC312736	MSD	of 182357-002		Soil	.58	g	50	86.206897	1		2.5			HG		
QC312737	SER	of 182357-002		Soil	.55	g	50	90.909091	1					HG		
QC312738	PDS	of 182357-002		Soil	.55	g	50	90.909091	1					HG		

169

Prep Chemist: Jasmine Dickison Reviewed By: [signature] Date: 10/12/05

Relinquished By: Jasmine Dickison Received By: Jasmine Dickison Date: 10-12-05

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 106673
Date Digested: 10-12-05
Digested by: JGD

Digestion Method
☑ EPA 7471A
☐ _____

BK 2218
Page 5

Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
182357-001 A	.72	50	y	
↓ - 2 A	.55			*MSS
182387-001 A	.52			
- 2 A	.48			
- 3 A	.48			
- 4 A	.53			
- 5 A	.55			
- 8 A	.48			
- 9 A	.49			
- 11 A	.8			
- 13 A	.87			
- 14 A	.48			
- 15 A	.57			
- 16 A	.52			
- 19 A	.49			
- 20 A	.46			
↓ - 21 A	.59			
Blank	.5			
BS	.5			
BSD	.5			
MS A	.52			
MSD A	.58	↓	↓	
		JGD 10-12-05		

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	S1750	JGD 10/12
ICAL Source WS#	S1750	
ICV / CCV WS#	S1752,53,54,55	
Digestion of Samples & Standards: Time ON / Temperature ON	10:30am 95°C	
Time OFF/ Temperature OFF	11:00am	
Aqua Regia Acids (HNO3+ HCl)	AR 101205	
5% $KMnO_4$	K 100405	
NaCl.hydroxylamine hydrochloride	Hy 100405	
Stannous Chloride	$SnCl_2$ 101005	
☑ filtered thru' 0.45 um syringe filter	Millipore R5DN49778	↓

Jasmine Jackson 10-12-05
Prep Chemist / Date

Continued from page 170
Continued on page ∅

AMay 10/12/05
Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85422396 Instrument: MET08 PE ICP Begun: 20-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LD
001	102005r.	ICALBLK				20-OCT-2005 07:56	1.0	1.0				
002	102005r.	ICAL	CRIM08			20-OCT-2005 08:00	1.0	1.0			1	
003	102005r.	ICAL	CS100			20-OCT-2005 08:03	1.0	1.0			2	
004	102005r.	ICAL	CS1K			20-OCT-2005 08:06	1.0	1.0			3	
005	102005r.	ICAL	CS10K			20-OCT-2005 08:08	1.0	1.0			4	
006	102005r.	ICAL	CS100K			20-OCT-2005 08:11	1.0	1.0			5	
007	102005r.	ICV				20-OCT-2005 08:14	1.0	1.0		5000	6	
008	102005r.	ICB				20-OCT-2005 08:20	1.0	1.0		5000		
009	102005r.	ICSA				20-OCT-2005 08:26	1.0	1.0		5000	7	10:AL=508760
010	102005r.	ICSAB				20-OCT-2005 08:28	1.0	1.0		5000	8	5:AL=512637
011	102005r.	BLANK	QC313699	106916	Soil	20-OCT-2005 08:42	1.0	50.0		5000		
012	102005r.	BS	QC313700	106916	Soil	20-OCT-2005 08:45	1.0	50.0		5000		
013	102005r.	BSD	QC313701	106916	Soil	20-OCT-2005 08:47	1.0	50.0		5000		
014	102005r.	MSS	182539-001	106916	Soil	20-OCT-2005 08:49	1.0	43.10	4	5000		3:FE=392827
015	102005r.	X	QC313704	106916	Soil	20-OCT-2005 08:52	5.0			5000		
016	102005r.	SER	QC313704	106916	Soil	20-OCT-2005 08:59	5.0	43.10		5000		
017	102005r.	PDS	QC313705	106916	Soil	20-OCT-2005 09:01	1.0	43.10	1	5000	9 10	3:FE=378878
018	102005r.	MS	QC313702	106916	Soil	20-OCT-2005 09:04	1.0	43.48		5000		3:FE=384956
019	102005r.	MSD	QC313703	106916	Soil	20-OCT-2005 09:06	1.0	39.37	1	5000		3:FE=431955
020	102005r.	X	RINSE			20-OCT-2005 09:09	1.0					
021	102005r.	CCV				20-OCT-2005 09:11	1.0	1.0		5000	11	
022	102005r.	X	FLUSH			20-OCT-2005 09:14	1.0					
023	102005r.	CCB				20-OCT-2005 09:18	1.0	1.0		5000		
024	102005r.	SAMPLE	182534-001	106916	Miscel	20-OCT-2005 09:22	10.0	48.54		5000		
025	102005r.	SAMPLE	182534-002	106916	Miscel	20-OCT-2005 09:25	10.0	55.56		5000		
026	102005r.	SAMPLE	182534-003	106916	Miscel	20-OCT-2005 09:28	10.0	41.67		5000		
027	102005r.	SAMPLE	182534-004	106916	Miscel	20-OCT-2005 09:31	10.0	52.08		5000		
028	102005r.	SAMPLE	182534-005	106916	Miscel	20-OCT-2005 09:34	10.0	45.05		5000		
029	102005r.	MSS	182539-001	106916	Soil	20-OCT-2005 09:37	1.0	43.10	5	5000		3:FE=376258
030	102005r.	SAMPLE	182539-002	106916	Soil	20-OCT-2005 09:40	1.0	48.54	6	5000		2:FE=306621
031	102005r.	SAMPLE	182539-003	106916	Soil	20-OCT-2005 09:42	1.0	50.51		5000		4:FE=322353

171

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1808 7=S1177 8=S1412 9=S520 10=S521 11=S1809

Analyst: Carlyon Date: 10/20/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85422396 Instrument: MET08 PE ICP Begun: 20-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
032	102005r.	SAMPLE	182539-007	106916	Soil	20-OCT-2005 09:44	1.0	45.05			5000		3:FE=710260
033	102005r.	SAMPLE	182539-002	106916	Soil	20-OCT-2005 09:47	1.0	48.54			5000		3:FE=302803
034	102005r.	X	RINSE			20-OCT-2005 09:49	1.0						
035	102005r.	CCV				20-OCT-2005 09:52	1.0	1.0	2		5000	11	
036	102005r.	X	FLUSH			20-OCT-2005 09:55	1.0						
037	102005r.	CCB				20-OCT-2005 09:58	1.0	1.0			5000		
038	102005r.	X	182539-007	106916	Soil	20-OCT-2005 10:01	1.0						
039	102005r.	SAMPLE	182539-003	106916	Soil	20-OCT-2005 10:03	1.0	50.51			5000		4:FE=320023
040	102005r.	SAMPLE	182552-001	106916	Soil	20-OCT-2005 10:05	1.0	43.10	1		5000		4:FE=427884
041	102005r.	SAMPLE	182552-002	106916	Soil	20-OCT-2005 10:08	1.0	49.02			5000		5:FE=476250
042	102005r.	SAMPLE	182568-001	106916	Soil	20-OCT-2005 10:11	1.0	38.76			5000		4:FE=386377
043	102005r.	SAMPLE	182552-001	106916	Soil	20-OCT-2005 10:14	20.0	43.10			5000		
044	102005r.	SAMPLE	182600-001	106916	Soil	20-OCT-2005 10:17	1.0	53.76			5000		4:FE=285005
045	102005r.	SER	QC313704	106916	Soil	20-OCT-2005 10:20	5.0	43.10	2	1	5000		
046	102005r.	SAMPLE	182600-002	106916	Soil	20-OCT-2005 10:22	1.0	41.32			5000		5:FE=435780
047	102005r.	SAMPLE	182600-003	106916	Soil	20-OCT-2005 10:25	1.0	45.87			5000		4:FE=382350
048	102005r.	X	RINSE			20-OCT-2005 10:28	1.0						
049	102005r.	CCV				20-OCT-2005 10:31	1.0	1.0			5000	11	
050	102005r.	X	FLUSH			20-OCT-2005 10:34	1.0						
051	102005r.	CCB				20-OCT-2005 10:36	1.0	1.0			5000		
052	102005r.	SAMPLE	182600-004	106916	Soil	20-OCT-2005 10:40	1.0	50.51			5000		4:FE=405019
053	102005r.	SAMPLE	182600-006	106916	Soil	20-OCT-2005 10:43	1.0	37.31			5000		5:FE=492832
054	102005r.	SAMPLE	182600-005	106916	Soil	20-OCT-2005 10:48	1.0	55.56			5000		4:FE=308863
055	102005r.	ICSAB				20-OCT-2005 10:51	1.0	1.0			5000	8	5:CA=500034
056	102005r.	X	RINSE			20-OCT-2005 10:54	1.0						
057	102005r.	CCV				20-OCT-2005 10:57	1.0	1.0			5000	11	
058	102005r.	X	FLUSH			20-OCT-2005 10:59	1.0						
059	102005r.	CCB				20-OCT-2005 11:02	1.0	1.0			5000		
060	102005r.	BLANK	QC313684	106913	Soil	20-OCT-2005 11:07	1.0	50.0			5000		
061	102005r.	BS	QC313685	106913	Soil	20-OCT-2005 11:10	1.0	50.0			5000		
062	102005r.	BSD	QC313686	106913	Soil	20-OCT-2005 11:12	1.0	50.0			5000		

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1808 7=S1177 8=S1412 9=S520 10=S521 11=S1809

Analyst: KCarlyon Date: 10/20/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85422396 Instrument: MET08 PE ICP Begun: 20-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
063	102005r.	MSS	182564-001	106913	Soil	20-OCT-2005 11:15	1.0	53.76	3		5000		3:FE=384764
064	102005r.	MS	QC313687	106913	Soil	20-OCT-2005 11:17	1.0	47.62			5000		4:FE=423163
065	102005r.	MSD	QC313688	106913	Soil	20-OCT-2005 11:19	1.0	54.95		1	5000		3:FE=362600
066	102005r.	SAMPLE	182564-002	106913	Soil	20-OCT-2005 11:22	1.0	44.64			5000		4:FE=439436
067	102005r.	SAMPLE	182564-003	106913	Soil	20-OCT-2005 11:24	1.0	33.78			5000		4:FE=586761
068	102005r.	X	RINSE			20-OCT-2005 11:27	1.0						
069	102005r.	CCV				20-OCT-2005 11:30	1.0	1.0			5000	11	
070	102005r.	X	FLUSH			20-OCT-2005 11:32	1.0						
071	102005r.	CCB				20-OCT-2005 11:35	1.0	1.0			5000		
072	102005r.	SAMPLE	182564-004	106913	Soil	20-OCT-2005 11:38	1.0	41.32			5000		4:FE=453284
073	102005r.	SAMPLE	182564-005	106913	Soil	20-OCT-2005 11:41	1.0	45.45			5000		4:FE=531912
074	102005r.	SAMPLE	182564-006	106913	Soil	20-OCT-2005 11:43	1.0	48.08			5000		4:FE=516211
075	102005r.	ICSAB				20-OCT-2005 11:45	1.0	1.0			5000	8	5:MG=522633
076	102005r.	X	RINSE			20-OCT-2005 11:48	1.0						
077	102005r.	CCV				20-OCT-2005 11:51	1.0	1.0			5000	11	
078	102005r.	X	FLUSH			20-OCT-2005 11:54	1.0						
079	102005r.	CCB				20-OCT-2005 11:57	1.0	1.0			5000		
080	102005r.	BLANK	QC313706	106917	Soil	20-OCT-2005 12:02	1.0	50.0			5000		
081	102005r.	BS	QC313707	106917	Soil	20-OCT-2005 12:05	1.0	50.0			5000		
082	102005r.	BSD	QC313708	106917	Soil	20-OCT-2005 12:07	1.0	50.0			5000		
083	102005r.	MSS	182357-002	106917	Soil	20-OCT-2005 12:09	1.0	47.62	3		5000		3:FE=337791
084	102005r.	SER	QC313711	106917	Soil	20-OCT-2005 12:12	5.0	47.62			5000		
085	102005r.	PDS	QC313712	106917	Soil	20-OCT-2005 12:15	1.0	47.62		1	5000	9 10	3:FE=348787
086	102005r.	MS	QC313709	106917	Soil	20-OCT-2005 12:17	1.0	53.76			5000		3:FE=308584
087	102005r.	MSD	QC313710	106917	Soil	20-OCT-2005 12:20	1.0	41.67			5000		3:FE=374388
088	102005r.	SAMPLE	182357-001	106917	Soil	20-OCT-2005 12:22	1.0	52.08			5000		3:FE=375584
089	102005r.	SAMPLE	182497-005	106917	Soil	20-OCT-2005 12:25	1.0	32.26			5000		2:FE=270048
090	102005r.	X	RINSE			20-OCT-2005 12:28	1.0						
091	102005r.	CCV				20-OCT-2005 12:30	1.0	1.0			5000	11	
092	102005r.	X	FLUSH			20-OCT-2005 12:33	1.0						
093	102005r.	CCB				20-OCT-2005 12:36	1.0	1.0			5000		

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1808 7=S1177 8=S1412 9=S520 10=S521 11=S1809

Analyst: KCarlyn Date: 10/20/05

173

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85422396 Instrument: MET08 PE ICP Begun: 20-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
094	102005r.	SAMPLE	182502-007	106917	Soil	20-OCT-2005 12:39	1.0	47.62		5000	5:FE=471100	
095	102005r.	SAMPLE	182573-001	106917	Miscel	20-OCT-2005 12:41	1.0	42.74	1	5000	2:NA=355467	
096	102005r.	SAMPLE	182502-001	106917	Soil	20-OCT-2005 12:45	1.0	44.64		5000	5:FE=503439	
097	102005r.	SAMPLE	182502-002	106917	Soil	20-OCT-2005 12:48	1.0	47.62		5000	5:FE=491543	
098	102005r.	SAMPLE	182502-003	106917	Soil	20-OCT-2005 12:50	1.0	51.02		5000	4:FE=459072	
099	102005r.	SAMPLE	182502-004	106917	Soil	20-OCT-2005 12:52	1.0	43.86	1	5000	4:FE=352721	
100	102005r.	SAMPLE	182502-005	106917	Soil	20-OCT-2005 12:55	1.0	54.35		5000	4:FE=470333	
101	102005r.	SAMPLE	182502-006	106917	Soil	20-OCT-2005 12:57	1.0	38.17		5000	6:FE=614494	
102	102005r.	SAMPLE	182573-002	106917	Miscel	20-OCT-2005 13:02	10.0	45.45		5000		
103	102005r.	SAMPLE	182573-001	106917	Miscel	20-OCT-2005 13:05	10.0	42.74		5000		
104	102005r.	X	RINSE			20-OCT-2005 13:08	1.0					
105	102005r.	CCV				20-OCT-2005 13:11	1.0	1.0		5000	11	
106	102005r.	X	FLUSH			20-OCT-2005 13:14	1.0					
107	102005r.	CCB				20-OCT-2005 13:17	1.0	1.0		5000		
108	102005r.	SAMPLE	182502-004	106917	Soil	20-OCT-2005 13:22	1.0	43.86		5000	4:FE=294101	
109	102005r.	SAMPLE	182599-002	106917	Soil	20-OCT-2005 13:25	1.0	46.73	1	5000	5:MG=3802140	
110	102005r.	SAMPLE	182599-003	106917	Soil	20-OCT-2005 13:27	1.0	35.71	1	5000	6:MG=4660714	
111	102005r.	SAMPLE	182599-004	106917	Soil	20-OCT-2005 13:30	1.0	39.37	1	5000	6:MG=3534864	
112	102005r.	SAMPLE	182599-005	106917	Soil	20-OCT-2005 13:32	1.0	46.30	1	5000	5:MG=3247824	
113	102005r.	SAMPLE	182599-003	106917	Soil	20-OCT-2005 13:35	10.0	35.71		5000	2:MG=511392	
114	102005r.	SAMPLE	182599-004	106917	Soil	20-OCT-2005 13:38	10.0	39.37		5000	2:MG=397240	
115	102005r.	SAMPLE	182599-005	106917	Soil	20-OCT-2005 13:41	10.0	46.30		5000	1:MG=335539	
116	102005r.	X	182599-002	106917	Soil	20-OCT-2005 13:44	10.0					
117	102005r.	SAMPLE	182599-006	106917	Soil	20-OCT-2005 13:47	1.0	48.54	1	5000	6:MG=2773699	
118	102005r.	X	RINSE			20-OCT-2005 13:50	1.0					
119	102005r.	CCV				20-OCT-2005 13:52	1.0	1.0	1	5000	11	
120	102005r.	X	FLUSH			20-OCT-2005 13:55	1.0					
121	102005r.	CCB				20-OCT-2005 13:57	1.0	1.0		5000		
122	102005r.	SAMPLE	182599-007	106917	Soil	20-OCT-2005 14:00	1.0	35.46	1	5000	6:MG=4709730	
123	102005r.	SAMPLE	182599-006	106917	Soil	20-OCT-2005 14:03	10.0	48.54		5000	1:MG=307302	
124	102005r.	SAMPLE	182599-007	106917	Soil	20-OCT-2005 14:06	10.0	35.46		5000	2:MG=523350	

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1808 7=S1177 8=S1412 9=S520 10=S521 11=S1809

Analyst: KCarlyon Date: 10/20/05

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 85422396 Instrument: MET08 PE ICP Begun: 20-OCT-2005
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
125	102005r.	SAMPLE	182599-008	106917	Soil	20-OCT-2005 14:09	1.0	47.17	1	5000		5:MG=4162163
126	102005r.	SAMPLE	182599-009	106917	Soil	20-OCT-2005 14:11	1.0	46.30	1	5000		7:MG=2731394
127	102005r.	SAMPLE	182599-008	106917	Soil	20-OCT-2005 14:13	10.0	47.17		5000		1:MG=447268
128	102005r.	SAMPLE	182599-009	106917	Soil	20-OCT-2005 14:16	10.0	46.30		5000		1:MG=301465
129	102005r.	SAMPLE	182599-002	106917	Soil	20-OCT-2005 14:19	10.0	46.73		5000		1:MG=416863
130	102005r.	ICSAB				20-OCT-2005 14:22	1.0	1.0		5000	8	5:MG=516157
131	102005r.	X	RINSE			20-OCT-2005 14:25	1.0					
132	102005r.	CCV				20-OCT-2005 14:28	1.0	1.0		5000	11	
133	102005r.	X	FLUSH			20-OCT-2005 14:30	1.0					
134	102005r.	CCB				20-OCT-2005 14:33	1.0	1.0		5000		

175

Stds used: 1=S1172 2=S1537 3=S1536 4=S1538 5=S1176 6=S1808 7=S1177 8=S1412 9=S520 10=S521 11=S1809

Analyst: KCarlyn Date: 10/20/05

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET08 PE ICP Reviewed By: ---
Calnum: 85422396001 Name: Type: (normal) Date: 20-OCT-2005 07:56 Inj Vol (uL): 5000

Calibration levels:

#	Filename	Seqnum	Samplenum	Analyzed	Standards
1	102005r.	85422396002	CRIM08	20-OCT-2005 08:00	S1172
2	102005r.	85422396003	CS100	20-OCT-2005 08:03	S1537
3	102005r.	85422396004	CS1K	20-OCT-2005 08:06	S1536
4	102005r.	85422396005	CS10K	20-OCT-2005 08:08	S1538
5	102005r.	85422396006	CS100K	20-OCT-2005 08:11	S1176

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	%RSD	r^2 MnR^2	Flags
Antimony	A	48.100	46.337	46.633	47.378		LOR0	R	0.000000	0.021110		ug/L	47.112	1.000	0.995	
Arsenic	A	21.008	19.035	19.408	19.690		LOR0	R	0.000000	0.050795		ug/L	19.785	1.000	0.995	
Barium	A	405.34	382.08	386.33	386.06		LOR0	R	0.000000	0.002590		ug/L	389.96	1.000	0.995	
Beryllium	A	4207.0	4172.0	4201.7			LOR0	R	0.000000	2.380E-4		ug/L	4193.6	1.000	0.995	
Boron	A	154.55		158.18	162.90		LOR0	R	0.000000	0.006141		ug/L	158.54	1.000	0.995	
Cadmium	A	426.18	422.10	427.97	417.22		LOR0	R	0.000000	0.002396		ug/L	423.37	1.000	0.995	
Chromium	A	125.36	119.98	120.98	120.77		LOR0	R	0.000000	0.008280		ug/L	121.77	1.000	0.995	
Cobalt	A	140.01	137.05	141.72	142.47		LOR0	R	0.000000	0.007019		ug/L	140.31	1.000	0.995	
Copper	A	888.79	824.47	847.06	857.99		LOR0	R	0.000000	0.001166		ug/L	854.58	1.000	0.995	
Lead	A	71.374	69.741	70.990	69.240		LOR0	R	0.000000	0.014439		ug/L	70.336	1.000	0.995	
Manganese	A	1447.4	1187.9	1201.8	1140.9		LOR0	R	0.000000	8.760E-4		ug/L	1244.5	1.000	0.995	
Molybdenum	A	51.774	48.930	49.281	48.526		LOR0	R	0.000000	0.020604		ug/L	49.628	1.000	0.995	
Nickel	A	79.503	77.762	80.195	78.394		LOR0	R	0.000000	0.012753		ug/L	78.964	1.000	0.995	
Selenium	A	22.946	19.057	19.176	19.269		LOR0	R	0.000000	0.051899		ug/L	20.112	1.000	0.995	
Silver	A	529.08	536.78	543.71	541.94		LOR0	R	0.000000	0.001844		ug/L	537.88	1.000	0.995	
Thallium	A	23.862	24.165	24.972	24.616		LOR0	R	0.000000	0.040618		ug/L	24.404	1.000	0.995	
Titanium	A	1221.4	1204.4	1204.9	1189.9		LOR0	R	0.000000	8.403E-4		ug/L	1205.2	1.000	0.995	
Vanadium	A	145.64	141.36	145.74	147.51		LOR0	R	0.000000	0.006780		ug/L	145.06	1.000	0.995	
Zinc	A	143.29	139.28	143.07	142.79		LOR0	R	0.000000	0.007003		ug/L	142.11	1.000	0.995	
Aluminum	R	2.6730		2.5031	2.4279	2.3938	LOR0	R	0.000000	0.417685		ug/L	2.4995	1.000	0.995	
Calcium	R	14.835		14.828	14.350	13.553	LOR0	R	0.000000	0.073740		ug/L	14.391	1.000	0.995	

176

Curves: LOR0: Linear regression forced thru origin, including 0,0 point

Instrument amount = a0 + response * a1 + response^2 * a2

INITIAL CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instrument: MET08 PE ICP
Calnum: 85422396001 Name:

Reviewed By: ---
Type: (normal) Date: 20-OCT-2005 07:56 Inj Vol (uL): 5000

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	units	avg	r^2 %RSD	r^2 MnR^2	Flags
Iron	R	19.865		19.424	19.169	17.930	LOR0	R	0.000000	0.055735		ug/L	19.097	1.000	0.995	
Magnesium	R	2.1821		2.1334	2.1024	1.9574	LOR0	R	0.000000	0.510501		ug/L	2.0938	1.000	0.995	
Potassium	R	4.4440		4.8536	4.8204	4.6115	LOR0	R	0.000000	0.216751		ug/L	4.6824	1.000	0.995	
Sodium	R	11.784		12.292	12.092	11.342	LOR0	R	0.000000	0.088110		ug/L	11.877	1.000	0.995	

177

Curves: LOR0: Linear regression forced thru origin, including 0,0 point
Instrument amount = a0 + response * a1 + response^2 * a2

Sequence No.: 1 Autosampler Location: 1
Sample ID: ICALBLK, Date Collected: 10/20/2005 7:56:07 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:30 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-1125.1	188.55	16.76%	[0.00]	ug/L
Al 308.215 R	6.7	9.14	135.41%	[0.00]	ug/L
As 188.979	-194.1	20.85	10.74%	[0.00]	ug/L
B 249.677	-500.4	18.32	3.66%	[0.00]	ug/L
Ba 233.527	-455.9	8.18	1.79%	[0.00]	ug/L
Be 313.107	2150.6	86.38	4.02%	[0.00]	ug/L
Ca 315.887 R	161.4	81.65	50.60%	[0.00]	ug/L
Cd 214.440	58.5	4.71	8.05%	[0.00]	ug/L
Co 228.616	-108.9	2.83	2.60%	[0.00]	ug/L
Cr 267.716	207.2	15.79	7.62%	[0.00]	ug/L
Cu 324.752	4.8	182.66	>999.9%	[0.00]	ug/L
Fe 238.204 R	-19.2	2.38	12.37%	[0.00]	ug/L
K 766.490 R	-3427.1	93.74	2.74%	[0.00]	ug/L
Mg 279.077 R	-194.5	4.62	2.37%	[0.00]	ug/L
Mn 257.610	182.3	10.28	5.64%	[0.00]	ug/L
Mo 202.031	5.9	10.30	174.60%	[0.00]	ug/L
Na 589.592 R	583.6	98.78	16.93%	[0.00]	ug/L
Ni 231.604	419.2	4.18	1.00%	[0.00]	ug/L
Pb 220.353	5.8	38.72	663.13%	[0.00]	ug/L
Sb 206.836	419.6	35.58	8.48%	[0.00]	ug/L
Se 196.026	8.2	47.23	573.38%	[0.00]	ug/L
Ti 334.940 R	736.6	77.47	10.52%	[0.00]	ug/L
Tl 190.801	70.9	9.85	13.90%	[0.00]	ug/L
V 292.402	-1156.4	9.38	0.81%	[0.00]	ug/L
Zn 206.200	49.7	6.33	12.75%	[0.00]	ug/L

Sequence No.: 2 Autosampler Location: 2
Sample ID: ICAL,CRIM08 Date Collected: 10/20/2005 8:00:15 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:31 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CRIM08

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CRIM08

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1936444.0	14684.41	0.76%	100.0	%
Y	244598.6	2213.70	0.91%	100.0	%
Ag 328.068†	2645.4	101.12	3.82%	[5.0]	ug/L
Al 308.215 R†	267.3	8.32	3.11%	[100]	ug/L
As 188.979†	105.0	7.88	7.51%	[5.0]	ug/L
B 249.677†	15455.4	52.03	0.34%	[100]	ug/L
Ba 233.527†	2026.7	5.16	0.25%	[5.0]	ug/L
Be 313.107†	8414.0	198.30	2.36%	[2.0]	ug/L
Ca 315.887 R†	2967.0	60.62	2.04%	[200]	ug/L
Cd 214.440†	2130.9	14.03	0.66%	[5.0]	ug/L
Co 228.616†	700.1	1.43	0.20%	[5.0]	ug/L
Cr 267.716†	626.8	24.26	3.87%	[5.0]	ug/L
Cu 324.752†	4443.9	52.97	1.19%	[5.0]	ug/L
Fe 238.204 R†	1986.5	63.71	3.21%	[100]	ug/L
K 766.490 R†	2222.0	134.36	6.05%	[500]	ug/L
Mg 279.077 R†	436.4	38.68	8.86%	[200]	ug/L
Mn 257.610†	7237.1	50.60	0.70%	[5.0]	ug/L
Mo 202.031†	258.9	9.05	3.50%	[5.0]	ug/L
Na 589.592 R†	5891.8	75.10	1.27%	[500]	ug/L
Ni 231.604†	397.5	7.36	1.85%	[5.0]	ug/L
Pb 220.353†	214.1	17.98	8.40%	[3.0]	ug/L
Sb 206.836†	240.5	32.28	13.42%	[5.0]	ug/L
Se 196.026†	114.7	10.08	8.78%	[5.0]	ug/L
Ti 334.940 R†	12214.5	103.01	0.84%	[10]	ug/L
Tl 190.801†	119.3	6.73	5.64%	[5.0]	ug/L
V 292.402†	728.2	24.41	3.35%	[5.0]	ug/L
Zn 206.200†	2865.9	13.67	0.48%	[20]	ug/L

Sequence No.: 3 Autosampler Location: 3
Sample ID: ICAL,CS100 Date Collected: 10/20/2005 8:03:22 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:31 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100

Analyte	Back Pressure	Flow
All	134.0 kPa	0.55 L/min

Mean Data: ICAL,CS100

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1942018.7	44401.09	2.29%	100.3	%
Y	247100.3	2356.45	0.95%	101.0	%
Ag 328.068†	53678.4	64.14	0.12%	[100]	ug/L
As 188.979†	1903.5	21.55	1.13%	[100]	ug/L
Ba 233.527†	38208.5	148.65	0.39%	[100]	ug/L
Be 313.107†	417204.6	1653.86	0.40%	[100]	ug/L
Cd 214.440†	42210.0	139.72	0.33%	[100]	ug/L
Co 228.616†	13704.9	299.18	2.18%	[100]	ug/L
Cr 267.716†	11998.2	265.25	2.21%	[100]	ug/L
Cu 324.752†	82447.1	523.46	0.63%	[100]	ug/L
Mn 257.610†	118792.2	743.14	0.63%	[100]	ug/L
Mo 202.031†	4893.0	115.14	2.35%	[100]	ug/L
Ni 231.604†	7776.2	188.10	2.42%	[100]	ug/L
Pb 220.353†	6974.1	156.03	2.24%	[100]	ug/L
Sb 206.836†	4633.7	143.97	3.11%	[100]	ug/L
Se 196.026†	1905.7	43.54	2.28%	[100]	ug/L
Ti 334.940 R†	120440.5	898.55	0.75%	[100]	ug/L
Tl 190.801†	2416.5	50.28	2.08%	[100]	ug/L
V 292.402†	14135.9	310.48	2.20%	[100]	ug/L
Zn 206.200†	13928.1	309.83	2.22%	[100]	ug/L

Sequence No.: 4 Autosampler Location: 4
Sample ID: ICAL,CS1K Date Collected: 10/20/2005 8:06:26 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:32 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS1K

Analyte	Back Pressure	Flow
All	135.0 kPa	0.55 L/min

Mean Data: ICAL,CS1K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1940189.5	15252.33	0.79%	100.2	%
Y	241824.8	1953.96	0.81%	98.87	%
Ag 328.068†	543711.5	3044.51	0.56%	[1000]	ug/L
Al 308.215 R†	2503.1	35.70	1.43%	[1000]	ug/L
As 188.979†	19407.9	624.85	3.22%	[1000]	ug/L
B 249.677†	158179.2	491.45	0.31%	[1000]	ug/L
Ba 233.527†	386330.6	1459.96	0.38%	[1000]	ug/L
Be 313.107†	4201686.2	2552.10	0.06%	[1000]	ug/L
Ca 315.887 R†	14827.8	157.57	1.06%	[1000]	ug/L
Cd 214.440†	427973.1	717.88	0.17%	[1000]	ug/L
Co 228.616†	141717.9	282.64	0.20%	[1000]	ug/L
Cr 267.716†	120981.8	675.08	0.56%	[1000]	ug/L
Cu 324.752†	847059.6	2510.09	0.30%	[1000]	ug/L
Fe 238.204 R†	19424.4	281.96	1.45%	[1000]	ug/L
K 766.490 R†	4853.6	167.99	3.46%	[1000]	ug/L
Mg 279.077 R†	2133.4	14.47	0.68%	[1000]	ug/L
Mn 257.610†	1201763.7	2030.14	0.17%	[1000]	ug/L
Mo 202.031†	49280.7	986.94	2.00%	[1000]	ug/L
Na 589.592 R†	12291.9	73.75	0.60%	[1000]	ug/L
Ni 231.604†	80195.4	425.00	0.53%	[1000]	ug/L
Pb 220.353†	70990.1	1808.69	2.55%	[1000]	ug/L
Sb 206.836†	46632.6	1673.15	3.59%	[1000]	ug/L
Se 196.026†	19176.5	456.41	2.38%	[1000]	ug/L
Ti 334.940 R†	1204851.7	4542.85	0.38%	[1000]	ug/L
Tl 190.801†	24971.7	660.08	2.64%	[1000]	ug/L
V 292.402†	145743.7	664.27	0.46%	[1000]	ug/L
Zn 206.200†	143065.4	620.30	0.43%	[1000]	ug/L

Sequence No.: 5 Autosampler Location: 5
Sample ID: ICAL,CS10K Date Collected: 10/20/2005 8:08:41 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:33 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS10K

Analyte	Back Pressure	Flow
All	135.0 kPa	0.55 L/min

Mean Data: ICAL,CS10K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1883967.1	18862.62	1.00%	97.29	%
Y	238456.9	2332.26	0.98%	97.49	%
Ag 328.068†	1083889.1	10206.36	0.94%	[2000]	ug/L
Al 308.215 R†	24278.9	174.52	0.72%	[10000]	ug/L
As 188.979†	196896.8	2671.83	1.36%	[10000]	ug/L
B 249.677†	1628983.3	8978.78	0.55%	[10000]	ug/L
Ba 233.527†	3860649.1	12920.27	0.33%	[10000]	ug/L
Ca 315.887 R†	143495.1	317.13	0.22%	[10000]	ug/L
Cd 214.440†	4172249.2	19865.21	0.48%	[10000]	ug/L
Co 228.616†	1424745.1	5439.00	0.38%	[10000]	ug/L
Cr 267.716†	1207721.1	5255.86	0.44%	[10000]	ug/L
Cu 324.752†	8579920.9	23800.13	0.28%	[10000]	ug/L
Fe 238.204 R†	191686.0	357.29	0.19%	[10000]	ug/L
K 766.490 R†	48203.5	439.47	0.91%	[10000]	ug/L
Mg 279.077 R†	21024.1	112.83	0.54%	[10000]	ug/L
Mn 257.610†	11408883.3	192701.84	1.69%	[10000]	ug/L
Mo 202.031†	485262.6	3360.78	0.69%	[10000]	ug/L
Na 589.592 R†	120915.5	372.68	0.31%	[10000]	ug/L
Ni 231.604†	783938.7	8369.13	1.07%	[10000]	ug/L
Pb 220.353†	692396.5	5356.68	0.77%	[10000]	ug/L
Sb 206.836†	473777.3	7813.97	1.65%	[10000]	ug/L
Se 196.026†	192692.0	2874.74	1.49%	[10000]	ug/L
Ti 334.940 R†	11899274.7	180076.86	1.51%	[10000]	ug/L
Tl 190.801†	246162.9	1435.16	0.58%	[10000]	ug/L
V 292.402†	1475096.6	5941.14	0.40%	[10000]	ug/L
Zn 206.200†	1427888.8	8510.20	0.60%	[10000]	ug/L

Sequence No.: 6 Autosampler Location: 6
Sample ID: ICAL,CS100K Date Collected: 10/20/2005 8:11:33 AM
Analyst: Data Type: Reprocessed on 10/20/2005 8:38:34 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100K

Analyte	Back Pressure	Flow
All	135.0 kPa	0.55 L/min

Mean Data: ICAL,CS100K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1797723.5	27694.58	1.54%	92.84	%
Y	241610.7	4203.73	1.74%	98.78	%
Al 308.215 R†	239379.7	1416.50	0.59%	[100000]	ug/L
Ca 315.887 R†	1355308.4	4677.06	0.35%	[100000]	ug/L
Fe 238.204 R†	1792954.8	6540.25	0.36%	[100000]	ug/L
K 766.490 R†	461150.6	3140.60	0.68%	[100000]	ug/L
Mg 279.077 R†	195740.6	739.97	0.38%	[100000]	ug/L
Na 589.592 R†	1134187.3	7160.94	0.63%	[100000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin Thru 0	0.0	542.3	0.00000	0.999999	
Al 308.215 R	4	Lin Thru 0	0.0	2.394	0.00000	0.999999	
As 188.979	4	Lin Thru 0	0.0	19.69	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	162.9	0.00000	0.999996	
Ba 233.527	4	Lin Thru 0	0.0	386.1	0.00000	1.000000	
Be 313.107	3	Lin Thru 0	0.0	4201	0.00000	1.000000	
Ca 315.887 R	4	Lin Thru 0	0.0	13.56	0.00000	0.999983	
Cd 214.440	4	Lin Thru 0	0.0	417.3	0.00000	0.999997	
Co 228.616	4	Lin Thru 0	0.0	142.5	0.00000	1.000000	
Cr 267.716	4	Lin Thru 0	0.0	120.8	0.00000	1.000000	
Cu 324.752	4	Lin Thru 0	0.0	857.9	0.00000	0.999999	
Fe 238.204 R	4	Lin Thru 0	0.0	17.94	0.00000	0.999976	
K 766.490 R	4	Lin Thru 0	0.0	4.614	0.00000	0.999990	
Mg 279.077 R	4	Lin Thru 0	0.0	1.959	0.00000	0.999973	
Mn 257.610	4	Lin Thru 0	0.0	1141	0.00000	0.999986	
Mo 202.031	4	Lin Thru 0	0.0	48.53	0.00000	0.999999	
Na 589.592 R	4	Lin Thru 0	0.0	11.35	0.00000	0.999978	
Ni 231.604	4	Lin Thru 0	0.0	78.41	0.00000	0.999997	
Pb 220.353	4	Lin Thru 0	0.0	69.26	0.00000	0.999997	
Sb 206.836	4	Lin Thru 0	0.0	47.37	0.00000	0.999999	
Se 196.026	4	Lin Thru 0	0.0	19.27	0.00000	1.000000	
Ti 334.940 R	4	Lin Thru 0	0.0	1190	0.00000	0.999999	
Tl 190.801	4	Lin Thru 0	0.0	24.62	0.00000	0.999999	
V 292.402	4	Lin Thru 0	0.0	147.5	0.00000	0.999999	
Zn 206.200	4	Lin Thru 0	0.0	142.8	0.00000	1.000000	

SECOND SOURCE CALIBRATION VERIFICATION
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396007 Filename : 102005r.txt Injected : 20-OCT-2005 08:14
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1808

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max	Flags
Antimony	A	5000.000	5153.470	ug/L	3	10	
Arsenic	A	5000.000	5070.213	ug/L	1	10	
Barium	A	5000.000	5003.258	ug/L	0	10	
Beryllium	A	500.0000	506.0666	ug/L	1	10	
Boron	A	5000.000	5080.380	ug/L	2	10	
Cadmium	A	5000.000	5019.330	ug/L	0	10	
Chromium	A	5000.000	4951.403	ug/L	-1	10	
Cobalt	A	5000.000	4882.565	ug/L	-2	10	
Copper	A	5000.000	4814.084	ug/L	-4	10	
Lead	A	5000.000	4900.632	ug/L	-2	10	
Manganese	A	5000.000	5040.223	ug/L	1	10	
Molybdenum	A	5000.000	5130.708	ug/L	3	10	
Nickel	A	5000.000	4966.216	ug/L	-1	10	
Selenium	A	5000.000	4998.116	ug/L	0	10	
Silver	A	1000.000	963.5387	ug/L	-4	10	
Thallium	A	5000.000	5040.846	ug/L	1	10	
Titanium	A	5000.000	4988.005	ug/L	0	10	
Vanadium	A	5000.000	4964.423	ug/L	-1	10	
Zinc	A	5000.000	4978.031	ug/L	0	10	
Aluminum	R	20000.00	19165.07	ug/L	-4	10	
Calcium	R	20000.00	20035.56	ug/L	0	10	
Iron	R	20000.00	19987.98	ug/L	0	10	
Magnesium	R	20000.00	20266.68	ug/L	1	10	
Potassium	R	20000.00	19423.80	ug/L	-3	10	
Sodium	R	20000.00	19778.45	ug/L	-1	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1862975	-3.79

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396008 Filename : 102005r.txt Injected : 20-OCT-2005 08:20
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[15.149]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.2664]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[0.7805]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[2.0574]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[2.0705]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD A
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396009 Filename : 102005r.txt Injected : 20-OCT-2005 08:26
Standards: S1177

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	[-3.056]	5.000000	ug/L	
Arsenic	A	85422396001	20-OCT-2005	[-3.155]	5.000000	ug/L	
Barium	A	85422396001	20-OCT-2005	[0.5357]	5.000000	ug/L	
Beryllium	A	85422396001	20-OCT-2005	[-0.419]	2.000000	ug/L	
Boron	A	85422396001	20-OCT-2005	[17.680]	100.0000	ug/L	
Cadmium	A	85422396001	20-OCT-2005	[3.8491]	5.000000	ug/L	
Cobalt	A	85422396001	20-OCT-2005	[-0.964]	5.000000	ug/L	
Lead	A	85422396001	20-OCT-2005	[-2.983]	3.000000	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[3.1607]	5.000000	ug/L	
Selenium	A	85422396001	20-OCT-2005	[-2.652]	5.000000	ug/L	
Silver	A	85422396001	20-OCT-2005	[0.3124]	5.000000	ug/L	
Thallium	A	85422396001	20-OCT-2005	[4.1600]	5.000000	ug/L	
Zinc	A	85422396001	20-OCT-2005	[-0.374]	20.00000	ug/L	
Potassium	R	85422396001	20-OCT-2005	[-42.94]	500.0000	ug/L	
Sodium	R	85422396001	20-OCT-2005	[51.876]	500.0000	ug/L	

SPIKED INTERFERENTS

Analyte	Ch	Calnum	Caldate	SpikeAmt	QuantAmt	Units	%REC
Chromium	A	85422396001	20-OCT-2005	20000	19205.24077	ug/L	96
Copper	A	85422396001	20-OCT-2005	20000	20481.68953	ug/L	102
Manganese	A	85422396001	20-OCT-2005	20000	18964.10113	ug/L	95
Nickel	A	85422396001	20-OCT-2005	20000	17773.67656	ug/L	89
Titanium	A	85422396001	20-OCT-2005	20000	19767.8652	ug/L	99
Vanadium	A	85422396001	20-OCT-2005	20000	20199.67728	ug/L	101
Aluminum	R	85422396001	20-OCT-2005	500000	508760.3934	ug/L	102
Calcium	R	85422396001	20-OCT-2005	500000	498779.3879	ug/L	100
Iron	R	85422396001	20-OCT-2005	200000	192133.2308	ug/L	96
Magnesium	R	85422396001	20-OCT-2005	500000	494503.3989	ug/L	99

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396010 Filename : 102005r.txt Injected : 20-OCT-2005 08:28
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1412

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	500.0000	567.6374	ug/L	14	20	
Arsenic	A	500.0000	533.7038	ug/L	7	20	
Barium	A	500.0000	537.2156	ug/L	7	20	
Beryllium	A	500.0000	536.0949	ug/L	7	20	
Cadmium	A	1000.000	1017.356	ug/L	2	20	
Chromium	A	500.0000	531.6441	ug/L	6	20	
Cobalt	A	500.0000	473.6115	ug/L	-5	20	
Copper	A	500.0000	552.6835	ug/L	11	20	
Lead	A	1000.000	964.3765	ug/L	-4	20	
Manganese	A	500.0000	540.9891	ug/L	8	20	
Molybdenum	A	500.0000	533.4124	ug/L	7	20	
Nickel	A	1000.000	959.0426	ug/L	-4	20	
Selenium	A	500.0000	523.6456	ug/L	5	20	
Silver	A	1000.000	1100.973	ug/L	10	20	
Thallium	A	500.0000	481.9450	ug/L	-4	20	
Titanium	A	20000.00	20551.35	ug/L	3		
Vanadium	A	500.0000	557.9474	ug/L	12	20	
Zinc	A	1000.000	978.7262	ug/L	-2	20	
Aluminum	R	500000.0	512636.8	ug/L	3		
Calcium	R	500000.0	507692.5	ug/L	2		
Iron	R	200000.0	194430.4	ug/L	-3		
Magnesium	R	500000.0	503582.7	ug/L	1		

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1601745	-17.28

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396021 Filename : 102005r.txt Injected : 20-OCT-2005 09:11
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	49.405	5000.000	5214.806	ug/L	4	10	
Arsenic	A	19.785	20.002	5000.000	5080.142	ug/L	2	10	
Barium	A	389.96	391.11	5000.000	5065.366	ug/L	1	10	
Beryllium	A	4193.6	4274.6	500.0000	508.7077	ug/L	2	10	
Boron	A	158.54	164.95	5000.000	5064.459	ug/L	1	10	
Cadmium	A	423.37	421.21	5000.000	5046.488	ug/L	1	10	
Chromium	A	121.77	120.98	5000.000	5008.395	ug/L	0	10	
Cobalt	A	140.31	141.27	5000.000	4947.701	ug/L	-1	10	
Copper	A	854.58	832.87	5000.000	4854.232	ug/L	-3	10	
Lead	A	70.336	68.222	5000.000	4925.250	ug/L	-1	10	
Manganese	A	1244.5	1164.0	5000.000	5098.594	ug/L	2	10	
Molybdenum	A	49.628	49.875	5000.000	5138.144	ug/L	3	10	
Nickel	A	78.964	78.708	5000.000	5018.907	ug/L	0	10	
Selenium	A	20.112	19.198	5000.000	4981.766	ug/L	0	10	
Silver	A	537.88	526.72	1000.000	971.2964	ug/L	-3	10	
Thallium	A	24.404	24.751	5000.000	5026.750	ug/L	1	10	
Titanium	A	1205.2	1208.2	5000.000	5076.148	ug/L	2	10	
Vanadium	A	145.06	148.25	5000.000	5025.835	ug/L	1	10	
Zinc	A	142.11	143.01	5000.000	5007.517	ug/L	0	10	
Aluminum	R	2.4995	2.2711	20000.00	18972.09	ug/L	-5	10	
Calcium	R	14.391	13.729	20000.00	20247.46	ug/L	1	10	
Iron	R	19.097	17.916	20000.00	19971.11	ug/L	0	10	
Magnesium	R	2.0938	1.9929	20000.00	20347.48	ug/L	2	10	
Potassium	R	4.6824	4.4797	20000.00	19419.72	ug/L	-3	10	
Sodium	R	11.877	11.127	20000.00	19607.96	ug/L	-2	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1861629	-3.86

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396023 Filename : 102005r.txt Injected : 20-OCT-2005 09:18
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.5581]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[0.7305]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[1.4142]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[2.0703]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396035 Filename : 102005r.txt Injected : 20-OCT-2005 09:52
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	49.635	5000.000	5239.002	ug/L	5	10	
Arsenic	A	19.785	19.942	5000.000	5064.907	ug/L	1	10	
Barium	A	389.96	389.10	5000.000	5039.277	ug/L	1	10	
Beryllium	A	4193.6	4247.3	500.0000	505.4581	ug/L	1	10	
Boron	A	158.54	164.49	5000.000	5050.436	ug/L	1	10	
Cadmium	A	423.37	417.76	5000.000	5005.092	ug/L	0	10	
Chromium	A	121.77	120.69	5000.000	4996.500	ug/L	0	10	
Cobalt	A	140.31	140.60	5000.000	4924.512	ug/L	-2	10	
Copper	A	854.58	829.77	5000.000	4836.139	ug/L	-3	10	
Lead	A	70.336	67.703	5000.000	4887.817	ug/L	-2	10	
Manganese	A	1244.5	1157.8	5000.000	5071.450	ug/L	1	10	
Molybdenum	A	49.628	49.728	5000.000	5123.063	ug/L	2	10	
Nickel	A	78.964	78.489	5000.000	5004.934	ug/L	0	10	
Selenium	A	20.112	19.184	5000.000	4978.057	ug/L	0	10	
Silver	A	537.88	525.23	1000.000	968.5435	ug/L	-3	10	
Thallium	A	24.404	24.573	5000.000	4990.408	ug/L	0	10	
Titanium	A	1205.2	1208.3	5000.000	5076.439	ug/L	2	10	
Vanadium	A	145.06	147.86	5000.000	5012.402	ug/L	0	10	
Zinc	A	142.11	141.92	5000.000	4969.536	ug/L	-1	10	
Aluminum	R	2.4995	2.4646	20000.00	20588.60	ug/L	3	10	
Calcium	R	14.391	15.113	20000.00	22289.36	ug/L	**11**	10	c+ ***
Iron	R	19.097	19.455	20000.00	21687.08	ug/L	8	10	
Magnesium	R	2.0938	2.1843	20000.00	22302.15	ug/L	**12**	10	c+ ***
Potassium	R	4.6824	4.8741	20000.00	21129.42	ug/L	6	10	
Sodium	R	11.877	12.114	20000.00	21348.15	ug/L	7	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1869460	-3.46

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396037 Filename : 102005r.txt Injected : 20-OCT-2005 09:58
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.5813]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[0.9273]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[3.4018]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[1.5860]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396049 Filename : 102005r.txt Injected : 20-OCT-2005 10:31
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.618	5000.000	5342.773	ug/L	7	10	
Arsenic	A	19.785	20.196	5000.000	5129.379	ug/L	3	10	
Barium	A	389.96	398.72	5000.000	5163.907	ug/L	3	10	
Beryllium	A	4193.6	4324.1	500.0000	514.6033	ug/L	3	10	
Boron	A	158.54	167.61	5000.000	5146.254	ug/L	3	10	
Cadmium	A	423.37	427.41	5000.000	5120.784	ug/L	2	10	
Chromium	A	121.77	123.00	5000.000	5091.976	ug/L	2	10	
Cobalt	A	140.31	144.27	5000.000	5052.936	ug/L	1	10	
Copper	A	854.58	848.01	5000.000	4942.496	ug/L	-1	10	
Lead	A	70.336	68.430	5000.000	4940.260	ug/L	-1	10	
Manganese	A	1244.5	1162.3	5000.000	5090.931	ug/L	2	10	
Molybdenum	A	49.628	50.363	5000.000	5188.429	ug/L	4	10	
Nickel	A	78.964	79.509	5000.000	5069.969	ug/L	1	10	
Selenium	A	20.112	19.427	5000.000	5041.091	ug/L	1	10	
Silver	A	537.88	529.40	1000.000	976.2437	ug/L	-2	10	
Thallium	A	24.404	24.845	5000.000	5045.686	ug/L	1	10	
Titanium	A	1205.2	1214.9	5000.000	5104.415	ug/L	2	10	
Vanadium	A	145.06	150.51	5000.000	5102.268	ug/L	2	10	
Zinc	A	142.11	145.19	5000.000	5084.060	ug/L	2	10	
Aluminum	R	2.4995	2.2302	20000.00	18630.51	ug/L	-7	10	
Calcium	R	14.391	13.811	20000.00	20368.18	ug/L	2	10	
Iron	R	19.097	17.708	20000.00	19738.91	ug/L	-1	10	
Magnesium	R	2.0938	1.9903	20000.00	20321.10	ug/L	2	10	
Potassium	R	4.6824	4.4774	20000.00	19409.81	ug/L	-3	10	
Sodium	R	11.877	11.051	20000.00	19473.71	ug/L	-3	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1844959	-4.72

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396051 Filename : 102005r.txt Injected : 20-OCT-2005 10:36
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.0729]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.5408]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[1.6634]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	[41.576]	500.0000	39.23202	ug/L	!ib

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Page 1 of 1

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396055 Filename : 102005r.txt Injected : 20-OCT-2005 10:51
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1412

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	500.0000	556.8206	ug/L	11	20	
Arsenic	A	500.0000	515.7561	ug/L	3	20	
Barium	A	500.0000	538.3966	ug/L	8	20	
Beryllium	A	500.0000	532.9527	ug/L	7	20	
Cadmium	A	1000.000	1013.481	ug/L	1	20	
Chromium	A	500.0000	515.9884	ug/L	3	20	
Cobalt	A	500.0000	460.4217	ug/L	-8	20	
Copper	A	500.0000	516.0462	ug/L	3	20	
Lead	A	1000.000	937.1095	ug/L	-6	20	
Manganese	A	500.0000	537.8974	ug/L	8	20	
Molybdenum	A	500.0000	519.2585	ug/L	4	20	
Nickel	A	1000.000	933.8126	ug/L	-7	20	
Selenium	A	500.0000	489.8841	ug/L	-2	20	
Silver	A	1000.000	1095.645	ug/L	10	20	
Thallium	A	500.0000	464.6600	ug/L	-7	20	
Titanium	A	20000.00	20346.18	ug/L	2		
Vanadium	A	500.0000	542.6963	ug/L	9	20	
Zinc	A	1000.000	942.2152	ug/L	-6	20	
Aluminum	R	500000.0	487780.3	ug/L	-2		
Calcium	R	500000.0	500034.0	ug/L	0		
Iron	R	200000.0	187532.3	ug/L	-6		
Magnesium	R	500000.0	478807.0	ug/L	-4		

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1637471	-15.44

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396057 Filename : 102005r.txt Injected : 20-OCT-2005 10:57
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.864	5000.000	5368.818	ug/L	7	10	
Arsenic	A	19.785	20.350	5000.000	5168.386	ug/L	3	10	
Barium	A	389.96	397.00	5000.000	5141.607	ug/L	3	10	
Beryllium	A	4193.6	4309.6	500.0000	512.8729	ug/L	3	10	
Boron	A	158.54	166.71	5000.000	5118.613	ug/L	2	10	
Cadmium	A	423.37	426.21	5000.000	5106.310	ug/L	2	10	
Chromium	A	121.77	122.77	5000.000	5082.554	ug/L	2	10	
Cobalt	A	140.31	143.60	5000.000	5029.627	ug/L	1	10	
Copper	A	854.58	840.73	5000.000	4900.045	ug/L	-2	10	
Lead	A	70.336	68.826	5000.000	4968.849	ug/L	-1	10	
Manganese	A	1244.5	1171.6	5000.000	5131.980	ug/L	3	10	
Molybdenum	A	49.628	50.636	5000.000	5216.567	ug/L	4	10	
Nickel	A	78.964	80.105	5000.000	5107.948	ug/L	2	10	
Selenium	A	20.112	19.520	5000.000	5065.330	ug/L	1	10	
Silver	A	537.88	531.36	1000.000	979.8555	ug/L	-2	10	
Thallium	A	24.404	24.972	5000.000	5071.477	ug/L	1	10	
Titanium	A	1205.2	1223.3	5000.000	5139.675	ug/L	3	10	
Vanadium	A	145.06	150.26	5000.000	5093.727	ug/L	2	10	
Zinc	A	142.11	144.84	5000.000	5071.650	ug/L	1	10	
Aluminum	R	2.4995	2.2561	20000.00	18846.85	ug/L	-6	10	
Calcium	R	14.391	13.833	20000.00	20401.39	ug/L	2	10	
Iron	R	19.097	17.987	20000.00	20049.73	ug/L	0	10	
Magnesium	R	2.0938	2.0098	20000.00	20520.23	ug/L	3	10	
Potassium	R	4.6824	4.4749	20000.00	19398.78	ug/L	-3	10	
Sodium	R	11.877	11.056	20000.00	19483.67	ug/L	-3	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1858075	-4.05

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396059 Filename : 102005r.txt Injected : 20-OCT-2005 11:02
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[13.774]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.1079]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.5043]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[1.6742]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[1.5779]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396069 Filename : 102005r.txt Injected : 20-OCT-2005 11:30
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	51.083	5000.000	5391.856	ug/L	8	10	
Arsenic	A	19.785	20.538	5000.000	5216.110	ug/L	4	10	
Barium	A	389.96	400.24	5000.000	5183.551	ug/L	4	10	
Beryllium	A	4193.6	4342.4	500.0000	516.7776	ug/L	3	10	
Boron	A	158.54	168.01	5000.000	5158.338	ug/L	3	10	
Cadmium	A	423.37	430.29	5000.000	5155.201	ug/L	3	10	
Chromium	A	121.77	123.87	5000.000	5128.320	ug/L	3	10	
Cobalt	A	140.31	144.71	5000.000	5068.262	ug/L	1	10	
Copper	A	854.58	847.12	5000.000	4937.310	ug/L	-1	10	
Lead	A	70.336	69.486	5000.000	5016.555	ug/L	0	10	
Manganese	A	1244.5	1179.7	5000.000	5167.200	ug/L	3	10	
Molybdenum	A	49.628	51.023	5000.000	5256.468	ug/L	5	10	
Nickel	A	78.964	80.613	5000.000	5140.340	ug/L	3	10	
Selenium	A	20.112	19.718	5000.000	5116.788	ug/L	2	10	
Silver	A	537.88	535.22	1000.000	986.9671	ug/L	-1	10	
Thallium	A	24.404	25.128	5000.000	5103.185	ug/L	2	10	
Titanium	A	1205.2	1230.8	5000.000	5171.128	ug/L	3	10	
Vanadium	A	145.06	151.64	5000.000	5140.755	ug/L	3	10	
Zinc	A	142.11	146.34	5000.000	5124.340	ug/L	2	10	
Aluminum	R	2.4995	2.3062	20000.00	19265.07	ug/L	-4	10	
Calcium	R	14.391	14.265	20000.00	21037.95	ug/L	5	10	
Iron	R	19.097	18.448	20000.00	20564.52	ug/L	3	10	
Magnesium	R	2.0938	2.0626	20000.00	21058.68	ug/L	5	10	
Potassium	R	4.6824	4.5902	20000.00	19898.56	ug/L	-1	10	
Sodium	R	11.877	11.345	20000.00	19992.33	ug/L	0	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1852664	-4.33

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396071 Filename : 102005r.txt Injected : 20-OCT-2005 11:35
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	[1.0497]	5.000000	1.047391	ug/L	!ib
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[14.505]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.4672]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.7641]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[2.1592]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[2.0493]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	[1.1296]	5.000000	0.931695	ug/L	!ib
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396077 Filename : 102005r.txt Injected : 20-OCT-2005 11:51
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.109	5000.000	5289.122	ug/L	6	10	
Arsenic	A	19.785	20.115	5000.000	5108.865	ug/L	2	10	
Barium	A	389.96	396.91	5000.000	5140.490	ug/L	3	10	
Beryllium	A	4193.6	4315.2	500.0000	513.5439	ug/L	3	10	
Boron	A	158.54	166.39	5000.000	5108.655	ug/L	2	10	
Cadmium	A	423.37	427.68	5000.000	5123.942	ug/L	2	10	
Chromium	A	121.77	122.67	5000.000	5078.317	ug/L	2	10	
Cobalt	A	140.31	143.77	5000.000	5035.827	ug/L	1	10	
Copper	A	854.58	838.85	5000.000	4889.092	ug/L	-2	10	
Lead	A	70.336	68.004	5000.000	4909.568	ug/L	-2	10	
Manganese	A	1244.5	1149.6	5000.000	5035.418	ug/L	1	10	
Molybdenum	A	49.628	49.936	5000.000	5144.428	ug/L	3	10	
Nickel	A	78.964	78.882	5000.000	5029.968	ug/L	1	10	
Selenium	A	20.112	19.351	5000.000	5021.433	ug/L	0	10	
Silver	A	537.88	523.77	1000.000	965.8552	ug/L	-3	10	
Thallium	A	24.404	24.780	5000.000	5032.545	ug/L	1	10	
Titanium	A	1205.2	1198.8	5000.000	5036.442	ug/L	1	10	
Vanadium	A	145.06	149.99	5000.000	5084.680	ug/L	2	10	
Zinc	A	142.11	145.48	5000.000	5094.241	ug/L	2	10	
Aluminum	R	2.4995	2.3236	20000.00	19410.27	ug/L	-3	10	
Calcium	R	14.391	14.381	20000.00	21208.49	ug/L	6	10	
Iron	R	19.097	18.715	20000.00	20861.81	ug/L	4	10	
Magnesium	R	2.0938	2.0882	20000.00	21320.59	ug/L	7	10	
Potassium	R	4.6824	4.5993	20000.00	19937.85	ug/L	0	10	
Sodium	R	11.877	11.359	20000.00	20016.99	ug/L	0	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1887606	-2.52

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396079 Filename : 102005r.txt Injected : 20-OCT-2005 11:57
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[14.041]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.5185]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[2.1618]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[2.0919]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	[16.072]	200.0000	14.50441	ug/L	!ib
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396091 Filename : 102005r.txt Injected : 20-OCT-2005 12:30
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	51.749	5000.000	5462.154	ug/L	9	10	
Arsenic	A	19.785	20.924	5000.000	5314.148	ug/L	6	10	
Barium	A	389.96	407.32	5000.000	5275.277	ug/L	6	10	
Beryllium	A	4193.6	4412.0	500.0000	525.0645	ug/L	5	10	
Boron	A	158.54	168.93	5000.000	5186.672	ug/L	4	10	
Cadmium	A	423.37	440.16	5000.000	5273.461	ug/L	5	10	
Chromium	A	121.77	125.23	5000.000	5184.542	ug/L	4	10	
Cobalt	A	140.31	147.58	5000.000	5168.825	ug/L	3	10	
Copper	A	854.58	856.97	5000.000	4994.707	ug/L	0	10	
Lead	A	70.336	71.049	5000.000	5129.387	ug/L	3	10	
Manganese	A	1244.5	1216.7	5000.000	5329.591	ug/L	7	10	
Molybdenum	A	49.628	52.010	5000.000	5358.076	ug/L	7	10	
Nickel	A	78.964	82.032	5000.000	5230.834	ug/L	5	10	
Selenium	A	20.112	20.075	5000.000	5209.372	ug/L	4	10	
Silver	A	537.88	542.15	1000.000	999.7471	ug/L	0	10	
Thallium	A	24.404	25.740	5000.000	5227.533	ug/L	5	10	
Titanium	A	1205.2	1261.1	5000.000	5298.316	ug/L	6	10	
Vanadium	A	145.06	152.90	5000.000	5183.510	ug/L	4	10	
Zinc	A	142.11	149.69	5000.000	5241.714	ug/L	5	10	
Aluminum	R	2.4995	2.3682	20000.00	19782.84	ug/L	-1	10	
Calcium	R	14.391	14.561	20000.00	21473.96	ug/L	7	10	
Iron	R	19.097	19.123	20000.00	21317.03	ug/L	7	10	
Magnesium	R	2.0938	2.1148	20000.00	21592.46	ug/L	8	10	
Potassium	R	4.6824	4.6732	20000.00	20258.44	ug/L	1	10	
Sodium	R	11.877	11.477	20000.00	20225.52	ug/L	1	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1834260	-5.28

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396093 Filename : 102005r.txt Injected : 20-OCT-2005 12:36
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[15.055]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.2043]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.3607]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[2.0682]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[1.9909]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396105 Filename : 102005r.txt Injected : 20-OCT-2005 13:11
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.324	5000.000	5311.799	ug/L	6	10	
Arsenic	A	19.785	20.401	5000.000	5181.257	ug/L	4	10	
Barium	A	389.96	401.00	5000.000	5193.392	ug/L	4	10	
Beryllium	A	4193.6	4349.0	500.0000	517.5670	ug/L	4	10	
Boron	A	158.54	166.60	5000.000	5115.054	ug/L	2	10	
Cadmium	A	423.37	435.37	5000.000	5216.145	ug/L	4	10	
Chromium	A	121.77	123.21	5000.000	5100.851	ug/L	2	10	
Cobalt	A	140.31	145.35	5000.000	5090.939	ug/L	2	10	
Copper	A	854.58	840.53	5000.000	4898.898	ug/L	-2	10	
Lead	A	70.336	69.688	5000.000	5031.143	ug/L	1	10	
Manganese	A	1244.5	1177.1	5000.000	5156.025	ug/L	3	10	
Molybdenum	A	49.628	50.877	5000.000	5241.393	ug/L	5	10	
Nickel	A	78.964	80.087	5000.000	5106.808	ug/L	2	10	
Selenium	A	20.112	19.749	5000.000	5124.691	ug/L	2	10	
Silver	A	537.88	527.89	1000.000	973.4457	ug/L	-3	10	
Thallium	A	24.404	25.274	5000.000	5132.787	ug/L	3	10	
Titanium	A	1205.2	1217.6	5000.000	5115.744	ug/L	2	10	
Vanadium	A	145.06	150.46	5000.000	5100.707	ug/L	2	10	
Zinc	A	142.11	148.24	5000.000	5190.681	ug/L	4	10	
Aluminum	R	2.4995	2.2639	20000.00	18912.27	ug/L	-5	10	
Calcium	R	14.391	14.030	20000.00	20691.11	ug/L	3	10	
Iron	R	19.097	18.517	20000.00	20640.85	ug/L	3	10	
Magnesium	R	2.0938	2.0514	20000.00	20945.16	ug/L	5	10	
Potassium	R	4.6824	4.4386	20000.00	19241.53	ug/L	-4	10	
Sodium	R	11.877	11.018	20000.00	19415.86	ug/L	-3	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1889494	-2.42

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396107 Filename : 102005r.txt Injected : 20-OCT-2005 13:17
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	[1.7920]	5.000000	1.047391	ug/L	!ib
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.9256]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[0.9581]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[2.0510]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	[15.876]	200.0000	14.50441	ug/L	!ib
Potassium	R	85422396001	20-OCT-2005	[134.72]	500.0000	128.7585	ug/L	!ib
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396119 Filename : 102005r.txt Injected : 20-OCT-2005 13:52
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	RF/CF	Avg RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.659	5000.000	5347.171	ug/L	7	10	
Arsenic	A	19.785	20.909	5000.000	5310.393	ug/L	6	10	
Barium	A	389.96	398.13	5000.000	5156.236	ug/L	3	10	
Beryllium	A	4193.6	4348.8	500.0000	517.5388	ug/L	4	10	
Boron	A	158.54	164.12	5000.000	5039.059	ug/L	1	10	
Cadmium	A	423.37	434.01	5000.000	5199.850	ug/L	4	10	
Chromium	A	121.77	122.53	5000.000	5072.581	ug/L	1	10	
Cobalt	A	140.31	144.56	5000.000	5063.251	ug/L	1	10	
Copper	A	854.58	833.38	5000.000	4857.178	ug/L	-3	10	
Lead	A	70.336	71.286	5000.000	5146.476	ug/L	3	10	
Manganese	A	1244.5	1184.8	5000.000	5189.530	ug/L	4	10	
Molybdenum	A	49.628	51.809	5000.000	5337.374	ug/L	7	10	
Nickel	A	78.964	81.707	5000.000	5210.127	ug/L	4	10	
Selenium	A	20.112	20.296	5000.000	5266.720	ug/L	5	10	
Silver	A	537.88	536.54	1000.000	989.4115	ug/L	-1	10	
Thallium	A	24.404	25.825	5000.000	5244.825	ug/L	5	10	
Titanium	A	1205.2	1217.7	5000.000	5116.037	ug/L	2	10	
Vanadium	A	145.06	149.52	5000.000	5068.761	ug/L	1	10	
Zinc	A	142.11	147.68	5000.000	5171.074	ug/L	3	10	
Aluminum	R	2.4995	2.3752	20000.00	19841.54	ug/L	-1	10	
Calcium	R	14.391	14.612	20000.00	21549.64	ug/L	8	10	
Iron	R	19.097	19.639	20000.00	21891.60	ug/L	9	10	
Magnesium	R	2.0938	2.1668	20000.00	22122.71	ug/L	**11**	10	c+ ***
Potassium	R	4.6824	4.5652	20000.00	19790.35	ug/L	-1	10	
Sodium	R	11.877	11.372	20000.00	20040.68	ug/L	0	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1893660	-2.21

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Page 1 of 1

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396121 Filename : 102005r.txt Injected : 20-OCT-2005 13:57
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	[14.878]	100.0000	13.56594	ug/L	!ib
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[1.3395]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.4490]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[3.1763]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	[2.5304]	5.000000	1.574827	ug/L	!ib
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

INTERFERENCE CHECK STANDARD AB
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396130 Filename : 102005r.txt Injected : 20-OCT-2005 14:22
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1412

Analyte	Ch	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	500.0000	568.5307	ug/L	14	20	
Arsenic	A	500.0000	540.2412	ug/L	8	20	
Barium	A	500.0000	546.3767	ug/L	9	20	
Beryllium	A	500.0000	542.1584	ug/L	8	20	
Cadmium	A	1000.000	1044.555	ug/L	4	20	
Chromium	A	500.0000	533.0324	ug/L	7	20	
Cobalt	A	500.0000	483.8067	ug/L	-3	20	
Copper	A	500.0000	515.6563	ug/L	3	20	
Lead	A	1000.000	989.7620	ug/L	-1	20	
Manganese	A	500.0000	551.2682	ug/L	10	20	
Molybdenum	A	500.0000	544.2744	ug/L	9	20	
Nickel	A	1000.000	976.4564	ug/L	-2	20	
Selenium	A	500.0000	541.9390	ug/L	8	20	
Silver	A	1000.000	1101.036	ug/L	10	20	
Thallium	A	500.0000	489.7858	ug/L	-2	20	
Titanium	A	20000.00	20711.58	ug/L	4		
Vanadium	A	500.0000	560.5692	ug/L	12	20	
Zinc	A	1000.000	1000.832	ug/L	0	20	
Aluminum	R	500000.0	500292.1	ug/L	0		
Calcium	R	500000.0	505559.7	ug/L	1		
Iron	R	200000.0	197859.2	ug/L	-1		
Magnesium	R	500000.0	516157.4	ug/L	3		

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1644302	-15.09

CONTINUING CALIBRATION REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name : IDF : 1.0
Seqnum : 85422396132 Filename : 102005r.txt Injected : 20-OCT-2005 14:28
Calnum : 85422396001 Caldate : 20-OCT-2005 Caltype :
Standards: S1809

Analyte	Ch	Avg RF/CF	RF/CF	SpkAmt	QuantAmt	Units	%D	Max %D	Flags
Antimony	A	47.112	50.375	5000.000	5317.199	ug/L	6	10	
Arsenic	A	19.785	20.803	5000.000	5283.418	ug/L	6	10	
Barium	A	389.96	399.27	5000.000	5171.033	ug/L	3	10	
Beryllium	A	4193.6	4359.7	500.0000	518.8398	ug/L	4	10	
Boron	A	158.54	164.21	5000.000	5041.785	ug/L	1	10	
Cadmium	A	423.37	435.29	5000.000	5215.141	ug/L	4	10	
Chromium	A	121.77	122.99	5000.000	5091.558	ug/L	2	10	
Cobalt	A	140.31	145.01	5000.000	5078.853	ug/L	2	10	
Copper	A	854.58	835.35	5000.000	4868.699	ug/L	-3	10	
Lead	A	70.336	71.025	5000.000	5127.658	ug/L	3	10	
Manganese	A	1244.5	1200.8	5000.000	5259.677	ug/L	5	10	
Molybdenum	A	49.628	51.753	5000.000	5331.678	ug/L	7	10	
Nickel	A	78.964	81.554	5000.000	5200.376	ug/L	4	10	
Selenium	A	20.112	20.114	5000.000	5219.495	ug/L	4	10	
Silver	A	537.88	534.45	1000.000	985.5449	ug/L	-1	10	
Thallium	A	24.404	25.700	5000.000	5219.339	ug/L	4	10	
Titanium	A	1205.2	1232.8	5000.000	5179.508	ug/L	4	10	
Vanadium	A	145.06	150.11	5000.000	5088.598	ug/L	2	10	
Zinc	A	142.11	148.03	5000.000	5183.604	ug/L	4	10	
Aluminum	R	2.4995	2.3046	20000.00	19251.64	ug/L	-4	10	
Calcium	R	14.391	14.137	20000.00	20849.09	ug/L	4	10	
Iron	R	19.097	18.973	20000.00	21149.32	ug/L	6	10	
Magnesium	R	2.0938	2.1077	20000.00	21519.99	ug/L	8	10	
Potassium	R	4.6824	4.3869	20000.00	19017.13	ug/L	-5	10	
Sodium	R	11.877	10.933	20000.00	19265.47	ug/L	-4	10	

ISTD (ICAL=002)	Ch	ICAL Abund	Abund	%Diff
Yttrium	A	1936444	1880025	-2.91

INSTRUMENT BLANK REPORT
Curtis & Tompkins Laboratories

Instid : MET08 Run Name :
Seqnum : 85422396134 Filename : 102005r.txt Injected : 20-OCT-2005 14:33
Standards:

Analyte	Ch	Calnum	Caldate	QuantAmt	RL	MDL	Units	Flags
Antimony	A	85422396001	20-OCT-2005	ND	5.000000	3.639202	ug/L	
Arsenic	A	85422396001	20-OCT-2005	ND	5.000000	1.047391	ug/L	
Barium	A	85422396001	20-OCT-2005	ND	5.000000	0.412877	ug/L	
Beryllium	A	85422396001	20-OCT-2005	ND	2.000000	0.208939	ug/L	
Boron	A	85422396001	20-OCT-2005	ND	100.0000	13.56594	ug/L	
Cadmium	A	85422396001	20-OCT-2005	ND	5.000000	0.550012	ug/L	
Chromium	A	85422396001	20-OCT-2005	ND	5.000000	0.556393	ug/L	
Cobalt	A	85422396001	20-OCT-2005	ND	5.000000	0.460545	ug/L	
Copper	A	85422396001	20-OCT-2005	[0.9454]	5.000000	0.712167	ug/L	!ib
Lead	A	85422396001	20-OCT-2005	[1.3239]	3.000000	0.569754	ug/L	!ib
Manganese	A	85422396001	20-OCT-2005	ND	5.000000	0.599118	ug/L	
Molybdenum	A	85422396001	20-OCT-2005	[1.9573]	5.000000	0.430298	ug/L	!ib
Nickel	A	85422396001	20-OCT-2005	ND	5.000000	0.918196	ug/L	
Selenium	A	85422396001	20-OCT-2005	ND	5.000000	1.574827	ug/L	
Silver	A	85422396001	20-OCT-2005	ND	5.000000	1.402932	ug/L	
Thallium	A	85422396001	20-OCT-2005	ND	5.000000	0.931695	ug/L	
Titanium	A	85422396001	20-OCT-2005	ND	10.00000	1.039942	ug/L	
Vanadium	A	85422396001	20-OCT-2005	ND	5.000000	0.421710	ug/L	
Zinc	A	85422396001	20-OCT-2005	ND	20.00000	1.532647	ug/L	
Aluminum	R	85422396001	20-OCT-2005	ND	100.0000	42.49269	ug/L	
Calcium	R	85422396001	20-OCT-2005	ND	200.0000	50.64303	ug/L	
Iron	R	85422396001	20-OCT-2005	ND	100.0000	17.22793	ug/L	
Magnesium	R	85422396001	20-OCT-2005	ND	200.0000	14.50441	ug/L	
Potassium	R	85422396001	20-OCT-2005	ND	500.0000	128.7585	ug/L	
Sodium	R	85422396001	20-OCT-2005	ND	500.0000	39.23202	ug/L	

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Page 1 of 1

Curtis & Tompkins Laboratories Sample Preparation Summary 20-OCT-2005 01:21

Batch Number : 106917
Date Extracted: 20-OCT-2005
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : S520
Spike #2 ID : S521
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
182357-001			Mactec, Inc.	Soil	.96	g	50	52.083333	1				T26/ICP		
182357-002			Mactec, Inc.	Soil	1.05	g	50	47.619048	1				T26/ICP		mss
182497-005			Erler & Kalinowski, Inc.	Soil	1.55	g	50	32.258065	1				CD, CR, NI, PB, ZN		
182502-001			Coast Wood Preserving	Soil	1.12	g	50	44.642857	1				AS		
182502-002			Coast Wood Preserving	Soil	1.05	g	50	47.619048	1				AS		
182502-003			Coast Wood Preserving	Soil	.98	g	50	51.020408	1				AS		
182502-004			Coast Wood Preserving	Soil	1.14	g	50	43.859649	1				AS		
182502-005			Coast Wood Preserving	Soil	.92	g	50	54.347826	1				AS		
182502-006			Coast Wood Preserving	Soil	1.31	g	50	38.167939	1				AS		
182502-007			Coast Wood Preserving	Soil	1.05	g	50	47.619048	1				AS		
182573-001			ConocoPhillips Company	Miscell.	1.17	g	50	42.735043	1				V		
182573-002			ConocoPhillips Company	Miscell.	1.1	g	50	45.454545	1				V		
182599-002			RTI International	Soil	1.07	g	50	46.728972	1				CO, NI		
182599-003			RTI International	Soil	1.4	g	50	35.714286	1				CO, NI		
182599-004			RTI International	Soil	1.27	g	50	39.370079	1				CO, NI		
182599-005			RTI International	Soil	1.08	g	50	46.296296	1				CO, NI		
182599-006			RTI International	Soil	1.03	g	50	48.543689	1				CO, NI		
182599-007			RTI International	Soil	1.41	g	50	35.460993	1				CO, NI		
182599-008			RTI International	Soil	1.06	g	50	47.169811	1				CO, NI		
182599-009			RTI International	Soil	1.08	g	50	46.296296	1				CO, NI		
QC313706	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC313707	BS			Soil	1	g	50	50.000000	1	.5	.5		ICAP		
QC313708	BSD			Soil	1	g	50	50.000000	1	.5	.5		ICAP		
QC313709	MS	of 182357-002		Soil	.93	g	50	53.763441	1	.5	.5		ICAP		
QC313710	MSD	of 182357-002		Soil	1.2	g	50	41.666667	1	.5	.5		ICAP		
QC313711	SER	of 182357-002		Soil	1.05	g	50	47.619048	1				ICAP		
QC313712	PDS	of 182357-002		Soil	1.05	g	50	47.619048	1				ICAP		

210

Prep Chemist: _____ Reviewed By: _____ Date: 10/20/5

Relinquished By: _____ Received By: _____ Date: 10/20/5

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 106917
Date Digested: 10/19/05
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2220
Page 14

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	PBLQC 313706		Ø	50.0	Y	
*	MS 313707					
*	MSD 313708		↓			
*	182557-002 MS	A	0.93			
*	-002 MSD		1.20			
	-001		0.96			
	-002		1.05			(MSS)
	182497-005		1.55			Comp 001-004, 5.0g of each.
	182502-001	A	1.12			
10	-002		1.05			
	-003		0.98			
	-004		1.14			
	-005		0.92			
	-006		1.31			
15	-007		1.05			
	182573-001		1.17			comp 3 jars, 5.0g of each.
	-002		1.10			
	182599-001/002	A	1.07			
	VV 10/19/05 002/003		1.40			
20	003/004		1.27			
	004/005		1.08			
	006		1.03			
	-007		1.41			
	-008		1.06			
	-009		1.06			

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	959	VV 10/19/05
0.5 mL of spike solution was added to all spikes	3520	
	5521	
1:1 HNO3	B320114-100205	
concentrated HNO3	B320114- JTBaker	
3mL 30% hydrogen peroxide	1497845- VWR	
concentrated HCl	B28035- JTBaker	
☒ filtered thru' Whatman # 541	E3660[illegible]	

10/19/05
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

10/20/5
Reviewed by / Date

MOISTURE DATA

Curtis & Tompkins, Ltd.

Moisture

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	106625
Matrix:	Soil	Sampled:	10/10/05
Units:	%	Received:	10/10/05
Diln Fac:	1.000	Analyzed:	10/11/05

Field ID	Lab ID	Result	RL
BBSB119(2.5)	182357-001	11	1
BBSB119(4.5)	182357-002	11	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture			
Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	106625
MSS Lab ID:	182361-004	Sampled:	10/10/05
Lab ID:	QC312513	Received:	10/10/05
Matrix:	Soil	Analyzed:	10/11/05

MSS Result	Result	RL	RPD	Lim
49.17	51.64	1.000	5	15

RL= Reporting Limit
RPD= Relative Percent Difference

Percent Moisture Summary Report

Batch: 106625
Date: 10/11/05
Method: CLP SOW 390
Analyst: CCH

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
182212-009	15.3458	22.5390	21.8821	91	9
182212-010	15.2934	20.9857	19.8134	79	21
182212-011	15.2207	20.7713	19.6150	79	21
182344-001	14.5734	21.5398	20.6487	87	13
182344-002	15.5345	21.2872	20.8928	93	7
182344-003	15.6469	21.2032	20.7952	93	7
182344-004	15.2539	21.8904	21.3558	92	8
182344-005	14.9337	21.8786	21.3538	92	8
182344-006	15.2078	21.2963	21.0156	95	5
182344-007	15.3170	22.0087	21.8577	98	2
182344-008	15.1121	21.1219	20.9936	98	2
182344-009	14.5484	21.7475	21.5408	97	3
182344-010	14.9244	21.7046	21.5744	98	2
182344-011	15.3367	21.0657	20.9055	97	3
182357-001	15.0616	21.6899	20.9420	89	11
182357-002	15.5396	22.0060	21.2885	89	11
182361-001	15.3330	21.7463	20.2962	77	23
182361-002	14.3281	22.2165	20.4930	78	22
182361-003	15.2068	21.4030	20.1050	79	21
182361-004	15.3373	21.2323	18.3339	51	49
QC312513	15.6000	21.3215	18.3667	48	52
of 182361-004			RPD:	5.0%	4.9%

Curtis & Tompkins Laboratories Sample Batch Report

Batch Number: 106625
Date Started: 11-OCT-2005
Batched by : Charles Howse

Analysis : MOISTURE
Bgroup : N/A
Department : Metals

Sample	Type		Client	Matrix	Analyses	Due Date
182212-009			Weston Solutions	Soil	MOISTURE	12-OCT-2005
182212-010			Weston Solutions	Soil	MOISTURE	12-OCT-2005
182212-011			Weston Solutions	Soil	MOISTURE	12-OCT-2005
182344-001			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-002			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-003			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-004			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-005			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-006			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-007			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-008			URS Corporation	Soil	MOISTURE	17-OCT-2005
182344-009			URS Corporation	Soil	MOISTURE	11-OCT-2005
182344-010			URS Corporation	Soil	MOISTURE	11-OCT-2005
182344-011			URS Corporation	Soil	MOISTURE	11-OCT-2005
182357-001			Mactec, Inc.	Soil	MOISTURE	21-OCT-2005
182357-002			Mactec, Inc.	Soil	MOISTURE	21-OCT-2005
182361-001			Baseline Environme	Soil	MOISTURE	12-OCT-2005
182361-002			Baseline Environme	Soil	MOISTURE	12-OCT-2005
182361-003			Baseline Environme	Soil	MOISTURE	12-OCT-2005
182361-004			Baseline Environme	Soil	MOISTURE	12-OCT-2005
QC312513	SDUP	of 182361-004		Soil	MOISTURE	

10/11/05

10625

Sample	B.L.	Dish #	Tare wt	Init wt	Final wt	Comments
Blank	-	M2	15.0343	-	15.0431	
182212-9	A	34	15.3458	22.5390	21.8821	~~comp~~ 9,11
-10	A	35A	15.2934	20.9857	19.8134	comp 1-4
-11	A	9	15.2207	20.7713	19.6150	comp 5-10
182344-1	A	11	14.5134	21.5398	20.6487	
-2		3B	15.5345	21.2872	20.8928	
-3		4	15.6469	21.2032	20.7952	
-4		11	15.2539	21.8904	21.3558	
-5		125	14.9337	21.8786	21.3538	
-6		44	15.2078	21.2963	21.0156	
-7		24	15.3170	22.0087	21.8577	
-8		26	15.1174	21.1219	20.9936	
-9		T	14.5484	21.7475	21.5408	
-10		16	14.9244	21.7046	21.5744	
-11		37	15.3367	21.0657	20.9055	
182357-1	A	73	15.0616	21.6899	20.9420	
-2	A	18	15.5396	22.0060	21.2885	
182361-1	A	88	15.3330	21.7463	20.2962	
-2		134	14.3281	22.2165	20.4930	
-3		DP	15.2068	21.4070	20.1050	
-4		146	15.3373	21.2323	18.3339	
182361-4 DUP		1976	15.6000	21.3214	18.3667	

TIME IN 1:30pm 10/11
OVEN TEMP 107°C
OUT 7:10am 10/12

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Read and Understood By

Signed — Date 10/11/05 — Signed — Date

CURTIS & TOMPKINS

QA/QC
TEMPERATURE MONITOR

MONTH/YEAR 8-29-05

°C	DATE	INITIAL	°C	DATE	INITIAL
105°C	8-29-05	RSM	105°C	9-23-05	RSM
105°C	8-30-05	RSM	104°C	9-24-05	RSM
105°C	8-31-05	RSM	105°C	9-26-05	RSM
104°C	9-1-05	RSM	104°C	9-27-05	RSM
105°C	9-2-05	RSM	105°C	9-28-05	RSM
103°C	9-5-05	RSM	103°C	9-29-05	RSM
103°C	9-6-05	RSM	103°C	9-30-05	RSM
105°C	9-7-05	RSM	103°C	10-3-05	CCA
104°C	9-8-05	RSM	103°C	10-4-05	CCA
103	9-9-05	RSM	104°C	10-5-05	CCA
103	9-10	RSM	103°C	10-6-05	CCA
103°C	9-12-05	RSM	103°C	10-7-05	CCA
103°C	9-13-05	RSM	104°C	10-9-05	RSM
102°C	9-14-05	CCA	104°C	10/10/05	RSM
104°C	9-15-05	CCA	103°C	10/10/05	CCA
103°C	9-16-05	CCA	104°C	10/11/05	CCA
104°C	9-17-05	RSM	105°C	10/12/05	CCA
103°C	9-19-05	RSM			
103°C	9-20-05	CCA			
104°C	9-21-05	RSM			
103°C	9/22/05	CCA			

000075

DATE	0.2000	1.000	10.0000	50.0000	Initials	Set #
9-10-05	0.2001	1.0000	9.9998	50.0001	ADM	35298
9-12-05	0.2000	1.0001	10.0000	50.0002	RSM	35298
9-13-05	0.2000	1.0000	10.0000	50.0001	RSM	35298
9-14-05	0.2000	.9999	10.0006	50.0000	CCH	35298
9-15-05	.1997	1.0003	9.9999	50.0000	CCH	35298
9-16-05	.1999	.9999	9.9993	50.0002	CCH	35298
9/17/05	0.1998	0.9999	10.0000	50.0001	ADM	35298
9-19-05	0.2000	1.0000	10.0001	50.0000	RSM	35298
9-20-05	.2000	1.0002	9.9996	49.999	CCH	35298
9/21/05	.2002	1.0002	10.0003	50.0001	CCH	35298
9/22/05	.1999	.9999	9.9999	50.0000	CCH	35298
9/23/05	.2000	1.0001	10.0002	50.0000	CCH	35298
9/24/05	0.1999	1.0001	10.0001	50.0001	ADM	35298
9/26/05	0.2000	1.0000	10.0001	50.0000	RSM	35298
9/27/05	0.1999	1.0000	10.0002	50.0002	RSM	35298
9/28/05	0.2000	1.0001	10.0001	50.0000	RSM	35298
9/29/05	0.2000	1.0000	10.0002	50.0001	RSM	35298
9/30/05	0.1999	1.000	10.0001	50.0002	RSM	35298
10-3-05	0.1998	1.0002	10.0002	50.0005	CCH	35298
10-4-05	0.2000	0.9997	9.9995	49.9999	CCH	40417
10-5-05	0.2001	1.0002	9.9997	49.9999	CCH	40417
10-6-05	0.2001	1.000	9.9999	49.9995	CCH	40417
10-7-05	0.2000	1.000	10.0002	50.002	CCH	40417
10-10-05	0.2001	0.9998	10.0000	50.000	ADM	40417
10-10-05	0.2001	1.0001	10.000	49.9998	CCH	40417
10/11/05	0.2002	0.9999	9.9999	49.9998	CCH	40417
10/14/05	0.1999	10.000	10.0001	49.9998	CCH	40417

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Read and Understood By

R. Mann — Signed
9/10/05 — Date
Signed
Date

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05
Diln Fac:	1.000	Analyzed:	10/11/05
Batch#:	106592		

Field ID: BBSB119(2.5) Basis: dry
Type: SAMPLE Moisture: 11%
Lab ID: 182357-001

Analyte	Result	RL	MDL
Gasoline C7-C12	0.018 J	0.18	0.0039

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	59-140
Bromofluorobenzene (FID)	99	62-149

Field ID: BBSB119(4.5) Basis: dry
Type: SAMPLE Moisture: 11%
Lab ID: 182357-002

Analyte	Result	RL	MDL
Gasoline C7-C12	0.019 J	0.24	0.0050

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	59-140
Bromofluorobenzene (FID)	108	62-149

Type: BLANK Basis: as received
Lab ID: QC312369

Analyte	Result	RL	MDL
Gasoline C7-C12	0.018 J	0.20	0.0042

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	59-140
Bromofluorobenzene (FID)	102	62-149

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC312371	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106592
Units:	mg/Kg	Analyzed:	10/11/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.513	95	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	131	59-140
Bromofluorobenzene (FID)	109	62-149

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	182387-003	Batch#:	106592
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/11/05
Basis:	as received	Analyzed:	10/12/05

Type: MS Lab ID: QC312550

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.05713	9.524	7.790	81	44-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	59-140
Bromofluorobenzene (FID)	107	62-149

Type: MSD Lab ID: QC312551

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.804	7.654	77	44-120	5	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	59-140
Bromofluorobenzene (FID)	107	62-149

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
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Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	106992	Analyzed:	10/23/05

Field ID:	BBSB119(2.5)	Basis:	dry
Type:	SAMPLE	Moisture:	11%
Lab ID:	182357-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	23 H Y	1.1	0.24
Fuel Oil C24-C36	190	5.6	1.7

Surrogate	%REC	Limits
Hexacosane	84	48-132

Field ID:	BBSB119(4.5)	Basis:	dry
Type:	SAMPLE	Moisture:	11%
Lab ID:	182357-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	ND	1.1	0.24
Fuel Oil C24-C36	ND	5.6	1.7

Surrogate	%REC	Limits
Hexacosane	79	48-132

Type:	BLANK	Basis:	as received
Lab ID:	QC314004	Cleanup Method:	EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	ND	1.0	0.21
Fuel Oil C24-C36	ND	5.0	1.5

Surrogate	%REC	Limits
Hexacosane	85	48-132

H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC314005	Batch#:	106992
Matrix:	Soil	Prepared:	10/21/05
Units:	mg/Kg	Analyzed:	10/23/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	50.15	53.50	107	55-137

Surrogate	%REC	Limits
Hexacosane	103	48-132

Curtis & Tompkins, Ltd.
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Batch QC Report

Total Extractable Hydrocarbons

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	SHAKER TABLE
Project#:	57255 001 22	Analysis:	EPA 8015B
Field ID:	BBSB119(4.5)	Batch#:	106992
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/21/05
Basis:	dry	Analyzed:	10/23/05
Diln Fac:	1.000		

Type: MS
Lab ID: QC314006
Moisture: 11%
Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	<0.2380	55.87	38.79	69	33-159

Surrogate	%REC	Limits
Hexacosane	70	48-132

Type: MSD
Lab ID: QC314007
Moisture: 11%
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	55.76	41.61	75	33-159	7	46

Surrogate	%REC	Limits
Hexacosane	75	48-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(2.5)	Diln Fac:	0.8197
Lab ID:	182357-001	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	9.2	2.0
Chloromethane	ND	9.2	2.3
Vinyl Chloride	ND	9.2	2.6
Bromomethane	ND	9.2	2.2
Chloroethane	ND	9.2	2.6
Trichlorofluoromethane	ND	4.6	2.4
Acetone	20	18	3.1
Freon 113	ND	4.6	1.4
1,1-Dichloroethene	ND	4.6	1.5
Methylene Chloride	ND	18	4.0
Carbon Disulfide	ND	4.6	4.0
MTBE	ND	4.6	0.75
trans-1,2-Dichloroethene	ND	4.6	1.1
Vinyl Acetate	ND	46	0.66
1,1-Dichloroethane	ND	4.6	1.1
2-Butanone	4.7 J	9.2	1.3
cis-1,2-Dichloroethene	ND	4.6	1.1
2,2-Dichloropropane	ND	4.6	1.2
Chloroform	ND	4.6	1.2
Bromochloromethane	ND	4.6	0.81
1,1,1-Trichloroethane	ND	4.6	1.3
1,1-Dichloropropene	ND	4.6	1.1
Carbon Tetrachloride	ND	4.6	1.1
1,2-Dichloroethane	ND	4.6	0.73
Benzene	ND	4.6	1.1
Trichloroethene	ND	4.6	0.97
1,2-Dichloropropane	ND	4.6	0.80
Bromodichloromethane	ND	4.6	0.56
Dibromomethane	ND	4.6	0.53
4-Methyl-2-Pentanone	ND	9.2	0.87
cis-1,3-Dichloropropene	ND	4.6	0.63
Toluene	ND	4.6	0.95
trans-1,3-Dichloropropene	ND	4.6	0.60
1,1,2-Trichloroethane	ND	4.6	0.83
2-Hexanone	ND	9.2	0.71
1,3-Dichloropropane	ND	4.6	0.74
Tetrachloroethene	ND	4.6	0.97
Dibromochloromethane	ND	4.6	0.58
1,2-Dibromoethane	ND	4.6	0.81
Chlorobenzene	ND	4.6	1.5
1,1,1,2-Tetrachloroethane	ND	4.6	0.79
Ethylbenzene	ND	4.6	1.1
m,p-Xylenes	ND	4.6	2.1
o-Xylene	ND	4.6	1.0
Styrene	ND	4.6	0.89
Bromoform	ND	4.6	0.41
Isopropylbenzene	ND	4.6	1.1
1,1,2,2-Tetrachloroethane	ND	4.6	0.57
1,2,3-Trichloropropane	ND	4.6	0.92
Propylbenzene	ND	4.6	1.1
Bromobenzene	ND	4.6	0.73

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(2.5)	Diln Fac:	0.8197
Lab ID:	182357-001	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.6	1.1
2-Chlorotoluene	ND	4.6	1.1
4-Chlorotoluene	ND	4.6	0.89
tert-Butylbenzene	ND	4.6	1.0
1,2,4-Trimethylbenzene	ND	4.6	0.93
sec-Butylbenzene	ND	4.6	1.0
para-Isopropyl Toluene	ND	4.6	0.95
1,3-Dichlorobenzene	ND	4.6	0.84
1,4-Dichlorobenzene	ND	4.6	0.52
n-Butylbenzene	ND	4.6	0.78
1,2-Dichlorobenzene	ND	4.6	0.79
1,2-Dibromo-3-Chloropropane	ND	4.6	1.3
1,2,4-Trichlorobenzene	ND	4.6	0.62
Hexachlorobutadiene	ND	4.6	0.61
Naphthalene	ND	4.6	0.68
1,2,3-Trichlorobenzene	ND	4.6	0.39

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	108	80-124

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(4.5)	Diln Fac:	0.7937
Lab ID:	182357-002	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Moisture: 11%

Analyte	Result	RL	MDL
Freon 12	ND	8.9	2.0
Chloromethane	ND	8.9	2.2
Vinyl Chloride	ND	8.9	2.5
Bromomethane	ND	8.9	2.1
Chloroethane	ND	8.9	2.5
Trichlorofluoromethane	ND	4.5	2.4
Acetone	ND	18	3.0
Freon 113	ND	4.5	1.3
1,1-Dichloroethene	ND	4.5	1.5
Methylene Chloride	ND	18	3.9
Carbon Disulfide	ND	4.5	3.9
MTBE	ND	4.5	0.72
trans-1,2-Dichloroethene	ND	4.5	1.1
Vinyl Acetate	ND	45	0.64
1,1-Dichloroethane	ND	4.5	1.1
2-Butanone	ND	8.9	1.3
cis-1,2-Dichloroethene	ND	4.5	1.0
2,2-Dichloropropane	ND	4.5	1.2
Chloroform	ND	4.5	1.2
Bromochloromethane	ND	4.5	0.78
1,1,1-Trichloroethane	ND	4.5	1.3
1,1-Dichloropropene	ND	4.5	1.0
Carbon Tetrachloride	ND	4.5	1.1
1,2-Dichloroethane	ND	4.5	0.71
Benzene	ND	4.5	1.1
Trichloroethene	ND	4.5	0.94
1,2-Dichloropropane	ND	4.5	0.78
Bromodichloromethane	ND	4.5	0.54
Dibromomethane	ND	4.5	0.51
4-Methyl-2-Pentanone	ND	8.9	0.85
cis-1,3-Dichloropropene	ND	4.5	0.61
Toluene	ND	4.5	0.92
trans-1,3-Dichloropropene	ND	4.5	0.58
1,1,2-Trichloroethane	ND	4.5	0.81
2-Hexanone	ND	8.9	0.69
1,3-Dichloropropane	ND	4.5	0.72
Tetrachloroethene	ND	4.5	0.93
Dibromochloromethane	ND	4.5	0.56
1,2-Dibromoethane	ND	4.5	0.78
Chlorobenzene	ND	4.5	1.5
1,1,1,2-Tetrachloroethane	ND	4.5	0.77
Ethylbenzene	ND	4.5	1.1
m,p-Xylenes	ND	4.5	2.1
o-Xylene	ND	4.5	0.98
Styrene	ND	4.5	0.86
Bromoform	ND	4.5	0.40
Isopropylbenzene	ND	4.5	1.1
1,1,2,2-Tetrachloroethane	ND	4.5	0.56
1,2,3-Trichloropropane	ND	4.5	0.89
Propylbenzene	ND	4.5	1.0
Bromobenzene	ND	4.5	0.71
1,3,5-Trimethylbenzene	ND	4.5	1.1

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	BBSB119(4.5)	Diln Fac:	0.7937
Lab ID:	182357-002	Batch#:	106606
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Basis:	dry	Analyzed:	10/11/05

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	4.5	1.1
4-Chlorotoluene	ND	4.5	0.86
tert-Butylbenzene	ND	4.5	0.97
1,2,4-Trimethylbenzene	ND	4.5	0.90
sec-Butylbenzene	ND	4.5	0.97
para-Isopropyl Toluene	ND	4.5	0.92
1,3-Dichlorobenzene	ND	4.5	0.82
1,4-Dichlorobenzene	ND	4.5	0.50
n-Butylbenzene	ND	4.5	0.76
1,2-Dichlorobenzene	ND	4.5	0.76
1,2-Dibromo-3-Chloropropane	ND	4.5	1.3
1,2,4-Trichlorobenzene	ND	4.5	0.60
Hexachlorobutadiene	ND	4.5	0.59
Naphthalene	ND	4.5	0.66
1,2,3-Trichlorobenzene	ND	4.5	0.38

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC312428	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.85	107	78-127
Benzene	25.00	25.14	101	80-120
Trichloroethene	25.00	25.72	103	80-120
Toluene	25.00	25.03	100	80-120
Chlorobenzene	25.00	25.43	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	99	80-123
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-124

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC312429	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Result	RL	MDL
Freon 12	ND	10	2.2
Chloromethane	ND	10	2.5
Vinyl Chloride	ND	10	2.8
Bromomethane	ND	10	2.4
Chloroethane	ND	10	2.8
Trichlorofluoromethane	ND	5.0	2.7
Acetone	ND	20	3.4
Freon 113	ND	5.0	1.5
1,1-Dichloroethene	ND	5.0	1.7
Methylene Chloride	ND	20	4.3
Carbon Disulfide	ND	5.0	4.4
MTBE	ND	5.0	0.81
trans-1,2-Dichloroethene	ND	5.0	1.2
Vinyl Acetate	ND	50	0.71
1,1-Dichloroethane	ND	5.0	1.2
2-Butanone	ND	10	1.5
cis-1,2-Dichloroethene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.3
Chloroform	ND	5.0	1.3
Bromochloromethane	ND	5.0	0.87
1,1,1-Trichloroethane	ND	5.0	1.4
1,1-Dichloropropene	ND	5.0	1.2
Carbon Tetrachloride	ND	5.0	1.2
1,2-Dichloroethane	ND	5.0	0.79
Benzene	ND	5.0	1.2
Trichloroethene	ND	5.0	1.0
1,2-Dichloropropane	ND	5.0	0.87
Bromodichloromethane	ND	5.0	0.61
Dibromomethane	ND	5.0	0.57
4-Methyl-2-Pentanone	ND	10	0.95
cis-1,3-Dichloropropene	ND	5.0	0.69
Toluene	ND	5.0	1.0
trans-1,3-Dichloropropene	ND	5.0	0.65
1,1,2-Trichloroethane	ND	5.0	0.90
2-Hexanone	ND	10	0.77
1,3-Dichloropropane	ND	5.0	0.81
Tetrachloroethene	ND	5.0	1.0
Dibromochloromethane	ND	5.0	0.63
1,2-Dibromoethane	ND	5.0	0.88
Chlorobenzene	ND	5.0	1.7
1,1,1,2-Tetrachloroethane	ND	5.0	0.86
Ethylbenzene	ND	5.0	1.2
m,p-Xylenes	ND	5.0	2.3
o-Xylene	ND	5.0	1.1
Styrene	ND	5.0	0.97
Bromoform	ND	5.0	0.44
Isopropylbenzene	ND	5.0	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,2,3-Trichloropropane	ND	5.0	1.0
Propylbenzene	ND	5.0	1.1
Bromobenzene	ND	5.0	0.80
1,3,5-Trimethylbenzene	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.2
4-Chlorotoluene	ND	5.0	0.97

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC312429	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106606
Units:	ug/Kg	Analyzed:	10/11/05

Analyte	Result	RL	MDL
tert-Butylbenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.0
sec-Butylbenzene	ND	5.0	1.1
para-Isopropyl Toluene	ND	5.0	1.0
1,3-Dichlorobenzene	ND	5.0	0.92
1,4-Dichlorobenzene	ND	5.0	0.56
n-Butylbenzene	ND	5.0	0.85
1,2-Dichlorobenzene	ND	5.0	0.85
1,2-Dibromo-3-Chloropropane	ND	5.0	1.5
1,2,4-Trichlorobenzene	ND	5.0	0.68
Hexachlorobutadiene	ND	5.0	0.66
Naphthalene	ND	5.0	0.74
1,2,3-Trichlorobenzene	ND	5.0	0.42

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-124

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 5035
Project#:	57255 001 22	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	25.00
MSS Lab ID:	182168-022	Batch#:	106606
Matrix:	Soil	Sampled:	09/27/05
Units:	ug/Kg	Received:	09/29/05
Basis:	dry	Analyzed:	10/11/05

Type: MS Moisture: 15%
Lab ID: QC312511

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<12.20	735.3	900.7	122	66-125
Benzene	<9.038	735.3	777.2	106	67-120
Trichloroethene	<12.47	735.3	797.4	108	63-124
Toluene	<5.951	735.3	775.7	105	63-120
Chlorobenzene	<9.600	735.3	748.9	102	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	105	80-123
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-124
Trifluorotoluene (MeOH)	94	31-132

Type: MSD Moisture: 15%
Lab ID: QC312512

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	735.3	966.8	131 *	66-125	7	20
Benzene	735.3	831.4	113	67-120	7	20
Trichloroethene	735.3	851.2	116	63-124	7	20
Toluene	735.3	838.5	114	63-120	8	20
Chlorobenzene	735.3	819.0	111	59-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	104	80-123
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-124
Trifluorotoluene (MeOH)	99	31-132

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB119(2.5)	Batch#:	107020
Lab ID:	182357-001	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/23/05
Basis:	dry	Analyzed:	10/27/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	0.63 J	5.6	0.51
Acenaphthylene	0.70 J	5.6	0.53
Acenaphthene	ND	5.6	0.53
Fluorene	ND	5.6	0.66
Phenanthrene	7.6	5.6	0.60
Anthracene	1.2 J	5.6	0.42
Fluoranthene	8.6	5.6	0.60
Pyrene	9.4	5.6	0.47
Benzo(a)anthracene	5.6 J	5.6	0.53
Chrysene	9.3	5.6	0.75
Benzo(b)fluoranthene	8.5	5.6	0.90
Benzo(k)fluoranthene	9.5 b	5.6	0.82
Benzo(a)pyrene	5.8	5.6	0.34
Indeno(1,2,3-cd)pyrene	2.8 J b	5.6	0.50
Dibenz(a,h)anthracene	ND	5.6	0.58
Benzo(g,h,i)perylene	3.8 J b	5.6	0.64

Surrogate	%REC	Limits
Nitrobenzene-d5	102	33-151
2-Fluorobiphenyl	97	34-126
Terphenyl-d14	93	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Field ID:	BBSB119(4.5)	Batch#:	107020
Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/23/05
Basis:	dry	Analyzed:	10/27/05
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
Naphthalene	ND	5.6	0.51
Acenaphthylene	ND	5.6	0.53
Acenaphthene	ND	5.6	0.53
Fluorene	ND	5.6	0.66
Phenanthrene	0.85 J	5.6	0.61
Anthracene	ND	5.6	0.42
Fluoranthene	1.3 J	5.6	0.61
Pyrene	0.84 J	5.6	0.47
Benzo(a)anthracene	0.76 J	5.6	0.54
Chrysene	ND	5.6	0.76
Benzo(b)fluoranthene	ND	5.6	0.91
Benzo(k)fluoranthene	ND	5.6	0.83
Benzo(a)pyrene	ND	5.6	0.34
Indeno(1,2,3-cd)pyrene	0.57 J b	5.6	0.50
Dibenz(a,h)anthracene	ND	5.6	0.59
Benzo(g,h,i)perylene	ND	5.6	0.64

Surrogate	%REC	Limits
Nitrobenzene-d5	109	33-151
2-Fluorobiphenyl	95	34-126
Terphenyl-d14	98	42-135

J= Estimated value
b= See narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC314115	Batch#:	107020
Matrix:	Soil	Prepared:	10/23/05
Units:	ug/Kg	Analyzed:	10/25/05
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.1	0.46
Acenaphthylene	ND	5.1	0.48
Acenaphthene	ND	5.1	0.48
Fluorene	ND	5.1	0.60
Phenanthrene	ND	5.1	0.55
Anthracene	ND	5.1	0.38
Fluoranthene	ND	5.1	0.55
Pyrene	ND	5.1	0.42
Benzo(a)anthracene	ND	5.1	0.48
Chrysene	ND	5.1	0.69
Benzo(b)fluoranthene	ND	5.1	0.82
Benzo(k)fluoranthene	ND	5.1	0.75
Benzo(a)pyrene	ND	5.1	0.31
Indeno(1,2,3-cd)pyrene	ND	5.1	0.45
Dibenz(a,h)anthracene	ND	5.1	0.53
Benzo(g,h,i)perylene	ND	5.1	0.58

Surrogate	%REC	Limits
Nitrobenzene-d5	95	33-151
2-Fluorobiphenyl	102	34-126
Terphenyl-d14	110	42-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8270C-SIM
Matrix:	Soil	Batch#:	107020
Units:	ug/Kg	Prepared:	10/23/05
Basis:	as received	Analyzed:	10/25/05
Diln Fac:	1.000		

Type: BS Lab ID: QC314116

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.09	32.52	98	49-120
Pyrene	33.09	29.74	90	48-120

Surrogate	%REC	Limits
Nitrobenzene-d5	100	33-151
2-Fluorobiphenyl	104	34-126
Terphenyl-d14	103	42-135

Type: BSD Lab ID: QC314117

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	33.76	31.79	94	49-120	4	20
Pyrene	33.76	29.16	86	48-120	4	20

Surrogate	%REC	Limits
Nitrobenzene-d5	79	33-151
2-Fluorobiphenyl	98	34-126
Terphenyl-d14	95	42-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB119(2.5)	Batch#:	106900
Lab ID:	182357-001	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	10.00		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	19	2.6
beta-BHC	ND #	19	14
gamma-BHC	ND	19	0.95
delta-BHC	ND #	19	2.7
Heptachlor	ND	19	3.8
Aldrin	ND	19	3.6
Heptachlor epoxide	ND	19	2.7
Endosulfan I	ND	19	10
Dieldrin	ND	37	5.7
4,4'-DDE	ND	37	4.8
Endrin	ND	37	8.0
Endosulfan II	ND	37	13
Endosulfan sulfate	ND	37	8.2
4,4'-DDD	ND	37	7.5
Endrin aldehyde	ND	37	10
4,4'-DDT	ND	37	8.2
alpha-Chlordane	ND	19	3.4
gamma-Chlordane	ND	19	3.3
Methoxychlor	ND	190	52
Toxaphene	ND	670	190

Surrogate	%REC	Limits
TCMX	DO	42-127
Decachlorobiphenyl	DO	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	BBSB119(4.5)	Batch#:	106900
Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	1.000		

Moisture: 11%

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.9	0.26
beta-BHC	ND #	1.9	1.4
gamma-BHC	ND	1.9	0.097
delta-BHC	ND #	1.9	0.27
Heptachlor	ND	1.9	0.39
Aldrin	ND	1.9	0.37
Heptachlor epoxide	ND	1.9	0.27
Endosulfan I	ND	1.9	1.0
Dieldrin	ND	3.7	0.58
4,4'-DDE	ND	3.7	0.49
Endrin	ND	3.7	0.82
Endosulfan II	ND	3.7	1.3
Endosulfan sulfate	ND	3.7	0.84
4,4'-DDD	ND	3.7	0.76
Endrin aldehyde	ND	3.7	1.0
4,4'-DDT	ND	3.7	0.83
alpha-Chlordane	ND	1.9	0.34
gamma-Chlordane	ND	1.9	0.33
Methoxychlor	ND	19	5.3
Toxaphene	ND	68	19

Surrogate	%REC	Limits
TCMX	86	42-127
Decachlorobiphenyl	96	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313628	Batch#:	106900
Matrix:	Soil	Prepared:	10/19/05
Units:	ug/Kg	Analyzed:	10/20/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Result	RL	MDL
alpha-BHC	ND	1.7	0.23
beta-BHC	ND #	1.7	1.2
gamma-BHC	ND	1.7	0.084
delta-BHC	ND #	1.7	0.24
Heptachlor	ND	1.7	0.34
Aldrin	ND	1.7	0.32
Heptachlor epoxide	ND	1.7	0.24
Endosulfan I	ND	1.7	0.90
Dieldrin	ND	3.3	0.51
4,4'-DDE	ND	3.3	0.42
Endrin	ND	3.3	0.71
Endosulfan II	ND	3.3	1.1
Endosulfan sulfate	ND	3.3	0.73
4,4'-DDD	ND	3.3	0.66
Endrin aldehyde	1.9 J	3.3	0.90
4,4'-DDT	ND	3.3	0.73
alpha-Chlordane	ND	1.7	0.30
gamma-Chlordane	ND	1.7	0.29
Methoxychlor	ND	17	4.6
Toxaphene	ND	59	18

Surrogate	%REC	Limits
TCMX	100	42-127
Decachlorobiphenyl	112	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC313629	Batch#:	106900
Matrix:	Soil	Prepared:	10/19/05
Units:	ug/Kg	Analyzed:	10/20/05
Basis:	as received		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.25	9.817	74	42-128
Heptachlor	13.25	12.46 #	94	45-130
Aldrin	13.25	10.40	78	50-124
Dieldrin	26.51	20.84	79	46-136
Endrin	26.51	22.30	84	42-139
4,4'-DDT	26.51	20.15	76	42-145

Surrogate	%REC	Limits
TCMX	82	42-127
Decachlorobiphenyl	84	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3545
Project#:	57255 001 22	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	106900
MSS Lab ID:	182560-001	Sampled:	10/17/05
Matrix:	Soil	Received:	10/18/05
Units:	ug/Kg	Prepared:	10/19/05
Basis:	as received	Analyzed:	10/20/05
Diln Fac:	5.000		

Type: MS Cleanup Method: EPA 3620B
Lab ID: QC313630

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.4228	13.29	11.72	88	46-120
Heptachlor	<1.683	13.29	15.58 #	117	47-120
Aldrin	<1.611	13.29	12.48	94	48-120
Dieldrin	10.90	26.58	40.45	111	47-126
Endrin	<3.562	26.58	28.07	106	49-129
4,4'-DDT	35.66	26.58	76.10	154 *	30-144

Surrogate	%REC	Limits
TCMX	79	42-127
Decachlorobiphenyl	93	43-141

Type: MSD Cleanup Method: EPA 3620B
Lab ID: QC313631

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.35	10.67	80	46-120	10	40
Heptachlor	13.35	14.06 #	105	47-120	11	43
Aldrin	13.35	11.66	87	48-120	7	38
Dieldrin	26.70	35.47	92	47-126	13	38
Endrin	26.70	26.02	97	49-129	8	40
4,4'-DDT	26.70	66.43	117	30-144	14	49

Surrogate	%REC	Limits
TCMX	85	42-127
Decachlorobiphenyl	92	43-141

#= CCV drift outside limits; average CCV drift within limits per method requirements
*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	107008		

Field ID:	BBSB119(2.5)	Moisture:	11%
Type:	SAMPLE	Analyzed:	10/24/05
Lab ID:	182357-001	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	7.0
Aroclor-1221	ND	27	10
Aroclor-1232	ND	13	3.2
Aroclor-1242	ND	13	2.9
Aroclor-1248	ND	13	0.63
Aroclor-1254	ND	13	6.8
Aroclor-1260	ND	13	3.8

Surrogate	%REC	Limits
TCMX	112	62-142
Decachlorobiphenyl	120	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	10/10/05
Units:	ug/Kg	Received:	10/10/05
Diln Fac:	1.000	Prepared:	10/21/05
Batch#:	107008		

Field ID:	BBSB119(4.5)	Moisture:	11%
Type:	SAMPLE	Analyzed:	10/24/05
Lab ID:	182357-002	Cleanup Method:	EPA 3665A
Basis:	dry		

Analyte	Result	RL	MDL
Aroclor-1016	ND	13	7.0
Aroclor-1221	ND	27	10
Aroclor-1232	ND	13	3.2
Aroclor-1242	ND	13	2.8
Aroclor-1248	ND	13	0.62
Aroclor-1254	ND	13	6.8
Aroclor-1260	ND	13	3.7

Surrogate	%REC	Limits
TCMX	102	62-142
Decachlorobiphenyl	128	53-153

Type:	BLANK	Analyzed:	10/23/05
Lab ID:	QC314075	Cleanup Method:	EPA 3665A
Basis:	as received		

Analyte	Result	RL	MDL
Aroclor-1016	ND	12	6.3
Aroclor-1221	ND	24	9.1
Aroclor-1232	ND	12	2.8
Aroclor-1242	ND	12	2.5
Aroclor-1248	ND	12	0.56
Aroclor-1254	ND	12	6.1
Aroclor-1260	ND	12	3.3

Surrogate	%REC	Limits
TCMX	105	62-142
Decachlorobiphenyl	99	53-153

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC314076	Batch#:	107008
Matrix:	Soil	Prepared:	10/21/05
Units:	ug/Kg	Analyzed:	10/23/05
Basis:	as received		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1248	164.2	170.4	104	72-155

Surrogate	%REC	Limits
TCMX	91	62-142
Decachlorobiphenyl	85	53-153

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255 001 22	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	182403-013	Batch#:	107008
Matrix:	Soil	Sampled:	10/11/05
Units:	ug/Kg	Received:	10/12/05
Basis:	dry	Prepared:	10/21/05

Type: MS
Lab ID: QC314077
Moisture: 22%

Analyzed: 10/23/05
Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1248	<0.7174	215.5	290.5	135	77-168

Surrogate	%REC	Limits
TCMX	109	62-142
Decachlorobiphenyl	147	53-153

Type: MSD
Lab ID: QC314078
Moisture: 22%

Analyzed: 10/24/05
Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1248	214.2	277.1	129	77-168	4	37

Surrogate	%REC	Limits
TCMX	103	62-142
Decachlorobiphenyl	372 *	53-153

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

California Title 26 Metals

Lab #:	182357	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB119(2.5)	Basis:	dry
Lab ID:	182357-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.52 J	3.5	0.13	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Arsenic	4.0	0.29	0.12	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Barium	86	0.59	0.060	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Beryllium	0.25	0.12	0.012	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cadmium	0.89	0.29	0.027	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Chromium	97	0.59	0.039	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cobalt	6.8	1.2	0.030	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Copper	14	0.59	0.056	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Lead	150	0.18	0.062	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Mercury	0.026	0.016	0.0030	106673	10/12/05	10/12/05	METHOD	EPA 7471A
Molybdenum	0.63 J	1.2	0.026	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Nickel	37	1.2	0.035	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Selenium	ND	0.29	0.091	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Silver	ND	0.29	0.051	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Thallium	0.14 J	0.29	0.036	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Vanadium	67	0.59	0.037	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Zinc	57	1.2	0.12	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

California Title 26 Metals

Lab #:	182357	Project#:	57255 001 22
Client:	Mactec, Inc.	Location:	Presidio / Baker Beach
Field ID:	BBSB119(4.5)	Basis:	dry
Lab ID:	182357-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	10/10/05
Units:	mg/Kg	Received:	10/10/05

Moisture: 11%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.71 J	3.2	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Arsenic	3.2	0.27	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Barium	46	0.54	0.055	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Beryllium	0.22	0.11	0.011	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cadmium	0.74	0.27	0.025	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Chromium	74	0.54	0.036	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Cobalt	6.6	1.1	0.027	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Copper	10	0.54	0.051	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Lead	3.2	0.16	0.056	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Mercury	0.021	0.020	0.0039	106673	10/12/05	10/12/05	METHOD	EPA 7471A
Molybdenum	0.45 J	1.1	0.024	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Nickel	47	1.1	0.032	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Selenium	ND	0.27	0.083	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Silver	ND	0.27	0.046	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Thallium	ND	0.27	0.033	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Vanadium	47	0.54	0.034	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B
Zinc	24	1.1	0.11	106917	10/20/05	10/20/05	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC312732	Batch#:	106673
Matrix:	Soil	Prepared:	10/12/05
Units:	mg/Kg	Analyzed:	10/12/05

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	106673
Units:	mg/Kg	Prepared:	10/12/05
Basis:	as received	Analyzed:	10/12/05

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC312733	0.5000	0.5380	108	80-120		
BSD	QC312734	0.5000	0.5260	105	80-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255 001 22	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BBSB119(4.5)	Batch#:	106673
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/12/05
Basis:	dry	Analyzed:	10/12/05

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC312735	0.02104	0.5402	0.5596	100	56-148	11%		
MSD	QC312736		0.4843	0.5201	103	56-148	11%	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC313706	Batch#:	106917
Matrix:	Soil	Prepared:	10/20/05
Units:	mg/Kg	Analyzed:	10/20/05
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.046 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	0.066 J	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	0.041 J	1.0	0.022
Nickel	0.037 J	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	106917
Units:	mg/Kg	Prepared:	10/20/05
Basis:	as received	Analyzed:	10/20/05
Diln Fac:	1.000		

Type: BS Lab ID: QC313707

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	107.0	107	80-120
Arsenic	50.00	52.14	104	80-120
Barium	100.0	104.6	105	80-120
Beryllium	2.500	2.623	105	80-120
Cadmium	10.00	10.47	105	80-120
Chromium	100.0	103.8	104	80-120
Cobalt	25.00	25.51	102	80-120
Copper	12.50	12.63	101	80-120
Lead	100.0	101.7	102	80-120
Molybdenum	20.00	21.35	107	80-120
Nickel	25.00	26.16	105	80-120
Selenium	50.00	51.23	102	80-120
Silver	10.00	9.572	96	80-120
Thallium	50.00	51.06	102	80-120
Vanadium	25.00	25.94	104	80-120
Zinc	25.00	25.77	103	80-120

Type: BSD Lab ID: QC313708

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	107.1	107	80-120	0	20
Arsenic	50.00	51.92	104	80-120	0	20
Barium	100.0	105.4	105	80-120	1	20
Beryllium	2.500	2.666	107	80-120	2	20
Cadmium	10.00	10.48	105	80-120	0	20
Chromium	100.0	104.7	105	80-120	1	20
Cobalt	25.00	25.54	102	80-120	0	20
Copper	12.50	12.74	102	80-120	1	20
Lead	100.0	101.9	102	80-120	0	20
Molybdenum	20.00	21.37	107	80-120	0	20
Nickel	25.00	26.12	104	80-120	0	20
Selenium	50.00	51.81	104	80-120	1	20
Silver	10.00	9.581	96	80-120	0	20
Thallium	50.00	51.06	102	80-120	0	20
Vanadium	25.00	25.90	104	80-120	0	20
Zinc	25.00	25.77	103	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	BBSB119(4.5)	Batch#:	106917
MSS Lab ID:	182357-002	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Prepared:	10/20/05
Basis:	dry	Analyzed:	10/20/05
Diln Fac:	1.000		

Type: MS Moisture: 11%
Lab ID: QC313709

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.7105	120.8	53.43	44	9-120
Arsenic	3.154	60.41	60.51	95	73-120
Barium	46.25	120.8	161.5	95	54-137
Beryllium	0.2170	3.020	3.116	96	79-120
Cadmium	0.7421	12.08	12.19	95	72-120
Chromium	74.49	120.8	180.8	88	65-120
Cobalt	6.602	30.20	32.41	85	63-120
Copper	10.26	15.10	26.09	105	52-145
Lead	3.235	120.8	113.2	91	57-125
Molybdenum	0.4550	24.16	22.89	93	69-120
Nickel	47.34	30.20	75.28	93	47-135
Selenium	<0.08310	60.41	54.93	91	68-120
Silver	<0.04630	12.08	9.992	83	77-120
Thallium	<0.03265	60.41	54.58	90	68-120
Vanadium	47.20	30.20	75.92	95	51-137
Zinc	24.44	30.20	53.46	96	43-141

Type: MSD Moisture: 11%
Lab ID: QC313710

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	93.63	38.70	41	9-120	7	22
Arsenic	46.82	44.23	88	73-120	7	20
Barium	93.63	129.8	89	54-137	4	20
Beryllium	2.341	2.350	91	79-120	5	20
Cadmium	9.363	9.103	89	72-120	5	20
Chromium	93.63	146.9	77	65-120	6	20
Cobalt	23.41	24.87	78	63-120	6	20
Copper	11.70	20.73	89	52-145	9	20
Lead	93.63	83.23	85	57-125	6	20
Molybdenum	18.73	16.79	87	69-120	6	20
Nickel	23.41	65.01	76	47-135	5	20
Selenium	46.82	40.16	86	68-120	6	20
Silver	9.363	7.219	77	77-120	7	20
Thallium	46.82	39.81	85	68-120	6	20
Vanadium	23.41	66.11	81	51-137	5	20
Zinc	23.41	44.98	88	43-141	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	182357	Location:	Presidio / Baker Beach
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255 001 22	Analysis:	EPA 6010B
Field ID:	BBSB119(4.5)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	182357-002	Batch#:	106917
Lab ID:	QC313711	Sampled:	10/10/05
Matrix:	Soil	Received:	10/10/05
Units:	mg/Kg	Analyzed:	10/20/05

Moisture: 11%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	0.7105	3.210	0.7645 J	16.05		10
Arsenic	3.154	0.2675	3.393	1.338		10
Barium	46.25	0.5350	43.90	2.675	5	10
Beryllium	0.2170	0.1070	0.1883 J	0.5350		10
Cadmium	0.7421	0.2675	0.6815 J	1.338		10
Chromium	74.49	0.5350	71.07	2.675	5	10
Cobalt	6.602	1.070	6.435	5.350	3	10
Copper	10.26	0.5350	9.702	2.675	5	10
Lead	3.235	0.1605	3.469	0.8026	7	10
Molybdenum	0.4550	1.070	0.5577 J	5.350		10
Nickel	47.34	1.070	46.12	5.350	3	10
Selenium	ND	0.2675	ND	1.338		10
Silver	ND	0.2675	ND	1.338		10
Thallium	ND	0.2675	ND	1.338		10
Vanadium	47.20	0.5350	44.35	2.675	6	10
Zinc	24.44	1.070	22.60	5.350	8	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 184678

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255.005122
Location: PT Baker Beach BBDA2

Sample ID	Lab ID
BB2SB110(0.5)	184678-001
DUP(020106)	184678-002
BB2SB110(1.0)	184678-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 2/16/06
Operations Manager

Signature: _____ Date: 2/15/06
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**184678**
Client:	**Mactec, Inc.**
Project:	**57255.005122**
Location:	**PT Baker Beach BBDA2**
Request Date:	**02/01/06**
Samples Received:	**02/01/06**

This hardcopy data package contains sample and QC results for two soil samples, requested for the above referenced project on 02/01/06. The samples were received cold and intact.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for silver and antimony in the MS/MSD of BB2SB110(0.5) (lab # 184678-001); the BS/BSD were within limits, and the associated RPDs were within limits. Response exceeding the instrument's linear range was observed for nickel in the MS of BB2SB110(0.5) (lab # 184678-001). Chromium, nickel, and thallium were detected between the MDL and the RL in the method blank for batch 110124; these analytes were either not detected in samples at or above the RL, or detected at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

184678

Seq. No.: № 1461

1/3

Samplers: A H HENKE, J H DURBIN

Lab: CURTIS TOMPKINS

Job Number: 57254 005122

Name/Location: PRESIDIO SF - BBDA 2

Project Manager: M A JAWORITZ

Recorder: _____ (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION	
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH
	✓		✗				-1	B B Z S B 1 1 0 (0.5)		0 6	0 2	0 1	0 7 2 5		
	✓		✗				-2	D U P (0 2 0 1 0 6)		0 6	0 2	0 1	0 7 3 0		
	✓		1				-3	B B Z S B 1 1 0 (1.0)		0 6	0 2	0 1	0 7 3 5	HOLD	

ANALYSIS REQUESTED

| 7ZZ METALS | | | | |

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 124678 Date Received: 2/1/00 Number of Coolers: 1
Client: Mactec Project: Baker Beach

A. Preliminary Examination Phase
Date Opened: 2/1/00 By (print): Peter P. (sign)

1. Did cooler come with a shipping slip (airbill, etc.)? ... YES (NO)
   If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? ... YES (NO)
   How many and where? Seal date: Seal name:
3. Were custody seals unbroken and intact at the date and time of arrival? ... YES NO N/A
4. Were custody papers dry and intact when received? ... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ... (YES) NO
6. Did you sign the custody papers in the appropriate place? ... (YES) NO
7. Was project identifiable from custody papers? ... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ... YES NO
   Type of ice: Wet Ice Temperature: no Temperature Blank Pac

B. Login Phase
Date Logged In: 2/1/00 By (print): John P. (sign)

1. Describe type of packing in cooler: Bubble Wrap
2. Did all bottles arrive unbroken? ... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ... (YES) NO
5. Were appropriate containers used for the tests indicated? ... (YES) NO
6. Were correct preservatives added to samples? ... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ... YES NO N/A
9. Was the client contacted concerning this sample delivery? ... YES NO
   If YES, give details below.
   Who was called? By whom? Date:

Additional Comments:

Metals Results & QC Summary

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	184678	Project#:	57255.005122
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA2
Field ID:	BB2SB110(0.5)	Sampled:	02/01/06
Lab ID:	184678-001	Received:	02/01/06
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/03/06
Basis:	dry		

Moisture: 29%

Analyte	Result	RL	MDL	Diln Fac	Batch#	Prep	Analysis
Antimony	0.96 J	3.9	0.14	1.000	110124	EPA 3050B	EPA 6010B
Arsenic	4.7	0.32	0.13	1.000	110124	EPA 3050B	EPA 6010B
Barium	72	0.65	0.066	1.000	110124	EPA 3050B	EPA 6010B
Beryllium	0.23	0.13	0.013	1.000	110124	EPA 3050B	EPA 6010B
Cadmium	0.32 J	0.32	0.030	1.000	110124	EPA 3050B	EPA 6010B
Chromium	740	6.5	0.43	10.00	110124	EPA 3050B	EPA 6010B
Cobalt	52	1.3	0.033	1.000	110124	EPA 3050B	EPA 6010B
Copper	16	0.65	0.061	1.000	110124	EPA 3050B	EPA 6010B
Lead	28	0.19	0.068	1.000	110124	EPA 3050B	EPA 6010B
Mercury	0.045	0.028	0.0053	1.000	110138	METHOD	EPA 7471A
Molybdenum	0.50 J	1.3	0.029	1.000	110124	EPA 3050B	EPA 6010B
Nickel	910	13	0.39	10.00	110124	EPA 3050B	EPA 6010B
Selenium	1.3	0.32	0.10	1.000	110124	EPA 3050B	EPA 6010B
Silver	ND	0.32	0.056	1.000	110124	EPA 3050B	EPA 6010B
Thallium	ND	0.32	0.039	1.000	110124	EPA 3050B	EPA 6010B
Vanadium	67	0.65	0.041	1.000	110124	EPA 3050B	EPA 6010B
Zinc	52	1.3	0.14	1.000	110124	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	184678	Project#:	57255.005122
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA2
Field ID:	DUP(020106)	Diln Fac:	1.000
Lab ID:	184678-002	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/03/06

Moisture: 26%

Analyte	Result	RL	MDL	Batch#	Prep	Analysis
Antimony	ND	4.5	0.16	110124	EPA 3050B	EPA 6010B
Arsenic	5.6	0.37	0.15	110124	EPA 3050B	EPA 6010B
Barium	78	0.74	0.076	110124	EPA 3050B	EPA 6010B
Beryllium	0.28	0.15	0.015	110124	EPA 3050B	EPA 6010B
Cadmium	0.31 J	0.37	0.034	110124	EPA 3050B	EPA 6010B
Chromium	370	0.74	0.050	110124	EPA 3050B	EPA 6010B
Cobalt	42	1.5	0.038	110124	EPA 3050B	EPA 6010B
Copper	18	0.74	0.070	110124	EPA 3050B	EPA 6010B
Lead	30	0.22	0.078	110124	EPA 3050B	EPA 6010B
Mercury	0.049	0.023	0.0044	110138	METHOD	EPA 7471A
Molybdenum	0.52 J	1.5	0.033	110124	EPA 3050B	EPA 6010B
Nickel	540	1.5	0.045	110124	EPA 3050B	EPA 6010B
Selenium	1.2	0.37	0.12	110124	EPA 3050B	EPA 6010B
Silver	ND	0.37	0.064	110124	EPA 3050B	EPA 6010B
Thallium	ND	0.37	0.045	110124	EPA 3050B	EPA 6010B
Vanadium	62	0.74	0.047	110124	EPA 3050B	EPA 6010B
Zinc	58	1.5	0.16	110124	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326688	Batch#:	110124
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/03/06
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.043 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	ND	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	ND	1.0	0.022
Nickel	0.038 J	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	0.047 J	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326740	Batch#:	110138
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/03/06

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	110124
Units:	mg/Kg	Prepared:	02/03/06
Basis:	as received	Analyzed:	02/03/06
Diln Fac:	1.000		

Type: BS Lab ID: QC326689

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	102.8	103	75-125
Arsenic	50.00	51.50	103	75-125
Barium	100.0	103.0	103	75-125
Beryllium	2.500	2.542	102	75-125
Cadmium	10.00	10.69	107	75-125
Chromium	100.0	100.1	100	75-125
Cobalt	25.00	25.30	101	75-125
Copper	12.50	12.45	100	75-125
Lead	100.0	99.64	100	75-125
Molybdenum	20.00	20.18	101	75-125
Nickel	25.00	25.34	101	75-125
Selenium	50.00	50.76	102	75-125
Silver	10.00	9.184	92	75-125
Thallium	50.00	50.39	101	75-125
Vanadium	25.00	25.62	102	75-125
Zinc	25.00	25.98	104	75-125

Type: BSD Lab ID: QC326690

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	106.0	106	75-125	3	30
Arsenic	50.00	52.14	104	75-125	1	30
Barium	100.0	107.6	108	75-125	4	30
Beryllium	2.500	2.642	106	75-125	4	30
Cadmium	10.00	10.85	109	75-125	1	30
Chromium	100.0	104.3	104	75-125	4	30
Cobalt	25.00	25.74	103	75-125	2	30
Copper	12.50	12.93	103	75-125	4	30
Lead	100.0	101.1	101	75-125	1	30
Molybdenum	20.00	20.73	104	75-125	3	30
Nickel	25.00	25.78	103	75-125	2	30
Selenium	50.00	51.63	103	75-125	2	30
Silver	10.00	9.327	93	75-125	2	30
Thallium	50.00	51.30	103	75-125	2	30
Vanadium	25.00	25.93	104	75-125	1	30
Zinc	25.00	26.45	106	75-125	2	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Field ID:	BB2SB110(0.5)	Batch#:	110124
MSS Lab ID:	184678-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/03/06
Diln Fac:	1.000		

Type: MS Moisture: 29%
Lab ID: QC326691

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.9584	138.1	30.79	22 *	75-125
Arsenic	4.726	69.04	73.25	99	75-125
Barium	71.65	138.1	217.2	105	75-125
Beryllium	0.2265	3.452	3.610	98	75-125
Cadmium	0.3159	13.81	13.91	98	75-125
Chromium	741.9	138.1	612.3	-94 NM	75-125
Cobalt	52.15	34.52	83.32	90	75-125
Copper	16.05	17.26	33.23	100	75-125
Lead	27.62	138.1	152.7	91	75-125
Molybdenum	0.4955	27.62	26.27	93	75-125
Nickel	910.3	34.52	715.0 >LR	-566 NM	75-125
Selenium	1.273	69.04	69.60	99	75-125
Silver	<0.05591	13.81	8.058	58 *	75-125
Thallium	<0.03943	69.04	61.39	89	75-125
Vanadium	67.04	34.52	100.1	96	75-125
Zinc	51.83	34.52	86.85	101	75-125

Type: MSD Moisture: 29%
Lab ID: QC326692

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	148.3	35.03	23 *	75-125	6	30
Arsenic	74.13	78.74	100	75-125	1	30
Barium	148.3	232.1	108	75-125	2	30
Beryllium	3.706	3.869	98	75-125	0	30
Cadmium	14.83	14.82	98	75-125	1	30
Chromium	148.3	593.2	-100 NM	75-125	4	30
Cobalt	37.06	83.74	85	75-125	2	30
Copper	18.53	34.56	100	75-125	0	30
Lead	148.3	160.9	90	75-125	1	30
Molybdenum	29.65	28.27	94	75-125	0	30
Nickel	37.06	687.7	-600 NM	75-125	NC	30
Selenium	74.13	73.68	98	75-125	1	30
Silver	14.83	9.267	63 *	75-125	7	30
Thallium	74.13	66.27	89	75-125	1	30
Vanadium	37.06	104.7	102	75-125	2	30
Zinc	37.06	89.20	101	75-125	0	30

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Field ID:	BB2SB110(0.5)	Basis:	dry
Type:	Serial Dilution	Batch#:	110124
MSS Lab ID:	184678-001	Sampled:	02/01/06
Lab ID:	QC326693	Received:	02/01/06
Matrix:	Soil	Analyzed:	02/03/06
Units:	mg/Kg		

Moisture: 29%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.9584	3.876	2.317 J	19.38		10	5.000
Arsenic	4.726	0.3230	4.208	1.615		10	5.000
Barium	71.65	0.6461	67.71	3.230	5	10	5.000
Beryllium	0.2265	0.1292	0.2260 J	0.6461		10	5.000
Cadmium	0.3159	0.3230	0.3062 J	1.615		10	5.000
Chromium	741.9	6.461	682.1	32.30	8	10	50.00
Cobalt	52.15	1.292	50.21	6.461	4	10	5.000
Copper	16.05	0.6461	14.63	3.230	9	10	5.000
Lead	27.62	0.1938	26.41	0.9691	4	10	5.000
Molybdenum	0.4955	1.292	0.7795 J	6.461		10	5.000
Nickel	910.3	12.92	840.6	64.61	8	10	50.00
Selenium	1.273	0.3230	1.039 J	1.615		10	5.000
Silver	ND	0.3230	ND	1.615		10	5.000
Thallium	ND	0.3230	0.5241 J	1.615		10	5.000
Vanadium	67.04	0.6461	62.06	3.230	7	10	5.000
Zinc	51.83	1.292	50.06	6.461	3	10	5.000

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	110138
Units:	mg/Kg	Prepared:	02/03/06
Basis:	as received	Analyzed:	02/03/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC326741	0.5000	0.5160	103	75-125		
BSD	QC326742	0.5000	0.5030	101	75-125	3	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Matrix:	Soil	Received:	01/31/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/03/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC326743	0.01282	0.5131	0.5049	96	75-125	13%		
MSD	QC326744		0.5225	0.5131	96	75-125	13%	0	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	184678	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Lab ID:	QC326745	Received:	01/31/06
Matrix:	Soil	Analyzed:	02/03/06
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.01282	0.02210	ND	0.1105	13%	10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 184678 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
184678-001	MET08	02/03/06 10:05	1.0	+	+	+	+	+		+	+	+		+			+	+	+	+
184678-001	MET08	02/03/06 10:29	1.0													+				
184678-001	MET08	02/03/06 10:34	10.0						+						+					
184678-001	MET04	02/03/06 13:11	1.0										+							
184678-002	MET08	02/03/06 10:42	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
184678-002	MET04	02/03/06 13:12	1.0										+							
QC326688	MET08	02/03/06 09:57	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC326689	MET08	02/03/06 10:00	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC326690	MET08	02/03/06 10:03	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC326691	MET08	02/03/06 10:12	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC326692	MET08	02/03/06 10:15	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC326693	MET08	02/03/06 10:07	5.0	+	+	+	+	+		+	+	+		+			+	+	+	+
QC326693	MET08	02/03/06 10:32	5.0													+				
QC326693	MET08	02/03/06 10:50	50.0						+						+					
QC326694	MET08	02/03/06 10:10	1.0	+	+	+	+	+		+	+	+		+			+	+	+	+
QC326694	MET08	02/03/06 10:36	10.0						+						+	+				
QC326740	MET04	02/03/06 12:21	1.0										+							
QC326741	MET04	02/03/06 12:23	1.0										+							
QC326742	MET04	02/03/06 12:25	1.0										+							
QC326743	MET04	02/03/06 12:30	1.0										+							
QC326744	MET04	02/03/06 12:32	1.0										+							
QC326745	MET04	02/03/06 12:29	5.0										+							

CURTIS & TOMPKINS POST DIGEST SPIKE USER REPORT FOR EPA 6010B

Type : PDS
Inst : MET08
Seqnum: 86049428044
File : 020306r.txt
IDF : 1.0
Lab ID: QC326694
Matrix: Soil
Batch : 110124
Time : 03-FEB-2006 10:10
Cal : 86049428001
MSS : 184678-001
Units : ug/L

PDS: 1.09 g --> 50.0 ml = 45.87 ml/g PDF

PDS standards: S1586 (100X), S1587 (100X)

Analyte	MSS Seqnum	Result	Ch	Spiked	PDS	Ch	%Rec	Limits	Flags
Antimony	86049428042	14.83	A	2000	2186	A	109	75-125	
Arsenic	86049428042	73.15	A	1000	1153	A	108	75-125	
Barium	86049428042	1109	A	2000	3207	A	105	75-125	
Beryllium	86049428042	3.506	A	50.00	55.87	A	105	75-125	
Cadmium	86049428042	4.889	A	200.0	211.7	A	103	75-125	
Calcium	86049428042	83670	R	20000	101000 >LR	R	87	75-125	: >LR
Cobalt	86049428042	807.2	A	500.0	1264	A	91	75-125	
Copper	86049428042	248.4	A	250.0	508.2	A	104	75-125	
Lead	86049428042	427.5	A	2000	2307	A	94	75-125	
Molybdenum	86049428042	7.670	A	400.0	414.7	A	102	75-125	
Potassium	86049428042	34820	R	10000	44580	R	98	75-125	
Selenium	86049428051	19.70	A	1000	1084	A	106	75-125	
Silver	86049428042	ND	A	200.0	122.3	A	**61***	75-125	
Sodium	86049428042	3101	R	20000	24170	R	105	75-125	
Thallium	86049428042	ND	A	1000	965.0	A	96	75-125	
Vanadium	86049428042	1038	A	500.0	1520	A	96	75-125	
Zinc	86049428042	802.2	A	500.0	1278	A	95	75-125	
Boron	86049428042	200.3	A	1000	1289	A	109	75-125	
Tin	86049428042	11.20	A	1000	1009	A	100	75-125	

ISTD (ICAL 002)	Ch	ICAL Abund	PDS Abund	%Drift
Yttrium	A	2877276	2554540	-11.22

:=recovery not meaningful >LR=overrange

CURTIS & TOMPKINS POST DIGEST SPIKE USER REPORT FOR EPA 6010B

Type : MSS
Inst : MET08
Seqnum: 86049428053
File : 020306r.txt
IDF : 10.0
Lab ID: 184678-001
Matrix: Soil
Batch : 110124
Time : 03-FEB-2006 10:34
Cal : 86049428001
Units : ug/L

Type : PDS
Inst : MET08
Seqnum: 86049428054
File : 020306r.txt
IDF : 10.0
Lab ID: QC326694
Matrix: Soil
Batch : 110124
Time : 03-FEB-2006 10:36
Cal : 86049428001

MSS: 1.09 g --> 50.0 ml = 45.87 ml/g PDF
PDS: 1.09 g --> 50.0 ml = 45.87 ml/g PDF

PDS standards: S1586 (100X), S1587 (100X)

Analyte	MSS	Ch	Spiked	PDS	Ch	%Rec	Limits	Flags
Aluminum	20510	R	20000	38130	R	88	75-125	
Antimony	ND	A	2000	1986	A	99	75-125	
Barium	114.9	A	2000	2189	A	104	75-125	
Beryllium	0.3520	A	50.00	52.17	A	104	75-125	
Cadmium	0.5882	A	200.0	211.3	A	105	75-125	
Calcium	9034	R	20000	28490	R	97	75-125	
Chromium	1148	A	2000	3124	A	99	75-125	
Cobalt	87.04	A	500.0	575.0	A	98	75-125	
Copper	24.39	A	250.0	276.2	A	101	75-125	
Iron	67800	R	20000	81120	R	**67***	75-125	
Lead	47.27	A	2000	1998	A	98	75-125	
Magnesium	97240	R	20000	109200 >LR	R	60	75-125	: >LR
Manganese	1133	A	500.0	1603	A	94	75-125	
Molybdenum	1.405	A	400.0	403.3	A	100	75-125	
Nickel	1409	A	500.0	1837	A	86	75-125	
Potassium	3418	R	10000	13090	R	97	75-125	
Selenium	ND	A	1000	1031	A	103	75-125	
Silver	ND	A	200.0	171.3	A	86	75-125	
Sodium	305.7	R	20000	19600	R	96	75-125	
Thallium	3.354	A	1000	1001	A	100	75-125	
Vanadium	106.2	A	500.0	612.5	A	101	75-125	
Zinc	81.91	A	500.0	591.6	A	102	75-125	
Boron	29.21	A	1000	1066	A	104	75-125	
Tin	ND	A	1000	1005	A	101	75-125	
Titanium	1156	A	1000	2126	A	97	75-125	

ISTD (ICAL 002)	Ch	ICAL Abund	PDS Abund	%Drift
Yttrium	A	2877276	2705693	-5.96

:=recovery not meaningful >LR=overrange

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86049428 Instrument: MET08 PE ICP Begun: 03-FEB-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL		Stds Used	>LR
001	020306r.	ICALBLK				03-FEB-2006 07:48	1.0	1.0					
002	020306r.	ICAL	CRIM08			03-FEB-2006 07:51	1.0	1.0				1	
003	020306r.	ICAL	CS100			03-FEB-2006 07:54	1.0	1.0				2	
004	020306r.	ICAL	CS1K			03-FEB-2006 07:57	1.0	1.0				3	
005	020306r.	ICAL	CS10K			03-FEB-2006 07:59	1.0	1.0				4	
006	020306r.	ICAL	CS100K			03-FEB-2006 08:02	1.0	1.0				5	
007	020306r.	ICV				03-FEB-2006 08:05	1.0	1.0			5000	6	
008	020306r.	ICB				03-FEB-2006 08:08	1.0	1.0			5000		
009	020306r.	ICSA				03-FEB-2006 08:11	1.0	1.0			5000	7	10:AL=552664
010	020306r.	ICSAB				03-FEB-2006 08:17	1.0	1.0			5000	8	5:AL=532431
011	020306r.	BLANK	QC326605	110104	TCLP L	03-FEB-2006 08:28	10.0	1.0	1		5000		1:NA=153878
012	020306r.	X	QC326606	110104	TCLP L	03-FEB-2006 08:31	1.0	1.0		21	5000	spk	
013	020306r.	X	QC326607	110104	TCLP L	03-FEB-2006 08:35	1.0	1.0		21	5000	spk	
014	020306r.	MSS	184484-001	110104	TCLP L	03-FEB-2006 08:39	10.0	1.0	1		5000		1:NA=121012
015	020306r.	SDUP	QC326608	110104	TCLP L	03-FEB-2006 08:43	10.0	1.0			5000		1:NA=124069
016	020306r.	SER	QC326610	110104	TCLP L	03-FEB-2006 08:46	50.0	1.0			5000		
017	020306r.	X	QC326609	110104	TCLP L	03-FEB-2006 08:49	10.0	1.0		16	5000		1:NA=125629
018	020306r.	SAMPLE	184484-002	110104	TCLP L	03-FEB-2006 08:51	10.0	1.0			5000		1:NA=124952
019	020306r.	X	RINSE			03-FEB-2006 08:55	1.0						
020	020306r.	CCV				03-FEB-2006 08:57	1.0	1.0			5000	9	
021	020306r.	X	FLUSH			03-FEB-2006 09:00	1.0						
022	020306r.	CCB				03-FEB-2006 09:03	1.0	1.0			5000		
023	020306r.	SSPIKE	QC326609	110104	TCLP L	03-FEB-2006 09:06	10.0	1.0		1	5000		1:NA=120720
024	020306r.	BS	QC326606	110104	TCLP L	03-FEB-2006 09:08	1.0	1.0			5000		
025	020306r.	BSD	QC326607	110104	TCLP L	03-FEB-2006 09:11	1.0	1.0			5000		
026	020306r.	SAMPLE	184484-003	110104	TCLP L	03-FEB-2006 09:13	10.0	1.0			5000		1:NA=141803
027	020306r.	SAMPLE	184484-004	110104	TCLP L	03-FEB-2006 09:16	10.0	1.0			5000		1:NA=148987
028	020306r.	SAMPLE	184484-005	110104	TCLP L	03-FEB-2006 09:19	10.0	1.0			5000		1:NA=156069
029	020306r.	SAMPLE	184484-006	110104	TCLP L	03-FEB-2006 09:23	10.0	1.0			5000		1:NA=120365
030	020306r.	SAMPLE	184484-007	110104	TCLP L	03-FEB-2006 09:26	10.0	1.0			5000		1:NA=122989

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S1949 9=S2532 10=S1586 11=S1587
Flags used: spk=5% spike rule

Analyst: MGL Date: 2/3/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86049428 Instrument: MET08 PE ICP Begun: 03-FEB-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
031	020306r.	SAMPLE	184484-008	110104	TCLP L	03-FEB-2006 09:29	10.0	1.0			5000	1:NA=121203	
032	020306r.	SAMPLE	184484-009	110104	TCLP L	03-FEB-2006 09:32	10.0	1.0			5000	1:NA=124346	
033	020306r.	X	RINSE			03-FEB-2006 09:35	1.0						
034	020306r.	CCV				03-FEB-2006 09:38	1.0	1.0			5000	9	
035	020306r.	X	FLUSH			03-FEB-2006 09:41	1.0						
036	020306r.	CCB				03-FEB-2006 09:44	1.0	1.0			5000		
037	020306r.	SAMPLE	184484-010	110104	TCLP L	03-FEB-2006 09:47	10.0	1.0			5000	1:NA=125129	
038	020306r.	SAMPLE	184484-011	110104	TCLP L	03-FEB-2006 09:50	10.0	1.0			5000	1:NA=119654	
039	020306r.	BLANK	QC326688	110124	Soil	03-FEB-2006 09:57	1.0	50.0			5000		
040	020306r.	BS	QC326689	110124	Soil	03-FEB-2006 10:00	1.0	50.0			5000		
041	020306r.	BSD	QC326690	110124	Soil	03-FEB-2006 10:03	1.0	50.0			5000		
042	020306r.	MSS	184678-001	110124	Soil	03-FEB-2006 10:05	1.0	45.87	7		5000	7:MG=915096	
043	020306r.	SER	QC326693	110124	Soil	03-FEB-2006 10:07	5.0	45.87			5000	2:MG=172695	
044	020306r.	PDS	QC326694	110124	Soil	03-FEB-2006 10:10	1.0	45.87		1	5000	10 11 8:MG=893621	
045	020306r.	MS	QC326691	110124	Soil	03-FEB-2006 10:12	1.0	49.02	1	1	5000	7:MG=599287	
046	020306r.	MSD	QC326692	110124	Soil	03-FEB-2006 10:15	1.0	52.63		1	5000	4:MG=542898	
047	020306r.	X	RINSE			03-FEB-2006 10:18	1.0						
048	020306r.	CCV				03-FEB-2006 10:20	1.0	1.0			5000	9	
049	020306r.	X	FLUSH			03-FEB-2006 10:23	1.0						
050	020306r.	CCB				03-FEB-2006 10:26	1.0	1.0			5000		
051	020306r.	MSS	184678-001	110124	Soil	03-FEB-2006 10:29	1.0	45.87	7		5000	7:MG=904592	
052	020306r.	SER	QC326693	110124	Soil	03-FEB-2006 10:32	5.0	45.87		3	5000	2:MG=169767	
053	020306r.	MSS	184678-001	110124	Soil	03-FEB-2006 10:34	10.0	45.87	1		5000		
054	020306r.	PDS	QC326694	110124	Soil	03-FEB-2006 10:36	10.0	45.87		1	5000	10 11 1:MG=109218	
055	020306r.	X	QC326693	110124	Soil	03-FEB-2006 10:39	50.0	45.87		11	5000		
056	020306r.	SAMPLE	184678-002	110124	Soil	03-FEB-2006 10:42	1.0	54.95			5000	4:FE=467766	
057	020306r.	SAMPLE	184684-001	110124	Soil	03-FEB-2006 10:45	1.0	40.65	2		5000	7:MG=3275208	
058	020306r.	SAMPLE	184684-003	110124	Soil	03-FEB-2006 10:47	1.0	34.25			5000	5:FE=646611	
059	020306r.	SER	QC326693	110124	Soil	03-FEB-2006 10:50	50.0	45.87		2	5000		
060	020306r.	SAMPLE	184684-001	110124	Soil	03-FEB-2006 10:53	10.0	40.65			5000	1:MG=359980	

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S1949 9=S2532 10=S1586 11=S1587
Flags used: spk=5% spike rule

Analyst: MB Date: 2/3/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86049428 Instrument: MET08 PE ICP Begun: 03-FEB-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
061	020306r.	X	RINSE			03-FEB-2006 10:56	1.0					
062	020306r.	CCV				03-FEB-2006 10:59	1.0	1.0		5000	9	
063	020306r.	X	FLUSH			03-FEB-2006 11:01	1.0					
064	020306r.	CCB				03-FEB-2006 11:04	1.0	1.0		5000		
065	020306r.	SAMPLE	184684-004	110124	Soil	03-FEB-2006 11:07	1.0	47.62		5000	4:FE=557752	
066	020306r.	SAMPLE	184684-005	110124	Soil	03-FEB-2006 11:10	1.0	34.97		5000	6:FE=510120	
067	020306r.	SAMPLE	184684-006	110124	Soil	03-FEB-2006 11:13	1.0	35.97	1	5000	6:FE=555698	
068	020306r.	SAMPLE	184684-007	110124	Soil	03-FEB-2006 11:15	1.0	33.33	1	5000	6:FE=511767	
069	020306r.	SAMPLE	184684-004	110124	Soil	03-FEB-2006 11:18	1.0	47.62		5000	4:FE=556681	
070	020306r.	SAMPLE	184684-005	110124	Soil	03-FEB-2006 11:21	1.0	34.97		5000	6:FE=508724	
071	020306r.	SAMPLE	184684-006	110124	Soil	03-FEB-2006 11:23	1.0	35.97		5000	6:FE=552593	
072	020306r.	SAMPLE	184684-008	110124	Soil	03-FEB-2006 11:26	1.0	51.02		5000	6:FE=469298	
073	020306r.	SAMPLE	184684-009	110124	Soil	03-FEB-2006 11:28	1.0	42.74		5000	5:FE=559270	
074	020306r.	SAMPLE	184684-010	110124	Soil	03-FEB-2006 11:31	1.0	32.68	1	5000	5:FE=644161	
075	020306r.	X	RINSE			03-FEB-2006 11:33	1.0					
076	020306r.	CCV				03-FEB-2006 11:36	1.0	1.0		5000	9	
077	020306r.	X	FLUSH			03-FEB-2006 11:39	1.0					
078	020306r.	CCB				03-FEB-2006 11:42	1.0	1.0		5000		
079	020306r.	SAMPLE	184684-011	110124	Soil	03-FEB-2006 11:45	1.0	52.08		5000	4:FE=473283	
080	020306r.	SAMPLE	184684-010	110124	Soil	03-FEB-2006 11:48	1.0	32.68		5000	5:FE=641936	
081	020306r.	SAMPLE	184684-012	110124	Soil	03-FEB-2006 11:50	1.0	35.21		5000	4:FE=756112	
082	020306r.	SAMPLE	184684-013	110124	Soil	03-FEB-2006 11:53	1.0	40.0		5000	3:FE=531367	
083	020306r.	SAMPLE	184684-014	110124	Soil	03-FEB-2006 11:55	1.0	48.08		5000	4:FE=458472	
084	020306r.	SAMPLE	184684-015	110124	Soil	03-FEB-2006 11:58	1.0	37.88		5000	5:FE=510531	
085	020306r.	SAMPLE	184684-016	110124	Soil	03-FEB-2006 12:00	1.0	48.08		5000	4:FE=396875	
086	020306r.	SAMPLE	184684-017	110124	Soil	03-FEB-2006 12:02	1.0	36.76		5000	4:FE=405343	
087	020306r.	SAMPLE	184684-018	110124	Soil	03-FEB-2006 12:05	1.0	50.51	1	5000	4:FE=515634	
088	020306r.	SAMPLE	184684-019	110124	Soil	03-FEB-2006 12:07	1.0	43.86		5000	3:FE=407284	
089	020306r.	X	RINSE			03-FEB-2006 12:10	1.0					
090	020306r.	CCV				03-FEB-2006 12:13	1.0	1.0		5000	9	

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S1949 9=S2532 10=S1586 11=S1587
Flags used: spk-87 spike rule

Analyst: _____ Date: 2/3/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86049428 Instrument: MET08 PE ICP Begun: 03-FEB-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
091	020306r.	X	FLUSH			03-FEB-2006 12:15	1.0					
092	020306r.	CCB				03-FEB-2006 12:18	1.0	1.0		5000		
093	020306r.	SAMPLE	184684-019	110124	Soil	03-FEB-2006 12:21	1.0	43.86		5000		3:FE=404867
094	020306r.	SAMPLE	184684-018	110124	Soil	03-FEB-2006 12:24	1.0	50.51	1	5000		4:FE=526666
095	020306r.	SAMPLE	184684-011	110124	Soil	03-FEB-2006 12:26	1.0	52.08		5000		4:FE=472310
096	020306r.	SAMPLE	184684-012	110124	Soil	03-FEB-2006 12:29	1.0	35.21		5000		4:FE=760083
097	020306r.	SAMPLE	184684-013	110124	Soil	03-FEB-2006 12:32	1.0	40.0		5000		3:FE=462826
098	020306r.	SAMPLE	184684-015	110124	Soil	03-FEB-2006 12:34	1.0	37.88		5000		5:FE=537551
099	020306r.	SAMPLE	184684-017	110124	Soil	03-FEB-2006 12:37	1.0	36.76		5000		4:FE=404697
100	020306r.	X				03-FEB-2006 12:39	1.0				8	
101	020306r.	ICSAB				03-FEB-2006 12:40	1.0	1.0		5000	8	5:MG=533139
102	020306r.	X	RINSE			03-FEB-2006 12:43	1.0					
103	020306r.	CCV				03-FEB-2006 12:46	1.0	1.0		5000	9	
104	020306r.	X	FLUSH			03-FEB-2006 12:49	1.0					
105	020306r.	CCB				03-FEB-2006 12:52	1.0	1.0		5000		
106	020306r.	BLANK	QC326515	110082	Soil	03-FEB-2006 13:00	1.0	50.0		5000		

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S1949 9=S2532 10=S1586 11=S1587
Flags used: spk=5% spike rule

Analyst: [signature] Date: 2/3/06

CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 6010B

Inst : MET08
Calnum : 86049428001
Date : 03-FEB-2006 07:48
Reviewer: ---
Inj Vol : 5000 uL

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	020306r.txt	86049428002	CRIM08	03-FEB 2006 07:51	S2544
L2	020306r.txt	86049428003	CS100	03-FEB-2006 07:54	S2568
L3	020306r.txt	86049428004	CS1K	03-FEB-2006 07:57	S2567
L4	020306r.txt	86049428005	CS10K	03-FEB-2006 07:59	S2569
L5	020306r.txt	86049428006	CS100K	03-FEB-2006 08:02	S2556

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flags
Antimony	A	47.493	54.347	55.050	57.257		LOR0	R	0.000000	0.017472		ug/L	53.537	1.000	0.995	
Arsenic	A	35.790	32.993	32.859	33.921		LOR0	R	0.000000	0.029490		ug/L	33.891	1.000	0.995	
Barium	A	613.71	575.35	581.24	568.00		LOR0	R	0.000000	0.001760		ug/L	584.58	1.000	0.995	
Beryllium	A	4622.2	4608.7	4701.6			LOR0	R	0.000000	2.127E-4		ug/L	4644.1	1.000	0.995	
Boron	A	220.85		228.78	233.32		LOR0	R	0.000000	0.004287		ug/L	227.65	1.000	0.995	
Cadmium	A	488.78	492.16	498.55	476.94		LOR0	R	0.000000	0.002096		ug/L	489.11	1.000	0.995	
Chromium	A	133.01	132.78	132.80	134.65		LOR0	R	0.000000	0.007428		ug/L	133.31	1.000	0.995	
Cobalt	A	157.01	151.55	156.77	158.93		LOR0	R	0.000000	0.006293		ug/L	156.07	1.000	0.995	
Copper	A	1200.3	884.36	896.82	904.22		LOR0	R	0.000000	0.001106		ug/L	971.42	1.000	0.995	
Lead	A	77.437	75.396	75.611	76.753		LOR0	R	0.000000	0.013031		ug/L	76.299	1.000	0.995	
Manganese	A	1334.4	1241.4	1247.9	1200.1		LOR0	R	0.000000	8.329E-4		ug/L	1255.9	1.000	0.995	
Molybdenum	A	65.962	65.557	65.720	66.917		LOR0	R	0.000000	0.014947		ug/L	66.039	1.000	0.995	
Nickel	A	87.537	84.381	85.441	86.922		LOR0	R	0.000000	0.011506		ug/L	86.070	1.000	0.995	
Selenium	A	37.559	33.737	33.668	34.975		LOR0	R	0.000000	0.028603		ug/L	34.985	1.000	0.995	
Silver	A	524.13	583.49	587.15	601.68		LOR0	R	0.000000	0.001670		ug/L	574.11	1.000	0.995	
Thallium	A	32.134	31.053	31.730	32.189		LOR0	R	0.000000	0.031071		ug/L	31.777	1.000	0.995	
Tin	A	33.436	31.676	33.208	34.019		LOR0	R	0.000000	0.029403		ug/L	33.085	1.000	0.995	
Titanium	A	1337.7	1346.5	1355.7	1349.8		LOR0	R	0.000000	7.408E-4		ug/L	1347.4	1.000	0.995	
Vanadium	A	181.90	176.16	180.95	182.60		LOR0	R	0.000000	0.005477		ug/L	180.40	1.000	0.995	
Zinc	A	210.63	183.12	179.26	176.81		LOR0	R	0.000000	0.005655		ug/L	187.45	1.000	0.995	
Aluminum	R	2.8664		2.7131	2.7641	2.7648	LOR0	R	0.000000	0.361690		ug/L	2.7771	1.000	0.995	
Calcium	R	24.202		20.321	20.596	19.931	LOR0	R	0.000000	0.050158		ug/L	21.262	1.000	0.995	
Iron	R	30.108		27.787	27.025	26.032	LOR0	R	0.000000	0.038400		ug/L	27.738	1.000	0.995	
Magnesium	R	4.2367		4.1471	4.1283	3.9701	LOR0	R	0.000000	0.251782		ug/L	4.1205	1.000	0.995	
Potassium	R	6.1520		6.0959	6.3936	6.3967	LOR0	R	0.000000	0.156332		ug/L	6.2596	1.000	0.995	
Sodium	R	14.982		14.208	14.182	13.665	LOR0	R	0.000000	0.073153		ug/L	14.259	1.000	0.995	

LOR0=Linear regression forced thru origin, including 0,0 point
Instrument amount = a0 + response * a1 + response^2 * a2

Sequence No.: 1
Sample ID: ICALBLK,
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/3/2006 7:48:12 AM
Data Type: Reprocessed on 2/3/2006 8:25:21 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-3141.1	243.98	7.77%	[0.00]	ug/L
Al 308.215 R	116.2	13.27	11.41%	[0.00]	ug/L
As 188.979	-313.9	9.03	2.88%	[0.00]	ug/L
B 249.677	-104.5	38.45	36.79%	[0.00]	ug/L
Ba 233.527	-139.2	9.44	6.78%	[0.00]	ug/L
Be 313.107	-1173.6	110.57	9.42%	[0.00]	ug/L
Ca 315.887 R	975.3	43.51	4.46%	[0.00]	ug/L
Cd 214.440	-53.1	4.92	9.26%	[0.00]	ug/L
Co 228.616	-219.8	12.49	5.68%	[0.00]	ug/L
Cr 267.716	266.9	10.01	3.75%	[0.00]	ug/L
Cu 324.752	2382.2	104.97	4.41%	[0.00]	ug/L
Fe 238.204 R	437.5	30.89	7.06%	[0.00]	ug/L
K 766.490 R	-4849.6	63.23	1.30%	[0.00]	ug/L
Mg 279.077 R	-175.8	11.47	6.53%	[0.00]	ug/L
Mn 257.610	361.9	10.17	2.81%	[0.00]	ug/L
Mo 202.031	0.1	2.52	>999.9%	[0.00]	ug/L
Na 589.592 R	512.3	59.24	11.56%	[0.00]	ug/L
Ni 231.604	301.2	14.52	4.82%	[0.00]	ug/L
Pb 220.353	266.9	14.47	5.42%	[0.00]	ug/L
Sb 206.836	-146.8	31.79	21.65%	[0.00]	ug/L
Se 196.026	-188.3	26.83	14.25%	[0.00]	ug/L
Ti 334.940 R	473.9	203.86	43.01%	[0.00]	ug/L
Tl 190.801	237.3	2.19	0.92%	[0.00]	ug/L
V 292.402	-1555.4	32.12	2.06%	[0.00]	ug/L
Zn 206.200	7.0	85.80	>999.9%	[0.00]	ug/L
Sn 189.927	148.9	166.89	112.09%	[0.00]	ug/L

Sequence No.: 2 Autosampler Location: 2
Sample ID: ICAL,CRIM08 Date Collected: 2/3/2006 7:51:21 AM
Analyst: Data Type: Reprocessed on 2/3/2006 8:25:22 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CRIM08

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICAL,CRIM08

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2877276.0	1595.66	0.06%	100.0	%
Y	455054.6	12826.46	2.82%	100.0	%
Ag 328.068†	2620.6	162.43	6.20%	[5.0]	ug/L
Al 308.215 R†	286.6	35.33	12.32%	[100]	ug/L
As 188.979†	178.9	5.56	3.11%	[5.0]	ug/L
B 249.677†	22085.2	124.36	0.56%	[100]	ug/L
Ba 233.527†	3068.6	5.02	0.16%	[5.0]	ug/L
Be 313.107†	9244.3	68.27	0.74%	[2.0]	ug/L
Ca 315.887 R†	4840.5	262.17	5.42%	[200]	ug/L
Cd 214.440†	2443.9	13.70	0.56%	[5.0]	ug/L
Co 228.616†	785.1	11.11	1.41%	[5.0]	ug/L
Cr 267.716†	665.0	10.98	1.65%	[5.0]	ug/L
Cu 324.752†	6001.4	315.82	5.26%	[5.0]	ug/L
Fe 238.204 R†	3010.8	157.86	5.24%	[100]	ug/L
K 766.490 R†	3076.0	224.86	7.31%	[500]	ug/L
Mg 279.077 R†	847.3	24.47	2.89%	[200]	ug/L
Mn 257.610†	6672.2	20.85	0.31%	[5.0]	ug/L
Mo 202.031†	329.8	10.57	3.20%	[5.0]	ug/L
Na 589.592 R†	7491.2	364.66	4.87%	[500]	ug/L
Ni 231.604†	437.7	4.64	1.06%	[5.0]	ug/L
Pb 220.353†	232.3	29.80	12.83%	[3.0]	ug/L
Sb 206.836†	237.5	29.36	12.36%	[5.0]	ug/L
Se 196.026†	187.8	19.41	10.33%	[5.0]	ug/L
Ti 334.940 R†	13376.8	393.00	2.94%	[10]	ug/L
Tl 190.801†	160.7	3.91	2.43%	[5.0]	ug/L
V 292.402†	909.5	32.28	3.55%	[5.0]	ug/L
Zn 206.200†	4212.7	19.71	0.47%	[20]	ug/L
Sn 189.927†	1337.5	259.50	19.40%	[40]	ug/L

Sequence No.: 3 Autosampler Location: 3
Sample ID: ICAL,CS100 Date Collected: 2/3/2006 7:54:31 AM
Analyst: Data Type: Reprocessed on 2/3/2006 8:25:23 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICAL,CS100

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2917291.0	14722.43	0.50%	101.4	%
Y	478346.5	5207.42	1.09%	105.1	%
Ag 328.068†	58348.8	108.09	0.19%	[100]	ug/L
As 188.979†	3299.3	26.45	0.80%	[100]	ug/L
Ba 233.527†	57535.3	347.59	0.60%	[100]	ug/L
Be 313.107†	460867.7	2534.39	0.55%	[100]	ug/L
Cd 214.440†	49215.7	464.13	0.94%	[100]	ug/L
Co 228.616†	15155.3	127.52	0.84%	[100]	ug/L
Cr 267.716†	13277.7	90.27	0.68%	[100]	ug/L
Cu 324.752†	88435.5	726.96	0.82%	[100]	ug/L
Mn 257.610†	124137.8	1077.60	0.87%	[100]	ug/L
Mo 202.031†	6555.7	55.26	0.84%	[100]	ug/L
Ni 231.604†	8438.1	62.69	0.74%	[100]	ug/L
Pb 220.353†	7539.6	63.66	0.84%	[100]	ug/L
Sb 206.836†	5434.7	75.90	1.40%	[100]	ug/L
Se 196.026†	3373.7	39.29	1.16%	[100]	ug/L
Ti 334.940 R†	134646.6	976.00	0.72%	[100]	ug/L
Tl 190.801†	3105.3	21.61	0.70%	[100]	ug/L
V 292.402†	17616.3	134.35	0.76%	[100]	ug/L
Zn 206.200†	18311.9	127.11	0.69%	[100]	ug/L
Sn 189.927†	3167.6	53.40	1.69%	[100]	ug/L

Sequence No.: 4
Sample ID: ICAL,CS1K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/3/2006 7:57:37 AM
Data Type: Reprocessed on 2/3/2006 8:25:23 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS1K

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICAL,CS1K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2821653.3	34533.91	1.22%	98.07	%
Y	454944.6	37585.74	8.26%	99.98	%
Ag 328.068†	587145.9	3968.37	0.68%	[1000]	ug/L
Al 308.215 R†	2713.1	191.82	7.07%	[1000]	ug/L
As 188.979†	32859.2	589.56	1.79%	[1000]	ug/L
B 249.677†	228779.8	1374.67	0.60%	[1000]	ug/L
Ba 233.527†	581235.7	4761.23	0.82%	[1000]	ug/L
Be 313.107†	4701590.5	28587.30	0.61%	[1000]	ug/L
Ca 315.887 R†	20321.0	1633.48	8.04%	[1000]	ug/L
Cd 214.440†	498552.9	3889.63	0.78%	[1000]	ug/L
Co 228.616†	156772.0	1437.90	0.92%	[1000]	ug/L
Cr 267.716†	132796.9	2260.12	1.70%	[1000]	ug/L
Cu 324.752†	896820.9	7801.59	0.87%	[1000]	ug/L
Fe 238.204 R†	27787.4	2227.63	8.02%	[1000]	ug/L
K 766.490 R†	6095.9	309.79	5.08%	[1000]	ug/L
Mg 279.077 R†	4147.1	334.76	8.07%	[1000]	ug/L
Mn 257.610†	1247875.0	10292.57	0.82%	[1000]	ug/L
Mo 202.031†	65720.4	922.16	1.40%	[1000]	ug/L
Na 589.592 R†	14207.6	1138.92	8.02%	[1000]	ug/L
Ni 231.604†	85441.3	1282.43	1.50%	[1000]	ug/L
Pb 220.353†	75611.0	1456.13	1.93%	[1000]	ug/L
Sb 206.836†	55049.7	913.60	1.66%	[1000]	ug/L
Se 196.026†	33668.0	716.50	2.13%	[1000]	ug/L
Ti 334.940 R†	1355694.1	11886.02	0.88%	[1000]	ug/L
Tl 190.801†	31730.0	538.84	1.70%	[1000]	ug/L
V 292.402†	180954.2	1468.49	0.81%	[1000]	ug/L
Zn 206.200†	179259.6	1195.83	0.67%	[1000]	ug/L
Sn 189.927†	33208.4	607.76	1.83%	[1000]	ug/L

Sequence No.: 5 Autosampler Location: 5
Sample ID: ICAL,CS10K Date Collected: 2/3/2006 7:59:51 AM
Analyst: Data Type: Reprocessed on 2/3/2006 8:25:24 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS10K

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICAL,CS10K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2719572.3	9303.91	0.34%	94.52	%
Y	447545.8	7968.68	1.78%	98.35	%
Ag 328.068†	1203351.8	8219.89	0.68%	[2000]	ug/L
Al 308.215 R†	27641.2	248.55	0.90%	[10000]	ug/L
As 188.979†	339206.9	3627.05	1.07%	[10000]	ug/L
B 249.677†	2333152.5	9212.75	0.39%	[10000]	ug/L
Ba 233.527†	5680005.2	12521.45	0.22%	[10000]	ug/L
Ca 315.887 R†	205959.9	1655.20	0.80%	[10000]	ug/L
Cd 214.440†	4769413.8	17183.78	0.36%	[10000]	ug/L
Co 228.616†	1589345.1	13456.57	0.85%	[10000]	ug/L
Cr 267.716†	1346533.0	11789.74	0.88%	[10000]	ug/L
Cu 324.752†	9042235.3	10061.95	0.11%	[10000]	ug/L
Fe 238.204 R†	270252.1	2310.36	0.85%	[10000]	ug/L
K 766.490 R†	63936.0	370.86	0.58%	[10000]	ug/L
Mg 279.077 R†	41283.1	410.45	0.99%	[10000]	ug/L
Mn 257.610†	12001035.8	172724.66	1.44%	[10000]	ug/L
Mo 202.031†	669171.3	3449.12	0.52%	[10000]	ug/L
Na 589.592 R†	141820.7	778.70	0.55%	[10000]	ug/L
Ni 231.604†	869223.9	7765.03	0.89%	[10000]	ug/L
Pb 220.353†	767534.2	6163.61	0.80%	[10000]	ug/L
Sb 206.836†	572567.1	5101.00	0.89%	[10000]	ug/L
Se 196.026†	349747.3	3244.75	0.93%	[10000]	ug/L
Ti 334.940 R†	13498099.9	198797.25	1.47%	[10000]	ug/L
Tl 190.801†	321894.7	1609.89	0.50%	[10000]	ug/L
V 292.402†	1826024.5	13400.01	0.73%	[10000]	ug/L
Zn 206.200†	1768067.7	7337.25	0.41%	[10000]	ug/L
Sn 189.927†	340188.3	2885.96	0.85%	[10000]	ug/L

Sequence No.: 6
Sample ID: ICAL,CS100K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/3/2006 8:02:41 AM
Data Type: Reprocessed on 2/3/2006 8:25:25 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100K

Analyte	Back Pressure	Flow
All	144.0 kPa	0.55 L/min

Mean Data: ICAL,CS100K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2584323.8	7928.73	0.31%	89.82	%
Y	432931.8	13269.03	3.06%	95.14	%
Al 308.215 Rt	276481.2	5333.12	1.93%	[100000]	ug/L
Ca 315.887 Rt	1993052.4	35977.32	1.81%	[100000]	ug/L
Fe 238.204 Rt	2603155.5	48189.84	1.85%	[100000]	ug/L
K 766.490 Rt	639671.6	12625.14	1.97%	[100000]	ug/L
Mg 279.077 Rt	397010.3	6783.19	1.71%	[100000]	ug/L
Na 589.592 Rt	1366479.9	25470.99	1.86%	[100000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin Thru 0	0.0	598.7	0.00000	0.999952	
Al 308.215 R	4	Lin Thru 0	0.0	2.765	0.00000	1.000000	
As 188.979	4	Lin Thru 0	0.0	33.91	0.00000	0.999995	
B 249.677	3	Lin Thru 0	0.0	233.3	0.00000	0.999998	
Ba 233.527	4	Lin Thru 0	0.0	568.1	0.00000	0.999997	
Be 313.107	3	Lin Thru 0	0.0	4701	0.00000	0.999998	
Ca 315.887 R	4	Lin Thru 0	0.0	19.94	0.00000	0.999994	
Cd 214.440	4	Lin Thru 0	0.0	477.2	0.00000	0.999990	
Co 228.616	4	Lin Thru 0	0.0	158.9	0.00000	0.999999	
Cr 267.716	4	Lin Thru 0	0.0	134.6	0.00000	0.999999	
Cu 324.752	4	Lin Thru 0	0.0	904.1	0.00000	1.000000	
Fe 238.204 R	4	Lin Thru 0	0.0	26.04	0.00000	0.999993	
K 766.490 R	4	Lin Thru 0	0.0	6.397	0.00000	1.000000	
Mg 279.077 R	4	Lin Thru 0	0.0	3.972	0.00000	0.999992	
Mn 257.610	4	Lin Thru 0	0.0	1201	0.00000	0.999992	
Mo 202.031	4	Lin Thru 0	0.0	66.91	0.00000	0.999998	
Na 589.592 R	4	Lin Thru 0	0.0	13.67	0.00000	0.999993	
Ni 231.604	4	Lin Thru 0	0.0	86.91	0.00000	0.999999	
Pb 220.353	4	Lin Thru 0	0.0	76.74	0.00000	0.999999	
Sb 206.836	4	Lin Thru 0	0.0	57.23	0.00000	0.999993	
Se 196.026	4	Lin Thru 0	0.0	34.96	0.00000	0.999993	
Ti 334.940 R	4	Lin Thru 0	0.0	1350	0.00000	1.000000	
Tl 190.801	4	Lin Thru 0	0.0	32.18	0.00000	0.999999	
V 292.402	4	Lin Thru 0	0.0	182.6	0.00000	1.000000	
Zn 206.200	4	Lin Thru 0	0.0	176.8	0.00000	0.999999	
Sn 189.927	4	Lin Thru 0	0.0	34.01	0.00000	0.999997	

CURTIS & TOMPKINS SECOND SOURCE CALIBRATION VERIFICATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428007 File : 020306r.txt Time : 03-FEB-2006 08:05
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2531

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	53.537	56.453	5000	4932	ug/L	-1	10	
Arsenic	A	33.891	33.303	5000	4910	ug/L	-2	10	
Barium	A	584.58	565.51	5000	4977	ug/L	0	10	
Beryllium	A	4644.1	4618.0	500.0	491.2	ug/L	-2	10	
Boron	A	227.65	233.41	5000	5003	ug/L	0	10	
Cadmium	A	489.11	478.15	5000	5010	ug/L	0	10	
Chromium	A	133.31	130.30	5000	4839	ug/L	-3	10	
Cobalt	A	156.07	152.56	5000	4790	ug/L	-4	10	
Copper	A	971.42	861.55	5000	4764	ug/L	-5	10	
Lead	A	76.299	73.028	5000	4758	ug/L	-5	10	
Manganese	A	1255.9	1189.5	5000	4954	ug/L	-1	10	
Molybdenum	A	66.039	66.045	5000	4936	ug/L	-1	10	
Nickel	A	86.070	83.483	5000	4803	ug/L	-4	10	
Selenium	A	34.985	33.796	5000	4833	ug/L	-3	10	
Silver	A	574.11	560.82	1000	936.7	ug/L	-6	10	
Thallium	A	31.777	31.256	5000	4856	ug/L	-3	10	
Tin	A	33.085	32.534	5000	4783	ug/L	-4	10	
Titanium	A	1347.4	1311.5	5000	4858	ug/L	-3	10	
Vanadium	A	180.40	176.25	5000	4826	ug/L	-3	10	
Zinc	A	187.45	174.99	5000	4948	ug/L	-1	10	
Aluminum	R	2.7771	2.6785	20000	19380	ug/L	-3	10	
Calcium	R	21.262	20.079	20000	20140	ug/L	1	10	
Iron	R	27.738	26.217	20000	20130	ug/L	1	10	
Magnesium	R	4.1205	4.0284	20000	20290	ug/L	1	10	
Potassium	R	6.2596	6.1946	20000	19370	ug/L	-3	10	
Sodium	R	14.259	13.600	20000	19900	ug/L	-1	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2778590	-3.43

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428008 File : 020306r.txt Time : 03-FEB-2006 08:08
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	[1.775]	5.000	1.047	ug/L	!ib
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[22.19]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	[0.7554]	5.000	0.7122	ug/L	!ib
Lead	A	[1.900]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[3.201]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.631]	5.000	0.9317	ug/L	!ib
Tin	A	[4.658]	40.00	4.403	ug/L	!ib
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2892887	0.54

!=warning ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428009 File : 020306r.txt Time : 03-FEB-2006 08:11
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2555

Interferent	Ch	Quant	RL	Units	Flags
Antimony	A	[-2.438]	5.000	ug/L	
Arsenic	A	[0.4288]	5.000	ug/L	
Barium	A	[0.4740]	5.000	ug/L	
Beryllium	A	[-0.04973]	2.000	ug/L	
Boron	A	[-1.733]	100.0	ug/L	
Cadmium	A	[3.215]	5.000	ug/L	
Cobalt	A	[0.6144]	5.000	ug/L	
Lead	A	[0.1182]	3.000	ug/L	
Molybdenum	A	[-0.6829]	5.000	ug/L	
Selenium	A	[-4.759]	5.000	ug/L	
Silver	A	[1.149]	5.000	ug/L	
Thallium	A	[-3.673]	5.000	ug/L	
Tin	A	[0.6105]	40.00	ug/L	
Zinc	A	[3.669]	20.00	ug/L	
Potassium	R	[-59.98]	500.0	ug/L	
Sodium	R	[53.33]	500.0	ug/L	

Interferent	Ch	Spiked	Quant	Units	%Rec
Chromium	A	20000	19890	ug/L	99
Copper	A	20000	21780	ug/L	109
Manganese	A	20000	19290	ug/L	96
Nickel	A	20000	18310	ug/L	92
Titanium	A	20000	20420	ug/L	102
Vanadium	A	20000	21020	ug/L	105
Aluminum	R	500000	552700	ug/L	111
Calcium	R	500000	547700	ug/L	110
Iron	R	200000	210000	ug/L	105
Magnesium	R	500000	541200	ug/L	108

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2355195	-18.14

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428010 File : 020306r.txt Time : 03-FEB-2006 08:17
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S1949

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	557.8	ug/L	12	20	
Arsenic	A	500.0	533.7	ug/L	7	20	
Barium	A	500.0	556.0	ug/L	11	20	
Beryllium	A	500.0	539.3	ug/L	8	20	
Cadmium	A	1000	1059	ug/L	6	20	
Chromium	A	500.0	525.0	ug/L	5	20	
Cobalt	A	500.0	476.1	ug/L	-5	20	
Copper	A	500.0	533.0	ug/L	7	20	
Lead	A	1000	969.2	ug/L	-3	20	
Manganese	A	500.0	546.4	ug/L	9	20	
Molybdenum	A	500.0	518.7	ug/L	4	20	
Nickel	A	1000	950.4	ug/L	-5	20	
Selenium	A	500.0	519.6	ug/L	4	20	
Silver	A	1000	1090	ug/L	9	20	
Thallium	A	500.0	505.2	ug/L	1	20	
Titanium	A	20000	20410	ug/L	2		
Vanadium	A	500.0	562.3	ug/L	12	20	
Zinc	A	1000	1001	ug/L	0	20	
Aluminum	R	500000	532400	ug/L	6		
Calcium	R	500000	525300	ug/L	5		
Iron	R	200000	201100	ug/L	1		
Magnesium	R	500000	525700	ug/L	5		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2345673	-18.48

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428020 File : 020306r.txt Time : 03-FEB-2006 08:57
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	59.283	5000	5179	ug/L	4	10	
Arsenic	A	33.891	34.578	5000	5098	ug/L	2	10	
Barium	A	584.58	587.78	5000	5173	ug/L	3	10	
Beryllium	A	4644.1	4721.5	500.0	502.2	ug/L	0	10	
Boron	A	227.65	241.57	5000	5178	ug/L	4	10	
Cadmium	A	489.11	498.29	5000	5221	ug/L	4	10	
Chromium	A	133.31	135.34	5000	5026	ug/L	1	10	
Cobalt	A	156.07	158.70	5000	4983	ug/L	0	10	
Copper	A	971.42	889.69	5000	4920	ug/L	-2	10	
Lead	A	76.299	75.733	5000	4934	ug/L	-1	10	
Manganese	A	1255.9	1214.4	5000	5058	ug/L	1	10	
Molybdenum	A	66.039	68.197	5000	5097	ug/L	2	10	
Nickel	A	86.070	86.874	5000	4998	ug/L	0	10	
Selenium	A	34.985	35.084	5000	5017	ug/L	0	10	
Silver	A	574.11	580.76	1000	970.0	ug/L	-3	10	
Thallium	A	31.777	32.342	5000	5024	ug/L	0	10	
Tin	A	33.085	33.940	5000	4990	ug/L	0	10	
Titanium	A	1347.4	1345.5	5000	4984	ug/L	0	10	
Vanadium	A	180.40	183.88	5000	5036	ug/L	1	10	
Zinc	A	187.45	182.17	5000	5151	ug/L	3	10	
Aluminum	R	2.7771	2.6663	20000	19290	ug/L	-4	10	
Calcium	R	21.262	20.240	20000	20300	ug/L	2	10	
Iron	R	27.738	26.007	20000	19970	ug/L	0	10	
Magnesium	R	4.1205	4.0621	20000	20460	ug/L	2	10	
Potassium	R	6.2596	6.2286	20000	19470	ug/L	-3	10	
Sodium	R	14.259	13.513	20000	19770	ug/L	-1	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2698263	-6.22

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428022 File : 020306r.txt Time : 03-FEB-2006 09:03
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	[1.048]	5.000	1.047	ug/L	!ib
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	[0.8166]	5.000	0.7122	ug/L	!ib
Lead	A	[1.492]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.7470]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.184]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2885914	0.30

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428034 File : 020306r.txt Time : 03-FEB-2006 09:38
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	59.807	5000	5225	ug/L	4	10	
Arsenic	A	33.891	34.706	5000	5117	ug/L	2	10	
Barium	A	584.58	586.37	5000	5161	ug/L	3	10	
Beryllium	A	4644.1	4691.0	500.0	499.0	ug/L	0	10	
Boron	A	227.65	240.19	5000	5148	ug/L	3	10	
Cadmium	A	489.11	496.08	5000	5198	ug/L	4	10	
Chromium	A	133.31	134.99	5000	5013	ug/L	0	10	
Cobalt	A	156.07	158.68	5000	4983	ug/L	0	10	
Copper	A	971.42	883.16	5000	4884	ug/L	-2	10	
Lead	A	76.299	75.639	5000	4928	ug/L	-1	10	
Manganese	A	1255.9	1204.3	5000	5016	ug/L	0	10	
Molybdenum	A	66.039	67.910	5000	5075	ug/L	2	10	
Nickel	A	86.070	86.875	5000	4998	ug/L	0	10	
Selenium	A	34.985	35.173	5000	5030	ug/L	1	10	
Silver	A	574.11	577.85	1000	965.1	ug/L	-3	10	
Thallium	A	31.777	32.274	5000	5014	ug/L	0	10	
Tin	A	33.085	34.034	5000	5003	ug/L	0	10	
Titanium	A	1347.4	1342.4	5000	4972	ug/L	-1	10	
Vanadium	A	180.40	181.83	5000	4979	ug/L	0	10	
Zinc	A	187.45	181.12	5000	5121	ug/L	2	10	
Aluminum	R	2.7771	2.5958	20000	18780	ug/L	-6	10	
Calcium	R	21.262	19.958	20000	20020	ug/L	0	10	
Iron	R	27.738	25.295	20000	19430	ug/L	-3	10	
Magnesium	R	4.1205	4.0094	20000	20190	ug/L	1	10	
Potassium	R	6.2596	6.1867	20000	19340	ug/L	-3	10	
Sodium	R	14.259	13.212	20000	19330	ug/L	-3	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2721182	-5.43

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428036 File : 020306r.txt Time : 03-FEB-2006 09:44
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[1.079]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8654]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.809]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2841593	-1.24

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428048 File : 020306r.txt Time : 03-FEB-2006 10:20
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	60.596	5000	5294	ug/L	6	10	
Arsenic	A	33.891	34.910	5000	5147	ug/L	3	10	
Barium	A	584.58	597.08	5000	5255	ug/L	5	10	
Beryllium	A	4644.1	4753.4	500.0	505.6	ug/L	1	10	
Boron	A	227.65	242.69	5000	5202	ug/L	4	10	
Cadmium	A	489.11	504.70	5000	5289	ug/L	6	10	
Chromium	A	133.31	136.35	5000	5064	ug/L	1	10	
Cobalt	A	156.07	160.13	5000	5028	ug/L	1	10	
Copper	A	971.42	899.54	5000	4975	ug/L	-1	10	
Lead	A	76.299	76.163	5000	4962	ug/L	-1	10	
Manganese	A	1255.9	1217.6	5000	5071	ug/L	1	10	
Molybdenum	A	66.039	68.495	5000	5119	ug/L	2	10	
Nickel	A	86.070	87.783	5000	5050	ug/L	1	10	
Selenium	A	34.985	35.279	5000	5045	ug/L	1	10	
Silver	A	574.11	581.54	1000	971.3	ug/L	-3	10	
Thallium	A	31.777	32.416	5000	5036	ug/L	1	10	
Tin	A	33.085	34.343	5000	5049	ug/L	1	10	
Titanium	A	1347.4	1361.1	5000	5041	ug/L	1	10	
Vanadium	A	180.40	186.20	5000	5099	ug/L	2	10	
Zinc	A	187.45	184.04	5000	5204	ug/L	4	10	
Aluminum	R	2.7771	2.6706	20000	19320	ug/L	-3	10	
Calcium	R	21.262	20.844	20000	20910	ug/L	5	10	
Iron	R	27.738	26.101	20000	20050	ug/L	0	10	
Magnesium	R	4.1205	4.1592	20000	20940	ug/L	5	10	
Potassium	R	6.2596	6.3347	20000	19810	ug/L	-1	10	
Sodium	R	14.259	13.601	20000	19900	ug/L	-1	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2730164	-5.11

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428050 File : 020306r.txt Time : 03-FEB-2006 10:26
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[13.73]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[1.679]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8672]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[2.313]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2844579	-1.14

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428062 File : 020306r.txt Time : 03-FEB-2006 10:59
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	59.939	5000	5236	ug/L	5	10	
Arsenic	A	33.891	34.655	5000	5110	ug/L	2	10	
Barium	A	584.58	603.33	5000	5310	ug/L	6	10	
Beryllium	A	4644.1	4813.6	500.0	512.0	ug/L	2	10	
Boron	A	227.65	244.08	5000	5232	ug/L	5	10	
Cadmium	A	489.11	510.04	5000	5345	ug/L	7	10	
Chromium	A	133.31	135.38	5000	5028	ug/L	1	10	
Cobalt	A	156.07	159.10	5000	4996	ug/L	0	10	
Copper	A	971.42	907.28	5000	5017	ug/L	0	10	
Lead	A	76.299	75.397	5000	4912	ug/L	-2	10	
Manganese	A	1255.9	1218.3	5000	5074	ug/L	1	10	
Molybdenum	A	66.039	68.075	5000	5087	ug/L	2	10	
Nickel	A	86.070	87.048	5000	5008	ug/L	0	10	
Selenium	A	34.985	35.070	5000	5015	ug/L	0	10	
Silver	A	574.11	578.21	1000	965.7	ug/L	-3	10	
Thallium	A	31.777	32.229	5000	5007	ug/L	0	10	
Tin	A	33.085	34.033	5000	5003	ug/L	0	10	
Titanium	A	1347.4	1362.5	5000	5047	ug/L	1	10	
Vanadium	A	180.40	182.25	5000	4991	ug/L	0	10	
Zinc	A	187.45	185.93	5000	5257	ug/L	5	10	
Aluminum	R	2.7771	2.6417	20000	19110	ug/L	-4	10	
Calcium	R	21.262	20.578	20000	20640	ug/L	3	10	
Iron	R	27.738	25.757	20000	19780	ug/L	-1	10	
Magnesium	R	4.1205	4.0923	20000	20610	ug/L	3	10	
Potassium	R	6.2596	6.3068	20000	19720	ug/L	-1	10	
Sodium	R	14.259	13.319	20000	19490	ug/L	-3	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2704669	-6.00

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428064 File : 020306r.txt Time : 03-FEB-2006 11:04
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	[1.094]	5.000	1.047	ug/L	!ib
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	[0.8385]	5.000	0.7122	ug/L	!ib
Lead	A	[1.647]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.6893]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.938]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2805862	-2.48

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428076 File : 020306r.txt Time : 03-FEB-2006 11:36
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	61.209	5000	5347	ug/L	7	10	
Arsenic	A	33.891	35.280	5000	5202	ug/L	4	10	
Barium	A	584.58	605.54	5000	5329	ug/L	7	10	
Beryllium	A	4644.1	4823.0	500.0	513.0	ug/L	3	10	
Boron	A	227.65	244.05	5000	5231	ug/L	5	10	
Cadmium	A	489.11	511.94	5000	5364	ug/L	7	10	
Chromium	A	133.31	138.08	5000	5128	ug/L	3	10	
Cobalt	A	156.07	161.95	5000	5085	ug/L	2	10	
Copper	A	971.42	907.03	5000	5016	ug/L	0	10	
Lead	A	76.299	77.084	5000	5022	ug/L	0	10	
Manganese	A	1255.9	1233.9	5000	5139	ug/L	3	10	
Molybdenum	A	66.039	69.550	5000	5198	ug/L	4	10	
Nickel	A	86.070	88.886	5000	5114	ug/L	2	10	
Selenium	A	34.985	35.847	5000	5127	ug/L	3	10	
Silver	A	574.11	587.28	1000	980.9	ug/L	-2	10	
Thallium	A	31.777	32.812	5000	5097	ug/L	2	10	
Tin	A	33.085	34.706	5000	5102	ug/L	2	10	
Titanium	A	1347.4	1378.8	5000	5107	ug/L	2	10	
Vanadium	A	180.40	188.80	5000	5170	ug/L	3	10	
Zinc	A	187.45	186.73	5000	5280	ug/L	6	10	
Aluminum	R	2.7771	2.6823	20000	19400	ug/L	-3	10	
Calcium	R	21.262	20.824	20000	20890	ug/L	4	10	
Iron	R	27.738	26.430	20000	20300	ug/L	1	10	
Magnesium	R	4.1205	4.1778	20000	21040	ug/L	5	10	
Potassium	R	6.2596	6.3319	20000	19800	ug/L	-1	10	
Sodium	R	14.259	13.357	20000	19540	ug/L	-2	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2718189	-5.53

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08
Seqnum : 86049428078 File : 020306r.txt IDF : 1.0
Cal : 86049428001 Caldate: 03-FEB-2006 Time : 03-FEB-2006 11:42

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[1.715]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8046]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.611]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2838552	-1.35

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428090 File : 020306r.txt Time : 03-FEB-2006 12:13
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	60.245	5000	5263	ug/L	5	10	
Arsenic	A	33.891	34.792	5000	5130	ug/L	3	10	
Barium	A	584.58	601.31	5000	5292	ug/L	6	10	
Beryllium	A	4644.1	4789.9	500.0	509.5	ug/L	2	10	
Boron	A	227.65	240.88	5000	5163	ug/L	3	10	
Cadmium	A	489.11	508.95	5000	5333	ug/L	7	10	
Chromium	A	133.31	136.33	5000	5063	ug/L	1	10	
Cobalt	A	156.07	159.99	5000	5024	ug/L	0	10	
Copper	A	971.42	901.32	5000	4984	ug/L	0	10	
Lead	A	76.299	76.271	5000	4969	ug/L	-1	10	
Manganese	A	1255.9	1223.4	5000	5095	ug/L	2	10	
Molybdenum	A	66.039	68.555	5000	5123	ug/L	2	10	
Nickel	A	86.070	87.751	5000	5049	ug/L	1	10	
Selenium	A	34.985	35.380	5000	5060	ug/L	1	10	
Silver	A	574.11	581.53	1000	971.3	ug/L	-3	10	
Thallium	A	31.777	32.388	5000	5032	ug/L	1	10	
Tin	A	33.085	34.259	5000	5036	ug/L	1	10	
Titanium	A	1347.4	1366.1	5000	5060	ug/L	1	10	
Vanadium	A	180.40	186.82	5000	5116	ug/L	2	10	
Zinc	A	187.45	185.64	5000	5249	ug/L	5	10	
Aluminum	R	2.7771	2.6514	20000	19180	ug/L	-4	10	
Calcium	R	21.262	20.666	20000	20730	ug/L	4	10	
Iron	R	27.738	26.501	20000	20350	ug/L	2	10	
Magnesium	R	4.1205	4.1655	20000	20980	ug/L	5	10	
Potassium	R	6.2596	6.2017	20000	19390	ug/L	-3	10	
Sodium	R	14.259	13.150	20000	19240	ug/L	-4	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2731363	-5.07

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08
Seqnum : 86049428092 File : 020306r.txt IDF : 1.0
Cal : 86049428001 Caldate: 03-FEB-2006 Time : 03-FEB-2006 12:18

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[1.314]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.7094]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.659]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2842250	-1.22

!=warning ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428101 File : 020306r.txt Time : 03-FEB-2006 12:40
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S1949

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	580.4	ug/L	16	20	
Arsenic	A	500.0	555.0	ug/L	11	20	
Barium	A	500.0	578.4	ug/L	16	20	
Beryllium	A	500.0	554.3	ug/L	11	20	
Cadmium	A	1000	1108	ug/L	11	20	
Chromium	A	500.0	541.6	ug/L	8	20	
Cobalt	A	500.0	498.1	ug/L	0	20	
Copper	A	500.0	544.1	ug/L	9	20	
Lead	A	1000	994.8	ug/L	-1	20	
Manganese	A	500.0	564.5	ug/L	13	20	
Molybdenum	A	500.0	536.0	ug/L	7	20	
Nickel	A	1000	988.8	ug/L	-1	20	
Selenium	A	500.0	551.7	ug/L	10	20	
Silver	A	1000	1117	ug/L	12	20	
Thallium	A	500.0	522.3	ug/L	4	20	
Titanium	A	20000	21080	ug/L	5		
Vanadium	A	500.0	578.3	ug/L	16	20	
Zinc	A	1000	1040	ug/L	4	20	
Aluminum	R	500000	520700	ug/L	4		
Calcium	R	500000	525600	ug/L	5		
Iron	R	200000	201300	ug/L	1		
Magnesium	R	500000	533100	ug/L	7		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2322322	-19.29

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428103 File : 020306r.txt Time : 03-FEB-2006 12:46
Cal : 86049428001 Caldate: 03-FEB-2006

Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	53.537	60.533	5000	5288	ug/L	6	10	
Arsenic	A	33.891	35.186	5000	5188	ug/L	4	10	
Barium	A	584.58	601.09	5000	5290	ug/L	6	10	
Beryllium	A	4644.1	4792.0	500.0	509.7	ug/L	2	10	
Boron	A	227.65	241.19	5000	5170	ug/L	3	10	
Cadmium	A	489.11	511.10	5000	5356	ug/L	7	10	
Chromium	A	133.31	137.07	5000	5090	ug/L	2	10	
Cobalt	A	156.07	161.95	5000	5085	ug/L	2	10	
Copper	A	971.42	898.76	5000	4970	ug/L	-1	10	
Lead	A	76.299	77.065	5000	5021	ug/L	0	10	
Manganese	A	1255.9	1224.5	5000	5099	ug/L	2	10	
Molybdenum	A	66.039	69.195	5000	5171	ug/L	3	10	
Nickel	A	86.070	88.453	5000	5089	ug/L	2	10	
Selenium	A	34.985	35.734	5000	5110	ug/L	2	10	
Silver	A	574.11	583.00	1000	973.7	ug/L	-3	10	
Thallium	A	31.777	32.735	5000	5086	ug/L	2	10	
Tin	A	33.085	34.604	5000	5087	ug/L	2	10	
Titanium	A	1347.4	1359.7	5000	5037	ug/L	1	10	
Vanadium	A	180.40	184.65	5000	5057	ug/L	1	10	
Zinc	A	187.45	186.45	5000	5272	ug/L	5	10	
Aluminum	R	2.7771	2.6133	20000	18900	ug/L	-5	10	
Calcium	R	21.262	20.258	20000	20320	ug/L	2	10	
Iron	R	27.738	26.376	20000	20260	ug/L	1	10	
Magnesium	R	4.1205	4.1185	20000	20740	ug/L	4	10	
Potassium	R	6.2596	6.0804	20000	19010	ug/L	-5	10	
Sodium	R	14.259	12.820	20000	18760	ug/L	-6	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2753604	-4.30

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86049428105 File : 020306r.txt Time : 03-FEB-2006 12:52
Cal : 86049428001 Caldate: 03-FEB-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[1.495]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.6949]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.446]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2877276	2850733	-0.92

!=warning ib=instrument blank

Curtis & Tompkins Laboratories Sample Preparation Summary 03-FEB-2006 03:44

Batch Number : 110124
Date Extracted: 03-FEB-2006
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : S1586
Spike #2 ID : S1587
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
184678-001			Mactec, Inc.	Soil	1.09	g	50	45.871560	1					T26/ICP		mss
184678-002			Mactec, Inc.	Soil	.91	g	50	54.945055	1					T26/ICP		
184684-001			Iris Environmental	Soil	1.23	g	50	40.650407	1					T26/ICP		
184684-003			Iris Environmental	Soil	1.46	g	50	34.246575	1					T26/ICP		
184684-004			Iris Environmental	Soil	1.05	g	50	47.619048	1					T26/ICP		
184684-005			Iris Environmental	Soil	1.43	g	50	34.965035	1					T26/ICP		
184684-006			Iris Environmental	Soil	1.39	g	50	35.971223	1					T26/ICP		
184684-007			Iris Environmental	Soil	1.5	g	50	33.333333	1					T26/ICP		
184684-008			Iris Environmental	Soil	.98	g	50	51.020408	1					T26/ICP		
184684-009			Iris Environmental	Soil	1.17	g	50	42.735043	1					T26/ICP		
184684-010			Iris Environmental	Soil	1.53	g	50	32.679739	1					T26/ICP		
184684-011			Iris Environmental	Soil	.96	g	50	52.083333	1					T26/ICP		
184684-012			Iris Environmental	Soil	1.42	g	50	35.211268	1					T26/ICP		
184684-013			Iris Environmental	Soil	1.25	g	50	40.000000	1					T26/ICP		
184684-014			Iris Environmental	Soil	1.04	g	50	48.076923	1					T26/ICP		
184684-015			Iris Environmental	Soil	1.32	g	50	37.878788	1					T26/ICP		
184684-016			Iris Environmental	Soil	1.04	g	50	48.076923	1					T26/ICP		
184684-017			Iris Environmental	Soil	1.36	g	50	36.764706	1					T26/ICP		
184684-018			Iris Environmental	Soil	.99	g	50	50.505051	1					T26/ICP		
184684-019			Iris Environmental	Soil	1.14	g	50	43.859649	1					T26/ICP		
QC326688	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC326689	BS			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC326690	BSD			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC326691	MS	of 184678-001		Soil	1.02	g	50	49.019608	1		.5	.5		ICAP		
QC326692	MSD	of 184678-001		Soil	.95	g	50	52.631579	1		.5	.5		ICAP		
QC326693	SER	of 184678-001		Soil	1.09	g	50	45.871560	1					ICAP		
QC326694	PDS	of 184678-001		Soil	1.09	g	50	45.871560	1					ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: 2/3/6

Relinquished By: _____ Received By: _____ Date: 2/3/6

Soil Digestion for ICP & ICP-MS — Curtis & Tompkins, Ltd.

LIMS Batch #: 110124
Date Digested: 02/02/06
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2270
Page 35

	Sample # and letter	Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BK QC 326688	Ø	50.0	Y	
*	BS 9	↓	↓	↓	
*	BSD 10	↓	↓	↓	
*	184670-001 MS A	1.02			
5	-001 MSD	0.95			
	-001	1.09			(MSS)
	* -002	0.91			
	184681-001 A	1.23			
	-003	1.46			
10	-004	1.05			
	-005	1.43			
	-006	1.39			
	-007	1.50			
	-008	0.98			
15	-009	1.17			
	-010	1.58			
	-011	0.96			
	-012	1.42			
	-013	1.25			
20	-014	1.04			
	-015	1.32			
	-016	1.04			
	-017	1.36			
	-018	0.99			
	* -019	1.14			

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95C	VV 2/2/06
0.5 mL of spike solution was added to all spikes	315586 *	
	315587 *	
1:1 HNO3	320414-122605	
concentrated HNO3	144035 - JTBaker	
3mL 30% hydrogen peroxide	452525421 - VWR	
concentrated HCl	233039 - JTBaker	
☒ filtered thru' Whatman # 541	FIL6B159	

Extraction Chemist / Date 02/02/06

Continued from page Ø
Continued on page Ø

Reviewed by / Date 2/3/6

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

ence: 46049675 Instrument: MET04 HydraAA HG Analyzer
ytical Method: EPA 7470A SOP Version: HG_water_rv7
yte: Mercury

Prelim: 6 FEB-2006

Name	Type	SampleNum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	SUds	Spiked	Column	Result	LL	Units	%Rec	RPD	Flags
138	ICALBLK	Std01Repl				03-FEB-2006 11:55	1.0	1.0									
138	ICAL	Std02Repl				03-FEB-2006 11:58	1.0	1.0									
138	ICAL	Std03Repl				03-FEB-2006 11:59	1.0	1.0									
138	ICAL	Std04Repl				03-FEB-2006 12:01	1.0	1.0									
138	ICAL	Std05Repl				03-FEB-2006 12:03	1.0	1.0									
138	ICAL	Std06Repl				03 FEB 2006 12:05	1.0	1.0									
138	ICV					03-FEB-2006 12:18	1.0	1.0	2	5.000	46049675001	5.230		ug/L	105		
138	ICB					03-FEB-2006 12:20	1.0	1.0			46049675001	ND	0.20	ug/L			
138	BLANK	QC326740		110138	Soil	03-FEB-2006 12:21	1.0	100.0			46049675001	ND	0.020	mg/Kg			
138	BS	QC326741		110138	Soil	03-FEB-2006 12:23	1.0	100.0		0.5000	46049675001	0.5160	0.020	mg/Kg	103		
138	BSD	QC326742		110138	Soil	03-FEB-2006 12:25	1.0	100.0		0.5000	46049675001	0.5030	0.020	mg/Kg	101	3	
138	MSS	184663-001		110138	Soil	03-FEB-2006 12:27	1.0	96.15			46049675001	0.011 J	0.019	mg/Kg			
138	SER	QC326745	184663-001	110138	Soil	03-FEB-2006 12:29	5.0	96.15			46049675001	ND	0.096	mg/Kg			
138	MS	QC326743	184663-001	110138	Soil	03-FEB-2006 12:30	1.0	89.29		0.4464	46049675001	0.4328	0.018	mg/Kg	96		
138	MSD	QC326744	184663-001	110138	Soil	03-FEB-2006 12:32	1.0	90.91		0.4545	46049675001	0.4464	0.018	mg/Kg	96	0	
138	SAMPLE	184568-001		110138	Soil	03-FEB-2006 12:34	1.0	89.29			46049675001	ND	0.018	mg/Kg			
138	SAMPLE	184568-002		110138	Soil	03-FEB-2006 12:36	1.0	89.29			46049675001	ND	0.018	mg/Kg			
138	SAMPLE	184568-003		110138	Soil	03-FEB-2006 12:38	1.0	84.75			46049675001	0.028	0.017	mg/Kg			
0138	CCV					03-FEB-2006 12:40	1.0	1.0	3	2.500	46049675001	2.660		ug/L	106		
0138	CCB					03-FEB-2006 12:42	1.0	1.0			46049675001	ND	0.20	ug/L			
0138	SAMPLE	184568-004		110138	Soil	03-FEB-2006 12:43	1.0	96.15			46049675001	ND	0.019	mg/Kg			
0138	SAMPLE	184568-005		110138	Soil	03-FEB-2006 12:45	1.0	89.29			46049675001	ND	0.018	mg/Kg			
138	SAMPLE	184568-006		110138	Soil	03-FEB-2006 12:47	1.0	84.75			46049675001	ND	0.017	mg/Kg			
0138	SAMPLE	184568-007		110138	Soil	03-FEB-2006 12:50	1.0	94.34			46049675001	ND	0.019	mg/Kg			
0138	SAMPLE	184663-002		110138	Soil	03-FEB-2006 12:51	1.0	96.15			46049675001	ND	0.019	mg/Kg			
0138	SAMPLE	184663-003		110138	Soil	03-FEB-2006 12:53	1.0	98.04			46049675001	0.0066 J	0.020	mg/Kg			
0138	SAMPLE	184663-004		110138	Soil	03-FEB-2006 12:55	1.0	98.04			46049675001	0.0048 J	0.020	mg/Kg			
0138	SAMPLE	184663-005		110138	Soil	03-FEB-2006 12:57	1.0	74.63			46049675001	1.1 >LR	0.015	mg/Kg			>LR b*
0138	SAMPLE	184663-006		110138	Soil	03-FEB-2006 12:59	1.0	81.97			46049675001	0.042	0.016	mg/Kg			
0138	SAMPLE	184663-007		110138	Soil	03-FEB-2006 13:01	1.0	75.76			46049675001	0.035	0.015	mg/Kg			
0138	CCV					03-FEB-2006 13:03	1.0	1.0	4	5.000	46049675001	5.270		ug/L	105		
0138	CCB					03-FEB-2006 13:05	1.0	1.0			46049675001	ND	0.20	ug/L			
0138	SAMPLE	184663-008		110138	Soil	03-FEB-2006 13:07	1.0	98.04			46049675001	0.048	0.020	mg/Kg			
0138	SAMPLE	184663-009		110138	Soil	03-FEB-2006 13:09	1.0	98.04			46049675001	0.032	0.020	mg/Kg			
0138	SAMPLE	184678-001		110138	Soil	03-FEB-2006 13:11	1.0	98.04			46049675001	0.032	0.020	mg/Kg			
0138	SAMPLE	184678-002		110138	Soil	03-FEB-2006 13:12	1.0	84.75			46049675001	0.036	0.017	mg/Kg			
0138	SAMPLE	184679-001		110138	Soil	03-FEB-2006 13:14	1.0	83.33			46049675001	0.041	0.017	mg/Kg			
0138	SAMPLE	184680-001		110138	Soil	03-FEB-2006 13:16	1.0	92.59			46049675001	0.059	0.019	mg/Kg			
0138	CCV					03-FEB-2006 13:18	1.0	1.0	5	7.500	46049675001	7.520		ug/L	100		
0138	CCB					03-FEB-2006 13:20	1.0	1.0			46049675001	ND	0.20	ug/L			
0138	SAMPLE	184663-005		110138	Soil	03-FEB-2006 13:22	2.0	74.63			46049675001	1.1	0.040	mg/Kg			
0138	CCV					03-FEB-2006 13:30	1.0	1.0	1	2.500	46049675001	2.740		ug/L	110		
0138	CCB					03-FEB-2006 13:32	1.0	1.0			46049675001	ND	0.20	ug/L			

used: 1=S2619 2=S2643 3=S2644 4=S2645 5=S2646
s used: >LR=overrange b=noncompliant

lyst: _____ Date: 2/8/06

of 1

CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 7470A

: MET04 Reviewer: ---

num : 46049675001 Date : 03-FEB-2006 11:55 Type : SOIL Inj Vol : 2000 uL

File	Seqnum	Sample ID	Analyzed	Stds
110138	46049675002	Std02Rep1	03-FEB-2006 11:58	S2619 (500X)
110138	46049675003	Std03Rep1	03 FEB 2006 11:59	S2619 (200X)
110138	46049675004	Std04Rep1	03 FEB 2006 12:01	S2619 (50X)
110138	46049675005	Std05Rep1	03-FEB-2006 12:03	S2619 (20X)
110138	46049675006	Std06Rep1	03 FEB 2006 12:05	S2619 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flags
ry	68600	68570	68046	60194	57823	LINR	R	-0.13584	1.736E-5		ug/L	64646	0.999	.99	

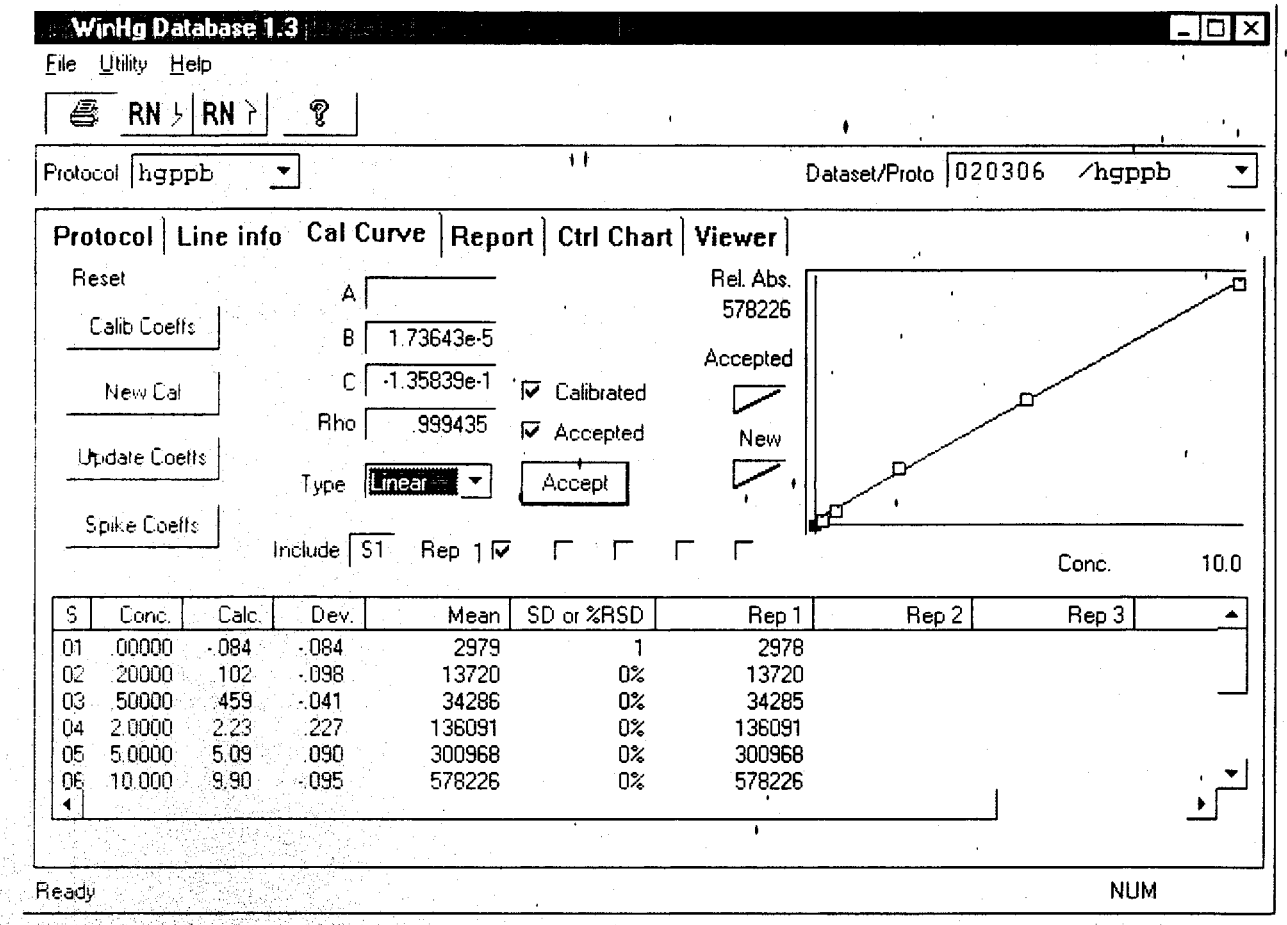
53

Linear regression

ument amount = a0 + response * a1 + response^2 * a2

1 of 1

46049675001


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 020306 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 1.73643e-5
C -1.35839e-1
Rho .999435
Type Linear
Calibrated
Accepted
Accept
Include S1 Rep 1
Rel. Abs.
578226
Accepted
New
Conc. 10.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 -.084 -.084 2979 1 2978
02 .20000 .102 -.098 13720 0% 13720
03 .50000 .459 -.041 34286 0% 34285
04 2.0000 2.23 .227 136091 0% 136091
05 5.0000 5.09 .090 300968 0% 300968
06 10.000 9.90 -.095 578226 0% 578226
Ready
NUM

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		11:55:50 03 Feb 06			HG
Hg	.000	ppb	2978						
		Bkgd 1	9697486						
*** Standard: 2 Rep: 1				Seq: 2		11:58:13 03 Feb 06			HG
Hg	.200	ppb	13720						
		Bkgd 1	9695501						
*** Standard: 3 Rep: 1				Seq: 3		11:59:55 03 Feb 06			HG
Hg	.500	ppb	34285						
		Bkgd 1	9694146						
*** Standard: 4 Rep: 1				Seq: 4		12:01:40 03 Feb 06			HG
Hg	2.00	ppb	136091						
		Bkgd 1	9692713						
*** Standard: 5 Rep: 1				Seq: 5		12:03:55 03 Feb 06			HG
Hg	5.00	ppb	300968						
		Bkgd 1	9685103						
*** Standard: 6 Rep: 1				Seq: 6		12:05:40 03 Feb 06			HG
Hg	10.0	ppb	578226						
		Bkgd 1	9680894						
*** Check Standard: 2			Ck2s2643	Seq: 7		12:18:21 03 Feb 06			HG
Line	Flag		Intensities						
Hg			309023						
		Bkgd 1	9670192						
*** Check Standard: 1			Ck1ICB	Seq: 8		12:20:04 03 Feb 06			HG
Line	Flag		Intensities						
Hg			2021						
		Bkgd 1	9668133						
*** Sample ID: qc326740				Seq: 9		12:21:57 03 Feb 06			HG
			110138,1						
Hg	-.110	ppb	1460						
		Bkgd 1	9668719						

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------

*** Sample ID: qc326741              Seq:  10     12:23:42 03 Feb 06   HG
                          110138,1
Hg    5.16    ppb       305222
              Bkgd 1    9669913                                        =
                                                                       =
=========================================================================
*** Sample ID: qc326742              Seq:  11     12:25:25 03 Feb 06   HG
                          110138,1
Hg    5.03    ppb       297749
              Bkgd 1    9669468                                        =
                                                                       =
=========================================================================
*** Sample ID: 184663-001            Seq:  12     12:27:18 03 Feb 06   HG
                          110138,1
Hg    .116    ppb       14510
              Bkgd 1    9668353                                        =
                                                                       =
=========================================================================
*** Sample ID: qc326745              Seq:  13     12:29:01 03 Feb 06   HG
                          110138,5
Hg   -.053    ppb       4791
              Bkgd 1    9667483                                        =
                                                                       =
=========================================================================
*** Sample ID: qc326743              Seq:  14     12:30:53 03 Feb 06   HG
                          110138,1
Hg    4.92    ppb       291208
              Bkgd 1    9666814                                        =
                                                                       =
=========================================================================
*** Sample ID: qc326744              Seq:  15     12:32:36 03 Feb 06   HG
                          110138,1
Hg    4.91    ppb       290549
              Bkgd 1    9664505                                        =
                                                                       =
=========================================================================
*** Sample ID: 184568-001            Seq:  16     12:34:29 03 Feb 06   HG
                          110138,1
Hg    .088    ppb       12887
              Bkgd 1    9666195                                        =
                                                                       =
=========================================================================
*** Sample ID: 184568-002            Seq:  17     12:36:26 03 Feb 06   HG
                          110138,1
Hg    .085    ppb       12725
              Bkgd 1    9667567                                        =
                                                                       =
=========================================================================
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 184568-003				Seq: 18	12:38:30 03 Feb 06	HG			
			110138,1						
Hg	.336	ppb	27191						
		Bkgd 1	9665877						=
									=
*** Check Standard: 3			Ck3S2644	Seq: 19	12:40:18 03 Feb 06	HG			
Line	Flag		Intensities						
Hg			160789						
		Bkgd 1	9666593						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 20	12:42:00 03 Feb 06	HG			
Line	Flag		Intensities						
Hg			2828						
		Bkgd 1	9663914						=
									=
*** Sample ID: 184568-004				Seq: 21	12:43:55 03 Feb 06	HG			
			110138,1						
Hg	.139	ppb	15851						
		Bkgd 1	9662594						=
									=
*** Sample ID: 184568-005				Seq: 22	12:45:38 03 Feb 06	HG			
			110138,1						
Hg	.128	ppb	15175						
		Bkgd 1	9662820						=
									=
*** Sample ID: 184568-006				Seq: 23	12:47:30 03 Feb 06	HG			
			110138,1						
Hg	.068	ppb	11711						
		Bkgd 1	9663656						=
									=
*** Sample ID: 184568-007				Seq: 24	12:50:12 03 Feb 06	HG			
			110138,1						
Hg	.074	ppb	12086						
		Bkgd 1	9663623						=
									=
*** Sample ID: 184663-002				Seq: 25	12:51:54 03 Feb 06	HG			
			110138,1						
Hg	.010	ppb	8406						
		Bkgd 1	9663519						=
									=

```
Line   Conc.  Units     SD/RSD      1      2       3       4      5
--------------------++-------------------------------------------------------

*** Sample ID: 184663-003          Seq:  26     12:53:41 03 Feb 06   HG
                          110138,1
Hg     .067    ppb       11673
               Bkgd 1    9664183                                          =
                                                                          =
==========================================================================
*** Sample ID: 184663-004          Seq:  27     12:55:26 03 Feb 06   HG
                          110138,1
Hg     .049    ppb       10667
               Bkgd 1    9664712                                          =
                                                                          =
==========================================================================
*** Sample ID: 184663-005          Seq:  28     12:57:40 03 Feb 06   HG
                          110138,1
Hg     14.6    ppb       848494
               Bkgd 1    9665025                                          =
                                                                          =
==========================================================================
*** Sample ID: 184663-006          Seq:  29     12:59:23 03 Feb 06   HG
                          110138,1
Hg     .507    ppb       37015
               Bkgd 1    9657284                                          =
                                                                          =
==========================================================================
*** Sample ID: 184663-007          Seq:  30     13:01:18 03 Feb 06   HG
                          110138,1
Hg     .468    ppb       34750
               Bkgd 1    9660504                                          =
                                                                          =
*** Check Standard: 5  Ck5S2645    Seq:  31     13:03:27 03 Feb 06   HG
Line  Flag             Intensities
Hg                     311536
               Bkgd 1    9661042                                          =
                                                                          =
*** Check Standard: 6  Ck6CCB      Seq:  32     13:05:20 03 Feb 06   HG
Line  Flag             Intensities
Hg                     -1682
               Bkgd 1    9658917                                          =
                                                                          =
*** Sample ID: 184663-008          Seq:  33     13:07:05 03 Feb 06   HG
                          110138,1
Hg     .485    ppb       35748
               Bkgd 1    9660176                                          =
                                                                          =
==========================================================================
```

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 184663-009				Seq: 34		13:09:12 03 Feb 06	HG		
			110138,1						
Hg	.401	ppb	30931						
		Bkgd 1	9660389						=
									=
*** Sample ID: 184678-001				Seq: 35		13:11:08 03 Feb 06	HG		
			110138,1						
Hg	.323	ppb	26429						
		Bkgd 1	9658875						=
									=
*** Sample ID: 184678-002				Seq: 36		13:12:54 03 Feb 06	HG		
			110138,1						
Hg	.427	ppb	32409						
		Bkgd 1	9659561						=
									=
*** Sample ID: 184679-001				Seq: 37		13:14:56 03 Feb 06	HG		
			110138,1						
Hg	.487	ppb	35888						
		Bkgd 1	9663552						=
									=
*** Sample ID: 184680-001				Seq: 38		13:16:40 03 Feb 06	HG		
			110138,1						
Hg	.641	ppb	44761						
		Bkgd 1	9664967						=
									=
*** Check Standard: 4			Ck4S2646	Seq: 39		13:18:27 03 Feb 06	HG		
Line	Flag		Intensities						
Hg			440693						
		Bkgd 1	9661952						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 40		13:20:21 03 Feb 06	HG		
Line	Flag		Intensities						
Hg			3608						
		Bkgd 1	9660068						=
									=
*** Sample ID: 184663-005				Seq: 41		13:22:09 03 Feb 06	HG		
			110138,~~1~~ KMC 2/2 2						
Hg	7.41	ppb	434392						
		Bkgd 1	9657543						=
									=
*** Check Standard: 3			Ck3S2644	Seq: 42		13:30:02 03 Feb 06	HG		
Line	Flag		Intensities						
Hg			165367						
		Bkgd 1	9656637						=
									=

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 6 Ck6CCB Seq: 43 13:32:06 03 Feb 06 HG

Line	Flag		Intensities					
Hg			2692					
		Bkgd 1	9654496					=
								=

Curtis & Tompkins Laboratories Sample Preparation Summary 03-FEB-2006 11:36

tch Number : 110138
te Extracted: 03-FEB-2006
tracted by : Kale Clauson
ep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S2641
Spike #2 ID :
Spike #3 ID :
SOP Version :

le	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
68-001			SI Consulting	Soil	.56	g	50	89.285714	1					T26/HG		
68-002			SI Consulting	Soil	.56	g	50	89.285714	1					T26/HG		
68-003			SI Consulting	Soil	.59	g	50	84.745763	1					T26/HG		
68-004			SI Consulting	Soil	.52	g	50	96.153846	1					T26/HG		
68-005			SI Consulting	Soil	.56	g	50	89.285714	1					T26/HG		
68-006			SI Consulting	Soil	.59	g	50	84.745763	1					T26/HG		
68-007			SI Consulting	Soil	.53	g	50	94.339623	1					T26/HG		
63-001			Tetra Tech EC, Inc.	Soil	.52	g	50	96.153846	1					T26/HG		
63-002			Tetra Tech EC, Inc.	Soil	.52	g	50	96.153846	1					T26/HG		
63-003			Tetra Tech EC, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
63-004			Tetra Tech EC, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
63-005			Tetra Tech EC, Inc.	Soil	.67	g	50	74.626866	1					T26/HG		
63-006			Tetra Tech EC, Inc.	Soil	.61	g	50	81.967213	1					T26/HG		
63-007			Tetra Tech EC, Inc.	Soil	.66	g	50	75.757576	1					T26/HG		
63-008			Tetra Tech EC, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
63-009			Tetra Tech EC, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
78-001			Mactec, Inc.	Soil	.51	g	50	98.039216	1					T26/HG		
78-002			Mactec, Inc.	Soil	.59	g	50	84.745763	1					T26/HG		
79-001			Mactec, Inc.	Soil	.6	g	50	83.333333	1					T26/HG		
80-001			Mactec, Inc.	Soil	.54	g	50	92.592593	1					T26/HG		
6740	BLANK			Soil	.5	g	50	100.000000	1					HG		
6741	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
6742	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
6743	MS	of 184663-001		Soil	.56	g	50	89.285714	1		2.5			HG		
6744	MSD	of 184663-001		Soil	.55	g	50	90.909091	1		2.5			HG		
6745	SER	of 184663-001		Soil	.52	g	50	96.153846	1					HG		
6746	PDS	of 184663-001		Soil	.52	g	50	96.153846	1					HG		

Prep Chemist: _____ Reviewed By: _____ Date: 2/3/06

Relinquished By: _____ Received By: _____ Date: 2/3/2006

oil Digestion for Mercury — Curtis & Tompkins, Ltd.

S Batch #: 110138 — **Digestion Method** — BK 2218

Digested: 2/3/2006 — ☒ EPA 7471A — Page 99

gested by: KMC — ☐ _____

Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
164568 - 001	0.56	50	Y	COMP A, B, C, D 50.0g EACH
002	0.56			
003	0.59			
004	0.52			
005	0.56			
006	0.59			
007	0.53			
164663 - 001 A	0.52			
002	0.52			
003	0.51			
004	0.51			
005	0.67			
006	0.61			
007	0.66			
008	0.51			
009	0.51			
164678 - 001	0.51			
002	0.59			
164~~68~~79 -001	0.60			
164680 - 001	0.54			
BLANK QC326740	0.50			
BS QC326741	0.50			
BSD QC326742	0.50			
164663-001MS A	0.56			
164663-001MSD A	0.55			

	Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes	S2641	KMC 2/3
ICAL Source WS#	S2641	
ICV / CCV WS#	S2643/644/645/646	
gestion of Samples & Standards: Time ON / Temperature ON	11:00 / 95°C	
Time OFF/ Temperature OFF	11:30 / 95°C	
Aqua Regia Acids (HNO3+ HCl)	AR 020106	
5% $KMnO_4$	K 013006	
NaCl.hydroxylamine hydrochloride	Hy 010306	
Stannous Chloride	$SnCl_2$ 012806	
☒ filtered thru' 0.45 um syringe filter	Millipore R5DN59292	

Continued from page 62

Percent Moisture Summary Report

Batch: 110221
Date: 02/07/06
Method: CLP SOW 390
Analyst: CCH

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
184663-001	15.0229	21.1487	20.3343	87	13
184663-002	15.4895	23.2474	22.7464	94	6
184663-003	15.0088	21.0178	20.1534	86	14
184663-004	15.5087	22.1841	21.5022	90	10
184663-005	15.3020	23.8977	22.3109	82	18
184663-006	14.9962	21.5659	20.6346	86	14
184663-007	15.3869	21.2523	20.1157	81	19
184663-008	15.1622	22.0935	20.9061	83	17
184663-009	15.1795	22.7513	21.4717	83	17
184678-001	14.3136	21.7217	19.5842	71	29
184678-002	15.3836	23.9257	21.6731	74	26
184679-001	15.5985	24.6227	23.4721	87	13
184680-001	14.7141	22.9325	21.0670	77	23
184716-001	15.2452	23.9240	21.0415	67	33
184755-001	15.1582	22.2301	21.1099	84	16
QC327111 of 184755-001	14.9401	21.1105	20.0587	83	17
			RPD:	1.4%	7.3%

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Semivolatile Organics by GC/MS SIM

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Field ID:	BBSB120(1.0)	Batch#:	110148
Lab ID:	184679-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	ug/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/04/06
Diln Fac:	1.000		

Moisture: 13%

Analyte	Result	RL	MDL
Naphthalene	14	5.8	1.2
2-Methylnaphthalene	9.3	5.8	1.0
Acenaphthylene	31	5.8	0.87
Acenaphthene	2.2 J	5.8	1.1
Fluorene	11	5.8	0.95
Phenanthrene	180	5.8	0.79
Anthracene	20	5.8	0.73
Fluoranthene	170	5.8	0.79
Pyrene	200	5.8	1.1
Benzo(a)anthracene	55	5.8	0.72
Chrysene	99	5.8	0.83
Benzo(b)fluoranthene	60	5.8	0.68
Benzo(k)fluoranthene	59	5.8	1.3
Benzo(a)pyrene	64	5.8	0.88
Indeno(1,2,3-cd)pyrene	35	5.8	0.84
Dibenz(a,h)anthracene	12	5.8	0.84
Benzo(g,h,i)perylene	35	5.8	0.78

Surrogate	%REC	Limits
Nitrobenzene-d5	98	33-151
2-Fluorobiphenyl	71	34-126
Terphenyl-d14	90	42-135

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326781	Batch#:	110148
Matrix:	Soil	Prepared:	02/03/06
Units:	ug/Kg	Analyzed:	02/03/06
Basis:	as received		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	1.1
2-Methylnaphthalene	ND	5.0	0.87
Acenaphthylene	ND	5.0	0.76
Acenaphthene	ND	5.0	0.92
Fluorene	ND	5.0	0.82
Phenanthrene	ND	5.0	0.69
Anthracene	ND	5.0	0.63
Fluoranthene	ND	5.0	0.68
Pyrene	ND	5.0	0.98
Benzo(a)anthracene	ND	5.0	0.62
Chrysene	ND	5.0	0.72
Benzo(b)fluoranthene	ND	5.0	0.59
Benzo(k)fluoranthene	ND	5.0	1.1
Benzo(a)pyrene	ND	5.0	0.76
Indeno(1,2,3-cd)pyrene	ND	5.0	0.73
Dibenz(a,h)anthracene	ND	5.0	0.73
Benzo(g,h,i)perylene	ND	5.0	0.68

Surrogate	%REC	Limits
Nitrobenzene-d5	72	33-151
2-Fluorobiphenyl	69	34-126
Terphenyl-d14	76	42-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326782	Batch#:	110148
Matrix:	Soil	Prepared:	02/03/06
Units:	ug/Kg	Analyzed:	02/03/06
Basis:	as received		

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.52	17.93	53	49-120
Pyrene	33.52	18.05	54	48-120

Surrogate	%REC	Limits
Nitrobenzene-d5	59	33-151
2-Fluorobiphenyl	58	34-126
Terphenyl-d14	60	42-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3550B
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Field ID:	BBSB120(1.0)	Batch#:	110148
MSS Lab ID:	184679-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	ug/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/06/06
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC326783

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	2.174	38.53	15.15	34 *	52-125
Pyrene	195.7	38.53	73.93	-316 NM	39-135

Surrogate	%REC	Limits
Nitrobenzene-d5	51	33-151
2-Fluorobiphenyl	38	34-126
Terphenyl-d14	30 *	42-135

Type: MSD Moisture: 13%
Lab ID: QC326784

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	38.00	30.51	75	52-125	68 *	35
Pyrene	38.00	459.0 >LR	693 NM	39-135	NC	44

Surrogate	%REC	Limits
Nitrobenzene-d5	87	33-151
2-Fluorobiphenyl	68	34-126
Terphenyl-d14	77	42-135

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

California Title 26 Metals

Lab #:	184679	Project#:	57255.005132
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA2A
Field ID:	BBSB120(1.0)	Basis:	dry
Lab ID:	184679-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/01/06
Units:	mg/Kg	Received:	02/01/06

Moisture: 13%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.69 J	3.0	0.11	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Arsenic	4.2	0.25	0.098	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Barium	67	0.50	0.051	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Beryllium	0.24	0.099	0.0098	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Cadmium	0.16 J	0.25	0.023	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Chromium	130	0.50	0.033	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Cobalt	13	0.99	0.025	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Copper	11	0.50	0.047	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Lead	9.5	0.15	0.052	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Mercury	0.047	0.019	0.0037	110138	02/03/06	02/03/06	METHOD	EPA 7471A
Molybdenum	0.30 J	0.99	0.022	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Nickel	150	0.99	0.030	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Selenium	0.58	0.25	0.077	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Silver	ND	0.25	0.043	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Thallium	0.73	0.25	0.030	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Vanadium	75	0.50	0.031	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B
Zinc	44	0.99	0.11	110211	02/07/06	02/07/06	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326740	Batch#:	110138
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/03/06

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	110138
Units:	mg/Kg	Prepared:	02/03/06
Basis:	as received	Analyzed:	02/03/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC326741	0.5000	0.5160	103	75-125		
BSD	QC326742	0.5000	0.5030	101	75-125	3	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Matrix:	Soil	Received:	01/31/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/03/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC326743	0.01282	0.5131	0.5049	96	75-125	13%		
MSD	QC326744		0.5225	0.5131	96	75-125	13%	0	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Lab ID:	QC326745	Received:	01/31/06
Matrix:	Soil	Analyzed:	02/03/06
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.01282	0.02210	ND	0.1105	13%	10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005132	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC327072	Batch#:	110211
Matrix:	Soil	Prepared:	02/07/06
Units:	mg/Kg	Analyzed:	02/07/06
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.042 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	ND	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	ND	1.0	0.022
Nickel	ND	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005132	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	110211
Units:	mg/Kg	Prepared:	02/07/06
Basis:	as received	Analyzed:	02/07/06
Diln Fac:	1.000		

Type: BS Lab ID: QC327073

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	99.03	99	75-125
Arsenic	50.00	51.05	102	75-125
Barium	100.0	100.8	101	75-125
Beryllium	2.500	2.603	104	75-125
Cadmium	10.00	10.44	104	75-125
Chromium	100.0	101.0	101	75-125
Cobalt	25.00	25.05	100	75-125
Copper	12.50	12.23	98	75-125
Lead	100.0	99.60	100	75-125
Molybdenum	20.00	20.20	101	75-125
Nickel	25.00	25.12	100	75-125
Selenium	50.00	50.34	101	75-125
Silver	10.00	9.113	91	75-125
Thallium	50.00	50.31	101	75-125
Vanadium	25.00	25.17	101	75-125
Zinc	25.00	25.34	101	75-125

Type: BSD Lab ID: QC327074

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	103.1	103	75-125	4	30
Arsenic	50.00	51.75	103	75-125	1	30
Barium	100.0	102.0	102	75-125	1	30
Beryllium	2.500	2.605	104	75-125	0	30
Cadmium	10.00	10.55	106	75-125	1	30
Chromium	100.0	101.3	101	75-125	0	30
Cobalt	25.00	25.48	102	75-125	2	30
Copper	12.50	12.32	99	75-125	1	30
Lead	100.0	101.0	101	75-125	1	30
Molybdenum	20.00	20.56	103	75-125	2	30
Nickel	25.00	25.51	102	75-125	2	30
Selenium	50.00	51.45	103	75-125	2	30
Silver	10.00	9.304	93	75-125	2	30
Thallium	50.00	51.36	103	75-125	2	30
Vanadium	25.00	25.61	102	75-125	2	30
Zinc	25.00	25.31	101	75-125	0	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005132	Analysis:	EPA 6010B
Field ID:	BBSB120(1.0)	Batch#:	110211
MSS Lab ID:	184679-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/07/06
Basis:	dry	Analyzed:	02/07/06
Diln Fac:	1.000		

Type: MS Moisture: 13%
Lab ID: QC327075

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.6881	124.9	45.89	36 *	75-125
Arsenic	4.191	62.47	62.20	93	75-125
Barium	67.05	124.9	191.2	99	75-125
Beryllium	0.2382	3.123	3.216	95	75-125
Cadmium	0.1561	12.49	11.98	95	75-125
Chromium	127.3	124.9	225.4	79	75-125
Cobalt	13.40	31.23	41.57	90	75-125
Copper	10.71	15.62	25.00	92	75-125
Lead	9.536	124.9	122.6	90	75-125
Molybdenum	0.2983	24.99	22.52	89	75-125
Nickel	152.4	31.23	165.4	42 NM	75-125
Selenium	0.5809	62.47	57.00	90	75-125
Silver	<0.04287	12.49	8.638	69 *	75-125
Thallium	0.7254	62.47	55.41	88	75-125
Vanadium	74.72	31.23	102.6	89	75-125
Zinc	44.36	31.23	72.70	91	75-125

Type: MSD Moisture: 13%
Lab ID: QC327076

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	91.95	29.60	31 *	75-125	13	30
Arsenic	45.98	46.36	92	75-125	1	30
Barium	91.95	152.8	93	75-125	4	30
Beryllium	2.299	2.408	94	75-125	1	30
Cadmium	9.195	8.682	93	75-125	2	30
Chromium	91.95	202.8	82	75-125	3	30
Cobalt	22.99	33.88	89	75-125	0	30
Copper	11.49	21.63	95	75-125	3	30
Lead	91.95	90.42	88	75-125	2	30
Molybdenum	18.39	16.33	87	75-125	2	30
Nickel	22.99	167.5	66 NM	75-125	6	30
Selenium	45.98	41.89	90	75-125	0	30
Silver	9.195	5.476	60 *	75-125	15	30
Thallium	45.98	39.94	85	75-125	2	30
Vanadium	22.99	96.58	95	75-125	2	30
Zinc	22.99	66.75	97	75-125	3	30

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184679	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005132	Analysis:	EPA 6010B
Field ID:	BBSB120(1.0)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	184679-001	Batch#:	110211
Lab ID:	QC327077	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Analyzed:	02/07/06

Moisture: 13%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	0.6881	2.973	1.113 J	14.86		10
Arsenic	4.191	0.2477	4.720	1.239		10
Barium	67.05	0.4954	66.20	2.477	1	10
Beryllium	0.2382	0.09909	0.2201 J	0.4954		10
Cadmium	0.1561	0.2477	0.1491 J	1.239		10
Chromium	127.3	0.4954	126.7	2.477	0	10
Cobalt	13.40	0.9909	13.58	4.954	1	10
Copper	10.71	0.4954	10.24	2.477	4	10
Lead	9.536	0.1486	9.150	0.7432	4	10
Molybdenum	0.2983	0.9909	0.3967 J	4.954		10
Nickel	152.4	0.9909	154.5	4.954	1	10
Selenium	0.5809	0.2477	ND	1.239		10
Silver	ND	0.2477	ND	1.239		10
Thallium	0.7254	0.2477	0.5387 J	1.239		10
Vanadium	74.72	0.4954	72.33	2.477	3	10
Zinc	44.36	0.9909	42.57	4.954	4	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

California Title 26 Metals

Lab #:	184680	Project#:	57255.005102
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA1
Field ID:	BB1SB115(0.5)	Diln Fac:	1.000
Lab ID:	184680-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry		

Moisture: 23%

Analyte	Result	RL	MDL	Batch#	Analyzed	Prep	Analysis
Antimony	1.4 J	3.2	0.11	110123	02/06/06	EPA 3050B	EPA 6010B
Arsenic	14	0.27	0.11	110123	02/06/06	EPA 3050B	EPA 6010B
Barium	150	0.53	0.054	110123	02/06/06	EPA 3050B	EPA 6010B
Beryllium	0.35	0.11	0.011	110123	02/06/06	EPA 3050B	EPA 6010B
Cadmium	1.5	0.27	0.025	110123	02/06/06	EPA 3050B	EPA 6010B
Chromium	130	0.53	0.036	110123	02/06/06	EPA 3050B	EPA 6010B
Cobalt	18	1.1	0.027	110123	02/06/06	EPA 3050B	EPA 6010B
Copper	130	0.53	0.051	110123	02/06/06	EPA 3050B	EPA 6010B
Lead	150	0.16	0.056	110123	02/06/06	EPA 3050B	EPA 6010B
Mercury	0.077	0.024	0.0046	110138	02/03/06	METHOD	EPA 7471A
Molybdenum	1.1	1.1	0.024	110123	02/06/06	EPA 3050B	EPA 6010B
Nickel	150	1.1	0.032	110123	02/06/06	EPA 3050B	EPA 6010B
Selenium	0.53	0.27	0.083	110123	02/06/06	EPA 3050B	EPA 6010B
Silver	ND	0.27	0.046	110123	02/06/06	EPA 3050B	EPA 6010B
Thallium	0.15 J	0.27	0.032	110123	02/06/06	EPA 3050B	EPA 6010B
Vanadium	70	0.53	0.034	110123	02/06/06	EPA 3050B	EPA 6010B
Zinc	370	1.1	0.11	110123	02/06/06	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326681	Batch#:	110123
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/06/06
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.050 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	ND	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	ND	1.0	0.022
Nickel	ND	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	110123
Units:	mg/Kg	Prepared:	02/03/06
Basis:	as received	Analyzed:	02/06/06
Diln Fac:	1.000		

Type: BS Lab ID: QC326682

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	98.82	99	75-125
Arsenic	50.00	49.27	99	75-125
Barium	100.0	99.11	99	75-125
Beryllium	2.500	2.563	103	75-125
Cadmium	10.00	9.997	100	75-125
Chromium	100.0	98.97	99	75-125
Cobalt	25.00	24.28	97	75-125
Copper	12.50	12.09	97	75-125
Lead	100.0	96.01	96	75-125
Molybdenum	20.00	19.85	99	75-125
Nickel	25.00	24.30	97	75-125
Selenium	50.00	49.07	98	75-125
Silver	10.00	8.862	89	75-125
Thallium	50.00	48.66	97	75-125
Vanadium	25.00	24.81	99	75-125
Zinc	25.00	23.91	96	75-125

Type: BSD Lab ID: QC326683

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	100.9	101	75-125	2	30
Arsenic	50.00	50.55	101	75-125	3	30
Barium	100.0	99.33	99	75-125	0	30
Beryllium	2.500	2.567	103	75-125	0	30
Cadmium	10.00	10.23	102	75-125	2	30
Chromium	100.0	99.31	99	75-125	0	30
Cobalt	25.00	24.85	99	75-125	2	30
Copper	12.50	12.12	97	75-125	0	30
Lead	100.0	98.35	98	75-125	2	30
Molybdenum	20.00	20.22	101	75-125	2	30
Nickel	25.00	24.81	99	75-125	2	30
Selenium	50.00	50.03	100	75-125	2	30
Silver	10.00	9.033	90	75-125	2	30
Thallium	50.00	49.81	100	75-125	2	30
Vanadium	25.00	25.41	102	75-125	2	30
Zinc	25.00	24.52	98	75-125	3	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Field ID:	BB1SB115(0.5)	Batch#:	110123
MSS Lab ID:	184680-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/06/06
Diln Fac:	1.000		

Type: MS Moisture: 23%
Lab ID: QC326684

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	1.402	85.44	23.86	26 *	75-125
Arsenic	13.73	42.72	43.78	70 *	75-125
Barium	147.1	85.44	350.9	238 *	75-125
Beryllium	0.3532	2.136	2.325	92	75-125
Cadmium	1.471	8.544	8.291	80	75-125
Chromium	135.0	85.44	227.3	108	75-125
Cobalt	18.03	21.36	54.21	169 *	75-125
Copper	131.2	10.68	65.31	-617 NM	75-125
Lead	153.5	85.44	193.6	47 *	75-125
Molybdenum	1.091	17.09	15.33	83	75-125
Nickel	153.3	21.36	190.3	173 NM	75-125
Selenium	0.5271	42.72	38.52	89	75-125
Silver	<0.04606	8.544	5.701	67 *	75-125
Thallium	0.1499	42.72	31.48	73 *	75-125
Vanadium	69.80	21.36	94.99	118	75-125
Zinc	365.4	21.36	291.1	-348 NM	75-125

Type: MSD Moisture: 23%
Lab ID: QC326685

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	98.39	30.41	29 *	75-125	10	30
Arsenic	49.19	52.47	79	75-125	7	30
Barium	98.39	217.2	71 *	75-125	52 *	30
Beryllium	2.460	2.687	95	75-125	2	30
Cadmium	9.839	9.916	86	75-125	6	30
Chromium	98.39	209.7	76	75-125	14	30
Cobalt	24.60	39.40	87	75-125	39 *	30
Copper	12.30	91.24	-325 NM	75-125	32 *	30
Lead	98.39	231.5	79	75-125	13	30
Molybdenum	19.68	18.38	88	75-125	5	30
Nickel	24.60	176.7	95 NM	75-125	9	30
Selenium	49.19	46.38	93	75-125	5	30
Silver	9.839	3.560	36 *	75-125	59 *	30
Thallium	49.19	41.41	84	75-125	13	30
Vanadium	24.60	84.97	62 *	75-125	15	30
Zinc	24.60	312.2	-216 NM	75-125	6	30

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Field ID:	BB1SB115(0.5)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	184680-001	Batch#:	110123
Lab ID:	QC326686	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Analyzed:	02/06/06

Moisture: 23%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	1.402	3.194	2.162 J	15.97		10
Arsenic	13.73	0.2661	15.04	1.331	10	10
Barium	147.1	0.5323	148.7	2.661	1	10
Beryllium	0.3532	0.1065	0.3704 J	0.5323		10
Cadmium	1.471	0.2661	1.468	1.331	0	10
Chromium	135.0	0.5323	136.1	2.661	1	10
Cobalt	18.03	1.065	18.81	5.323	4	10
Copper	131.2	0.5323	125.3	2.661	5	10
Lead	153.5	0.1597	160.8	0.7984	5	10
Molybdenum	1.091	1.065	1.356 J	5.323		10
Nickel	153.3	1.065	159.2	5.323	4	10
Selenium	0.5271	0.2661	0.4379 J	1.331		10
Silver	ND	0.2661	ND	1.331		10
Thallium	0.1499	0.2661	1.112 J	1.331		10
Vanadium	69.80	0.5323	68.17	2.661	2	10
Zinc	365.4	1.065	382.0	5.323	5	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326740	Batch#:	110138
Matrix:	Soil	Prepared:	02/03/06
Units:	mg/Kg	Analyzed:	02/03/06

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	110138
Units:	mg/Kg	Prepared:	02/03/06
Basis:	as received	Analyzed:	02/03/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC326741	0.5000	0.5160	103	75-125		
BSD	QC326742	0.5000	0.5030	101	75-125	3	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Matrix:	Soil	Received:	01/31/06
Units:	mg/Kg	Prepared:	02/03/06
Basis:	dry	Analyzed:	02/03/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC326743	0.01282	0.5131	0.5049	96	75-125	13%		
MSD	QC326744		0.5225	0.5131	96	75-125	13%	0	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

California Title 26 Metals

Lab #:	184680	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	110138
MSS Lab ID:	184663-001	Sampled:	01/31/06
Lab ID:	QC326745	Received:	01/31/06
Matrix:	Soil	Analyzed:	02/03/06
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.01282	0.02210	ND	0.1105	13%	10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
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Total Volatile Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8015B
Field ID:	BB2ASW100	Batch#:	110142
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000	Analyzed:	02/03/06

Type: SAMPLE Lab ID: 184691-001

Analyte	Result	RL	MDL
Gasoline C7-C12	27 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	70	65-135

Type: BLANK Lab ID: QC326759

Analyte	Result	RL	MDL
Gasoline C7-C12	18 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	86	65-135

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326761	Batch#:	110142
Matrix:	Water	Analyzed:	02/03/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,181	109	65-135

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	110142
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/03/06
Diln Fac:	1.000		

Type: MS Lab ID: QC326792

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	31.78	2,000	1,756	86	65-135

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-135

Type: MSD Lab ID: QC326793

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,786	88	65-135	2	35

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8015B
Field ID:	BB2ASW100	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06
Batch#:	110168		

Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 184691-001

Analyte	Result	RL	MDL
Diesel C12-C24	47 J Y	50	13
Fuel Oil C24-C36	ND	300	55

Surrogate	%REC	Limits
Hexacosane	87	65-135

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC326878

Analyte	Result	RL	MDL
Diesel C12-C24	ND	50	13
Fuel Oil C24-C36	ND	300	55

Surrogate	%REC	Limits
Hexacosane	99	65-135

J= Estimated value
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326879	Batch#:	110168
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/07/06

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	2,500	2,617	105	65-135

Surrogate	%REC	Limits
Hexacosane	109	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	110168
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC326880

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	94.29	2,500	2,538	98	65-135

Surrogate	%REC	Limits
Hexacosane	100	65-135

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC326881

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	2,500	2,871	111	65-135	12	35

Surrogate	%REC	Limits
Hexacosane	116	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	110168
MSS Lab ID:	184712-001	Sampled:	02/02/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC326882

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	<12.81	2,500	2,425	97	65-135

Surrogate	%REC	Limits
Hexacosane	102	65-135

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC326883

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	2,500	2,601	104	65-135	7	35

Surrogate	%REC	Limits
Hexacosane	113	65-135

RPD= Relative Percent Difference

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Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Field ID:	BB2ASW100	Batch#:	110187
Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	2.6 J	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.6 J	10	0.2
Carbon Disulfide	0.1 J	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Field ID:	BB2ASW100	Batch#:	110187
Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	112	76-120
Toluene-d8	96	88-120
Bromofluorobenzene	98	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326952	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	28.64	115	65-135
Benzene	25.00	24.68	99	65-135
Trichloroethene	25.00	25.90	104	65-135
Toluene	25.00	26.64	107	65-135
Chlorobenzene	25.00	26.93	108	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	97	88-120
Bromofluorobenzene	93	86-120

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326953	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	ND	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.3 J	10	0.2
Carbon Disulfide	ND	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326953	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	76-120
Toluene-d8	97	88-120
Bromofluorobenzene	103	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005132	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	110187
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Type: MS Lab ID: QC326954

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2168	25.00	26.77	107	65-135
Benzene	<0.04131	25.00	25.91	104	65-135
Trichloroethene	<0.07621	25.00	25.08	100	65-135
Toluene	<0.08342	25.00	25.97	104	65-135
Chlorobenzene	<0.08963	25.00	26.65	107	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	97	86-120

Type: MSD Lab ID: QC326955

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	25.92	104	65-135	3	35
Benzene	25.00	24.77	99	65-135	5	35
Trichloroethene	25.00	24.53	98	65-135	2	35
Toluene	25.00	26.06	104	65-135	0	35
Chlorobenzene	25.00	26.28	105	65-135	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	95	86-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Semivolatile Organics by GC/MS SIM

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Field ID:	BB2ASW100	Batch#:	110169
Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Analyte	Result	RL	MDL
Naphthalene	0.05 J	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.05
Acenaphthylene	ND	0.1	0.009
Acenaphthene	0.03 J	0.1	0.009
Fluorene	0.1	0.1	0.01
Phenanthrene	0.09 J	0.1	0.009
Anthracene	0.05 J	0.1	0.02
Fluoranthene	0.05 J	0.1	0.01
Pyrene	0.05 J	0.1	0.008
Benzo(a)anthracene	0.01 J	0.1	0.01
Chrysene	0.03 J	0.1	0.02
Benzo(b)fluoranthene	0.02 J	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.02
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	100	39-135
2-Fluorobiphenyl	74	41-120
Terphenyl-d14	70	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326884	Batch#:	110169
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.06
Acenaphthylene	ND	0.1	0.01
Acenaphthene	ND	0.1	0.009
Fluorene	ND	0.1	0.01
Phenanthrene	ND	0.1	0.01
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	0.01 J	0.1	0.009
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	ND	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.03
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	99	39-135
2-Fluorobiphenyl	72	41-120
Terphenyl-d14	76	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326885	Batch#:	110169
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1.000	0.7378	74	48-123
Pyrene	1.000	0.7309	73	47-129

Surrogate	%REC	Limits
Nitrobenzene-d5	101	39-135
2-Fluorobiphenyl	80	41-120
Terphenyl-d14	83	27-126

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	110169
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Type: MS Lab ID: QC326886

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.009108	0.9709	0.6033	62	18-139
Pyrene	0.01456	0.9709	0.6497	65	13-146

Surrogate	%REC	Limits
Nitrobenzene-d5	88	39-135
2-Fluorobiphenyl	68	41-120
Terphenyl-d14	56	27-126

Type: MSD Lab ID: QC326887

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	0.9709	0.6683	69	18-139	10	47
Pyrene	0.9709	0.6728	68	13-146	3	47

Surrogate	%REC	Limits
Nitrobenzene-d5	95	39-135
2-Fluorobiphenyl	75	41-120
Terphenyl-d14	37	27-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8081A
Field ID:	BB2ASW100	Batch#:	110170
Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.006
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.008
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.008
4,4'-DDT	0.03 C J	0.1	0.01
alpha-Chlordane	ND	0.05	0.003
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	90	65-135
Decachlorobiphenyl	87	65-135

C= Presence confirmed, but RPD between columns exceeds 40%
J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326888	Batch#:	110170
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.007
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.009
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.009
4,4'-DDT	ND	0.1	0.01
alpha-Chlordane	ND	0.05	0.004
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	68	65-135
Decachlorobiphenyl	90	65-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326889	Batch#:	110170
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/07/06

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	0.2000	0.1669	83	65-135
Heptachlor	0.2000	0.1744 #	87	65-135
Aldrin	0.2000	0.1558	78	65-135
Dieldrin	0.4000	0.3185	80	65-135
Endrin	0.4000	0.3140	79	65-135
4,4'-DDT	0.4000	0.2986	75	65-135

Surrogate	%REC	Limits
TCMX	67	65-135
Decachlorobiphenyl	75	65-135

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8081A
Field ID:	ZZZZZZZZZZ	Batch#:	110170
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Lab ID: QC326890

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.002405	0.1961	0.1762	90	65-135
Heptachlor	<0.005945	0.1961	0.2305 #	118	65-135
Aldrin	<0.006500	0.1961	0.2025	103	65-135
Dieldrin	<0.006900	0.3922	0.3980	101	65-135
Endrin	<0.008102	0.3922	0.4157	106	65-135
4,4'-DDT	<0.009715	0.3922	0.3769	96	65-135

Surrogate	%REC	Limits
TCMX	99	65-135
Decachlorobiphenyl	95	65-135

Type: MSD Lab ID: QC326891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	0.1961	0.1783	91	65-135	1	35
Heptachlor	0.1961	0.1840 #	94	65-135	22	35
Aldrin	0.1961	0.1772	90	65-135	13	35
Dieldrin	0.3922	0.3403	87	65-135	16	35
Endrin	0.3922	0.3580	91	65-135	15	35
4,4'-DDT	0.3922	0.3176	81	65-135	17	35

Surrogate	%REC	Limits
TCMX	82	65-135
Decachlorobiphenyl	86	65-135

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8082
Field ID:	BB2ASW100	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/08/06
Diln Fac:	1.000	Analyzed:	02/09/06
Batch#:	110284		

Type: SAMPLE Cleanup Method: EPA 3665A
Lab ID: 184691-001

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.48	0.10
Aroclor-1221	ND	0.95	0.35
Aroclor-1232	ND	0.48	0.15
Aroclor-1242	ND	0.48	0.14
Aroclor-1248	ND	0.48	0.036
Aroclor-1254	ND	0.48	0.11
Aroclor-1260	ND	0.48	0.093

Surrogate	%REC	Limits
TCMX	70	65-135
Decachlorobiphenyl	44 *	65-135

Type: BLANK Cleanup Method: EPA 3665A
Lab ID: QC327368

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.50	0.11
Aroclor-1221	ND	1.0	0.37
Aroclor-1232	ND	0.50	0.16
Aroclor-1242	ND	0.50	0.14
Aroclor-1248	ND	0.50	0.038
Aroclor-1254	ND	0.50	0.12
Aroclor-1260	ND	0.50	0.097

Surrogate	%REC	Limits
TCMX	110	65-135
Decachlorobiphenyl	93	65-135

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326893	Batch#:	110171
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1221	10.00	8.634	86	65-135

Surrogate	%REC	Limits
TCMX	92	65-135
Decachlorobiphenyl	72	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	110171
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Type: MS Cleanup Method: EPA 3665A
Lab ID: QC326894

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1221	<0.3285	10.00	7.603	76	65-135

Surrogate	%REC	Limits
TCMX	81	65-135
Decachlorobiphenyl	68	65-135

Type: MSD Cleanup Method: EPA 3665A
Lab ID: QC326895

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1221	10.00	8.123	81	65-135	7	35

Surrogate	%REC	Limits
TCMX	85	65-135
Decachlorobiphenyl	70	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005132	Analysis:	EPA 8082
Matrix:	Water	Batch#:	110284
Units:	ug/L	Prepared:	02/08/06
Diln Fac:	1.000	Analyzed:	02/09/06

Type: BS Cleanup Method: EPA 3665A
Lab ID: QC327369

Analyte	Spiked	Result	%REC	Limits
Aroclor-1221	10.00	9.678	97	65-135

Surrogate	%REC	Limits
TCMX	107	65-135
Decachlorobiphenyl	97	65-135

Type: BSD Cleanup Method: EPA 3665A
Lab ID: QC327370

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1221	10.00	10.87	109	65-135	12	35

Surrogate	%REC	Limits
TCMX	116	65-135
Decachlorobiphenyl	135	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 300.0
Field ID:	BB2ASW100	Batch#:	110139
Matrix:	Water	Sampled:	02/01/06 14:10
Units:	mg/L	Received:	02/02/06

Type: SAMPLE Lab ID: 184691-001

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Fluoride	0.31	0.10	0.018	1.000	02/02/06 21:37
Chloride	250	5.0	0.66	25.00	02/03/06 00:49
Bromide	0.27	0.20	0.058	1.000	02/02/06 21:37
Nitrogen, Nitrate	0.94	0.05	0.02	1.000	02/02/06 21:37
Sulfate	210	13	1.1	25.00	02/03/06 00:49

Type: BLANK Diln Fac: 1.000
Lab ID: QC326747 Analyzed: 02/02/06 18:59

Analyte	Result	RL	MDL
Fluoride	ND	0.10	0.018
Chloride	ND	0.20	0.026
Bromide	ND	0.20	0.058
Nitrogen, Nitrate	ND	0.05	0.02
Sulfate	ND	0.50	0.046

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 300.0
Matrix:	Water	Diln Fac:	1.000
Units:	mg/L	Batch#:	110139

Type: BS Analyzed: 02/02/06 19:16
Lab ID: QC326748

Analyte	Spiked	Result	%REC	Limits
Fluoride	2.000	1.882	94	90-110
Chloride	4.000	3.831	96	90-110
Bromide	4.000	4.055	101	90-110
Nitrogen, Nitrate	1.000	0.9711	97	90-110
Sulfate	10.00	9.597	96	90-110

Type: BSD Analyzed: 02/02/06 19:34
Lab ID: QC326749

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Fluoride	2.000	1.881	94	90-110	0	20
Chloride	4.000	3.831	96	90-110	0	20
Bromide	4.000	4.069	102	90-110	0	20
Nitrogen, Nitrate	1.000	0.9660	97	90-110	1	20
Sulfate	10.00	9.541	95	90-110	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
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Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 300.0
Field ID:	ZZZZZZZZZZ	Diln Fac:	50.00
MSS Lab ID:	184692-003	Batch#:	110139
Matrix:	Water	Sampled:	02/01/06 10:00
Units:	mg/L	Received:	02/02/06

Type: MS Analyzed: 02/02/06 19:51
Lab ID: QC326750

Analyte	MSS Result	Spiked	Result	%REC	Limits
Fluoride	0.2484	50.00	45.55	91	80-120
Chloride	274.2	100.0	371.1	97	80-120
Bromide	0.9132	100.0	105.4	104	80-120
Nitrogen, Nitrate	<0.01819	25.00	23.65	95	80-120
Sulfate	109.3	250.0	343.1	94	80-120

Type: MSD Analyzed: 02/02/06 20:09
Lab ID: QC326751

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Fluoride	50.00	45.31	90	80-120	1	25
Chloride	100.0	368.3	94	80-120	1	25
Bromide	100.0	102.4	101	80-120	3	25
Nitrogen, Nitrate	25.00	23.72	95	80-120	0	25
Sulfate	250.0	340.6	93	80-120	1	25

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
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Alkalinity

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 310.1
Field ID:	BB2ASW100	Batch#:	110270
Matrix:	Water	Sampled:	02/01/06
Units:	mg/L	Received:	02/02/06
Diln Fac:	1.000	Analyzed:	02/08/06

Type: SAMPLE Lab ID: 184691-001

Analyte	Result	RL
Alkalinity, Bicarbonate	530	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	530	1.0

Type: BLANK Lab ID: QC327305

Analyte	Result	RL
Alkalinity, Bicarbonate	ND	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Alkalinity

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 310.1
Analyte:	Alkalinity, Total as CaCO3	Units:	mg/L
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC327306	Batch#:	110270
Matrix:	Water	Analyzed:	02/08/06

Spiked	Result	%REC	Limits
200.0	182.3	91	90-110

Curtis & Tompkins, Ltd.
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Batch QC Report

Alkalinity

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 310.1
Analyte:	Alkalinity, Total as CaCO3	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	110270
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	mg/L	Analyzed:	02/08/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC327307	673.3	200.0	859.3	93	80-120		
MSD	QC327308		200.0	855.6	91	80-120	0	25

RPD= Relative Percent Difference

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Total Dissolved Solids (TDS)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 160.1
Analyte:	Total Dissolved Solids	Batch#:	110244
Field ID:	BB2ASW100	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	mg/L	Analyzed:	02/07/06

Type	Lab ID	Result	RL	Diln Fac
SAMPLE	184691-001	1,200	25	2.500
BLANK	QC327201	ND	10	1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Dissolved Solids (TDS)

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005132	Analysis:	EPA 160.1
Analyte:	Total Dissolved Solids	Batch#:	110244
Field ID:	ZZZZZZZZZZ	Sampled:	02/01/06
MSS Lab ID:	184692-003	Received:	02/02/06
Matrix:	Water	Analyzed:	02/07/06
Units:	mg/L		

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Diln Fac
BS	QC327202		100.0	92.00		92	80-120			1.000
BSD	QC327203		100.0	92.00		92	80-120	0	20	1.000
SDUP	QC327204	1,340		1,130	50.00			17	20	5.000

RL= Reporting Limit
RPD= Relative Percent Difference

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Dissolved Metals Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005132	Analysis:	EPA 6020
Field ID:	BB2ASW100	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Batch#:	110189	Prepared:	02/06/06

Type: SAMPLE Matrix: Filtrate
Lab ID: 184691-001

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Aluminum	36 J	50	1.0	1.000	02/22/06
Calcium	53,000	500	150	10.00	03/20/06
Iron	200	50	4.2	1.000	02/22/06
Magnesium	120,000	500	21	10.00	03/20/06
Manganese	7.0	1.0	0.082	1.000	02/22/06
Sodium	180,000	500	150	10.00	03/20/06

Type: BLANK Diln Fac: 1.000
Lab ID: QC326963 Analyzed: 02/22/06
Matrix: Water

Analyte	Result	RL	MDL
Aluminum	11 J	50	1.0
Calcium	30 J	50	15
Iron	28 J	50	4.2
Magnesium	11 J	50	2.1
Manganese	ND	1.0	0.082
Sodium	31 J	50	15

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005132	Analysis:	EPA 6020
Matrix:	Water	Batch#:	110189
Units:	ug/L	Prepared:	02/06/06
Diln Fac:	1.000	Analyzed:	02/22/06

Type: BS Lab ID: QC326964

Analyte	Spiked	Result	%REC	Limits
Aluminum	100.0	110.2	110	80-120
Calcium	10,000	10,130	101	80-120
Iron	10,000	10,010	100	80-120
Magnesium	10,000	9,867	99	80-120
Manganese	100.0	94.48	94	80-120
Sodium	10,000	9,734	97	80-120

Type: BSD Lab ID: QC326965

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aluminum	100.0	108.9	109	80-120	1	20
Calcium	10,000	10,160	102	80-120	0	20
Iron	10,000	10,020	100	80-120	0	20
Magnesium	10,000	9,897	99	80-120	0	20
Manganese	100.0	94.02	94	80-120	0	20
Sodium	10,000	9,760	98	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005132	Analysis:	EPA 6020
Field ID:	BB2ASW100	Batch#:	110189
MSS Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/06/06
Diln Fac:	5.000	Analyzed:	02/22/06

Type: MS Lab ID: QC326966

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aluminum	14,140	100.0	10,340 >LR	-3800 NM	75-125
Calcium	97,260	10,000	115,100 >LR	178 NM	69-127
Iron	17,790	10,000	21,760	40 *	75-125
Magnesium	159,100	10,000	159,600 >LR	5 NM	70-127
Manganese	2,495	100.0	2,621 >LR	126 NM	75-125
Sodium	175,200	10,000	186,800 >LR	116 NM	75-125

Type: MSD Lab ID: QC326967

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aluminum	100.0	10,150 >LR	-3990 NM	75-125	NC	20
Calcium	10,000	113,400 >LR	161 NM	69-127	NC	20
Iron	10,000	21,660	39 *	75-125	0	20
Magnesium	10,000	157,100 >LR	-20 NM	70-127	NC	20
Manganese	100.0	2,666 >LR	171 NM	75-125	NC	20
Sodium	10,000	184,700 >LR	95 NM	75-125	NC	20

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184691	Location:	PT Baker Beach BBDA2A
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005132	Analysis:	EPA 6020
Field ID:	BB2ASW100	Units:	ug/L
Type:	Serial Dilution	Batch#:	110189
MSS Lab ID:	184691-001	Sampled:	02/01/06
Lab ID:	QC326968	Received:	02/02/06
Matrix:	Water		

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac	Analyzed
Aluminum	14,140	5,000	10,420 J	25,000	26 *	10	500.0	03/20/06
Calcium	97,260	250.0	90,430	1,250	7	10	25.00	02/22/06
Iron	17,790	50.00	17,170	250.0	3	10	5.000	02/22/06
Magnesium	159,100	1,000	161,100	5,000	1	10	100.0	03/20/06
Manganese	2,495	20.00	2,399	100.0	4	10	100.0	03/20/06
Sodium	175,200	1,000	167,300	5,000	5	10	100.0	03/20/06

*= Value outside of QC limits; see narrative
J= Estimated value
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Volatile Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000	Analyzed:	02/03/06
Batch#:	110142		

Field ID: BB1PZ100 Lab ID: 184692-001
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	33 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	65-135

Field ID: DUP(020106) Lab ID: 184692-002
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	31 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	65-135

Field ID: BB1PZ101 Lab ID: 184692-003
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	32 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-135

Field ID: TB(020106) Lab ID: 184692-004
Type: SAMPLE

Analyte	Result	RL	MDL
Gasoline C7-C12	25 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	93	65-135

Type: BLANK Lab ID: QC326759

Analyte	Result	RL	MDL
Gasoline C7-C12	18 J	50	15

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	86	65-135

J= Estimated value
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326761	Batch#:	110142
Matrix:	Water	Analyzed:	02/03/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,181	109	65-135

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8015B
Field ID:	BB1PZ101	Batch#:	110142
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/03/06
Diln Fac:	1.000		

Type: MS Lab ID: QC326792

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	31.78	2,000	1,756	86	65-135

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-135

Type: MSD Lab ID: QC326793

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,786	88	65-135	2	35

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Extractable Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000	Prepared:	02/05/06
Batch#:	110168	Analyzed:	02/07/06

Field ID: BB1PZ100 Lab ID: 184692-001
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	380 H Y	50	13
Fuel Oil C24-C36	1,600	300	55

Surrogate	%REC	Limits
Hexacosane	118	65-135

Field ID: DUP(020106) Lab ID: 184692-002
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	830 H Y	50	13
Fuel Oil C24-C36	3,100	300	55

Surrogate	%REC	Limits
Hexacosane	108	65-135

Field ID: BB1PZ101 Lab ID: 184692-003
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	MDL
Diesel C12-C24	94 H Y	50	13
Fuel Oil C24-C36	140 J	300	55

Surrogate	%REC	Limits
Hexacosane	101	65-135

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC326878

Analyte	Result	RL	MDL
Diesel C12-C24	ND	50	13
Fuel Oil C24-C36	ND	300	55

Surrogate	%REC	Limits
Hexacosane	99	65-135

H= Heavier hydrocarbons contributed to the quantitation
J= Estimated value
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326879	Batch#:	110168
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/07/06

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	2,500	2,617	105	65-135

Surrogate	%REC	Limits
Hexacosane	109	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8015B
Field ID:	BB1PZ101	Batch#:	110168
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC326880

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	94.29	2,500	2,538	98	65-135

Surrogate	%REC	Limits
Hexacosane	100	65-135

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC326881

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	2,500	2,871	111	65-135	12	35

Surrogate	%REC	Limits
Hexacosane	116	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	110168
MSS Lab ID:	184712-001	Sampled:	02/02/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC326882

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	<12.81	2,500	2,425	97	65-135

Surrogate	%REC	Limits
Hexacosane	102	65-135

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC326883

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	2,500	2,601	104	65-135	7	35

Surrogate	%REC	Limits
Hexacosane	113	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	BB1PZ100	Batch#:	110187
Lab ID:	184692-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	1.5 J	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.3 J	10	0.2
Carbon Disulfide	0.1 J	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	0.2 J	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	BB1PZ100	Batch#:	110187
Lab ID:	184692-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	101	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	DUP(020106)	Batch#:	110187
Lab ID:	184692-002	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	0.9 J	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.2 J	10	0.2
Carbon Disulfide	0.1 J	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	0.1 J	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	DUP(020106)	Batch#:	110187
Lab ID:	184692-002	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	76-120
Toluene-d8	96	88-120
Bromofluorobenzene	101	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	BB1PZ101	Batch#:	110187
Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	1.0 J	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.2 J	10	0.2
Carbon Disulfide	ND	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	BB1PZ101	Batch#:	110187
Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	112	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	99	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
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Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	TB(020106)	Batch#:	110187
Lab ID:	184692-004	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	ND	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.2 J	10	0.2
Carbon Disulfide	ND	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	TB(020106)	Batch#:	110187
Lab ID:	184692-004	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	76-120
Toluene-d8	94	88-120
Bromofluorobenzene	100	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326952	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	28.64	115	65-135
Benzene	25.00	24.68	99	65-135
Trichloroethene	25.00	25.90	104	65-135
Toluene	25.00	26.64	107	65-135
Chlorobenzene	25.00	26.93	108	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	97	88-120
Bromofluorobenzene	93	86-120

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326953	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.1
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.3
Chloroethane	ND	1.0	0.3
Trichlorofluoromethane	ND	1.0	0.06
Acetone	ND	10	0.9
Freon 113	ND	0.5	0.1
1,1-Dichloroethene	ND	0.5	0.2
Methylene Chloride	0.3 J	10	0.2
Carbon Disulfide	ND	0.5	0.03
MTBE	ND	0.5	0.07
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.4
1,1-Dichloroethane	ND	0.5	0.06
2-Butanone	ND	10	0.2
cis-1,2-Dichloroethene	ND	0.5	0.2
2,2-Dichloropropane	ND	0.5	0.2
Chloroform	ND	0.5	0.05
Bromochloromethane	ND	0.5	0.09
1,1,1-Trichloroethane	ND	0.5	0.07
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.09
Benzene	ND	0.5	0.04
Trichloroethene	ND	0.5	0.08
1,2-Dichloropropane	ND	0.5	0.06
Bromodichloromethane	ND	0.5	0.04
Dibromomethane	ND	0.5	0.06
4-Methyl-2-Pentanone	ND	10	0.08
cis-1,3-Dichloropropene	ND	0.5	0.07
Toluene	ND	0.5	0.08
trans-1,3-Dichloropropene	ND	0.5	0.07
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.3
1,3-Dichloropropane	ND	0.5	0.07
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.05
1,2-Dibromoethane	ND	0.5	0.06
Chlorobenzene	ND	0.5	0.09
1,1,1,2-Tetrachloroethane	ND	0.5	0.09
Ethylbenzene	ND	0.5	0.08
m,p-Xylenes	ND	0.5	0.2
o-Xylene	ND	0.5	0.06
Styrene	ND	0.5	0.09
Bromoform	ND	1.0	0.09
Isopropylbenzene	ND	0.5	0.06
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.3
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.09

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326953	Batch#:	110187
Matrix:	Water	Analyzed:	02/06/06
Units:	ug/L		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.07
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.09
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.2
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.2
Hexachlorobutadiene	ND	0.5	0.2
Naphthalene	ND	2.0	0.1
1,2,3-Trichlorobenzene	ND	0.5	0.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	76-120
Toluene-d8	97	88-120
Bromofluorobenzene	103	86-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 5030B
Project#:	57255.005102	Analysis:	EPA 8260B
Field ID:	BB1PZ101	Batch#:	110187
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Analyzed:	02/06/06
Diln Fac:	1.000		

Type: MS Lab ID: QC326954

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.2168	25.00	26.77	107	65-135
Benzene	<0.04131	25.00	25.91	104	65-135
Trichloroethene	<0.07621	25.00	25.08	100	65-135
Toluene	<0.08342	25.00	25.97	104	65-135
Chlorobenzene	<0.08963	25.00	26.65	107	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	97	86-120

Type: MSD Lab ID: QC326955

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	25.92	104	65-135	3	35
Benzene	25.00	24.77	99	65-135	5	35
Trichloroethene	25.00	24.53	98	65-135	2	35
Toluene	25.00	26.06	104	65-135	0	35
Chlorobenzene	25.00	26.28	105	65-135	1	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	76-120
Toluene-d8	99	88-120
Bromofluorobenzene	95	86-120

RPD= Relative Percent Difference

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Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Field ID:	BB1PZ100	Batch#:	110285
Lab ID:	184692-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/08/06
Diln Fac:	1.000	Analyzed:	02/09/06

Analyte	Result	RL	MDL
Naphthalene	0.06 J	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.06
Acenaphthylene	ND	0.1	0.009
Acenaphthene	ND	0.1	0.009
Fluorene	ND	0.1	0.01
Phenanthrene	0.02 J	0.1	0.009
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	0.02 J	0.1	0.008
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	0.02 J	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.03
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	104	39-135
2-Fluorobiphenyl	74	41-120
Terphenyl-d14	28	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

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Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Field ID:	DUP(020106)	Batch#:	110169
Lab ID:	184692-002	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Analyte	Result	RL	MDL
Naphthalene	0.02 J	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.05
Acenaphthylene	ND	0.1	0.009
Acenaphthene	ND	0.1	0.009
Fluorene	ND	0.1	0.01
Phenanthrene	0.01 J	0.1	0.009
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	0.02 J	0.1	0.008
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	ND	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.02
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	96	39-135
2-Fluorobiphenyl	70	41-120
Terphenyl-d14	42	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
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Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Field ID:	BB1PZ101	Batch#:	110169
Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.06
Acenaphthylene	ND	0.1	0.009
Acenaphthene	ND	0.1	0.009
Fluorene	0.06 J	0.1	0.01
Phenanthrene	0.01 J	0.1	0.009
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	0.01 J	0.1	0.008
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	ND	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.03
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	89	39-135
2-Fluorobiphenyl	69	41-120
Terphenyl-d14	50	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
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Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326884	Batch#:	110169
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.06
Acenaphthylene	ND	0.1	0.01
Acenaphthene	ND	0.1	0.009
Fluorene	ND	0.1	0.01
Phenanthrene	ND	0.1	0.01
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	0.01 J	0.1	0.009
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	ND	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.03
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	99	39-135
2-Fluorobiphenyl	72	41-120
Terphenyl-d14	76	27-126

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
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Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326885	Batch#:	110169
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1.000	0.7378	74	48-123
Pyrene	1.000	0.7309	73	47-129

Surrogate	%REC	Limits
Nitrobenzene-d5	101	39-135
2-Fluorobiphenyl	80	41-120
Terphenyl-d14	83	27-126

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Field ID:	BB1PZ101	Batch#:	110169
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Type: MS Lab ID: QC326886

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.009108	0.9709	0.6033	62	18-139
Pyrene	0.01456	0.9709	0.6497	65	13-146

Surrogate	%REC	Limits
Nitrobenzene-d5	88	39-135
2-Fluorobiphenyl	68	41-120
Terphenyl-d14	56	27-126

Type: MSD Lab ID: QC326887

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	0.9709	0.6683	69	18-139	10	47
Pyrene	0.9709	0.6728	68	13-146	3	47

Surrogate	%REC	Limits
Nitrobenzene-d5	95	39-135
2-Fluorobiphenyl	75	41-120
Terphenyl-d14	37	27-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC327371	Batch#:	110285
Matrix:	Water	Prepared:	02/08/06
Units:	ug/L	Analyzed:	02/09/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.1	0.02
2-Methylnaphthalene	ND	0.1	0.06
Acenaphthylene	ND	0.1	0.01
Acenaphthene	ND	0.1	0.009
Fluorene	ND	0.1	0.01
Phenanthrene	ND	0.1	0.01
Anthracene	ND	0.1	0.02
Fluoranthene	ND	0.1	0.01
Pyrene	ND	0.1	0.009
Benzo(a)anthracene	ND	0.1	0.01
Chrysene	ND	0.1	0.02
Benzo(b)fluoranthene	ND	0.1	0.01
Benzo(k)fluoranthene	ND	0.1	0.01
Benzo(a)pyrene	ND	0.1	0.03
Indeno(1,2,3-cd)pyrene	ND	0.1	0.01
Dibenz(a,h)anthracene	ND	0.1	0.01
Benzo(g,h,i)perylene	ND	0.1	0.02

Surrogate	%REC	Limits
Nitrobenzene-d5	58	39-135
2-Fluorobiphenyl	56	41-120
Terphenyl-d14	82	27-126

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Semivolatile Organics by GC/MS SIM

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8270C-SIM
Matrix:	Water	Batch#:	110285
Units:	ug/L	Prepared:	02/08/06
Diln Fac:	1.000	Analyzed:	02/09/06

Type: BS Lab ID: QC327372

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1.000	0.7248	72	48-123
Pyrene	1.000	0.8924	89	47-129

Surrogate	%REC	Limits
Nitrobenzene-d5	92	39-135
2-Fluorobiphenyl	74	41-120
Terphenyl-d14	95	27-126

Type: BSD Lab ID: QC327373

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	1.000	0.7702	77	48-123	6	37
Pyrene	1.000	0.9156	92	47-129	3	37

Surrogate	%REC	Limits
Nitrobenzene-d5	94	39-135
2-Fluorobiphenyl	81	41-120
Terphenyl-d14	101	27-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Field ID:	BB1PZ100	Batch#:	110170
Lab ID:	184692-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.006
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.008
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.008
4,4'-DDT	ND	0.1	0.01
alpha-Chlordane	ND	0.05	0.003
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	89	65-135
Decachlorobiphenyl	89	65-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Field ID:	DUP(020106)	Batch#:	110170
Lab ID:	184692-002	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.006
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.008
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.008
4,4'-DDT	ND	0.1	0.01
alpha-Chlordane	ND	0.05	0.003
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	68	65-135
Decachlorobiphenyl	75	65-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Field ID:	BB1PZ101	Batch#:	110170
Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.007
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.009
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.008
4,4'-DDT	ND	0.1	0.01
alpha-Chlordane	ND	0.05	0.004
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	87	65-135
Decachlorobiphenyl	86	65-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC326888	Batch#:	110170
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Analyte	Result	RL	MDL
alpha-BHC	ND	0.05	0.003
beta-BHC	ND	0.05	0.005
gamma-BHC	ND	0.05	0.002
delta-BHC	ND	0.05	0.003
Heptachlor	ND	0.05	0.006
Aldrin	ND	0.05	0.007
Heptachlor epoxide	ND	0.05	0.003
Endosulfan I	ND	0.05	0.003
Dieldrin	ND	0.1	0.007
4,4'-DDE	ND	0.1	0.008
Endrin	ND	0.1	0.008
Endosulfan II	ND	0.1	0.007
Endosulfan sulfate	ND	0.1	0.009
4,4'-DDD	ND	0.1	0.009
Endrin aldehyde	ND	0.1	0.009
4,4'-DDT	ND	0.1	0.01
alpha-Chlordane	ND	0.05	0.004
gamma-Chlordane	ND	0.05	0.004
Methoxychlor	ND	0.5	0.08
Endrin ketone	ND	0.1	0.009
Toxaphene	ND	1.0	0.6

Surrogate	%REC	Limits
TCMX	68	65-135
Decachlorobiphenyl	90	65-135

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326889	Batch#:	110170
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/07/06

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	0.2000	0.1669	83	65-135
Heptachlor	0.2000	0.1744 #	87	65-135
Aldrin	0.2000	0.1558	78	65-135
Dieldrin	0.4000	0.3185	80	65-135
Endrin	0.4000	0.3140	79	65-135
4,4'-DDT	0.4000	0.2986	75	65-135

Surrogate	%REC	Limits
TCMX	67	65-135
Decachlorobiphenyl	75	65-135

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Organochlorine Pesticides

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8081A
Field ID:	BB1PZ101	Batch#:	110170
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/07/06

Type: MS Lab ID: QC326890

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.002405	0.1961	0.1762	90	65-135
Heptachlor	<0.005945	0.1961	0.2305 #	118	65-135
Aldrin	<0.006500	0.1961	0.2025	103	65-135
Dieldrin	<0.006900	0.3922	0.3980	101	65-135
Endrin	<0.008102	0.3922	0.4157	106	65-135
4,4'-DDT	<0.009715	0.3922	0.3769	96	65-135

Surrogate	%REC	Limits
TCMX	99	65-135
Decachlorobiphenyl	95	65-135

Type: MSD Lab ID: QC326891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	0.1961	0.1783	91	65-135	1	35
Heptachlor	0.1961	0.1840 #	94	65-135	22	35
Aldrin	0.1961	0.1772	90	65-135	13	35
Dieldrin	0.3922	0.3403	87	65-135	16	35
Endrin	0.3922	0.3580	91	65-135	15	35
4,4'-DDT	0.3922	0.3176	81	65-135	17	35

Surrogate	%REC	Limits
TCMX	82	65-135
Decachlorobiphenyl	86	65-135

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000		

Field ID:	BB1PZ100	Prepared:	02/05/06
Type:	SAMPLE	Analyzed:	02/07/06
Lab ID:	184692-001	Cleanup Method:	EPA 3665A
Batch#:	110171		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.48	0.027
Aroclor-1221	ND	0.95	0.31
Aroclor-1232	ND	0.48	0.33
Aroclor-1242	ND	0.48	0.21
Aroclor-1248	ND	0.48	0.058
Aroclor-1254	ND	0.48	0.13
Aroclor-1260	ND	0.48	0.036

Surrogate	%REC	Limits
TCMX	70	65-135
Decachlorobiphenyl	45 *	65-135

Field ID:	DUP(020106)	Prepared:	02/08/06
Type:	SAMPLE	Analyzed:	02/09/06
Lab ID:	184692-002	Cleanup Method:	EPA 3665A
Batch#:	110284		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.48	0.10
Aroclor-1221	ND	0.95	0.35
Aroclor-1232	ND	0.48	0.15
Aroclor-1242	ND	0.48	0.14
Aroclor-1248	ND	0.48	0.036
Aroclor-1254	ND	0.48	0.11
Aroclor-1260	ND	0.48	0.093

Surrogate	%REC	Limits
TCMX	78	65-135
Decachlorobiphenyl	40 *	65-135

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000		

Field ID:	BB1PZ101	Prepared:	02/05/06
Type:	SAMPLE	Analyzed:	02/06/06
Lab ID:	184692-003	Cleanup Method:	EPA 3665A
Batch#:	110171		

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.50	0.029
Aroclor-1221	ND	1.0	0.33
Aroclor-1232	ND	0.50	0.34
Aroclor-1242	ND	0.50	0.22
Aroclor-1248	ND	0.50	0.061
Aroclor-1254	ND	0.50	0.14
Aroclor-1260	ND	0.50	0.037

Surrogate	%REC	Limits
TCMX	87	65-135
Decachlorobiphenyl	80	65-135

Type:	BLANK	Prepared:	02/05/06
Lab ID:	QC326892	Analyzed:	02/06/06
Batch#:	110171	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.50	0.029
Aroclor-1221	ND	1.0	0.33
Aroclor-1232	ND	0.50	0.34
Aroclor-1242	ND	0.50	0.22
Aroclor-1248	ND	0.50	0.061
Aroclor-1254	ND	0.50	0.14
Aroclor-1260	ND	0.50	0.037

Surrogate	%REC	Limits
TCMX	79	65-135
Decachlorobiphenyl	70	65-135

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Matrix:	Water	Sampled:	02/01/06
Units:	ug/L	Received:	02/02/06
Diln Fac:	1.000		

Type:	BLANK	Prepared:	02/08/06
Lab ID:	QC327368	Analyzed:	02/09/06
Batch#:	110284	Cleanup Method:	EPA 3665A

Analyte	Result	RL	MDL
Aroclor-1016	ND	0.50	0.11
Aroclor-1221	ND	1.0	0.37
Aroclor-1232	ND	0.50	0.16
Aroclor-1242	ND	0.50	0.14
Aroclor-1248	ND	0.50	0.038
Aroclor-1254	ND	0.50	0.12
Aroclor-1260	ND	0.50	0.097

Surrogate	%REC	Limits
TCMX	110	65-135
Decachlorobiphenyl	93	65-135

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC326893	Batch#:	110171
Matrix:	Water	Prepared:	02/05/06
Units:	ug/L	Analyzed:	02/06/06

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1221	10.00	8.634	86	65-135

Surrogate	%REC	Limits
TCMX	92	65-135
Decachlorobiphenyl	72	65-135

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Field ID:	BB1PZ101	Batch#:	110171
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/05/06
Diln Fac:	1.000	Analyzed:	02/06/06

Type: MS Cleanup Method: EPA 3665A
Lab ID: QC326894

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1221	<0.3285	10.00	7.603	76	65-135

Surrogate	%REC	Limits
TCMX	81	65-135
Decachlorobiphenyl	68	65-135

Type: MSD Cleanup Method: EPA 3665A
Lab ID: QC326895

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1221	10.00	8.123	81	65-135	7	35

Surrogate	%REC	Limits
TCMX	85	65-135
Decachlorobiphenyl	70	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3520C
Project#:	57255.005102	Analysis:	EPA 8082
Matrix:	Water	Batch#:	110284
Units:	ug/L	Prepared:	02/08/06
Diln Fac:	1.000	Analyzed:	02/09/06

Type: BS Cleanup Method: EPA 3665A
Lab ID: QC327369

Analyte	Spiked	Result	%REC	Limits
Aroclor-1221	10.00	9.678	97	65-135

Surrogate	%REC	Limits
TCMX	107	65-135
Decachlorobiphenyl	97	65-135

Type: BSD Cleanup Method: EPA 3665A
Lab ID: QC327370

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1221	10.00	10.87	109	65-135	12	35

Surrogate	%REC	Limits
TCMX	116	65-135
Decachlorobiphenyl	135	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 300.0
Matrix:	Water	Batch#:	110139
Units:	mg/L	Received:	02/02/06

Field ID: BB1PZ100 Lab ID: 184692-001
Type: SAMPLE Sampled: 02/01/06 13:00

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Fluoride	0.13	0.10	0.018	1.000	02/02/06 20:26
Chloride	240	5.0	0.66	25.00	02/03/06 00:14
Bromide	0.90	0.20	0.058	1.000	02/02/06 20:26
Nitrogen, Nitrate	ND	0.05	0.02	1.000	02/02/06 20:26
Sulfate	140	13	1.1	25.00	02/03/06 00:14

Field ID: DUP(020106) Lab ID: 184692-002
Type: SAMPLE Sampled: 02/01/06 13:30

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Fluoride	0.091 J	0.10	0.018	1.000	02/02/06 21:02
Chloride	230	5.0	0.66	25.00	02/03/06 00:32
Bromide	0.85	0.20	0.058	1.000	02/02/06 21:02
Nitrogen, Nitrate	ND	0.05	0.02	1.000	02/02/06 21:02
Sulfate	110	13	1.1	25.00	02/03/06 00:32

Field ID: BB1PZ101 Lab ID: 184692-003
Type: SAMPLE Sampled: 02/01/06 10:00

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Fluoride	0.25	0.10	0.018	1.000	02/02/06 22:12
Chloride	270	10	1.3	50.00	02/02/06 22:47
Bromide	0.91	0.20	0.058	1.000	02/02/06 22:12
Nitrogen, Nitrate	ND	0.05	0.02	1.000	02/02/06 22:12
Sulfate	110	25	2.3	50.00	02/02/06 22:47

Type: BLANK Diln Fac: 1.000
Lab ID: QC326747 Analyzed: 02/02/06 18:59

Analyte	Result	RL	MDL
Fluoride	ND	0.10	0.018
Chloride	ND	0.20	0.026
Bromide	ND	0.20	0.058
Nitrogen, Nitrate	ND	0.05	0.02
Sulfate	ND	0.50	0.046

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 300.0
Matrix:	Water	Diln Fac:	1.000
Units:	mg/L	Batch#:	110139

Type: BS Analyzed: 02/02/06 19:16
Lab ID: QC326748

Analyte	Spiked	Result	%REC	Limits
Fluoride	2.000	1.882	94	90-110
Chloride	4.000	3.831	96	90-110
Bromide	4.000	4.055	101	90-110
Nitrogen, Nitrate	1.000	0.9711	97	90-110
Sulfate	10.00	9.597	96	90-110

Type: BSD Analyzed: 02/02/06 19:34
Lab ID: QC326749

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Fluoride	2.000	1.881	94	90-110	0	20
Chloride	4.000	3.831	96	90-110	0	20
Bromide	4.000	4.069	102	90-110	0	20
Nitrogen, Nitrate	1.000	0.9660	97	90-110	1	20
Sulfate	10.00	9.541	95	90-110	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 300.0
Field ID:	BB1PZ101	Diln Fac:	50.00
MSS Lab ID:	184692-003	Batch#:	110139
Matrix:	Water	Sampled:	02/01/06 10:00
Units:	mg/L	Received:	02/02/06

Type: MS Analyzed: 02/02/06 19:51
Lab ID: QC326750

Analyte	MSS Result	Spiked	Result	%REC	Limits
Fluoride	0.2484	50.00	45.55	91	80-120
Chloride	274.2	100.0	371.1	97	80-120
Bromide	0.9132	100.0	105.4	104	80-120
Nitrogen, Nitrate	<0.01819	25.00	23.65	95	80-120
Sulfate	109.3	250.0	343.1	94	80-120

Type: MSD Analyzed: 02/02/06 20:09
Lab ID: QC326751

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Fluoride	50.00	45.31	90	80-120	1	25
Chloride	100.0	368.3	94	80-120	1	25
Bromide	100.0	102.4	101	80-120	3	25
Nitrogen, Nitrate	25.00	23.72	95	80-120	0	25
Sulfate	250.0	340.6	93	80-120	1	25

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Alkalinity

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 310.1
Matrix:	Water	Sampled:	02/01/06
Units:	mg/L	Received:	02/02/06
Diln Fac:	1.000	Analyzed:	02/08/06
Batch#:	110270		

Field ID: BB1PZ100 Lab ID: 184692-001
Type: SAMPLE

Analyte	Result	RL
Alkalinity, Bicarbonate	490	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	490	1.0

Field ID: DUP(020106) Lab ID: 184692-002
Type: SAMPLE

Analyte	Result	RL
Alkalinity, Bicarbonate	550	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	550	1.0

Field ID: BB1PZ101 Lab ID: 184692-003
Type: SAMPLE

Analyte	Result	RL
Alkalinity, Bicarbonate	670	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	670	1.0

Type: BLANK Lab ID: QC327305

Analyte	Result	RL
Alkalinity, Bicarbonate	ND	1.0
Alkalinity, Carbonate	ND	1.0
Alkalinity, Hydroxide	ND	1.0
Alkalinity, Total as CaCO3	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Alkalinity

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 310.1
Analyte:	Alkalinity, Total as CaCO3	Units:	mg/L
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC327306	Batch#:	110270
Matrix:	Water	Analyzed:	02/08/06

Spiked	Result	%REC	Limits
200.0	182.3	91	90-110

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Alkalinity

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 310.1
Analyte:	Alkalinity, Total as CaCO3	Diln Fac:	1.000
Field ID:	BB1PZ101	Batch#:	110270
MSS Lab ID:	184692-003	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	mg/L	Analyzed:	02/08/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC327307	673.3	200.0	859.3	93	80-120		
MSD	QC327308		200.0	855.6	91	80-120	0	25

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Total Dissolved Solids (TDS)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 160.1
Analyte:	Total Dissolved Solids	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	mg/L	Analyzed:	02/07/06
Batch#:	110244		

Field ID	Type	Lab ID	Result	RL	Diln Fac
BB1PZ100	SAMPLE	184692-001	990	25	2.500
DUP(020106)	SAMPLE	184692-002	1,000	50	5.000
BB1PZ101	SAMPLE	184692-003	1,340	50	5.000
	BLANK	QC327201	ND	10	1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Total Dissolved Solids (TDS)

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 160.1
Analyte:	Total Dissolved Solids	Batch#:	110244
Field ID:	BB1PZ101	Sampled:	02/01/06
MSS Lab ID:	184692-003	Received:	02/02/06
Matrix:	Water	Analyzed:	02/07/06
Units:	mg/L		

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Diln Fac
BS	QC327202		100.0	92.00		92	80-120			1.000
BSD	QC327203		100.0	92.00		92	80-120	0	20	1.000
SDUP	QC327204	1,340		1,130	50.00			17	20	5.000

RL= Reporting Limit
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Dissolved Metals Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005102	Analysis:	EPA 6020
Units:	ug/L	Received:	02/02/06
Batch#:	110189	Prepared:	02/06/06
Sampled:	02/01/06		

Field ID: BB1PZ100 Lab ID: 184692-001
Type: SAMPLE Matrix: Filtrate

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Aluminum	51	50	1.0	1.000	02/22/06
Calcium	39,000	100	30	2.000	03/20/06
Iron	250	50	4.2	1.000	02/22/06
Magnesium	55,000	1,000	41	20.00	03/21/06
Manganese	110	1.0	0.082	1.000	02/22/06
Sodium	190,000	1,000	300	20.00	03/21/06

Field ID: DUP(020106) Lab ID: 184692-002
Type: SAMPLE Matrix: Filtrate

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Aluminum	34 J	50	1.0	1.000	02/22/06
Calcium	74,000	500	150	10.00	03/20/06
Iron	300	50	4.2	1.000	02/22/06
Magnesium	110,000	500	21	10.00	03/20/06
Manganese	1,000	10	0.82	10.00	03/20/06
Sodium	180,000	500	150	10.00	03/20/06

Field ID: BB1PZ101 Lab ID: 184692-003
Type: SAMPLE Matrix: Filtrate

Analyte	Result	RL	MDL	Diln Fac	Analyzed
Aluminum	22 J	50	1.0	1.000	02/22/06
Calcium	36,000	1,000	300	20.00	03/21/06
Iron	140	50	4.2	1.000	02/22/06
Magnesium	61,000	1,000	41	20.00	03/21/06
Manganese	110	1.0	0.082	1.000	02/22/06
Sodium	200,000	1,000	300	20.00	03/21/06

Type: BLANK Diln Fac: 1.000
Lab ID: QC326963 Analyzed: 02/22/06
Matrix: Water

Analyte	Result	RL	MDL
Aluminum	11 J	50	1.0
Calcium	30 J	50	15
Iron	28 J	50	4.2
Magnesium	11 J	50	2.1
Manganese	ND	1.0	0.082
Sodium	31 J	50	15

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005102	Analysis:	EPA 6020
Matrix:	Water	Batch#:	110189
Units:	ug/L	Prepared:	02/06/06
Diln Fac:	1.000	Analyzed:	02/22/06

Type: BS Lab ID: QC326964

Analyte	Spiked	Result	%REC	Limits
Aluminum	100.0	110.2	110	80-125
Iron	10,000	10,010	100	80-120
Manganese	100.0	94.48	94	80-120
Sodium	10,000	9,734	97	80-120

Type: BSD Lab ID: QC326965

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aluminum	100.0	108.9	109	80-125	1	20
Iron	10,000	10,020	100	80-120	0	20
Manganese	100.0	94.02	94	80-120	0	20
Sodium	10,000	9,760	98	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005102	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Batch#:	110189
MSS Lab ID:	184691-001	Sampled:	02/01/06
Matrix:	Water	Received:	02/02/06
Units:	ug/L	Prepared:	02/06/06
Diln Fac:	5.000	Analyzed:	02/22/06

Type: MS Lab ID: QC326966

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aluminum	14,140	100.0	10,340 >LR	-3800 NM	60-134
Iron	17,790	10,000	21,760	40 *	80-120
Manganese	2,495	100.0	2,621 >LR	126 NM	78-120
Sodium	175,200	10,000	186,800 >LR	116 NM	68-133

Type: MSD Lab ID: QC326967

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aluminum	100.0	10,150 >LR	-3990 NM	60-134	NC	25
Iron	10,000	21,660	39 *	80-120	0	20
Manganese	100.0	2,666 >LR	171 NM	78-120	NC	20
Sodium	10,000	184,700 >LR	95 NM	68-133	NC	20

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Batch QC Report

Dissolved Metals Analytical Report

Lab #:	184692	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	200.8
Project#:	57255.005102	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Units:	ug/L
Type:	Serial Dilution	Batch#:	110189
MSS Lab ID:	184691-001	Sampled:	02/01/06
Lab ID:	QC326968	Received:	02/02/06
Matrix:	Water		

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac	Analyzed
Aluminum	14,140	5,000	10,420 J	25,000	26 *	10	500.0	03/20/06
Calcium	95,430	1,000	82,290	5,000	14 *	10	100.0	03/20/06
Iron	17,790	50.00	17,170	250.0	3	10	5.000	02/22/06
Magnesium	159,100	1,000	161,100	5,000	1	10	100.0	03/20/06
Manganese	2,495	20.00	2,399	100.0	4	10	100.0	03/20/06
Sodium	175,200	1,000	167,300	5,000	5	10	100.0	03/20/06

*= Value outside of QC limits; see narrative
J= Estimated value
RL= Reporting Limit

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 185149

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255.005102
Location: PT Baker Beach BBDA1

Sample ID	Lab ID
BB1SB115(1.0)	185149-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 3/9/06
Operations Manager

Signature: _____ Date: 3/9/06
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**185149**
Client:	**Mactec, Inc.**
Project:	**57255.005102**
Location:	**PT Baker Beach BBDA1**
Request Date:	**02/24/06**
Samples Received:	**02/01/06**

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 02/24/06. The sample was received cold and intact.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for silver and antimony in the MS/MSD for batch 110908; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPDs were within limits. High recovery was observed for copper in the MSD for batch 110908; the BS/BSD were within limits, and the associated RPD was within limits. High % differences were observed for cobalt, copper, and nickel in the serial dilution for batch 110908. Chromium, copper, and nickel were detected between the MDL and the RL in the method blank for batch 110908; these analytes were detected in the sample at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

185149

Patricia Flynn

From: "Heassler, Mary Jo" <MHeassler@mactec.com>
To: "Patricia Flynn" <pat@ctberk.com>
Cc: "Ford, George" <GFord@presidiotrust.gov>; <Brian_Ullensvang@nps.gov>; "Jacobvitz, Michael" <MAJacobvitz@mactec.com>; "Evans, Kathleen" <KKEvans@mactec.com>
Sent: Friday, February 24, 2006 10:51 AM
Attach: Document.pdf
Subject: FW:

Pat for C&T project number 184680, MACTEC COC 1427 (revised copy attached)please take MACTEC sample ID BB1SB115(1.0) off of hold and analyze it for Title 22 metals in accordance with the Presidio QAPP.
Please call me with questions.

Mary Jo Heassler
MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300
Petaluma, CA. 94954
Phone (707) 793-3845
Facsimile (707) 793-3900

-----Original Message-----
From: petaluma-p5@mactec.com [mailto:petaluma-p5@mactec.com]
Sent: Friday, February 24, 2006 10:48 AM
To: Heassler, Mary Jo
Subject:

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM 184680

Seq. No.: № 1427

3/3

Samplers: ~~A H HENKE~~, ~~C H DARDIN~~

Lab: CURTIS TOMPKINS

Job Number: 57755.005102

Name/Location: PRESIDIO SF - BBDA 1

Project Manager: ~~M A JACOBVITZ~~ Recorder: _____ (Signature Required)

MATRIX				# CONTAINERS & PRESERV.						SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED
Water	Soil	Air		Unpres.	H2SO4	HNO3	HCL			YR	SEQ	YR	MO	DAY	TIME		DEPTH	TZZ METALS
	✓			✓					1	BB1SB1	5(0.5)	06	02	01	0840			1
	✓			✓					2	BB1SB1	5(1.0)	06	02	01	0845	~~HOLD~~ MJH		X
																please take off of hold and analyze for TZZ metals		

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	(Print Name) A H HENKE	(Company) MACTEC	Date/Time 2/1/06 1130
Received By (Signature)	(Print Name) Tony Rojas	(Company) CDT	Date/Time 2/1/06 1130
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: C.T. COURIER

F1008-B (5/04)

Laboratory Copy *White* | Project Office Copy *Yellow* | Field or Office Copy *Pink*

5

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 184680 Date Received: 2/1/00 Number of Coolers: 1
Client: Mactec Project: Baker Beach

A. Preliminary Examination Phase
Date Opened: 2/1/00 By (print): Peter P. (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? ... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____ N/A
3. Were custody seals unbroken and intact at the date and time of arrival? ... YES NO
4. Were custody papers dry and intact when received? ... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ... (YES) NO
6. Did you sign the custody papers in the appropriate place? ... (YES) NO
7. Was project identifiable from custody papers? ... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ... YES NO
   Type of ice: Wet Ice Temperature: no Temperature Blank Per

B. Login Phase
Date Logged In: 2/1/00 By (print): Peter P. (sign) [signature]

1. Describe type of packing in cooler: Bubble Wrap
2. Did all bottles arrive unbroken? ... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ... (YES) NO
5. Were appropriate containers used for the tests indicated? ... (YES) NO
6. Were correct preservatives added to samples? ... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below. ... YES NO N/A
9. Was the client contacted concerning this sample delivery? ... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

SUCCESSFUL EDF CHECK - NO ERRORS

ORGANIZATION NAME:	Curtis & Tompkins, Ltd.
USER NAME:	CTBERK
DATE CHECKED:	3/9/2006 1:18:52 PM
GLOBAL ID:	NOT SELECTED
FILE UPLOADED:	185149_edf.zip

No errors were found in your EDF upload file.

If you want to submit this file to the SWRCB, choose the "Upload EDD" option in the above menu and follow the instructions.

When you complete the submittal process, you will be given a confirmation number for your submittal.

Because you have not chosen a facility, field point names have not been checked.

Logged in as CTBERK (LABORATORY) CONTACT SITE ADMINISTRATOR.

Metals Results & QC Summary

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	185149	Project#:	57255.005102
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA1
Field ID:	BB1SB115(1.0)	Basis:	dry
Lab ID:	185149-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/01/06
Units:	mg/Kg	Received:	02/01/06

Moisture: 23%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.54 J	4.1	0.15	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Arsenic	6.0	0.34	0.14	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Barium	140	0.68	0.070	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Beryllium	0.36	0.14	0.014	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Cadmium	0.66	0.34	0.031	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Chromium	330	0.68	0.046	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Cobalt	29	1.4	0.035	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Copper	68	0.68	0.065	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Lead	100	0.21	0.072	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Mercury	0.058	0.024	0.0045	110785	02/27/06	02/27/06	METHOD	EPA 7471A
Molybdenum	0.61 J	1.4	0.031	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Nickel	470	1.4	0.041	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Selenium	1.2	0.34	0.11	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Silver	ND	0.34	0.059	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Thallium	ND	0.34	0.042	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Vanadium	71	0.68	0.043	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B
Zinc	240	1.4	0.15	110908	03/02/06	03/02/06	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC329359	Batch#:	110785
Matrix:	Soil	Prepared:	02/27/06
Units:	mg/Kg	Analyzed:	02/27/06

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	110785
Units:	mg/Kg	Prepared:	02/27/06
Basis:	as received	Analyzed:	02/27/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC329360	0.5000	0.5190	104	75-125		
BSD	QC329361	0.5000	0.5300	106	75-125	2	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	BB1SB115(1.0)	Batch#:	110785
MSS Lab ID:	185149-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	02/27/06
Basis:	dry	Analyzed:	02/27/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC329362	0.05832	0.5598	0.6449	105	75-125	23%		
MSD	QC329363		0.5903	0.7013	109	75-125	23%	4	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005102	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	BB1SB115(1.0)	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	110785
MSS Lab ID:	185149-001	Sampled:	02/01/06
Lab ID:	QC329364	Received:	02/01/06
Matrix:	Soil	Analyzed:	02/27/06
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.05832	0.02361	0.04604 J	0.1181	23%	10

J= Estimated value
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC329855	Batch#:	110908
Matrix:	Soil	Prepared:	03/02/06
Units:	mg/Kg	Analyzed:	03/02/06
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.053 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	0.064 J	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	ND	1.0	0.022
Nickel	0.045 J	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	ND	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	110908
Units:	mg/Kg	Prepared:	03/02/06
Basis:	as received	Analyzed:	03/02/06
Diln Fac:	1.000		

Type: BS Lab ID: QC329856

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	98.87	99	75-125
Arsenic	50.00	50.70	101	75-125
Barium	100.0	101.8	102	75-125
Beryllium	2.500	2.589	104	75-125
Cadmium	10.00	10.38	104	75-125
Chromium	100.0	102.9	103	75-125
Cobalt	25.00	25.00	100	75-125
Copper	12.50	12.64	101	75-125
Lead	100.0	99.21	99	75-125
Molybdenum	20.00	20.56	103	75-125
Nickel	25.00	25.28	101	75-125
Selenium	50.00	50.02	100	75-125
Silver	10.00	9.128	91	75-125
Thallium	50.00	50.67	101	75-125
Vanadium	25.00	25.44	102	75-125
Zinc	25.00	25.51	102	75-125

Type: BSD Lab ID: QC329857

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	99.08	99	75-125	0	30
Arsenic	50.00	50.27	101	75-125	1	30
Barium	100.0	101.2	101	75-125	1	30
Beryllium	2.500	2.561	102	75-125	1	30
Cadmium	10.00	10.29	103	75-125	1	30
Chromium	100.0	101.6	102	75-125	1	30
Cobalt	25.00	24.72	99	75-125	1	30
Copper	12.50	12.48	100	75-125	1	30
Lead	100.0	98.44	98	75-125	1	30
Molybdenum	20.00	20.48	102	75-125	0	30
Nickel	25.00	25.03	100	75-125	1	30
Selenium	50.00	49.39	99	75-125	1	30
Silver	10.00	9.072	91	75-125	1	30
Thallium	50.00	50.16	100	75-125	1	30
Vanadium	25.00	25.25	101	75-125	1	30
Zinc	25.00	25.19	101	75-125	1	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	110908
MSS Lab ID:	184995-005	Sampled:	02/15/06
Matrix:	Soil	Received:	02/17/06
Units:	mg/Kg	Prepared:	03/02/06
Basis:	dry	Analyzed:	03/02/06
Diln Fac:	1.000		

Type: MS
Lab ID: QC329858

Moisture: 55%

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	3.199	205.8	155.1	74 *	75-125
Arsenic	3.548	102.9	101.7	95	75-125
Barium	78.98	205.8	272.1	94	75-125
Beryllium	0.07217	5.144	4.780	92	75-125
Cadmium	0.7107	20.58	19.26	90	75-125
Chromium	10.36	205.8	201.4	93	75-125
Cobalt	5.040	51.44	51.14	90	75-125
Copper	14.05	25.72	41.52	107	75-125
Lead	33.84	205.8	211.9	87	75-125
Molybdenum	7.629	41.15	45.54	92	75-125
Nickel	13.04	51.44	58.59	89	75-125
Selenium	9.982	102.9	108.2	95	75-125
Silver	<0.09071	20.58	-21.58	0 *	75-125
Thallium	0.2070	102.9	90.29	88	75-125
Vanadium	45.36	51.44	96.35	99	75-125
Zinc	44.69	51.44	94.34	97	75-125

Type: MSD
Lab ID: QC329859

Moisture: 55%

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	194.9	155.6	78	75-125	6	30
Arsenic	97.47	101.3	100	75-125	5	30
Barium	194.9	272.6	99	75-125	4	30
Beryllium	4.873	4.704	95	75-125	4	30
Cadmium	19.49	18.94	94	75-125	4	30
Chromium	194.9	202.6	99	75-125	6	30
Cobalt	48.73	54.01	100	75-125	10	30
Copper	24.37	53.22	161 *	75-125	28	30
Lead	194.9	207.7	89	75-125	3	30
Molybdenum	38.99	45.54	97	75-125	5	30
Nickel	48.73	60.22	97	75-125	7	30
Selenium	97.47	106.7	99	75-125	4	30
Silver	19.49	-20.29	0 *	75-125	1	30
Thallium	97.47	88.00	90	75-125	3	30
Vanadium	48.73	96.73	105	75-125	3	30
Zinc	48.73	87.90	89	75-125	4	30

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185149	Location:	PT Baker Beach BBDA1
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005102	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	184995-005	Batch#:	110908
Lab ID:	QC329860	Sampled:	02/15/06
Matrix:	Soil	Received:	02/17/06
Units:	mg/Kg	Analyzed:	03/02/06

Moisture: 55%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	ND	6.289	1.698 J	31.45		10
Arsenic	3.548	0.5241	3.474	2.621		10
Barium	78.98	1.048	81.71	5.241	3	10
Beryllium	ND	0.2096	0.1116 J	1.048		10
Cadmium	0.7107	0.5241	0.6794 J	2.621		10
Chromium	10.36	1.048	10.64	5.241	3	10
Cobalt	5.040	2.096	5.942 J	10.48	18 *	10
Copper	14.05	1.048	11.43	5.241	19 *	10
Lead	33.84	0.3145	34.66	1.572	2	10
Molybdenum	7.629	2.096	7.360 J	10.48	4	10
Nickel	13.04	2.096	17.04	10.48	31 *	10
Selenium	9.982	0.5241	9.098	2.621	9	10
Silver	ND	0.5241	ND	2.621		10
Thallium	ND	0.5241	1.536 J	2.621		10
Vanadium	45.36	1.048	45.52	5.241	0	10
Zinc	44.69	2.096	49.15	10.48	10	10

*= Value outside of QC limits; see narrative
J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 185149 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN	
185149-001	MET04	02/27/06 12:30	1.0										+								
185149-001	MET08	03/02/06 13:49	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
185149-001	MET08	03/02/06 14:31	1.0																		
QC329359	MET04	02/27/06 12:25	1.0										+								
QC329360	MET04	02/27/06 12:27	1.0										+								
QC329361	MET04	02/27/06 12:28	1.0										+								
QC329362	MET04	02/27/06 12:34	1.0										+								
QC329363	MET04	02/27/06 12:35	1.0										+								
QC329364	MET04	02/27/06 12:32	5.0										+								
QC329855	MET08	03/02/06 12:31	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329856	MET08	03/02/06 12:34	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329857	MET08	03/02/06 12:37	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329858	MET08	03/02/06 12:46	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329859	MET08	03/02/06 12:48	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329860	MET08	03/02/06 12:41	5.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	
QC329860	MET08	03/02/06 14:02	5.0																		
QC329861	MET08	03/02/06 12:43	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	

CURTIS & TOMPKINS POST DIGEST SPIKE USER REPORT FOR EPA 6010B

Type : MSS
Inst : MET08
Seqnum: 86088551014
File : 030206ar.txt
IDF : 1.0
Lab ID: 184995-005
Matrix: Soil
Batch : 110908
Time : 02-MAR-2006 12:39
Cal : 86088551001
Units : ug/L

Type : PDS
Inst : MET08
Seqnum: 86088551016
File : 030206ar.txt
IDF : 1.0
Lab ID: QC329861
Matrix: Soil
Batch : 110908
Time : 02-MAR-2006 12:43
Cal : 86088551001

MSS: 1.06 g --> 50.0 ml = 47.17 ml/g PDF
PDS: 1.06 g --> 50.0 ml = 47.17 ml/g PDF

PDS standards: S1586 (100X), S1587 (100X)

Analyte	MSS	Ch	Spiked	PDS	Ch	%Rec	Limits	Flags
Aluminum	32720	R	20000	52570	R	99	75-125	
Antimony	30.52	A	2000	2007	A	99	75-125	
Arsenic	33.85	A	1000	1027	A	99	75-125	
Barium	753.5	A	2000	2775	A	101	75-125	
Beryllium	0.6885	A	50.00	48.28	A	95	75-125	
Cadmium	6.780	A	200.0	195.7	A	94	75-125	
Calcium	40370	R	20000	59490	R	96	75-125	
Chromium	98.85	A	2000	2056	A	98	75-125	
Cobalt	48.08	A	500.0	517.8	A	94	75-125	
Copper	134.1	A	250.0	410.6	A	111	75-125	
Lead	322.8	A	2000	2133	A	90	75-125	
Magnesium	11220	R	20000	29600	R	92	75-125	
Manganese	9658	A	500.0	10090 >LR	A	87	75-125	: >LR
Molybdenum	72.79	A	400.0	475.7	A	101	75-125	
Nickel	124.4	A	500.0	593.3	A	94	75-125	
Potassium	7225	R	10000	17150	R	99	75-125	
Selenium	95.23	A	1000	1110	A	101	75-125	
Silver	ND	A	200.0	ND	A	**0***	75-125	
Sodium	14070	R	20000	34390	R	102	75-125	
Thallium	1.975	A	1000	916.5	A	91	75-125	
Vanadium	432.7	A	500.0	926.7	A	99	75-125	
Zinc	426.4	A	500.0	891.9	A	93	75-125	
Boron	159.7	A	1000	1199	A	104	75-125	
Tin	ND	A	1000	906.2	A	91	75-125	
Titanium	2895	A	1000	3890	A	99	75-125	

ISTD (ICAL 002)	Ch	ICAL Abund	PDS Abund	%Drift
Yttrium	A	2250525	1995875	-11.32

:=recovery not meaningful >LR=overrange

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86088551 Instrument: MET08 PE ICP Begun: 02-MAR-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL		Stds Used	>LR
001	030206ar	ICALBLK				02-MAR-2006 11:51	1.0	1.0					
002	030206ar	ICAL	CRIM08			02-MAR-2006 11:54	1.0	1.0				1	
003	030206ar	ICAL	CS100			02-MAR-2006 11:57	1.0	1.0				2	
004	030206ar	ICAL	CS1K			02-MAR-2006 11:59	1.0	1.0				3	
005	030206ar	ICAL	CS10K			02-MAR-2006 12:01	1.0	1.0				4	
006	030206ar	ICAL	CS100K			02-MAR-2006 12:04	1.0	1.0				5	
007	030206ar	ICV				02-MAR-2006 12:07	1.0	1.0			5000	6	
008	030206ar	ICB				02-MAR-2006 12:09	1.0	1.0			5000		
009	030206ar	ICSA				02-MAR-2006 12:12	1.0	1.0			5000	7	10:AL=515175
010	030206ar	ICSAB				02-MAR-2006 12:14	1.0	1.0			5000	8	5:AL=498761
011	030206ar	BLANK	QC329855	110908	Soil	02-MAR-2006 12:31	1.0	50.0			5000		
012	030206ar	BS	QC329856	110908	Soil	02-MAR-2006 12:34	1.0	50.0			5000		
013	030206ar	BSD	QC329857	110908	Soil	02-MAR-2006 12:37	1.0	50.0			5000		
014	030206ar	MSS	184995-005	110908	Soil	02-MAR-2006 12:39	1.0	47.17	1		5000		1:FE=1650875
015	030206ar	SER	QC329860	110908	Soil	02-MAR-2006 12:41	5.0	47.17		3	5000		1:FE=484243
016	030206ar	PDS	QC329861	110908	Soil	02-MAR-2006 12:43	1.0	47.17		1	5000	9 10	2:FE=1688490
017	030206ar	MS	QC329858	110908	Soil	02-MAR-2006 12:46	1.0	46.30		1	5000		2:FE=1818084
018	030206ar	MSD	QC329859	110908	Soil	02-MAR-2006 12:48	1.0	43.86		2	5000		2:FE=1843664
019	030206ar	X	RINSE			02-MAR-2006 12:51	1.0						
020	030206ar	X				02-MAR-2006 12:54	1.0				5000	11	
021	030206ar	CCV				02-MAR-2006 12:55	1.0	1.0			5000	11	
022	030206ar	X	FLUSH			02-MAR-2006 12:58	1.0						
023	030206ar	CCB				02-MAR-2006 13:00	1.0	1.0			5000		
024	030206ar	SAMPLE	184995-002	110908	Soil	02-MAR-2006 13:04	1.0	33.56	1		5000		5:CA=2208807
025	030206ar	SAMPLE	184995-003	110908	Soil	02-MAR-2006 13:06	1.0	37.04			5000		4:CA=1332372
026	030206ar	SAMPLE	184995-004	110908	Soil	02-MAR-2006 13:09	1.0	32.68			5000		5:CA=1627898
027	030206ar	SAMPLE	185021-001	110908	Soil	02-MAR-2006 13:11	1.0	39.37			5000		5:CA=856137
028	030206ar	SAMPLE	185021-002	110908	Soil	02-MAR-2006 13:14	1.0	41.67	2		5000		4:MG=3727192
029	030206ar	SAMPLE	185021-003	110908	Soil	02-MAR-2006 13:16	1.0	42.02			5000		5:FE=752676
030	030206ar	SAMPLE	185045-001	110908	Soil	02-MAR-2006 13:19	1.0	43.10	1		5000		4:CA=703796
031	030206ar	SAMPLE	185045-002	110908	Soil	02-MAR-2006 13:22	1.0	45.45			5000		4:CA=789243

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532

Analyst: _____ Date: 3/2/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86088551 Instrument: MET08 PE ICP
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

Begun: 02-MAR-2006

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
032	030206ar	SAMPLE	185045-003	110908	Soil	02-MAR-2006 13:25	1.0	41.67			5000	6:CA=1609959	
033	030206ar	SAMPLE	185049-001	110908	Soil	02-MAR-2006 13:27	1.0	34.72			5000	4:CA=532768	
034	030206ar	X	RINSE			02-MAR-2006 13:30	1.0						
035	030206ar	CCV				02-MAR-2006 13:33	1.0	1.0			5000	11	
036	030206ar	X	FLUSH			02-MAR-2006 13:35	1.0						
037	030206ar	CCB				02-MAR-2006 13:38	1.0	1.0			5000		
038	030206ar	SAMPLE	185049-002	110908	Soil	02-MAR-2006 13:41	1.0	47.62			5000	5:FE=1718243	
039	030206ar	SAMPLE	185049-003	110908	Soil	02-MAR-2006 13:44	1.0	53.19			5000	5:CA=682076	
040	030206ar	SAMPLE	185138-001	110908	Miscel	02-MAR-2006 13:46	1.0	37.59	1		5000	5:FE=1018106	
041	030206ar	SAMPLE	185149-001	110908	Soil	02-MAR-2006 13:49	1.0	52.63			5000	6:MG=700326	
042	030206ar	SAMPLE	185161-003	110908	Soil	02-MAR-2006 13:52	1.0	52.08			5000	2:FE=313813	
043	030206ar	SAMPLE	185034-005	110908	Soil	02-MAR-2006 13:54	1.0	50.51			5000	3:FE=390878	
044	030206ar	SAMPLE	185034-006	110908	Soil	02-MAR-2006 13:57	1.0	35.46	4		5000	10:FE=1428981	
045	030206ar	SAMPLE	185143-003	110908	Soil	02-MAR-2006 14:00	1.0	52.08			5000	5:FE=355805	
046	030206ar	SER	QC329860	110908	Soil	02-MAR-2006 14:02	5.0	47.17	1	6	5000	1:FE=503667	
047	030206ar	SAMPLE	185021-001	110908	Soil	02-MAR-2006 14:04	1.0	39.37			5000	5:CA=886923	
048	030206ar	X	RINSE			02-MAR-2006 14:07	1.0						
049	030206ar	CCV				02-MAR-2006 14:10	1.0	1.0			5000	11	
050	030206ar	X	FLUSH			02-MAR-2006 14:12	1.0						
051	030206ar	CCB				02-MAR-2006 14:15	1.0	1.0			5000		
052	030206ar	SAMPLE	185045-001	110908	Soil	02-MAR-2006 14:19	1.0	43.10			5000	3:CA=689673	
053	030206ar	SAMPLE	185045-003	110908	Soil	02-MAR-2006 14:21	1.0	41.67			5000	6:CA=1614889	
054	030206ar	SAMPLE	185049-001	110908	Soil	02-MAR-2006 14:23	1.0	34.72			5000	4:CA=531950	
055	030206ar	SAMPLE	185049-003	110908	Soil	02-MAR-2006 14:26	1.0	53.19			5000	5:CA=693126	
056	030206ar	SAMPLE	185138-001	110908	Miscel	02-MAR-2006 14:28	1.0	37.59			5000	5:FE=1056312	
057	030206ar	SAMPLE	185149-001	110908	Soil	02-MAR-2006 14:31	1.0	52.63			5000	6:MG=682995	
058	030206ar	SAMPLE	185161-003	110908	Soil	02-MAR-2006 14:34	1.0	52.08			5000	2:FE=301398	
059	030206ar	SAMPLE	185034-005	110908	Soil	02-MAR-2006 14:36	1.0	50.51			5000	3:FE=382193	
060	030206ar	SAMPLE	184995-002	110908	Soil	02-MAR-2006 14:39	5.0	33.56	1		5000	3:CA=477424	
061	030206ar	SAMPLE	185021-002	110908	Soil	02-MAR-2006 14:41	5.0	41.67	1		5000	2:MG=800799	
062	030206ar	X	RINSE			02-MAR-2006 14:43	1.0						

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532

Analyst: _____ Date: 3/2/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86088551 Instrument: MET08 PE ICP Begun: 02-MAR-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
063	030206ar	CCV				02-MAR-2006 14:46	1.0	1.0		5000	11	
064	030206ar	X	FLUSH			02-MAR-2006 14:49	1.0					
065	030206ar	X				02-MAR-2006 14:52	1.0					
066	030206ar	CCB				02-MAR-2006 14:57	1.0	1.0		5000		
067	030206ar	SAMPLE	185034-006	110908	Soil	02-MAR-2006 15:00	5.0	35.46	1	5000		1:FE=406866
068	030206ar	ICSAB				02-MAR-2006 15:02	1.0	1.0		5000	8	5:AL=492504
069	030206ar	X	RINSE			02-MAR-2006 15:05	1.0					
070	030206ar	X				02-MAR-2006 15:08	1.0				11	
071	030206ar	CCV				02-MAR-2006 15:09	1.0	1.0		5000	11	
072	030206ar	X	FLUSH			02-MAR-2006 15:11	1.0					
073	030206ar	CCB				02-MAR-2006 15:14	1.0	1.0		5000		

22

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532

Analyst: _____ Date: 3/2/06

CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 6010B

Inst : MET08
Calnum : 86088551001

Date : 02-MAR-2006 11:51

Reviewer: ---
Inj Vol : 5000 uL

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	030206ar.txt	86088551002	CRIM08	02-MAR-2006 11:54	S2544
L2	030206ar.txt	86088551003	CS100	02-MAR-2006 11:57	S2568
L3	030206ar.txt	86088551004	CS1K	02-MAR-2006 11:59	S2567
L4	030206ar.txt	86088551005	CS10K	02-MAR-2006 12:01	S2569
L5	030206ar.txt	86088551006	CS100K	02-MAR-2006 12:04	S2556

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flg
Antimony	A	75.292	62.630	61.249	61.516		LOR0	R	0.00000	0.01626		ug/L	65.172	1.000	0.995	
Arsenic	A	28.978	34.939	35.310	34.865		LOR0	R	0.00000	0.02868		ug/L	33.523	1.000	0.995	
Barium	A	685.13	631.78	631.11	611.15		LOR0	R	0.00000	0.00164		ug/L	639.79	1.000	0.995	
Beryllium	A	5236.6	5035.8	5013.0			LOR0	R	0.00000	1.99E-4		ug/L	5095.1	1.000	0.995	
Boron	A	228.57		236.38	241.25		LOR0	R	0.00000	0.00415		ug/L	235.40	1.000	0.995	
Cadmium	A	542.02	530.87	537.96	507.68		LOR0	R	0.00000	0.00197		ug/L	529.63	1.000	0.995	
Chromium	A	178.46	148.81	145.71	140.73		LOR0	R	0.00000	0.00710		ug/L	153.43	1.000	0.995	
Cobalt	A	173.51	171.55	172.13	168.83		LOR0	R	0.00000	0.00592		ug/L	171.50	1.000	0.995	
Copper	A	979.06	952.12	969.98	966.49		LOR0	R	0.00000	0.00103		ug/L	966.91	1.000	0.995	
Lead	A	73.271	81.682	82.131	78.841		LOR0	R	0.00000	0.01268		ug/L	78.981	1.000	0.995	
Manganese	A	1426.7	1322.9	1330.1	1250.9		LOR0	R	0.00000	7.99E-4		ug/L	1332.6	1.000	0.995	
Molybdenum	A	68.279	69.413	69.267	67.351		LOR0	R	0.00000	0.01484		ug/L	68.578	1.000	0.995	
Nickel	A	99.741	94.362	93.732	90.785		LOR0	R	0.00000	0.01101		ug/L	94.655	1.000	0.995	
Selenium	A	28.878	34.914	35.711	35.728		LOR0	R	0.00000	0.02799		ug/L	33.808	1.000	0.995	
Silver	A	634.52	615.37	620.88	615.16		LOR0	R	0.00000	0.00162		ug/L	621.48	1.000	0.995	
Thallium	A	29.857	31.952	32.607	31.742		LOR0	R	0.00000	0.03150		ug/L	31.540	1.000	0.995	
Tin	A	34.407	35.159	35.883	34.979		LOR0	R	0.00000	0.02858		ug/L	35.107	1.000	0.995	
Titanium	A	1454.8	1460.9	1449.5	1418.9		LOR0	R	0.00000	7.05E-4		ug/L	1446.0	1.000	0.995	
Vanadium	A	190.26	189.29	189.58	187.63		LOR0	R	0.00000	0.00533		ug/L	189.19	1.000	0.995	
Zinc	A	284.15	201.11	194.17	188.27		LOR0	R	0.00000	0.00531		ug/L	216.93	1.000	0.995	
Aluminum	R	2.4155		2.5102	2.5257	2.6289	LOR0	R	0.00000	0.38053		ug/L	2.5201	1.000	0.995	
Calcium	R	27.587		20.791	19.573	19.693	LOR0	R	0.00000	0.05078		ug/L	21.911	1.000	0.995	
Iron	R	26.231		23.744	22.534	22.302	LOR0	R	0.00000	0.04483		ug/L	23.703	1.000	0.995	
Magnesium	R	4.3015		4.1972	3.9931	3.9974	LOR0	R	0.00000	0.25017		ug/L	4.1223	1.000	0.995	
Potassium	R	7.2973		7.5234	7.0882	7.3768	LOR0	R	0.00000	0.13561		ug/L	7.3214	1.000	0.995	
Sodium	R	15.083		14.623	13.779	13.819	LOR0	R	0.00000	0.07236		ug/L	14.326	1.000	0.995	

LOR0-Linear regression forced thru origin, including 0,0 point
Instrument amount = a0 + response * a1 + response^2 * a2

86088551001

Reprocessing Begun
Logged In Analyst: Curtis and Tompkins Technique: ICP Continuous

Results Data Set (original): 030206a
Results Library (original): C:\pe\Curtis and Tompkins\Results\Results.mdb
Results Data Set (reprocessed): 030206ar
Results Library (reprocessed): C:\pe\Curtis and Tompkins\Results\Results.mdb

Sequence No.: 1
Sample ID: ICALBLK,
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/2/2006 11:51:05 AM
Data Type: Reprocessed on 3/2/2006 12:29:23 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-937.9	63.88	6.81%	[0.00]	ug/L
Al 308.215 R	246.9	12.61	5.11%	[0.00]	ug/L
As 188.979	-247.3	21.55	8.71%	[0.00]	ug/L
B 249.677	3518.4	119.08	3.38%	[0.00]	ug/L
Ba 233.527	-144.1	2.52	1.75%	[0.00]	ug/L
Be 313.107	237.2	84.30	35.54%	[0.00]	ug/L
Ca 315.887 R	621.0	52.14	8.40%	[0.00]	ug/L
Cd 214.440	-24.4	6.28	25.71%	[0.00]	ug/L
Co 228.616	-202.3	5.87	2.90%	[0.00]	ug/L
Cr 267.716	121.7	19.66	16.16%	[0.00]	ug/L
Cu 324.752	4321.3	119.91	2.77%	[0.00]	ug/L
Fe 238.204 R	343.1	8.43	2.46%	[0.00]	ug/L
K 766.490 R	-4968.1	313.56	6.31%	[0.00]	ug/L
Mg 279.077 R	-213.0	34.73	16.30%	[0.00]	ug/L
Mn 257.610	512.5	40.85	7.97%	[0.00]	ug/L
Mo 202.031	41.7	12.13	29.06%	[0.00]	ug/L
Na 589.592 R	520.5	64.26	12.35%	[0.00]	ug/L
Ni 231.604	378.9	7.32	1.93%	[0.00]	ug/L
Pb 220.353	393.3	67.15	17.08%	[0.00]	ug/L
Sb 206.836	604.1	63.47	10.51%	[0.00]	ug/L
Se 196.026	-115.8	27.85	24.06%	[0.00]	ug/L
Ti 334.940 R	635.6	81.36	12.80%	[0.00]	ug/L
Tl 190.801	259.9	12.59	4.84%	[0.00]	ug/L
V 292.402	-1492.2	15.54	1.04%	[0.00]	ug/L
Zn 206.200	-734.0	8.86	1.21%	[0.00]	ug/L
Sn 189.927	139.9	17.68	12.64%	[0.00]	ug/L

Sequence No.: 2
Sample ID: ICAL,CRIM08
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/2/2006 11:54:12 AM
Data Type: Reprocessed on 3/2/2006 12:29:24 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CRIM08

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CRIM08

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2250524.6	7295.84	0.32%	100.0	%
Y	360620.1	2050.61	0.57%	100.00	%
Ag 328.068†	3172.6	96.91	3.05%	[5.0]	ug/L
Al 308.215 R†	241.6	39.79	16.47%	[100]	ug/L
As 188.979†	144.9	16.45	11.35%	[5.0]	ug/L
B 249.677†	22856.6	157.51	0.69%	[100]	ug/L
Ba 233.527†	3425.7	22.92	0.67%	[5.0]	ug/L
Be 313.107†	10473.2	27.72	0.26%	[2.0]	ug/L
Ca 315.887 R†	5517.4	89.80	1.63%	[200]	ug/L
Cd 214.440†	2710.1	20.63	0.76%	[5.0]	ug/L
Co 228.616†	867.6	7.06	0.81%	[5.0]	ug/L
Cr 267.716†	892.3	14.31	1.60%	[5.0]	ug/L
Cu 324.752†	4895.3	104.56	2.14%	[5.0]	ug/L
Fe 238.204 R†	2623.1	45.03	1.72%	[100]	ug/L
K 766.490 R†	3648.6	202.18	5.54%	[500]	ug/L
Mg 279.077 R†	860.3	19.28	2.24%	[200]	ug/L
Mn 257.610†	7133.4	32.34	0.45%	[5.0]	ug/L
Mo 202.031†	341.4	3.39	0.99%	[5.0]	ug/L
Na 589.592 R†	7541.3	44.35	0.59%	[500]	ug/L
Ni 231.604†	498.7	16.42	3.29%	[5.0]	ug/L
Pb 220.353†	219.8	34.97	15.91%	[3.0]	ug/L
Sb 206.836†	376.5	39.35	10.45%	[5.0]	ug/L
Se 196.026†	144.4	15.86	10.98%	[5.0]	ug/L
Ti 334.940 R†	14548.3	96.13	0.66%	[10]	ug/L
Tl 190.801†	149.3	9.56	6.40%	[5.0]	ug/L
V 292.402†	951.3	8.23	0.87%	[5.0]	ug/L
Zn 206.200†	5683.0	25.55	0.45%	[20]	ug/L
Sn 189.927†	1376.3	15.02	1.09%	[40]	ug/L

Sequence No.: 3 Autosampler Location: 3
Sample ID: ICAL,CS100 Date Collected: 3/2/2006 11:57:19 AM
Analyst: Data Type: Reprocessed on 3/2/2006 12:29:25 PM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS100

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2294554.2	9991.76	0.44%	102.0	%
Y	370549.7	3502.32	0.95%	102.8	%
Ag 328.068†	61537.4	687.32	1.12%	[100]	ug/L
As 188.979†	3493.9	145.43	4.16%	[100]	ug/L
Ba 233.527†	63177.8	534.37	0.85%	[100]	ug/L
Be 313.107†	503575.5	3659.32	0.73%	[100]	ug/L
Cd 214.440†	53087.3	537.99	1.01%	[100]	ug/L
Co 228.616†	17154.7	167.38	0.98%	[100]	ug/L
Cr 267.716†	14881.1	55.42	0.37%	[100]	ug/L
Cu 324.752†	95211.7	883.98	0.93%	[100]	ug/L
Mn 257.610†	132291.2	1156.50	0.87%	[100]	ug/L
Mo 202.031†	6941.3	82.39	1.19%	[100]	ug/L
Ni 231.604†	9436.2	130.77	1.39%	[100]	ug/L
Pb 220.353†	8168.2	126.82	1.55%	[100]	ug/L
Sb 206.836†	6263.0	294.99	4.71%	[100]	ug/L
Se 196.026†	3491.4	29.22	0.84%	[100]	ug/L
Ti 334.940 R†	146091.6	1378.08	0.94%	[100]	ug/L
Tl 190.801†	3195.2	86.53	2.71%	[100]	ug/L
V 292.402†	18928.8	267.17	1.41%	[100]	ug/L
Zn 206.200†	20111.4	307.93	1.53%	[100]	ug/L
Sn 189.927†	3515.9	72.99	2.08%	[100]	ug/L

Sequence No.: 4
Sample ID: ICAL,CS1K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/2/2006 11:59:27 AM
Data Type: Reprocessed on 3/2/2006 12:29:26 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS1K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS1K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2292269.6	8965.49	0.39%	101.9	%
Y	364619.6	1989.57	0.55%	101.1	%
Ag 328.068†	620877.4	4176.99	0.67%	[1000]	ug/L
Al 308.215 R†	2510.2	38.18	1.52%	[1000]	ug/L
As 188.979†	35310.5	171.76	0.49%	[1000]	ug/L
B 249.677†	236381.0	1867.70	0.79%	[1000]	ug/L
Ba 233.527†	631106.9	2948.35	0.47%	[1000]	ug/L
Be 313.107†	5013042.2	17183.74	0.34%	[1000]	ug/L
Ca 315.887 R†	20791.1	83.42	0.40%	[1000]	ug/L
Cd 214.440†	537964.3	3436.48	0.64%	[1000]	ug/L
Co 228.616†	172125.8	1005.12	0.58%	[1000]	ug/L
Cr 267.716†	145710.9	417.78	0.29%	[1000]	ug/L
Cu 324.752†	969983.0	4817.34	0.50%	[1000]	ug/L
Fe 238.204 R†	23743.7	119.05	0.50%	[1000]	ug/L
K 766.490 R†	7523.4	331.88	4.41%	[1000]	ug/L
Mg 279.077 R†	4197.2	53.22	1.27%	[1000]	ug/L
Mn 257.610†	1330080.3	6970.81	0.52%	[1000]	ug/L
Mo 202.031†	69267.4	499.84	0.72%	[1000]	ug/L
Na 589.592 R†	14623.2	36.02	0.25%	[1000]	ug/L
Ni 231.604†	93731.6	150.03	0.16%	[1000]	ug/L
Pb 220.353†	82131.2	423.72	0.52%	[1000]	ug/L
Sb 206.836†	61249.4	389.83	0.64%	[1000]	ug/L
Se 196.026†	35711.2	160.21	0.45%	[1000]	ug/L
Ti 334.940 R†	1449461.6	7535.22	0.52%	[1000]	ug/L
Tl 190.801†	32607.3	201.30	0.62%	[1000]	ug/L
V 292.402†	189582.3	1303.78	0.69%	[1000]	ug/L
Zn 206.200†	194171.9	1683.56	0.87%	[1000]	ug/L
Sn 189.927†	35883.2	82.23	0.23%	[1000]	ug/L

Sequence No.: 5
Sample ID: ICAL,CS10K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/2/2006 12:01:38 PM
Data Type: Reprocessed on 3/2/2006 12:29:27 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS10K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS10K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2178286.0	19025.58	0.87%	96.79	%
Y	353128.6	4319.33	1.22%	97.92	%
Ag 328.068†	1230321.4	12237.89	0.99%	[2000]	ug/L
Al 308.215 R†	25256.7	123.27	0.49%	[10000]	ug/L
As 188.979†	348654.8	3473.45	1.00%	[10000]	ug/L
B 249.677†	2412542.4	6442.52	0.27%	[10000]	ug/L
Ba 233.527†	6111476.2	64870.21	1.06%	[10000]	ug/L
Ca 315.887 R†	195735.0	700.96	0.36%	[10000]	ug/L
Cd 214.440†	5076763.0	4981.41	0.10%	[10000]	ug/L
Co 228.616†	1688276.4	1573.18	0.09%	[10000]	ug/L
Cr 267.716†	1407315.9	13771.33	0.98%	[10000]	ug/L
Cu 324.752†	9664941.3	4047.45	0.04%	[10000]	ug/L
Fe 238.204 R†	225342.4	827.15	0.37%	[10000]	ug/L
K 766.490 R†	70882.0	126.63	0.18%	[10000]	ug/L
Mg 279.077 R†	39930.8	213.93	0.54%	[10000]	ug/L
Mn 257.610†	12508692.2	140751.39	1.13%	[10000]	ug/L
Mo 202.031†	673507.3	8225.05	1.22%	[10000]	ug/L
Na 589.592 R†	137785.5	471.84	0.34%	[10000]	ug/L
Ni 231.604†	907853.2	9712.06	1.07%	[10000]	ug/L
Pb 220.353†	788407.8	8901.91	1.13%	[10000]	ug/L
Sb 206.836†	615156.5	5593.22	0.91%	[10000]	ug/L
Se 196.026†	357281.3	3469.35	0.97%	[10000]	ug/L
Ti 334.940 R†	14189054.0	152880.50	1.08%	[10000]	ug/L
Tl 190.801†	317419.6	2740.50	0.86%	[10000]	ug/L
V 292.402†	1876280.9	1503.18	0.08%	[10000]	ug/L
Zn 206.200†	1882723.4	2106.50	0.11%	[10000]	ug/L
Sn 189.927†	349792.7	3494.70	1.00%	[10000]	ug/L

Sequence No.: 6
Sample ID: ICAL,CS100K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/2/2006 12:04:31 PM
Data Type: Reprocessed on 3/2/2006 12:29:27 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS100K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2045030.9	21287.33	1.04%	90.87	%
Y	346328.9	676.68	0.20%	96.04	%
Al 308.215 Rt	262891.8	1123.92	0.43%	[100000]	ug/L
Ca 315.887 Rt	1969291.5	4119.96	0.21%	[100000]	ug/L
Fe 238.204 Rt	2230247.0	9766.53	0.44%	[100000]	ug/L
K 766.490 Rt	737675.1	1489.45	0.20%	[100000]	ug/L
Mg 279.077 Rt	399736.6	1839.70	0.46%	[100000]	ug/L
Na 589.592 Rt	1381932.8	3167.86	0.23%	[100000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin Thru 0	0.0	616.3	0.00000	0.999993	
Al 308.215 R	4	Lin Thru 0	0.0	2.628	0.00000	0.999992	
As 188.979	4	Lin Thru 0	0.0	34.87	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	241.2	0.00000	0.999998	
Ba 233.527	4	Lin Thru 0	0.0	611.3	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	5013	0.00000	1.000000	
Ca 315.887 R	4	Lin Thru 0	0.0	19.69	0.00000	0.999999	
Cd 214.440	4	Lin Thru 0	0.0	508.0	0.00000	0.999982	
Co 228.616	4	Lin Thru 0	0.0	168.9	0.00000	0.999998	
Cr 267.716	4	Lin Thru 0	0.0	140.8	0.00000	0.999994	
Cu 324.752	4	Lin Thru 0	0.0	966.5	0.00000	1.000000	
Fe 238.204 R	4	Lin Thru 0	0.0	22.30	0.00000	0.999999	
K 766.490 R	4	Lin Thru 0	0.0	7.374	0.00000	0.999992	
Mg 279.077 R	4	Lin Thru 0	0.0	3.997	0.00000	1.000000	
Mn 257.610	4	Lin Thru 0	0.0	1252	0.00000	0.999980	
Mo 202.031	4	Lin Thru 0	0.0	67.37	0.00000	0.999996	
Na 589.592 R	4	Lin Thru 0	0.0	13.82	0.00000	1.000000	
Ni 231.604	4	Lin Thru 0	0.0	90.81	0.00000	0.999995	
Pb 220.353	4	Lin Thru 0	0.0	78.87	0.00000	0.999991	
Sb 206.836	4	Lin Thru 0	0.0	61.51	0.00000	1.000000	
Se 196.026	4	Lin Thru 0	0.0	35.73	0.00000	1.000000	
Ti 334.940 R	4	Lin Thru 0	0.0	1419	0.00000	0.999998	
Tl 190.801	4	Lin Thru 0	0.0	31.75	0.00000	0.999996	
V 292.402	4	Lin Thru 0	0.0	187.6	0.00000	0.999999	
Zn 206.200	4	Lin Thru 0	0.0	188.3	0.00000	0.999994	
Sn 189.927	4	Lin Thru 0	0.0	34.99	0.00000	0.999997	

CURTIS & TOMPKINS SECOND SOURCE CALIBRATION VERIFICATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551007 File : 030206ar.txt Time : 02-MAR-2006 12:07
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2531

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	65.172	62.273	5000	5062	ug/L	1	10	
Arsenic	A	33.523	35.309	5000	5063	ug/L	1	10	
Barium	A	639.79	614.52	5000	5026	ug/L	1	10	
Beryllium	A	5095.1	4959.6	500.0	494.6	ug/L	-1	10	
Boron	A	235.40	244.72	5000	5073	ug/L	1	10	
Cadmium	A	529.63	515.50	5000	5074	ug/L	1	10	
Chromium	A	153.43	140.84	5000	5002	ug/L	0	10	
Cobalt	A	171.50	166.28	5000	4914	ug/L	-2	10	
Copper	A	966.91	934.91	5000	4836	ug/L	-3	10	
Lead	A	78.981	77.553	5000	4916	ug/L	-2	10	
Manganese	A	1332.6	1252.4	5000	5003	ug/L	0	10	
Molybdenum	A	68.578	68.926	5000	5115	ug/L	2	10	
Nickel	A	94.655	90.257	5000	4969	ug/L	-1	10	
Selenium	A	33.808	35.593	5000	4981	ug/L	0	10	
Silver	A	621.48	593.84	1000	963.6	ug/L	-4	10	
Thallium	A	31.540	31.743	5000	4999	ug/L	0	10	
Tin	A	35.107	34.615	5000	4947	ug/L	-1	10	
Titanium	A	1446.0	1385.9	5000	4883	ug/L	-2	10	
Vanadium	A	189.19	185.90	5000	4953	ug/L	-1	10	
Zinc	A	216.93	188.94	5000	5016	ug/L	0	10	
Aluminum	R	2.5201	2.3997	20000	18260	ug/L	-9	10	
Calcium	R	21.911	18.433	20000	18720	ug/L	-6	10	
Iron	R	23.703	21.294	20000	19090	ug/L	-5	10	
Magnesium	R	4.1223	3.7642	20000	18830	ug/L	-6	10	
Potassium	R	7.3214	6.7489	20000	18300	ug/L	-8	10	
Sodium	R	14.326	12.943	20000	18730	ug/L	-6	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2140053	-4.91

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551008 File : 030206ar.txt Time : 02-MAR-2006 12:09
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[24.26]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	[0.8403]	5.000	0.7122	ug/L	!ib
Lead	A	[1.342]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[3.130]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.241]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2294723	1.96

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CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551009 File : 030206ar.txt Time : 02-MAR-2006 12:12
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2555

Interferent	Ch	Quant	RL	Units	Flags
Antimony	A	[0.9499]	5.000	ug/L	
Arsenic	A	[0.1854]	5.000	ug/L	
Barium	A	[0.7982]	5.000	ug/L	
Beryllium	A	[-0.0001268]	2.000	ug/L	
Boron	A	[12.79]	100.0	ug/L	
Cadmium	A	[2.584]	5.000	ug/L	
Cobalt	A	[1.218]	5.000	ug/L	
Lead	A	[2.737]	3.000	ug/L	
Molybdenum	A	[-0.2131]	5.000	ug/L	
Selenium	A	[-3.433]	5.000	ug/L	
Silver	A	[-3.291]	5.000	ug/L	
Thallium	A	[-2.469]	5.000	ug/L	
Tin	A	[7.104]	40.00	ug/L	
Zinc	A	[13.40]	20.00	ug/L	
Potassium	R	[60.36]	500.0	ug/L	
Sodium	R	[40.99]	500.0	ug/L	

Interferent	Ch	Spiked	Quant	Units	%Rec
Chromium	A	20000	20130	ug/L	101
Copper	A	20000	21790	ug/L	109
Manganese	A	20000	19290	ug/L	96
Nickel	A	20000	18430	ug/L	92
Titanium	A	20000	20340	ug/L	102
Vanadium	A	20000	20840	ug/L	104
Aluminum	R	500000	515200	ug/L	103
Calcium	R	500000	501200	ug/L	100
Iron	R	200000	194000	ug/L	97
Magnesium	R	500000	495900	ug/L	99

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	1869608	-16.93

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551010 File : 030206ar.txt Time : 02-MAR-2006 12:14
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2262

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	555.4	ug/L	11	20	
Arsenic	A	500.0	537.6	ug/L	8	20	
Barium	A	500.0	547.1	ug/L	9	20	
Beryllium	A	500.0	528.9	ug/L	6	20	
Cadmium	A	1000	1030	ug/L	3	20	
Chromium	A	500.0	530.8	ug/L	6	20	
Cobalt	A	500.0	476.4	ug/L	-5	20	
Copper	A	500.0	538.3	ug/L	8	20	
Lead	A	1000	964.6	ug/L	-4	20	
Manganese	A	500.0	543.8	ug/L	9	20	
Molybdenum	A	500.0	522.4	ug/L	4	20	
Nickel	A	1000	955.2	ug/L	-4	20	
Selenium	A	500.0	523.2	ug/L	5	20	
Silver	A	1000	1095	ug/L	9	20	
Thallium	A	500.0	505.0	ug/L	1	20	
Titanium	A	20000	20320	ug/L	2		
Vanadium	A	500.0	559.1	ug/L	12	20	
Zinc	A	1000	976.1	ug/L	-2	20	
Aluminum	R	500000	498800	ug/L	0		
Calcium	R	500000	483000	ug/L	-3		
Iron	R	200000	188300	ug/L	-6		
Magnesium	R	500000	478800	ug/L	-4		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	1853249	-17.65

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551021 File : 030206ar.txt Time : 02-MAR-2006 12:55
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	65.172	62.136	5000	5051	ug/L	1	10	
Arsenic	A	33.523	35.347	5000	5068	ug/L	1	10	
Barium	A	639.79	608.46	5000	4976	ug/L	0	10	
Beryllium	A	5095.1	4910.3	500.0	489.7	ug/L	-2	10	
Boron	A	235.40	243.18	5000	5041	ug/L	1	10	
Cadmium	A	529.63	511.69	5000	5037	ug/L	1	10	
Chromium	A	153.43	140.25	5000	4981	ug/L	0	10	
Cobalt	A	171.50	166.08	5000	4908	ug/L	-2	10	
Copper	A	966.91	926.57	5000	4793	ug/L	-4	10	
Lead	A	78.981	77.409	5000	4907	ug/L	-2	10	
Manganese	A	1332.6	1253.0	5000	5005	ug/L	0	10	
Molybdenum	A	68.578	68.972	5000	5119	ug/L	2	10	
Nickel	A	94.655	89.939	5000	4952	ug/L	-1	10	
Selenium	A	33.808	35.811	5000	5012	ug/L	0	10	
Silver	A	621.48	590.27	1000	957.8	ug/L	-4	10	
Thallium	A	31.540	31.937	5000	5029	ug/L	1	10	
Tin	A	35.107	34.282	5000	4899	ug/L	-2	10	
Titanium	A	1446.0	1384.0	5000	4876	ug/L	-2	10	
Vanadium	A	189.19	183.14	5000	4880	ug/L	-2	10	
Zinc	A	216.93	187.82	5000	4986	ug/L	0	10	
Aluminum	R	2.5201	2.3817	20000	18130	ug/L	-9	10	
Calcium	R	21.911	18.321	20000	18610	ug/L	-7	10	
Iron	R	23.703	21.339	20000	19130	ug/L	-4	10	
Magnesium	R	4.1223	3.7610	20000	18820	ug/L	-6	10	
Potassium	R	7.3214	6.6773	20000	18110	ug/L	-9	10	
Sodium	R	14.326	12.746	20000	18450	ug/L	-8	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2188896	-2.74

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551023 File : 030206ar.txt Time : 02-MAR-2006 13:00
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.9471]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	[56.13]	100.0	17.23	ug/L	!ib
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2325734	3.34

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551035 File : 030206ar.txt Time : 02-MAR-2006 13:33
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	65.172	62.056	5000	5044	ug/L	1	10	
Arsenic	A	33.523	35.154	5000	5041	ug/L	1	10	
Barium	A	639.79	614.53	5000	5026	ug/L	1	10	
Beryllium	A	5095.1	4956.5	500.0	494.3	ug/L	-1	10	
Boron	A	235.40	241.64	5000	5009	ug/L	0	10	
Cadmium	A	529.63	516.36	5000	5082	ug/L	2	10	
Chromium	A	153.43	140.18	5000	4979	ug/L	0	10	
Cobalt	A	171.50	165.79	5000	4899	ug/L	-2	10	
Copper	A	966.91	935.30	5000	4838	ug/L	-3	10	
Lead	A	78.981	77.181	5000	4893	ug/L	-2	10	
Manganese	A	1332.6	1247.4	5000	4983	ug/L	0	10	
Molybdenum	A	68.578	68.708	5000	5099	ug/L	2	10	
Nickel	A	94.655	89.915	5000	4950	ug/L	-1	10	
Selenium	A	33.808	35.723	5000	4999	ug/L	0	10	
Silver	A	621.48	590.25	1000	957.7	ug/L	-4	10	
Thallium	A	31.540	31.829	5000	5012	ug/L	0	10	
Tin	A	35.107	34.236	5000	4893	ug/L	-2	10	
Titanium	A	1446.0	1378.9	5000	4858	ug/L	-3	10	
Vanadium	A	189.19	185.61	5000	4946	ug/L	-1	10	
Zinc	A	216.93	189.35	5000	5027	ug/L	1	10	
Aluminum	R	2.5201	2.3881	20000	18180	ug/L	-9	10	
Calcium	R	21.911	18.614	20000	18910	ug/L	-5	10	
Iron	R	23.703	21.155	20000	18970	ug/L	-5	10	
Magnesium	R	4.1223	3.7928	20000	18980	ug/L	-5	10	
Potassium	R	7.3214	6.6455	20000	18020	ug/L	-10	10	
Sodium	R	14.326	12.815	20000	18550	ug/L	-7	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2173559	-3.42

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551037 File : 030206ar.txt Time : 02-MAR-2006 13:38
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.4535]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	[18.68]	100.0	17.23	ug/L	!ib
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	[50.12]	500.0	39.23	ug/L	!ib

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2280577	1.34

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551049 File : 030206ar.txt Time : 02-MAR-2006 14:10
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	65.172	62.878	5000	5111	ug/L	2	10	
Arsenic	A	33.523	35.692	5000	5118	ug/L	2	10	
Barium	A	639.79	619.37	5000	5066	ug/L	1	10	
Beryllium	A	5095.1	5008.2	500.0	499.5	ug/L	0	10	
Boron	A	235.40	243.43	5000	5046	ug/L	1	10	
Cadmium	A	529.63	522.44	5000	5142	ug/L	3	10	
Chromium	A	153.43	142.08	5000	5046	ug/L	1	10	
Cobalt	A	171.50	168.16	5000	4969	ug/L	-1	10	
Copper	A	966.91	940.75	5000	4867	ug/L	-3	10	
Lead	A	78.981	78.528	5000	4978	ug/L	0	10	
Manganese	A	1332.6	1269.2	5000	5070	ug/L	1	10	
Molybdenum	A	68.578	69.688	5000	5172	ug/L	3	10	
Nickel	A	94.655	91.280	5000	5026	ug/L	1	10	
Selenium	A	33.808	36.183	5000	5064	ug/L	1	10	
Silver	A	621.48	596.82	1000	968.4	ug/L	-3	10	
Thallium	A	31.540	32.278	5000	5083	ug/L	2	10	
Tin	A	35.107	34.722	5000	4962	ug/L	-1	10	
Titanium	A	1446.0	1401.0	5000	4936	ug/L	-1	10	
Vanadium	A	189.19	187.17	5000	4987	ug/L	0	10	
Zinc	A	216.93	191.76	5000	5091	ug/L	2	10	
Aluminum	R	2.5201	2.4208	20000	18420	ug/L	-8	10	
Calcium	R	21.911	18.637	20000	18930	ug/L	-5	10	
Iron	R	23.703	21.470	20000	19250	ug/L	-4	10	
Magnesium	R	4.1223	3.8285	20000	19160	ug/L	-4	10	
Potassium	R	7.3214	6.7831	20000	18400	ug/L	-8	10	
Sodium	R	14.326	12.906	20000	18680	ug/L	-7	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2153986	-4.29

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551051 File : 030206ar.txt Time : 02-MAR-2006 14:15
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	ND	5.000	0.4303	ug/L	
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	[1.681]	5.000	1.575	ug/L	!ib
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	[3.815]	10.00	1.040	ug/L	!ib
Vanadium	A	[2.625]	5.000	0.4217	ug/L	!ib
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	[42.11]	500.0	39.23	ug/L	!ib

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2573057	14.33

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551063 File : 030206ar.txt Time : 02-MAR-2006 14:46
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	65.172	61.203	5000	4975	ug/L	-1	10	
Arsenic	A	33.523	35.179	5000	5044	ug/L	1	10	
Barium	A	639.79	607.17	5000	4966	ug/L	-1	10	
Beryllium	A	5095.1	4928.8	500.0	491.6	ug/L	-2	10	
Boron	A	235.40	238.63	5000	4947	ug/L	-1	10	
Cadmium	A	529.63	514.18	5000	5061	ug/L	1	10	
Chromium	A	153.43	139.60	5000	4958	ug/L	-1	10	
Cobalt	A	171.50	165.10	5000	4879	ug/L	-2	10	
Copper	A	966.91	922.33	5000	4771	ug/L	-5	10	
Lead	A	78.981	77.473	5000	4911	ug/L	-2	10	
Manganese	A	1332.6	1254.0	5000	5009	ug/L	0	10	
Molybdenum	A	68.578	68.512	5000	5085	ug/L	2	10	
Nickel	A	94.655	89.793	5000	4944	ug/L	-1	10	
Selenium	A	33.808	35.812	5000	5012	ug/L	0	10	
Silver	A	621.48	587.35	1000	953.0	ug/L	-5	10	
Thallium	A	31.540	32.083	5000	5052	ug/L	1	10	
Tin	A	35.107	34.178	5000	4884	ug/L	-2	10	
Titanium	A	1446.0	1372.8	5000	4836	ug/L	-3	10	
Vanadium	A	189.19	182.29	5000	4857	ug/L	-3	10	
Zinc	A	216.93	189.14	5000	5021	ug/L	0	10	
Aluminum	R	2.5201	2.3882	20000	18180	ug/L	-9	10	
Calcium	R	21.911	18.021	20000	18300	ug/L	-8	10	
Iron	R	23.703	20.949	20000	18780	ug/L	-6	10	
Magnesium	R	4.1223	3.7406	20000	18720	ug/L	-6	10	
Potassium	R	7.3214	6.7219	20000	18230	ug/L	-9	10	
Sodium	R	14.326	12.651	20000	18310	ug/L	-8	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2192399	-2.58

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551066 File : 030206ar.txt Time : 02-MAR-2006 14:57
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	ND	5.000	0.4303	ug/L	
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2325357	3.33

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551068 File : 030206ar.txt Time : 02-MAR-2006 15:02
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2262

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	525.3	ug/L	5	20	
Arsenic	A	500.0	528.7	ug/L	6	20	
Barium	A	500.0	538.8	ug/L	8	20	
Beryllium	A	500.0	526.6	ug/L	5	20	
Cadmium	A	1000	1032	ug/L	3	20	
Chromium	A	500.0	520.5	ug/L	4	20	
Cobalt	A	500.0	472.9	ug/L	-5	20	
Copper	A	500.0	518.9	ug/L	4	20	
Lead	A	1000	966.6	ug/L	-3	20	
Manganese	A	500.0	542.3	ug/L	8	20	
Molybdenum	A	500.0	513.2	ug/L	3	20	
Nickel	A	1000	941.6	ug/L	-6	20	
Selenium	A	500.0	519.5	ug/L	4	20	
Silver	A	1000	1075	ug/L	7	20	
Thallium	A	500.0	502.9	ug/L	1	20	
Titanium	A	20000	19820	ug/L	-1		
Vanadium	A	500.0	547.1	ug/L	9	20	
Zinc	A	1000	979.3	ug/L	-2	20	
Aluminum	R	500000	492500	ug/L	-1		
Calcium	R	500000	466300	ug/L	-7		
Iron	R	200000	182100	ug/L	-9		
Magnesium	R	500000	473200	ug/L	-5		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	1913145	-14.99

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551071 File : 030206ar.txt Time : 02-MAR-2006 15:09
Cal : 86088551001 Caldate: 02-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	65.172	60.746	5000	4938	ug/L	-1	10	
Arsenic	A	33.523	35.020	5000	5022	ug/L	0	10	
Barium	A	639.79	608.47	5000	4976	ug/L	0	10	
Beryllium	A	5095.1	4944.3	500.0	493.1	ug/L	-1	10	
Boron	A	235.40	243.48	5000	5047	ug/L	1	10	
Cadmium	A	529.63	516.81	5000	5087	ug/L	2	10	
Chromium	A	153.43	139.33	5000	4948	ug/L	-1	10	
Cobalt	A	171.50	165.08	5000	4878	ug/L	-2	10	
Copper	A	966.91	924.37	5000	4782	ug/L	-4	10	
Lead	A	78.981	77.664	5000	4923	ug/L	-2	10	
Manganese	A	1332.6	1254.0	5000	5009	ug/L	0	10	
Molybdenum	A	68.578	68.813	5000	5107	ug/L	2	10	
Nickel	A	94.655	89.804	5000	4944	ug/L	-1	10	
Selenium	A	33.808	35.731	5000	5000	ug/L	0	10	
Silver	A	621.48	586.43	1000	951.5	ug/L	-5	10	
Thallium	A	31.540	31.936	5000	5029	ug/L	1	10	
Tin	A	35.107	34.200	5000	4887	ug/L	-2	10	
Titanium	A	1446.0	1370.6	5000	4829	ug/L	-3	10	
Vanadium	A	189.19	183.91	5000	4900	ug/L	-2	10	
Zinc	A	216.93	189.99	5000	5044	ug/L	1	10	
Aluminum	R	2.5201	2.3781	20000	18100	ug/L	-10	10	
Calcium	R	21.911	18.009	20000	18290	ug/L	-9	10	
Iron	R	23.703	20.751	20000	18610	ug/L	-7	10	
Magnesium	R	4.1223	3.7346	20000	18690	ug/L	-7	10	
Potassium	R	7.3214	6.7568	20000	18330	ug/L	-8	10	
Sodium	R	14.326	12.617	20000	18260	ug/L	-9	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2187287	-2.81

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86088551073 File : 030206ar.txt Time : 02-MAR-2006 15:14
Cal : 86088551001 Caldate: 02-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	[0.6086]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.7821]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2250525	2297862	2.10

!=warning ib=instrument blank

Curtis & Tompkins Laboratories Sample Preparation Summary 02-MAR-2006 06:03

Batch Number : 110908
Date Extracted: 02-MAR-2006
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : S1586
Spike #2 ID : S1587
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
184995-002			Blasland, Bouck & Lee	Soil	1.49	g	50	33.557047	1				PP13/ICAP		
184995-003			Blasland, Bouck & Lee	Soil	1.35	g	50	37.037037	1				PP13/ICAP		
184995-004			Blasland, Bouck & Lee	Soil	1.53	g	50	32.679739	1				PP13/ICAP		
184995-005			Blasland, Bouck & Lee	Soil	1.06	g	50	47.169811	1				PP13/ICAP		mss
185021-001			CH2M Hill	Soil	1.27	g	50	39.370079	1				T26/ICP		
185021-002			CH2M Hill	Soil	1.2	g	50	41.666667	1				T26/ICP		
185021-003			CH2M Hill	Soil	1.19	g	50	42.016807	1				T26/ICP		
185034-005			Blasland, Bouck & Lee	Soil	.99	g	50	50.505051	1				PP13/ICAP		
185034-006			Blasland, Bouck & Lee	Soil	1.41	g	50	35.460993	1				PP13/ICAP		
185045-001			CH2M Hill	Soil	1.16	g	50	43.103448	1				T26/ICP		
185045-002			CH2M Hill	Soil	1.1	g	50	45.454545	1				T26/ICP		
185045-003			CH2M Hill	Soil	1.2	g	50	41.666667	1				T26/ICP		
185049-001			CH2M Hill	Soil	1.44	g	50	34.722222	1				T26/ICP		
185049-002			CH2M Hill	Soil	1.05	g	50	47.619048	1				T26/ICP		
185049-003			CH2M Hill	Soil	.94	g	50	53.191489	1				T26/ICP		
185138-001			Pacific States Env. Contractor	Miscell.	1.33	g	50	37.593985	1				T26/ICP		
185143-003			Treadwell & Rollo	Soil	.96	g	50	52.083333	1				CD, CR, NI, PB, ZN		
185149-001			Mactec, Inc.	Soil	.95	g	50	52.631579	1				T26/ICP		
185[illegible]-003			URS Corporation	Soil	.96	g	50	52.083333	1				T26/ICP		
QC329855	BLANK			Soil	1	g	50	50.000000	1				ICAP		
QC329856	BS			Soil	1	g	50	50.000000	1	.5	.5		ICAP		
QC329857	BSD			Soil	1	g	50	50.000000	1	.5	.5		ICAP		
QC329858	MS	of 184995-005		Soil	1.08	g	50	46.296296	1	.5	.5		ICAP		
QC329859	MSD	of 184995-005		Soil	1.14	g	50	43.859649	1	.5	.5		ICAP		
QC329860	SER	of 184995-005		Soil	1.06	g	50	47.169811	1				ICAP		
QC329861	PDS	of 184995-005		Soil	1.06	g	50	47.169811	1				ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: 3/2/06

Relinquished By: _____ Received By: _____ Date: 3/2/06

Soil Digestion for ICP & ICP-MS Curtis & Tompkins, Ltd.

LIMS Batch #: 110908
Date Digested: 03/1/06
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2270
Page 83

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BK-DC 329855		Ø	500	Y	
*	BS ↓ 6		↓	↓	↓	
*	BSD ↓ 7		↓	↓	↓	
*	184995-005 MS	A	1.08			
*	* -005 MSD		1.14			
	-002		1.49			
	-003	*	1.35			
	-004	B	1.53			
	-005	A	1.06			(MSS)
10	185021-001	C	1.27			
	-002	↓	1.20			
	↓ -003	↓	1.19			
	185034-005	A	0.99			
	↓ -006	↓	1.41			
15	185045-001	B	1.16			
	-002	A	1.10			
	↓ -003	↓	1.20			
	185049-001	B	1.44			
	-002	↓	1.05			
20	↓ -003	↓	0.94			
	185138-001	A	1.33			
	185143-003		0.96			Comp 001-002, 5g of each
	185149-002	A	0.95			
	185161-003	A	0.96	↓	↓	

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	959	VV 3/1/06
0.5 mL of spike solution was added to all spikes	S1586 *	
	S1587 *	
1:1 HNO3	B320H4-122605	
concentrated HNO3	B349093-JT Baker	
3mL 30% hydrogen peroxide	457525421 VWR	
concentrated HCl	B33039- JT Baker	
☒ filtered thru' Whatman # 541	F16723159 - VV 3/1/06	

VV 3/1/06
Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

3/2/06
Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 46084242 Instrument: MET04 HydraAA HG Analyzer Begun: 27-FEB-2006
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subl Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	110785	ICALBLK	Std01Rep1				27-FEB-2006 12:02	1.0	1.0									
002	110785	ICAL	Std02Rep1				27-FEB-2006 12:04	1.0	1.0									
003	110785	ICAL	Std03Rep1				27-FEB-2006 12:06	1.0	1.0									
004	110785	ICAL	Std04Rep1				27-FEB-2006 12:08	1.0	1.0									
005	110785	ICAL	Std05Rep1				27-FEB-2006 12:10	1.0	1.0									
006	110785	ICAL	Std06Rep1				27-FEB-2006 12:12	1.0	1.0									
007	110785	ICV					27-FEB-2006 12:21	1.0	1.0	2	5.000	46084242001	5.170		ug/L	103		
008	110785	ICB					27-FEB-2006 12:23	1.0	1.0			46084242001	ND	0.20	ug/L			
009	110785	BLANK	QC329359		110785	Soil	27-FEB-2006 12:25	1.0	100.0			46084242001	ND	0.020	mg/Kg			
010	110785	BS	QC329360		110785	Soil	27-FEB-2006 12:27	1.0	100.0		0.5000	46084242001	0.5190	0.020	mg/Kg	104		
011	110785	BSD	QC329361		110785	Soil	27-FEB-2006 12:28	1.0	100.0		0.5000	46084242001	0.5300	0.020	mg/Kg	106	2	
012	110785	MSS	185149-001		110785	Soil	27-FEB-2006 12:30	1.0	90.91			46084242001	0.045	0.018	mg/Kg			
013	110785	SER	QC329364	185149-001	110785	Soil	27-FEB-2006 12:32	5.0	90.91			46084242001	0.035 J	0.091	mg/Kg			
014	110785	MS	QC329362	185149-001	110785	Soil	27-FEB-2006 12:34	1.0	86.21		0.4310	46084242001	0.4966	0.017	mg/Kg	105		
015	110785	MSD	QC329363	185149-001	110785	Soil	27-FEB-2006 12:35	1.0	90.91		0.4545	46084242001	0.5400	0.018	mg/Kg	109	4	
016	110785	SAMPLE	185138-001		110785	Miscel	27-FEB-2006 12:38	1.0	94.34			46084242001	ND	0.019	mg/Kg			
017	110785	SAMPLE	185144-001		110785	Soil	27-FEB-2006 12:40	1.0	96.15			46084242001	0.038	0.019	mg/Kg			
018	110785	SAMPLE	185144-002		110785	Soil	27-FEB-2006 12:43	1.0	84.75			46084242001	0.18	0.017	mg/Kg			
019	110785	CCV					27-FEB-2006 12:45	1.0	1.0	3	2.500	46084242001	2.640		ug/L	106		
020	110785	CCB					27-FEB-2006 12:46	1.0	1.0			46084242001	ND	0.20	ug/L			
021	110785	SAMPLE	185144-003		110785	Soil	27-FEB-2006 12:49	1.0	104.2			46084242001	0.030	0.021	mg/Kg			
022	110785	SAMPLE	185144-004		110785	Soil	27-FEB-2006 12:51	1.0	92.59			46084242001	0.019	0.019	mg/Kg			
023	110785	SAMPLE	185144-005		110785	Soil	27-FEB-2006 12:53	1.0	87.72			46084242001	0.023	0.018	mg/Kg			
024	110785	SAMPLE	185144-006		110785	Soil	27-FEB-2006 12:55	1.0	87.72			46084242001	ND	0.018	mg/Kg			
025	110785	SAMPLE	185144-011		110785	Soil	27-FEB-2006 12:56	1.0	104.2			46084242001	ND	0.021	mg/Kg			
026	110785	SAMPLE	185144-012		110785	Soil	27-FEB-2006 12:58	1.0	76.92			46084242001	0.056	0.015	mg/Kg			
027	110785	SAMPLE	185144-013		110785	Soil	27-FEB-2006 13:01	1.0	80.65			46084242001	0.020	0.016	mg/Kg			
028	110785	SAMPLE	185144-020		110785	Soil	27-FEB-2006 13:02	1.0	100.0			46084242001	0.091	0.020	mg/Kg			
029	110785	SAMPLE	185144-021		110785	Soil	27-FEB-2006 13:04	1.0	68.49			46084242001	0.11	0.014	mg/Kg			
030	110785	SAMPLE	185144-024		110785	Soil	27-FEB-2006 13:06	1.0	84.75			46084242001	0.086	0.017	mg/Kg			
031	110785	CCV					27-FEB-2006 13:08	1.0	1.0	4	5.000	46084242001	5.180		ug/L	104		
032	110785	CCB					27-FEB-2006 13:10	1.0	1.0			46084242001	[0.09700]	0.20	ug/L			!ib
033	110785	SAMPLE	185144-027		110785	Soil	27-FEB-2006 13:12	1.0	92.59			46084242001	ND	0.019	mg/Kg			
034	110785	SAMPLE	185144-030		110785	Soil	27-FEB-2006 13:14	1.0	78.13			46084242001	0.060	0.016	mg/Kg			
035	110785	SAMPLE	185144-033		110785	Soil	27-FEB-2006 13:16	1.0	89.29			46084242001	ND	0.018	mg/Kg			
036	110785	SAMPLE	185144-036		110785	Soil	27-FEB-2006 13:17	1.0	113.6			46084242001	0.028	0.023	mg/Kg			
037	110785	SAMPLE	185144-039		110785	Soil	27-FEB-2006 13:19	1.0	94.34			46084242001	0.052	0.019	mg/Kg			
038	110785	SAMPLE	185155-010		110785	Soil	27-FEB-2006 13:21	1.0	71.43			46084242001	0.22	0.014	mg/Kg			
039	110785	CCV					27-FEB-2006 13:23	1.0	1.0	5	7.500	46084242001	7.990		ug/L	107		
040	110785	CCB					27-FEB-2006 13:24	1.0	1.0			46084242001	[0.1050]	0.20	ug/L			!ib

Stds used: 1=S2799 2=S2801 3=S2802 4=S2803 5=S2804
Flags used: !=warning ib=instrument blank

Analyst: _____ Date: 2/27/06

CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 7470A

Inst : MET04
Calnum : 46084242001 Date : 27-FEB-2006 12:02 Type : SOIL Reviewer: ---
Inj Vol : 2000 uL

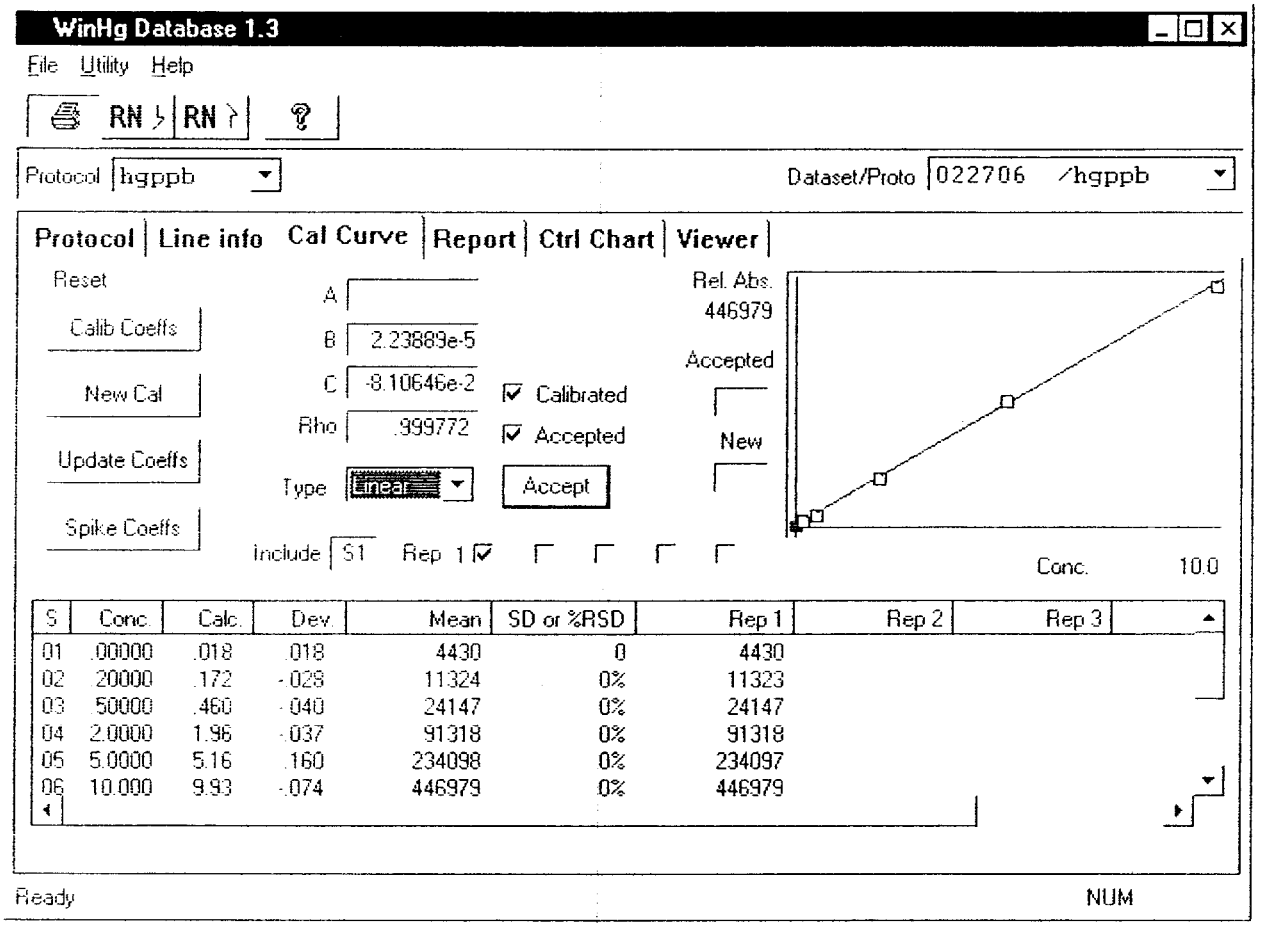
Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	110785	46084242002	Std02Rep1	27-FEB-2006 12:04	S2799 (500X)
L2	110785	46084242003	Std03Rep1	27-FEB-2006 12:06	S2799 (200X)
L3	110785	46084242004	Std04Rep1	27-FEB-2006 12:08	S2799 (50X)
L4	110785	46084242005	Std05Rep1	27-FEB-2006 12:10	S2799 (20X)
L5	110785	46084242006	Std06Rep1	27-FEB-2006 12:12	S2799 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flags
Mercury	56615	48294	45659	46819	44698	LINR	R	-0.08106	2.239E-5		ug/L	48417	1.000	.99	

48

LINR=Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2

46084242001


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 022706 /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 2.23889e-5
C -8.10646e-2
Rho .999772
Type Linear
Calibrated
Accepted
Accept
Include S1 Rep 1
Rel. Abs.
446979
Accepted
New
Conc. 10.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .018 .018 4430 0 4430
02 .20000 .172 -.028 11324 0% 11323
03 .50000 .460 -.040 24147 0% 24147
04 2.0000 1.96 -.037 91318 0% 91318
05 5.0000 5.16 .160 234098 0% 234097
06 10.000 9.93 -.074 446979 0% 446979
Ready
NUM

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		12:02:38 27 Feb 06			HG
Hg	.000	ppb	4430						
		Bkgd 1	9726905						
*** Standard: 2 Rep: 1				Seq: 2		12:04:32 27 Feb 06			HG
Hg	.200	ppb	11323						
		Bkgd 1	9729221						
*** Standard: 3 Rep: 1				Seq: 3		12:06:18 27 Feb 06			HG
Hg	.500	ppb	24147						
		Bkgd 1	9724028						
*** Standard: 4 Rep: 1				Seq: 4		12:08:25 27 Feb 06			HG
Hg	2.00	ppb	91318						
		Bkgd 1	9721244						
*** Standard: 5 Rep: 1				Seq: 5		12:10:59 27 Feb 06			HG
Hg	5.00	ppb	234097						
		Bkgd 1	9721004						
*** Standard: 6 Rep: 1				Seq: 6		12:12:47 27 Feb 06			HG
Hg	10.0	ppb	446979						
		Bkgd 1	9718994						
*** Check Standard: 2			Ck2s2801	Seq: 7		12:21:23 27 Feb 06			HG
Line	Flag		Intensities						
Hg			234534						
		Bkgd 1	9716818						
*** Check Standard: 1			Ck1ICB	Seq: 8		12:23:06 27 Feb 06			HG
Line	Flag		Intensities						
Hg			-2203						
		Bkgd 1	9715164						
*** Sample ID: qc329359				Seq: 9		12:25:06 27 Feb 06			HG
			110785,1						
Hg	-.071	ppb	434						
		Bkgd 1	9718078						

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: qc329360				Seq: 10	12:27:11 27 Feb 06	HG		
			110785,1					
Hg	5.19	ppb	235575					
		Bkgd 1	9718799					
*** Sample ID: qc329361				Seq: 11	12:28:57 27 Feb 06	HG		
			110785,1					
Hg	5.30	ppb	240360					
		Bkgd 1	9718140					
*** Sample ID: 185149-001				Seq: 12	12:30:38 27 Feb 06	HG		
			110785,1					
Hg	.494	ppb	25705					
		Bkgd 1	9711202					
*** Sample ID: qc329364				Seq: 13	12:32:20 27 Feb 06	HG		
			110785,5					
Hg	.078	ppb	7116					
		Bkgd 1	9713200					
*** Sample ID: qc329362				Seq: 14	12:34:02 27 Feb 06	HG		
			110785,1					
Hg	5.76	ppb	261095					
		Bkgd 1	9723544					
*** Sample ID: qc329363				Seq: 15	12:35:55 27 Feb 06	HG		
			110785,1					
Hg	5.94	ppb	269011					
		Bkgd 1	9715756					
*** Sample ID: 185138-001				Seq: 16	12:38:17 27 Feb 06	HG		
			110785,1					
Hg	.049	ppb	5813					
		Bkgd 1	9714215					
*** Sample ID: 185144-001				Seq: 17	12:40:19 27 Feb 06	HG		
			110785,1					
Hg	.398	ppb	21379					
		Bkgd 1	9715569					

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 185144-002				Seq: 18	12:43:22 27 Feb 06	HG		
				110785,1				
Hg	2.15	ppb	99779					
		Bkgd 1	9714253					
*** Check Standard: 3			Ck3S2802	Seq: 19	12:45:05 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			121337					
		Bkgd 1	9712677					
*** Check Standard: 6			Ck6CCB	Seq: 20	12:46:47 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			2052					
		Bkgd 1	9714143					
*** Sample ID: 185144-003				Seq: 21	12:49:13 27 Feb 06	HG		
				110785,1				
Hg	.288	ppb	16491					
		Bkgd 1	9717590					
*** Sample ID: 185144-004				Seq: 22	12:51:17 27 Feb 06	HG		
				110785,1				
Hg	.204	ppb	12727					
		Bkgd 1	9712263					
*** Sample ID: 185144-005				Seq: 23	12:53:22 27 Feb 06	HG		
				110785,1				
Hg	.265	ppb	15471					
		Bkgd 1	9707237					
*** Sample ID: 185144-006				Seq: 24	12:55:15 27 Feb 06	HG		
				110785,1				
Hg	.086	ppb	7442					
		Bkgd 1	9708983					
*** Sample ID: 185144-011				Seq: 25	12:56:58 27 Feb 06	HG		
				110785,1				
Hg	.073	ppb	6890					
		Bkgd 1	9707342					

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 185144-012				Seq: 26	12:58:41 27 Feb 06	HG		
			110785,1					
Hg	.731	ppb	36276					
		Bkgd 1	9713346					
*** Sample ID: 185144-013				Seq: 27	13:01:15 27 Feb 06	HG		
			110785,1					
Hg	.251	ppb	14816					
		Bkgd 1	9711041					
*** Sample ID: 185144-020				Seq: 28	13:02:59 27 Feb 06	HG		
			110785,1					
Hg	.907	ppb	44153					
		Bkgd 1	9708913					
*** Sample ID: 185144-021				Seq: 29	13:04:41 27 Feb 06	HG		
			110785,1					
Hg	1.55	ppb	73065					
		Bkgd 1	9702915					
*** Sample ID: 185144-024				Seq: 30	13:06:28 27 Feb 06	HG		
			110785,1					
Hg	1.01	ppb	48766					
		Bkgd 1	9712006					
*** Check Standard: 5			Ck5S2803	Seq: 31	13:08:30 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			235046					
		Bkgd 1	9704399					
*** Check Standard: 6			Ck6CCB	Seq: 32	13:10:55 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			7972					
		Bkgd 1	9708189					
*** Sample ID: 185144-027				Seq: 33	13:12:38 27 Feb 06	HG		
			110785,1					
Hg	-.058	ppb	1014					
		Bkgd 1	9703851					

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 185144-030				Seq: 34	13:14:22 27 Feb 06	HG		
			110785,1					
Hg	.769	ppb	37946					
		Bkgd 1	9700324					
*** Sample ID: 185144-033				Seq: 35	13:16:15 27 Feb 06	HG		
			110785,1					
Hg	.122	ppb	9085					
		Bkgd 1	9702115					
*** Sample ID: 185144-036				Seq: 36	13:17:56 27 Feb 06	HG		
			110785,1					
Hg	.244	ppb	14511					
		Bkgd 1	9704838					
*** Sample ID: 185144-039				Seq: 37	13:19:38 27 Feb 06	HG		
			110785,1					
Hg	.555	ppb	28392					
		Bkgd 1	9706327					
*** Sample ID: 185155-010				Seq: 38	13:21:19 27 Feb 06	HG		
			110785,1					
Hg	3.10	ppb	142229					
		Bkgd 1	9705424					
*** Check Standard: 4			Ck4S2804	Seq: 39	13:23:05 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			360412					
		Bkgd 1	9701131					
*** Check Standard: 6			Ck6CCB	Seq: 40	13:24:50 27 Feb 06	HG		
Line	Flag		Intensities					
Hg			8329					
		Bkgd 1	9698550					

Curtis & Tompkins Laboratories Sample Preparation Summary 27-FEB-2006 11:19

Batch Number : 110785
Date Extracted: 27-FEB-2006
Extracted by : Kale Clauson
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S2799
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
185138-001			Pacific States Env. Contractor	Miscell.	.53	g	50	94.339623	1					T26/HG		
185144-001			Iris Environmental	Soil	.52	g	50	96.153846	1					T26/HG		
185144-002			Iris Environmental	Soil	.59	g	50	84.745763	1					T26/HG		
185144-003			Iris Environmental	Soil	.48	g	50	104.166667	1					T26/HG		
185144-004			Iris Environmental	Soil	.54	g	50	92.592593	1					T26/HG		
185144-005			Iris Environmental	Soil	.57	g	50	87.719298	1					T26/HG		
185144-006			Iris Environmental	Soil	.57	g	50	87.719298	1					T26/HG		
185144-011			Iris Environmental	Soil	.48	g	50	104.166667	1					T26/HG		
185144-012			Iris Environmental	Soil	.65	g	50	76.923077	1					T26/HG		
185144-013			Iris Environmental	Soil	.62	g	50	80.645161	1					T26/HG		
185144-020			Iris Environmental	Soil	.5	g	50	100.000000	1					T26/HG		
185144-021			Iris Environmental	Soil	.73	g	50	68.493151	1					T26/HG		
185144-024			Iris Environmental	Soil	.59	g	50	84.745763	1					T26/HG		
185144-027			Iris Environmental	Soil	.54	g	50	92.592593	1					T26/HG		
185144-030			Iris Environmental	Soil	.64	g	50	78.125000	1					T26/HG		
185144-033			Iris Environmental	Soil	.56	g	50	89.285714	1					T26/HG		
185144-036			Iris Environmental	Soil	.44	g	50	113.636364	1					T26/HG		
185144-039			Iris Environmental	Soil	.53	g	50	94.339623	1					T26/HG		
185149-001			Mactec, Inc.	Soil	.55	g	50	90.909091	1					T26/HG		
185150-010			ACC Environmental Consultants	Soil	.7	g	50	71.428571	1					T26/HG		
QC329359	BLANK			Soil	.5	g	50	100.000000	1					HG		
QC329360	BS			Soil	.5	g	50	100.000000	1		2.5			HG		
QC329361	BSD			Soil	.5	g	50	100.000000	1		2.5			HG		
QC329362	MS	of 185149-001		Soil	.58	g	50	86.206897	1		2.5			HG		
QC329363	MSD	of 185149-001		Soil	.55	g	50	90.909091	1		2.5			HG		
QC329364	SER	of 185149-001		Soil	.55	g	50	90.909091	1					HG		
QC329365	PDS	of 185149-001		Soil	.55	g	50	90.909091	1					HG		

Prep Chemist: _____ Reviewed By: _____ Date: 2/27/06

Relinquished By: _____ Received By: _____ Date: 2/27/06

Ltd.

Soil Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 110785

Date Digested: 2/27/06

Digested by: kmc

Digestion Method

☒ EPA 7471A

☐ _____

BK 2165

Page 23

Sample # and letter	Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
185138 -001 A	0.53	50	Y	MISCELL. [GRAVEL]
185144 -001	0.52			
002	0.59			
003	0.48			
004	0.54			
005	0.57			
006	0.57			
011	0.48			
012	0.65			
013	0.62			
020	0.50			
021	0.73			
024	0.59			
027	0.54			
030	0.64			
033	0.56			
036	0.44			
039	0.53			
185149 -001MSS	0.55			
185155 -010	0.70			COMP 001,003,005,007: 5.0g EACH
BLANK	0.50			
BS	0.50			
BSD	0.50			
MS 185149 -001	0.58			
MSD 185149 -001	0.55			

Reagent ID/ LIMS# / Time	Initials / Date
2.5 mL of spike solution was added to all spikes: S2799	kmc 2/27
ICAL Source WS#: S2799	
ICV / CCV WS#: S2801/02/03/04	
Digestion of Samples & Standards: Time ON / Temperature ON: 11:00 / 95°C	
Time OFF/ Temperature OFF: 1930 / 95°C	
concentrated H_2SO_4: —	
Aqua Regia Acids (HNO3+ HCl): AR 022706	
5% $KMnO_4$: K 021406	
5% $K_2S_2O_8$: —	
NaCl.hydroxylamine hydrochloride: Hy 020306	
Stannous Chloride: $SnCl_2$ 022306	
☒ filtered thru' 0.45 um syringe filter: MILLIPORE 2ESAN59292	

2/27/06

Prep Chemist / Date

Continued from page 0

Continued on page 0

K Carlson 2/27/06

Reviewed by / Date

Percent Moisture Summary Report

Batch: 110912
Date: 03/02/06
Method: CLP SOW 390
Analyst: CCH

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
184995-002	15.0876	20.6650	18.2362	56	44
184995-003	15.0200	22.2186	17.1716	30	70
184995-004	15.0035	21.6466	17.1376	32	68
184995-005	15.1364	21.0797	17.8240	45	55
185149-001	15.0095	24.0348	21.9443	77	23
185161-001	14.5436	21.5073	20.2633	82	18
185161-002	14.7599	23.0218	21.2019	78	22
185161-003	15.5511	24.6398	22.4705	76	24
QC329873	14.9570	21.0316	17.7564	46	54
of 184995-005			RPD:	1.9%	1.6%

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Number 185213

Mactec, Inc.
5341 Old Redwood Hwy
Petaluma, CA 94954

Project#: 57255.005122
Location: PT Baker Beach BBDA2

Sample ID	Lab ID
BB2SB110(1.0)	185213-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: _____ Date: 3/9/06
Operations Manager

Signature: _____ Date: 3/9/06
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**185213**
Client:	**Mactec, Inc.**
Project:	**57255.005122**
Location:	**PT Baker Beach BBDA2**
Request Date:	**02/28/06**
Samples Received:	**02/01/06**

This hardcopy data package contains sample and QC results for one soil sample, requested for the above referenced project on 02/28/06. The sample was received cold and intact.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for silver, cobalt, and antimony in the MS/MSD of BB2SB110(1.0) (lab # 185213-001); the BS/BSD were within limits, and the associated RPDs were within limits. High recovery was observed for chromium in the MS of BB2SB110(1.0) (lab # 185213-001); the BS/BSD were within limits. High RPD was also observed for chromium in the MS/MSD of BB2SB110(1.0) (lab # 185213-001); the RPD was acceptable in the BS/BSD. Response exceeding the instrument's linear range was observed for nickel in the MS of BB2SB110(1.0) (lab # 185213-001). A number of analytes were detected between the MDL and the RL in the method blank for batch 110952; these analytes were either not detected in the sample at or above the RL, or detected at a level at least ten times that of the blank. No other analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Chain of Custody

18521-001

18478-003

Patricia Flynn

From: "Heassler, Mary Jo" <MHeassler@mactec.com>
To: "Patricia Flynn" <pat@ctberk.com>
Cc: "Hanzel-Durbin, Justin" <JHANZEL-DURBIN@mactec.com>; "Jacobvitz, Michael" <MAJacobvitz@mactec.com>; "Evans, Kathleen" <KKEvans@mactec.com>
Sent: Monday, February 27, 2006 11:26 AM
Attach: Document.pdf
Subject: FW:

Pat please take sample BB2SB110(1.0) off of hold (COC 1461 and C&T project 1461) and analyze it for Title 22 metals in accordance with the Presidio QAPP (see revised COC attached).

Mary Jo Heassler
MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300
Petaluma, CA. 94954
Phone (707) 793-3845
Facsimile (707) 793-3900

-----Original Message-----
From: petaluma-p5@mactec.com [mailto:petaluma-p5@mactec.com]
Sent: Monday, February 27, 2006 11:01 AM
To: Heassler, Mary Jo
Subject:

MACTEC
5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

184678

Seq. No.: № 1461

1/3

Samplers: A.H. HENKE, J.H. DARBIN

Lab: CURTIS TOMPKINS

Job Number: 57255 005122

Name/Location: PRESIDIO SF - BLDG 2

Project Manager: M. A. VALENTINE

Recorder: _____ (Signature Required)

MATRIX			# CONTAINERS & PRESERV.					SAMPLE NUMBER		DATE				STATION DESCRIPTION		ANALYSIS REQUESTED
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL		YR	SEQ	YR	MO	DAY	TIME		DEPTH	TPH MBTHS
	✓		1				-1	B B2 S B 1 1 0 (0 S)		0 6	0 2	0 1	0 7 2 5			✓
	✓		1				-2	D U P (0 2 0 1 0 6)		0 6	0 2	0 1	0 7 3 0			✓
	✓		1				-3	B B2 S B 1 1 0 (1 0)		0 6	0 2	0 1	0 7 3 5	HOLD - Take off of hold and analyze for TPH metals		X

ADDITIONAL INFORMATION

SAMPLE NUMBER		TURNAROUND TIME/ REMARKS
YR	SEQ	
		- RESULTS TO MJ HEASLER
		- STANDARD TAT
		Received w/ 2 C Cooler - Cold

CHAIN OF CUSTODY RECORD

Relinquished By (Signature)	A H HENKE	MACTEC	2/1/06 1130
Received By (Signature)	(Print Name) Tony Rojas	(Company) CT	Date/Time 2/1/06 1130
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment: CT COURIER

F100R-B (5/04)

Laboratory Copy *White* | Project Office Copy *Yellow* | Field or Office Copy *Pink*

5

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 18467S Date Received: 2/1/02 Number of Coolers: 1
Client: Mactec Project: Baker Beach

A. Preliminary Examination Phase
Date Opened: 2/1/02 By (print): Peter P. (sign)

1. Did cooler come with a shipping slip (airbill, etc.)? ... YES (NO)
   If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? ... YES (NO)
   How many and where? Seal date: Seal name:
3. Were custody seals unbroken and intact at the date and time of arrival? ... YES NO N/A
4. Were custody papers dry and intact when received? ... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ... (YES) NO
6. Did you sign the custody papers in the appropriate place? ... (YES) NO
7. Was project identifiable from custody papers? ... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ... YES NO
   Type of ice: Wet Ice Temperature: No Temperature Blank Per

B. Login Phase
Date Logged In: 2/1/02 By (print): Peter P. (sign)

1. Describe type of packing in cooler: Bubble Wrap
2. Did all bottles arrive unbroken? ... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ... (YES) NO
5. Were appropriate containers used for the tests indicated? ... (YES) NO
6. Were correct preservatives added to samples? ... YES NO N/A
7. Was sufficient amount of sample sent for tests indicated? ... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ... YES NO N/A
9. Was the client contacted concerning this sample delivery? ... YES NO
   If YES, give details below.
   Who was called? By whom? Date:

Additional Comments:

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

SUCCESSFUL EDF CHECK - NO ERRORS

ORGANIZATION NAME:	Curtis & Tompkins, Ltd.
USER NAME:	CTBERK
DATE CHECKED:	3/9/2006 1:21:45 PM
GLOBAL ID:	NOT SELECTED
FILE UPLOADED:	185213_edf.zip

No errors were found in your EDF upload file.

If you want to submit this file to the SWRCB, choose the "Upload EDD" option in the above menu and follow the instructions.

When you complete the submittal process, you will be given a confirmation number for your submittal.

Because you have not chosen a facility, field point names have not been checked.

Logged in as CTBERK (LABORATORY) CONTACT SITE ADMINISTRATOR.

Metals Results & QC Summary

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	185213	Project#:	57255.005122
Client:	Mactec, Inc.	Location:	PT Baker Beach BBDA2
Field ID:	BB2SB110(1.0)	Basis:	dry
Lab ID:	185213-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	02/01/06
Units:	mg/Kg	Received:	02/01/06

Moisture: 20%

Analyte	Result	RL	MDL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.33 J	3.4	0.12	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Arsenic	4.1	0.28	0.11	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Barium	69	0.57	0.058	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Beryllium	0.21	0.11	0.011	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Cadmium	0.25 J	0.28	0.026	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Chromium	400	0.57	0.038	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Cobalt	39	1.1	0.029	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Copper	15	0.57	0.054	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Lead	32	0.17	0.060	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Mercury	0.046	0.026	0.0050	111059	03/07/06	03/07/06	METHOD	EPA 7471A
Molybdenum	0.40 J	1.1	0.025	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Nickel	540	1.1	0.034	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Selenium	0.98	0.28	0.088	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Silver	ND	0.28	0.049	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Thallium	0.11 J	0.28	0.035	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Vanadium	51	0.57	0.036	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B
Zinc	44	1.1	0.12	110952	03/03/06	03/03/06	EPA 3050B	EPA 6010B

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC330027	Batch#:	110952
Matrix:	Soil	Prepared:	03/03/06
Units:	mg/Kg	Analyzed:	03/03/06
Basis:	as received		

Analyte	Result	RL	MDL
Antimony	ND	3.0	0.11
Arsenic	ND	0.25	0.099
Barium	ND	0.50	0.051
Beryllium	ND	0.10	0.0099
Cadmium	ND	0.25	0.023
Chromium	0.061 J	0.50	0.034
Cobalt	ND	1.0	0.025
Copper	0.28 J	0.50	0.047
Lead	ND	0.15	0.053
Molybdenum	0.029 J	1.0	0.022
Nickel	ND	1.0	0.030
Selenium	ND	0.25	0.078
Silver	ND	0.25	0.043
Thallium	0.037 J	0.25	0.031
Vanadium	ND	0.50	0.032
Zinc	ND	1.0	0.11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	110952
Units:	mg/Kg	Prepared:	03/03/06
Basis:	as received	Analyzed:	03/03/06
Diln Fac:	1.000		

Type: BS Lab ID: QC330028

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	94.21	94	75-125
Arsenic	50.00	48.23	96	75-125
Barium	100.0	99.89	100	75-125
Beryllium	2.500	2.523	101	75-125
Cadmium	10.00	10.07	101	75-125
Chromium	100.0	98.22	98	75-125
Cobalt	25.00	23.88	96	75-125
Copper	12.50	12.43	99	75-125
Lead	100.0	94.41	94	75-125
Molybdenum	20.00	19.76	99	75-125
Nickel	25.00	24.03	96	75-125
Selenium	50.00	48.09	96	75-125
Silver	10.00	8.763	88	75-125
Thallium	50.00	48.18	96	75-125
Vanadium	25.00	24.66	99	75-125
Zinc	25.00	24.67	99	75-125

Type: BSD Lab ID: QC330029

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	92.78	93	75-125	2	30
Arsenic	50.00	47.06	94	75-125	2	30
Barium	100.0	97.35	97	75-125	3	30
Beryllium	2.500	2.455	98	75-125	3	30
Cadmium	10.00	9.776	98	75-125	3	30
Chromium	100.0	95.82	96	75-125	2	30
Cobalt	25.00	23.23	93	75-125	3	30
Copper	12.50	12.08	97	75-125	3	30
Lead	100.0	91.64	92	75-125	3	30
Molybdenum	20.00	19.17	96	75-125	3	30
Nickel	25.00	23.39	94	75-125	3	30
Selenium	50.00	46.23	92	75-125	4	30
Silver	10.00	8.526	85	75-125	3	30
Thallium	50.00	46.43	93	75-125	4	30
Vanadium	25.00	24.06	96	75-125	2	30
Zinc	25.00	24.00	96	75-125	3	30

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Field ID:	BB2SB110(1.0)	Batch#:	110952
MSS Lab ID:	185213-001	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Prepared:	03/03/06
Basis:	dry	Analyzed:	03/03/06

Type: MS Moisture: 20%
Lab ID: QC330030

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.3342	105.9	25.51	24 *	75-125	1.000
Arsenic	4.105	52.97	54.73	96	75-125	1.000
Barium	68.79	105.9	154.0	80	75-125	1.000
Beryllium	0.2077	2.648	2.725	95	75-125	1.000
Cadmium	0.2461	10.59	9.966	92	75-125	1.000
Chromium	399.8	105.9	754.2	335 *	75-125	10.00
Cobalt	39.34	26.48	67.29	106	75-125	1.000
Copper	14.70	13.24	26.87	92	75-125	1.000
Lead	31.64	105.9	116.3	80	75-125	1.000
Molybdenum	0.4039	21.19	19.36	89	75-125	1.000
Nickel	535.5	26.48	638.6 >LR	389 NM	75-125	1.000
Selenium	0.9848	52.97	50.78	94	75-125	1.000
Silver	<0.04917	10.59	6.193	58 *	75-125	1.000
Thallium	0.1115	52.97	44.65	84	75-125	1.000
Vanadium	51.27	26.48	76.61	96	75-125	1.000
Zinc	44.12	26.48	64.20	76	75-125	1.000

Type: MSD Moisture: 20%
Lab ID: QC330031

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	111.6	25.70	23 *	75-125	4	30	1.000
Arsenic	55.80	55.40	92	75-125	4	30	1.000
Barium	111.6	163.6	85	75-125	3	30	1.000
Beryllium	2.790	2.765	92	75-125	3	30	1.000
Cadmium	11.16	10.10	88	75-125	4	30	1.000
Chromium	111.6	508.9	98	75-125	40 *	30	10.00
Cobalt	27.90	58.95	70 *	75-125	15	30	1.000
Copper	13.95	26.79	87	75-125	3	30	1.000
Lead	111.6	120.8	80	75-125	0	30	1.000
Molybdenum	22.32	19.80	87	75-125	3	30	1.000
Nickel	27.90	490.8	-160 NM	75-125	NC	30	1.000
Selenium	55.80	50.73	89	75-125	5	30	1.000
Silver	11.16	6.466	58 *	75-125	1	30	1.000
Thallium	55.80	45.25	81	75-125	4	30	1.000
Vanadium	27.90	76.05	89	75-125	3	30	1.000
Zinc	27.90	65.56	77	75-125	0	30	1.000

*= Value outside of QC limits; see narrative
NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	EPA 3050B
Project#:	57255.005122	Analysis:	EPA 6010B
Field ID:	BB2SB110(1.0)	Basis:	dry
Type:	Serial Dilution	Diln Fac:	5.000
MSS Lab ID:	185213-001	Batch#:	110952
Lab ID:	QC330032	Sampled:	02/01/06
Matrix:	Soil	Received:	02/01/06
Units:	mg/Kg	Analyzed:	03/03/06

Moisture: 20%

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim
Antimony	0.3342	3.409	0.7313 J	17.05		10
Arsenic	4.105	0.2841	4.037	1.420		10
Barium	68.79	0.5682	72.50	2.841	5	10
Beryllium	0.2077	0.1136	0.2343 J	0.5682		10
Cadmium	0.2461	0.2841	0.2468 J	1.420		10
Chromium	399.8	0.5682	427.6	2.841	7	10
Cobalt	39.34	1.136	42.92	5.682	9	10
Copper	14.70	0.5682	14.64	2.841	0	10
Lead	31.64	0.1705	34.77	0.8523	10	10
Molybdenum	0.4039	1.136	0.5494 J	5.682		10
Nickel	535.5	1.136	589.5	5.682	10	10
Selenium	0.9848	0.2841	ND	1.420		10
Silver	ND	0.2841	ND	1.420		10
Thallium	0.1115	0.2841	0.2334 J	1.420		10
Vanadium	51.27	0.5682	53.67	2.841	5	10
Zinc	44.12	1.136	47.96	5.682	9	10

J= Estimated value
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	as received
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC330451	Batch#:	111059
Matrix:	Soil	Prepared:	03/07/06
Units:	mg/Kg	Analyzed:	03/07/06

Result	RL	MDL
ND	0.020	0.0038

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	111059
Units:	mg/Kg	Prepared:	03/07/06
Basis:	as received	Analyzed:	03/07/06

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC330452	0.5000	0.4970	99	75-125		
BSD	QC330453	0.5000	0.4900	98	75-125	1	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals			
Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	111059
MSS Lab ID:	185130-001	Sampled:	02/22/06
Matrix:	Soil	Received:	02/23/06
Units:	mg/Kg	Prepared:	03/07/06
Basis:	dry	Analyzed:	03/07/06

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
MS	QC330454	0.06811	0.5556	0.6411	103	75-125	10%		
MSD	QC330455		0.5241	0.6153	104	75-125	10%	1	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 26 Metals

Lab #:	185213	Location:	PT Baker Beach BBDA2
Client:	Mactec, Inc.	Prep:	METHOD
Project#:	57255.005122	Analysis:	EPA 7471A
Analyte:	Mercury	Basis:	dry
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	111059
MSS Lab ID:	185130-001	Sampled:	02/22/06
Lab ID:	QC330456	Received:	02/23/06
Matrix:	Soil	Analyzed:	03/07/06
Units:	mg/Kg		

MSS Result	MSS RL	Result	RL	Moisture %	Diff Lim
0.06811	0.02222	0.05889 J	0.1111	10%	10

J= Estimated value
RL= Reporting Limit

Curtis & Tompkins, Ltd.

REPORTING SUMMARY FOR 185213 METALS Soil
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
185213-001	MET04	03/03/06 10:03	1.0																	
185213-001	MET08	03/03/06 10:56	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
185213-001	MET04	03/07/06 17:20	1.0										+							
QC330027	MET08	03/03/06 10:48	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC330028	MET08	03/03/06 10:52	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC330029	MET08	03/03/06 10:54	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC330030	MET08	03/03/06 11:01	1.0	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+
QC330030	MET08	03/03/06 13:46	10.0						+											
QC330031	MET08	03/03/06 11:03	1.0	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+
QC330031	MET08	03/03/06 13:48	10.0						+											
QC330032	MET08	03/03/06 10:59	5.0	+	+	+	+	+	+	+	+	+		+	+		+	+	+	+
QC330032	MET08	03/03/06 11:26	5.0													+				
QC330033	MET08	03/03/06 11:06	1.0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
QC330047	MET04	03/03/06 09:34	1.0																	
QC330048	MET04	03/03/06 09:36	1.0																	
QC330049	MET04	03/03/06 09:38	1.0																	
QC330050	MET04	03/03/06 09:43	1.0																	
QC330051	MET04	03/03/06 09:48	1.0																	
QC330052	MET04	03/03/06 09:41	5.0																	
QC330451	MET04	03/07/06 16:45	1.0										+							
QC330452	MET04	03/07/06 16:47	1.0										+							
QC330453	MET04	03/07/06 16:49	1.0										+							
QC330454	MET04	03/07/06 16:55	1.0										+							
QC330455	MET04	03/07/06 16:57	1.0										+							
QC330456	MET04	03/07/06 16:52	5.0										+							

CURTIS & TOMPKINS POST DIGEST SPIKE USER REPORT FOR EPA 6010B

Type : MSS
Inst : MET08
Seqnum: 86089896014
File : 030306ar.txt
IDF : 1.0
Lab ID: 185213-001
Matrix: Soil
Batch : 110952
Time : 03-MAR-2006 10:56
Cal : 86089896001
Units : ug/L

Type : PDS
Inst : MET08
Seqnum: 86089896018
File : 030306ar.txt
IDF : 1.0
Lab ID: QC330033
Matrix: Soil
Batch : 110952
Time : 03-MAR-2006 11:06
Cal : 86089896001

MSS: 1.10 g --> 50.0 ml = 45.45 ml/g PDF
PDS: 1.10 g --> 50.0 ml = 45.45 ml/g PDF

PDS standards: S1586 (100X), S1587 (100X)

Analyte	MSS	Ch	Spiked	PDS	Ch	%Rec	Limits	Flags
Antimony	5.881	A	2000	1900	A	95	75-125	
Arsenic	72.25	A	1000	998.6	A	93	75-125	
Barium	1211	A	2000	2988	A	89	75-125	
Beryllium	3.656	A	50.00	49.34	A	91	75-125	
Cadmium	4.331	A	200.0	180.1	A	88	75-125	
Calcium	72420	R	20000	88100	R	78	75-125	
Chromium	7036	A	2000	8529	A	75	75-125	
Cobalt	692.4	A	500.0	1085	A	79	75-125	
Copper	258.7	A	250.0	476.5	A	87	75-125	
Lead	556.9	A	2000	2153	A	80	75-125	
Molybdenum	7.108	A	400.0	367.3	A	90	75-125	
Nickel	9425	A	500.0	9491	A	13	75-125	:
Selenium	17.33	A	1000	929.7	A	91	75-125	
Silver	ND	A	200.0	119.8	A	**60***	75-125	
Thallium	1.963	A	1000	816.4	A	81	75-125	
Vanadium	902.4	A	500.0	1333	A	86	75-125	
Zinc	776.5	A	500.0	1176	A	80	75-125	
Boron	117.5	A	1000	1050	A	93	75-125	
Tin	20.50	A	1000	866.1	A	85	75-125	

ISTD (ICAL 002)	Ch	ICAL Abund	PDS Abund	%Drift
Yttrium	A	2438169	2406456	-1.30

MISSING READINGS: **NA TI**

:=recovery not meaningful

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86089896 Instrument: MET08 PE ICP Begun: 03-MAR-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK	uL	Stds Used	>LR
001	030306ar	ICALBLK				03-MAR-2006 10:16	1.0	1.0					
002	030306ar	ICAL	CRIM08			03-MAR-2006 10:20	1.0	1.0				1	
003	030306ar	ICAL	CS100			03-MAR-2006 10:24	1.0	1.0				2	
004	030306ar	ICAL	CS1K			03-MAR-2006 10:27	1.0	1.0				3	
005	030306ar	ICAL	CS10K			03-MAR-2006 10:29	1.0	1.0				4	
006	030306ar	ICAL	CS100K			03-MAR-2006 10:32	1.0	1.0				5	
007	030306ar	ICV				03-MAR-2006 10:35	1.0	1.0	1		5000	6	
008	030306ar	ICB				03-MAR-2006 10:37	1.0	1.0			5000		
009	030306ar	ICSA				03-MAR-2006 10:41	1.0	1.0			5000	7	10:AL=497692
010	030306ar	ICSAB				03-MAR-2006 10:43	1.0	1.0			5000	8	5:AL=500063
011	030306ar	BLANK	QC330027	110952	Soil	03-MAR-2006 10:48	1.0	50.0	3		5000		
012	030306ar	BS	QC330028	110952	Soil	03-MAR-2006 10:52	1.0	50.0	3	1	5000		
013	030306ar	BSD	QC330029	110952	Soil	03-MAR-2006 10:54	1.0	50.0	3	1	5000		
014	030306ar	MSS	185213-001	110952	Soil	03-MAR-2006 10:56	1.0	45.45	7		5000		5:MG=564048
015	030306ar	SER	QC330032	110952	Soil	03-MAR-2006 10:59	5.0	45.45	1	1	5000		2:MG=123597
016	030306ar	MS	QC330030	110952	Soil	03-MAR-2006 11:01	1.0	42.37	1	1	5000		7:MG=737862
017	030306ar	MSD	QC330031	110952	Soil	03-MAR-2006 11:03	1.0	44.64		2	5000		4:MG=554520
018	030306ar	PDS	QC330033	110952	Soil	03-MAR-2006 11:06	1.0	45.45		1	5000	9 10	5:MG=570742
019	030306ar	X	RINSE			03-MAR-2006 11:08	1.0						
020	030306ar	CCV				03-MAR-2006 11:11	1.0	1.0	3		5000	11	
021	030306ar	X	FLUSH			03-MAR-2006 11:13	1.0						
022	030306ar	CCB				03-MAR-2006 11:17	1.0	1.0			5000		
023	030306ar	SAMPLE	185022-001	110952	Soil	03-MAR-2006 11:21	1.0	54.35			5000		5:CA=1287470
024	030306ar	SAMPLE	185022-002	110952	Soil	03-MAR-2006 11:23	1.0	37.31	1		5000		4:MG=3770190
025	030306ar	SER	QC330032	110952	Soil	03-MAR-2006 11:26	5.0	45.45			5000		2:MG=123058
026	030306ar	SAMPLE	185022-003	110952	Soil	03-MAR-2006 11:28	1.0	43.86	1		5000		3:FE=405090
027	030306ar	SAMPLE	185189-001	110952	Soil	03-MAR-2006 11:30	1.0	48.08	1		5000		3:FE=445558
028	030306ar	SAMPLE	185187-001	110952	Soil	03-MAR-2006 11:33	5.0	40.98			5000		1:FE=126556
029	030306ar	SAMPLE	185187-002	110952	Soil	03-MAR-2006 11:35	5.0	42.74			5000		1:FE=109538
030	030306ar	SAMPLE	185187-003	110952	Soil	03-MAR-2006 11:37	5.0	34.01			5000		2:CA=142937
031	030306ar	SAMPLE	185187-004	110952	Soil	03-MAR-2006 11:39	5.0	40.0	1		5000		1:FE=120456

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532 12=S2309

Analyst: KCarlyn Date: 3/3/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86089896 Instrument: MET08 PE ICP Begun: 03-MAR-2006
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
032	030306ar	SAMPLE	185187-005	110952	Soil	03-MAR-2006 11:41	5.0	51.55		5000		
033	030306ar	X	RINSE			03-MAR-2006 11:44	1.0					
034	030306ar	CCV				03-MAR-2006 11:47	1.0	1.0	2	5000	11	
035	030306ar	X	FLUSH			03-MAR-2006 11:49	1.0					
036	030306ar	CCB				03-MAR-2006 11:53	1.0	1.0		5000		
037	030306ar	SAMPLE	185187-006	110952	Soil	03-MAR-2006 11:57	5.0	55.56		5000		
038	030306ar	SAMPLE	185187-007	110952	Soil	03-MAR-2006 11:59	5.0	35.46		5000		1:FE=148538
039	030306ar	SAMPLE	185187-008	110952	Soil	03-MAR-2006 12:02	5.0	45.05	1	5000		1:FE=100772
040	030306ar	SAMPLE	185187-009	110952	Soil	03-MAR-2006 12:04	5.0	42.37		5000		1:FE=116551
041	030306ar	SAMPLE	185187-010	110952	Soil	03-MAR-2006 12:06	5.0	34.97		5000		1:FE=131362
042	030306ar	SAMPLE	185263-009	110952	Soil	03-MAR-2006 12:08	10.0	42.02		5000		
043	030306ar	SAMPLE	185263-010	110952	Soil	03-MAR-2006 12:11	10.0	37.31		5000		
044	030306ar	SAMPLE	185022-001	110952	Soil	03-MAR-2006 12:15	1.0	54.35	1	5000		4:CA=1303423
045	030306ar	SAMPLE	185022-002	110952	Soil	03-MAR-2006 12:17	1.0	37.31	1	5000		4:MG=3840175
046	030306ar	SAMPLE	185022-003	110952	Soil	03-MAR-2006 12:19	1.0	43.86		5000		4:FE=399618
047	030306ar	X	RINSE			03-MAR-2006 12:22	1.0					
048	030306ar	CCV				03-MAR-2006 12:25	1.0	1.0	3	5000	11	
049	030306ar	X	FLUSH			03-MAR-2006 12:27	1.0					
050	030306ar	CCB				03-MAR-2006 12:31	1.0	1.0		5000		
051	030306ar	SAMPLE	185189-001	110952	Soil	03-MAR-2006 12:35	1.0	48.08		5000		3:FE=412407
052	030306ar	SAMPLE	185187-004	110952	Soil	03-MAR-2006 12:37	5.0	40.0		5000		1:FE=115651
053	030306ar	SAMPLE	185187-008	110952	Soil	03-MAR-2006 12:39	5.0	45.05		5000		
054	030306ar	SAMPLE	185022-002	110952	Soil	03-MAR-2006 12:41	5.0	37.31	2	5000		2:MG=871834
055	030306ar	ICSAB				03-MAR-2006 12:44	1.0	1.0		5000	8	5:MG=514052
056	030306ar	X	RINSE			03-MAR-2006 12:47	1.0					
057	030306ar	CCV				03-MAR-2006 12:49	1.0	1.0	2	5000	11	
058	030306ar	X				03-MAR-2006 12:51	1.0				11	
059	030306ar	X	FLUSH			03-MAR-2006 12:53	1.0					
060	030306ar	CCB				03-MAR-2006 12:57	1.0	1.0		5000		
061	030306ar	BLANK	QC326384	110051	Water	03-MAR-2006 13:04	1.0	1.0	2	5000		
062	030306ar	BS	QC326385	110051	Water	03-MAR-2006 13:09	1.0	1.0	2	1 5000		

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532 12=S2309

Analyst: K Cauly Date: 3/3/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 86089896 Instrument: MET08 PE ICP
Analytical Method: EPA 6010B SOP Version: 6010B_rv7

Begun: 03-MAR-2006

#	Filename	Type	Samplenum	Batch	Matrix	Analyzed	IDF	PDF	IQC	SPK uL	Stds Used	>LR
063	030306ar	BSD	QC326386	110051	Water	03-MAR-2006 13:12	1.0	1.0	3	5000		
064	030306ar	MSS	184548-002	110051	Water	03-MAR-2006 13:15	1.0	1.0	2	5000		1:NA=122099
065	030306ar	SER	QC326389	110051	Water	03-MAR-2006 13:19	5.0	1.0		5000		
066	030306ar	MS	QC326387	110051	Water	03-MAR-2006 13:23	1.0	1.0	1	5000		1:NA=128378
067	030306ar	MSD	QC326388	110051	Water	03-MAR-2006 13:25	1.0	1.0		5000		1:NA=125601
068	030306ar	PDS	QC326390	110051	Water	03-MAR-2006 13:28	1.0	1.0		1 5000	12	1:NA=125973
069	030306ar	X	RINSE			03-MAR-2006 13:30	1.0					
070	030306ar	CCV				03-MAR-2006 13:34	1.0	1.0	1	5000	11	
071	030306ar	X				03-MAR-2006 13:36	1.0				11	
072	030306ar	X	FLUSH			03-MAR-2006 13:38	1.0					
073	030306ar	CCB				03-MAR-2006 13:42	1.0	1.0		5000		
074	030306ar	MS	QC330030	110952	Soil	03-MAR-2006 13:46	10.0	42.37		3 5000		
075	030306ar	MSD	QC330031	110952	Soil	03-MAR-2006 13:48	10.0	44.64		3 5000		
076	030306ar	SAMPLE	184548-006	110051	Water	03-MAR-2006 13:50	1.0	1.0		5000		
077	030306ar	SAMPLE	184548-007	110051	Water	03-MAR-2006 13:55	1.0	1.0		5000		
078	030306ar	SAMPLE	184548-008	110051	Water	03-MAR-2006 13:59	1.0	1.0		5000		
079	030306ar	SAMPLE	184548-009	110051	Water	03-MAR-2006 14:03	1.0	1.0		5000		
080	030306ar	SAMPLE	184548-010	110051	Water	03-MAR-2006 14:07	1.0	1.0		5000		
081	030306ar	SAMPLE	184548-011	110051	Water	03-MAR-2006 14:11	1.0	1.0		5000		
082	030306ar	SAMPLE	184548-012	110051	Water	03-MAR-2006 14:15	1.0	1.0		5000		
083	030306ar	SAMPLE	184548-013	110051	Water	03-MAR-2006 14:19	1.0	1.0		5000		
084	030306ar	X	RINSE			03-MAR-2006 14:23	1.0					
085	030306ar	CCV				03-MAR-2006 14:27	1.0	1.0	1	5000	11	
086	030306ar	X				03-MAR-2006 14:28	1.0				11	
087	030306ar	X	FLUSH			03-MAR-2006 14:32	1.0					
088	030306ar	CCB				03-MAR-2006 14:36	1.0	1.0		5000		
089	030306ar	ICSAB				03-MAR-2006 14:40	1.0	1.0		5000	8	5:MG=488664
090	030306ar	X	rinse			03-MAR-2006 14:42	1.0					

Stds used: 1=S2544 2=S2568 3=S2567 4=S2569 5=S2556 6=S2531 7=S2555 8=S2262 9=S1586 10=S1587 11=S2532 12=S2309

Analyst: JKCarlyn Date: 3/3/06

CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 6010B

Inst : MET08
Calnum : 86089896001 Date : 03-MAR-2006 10:16

Reviewer: ---
Inj Vol : 5000 uL

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	030306ar.txt	86089896002	CRIM08	03-MAR-2006 10:20	S2544
L2	030306ar.txt	86089896003	CS100	03-MAR-2006 10:24	S2568
L3	030306ar.txt	86089896004	CS1K	03-MAR-2006 10:27	S2567
L4	030306ar.txt	86089896005	CS10K	03-MAR-2006 10:29	S2569
L5	030306ar.txt	86089896006	CS100K	03-MAR-2006 10:32	S2556

Analyte	Ch	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flg
Antimony	A	62.282	57.573	55.927	56.428		LOR0	R	0.00000	0.01772		ug/L	58.052	1.000	0.995	
Arsenic	A	30.045	31.101	30.588	30.894		LOR0	R	0.00000	0.03237		ug/L	30.657	1.000	0.995	
Barium	A	631.86	616.63	598.27	578.82		LOR0	R	0.00000	0.00173		ug/L	606.40	1.000	0.995	
Beryllium	A	4830.6	4781.2	4620.7			LOR0	R	0.00000	2.16E-4		ug/L	4744.2	1.000	0.995	
Boron	A	213.79		213.82	219.89		LOR0	R	0.00000	0.00455		ug/L	215.83	1.000	0.995	
Cadmium	A	472.89	481.77	469.16	446.33		LOR0	R	0.00000	0.00224		ug/L	467.54	1.000	0.995	
Chromium	A	159.93	140.06	134.95	133.05		LOR0	R	0.00000	0.00751		ug/L	142.00	1.000	0.995	
Cobalt	A	154.87	158.81	156.44	155.17		LOR0	R	0.00000	0.00644		ug/L	156.32	1.000	0.995	
Copper	A	974.77	953.79	947.47	930.14		LOR0	R	0.00000	0.00107		ug/L	951.54	1.000	0.995	
Lead	A	68.615	75.405	73.292	72.102		LOR0	R	0.00000	0.01387		ug/L	72.353	1.000	0.995	
Manganese	A	1229.4	1291.0	1255.9	1176.1		LOR0	R	0.00000	8.50E-4		ug/L	1238.1	1.000	0.995	
Molybdenum	A	67.397	67.785	65.561	65.044		LOR0	R	0.00000	0.01537		ug/L	66.447	1.000	0.995	
Nickel	A	86.574	86.426	84.942	83.591		LOR0	R	0.00000	0.01196		ug/L	85.383	1.000	0.995	
Selenium	A	29.687	30.432	29.636	30.272		LOR0	R	0.00000	0.03304		ug/L	30.007	1.000	0.995	
Silver	A	638.95	612.71	596.04	602.87		LOR0	R	0.00000	0.00166		ug/L	612.64	1.000	0.995	
Thallium	A	32.454	31.003	30.793	30.081		LOR0	R	0.00000	0.03324		ug/L	31.083	1.000	0.995	
Tin	A	29.866	31.902	31.538	31.553		LOR0	R	0.00000	0.03169		ug/L	31.215	1.000	0.995	
Titanium	A	1393.1	1458.0	1404.7	1363.4		LOR0	R	0.00000	7.33E-4		ug/L	1404.8	1.000	0.995	
Vanadium	A	177.51	181.67	178.93	177.79		LOR0	R	0.00000	0.00562		ug/L	178.98	1.000	0.995	
Zinc	A	205.67	172.40	165.21	161.37		LOR0	R	0.00000	0.00620		ug/L	176.16	1.000	0.995	
Aluminum	R	1.1122		1.1178	1.1200	1.1778	LOR0	R	0.00000	0.84946		ug/L	1.1319	1.000	0.995	
Calcium	R	10.706		9.6363	9.1344	9.3823	LOR0	R	0.00000	0.10661		ug/L	9.7148	1.000	0.995	
Iron	R	7.0164		6.4154	6.1182	6.1183	LOR0	R	0.00000	0.16344		ug/L	6.4171	1.000	0.995	
Magnesium	R	1.6544		1.6054	1.5543	1.5697	LOR0	R	0.00000	0.63713		ug/L	1.5960	1.000	0.995	
Potassium	R	0.3545		0.3810	0.4321	0.6033	LOR0	R	0.00000	1.66222		ug/L	0.4427	0.999	0.995	
Sodium	R	1.9837		2.0253	2.1917	2.5155	LOR0	R	0.00000	0.39805		ug/L	2.1791	1.000	0.995	

LOR0=Linear regression forced thru origin, including 0,0 point
Instrument amount = a0 + response * a1 + response^2 * a2

Reprocessing Begun
Logged In Analyst: Curtis and Tompkins Technique: ICP Continuous

Results Data Set (original): 030306a
Results Library (original): C:\pe\Curtis and Tompkins\Results\Results.mdb
Results Data Set (reprocessed): 030306ar
Results Library (reprocessed): C:\pe\Curtis and Tompkins\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: ICALBLK, Date Collected: 3/3/2006 10:16:10 AM
Analyst: Data Type: Reprocessed on 3/3/2006 10:47:16 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICALBLK,

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICALBLK,

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Ag 328.068	-2660.4	302.32	11.36%	[0.00]	ug/L
Al 308.215 R	100.4	3.29	3.28%	[0.00]	ug/L
As 188.979	-234.7	12.37	5.27%	[0.00]	ug/L
B 249.677	655.2	16.26	2.48%	[0.00]	ug/L
Ba 233.527	-175.2	6.15	3.51%	[0.00]	ug/L
Be 313.107	-601.1	131.04	21.80%	[0.00]	ug/L
Ca 315.887 R	408.0	27.28	6.69%	[0.00]	ug/L
Cd 214.440	-25.3	2.27	8.97%	[0.00]	ug/L
Co 228.616	-182.9	8.80	4.81%	[0.00]	ug/L
Cr 267.716	149.3	5.92	3.96%	[0.00]	ug/L
Cu 324.752	3214.1	55.39	1.72%	[0.00]	ug/L
Fe 238.204 R	132.2	0.62	0.47%	[0.00]	ug/L
K 766.490 R	-165.9	9.80	5.91%	[0.00]	ug/L
Mg 279.077 R	-82.7	3.94	4.76%	[0.00]	ug/L
Mn 257.610	1527.9	13.68	0.90%	[0.00]	ug/L
Mo 202.031	11.7	6.64	56.51%	[0.00]	ug/L
Na 589.592 R	77.0	4.51	5.85%	[0.00]	ug/L
Ni 231.604	361.2	3.38	0.94%	[0.00]	ug/L
Pb 220.353	260.6	43.19	16.57%	[0.00]	ug/L
Sb 206.836	622.1	12.05	1.94%	[0.00]	ug/L
Se 196.026	-31.0	11.36	36.64%	[0.00]	ug/L
Ti 334.940 R	507.6	38.68	7.62%	[0.00]	ug/L
Tl 190.801	202.0	17.68	8.75%	[0.00]	ug/L
V 292.402	-1182.9	13.57	1.15%	[0.00]	ug/L
Zn 206.200	-470.0	7.64	1.63%	[0.00]	ug/L
Sn 189.927	76.5	11.06	14.45%	[0.00]	ug/L

Sequence No.: 2
Sample ID: ICAL,CRIM08
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/3/2006 10:20:11 AM
Data Type: Reprocessed on 3/3/2006 10:47:19 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CRIM08

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CRIM08

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2438169.3	14823.42	0.61%	100.0	%
Y	128706.6	3022.36	2.35%	100.0	%
Ag 328.068†	3194.7	155.39	4.86%	[5.0]	ug/L
Al 308.215 R†	111.2	8.10	7.28%	[100]	ug/L
As 188.979†	150.2	23.41	15.58%	[5.0]	ug/L
B 249.677†	21379.1	196.86	0.92%	[100]	ug/L
Ba 233.527†	3159.3	19.16	0.61%	[5.0]	ug/L
Be 313.107†	9661.1	51.29	0.53%	[2.0]	ug/L
Ca 315.887 R†	2141.2	59.44	2.78%	[200]	ug/L
Cd 214.440†	2364.4	13.20	0.56%	[5.0]	ug/L
Co 228.616†	774.4	3.86	0.50%	[5.0]	ug/L
Cr 267.716†	799.7	9.77	1.22%	[5.0]	ug/L
Cu 324.752†	4873.9	255.78	5.25%	[5.0]	ug/L
Fe 238.204 R†	701.6	18.47	2.63%	[100]	ug/L
K 766.490 R†	177.3	5.08	2.86%	[500]	ug/L
Mg 279.077 R†	330.9	4.19	1.27%	[200]	ug/L
Mn 257.610†	6146.9	58.09	0.94%	[5.0]	ug/L
Mo 202.031†	337.0	5.24	1.56%	[5.0]	ug/L
Na 589.592 R†	991.8	26.79	2.70%	[500]	ug/L
Ni 231.604†	432.9	13.46	3.11%	[5.0]	ug/L
Pb 220.353†	205.8	28.38	13.79%	[3.0]	ug/L
Sb 206.836†	311.4	12.46	4.00%	[5.0]	ug/L
Se 196.026†	148.4	25.39	17.11%	[5.0]	ug/L
Ti 334.940 R†	13930.9	146.42	1.05%	[10]	ug/L
Tl 190.801†	162.3	4.69	2.89%	[5.0]	ug/L
V 292.402†	887.6	3.18	0.36%	[5.0]	ug/L
Zn 206.200†	4113.5	24.69	0.60%	[20]	ug/L
Sn 189.927†	1194.6	5.82	0.49%	[40]	ug/L

Sequence No.: 3
Sample ID: ICAL,CS100
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/3/2006 10:24:18 AM
Data Type: Reprocessed on 3/3/2006 10:47:20 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS100

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2420766.6	14698.30	0.61%	99.29	%
Y	137566.3	1387.35	1.01%	106.9	%
Ag 328.068†	61271.2	689.54	1.13%	[100]	ug/L
As 188.979†	3110.1	9.67	0.31%	[100]	ug/L
Ba 233.527†	61662.8	714.92	1.16%	[100]	ug/L
Be 313.107†	478119.7	2453.65	0.51%	[100]	ug/L
Cd 214.440†	48177.0	469.17	0.97%	[100]	ug/L
Co 228.616†	15881.0	107.56	0.68%	[100]	ug/L
Cr 267.716†	14006.0	95.31	0.68%	[100]	ug/L
Cu 324.752†	95378.9	835.58	0.88%	[100]	ug/L
Mn 257.610†	129103.5	819.26	0.63%	[100]	ug/L
Mo 202.031†	6778.5	52.35	0.77%	[100]	ug/L
Ni 231.604†	8642.6	59.97	0.69%	[100]	ug/L
Pb 220.353†	7540.5	40.35	0.54%	[100]	ug/L
Sb 206.836†	5757.3	44.36	0.77%	[100]	ug/L
Se 196.026†	3043.2	39.68	1.30%	[100]	ug/L
Ti 334.940 R†	145795.7	1335.99	0.92%	[100]	ug/L
Tl 190.801†	3100.3	23.15	0.75%	[100]	ug/L
V 292.402†	18167.2	91.75	0.51%	[100]	ug/L
Zn 206.200†	17240.2	97.09	0.56%	[100]	ug/L
Sn 189.927†	3190.2	15.35	0.48%	[100]	ug/L

Sequence No.: 4 Autosampler Location: 4
Sample ID: ICAL,CS1K Date Collected: 3/3/2006 10:27:22 AM
Analyst: Data Type: Reprocessed on 3/3/2006 10:47:21 AM
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICAL,CS1K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS1K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2487338.9	11539.02	0.46%	102.0	%
Y	133485.9	896.74	0.67%	103.7	%
Ag 328.068†	596039.2	1466.97	0.25%	[1000]	ug/L
Al 308.215 R†	1117.8	28.29	2.53%	[1000]	ug/L
As 188.979†	30587.5	621.11	2.03%	[1000]	ug/L
B 249.677†	213819.3	750.62	0.35%	[1000]	ug/L
Ba 233.527†	598271.2	1134.54	0.19%	[1000]	ug/L
Be 313.107†	4620693.7	6982.65	0.15%	[1000]	ug/L
Ca 315.887 R†	9636.3	171.36	1.78%	[1000]	ug/L
Cd 214.440†	469155.3	418.99	0.09%	[1000]	ug/L
Co 228.616†	156437.4	294.56	0.19%	[1000]	ug/L
Cr 267.716†	134951.6	2638.26	1.95%	[1000]	ug/L
Cu 324.752†	947470.2	1690.02	0.18%	[1000]	ug/L
Fe 238.204 R†	6415.4	117.07	1.82%	[1000]	ug/L
K 766.490 R†	381.0	31.71	8.32%	[1000]	ug/L
Mg 279.077 R†	1605.4	24.24	1.51%	[1000]	ug/L
Mn 257.610†	1255909.4	2357.32	0.19%	[1000]	ug/L
Mo 202.031†	65561.5	1478.41	2.25%	[1000]	ug/L
Na 589.592 R†	2025.3	15.81	0.78%	[1000]	ug/L
Ni 231.604†	84942.4	1737.41	2.05%	[1000]	ug/L
Pb 220.353†	73292.1	1414.27	1.93%	[1000]	ug/L
Sb 206.836†	55927.0	1167.28	2.09%	[1000]	ug/L
Se 196.026†	29636.4	594.01	2.00%	[1000]	ug/L
Ti 334.940 R†	1404739.9	2665.82	0.19%	[1000]	ug/L
Tl 190.801†	30793.4	644.36	2.09%	[1000]	ug/L
V 292.402†	178926.4	394.70	0.22%	[1000]	ug/L
Zn 206.200†	165205.5	163.92	0.10%	[1000]	ug/L
Sn 189.927†	31537.7	798.88	2.53%	[1000]	ug/L

Sequence No.: 5
Sample ID: ICAL,CS10K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:
Autosampler Location: 5
Date Collected: 3/3/2006 10:29:38 AM
Data Type: Reprocessed on 3/3/2006 10:47:23 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS10K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS10K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2375163.4	13631.89	0.57%	97.42	%
Y	128853.7	1631.60	1.27%	100.1	%
Ag 328.068†	1205749.0	4264.12	0.35%	[2000]	ug/L
Al 308.215 R†	11199.6	70.60	0.63%	[10000]	ug/L
As 188.979†	308941.6	2037.88	0.66%	[10000]	ug/L
B 249.677†	2198866.6	5746.93	0.26%	[10000]	ug/L
Ba 233.527†	5788172.1	18424.63	0.32%	[10000]	ug/L
Ca 315.887 R†	91343.7	576.98	0.63%	[10000]	ug/L
Cd 214.440†	4463305.2	10760.18	0.24%	[10000]	ug/L
Co 228.616†	1551732.9	9398.72	0.61%	[10000]	ug/L
Cr 267.716†	1330541.3	5416.84	0.41%	[10000]	ug/L
Cu 324.752†	9301365.5	17469.98	0.19%	[10000]	ug/L
Fe 238.204 R†	61182.2	77.68	0.13%	[10000]	ug/L
K 766.490 R†	4320.8	101.81	2.36%	[10000]	ug/L
Mg 279.077 R†	15543.3	77.32	0.50%	[10000]	ug/L
Mn 257.610†	11761401.1	52599.12	0.45%	[10000]	ug/L
Mo 202.031†	650437.8	1603.54	0.25%	[10000]	ug/L
Na 589.592 R†	21917.1	95.41	0.44%	[10000]	ug/L
Ni 231.604†	835905.0	4490.52	0.54%	[10000]	ug/L
Pb 220.353†	721020.2	2211.65	0.31%	[10000]	ug/L
Sb 206.836†	564278.0	6692.51	1.19%	[10000]	ug/L
Se 196.026†	302724.8	1479.02	0.49%	[10000]	ug/L
Ti 334.940 R†	13633779.6	47947.34	0.35%	[10000]	ug/L
Tl 190.801†	300810.2	1730.82	0.58%	[10000]	ug/L
V 292.402†	1777946.2	3357.50	0.19%	[10000]	ug/L
Zn 206.200†	1613734.0	3545.87	0.22%	[10000]	ug/L
Sn 189.927†	315528.0	2408.40	0.76%	[10000]	ug/L

Sequence No.: 6
Sample ID: ICAL,CS100K
Analyst:
Logged In Analyst (Original) : Curtis and Tompkins
Initial Sample Wt:
Dilution:
Autosampler Location: 6
Date Collected: 3/3/2006 10:32:28 AM
Data Type: Reprocessed on 3/3/2006 10:47:24 AM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICAL,CS100K

Analyte	Back Pressure	Flow
All	152.0 kPa	0.55 L/min

Mean Data: ICAL,CS100K

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	2251099.7	9931.71	0.44%	92.33	%
Y	125309.3	131.02	0.10%	97.36	%
Al 308.215 Rt	117779.2	1061.72	0.90%	[100000]	ug/L
Ca 315.887 Rt	938228.7	1842.40	0.20%	[100000]	ug/L
Fe 238.204 Rt	611829.9	5290.70	0.86%	[100000]	ug/L
K 766.490 Rt	60332.9	41.50	0.07%	[100000]	ug/L
Mg 279.077 Rt	156969.8	633.58	0.40%	[100000]	ug/L
Na 589.592 Rt	251553.6	901.97	0.36%	[100000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	4	Lin Thru 0	0.0	601.5	0.00000	0.999989	
Al 308.215 R	4	Lin Thru 0	0.0	1.177	0.00000	0.999988	
As 188.979	4	Lin Thru 0	0.0	30.89	0.00000	1.000000	
B 249.677	3	Lin Thru 0	0.0	219.8	0.00000	0.999996	
Ba 233.527	4	Lin Thru 0	0.0	579.0	0.00000	0.999994	
Be 313.107	3	Lin Thru 0	0.0	4622	0.00000	0.999994	
Ca 315.887 R	4	Lin Thru 0	0.0	9.380	0.00000	0.999996	
Cd 214.440	4	Lin Thru 0	0.0	446.6	0.00000	0.999987	
Co 228.616	4	Lin Thru 0	0.0	155.2	0.00000	1.000000	
Cr 267.716	4	Lin Thru 0	0.0	133.1	0.00000	0.999999	
Cu 324.752	4	Lin Thru 0	0.0	930.3	0.00000	0.999998	
Fe 238.204 R	4	Lin Thru 0	0.0	6.118	0.00000	1.000000	
K 766.490 R	4	Lin Thru 0	0.0	0.6016	0.00000	0.999594	
Mg 279.077 R	4	Lin Thru 0	0.0	1.570	0.00000	0.999999	
Mn 257.610	4	Lin Thru 0	0.0	1177	0.00000	0.999977	
Mo 202.031	4	Lin Thru 0	0.0	65.05	0.00000	1.000000	
Na 589.592 R	4	Lin Thru 0	0.0	2.512	0.00000	0.999916	
Ni 231.604	4	Lin Thru 0	0.0	83.60	0.00000	0.999999	
Pb 220.353	4	Lin Thru 0	0.0	72.11	0.00000	0.999999	
Sb 206.836	4	Lin Thru 0	0.0	56.42	0.00000	1.000000	
Se 196.026	4	Lin Thru 0	0.0	30.27	0.00000	0.999998	
Ti 334.940 R	4	Lin Thru 0	0.0	1364	0.00000	0.999995	
Tl 190.801	4	Lin Thru 0	0.0	30.09	0.00000	0.999997	
V 292.402	4	Lin Thru 0	0.0	177.8	0.00000	1.000000	
Zn 206.200	4	Lin Thru 0	0.0	161.4	0.00000	0.999997	
Sn 189.927	4	Lin Thru 0	0.0	31.55	0.00000	1.000000	

CURTIS & TOMPKINS SECOND SOURCE CALIBRATION VERIFICATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896007 File : 030306ar.txt Time : 03-MAR-2006 10:35
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2531

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	58.052	56.457	5000	5003	ug/L	0	10	
Arsenic	A	30.657	30.811	5000	4987	ug/L	0	10	
Barium	A	606.40	588.65	5000	5083	ug/L	2	10	
Beryllium	A	4744.2	4631.6	500.0	501.0	ug/L	0	10	
Boron	A	215.83	224.53	5000	5107	ug/L	2	10	
Cadmium	A	467.54	457.83	5000	5126	ug/L	3	10	
Chromium	A	142.00	131.26	5000	4932	ug/L	-1	10	
Cobalt	A	156.32	151.38	5000	4867	ug/L	-3	10	
Copper	A	951.54	911.77	5000	4900	ug/L	-2	10	
Lead	A	72.353	69.862	5000	4844	ug/L	-3	10	
Manganese	A	1238.1	1189.7	5000	5054	ug/L	1	10	
Molybdenum	A	66.447	66.001	5000	5073	ug/L	1	10	
Nickel	A	85.383	82.020	5000	4905	ug/L	-2	10	
Selenium	A	30.007	29.605	5000	4891	ug/L	-2	10	
Silver	A	612.64	573.12	1000	952.8	ug/L	-5	10	
Thallium	A	31.083	29.845	5000	4960	ug/L	-1	10	
Tin	A	31.215	30.646	5000	4856	ug/L	-3	10	
Titanium	A	1404.8	1366.0	5000	5008	ug/L	0	10	
Vanadium	A	178.98	177.70	5000	4997	ug/L	0	10	
Zinc	A	176.16	163.51	5000	5065	ug/L	1	10	
Aluminum	R	1.1319	1.0876	20000	18480	ug/L	-8	10	
Calcium	R	9.7148	8.8433	20000	18860	ug/L	-6	10	
Iron	R	6.4171	5.9617	20000	19490	ug/L	-3	10	
Magnesium	R	1.5960	1.5061	20000	19190	ug/L	-4	10	
Potassium	R	0.4427	0.4761	20000	15830	ug/L	**-21**	10	v- ***
Sodium	R	2.1791	2.2752	20000	18110	ug/L	-9	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2369930	-2.80

-=low bias v=ICV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896008 File : 030306ar.txt Time : 03-MAR-2006 10:37
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	[1.278]	5.000	1.047	ug/L	!ib
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[22.09]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	[1.592]	5.000	0.7122	ug/L	!ib
Lead	A	[2.631]	3.000	0.5698	ug/L	!ib
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[3.299]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	[2.238]	5.000	1.575	ug/L	!ib
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[2.271]	5.000	0.9317	ug/L	!ib
Tin	A	[6.418]	40.00	4.403	ug/L	!ib
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	[162.0]	500.0	128.8	ug/L	!ib
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2450509	0.51

!=warning ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896009 File : 030306ar.txt Time : 03-MAR-2006 10:41
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2555

Interferent	Ch	Quant	RL	Units	Flags
Antimony	A	[-3.029]	5.000	ug/L	
Arsenic	A	[0.3822]	5.000	ug/L	
Barium	A	[0.9487]	5.000	ug/L	
Beryllium	A	[0.06027]	2.000	ug/L	
Boron	A	[-5.177]	100.0	ug/L	
Cadmium	A	[2.721]	5.000	ug/L	
Cobalt	A	[-1.394]	5.000	ug/L	
Lead	A	[-1.146]	3.000	ug/L	
Molybdenum	A	[-0.1855]	5.000	ug/L	
Selenium	A	[4.761]	5.000	ug/L	
Silver	A	[0.04368]	5.000	ug/L	
Thallium	A	[2.932]	5.000	ug/L	
Tin	A	[5.913]	40.00	ug/L	
Zinc	A	[11.37]	20.00	ug/L	
Potassium	R	[314.0]	500.0	ug/L	
Sodium	R	[103.6]	500.0	ug/L	

Interferent	Ch	Spiked	Quant	Units	%Rec
Chromium	A	20000	19230	ug/L	96
Copper	A	20000	21020	ug/L	105
Manganese	A	20000	18910	ug/L	95
Nickel	A	20000	17420	ug/L	87
Titanium	A	20000	19970	ug/L	100
Vanadium	A	20000	20330	ug/L	102
Aluminum	R	500000	497700	ug/L	100
Calcium	R	500000	472200	ug/L	94
Iron	R	200000	186500	ug/L	93
Magnesium	R	500000	480700	ug/L	96

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2055928	-15.68

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896010 File : 030306ar.txt Time : 03-MAR-2006 10:43
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2262

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	532.2	ug/L	6	20	
Arsenic	A	500.0	504.5	ug/L	1	20	
Barium	A	500.0	527.3	ug/L	5	20	
Beryllium	A	500.0	513.1	ug/L	3	20	
Cadmium	A	1000	987.1	ug/L	-1	20	
Chromium	A	500.0	502.5	ug/L	0	20	
Cobalt	A	500.0	445.4	ug/L	-11	20	
Copper	A	500.0	525.4	ug/L	5	20	
Lead	A	1000	904.5	ug/L	-10	20	
Manganese	A	500.0	525.1	ug/L	5	20	
Molybdenum	A	500.0	493.7	ug/L	-1	20	
Nickel	A	1000	890.5	ug/L	-11	20	
Selenium	A	500.0	508.9	ug/L	2	20	
Silver	A	1000	1054	ug/L	5	20	
Thallium	A	500.0	469.1	ug/L	-6	20	
Titanium	A	20000	19790	ug/L	-1		
Vanadium	A	500.0	533.3	ug/L	7	20	
Zinc	A	1000	924.3	ug/L	-8	20	
Aluminum	R	500000	500100	ug/L	0		
Calcium	R	500000	476600	ug/L	-5		
Iron	R	200000	188000	ug/L	-6		
Magnesium	R	500000	485000	ug/L	-3		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2074931	-14.90

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896020 File : 030306ar.txt Time : 03-MAR-2006 11:11
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	58.051	5000	5144	ug/L	3	10	
Arsenic	A	30.657	31.282	5000	5063	ug/L	1	10	
Barium	A	606.40	599.08	5000	5173	ug/L	3	10	
Beryllium	A	4744.2	4696.7	500.0	508.1	ug/L	2	10	
Boron	A	215.83	221.92	5000	5048	ug/L	1	10	
Cadmium	A	467.54	464.92	5000	5206	ug/L	4	10	
Chromium	A	142.00	133.11	5000	5002	ug/L	0	10	
Cobalt	A	156.32	153.97	5000	4951	ug/L	-1	10	
Copper	A	951.54	927.95	5000	4987	ug/L	0	10	
Lead	A	72.353	70.509	5000	4889	ug/L	-2	10	
Manganese	A	1238.1	1214.2	5000	5158	ug/L	3	10	
Molybdenum	A	66.447	66.719	5000	5128	ug/L	3	10	
Nickel	A	85.383	83.132	5000	4972	ug/L	-1	10	
Selenium	A	30.007	29.972	5000	4951	ug/L	-1	10	
Silver	A	612.64	580.33	1000	964.8	ug/L	-4	10	
Thallium	A	31.083	30.163	5000	5012	ug/L	0	10	
Tin	A	31.215	31.108	5000	4930	ug/L	-1	10	
Titanium	A	1404.8	1396.2	5000	5119	ug/L	2	10	
Vanadium	A	178.98	180.31	5000	5070	ug/L	1	10	
Zinc	A	176.16	165.99	5000	5142	ug/L	3	10	
Aluminum	R	1.1319	1.0302	20000	17500	ug/L	**-12**	10	c- ***
Calcium	R	9.7148	8.4288	20000	17970	ug/L	-10	10	
Iron	R	6.4171	5.6396	20000	18440	ug/L	-8	10	
Magnesium	R	1.5960	1.4393	20000	18340	ug/L	-8	10	
Potassium	R	0.4427	0.4497	20000	14950	ug/L	**-25**	10	c- ***
Sodium	R	2.1791	2.1544	20000	17150	ug/L	**-14**	10	c- ***

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2336129	-4.19

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896022 File : 030306ar.txt Time : 03-MAR-2006 11:17
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8242]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2494989	2.33

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Curtis & Tompkins, Ltd.

Inst : MET08 IDF : 1.0
Seqnum : 86089896034 File : 030306ar.txt Time : 03-MAR-2006 11:47
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	58.577	5000	5191	ug/L	4	10	
Arsenic	A	30.657	31.189	5000	5048	ug/L	1	10	
Barium	A	606.40	596.94	5000	5155	ug/L	3	10	
Beryllium	A	4744.2	4655.4	500.0	503.6	ug/L	1	10	
Boron	A	215.83	220.57	5000	5017	ug/L	0	10	
Cadmium	A	467.54	461.15	5000	5163	ug/L	3	10	
Chromium	A	142.00	132.72	5000	4987	ug/L	0	10	
Cobalt	A	156.32	153.44	5000	4934	ug/L	-1	10	
Copper	A	951.54	921.89	5000	4955	ug/L	-1	10	
Lead	A	72.353	69.982	5000	4852	ug/L	-3	10	
Manganese	A	1238.1	1203.2	5000	5111	ug/L	2	10	
Molybdenum	A	66.447	66.218	5000	5090	ug/L	2	10	
Nickel	A	85.383	82.956	5000	4961	ug/L	-1	10	
Selenium	A	30.007	29.861	5000	4933	ug/L	-1	10	
Silver	A	612.64	578.22	1000	961.2	ug/L	-4	10	
Thallium	A	31.083	29.831	5000	4957	ug/L	-1	10	
Tin	A	31.215	30.913	5000	4899	ug/L	-2	10	
Titanium	A	1404.8	1398.1	5000	5126	ug/L	3	10	
Vanadium	A	178.98	177.12	5000	4981	ug/L	0	10	
Zinc	A	176.16	164.34	5000	5091	ug/L	2	10	
Aluminum	R	1.1319	1.0668	20000	18120	ug/L	-9	10	
Calcium	R	9.7148	8.9601	20000	19100	ug/L	-4	10	
Iron	R	6.4171	5.8307	20000	19060	ug/L	-5	10	
Magnesium	R	1.5960	1.5134	20000	19280	ug/L	-4	10	
Potassium	R	0.4427	0.4778	20000	15890	ug/L	**-21**	10	c- ***
Sodium	R	2.1791	2.2484	20000	17900	ug/L	**-11**	10	c- ***

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2341129	-3.98

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Curtis & Tompkins, Ltd.

Inst : MET08 IDF .0
Seqnum : 86089896036 File : 030306ar.txt Time : 03-MAR-2006 11:53
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.7901]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2434024	-0.17

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CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896048 File : 030306ar.txt Time : 03-MAR-2006 12:25
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	60.053	5000	5322	ug/L	6	10	
Arsenic	A	30.657	31.459	5000	5092	ug/L	2	10	
Barium	A	606.40	597.52	5000	5160	ug/L	3	10	
Beryllium	A	4744.2	4634.3	500.0	501.3	ug/L	0	10	
Boron	A	215.83	222.16	5000	5053	ug/L	1	10	
Cadmium	A	467.54	458.62	5000	5135	ug/L	3	10	
Chromium	A	142.00	133.91	5000	5031	ug/L	1	10	
Cobalt	A	156.32	154.41	5000	4965	ug/L	-1	10	
Copper	A	951.54	921.49	5000	4953	ug/L	-1	10	
Lead	A	72.353	70.040	5000	4856	ug/L	-3	10	
Manganese	A	1238.1	1187.0	5000	5043	ug/L	1	10	
Molybdenum	A	66.447	66.398	5000	5104	ug/L	2	10	
Nickel	A	85.383	83.583	5000	4999	ug/L	0	10	
Selenium	A	30.007	29.930	5000	4944	ug/L	-1	10	
Silver	A	612.64	582.59	1000	968.5	ug/L	-3	10	
Thallium	A	31.083	29.913	5000	4971	ug/L	-1	10	
Tin	A	31.215	31.233	5000	4949	ug/L	-1	10	
Titanium	A	1404.8	1398.8	5000	5128	ug/L	3	10	
Vanadium	A	178.98	178.80	5000	5028	ug/L	1	10	
Zinc	A	176.16	162.98	5000	5048	ug/L	1	10	
Aluminum	R	1.1319	1.0144	20000	17230	ug/L	**-14**	10	c- ***
Calcium	R	9.7148	8.9048	20000	18990	ug/L	-5	10	
Iron	R	6.4171	5.5610	20000	18180	ug/L	-9	10	
Magnesium	R	1.5960	1.4855	20000	18930	ug/L	-5	10	
Potassium	R	0.4427	0.4411	20000	14660	ug/L	**-27**	10	c- ***
Sodium	R	2.1791	2.1096	20000	16790	ug/L	**-16**	10	c- ***

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2330650	-4.41

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896050 File : 030306ar.txt Time : 03-MAR-2006 12:31
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.9043]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	ND	5.000	0.9317	ug/L	
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	[28.28]	200.0	14.50	ug/L	!ib
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2417386	-0.85

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CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896055 File : 030306ar.txt Time : 03-MAR-2006 12:44
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2262

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	575.5	ug/L	15	20	
Arsenic	A	500.0	533.7	ug/L	7	20	
Barium	A	500.0	548.1	ug/L	10	20	
Beryllium	A	500.0	525.5	ug/L	5	20	
Cadmium	A	1000	1020	ug/L	2	20	
Chromium	A	500.0	523.3	ug/L	5	20	
Cobalt	A	500.0	464.8	ug/L	-7	20	
Copper	A	500.0	526.7	ug/L	5	20	
Lead	A	1000	923.6	ug/L	-8	20	
Manganese	A	500.0	533.8	ug/L	7	20	
Molybdenum	A	500.0	507.0	ug/L	1	20	
Nickel	A	1000	930.7	ug/L	-7	20	
Selenium	A	500.0	523.5	ug/L	5	20	
Silver	A	1000	1093	ug/L	9	20	
Thallium	A	500.0	480.6	ug/L	-4	20	
Titanium	A	20000	20550	ug/L	3		
Vanadium	A	500.0	554.0	ug/L	11	20	
Zinc	A	1000	953.4	ug/L	-5	20	
Aluminum	R	500000	499000	ug/L	0		
Calcium	R	500000	510300	ug/L	2		
Iron	R	200000	188400	ug/L	-6		
Magnesium	R	500000	514100	ug/L	3		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2039446	-16.35

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896057 File : 030306ar.txt Time : 03-MAR-2006 12:49
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	61.842	5000	5480	ug/L	10	10	
Arsenic	A	30.657	32.299	5000	5228	ug/L	5	10	
Barium	A	606.40	610.14	5000	5269	ug/L	5	10	
Beryllium	A	4744.2	4721.1	500.0	510.7	ug/L	2	10	
Boron	A	215.83	227.13	5000	5166	ug/L	3	10	
Cadmium	A	467.54	467.65	5000	5236	ug/L	5	10	
Chromium	A	142.00	137.19	5000	5155	ug/L	3	10	
Cobalt	A	156.32	158.24	5000	5088	ug/L	2	10	
Copper	A	951.54	938.75	5000	5045	ug/L	1	10	
Lead	A	72.353	71.553	5000	4961	ug/L	-1	10	
Manganese	A	1238.1	1204.7	5000	5118	ug/L	2	10	
Molybdenum	A	66.447	67.675	5000	5202	ug/L	4	10	
Nickel	A	85.383	85.716	5000	5126	ug/L	3	10	
Selenium	A	30.007	30.618	5000	5058	ug/L	1	10	
Silver	A	612.64	595.77	1000	990.4	ug/L	-1	10	
Thallium	A	31.083	30.595	5000	5084	ug/L	2	10	
Tin	A	31.215	32.067	5000	5082	ug/L	2	10	
Titanium	A	1404.8	1423.4	5000	5218	ug/L	4	10	
Vanadium	A	178.98	183.45	5000	5159	ug/L	3	10	
Zinc	A	176.16	166.24	5000	5149	ug/L	3	10	
Aluminum	R	1.1319	1.0567	20000	17950	ug/L	-10	10	
Calcium	R	9.7148	9.2183	20000	19660	ug/L	-2	10	
Iron	R	6.4171	5.7673	20000	18850	ug/L	-6	10	
Magnesium	R	1.5960	1.5439	20000	19670	ug/L	-2	10	
Potassium	R	0.4427	0.4731	20000	15730	ug/L	**-21**	10	c- ***
Sodium	R	2.1791	2.2319	20000	17770	ug/L	**-11**	10	c- ***

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2291500	-6.02

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896060 File : 030306ar.txt Time : 03-MAR-2006 12:57
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	ND	100.0	13.57	ug/L	
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8326]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.148]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2403735	-1.41

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896070 File : 030306ar.txt Time : 03-MAR-2006 13:34
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	59.707	5000	5291	ug/L	6	10	
Arsenic	A	30.657	31.514	5000	5101	ug/L	2	10	
Barium	A	606.40	603.83	5000	5214	ug/L	4	10	
Beryllium	A	4744.2	4692.9	500.0	507.6	ug/L	2	10	
Boron	A	215.83	226.44	5000	5150	ug/L	3	10	
Cadmium	A	467.54	466.25	5000	5220	ug/L	4	10	
Chromium	A	142.00	134.01	5000	5035	ug/L	1	10	
Cobalt	A	156.32	155.01	5000	4984	ug/L	0	10	
Copper	A	951.54	928.39	5000	4990	ug/L	0	10	
Lead	A	72.353	70.496	5000	4888	ug/L	-2	10	
Manganese	A	1238.1	1199.6	5000	5096	ug/L	2	10	
Molybdenum	A	66.447	66.617	5000	5120	ug/L	2	10	
Nickel	A	85.383	83.950	5000	5021	ug/L	0	10	
Selenium	A	30.007	30.110	5000	4974	ug/L	-1	10	
Silver	A	612.64	582.66	1000	968.6	ug/L	-3	10	
Thallium	A	31.083	30.058	5000	4995	ug/L	0	10	
Tin	A	31.215	31.687	5000	5021	ug/L	0	10	
Titanium	A	1404.8	1403.8	5000	5147	ug/L	3	10	
Vanadium	A	178.98	181.68	5000	5109	ug/L	2	10	
Zinc	A	176.16	166.00	5000	5142	ug/L	3	10	
Aluminum	R	1.1319	1.0741	20000	18250	ug/L	-9	10	
Calcium	R	9.7148	8.9560	20000	19100	ug/L	-5	10	
Iron	R	6.4171	5.8393	20000	19090	ug/L	-5	10	
Magnesium	R	1.5960	1.5211	20000	19380	ug/L	-3	10	
Potassium	R	0.4427	0.4979	20000	16550	ug/L	**-17**	10	c- ***
Sodium	R	2.1791	2.3052	20000	18350	ug/L	-8	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2344380	-3.85

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896073 File : 030306ar.txt Time : 03-MAR-2006 13:42
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[17.47]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.8250]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	ND	5.000	1.575	ug/L	
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[0.9976]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	[40.02]	500.0	39.23	ug/L	!ib

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2453862	0.64

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896085 File : 030306ar.txt Time : 03-MAR-2006 14:27
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2532

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	58.052	61.371	5000	5438	ug/L	9	10	
Arsenic	A	30.657	32.260	5000	5222	ug/L	4	10	
Barium	A	606.40	608.95	5000	5258	ug/L	5	10	
Beryllium	A	4744.2	4713.9	500.0	509.9	ug/L	2	10	
Boron	A	215.83	227.24	5000	5169	ug/L	3	10	
Cadmium	A	467.54	470.14	5000	5264	ug/L	5	10	
Chromium	A	142.00	135.97	5000	5109	ug/L	2	10	
Cobalt	A	156.32	157.63	5000	5068	ug/L	1	10	
Copper	A	951.54	934.38	5000	5022	ug/L	0	10	
Lead	A	72.353	71.416	5000	4952	ug/L	-1	10	
Manganese	A	1238.1	1218.8	5000	5178	ug/L	4	10	
Molybdenum	A	66.447	67.281	5000	5172	ug/L	3	10	
Nickel	A	85.383	85.147	5000	5092	ug/L	2	10	
Selenium	A	30.007	30.632	5000	5060	ug/L	1	10	
Silver	A	612.64	590.75	1000	982.1	ug/L	-2	10	
Thallium	A	31.083	30.497	5000	5068	ug/L	1	10	
Tin	A	31.215	32.411	5000	5136	ug/L	3	10	
Titanium	A	1404.8	1429.6	5000	5241	ug/L	5	10	
Vanadium	A	178.98	181.12	5000	5093	ug/L	2	10	
Zinc	A	176.16	167.28	5000	5182	ug/L	4	10	
Aluminum	R	1.1319	1.0670	20000	18130	ug/L	-9	10	
Calcium	R	9.7148	9.0424	20000	19280	ug/L	-4	10	
Iron	R	6.4171	5.8133	20000	19000	ug/L	-5	10	
Magnesium	R	1.5960	1.5333	20000	19540	ug/L	-2	10	
Potassium	R	0.4427	0.5059	20000	16820	ug/L	**-16**	10	c- ***
Sodium	R	2.1791	2.3246	20000	18510	ug/L	-7	10	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2323224	-4.71

=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896088 File : 030306ar.txt Time : 03-MAR-2006 14:36
Cal : 86089896001 Caldate: 03-MAR-2006

Analyte	Ch	Quant	RL	MDL	Units	Flags
Antimony	A	ND	5.000	3.639	ug/L	
Arsenic	A	ND	5.000	1.047	ug/L	
Barium	A	ND	5.000	0.4129	ug/L	
Beryllium	A	ND	2.000	0.2089	ug/L	
Boron	A	[17.08]	100.0	13.57	ug/L	!ib
Cadmium	A	ND	5.000	0.5500	ug/L	
Chromium	A	ND	5.000	0.5564	ug/L	
Cobalt	A	ND	5.000	0.4605	ug/L	
Copper	A	ND	5.000	0.7122	ug/L	
Lead	A	ND	3.000	0.5698	ug/L	
Manganese	A	ND	5.000	0.5991	ug/L	
Molybdenum	A	[0.9517]	5.000	0.4303	ug/L	!ib
Nickel	A	ND	5.000	0.9182	ug/L	
Selenium	A	[2.014]	5.000	1.575	ug/L	!ib
Silver	A	ND	5.000	1.403	ug/L	
Thallium	A	[1.124]	5.000	0.9317	ug/L	!ib
Tin	A	ND	40.00	4.403	ug/L	
Titanium	A	ND	10.00	1.040	ug/L	
Vanadium	A	ND	5.000	0.4217	ug/L	
Zinc	A	ND	20.00	1.533	ug/L	
Aluminum	R	ND	100.0	42.49	ug/L	
Calcium	R	ND	200.0	50.64	ug/L	
Iron	R	ND	100.0	17.23	ug/L	
Magnesium	R	ND	200.0	14.50	ug/L	
Potassium	R	ND	500.0	128.8	ug/L	
Sodium	R	ND	500.0	39.23	ug/L	

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2462740	1.01

!=warning ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR EPA 6010B

Inst : MET08 IDF : 1.0
Seqnum : 86089896089 File : 030306ar.txt Time : 03-MAR-2006 14:40
Cal : 86089896001 Caldate: 03-MAR-2006
Standards: S2262

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	500.0	571.1	ug/L	14	20	
Arsenic	A	500.0	541.4	ug/L	8	20	
Barium	A	500.0	550.8	ug/L	10	20	
Beryllium	A	500.0	525.4	ug/L	5	20	
Cadmium	A	1000	1027	ug/L	3	20	
Chromium	A	500.0	520.3	ug/L	4	20	
Cobalt	A	500.0	464.7	ug/L	-7	20	
Copper	A	500.0	525.7	ug/L	5	20	
Lead	A	1000	933.7	ug/L	-7	20	
Manganese	A	500.0	535.2	ug/L	7	20	
Molybdenum	A	500.0	506.8	ug/L	1	20	
Nickel	A	1000	929.3	ug/L	-7	20	
Selenium	A	500.0	522.4	ug/L	4	20	
Silver	A	1000	1087	ug/L	9	20	
Thallium	A	500.0	476.8	ug/L	-5	20	
Titanium	A	20000	20500	ug/L	3		
Vanadium	A	500.0	551.2	ug/L	10	20	
Zinc	A	1000	961.5	ug/L	-4	20	
Aluminum	R	500000	479700	ug/L	-4		
Calcium	R	500000	480800	ug/L	-4		
Iron	R	200000	179900	ug/L	-10		
Magnesium	R	500000	488700	ug/L	-2		

ISTD (ICAL 002)	Ch	ICAL Abund	Abund	%Drift
Yttrium	A	2438169	2050603	-15.90

Curtis & Tompkins Laboratories Sample Preparation Summary 03-MAR-2006 04:33

Batch Number : 110952
Date Extracted: 03-MAR-2006
Extracted by : Victor Vergara
Prep Method : 3050B

Analysis : N/A
Bgroup : ICAP
Units : g
Clean-up :

Spike #1 ID : S1586
Spike #2 ID : S1587
Spike #3 ID :
SOP Version : 3050B_ICP_rv8

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean D.F.	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
185022-001			CH2M Hill	Soil	.92	g	50	54.347826	1					T26/ICP		
185022-002			CH2M Hill	Soil	1.34	g	50	37.313433	1					T26/ICP		
185022-003			CH2M Hill	Soil	1.14	g	50	43.859649	1					T26/ICP		
185187-001			Ninyo & Moore	Soil	1.22	g	50	40.983607	1					AS, CR, PB		
185187-002			Ninyo & Moore	Soil	1.17	g	50	42.735043	1					AS, CR, PB		
185187-003			Ninyo & Moore	Soil	1.47	g	50	34.013605	1					AS, CR, PB		
185187-004			Ninyo & Moore	Soil	1.25	g	50	40.000000	1					AS, CR, PB		
185187-005			Ninyo & Moore	Soil	.97	g	50	51.546392	1					AS, CR, PB		
185187-006			Ninyo & Moore	Soil	.9	g	50	55.555556	1					AS, CR, PB		
185187-007			Ninyo & Moore	Soil	1.41	g	50	35.460993	1					AS, CR, PB		
185187-008			Ninyo & Moore	Soil	1.11	g	50	45.045045	1					AS, CR, PB		
185187-009			Ninyo & Moore	Soil	1.18	g	50	42.372881	1					AS, CR, PB		
185187-010			Ninyo & Moore	Soil	1.43	g	50	34.965035	1					AS, CR, PB		
185189-001			TRC Environmental Solutions, I	Soil	1.04	g	50	48.076923	1					T26/ICP		
185213-001			Mactec, Inc.	Soil	1.1	g	50	45.454545	1					T26/ICP		mss
185263-009			Treadwell & Rollo	Soil	1.19	g	50	42.016807	1					PB		
185263-010			Treadwell & Rollo	Soil	1.34	g	50	37.313433	1					PB		
QC330027	BLANK			Soil	1	g	50	50.000000	1					ICAP		
QC330028	BS			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC330029	BSD			Soil	1	g	50	50.000000	1		.5	.5		ICAP		
QC330030	MS	of 185213-001		Soil	1.18	g	50	42.372881	1		.5	.5		ICAP		
QC330031	MSD	of 185213-001		Soil	1.12	g	50	44.642857	1		.5	.5		ICAP		
QC330032	SER	of 185213-001		Soil	1.1	g	50	45.454545	1					ICAP		
QC330033	PDS	of 185213-001		Soil	1.1	g	50	45.454545	1					ICAP		

Prep Chemist: _____ Reviewed By: _____ Date: 3/3/06

Relinquished By: _____ Received By: _____ Date: 3/3/06

Soil Digestion for ICP & ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 110957
Date Digested: 03/02/06
Digested by: VV

Digestion Method
☒ EPA 3050b
☐ _____

BK 2270
Page 85

	Sample # and letter		Weight of Sample (g)	Final Volume (mL)	Filtered? (y/n)	Comments
	BLK QC 330027		Ø	50.0	Y	
*	LCS	8	↓	↓	↓	
*	LCSD	9	↓	↓	↓	
*	185213-001 MS	A	1.18			
*	-001 MSD	↓	1.12			
	185187-001	A	1.22			
	-002		1.17			
	-003		1.47			
	-004		1.25			
10	-005		0.97			
	-006		0.90			
	-007		1.41			
	-008		1.11			
	-009		1.18			
15	-010	↓	1.43			
	185022-001	C	0.92			
	-002	G	1.34			
	-003	↓	1.14			
	185189-001		1.04			Comp 3 cores, 5.0g of each.
20	185213-001	A	1.10			(MSS)
	185263-009		1.19			comp 001-004 5.0g of each.
	-010		1.34			005-008

	Reagent ID or LIMS #	Initials / Date
digestion temperature (90 - 95 degrees C)	95°C	VV 3/2/06
0.5 mL of spike solution was added to all spikes	S1580 *	
	S1567 *	
1:1 HNO3	832074-122605	
concentrated HNO3	B#9053-JTBaker	↓
3mL 30% hydrogen peroxide	452542-JVWR	
concentrated HCl	633037-JTBaker	
☒ filtered thru' Whatman # 541	FH673159	↓

Extraction Chemist / Date

Continued from page Ø
Continued on page Ø

3/3/06
Reviewed by / Date

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 46096017 Instrument: MET04 HydraAA HG Analyzer Begun: 07-MAR-2006
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
001	111059	ICALBLK	Std01Rep1				07-MAR-2006 16:17	1.0	1.0									
002	111059	ICAL	Std02Rep1				07-MAR-2006 16:20	1.0	1.0									
003	111059	ICAL	Std03Rep1				07-MAR-2006 16:21	1.0	1.0									
004	111059	ICAL	Std04Rep1				07-MAR-2006 16:24	1.0	1.0									
005	111059	ICAL	Std05Rep1				07-MAR-2006 16:25	1.0	1.0									
006	111059	ICAL	Std06Rep1				07-MAR-2006 16:27	1.0	1.0									
007	111059	ICV					07-MAR-2006 16:41	1.0	1.0	2	5.000	46096017001	5.380		ug/L	108		
008	111059	ICB					07-MAR-2006 16:43	1.0	1.0			46096017001	[0.07900]	0.20	ug/L			
009	111059	BLANK	QC330451		111059	Soil	07-MAR-2006 16:45	1.0	100.0			46096017001	ND	0.020	mg/Kg			
010	111059	BS	QC330452		111059	Soil	07-MAR-2006 16:47	1.0	100.0		0.5000	46096017001	0.4970	0.020	mg/Kg	99		
011	111059	BSD	QC330453		111059	Soil	07-MAR-2006 16:49	1.0	100.0		0.5000	46096017001	0.4900	0.020	mg/Kg	98	1	
012	111059	MSS	185130-001		111059	Soil	07-MAR-2006 16:50	1.0	100.0			46096017001	0.061	0.020	mg/Kg			
013	111059	SER	QC330456	185130-001	111059	Soil	07-MAR-2006 16:52	5.0	100.0			46096017001	0.053 J	0.10	mg/Kg		--	
014	111059	MS	QC330454	185130-001	111059	Soil	07-MAR-2006 16:55	1.0	100.0		0.5000	46096017001	0.5770	0.020	mg/Kg	103		
015	111059	MSD	QC330455	185130-001	111059	Soil	07-MAR-2006 16:57	1.0	94.34		0.4717	46096017001	0.5538	0.019	mg/Kg	104	1	
016	111059	SAMPLE	185130-002		111059	Soil	07-MAR-2006 16:58	1.0	111.1			46096017001	ND	0.022	mg/Kg			
017	111059	SAMPLE	185130-003		111059	Soil	07-MAR-2006 17:01	1.0	104.2			46096017001	ND	0.021	mg/Kg			
018	111059	SAMPLE	185144-014		111059	Soil	07-MAR-2006 17:02	1.0	122.0			46096017001	0.027	0.024	mg/Kg			
019	111059	CCV					07-MAR-2006 17:04	1.0	1.0	3	2.500	46096017001	2.650		ug/L	106		
020	111059	CCB					07-MAR-2006 17:06	1.0	1.0			46096017001	ND	0.20	ug/L			
021	111059	SAMPLE	185144-015		111059	Soil	07-MAR-2006 17:09	1.0	106.4			46096017001	ND	0.021	mg/Kg			
022	111059	SAMPLE	185144-016		111059	Soil	07-MAR-2006 17:11	1.0	108.7			46096017001	ND	0.022	mg/Kg			
023	111059	SAMPLE	185144-025		111059	Soil	07-MAR-2006 17:13	1.0	108.7			46096017001	ND	0.022	mg/Kg			
024	111059	SAMPLE	185144-026		111059	Soil	07-MAR-2006 17:15	1.0	113.6			46096017001	0.029	0.023	mg/Kg			
025	111059	SAMPLE	185144-028		111059	Soil	07-MAR-2006 17:17	1.0	94.34			46096017001	ND	0.019	mg/Kg			
026	111059	SAMPLE	185144-029		111059	Soil	07-MAR-2006 17:19	1.0	92.59			46096017001	ND	0.019	mg/Kg			
027	111059	SAMPLE	185213-001		111059	Soil	07-MAR-2006 17:20	1.0	104.2			46096017001	0.037	0.021	mg/Kg			
028	111059	SAMPLE	185257-001		111059	Soil	07-MAR-2006 17:23	1.0	76.92			46096017001	5.9 >LR	0.015	mg/Kg			>LR b*
029	111059	SAMPLE	185257-002		111059	Soil	07-MAR-2006 17:25	1.0	73.53			46096017001	2.1 >LR	0.015	mg/Kg			>LR cal
030	111059	SAMPLE	185257-003		111059	Soil	07-MAR-2006 17:27	1.0	104.2			46096017001	0.53	0.021	mg/Kg			
031	111059	CCV					07-MAR-2006 17:28	1.0	1.0	4	5.000	46096017001	5.340		ug/L	107		
032	111059	CCB					07-MAR-2006 17:30	1.0	1.0			46096017001	ND	0.20	ug/L			
033	111059	SAMPLE	185257-004		111059	Soil	07-MAR-2006 17:32	1.0	89.29			46096017001	4.6 >LR	0.018	mg/Kg			>LR b*
034	111059	SAMPLE	185257-005		111059	Soil	07-MAR-2006 17:34	1.0	90.91			46096017001	4.8 >LR	0.018	mg/Kg			>LR cal
035	111059	SAMPLE	185257-006		111059	Soil	07-MAR-2006 17:36	1.0	89.29			46096017001	5.7 >LR	0.018	mg/Kg			>LR cal
036	111059	SAMPLE	185257-007		111059	Soil	07-MAR-2006 17:38	1.0	98.04			46096017001	4.6 >LR	0.020	mg/Kg			>LR b*
037	111059	SAMPLE	185257-008		111059	Soil	07-MAR-2006 17:40	1.0	81.97			46096017001	3.8 >LR	0.016	mg/Kg			>LR b*
038	111059	SAMPLE	185257-009		111059	Soil	07-MAR-2006 17:42	1.0	92.59			46096017001	4.4 >LR	0.019	mg/Kg			
039	111059	SAMPLE	185257-001		111059	Soil	07-MAR-2006 17:44	10.0	76.92			46096017001	7.7	0.15	mg/Kg			
040	111059	SAMPLE	185257-002		111059	Soil	07-MAR-2006 17:47	5.0	73.53			46096017001	2.3	0.074	mg/Kg			
041	111059	SAMPLE	185257-004		111059	Soil	07-MAR-2006 17:49	10.0	89.29			46096017001	5.4	0.18	mg/Kg			
042	111059	SAMPLE	185257-005		111059	Soil	07-MAR-2006 17:50	10.0	90.91			46096017001	5.6	0.18	mg/Kg			
043	111059	CCV					07-MAR-2006 17:52	1.0	1.0	5	7.500	46096017001	7.480		ug/L	100		

Stds used: 1=S2853 2=S2855 3=S2856 4=S2857 5=S2858
Flags used: >LR=overrange b=noncompliant calc=check quantitation

Analyst: _____ Date: 3/7/06

SEQUENCE SUMMARY
Curtis & Tompkins Laboratories

Sequence: 46096017 Instrument: MET04 HydraAA HG Analyzer Begun: 07-MAR-2006
Analytical Method: EPA 7470A SOP Version: HG_water_rv7
Analyte: Mercury

#	Filename	Type	Samplenum	Subj Samp	Batch	Matrix	Analyzed	IDF	PDF	Stds	Spiked	Calnum	Result	RL	Units	%Rec	RPD	Flags
044	111059	CCB					07-MAR-2006 17:54	1.0	1.0			46096017001	ND	0.20	ug/L			
045	111059	SAMPLE	185257-006		111059	Soil	07-MAR-2006 17:56	10.0	89.29			46096017001	7.2	0.18	mg/Kg			
046	111059	SAMPLE	185257-007		111059	Soil	07-MAR-2006 17:58	10.0	98.04			46096017001	5.2	0.20	mg/Kg			
047	111059	SAMPLE	185257-008		111059	Soil	07-MAR-2006 17:59	10.0	81.97			46096017001	4.4	0.16	mg/Kg			
048	111059	SAMPLE	185257-009		111059	Soil	07-MAR-2006 18:01	10.0	92.59			46096017001	5.0	0.19	mg/Kg			
049	111059	CCV					07-MAR-2006 18:03	1.0	1.0	3	2.500	46096017001	2.670		ug/L	107		
050	111059	CCB					07-MAR-2006 18:05	1.0	1.0			46096017001	ND	0.20	ug/L			

Stds used: 1=S2853 2=S2855 3=S2856 4=S2857 5=S2858
Flags used: >LR=overrange b=noncompliant calc=check quantitation

Analyst: _____ Date: 3/7/06

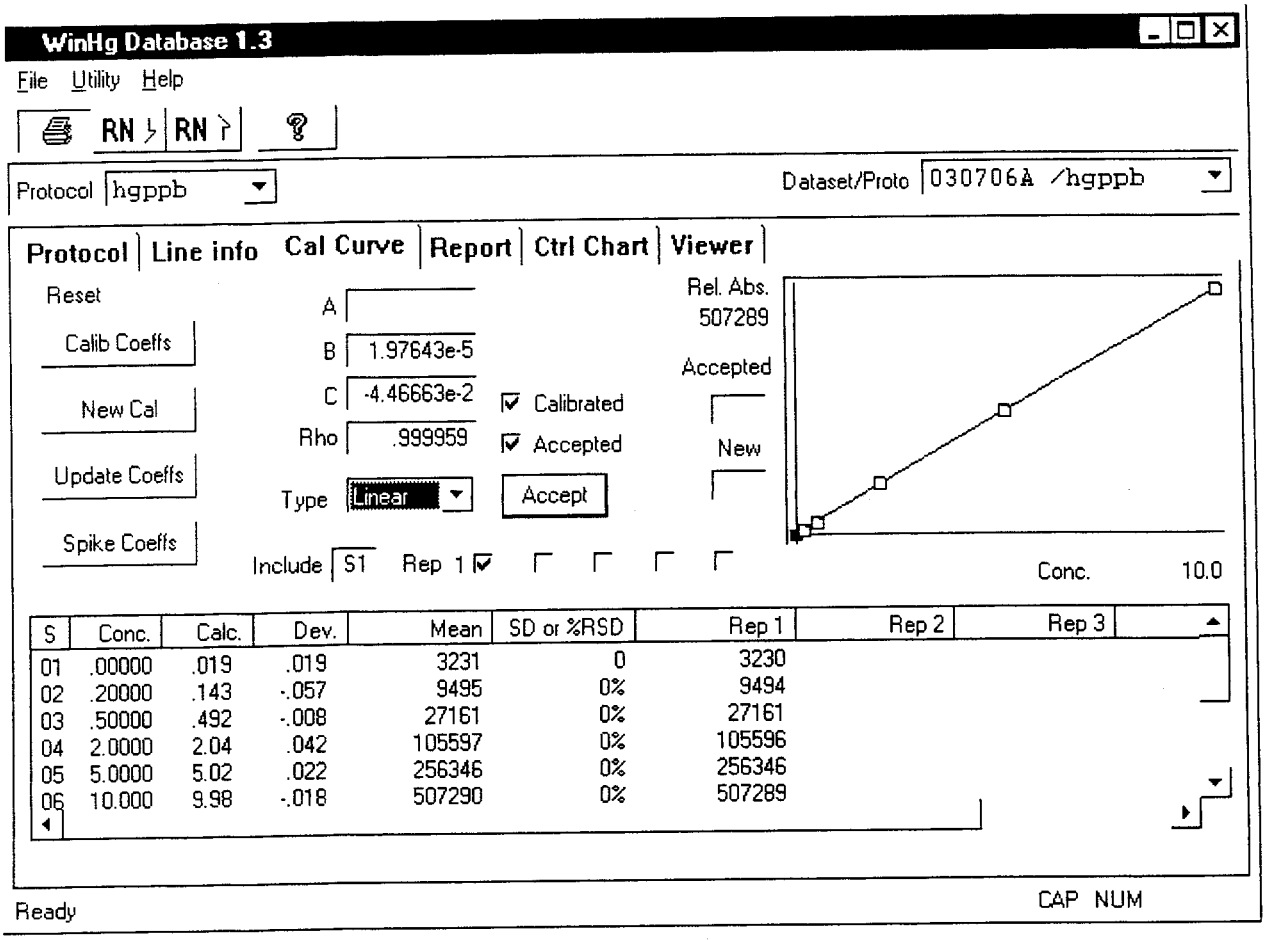
CURTIS & TOMPKINS INITIAL CALIBRATION FOR EPA 7470A

Inst : MET04
Calnum : 46096017001 Date : 07-MAR-2006 16:17 Type : SOIL Reviewer: ---
Inj Vol : 2000 uL

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	111059	46096017002	Std02Rep1	07-MAR-2006 16:20	S2853 (500X)
L2	111059	46096017003	Std03Rep1	07-MAR-2006 16:21	S2853 (200X)
L3	111059	46096017004	Std04Rep1	07-MAR-2006 16:24	S2853 (50X)
L4	111059	46096017005	Std05Rep1	07-MAR-2006 16:25	S2853 (20X)
L5	111059	46096017006	Std06Rep1	07-MAR-2006 16:27	S2853 (10X)

Analyte	L1	L2	L3	L4	L5	Type	X	a0	a1	a2	Units	Avg	r^2 %RSD	MnR^2	Flg
Mercury	47470	54322	52798	51269	50729	LINR	R	-0.0447	1.98E-5		ug/L	51318	1.000	.99	

LINR=Linear regression
Instrument amount = a0 + response * a1 + response^2 * a2


WinHg Database 1.3
File Utility Help
RN
RN
Protocol hgppb
Dataset/Proto 030706A /hgppb
Protocol
Line info
Cal Curve
Report
Ctrl Chart
Viewer
Reset
Calib Coeffs
New Cal
Update Coeffs
Spike Coeffs
A
B 1.97643e-5
C -4.46663e-2
Rho .999959
Calibrated
Accepted
Type Linear
Accept
Include S1
Rep 1
Rel. Abs.
507289
Accepted
New
Conc. 10.0
S Conc. Calc. Dev. Mean SD or %RSD Rep 1 Rep 2 Rep 3
01 .00000 .019 .019 3231 0 3230
02 .20000 .143 -.057 9495 0% 9494
03 .50000 .492 -.008 27161 0% 27161
04 2.0000 2.04 .042 105597 0% 105596
05 5.0000 5.02 .022 256346 0% 256346
06 10.000 9.98 -.018 507290 0% 507289
Ready
CAP NUM

Folder: 030706A
Protocol: hgppb
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Standard: 1 Rep: 1				Seq: 1		16:17:55 07 Mar 06			HG
Hg	.000	ppb	3230						
		Bkgd 1	9157933						
*** Standard: 2 Rep: 1				Seq: 2		16:20:01 07 Mar 06			HG
Hg	.200	ppb	9494						
		Bkgd 1	9157101						
*** Standard: 3 Rep: 1				Seq: 3		16:21:55 07 Mar 06			HG
Hg	.500	ppb	27161						
		Bkgd 1	9156750						
*** Standard: 4 Rep: 1				Seq: 4		16:24:03 07 Mar 06			HG
Hg	2.00	ppb	105596						
		Bkgd 1	9156853						
*** Standard: 5 Rep: 1				Seq: 5		16:25:51 07 Mar 06			HG
Hg	5.00	ppb	256346						
		Bkgd 1	9158395						
*** Standard: 6 Rep: 1				Seq: 6		16:27:39 07 Mar 06			HG
Hg	10.0	ppb	507289						
		Bkgd 1	9156321						
*** Check Standard: 2			Ck2s2855	Seq: 7		16:41:33 07 Mar 06			HG
Line Flag			Intensities						
Hg			274550						
		Bkgd 1	9164022						
*** Check Standard: 1			Ck1ICB	Seq: 8		16:43:38 07 Mar 06			HG
Line Flag			Intensities						
Hg			6242						
		Bkgd 1	9163997						
*** Sample ID: qc330451				Seq: 9		16:45:33 07 Mar 06			HG
			111059,1						
Hg	-.011	ppb	1679						
		Bkgd 1	9163798						

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: qc330452				Seq: 10	16:47:26 07 Mar 06	HG		
			111059,1					
Hg	4.97	ppb	253831					
		Bkgd 1	9162737					
*** Sample ID: qc330453				Seq: 11	16:49:11 07 Mar 06	HG		
			111059,1					
Hg	4.90	ppb	250052					
		Bkgd 1	9161761					
*** Sample ID: 185130-001				Seq: 12	16:50:53 07 Mar 06	HG		
			111059,1					
Hg	.613	ppb	33253					
		Bkgd 1	9162344					
*** Sample ID: qc330456				Seq: 13	16:52:37 07 Mar 06	HG		
			111059,5					
Hg	.106	ppb	7642					
		Bkgd 1	9165096					
*** Sample ID: qc330454				Seq: 14	16:55:04 07 Mar 06	HG		
			111059,1					
Hg	5.77	ppb	294419					
		Bkgd 1	9164826					
*** Sample ID: qc330455				Seq: 15	16:57:00 07 Mar 06	HG		
			111059,1					
Hg	5.87	ppb	299363					
		Bkgd 1	9165629					
*** Sample ID: 185130-002				Seq: 16	16:58:56 07 Mar 06	HG		
			111059,1					
Hg	.174	ppb	11071					
		Bkgd 1	9160852					
*** Sample ID: 185130-003				Seq: 17	17:01:11 07 Mar 06	HG		
			111059,1					
Hg	-.052	ppb	-355					
		Bkgd 1	9160495					

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 185144-014				Seq: 18	17:02:59 07 Mar 06	HG			
			111059,1						
Hg	.220	ppb	13391						
		Bkgd 1	9166522						=
									=
*** Check Standard: 3			Ck3S2856	Seq: 19	17:04:51 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			136430						
		Bkgd 1	9164007						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 20	17:06:44 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			-2405						
		Bkgd 1	9162821						=
									=
*** Sample ID: 185144-015				Seq: 21	17:09:47 07 Mar 06	HG			
			111059,1						
Hg	.174	ppb	11086						
		Bkgd 1	9169825						=
									=
*** Sample ID: 185144-016				Seq: 22	17:11:34 07 Mar 06	HG			
			111059,1						
Hg	.179	ppb	11306						
		Bkgd 1	9172037						=
									=
*** Sample ID: 185144-025				Seq: 23	17:13:15 07 Mar 06	HG			
			111059,1						
Hg	.192	ppb	11974						
		Bkgd 1	9169329						=
									=
*** Sample ID: 185144-026				Seq: 24	17:15:06 07 Mar 06	HG			
			111059,1						
Hg	.254	ppb	15131						
		Bkgd 1	9169925						=
									=
*** Sample ID: 185144-028				Seq: 25	17:17:19 07 Mar 06	HG			
			111059,1						
Hg	.111	ppb	7886						
		Bkgd 1	9170485						=
									=

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------------

*** Sample ID: 185144-029           Seq:  26     17:19:11 07 Mar 06   HG
                          111059,1
Hg    .082    ppb       6405
              Bkgd 1    9171012                                          =
                                                                         =
===============================================================================
*** Sample ID: 185213-001           Seq:  27     17:20:55 07 Mar 06   HG
                          111059,1
Hg    .356    ppb       20284
              Bkgd 1    9168186                                          =
                                                                         =
===============================================================================
*** Sample ID: 185257-001           Seq:  28     17:23:34 07 Mar 06   HG
                          111059,1
Hg    76.8    ppb       3889492
              Bkgd 1    9167553                                          =
                                                                         =
===============================================================================
*** Sample ID: 185257-002           Seq:  29     17:25:27 07 Mar 06   HG
                          111059,1
Hg    28.8    ppb       1457651
              Bkgd 1    9145365                                          =
                                                                         =
===============================================================================
*** Sample ID: 185257-003           Seq:  30     17:27:11 07 Mar 06   HG
                          111059,1
Hg    5.04    ppb       257491
              Bkgd 1    9155339                                          =
                                                                         =
*** Check Standard: 5  Ck5S2857     Seq:  31     17:28:56 07 Mar 06   HG
Line  Flag             Intensities
Hg                     272409
              Bkgd 1    9165492                                          =
                                                                         =
*** Check Standard: 6  Ck6CCB       Seq:  32     17:30:41 07 Mar 06   HG
Line  Flag             Intensities
Hg                     -664
              Bkgd 1    9167215                                          =
                                                                         =
*** Sample ID: 185257-004           Seq:  33     17:32:24 07 Mar 06   HG
                          111059,1
Hg    51.4    ppb       2604353
              Bkgd 1    9169464                                          =
                                                                         =
===============================================================================
```

```
Line   Conc.  Units     SD/RSD      1       2       3       4       5
-------------------------------------------------------------------------

*** Sample ID: 185257-005          Seq:  34     17:34:28 07 Mar 06   HG
                          111059,1
Hg    53.2    ppb       2695757
              Bkgd 1    9161440                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-006          Seq:  35     17:36:09 07 Mar 06   HG
                          111059,1
Hg    63.6    ppb       3222421
              Bkgd 1    9146303                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-007          Seq:  36     17:38:02 07 Mar 06   HG
                          111059,1
Hg    46.8    ppb       2372540
              Bkgd 1    9151550                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-008          Seq:  37     17:40:17 07 Mar 06   HG
                          111059,1
Hg    46.3    ppb       2343649
              Bkgd 1    9160521                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-009          Seq:  38     17:42:00 07 Mar 06   HG
                          111059,1
Hg    47.5    ppb       2407048
              Bkgd 1    9148584                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-001          Seq:  39     17:44:26 07 Mar 06   HG
                          111059,10
Hg    10.0    ppb       508648
              Bkgd 1    9163064                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-002          Seq:  40     17:47:20 07 Mar 06   HG
                          111059,5
Hg    6.31    ppb       321570
              Bkgd 1    9168760                                          =
                                                                         =
=========================================================================
*** Sample ID: 185257-004          Seq:  41     17:49:14 07 Mar 06   HG
                          111059,10
Hg    6.08    ppb       310060
              Bkgd 1    9171322                                          =
                                                                         =
=========================================================================
```

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: 185257-005				Seq: 42	17:50:59 07 Mar 06	HG			
				111059,10					
Hg	6.21	ppb	316555						
		Bkgd 1	9169268						=
									=
*** Check Standard: 4			Ck4S2858	Seq: 43	17:52:41 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			380614						
		Bkgd 1	9171955						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 44	17:54:23 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			-2555						
		Bkgd 1	9172310						=
									=
*** Sample ID: 185257-006				Seq: 45	17:56:16 07 Mar 06	HG			
				111059,10					
Hg	8.07	ppb	410692						
		Bkgd 1	9174674						=
									=
*** Sample ID: 185257-007				Seq: 46	17:58:12 07 Mar 06	HG			
				111059,10					
Hg	5.27	ppb	269033						
		Bkgd 1	9177203						=
									=
*** Sample ID: 185257-008				Seq: 47	17:59:57 07 Mar 06	HG			
				111059,10					
Hg	5.35	ppb	272871						
		Bkgd 1	9177756						=
									=
*** Sample ID: 185257-009				Seq: 48	18:01:41 07 Mar 06	HG			
				111059,10					
Hg	5.44	ppb	277354						
		Bkgd 1	9177452						=
									=
*** Check Standard: 3			Ck3S2856	Seq: 49	18:03:25 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			137590						
		Bkgd 1	9178138						=
									=
*** Check Standard: 6			Ck6CCB	Seq: 50	18:05:09 07 Mar 06	HG			
Line	Flag		Intensities						
Hg			-2083						
		Bkgd 1	9177908						=
									=

Curtis & Tompkins Laboratories Sample Preparation Summary 07-MAR-2006 13:32

Batch Number : 111059
Date Extracted: 07-MAR-2006
Extracted by : Kale Clauson
Prep Method : METHOD

Analysis : N/A
Bgroup : HG
Units : g
Clean-up :

Spike #1 ID : S2853
Spike #2 ID :
Spike #3 ID :
SOP Version :

Sample	Type		Client	Matrix	Init W/V	Units	Final Vol	Prep D.F.	Clean pH D.F.	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Analyses	Clean Method	Comments
185130-001			CH2M Hill	Soil	.5	g	50	100.000000	1				T26/HG		
185130-002			CH2M Hill	Soil	.45	g	50	111.111111	1				T26/HG		
185130-003			CH2M Hill	Soil	.48	g	50	104.166667	1				T26/HG		
185144-014			Iris Environmental	Soil	.41	g	50	121.951220	1				T26/HG		
185144-015			Iris Environmental	Soil	.47	g	50	106.382979	1				T26/HG		
185144-016			Iris Environmental	Soil	.46	g	50	108.695652	1				T26/HG		
185144-025			Iris Environmental	Soil	.46	g	50	108.695652	1				T26/HG		
185144-026			Iris Environmental	Soil	.44	g	50	113.636364	1				T26/HG		
185144-028			Iris Environmental	Soil	.53	g	50	94.339623	1				T26/HG		
185144-029			Iris Environmental	Soil	.54	g	50	92.592593	1				T26/HG		
185213-001			Mactec, Inc.	Soil	.48	g	50	104.166667	1				T26/HG		
185257-001			Tetra Tech EC, Inc.	Soil	.65	g	50	76.923077	1				T26/HG		
185257-002			Tetra Tech EC, Inc.	Soil	.68	g	50	73.529412	1				T26/HG		
185257-003			Tetra Tech EC, Inc.	Soil	.48	g	50	104.166667	1				T26/HG		
185257-004			Tetra Tech EC, Inc.	Soil	.56	g	50	89.285714	1				T26/HG		
185257-005			Tetra Tech EC, Inc.	Soil	.55	g	50	90.909091	1				T26/HG		
185257-006			Tetra Tech EC, Inc.	Soil	.56	g	50	89.285714	1				T26/HG		
185257-007			Tetra Tech EC, Inc.	Soil	.51	g	50	98.039216	1				T26/HG		
185257-008			Tetra Tech EC, Inc.	Soil	.61	g	50	81.967213	1				T26/HG		
185257-009			Tetra Tech EC, Inc.	Soil	.54	g	50	92.592593	1				T26/HG		
QC330451	BLANK			Soil	.5	g	50	100.000000	1				HG		
QC330452	BS			Soil	.5	g	50	100.000000	1	2.5			HG		
QC330453	BSD			Soil	.5	g	50	100.000000	1	2.5			HG		
QC330454	MS	of 185130-001		Soil	.5	g	50	100.000000	1	2.5			HG		
QC330455	MSD	of 185130-001		Soil	.53	g	50	94.339623	1	2.5			HG		
QC330456	SER	of 185130-001		Soil	.5	g	50	100.000000	1				HG		
QC330457	PDS	of 185130-001		Soil	.5	g	50	100.000000	1				HG		

Prep Chemist: _____ Reviewed By: K Carlyon Date: 3/7/06

Relinquished By: _____ Received By: _____ Date: 3/7/06

Curtis & Tompkins, Ltd.

BK 2165
Page 27

Soil Digestion for Mercury

LIMS Batch #: 111059
Date Digested: 3/7/06
Digested by: KMC

Digestion Method
☑ EPA 7471A
☐ _____

Sample # and letter		Sample Weight (g)	Final Volume (mL)	Filtered? (y/n)	Comments
185130 - 001 MGS	B	0.50	50	Y	
002		0.45			
003		0.48			
185213 - 001	A	0.48			
185144 - 014		0.41			
015		0.47			
016		0.46			
025		0.46			
026		0.44			
028		0.53			
029		0.54			
185257 - 001	A	0.65			
002		0.68			
003		0.48			
004		0.56			
005		0.55			
006		0.56			
007		0.51			
008	B	0.61			
009	A	0.54			
BLANK		0.5			
BS		0.5			
BSD		0.5			
MS 185130 - 001		0.50			
MSD 185130 - 001		0.53			

Reagent ID/ LIMS# / Time	Initials / Date
S2853	KMC 3/7
S2853	
S2855/56/57/58	
120 | 95°C	
150 | 95°C	
—	
AR 030706	
K 022706	
—	
Hy 022806	
$SnCl_2$ 030106	
Millipore R5DN59292	

2.5 mL of spike solution was added to all spikes

Digestion of Samples & Standards:
Time ON / Temperature ON
Time OFF/ Temperature OFF
concentrated H_2SO_4
Aqua Regia Acids (HNO3+ HCl)
5% $KMnO_4$
5% $K_2S_2O_8$
NaCl.hydroxylamine hydrochloride
Stannous Chloride
☑ filtered thru' 0.45 um syringe filter

Continued from page 60
Continued on page _____

3/7/06
Prep Chemist / Date

3/7/06
Reviewed by / Date

Percent Moisture Summary Report

Batch: 110990
Date: 03/03/06
Method: CLP SOW 390
Analyst: CCH

Sample	Tare (g)	Wet (g)	Dry (g)	Percent Solids	Percent Moisture
185082-001	11.1164	16.7426	16.1455	89	11
185082-002	11.0732	16.1306	15.9506	96	4
185082-003	15.6681	21.8601	21.4408	93	7
185082-004	15.7634	20.9041	20.7740	97	3
185082-005	15.8278	22.1161	21.8229	95	5
185082-006	11.0983	17.0481	16.6789	94	6
185082-007	15.9753	23.1172	22.6058	93	7
185082-008	15.2578	20.7125	20.3776	94	6
185082-009	15.5833	22.3019	21.6535	90	10
185082-010	15.2636	22.3084	21.5846	90	10
185082-011	15.8040	23.8038	23.1425	92	8
185082-012	11.2038	17.1883	16.7207	92	8
185082-013	11.0932	17.4648	16.9194	91	9
185082-014	11.1004	20.5596	19.4419	88	12
185082-015	15.6809	23.2358	22.6611	92	8
185203-001	11.1752	18.3940	17.6855	90	10
185203-002	10.9420	17.0635	14.4691	58	42
185203-003	11.2448	19.3718	18.1867	85	15
185203-004	11.1165	17.6541	15.5231	67	33
185213-001	15.2310	23.8502	22.1292	80	20
QC330168 of 185082-001	11.6880	17.0882	16.7333	93	7
			RPD:	4.4%	47.0%

DISTRIBUTION

Field Investigation Report
Baker Beach Disturbed Areas 1, 1A, 2, and 2A
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June 9, 2006

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